

PLN/TEC: 7/22/2014, 10:45:51 AM  
DATE: 7/22/2014 9:48:15 AM  
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### SITE DATA

- CONTRACT OWNER / DEVELOPER:**  
HPOC PARTNERS LLC  
P.O. BOX 652  
VIRGINIA BEACH, VA 23451  
PHONE: (757) 321-1710  
FAX:  
ATT: HUGH TIERNEY  
htierney@empiredevelopment.net
- ENGINEER:**  
BURGESS & NIPLE  
4112 INNSLAKE DRIVE  
GLEN ALLEN, VA 23060  
PHONE (804) 320-2667 - FAX (804) 323-5131  
ATT: ALVIN (SPUD) MISTR  
spud.mistr@burgessniple.com
- GPIN #:** 782-753-6258
- ADDRESS:** VILLA PARK DRIVE
- ACREAGE:** 4.214 ACRES
- ZONING:** O-S (C-87C-86)
- PROPOSED USE:** OFFICE
- PREVIOUS APPROVAL:**  
A. POD # \_\_\_\_\_  
B. ADMINISTRATIVE # \_\_\_\_\_  
C. ZONING CASE # C-87C-86  
D. VARIANCE (BZA) CASE # \_\_\_\_\_  
E. PROVISIONAL USE PERMIT # \_\_\_\_\_  
F. SPECIAL EXCEPTION (CONDITIONAL USE) # \_\_\_\_\_
- UTILITIES:**

COUNTY WATER	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
COUNTY SEWER	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
WELL	YES <input type="checkbox"/>	NO <input type="checkbox"/>
SEPTIC	YES <input type="checkbox"/>	NO <input type="checkbox"/>
OTHER	YES <input type="checkbox"/>	NO <input type="checkbox"/>
- PARKING SCHEDULE:**  
A. # SPACES REQUIRED 26  
B. BASIS FOR PARKING CALCULATIONS  
(1 SPC / 250 SF) x 6400 SF = 26 SPACES REQUIRED  
C. # SPACES PROVIDED 50  
D. # ACCESSIBLE SPACES PROVIDED 2  
INCLUDING 2 VAN ACCESSIBLE  
E. INTERIOR GREENSPACE CALCULATIONS  
(50 SP / 162 SF) = 405 SF. REQUIRED  
# PROVIDED SF. PROVIDED
- PEAK HOUR TRIP GENERATION**
- SPECIAL FLOOD HAZARD AREA INFORMATION**  
SPECIAL FLOOD HAZARD AREA (FLOOD PLAIN)  
YES  NO
- BUILDING INFORMATION**  
A. SQ. FOOTAGE OF BUILDING \_\_\_\_\_  
B. NUMBER OF STORIES \_\_\_\_\_  
C. NUMBER OF UNITS \_\_\_\_\_  
D. CONSTRUCTION TYPE \_\_\_\_\_  
E. SPRINKLERED YES  NO   
F. USE GROUP(S) \_\_\_\_\_  
G. MEDICAL OFFICE YES  NO
- TREE CANOPY CALCULATIONS**
- DENSITY CALCULATIONS**
- OTHER MISCELLANEOUS CALCULATIONS**  
- ENTIRE SITE IS RMA

### SHEET INDEX

- C0.01 OF 12 COVER SHEET
- C1.01 OF 12 EXISTING CONDITIONS
- C1.02 OF 12 PROFFERS AND APPROVAL LETTERS
- C2.01 OF 12 SITE & UTILITY PLAN
- C2.02 OF 12 SITE & UTILITY DETAILS
- C3.01 OF 12 GRADING & DRAINAGE PLAN
- C4.01 OF 12 EROSION CONTROL PLAN - PHASE 1
- C4.02 OF 12 EROSION CONTROL PLAN - PHASE 2
- C5.01 OF 12 STANDARD CONSTRUCTION NOTES AND DETAILS
- C5.02 OF 12 EROSION & SEDIMENT CONTROL - STANDARD DETAILS AND CALCULATIONS
- C5.03 OF 12 EROSION & SEDIMENT CONTROL - STANDARD NOTES
- C6.01 OF 12 CONCEPTUAL LANDSCAPE & LIGHTING PLAN

### GENERAL NOTES

- THE EXISTING TOPO SHOWN ON THESE PLANS IS BASED ON A FIELD SURVEY PERFORMED ON 04-2014 AND IS CERTIFIED BY JONATHAN D. BEHR.
- VERTICAL DATUM: NAVD 88
- BUILDING SETBACK LINES SHALL CONFORM TO CHAPTER 24 OF THE HENRICO COUNTY CODE
- POD APPROVAL GRANTED BY THE PLANNING COMMISSION 00-00-0000.
- ENTIRE SITE IS WITHIN AN RMA.
- ALL OF THIS SITE IS LOCATED IN A CHESAPEAKE BAY PRESERVATION AREA WHICH IS SUBJECT TO THE PROVISIONS OF SECTION 24-106.3 OF CHAPTER 24 OF THE HENRICO COUNTY CODE.
- THIS PROPERTY IS IN FLOOD ZONE AREA "X" (AREAS OF 0.2% CHANCE OF ANNUAL FLOOD) AS DEFINED BY THE EMERGENCY MANAGEMENT AGENCY, COMMUNITY PANEL NUMBER 51087C0065C, EFFECTIVE DATE DECEMBER 18, 2007.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES TO THE PLAN.
- VIRGINIA LAW REQUIRES THE CONTRACTOR NOTIFY MISS UTILITY AT 1-800-552-7001 AT LEAST 48 HRS. PRIOR TO ANY LAND DISTURBANCE. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OR LOCATION OF UNDERGROUND UTILITIES. THE UNDERGROUND UTILITIES SHOWN HEREON WERE ESTABLISHED USING ABOVE GROUND STRUCTURES (VALVES, METERS, MANHOLES, ETC.) AND AVAILABLE UTILITY MAPS. PRIOR TO ANY EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER ALL UTILITIES WHICH ARE SHOWN ON THE PLANS OR WHICH HAVE BEEN MARKED BY MISS UTILITIES AS BEING IN THE AREA OF EXCAVATION OR CONSTRUCTION. THE CONTRACTOR SHALL TAKE VERTICAL AND HORIZONTAL MEASUREMENTS ADEQUATE TO DETERMINE IF ANY CONFLICT WILL OCCUR. IF ANY POTENTIAL CONFLICT IS FOUND, THE CONTRACTOR SHALL NOTIFY THE SITE ENGINEER PRIOR TO BEGINNING ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REINSTALLING AT HIS EXPENSE ANY UTILITY WHICH MUST BE RELOCATED BECAUSE OF A CONFLICT WHICH WAS NOT REPORTED TO THE SITE ENGINEER PRIOR TO THE BEGINNING OF ANY EXCAVATION OR CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST ALL EXISTING VALVES, MANHOLES, FIRE HYDRANTS, ETC. AS MAY BE REQUIRED BY PROPOSED GRADES.
- ALL EXISTING FEATURES IN CONFLICT W/ NEW DEVELOPMENT (eg. PIPE CULVERTS, CURB & GUTTER, etc.) SHALL BE REMOVED AND DISPOSED OF PROPERLY AWAY FROM SITE.
- ALL AREAS NOT PAVED, LANDSCAPED OR UNDER CONSTRUCTION FOR FUTURE DEVELOPMENT SHALL BE SEEDED AND MULCHED WITH STRAW IN ACCORDANCE WITH THE PERMANENT SEEDING STANDARDS IN THE VEASCH, 1992.

### TRAFFIC IMPACT ANALYSIS DEVELOPER'S / ENGINEER'S CERTIFICATION

I HAVE, IN ACCORDANCE WITH SECTION 15.2-2222.1 OF THE CODE OF VIRGINIA AND ITS SUPPORTING REGULATIONS, 24VAC 30-155-50, EXAMINED THE CRITERIA THAT REQUIRE THAT A TRAFFIC IMPACT ANALYSIS BE SUBMITTED TO VDOT VIA THE LOCALITY, IF THE PROPOSAL WILL SUBSTANTIALLY AFFECT TRANSPORTATION ON STATE CONTROLLED HIGHWAYS, AND HAVE DETERMINED THAT THE ABOVE REFERENCED PROPOSAL:

DOES NOT REQUIRE SUBMISSION OF A SUPPLEMENTAL TRAFFIC ANALYSIS (STA) PER 527 REGULATIONS FOR THIS PROPOSED PLAN.

DOES REQUIRE SUBMISSION OF A SUPPLEMENTAL TRAFFIC ANALYSIS (STA) PER 527 REGULATIONS FOR THIS PROPOSED PLAN.

### EROSION CONTROL QUANTITIES (FOR BOND PURPOSES ONLY)

ITEM	QUANTITY	UNIT	UNIT COST	SUB-TOTAL
3.01 ORANGE SAFETY FENCE (TP-1)	0	LF	\$2,200.00	\$0.00
3.02 CONSTRUCTION ENTRANCE	1	EA	\$750.00	\$750.00
3.05 SILT FENCE	0	LF	\$4.00	\$0.00
SUPER SILT FENCE	0	LF	\$4.00	\$0.00
3.07 INLET PROTECTION	0	EA	\$50.00	\$0.00
3.09 TEMPORARY DIVERSION DIKE	0	LF	\$4.00	\$0.00
3.13 TEMPORARY SEDIMENT TRAP	0	CY	\$5.50	\$0.00
3.14 TEMPORARY SEDIMENT BASIN	0	CY	\$5.50	\$0.00
RISER STRUCTURE	0	EA	\$3,000.00	\$0.00
3.18 OUTLET PROTECTION	0	TON	\$20.00	\$0.00
3.38 NON-TEARABLE YELLOW & BLACK BARRICADE TAPE (TP-2)	0	LF	\$1.00	\$0.00
TEMPORARY STOCKPILE	0	CY	\$5.50	\$0.00
LAND DISTURBANCE	0	AC	\$2,122.00	\$0.00

# PLAN OF DEVELOPMENT HCPD - CENTRAL PRECINCT VILLA PARK DRIVE FAIRFIELD DISTRICT HENRICO COUNTY, VIRGINIA



### VICINITY MAP

SCALE 1" = 2000'



THESE WATER AND SEWER PLANS COMPLY WITH THE REQUIREMENTS OF P.O.D. No. 000-00. PROPOSED EASEMENTS AND UTILITY ALIGNMENTS ARE AS SHOWN ON THE P.O.D. NO BMP'S, BERMS, LIGHTING, TREES OR OTHER STRUCTURES SHALL BE PLACED IN WATER OR SEWER EASEMENTS. ANY EXCEPTIONS TO THE STANDARDS OR ANY PROFFERS THAT APPLY TO AREAS OF PROPOSED WATER AND SEWER EASEMENTS ARE LISTED AS FOLLOWS: NONE.

IN ACCORDANCE WITH SEC. 10-36 OF THE CODE OF THE COUNTY OF HENRICO, I HEREBY CERTIFY THAT I AM THE RESPONSIBLE LAND DISTURBER FOR THIS PROJECT AND THAT I HAVE A VALID CERTIFICATION FROM THE STATE OF VIRGINIA.

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
NAME (PRINT)      \_\_\_\_\_  
DATE

### EXCEPTIONS GRANTED

DATE	DEPT(S)	DESCRIPTION

### ENGINEER'S CERTIFICATION

TO THE BEST OF MY KNOWLEDGE, THIS PLAN SATISFIES ALL ZONING CODE REQUIREMENTS, CONDITIONS OF APPROVAL, AND PROFFERS.

\_\_\_\_\_  
SIGNATURE

### REVISIONS TO APPROVED PLANS

NO.	DATE	DESCRIPTION

### DEPARTMENT OF PLANNING APPROVAL BLOCK

APPROVED BY THE COUNTY OF HENRICO  
BOARD OF SUPERVISORS

DATE \_\_\_\_\_ COUNTY MANAGER \_\_\_\_\_

APPROVED BY:  
THE HENRICO COUNTY PLANNING COMMISSION

APPROVED BY:  
THE HENRICO COUNTY PLANNING DEPARTMENT

PC DATE \_\_\_\_\_  ACTING SECRETARY DATE \_\_\_\_\_  COUNTY PLANNER  
 DATE \_\_\_\_\_  PRINCIPAL PLANNER

THIS APPROVAL ENCOMPASSES ONLY THOSE REVISIONS NOTED IN THE LETTER OF APPROVAL.

AS INDICATED IN RED

YES  NO   
**10 DAY EXPEDITED SIGNATURE PROCESS**

AUTHORIZATION TO BEGIN WATER AND SEWER CONSTRUCTION WILL BE PROVIDED AT THE DPU PRECONSTRUCTION MEETING.

### DEPARTMENT OF PUBLIC UTILITIES POD APPROVAL

FOR WATER AND SANITARY SEWER ONLY, SUBJECT TO COUNTY SPECIFICATIONS.

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

APPROVAL FOR WATER AND SEWER EXPIRES: \_\_\_\_\_

NOTE: WATER AND SEWER SYSTEMS FOR THIS PROJECT WILL BE ACCEPTED AND WATER METERS WILL BE SET AFTER ADJACENT UTILITIES TO WHICH THEY CONNECT HAVE BEEN ACCEPTED BY THE COUNTY FOR OPERATION.

DPU PRE-CONSTRUCTION MEETING \_\_\_\_\_

DPU INSPECTOR \_\_\_\_\_ DATE \_\_\_\_\_

D.P.U. # \_\_\_\_\_

### DEPARTMENT OF PUBLIC WORKS APPROVAL BLOCK

DIRECTOR OF PUBLIC WORKS

DATE \_\_\_\_\_

DATE \_\_\_\_\_ DESIGN ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_ ENVIRONMENTAL ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_ TRAFFIC ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_ ENVIRONMENTAL INSPECTOR \_\_\_\_\_

AS INDICATED IN RED

D.P.W. # \_\_\_\_\_

DISTRIBUTION BY DPW:

\_\_\_\_\_ PUBLIC UTILITIES (S) \_\_\_\_\_ ENGINEER  
\_\_\_\_\_ PERMIT CENTER \_\_\_\_\_ FIRE  
\_\_\_\_\_ EASTERN GOVERNMENT CENTER

**BURGESS & NIPLE**  
ENGINEERS SURVEYORS PLANNERS  
5101 COX ROAD, SUITE 150, GLEN ALLEN, VA 23060  
PHONE (804) 320-2667 FAX (804) 323-5131

REVISIONS	DATE

COVER SHEET  
HCPD - CENTRAL PRECINCT  
VILLA PARK DRIVE  
FAIRFIELD DISTRICT  
HENRICO COUNTY, VIRGINIA

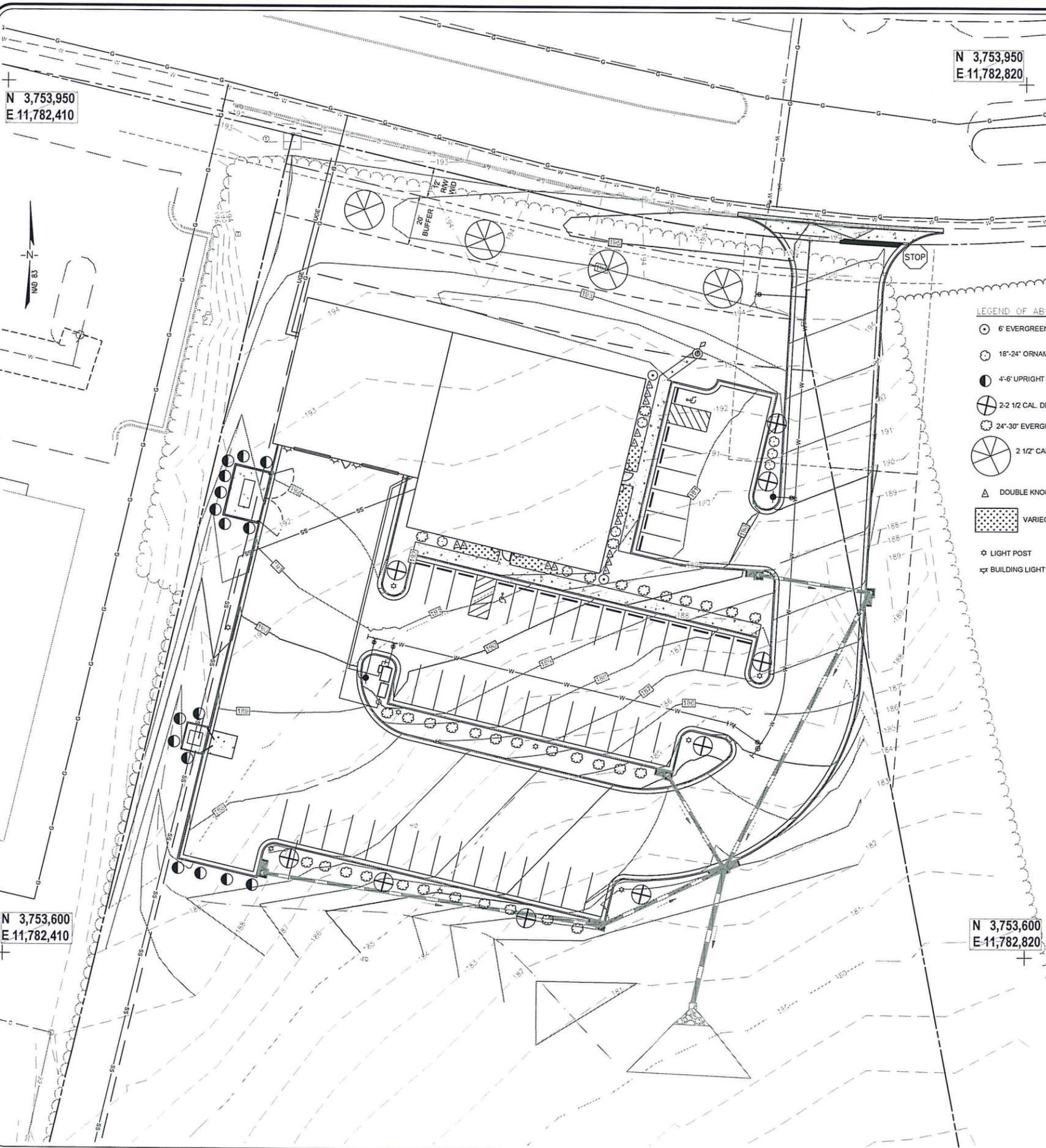


DATE: JUNE 19, 2014  
SCALE: AS SHOWN  
DESIGN: ASM DRAWN: DMS  
CHECK: \_\_\_\_\_ CHECK: \_\_\_\_\_  
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P.R. NO.: PR53012  
SHEET C0.01 OF 12  
FILE NO.: C0.00 COVR.dwg

POD # 000-00



P:\PROJECTS\2014\2014-05-17\plan\2014-05-17-01-00 LAND.dwg 7/22/2014 9:45:47 AM HARRINGTON, BRIST



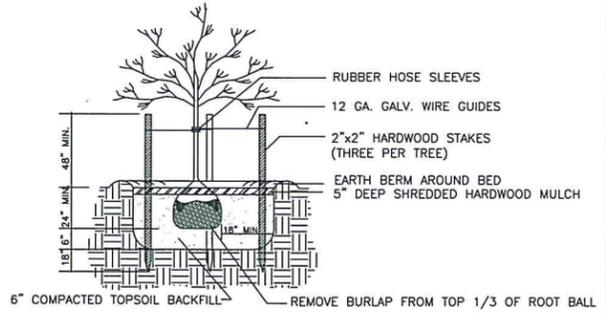
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E 11,782,410

N 3,753,600  
E 11,782,410

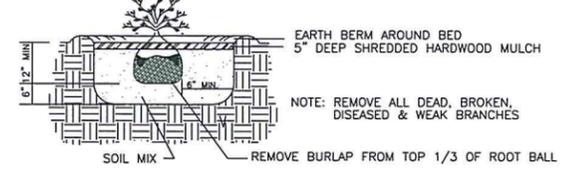
N 3,753,950  
E 11,782,820

**LEGEND OF ABBREVIATIONS**

- ⊙ 6' EVERGREEN SHRUB
- ⊙ 18"-24" ORNAMENTAL SHRUB
- 4'-6' UPRIGHT EVERGREEN SHRUB
- ⊕ 2-2 1/2 CAL. DECIDUOUS TREE
- ⊕ 24"-30" EVERGREEN SHRUB
- ⊕ 2 1/2" CAL. DECIDUOUS STREET SCAPE TREE
- △ DOUBLE KNOCK OUT ROSE
- ▨ VARIEGATED LIRIOPE
- ☆ LIGHT POST
- ⚡ BUILDING LIGHT



**TREE PLANTING DETAIL**



**SHRUB PLANTING DETAIL**

**GENERAL PLANTING INFORMATION**  
N.T.S.

**GENERAL NOTES**

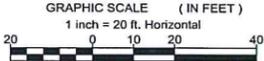
1. ALL PLANTS SHALL CONFORM TO CURRENT AAS STANDARDS AND SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
2. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT ALL MATERIALS AT SOURCE.
3. PLANTING MIX SHALL CONSIST OF A UNIFORM MIXTURE OF 75% TOPSOIL, 20% CLEAN SAND AND 5% COMPOSTED COW MANURE.
4. FERTILIZE ALL PLANTS PRIOR TO COMPLETION WITH GOSMOCOTE 14-14-14 PER MANUFACTURER'S LABEL.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND SHALL MAINTAIN A CURRENT MISS UTILITY NUMBER THROUGHOUT WORK PERIOD.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND WATERING OF ALL PLANT MATERIAL UNTIL FINAL ACCEPTANCE.
7. CONTRACTOR SHALL PROVIDE OWNER'S REPRESENTATIVE WITH DETAILED, WRITTEN LANDSCAPE MAINTENANCE INSTRUCTIONS PRIOR TO FINAL ACCEPTANCE.
8. REMOVE ALL HOSE, WIRE AND STAKES AT END OF GUARANTEE PERIOD, OR 1 YEAR AFTER INSTALLATION.
9. ALL SELECTIVE THINNING AND CLEAR VIEWING SHALL BE DONE AT THE DIRECTION OF OWNER'S REPRESENTATIVE.
10. LANDSCAPE CONTRACTOR SHALL PROTECT EXISTING TREES FROM ANY DAMAGE DUE TO LANDSCAPE WORK.
11. IN AREAS WHERE PLANTING OCCURS IN WET SOILS, RAISE PLANT 4" ABOVE NORMAL PLANTING DEPTH AND PROVIDE 4" #89 STONE AT BOTTOM OF PLANTING PIT. SHAPE SURROUNDING GRADE TO MATCH.
12. ALL PLANTING MATERIAL SHALL BE MAINTAINED IN A MULCH BED AND ALL BEDS SHALL BE MULCHED AND EDGED CLEARLY WHERE ADJACENT TO ANY EXISTING LAWN, SOODED, OR SEED AREA.
13. FIELD ADJUSTMENTS MAY BE NECESSARY BECAUSE OF SITE CONDITIONS (EX. ROOT BALL AND UTILITY CONFLICT). MAJOR ADJUSTMENTS MUST BE APPROVED BY LANDSCAPE ARCHITECT. "MISS UTILITY" MUST BE CONTACTED BEFORE ANY PLANTING OR GRADING CAN COMMENCE.
14. ROUGH GRADING AND SPREADING OF TOPSOIL SHALL BE DONE BY GENERAL SITE CONTRACTOR. ANY FINE GRADING ASSOCIATED WITH PLANTING SHALL BE DONE BY THE LANDSCAPE CONTRACTOR.
15. IF SOMEONE OTHER THAN THE ENGINEER (OWNER, BUILDER, ETC.) ADVERTISES, SOLICITS, AND/OR RECEIVES BIDS FOR WORK, THE LANDSCAPE CONTRACTOR SHALL STILL PROVIDE UNIT COPIES OF UNIT PRICE BID TO THE ENGINEER.
16. TREE PROTECTION MEASURES SHALL BE CONSTRUCTED BEFORE ANY CLEARING MEASURES BEGIN. REMAIN IN PLACE AT ALL TIMES AND PROPERLY MAINTAINED UNTIL FINAL ACCEPTANCE OF THE PROJECT.
17. WHEN A PLAN REQUIRES A TREE PROTECTION DEVICE AND AN EROSION CONTROL DEVICE, THE EROSION CONTROL DEVICE SHALL BE ON THE UPGRADE SIDE OF THE TREE PROTECTION FENCING.
18. ALL AREAS NEXT TO MULCH BEDS AND TREE PLANTINGS SHALL BE PERMANENT SEEDDED, UNLESS OTHERWISE SPECIFIED.
19. LANDSCAPE CONTRACTOR SHALL REFER TO THE STANDARDIZED LANDSCAPE SPECIFICATIONS FOR THE STATE OF VIRGINIA FOR ADDITIONAL INFORMATION. THE CONTRACTORS SHALL ABIDE BY ITS CONTENTS, HOWEVER ANY NOTES OR SPECIFICATIONS ON PLANS SHALL SUPERSEDE THOSE OUTLINED IN THE SPECIFICATIONS MANUAL. (COPIES ARE AVAILABLE FOR A FEE FROM THE VIRGINIA CHAPTER OF LANDSCAPE ARCHITECTS, THE VIRGINIA NURSERYMEN'S ASSOCIATION, INC. AND THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS.)
20. REFER TO CIVIL ENGINEERING PLANS FOR ANY DETAILED SITE INFORMATION.
21. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES.
22. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AMOUNT OF ANY LAWN COVERAGE AS INDICATED ON PLANS.
23. THE DEPARTMENT OF PUBLIC UTILITIES AND THE DEPARTMENT OF PUBLIC WORKS ARE NOT RESPONSIBLE FOR REPLACEMENT OF ANY PLANTINGS, IRRIGATION OR LIGHT POLES DAMAGED OR REMOVED BY THE DEPARTMENT OF PUBLIC UTILITIES OR PUBLIC WORKS, OR THEIR AGENTS, AS REQUIRED FOR MAINTENANCE OF COUNTY OWNED WATER AND SEWER, DRAINAGE FACILITIES OR ROADWAYS.

**GENERAL LANDSCAPING NOTES**

ALL WORK IN THE RIGHTS OF WAY SHALL CONFORM TO THE STDS. & SPECS. OF VDOT.  
 ALL PLANT MATERIALS SHALL COMPLY WITH "STANDARD PLANT NAMES" AS ADOPTED BY THE LATEST EDITION OF THE AMERICAN JOINT COMMITTEE OF HORTICULTURAL NOMENCLATURE AND/OR HORTICULTURE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.  
 ALL PLANT MATERIAL SHALL BE GUARANTEED DURING INSTALLATION AND UNTIL FINAL PROJECT ACCEPTANCE. ANY PLANT MATERIAL WHICH DIES, IS DAMAGED OR DISEASED, OR IS UNHEALTHY AND IN AN UNSIGHTLY CONDITION, OR OTHER CAUSES DUE TO CONTRACTOR'S NEGLIGENCE, SHALL BE REPLACED IMMEDIATELY.  
 ALL UNDERGROUND UTILITIES SHALL BE LOCATED AND VERIFIED PRIOR TO ANY PLANTING OR CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.  
 LANDSCAPE PLANTINGS AT ENTRANCES/EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH HIGHWAY DRIVERS' VISION NEEDS OF DRIVERS IN THE PARKING AREA AND AT THE ENTRANCE/EXIT LOCATIONS.

**NOTES:**

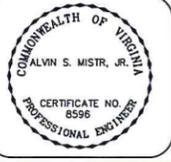
1. SHRUBS SHALL BE MAINTAINED AT 30-35" IN HEIGHT OR LOWER.
2. ALL DECIDUOUS TREES SHALL BE LIMBED UP TO 3" MINIMUM ABOVE FINISH GRADE.
3. ALL TREES ADJACENT TO CURBING OR SIDEWALKS TO BE PLANTED WITH BIO-BARRIER ROOT PROTECTION - SEE DETAIL THIS SHEET.
4. ALL MULCH TO BE SHREDDED HARDWOOD MULCH.
5. ALL LANDSCAPE AREAS TO RECEIVE A MINIMUM OF 4" OF TOPSOIL AS SPECIFIED IN THE GENERAL NOTES.
6. NO PERMANENT IRRIGATION TO BE PROVIDED BASED ON LEED STANDARDS.
7. THE REFORESTATION PLAN OR THE SPA IS SHOWN ON PAGE C4.02 OF THE POD CONSTRUCTION PLAN AND IS NOT A PART OF THIS APPROVAL.



**BURGESS & NIPLÉ**  
 ENGINEERS • SURVEYORS • PLANNERS  
 5101 COX ROAD, SUITE 150, GLEN ALLEN, VA 22060  
 PHONE (804) 360-2667 FAX (804) 363-9151

REVISIONS	DATE

**CONCEPTUAL LANDSCAPE & LIGHTING PLAN**  
 HCPD - CENTRAL PRECINCT  
 VILLA PARK DRIVE  
 FAIRFIELD DISTRICT  
 HENRICO COUNTY, VIRGINIA

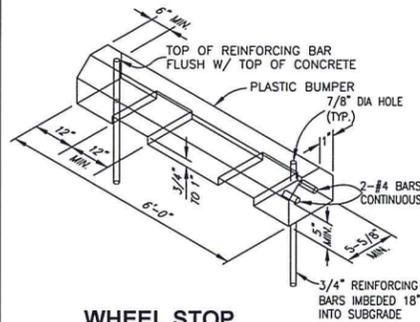


DATE: JUNE 19, 2014	
SCALE: 1"=20'	
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JOB NO.:	
P.R. NO.: PR53012	
SHEET C6.01 OF 12	
FILE NO.: C0.00 LAND.dwg	



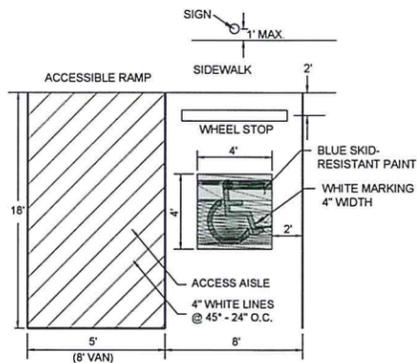






**WHEEL STOP**

N.T.S. C0.00 SITE.dwg

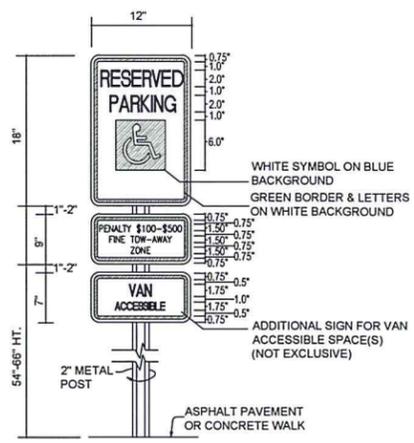


**NOTES:**

- 1) Access ramp must be located adjacent to the five foot (5 ft.) aisle.
- 2) Slopes on the parking spaces and accessible aisles shall not exceed two percent (2%) in all directions.

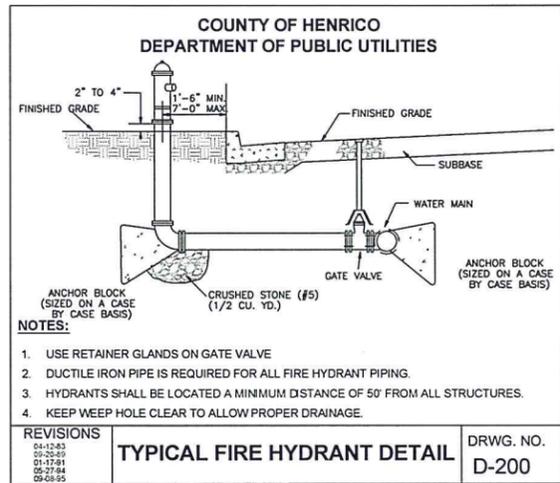
**HANDICAP PARKING DETAIL**

N.T.S. C0.00 SITE.dwg



**HANDICAP PARKING SIGN DETAIL**

N.T.S. C0.00 SITE.dwg



**NOTES:**

1. USE RETAINER GLANDS ON GATE VALVE
2. DUCTILE IRON PIPE IS REQUIRED FOR ALL FIRE HYDRANT PIPING.
3. HYDRANTS SHALL BE LOCATED A MINIMUM DISTANCE OF 50' FROM ALL STRUCTURES.
4. KEEP WEEP HOLE CLEAR TO ALLOW PROPER DRAINAGE.

<p><b>REVISIONS</b></p> <p>04-12-03 05-25-09 01-17-01 05-27-04 09-09-05</p>	<p><b>TYPICAL FIRE HYDRANT DETAIL</b></p>	<p>DRWG. NO. <b>D-200</b></p>
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**FIRE HYDRANT NOTE:**  
A RISER MAY BE REQUIRED TO BRING A FIRE HYDRANT TO FINAL GRADE, ESPECIALLY BEHIND A STORM SEWER OR DITCH SECTION. THE COST OF ALL RISERS SHALL BE INCLUDED IN THE CONTRACTOR'S BID. NO EXTRA WILL BE ALLOWED TO THE CONTRACTOR FOR SUCH ADJUSTMENTS.

**BURGESS & NIPLÉ**  
ENGINEERS SURVEYORS PLANNERS  
5101 COX ROAD, SUITE 150, GLEN ALLEN, VA 23060  
PHONE (804) 320-2667 FAX (804) 325-5131

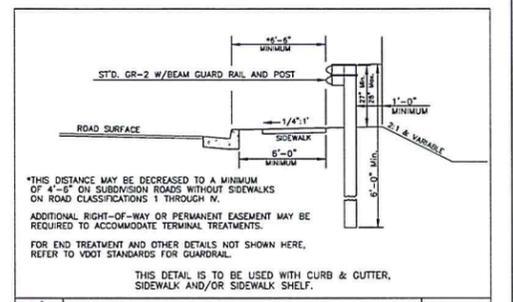
NO.	REVISIONS	DATE

**SITE & UTILITY DETAILS**

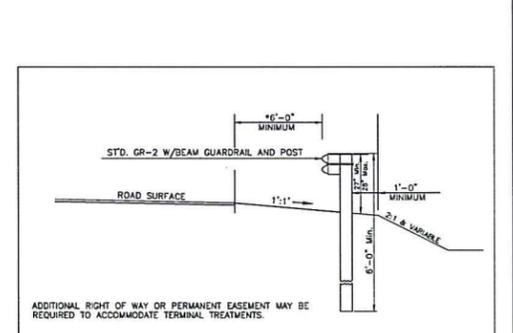
**HCPD - CENTRAL PRECINCT**  
VILLA PARK DRIVE  
FAIRFIELD DISTRICT  
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CHECK: CHECK:  
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SHEET C2.02 OF 12  
FILE NO.: C0.00 SITE.dwg

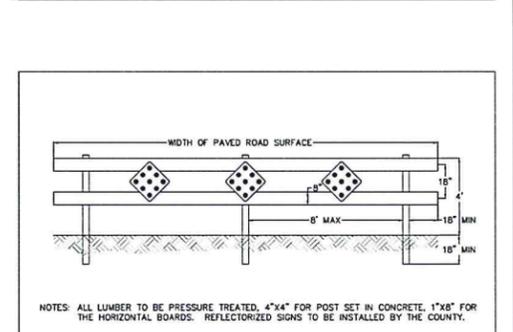
REFER TO HENRICO COUNTY  
DESIGN MANUAL FOR ADDITIONAL DETAILS



GUARDRAIL DETAIL WITH CURB & GUTTER  
JANUARY 1, 2002  
GR-2-CG.DWG



GUARDRAIL DETAIL WITHOUT CURB & GUTTER  
JANUARY 1, 2002  
GR-2-WO-CG.DWG



END OF ROAD BARRICADE  
JANUARY 1, 2002  
BARRICADE.DWG



ROAD EXTENSION SIGN  
REVISED 6/1/04  
JANUARY 1, 2002  
ROAD\_EXTEND\_SIGN.DWG

DATE: JUNE 19, 2014  
SCALE: AS NOTED  
DESIGN: ASM DRAWN: DMS  
CHECK: CHECK:  
JOB NO.:  
P.R. NO.: PR53012  
SHEET C5.01 OF 12  
FILE NO.: CO.00 NOTE.dwg

**BURGESS & NIPLÉ**  
ENGINEERS SURVEYORS PLANNERS  
5101 COX ROAD, SUITE 150, GLEN ALLEN, VA 23060  
PHONE (804) 320-2687 FAX (804) 323-5131

NO.	REVISIONS	DATE

STANDARD CONSTRUCTION NOTES AND DETAILS  
HCPD - CENTRAL PRECINCT  
VILLA PARK DRIVE  
FAIRFIELD DISTRICT  
HENRICO COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA  
ALVIN S. MISTR, JR.  
CERTIFICATE NO. 8596  
PROFESSIONAL ENGINEER

**GENERAL NOTES**

- All construction and materials shall be in accordance with the current Virginia Department of Transportation Road and Bridge Specifications, Virginia Department of Transportation Road and Bridge Standards, and Henrico County Specifications and Standards where applicable.
- Incidental concrete must be Class A3 in accordance with VDOT specifications.
- A permit must be secured from the Henrico County Department of Public Works before any work is performed within an existing County right-of-way or easement.
- The Department of Public Works must be notified at least 24 hours prior to beginning any construction work.
- The contractor shall notify the Henrico County Department of Public Utilities prior to doing any utility work.
- The location of existing utilities, as shown, is approximate. The contractor shall verify the location of existing utilities prior to any construction work.
- A permit must be obtained from the Virginia Department of Transportation for any work performed within the State right-of-way.
- The contractor shall notify "Miss Utility" at 1-800-552-7001 prior to any construction work in this area.
- When it appears that the proposed work may have some impact to adjacent private or commercial properties, the applicant must inform the property owners of the proposed work and keep them apprised of time schedules, delays, impacts, changes in pedestrian and vehicle access or traffic patterns, and final restoration plans.
- When a temporary cul-de-sac is no longer required due to a road extension, the developer of the road being extended is responsible for removing the temporary cul-de-sac and extending the road and property components (curb and gutter, gravel driveways, paved driveways, sidewalks, mailboxes, etc.) to the new road section and re-grading areas to finished contours acceptable to the adjacent property owners and to Henrico County.
- No driveway access points shall be allowed within the radius of a public road intersection.
- When driveways are located within roll face curb and gutter, transitions to a drop inlet, curb cuts and aprons are required.
- Prior to the issuance of any building permits, all signs and barricades for dead end stub roads must be in place.

**CURB AND GUTTER**

- All curb and gutter and storm sewer/inlets located within the existing County right-of-way shall be staked by the County upon written request being made to the County Engineer or by calling 501-4619.
- All curb and gutter shall be Henrico County standard curb and gutter, except as noted.
- This plan approval does not establish the curb and gutter elevations along the public right-of-way. The elevations will be set by Henrico County.
- All curb and gutter in the County right-of-way must be wet curb and gutter. The use of dry curb and gutter is prohibited in the County right-of-way.
- The transition from standard six (6) inch curb to roll-faced curb shall be at intersections at the point of curvature (PC) of curb returns.
- Where sidewalks are present or proposed, all driveways must be concrete from the back of curb to at least the rear of the sidewalk.
- Class 57 stone must be placed under all curb and gutter and must extend one foot beyond the back of the curb.
- CG-12's must be installed at curb returns where there is existing or proposed sidewalks. In locations where there is no sidewalk being proposed, the curb must be depressed for the future location of a CG-12.

**CONDITIONS FOR GUARDRAIL**

Guardrail is typically required on sections of roadway when any of the following conditions exist within the clear zone:

- A roadside parallel embankment (fill slope) of 3:1 or steeper and a depth of four feet or more.
- A water hazard with a depth of two feet or more.
- A ditch section with a depth of three feet or more (as measured from the near edge of pavement).
- A fixed object (such as a culvert, pipe, headwall, retaining wall, bridge pier, or abutment).
- Other hazards as determined by the Traffic Engineer.
- Additional right-of-way or permanent easements may be required to accommodate the guardrail in its entirety.

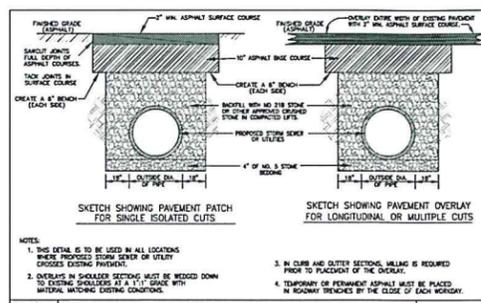
All guardrail must be approved by the Department of Public Works and shown on the plans, including any necessary details, type, and lengths of rail.

**PAVEMENT**

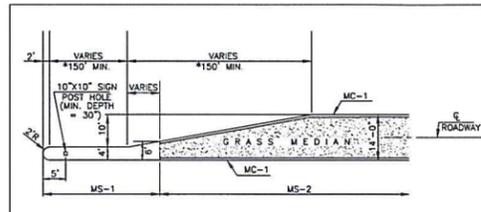
- The pavement section is subject to change based on soil conditions at the time of construction, as determined by the Construction Engineer for Henrico County.
- Any necessary pavement widening between the existing pavement and the proposed improvements is the responsibility of the developer.
- All medians for turn lanes must be VDOT Std. MS-1. For turn lanes being constructed on existing roads, the old median must be removed entirely and the solid raised median poured on the asphalt base course in accordance with the standards for MS-1 Median. Standard MS-1A or variations of the same will not be permitted.
- Pavement sections for through lanes and turn lanes must be the same as the existing pavement section. These turn lanes must have underdrains.
- No pavement open cuts are allowed on existing County maintained roads unless specifically approved by the Construction Engineer for Henrico County.
- If utility connections are located outside of the pavement and right-of-way, no pavement disturbance is required and all utility crossings must be bored.
- Soil tests and CBR information, with an appropriate pavement design, must be performed and made available to the Construction Engineer prior to subgrade approval

**DRAINAGE**

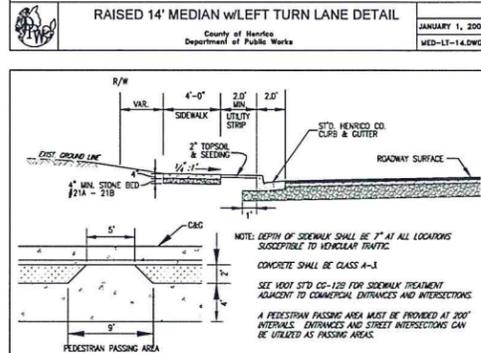
- All storm sewer within the County right-of-way and easements must be ASTM C-76, Class III or better, reinforced concrete pipe with sealed joints in accordance with VDOT specifications.
- Precast drop inlets are not permitted at locations where the grade of the adjacent curb and gutter is less than 1.5%. Precast drop inlets with flat inverts are not permitted in sag locations when the total length of the required throat opening exceeds six (6) feet.
- All storm sewer within a County easement or right-of-way must have a minimum of four (4) inches of aggregate bedding material and must be backfilled in accordance with the detail on this sheet.
- All drop inlets must have Type B noses.
- Drop inlets on grade must be poured with the throat on the same grade as the adjoining curb and gutter.
- #4 x 8" must be placed at approximately 12" c-c in all areas adjacent to abutting concrete to prevent settlement.
- When using non-concrete pipe for private areas, the connection to the structure in the County easement or right-of-way must be concrete. Non-concrete pipe must terminate in a concrete structure and continue concrete to the point where it ties into the County easement or right-of-way. All manholes and inlets must be concrete.
- UD-4 underdrains are required along the entire length of all proposed roads and/or road widening within the public right-of-way unless waived by the Director of Public Works.
- Irrigation is not permitted in the shoulder area within the County right-of-way unless specifically approved by the County Engineer.
- CD-3 underdrains are required on all vertical sags.
- UD-2 underdrains are required in all raised grass medians and islands within the public right-of-way.
- The outlet end of all underdrains must terminate in drainage structures or daylight out of fill slopes with a standard EW-12 endwall placed at the outlet end of the underdrain.



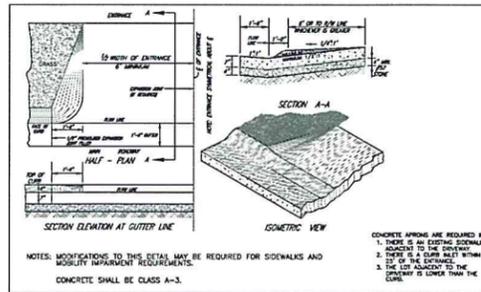
PAVEMENT REPLACEMENT FOR PIPE TRENCH  
REV. 3-18-2011  
JANUARY 1, 2002  
PYRECL.DWG



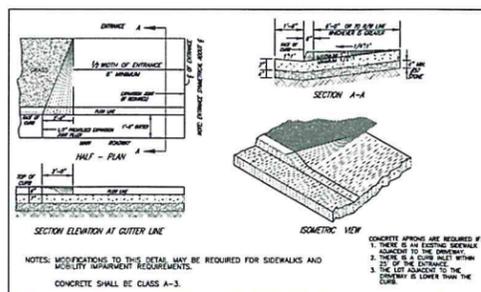
RAISED 14' MEDIAN W/LEFT TURN LANE DETAIL  
JANUARY 1, 2002  
MED-LT-14.DWG



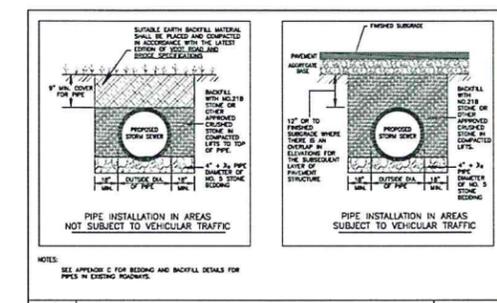
SIDEWALK DETAIL  
JANUARY 1, 2002  
SIDEWALK.DWG



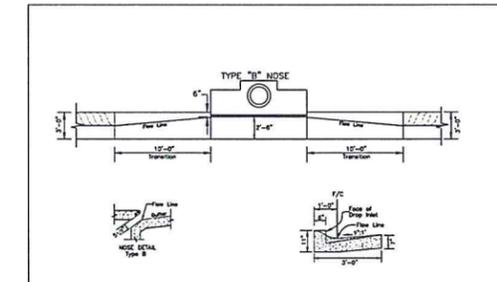
STANDARD ENTRANCE APRON (FOR ROLL FACE CURB & GUTTER)  
JANUARY 1, 2002  
ENTR-WO-W-RECC.DWG



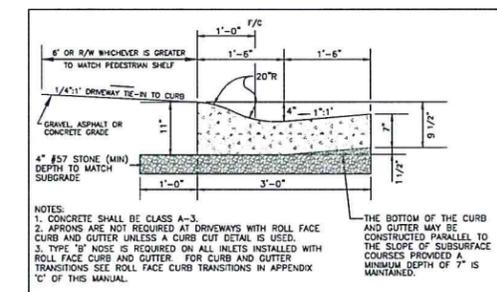
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JANUARY 1, 2002  
ENTR-WO-W.DWG



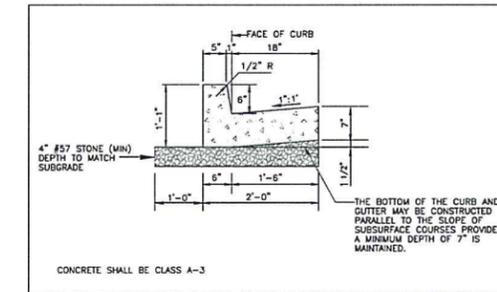
PIPE BEDDING & BACKFILL  
(For New Development & New Road Construction)  
REVISED 6/1/04  
JANUARY 1, 2002  
PIPE-INSTALLING



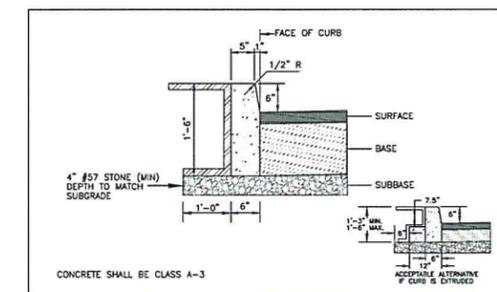
ROLL FACE CURB TRANSITIONS  
REVISED 6/1/04  
JANUARY 1, 2002  
RFCGL-TRANS.DWG



ROLL FACE CURB AND GUTTER  
REVISED 6/1/04  
JANUARY 1, 2002  
RFGCL.DWG



CURB AND GUTTER  
JANUARY 1, 2002  
HCCCL.DWG



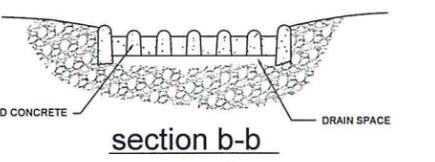
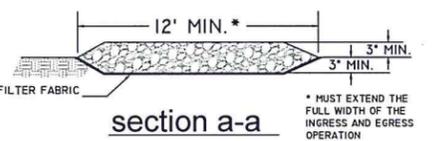
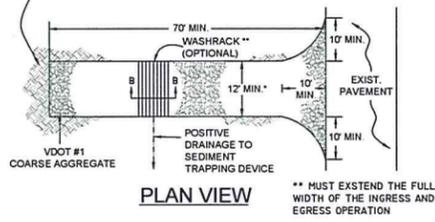
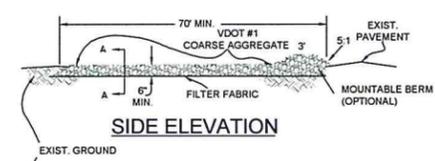
INDEPENDENT CURB  
REVISED 6/1/04  
JANUARY 1, 2002  
HCC-2.DWG

WHERE CONFLICTS EXIST, THE NOTES AND DETAILS ON THIS SHEET SUPERCEDE THE CURRENT VERSION OF THE HENRICO COUNTY DESIGN MANUAL.

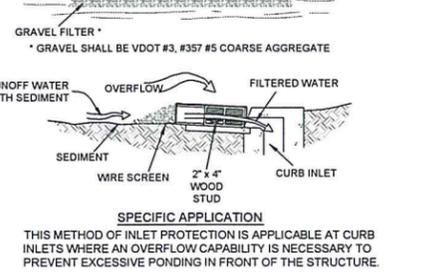
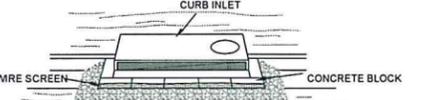
NO.	REVISIONS	DATE

REVISIONS: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

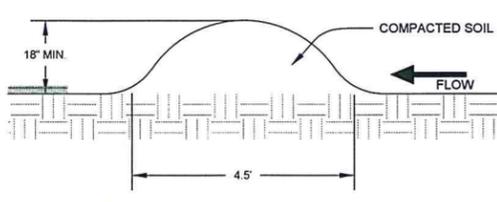
**STONE CONSTRUCTION ENTRANCE**  
STD. & SPEC. 3.02 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)



**BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER**  
STD. & SPEC. 3.07 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)

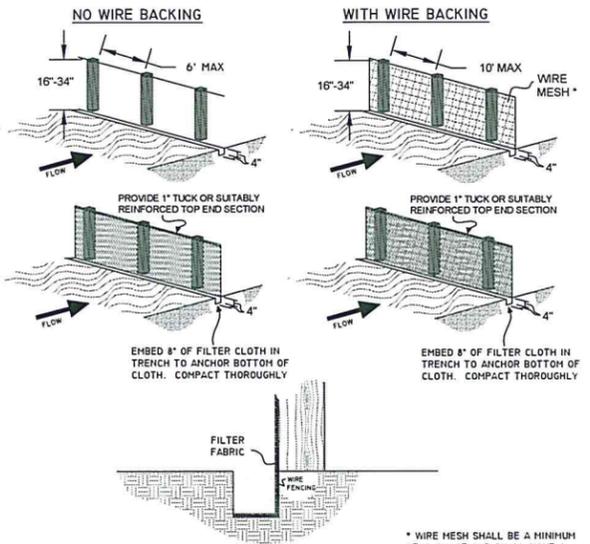


**TEMPORARY DIVERSION DIKE**  
STD. & SPEC. 3.09 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)

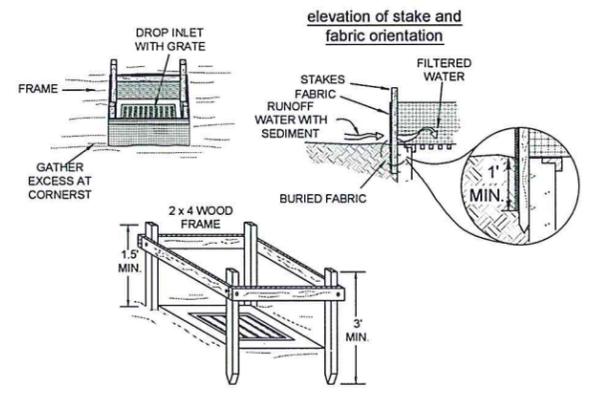


SIDE SLOPES MUST BE 1.5:1 OR FLATTER  
TEMPORARY OR PERMANENT SEEDING AND MULCH MUST BE APPLIED IMMEDIATELY UPON CONSTRUCTION

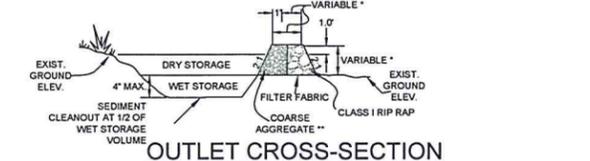
**SILT FENCE**  
STD. & SPEC. 3.05 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)



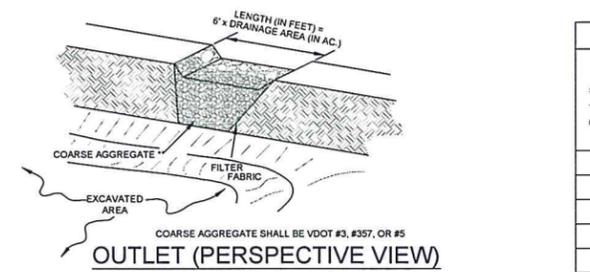
**SILT FENCE DROP INLET PROTECTION**  
STD. & SPEC. 3.07 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)



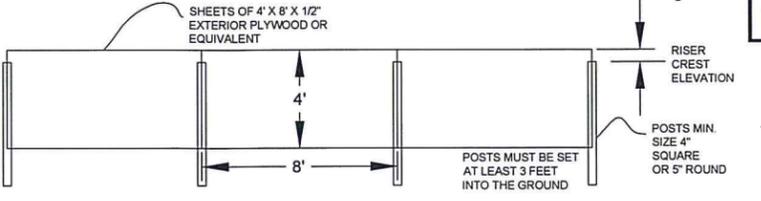
**TEMPORARY SEDIMENT TRAP**  
STD. & SPEC. 3.13 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)



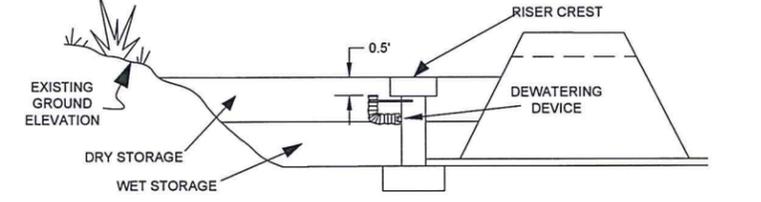
**OUTLET CROSS-SECTION**



**BAFFLE DETAIL**



**TEMPORARY SEDIMENT BASIN**  
STD. & SPEC. 3.14 - VA. EROSION AND SEDIMENT CONTROL HANDBOOK (1992)



**OUTFALL ADEQUACY**

- In accordance with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations and the Henrico County Design Manual, adequacy of off-site receiving channels or pipes must be verified by addressing one of the following Adequacy Situations:
- The drainage area from the project at the discharge point is less than or equal to one percent of the total drainage area at the discharge point and the 10-year storm is contained within the channel banks (Project Drainage Area and Total Drainage area are required), OR
  - Natural channels must be analyzed to demonstrate that (1) the 10-year storm will not overtop the channel banks and (2) the 2-year storm will not cause erosion of the channel bed and banks ( $Q_{Capacity}$ ,  $Q_{10}$ ,  $V_{Allowable}$ , and  $V_2$  are required), except  $Q_{Capacity}$  and  $Q_{10}$  are not applicable if the channel is in the 100-year floodplain, RPA, SPA, OR
  - Man-made channels must be analyzed to demonstrate that (1) the 10-year storm will not overtop the channel banks and (2) the 2-year storm will not cause erosion of the channel bed or banks ( $Q_{Capacity}$ ,  $Q_{10}$ ,  $V_{Allowable}$ , and  $V_2$  are required), OR
  - Pipes and storm sewer systems must be analyzed to demonstrate that the 10-year storm will be contained within the system ( $Q_{Capacity}$ ,  $Q_{10}$ , and Hydraulic Grade Line calculations are required), OR
  - Runoff is discharged through an energy dissipator at the limits of the 100-year floodplain, RPA buffer, or SPA buffer.

Discharge Point	Adequacy Situation	Project Drainage Area	Total Drainage Area	$Q_{Capacity}$	$Q_{10}$	$V_{Allowable}$	$V_2$	Cross-section, Profile, and Calculations Shown on Sheet (s)

Discharge Point = Unique identifier for the discharge point  
Project Drainage Area = the drainage area of the project that drains to the discharge point in acres  
 $Q_{Capacity}$  = the carrying capacity of the channel or pipe in CFS  
 $V_{Allowable}$  = the maximum velocity (in FPS) that the channel lining can withstand without eroding

Adequacy Situation - either A, B, C, D, or E as described above  
Total Drainage Area - the total drainage area to the discharge point in acres  
 $Q_{10}$  = the peak discharge at the discharge point for the 10-year storm in CFS  
 $V_2$  = the velocity at the discharge point for the 2-year storm in FPS

Generally, scaled channel cross-sections must be provided every fifty (50) feet and at the most constricted locations of all outfall channels for a minimum of 150 feet of profile.

**50/10 DETENTION SUMMARY**

	Q (CFS)	AREA (ACRES)	C	I	C ADJ. FACTOR
$Q_{10}$ Pre-development (A)					
$Q_{50}$ Post-development (on-site bypass) (B)					
$Q_{50}$ Post-DEVELOPMENT (OFF-SITE THROUGH PROJECT) (C)					
$Q_{50}$ allowable (A - B + C)					
$Q_{50}$ from basin/pipe (routed)					

Trap #	Drainage Area (acres)	Wet Storage			Dry Storage			Outlet Length (feet)	Bottom Elevation	Top of Berm Elevation	Top of Berm Width	Dimensions (L x W)
		Volume Required (Cu. Yd.)	Volume Provided (Cu. Yd.)	Elevation	Volume Provided (Cu. Yd.)	Volume Required (Cu. Yd.)	Elevation					

**SEDIMENT BASINS**

Basin #	Drainage Area (acres)	Wet Storage		Dry Storage		Bottom Elevation	Riser Crest Elevation	Riser Diameter	Dewatering Device Elevation	Dewatering Device Diameter	25-Yr. Storm Elevation	Emergency Spillway Elevation	Anti-Vortex Device Diameter	Top of Dam Elevation	Top of Dam Width	BAFFLE			BARREL				
		Volume Required (Cu. Yd.)	Volume Provided (Cu. Yd.)	Volume Provided (Cu. Yd.)	Volume Required (Cu. Yd.)											Flowlength to Baffle Ratio	Baffle Length	Top of Baffle	Pipe Length	Pipe Diameter	Invert In	Invert Out	

**EROSION & SEDIMENT CONTROL STANDARD DETAILS AND CALCULATIONS**  
HCPD - CENTRAL PRECINCT  
VILLA PARK DRIVE  
FAIRFIELD DISTRICT  
HENRICO COUNTY, VIRGINIA



DATE: JUNE 19, 2014  
SCALE: AS SHOWN  
DESIGN: ASM DRAWN: DMS  
CHECK: CHECK:  
JOB NO.:  
P.R. NO.: PR53012  
SHEET C5.02 OF 12  
FILE NO.: C0.00 EROS.dwg

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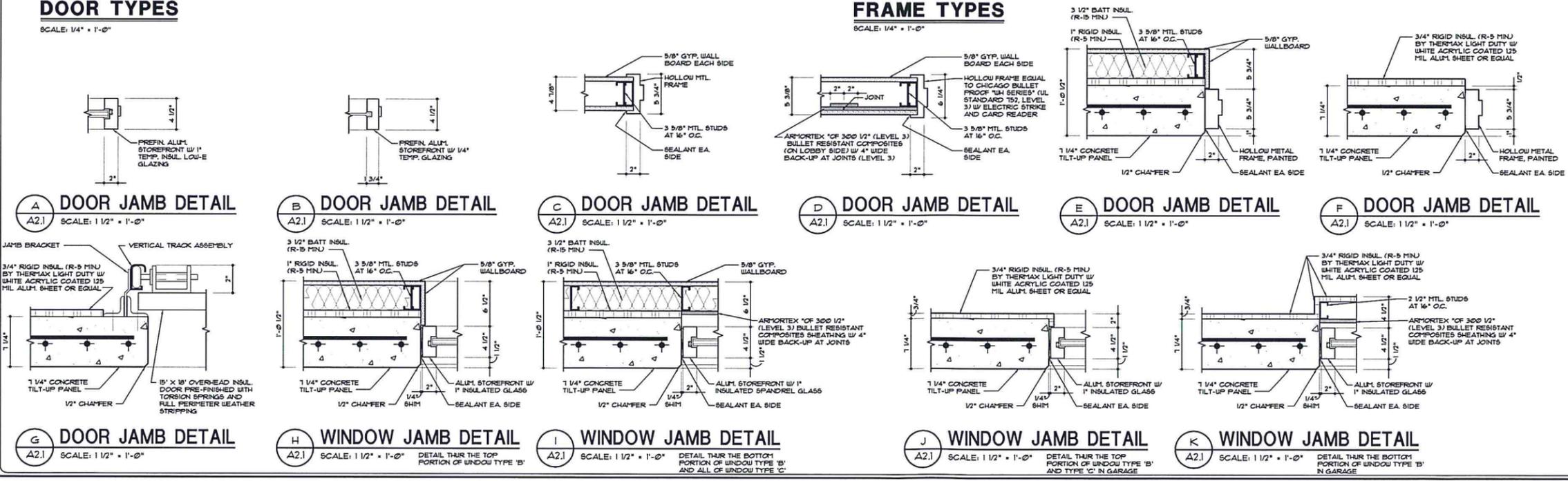
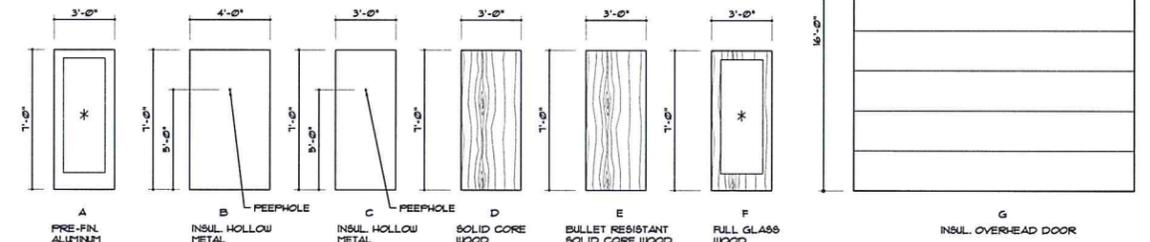


**DOOR SCHEDULE**

DOOR NO.	SIZE			MAT.	TYPE	DOORS			FRAMES			JAMB DETAIL	T-HOLD	CLSR.	REMARKS	H-WARE
	W	H	T			GLASS	LABEL	MAT.	TYPE	FINISH	MAT.					
01	3'-0"	7'-0"	1 3/4"	ALUM.	A	PREFIN.	TEMP.	--	ALUM.	#	PREFIN.	A/A2.1	ALUM.	CONCLD.	# SEE WINDOW TYPES ELEV. 'A' SHEET A3.1	--
02	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--	ELECTRIC STRIKE AND CARD READER	--
03	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
04	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
05	3'-0"	7'-0"	1 3/4"	H.M.	C	PAINTED	--	--	H.M.	A	PAINTED	C/A2.1	--	--	ELECTRIC STRIKE AND CARD READER	--
06	14'-0"	16'-0"	--	M.T.L.	G	PREFIN.	--	--	M.T.L.	TRACK	--	G/A2.1	--	--		--
07	3'-0"	7'-0"	1 3/4"	H.M.	C	PAINTED	--	--	H.M.	A	PAINTED	F/A2.1	ALUM.	SURFACE	ELECTRIC STRIKE AND CARD READER	--
08	14'-0"	16'-0"	--	M.T.L.	G	PREFIN.	--	--	M.T.L.	TRACK	--	G/A2.1	--	--		--
09	3'-0"	7'-0"	1 3/4"	H.M.	C	PAINTED	--	--	H.M.	A	PAINTED	F/A2.1	ALUM.	SURFACE	ELECTRIC STRIKE AND CARD READER	--
10	4'-0"	7'-0"	1 3/4"	H.M.	B	PAINTED	--	--	H.M.	C	PAINTED	E/A2.1	ALUM.	SURFACE	ELECTRIC STRIKE AND CARD READER	--
11	3'-0"	7'-0"	1 3/4"	S.C. WD.	F	STAINED	TEMP.	--	ALUM.	#	PREFIN.	B/A2.1	--	--	# SEE WINDOW TYPES ELEV. 'G' SHEET A3.1	--
12	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
13	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
14	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
15	3'-0"	7'-0"	1 3/4"	H.M.	C	PAINTED	--	--	H.M.	A	PAINTED	E/A2.1	ALUM.	SURFACE	ELECTRIC STRIKE AND CARD READER	--
16	3'-0"	7'-0"	1 3/4"	S.C. WD.	F	STAINED	TEMP.	--	ALUM.	#	PREFIN.	B/A2.1	--	--	# SEE WINDOW TYPES ELEV. 'V' SHEET A3.1	--
17	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
18	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	SURFACE		--
19	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	SURFACE		--
20	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	SURFACE	ELECTRIC STRIKE AND CARD READER	--
21	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
22	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
23	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
24	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
25	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
26	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--
27	3'-0"	7'-0"	1 3/4"	S.C. WD.	E	STAINED	--	--	H.M.	B	PAINTED	D/A2.1	--	SURFACE	BULLET RESISTANT WOOD DOOR & FRAME EQUAL TO CHICAGO BULLET PROOF 'UH SERIES' (UL STANDARD '39', LEVEL 3) W/ ELECTRIC STRIKE AND CARD READER	--
28	3'-0"	7'-0"	1 3/4"	S.C. WD.	E	STAINED	--	--	H.M.	B	PAINTED	D/A2.1	--	SURFACE	BULLET RESISTANT WOOD DOOR & FRAME EQUAL TO CHICAGO BULLET PROOF 'UH SERIES' (UL STANDARD '39', LEVEL 3) W/ ELECTRIC STRIKE AND CARD READER	--
29	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	SURFACE	ELECTRIC STRIKE AND CARD READER	--
30	3'-0"	7'-0"	1 3/4"	S.C. WD.	D	STAINED	--	--	H.M.	A	PAINTED	C/A2.1	--	--		--

NOTE: ALL DOOR HARDWARE SHALL COMPLY IBC 2009 SECTION 108.13 FOR HANDICAPPED ACCESSIBILITY, CABO/ANSI, AND ADA.

**NOTE:**  
 THE FOUR EXTERIOR DOORS (#01, #07, #09 & #15) AND ONE SECURE STORAGE DOOR (#25) SHALL HAVE ELECTRIC STRIKES, FAIL SECURE DOOR LATCHES AND DOOR LATCH MONITOR SENSORS THAT PROVIDE PRIMARY AND SECONDARY NOTIFICATION IF LEFT OPEN FOR CERTAIN PERIOD OF TIME (NOTIFY OCCUPANTS OF BUILDING AND THEN NOTIFY SECURITY CONSOLE).



**Revisions**


**Job Number**  
1342

**50% Issued Date**  
07 | 01 | 2014

**HCPD - CENTRAL PRECINCT**

HENRICO COUNTY, VIRGINIA

**Sheet Name**  
DOOR SCHEDULE, DETAILS

**Sheet Number**  
**A2.1**

02 of 10

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ROOM FINISH SCHEDULE

NO.	SPACE	FLOOR	BASE	WALLS				CEILING	CEILING HT.	REMARKS	FINISH GROUP	NO.
				A	B	C	D					
101	LOBBY	CERAMIC TILE	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	C	101
102	MEN	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	E	102
103	WOMEN	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	E	103
104	INTERVIEW	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	B	104
105	SECURE STORAGE	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	E	105
106	LIEUTENANT	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	A	106
107	RECEPTION	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	A	107
108	CORRIDOR	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	D	108
109	CAPTAIN	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	A	109
110	SPARE	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	A	110
111	CONFERENCE ROOM	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	10'-0"	--	B	111
112	GARAGE	SEALED CONC.	NONE	NSI WALL PANELS	NSI WALL PANELS	NSI WALL PANELS	NSI WALL PANELS	EXPOSED STRUCT. PTD.	VARIES	WALL PANELS - 3/4" THERMAX LIGHT DURY W/ WHITE 125 MIL ALUM. SHEET	H	112
113	CORRIDOR	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	D	113
114	DATA	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	E	114
115	STORAGE	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	E	115
116	CONFERENCE	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	B	116
117	SGT'S & LIEUTENANTS	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	A	117
118	PATROL OFFICERS	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	D	118
119	FITNESS	FLEXIBLE RUBBER	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	10'-0"	--	F	119
120	JANITOR	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	E	120
121	WOMEN'S LOCKER ROOM	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	G	121
122	MEN'S LOCKER ROOM	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	G	122
123	CORRIDOR	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	D	123
124	BREAK ROOM	V.C.T.	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	D	124
125	STORAGE	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	9'-0"	--	B	125
126	CONFERENCE AND COMMUNITY	CARPET	VNTL	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	PAINTED GTP. BD.	2x2 A.C.T.	12'-0"	--	B	126

FINISH GROUPS

<p><b>FINISH GROUP A</b> 101 RECEPTION, 104 LIEUTENANT, 109 CAPTAIN, 110 SPARE, 117 SERGEANTS &amp; LIEUTENANTS</p> <p>CARPET TILES - MOHAWK NEW COLLEGIATE 8559 'GRADUATE' VNTL BASE - JOHNSONITE 18 'NAVY' WALL - PAINT BU 6386 'NAPERY' CEILING - 2'x2' ACOUSTICAL TILES</p>	<p><b>FINISH GROUP E</b> 102 MEN, 103 WOMEN, 105 SECURE STORAGE, 114 DATA, 115 STORAGE, 119 JANITOR</p> <p>VCT FLOORING - AR-STRONGS 51533 'BLUE CLOUD' VNTL BASE - JOHNSONITE 18 'NAVY' WALL - PAINT BU 6385 'DOVER WHITE' CEILING - 2'x2' ACOUSTICAL TILES</p>
<p><b>FINISH GROUP B</b> 104 INTERVIEW, 111 CONFERENCE, 116 CONFERENCE, 125 STORAGE, 126 CONFERENCE &amp; COMMUNITY</p> <p>CARPET TILES - MOHAWK NEW COLLEGIATE 8559 'GRADUATE' VNTL BASE - JOHNSONITE 18 'NAVY' FRP WALL PROTECTION TO 48" AFF - VARIETEX 809 'TAUN BROWN' SANDSTONE TEXTURE WALL - PAINT BU 6385 'DOVER WHITE' CEILING - 2'x2' ACOUSTICAL TILES</p> <p>*05 STORAGE DOES NOT USE FRP WALL PROTECTION. WALL PAINT WILL CONTINUE FROM THE BASE TO THE CEILING.</p>	<p><b>FINISH GROUP F</b> 119 FITNESS</p> <p>FLEXIBLE FLOORING - MATS INC. SPECTATION 3 MM 'RED SNAPPER' VNTL BASE - JOHNSONITE 40 'BLACK' WALL - PAINT BU 6385 'DOVER WHITE' ACCENT WALL BU 6610 'GOLD CREST' CEILING - 2'x2' ACOUSTICAL TILES</p>
<p><b>FINISH GROUP C</b> 101 LOBBY</p> <p>CERAMIC TILE - DALTILE PORCEALTO GRANTI 12'x12' TILES CD 40 'GRIGIO GRANITE' TEXTURED SURFACE TILE BASE - DALTILE PORCEALTO COVE BASE CD40 'GRIGIO GRANITE' WALL - PAINT BU 6386 'NAPERY' CEILING - 2'x2' ACOUSTICAL TILES</p>	<p><b>FINISH GROUP G</b> 121 WOMEN'S LOCKER ROOM, 122 MEN'S LOCKER ROOM</p> <p>VCT FLOORING - AR-STRONGS 51511 'BODACIOUS BLUE' VNTL BASE - JOHNSONITE 18 'NAVY' CERAMIC TILE AT SHOWER - AMERICAN OLEAN MOSAIC TILE 1'x1' 'STORM GRAY SPECKLED' AD6 TILE BASE AT SHOWER - AMERICAN OLEAN MOSAIC COVE BASE 'STORM GRAY SPECKLED' AD6 WALL - PAINT BU 6385 'DOVER WHITE' TOILET PARTITIONS - ALL AMERICAN METAL 18 'ROYAL BLUE' COUNTERTOPS - WILSONART LAMINATE D379-60 'INDIGO' CEILING - PAINTED GYPSUM BOARD.</p>
<p><b>FINISH GROUP D</b> 108 CORRIDOR, 113 CORRIDOR, 118 PATROL OFFICERS, 123 CORRIDOR, 124 BREAK ROOM</p> <p>VCT FLOORING - AR-STRONGS 51533 'BLUE CLOUD' VNTL BASE - JOHNSONITE 18 'NAVY' FRP WALL PROTECTION TO 48" AFF - VARIETEX 104 'YELLOW SUNRISE' SANDSTONE TEXTURE WALL - PAINT BU 6385 'DOVER WHITE' CEILING - 2'x2' ACOUSTICAL TILES ADDITIONAL FINISHES IN 124 BREAK ROOM ONLY: TB29-38 'HANTINGTON MAPLE' CABINETS - MAPLE FINISH TO MATCH WILSONART LAMINATE COUNTERTOPS - WILSONART LAMINATE D379-60 'INDIGO'</p>	<p><b>FINISH GROUP H</b> 112 GARAGE</p> <p>FLOOR - SEALED CONCRETE WALL - RIGID INSULATION W/ WHITE ACRYLIC COATED ALUMINUM CEILING - PAINTED STRUCTURE - WHITE TO MATCH WALLS</p>



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Revisions

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HCPD - CENTRAL PRECINCT

HENRICO COUNTY, VIRGINIA

Sheet Name  
FINISH SCHEDULE

Sheet Number  
A2.2



EXTERIOR FINISH SCHEDULE LEGEND		
MATERIAL	MANUFACTURER	COLOR
COLOR 1	EQUAL TO STO/DURCON	STO #1403 BURNT ASH - FINE SAND FINISH / DURCON #194M FIRED STEEL - SAND TEXTURED
COLOR 2	EQUAL TO DURCON	SHELL WHITE - SAND TEXTURED
COLOR 3	EQUAL TO STO/ICI	#20305 OATHEAL - FINE SAND FINISH / ICI 659 BANTA'S BEARD - SAND TEXTURED
COLOR 4	"	** SEE SPECIFICATIONS FOR OVER-HEAD DOOR
COLOR 6	"	** SEE SPEC'S FOR STOREFRONT COLOR (CLEAR ANODIZED)
COLOR 7	EQUAL TO DURCON	#1269A GOLDEN GLISTEN (LOW HIDE)

NOTE: GENERAL CONTRACTOR IS TO PROVIDE A FULL SIZE COLOR MOCK-UP PANEL FOR APPROVAL OF ALL EXTERIOR COLORS AND FINISHES PRIOR TO INSTALLATION

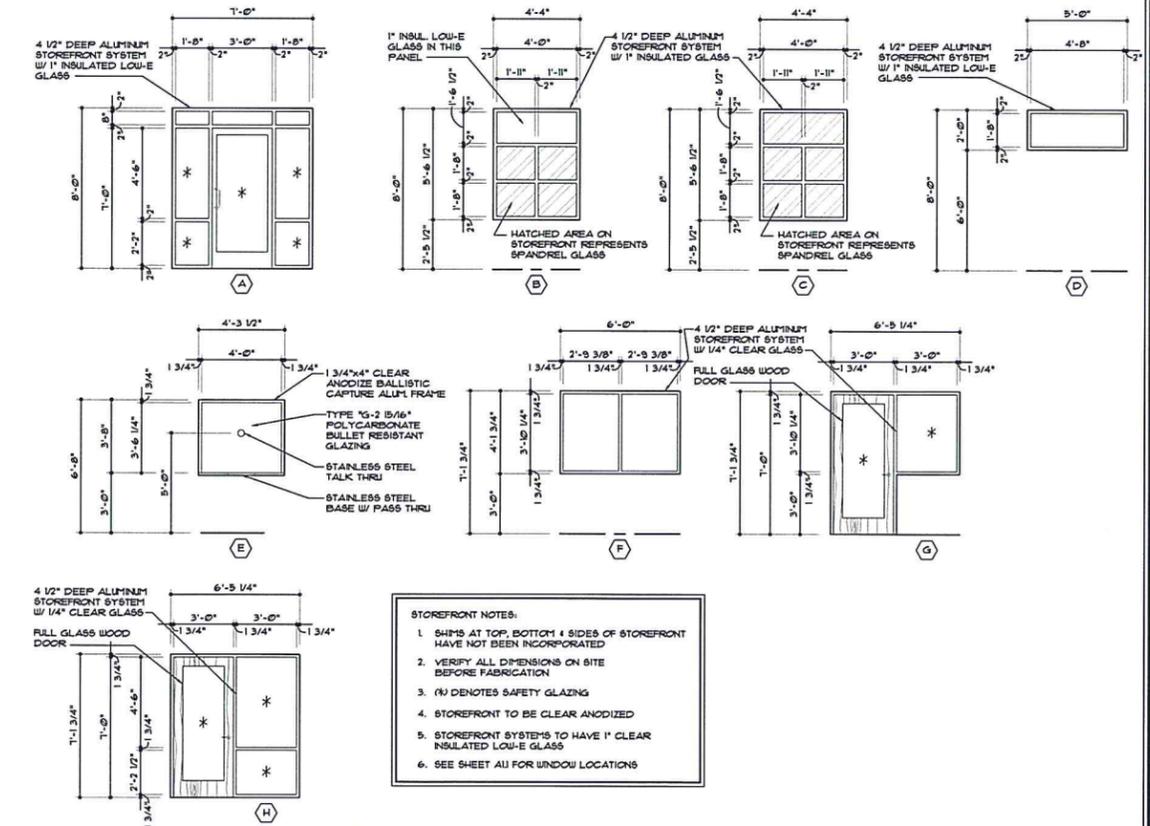
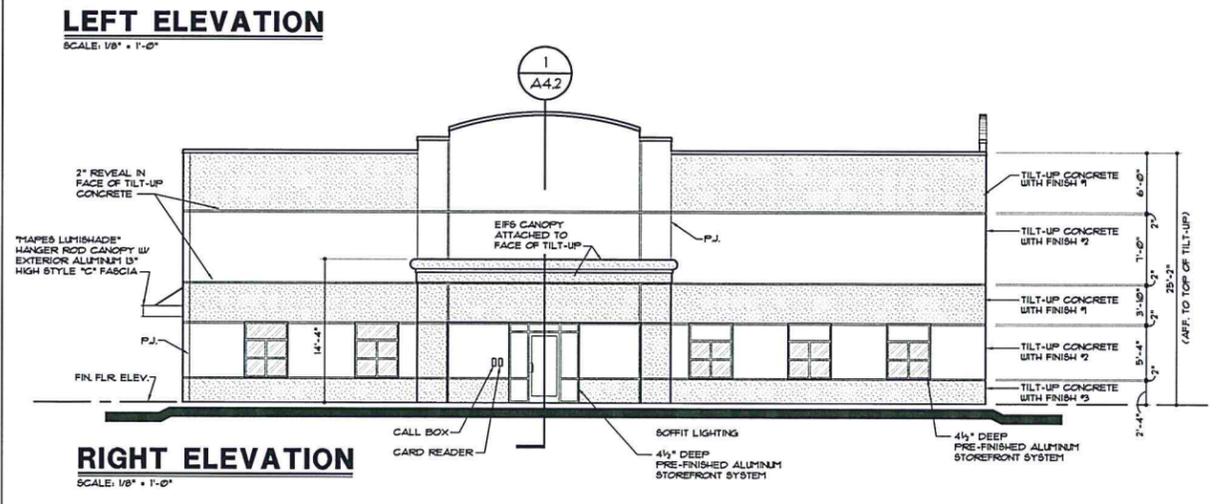
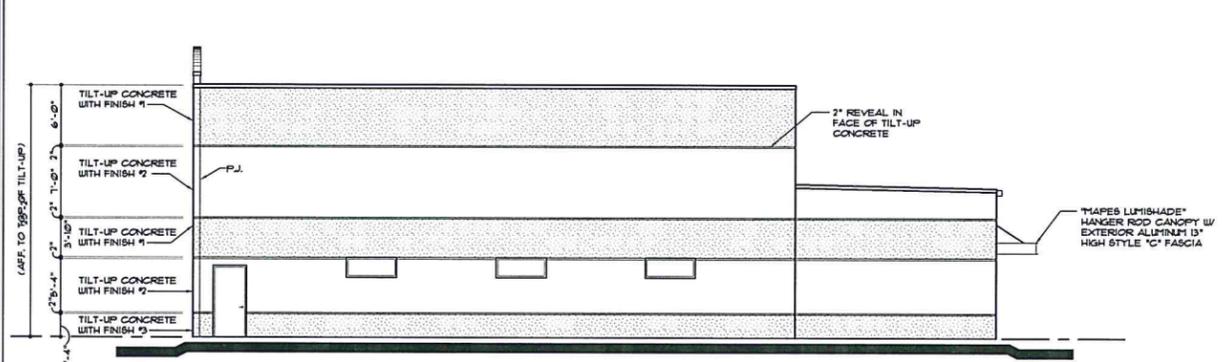
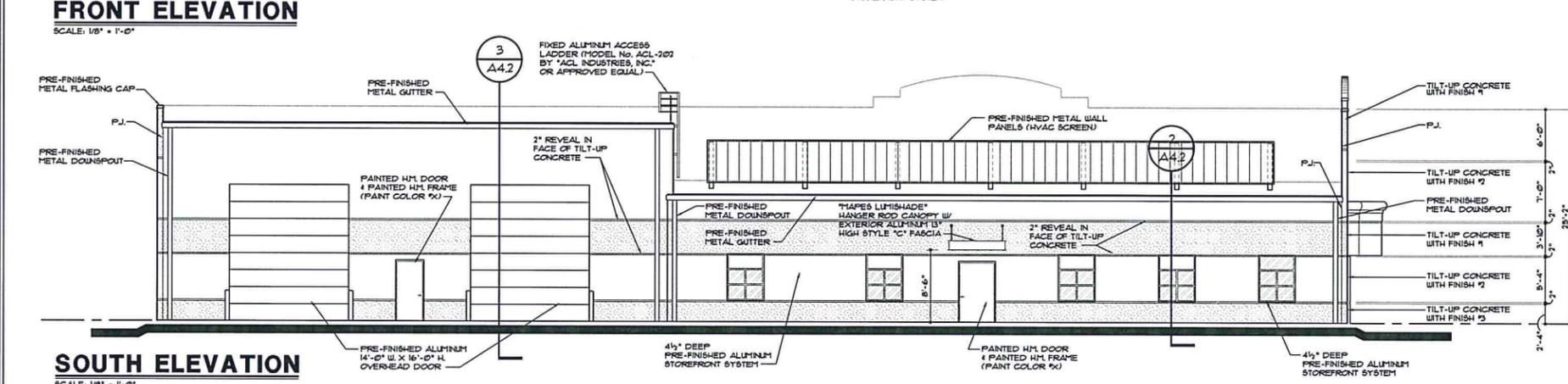
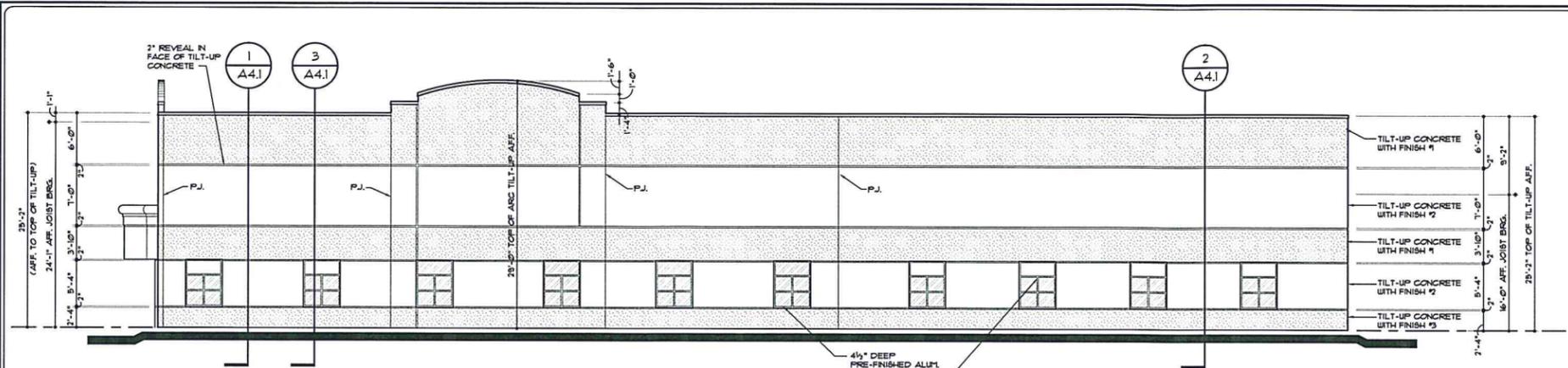
Revisions

Job Number	1342
50% Issued Date	07   01   2014

**HCPD - CENTRAL PRECINCT**  
 HENRICO COUNTY, VIRGINIA

Sheet Name  
**EXTERIOR ELEVATIONS WINDOW TYPES**

Sheet Number  
**A3.1**  
 05 of 10

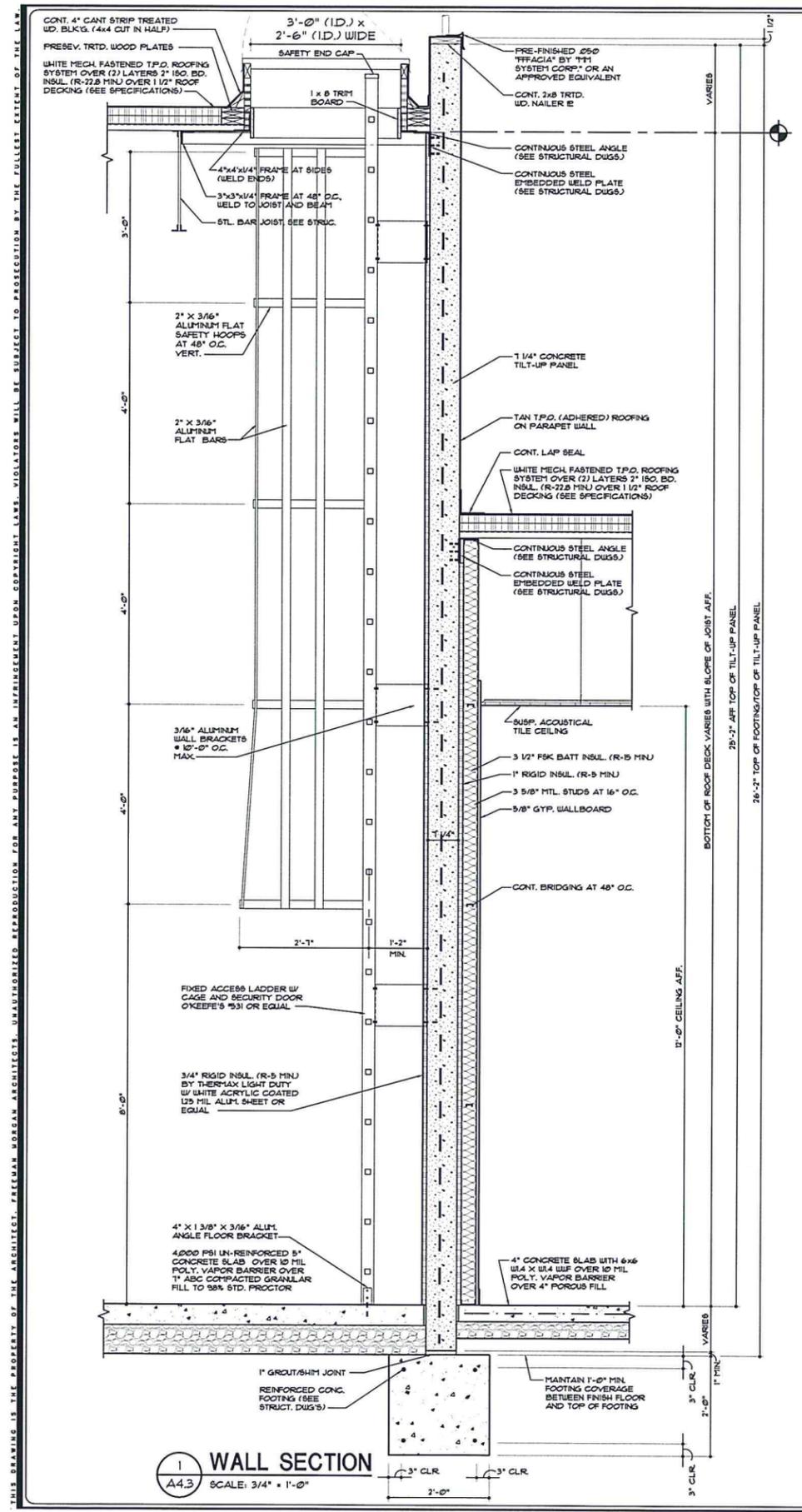


- STOREFRONT NOTES:**
1. SHIMS AT TOP, BOTTOM & SIDES OF STOREFRONT HAVE NOT BEEN INCORPORATED
  2. VERIFY ALL DIMENSIONS ON SITE BEFORE FABRICATION
  3. (A) DENOTES SAFETY GLAZING
  4. STOREFRONT TO BE CLEAR ANODIZED
  5. STOREFRONT SYSTEMS TO HAVE 1" CLEAR INSULATED LOW-E GLASS
  6. SEE SHEET A11 FOR WINDOW LOCATIONS

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**1**  
**A4.3**  
**WALL SECTION**  
 SCALE: 3/4" = 1'-0"

Revisions

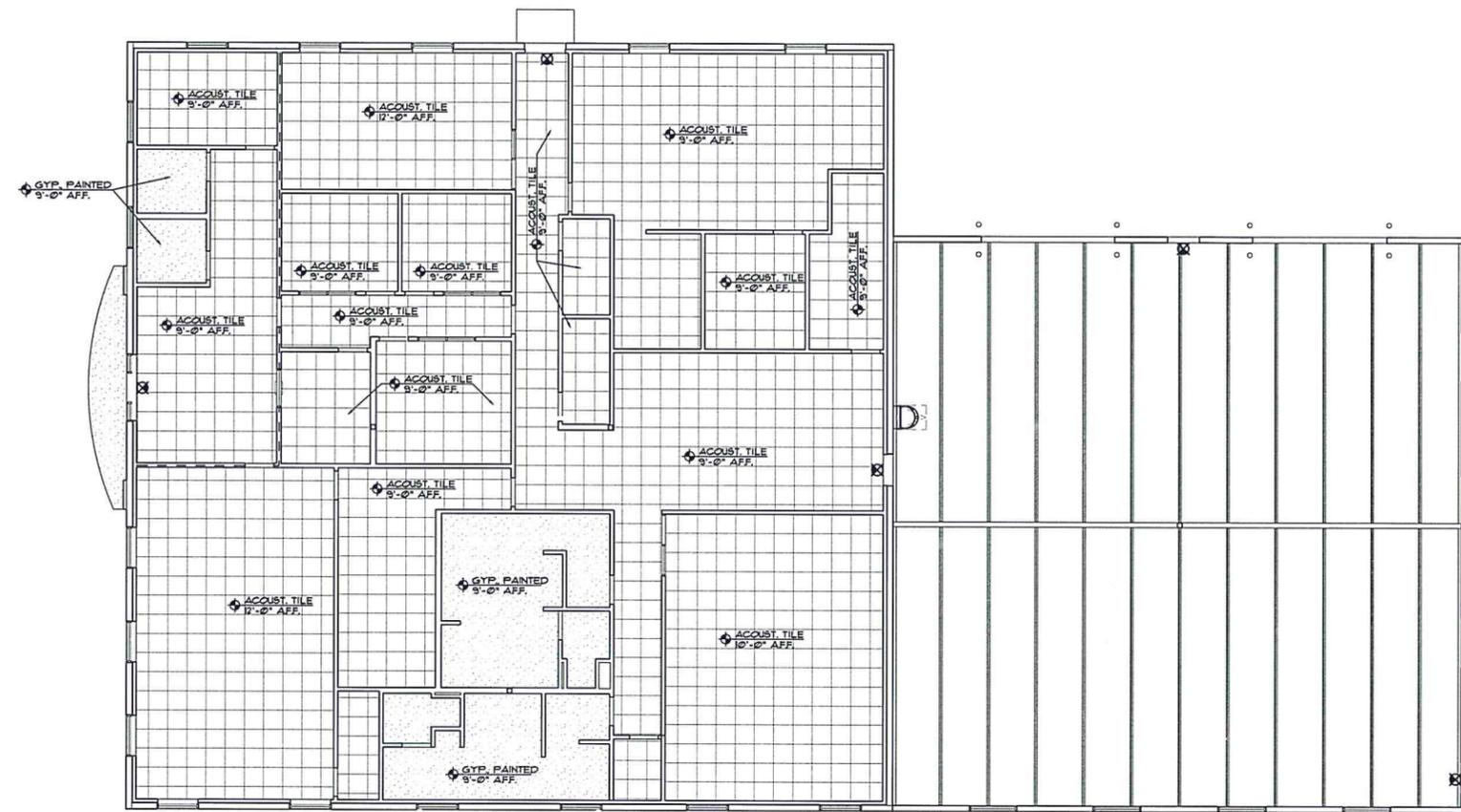
Job Number	1342
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**HCPD - CENTRAL PRECINCT**  
**HENRICO COUNTY, VIRGINIA**

SHEET NAME  
**WALL SECTIONS**

SHEET NUMBER  
**A4.3**

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**REFLECTED CEILING PLAN**

SCALE: 1/8" = 1'-0"

Revisions

Job Number	1342
50% Issued Date	07   01   2014

**HCPD - CENTRAL PRECINCT**

HENRICO COUNTY, VIRGINIA

Sheet Name	REFLECTED CEILING PLAN
------------	---------------------------

Sheet Number

**A5.1**



**RELATED MECHANICAL WORK PROVIDED BY OTHERS**

- Fire protection
- Work beyond 5'-0" outside of the building
- Final connections to utilities at 5'-0" outside (if we are there "first")
- Public Utility connection fees
- Exterior gas piping, meter and fees
- Concrete pads or pipe bollards
- Temporary water or sanitary utilities
- Temporary heating and/or cooling
- Foundation drainage
- Roof drainage (except @ front canopy)
- Gutters, scupper boxes and downspouts
- Flashing for roof penetrations
- Blocking, leveling or shimming of roof curbs
- Roof cutting and patching (including metal decking)
- Steel framing at roof mounted equipment
- Flashing/Framing/Sealing at wall openings
- Power wiring
- Disconnect switches
- 120/160 Interlock wiring required for fan/cover and fans to light switches.
- Smoke detectors and associated fire alarm wiring
- Transfer air opening in full height walls
- 120/160 convenience outlets at mechanical equipment
- 100 VA transformers w/ 24 VAC secondaries for zone damper system
- Access doors

**DESIGN CONDITIONS**

- Summer** (outside conditions - ASHRAE 1%): AREAS COOLED - 75° F
- Winter** (outside conditions - ASHRAE 99%): AREAS HEATED - 70° F  
GARAGE AREA - 65° F

**H.V.A.C. SPECIFICATIONS**

1. Low pressure supply air ductwork shall be galvanized sheet metal fabricated, braced, installed and sealed in accordance with SMACNA standards for static pressures up to 2" W.C.
2. Return air ductwork shall be galvanized sheet metal fabricated, braced, installed and sealed in accordance with SMACNA standards for static pressures down to -2" W.C.
3. Exhaust air ductwork shall be galvanized sheet metal fabricated, braced, installed and sealed in accordance with SMACNA standards for pressures from +1" to -1" W.C. Alum-Flex may be used as required.
4. Insulate all supply air ductwork within ceiling plenum areas with 1-1/2" thick, 3/4 PCF ductwrap.
5. Return ductwork shall be lined with 1/2" thick, 15 PCF acoustical duct liner.
6. Duct sizes shown on the drawings are inside clear dimensions. Increase duct sizes as shown to allow for liner.
7. Condensate drain piping shall be PVC for RTU's. Spill on roof. Condensate drain piping from FCU's shall be Type M copper w/ 1/2" fiberglass insulation w/ ABS.

**HVAC CODE NOTES**

1. All mechanical work shall be provided in accordance with the 2009 International Mechanical Code (IMC) and the Henrico County's requirements.
2. Test all mechanical systems in accordance with the 2009 IMC, and the Henrico County's requirements.
3. HVAC Systems shall be designed in accordance with the International Energy Conservation Code per IMC 301.2.
4. All HVAC equipment shall be tested by an independent agency certified for public safety as per IMC 301.4.
5. All piping and duct penetrations through fire rated assemblies shall be properly fire-stopped in accordance with IMC 301.2. Install fire dampers in accordance with the manufacturer's written instructions.
6. Provide pipe bollards or other means (by others) to protect all mechanical equipment subject to vehicular damage as per IMC 303.4.
7. Install all mechanical equipment in accordance with the manufacturer's written instructions as required by IMC 304.1.
8. Equipment located in hazardous locations (Repair Garages, Parking Garages, etc.) shall have its ignition sources 18" above the floor as per IMC 304.3.
9. Equipment located in service garages (or other areas) subjected to motor vehicle traffic shall be installed a minimum of 8' AFF. Where motor vehicles exceed 6'-0" in height and are capable of passing under such equipment it shall be installed 2'-0" above the height of the tallest vehicle as per IMC 304.5.
10. Maintain clearances to combustibles materials in accordance with the manufacturer's written instructions as per IMC 304.8.
11. Guard Rails shall be provided (by others) at all equipment located within 10'-0" of the roof edge as per IMC 304.10.
12. Permanent access shall be provided (by others) for all mechanical equipment located on roofs exceeding 16'-0" in height as per IMC 306.5.
13. Intake air openings shall be located at least 10'-0" away from any hazardous or noxious exhaust. Where an intake is located within 10' of such exhaust, it shall be located a minimum of 2' below the contaminant source as per IMC 401.5.1.
14. Outside air is provided based on the occupancy rate and ventilation rate as required by VUSBC Table 403.3. See Outside Air Table this sheet.
15. Toilet rooms shall be exhausted at the rate of 75 CFM per water closet and urinal as per IMC 403.3.
16. Locker rooms shall be exhausted at the rate of 25 CFM per square foot as per IMC 403.3.
17. Janitor closets shall be exhausted at the rate of 25 CFM per square foot as per IMC 403.3.
18. Materials located within a ceiling plenum shall be rated for such use as per IMC 602.2.1.
19. Flexible duct shall not exceed 14'-0" in length as per IMC 603.6.2.1. Provide 1" metal strap hangers to provide proper support. For non-ceiling plenum installations provide R-6 minimum insulation.
20. Flexible duct penetrations shall not pass through any floor, wall, ceiling or fire rated assembly as per IMC 603.6.2.2.
21. Provide a smoke detector (by others) in the return air duct upstream of any filters, outside air connections, etc. for an air handling system with a return air capacity greater than 2000 cfm. as per IMC 606.2.1. (RTU's only)
22. Provide an audio-visual alarm located in a constantly attended location (by others) unless a fire alarm system is provided as per IMC 606.4.1, Exception 1.
23. Combustion air is provided for GUH's by inside air since the area is defined as an unconfined space as per IMC 102.2. (50 cubic feet per 1000 MBH input).
24. Gas vents shall be single wall where clearances to combustibles exceed 6" and are in heated areas. Gas vents shall be Type B where clearances to combustibles are less than 6" or are in an unheated area. Terminate gas vents in accordance with IMC 802.6.
25. Provide an economizer cycle on all HVAC equipment with a cooling capacity greater than 54000 BTU/HR as per the 2009 International Energy Conservation Code (IECC) 503.3.1. (i.e. RTU's only)
26. Garage is considered an "enclosed parking garage" and will require ventilation at the rate of 0.75 cfm/SF as per VUSBC table 403.3. Minimum ventilation provided = 0.05 cfm/SF per IMC 404.2 by EF's and maximum ventilation provided by CO controlled EF's.



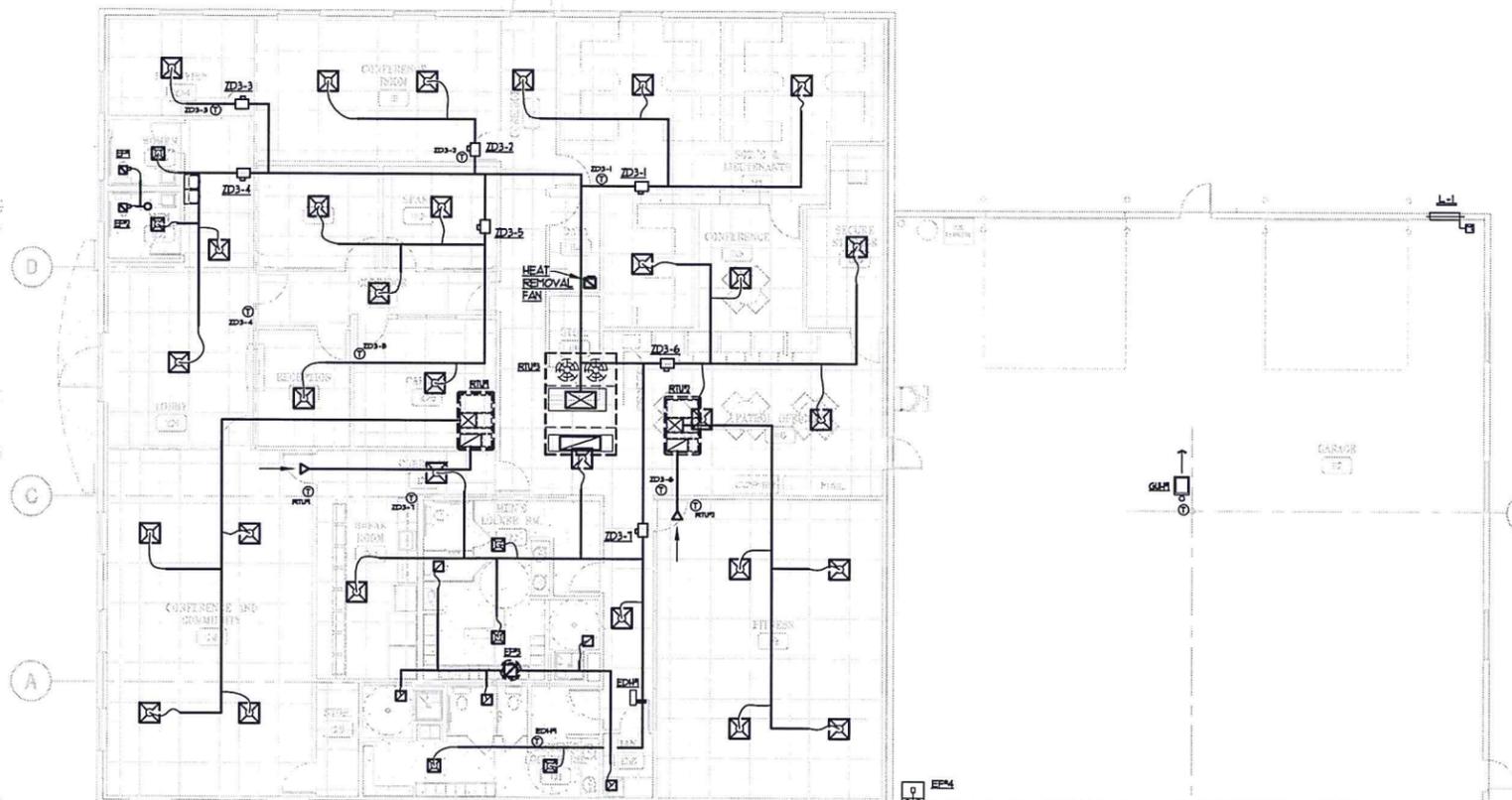
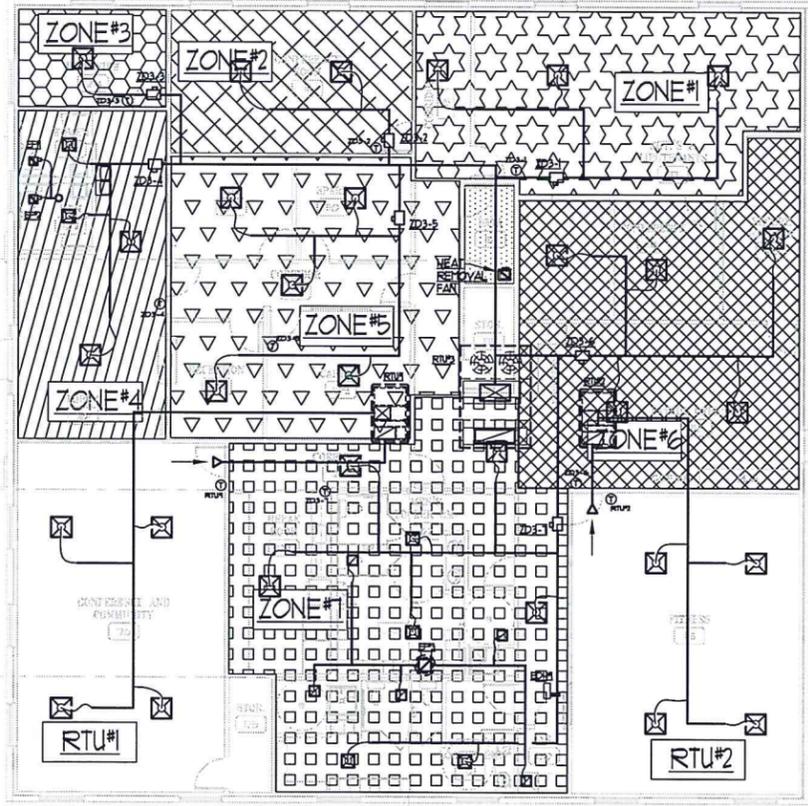
REAMES AND MOYER, INC.  
MECHANICAL CONTRACTORS  
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REVISIONS

**MECHANICAL FLOOR PLAN, ZONING PLAN & NOTES**  
**HCPD - CENTRAL PRECINCT**  
**HENRICO COUNTY, VIRGINIA**

DESIGNED BY:	J.B. Staley
DRAWN BY:	J.B. Staley
CHECKED BY:	R.S. REAMES
SCALE:	1/8" = 1'-0"
DATE:	6/30/14
SHEET NO.:	M-1



**50% DESIGN DEVELOPMENT**  
6/30/2014

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**PLUMBING SPECIFICATIONS**

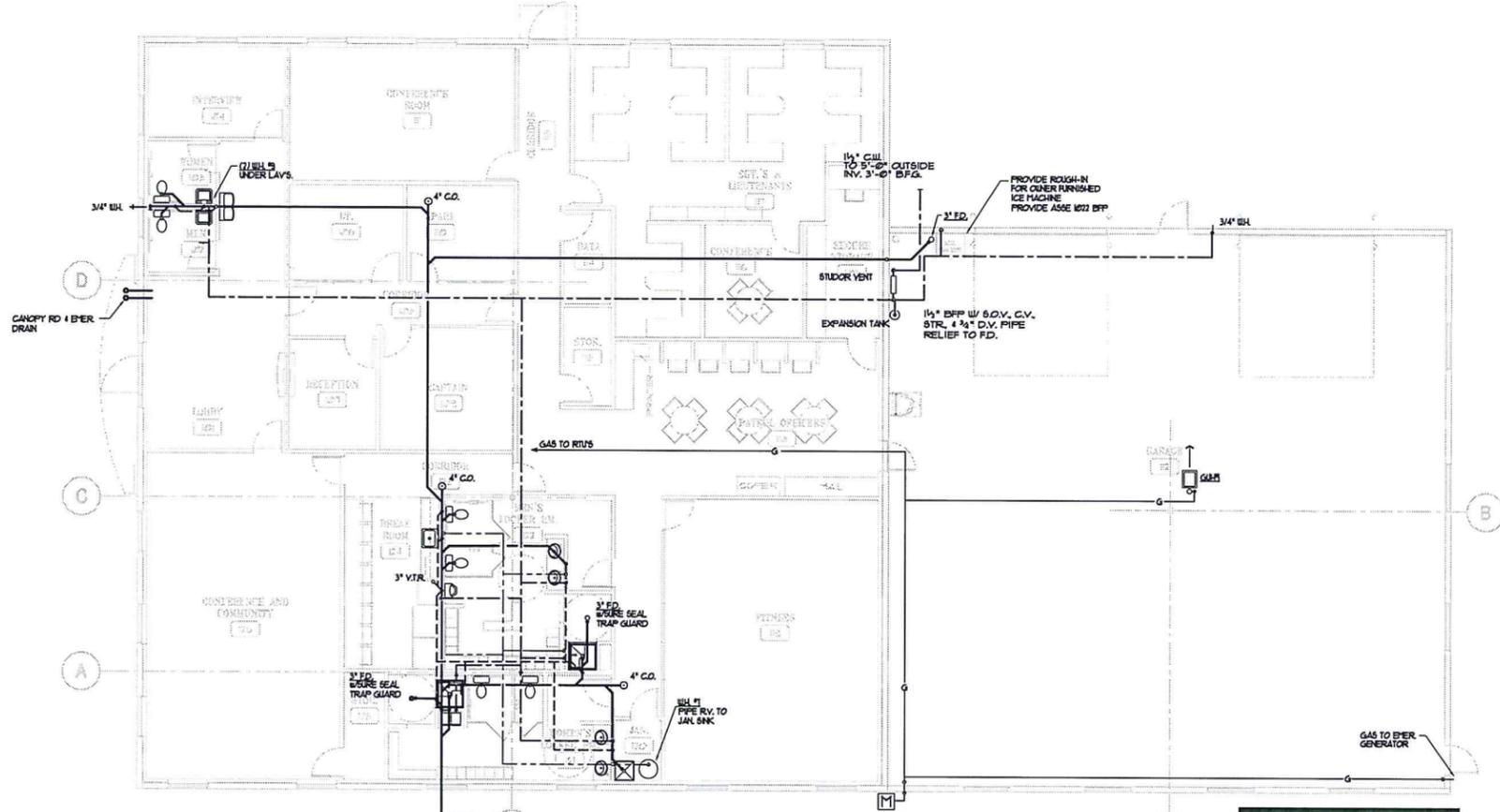
- All sanitary waste, vent and storm piping below ground shall be Form Core PVC. Utilize purple primer and glue to provide solvent weld joints. Slope waste, vent and storm piping 1/8"/ft. unless otherwise noted.
- All sanitary waste, vent and storm piping located above grade in ceiling plenums shall be No-Hub Cast Iron.
- All domestic water piping above grade shall be Type "M" copper with lead free soldered joints. Below ground piping shall be Type "L".
- Insulate domestic cold water piping above grade where concealed with 1/2" fiberglass insulation with ASJ. Domestic cold water piping located within ceiling plenum areas shall not be insulated.
- Insulate all domestic hot water piping with 1" fiberglass insulation with ASJ.
- Gas piping 2" and smaller shall be Schedule 40 black T&C with black malleable threaded fittings. Use pipe dope approved for use with natural gas.

**PLUMBING CODE NOTES**

- All work shall be in accordance with the 2009 International Plumbing Code (IPC) and Henrico County's requirements.
- Test all sanitary waste, vent, storm, domestic water and gas piping in accordance with the 2009 IPC and Henrico County's requirements.
- All gas piping shall be in accordance with the 2009 International Fuel Gas Code (IFGC) and Henrico County's requirements.
- Test all gas piping in accordance with the 2009 IFGC and Henrico County's requirements.
- All materials used in this project shall be installed in strict accordance with the manufacturer's written instructions as per IPC 303.2.
- All piping penetrations through fire rated assemblies shall be properly fire-stopped in accordance with IPC 309.4.
- The quantity of plumbing fixtures and determination of ADA accessibility has been provided by the Architect. Although this is deemed reasonable, Resmes & Moyer, Inc. accepts no responsibility for information provided by others.
- Handicapped use plumbing fixtures are designated in the Plumbing Fixture Schedule. Install fixtures in accordance with ANSI standards as per IPC 404. Insulate P-trap and hot & cold water supplies beneath handicapped lavatories and sinks (Tru-Bro covers or equal) where a trap seal is subject to loss by evaporation, a trap seal primer valve (a "SureSeal Trap Sealer") shall be installed as per IPC 1007.4.
- All wall hydrants, hose bibbs and other appurtenances with hose and connections shall be provided with vacuum breakers or other means to prevent back flow as per IPC 608.3.
- Provide pressure balanced mixing valve with integral stops at each shower and limit the hot water temperature to 120°F as per IPC 424.3.
- Adjust hot water supply temperature to no higher than 110°F as per IPC 607.1.
- Water heaters shall be of the energy efficient type for both thermal and stand by losses.
- Provide temperature and pressure relief valve on each storage type water heater as per IPC 504.4. Pipe relief valve outlet full size to the adjacent janitor's sink.
- Provide drain pans beneath all water heaters where leakage of the tanks will cause damage as per IPC 504.1.
- Provide a reduced pressure backflow preventer (Watts 9309 or equal) at the domestic cold water service entrance to the building as per IPC 608.1. Provide strainer and soft seated check valve to minimize "spitting".
- Provide a thermal expansion tank to control excessive pressures created by water storage heating equipment as per IPC 607.3.2.
- Plumbing fixture flow rates shall not exceed the requirements of IPC 604.4.
- A water hammer arrestor shall be installed where quick closing valves are utilized as per IPC 604.3.
- Disinfect the domestic hot and cold water systems as per IPC 610.1.
- All horizontal drains shall be provided with cleanouts located not more than 100' apart as per IPC 1003.3.
- Cleanouts shall be installed at each change of direction in the building drain or horizontal waste lines greater than 45 degrees. Where more than one change of direction occurs in a run of piping, only one cleanout shall be required for each 40' of developed length of the drainage piping as per IPC 1003.3.
- A cleanout shall be provided at the base of each soil or waste stack per IPC 1003.4.
- A cleanout shall be provided within 10' developed length of the junction of the building drain and the building sewer as per IPC 1003.5.
- Cleanouts shall be line size except that 4" cleanouts are acceptable on piping 4" and larger as per IPC 1007.1.
- Sanitary drainage systems have been designed in strict accordance with IPC 710.
- An open vent terminal shall terminate a minimum of 10' from any fresh air intake openings unless it is at least 2'-0" above the top of such opening as per IPC 304.5.
- Vent piping systems have been designed in strict accordance with IPC 916.
- Air admittance valves (Studor Mini Vent) shall be provided as shown on the drawings and installed in strict accordance with IPC 917. Do not install in ceiling plenum areas.
- Roof drainage is provided by gutters and downspout except for the Entrance Canopy (Primary and emergency roof drainage has been sized for 3.3"/hr for Richmond, VA)
- Gas piping exposed to the weather shall be protected with one coat of rust inhibiting paint. Provide pipe identification markers on all gas piping.
- Gas piping has been sized for 2 PSI natural gas. Provide gas regulator at each piece of gas-fired equipment in order to reduce the pressure to 1" w.c. Provide regulators with vent limiters to eliminate vent piping when installed indoors. DO NOT INSTALL VENT LIMITERS ON REGULATORS LOCATED OUTDOORS.
- Plumbing fixtures shall be commercial grade type - American Standard or equal. Water closets shall be Tank type. All plumbing fixtures shall be white (where applicable).
- Water closets shall have elongated bowls with open front seats.
- The area above the ceiling is a return air plenum. All materials located there shall be suitable for such use. Do not use PVC piping in this area.

PLUMBING FIXTURE SCHEDULE					
FIXTURE #	TYPE	WASTE	C.W.	H.W.	NOTES
F-1A	WATER CLOSET TANK TYPE	4"	1/2"	--	FLOOR MOUNTED STANDARD
F-2A1	WATER CLOSET TANK TYPE	4"	1/2"	--	FLOOR MOUNTED - RH ADA COMPLIANT
F-2A2	WATER CLOSET TANK TYPE	4"	1/2"	--	FLOOR MOUNTED - LH ADA COMPLIANT
F-4A	URINAL WALL HANG	2"	3/4"	--	ADA COMPLIANT
F-5A	LAVATORY DROP-IN	2"	1/2"	1/2"	STANDARD
F-5B	LAVATORY WALL HANG	2"	1/2"	1/2"	STANDARD
F-6A	LAVATORY DROP-IN	2"	1/2"	1/2"	ADA COMPLIANT
F-6B	LAVATORY WALL HANG	2"	1/2"	1/2"	ADA COMPLIANT
F-8A	ELEG. WATER COOLER SH-LEVEL	2"	1/2"	--	ADA COMPLIANT
F-9C	HOP BASIN FLOOR MOUNT	2"	1/2"	1/2"	FIBERGLASS HOP BASIN
F-10A	STAINLESS STEEL SINGLE BOUL KITCHEN SINK	2"	1/2"	1/2"	ADA COMPLIANT
F-12A	SHOWER - TRANSFER - RH 38"W x 31"D	2"	1/2"	1/2"	FIBERGLASS SHOWER UNIT ADA COMPLIANT

WATER HEATER SCHEDULE						
TAG #	MODEL	CAPACITY	V/FWHz	Ku	MANUFACTURER	ACCESSORIES
WH #1	FE-66-1	66 GAL	240/160	45/45	RUUD	PROVIDE RELIEF VALVE AND DRAIN PAN, VACUUM BREAKER, NON-SIMULTANEOUS WIRING
WH #2	DHC 3-2	INSTANT	208/160	12.4/99	STIEBEL ELTRON	

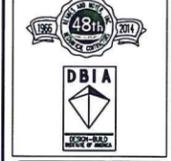


**PLUMBING FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

**50% DESIGN DEVELOPMENT**  
6/30/2014



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DESIGN-BUILD



REVISIONS

**PLUMBING FLOOR PLAN, SCHEDULES & NOTES**  
**HCPD - CENTRAL PRECINCT**  
**HENRICO COUNTY, VIRGINIA**

DESIGNED BY:	J.B. Staley
DRAWN BY:	J.B. Staley
CHECKED BY:	R.A. REAMES
SCALE:	1/8" = 1'-0"
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SHEET NO:	P-1
BEST OF:	1 OF 1

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