



## CERTIFICATE OF AUTHENTICITY

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

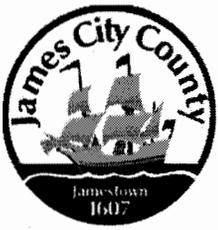
**BMP NUMBER:** WC009

**DATE VERIFIED:** September 19, 2012

**QUALITY ASSURANCE TECHNICIAN:** Leah Hardenbergh

*Leah Hardenbergh*

**LOCATION:** WILLIAMSBURG, VIRGINIA



# Stormwater Division

## MEMORANDUM

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

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**General File ID or BMP ID:** WC009

**PIN:** 1230100027

**Subdivision, Tract, Business or Owner**

**Name (if known):**

James City County

**Property Description:**

EOC Building

**Site Address:**

3135 Forge Road

*(For internal use only)*

**Box** 13

**Drawer:** 4 8

**Agreements:** (in file as of scan date)

N

**Book or Doc#:**

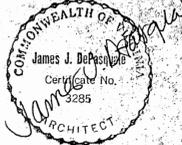
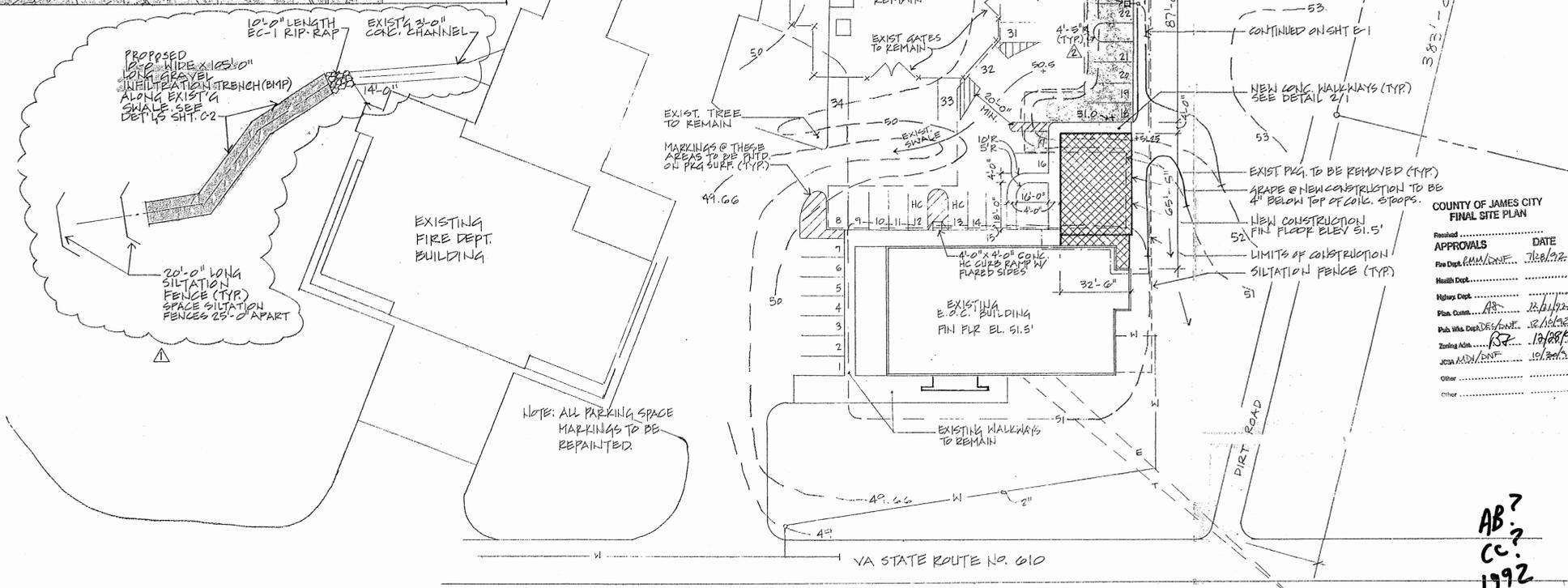
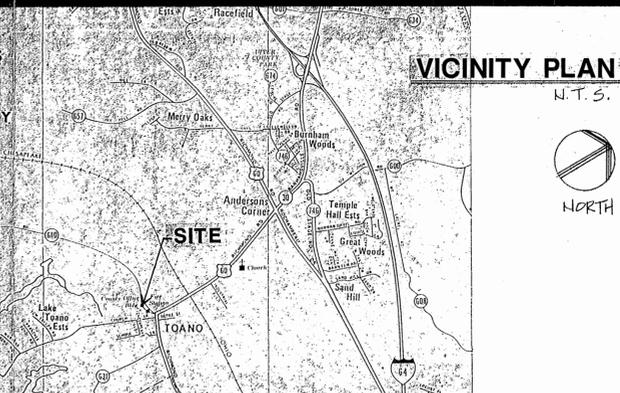
**Page:**

Comments

EROSION AND SEDIMENT CONTROL NOTES

The purpose of the erosion control measures 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, 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.

- All erosion and sediment control measures shall be installed and maintained in accordance with the "Virginia Erosion and Sediment Control Handbook". The contractor shall be thoroughly familiar with all applicable measures contained therein which may be pertinent to this project.
- All points of construction ingress and egress shall be protected by a temporary construction entrance to prevent the tracking of mud onto public right-of-ways. An entrance permit from VDOT is required prior to any construction activities within State right-of-ways.
- Sediment basins and traps, perimeter dikes, sediment barriers, and other measures intended to trap sediment on-site must be constructed as a first step in grading and be made functional before upslope land disturbance takes place.
- Maintenance of erosion and sediment control measures shall include the repair of measures damaged by any subcontractor including those of the public utility companies. At the preconstruction meeting, the contractor will supply Code Compliance with the name of the individual who will be responsible for ensuring maintenance of installed measures on a daily basis.
- Sediment control measures may require minor field adjustments at the time of construction to insure their intended purpose is accomplished. Office of Code Compliance approval will be required for other deviations from the approved plans.
- The contractor shall place soil stockpiles at the locations shown on this plan or as directed by the engineer. Soil stockpiles shall be stabilized or protected with sediment trapping measures.
- Permanent or temporary soil stabilization must be applied to all denuded areas within 7 days after final grade is reached on any portion of the site. Soil stabilization must also be applied to denuded areas which may not be at final grade but will remain dormant (undisturbed) for longer than 30 days. Soil stabilization measures include vegetative establishment, mulching and the early application of gravel base material on areas to be paved.
- If disturbed area stabilization is to be accomplished during the months of December, January, or February, stabilization shall consist of mulching in accordance with Specification 1.75. Seeding will then take place as soon as the season permits.
- 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 in accordance with Specification 1.66, Permanent Seeding. Irrigation shall be required as necessary to ensure establishment of grass cover.
- Temporary erosion control measures are not to be removed until all disturbed areas are stabilized. After stabilization is complete, all measures shall be removed within 30 days. Trapped sediment shall be spread and seeded.
- Off-site waste or borrow areas shall be approved by the Office of Code Compliance prior to the import of any borrow or export of any waste to or from the site.



JAMES CITY COUNTY  
EMERGENCY OPERATIONS  
CENTER  
JAMES CITY COUNTY VIRGINIA



COUNTY OF JAMES CITY  
FINAL SITE PLAN

APPROVALS	DATE
Fire Dept. [Signature]	12/8/92
Health Dept. [Signature]	
Highway Dept. [Signature]	
Plan. Comm. [Signature]	12/11/92
Pub. Works Dept. [Signature]	12/15/92
Zoning Adm. [Signature]	12/18/92
JOSH MANN, ENR.	12/24/92

A PROFESSIONAL CORPORATION  
ARCHITECTS & PLANNERS

18 WEST FRANKLIN STREET  
RICHMOND, VIRGINIA 23220  
804-649-2192

ISSUED 17 SEPTEMBER 1992

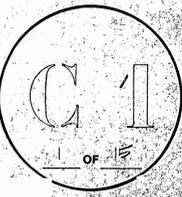
COPYRIGHT 1992 ALL RIGHTS RESERVED.

REVISED

12-8-92	
12-16-92	

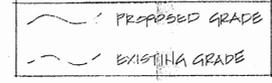
SITE PLAN  
VICINITY MAP  
EROSION AND  
SEDIMENT NOTES

PROJ. NO. 9111



SITE PLAN (3127 FORGE ROAD)

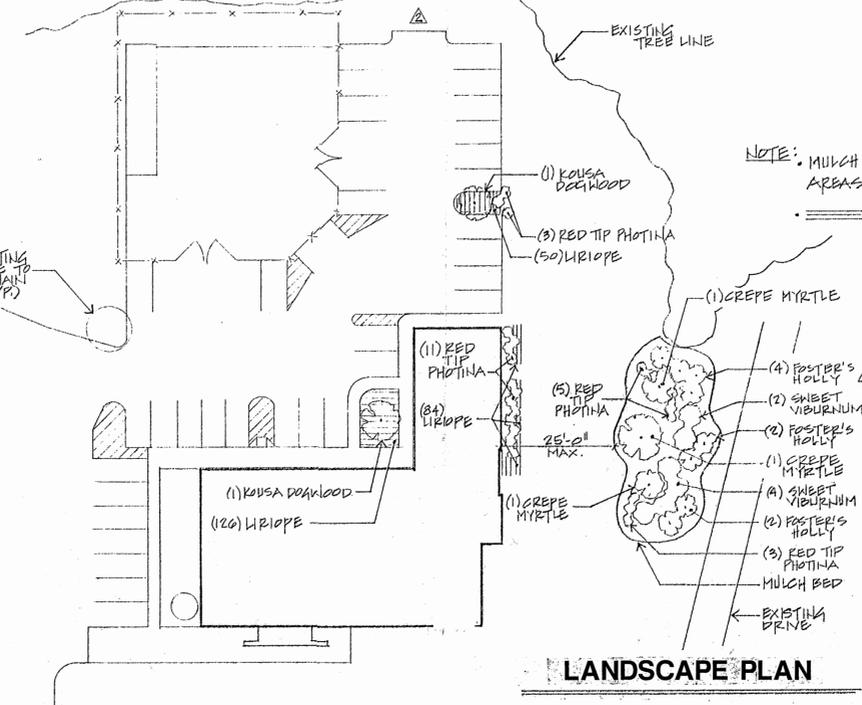
SCALE: 1" = 30'-0"



TAX MAP & PARCEL No.  
12- (32) 1-(27)

AB?  
CC?  
1992

NO AB OR CC REQUIREMENT



PLANT LIST:

Quantity	Botanical Name	Common Name	Size	Remark
8	Ilex attenuata 'fosteri'	Foster's Holly	2 1/2" CAL. MIN.	B & B
3	Lagerstroemia India	Crape Myrtle	2 1/2" CAL. MIN.	B & B
2	Cornus Kousa	Kousa Dogwood	2 1/2" CAL. MIN.	B & B
SHRUB PLANTINGS				
Quantity	Botanical Name	Common Name	Size	Remark
22	Photinia Glabra	Red Tip Photinia	72" - 96" Space at 60" apart	B & B
6	Viburnum odoratissimum	Sweet Viburnum	72" - 96" Space at 50" apart	B & B
GROUND COVERS				
Quantity	Botanical Name	Common Name	Size	Remark
300	Liriope Muscari	Liriope	12 - 18" Space at 12 - 18" apart	

NOTE:  
TOTAL SITE AREA IS 7.63 ACRES. ONLY A PORTION OF THAT IS AFFECTED BY THIS PROJECT. CALCULATIONS ARE BASED ON THAT PORTION OF THE SITE DIRECTLY AFFECTED BY NEW CONSTRUCTION.

PARKING SPACES

New Spaces Required: 73  
Spaces Lost Due to New Construction: 6  
Number of New Spaces Provided: 19  
Net Gain: 13  
NEW PAVING: 2897 SF

LAND USE CALCULATIONS

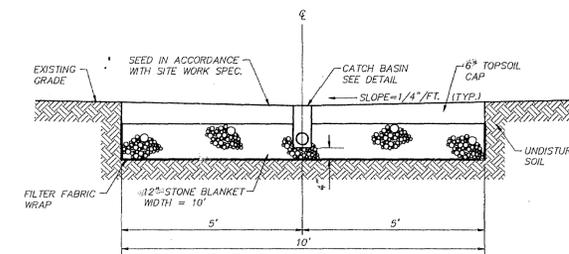
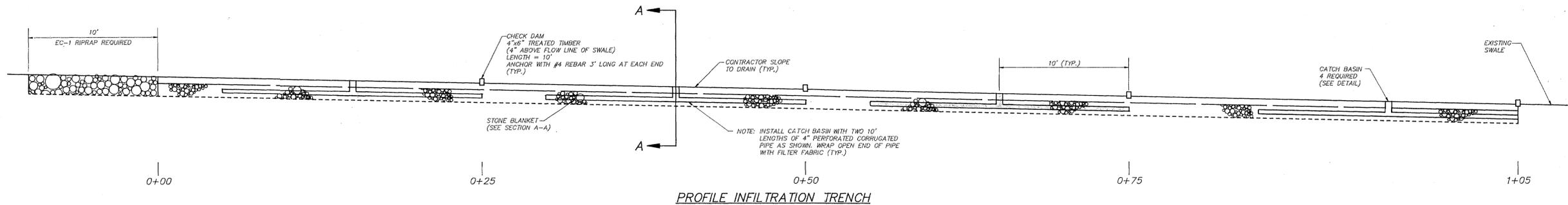
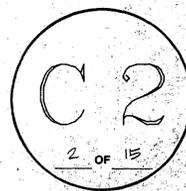
Zoning of Site: B-1  
Total Site Area: 113,531.2 S.F.  
Amount of Site Covered by Existing Buildings: 6,468.75 S.F.  
Amount of Site Covered by New Construction: 1,820 S.F.  
Total Amount of Site Covered by Buildings: 8,288.75 S.F.  
Percent of Site Covered by Existing Buildings: 6.7%  
Percent of Site Covered by New Construction: 1.5%  
Total Percent of Site Covered by Buildings: 7.3%  
Total Amount of Site Covered by Open Space: 105,242.4 S.F.  
Percent of Site Covered by Open Space: 92.6%  
Floor Area of Existing Building: 6,468.75 S.F.  
Floor Area of New Construction: 1,820 S.F.  
Total Floor Area of Completed Building: 8,288.75 S.F.  
Height of Each Existing Building: 1-Story  
Height of New Construction: 1-Story  
Number of Floors on Each Existing Building: 1  
Number of Floors in New Construction: 1

SP-66-92

REVISED


BMP DETAILS

PROJ. NO. 9111  
JKT # 63467



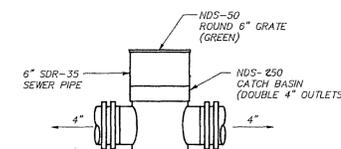
STONE BLANKET SHALL BE VDOT #57 WASHED STONE WRAPPED WITH FILTER FABRIC.

FILTER FABRIC SHALL BE AMOCO 4545 OR APPROVED EQUAL

CATCH BASIN SHALL BE NDS-50 FOR 6" GRATE TOP WITH TWO 4" OUTLETS OR APPROVED EQUAL

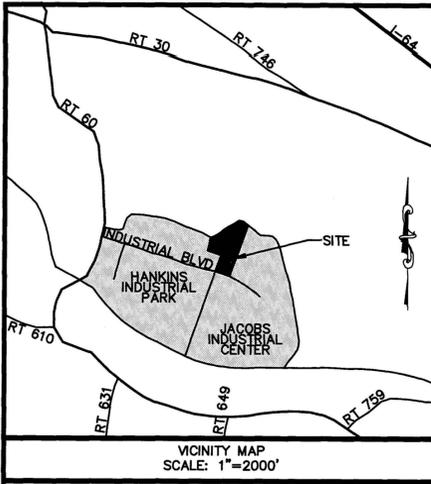
SECTION A-A

NO SCALE



CATCH BASIN DETAIL

NO SCALE



# SITE PLAN OF PARCEL 12 IN JACOBS INDUSTRIAL CENTER

JAMES CITY COUNTY VIRGINIA  
JCC SITE PLAN NO. SP-0008-2013

Environmental Division  
MAR 15 2013 PLANNING DIVISION  
RECEIVED MAR 12 2013  
RECEIVED

SHEET NO.	SHEET TITLE
C1	COVER SHEET
C2	EXISTING CONDITIONS
C3	ENVIRONMENTAL INVENTORY
C4	OVERALL PLAN
C5	LAYOUT PLAN
C6	PHASE I EROSION & SEDIMENT CONTROL PLAN
C7	GRADING PLAN/PHASE II EROSION & SEDIMENT CONTROL PLAN
C8	UTILITY PLAN
C9	LIGHTING PLAN
C10	PUMP STATION DETAILS
C11	PROFILE SHEET
C12	DETAIL SHEET
C13	DETAIL SHEET
C14	DETAIL SHEET
L1	LANDSCAPE PLAN
L2	LANDSCAPE NOTES

APPROVALS		DATE
Fire Dept.	<i>[Signature]</i>	02/28/13
Health Dept.		
VDOT	<i>[Signature]</i>	03/02/13
Planning	<i>[Signature]</i>	4/10/13
Environ.	<i>[Signature]</i>	04/03/13
Zoning Adm.	<i>[Signature]</i>	4/16/13
JCSA	<i>[Signature]</i>	04/02/13
County Eng.		
REA		
Other		

**PARCEL 12 STATISTICAL INFORMATION**

ZONE	M-2, GENERAL INDUSTRIAL
DISTRICT	STONEHOUSE
PARCEL ID NO.	1240100013
RECORDATION REFERENCE	INST #120013378
PROPOSED USE	RETAIL/WAREHOUSE (TYPE II-B CONSTRUCTION)
WATER	PUBLIC-JAMES CITY SERVICE AUTHORITY (INSIDE PSA)
SEWER	PUBLIC-JAMES CITY SERVICE AUTHORITY (INSIDE PSA)
SITE AREA	13.87 AC.
DISTURBED AREA	2.3 AC.±
BUILDING AREA	16,800 SF/(0.39 AC.) (RETAIL: 2,000 SF; WAREHOUSE: 14,800 SF)
PAVED AREA	0.28 AC.
GRAVEL AREA	0.51 AC.
IMPERVIOUS AREA	1.18 AC. (9%)
GREEN AREA	12.69 AC. (91%)
PARKING SPACES	
REQUIRED:	11 (SECTION 24-59(b) - 1 SPACE/250 SF OF SALES FLOOR AREA, 1 SPACE/2 EMPLOYEES)
PROVIDED:	12
H/C REQUIRED:	1
H/C PROVIDED:	1
BUILDING HEIGHT	21.5'± (ONE-STORY)
MAX BUILDING HEIGHT	60'
ITE CODE	110
AM PEAK HOUR TRIP GENERATION	19
PM PEAK HOUR TRIP GENERATION	20
PEAK DAY TRIP GENERATION	126

CONTRACTOR IS RESPONSIBLE FOR THE SECURITY ON PARCEL 11 DURING THE CONSTRUCTION OF THE OFF-SITE IMPROVEMENTS ON PARCEL 11

- NOTES:
- PER FEMA MAP NUMBER 51095C, PANEL 045C, FOR COMMUNITY PANEL NUMBER 510201-DATED 9/28/07 THE SITE APPEARS TO BE IN FLOOD ZONE "X".
  - TOPOGRAPHIC SURVEY SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY LANDMARK DESIGN GROUP, INC AND HAS NOT BEEN FIELD VERIFIED BY LANDTECH RESOURCES, INC.
  - JACOBS INDUSTRIAL CENTER BOUNDARY PER EMAIL BY LANDMARK DESIGN GROUP, INC. DATED 5/16/06 AND HAS NOT BEEN FIELD VERIFIED BY LANDTECH RESOURCES, INC.
  - THE EXISTENCE AND LOCATION (HORIZONTAL AND VERTICAL) OF EXISTING UTILITIES ARE NOT GUARANTEED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
  - THE PROFESSIONAL ENGINEER WHOSE SEAL IS AFFIXED HEREON SHALL ACT AS THE "RESPONSIBLE LAND DISTURBER" FOR THE PLAN REVIEW PHASE OF THIS PROJECT. ONCE THE PLANS ARE APPROVED BY THE COUNTY THE OWNER/DEVELOPER SHALL PROVIDE THE COUNTY WITH THE NAME OF THE "RESPONSIBLE LAND DISTURBER" FOR THE CONSTRUCTION PHASE OF THE PROJECT.
  - THERE ARE NO ANTICIPATED OFFSITE LAND DISTURBING AREA ASSOCIATED WITH THE DEVELOPMENT OF THIS SITE.
  - THE OWNER WILL BE REQUIRED TO OBTAIN A VSMP PERMIT FROM THE VIRGINIA DEPARTMENT OF CONSERVATION & RECREATION IF THE DISTURBED AREA IS GREATER THAN 2,500 SF. THIS PERMIT WILL REQUIRE A STORMWATER POLLUTION PREVENTION PLAN.
  - STORMWATER RUNOFF FROM THE SITE DRAINS TO JACOBS INDUSTRIAL CENTER BMP #2, THEREFORE ADDITIONAL STORMWATER QUALITY AND QUANTITY TREATMENT ARE NOT REQUIRED FOR THIS SITE.
  - A LAND DISTURBING PERMIT AND SILTATION AGREEMENT, WITH SURETY ARE REQUIRED FOR THIS PROJECT.
  - HORIZONTAL DATUM AND VERTICAL DATUM BASED ON JCC GEODETIC MONUMENTATION STATION NO. 303.
  - THE SITE IS LOCATED IN THE WARE CREEK WATERSHED.
  - A STANDARD INSPECTION/MAINTENANCE AGREEMENT IS REQUIRED TO BE EXECUTED WITH THE COUNTY DUE TO THE PROPOSED STORMWATER CONVEYANCE SYSTEM.
  - THE ON-SITE GRAVITY SEWER, FORCEMAIN AND GRINDER PUMP WILL REQUIRE A PERMIT AND INSPECTIONS BY THE COUNTY'S CODES AND COMPLIANCE DEPARTMENT.
  - IF A GENERAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY IS REQUIRED, IT IS THE OWNER'S RESPONSIBILITY TO REGISTER AND COMPLY WITH THE PROVISIONS OF THE GENERAL PERMIT IN ACCORDANCE WITH CURRENT REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY AND 9 VAC 25-151-10 ET SEQ. CONTACT THE TIDEWATER REGIONAL OFFICE OF THE DEQ AT (757) 518-2000 OR THE CENTRAL OFFICE AT (804) 698-4000 FOR FURTHER DETAILS.
  - WATER AND SANITARY SEWER INSPECTION FEES ARE NOT REQUIRED FOR THIS PROJECT.
  - ALL BUILDINGS FOR THESE PARCELS SHALL BE DESIGNED AND CONSTRUCTED FOR THE AVAILABLE FIRE FLOW AND PRESSURES AS SHOWN ON THE JCC WATER DATE SHEETS.
  - IF BUILDING PLANS CHANGE SUCH THAT THE LOCATIONS OF PUBLIC ENTRANCES ARE MODIFIED, A SITE PLAN AMENDMENT MAY BE REQUIRED BEFORE THE CODES COMPLIANCE DIVISION WILL ISSUE PERMITS.
  - CHANGES IN THE PROPOSED USE OF BUILDINGS MAY RESULT IN ADDITIONAL PARKING BEING REQUIRED.
  - ALL OBJECTIONABLE AND DELETERIOUS MATERIAL IS TO BE REMOVED FROM THE SITE AND DISPOSED OF IN A STATE APPROVED FACILITY MEETING THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
  - A VDOT CE-7 PERMIT WILL BE REQUIRED FOR ANY WORK IN THE VDOT RIGHT OF WAY.
  - THE SITES HYDROLOGIC UNIT CODE IS Y062.
  - THE STORMWATER CONVEYANCE SYSTEMS AS PROPOSED FOR THIS PROJECT WILL REQUIRE SUBMISSION, REVIEW, AND APPROVAL OF A RECORD DRAWING (AS-BUILT) AND CONSTRUCTION CERTIFICATION PRIOR TO RELEASE OF THE POSTED BOND/SURETY. CONTRACTOR SHALL ENSURE THIS ACTIVITY IS ADEQUATELY COORDINATED AND PERFORMED BEFORE, DURING AND FOLLOWING CONSTRUCTION IN ACCORDANCE WITH CURRENT COUNTY GUIDELINES.
  - TO ASSURE AN APPEARANCE WHICH IS CONSISTENT WITH THE PURPOSE OF THE GENERAL INDUSTRIAL DISTRICT, M-2, OUTDOOR SIGNS ON THE PROPERTIES WITHIN THE DISTRICT SHALL COMPLY WITH THE REGULATIONS FOR EXTERIOR SIGNS IN ARTICLE II, DIVISION 3 OF THE ZONING ORDINANCE.

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13

**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

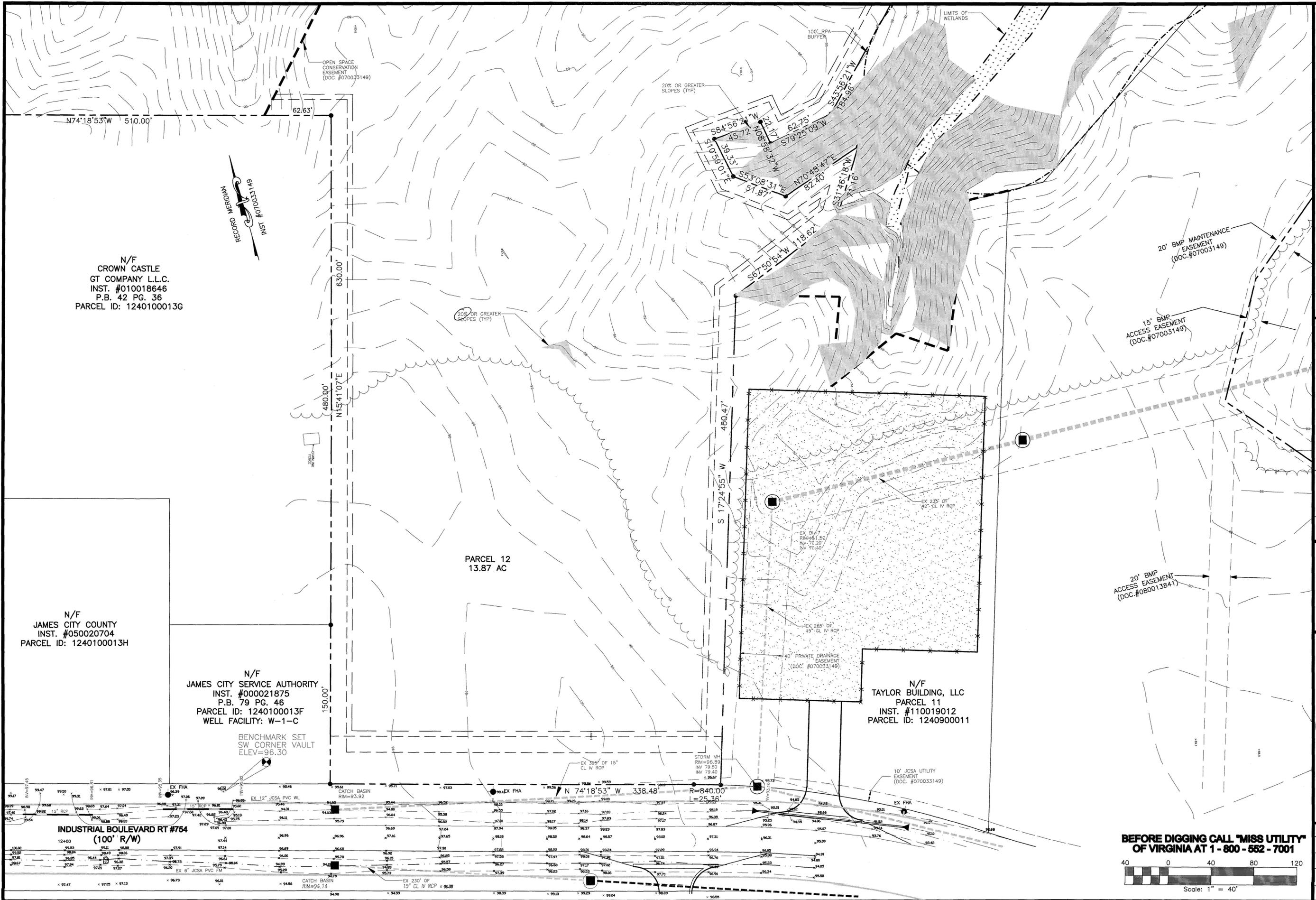
**OWNER/DEVELOPER**  
CCW PROPERTIES  
15980 KENT FLATTS LANE  
LANEXA, VIRGINIA 23089  
CONTACT: JOHN FINNEY  
PHONE: (757) 220-1941  
FAX: (757) 220-1929

**LandTech Resources, Inc.**  
Surveying • GPS • Engineering

205 Bullfants Blvd., Ste E Williamsburg, VA 23188  
Phone: (757) 565-1677 Fax: (757) 565-0782  
web: landtechresources.com



JOB: 12-314  
DWG NO: 12-314CS  
DATE: 1/21/13  
DRAWN BY: KMJ  
SHEET: C1 OF 16



N/F  
CROWN CASTLE  
GT COMPANY L.L.C.  
INST. #010018646  
P.B. 42 PG. 36  
PARCEL ID: 1240100013G

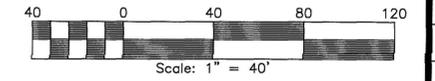
N/F  
JAMES CITY COUNTY  
INST. #050020704  
PARCEL ID: 1240100013H

N/F  
JAMES CITY SERVICE AUTHORITY  
INST. #000021875  
P.B. 79 PG. 46  
PARCEL ID: 1240100013F  
WELL FACILITY: W-1-C

N/F  
TAYLOR BUILDING, LLC  
PARCEL 11  
INST. #110019012  
PARCEL ID: 1240900011

PARCEL 12  
13.87 AC

**BEFORE DIGGING CALL "MISS UTILITY"  
OF VIRGINIA AT 1-800-552-7001**



**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER**  
STONEHOUSE MAGISTERIAL DISTRICT  
EXISTING CONDITIONS

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13



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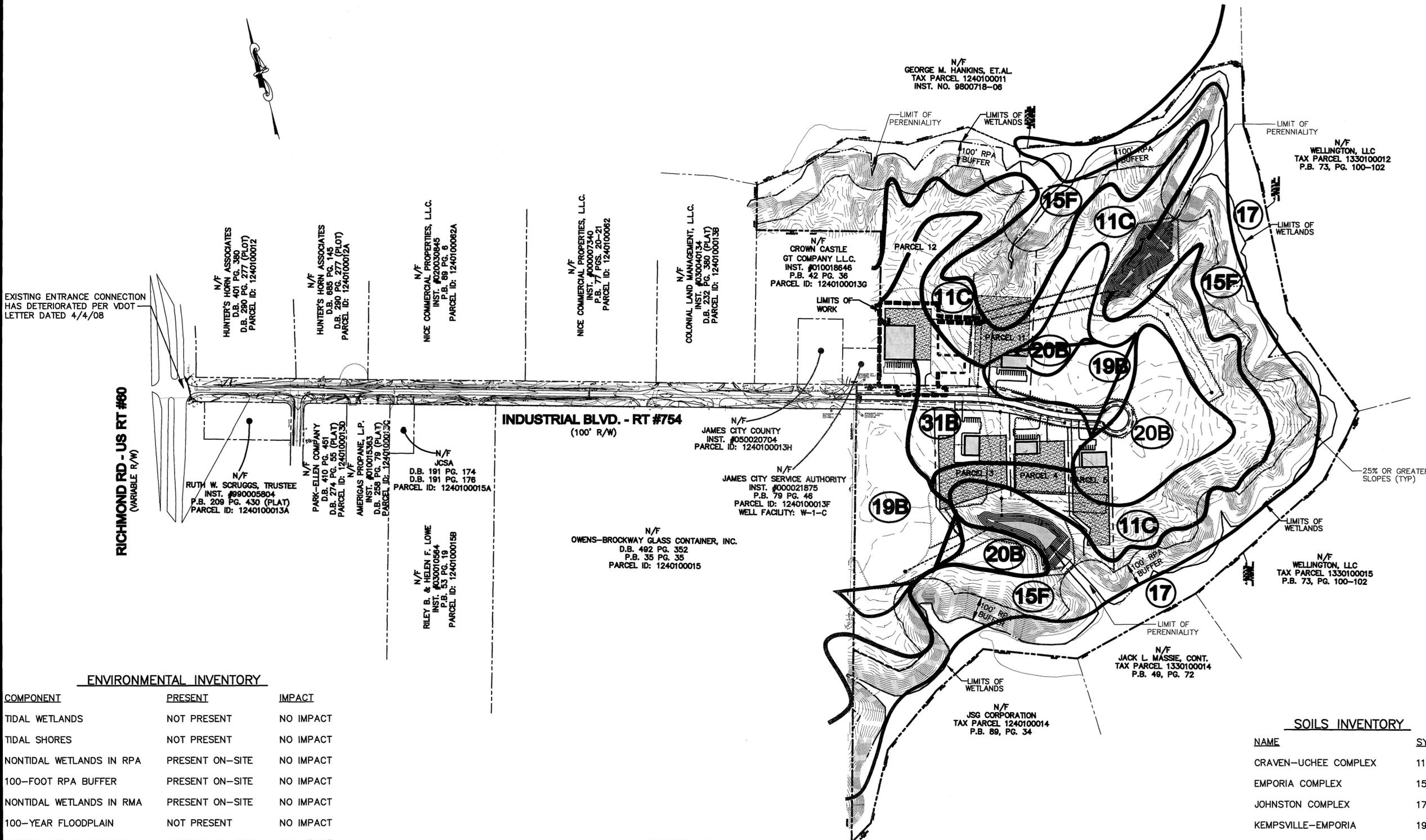
SCALE: 1" = 40'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C2 OF 16

Virginia

James City County

**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER**  
STONEHOUSE MAGISTERIAL DISTRICT  
ENVIRONMENTAL INVENTORY

Virginia  
James City County



EXISTING ENTRANCE CONNECTION HAS DETERIORATED PER VDOT LETTER DATED 4/4/08

**RICHMOND RD - US RT #60**  
(VARIABLE R/W)

**INDUSTRIAL BLVD. - RT #754**  
(100' R/W)

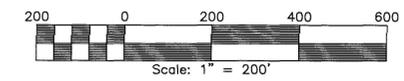
**ENVIRONMENTAL INVENTORY**

COMPONENT	PRESENT	IMPACT
TIDAL WETLANDS	NOT PRESENT	NO IMPACT
TIDAL SHORES	NOT PRESENT	NO IMPACT
NONTIDAL WETLANDS IN RPA	PRESENT ON-SITE	NO IMPACT
100-FOOT RPA BUFFER	PRESENT ON-SITE	NO IMPACT
NONTIDAL WETLANDS IN RMA	PRESENT ON-SITE	NO IMPACT
100-YEAR FLOODPLAIN	NOT PRESENT	NO IMPACT
SLOPES 25% OR GREATER	PRESENT ON-SITE	NO IMPACT

**SOILS INVENTORY**

NAME	SYMBOL
CRAVEN-UCHEE COMPLEX	11C
EMPORIA COMPLEX	15F
JOHNSTON COMPLEX	17
KEMPSVILLE-EMPORIA	19B
KENANSVILLE	20B
SUFFOLK	31B

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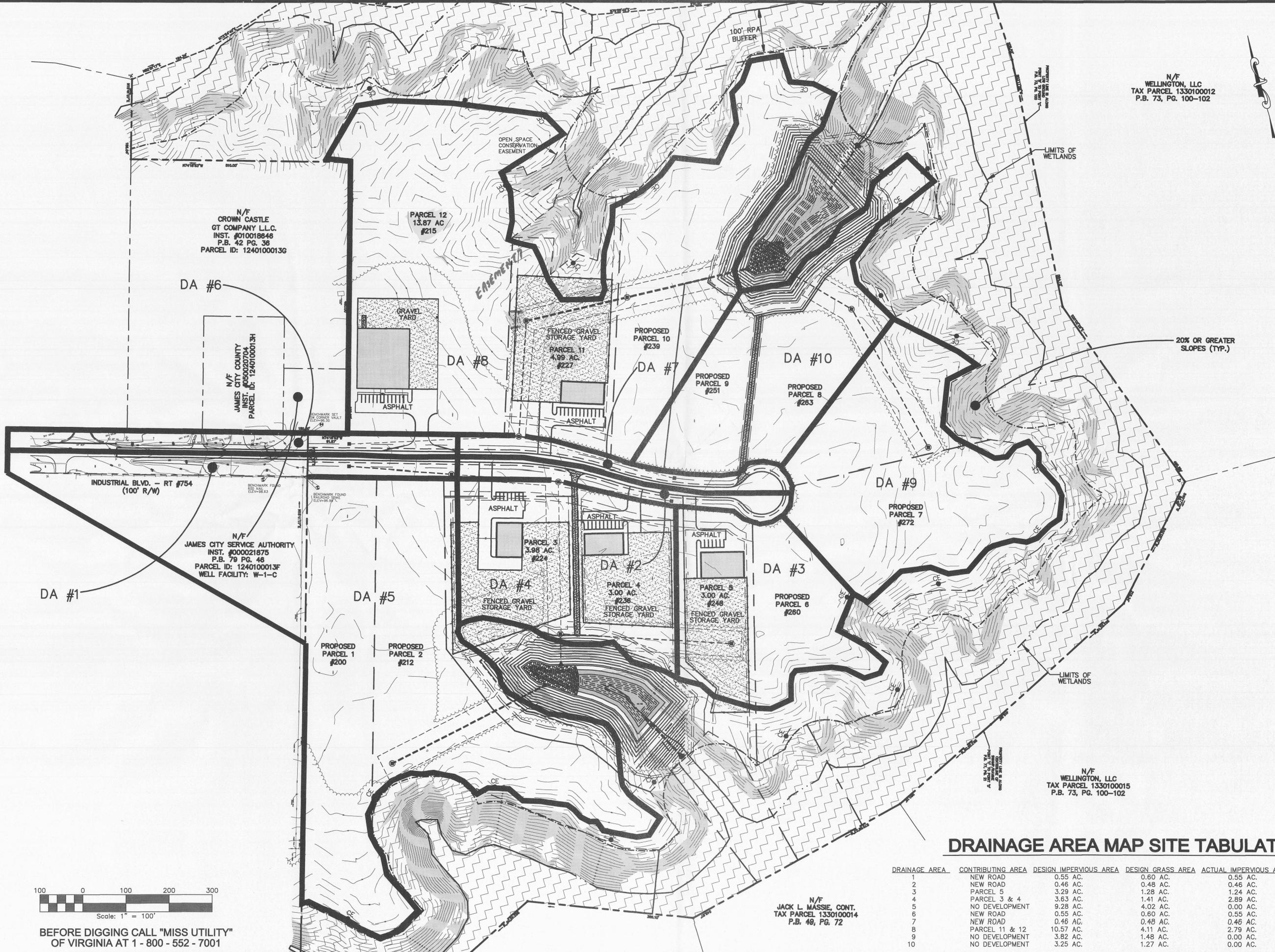


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Phone: (757) 565-1677 Fax: (757) 565-0782  
web: landtechresources.com

SCALE: 1" = 200'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C3 OF 16



N/F  
WELLINGTON, LLC  
TAX PARCEL 1330100012  
P.B. 73, PG. 100-102

N/F  
CROWN CASTLE  
GT COMPANY L.L.C.  
INST. #010018848  
P.B. 42 PG. 36  
PARCEL ID: 1240100013G

N/F  
JAMES CITY COUNTY  
INST. #050020704  
PARCEL ID: 1240100013H

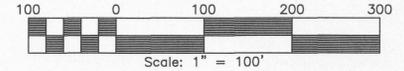
N/F  
JAMES CITY SERVICE AUTHORITY  
INST. #000021875  
P.B. 79 PG. 46  
PARCEL ID: 1240100013F  
WELL FACILITY: W-1-C

N/F  
WELLINGTON, LLC  
TAX PARCEL 1330100015  
P.B. 73, PG. 100-102

N/F  
JACK L. MASSIE, CONT.  
TAX PARCEL 1330100014  
P.B. 49, PG. 72

**DRAINAGE AREA MAP SITE TABULATION**

DRAINAGE AREA	CONTRIBUTING AREA	DESIGN IMPERVIOUS AREA	DESIGN GRASS AREA	ACTUAL IMPERVIOUS AREA	TOTAL AREA
1	NEW ROAD	0.55 AC.	0.60 AC.	0.55 AC.	1.15 AC.
2	NEW ROAD	0.46 AC.	0.48 AC.	0.46 AC.	0.94 AC.
3	PARCEL 5	3.29 AC.	1.29 AC.	1.24 AC.	4.57 AC.
4	PARCEL 3 & 4	3.63 AC.	1.41 AC.	2.89 AC.	5.04 AC.
5	NO DEVELOPMENT	9.28 AC.	4.02 AC.	0.00 AC.	13.30 AC.
6	NEW ROAD	0.55 AC.	0.60 AC.	0.55 AC.	1.15 AC.
7	NEW ROAD	0.46 AC.	0.48 AC.	0.46 AC.	0.94 AC.
8	PARCEL 11 & 12	10.57 AC.	4.11 AC.	2.79 AC.	14.68 AC.
9	NO DEVELOPMENT	3.82 AC.	1.48 AC.	0.00 AC.	5.30 AC.
10	NO DEVELOPMENT	3.25 AC.	1.27 AC.	0.00 AC.	4.52 AC.



BEFORE DIGGING CALL "MISS UTILITY"  
OF VIRGINIA AT 1-800-552-7001

**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER  
STONEHOUSE MAGISTERIAL DISTRICT  
OVERALL PLAN**

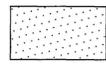
NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13



**LandTech Resources, Inc.**  
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205 Bullfants Blvd., Ste E, Williamsburg, VA 23188  
Phone: (757) 565-1677 Fax: (757) 565-0782  
web: landtechresources.com

SCALE: 1" = 100'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C4 OF 16

**PAVEMENT LEGEND**

-  ASPHALT, SEE DETAILS ON SHEET C14
-  GRAVEL, SEE DETAIL ON SHEET C14

- NOTES:**
- 1) EXTERIOR SIGNS WITHIN THE DISTRICT SHALL COMPLY WITH THE REGULATIONS FOR EXTERIOR SIGNS IN ARTICLE II, DIVISION 3 OF THE JAMES CITY COUNTY ZONING ORDINANCE.
  - 2) ALL STRUCTURES WILL MEET THE REQUIREMENTS OF THE BUILDING CODE AND APPROVAL OF THE BUILDING OFFICIAL.
  - 3) ALL DIMENSIONS ARE TO EDGE OF PAVEMENT OR FACE OF CURB, UNLESS OTHERWISE NOTED.
  - 4) SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.
  - 5) ALL EDGE OF PAVEMENT RADI ARE 5', UNLESS OTHERWISE NOTED.
  - 6) THE BUILDING'S ACCESSIBLE ROUTE SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
  - 7) PARKING SPACES SHALL BE MARKED WITH 4" WHITE LINES & HANDICAP SPACES SHALL BE MARKED WITH 4" BLUE LINES.
  - 8) HANDICAPPED PARKING SPACES SHALL BE PER ADA STRIPING REQUIREMENTS AND DELINEATED BY 4" BLUE LINES (BENNETTE'S PAINT BLUE WAVE Q13-28T OR EQUAL).
  - 9) SIDEWALK TO BE PER HRPDC CI\_09 DETAIL.
  - 10) ASSUMED INDUSTRIAL BLVD. SPEED LIMIT: 35 MPH (NOT POSTED).
  - 11) STOP SIGNS TO BE MUTCD R1-1 (30"x30").

**PARCEL 12  
REAR BUILDING SETBACK: 20'**

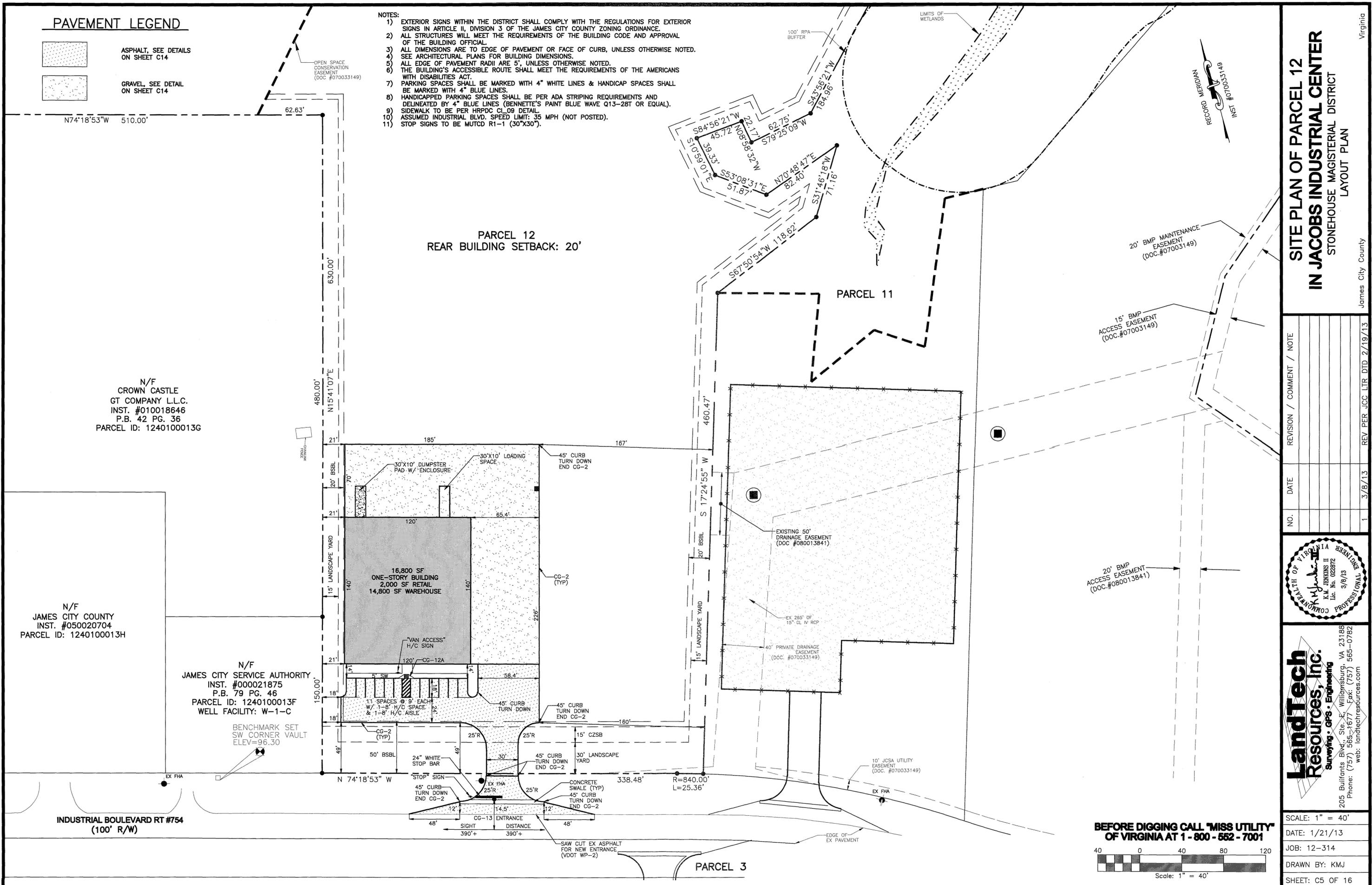
**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER  
STONEHOUSE MAGISTERIAL DISTRICT  
LAYOUT PLAN**

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LIR DTD. 2/19/13



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 205 Bullfants Blvd., Sta. E., Williamsburg, VA 23185  
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SCALE: 1" = 40'  
 DATE: 1/21/13  
 JOB: 12-314  
 DRAWN BY: KMJ  
 SHEET: C5 OF 16



**BEFORE DIGGING CALL 'MISS UTILITY' OF VIRGINIA AT 1-800-552-7001**

Scale: 1" = 40'

N/F  
 CROWN CASTLE  
 GT COMPANY L.L.C.  
 INST. #010018646  
 P.B. 42 PG. 36  
 PARCEL ID: 1240100013G

N/F  
 JAMES CITY COUNTY  
 INST. #050020704  
 PARCEL ID: 1240100013H

N/F  
 JAMES CITY SERVICE AUTHORITY  
 INST. #000021875  
 P.B. 79 PG. 46  
 PARCEL ID: 1240100013F  
 WELL FACILITY: W-1-C

BENCHMARK SET  
 SW CORNER VAULT  
 ELEV=96.30

INDUSTRIAL BOULEVARD RT #754  
 (100' R/W)

PARCEL 3

Virginia

James City County

N/F  
CROWN CASTLE  
GT COMPANY L.L.C.  
INST. #010018646  
P.B. 42 PG. 36  
PARCEL ID: 1240100013G

RECORD MERIDIAN  
INST. #010018646

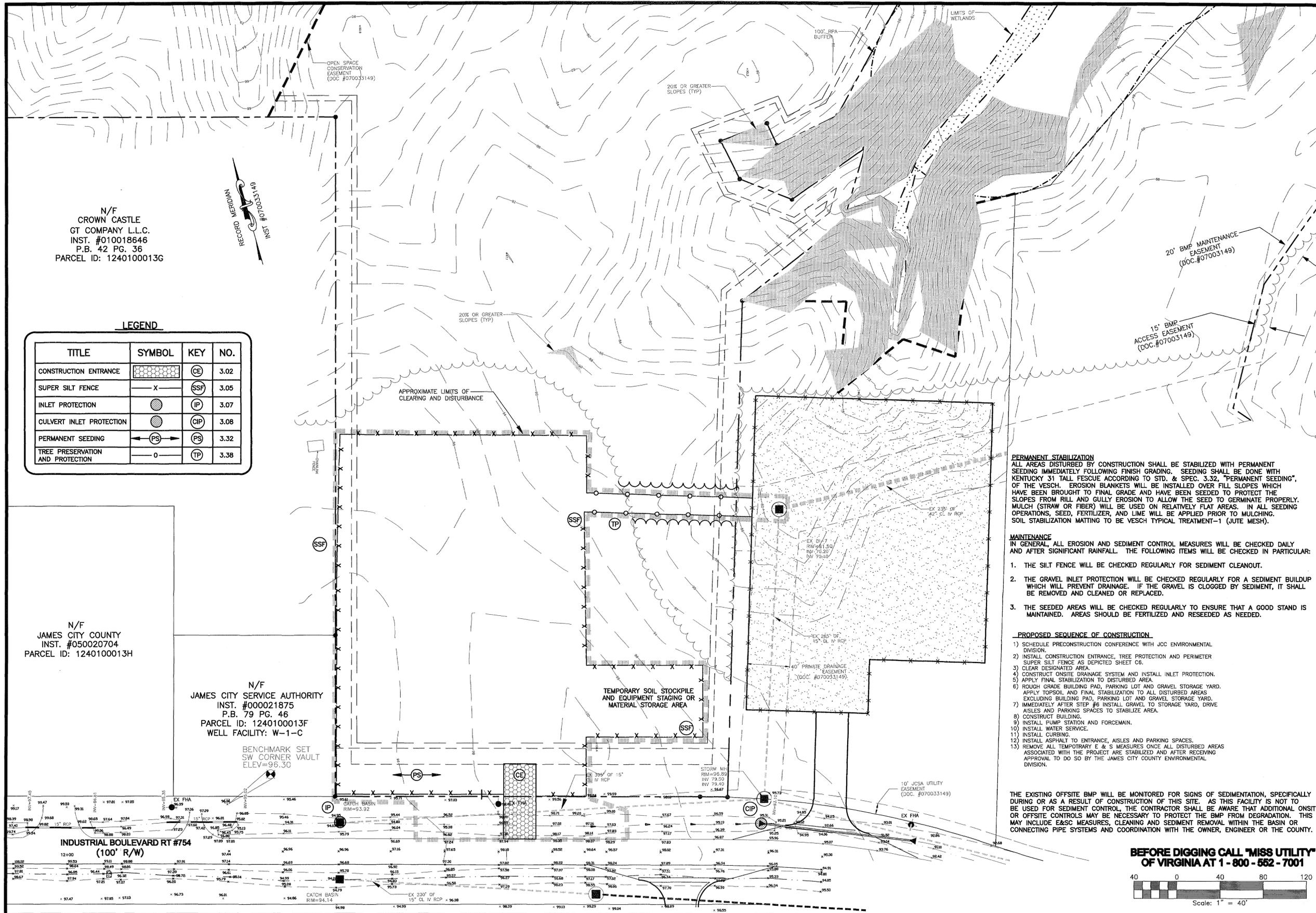
**LEGEND**

TITLE	SYMBOL	KEY	NO.
CONSTRUCTION ENTRANCE		CE	3.02
SUPER SILT FENCE		SSF	3.05
INLET PROTECTION		IP	3.07
CULVERT INLET PROTECTION		CIP	3.08
PERMANENT SEEDING		PS	3.32
TREE PRESERVATION AND PROTECTION		TP	3.38

N/F  
JAMES CITY COUNTY  
INST. #050020704  
PARCEL ID: 1240100013H

N/F  
JAMES CITY SERVICE AUTHORITY  
INST. #000021875  
P.B. 79 PG. 46  
PARCEL ID: 1240100013F  
WELL FACILITY: W-1-C

BENCHMARK SET  
SW CORNER VAULT  
ELEV=96.30



**PERMANENT STABILIZATION**  
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC. 3.32, "PERMANENT SEEDING", OF THE VESCH. EROSION BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION TO ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING. SOIL STABILIZATION MATTING TO BE VESCH TYPICAL TREATMENT-1 (JUTE MESH).

**MAINTENANCE**  
IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

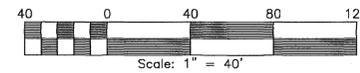
1. THE SILT FENCE WILL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT.
2. THE GRAVEL INLET PROTECTION WILL BE CHECKED REGULARLY FOR A SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
3. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEED AS NEEDED.

**PROPOSED SEQUENCE OF CONSTRUCTION**

- 1) SCHEDULE PRECONSTRUCTION CONFERENCE WITH JCC ENVIRONMENTAL DIVISION.
- 2) INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION AND PERIMETER SUPER SILT FENCE AS DEPICTED SHEET C6.
- 3) CLEAR DESIGNATED AREA.
- 4) CONSTRUCT ONSITE DRAINAGE SYSTEM AND INSTALL INLET PROTECTION.
- 5) APPLY FINAL STABILIZATION TO DISTURBED AREA.
- 6) ROUGH GRADE BUILDING PAD, PARKING LOT AND GRAVEL STORAGE YARD. APPLY TOPSOIL AND FINAL STABILIZATION TO ALL DISTURBED AREAS EXCLUDING BUILDING PAD, PARKING LOT AND GRAVEL STORAGE YARD.
- 7) IMMEDIATELY AFTER STEP #6 INSTALL GRAVEL TO STORAGE YARD, DRIVE AISLES AND PARKING SPACES TO STABILIZE AREA.
- 8) CONSTRUCT BUILDING.
- 9) INSTALL PUMP STATION AND FORCEMAIN.
- 10) INSTALL WATER SERVICE.
- 11) INSTALL CURBING.
- 12) INSTALL ASPHALT TO ENTRANCE, AISLES AND PARKING SPACES.
- 13) REMOVE ALL TEMPORARY E & S MEASURES ONCE ALL DISTURBED AREAS ASSOCIATED WITH THE PROJECT ARE STABILIZED AND AFTER RECEIVING APPROVAL TO DO SO BY THE JAMES CITY COUNTY ENVIRONMENTAL DIVISION.

THE EXISTING OFFSITE BMP WILL BE MONITORED FOR SIGNS OF SEDIMENTATION, SPECIFICALLY DURING OR AS A RESULT OF CONSTRUCTION OF THIS SITE. AS THIS FACILITY IS NOT TO BE USED FOR SEDIMENT CONTROL, THE CONTRACTOR SHALL BE AWARE THAT ADDITIONAL ONSITE OR OFFSITE CONTROLS MAY BE NECESSARY TO PROTECT THE BMP FROM DEGRADATION. THIS MAY INCLUDE E&S MEASURES, CLEANING AND SEDIMENT REMOVAL WITHIN THE BASIN OR CONNECTING PIPE SYSTEMS AND COORDINATION WITH THE OWNER, ENGINEER OR THE COUNTY.

**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001**



**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER  
STONEHOUSE MAGISTERIAL DISTRICT  
PHASE I EROSION & SEDIMENT CONTROL PLAN**

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13



**LandTech Resources, Inc.**  
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Phone: (757) 565-1677 Fax: (757) 565-0782  
web: landtechresources.com

SCALE: 1" = 40'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C6 OF 16

N/F  
CROWN CASTLE  
GT COMPANY L.L.C.  
INST. #010018646  
P.B. 42 PG. 36  
PARCEL ID: 1240100013G

6443500701  
#151  
RECORD MERIDIAN

**LEGEND**

TITLE	SYMBOL	KEY	NO.
CONSTRUCTION ENTRANCE		CE	3.02
SUPER SILT FENCE	X	SSF	3.05
INLET PROTECTION		IP	3.07
CULVERT INLET PROTECTION		CIP	3.08
PERMANENT SEEDING		PS	3.32
TREE PRESERVATION AND PROTECTION	O	TP	3.38

N/F  
JAMES CITY COUNTY  
INST. #050020704  
PARCEL ID: 1240100013H

N/F  
JAMES CITY SERVICE AUTHORITY  
INST. #000021875  
P.B. 79 PG. 46  
PARCEL ID: 1240100013F  
WELL FACILITY: W-1-C

BENCHMARK SET  
SW CORNER VAULT  
ELEV=96.30



**PERMANENT STABILIZATION**  
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC. 3.32, "PERMANENT SEEDING". OF THE VESCH. EROSION BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION TO ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING. SOIL STABILIZATION MATTING TO BE VESCH TYPICAL TREATMENT-1 (JUTE MESH).

**MAINTENANCE**  
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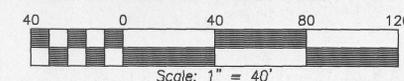
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- 2) INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION AND PERIMETER SUPER SILT FENCE AS DEPICTED SHEET C6.
- 3) CLEAR DESIGNATED AREA.
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**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001**



**SITE PLAN OF PARCEL 12**  
**IN JACOBS INDUSTRIAL CENTER**  
STONEHOUSE MAGISTERIAL DISTRICT  
GRADING PLAN/PHASE II EROSION & SEDIMENT CONTROL PLAN

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13



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Phone: (757) 565-7677 Fax: (757) 565-0782  
web: landtechresources.com

SCALE: 1" = 40'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C7 OF 16

James City County  
REV PER JCC LTR DTD 2/19/13

**NOTES**

- TEMPORARY SOIL STOCKPILES SHALL BE LOCATED WITHIN THE LIMITS OF CLEARING AND PERIMETER EROSION AND SEDIMENT CONTROLS AS PRESENTED HEREIN.
- ALL UTILITIES SHALL BE PLACED UNDERGROUND.
- RECORD DRAWINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE JCSA STANDARDS & SPECIFICATIONS FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS, LATEST EDITION.
- THE SANITARY SEWER SYSTEM AND WATER SYSTEM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE HRPDC REGIONAL STANDARDS AND THE JCSA STANDARDS & SPECIFICATIONS FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS, LATEST EDITION.
- IT IS UNDERSTOOD THAT PREPARATION OF RECORD DRAWINGS AND CONSTRUCTION CERTIFICATIONS AS REQUIRED FOR PROJECT FACILITIES MAY NOT NECESSARILY BE PERFORMED BY THE PLAN PREPARER. THESE COMPONENTS MAY BE PERFORMED BY OTHERS.
- SANITARY SEWER FACILITIES PIPE BEDDING SHALL BE IN ACCORDANCE WITH HRPDC DETAIL EW\_01.
- THE SITE DOES NOT APPEAR TO HAVE A SEPTIC TANK OR DRAINFIELD ONSITE. IF ONE IS FOUND DURING CONSTRUCTION PLANS WILL BE SUBMITTED TO THE LOCAL VIRGINIA DEPARTMENT OF HEALTH (MS. VALERIE JORDAN AT (757) 253-4813) FOR REVIEW & APPROVAL OF THE SEPTIC TANK REMOVAL/ABANDONMENT.
- SANITARY SEWER INSPECTION FEES ARE REQUIRED FOR THIS PROJECT AND SHALL BE PAID IN FULL TO JCSA PRIOR TO ISSUANCE OF A CERTIFICATE TO CONSTRUCT UTILITIES.
- ALL DI STRUCTURES SHALL HAVE IS-1 SHAPING AND ST-1, IF THE FINAL DEPTH OF STRUCTURE IS GREATER THAN 4 FT.
- DIRECTIONAL DRILL OR PUSH NEW 1-1/2" SCH 80 PVC FORCEMAIN UNDER INDUSTRIAL BLVD.
- THE PLUMBING INSIDE THE BUILDINGS MUST BE INSPECTED BY JCSA OPERATIONS, AT (757) 229-7421 FOR POTENTIAL CROSS CONNECTIONS. ANY CROSS CONNECTIONS MUST BE PROTECTED BY THE APPROPRIATE BACKFLOW PREVENTION DEVICE(S).
- RCP STORM SEWER PIPE TO MEET THE REQUIREMENTS OF ASTM C76 WITH C443 GASKETS.
- ALL BUILDINGS FOR THESE PARCELS SHALL BE DESIGNED AND CONSTRUCTED FOR THE AVAILABLE FIRE FLOWS AND PRESSURES AS SHOWN ON THE JCC WATER DATA SHEETS.

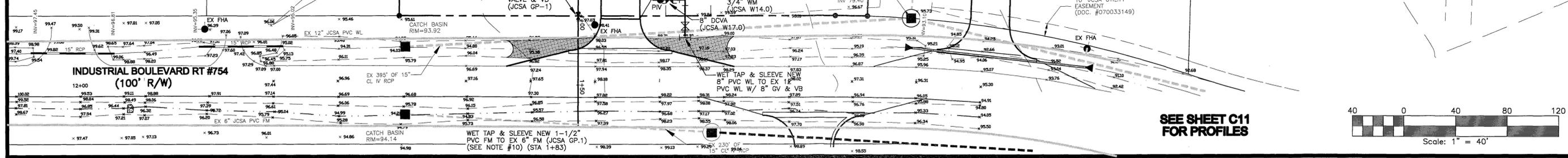
N/F  
JAMES CITY COUNTY  
INST. #050020704  
PARCEL ID: 1240100013H

N/F  
JAMES CITY SERVICE AUTHORITY  
INST. #000021875  
P.B. 79 PG. 46  
PARCEL ID: 1240100013F  
WELL FACILITY: W-1-C

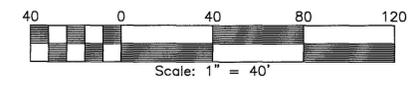
N/F  
CROWN CASTLE  
GT COMPANY L.L.C.  
INST. #010018646  
P.B. 42 PG. 36  
PARCEL ID: 1240100013G

ONE-STORY RETAIL  
WAREHOUSE BLDG  
FF=98.65

INDUSTRIAL BOULEVARD RT #754  
(100' R/W)



SEE SHEET C11  
FOR PROFILES



**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER**  
STONEHOUSE MAGISTERIAL DISTRICT  
UTILITY PLAN

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13

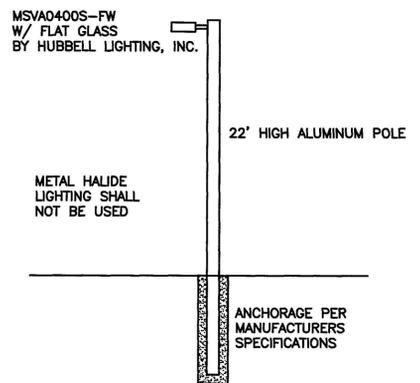


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Phone: (757) 565-1677 Fax: (757) 565-0782  
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SCALE: 1" = 40'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C8 OF 16

- NOTES:
- 1) WALL PACKS TO BE HUBBELL LIGHTING, INC. CAT. NO.: PRS0150S/PVLV, 150 WATT HPS, 11" MOUNTING HEIGHT OR EQUAL.
  - 2) OTHER EQUIVALENT WALL PACKS MAY BE USED AS LONG AS THE REQUIREMENTS OF SECTION 24-57 OF THE JAMES CITY COUNTY ZONING ORDINANCE ARE MET.
  - 3) HORIZONTAL LUMINAIRES IN FOOT CANDLES PER HUBBELL LIGHTING, INC.

OPEN SPACE CONSERVATION EASEMENT (DOC.#070033149)



OTHER EQUIVALENT LIGHT POLES & FIXTURES MAY BE USED AS LONG AS THE REQUIREMENTS OF SECTION 24-57 OF THE JAMES CITY COUNTY ZONING ORDINANCE ARE MET.

**LIGHTING POLE DETAIL**

HORIZONTAL LUMINAIRES IN FOOT CANDLES PER HUBBELL LIGHTING, INC.  
 FIXTURES SHALL BE FULL CUT-OFF.  
 PARKING LOT LUMINAIRES SHALL BE MOUNTED ON LIGHT POLES HORIZONTALLY AND SHALL BE RECESSED FIXTURES WITH NO BULBS, LENS, OR GLOBE EXTENDING BELOW THE CASING.  
 ALL EXTERNAL LIGHTING SHALL HAVE RECESSED FIXTURES WITH NO BULB, LENS, OR GLOBE EXTENDING BELOW THE CASING, AND SHALL BE DIRECTED DOWNWARD SO AS NOT TO PRODUCE GLARE ON ADJACENT PROPERTY.

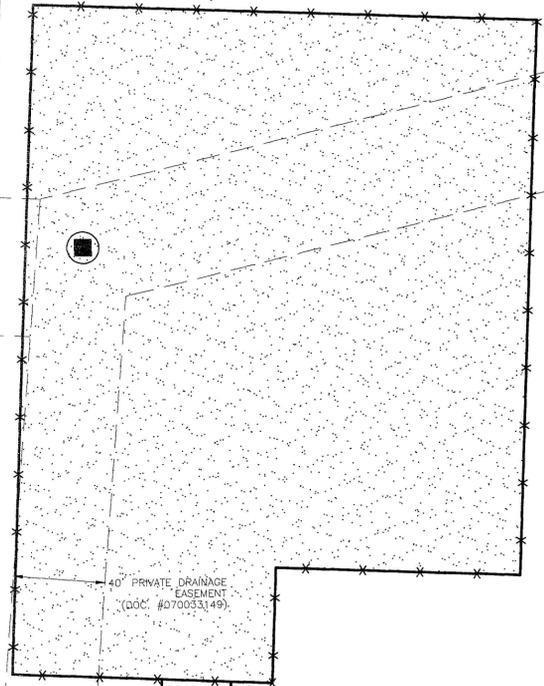
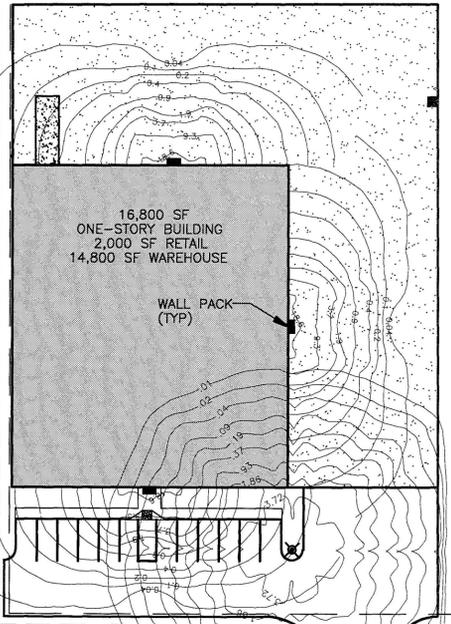
PARCEL 12

PARCEL 11

N/F  
 CROWN CASTLE  
 GT COMPANY L.L.C.  
 INST. #010018646  
 P.B. 42 PG. 36  
 PARCEL ID: 1240100013G

N/F  
 JAMES CITY COUNTY  
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 PARCEL ID: 1240100013H

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 PARCEL ID: 1240100013F  
 WELL FACILITY: W-1-C



20' BMP MAINTENANCE EASEMENT (DOC.#07003149)

15' BMP ACCESS EASEMENT (DOC.#07003149)

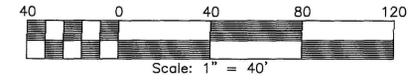
OPEN SPACE CONSERVATION EASEMENT

20' BMP ACCESS EASEMENT (DOC.#080013841)

10' JCSA UTILITY EASEMENT (DOC.#070033149)

INDUSTRIAL BOULEVARD RT #754  
 (100' R/W)

BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001



VIRGINIA  
 James City County  
**SITE PLAN OF PARCEL 12  
 IN JACOBS INDUSTRIAL CENTER**  
 STONEHOUSE MAGISTERIAL DISTRICT  
 LIGHTING PLAN

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13

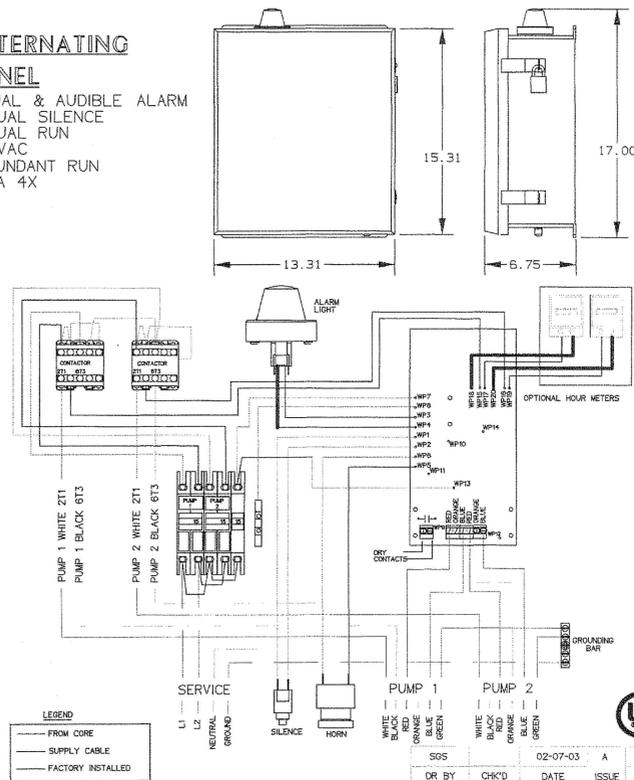


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SCALE: 1" = 40'  
 DATE: 1/21/13  
 JOB: 12-314  
 DRAWN BY: KMJ  
 SHEET: C9 OF 16

**ALTERNATING PANEL**

VISUAL & AUDIBLE ALARM  
MANUAL SILENCE  
MANUAL RUN  
240VAC  
REDUNDANT RUN  
NEMA 4X



LEGEND:  
- FROM CORE  
- SUPPLY CABLE  
- FACTORY INSTALLED

UL LISTED

DUPLX  
SEWER SYSTEMS  
SPLIT TIME ALTERNATING PANEL  
LM000270

AD	CAH	7/13/07	A	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

**PUMP STATION SPECIFICATIONS**

1. SCOPE  
THE WORK HEREIN INCLUDES FURNISHING AND INSTALLATION OF ONE (1) PUMP STATION FACILITY, COMPLETE WITH PUMPS, INTERIOR PIPING, VALVES, CONTROLS, ALARMS, WIRING AND ALL NECESSARY ACCESSORIES AND APPURTENANCES AS INDICATED, SPECIFIED, AND/OR NECESSARY TO PROVIDE PUMPING SYSTEMS COMPLETE AND READY FOR OPERATION.

2. INDIVIDUAL SEWAGE PUMP STATION  
A. GENERAL - THE CONTRACTOR SHALL PROVIDE ONE (1) DUPLEX GRINDER PUMP STATION, AS MANUFACTURED BY ENVIRONMENT ONE CORP. THE STATIONS SHALL CONSIST OF A GRINDER PUMP SUITABLY MOUNTED IN A BASIN CONSTRUCTED OF HIGH DENSITY POLYETHYLENE (HDPE), ELECTRICAL DISCONNECT (NEMA 6), PUMP REMOVAL SYSTEM, SHUT-OFF VALVE, ANTI-SIPHON VALVE AND CHECK VALVE ASSEMBLED WITHIN THE BASIN, ELECTRICAL ALARM/DISCONNECT PANEL, AND ALL NECESSARY INTERNAL WIRING AND CONTROLS. LEVEL CONTROLS SHALL BE BY MEANS OF PRESSURE SWITCHES MOUNTED IN THE WET WELL THAT ARE PRESET BY THE MANUFACTURER. THE ALARM/DISCONNECT PANEL SHALL BE MOUNTED ON EXTERIOR POLES. PUMPS SHALL BE DESIGNED TO PERFORM SATISFACTORILY WITH A REASONABLE SERVICE LIFE WHEN OPERATED INTERMITTENTLY IN TYPICAL WASTEWATER SERVICE.

B. OPERATION - UPON RISE OF WATER LEVEL IN THE BASIN, THE "PUMP ON" SWITCH SHALL ENERGIZE THE PUMP. WHEN THE WATER REACHES THE "OFF" SWITCH THE PUMP SHALL STOP. AN ALARM SHALL BE ACTIVATED BY A SEPARATE PRESSURE SWITCH WHEN THE LEVEL RISES TO THE "ALARM ON" SWITCH. THE ALARM WILL REMAIN ON UNTIL THE SEWAGE LEVEL DROPS BELOW THE "OFF" SETTING OF THE ALARM PRESSURE SWITCH. IN CASE OF A PUMP FAILURE, THE ALARM WILL REMAIN ON UNTIL THE FAILED PUMP IS REPAIRED.

C. PUMPS - PUMPS SHALL BE SUBMERSIBLE GRINDER PUMPS MANUFACTURED BY ENVIRONMENT ONE CORP.

Model DH152-93 Duplex Grinder Pump  
1 HP, 1,725 RPM, High Torque Capacitor Start,  
Thermally Protected 120/240 Volt, 3 Phase, 60 Hertz  
Discharge:  
15 GPM @ 0 PSIG  
11 GPM @ 40 PSIG  
7.8 GPM @ 80 PSIG

D. LEVEL CONTROLS - PRESSURE SWITCHES SHALL BE SUPPLIED BY THE MANUFACTURER TO CONTROL PUMP LEVEL AND ALARM SIGNAL. THREE PRESSURE SWITCHES SHALL BE USED TO CONTROL THE LEVEL FOR EACH PUMP. ONE FOR PUMP TURN-ON, ONE FOR PUMP TURN-OFF, AND ONE FOR AN ALARM-ON.

E. CONTROL PANEL - CONTROL PANELS SHALL BE A MODEL T260 DUPLEX ALTERNATING ALARM PANEL FURNISHED BY THE ENVIRONMENT ONE CORP. THE PANEL SHALL CONTAIN THE FOLLOWING:

- NEMA 4X RATING
- CORROSION PROOF FIBERGLASS ENCLOSURE
- HINGED ACCESS PANEL
- LOCKABLE LATCH WITH PADLOCK
- SECURED DEAD FRONT
- ACCESS KNOCK-OUTS
- CIRCUIT BREAKERS
- TERMINAL BLOCKS AND GROUND LUGS
- INTEGRAL POWER BUS
- RED ALARM LIGHT AND 2 HIGH LEVEL INDICATORS (ONE FOR EACH PUMP)
- AUDIBLE ALARM WITH SILENCE AND LAMP AND TEST BUTTON
- 240 VAC SERVICE
- MANUAL RUN
- REMOTE ALARM TERMINALS
- DRY CONTACTS
- BATTERY BACK UP FOR POWER FAILURE
- UL LISTED
- HOUR METERS

ALL INTERNAL WIRING SHALL BE NEAT AND COLOR COATED. EACH WIRE SHALL BE A DIFFERENT COLOR OR STRIPE (EXCEPT GROUND), AND ALL INCOMING WIRES SHALL TERMINATE INTO A BUS CLAMP TYPE TERMINAL BLOCK (EXCEPT INCOMING POWER).

FOR PUMP FAILURE DETECTION THE MANUFACTURER SHALL FURNISH NORMALLY OPEN RELAYS WHICH WILL TRIGGER ALARM CONTACTS UPON MOTOR OVERLOAD. THE RELAYS SHALL MONITOR THE CURRENT DURING PUMP OPERATION. MOTOR FAILURE/PUMP FAILURE SHALL OCCUR WHEN OVERLOADS ARE DISENGAGED CAUSING RELAY TO ACTUATE THE ALARM.

ALARM CIRCUITRY SHALL PROVIDE AN ALARM FOR THE FOLLOWING CONDITIONS:

- HIGH WATER
- PUMP #1 FAILURE
- PUMP #2 FAILURE
- POWER FAILURE

THE VISUAL ALARM LAMP SHALL BE INSIDE A RED FLUTED LENS AT LEAST 2-5/8" IN DIAMETER AND 1-11/16" IN HEIGHT. THE VISUAL ALARM SHALL BE MOUNTED ON TOP OF THE CONTROL PANEL AS TO MAINTAIN NEMA 3R RATING. THE CONTROL PANEL SHALL HAVE A BATTERY BACK-UP TO MAINTAIN OPERATION/ALARM STATUS IN THE EVENT OF A POWER FAILURE. IF THE AUDIO ALARM IS SILENCED, THE ALARM LIGHT WILL REMAIN ON UNTIL THE SITUATION IS REMEDIED. TWO HIGH LEVEL INDICATORS WILL BE MOUNTED BEHIND THE ACCESS COVER. DURING A HIGH LEVEL ALARM CONDITION, THE APPROPRIATE LIGHT WILL ILLUMINATE TO INDICATE WHICH PUMP CORE REQUIRES SERVICING. AN INTERIOR VISUAL ALARM FOR EXCESSIVE HIGH LIQUID LEVEL WITHIN THE GRINDER PUMP SHALL BE INSTALLED IN A CONSPICUOUS PLACE (HALL, BATHROOM, KITCHEN) WITHIN EACH BUILDING.

THE CONTROL PANEL SHALL BE MOUNTED TO THE BUILDING EXTERIOR WALL (SEE CONTROL PANEL MOUNTING DETAIL).

F. PUMP TEST - AFTER INSTALLATION OF THE PUMPING EQUIPMENT THE PUMPING SYSTEM SHALL BE TESTED. THE WELL SHALL BE FILLED WITH CLEAR WATER AND PUMPED OUT USING THE STATION PUMPS AND CONTROL SYSTEM. PUMPS SHALL BE TESTED INDIVIDUALLY AS WELL AS IN COMBINATION.

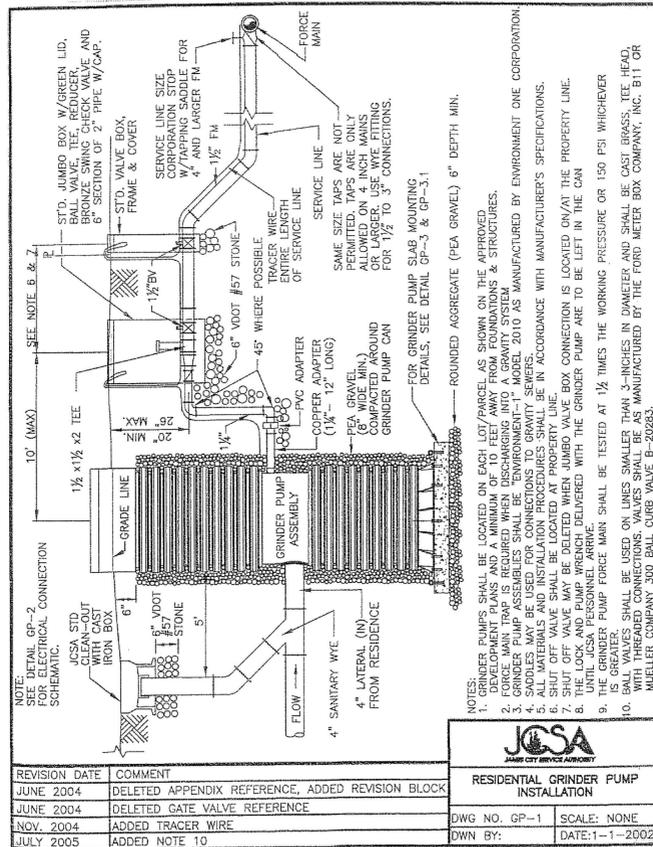
G. START-UP AND TRAINING - THE SERVICES OF A TRAINED SERVICE REPRESENTATIVE OF THE PUMP STATION MANUFACTURER SHALL BE PROVIDED FOR A MINIMUM OF ONE (1) DAY TO ASSIST IN START-UP OF THE EQUIPMENT AND TRAIN THE OWNER IN ITS PROPER CARE AND OPERATION.

H. OPERATION AND MAINTENANCE MANUAL - THE CONTRACTOR SHALL PROVIDE ONE (1) COPY OF AN OPERATION & MAINTENANCE MANUAL TO THE OWNER, ONE (1) COPY TO THE ENGINEER, AND ONE (1) COPY TO THE COUNTY. THE COUNTY WILL ALSO BE PROVIDED WITH ONE (1) COPY OF THE "AS-BUILT" DRAWINGS OF THE GRINDER SYSTEM. AS A MINIMUM THE MANUAL SHALL INCLUDE:

- DESCRIPTION OF EQUIPMENT
- INSTALLATION INSTRUCTIONS
- PUMP CURVES
- OPERATION INSTRUCTIONS
- TROUBLESHOOTING GUIDE
- PARTS LIST
- PARTS REPLACEMENT INSTRUCTIONS
- WIRING DIAGRAM

I. PAINTING - ALL FABRICATED METAL COMPONENTS OF THE PUMP STATION SHALL BE SANDBLASTED, PRIMED AND PAINTED WITH 2 COATS OF A HEAVY DUTY EPOXY PAINT AT THE FACTORY. ANY DAMAGE TO THE COATING DURING SHIPMENT AND HANDLING SHALL BE TOUCHED UP BY THE CONTRACTOR WITH THE SAME PAINT.

J. WET WELL - THE DH152-93 PUMP CHAMBER/WET WELL SHALL BE 38.8" IN DIAMETER AND 89.7" IN DEPTH, HDPE, AS SHOWN AND AS MANUFACTURED BY THE ENVIRONMENT ONE CORP. THE WET WELL, WHICH HAS 150 GALLONS OF OPTIMUM TANK CAPACITY, SHALL BE PREASSEMBLED PRIOR TO SHIPMENT TO THE SITE AND INCLUDE AN ELECTRICAL QUICK DISCONNECT (NEMA 6P), PUMP REMOVAL SYSTEM, SHUT-OFF VALVE, ANTI-SIPHON VALVE, AND CHECK VALVE ASSEMBLED WITHIN THE BASIN, ELECTRICAL ALARM/DISCONNECT PANEL, AND ALL NECESSARY INTERNAL WIRING AND CONTROLS. THE ACCESS WAY SHALL BE AN INTEGRAL EXTENSION OF THE WET WELL ASSEMBLY AND INCLUDE A LOCKABLE WATER TIGHT LID ASSEMBLY AND ACCESS WAY VENT. THE STATION SHALL HAVE ALL NECESSARY PENETRATIONS MOLDED IN AND FACTORY SEALED. NO FIELD PENETRATIONS SHALL BE ACCEPTABLE. ALL DISCHARGE PIPING SHALL BE 304 SERIES STAINLESS STEEL. THE WET WELL ASSEMBLY SHALL BE INSTALLED PER DETAIL AND ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

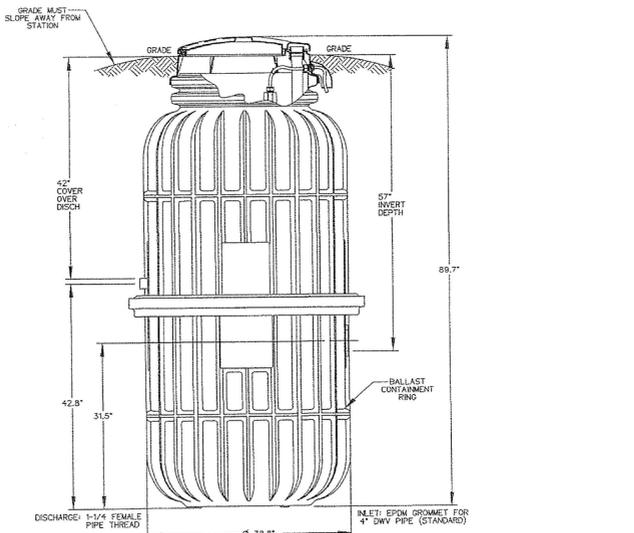


REVISION DATE COMMENT

JUNE 2004	DELETED APPENDIX REFERENCE, ADDED REVISION BLOCK
JUNE 2004	DELETED GATE VALVE REFERENCE
NOV. 2004	ADDED TRACER WIRE
JULY 2005	ADDED NOTE 10

RESIDENTIAL GRINDER PUMP INSTALLATION  
DWG NO. GP-1 SCALE: NONE  
DWN BY: DATE: 1-1-2002

**OPTIONS: DH152-93 (HARD WIRED LEVEL CONTROLS)**  
**DR152-93 (WIRELESS LEVEL CONTROLS)**



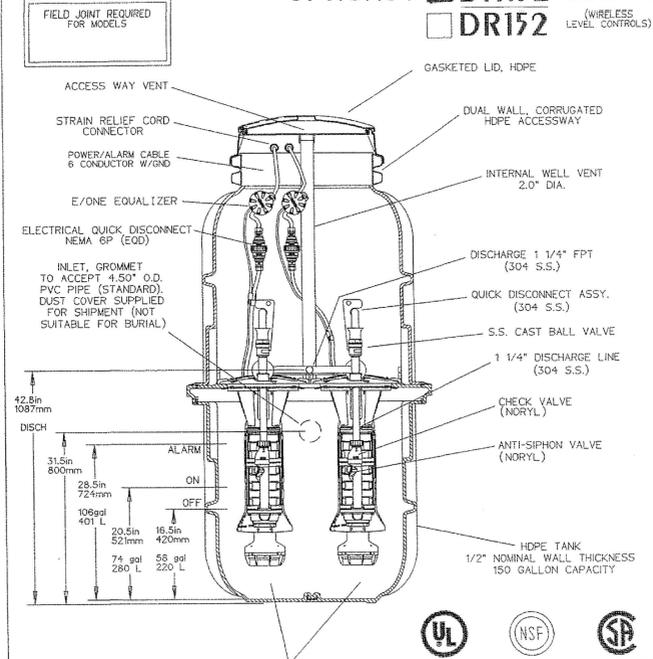
UL LISTED NSF SP

CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

AD CAH 7/13/07 A 1/16  
DR BY CHK'D DATE ISSUE SCALE

DUPLX  
SEWER SYSTEMS  
MODEL DH152-93 / DR152-93  
NA0052P04

**OPTIONS: DH152 (HARD WIRED LEVEL CONTROLS)**  
**DR152 (WIRELESS LEVEL CONTROLS)**

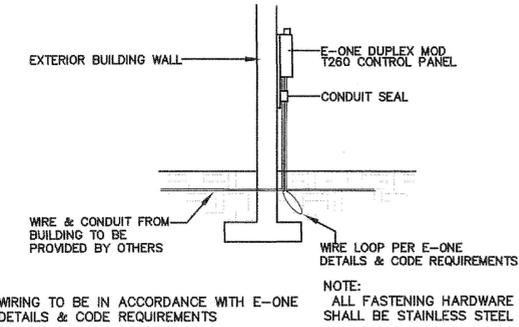


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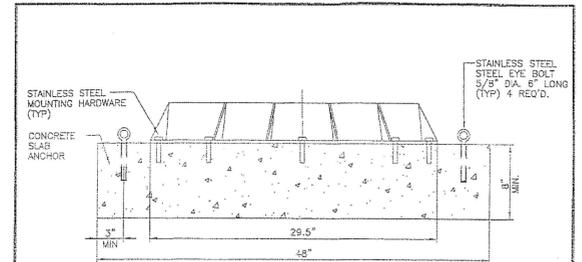
CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

AD CH 10/20/10 C  
DR BY CHK'D DATE ISSUE SCALE

DUPLX  
SEWER SYSTEMS  
MODEL DH152 / DR152  
DETAIL SHEET  
NA0052P02



CONTROL PANEL MOUNTING DETAIL



NOTES:  
CONCRETE SLAB ANCHOR OF 370 LBS. (2.5 CU. FT.) PER FOOT OF TOTAL STATION HEIGHT, BASED ON STATION HEIGHT IN 6 INCH INCREMENTS, IS REQUIRED TO PREVENT TANK FROM FLOATING. MINIMUM DIMENSIONS SHOWN ABOVE ARE BASED ON STATION HEIGHT OF 4'-0". ONE INCH OF ADDITIONAL THICKNESS SHALL BE REQUIRED FOR EACH ADDITIONAL 6 INCHES OF TOTAL STATION HEIGHT. SEE EXAMPLES BELOW.

STATION HEIGHT	SLAB LENGTH	SLAB WIDTH	SLAB THICKNESS
4'-0" THRU 4'-6"	4 FT	4 FT	8 INCHES
4'-6" THRU 5'-0"	4 FT	4 FT	9 INCHES
5'-0" THRU 5'-6"	4 FT	4 FT	10 INCHES
5'-6" THRU 6'-0"	4 FT	4 FT	11 INCHES
6'-0" THRU 6'-6"	4 FT	4 FT	12 INCHES
6'-6" THRU 7'-0"	4 FT	4 FT	13 INCHES
7'-0" THRU 7'-6"	4 FT	4 FT	14 INCHES
7'-6" THRU 8'-0"	4 FT	4 FT	15 INCHES
8'-0" THRU 8'-6"	4 FT	4 FT	16 INCHES
8'-6" THRU 9'-0"	4 FT	4 FT	17 INCHES
9'-0" THRU 9'-6"	4 FT	4 FT	18 INCHES
9'-6" THRU 10'-0"	4 FT	4 FT	19 INCHES

FOR STATIONS EXCEEDING 10 FEET IN TOTAL HEIGHT, SLAB THICKNESS SHALL BE INCREASED BY ONE INCH FOR EACH ADDITIONAL 6 INCHES OF STATION HEIGHT, OR FRACTION THEREOF.

JCSA  
GRINDER PUMP SLAB DETAIL  
DWG NO GP-3.1 SCALE: NONE  
DWN BY: DATE: 1-1-2002

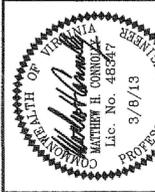
REVISION DATE COMMENT


PUMP STATION AND FORCEMAIN CERTIFICATION:  
THIS PUMP STATION AND FORCEMAIN DESIGN MEETS ALL VDH SCAT REGULATIONS.



SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER  
STONEHOUSE MAGISTERIAL DISTRICT  
PUMP STATION DETAILS

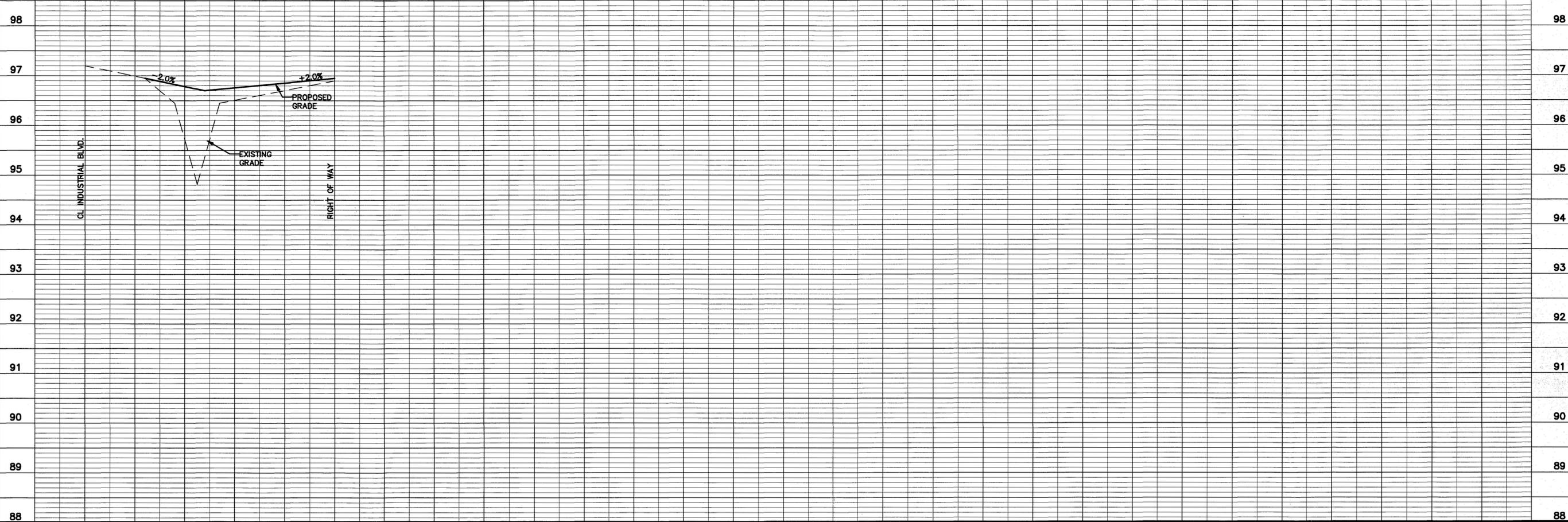
NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13



**LandTech Resources, Inc.**  
Surveying • Engineering • GPS  
205 Bullfords Blvd. Ste. E. Williamsburg, VA 23188  
Phone: (757) 565-1677 Fax: (757) 565-0782  
web: landtechresources.com

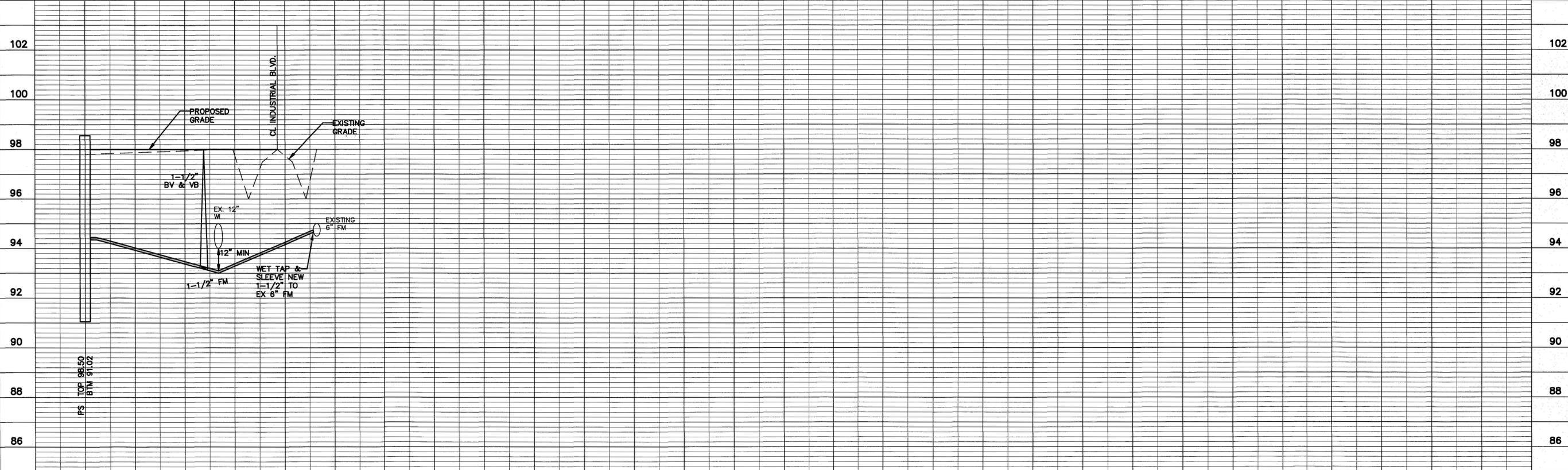
SCALE: 1"=1'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C10 OF 16

PARCEL 12 ENTRANCE PROFILE (SCALE: HORZ 1"=10', VERT 1"=1')



0+00 0+10 0+20 0+30 0+40 0+50

PARCEL 12 FM PROFILE (SCALE: HORZ 1"=40', VERT 1"=2')



0+00 0+40 0+80 1+20 1+60 2+00

<p><b>SITE PLAN OF PARCEL 12</b>  <b>IN JACOBS INDUSTRIAL CENTER</b>                  STONEHOUSE MAGISTERIAL DISTRICT                  PROFILE SHEET</p> <p>James City County                  Virginia</p>		NO.	1	DATE	3/8/13	REVISION / COMMENT / NOTE	
		REV PER	JCC LTR	DTD	2/19/13		
<p><b>LandTech Resources, Inc.</b>                  Surveying • GPS • Engineering</p> <p>205 Bullfants Blvd., Ste. E, Williamsburg, VA 23188                  Phone: (757) 565-1677 Fax: (757) 565-0782                  web: landtechresou/ces.com</p>							
<p>SCALE: AS NOTED</p> <p>DATE: 1/21/13</p> <p>JOB: 12-314</p> <p>DRAWN BY: KMJ</p> <p>SHEET: C11 OF 16</p>							

GENERAL  
EROSION AND SEDIMENT CONTROL NOTES

JAMES CITY COUNTY ENVIRONMENTAL DIVISION

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 SEDIMENTS 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 WILL 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 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 RECONSTRUCTION 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 RECONSTRUCTION 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-WAY. AN ENTRANCE PERMIT FROM VDOT 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 DISTURBING TAKING PLACE. EARTHEN 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'S REPRESENTATIVE SHALL BE MADE TO ASSESS THEIR CONDITIONS. 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 TRANSVERSING THE SLOPES BY INSTALLING MECHANICAL DEVICES TO SAFELY LOWER WATER DOWNSLOPE 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 AT TIME OF CONSTRUCTION TO ENSURE 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. 3.16). 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 GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT 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 ITEMS, 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 MATTINGS 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 2H: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 LINERS, SUCH AS POLYETHYLENE SHEETS, SHALL BE PROVIDED FOR ALL PAVED DITCHES UNTIL THE PERMANENT CONCRETE LINER IS INSTALLED.

17. PAVED DITCHES SHALL BE REQUIRED WHEREVER ACCELERATED EROSION IS EVIDENT. PARTICULAR ATTENTION SHALL BE PAID TO THOSE AREAS WHERE GRADES EXCEED 3 PERCENT.

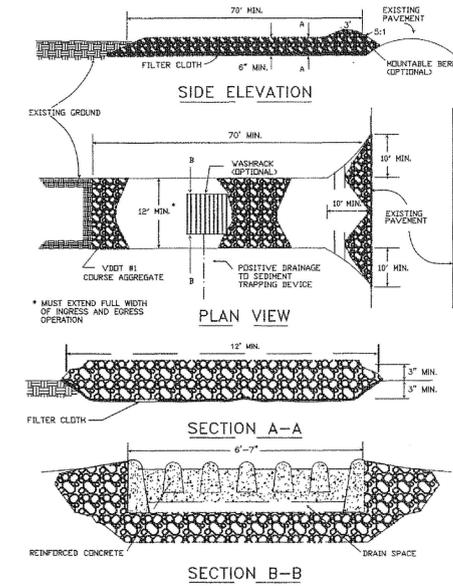
18. TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. TRAPPED SEDIMENT SHALL BE SPREAD, SEEDED AND MULCHED. AFTER THE PROJECT AND STABILIZATION ARE COMPLETE, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS.

19. NO SEDIMENT TRAP OR SEDIMENT BASIN SHALL BE REMOVED UNTIL A) 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 B) 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 BUYER 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-BUILTS) 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 DRAWINGS AND CONSTRUCTION CERTIFICATION STANDARD FORMS & INSTRUCTIONS.

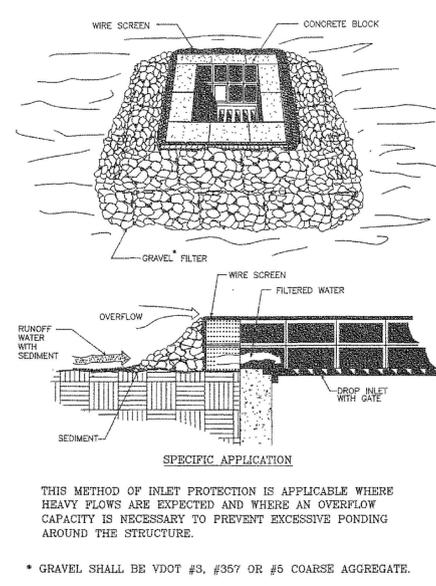
21. DESIGN AND CONSTRUCTION OF PRIVATE-TYPE SITE DRAINAGE SYSTEMS OUTSIDE VDOT RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT VERSION OF THE JAMES CITY COUNTY ENVIRONMENTAL DIVISION, STORMWATER DRAINAGE CONVEYANCE SYSTEMS, (NON-BMP RELATED), GENERAL DESIGN AND CONSTRUCTION GUIDELINES.

STONE CONSTRUCTION ENTRANCE



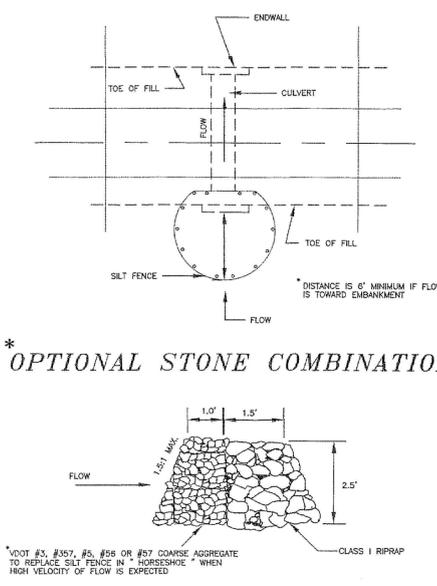
SOURCE: ADAPTED FROM 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC Plate 3.02-1

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER



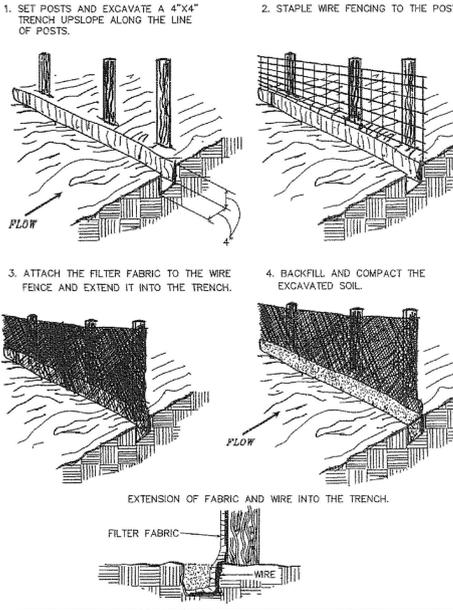
SOURCE: VA. DSWC Plate 3.07-3

SILT FENCE CULVERT INLET PROTECTION



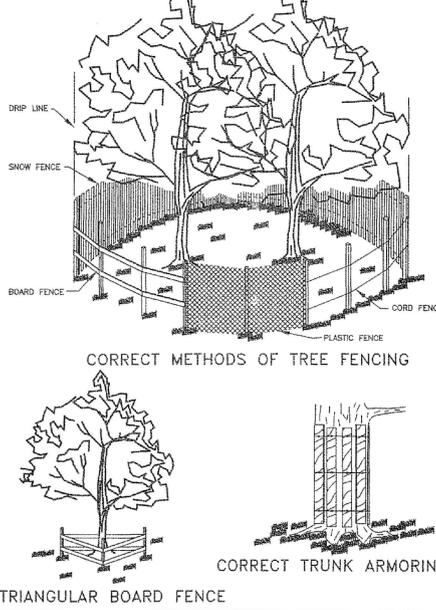
SOURCE: ADAPTED FROM VDOT Standard Sheets and Va. DSWC Plate 3.08-1

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



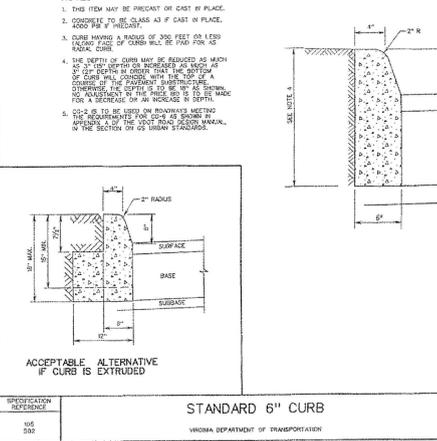
SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood & Frost Plate 3.05-1

FENCING AND ARMORING

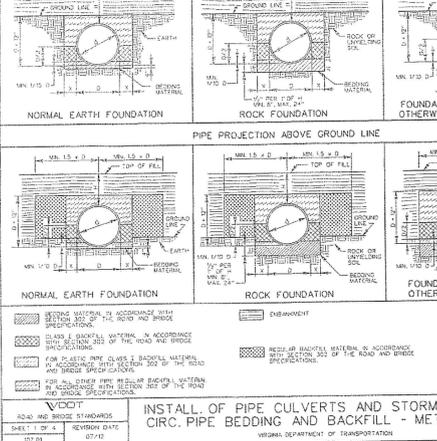


SOURCE: Va. DSWC Plate 3.38-2

STANDARD 6" CURB



INSTALLATION OF PIPE CULVERTS AND STORM SEWERS



VDOT ROAD AND BRIDGE STANDARDS SECTION DATE 07/01

TABLE 3.32-D  
SITE SPECIFIC SEEDING MIXTURES FOR COASTAL PLAIN AREA

MIXTURE	TOTAL LBS. PER ACRE
MINIMUM CARE LAWN - COMMERCIAL OR RESIDENTIAL - KENTUCKY 31 OR TURF-TYPE TALL FESCUE	125-200 LBS.
- COMMON BERMUDDAGRASS **	75 LBS.
HIGH-MAINTENANCE LAWN - KENTUCKY 31 OR TURF-TYPE TALL FESCUE - HYBRID BERMUDDAGRASS (SEED) **	40 LBS. (UNHULLED) 30 LBS. (HALLED)
- HYBRID BERMUDDAGRASS (BY OTHER VEGETATIVE ESTABLISHMENT METHOD; SEE STD. & SPEC. 3.34)	
GENERAL SLOPE (3:1 OR LESS) - KENTUCKY 31 TALL FESCUE - RED TOP GRASS - SEASONAL NURSE CROP *	128 LBS. 2 LBS. 20 LBS. 150 LBS.
LOW MAINTENANCE SLOPE (STEEPER THAN 3:1) - KENTUCKY 31 TALL FESCUE - COMMON BERMUDDAGRASS ** - RED TOP GRASS - SEASONAL NURSE CROP * - SERICEA LESPEDEZA **	93-108 LBS. 0-15 LBS. 2 LBS. 20 LBS. 150 LBS.

\* USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:  
FEBRUARY, MARCH THROUGH APRIL ..... ANNUAL RYE  
MAY 1ST THROUGH AUGUST ..... FOXTAIL MILLET  
SEPTEMBER, OCTOBER THROUGH NOVEMBER 15TH ..... ANNUAL RYE  
NOVEMBER 16TH THROUGH JANUARY ..... WINTER RYE

\*\* MAY THROUGH OCTOBER, USE HULLED SEED. ALL OTHER SEEDING PERIODS, USE UNHULLED SEED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW-MAINTENANCE MIX DURING WARM SEEDING PERIODS; ADD 10-20 LBS./ACRE IN MIXES.

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO CURRENT COUNTY AND/OR VDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL SECURE THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND COMPLY WITH ALL COUNTY REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL.
- ALL CUTS, VEGETATION AND DELETERIOUS MATERIAL ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF OFF SITE.
- SELECT MATERIAL IS REQUIRED FOR FILL AND BACKFILL UNDER PARKING LOT, FOOTINGS, AND STRUCTURES. IT SHALL BE PLACED IN LAYERS NOT TO EXCEED EIGHT INCHES (8") IN THICKNESS AND COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-698.
- ALL CONCRETE SHALL BE CLASS A-3 AIR ENTRAINED (3000 PSI) OR GREATER.
- ALL GREEN AREA, WITHIN LIMITS OF CONSTRUCTION, TO BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED.
- CONTRACTOR SHALL OBTAIN AT HIS OWN EXPENSE, ANY PERMIT OR BOND IF REQUIRED BY ANY GOVERNMENT AGENCY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RESOLVING ANY CONFLICTS WITH EXISTING UTILITIES AND SHALL REPAIR, AT HIS OWN EXPENSE, ALL UTILITIES TO BE RELOCATED OR DAMAGED BY CONSTRUCTION.
- ANY ERRORS OR DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER OR THE SURVEYOR BEFORE PROCEEDING WITH THE WORK.
- DEWATERING OR EXCAVATION, IF NEEDED, IS PART OF THIS CONTRACT.
- BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA 1-800-552-7001.
- CONTRACTOR SHALL OBTAIN PERMITS FROM THE STATE HIGHWAY DEPARTMENT PRIOR TO ANY WORK IN THE STATE'S RIGHT-OF-WAY. THE CONTRACTOR SHALL RESTORE AND CLEAN UP THE SITE TO THE SATISFACTION OF THE HIGHWAY DEPARTMENT.
- CONTRACTOR MUST OBTAIN ALL NECESSARY BUILDING PERMITS PRIOR TO CONSTRUCTION.

SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER  
STONEHOUSE MAGISTERIAL DISTRICT  
DETAIL SHEET

James City County  
Virginia

NO.	DATE	REVISION / COMMENT / NOTE

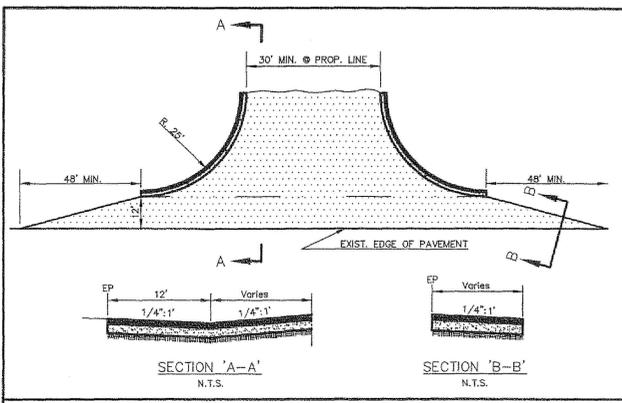


**LandTech Resources, Inc.**  
Surveying - Engineering - GPS

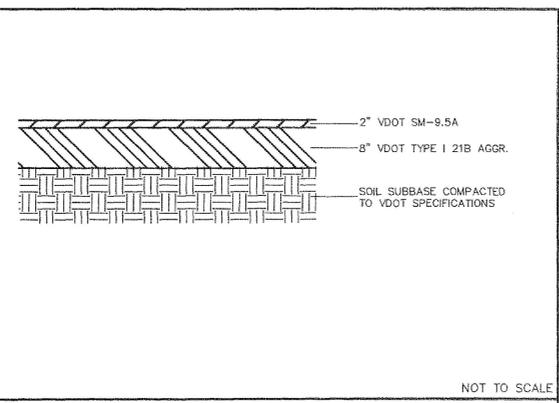
205 Bullfants Blvd., Ste. E, Williamsburg, VA 23188  
Phone: (757) 565-1637 Fax: (757) 565-0782  
web: landtechresources.com

SCALE: 1" = 20'  
DATE: 1/21/13  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C12 OF 16

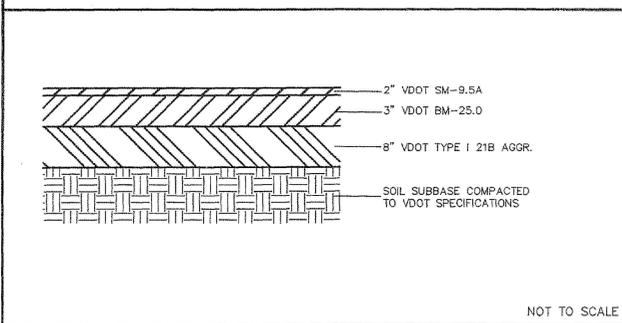




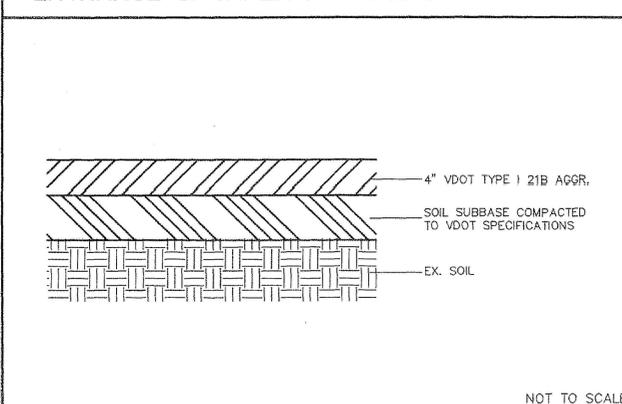
STANDARD VDOT COMMERCIAL ENTRANCE DETAIL



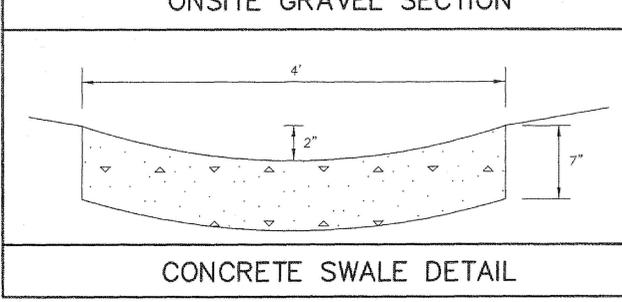
ONSITE PAVEMENT SECTION



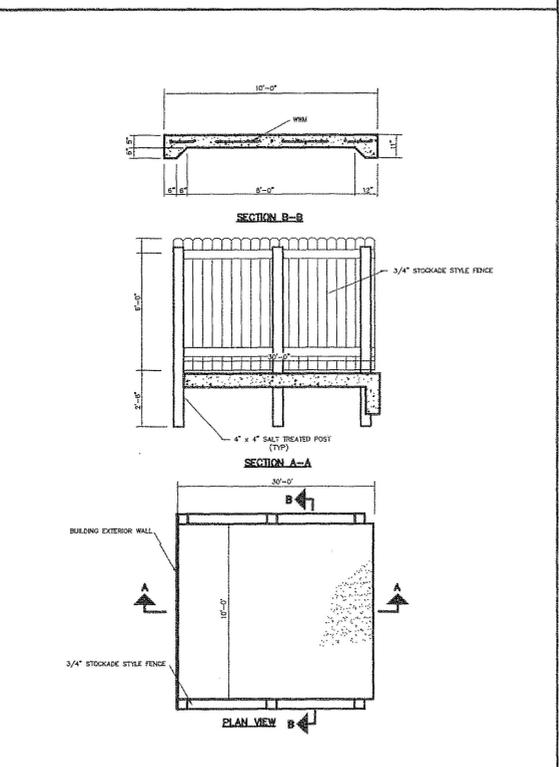
ENTRANCE & TAPER PAVEMENT SECTION



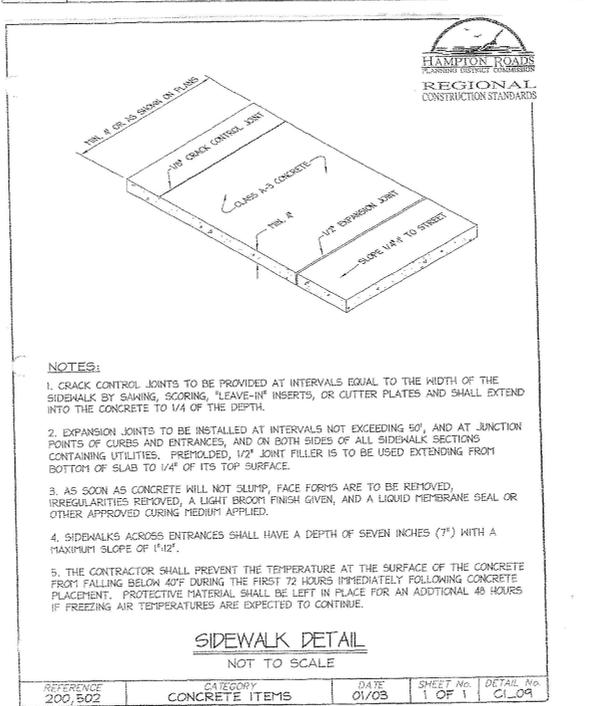
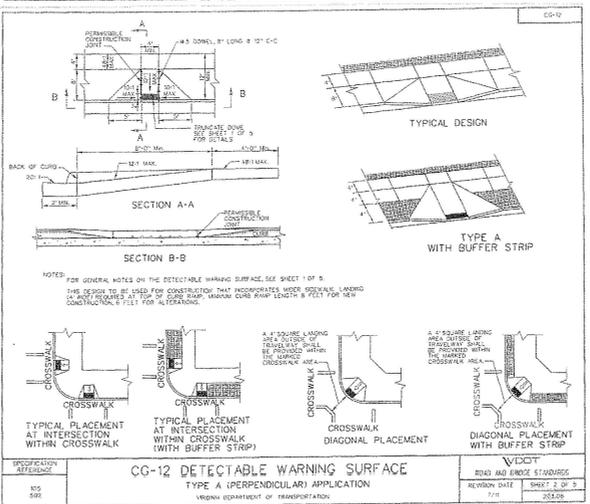
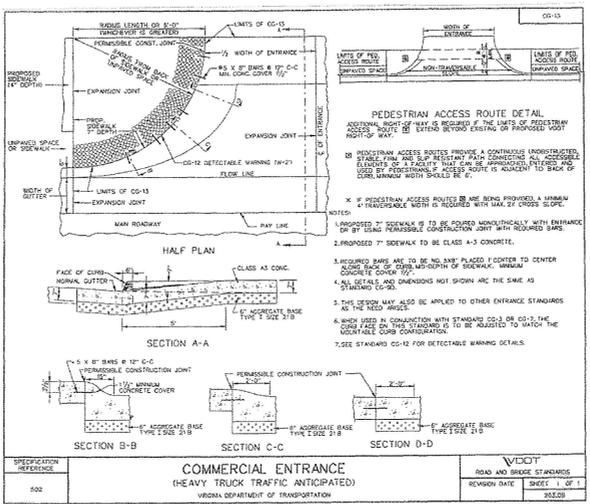
ONSITE GRAVEL SECTION



CONCRETE SWALE DETAIL



DUMPSTER PAD DETAIL



- JCSA GENERAL NOTES FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS: (Revised August 2005)
- All components of the water distribution and sanitary sewer system shall be installed and tested in accordance with the latest edition of the JCSA Design and Acceptance Criteria for Water Distribution and Sanitary Sewer Systems, the HRPDC Regional Construction Standards (Third Edition with amendments dated January 2003), and the Commonwealth of Virginia Department of Health Waterworks and Sanitary Sewerage Regulations. The Contractor shall use only new materials, parts, and products on all projects. All materials shall be stored so as to assure the preservation of their quality and fitness for the work. A copy of the JCSA Design and Acceptance Criteria and HRPDC Regional Construction Standards must be kept on-site by the contractor during time of installing, testing, and conveying facilities to JCSA.
  - The Contractor/Developer shall acquire a Certificate to Construct Water and Sewer Facilities prior to commencement of construction of any water or sanitary sewer facilities.
  - The Developer's representative shall submit shop drawings for all materials for approval to JCSA prior to commencement of construction. All materials ordered and installed prior to JCSA's review and acceptance will be at the Contractor's/Developer's risk.
  - Pipe lines and services shall be installed after grading to within 6-inches of final grade and prior to placement of base material.
  - All water mains shall be fully flushed, pressure tested, and disinfected and satisfactory bacteriological samples obtained, in accordance with JCSA Design and Acceptance Criteria.
  - Routine periodic inspections during construction will be provided by JCSA. These inspections do not relieve the Developer/Contractor/Owner from his obligation and responsibility for constructing a water distribution and sanitary sewer system in strict accordance with the JCSA Design and Acceptance Criteria.
  - Any field modifications or changes to the approved plans shall be verified and checked by the Engineer of Record and accepted by JCSA prior to any field modifications or changes. All approved change and field modifications shall be accurately indicated on the record drawings.
  - All lots shall be provided with water service and sanitary sewer connections. The connections shall be extended 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 JCSA.
  - Any required easements, permits and approvals shall be acquired by the Developer prior to commencement of water main and/or sanitary sewer construction.
  - 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.
  - Water meter box installation shall maintain a minimum 18-inch horizontal edge-to-edge clearance from driveways and/or drive paths, sidewalks or bike paths.
  - Only JCSA personnel are authorized to operate valves on existing JCSA water mains and sanitary force mains.
  - Any existing unused well(s) shall be abandoned in accordance with State Private Well Regulations and James City County Code.
  - Bedding of JCSA utilities shall be in accordance with HRPDC Detail EW\_01.
  - No trees, shrubs, fences or obstacles shall be placed within a JCSA easement which would render the easement inaccessible by equipment. Shrubs shall be a minimum of 5-feet, and trees a minimum of 10-feet, from the center of water and sanitary sewer pipelines.
  - Joint restraint shall be provided in accordance with minimum requirements of JCSA detail JR.1, unless shown otherwise on the plans. All pressure pipelines shall have joint restraints.
  - Proposed water and sanitary sewer systems shall maintain a minimum horizontal separation of 5-feet from other utilities and structures, including but not limited to storm sewers, street lights, etc. Water and sanitary sewer facilities shall have a minimum 10-foot horizontal edge-to-edge separation.
  - Any proposed backflow prevention device and/or grease trap must be inspected by the JCSA Utility Special Projects Coordinator at (757) 259-4138.
  - Plumbing inside of proposed buildings must be inspected by JCSA's Utility Projects Special Coordinator at (757) 259-4138, for potential cross connections. Any cross connections must be protected by the appropriate backflow prevention device(s).
  - Easements denoted as "JCSA Utility Easements" are for the exclusive use of the James City Service Authority and the property owner. Other utility service providers desiring to use these easements with the exception of perpendicular utility crossings must obtain authorization for access and use from JCSA and the property owner. Additionally, JCSA shall not be held responsible for any damage to improvements within this easement, from any cause.
  - JCSA shall not be held responsible for any pavement settlement due to pipe bedding, backfilling, backfill materials or compaction for Water or Sanitary Sewer facilities for this project.
  - Fire hydrants to be installed within existing or proposed VDOT right-of-ways shall be located in accordance with VDOT Requirements.

**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER  
STONEHOUSE MAGISTERIAL DISTRICT  
DETAIL SHEET**

Virginia  
James City County

NO.	DATE	REVISION / COMMENT / NOTE
1	3/8/13	REV PER JCC LTR DTD 2/19/13

SCALE: 1" = 20'  
DATE: 1/21308  
JOB: 12-314  
DRAWN BY: KMJ  
SHEET: C14 OF 16

RECORD MERIDIAN  
INST. #070033149

OPEN SPACE  
CONSERVATION  
EASEMENT  
(DOC # 070033149)

100' RPA  
BUFFER

EXISTING 60'  
DRAINAGE EASEMENT  
(DOC #00013041)

N/F  
CROWN CASTLE  
GT COMPANY L.L.C.  
INST. #010018646  
P.B. 42 PG. 36  
PARCEL ID: 1240100013G

N/F  
JAMES CITY SERVICE AUTHORITY  
INST. #000021875  
P.B. 79 PG. 46  
PARCEL ID: 1240100013F  
WELL FACILITY: W-1-C

N/F  
JAMES CITY COUNTY  
INST. #050020704  
PARCEL ID: 1240100013H

ONE-STORY RETAIL  
WAREHOUSE BLDG

PS CONTROL

INDUSTRIAL BOULEVARD RT #754  
(100' R/W)

QP-1  
(WEST)

PT-7  
(3-WEST, 4-BLDG)

IG-18  
(BLDG)

QP-1  
(WEST)

AR-1  
(EAST)

MS-2  
(WEST)

MC-17

PT-6

IV2-2

IG-10

IV-6

QP-1

IG-13  
QP-2

LC-6

MS-6

AR-1

IV2-1

IG-5

IV-3

IG-7

IV2-1

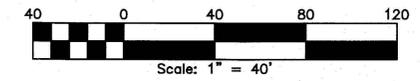
IV-4

PT-2

QP-6

MC-18

PT-3



NO.	DATE	REVISION / COMMENT / NOTE
1	3/08/13	REVISIONS PER JCC COMMENTS



3240 Westover Ridge  
Village Lane  
Williamsburg, VA 23188  
757.562.2306  
www.greenspringsLA.com

**GREENSPRINGS**  
LANDSCAPE ARCHITECTURE

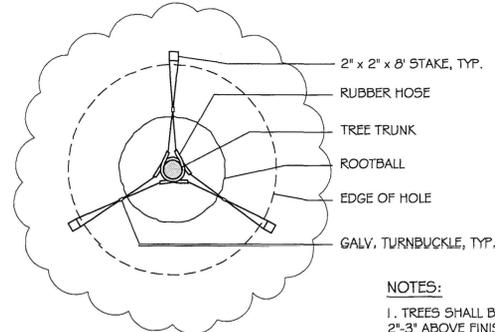
SCALE: 1" = 40'  
DATE: 1/30/13  
GLA JOB: 13-04  
LT JOB: 12-314  
DRAWN BY: CMB  
SHEET: L1 OF 16

**SITE PLAN OF PARCEL 12  
IN JACOBS INDUSTRIAL CENTER**  
STONEHOUSE MAGISTERIAL DISTRICT  
LANDSCAPE PLAN

James City County  
Virginia

# JAMES CITY COUNTY LANDSCAPE REQUIREMENTS

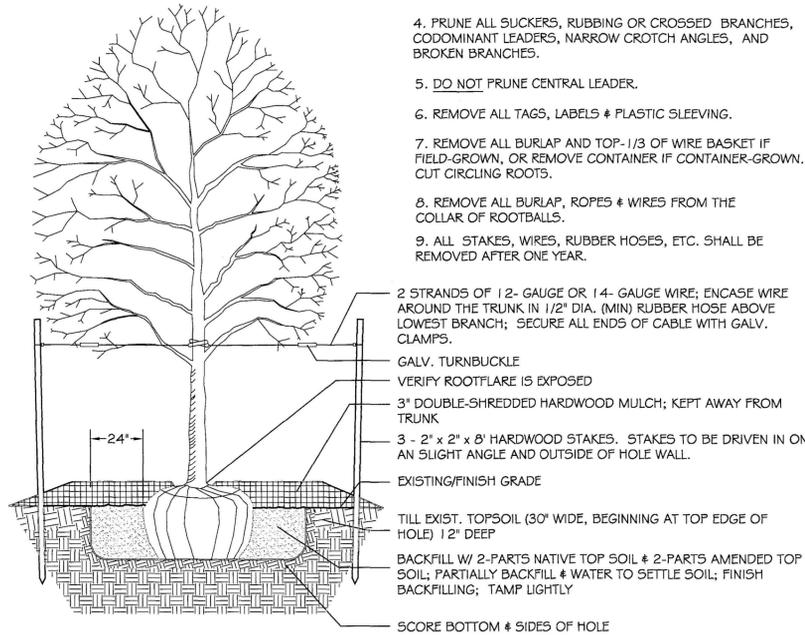
AREAS		TREES AND SHRUBS			
LANDSCAPE YARD	REQ'D AREA	RATIO	REQUIRED PLANTING	PROVIDED PLANTING	
30' FRONT YARD	9,907 SQ.FT.	1 TREE/400 SQ.FT. AND 3 SHRUBS/400 SQ.FT.	25 TREES 40% 10 DECIDUOUS SHADE 15-25" 6 ORNAMENTAL 35% 26 EVERGREEN	25 TREES 10 DECIDUOUS SHADE 6 ORNAMENTAL 9 1/2 EVERGREEN	
15' SIDE YARD (EAST)	1,198 SQ.FT.	1 TREE/600 SQ.FT.	2 TREES	2 TREES	1 DECIDUOUS SHADE 2 ORNAMENTAL 2 1/2 EVERGREEN
15' SIDE YARD (WEST)	4,808 SQ.FT.	1 TREE/600 SQ.FT.	8 TREES 40% 3 DECIDUOUS SHADE 15-25" 2 ORNAMENTAL 35% 3 1/2 EVERGREEN	8 TREES 3 DECIDUOUS SHADE 2 ORNAMENTAL 3 1/2 EVERGREEN	
15' REAR YARD	n/a	THE REAR YARD OF THE PROPERTY IS LOCATED IN AN R.P.A. AND SHALL REMAIN IN ITS NATURAL, UNDISTURBED STATE.			
10' BLDG PERIMETER (BLDG)	2,800 SQ.FT.	1 TREE OR 5 SHRUBS/200 SQ.FT.	14 TREES OR 70 SHRUBS	4 TREES AND 50 SHRUBS	



PLAN VIEW FOR STAKING

**NOTES:**

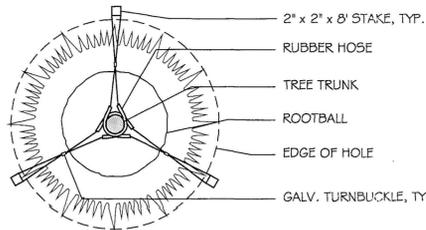
- TREES SHALL BE PLANTED SO TOP OF ROOTBALL IS 2'-3" ABOVE FINISH GRADE.
- DEPTH OF HOLE SHALL BE NO GREATER THAN ROOTBALL DEPTH.
- TREE SHALL BE INSTALLED PLUMB, STRAIGHT & FACED.
- PRUNE ALL SUCKERS, RUBBING OR CROSSED BRANCHES, CODOMINANT LEADERS, NARROW CROTCH ANGLES, AND BROKEN BRANCHES.
- DO NOT PRUNE CENTRAL LEADER.
- REMOVE ALL TAGS, LABELS & PLASTIC SLEEVING.
- REMOVE ALL BURLAP AND TOP-1/3 OF WIRE BASKET IF FIELD-GROWN, OR REMOVE CONTAINER IF CONTAINER-GROWN. CUT CIRCLING ROOTS.
- REMOVE ALL BURLAP, ROPES & WIRES FROM THE COLLAR OF ROOTBALLS.
- ALL STAKES, WIRES, RUBBER HOSES, ETC. SHALL BE REMOVED AFTER ONE YEAR.



SECTION VIEW

## DECIDUOUS TREE PLANTING

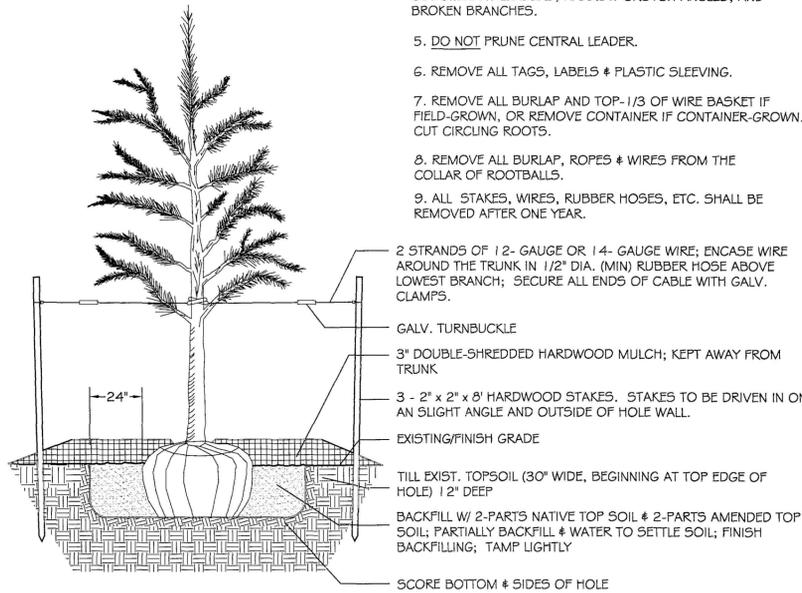
NOT TO SCALE



PLAN VIEW FOR STAKING

**NOTES:**

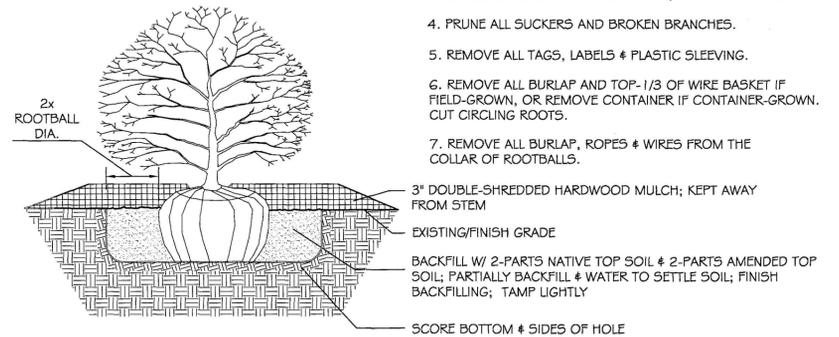
- TREES SHALL BE PLANTED SO TOP OF ROOTBALL IS 2'-3" ABOVE FINISH GRADE.
- DEPTH OF HOLE SHALL BE NO GREATER THAN ROOTBALL DEPTH.
- TREE SHALL BE INSTALLED PLUMB, STRAIGHT & FACED.
- PRUNE ALL SUCKERS, RUBBING OR CROSSED BRANCHES, CODOMINANT LEADERS, NARROW CROTCH ANGLES, AND BROKEN BRANCHES.
- DO NOT PRUNE CENTRAL LEADER.
- REMOVE ALL TAGS, LABELS & PLASTIC SLEEVING.
- REMOVE ALL BURLAP AND TOP-1/3 OF WIRE BASKET IF FIELD-GROWN, OR REMOVE CONTAINER IF CONTAINER-GROWN. CUT CIRCLING ROOTS.
- REMOVE ALL BURLAP, ROPES & WIRES FROM THE COLLAR OF ROOTBALLS.
- ALL STAKES, WIRES, RUBBER HOSES, ETC. SHALL BE REMOVED AFTER ONE YEAR.



SECTION VIEW

## EVERGREEN TREE PLANTING

NOT TO SCALE



SECTION VIEW

## SHRUB PLANTING

NOT TO SCALE

# PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENT
<b>TREES:</b>						
AR	3	ACER RUBRUM 'JAMESTOWN'	JAMESTOWN' RED MAPLE	1-1/2" CAL.	B # B	SINGLE STEM
QP	11	QUERCUS PHELLOS	WILLOW OAK	8' HT.	B # B	SINGLE STEM
PT	18	PINUS TAEDA	LOBLOLLY PINE	8' HT.	B # B	SINGLE STEM
<b>ORNAMENTAL TREES:</b>						
MxS	8	MAGNOLIA x 'SOULANGIANA'	SAUCER MAGNOLIA	8' HT.	B # B	SINGLE STEM
<b>SHRUBS:</b>						
IG	66	ILEX GLABRA 'SHAMROCK'	'SHAMROCK' INKBERRY HOLLY	18-24' HT / W	CONT.	DENSE, FULL
IV	13	ILEX VERTICILLATA 'RED SPRITE'	'RED SPRITE' WINTERBERRY	24-30' HT / W	CONT.	DENSE, FULL
IV2	4	ILEX VERTICILLATA 'SOUTHERN GENTLEMAN'	'SOUTHERN GENTLEMAN' MALE WINTERBERRY	24-30' HT / W	CONT.	DENSE, FULL
LC	6	LOROPETALUM CHINENSIS 'PURPLE PIXIE'	'PURPLE PIXIE' LOROPETALUM	24-30' HT / W	CONT.	DENSE, FULL
MC	35	MYRICA CERIFERA	SOUTHERN WAXMYRTLE	18-24' HT / W	CONT.	DENSE, FULL

**GENERAL NOTES:**

- ALL PLANT MATERIALS SHALL MEET THE MINIMUM STANDARDS & SPECIFICATIONS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANT MATERIAL SHALL BE INSTALLED AS SPECIFIED IN THE "NLA STANDARDIZED LANDSCAPE SPECIFICATIONS", LATEST EDITION.
- THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTING SHOWN ON THE DRAWINGS. WHERE DISCREPANCIES EXIST BETWEEN THE PLANS & THE PLANT LIST, THE PLANS SHALL TAKE PRECEDENCE. IN THE EVENT WHERE A BASEMAP DISCREPANCY AFFECTS PLANT QUANTITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OR LANDSCAPE ARCHITECT PRIOR TO COMPLETING INSTALLATION.
- AREAS DISTURBED BY CONSTRUCTION ARE TO BE SODDED OR SEEDED WITH A STATE CERTIFIED TURF-TYPE TALL PESCUE VARIETY SELECTED FROM THE FOLLOWING LIST:  
2ND MILLENNIUM, 3RD MILLENNIUM SRP, AVENGER, BINGO, BLACKWATCH, BRAVO, CONSTITUTION, COYOTE II, DAVINCI, DAYTONA, ENDEAVOR, FAITH, FALCON IV, FIDELITY, FIRECRACKER LS, FORTE, GRANDE, GRANDE II, GREENKEEPER WAF, GUARDIAN 2 I, HOUNDDOG 5, HUNTER, INTERNO, JUSTICE, MAGELLAN, MASTERPIECE, MATADOR GT, MONET, PENN 1901, RAFTOR, RAFTOR II, REBEL IV, REBEL EXEDA, REGIMENT II, SPYDER LS, TAOS, TARHEEL II, TEMPEST, TITANIUM, TOMSTONE, TURBO, WATCHDOG, WOLFPACK.
- GROUPINGS OF PLANTS SHALL BE MULCHED IN CONTINUOUS BEDS.
- ALL INSTALLED PLANT MATERIAL SHALL BE SUBJECT TO REGULAR MAINTENANCE, INCLUDING WATERING, MULCHING, FERTILIZING, PRUNING, INSECT & DISEASE CONTROL, AND WEED CONTROL.
- CONTRACTORS ARE RESPONSIBLE FOR LOCATING & AVOIDING UTILITIES & UTILITY EASEMENTS DURING CONSTRUCTION & PLANTING OPERATIONS.

**NOTES:**

- SHRUBS SHALL BE PLANTED SO TOP OF ROOTBALL IS 2'-3" ABOVE FINISH GRADE.
- DEPTH OF HOLE SHALL BE NO GREATER THAN ROOTBALL DEPTH.
- SHRUB SHALL BE INSTALLED PLUMB, STRAIGHT & FACED.
- PRUNE ALL SUCKERS AND BROKEN BRANCHES.
- REMOVE ALL TAGS, LABELS & PLASTIC SLEEVING.
- REMOVE ALL BURLAP AND TOP-1/3 OF WIRE BASKET IF FIELD-GROWN, OR REMOVE CONTAINER IF CONTAINER-GROWN. CUT CIRCLING ROOTS.
- REMOVE ALL BURLAP, ROPES & WIRES FROM THE COLLAR OF ROOTBALLS.
- 3" DOUBLE-SHREDDED HARDWOOD MULCH; KEPT AWAY FROM STEM
- EXISTING/FINISH GRADE
- BACKFILL W/ 2-PARTS NATIVE TOP SOIL & 2-PARTS AMENDED TOP SOIL; PARTIALLY BACKFILL & WATER TO SETTLE SOIL; FINISH BACKFILLING; TAMP LIGHTLY
- SCORE BOTTOM & SIDES OF HOLE

**SITE PLAN OF PARCEL 12**  
**IN JACOBS INDUSTRIAL CENTER**  
 STONEHOUSE MAGISTERIAL DISTRICT  
 LANDSCAPE NOTES

NO.	DATE	REVISION / COMMENT / NOTE
1	3/08/13	REVISIONS PER JCC COMMENTS



2340 Westover Ridge  
 Williamsburg, VA 23188  
**GREENSPRINGS**  
 LANDSCAPE ARCHITECTURE www.greenspringsLA.com  
 757.565.2300

SCALE: 1" = 40'  
 DATE: 1/30/13  
 GLA JOB: 13-04  
 LT JOB: 12-314  
 DRAWN BY: CMB  
 SHEET: L2 OF 16

18 WEST FRANKLIN STREET  
RICHMOND, VIRGINIA 23220  
804-649-2192

**ISSUED 17 SEPTEMBER 1992**

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**REVISED**

① 12-8-92	△
② 12-16-92	△
△	△
△	△
△	△

GRADE  
RADE

TAX MAP & PARCEL NO.  
12-(32) 1-(27)

PARKING SPACES

New Spaces Required: 7.3  
Spaces Lost Due to New Construction: 6  
Number of New Spaces Provided: 19 △  
Net Gain: 13 △  
NEW PAVING: 2897 SF

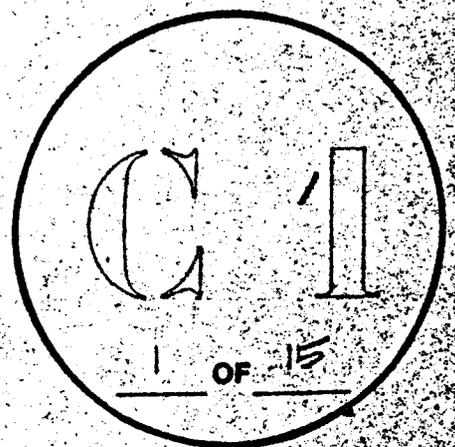
LAND USE CALCULATIONS

Zoning of Site: B - 1  
Total Site Area: 113,531.2 S.F.  
Amount of Site Covered by Existing Buildings: 6,468.75 S.F.  
Amount of Site Covered by New Construction: 1,820 S.F.  
Total Amount of Site Covered by Buildings: 8,288.75 S.F.  
Percent of Site Covered by Existing Buildings: 5.7%  
Percent of Site Covered by New Construction: 1.5%  
Total Percent of Site Covered by Buildings: 7.3%  
Total Amount of Site Covered by Open Space: 105,242.4 S.F.  
Percent of Site Covered by Open Space: 92.6%  
Floor Area of Existing Building: 6,468.75 S.F.  
Floor Area of New Construction: 1,820 S.F.  
Total Floor Area of Completed Building: 8,288.75 S.F.  
Height of Each Existing Building: 1 Story  
Height of New Construction: 1 Story  
Number of Floors on Each Existing Building: 1  
Number of Floors in New Construction: 1

SP-66-92

SITE PLAN  
VICINITY MAP  
EROSION AND  
SEDIMENT NOTES

PROJ. NO. **9111**



Apply to this project.

measures shall be installed with the "Virginia Erosion and Sedimentation Control Act". The contractor shall be responsible for applicable measures contained in the specifications to this project.

Access and egress shall be maintained to prevent the closure of roads. An entrance permit shall be obtained for any construction activities.

After dikes, sediment barriers, and silt fences are installed, sediment on-site must be controlled and be made functional as soon as possible.

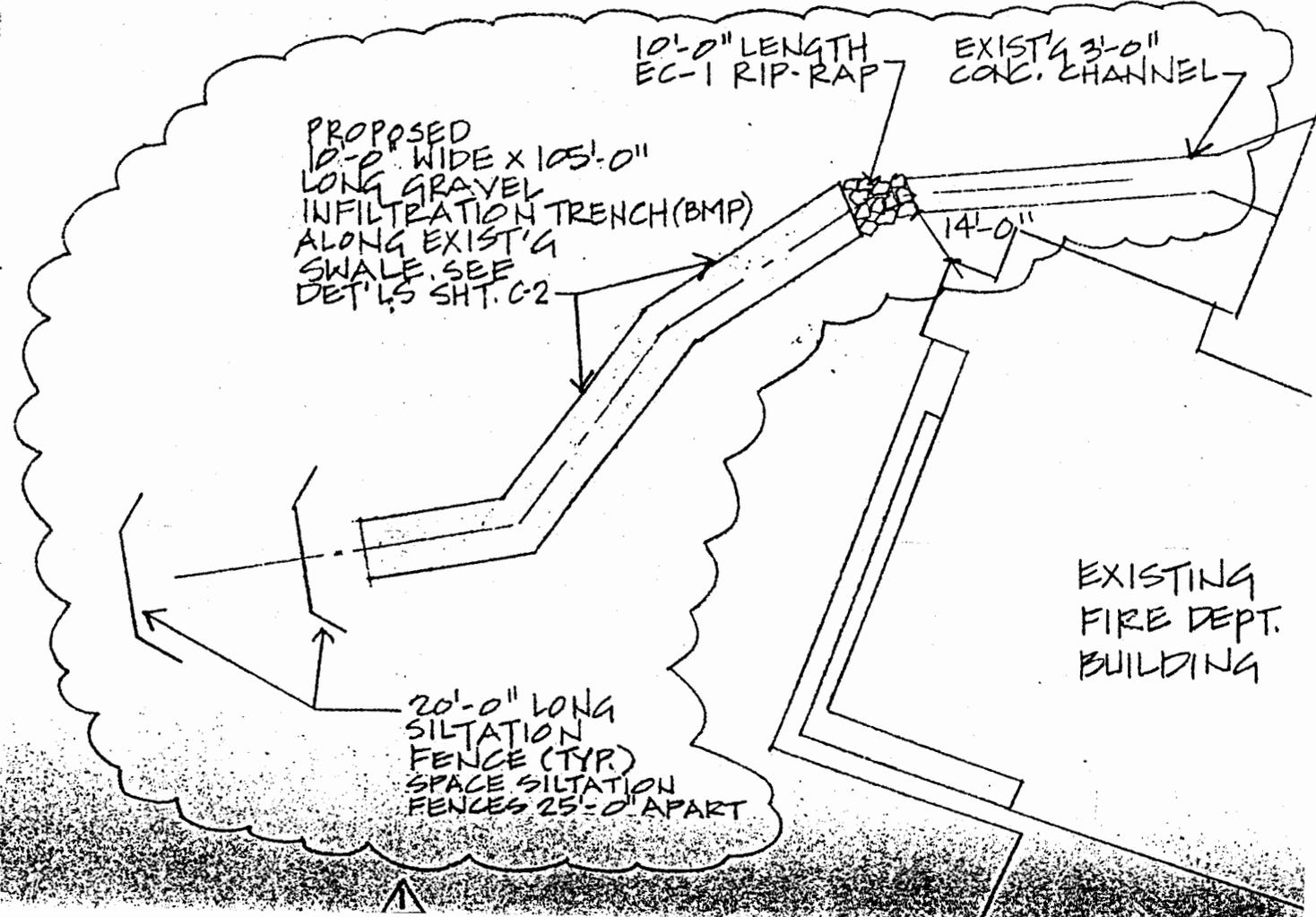
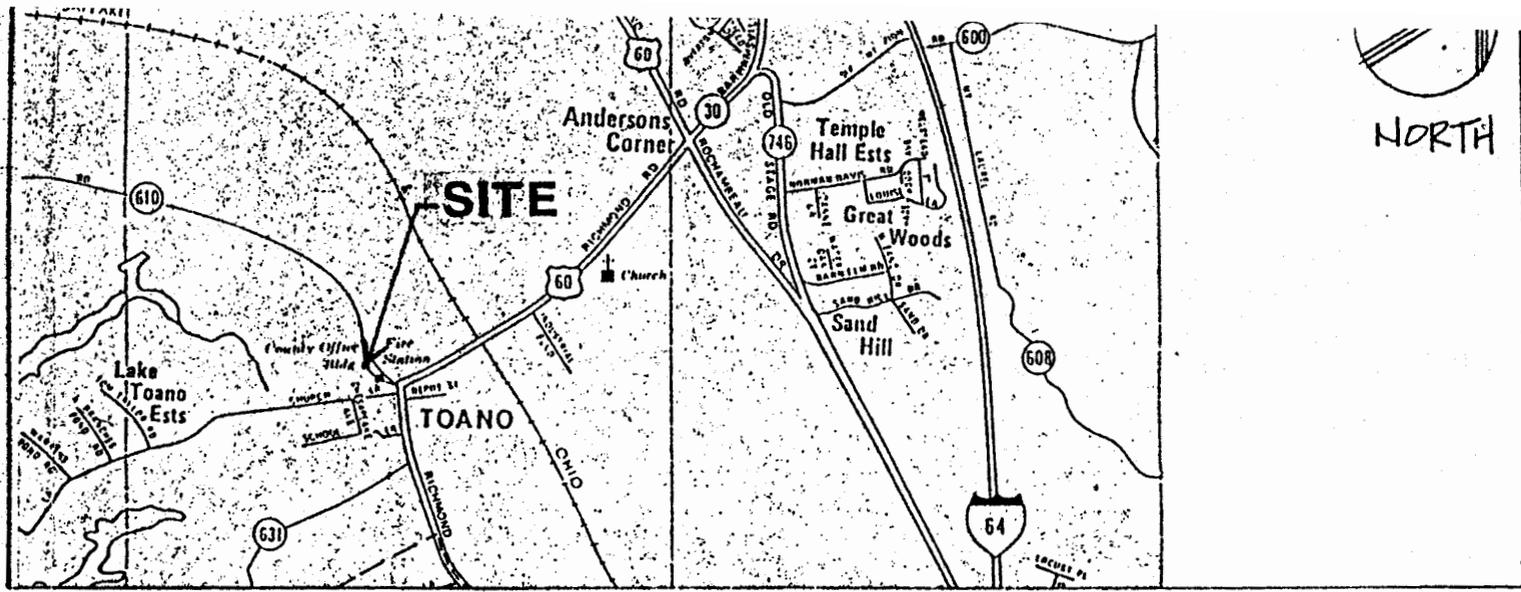
Sediment control measures shall not be damaged by any subcontractor or utility companies. At the start of construction, the contractor will supply Code of Ordinances to the individual who will be responsible for installed measures on-site.

Require minor field adjustments to ensure their intended purpose. A Compliance approval will be required from the approved plans.

Stockpiles at the locations specified by the engineer. Soil shall be protected with sediment control measures.

Stabilization must be applied to exposed soil after final grade is reached. Soil stabilization must also be applied to exposed soil (not at final grade but exposed) for longer than 30 days. Provide vegetative establishment, and removal of gravel base material on exposed soil.

Stabilization is to be accomplished during the month of January, or February, stabilization shall be completed in accordance with Specification 201.01. Stabilization shall be in place as soon as the season allows.



EM

JAMES

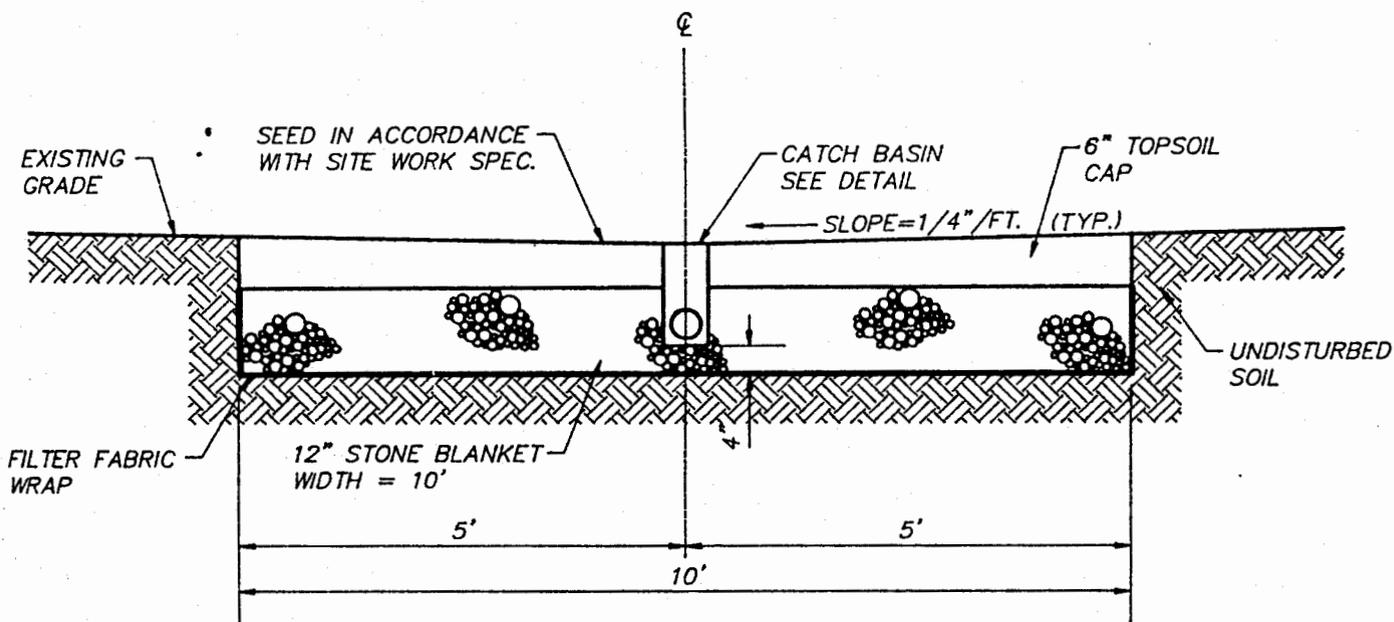
THE  
DEPASQUALE  
GENTILHOMME  
G • R • O • U • P

A PROFESSIONAL CORPORATION

ARCHITECTS  
& PLANNERS

18 WEST FRANKLIN STREET  
RICHMOND, VIRGINIA 23220  
804-649-2192

ISSUED 8 DECEMBER 16



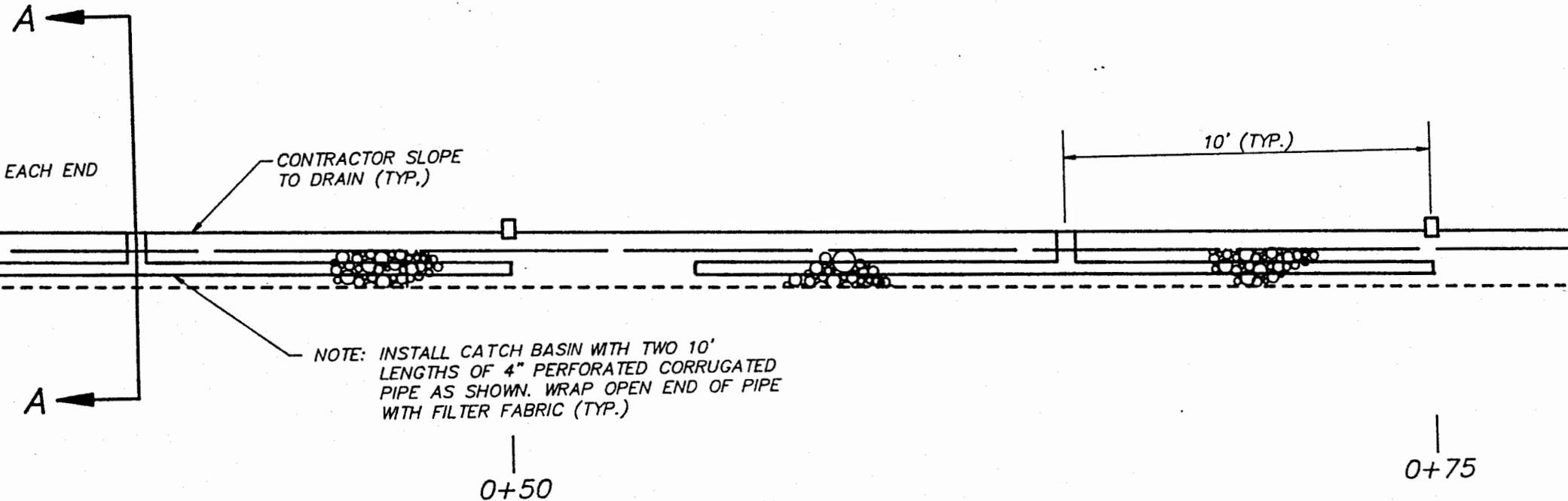
STONE BLANKET SHALL BE VDOT #57 WASHED  
STONE WRAPPED WITH FILTER FABRIC.

FILTER FABRIC SHALL BE AMOCO 4545 OR  
APPROVED EQUAL

CATCH BASIN SHALL BE NDS-50 FOR 6" GRATE  
TOP WITH TWO 4" OUTLETS OR  
APPROVED EQUAL.

**SECTION A-A**

NO SCALE



PROFILE INFILTRATION TRENCH



WC009

# EOC Bldg EXPANSION

Site = 113,531 SF

TOTAL Bldg Area = 8289 ft<sup>2</sup> or 7.3%

New Paving = 3425 SF

Ex PAVING = 105 x 155 + 25 x 70 + 90 x 125 = 29,275 ft<sup>2</sup>

Plus what is <sup>in front +</sup> behind Ex Fire Station

37,564 + " " " " " "

~~TOTAL ≈ 50,000 ft<sup>2</sup> impervious area~~

~~50,000 ft<sup>2</sup> ×  $\frac{1}{12}$  = 4166 ft<sup>3</sup> trenches~~

New Imp Area = 5245 ft<sup>2</sup> - SUP if in RPOD.

Area by Fire Station

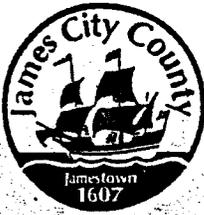
$$(1'' \times 1.5'') + (1.7' \times 2.5') + (2.3' \times 1.7') + = 9.66 \text{ in}^2 \times 58 \times 58 = 32,496 \text{ ft}^2$$

TOTAL IMP = 32,500 + 8289 + 3425 + 29,275 = 73,489 ft<sup>2</sup> ≈ 1.7 ac  
or 22% Imp.

## BMP

$$5000 \times \frac{1}{12} \times = 416 \text{ ft}^3 / 0.4 = \underline{1040 \text{ ft}^3}$$

3' x 4' x 87'



JAMES CITY COUNTY - ENVIRONMENTAL DIVISION

Office Phone: 757-253-6670

Fax Number: 757-259-4032

DATE SENT: 5/07/04

Name: JASON GRIMES  
 Firm or Company: AES  
 Facsimile Number: 220-8994  
 Number of pages including this transmittal: 11  
 From: Scott J. Thomas

James City County  
 P O Box 8784  
 Williamsburg VA 23187-8784

Comments:  
1. Revised Ches Bay Ordinance - REDEV  
2. BMP Information - EOC Expansion WC 009

If you do not receive all pages, call 757-253-6670 as soon as possible

SENDING IN  
2 PARTS

RE: NEW  
2004  
EOC  
EXPANSION

PROTECTING RESOURCES  
**PRIDE**

IN DELICATE ENVIRONMENTS

WC009\_EOC\_BLDG\_INFIL\_TRENCH - 011



SCOTT J. THOMAS, P.E.  
SENIOR ENGINEER

ENVIRONMENTAL DIVISION

101 MOUNTS BAY ROAD, P.O. BOX 8784  
 WILLIAMSBURG, VIRGINIA 23187-8784

(757) 253-6639  
 FAX: (757) 259-4032

E-MAIL: scottt@james-city.va.us

Date Record Created:

WS\_BMPNO:

Print Form

Created By:

WC009

**PRINTED ON:  
Friday, March 12, 2010  
1:00:01 PM**

**WATERSHED** WC  
**BMP ID NO** 009  
**PLAN NO** SP-66-92  
**TAX PARCEL** (12-3)(1-27C)  
**PIN NO** 12301000027C  
**CONSTRUCTION DATE** 12/16/1992  
**PROJECT NAME** JCC - Emerg Oper Center Exp.  
**FACILITY LOCATION** 3135 Forge Road  
**CITY-STATE** Toano, VA  
**CURRENT OWNER** James City County  
**OWNER ADDRESS** PO Box 8784  
**OWNER ADDRESS 2**  
**CITY-STATE-ZIP CODE** Williamsburg, VA 23187  
**OWNER PHONE**  
**MAINT AGREEMENT** No  
**EMERG ACTION PLAN** No

**MAINTENANCE PLAN**

**SITE AREA acre**

No

2.6

**LAND USE**

Public

**old BMP TYP**

Infiltration Trench

**JCC BMP CODE**

C1 Infiltration Trench .5

**POINT VALUE**

9

**SVC DRAIN AREA acres**

2.6

**SERVICE AREA DESCRI**

EOC and Fire Station

**IMPERV AREA acres**

**RECV STREAM**

UT to Ware Creek

**EXT DET-WQ-CTRL**

No

**WTR QUAL VOL acre-ft**

0.02

**CHAN PROT CTRL**

No

**CHAN PROT VOL acre-ft**

0

**SW/FLOOD CONTROL**

No

**GEOTECH REPORT**

No

**CTRL STRUC DESC**

**CTRL STRUC SIZE inches**

**OTLT BARRL DESC**

Corr PE Perf

**OTLT BARRL SIZE inch**

4

**EMERG SPILLWAY**

No

**DESIGN HW ELEV**

**PERM POOL ELEV**

**2-YR OUTFLOW cfs**

**10-YR OUTFLOW cfs**

**REC DRAWING**

No

**CONSTR CERTIF**

No

**LAST INSP DATE** 8/10/2004

**Inspected by:**

**INTERNAL RATING** 2

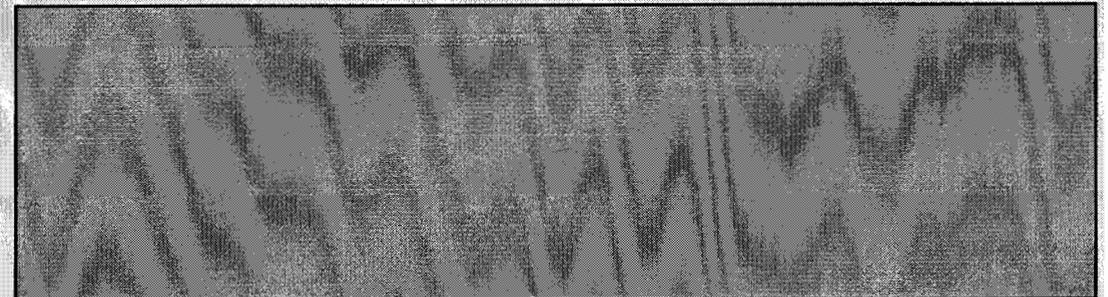
**MISC/COMMENTS**

10' x 105' w x 12" deep stone trench.

Get Last BMP No

Return to Menu

Additional Comments:



**Sec. 23-6. Lot size.**

Lot size shall be subject to the requirements of the zoning ordinance; provided, that any lot shall have sufficient area outside the RPA to accommodate an intended use, in accordance with performance standards in section 23-9, when this use is not otherwise allowed in the RPA. (Ord. No. 183, 8-6-90)

Cross reference-Zoning, Ch. 24.

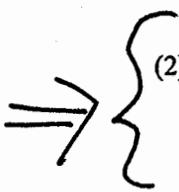
**Sec. 23-7. Development criteria for resource protection areas.**

In addition to the general performance criteria set forth in section 23-9, the criteria in this section are applicable in Resource Protection Areas.

(a) Development in RPAs may be allowed only when permitted by the manager and if it (i) is water dependent; (ii) constitutes redevelopment; (iii) is a new use subject to the provisions of subsection (c)(2) of this section; (iv) is a road or driveway crossing satisfying the conditions set forth in subdivision (3) of this section; or (v) is a flood control or stormwater management facility satisfying the conditions set forth in subdivision (4) of this section.

(1) A new or expanded water dependent facility may be allowed provided that the following criteria are met:

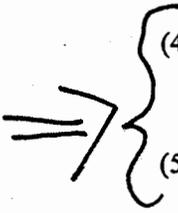
- a. It does not conflict with either the comprehensive plan or any applicable approved watershed management plan;
- b. It complies with the performance criteria set forth in section 23-9 of this chapter;
- c. Any nonwater - dependent component is located outside of the RPA; and
- d. Access to the water-dependent facility will be provided with the minimum disturbance necessary. Where practicable, a single point of access will be provided.

 (2) Redevelopment on isolated redevelopment sites shall be permitted only if there is no increase in the amount of impervious cover and no further encroachment within the RPA and it shall conform to sections 23-9(b)(4) and (5), and the stormwater management requirements outlined under section 23-9(b)(8) of this chapter.

(3) Roads and driveways not exempt under section 23-13 and which, therefore, must comply with the provisions of this chapter, may be constructed in or across RPAs if each of the following conditions are met:

- a. The manager makes a finding that there are no reasonable alternatives to aligning the road or drive in or across the RPA, and;
- b. The alignment and design of the road or driveway are optimized, consistent with other applicable requirements, to minimize encroachment in the RPA and minimize adverse effects on water quality, and;

Supp. No. 14, 2-04

- 
- (3) Land development shall minimize impervious cover to promote infiltration of stormwater into the ground consistent with the proposed use or development permitted.
- (4) All development and redevelopment exceeding 2,500 square feet of land disturbance shall be subject to a plan of development review process conducted in accordance with section 23-10 of this chapter.
- (5) Any land-disturbing activity exceeding 2,500 square feet, including construction of all single-family houses, and septic tanks and drainfields shall comply with the requirements of chapter 8 of this Code.
- (6) All on-site sewage disposal systems not requiring a NPDES permit shall be pumped out at least once every five years. However, in lieu of requiring proof of septic tank pump-out every five years, owners of on-site sewage disposal systems can submit documentation every five years, certified by a sewage handler permitted by the Virginia Department of Health, that the septic system has been inspected, is functioning properly, and the tank does not need to have the effluent pumped out of it.
- (7) A reserve sewage disposal site, with a capacity at least equal to that of the primary sewage disposal site, shall be provided. This requirement shall not apply to any lot or parcel recorded prior to August 6, 1990, if such lot or parcel is not sufficient in capacity to accommodate a reserve sewage disposal site, as determined by the local health department. Building or construction of any impervious surface shall be prohibited on the area of all sewage disposal sites or on an on-site sewage treatment system which operates under a permit issued by the State Water Control Board until the structure is served by public sewer.
- (8) For any development or redevelopment, stormwater runoff shall be controlled by the use of BMPs that are consistent with the water quality protection provisions (4 VAC 3-20-71 et seq.) of the Virginia Stormwater Management Regulations (4 VAC 3-20). This consistency shall be demonstrated by compliance with the criteria and BMP facilities contained in the latest version of the James City County Guidelines for Design and Construction of Stormwater Management BMPs. In addition, increases in the quantity of stormwater runoff resulting from development or redevelopment shall be addressed by the requirements of chapter 8 of the County Code.
- a. If compliance for a development is based in whole or part on the use of existing downstream onsite or offsite structural BMPs, evidence shall be provided that facilities are currently in good working order and performing at the design levels of service. The manager may require a review of both the original design and maintenance plans to verify this provision. A new maintenance agreement may be required to ensure compliance with this chapter;
- (9) Prior to initiating grading or other on-site activities on any portion of a lot or parcel, all wetlands permits required by federal, state and county laws and regulations shall be obtained and evidence of such submitted to the manager. For those projects where no wetlands are proposed to be impacted or where the impacts do not require written authorization, documentation shall be submitted to the manager by a qualified wetlands professional attesting that the wetlands permitting process has been completed and no further documentation is necessary from the regulatory agencies.
- (10) All lands upon which agricultural activities are being conducted shall undergo a soil and water quality conservation assessment. Such assessment shall evaluate the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management and management of

- (3) Land development shall minimize impervious cover to promote infiltration of stormwater into the ground consistent with the proposed use or development permitted.
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ATTACHED

 **4 VAC 3-20-71. Water quality.**

A. Compliance with the water quality criteria may be achieved by applying the performance-based criteria or the technology-based criteria to either the site or a planning area.

B. Performance-based criteria. For land development, the calculated post-development nonpoint source pollutant runoff load shall be compared to the calculated pre-development load based upon the average land cover condition or the existing site condition. A BMP shall be located, designed, and maintained to achieve the target pollutant removal efficiencies specified in Table 1 to effectively reduce the pollutant load to the required level based upon the following four applicable land development situations for which the performance criteria apply:

1. Situation 1 consists of land development where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover which is less than the average land cover condition.

Requirement: No reduction in the after development pollutant discharge is required.

2. Situation 2 consists of land development where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover which is greater than the average land cover condition.

Requirement: The pollutant discharge after development shall not exceed the existing pollutant discharge based on the average land cover condition.

3. Situation 3 consists of land development where the existing percent impervious cover is greater than the average land cover condition.

Requirement: The pollutant discharge after development shall not exceed (i) the pollutant discharge based on existing conditions less 10% or (ii) the pollutant discharge based on the average land cover condition, whichever is greater.

4. Situation 4 consists of land development where the existing percent impervious cover is served by an existing stormwater management BMP that addresses water quality.

Requirement: The pollutant discharge after development shall not exceed the existing pollutant discharge based on the existing percent impervious cover while served by the existing BMP. The existing BMP shall be shown to have been designed and constructed in accordance with proper design standards and specifications, and to be in proper functioning condition.

C. Technology-based criteria. For land development, the post-developed stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the post-developed condition percent impervious cover as specified in Table 1. The selected BMP shall be located, designed, and maintained to perform at the target pollutant removal efficiency specified in Table 1. Design standards and specifications for the BMPs in Table 1 which meet the required target pollutant removal efficiency will be available at the department.

Table 1\*

Water Quality BMP	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed swale	15%	
Constructed wetlands	30%	
Extended detention (2 x WQ Vol)	35%	22 -37%
Retention basin I (3 x WQ Vol)	40%	
Bioretention basin	50%	
Bioretention filter	50%	
Extended detention-enhanced	50%	38 -66%
Retention basin II (4 x WQ Vol)	50%	
Infiltration (1 x WQ Vol)	50%	
Sand filter	65%	
Infiltration (2 x WQ Vol)	65%	67 -100%
Retention basin III (4 x WQ Vol with aquatic bench)	65%	

\* Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or the Department. Innovative or alternate BMPs not included in this table which target appropriate nonpoint source pollution other than phosphorous may be allowed at the discretion of the local program administrator or the Department.

**4 VAC 3-20-81. Stream channel erosion.**

A. Properties and receiving waterways downstream of any land development project shall be protected from erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff in accordance with the minimum design standards set out in this section.

B. The plan approving authority shall require compliance with subdivision 19 of 4 VAC 50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant to Article 4 (§ 10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia. *ms#19*

C. The plan approving authority may determine that some watersheds or receiving stream systems require enhanced criteria in order to address the increased frequency of bankfull flow conditions brought on by land development projects. Therefore, in lieu of the reduction of the 2-year post-developed peak rate of runoff as required in subsection B of this section, the land development project being considered shall provide 24-hour extended detention of the runoff generated by the 1-year, 24-hour duration storm.

**TRANSMITTAL**

**DATE:** April 18, 2013

**TO:** Records Management  
Fire Department  
Engineering and Resource Protection  
JCSA  
VDOT  
Stormwater Division

**FROM:** Jose Ribeiro, Senior Planner

**SUBJECT:** SP-0008-2013, Creative Cabinet Works-Jacobs Industrial Center Parcel 12

**TAX ID:** 1240100013 - *parent parcel*

**ACTION:** For your files.

*Drains  
to off site  
BMP# WC110  
and BMP# WC009*