# A G E N D A JAMES CITY COUNTY DEVELOPMENT REVIEW COMMITTEE REGULAR MEETING

Building A Large Conference Room 101 Mounts Bay Road, Williamsburg, VA 23185 August 24, 2022 4:00 PM

- A. CALL TO ORDER
- B. ROLL CALL
- C. MINUTES
  - 1. April 20, 2022 Meeting Minutes
- D. OLD BUSINESS
- E. NEW BUSINESS
  - 1. SP-22-0005. Colonial Veterinary Clinic Parking Expansion
- F. ADJOURNMENT

# **AGENDA ITEM NO. C.1.**

# **ITEM SUMMARY**

DATE: 8/24/2022

TO: The Development Review Committee

FROM: Paul D. Holt, III, Secretary

SUBJECT: April 20, 2022 Meeting Minutes

**ATTACHMENTS:** 

Description Type

Minutes of the April 20, 2022 DRC D Minutes

Meeting

**REVIEWERS:** 

Reviewer Action Department Date

Development Review Crump, Josh Approved 8/17/2022 - 10:50 AM Committee

Development Review

Secretary, DRC Approved 8/17/2022 - 2:40 PM Committee

# M I N U T E S JAMES CITY COUNTY DEVELOPMENT REVIEW COMMITTEE REGULAR MEETING

Building A Large Conference Room 101 Mounts Bay Road, Williamsburg, VA 23185 April 20, 2022 4:00 PM

# A. CALL TO ORDER

Ms. Barbara Null called the Development Review Committee (DRC) meeting to order at 4 p.m.

# B. ROLL CALL

# **Present:**

Barbara Null, Chair Frank Polster Stephen Rodgers Rob Rose

# Also in Attendance:

Jack Haldeman

# **Staff in Attendance:**

Josh Crump, Principal Planner John Risinger, Planner Thomas Wysong, Senior Planner Katie Pelletier, Community Development Assistant

# C. MINUTES

1. March 30, 2022 Meeting Minutes

Mr. Polster motioned to Approve the March 30, 2022, DRC meeting minutes.

On a voice vote, the Motion passed 4-0.

# D. OLD BUSINESS

There was no old business.

# E. NEW BUSINESS

1. C-22-0019. 7607 Richmond Road - Oakland Farm Residential Rezoning

Mr. Risinger greeted the Committee and stated that Mr. John Grier from Plus Management Commercial Real Estate has submitted a conceptual plan for a proposed residential development located at 7607 Richmond Road. He said the parcel is currently zoned A-1, General Agriculture and is designated Low Density Residential (LDR) on the 2045 Comprehensive Plan Land Use map. Mr. Risinger said the parcel is inside the Primary Service Area and is approximately 95 acres in size. He noted the proposed development would have a density of 2.5 to three units per acre, with a mixture of single-family and multifamily units. Mr. Risinger said the Comprehensive Plan recommends a gross density of one to four units per acre in LDR areas if particular public benefits are provided. He noted that single-family and multifamily units are recommended uses in LDR areas.

Mr. Risinger stated that the applicant has requested this item be placed on the Committee's Agenda to have a high-level discussion of the project and seek input and questions from the DRC members before starting detailed design work. He said no action by the DRC is required. Mr. Risinger said he would be happy to answer questions, and the applicant has a presentation available.

Mr. Greer addressed the Committee and said he appreciated the opportunity to meet with the Committee for its feedback on the design principles and acceptable density range of the proposed development. He said the estate owners contacted him for help understanding the land use designation change from Moderate Density Residential to LDR during the recent Comprehensive Plan update. He said the estate needs to sell and was looking for advice on the property. He said he grew up appreciating design with nature developments such as Kingsmill and supports the slow growth mindset.

Mr. Greer displayed an initial civil engineer drawing of what he said could be developed on the property. He said it did not consider the rural procession down Oakland Drive that the residents in the rear Oakland subdivision have enjoyed for many years. He noted that with the approved apartments next door, it is an emerging growth area but with a rural context. Mr. Greer said if the Comprehensive Plan acknowledges the need to account for growth in the area, then a development plan should still try to account for the history and layout of the property. He said the Oakland subdivision in the back has a covenant for no lots under one acre, and the residents enjoy the open field setting. Mr. Greer said the intent by the estate, however, was always to have higher density in the front. He said there is the possibility to do a Traditional Neighborhood Development or village-influenced design on the property, but he thought that would squeeze existing residents into a more urban setting. He said a different approach would consider the layout of the fields and clusters of specimen trees and preserve the rural character along Route 60 and the roadway procession to the existing community.

Mr. Greer then showed the Committee photos of the existing property, trees, and road procession to the Oakland subdivision. He showed an alternative design for the development which incorporates the existing Oakland Drive and tree clusters. He asked the Committee for its feedback on the best density range.

Mr. Polster said he is concerned about the impacts of the proposed density of 270 new units, in addition to the 126 approved apartment units and the existing 40-50 homes in the back. He stressed there were traffic mitigation concerns for the Richmond Road and Croaker Road corridors. Mr. Polster also stated that any new design should fit the aesthetics of the planned landscaping, roadways, and bikeways of the apartment development. Mr. Polster said he envisioned R-1, Limited Residential zoning for the property but suggested the applicant consider the impacts and what design guidelines, benefits, or proffers might be proposed to offset another proposed zoning.

Mr. Greer said he would look closer at the character design guidelines. He said they have spoken to traffic consultants about the circumstances and constraints and would research possible mitigation approaches to the traffic.

Ms. Null noted the Board of Supervisors has already received comments on the proposal from concerned citizens. She expressed concern about the proposed density, the traffic impacts, and possible requirements for additional schools.

Mr. Greer asked what would be considered preservation of the rural character.

Mr. Polster suggested limiting zoning to R-1, Limited Residential with one-acre lot density and a cap on traffic impacts to keep the same Level of Service.

Mr. Crump suggested looking at the net developable area when considering density. He noted the Ordinance update process is just beginning.

Mr. Greer said it is helpful to know what is desired by the community when considering proposed proffers, such as open space and trails, or affordable housing.

Mr. Rose commented the existing community will likely be concerned with the new development and fencing.

Mr. Greer said he understood and hopes to please the existing residents by keeping the existing roadway and offering a trail network potentially.

Mr. Wysong offered to send examples of recent residential rezonings for context and consideration of possible public benefits.

Mr. Haldeman asked about the driveways for proposed lots near the entrance.

Mr. Greer replied they would likely use a slip road.

Ms. Null suggested garages in the back.

Mr. Risinger noted that lots cannot front on existing roads within a major subdivision. He also noted there may be options in each zoning district for smaller lots to allow more open space, if a gross density is met and depending on water and sewer service. He also noted the cluster overlay is available in R-1 and R-2 Zoning Districts, but the R-1 Zoning District does not allow multifamily housing.

Mr. Polster suggested exploring the idea of rural clustering with staff.

Mr. Greer mentioned the concept of rural hamlets in Loudoun County, Virginia.

Mr. Polster also noted that extended Resource Protection Area buffers could be considered a public benefit. He said trails could also be located in that area.

Mr. Greer asked if keeping the existing Oakland Drive layout is the right solution.

Mr. Polster replied that it would depend on the settings and what development is proposed with it. He said most important would be the density, traffic, and aesthetics.

Mr. Greer thanked the Committee for its time and feedback.

Ms. Null thanked everyone for attending the meeting.

# F. ADJOURNMENT

Mr. Rose motioned to Adjourn the meeting.

Ms. Null adjourned the meeting at 5:00 p.m. after a unanimous voice vote of 4-0.

Ms. Barbara Null, Chair Mr. Paul Holt, Secretary

# **AGENDA ITEM NO. E.1.**

# **ITEM SUMMARY**

DATE: 8/24/2022

TO: The Development Review Committee

FROM: Jose Ribeiro, Senior Planner II & Landscape Planner

SUBJECT: SP-22-0005. Colonial Veterinary Clinic Parking Expansion

# **ATTACHMENTS:**

	Description	Type
D	1. Staff Report	Staff Report
D	2. Location Map	Exhibit
D	3. Site Plan	Backup Material
D	4. Adopted Master Plan	Backup Material
D	5. Adopted Proffers	Backup Material
ם	6. Primary Principles for Five Forks Area	Backup Material

# **REVIEWERS:**

Department	Reviewer	Action	Date
Development Review Committee	Crump, Josh	Approved	8/17/2022 - 9:55 AM
Development Review Committee	Secretary, DRC	Approved	8/17/2022 - 2:40 PM

# SITE PLAN-22-0005. 3280 Ironbound Road, Colonial Veterinary Clinic Parking Expansion - Master Plan Consistency

# Staff Report for the August 24, 2022, Development Review Committee Meeting

# **SUMMARY FACTS**

Applicant: Mr. Ryan Stephenson of AES Consulting

Engineers

Land Owner: Odlepahquote, LLC

Proposal: Development of an off-site parking area of

15 spaces for an existing veterinary clinic at a location previously identified on a master plan for the development of a 1,440-square-foot, two-story office building, a 520-square-foot attached garage, and a

parking area with three spaces

Locations: 3280 Ironbound Road (existing veterinary

clinic)

118 Ingram Road (undeveloped, proposed

location for sidewalk)

112 Ingram Road (undeveloped, proposed location for additional off-site parking

spaces)

Tax Map/Parcel Nos.: 4710100022B

4710100022A 4710100023

Project Acreage: +/- 1.2 acres

+/- 0.8 acres +/- 0.3 acres +/- 2.3 acres

Zoning: B-1, General Business, with proffers

Comprehensive Plan: Mixed Use

Primary Service Area: Inside

Staff Contact: Jose Ribeiro, Senior Planner II

# REASON FOR PLANNING COMMISSION REVIEW FACTORS FAVORABLE

- 1. Staff finds the proposal will not negatively impact surrounding development.
- 2. Standalone parking areas are permitted in B-1 Zoning Districts.

# **FACTORS UNFAVORABLE**

1. Staff finds that the proposed use of the property is not consistent with the use approved as part of a previous rezoning (Z-0005-2007).

# SUMMARY STAFF RECOMMENDATION

Staff recommends that the Development Review Committee (DRC) find this proposal not consistent with the adopted master plan. Staff also recommends the DRC recommend denial to the Planning Commission and that the applicant pursue a master plan amendment through the legislative application process.

# **PROJECT HISTORY**

• Colonial Veterinary Clinic is located at 3280 Ironbound Road at the intersection of Ironbound and Ingram Roads.

# Staff Report for the August 24, 2022, Development Review Committee Meeting

- In 1997, a site plan (SP-21-97) was approved for the construction of a 4,100-square-foot building along with a parking lot with capacity for 16 parking spaces.
- On February 12, 2008, the Board of Supervisors approved a rezoning request for property located at 112 Ingram Road (Z-0005-2007) from R-8, Rural Residential, to B-1, General Road Business, allowing for the construction of a two-story office building, attached garage, and three parking spaces.
- In 2019, a site plan amendment (SP-19-0120) for the installation of an outdoor generator at the veterinary clinic was approved by staff.
- The properties located at 112 and 118 Ingram Road have remained undeveloped over the years.

# PROJECT DESCRIPTION

- The current site plan proposes the development of a parking area and pedestrian facilities accessory to the existing veterinary clinic but located off-site at 118 and 112 Ingram Road. According to the applicant, the additional parking spaces provided will allow for additional parking to the staff of the clinic. The parking requirements were met for the clinic during the initial site plan.
- All three properties share the same zoning and Comprehensive Plan designations: B-1 and Mixed Use; and ownership.
- As part of the rezoning of the property at 112 Ingram Road, a request for a reduction of the front setback from 50 feet to 25 feet and a reduction of the width of the landscape buffer along Ingram Road from 30 feet to 20 feet were also approved.

# SURROUNDING ZONING AND DEVELOPMENT

 North, South, East, and West: Properties are zoned B-1, General Business.

# STAFF ANALYSIS

At the time of the rezoning application there was a deliberate effort made by the applicant and staff to ensure that the property developed in accordance with the Primary Principles of the Five Forks Area of James City County. Adopted by the Board of Supervisors in 2004, these are principles designed to guide future development in the Five Forks area such as preserving the area's unique village character.

A proffer for architecture (Proffer No. 2) required the office building to be developed in an architectural design and color scheme that was consistent with the architectural standards set forth by the principles of the Five Forks area. As part of the standards, proposed parking areas would be located behind proposed buildings. Enhanced landscaping along the property's frontage was also proffered (Proffer No. 3). Staff finds that the original use of the property, as approved as part of the rezoning, to be more consistent and in keeping with the principles of Five Forks than a stand-alone parking area.

Further, Proffer No. 1 of the adopted rezoning (Z-0005-2007) requires that development of the property be similar to the approved master plan:

"The Property shall be put to one or more of the following possible uses: business, governmental, contractor's and professional offices and accessory uses thereto as defined in the James City County Zoning Ordinance. All other otherwise permissible uses shall be prohibited. The Property shall be developed generally in accordance with the Plan, with such minor changes as the Development Review Committee

# SITE PLAN-22-0005. 3280 Ironbound Road, Colonial Veterinary Clinic Parking Expansion - Master Plan Consistency

# Staff Report for the August 24, 2022, Development Review Committee Meeting

determines does not change the basic concept or character of the development."

Staff finds that the current proposal does change the basic concept and character of the development from the approved master plan.

# STAFF RECOMMENDATION

Staff recommends that the DRC find this proposal not consistent with the adopted master plan. Staff also recommends the DRC recommend denial to the Planning Commission and that the applicant pursue a master plan amendment through the legislative application process.

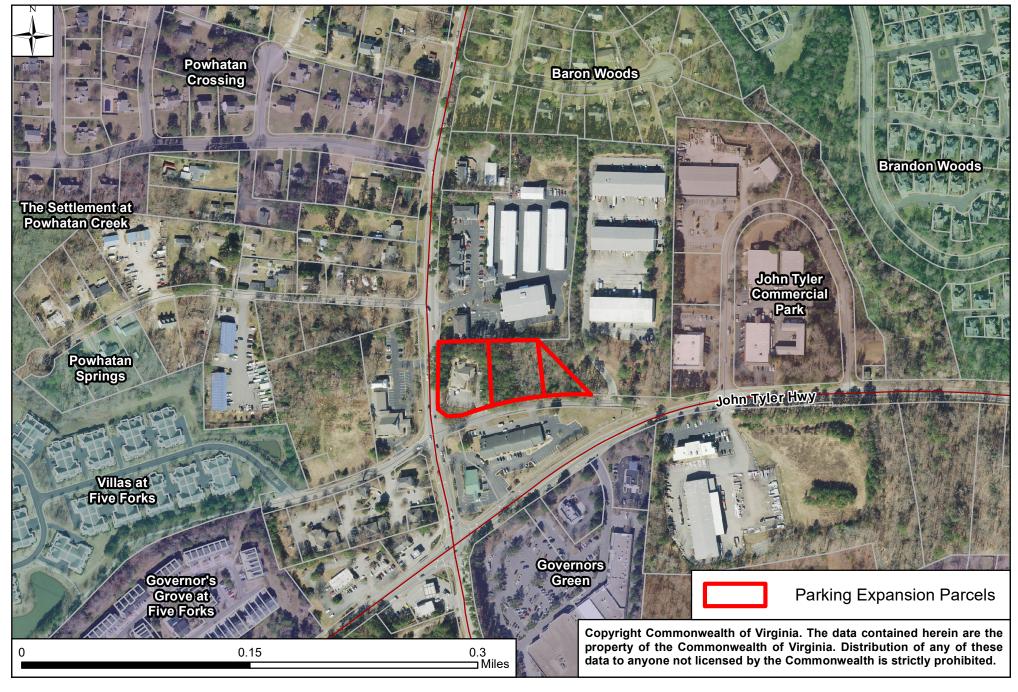
JR/md SP22-5-3280IrnbdExp

# Attachments:

- 1. Location map
- 2. Current Site Plan
- 3. Adopted Master Plan
- 4. Adopted Proffers
- 5. Primary Principles of the Five Forks Area

# JCC SP-22-0005, 3280 Ironbound Rd. Colonial Veterinary Clinic Parking Expansion





- 2. ALL ERRORS OR DISCREPANCIES WITH THE PLANS OR EXISTING SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER OR SURVEYOR OF RECORD REFORE PROCEEDING WITH THE WORK
- 3. CONTOUR INTERVAL IS 1 FOOT. EXISTING GRADE IS FROM A COMBINATION OF THE FOLLOWING: A FIELD SURVEY PROVIDED BY AES CONSULTING ENGINEERS DATED AUGUST 2021 AND JAMES CITY COUNTY GIS.
- 4. ALL UTILITY AND SURVEY DATA SHOWN ON THE DRAWINGS HAS BEEN PROVIDED BY THE COMBINATION OF SURVEYS AS DESCRIBED ABOVE. INFORMATION HAS BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES AT THE TIME OF THE SURVEY PROVIDED BY AES CONSULTING ENGINEERS BUT IS NOT REPRESENTED AS BEING COMPLETE AND ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT EXISTING UTILITIES AND UNDERGROUND STRUCTURES. DAMAGE TO EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO NO ADDITIONAL COST TO THE DEVELOPER.
- 5. EXISTING UTILITY LOCATIONS INDICATED ARE APPROXIMATE. FIELD VERIFY PRIOR TO COMMENCING THE WORK.
- 6. OWNER SHALL OBTAIN A LAND DISTURBING PERMIT. A SILTATION AGREEMENT, WITH SURETY, IS REQUIRED FOR THIS PROJECT.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE DRAWINGS AND FOR EXCAVATION, STOCKPILES, STAGING AREAS, MOBILIZATION SITES, BEDDING/BACKFILL STOCKPILES, AND OTHER LAND DISTURBANCES NOT SPECIFICALLY ADDRESSED IN THE DRAWINGS OR CONTRACT DOCUMENTS. EROSION AND SEDIMENT CONTROL MEASURES SHALL MEET OR EXCEED THE MINIMUM STANDARDS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" (LATEST PUBLICATION) AND THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY.
- 8. ALL DISTURBED AREAS, INCLUDING BUT NOT LIMITED TO PAVEMENT, SHOULDERS, DITCHES, HEADWALLS, ENDWALLS, CULVERT PIPES, CURB AND GUTTER, UTILITIES, DRIVEWAYS, SIGNS, MAILBOXES, ETC., SHALL BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN THOSE EXISTING PRIOR TO CONSTRUCTION OR AS SHOWN ON THE DRAWINGS. SIGNS, MAILBOXES, AND GUARDRAILS THAT ARE DISTURBED SHALL BE RETURNED TO THEIR ORIGINAL LOCATIONS DAILY AND MAINTAINED THROUGHOUT THE PROJECT.
- 9. THE CONTRACTOR SHALL REESTABLISH ALL PROPERTY PINS, MONUMENTS, WATER METERS, DRAINAGE CULVERTS, FENCES, UTILITY POLES, DRIVEWAYS, CURBS, GUTTERS, ETC. DISTURBED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE DEVELOPER/OWNER.
- 10. ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND AS PER JAMES CITY COUNTY ZONING ORDINANCE SECTION 24-200.
- 11. PRIVATELY OWNED UTILITIES SHOWN ON THIS PLAN ARE REGULATED BY THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE AND ENFORCED BY THE CODE COMPLIANCE DIVISION. THESE PRIVATELY OWNED UTILITIES MUST COMPLY FULLY WITH THE INTERNATIONAL PLUMBING CODE, THE NATIONAL FIRE PREVENTION ASSOCIATION STANDARD 24, AND THE INTERNATIONAL FIRE CODE. CONTRACTORS WORKING FROM THIS SITE PLAN ARE CAUTIONED NOT TO INSTALL OR CONCEAL PRIVATELY OWNED SITE UTILITIES WITHOUT OBTAINING REQUIRED PERMITS AND INSPECTIONS.
- 12. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO AND DURING CONSTRUCTION.
- 13. ANY EXISTING, UNUSED WELLS SHALL BE ABANDONED IN ACCORDANCE WITH THE VIRGINIA PRIVATE WELL REGULATIONS AND JAMES CITY
- 14. THE CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF THE APPROVED PLANS AT THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- 15. CONTRACTORS SHALL NOTIFY MISS UTILITY @ 811 OR (800) 552-7001 PRIOR TO STARTING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND DETERMINING SIZES OF ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS. CONTACT THE ENGINEER BEFORE PROCEEDING.
- 16. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL OWNERS AND RESIDENTS OF PROPERTY ADJACENT TO THE PROJECT 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK, UNLESS OTHERWISE DIRECTED BY THE OWNER. CONSTRUCTION WITHIN EASEMENTS OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN SUSPENSION OF WORK.
- 17. THE ABSENCE OF THE OWNER OR THE ENGINEER AT THE JOB SITE DOES NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE DRAWINGS, CONTRACT DOCUMENTS, ADDENDA, AND WRITTEN AUTHORIZED PLAN REVISIONS.
- 18. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANYBODY 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.
- 19. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURRENT JAMES CITY COUNTY STANDARDS AND SPECIFICATIONS, VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS, VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, AND ANY OTHER APPLICABLE CITY OR STATE ORDINANCES, CODES, AND LAWS PRIOR TO ANY CONSTRUCTION ACTIVITY.
- 20. 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.
- 21. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO COMMENCEMENT OF WORK INCLUDING, BUT NOT LIMITED TO, LAND DISTURBING, BUILDING, RIGHT-OF-WAY, AND UTILITY PERMITS.
- 22. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF CONSTRUCTION EFFORTS WITH LOCAL EMERGENCY SERVICES AND ALL NECESSARY UTILITY COMPANIES INCLUDING, BUT NOT LIMITED TO, ELECTRICTY, NATURAL GAS, TELECOMMUNICATIONS, CABLE TELEVISION, WATER, SEWER, PRIVATE LIGHTING, AND OTHERS THAT MAY BE REQUIRED.
- 23. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO ALL SITE CONDITIONS PRIOR TO CONSTRUCTION
- 24. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL SITE IMPROVEMENTS, INCLUDING LANDSCAPING, AS SHOWN ON THE APPROVED PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED.
- 25. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, INCLUDING SOIL AND DEBRIS, FROM THE SITE. 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.
- 26. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT (SECTION 56-265.14 ET. SEQ. CODE OF VIRGINIA, 1950, AS AMENDED) AND HEREBY AGREES TO HOLD THE DEVELOPER AND THE ENGINEER HARMLESS AGAINST ANY LOSS, DAMAGE, OR CLAIMS OF ANY NATURE WHATSOEVER ARISING OUT OF THE CONTRACTOR'S FAILURE TO COMPLY WITH THE REQUIREMENTS OF SAID ACT. THE CONTRACTOR IS REQUIRED TO COMPLY WITH THE VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT (SECTIONS 59.1-406 THROUGH 59.1-414, CODE OF VIRGINIA, 1950, AS AMENDED). THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND NOTE THE POSITION OF OVERHEAD CABLES PRIOR TO CONSTRUCTION.
- 27. HORIZONTAL DATUM: NAD83 VA SOUTH ZONE 4502 VERTICAL DATUM: NGVD29
- 28. THE PROFESSIONAL WHOSE SEAL IS AFFIXED HEREON SHALL ACT AS THE "RESPONSIBLE LAND DISTURBER" FOR PURPOSES OF PLAN APPROVAL ONLY. PRIOR TO ISSUANCE OF THE LAND DISTURBING PERMIT, THE CONTRACTOR SHALL PROVIDE THE NAME OF A "RESPONSIBLE LAND DISTURBER" WHO SHALL ASSUME RESPONSIBILITY AS THE "RESPONSIBLE LAND DISTURBER" FOR THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION SHOULD THE "RESPONSIBLE LAND DISTURBER" CHANGE DURING CONSTRUCTION.
- 29. STORM SEWER PIPE SHALL BE CLASS III RCP OR SMOOTH WALL INTERIOR HDPE PIPE UNLESS OTHERWISE DESIGNATED. RCP SHALL BE USED IN ALL LOCATIONS UNDER CURB AND GUTTER.
- 30. STORM STRUCTURES SHALL CONFORM TO THE CURRENT VDOT ROAD AND BRIDGE STANDARDS AND VDOT SPECIFICATIONS. ALL MANHOLES SHALL INCLUDE INLET SHAPING (IS-1) AND MANHOLES DEEPER THAN 4 FEET SHALL HAVE STEPS (ST-1). PIPE BEDDING SHALL BE IN ACCORDANCE WITH VDOT PB-1 AND MANUF. SPECS/GUIDELINES.
- 31. ALL FILL MATERIAL SHALL BE VOID OF DEBRIS AND PLACED IN UNIFORM LIFTS OF NOT MORE THAN 8" IN LOOSE DEPTH. COMPACTION SHALL BE PERFORMED WITH HEAVY COMPACTION EQUIPMENT. COMPACT TO 95% MAXIMUM DRY DENSITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPACTION TEST RESULTS BY A GEOTECHNICAL ENGINEER TO THE OWNER/DEVELOPER FOR VERIFICATION OF PROPER COMPACTION.
- 32. ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS.
- 33. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH DETAILS AND NOTES.
- 34. THE CONTRACTOR SHALL STRICTLY ADHERE TO THE CLEARING LIMITS AS SHOWN ON THE APPROVED PLAN. IF IT IS NECESSARY TO CLEAR TREES BEYOND THE LIMITS OF DISTURBANCE, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER AND COORDINATE THE WORK PRIOR TO ANY CLEARING.
- 35. ALL LIGHTING WILL BE IN COMPLIANCE WITH ARTICLE II, DIVISION 7 OF THE ZONING ORDINANCE.
- 36. ALL NEW SIGNS SHALL BE SET IN ACCORDANCE WITH ARTICLE II, DIVISION 3 OF THE JAMES CITY COUNTY ZONING ORDINANCE.
- 37. COORDINATION INCLUDES BEING THE PARTY RESPONSIBLE TO COORDINATE WITH DEVLOPER/OWNER TO ENSURE THAT OTHER UTILITIES (PUBLIC OR PRIVATE) DO NOT VIOLATE THE JCSA POLICY OF EXCLUSIVE OCCUPATION OF JCSA EASEMENTS OTHER THAN PERPENDICULAR CROSSINGS.
- 38. THE PROPERTY SHALL BE SERVED BY PUBLIC WATER AND PRIVATE SEWER.
- 39. ALL NEW MONUMENTS SHALL BE SET IN ACCORDANCE WITH SEC. 19-34 THROUGH 19-36 OF THE JAMES CITY COUNTY SUBDIVISION ORDINANCE.
- 40. SUBMISSION, REVIEW, AND APPROVAL OF RECORD DRAWINGS (AS-BUILTS) AND CONSTRUCTION CERTIFICATIONS FOR THE STORMWATER CONVEYANCE SYSTEMS AND STORMWATER MANAGEMENT FACILITY ARE REQUIRED 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.
- 41. AN INTERNAL CLOSED CIRCUIT TELEVISION (CCTV) POST INSTALLATION INSPECTION PERFORMED BY THE OPERATOR IS REQUIRED FOR ALL STORMWATER CONVEYANCE SYSTEM PIPES, ACCESS OR INLET STRUCTURES, AND CULVERTS OF 15-INCH NOMINAL DIAMETER SIZE OR GREATER AS PART OF THE CONSTRUCTION RECORD DRAWING (AS-BUILT) AND CONSTRUCTION CERTIFICATION PROCESS. CCTV INSPECTIONS SHALL BE SUBMITTED ON A CD-ROM OR EQUIVALENT ELECTRONIC FILE FORMAT FOR STAFF REVIEW. REFER TO SECTIONS 8-25(f) AND 2-27(e) OF THE COUNTY'S CHAPTER 8 ORDINANCE.
- 42. SETBACKS PER B-1 ZONING REQUIREMENTS:
- FRONT SETBACK: STRUCTURES SHALL BE LOCATED 50 FEET OR MORE
   FROM ANY STREET R/W WHICH IS 50 FEET OR GREATER IN WIDTH
- SIDE YARD: 20 FEET
- REAR YARD: 20 FEET

# SITE PLAN

**FOR** 

# COLONIAL VETERINARY CLINIC PARKING EXPANSION

JAMESTOWN DISTRICT

VICINITY MAP

(APPROXIMATE SCALE: 1"=2000')

MAP COPYRIGHT © KAPPA MAP GROUP LLC, (386) 873-3011. USED WITH

PERMISSION - PERMITTED USE NUMBER BJE051082

COUNTY SITE PLAN NO.: SP-22-0005

ORIGINAL SUBMITTAL DATE: 01/12/2022

**PROPOSED** 

SANITARY SEWER

STORM SEWER

SANITARY MANHOLE

STORM MANHOLE

YARD DROP INLET

FLARED END SECTION

FIRE HYDRANT ASSEMBLY

BLOW-OFF VALVE

AIR RELEASE ASSEMBLY

CLEAN OUT

WATER METER

STREETLIGHT

EXISTING

O CO

**LEGEND** 

**EXISTING** 

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JAMES CITY COUNTY

VIRGINIA

**VSMP PERMIT DATA:** 

EXISTING PERMIT COVERAGE #: N/A

NATURE OF CONSTRUCTION ACTIVITY:

MUNICIPAL STORM SEWER SYSTEM (MS-4):

LOCATION OF OFF-SITE ACTIVITY:

NAME OF RECEIVING WATER(S):

NAME OF IMPAIRED WATER(S):

HYDROLOGIC UNIT CODE (HUC):

COMMON PLAN OF DEVELOPMENT:

STATUS OF ACTIVITY:

PROPOSED

 $\sim\sim\sim$ 

CENTERLINE /BASELINE

RIGHT OF WAY

PROPERTY LINE

© DITCH/SWALE

CONCRETE LINED DITCH

EXISTING TREELINE

LIMITS OF CLEARING

RIP RAP

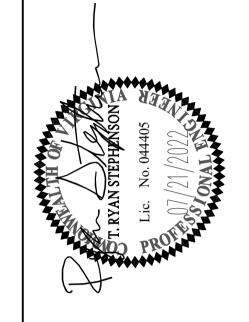
CURB

EDGE OF PAVEMENT

EXISTING GROUND ELEVATION

SITE LOCATED IN CHESAPEAKE BAY PRESERVATION AREA: Yes ☐ No 🛛

# INDEX OF SHEETS SHEET NO. SHEET DESCRIPTION C1.0 COVER SHEET C2.0 ENVIRONMENTAL INVENTORY C3.0 DEMOLITION AND PHASE I E&SC PLAN C4.0 SITE AND UTILITY PLAN C5.0 GRADING AND DRAINAGE PLAN C6.0 E&SC NOTES AND DETAILS C6.1 SITE NOTES AND DETAILS C6.2 TRAFFIC CONTROL NOTES AND DETAILS L1.0 LANDSCAPE AND LIGHTING PLAN L2.0 LANDSCAPING AND LIGHTING NOTES AND DETAILS



# CERTIFIED RESPONSIBLE LAND DISTURBER:

T. RYAN STEPHENSON, P.E. AES CONSULTING ENGINEERS 5248 OLDE TOWNE ROAD, SUITE 1 WILLIAMSBURG, VIRGINIA 23188 TELEPHONE: 757-253-0040

\* FOR SITE PLAN REVIEW PROCESS ONLY. OWNER OR CONTRACTOR SHALL NAME RESPONSIBLE LAND DISTURBER FOR CONSTRUCTION PROCESS.

# OWNER/DEVELOPER INFORMATION:

COLONIAL VETERINARY CLINIC

CONTACT: MS. RUTH REDBIRD
PRACTICE MANAGER
3280 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
PHONE: (757) 220-5589

# PARKING CALCULATION:

REQUIRED PARKING:
3 PARKING SPACES PER EXAMINATION OR TREATMENT ROOM, PLUS ONE SPACE PER
EMPLOYEE ON THE LARGEST SHIFT
(PER CHAPTER 24, ARTICLE II, DIVISION 2, SECTION 24-59 OF THE CODE OF ORDINANCES

2 HC PARKING SPACES PER 26 TO 50 TOTAL PARKING SPACES PROVIDED

(PER TABLE 208.2 OF THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN)

5-EXAMINATION ROOMS

FOR JAMES CITY COUNTY, VIRGINIA)

18-EMPLOYEES ON THE LARGEST SHIFT

STING PARKING:

18 REGULAR PARKING SPACES
1 HC PARKING SPACES
= 19 TOTAL PARKING SPACES

PROVIDED PARKING:

15 ADDITIONAL REGULAR PARKING SPACES

18 EXISTING REGULAR PARKING SPACES

1 EXISTING HC PARKING SPACES

= 34 TOTAL PARKING SPACES

# SITE DATA:

SITE ADDRESS:

3280 IRONBOUND ROAD, 118 INGRAM ROAD, 112 INGRAM ROAD

WILLIAMSBURG, VIRGINIA 23188 LATITUDE: 37° 15' 13" N; LONGITUDE: 76° 45' 55" W

33 PARKING SPACES REQUIRED

(INCLUDING 2 HC PARKING SPACES)

ZONING: B-1, GENERAL BUSINESS

PARCEL ID: 4710100022B, 4710100022A, 4710100023

 OVERALL SITE AREA:
 97,710 S.F.±,
 2.24 AC.±

 LIMITS OF DISTURBANCE:
 17,253 S.F.±,
 0.40 AC.±

PRE-IMPERVIOUS AREA: 0.00 S.F.±, 0.00 AC.±

POST-IMPERVIOUS AREA: 7,655 S.F.±, 0.18 AC.±

FLOOD HAZARD MAP:

THIS PROPERTY IS LOCATED WITHIN FLOOD ZONE "X" AS SHOWN ON MAP NUMBER 51095C0119D EFFECTIVE ON 12/16/2015 OF THE FLOOD INSURANCE RATE MAPS FOR JAMES CITY COUNTY, VIRGINIA. ZONE "X" IS DEFINED AS AREAS OF MINIMAL FLOOD HAZARD.

Call Miss Utility at before you dig.
Allow required time for marking.
Respect the marks.
Excavate carefully.

Whether your project is big or small, one free and easy call gets the underground utility lines marked and helps avoid costly damages, fines and even personal injury. So, please call 811 and dig with C.A.R.E.

□Federal □State □Public ☑ Private

CHESAPEAKE BAY

JAMES CITY COUNTY

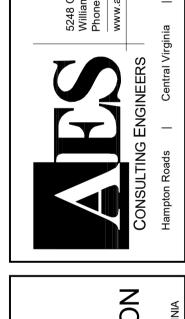
JL33

□ Commercial □ Residential □ Industrial □ Other

JAMES RIVER - LOWER CHIPPOKES CREEK

- CONTRACTORS SHALL NOTIFY MISS UTILITY 9 811 OR (800) 552-7001 PRIOR TO STARTING CONSTRUCTION.
   CONTRACTOR IS RESPONSIBLE FOR LOCATING AND DETERMINING SIZES OF ALL UTILITIES PRIOR TO
- CONSTRUCTION.

  3. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, CONTACT THE CONSTRUCTION MANGER BEFORE PROCEEDING.
- 4. GOVERNMENT WILL MARK ALL GOVERNMENT-OWNED UTILITIES.



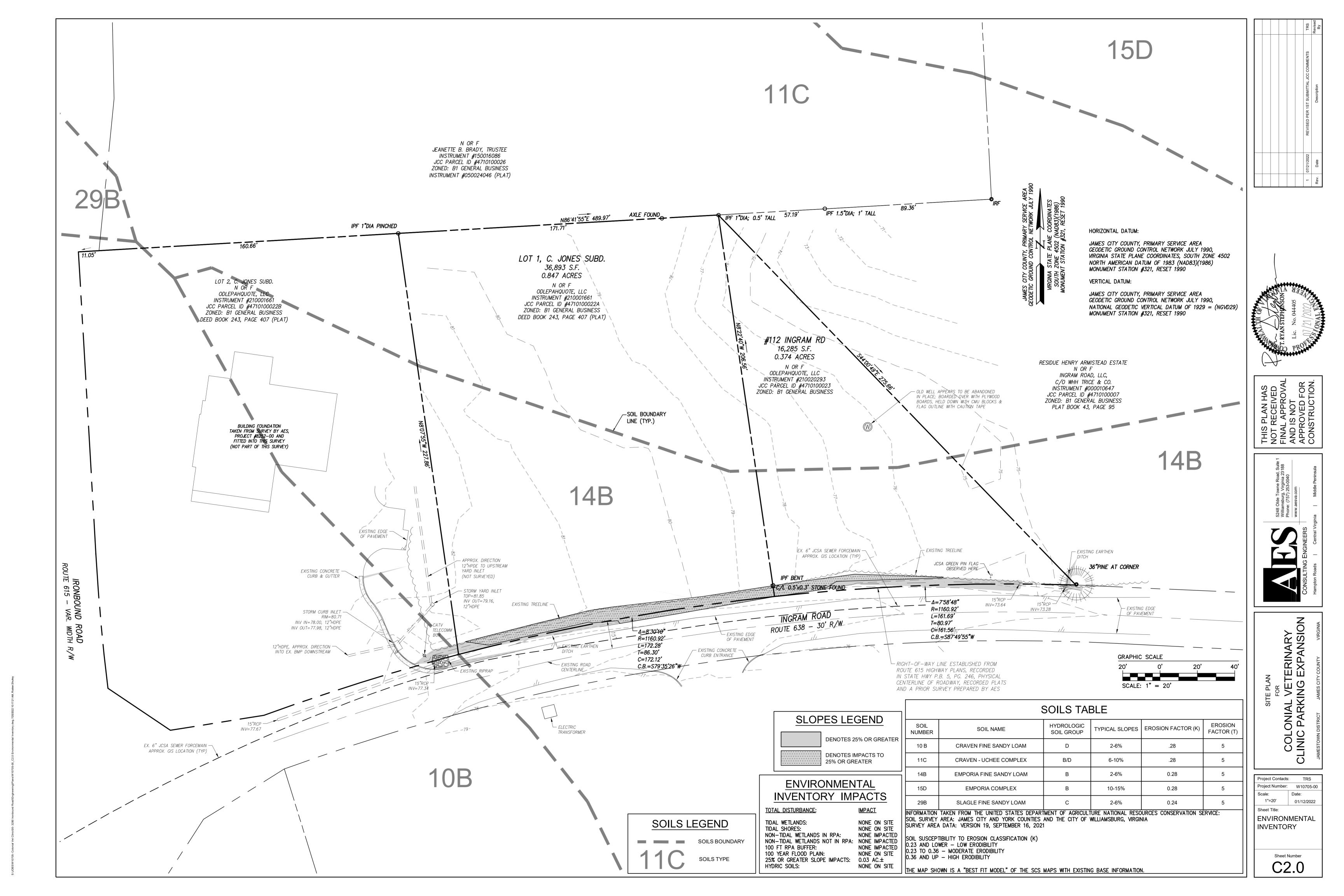
COLONIAL VETERINARY

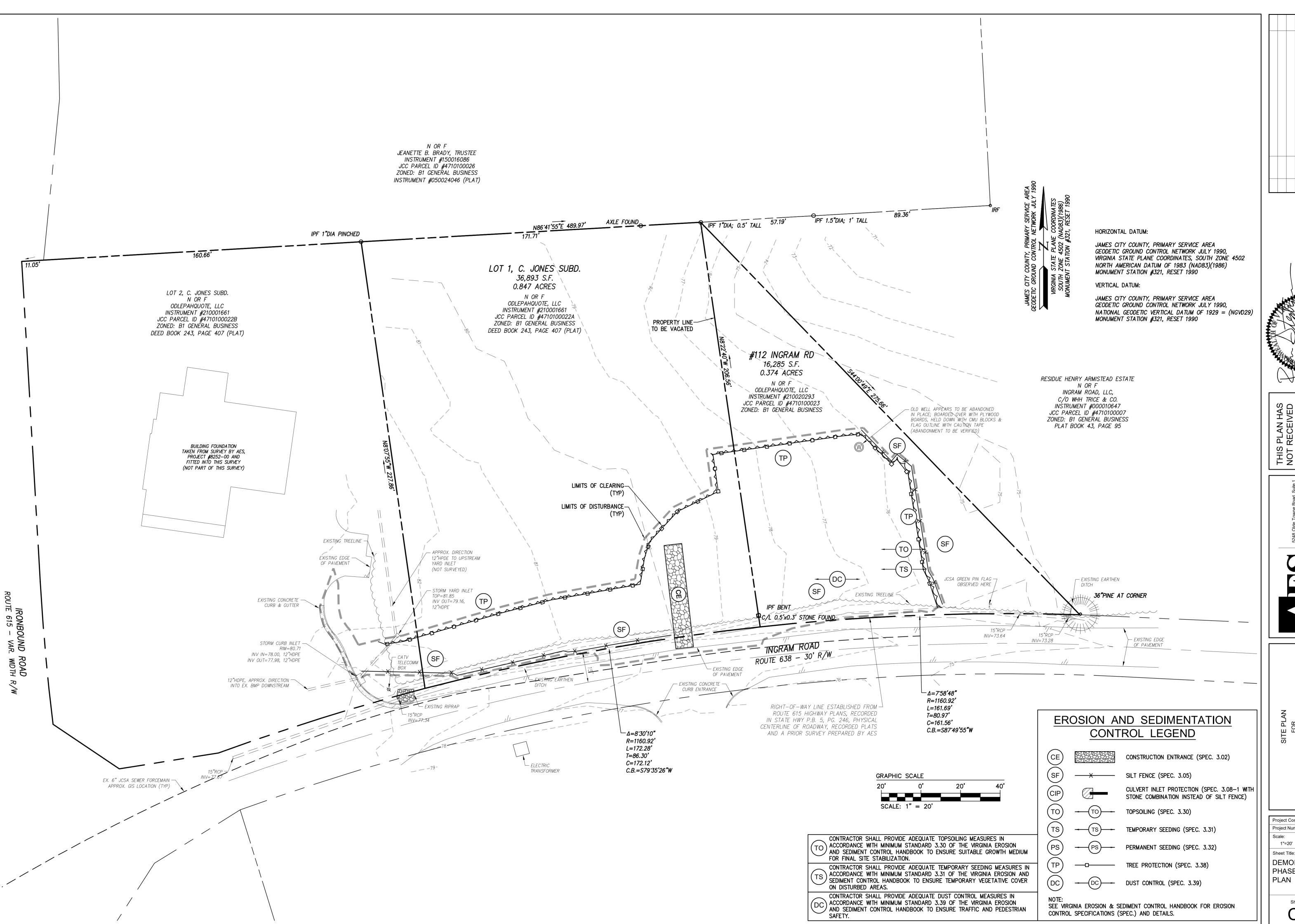
Project Contacts: TRS
Project Number: W10705-00

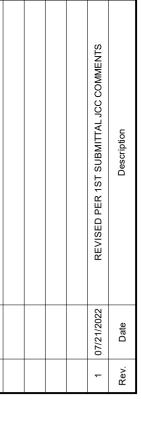
Scale: Date:
AS NOTED 01/12/2022

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COVER SHEET

Sheet Number









NOT RECEIVED FINAL APPROVAL AND IS NOT APPROVED FOR CONSTRUCTION.

5248 Olde Towne Road, Suite Williamsburg, Virginia 23 188 Phone: (757) 253-0040 www.aesva.com
NGINEERS
Central Virginia | Middle Peninsula

CONSULTING ENGINEERS
Hampton Roads | Central Virgini

COLONIAL VETERINARY
CLINIC PARKING EXPANSION

Project Contacts: TRS
Project Number: W10705-00

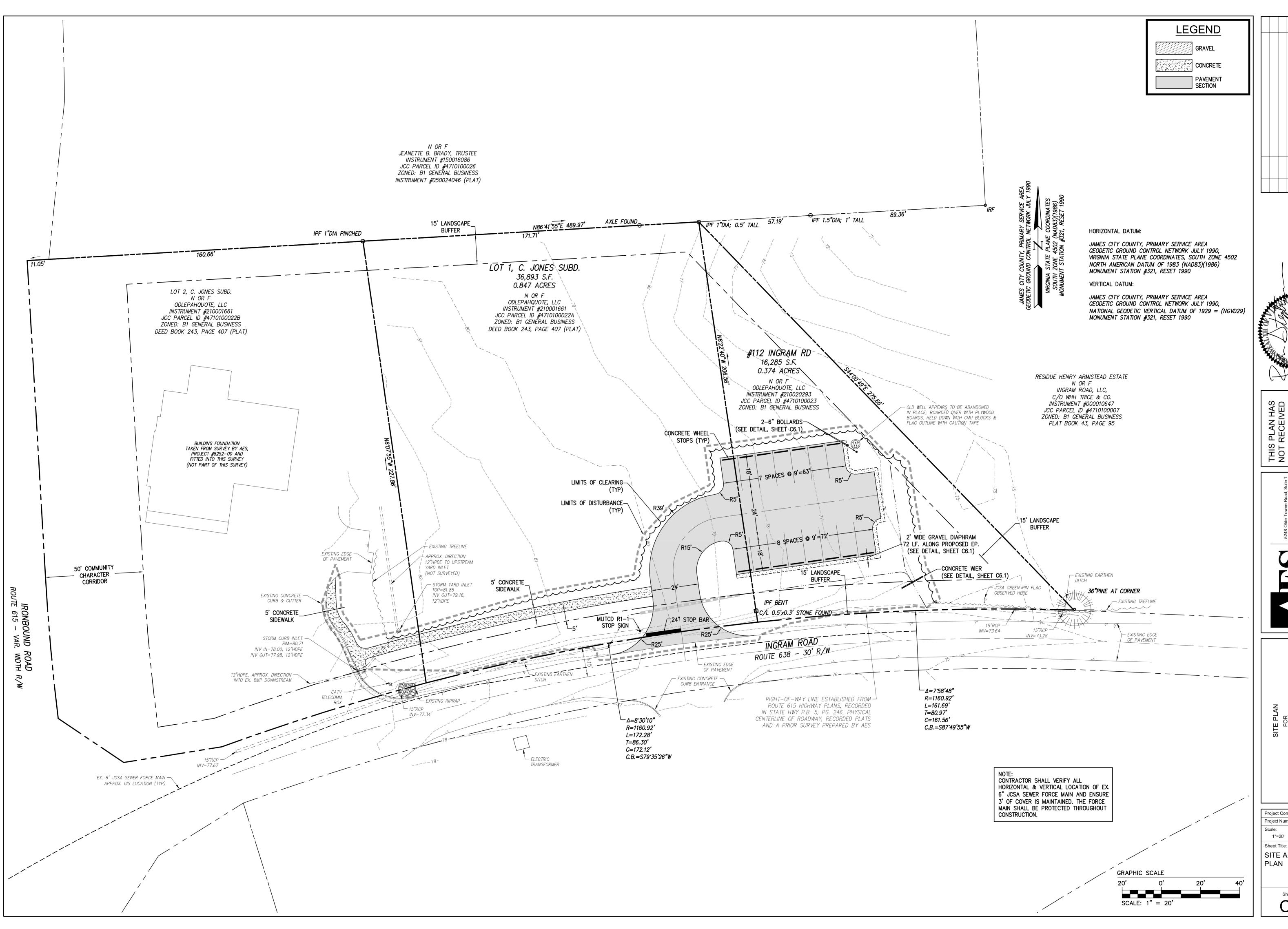
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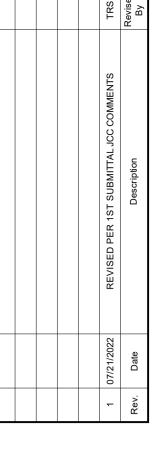
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COLONIAL VETERINARY
CLINIC PARKING EXPANSION

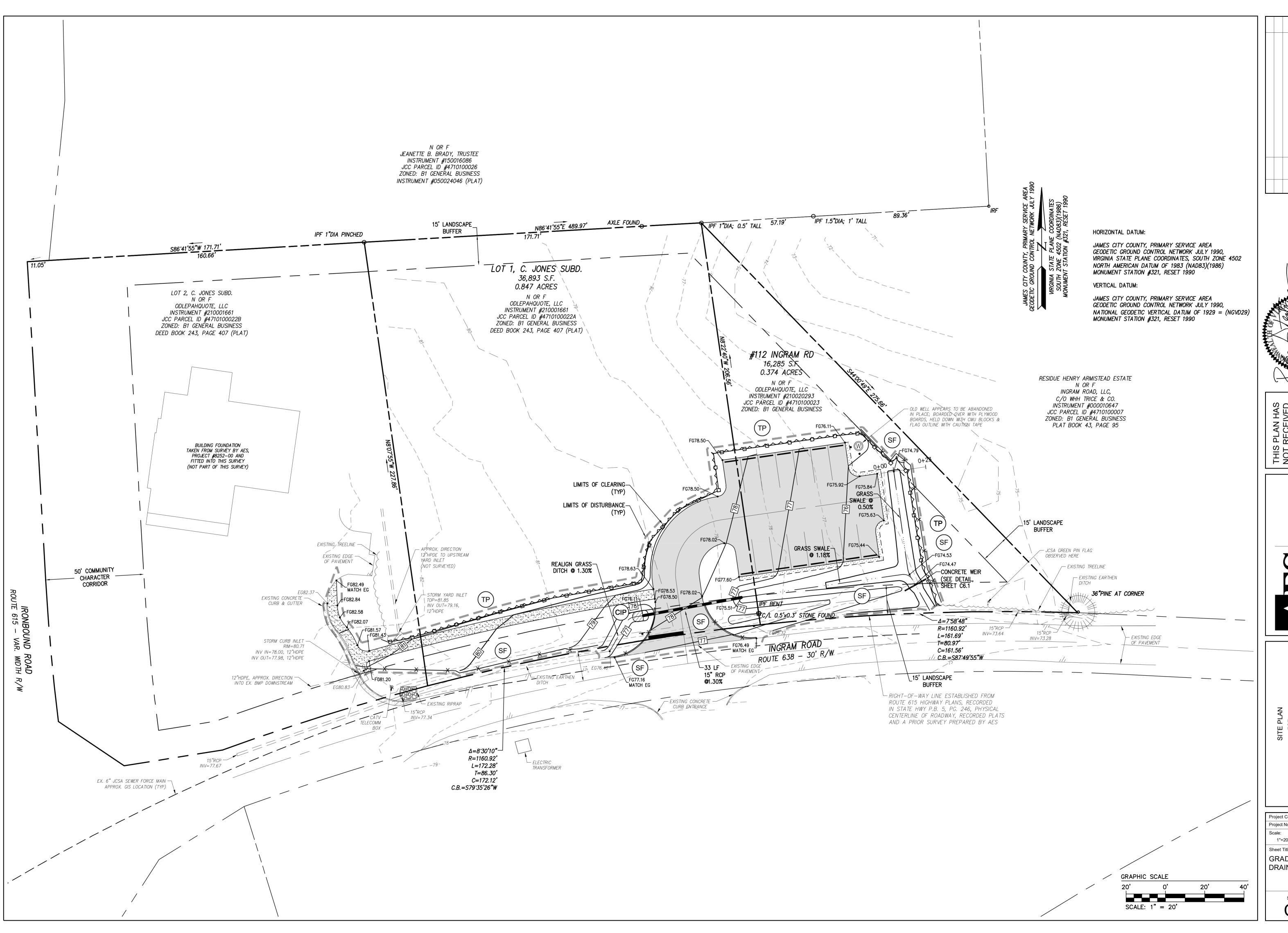
Project Contacts: TRS
Project Number: W10705-00

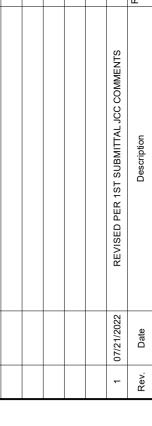
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Sheet Title: SITE AND UTILITY

PLAN

Sheet Number C4.0







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CONSULTING ENGINEERS

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Williamsburg, Virg
Phone: (757) 253
www.aesva.com
Consulting Engine

COLONIAL VETERINARY
CLINIC PARKING EXPANSION

| Project Contacts | : TRS      |  |  |
|------------------|------------|--|--|
| Project Number:  | W10705-00  |  |  |
| Scale:           | Date:      |  |  |
| 1"=20'           | 01/12/2022 |  |  |
| Sheet Title:     |            |  |  |
| GRADING AND      |            |  |  |
| DRAINAGE PLAN    |            |  |  |

RADING AND RAINAGE PLAN

C5.0

Plate 3.02-

# SEQUENCE OF CONSTRUCTION

- PRIOR TO ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL HAVE ALL AREAS OF TREE REMOVAL WELL MARKED. INDIVIDUAL TREES OR PERIMETER TREELINES TO REMAIN SHALL BE INDICATED WITH TREE PROTECTION MEASURES IN ACCORDANCE WITH VESCH. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AND THE PROPERTY OWNER TO MARK FOR
- ANY UNDERGROUND INFRASTRUCTURE PRIOR TO GROUND DISTURBING ACTIVITIES. THE CONTRACTOR SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE JAMES CITY COUNTY REPRESENTATIVES PRIOR TO DISTURBANCE OF ANY GROUND SURFACES. AFTER THE PRE-CONSTRUCTION MEETING AND ISSUANCE OF THE LAND DISTURBANCE PERMIT
- (LDP), THE CONTRACTOR SHALL INSTALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES. CONTACT THE APPROPRIATE JAMES CITY COUNTY INSPECTOR TO HAVE THESE MEASURES INSPECTED PRIOR TO COMMENCEMENT OF LAND DISTURBANCE AND CLEARING. THE CONTRACTOR SHALL PERFORM SITE DEMOLITION AS SHOWN WITHIN THIS PLAN SET. THE CONTRACTOR SHALL COMMENCE FINAL CLEARING, GRUBBING AND DEMOLITION ONCE ALL PHASE I EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON SHEET C3.0 ARE
- INSTALLED. THE CONTRACTOR SHALL STRIP THE SITE OF TOPSOIL AND THEN INSTALL THE PHASE 2 EROSION AND SEDIMENT CONTROL MEASURES SHOWN WITHIN THE PLAN SET. UPON TOPSOIL STRIPPING, THE CONTRACTOR SHALL MONITOR THE SITE FOR DUST CONTROL. DRY SITE CONDITIONS SHALL WARRANT DUST CONTROL ACTIVITIES. THE CONTRACTOR SHALL
- PROVIDE DUST CONTROL MEASURES IN ANTICIPATION OF WINDY DAYS. THE CONTRACTOR SHALL MAKE DAILY DETERMINATIONS ON THE IMPLEMENTATION OF DUST CONTROL MEASURES. UPON APPROVAL BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL ROUGH GRADE THE SITE IN ACCORDANCE WITH THE LIMITS OF DISTURBANCE, PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 1 YEAR.
- THE CONTRACTOR SHALL INSTALL STORM CULVERT AS DEPICTED ON THE PLANS. THE CONTRACTOR SHALL SUBMIT INTERIM RECORD DRAWINGS FOR THE STORMWATER CONVEYANCE SYSTEMS ON SITE. THE CONTRACTOR CAN NOW INSTALL THE SUB-BASE AND ROAD BASE.
- THE CONTRACTOR SHALL FINE GRADE ALL DENUDED AREAS AND SHALL DISTRIBUTE TOPSOIL ACROSS ALL REMAINING DENUDED AREAS TO A DEPTH OF 4-INCHES MINIMUM. THE CONTRACTOR SHALL SEED THE SITE WITH APPROPRIATE PERMANENT SEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND MAINTAINING SEEDED AREAS UNTIL THE SEEDING
- PROVIDES A 90% PERMANENT GROUND COVER. THE CONTRACTOR CAN NOW INSTALL THE FINAL ROAD SURFACE. THE CONTRACTOR SHALL SUBMIT FINAL RECORD DRAWINGS FOR THE STORMWATER
- 12" IN DIAMETER OR GREATER. THE CONTRACTOR SHALL REFER TO THE CURRENT COUNTY GUIDELINES FOR THESE REQUIREMENTS. UPON COMPLETION OF THE WORK AND WITHIN 7 DAYS OF FINAL SITE STABILIZATION. THE CONTRACTOR SHALL REMOVAL ALL EROSION AND SEDIMENT CONTROL MEASURES FROM THE SITE UPON APPROVAL OF THE JAMES CITY COUNTY REPRESENTATIVE.

CONVEYANCE SYSTEMS AND SUBMIT THE REQUIRED CCTV INSPECTIONS FOR ALL STORM PIPES

CONSTRUCTION. ANY ALTERATIONS OR DEVIATIONS FROM THIS SEQUENCE OF CONSTRUCTION ARE TO BE APPROVED THROUGH THE JAMES CITY COUNTY ENGINEERING AND RESOURCE PROTECTION

ENTRANCE, ON-SITE AND OFF-SITE PAINT STRIPING SHALL BE COMPLETED AT THE END OF

# OTHER GENERAL EROSION & SEDIMENT **CONTROL NOTES**

- THE CONTRACTOR SHALL TAKE NOTE OF ALL UNDERGROUND UTILITIES AT THE SITE. THE CONTRACTOR SHALL SECURE ALL BONDS OR LETTERS OF CREDIT REQUIRED FOR THE PENDING CONSTRUCTION ACTIVITIES AT THIS SITE
- THE CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEER FOR SUBGRADE TESTING. SOIL EVALUATIONS, COMPACTION AND BACKFILL TESTING, AND GUIDANCE/CONSULTING DURING THE PLACEMENT OF FIL THE CONTRACTOR IS RESPONSIBLE FOR POSSESSING THE MOST RECENT EDITION OF THE VIRGINIA
- EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) ON THE CONSTRUCTION SITE DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR DAILY AND PERIODIC INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES. DAMAGED MEASURES SHALL BE REPAIRED IMMEDIATELY.
- MEASURES WITH EVIDENCE OF FAILURE SHALL BE REPLACED, REPAIRED, OR REINFORCED WITH SUPPLEMENTAL MEASURES. THE OPERATOR SHALL MAINTAIN AND BE ACTIVE IN MAINTAINING ANY LOGS OF EARTHMOVING ACTIVITY IN ACCORDANCE WITH THE CONDITIONS OF THE VIRGINIA STORMWATER MANAGEMENT
- PERMIT (VSMP) AND THE STORMWATER PREVENTION POLITITION PLAN (SWPPP) AFTER EVERY RAINFALL EVENT OF 0.25 INCH OR MORE, THE CONTRACTOR SHALL INSPECT THE SITE IMMEDIATELY (OR THE NEXT WORK DAY IF RAINFALL OCCURS AT NIGHT OR DURING A NON-WORKING DAY) FOR FAILURES IN THE EROSION AND SEDIMENT CONTROL MEASURES OR TO MAINTAIN INSTALLED MEASURES.

# EROSION AND SEDIMENT CONTROL NARRATIVE

# PROJECT DESCRIPTION

THIS PROJECT IS FOR THE CONSTRUCTION OF A PARKING LOT OFF OF INGRAM ROAD (ROUTE 638). 15 PARKING SPACES ARE PROPOSED WITH THE ADDITION OF A SIDEWALK ALONG INGRAM ROAD TO CONNECT TO THE EXISTING PARKING LOT OF THE COLONIAL VETERINARY

# XISTING SITE CONDITIONS

HE EXISTING SITE IS CURRENTLY UNDEVELOPED AND WOODED. ELEVATIONS RANGE FROM 75± TO 82± FEET, WITH EXISTING SLOPES ONSITE RANGING FROM 2 TO 10+ PERCENT. THE MAJORITY OF STORMWATER RUNOFF FROM THE EXISTING SITE DISCHARGES DIRECTLY INTO THE ROADSIDE DITCH.

# ADJACENT PROPERTIES

HE SUBJECT PROPERTY IS BOUNDED BY INGRAM ROAD (ROUTE 638) TO THE SOUTH; PARCEL ID #4710100007 TO THE EAST; PARCEL ID #4710100026 TO THE NORTH; AND IRONBOUND ROAD (ROUTE 615) TO THE WEST.

OFFSITE AREAS OF LAND DISTURBANCE ASSOCIATED WITH THIS PROJECT INCLUDE THE ENTRANCE OFF OF INGRAM ROAD,

SEE SHEET C2.0 FOR SOIL INFORMATION

# CRITICAL EROSION AREAS

THERE ARE NO CRITICAL EROSION AREAS ASSOCIATED WITH THIS PROJECT.

# ROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED AND APPROVED BY THE ONSITE E&S CONTROL INSPECTOR. THESE MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO: CONSTRUCTION ENTRANCE, SILT FENCE, INLET PROTECTION, DUST CONTROL, TEMPORARY SEEDING, PERMANENT SEEDING, ETC. SEE PLANS FOR ALL EROSION AND SEDIMENT CONTROL MEASURES.

# ANAGEMENT STRATEGIES

CONSTRUCTION SHALL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND 'ND AS QUICKLY AS POSSIBLE. . TEMPORARY SEEDING OR OTHER STABILIZATION SHALL FOLLOW IMMEDIATELY AFTER

5. AREAS THAT ARE NOT TO BE DISTURBED SHALL BE CLEARLY MARKED BY FLAGS. SIGNS. 4. THE CONTRACTOR SHALL HAVE A CERTIFIED RESPONSIBLE LAND DISTURBER AND SHALL

BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES. 5. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CLEARED UP AND REMOVED.

# PERMANENT STABILIZATION

LL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT OR TEMPORARY SEEDING IMMEDIATELY FOLLOWING FINISH GRADING.

# <u> AINTENANCE</u>

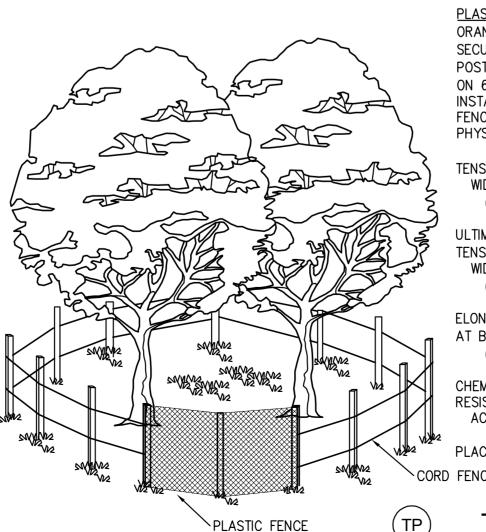
N GENERAL. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS SHALL BE CHECKED IN

THE INLET PROTECTION SHALL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP, WHICH COULD PREVENT POSITIVE DRAINAGE. IF THE INLET PROTECTION IS CLOGGED BY SEDIMENT, SHALL BE REMOVED AND CLEANED OR REPLACED. . THE SILT FENCE BARRIER SHALL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER. 3. The seeded areas shall be checked regularly to ensure that a good stand is MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.

# TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

|                                                      | RATE                                                                   |                       | NC     | ORTH (            | A)   | SOUTH (b) |    | b)                 | PLANT                                                                                                               |  |
|------------------------------------------------------|------------------------------------------------------------------------|-----------------------|--------|-------------------|------|-----------|----|--------------------|---------------------------------------------------------------------------------------------------------------------|--|
| SPECIES                                              | ACRE                                                                   | 1000 FT SQ.           |        | 5/1<br>T0<br>8/15 | TO   |           | TO | 9/2<br>TO<br>11/15 | CHARACTERISTICS                                                                                                     |  |
| OATS<br>( <u>AVENA</u> <u>SATIVA</u> )               | 3 bu. (up to 100 lbs.,<br>not less than 50 lbs.)                       | 2 lbs.                | Х      | -                 | -    | Х         | -  | -                  | Use spring varieties (e.g., Noble).                                                                                 |  |
| RYE <sup>d</sup><br>( <u>SECALE</u> <u>CEREALE</u> ) | 2 bu. (up to 110 lbs.,<br>not less than 50 lbs.)                       | 2.5 lbs.              | Х      | -                 | Х    | Х         | -  | Х                  | Use for late fall seedings,<br>winter caver. Talerates<br>cold and low moisture.                                    |  |
| GERMAN MILLET<br>(SETARIA ITALICA)                   | 50 lbs.                                                                | approx.<br>1 lb.      | -      | Х                 | - 1  | 1         | Х  | ı                  | Warm—season annual. Dies<br>at first frost. May be added<br>to summer mixes.                                        |  |
| ANNUAL RYEGRASS°<br>(LOLIUM MULTI-FLORUM)            | 60 lbs.                                                                | 1-1/2 lbs.            | х      | -                 | х    | Х         | -  | Х                  | May be added in mixes. Will mow out of most stands.                                                                 |  |
| WEEPING<br>LOVEGRASS<br>[ERAGROTIS CURVULA)          | 15 lbs.                                                                | 5-1/2 ozs.            | -      | x                 | -    | -         | x  | -                  | Warm-season perennial. May bunch.<br>Tolerates hot, dry slopes and acid,<br>infertile soils. May be added to mixes. |  |
| Korean<br>Lespedeza°<br>(Lespedeza stipulacea)       | 25 lbs.                                                                | approx.<br>1-1/2 lbs. | х      | Х                 | 1    | Х         | Х  | -                  | Warm-season annual legume. Talerates acid soils. May be added to mixes.                                             |  |
| d MAY BE USED AS A CO<br>X MAY BE PLANTED BETV       | ND COASTAL PLAIN.<br>OVER CROP WITH SPRING S<br>OVER CROP WITH FALL SE | SEEDING.              | 2-1 AN | ID 3.22           | 2–2. |           |    |                    | TS                                                                                                                  |  |

Table 3.31-C



PLASTIC FENCING-40" HIGH "INTERNATIONAL ORANGE" PLASTIC (POLYETHYLENE) WEB FENCING SECURED TO CONVENTIONAL METAL "T" OR "U" POSTS DRIVEN TO A MINIMUM DEPTH OF 18" ON 6' MINIMUM CENTERS SHALL BE INSTALLED AT THE LIMITS OF CLEARING. THE FENCE SHALL HAVE THE FOLLOWING MINIMUM PHYSICAL QUALITIES:

TENSILE YIELD: AVERAGE 2,000 LBS. PER 4' WIDTH (ASTM D638)

TENSILE YIELD: AVERAGE 2.900 LBS. PER 4' (ASTM D638)

ELONGATION AT BREAK (%): GREATER THAN 1000% (ASTM D638)

RESISTANCE: INERT TO MOST CHEMICALS AND

PLACE FENCE 5' OUTSIDE DRIPLINE

TREE PROTECTION

# 9VAC25-840-40 EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR. SEE DETAILS FOR SEEDING SCHEDULE. DURING CONSTRUCTION OF THE PROJECT. SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. SEE PLANS AND DETAILS

WHERE APPLICABLE. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. SEE DETAILS FOR SEEDING SCHEDULE. SEDIMENT BASINS AND TRAPS. PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY

LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN. SEE PLANS AND

CALCULATIONS FOR DETAILS OF REQUIRED STRUCTURES. A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE (3) ACRES.

B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE (3) ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM. MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1)

YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN

WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED. ALL STORM SEWER INLETS THAT ARE MADE OPERATIONAL DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. SEE DETAILS FOR MEASURES TO BE INSTALLED.

BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL. ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL. SEE PLANS FOR SPECIFIC LOCATIONS OF MEASURES. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER

THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

WHERE CONSTRUCTION VEHICLES ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DEPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA.

STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS: A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE

B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER: (1) DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT; OR (2) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A 2- YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS. ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A 2-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL: (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A 2-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PREDEVELOPMENT PEAK RUNOFF RATE FROM A 2—YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL: OR (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENTS, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE/SHE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE

OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE

CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD. THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS. K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL

INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM: AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION. ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO SECTION 62.1-44.15:54 OR 62.1-44.15:65 OF THE

M. FOR PLAN APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF SECTION 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT AND ATTENDANT REGULATIONS, UNLESS SUCH LAND DISTURBING ACTIVITIES (I) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-870-47 OR GRANDFATHERING IN 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF SECTION 62.1-44.15:52A OF THE ACT SHALL APPLY OR (II) ARE EXEMPT PURSUANT TO SECTION 62.1-44.15:34 C 7 OF THE ACT.

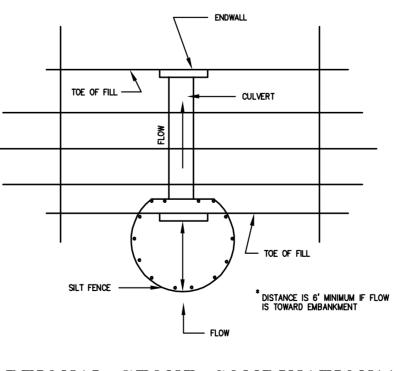
1. SET THE STAKES.

N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REQULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBDIVISION 19.

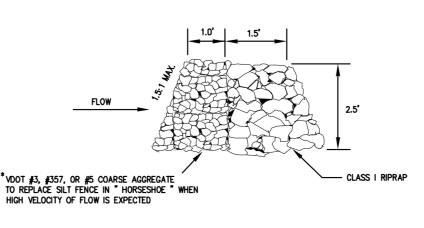
Plate 3.08-1

# SILT FENCE CULVERT INLET PROTECTION

OR PIPE SYSTEM SHALL BE PERFORMED.



# OPTIONAL STONE COMBINATION\*\*

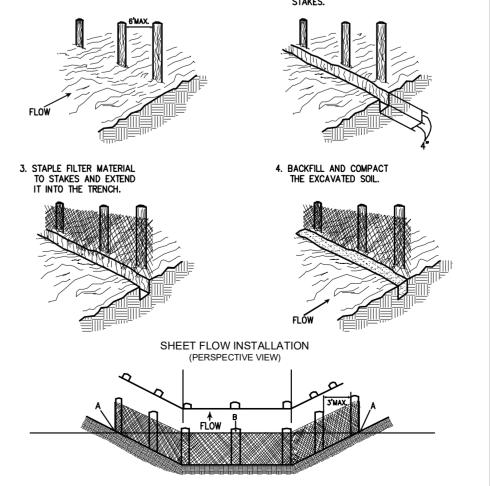


# CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

2. EXCAVATE A 4"X 4" TRENCH

UPSLOPE ALONG THE LINE OF

Plate 3.05-2



POINTS A SHOULD BE HIGHER THAN POINT B.

DRAINAGEWAY INSTALLATION

(FRONT ELEVATION)

JAMES CITY COUNTY ENGINEERING AND RESOURCE PROTECTION DIVISION STANDARD EROSION AND SEDIMENT CONTROL NOTES REVISED JULY 1, 2014

THE FOLLOWING STANDARD COUNTY NOTES SHALL BECOME PART OF ANY APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR PLAN OF DEVELOPMENT PROJECTS IN JAMES CITY COUNTY, VIRGINIA. COMPONENTS OF A SWPPP MAY INCLUDE AS APPLICABLE. A SITE EROSION AND SEDIMENT CONTROL (E&SC) PLAN, A SITE STORMWATER MANAGEMENT (SWM) PLAN, AND A SITE POLLUTION PREVENTION PLAN (PPP). THE COUNTY'S DIVISION OF ENGINEERING AND RESOURCE PROTECTION IS DESIGNATED BY CHAPTER 8 OF THE COUNTY CODE AS THE LOCAL VIRGINIA EROSION AND SEDIMENT CONTROL PROGRAM (VESCP) AUTHORITY AND VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) AUTHORITY.

ALL THE PROVISIONS OF VIRGINIA EROSION AND SEDIMENT CONTROL (E&SC) LAW AND REGULATIONS, THE VIRGINIA STORMWATER MANAGEMENT ACT AND REGULATIONS (VSMP), THE VIRGINIA BMP CLEARINGHOUSE WEBSITE, STATE EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT HANDBOOKS, AND ANY ASSOCIATED TECHNICAL BULLETINS AND GUIDANCE DOCUMENTS AS PUBLISHED BY THE STATE WATER CONTROL BOARD, THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ), AND THE LOCAL VESCP AND VSMP

AUTHORITY SHALL APPLY TO THE PROJECT. MINIMUM STANDARDS NO. 1 THROUGH NO. 19 OF THE VIRGINIA EROSION AND SEDIMENT

CONTROL REGULATIONS 9VAC25-840 ET SEQ. SHALL APPLY TO THE PROJECT. THE OWNER, APPLICANT, OPERATOR, OR PERMITTEE SHALL BE RESPONSIBLE TO REGISTER FOR CONSTRUCTION GENERAL PERMIT (CGP) COVERAGE, AS APPLICABLE, IN ACCORDANCE WITH THE GENERAL VPDES PERMIT FOR DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES (VAR10) CHAPTER 880; THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATION'S CHAPTER 870; AND IN ACCORDANCE WITH CURRENT REQUIREMENTS OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP), THE STATE WATER CONTROL BOARD, THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 8 OF THE COUNTY CODE AND THE LOCAL VESCP/VSMP AUTHORITY.

THE OWNER, APPLICANT, OPERATOR OR PERMITTEE SHALL PROVIDE THE NAME OF AN INDIVIDUAL HOLDING A VALID RESPONSIBLE LAND DISTURBER (RLD) CERTIFICATE OF COMPETENCE WHO WILL BE RESPONSIBLE FOR THE LAND DISTURBING ACTIVITY PRIOR TO ENGAGING IN THE LAND DISTURBING ACTIVITY. THIS WILL BE NECESSARY PRIOR TO ISSUANCE OF A LOCAL LAND DISTURBING AND/OR STORMWATER CONSTRUCTION PERMIT FOR THE PROJECT. THE RLD IS REQUIRED TO ATTEND THE PRECONSTRUCTION CONFERENCE FOR THE

THE CONTRACTOR IS RESPONSIBLE TO CONTACT MISS UTILITY (DIAL 811 IN VA OR 1-800-552-7001) PRIOR TO ANY UTILITY OR SITE WORK EXCAVATIONS.

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLANNED, DESIGNED, IMPLEMENTED. INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). TH CONTRACTOR SHALL MAINTAIN, INSPECT, AND REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED THROUGHOUT THE LIFE OF THE PROJECT TO ENSURE CONTINUED ACCEPTABLE PERFORMANCE.

A PRECONSTRUCTION CONFERENCE (MEETING) SHALL BE HELD ON SITE AND INCLUDE REPRESENTATIVES FROM THE LOCAL VESCP/VSMP AUTHORITY, THE OWNER/APPLICANT/OPERATOR/PERMITTEE, THE RESPONSIBLE LAND-DISTURBER (RLD), AND THE CÓNTRACTOR, ENGINEER, AND OTHER RESPONSIBLE AGENCIES, AS APPLICABLE, PRIOR TO AUTHORIZATION AND ISSUANCE OF A LOCAL LAND DISTURBING OR STORMWATER CONSTRUCTION PERMIT. THE OWNER, APPLICANT, OPERATOR OR PERMITTEE IS REQUIRED TO COORDINATE SCHEDULING OF THE PRECONSTRUCTION CONFERENCE BETWEEN ALL APPLICABLE PARTIES. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION AND A REVISED POLLUTION PREVENTION PLAN (P2 PLAN OR PPP), IF APPLICABLE, TO THE LOCAL VESCP/VSMP AUTHORITY FOR REVIEW AND APPROVAL PRIOR TO THE PRECONSTRUCTION

 A POLLUTION PREVENTION PLAN (P2 PLAN OR PPP), IF REQUIRED, SHALL BE DEVELOPED. IMPLEMENTED AND UPDATED AS NECESSARY AND MUST DETAIL THE DESIGN. INSTALLATION. IMPLEMENTATION, AND MAINTENANCE OF EFFECTIVE POLLUTION PREVENTION MEASURES TO: MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS; MINIMIZE THE EXPOSURE OF ALL MATERIALS ON THE SITE (SUCH AS BUILDING MATERIALS AND PRODUCTS, CONSTRUCTION WASTE, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, ETC.) TO PRECIPITATION AND STORMWATER; MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS; IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES; AND INCLUDE EFFECTIVE BEST MANAGEMENT PRACTICES TO PROHIBIT THE DISCHARGE OF WASTEWATER FROM: CONCRETE WASHOUT AREAS, DISCHARGE OF WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS. CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS; DISCHARGE OF FUELS, OILS, OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE ACTIVITIES; AND THE DISCHARGE OF SOAPS AND SOLVENTS USED FOR VEHICLE AND EQUIPMENT WASHING. THIS PLAN SHALL BE AVAILABLE ONSITE FOR REVIEW AT REASONABLE TIMES BY THE LOCAL VESCP/VSMP AUTHORITY WHEN REQUESTED.

THE OWNER, APPLICANT, OPERATOR, OR PERMITTEE IS RESPONSIBLE FOR ALL OPERATOR SELF-INSPECTIONS AS REQUIRED IN THE POLLUTION PREVENTION PLAN (P2 PLAN OR PPP) OR AS REQUIRED AS PART OF A DEVELOPED STORMWATER POLITITION PREVENTION PLAN (SWPPP). THESE INSPECTIONS SHALL BE MADE AVAILABLE, UPON REQUEST, BY THE LOCAL

VESCP/VSMP AUTHORITY. 10. ALL PERIMETER EROSION AND SEDIMENT CONTROL (E&SC) MEASURES SHALL BE

CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE ACTIVITY TAKES PLACE. 11. ADDITIONAL SAFETY FENCE OR DUST CONTROL MEASURES. IN ACCORDANCE WITH THE PROVISIONS OF MINIMUM STANDARDS & SPECS. 3.01 AND 3.39 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), MAY BE REQUIRED TO BE IMPLEMENTED ON THE SITE IN ADDITION TO THAT SHOWN ON THE APPROVED PLAN AND SPECIFICATIONS IN ORDER TO ENSURE ADEQUATE PROTECTION OF THE HEALTH, SAFETY AND WELFARE OF THE PUBLIC OR IF SITE CONDITIONS CHANGE, BECOME APPARENT OR ALTER SIGNIFICANTLY

FOLLOWING THE DATE OF PLAN APPROVAL. 12. EROSION AND SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS AT OR FOLLOWING TIME OF CONSTRUCTION TO ENSURE THEIR INTENDED PURPOSE IS ACCOMPLISHED, TO ENSURE ADEQUATE PROTECTION OF THE HEALTH, SAFETY, AND WELFARE OF THE PUBLIC, OR IF SITE CONDITIONS CHANGE, BECOME APPARENT OR ALTER SIGNIFICANTLY FOLLOWING THE DATE OF PLAN APPROVAL, LOCAL VESCP/VSMP AUTHORITY APPROVAL SHALL BE REQUIRED FOR ANY DEVIATION OF EROSION AND SEDIMENT CONTROL MEASURES FROM THE APPROVED PLAN.

13. OFF-SITE WASTE OR BORROW AREAS SHALL BE APPROVED BY THE LOCAL VESCP/VSMP AUTHORITY PRIOR TO THE IMPORT OF ANY BORROW OR EXPORT OF ANY WASTE TO OR FROM

THE PROJECT SITE. 14. TEMPORARY SOIL STOCKPILES SHALL COMPLY WITH THE PROVISIONS OF SECTION 24-46 OF

THE COUNTY CODE. 15. CULVERT AND STORM DRAIN INLET PROTECTIONS, IN ACCORDANCE WITH THE PROVISIONS OF MINIMUM STANDARDS & SPECS, 3.07 AND 3.08 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), MAY BE REMOVED AT THE DISCRETION OF THE ASSIGNED LOCAL VESCP/VSMP AUTHORITY COMPLIANCE INSPECTOR, SHOULD PLACEMENT OF THE MEASURE RESULT IN EXCESSIVE ROAD FLOODING, TRAFFIC OR SAFETY HAZARD, OR RESULT IN THE REDIRECTION OF DRAINAGE ONTO OR TOWARD EXISTING LOTS, HOMES, DRIVEWAYS, GARAGES OR OTHER STRUCTURES. DECISIONS SHALL BE MADE BY THE VESCP/VSMP AUTHORITY ON A CASE-BY-CASE BASIS BASED ON FIELD SITUATIONS ENCOUNTERED.

16. DRAINAGE FACILITIES SHALL BE INSTALLED AND FUNCTIONAL WITHIN 30 DAYS FOLLOWING COMPLETION OF ROUGH GRADING AT ANY POINT WITHIN THE PROJECT. 17. NO MORE THAN 300 FEET OF TRENCH MAY BE OPEN AT ONE TIME FOR UNDERGROUND UTILITY LINES, INCLUDING STORM WATER CONVEYANCES, ALL OTHER PROVISIONS OF MINIMUM STANDARD NO. 16 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS APPLY.

18. PERMANENT OR TEMPORARY STABILIZATION OF DISTURBED SOIL AREAS SHALL COMPLY WITH

MINIMUM STANDARD # 1 AND # 3 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS. 19. THE TERM SEEDING, FINAL VEGETATIVE COVER OR STABILIZATION ON THE APPROVED PLAN SHALL MEAN THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF A STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED, IN ACCORDANCE WITH MINIMUM STANDARD # 1 AND # 3 FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, MINIMUM STANDARDS & SPECS. 3.29 THROUGH 3.37 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), AND ANY TECHNICAL BULLETINS ISSUED BY THE STATE WATER CONTROL BOARD OR VIRGINIA DEQ, AS APPLICABLE. IRRIGATION, IF NECESSARY, SHALL COMPLY WITH ALL APPLICABLE SEASONAL OUTDOOR WATER USE RESTRICTIONS OF THE

JAMES CITY SERVICE AUTHORITY 20. IF DISTURBED AREA STABILIZATION IS TO BE ACCOMPLISHED DURING THE MONTHS OF DECEMBER, JANUARY OR FEBRUARY, STABILIZATION SHALL CONSIST OF MULCHING IN ACCORDANCE WITH MINIMUM STANDARD & SPEC. 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). SEEDING WILL THEN TAKE PLACE AS SOON AS THE

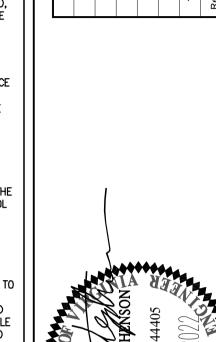
21. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. REMOVAL SHALL NOT OCCUR WITHOUT AUTHORIZATION BY THE LOCAL VESCP/VSMP AUTHORITY. DISTURBANCES ASSOCIATED WITH THE REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY STABILIZED.

22. NO SEDIMENT TRAP OR SEDIMENT BASIN SHALL BE REMOVED UNTIL A) AT LEAST 7 PERCENT OF THE SINGLE-FAMILY LOTS WITHIN THE DRAINAGE AREA TO THE TRAP OR BASIN HAVE BEEN SOLD TO A THIRD PARTY FOR THE CONSTRUCTION OF HOMES (UNRELATED TO THE DEVELOPER); AND/OR, B) 60 PERCENT OF THE SINGLE-FAMILY LOTS WITHIN THE DRAINAGE AREA TO THE TRAP OR BASIN ARE COMPLETED AND STABILIZED. A BULK SALE OF THE LOTS TO ANOTHER BUILDER DOES NOT SATISFY THIS PROVISION. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL NOT BE REMOVED WITHOUT AUTHORIZATION OF THE LOCAL VESCP/VSMP\_AUTHORITY

23. DESIGN AND CONSTRUCTION OF PRIVATE-TYPE STORM DRAINAGE SYSTEMS, OUTSIDE VDOT RIGHT-OF-WAY, SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT VERSION OF THE JAMES CITY COUNTY, ENGINEERING AND RESOURCE PROTECTION DIVISION, STORMWATER DRAINAGE CONVEYANCE SYSTEMS (NON-BMP RELATED), GENERAL DESIGN AND CONSTRUCTION GUIDELINES (IE. COUNTY DRAINAGE STANDARDS)

24. RECORD DRAWINGS (ASBUILTS) AND CONSTRUCTION CERTIFICATIONS ARE REQUIRED FOR ALL STORMWATER FACILITIES INCLUDING STORMWATER MANAGEMENT/BMP FACILITIES AND STORM DRAINAGE CONVEYANCE SYSTEMS. THE CERTIFICATION PROCESS SHALL INCLUDE AN INTERNAL CLOSED-CIRCUIT TELEVISION CAMERA (CCTV) POST INSTALLATION INSPECTION PERFORMED BY THE OWNER IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS DEVELOPED BY THE VSMP AUTHORITY. RECORD DRAWINGS AND CONSTRUCTION CERTIFICATIONS MUST MEET ESTABLISHED PROGRAM REQUIREMENTS OF THE COUNTY'S CHAPTER 8 EROSION AND

SEDIMENT CONTROL AND VSMP ORDINANCE AND THE LOCAL VESCP/VSMP AUTHORITY. 25. ALL STORMWATER FACILITIES INCLUDING BMPS, STORM DRAINAGE PIPES, STORMWATER CONVEYANCES, INLETS, MANHOLES, OUTFALLS AND ROADSIDE AND OTHER OPEN CHANNELS SHALL BE INSPECTED BY THE LOCAL VESCP/VSMP AUTHORITY, THE OWNER, AND THE APPLICANT/OPERATOR/PERMITTEE DESIGNATED GEOTECHNICAL ENGINEER FOR THE PROJECT IN ACCORDANCE WITH ESTABLISHED COUNTY STORMWATER FACILITY INSPECTION PROGRAM REQUIREMENTS



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Project Contacts: TRS Project Number: W10705-00 AS NOTED 01/12/2022

**E&SC NOTES &** DETAILS

C6.0

Sheet Number

# NOTES

1. MATERIALS: UNLESS OTHERWISE SPECIFIED ON THE PLANS OR HEREIN, CORRUGATED POLYETHYLENE PIPE SHALL CONFORM TO AASHTO M-294, LATEST EDITION, STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE PIPE.

RESINS: CORRUGATED POLYETHYLENE PIPE SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE VIRGIN COMPOUNDS, AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3350 FOR THE CELL CLASSIFICATION 335400C.

COUPLING BANDS: EXCEPT AS OTHERWISE REQUIRED HEREIN, COUPLING BANDS AND OTHER HARDWARE FOR CORRUGATED POLYETHYLENE PIPE SHALL DEMONSTRATE THAT THEY MEET THE SOIL TIGHTNESS REQUIREMENTS OF AASHTO SECTION 26 "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

COUPLING BANDS SHALL LAP EQUALLY ON EACH OF THE PIPES BEING CONNECTED TO FORM A TIGHTLY CLOSED JOINT AFTER INSTALLATION.
THE CORRUGATIONS IN THE BAND SHALL INDEX THE CORRUGATIONS IN THE PIPE ENDS TO ENGAGE AT LEAST TWO FULL

CORRUGATIONS FROM THE END OF EACH PIPE.
WHEN INFILTRATION OR EXFILTRATION IS A CONCERN, THE COUPLING BANDS MAY BE REQUIRED TO HAVE GASKETS. THE GASKET MATERIAL SHALL BE CLOSED—CELL EXPANDED RUBBER OR NEOPRENE.

MATERIAL SHALL BE CLOSED—CELL EXPANDED RUBBER OR NEOPRENE.

OTHER COUPLINGS MAY BE BELL & SPIGOT AND CONFORM TO THE REQUIREMENTS OF AASHTO M294.

DESIGNATION OF TYPE: THE PIPE SHALL BE THE FOLLOWING TYPE:

TYPE S: THIS PIPE WILL HAVE A FULL CIRCULAR CROSS-SECTION, WITH AN OUTER CORRUGATED PIPE WALL AND A SMOOTH INNER LINER.

- 2. <u>FOUNDATION</u>: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL IN ACCORDANCE WITH ASTM D2321, LATEST EDITION. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING GEOTEXTILE MATERIAL.
- 3. <u>BEDDING</u>; SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN ACCORDANCE WITH ASTM D2321, LATEST EDITION. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"-24"; 6" FOR 30"-60".
- 4. HAUNCHING AND INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- 5. MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:

| DIAMETER | MIN. TRENCH WIDTH | DIAMETER | MIN. TRENCH WIDTH | DIAMETER | MIN. TRENCH WID |
|----------|-------------------|----------|-------------------|----------|-----------------|
| 4"       | 21"               | 15"      | 34"               | 42"      | 72"             |
| 6"       | 23"               | 18"      | 39"               | 48"      | 80"             |
| 8"       | 26"               | 24"      | 48"               | 54"      | 88"             |
| 10"      | 28"               | 30"      | 56"               | 60"      | 96"             |
| 12"      | 30 <b>"</b>       | 36"      | 64"               |          | ,               |

THE TRENCH WIDTH MUST BE WIDE ENOUGH TO ACCOMMODATE COMPACTION EQUIPMENT.

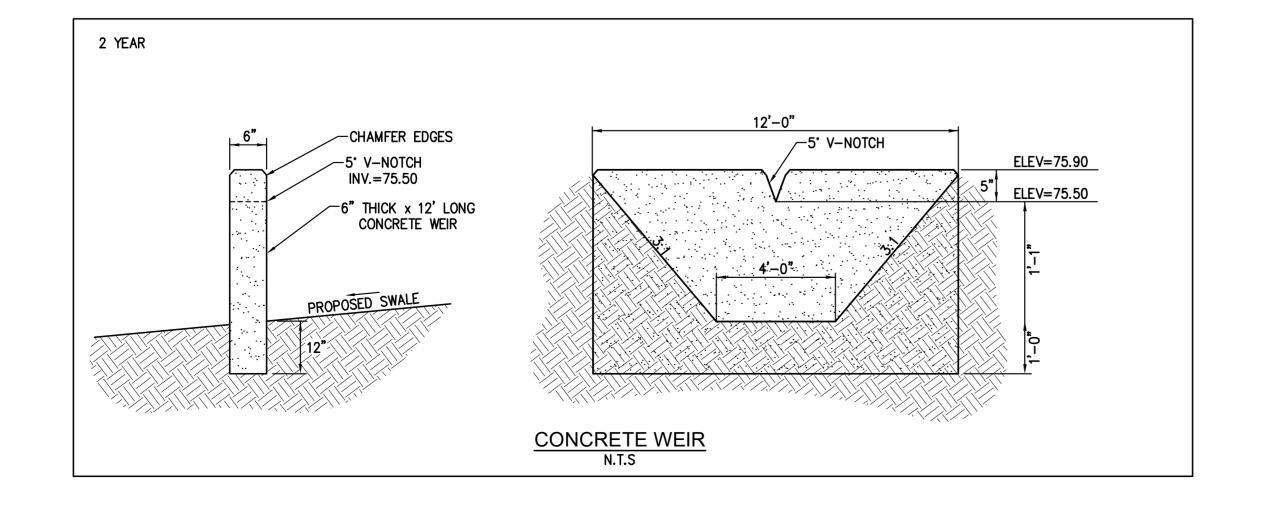
6. <u>MINIMUM COVER</u>: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS MEASURED FROM THE TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

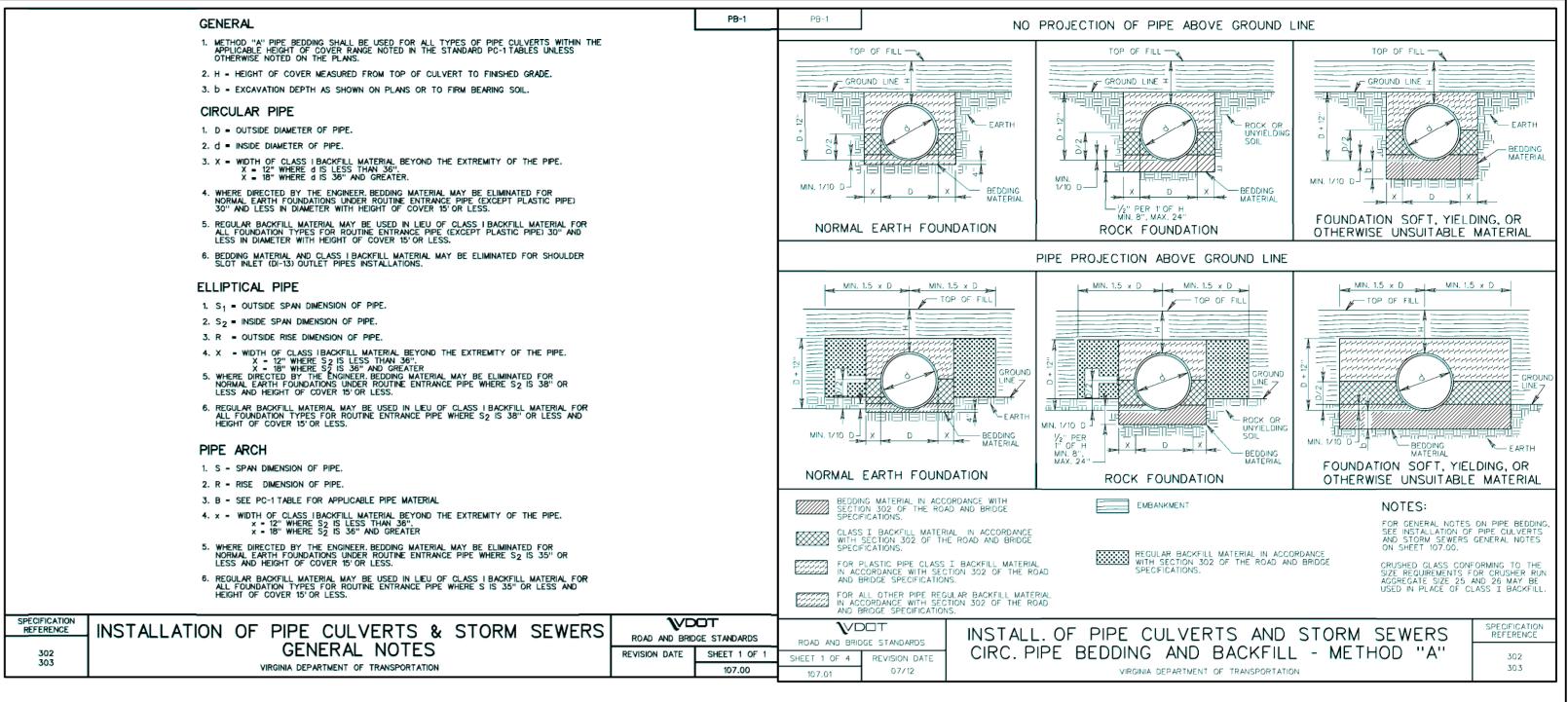
|            | MINIMUM RECOMMENDED COVER      |                                        |  |  |  |
|------------|--------------------------------|----------------------------------------|--|--|--|
|            | SURFACE LIVE LOADING CONDITION |                                        |  |  |  |
| PIPE DIAM. | H-25                           | HEAVY CONSTRUCTION<br>(75T AXLE LOAD)* |  |  |  |
| 12"-48"    | 12"                            | 48"                                    |  |  |  |
| 54"-60"    | 24"                            | 60"                                    |  |  |  |

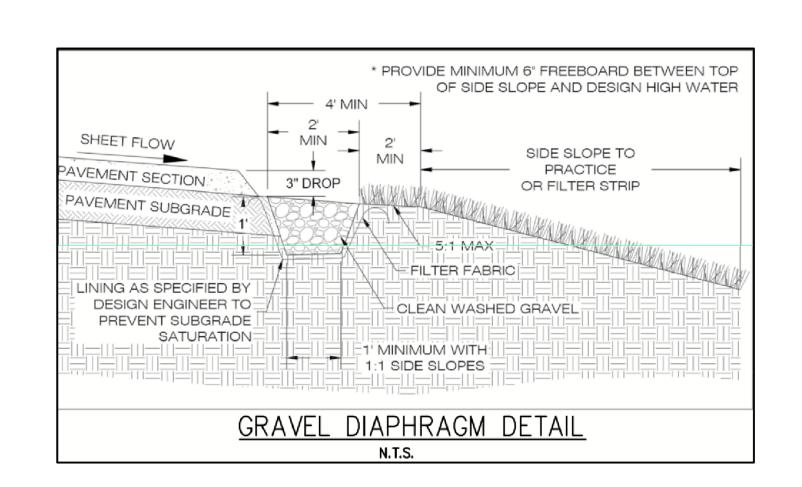
- \* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
- 7. CONNECTION TO CONCRETE STRUCTURES: CONNECTIONS SHALL MEET SPECIFICATIONS ASTM C923.
- 8. PERFORATED HDPE PIPE SHALL HAVE FIVE HOLES, ONE INCH IN DIAMETER EVENLY SPACED AND PLACED WITHIN AN ARC OF 130 DEGREES, THE CENTER HOLE BEING DIRECTLY OPPOSITE THE TOP MARKING. SPACING OF EACH SET OF FIVE HOLES SHALL BE AT 6 INCH INTERVALS ALONG THE TUBE. THE HOLES WILL BE DRILLED AND BE FREE OF ANY DEFECTS. THE PERFORATED PIPE SHALL BE INSTALLED SO THAT THE CENTER HOLE IS IN THE HORIZONTAL PLANE AND INTERFACES WITH THE GRADED GRAVEL.

# HDPE PIPE INSTALLATION DETAIL

NTC







**END VIEW** 

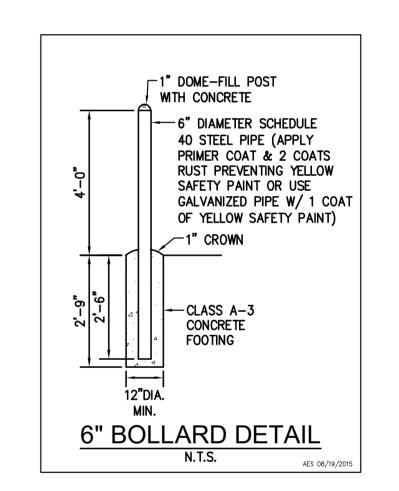
**ELEVATION** 

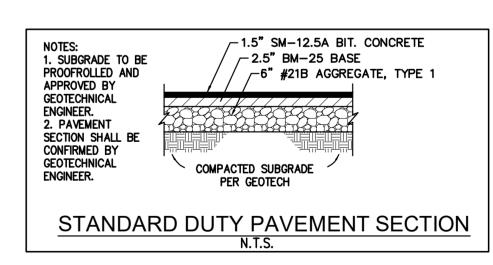
WHEELSTOP-CONCRETE SQUARE

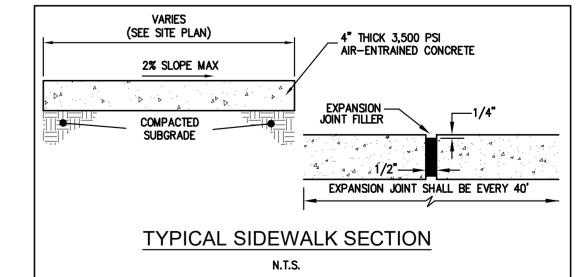
- 6"x6" NOMINAL PRECAST WHEEL STOP CENTERED IN SPACE

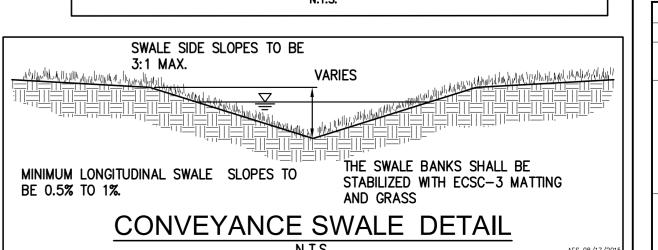
PRECAST CONCRETE

W/ WIRE OR REBAR - REINFORCEMENT











NOT RECEIVED
FINAL APPROVA
AND IS NOT
APPROVED FOR
CONSTRUCTION

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Williamsburg, Virginia 231
Phone: (757) 253-0040
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CONSULTING ENGINEERS

COLONIAL VETERINARY
CLINIC PARKING EXPANSION

Project Contacts: TRS
Project Number: W10705-00
Scale: Date:
AS NOTED 01/12/2022
Sheet Title:
SITE NOTES AND DETAILS

Sheet Number

| 7  | TOID OFNEDATION DATA.            |                                                |
|----|----------------------------------|------------------------------------------------|
|    | X N/A                            |                                                |
|    | ☐ OTHER: A: A:                   | DATE OF APPROVAL                               |
|    | $\square$ SSAR                   | DATE OF APPROVAL                               |
|    |                                  |                                                |
|    | ☐ ACCESS MANAGEMENT              | DATE OF APPROVAL                               |
| .2 | VDOT APPROVED EXCEPTIONS (SELECT | T ONF):                                        |
|    | XX N/A                           |                                                |
|    | ☐ VDOT SUBDIVISION STREET ACCI   | EPTANCE REQUIREMENTS (SSAR)                    |
|    | ☐ VDOT SUBDIVISION STREET REQU   |                                                |
| •• |                                  |                                                |
| .1 | THESE PLANS WERE PREPARED IN AC  | CORDANCE WITH THE REQUIREMENTS OF (SELECT ONE) |
|    |                                  |                                                |
|    |                                  |                                                |

1.3 TRIP GENERATION DATA: IISF• ITE CODE: TOTAL DAILY TRIPS: AM PEAK HOUR TRIPS: PM PEAK HOUR TRIPS:

1.0 GENERAL INFORMATION

- 1.4 A LAND USE PERMIT MUST BE OBTAINED FROM VDOT <u>BEFORE</u> ANY CONSTRUCTION IS STARTED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS. CONTACT THE VDOT DISTRICT OFFICE AT (757) 925-3686 FOR THE PERMIT FEE AND BOND AMOUNT. ALL LAND USE PERMIT APPLICATIONS MUST HAVE ONE (1) SET OF APPROVED PLANS, A COPY OF THE PLAN APPROVAL LETTER, A CHECK FOR THE PROCESSING FEE MADE PAYABLE TO TREASURER OF VIRGINIA, AND SURETY OR BOND IN THE REQUIRED AMOUNT.
- 1.5 THE VDOT DISTRICT OFFICE IS TO RECEIVE WRITTEN NOTIFICATION 48 HOURS PRIOR TO THE START OF ANY WORK WITHIN STATE MAINTAINED RIGHT OF WAY. A PRE-CONSTRUCTION MEETING SHOULD BE HELD AT LEAST ONE WEEK PRIOR TO ANY LAND DISTURBANCE OR WHEN CONSTRUCTION ACTIVITIES WILL AFFECT TRAFFIC OPERATIONS OF ANY ARTERIAL CORRIDOR.
- 1.6 ALL CONSTRUCTION METHODS AND MATERIALS WITHIN STATE MAINTAINED RIGHT OF WAY SHALL COMPLY WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT
- 1.7 THE CONTRACTOR SHALL HAVE AVAILABLE A COPY OF THE LAND USE PERMIT(S), FINAL APPROVED PLANS, ANY APPROVED REVISIONS, AND A COPY OF THE APPROVAL LETTER ON
- 1.8 ANY ERRORS, CONFLICTS, OR DISCREPANCIES FOUND ON THE APPROVED PLANS SHALL BE REPORTED TO THE DEVELOPER'S ENGINEER. THE VDOT DISTRICT OFFICE SHOULD BE NOTIFIED RIGHT OF WAY IS AFFECTED.
- 1.9 THE DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS, UTILITIES, AND ANY 4.6 ALL ROADWAY LIGHTING SHALL BE DESIGNED IN ACCORDANCE WITH IESNA LIGHTING CRITERIA OTHER INSTALLATIONS ALREADY IN PLACE WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO STATE RIGHT OF WAY LIMITS.
- 1.10 THE COMMONWEALTH TRANSPORTATION BOARD MEMBERS OF THE BOARD, THE COMMONWEALTH 5.0 TRAFFIC AND ALL COMMONWEALTH EMPLOYEES, AGENTS, AND OFFICES, SHALL BE ABSOLVED FROM ALL RESPONSIBILITIES, DAMAGES AND LIABILITIES AS A RESULT OF WORK ARISING FROM THE 5.1 THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OF ANY PAVEMENT MARKINGS EXERCISE OF THE PRIVILEGES GRANTED BY PLAN AND/OR PERMIT APPROVAL.
- 11 MATERIALS SHALL NOT BE STOCKPILED WITHIN STATE MAINTAINED RIGHT OF WAY OR EASEMENTS.
- 1.12 PRIVATE ENTRANCES LOCATED ON STREETS WITH CURB AND GUTTER (CG-6, CG-7) REQUIRE INSTALLATION OF CURB APRONS (CG-9B, CG-9D). PRIVATE ENTRANCES LOCATED ON STREETS WITH ROLLTOP CURB SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL ON PAGE B(1)-29 OF THE VDOT ROAD DESIGN MANUAL. SIDEWALK SHALL BE 7" THICK AT DRIVEWAY CROSSINGS AND ADJACENT TO ROLLTOP CURB. INSTALLATION OF PIPE CULVERTS AND STORM SEWERS SHALL CONFORM TO THE CURRENT VDOT STANDARD PB-1. PIPE CULVERTS SHALL 5.3 CONTACT ROADWAY LIGHTING OPERATIONS AT (757) 484-9015 OR (757) 484-8940 A MINIMUM HAVE A MINIMUM OF 4" OF COVER UNDER CONCRETE GUTTERS, OR ADJUSTMENT SHALL BE REQUIRED TO CONCRETE GUTTER GRADES IN THE FIELD TO REACH THIS COVER OR AS DIRECTED BY THE VDOT ENGINEER. PRIVATE ENTRANCES LOCATED ON STREETS WITH ROADSIDE DITCHES REQUIRE 9" OF COVER.
- 2.0 DRAINAGE & EROSION CONTROL
- 2.1 VDOT SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ANY STORMWATER MANAGEMENT FACILITY OR OUTFALL STRUCTURE LOCATED OUTSIDE OF STATE MAINTAINED RIGHT OF WAY LIMITS AND SHALL BE ABSOLVED FROM ALL RESPONSIBILITIES, DAMAGES AND LIABILITIES AS A RESULT OF SUCH.
- 2.2 ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK AND VIRGINIA STORMWATER MANAGEMENT PROGRAM. AN INDIVIDUAL CERTIFIED BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY. HOLDING A RESPONSIBLE LAND DISTURBER CERTIFICATION, IS TO BE IN CHARGE OF THE LAND DISTURBING ACTIVITY AND FOR CONTINUED MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL ON THE WORK SITE AT ALL TIMES.
- 2.3 TEMPORARY DRAINAGE MEASURES SHALL BE INSTALLED DURING CONSTRUCTION TO PREVENT PONDING AND DIVERT SEDIMENT LADEN WATER.
- 2.4 ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO ENSURE AGAINST SILTATION OF ADJACENT PROPERTIES, DITCHES, STREAMS, AND CONSTRUCTION VEHICLES TRACKING SILT ONTO ADJACENT ROADWAYS. ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED AS DETERMINED NECESSARY BY VDOT AND/OR THE COUNTY/TOWN DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE DEVELOPER.
- 2.5 ALL DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY UPON THE END OF EACH DAY'S WORK AND RESEEDED IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS.
- 2.6 STRUCTURES EXCEEDING 4' IN DEPTH REQUIRE INSTALLATION OF STEPS IN ACCORDANCE WITH STANDARD ST-1. STRUCTURES EXCEEDING 12' IN DEPTH REQUIRE SAFETY SLABS IN ACCORDANCE WITH STANDARD SL-1. IS-1 IS REQUIRED ON ALL DRAINAGE STRUCTURES.
- 2.7 ROOF DRAIN CONNECTIONS ARE NOT PERMITTED IN STRUCTURES WITHIN THE VDOT RIGHT OF
- 2.8 FOR SAFETY CONCERNS IN RESIDENTIAL SUBDIVISIONS. THE MINIMUM LENGTH OF AN ENTRANCE CULVERT SHOULD BE THE ENTRANCE WIDTH PLUS 8'. FOR EXAMPLE, A 16' WIDE ENTRANCE WOULD REQUIRE A 24' CULVERT. THE LENGTH MAY BE LESSENED WHEN END WALLS ARE USED.
- 3.0 MATERIALS
- 3.1 INITIAL PAVEMENT DESIGN PROVIDED IS BASED ON A(N) ASSUMED VALUE. FINAL PAVEMENT DESIGN SHALL BE SUBMITTED IN ACCORDANCE WITH THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA. A COPY OF THE CBR REPORT SHALL BE PROVIDED PRIOR TO CONSTRUCTION. FOR PRIMARY ROADS AND INTERSTATE HIGHWAYS WHERE TRUCK TRAFFIC EXCEEDS 5% PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH AASHTO GUIDELINES. TYPICAL PAVEMENT SECTIONS SHALL DEPICT THE PROPOSED PAVEMENT STRUCTURE INCLUDING THE TOP 6" OF THE SUBGRADE IMMEDIATELY UNDER THE PAVEMENT STRUCTURE COMPACTED TO 100% OF THE THEORETICAL MAXIMUM DRY DENSITY.

- 3.2 WHEN UNSUITABLE MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, SUCH MATERIALS SHALL BE UNDERCUT AND BACKFILLED WITH VDOT SELECT MATERIAL TYPE II MINIMUM CBR-20 ACCORDING TO VDOT SPECIFICATIONS. THE SOIL LAB TEST REPORTS OF THE PROPOSED SELECT MATERIAL SHALL BE INCLUDED IN THE GEOTECHNICAL SOILS REPORT.
- 3.3 ASPHALT PAVEMENT WIDENING SHALL CONFORM TO THE CURRENT VDOT STANDARD WP-2.
- 3.4 THE DEPARTMENT USUALLY PROHIBITS THE OPEN-CUTTING OF HARD-SURFACED ROADS EXCEPT IN EXTENUATING CIRCUMSTANCES. THEREFORE. ALL UNDERGROUND UTILITIES WITHIN STATE MAINTAINED RIGHT OF WAY. AS DETERMINED NECESSARY BY GOOD ENGINEERING PRACTICE TO SERVE THE COMPLETE DEVELOPMENT OF ADJACENT PROPERTIES, SHALL BE INSTALLED DURING THE STREETS INITIAL CONSTRUCTION AND PRIOR TO THE APPLICATION OF ITS FINAL PAVEMENT SURFACE COURSE. THIS SHALL INCLUDE EXTENSIONS OF ALL NECESSARY CROSS-STREET CONNECTIONS OR SERVICE LINES TO AN APPROPRIATE LOCATION BEYOND THE PAVEMENT AND PREFERABLY THE RIGHT OF WAY LINE. IN THE EVENT IT IS NECESSARY TO OPEN THE STREET PAVEMENT TO WORK ON UTILITIES AFTER THE SURFACE HAS BEEN PLACED, ADDITIONAL COMPACTION TESTS AND PAVING AS NECESSARY TO RESTORE THE INTEGRITY AND APPEARANCE OF THE ROADWAY MAY BE REQUIRED.
- 4.0 RIGHT OF WAY & UTILITIES
- 4.1 ALL FIXED OBJECTS SUCH AS UTILITY CABINETS, PEDESTALS, AND STREETLIGHTS SHALL BE LOCATED IN ACCORDANCE WITH CLEAR ZONE REQUIREMENTS, AS NOTED IN THE ROAD DESIGN MANUAL OR AASHTO ROADSIDE DESIGN GUIDE. THERE SHALL NOT BE ANY CABINETS, PEDESTALS, OR FIRE HYDRANTS LOCATED ON THE SHOULDER.
- 4.2 FLOWERS, SHRUBS, AND TREES SHALL NOT BE PLACED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT AN APPROVED SET OF PLANS AND AN APPROVED PLANTING AGREEMENT. NO IRRIGATION (SPRINKLER) SYSTEMS, BRICK COLUMNS, ENDWALLS, AND/OR BRICK MAILBOXES WILL BE CONSTRUCTED OR INSTALLED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT A PERMIT. ANY OF THE ABOVE OR OTHER NON-STANDARD ITEMS FOUND IN THE RIGHT OF WAY WITHOUT A PERMIT WILL BE REMOVED, AND ALL COSTS OF THE REMOVAL WILL BE BORNE BY THE OWNER AND/OR DEVELOPER.
- 4.3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND OVERHEAD UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THE PLANS, PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS AT HIS OWN EXPENSE OF ANY UTILITIES DAMAGED BY HIS CONSTRUCTION METHODS. MISS UTILITY MUST BE CONTACTED AT 811 AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 4.4 AUTHORIZED UNDERGROUND UTILITY INSTALLATIONS SHALL MAINTAIN A MINIMUM OF 36
- FOR RESOLUTION BEFORE PROCEEDING FURTHER WITH THE WORK IF THE STATE MAINTAINED 4.5 OVERHEAD UTILITY INSTALLATIONS WITHIN LIMITED ACCESS AND NON-LIMITED ACCESS RIGHT OF WAY SHALL BE INSTALLED IN ACCORDANCE WITH VDOT LAND USE PERMIT REGULATIONS.
  - AND INSTALLED IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS. ALL ROADWAY LIGHTING SHALL ADHERE TO THE VIRGINIA LIGHTING LAW.

  - DISTURBED BY CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING PAVEMENT MARKINGS ON FINAL PAVEMENT OVERLAY WITHIN 14 DAYS AFTER COMPLETION OF SURFACE TREATMENT. PAVEMENT MARKINGS SHALL BE INSTALLED AND ERADICATED IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.
  - 5.2 CONTACT TRAFFIC ENGINEERING OPERATIONS AT (757) 925-1659 OR (757) 925-1653 A MINIMUM OF 48 HOURS IN ADVANCE WHENEVER EXCAVATION IS WITHIN 500 FEET OF A TRAFFIC SIGNAL, SO THE LINES CAN BE MARKED. FAILURE TO DO SO COULD BE A COSTLY REPAIR FOR THE DEVELOPER.
  - OF 48 HOURS IN ADVANCE WHENEVER PLANNED CONSTRUCTION ACTIVITIES ARE LOCATED WITHIN LIMITED ACCESS HIGHWAYS. FAILURE TO DO SO COULD BE A COSTLY REPAIR FOR THE DEVELOPER.
  - 5.4 CONTACT TRAFFIC OPERATIONS CENTER MAINTENANCE MANAGER AT (757) 424-9903 A MINIMUM OF 48 HOURS IN ADVANCE OF ALL CONSTRUCTION ACTIVITIES LOCATED WITHIN LIMITED ACCESS HIGHWAYS. FAILURE TO DO SO COULD BE A COSTLY REPAIR FOR THE DEVELOPER.
  - 5.5 SIGHT DISTANCES AT ENTRANCES AND INTERSECTIONS SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. ANY OBJECT OR LANDSCAPING THAT OBSTRUCTS DRIVER MEW SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE OR THE ENTRANCE MAY BE CLOSED
  - 5.6 WHEN WORKING WITHIN VOOT RIGHT OF WAY, ALL TRAFFIC CONTROL, WHETHER PERMANENT OR TEMPORARY, SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF VDOT'S WORK AREA PROTECTION MANUAL.
  - 5.7 CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL EXISTING SIGNS AND POSTS IN THE WORK ZONE. THIS INCLUDES, BUT IS NOT LIMITED TO, STOP, YIELD, STREET NAME, AND SPEED LIMIT SIGNS. ANY SIGN OR POST DAMAGED DURING CONSTRUCTION OR MISSING SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
  - 6.0 ENVIRONMENTAL
  - 6.1 THE PERMITTEE IS RESPONSIBLE FOR PURSUING AND OBTAINING ANY AND ALL ENVIRONMENTAL CLEARANCES AND/OR PERMITS, INCLUDING, BUT NOT LIMITED TO, WATER QUALITY, THREATENED AND ENDANGERED SPECIES, HAZARDOUS MATERIALS, AND CULTURAL RESOURCES, REQUIRED TO PURSUE THE PROPOSED ACTIVITY BEFORE ANY CONSTRUCTION IS STARTED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS. DOCUMENTS RELATED TO THESE ACTIVITIES SHALL BE SUBMITTED WITH THE LAND USE PERMIT APPLICATION.

  - 7.1 INSPECTION DOCUMENTATION FOR STREETS TO BE ACCEPTED FOR STATE MAINTENANCE WILL BE REQUIRED IN ACCORDANCE WITH THE LAND DEVELOPMENT INSPECTION DOCUMENTATION BEST PRACTICES MANUAL. A POST INSTALLATION VISUAL/VIDEO INSPECTION SHALL BE CONDUCTED BY THE CONTRACTOR ON ALL PIPES IDENTIFIED ON THE PLANS AS STORM SEWER PIPE AND A SELECT NUMBER OF PIPE CULVERTS. ADDITIONAL TESTING MAY BE REQUIRED AS DIRECTED BY THE AREA LAND USE ENGINEER OR OTHER REPRESENTATIVE.
  - 7.2 THE PERMITTEE SHALL SUBMIT AN AS-BUILT DRAWING OF THE COMPLETED IMPROVEMENTS WITHIN AND ADJACENT TO THE PUBLIC RIGHT OF WAY UNLESS WAIVED BY VDOT. THE AS-BUILT DRAWING INFORMATION SHALL BE PREPARED USING THE SAME VERTICAL DATUM AS THAT USED TO DEVELOP THE ORIGINAL APPROVED PLAN. THE AS-BUILT DRAWING SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN VIRGINIA.
  - 7.3 PRIOR TO RETURN OF THE PROJECT SURETY, THE PERMITTEE SHALL, IN A MANNER THAT IS SATISFACTORY TO VDOT, COMPLETE ALL PUNCHLIST ITEMS AS IDENTIFIED BY VDOT IN WRITING. COMPLETION OF ALL PUNCHLIST WORK WITHIN THE RIGHT OF WAY SHALL BE PERFORMED UNDER AN ACTIVE LAND USE PERMIT.

# April 2015 **Typical Traffic Control** Stationary Operation on a Shoulder (Figure TTC-4.1) NOTES

- 1. For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-5bR), RIGHT SHOULDER CLOSED (W21-5aR)1), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed and a RIGHT SHOULDER CLOSED (W21-5aR)1 sign shall be added to that side.
- 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.
- 3. The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area. 4. For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or oscillating lights is
- Standard: 5. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating, lights.
- 6. Taper length (L) and channelizing device spacing shall be at the following:

| Speed Limit |                                                                       | Lane Wid | dth (Feet) | )   |  |  |
|-------------|-----------------------------------------------------------------------|----------|------------|-----|--|--|
| (mph)       | 9                                                                     | 10       | 11         | 12  |  |  |
| 25          | 95                                                                    | 105      | 115        | 125 |  |  |
| 30          | 135                                                                   | 150      | 165        | 180 |  |  |
| 35          | 185                                                                   | 205      | 225        | 245 |  |  |
| 40          | 240                                                                   | 270      | 295        | 320 |  |  |
| 45          | 405                                                                   | 450      | 495        | 540 |  |  |
| 50          | 450                                                                   | 500      | 550        | 600 |  |  |
| 55          | 495                                                                   | 550      | 605        | 660 |  |  |
| 60          | 540                                                                   | 600      | 660        | 720 |  |  |
| 65          | 585                                                                   | 650      | 715        | 780 |  |  |
| 70          | 630                                                                   | 700      | 770        | 840 |  |  |
|             | Minimum taper lengths for Limited Access highways shall be 1000 feet. |          |            |     |  |  |

Page 6H-14

April 2015

- Channelizing Device Spacing Speed Limit (mph) 0 - 35 36 + 20' 40' ravelway Spacing 40' 80' struction Access\* Spacing may be increased to this distance but shall not exceed one access per 1/4 mile. On roadways with paved shoulders having shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled
- 7. The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit. 8. A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph for operations with a duration greater than 60 minutes
- 9. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed. 1: Revision 1 – 4/1/2015

# Page 6H-38 August 2011 Typical Traffic Control Outside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-16.0) NOTES

- 1. On divided highways having a median wider than 8', right and left sign assemblies shall be reauired.
- 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.
- 3. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.
- 4. All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.

# 5. Taper Length (L) and Channelizing Device Spacing shall be:

| Taper Length (L)                                                      |     |         |         |     |  |
|-----------------------------------------------------------------------|-----|---------|---------|-----|--|
| Speed Limit                                                           | L   | ane Wid | th (Fee | et) |  |
| (mph)                                                                 | 9   | 10      | 11      | 12  |  |
| 25                                                                    | 95  | 105     | 115     | 125 |  |
| 30                                                                    | 135 | 150     | 165     | 180 |  |
| 35                                                                    | 185 | 205     | 225     | 245 |  |
| 40                                                                    | 240 | 270     | 295     | 320 |  |
| 45                                                                    | 405 | 450     | 495     | 540 |  |
| 50                                                                    | 450 | 500     | 550     | 600 |  |
| 55                                                                    | 495 | 550     | 605     | 660 |  |
| 60                                                                    | 540 | 600     | 660     | 720 |  |
| 65                                                                    | 585 | 650     | 715     | 780 |  |
| 70                                                                    | 630 | 700     | 770     | 840 |  |
| Minimum taper lengths for Limited Access highways shall be 1000 feet. |     |         |         |     |  |
| Shoulder Taper = 1/3 L Minimum                                        |     |         |         |     |  |

|                                                                                                                                                                                   | 0 - 35    | 36 +        |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|--|--|
| Transition Spacing                                                                                                                                                                | 20'       | 40'         |  |  |
| ravelway Spacing                                                                                                                                                                  | 40'       | 80'         |  |  |
| Construction Access*                                                                                                                                                              | 80'       | 120'        |  |  |
| * Spacing may be increased to this distance, but shall not exceed one access per ½ mile.  On roadways with paved shoulders having a width of 8 feet or more, channelizing devices |           |             |  |  |
|                                                                                                                                                                                   | channeliz | ing devices |  |  |

Channelizing Device Spacing

Speed Limit (mph

- 6. An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).
- 7. The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit. 8. A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, oscillating, or amber strobe light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truckmounted attenuator shall be used.
- 9. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to
- supplement high-intensity amber rotating, flashing, oscillating, or strobe lights. 10. When a side road intersects the highway within the TTC zone, additional TTC devices shall be

# Page 6H-40

# **Typical Traffic Control** Inside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-17.1)

1. On divided highways having a median wider than 8', right and left sign assemblies shall be

- 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign pacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.
- 3. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.
- 4. All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.

# 5. Taper length (L) and channelizing device spacing shall be:

| Taper Length (L)               |                       |     |     |       |
|--------------------------------|-----------------------|-----|-----|-------|
| Speed Limit                    | Lane Width (Feet)     |     |     |       |
| (mph)                          | 9                     | 10  | 11  | 12    |
| 25                             | 95                    | 105 | 115 | 125   |
| 30                             | 135                   | 150 | 165 | 180   |
| 35                             | 185                   | 205 | 225 | 245   |
| 40                             | 240                   | 270 | 295 | 320   |
| 45                             | 405                   | 450 | 495 | 540   |
| 50                             | 450                   | 500 | 550 | 600   |
| 55                             | 495                   | 550 | 605 | 660   |
| 60                             | 540                   | 600 | 660 | 720   |
| 65                             | 585                   | 650 | 715 | 780   |
| 70                             | 630                   | 700 | 770 | 840   |
| Minimum tape<br>highwa         | er length<br>ays shal |     |     | ccess |
| Shoulder Taper = 1/3 L Minimum |                       |     |     |       |

| Location                                                                                                                                                                                                              | Speed Li | mit (mph) |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|--|--|--|
| Location                                                                                                                                                                                                              | 0 - 35   | 36 +      |  |  |  |
| Transition Spacing                                                                                                                                                                                                    | 20'      | 40'       |  |  |  |
| Travelway Spacing                                                                                                                                                                                                     | 40'      | 80'       |  |  |  |
| Construction Access*                                                                                                                                                                                                  | 80'      | 120'      |  |  |  |
| * Spacing may be increased to this distance, but shall not exceed one access per 1/4 mile.                                                                                                                            |          |           |  |  |  |
| On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travelet |          |           |  |  |  |

Channelizing Device Spacing

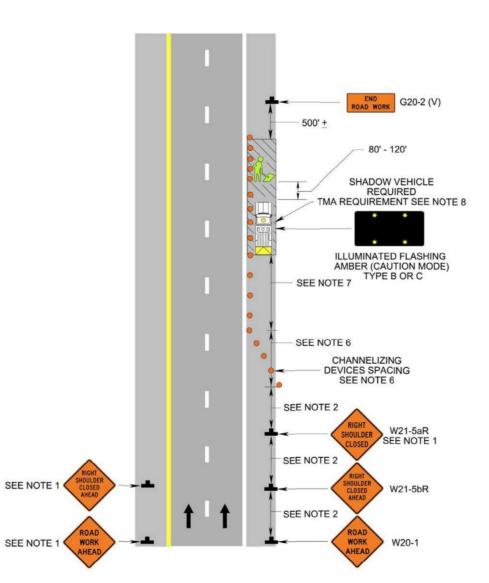
Page 6H-41

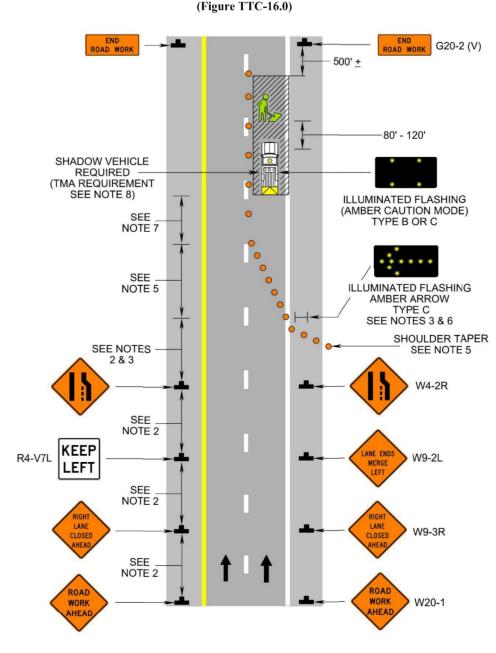
- 6. An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).
- 7. The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit. 8. A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truckmounted attenuator shall be used
- 9. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights but can be used to supplement the amber rotating, flashing, or oscillating lights.
- 10. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.

Inside Lane Closure Operation on a Four-Lane Roadway

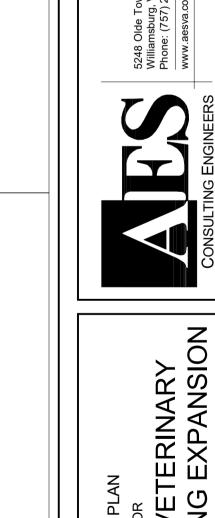
1: Revision 1 – 4/1/2015

# Page 6H-15 August 2011 Page 6H-39 April 2015 Stationary Operation on a Shoulder Outside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-4.1) (Figure TTC-16.0)





# (Figure TTC-17.1) G20-2 (V) SHADOW VEHICLE REQUIRED TMA REQUIREMENT SEE NOTE 8 ILLUMINATED FLASHING (AMBER CAUTION MODE) TYPE B OR C ILLUMINATED FLASHING AMBER ARROW NOTE 5 SEE NOTES 3 & 6 SHOULDER TAPER SEE NOTE 5 SEE NOTES 2 & 3 NOTE 2 KEEP RIGHT



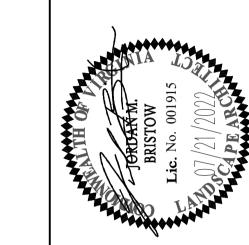
ONIAL VETE COL( Project Contacts: Project Number: W10705-00

Scale: AS NOTED 01/12/2022 Sheet Title: TRAFFIC CONTROL NOTES AND DETAILS

> Sheet Number C6.2

|                                                                          |                                     | J                                        | AMES CITY COUN                                                                 | ITY LANDSCAPE REG                                                                                                    | QUIREMENTS                                                                   |                |                                                           |
|--------------------------------------------------------------------------|-------------------------------------|------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------|-----------------------------------------------------------|
|                                                                          | AREAS                               |                                          | TREES AND SHRUBS                                                               |                                                                                                                      |                                                                              |                |                                                           |
| 0.1 F.C.                                                                 | LANDSCAPE YARD                      | COUNTY REQ.                              | PLANTING RATIO                                                                 | PLANTS REQUIRED                                                                                                      | EXISTING PLANTS TO REMAIN                                                    | NEW PLANTS PRO | OVIDED                                                    |
| 0.2                                                                      | 15' FRONT YARD<br>INGRAM ROAD       | 4,910 SF*                                | 1 TREE AND 3 SHRUBS:<br>400 SQ.FT.                                             | 10 TREES 40% 4 DECIDUOUS SHADE 15-25% 2 ORNAMENTAL 35% 4 LG EVERGREEN                                                |                                                                              | 10 TREES       | 4 DECIDUOUS SHADE<br>2 ORNAMENTAL<br>4 LG EVERGREEN       |
| 0.5                                                                      |                                     | 3,983 SF* (CLEARED)                      | TOO 50:11.                                                                     | 30 SHRUBS 35% 11 EVERGREEN                                                                                           | 10 TREE CREDITS                                                              | 30 SHRUBS      | 22 EVERGREEN                                              |
|                                                                          | 15' SIDE YARD<br>EAST SIDE          | 3,652 SF                                 | 1 TREE <u>AND</u> 3 SHRUBS:<br>400 SQ.FT.                                      | 9 TREES 40% 4 DECIDUOUS SHADE 15-25% 1 ORNAMENTAL 35% 4 LG EVERGREEN                                                 | 10 TREES 8 MATURE (2 CREDITS PER MATURE) 2 SPECIMEN (3 CREDITS PER SPECIMEN) |                | - Deciduous Shade<br>- Ornamental<br>- LG Evergreen       |
|                                                                          | 15' REAR YARD                       | 2,515 SF                                 | 1 TREE AND 3 SHRUBS:                                                           | 28 SHRUBS 35% 10 EVERGREEN  7 TREES 40% 3 DECIDIOUS SHADE 1 ORNAMENTAL 315-25% 3 LG EVERGREEN                        | 22 TREE CREDITS  19 TREES 10 MATURE (2 CREDITS PER MATURE)                   | SHRUBS         | - Evergreen - Deciduous Shade - Ornamental - LG Evergreen |
|                                                                          | NORTH SIDE                          |                                          | 400 SQ.FT.                                                                     | 19 SHRUBS 35% 7 EVERGREEN                                                                                            | 3 SPECMEN (3 CREDITS PER SPECMEN) 29 TREE CREDITS                            | SHRUBS         | - LG EVERGREEN - EVERGREEN                                |
|                                                                          | PARKING LOT                         | 15 CD 40FC                               | 1 Tree <u>and</u> 2 Shrubs:                                                    | 3 TREES 50% 2 LG DECIDIOUS 35% 1 EVERGREEN                                                                           | TREES - LG DECIDUOUS - EVERGREEN                                             | 3 TREES        | 2 LG DECIDUOUS<br>1 EVERGREEN                             |
|                                                                          | T ANNINO LOT                        | 15 SPACES                                | 5 PARKING SPACES                                                               | 5 INCES 35% 1 EVERGREEN  6 SHRUBS 35% 2 EVERGREEN                                                                    | SHRUBS - EVERGREEN                                                           | 6 SHRUBS       | 1 EVERGREEN 6 EVERGREEN                                   |
| TYPE 'A' LIGHT FIXTURE ILLUMINATION PATTERN  TYPE 'B' LIGHT ILLUMINATION | 2 F.C.  1 0.5 0.2 0.1 LIGHT FIXTURE | GENERAL NO<br>FOR CREDIT,<br>11 ARE EVER | OTE: OF THE 26 EXISTING T<br>14 TREES ARE DECIDUOUS<br>RGREEN (42.3%). SMALLER | REES NOTED ON THE PLAN TO<br>(53.8%), 1 IS ORNAMENTAL (3<br>TREES, NOT TAKEN FOR CREDIT<br>RDWOODS AND EVERGREEN SPE | REMAIN<br>3.9%) AND<br>I IN THE                                              |                |                                                           |
| (2) 15"<br>(2) 18" PINES                                                 |                                     | 24" PINE — 8" N                          | 5" MAPLES — LANDS MAPLE — 13" PIN                                              | ORTH REAR SCAPE YARD 42" OAK 24" OAK 8" MAPLE                                                                        |                                                                              |                |                                                           |

| EVERGREEN TREES  | QTY | BOTANICAL NAME                       | COMMON NAME                     | SIZE           | ROOT      | REMARKS     |
|------------------|-----|--------------------------------------|---------------------------------|----------------|-----------|-------------|
| JE               | 1   | JUNIPERUS VIRGINIANA                 | EASTERN RED CEDAR               | 8` HT.         | B&B/CONT. | SINGLE STEM |
| PT               | 4   | PINUS THUNBERGII                     | JAPANESE BLACK PINE             | 8` HT.         | B&B/CONT. | SINGLE STEM |
| ORNAMENTAL TREES | QTY | BOTANICAL NAME                       | COMMON NAME                     | SIZE           | ROOT      | REMARKS     |
| СС               | 2   | CERCIS CANADENSIS 'FOREST PANSY'     | FOREST PANSY EASTERN REDBUD     | 8` HT.         | B&B/CONT. | MULTI-STEM  |
| DECIDUOUS TREES  | QTY | BOTANICAL NAME                       | COMMON NAME                     | SIZE           | ROOT      | REMARKS     |
| AO               | 2   | ACER RUBRUM 'OCTOBER GLORY'          | OCTOBER GLORY RED MAPLE         | 2-1/2" CAL.    | B&B/CONT. | SINGLE STEM |
| NS               | 4   | NYSSA SYLVATICA                      | BLACK GUM                       | 2-1/2" CAL.    | B&B/CONT. | SINGLE STEM |
| DECIDUOUS SHRUBS | QTY | BOTANICAL NAME                       | COMMON NAME                     | SIZE           | ROOT      | REMARKS     |
| AB               | 8   | ARONIA ARBUTIFOLIA `BRILLIANTISSIMA` | BRILLIANT RED CHOKEBERRY        | 22" HT./W.     | CONT.     | DENSE, FULL |
| РО               | 8   | PRUNUS LAUROCERASUS 'OTTO LUYKEN'    | LUYKENS LAUREL                  | 18" HT./W.     | CONT.     | DENSE, FULL |
| EVERGREEN SHRUBS | QTY | BOTANICAL NAME                       | COMMON NAME                     | SIZE           | ROOT      | REMARKS     |
| IC               | 14  | ILEX CORNUTA 'CARISSA'               | CARISSA HOLLY                   | 18" HT./W.     | CONT.     | DENSE, FULL |
| ВН               | 6   | ILEX VOMITORIA 'BORDEAUX'            | BORDEAUX HOLLY                  | 18" HT./W.     | CONT.     | DENSE, FULL |
| MC               | 14  | MYRICA CERIFERA                      | WAX MYRTLE                      | 18" HT./W.     | CONT.     | DENSE, FULL |
| RM               | 13  | RHAPHIOLEPIS INDICA 'MONTO' TM       | INDIAN PRINCESS INDIAN HAWTHORN | 18"-24" HT./W. | CONT.     | DENSE, FULL |



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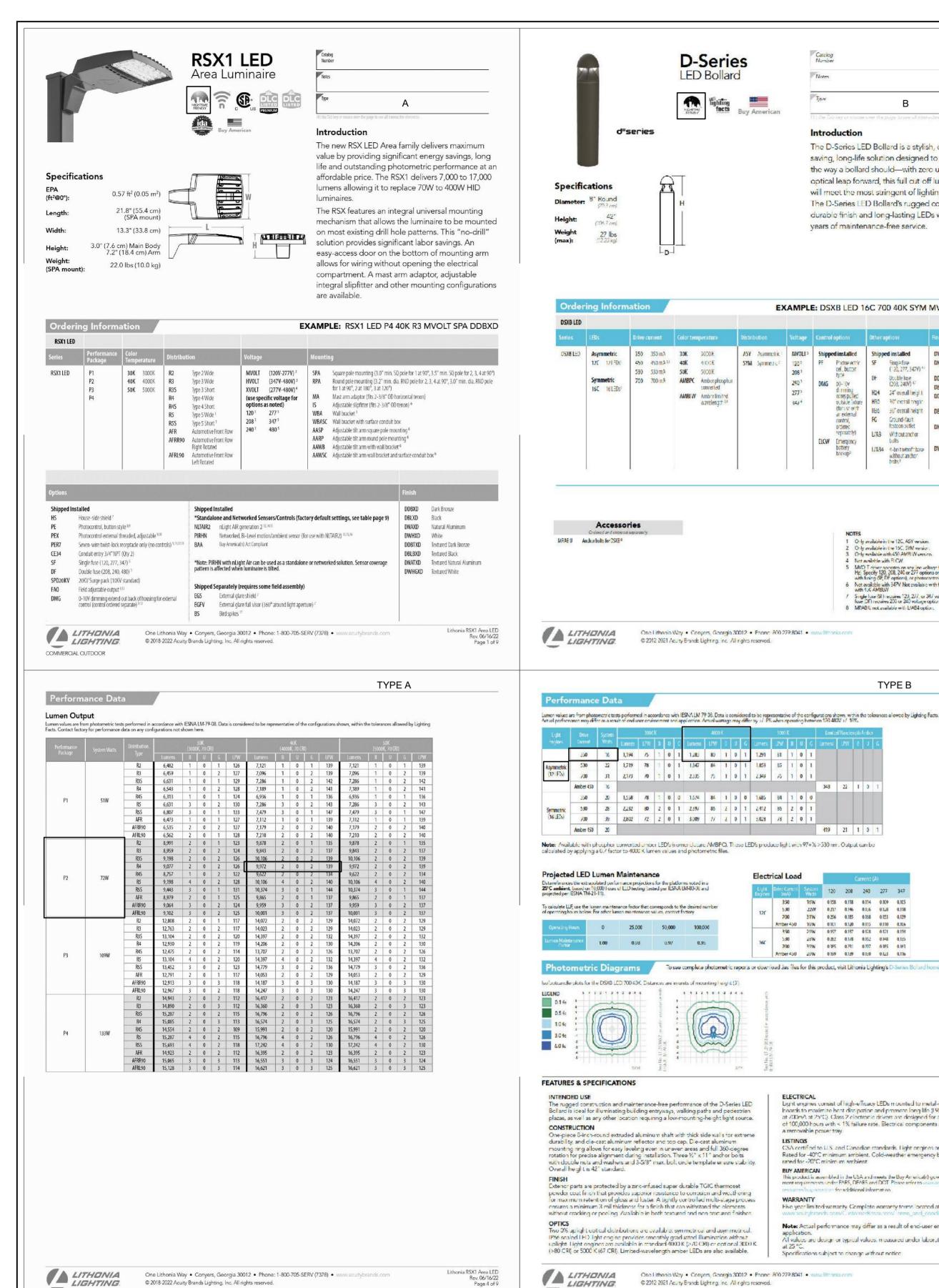
SITE PLAN
FOR
COLONIAL VETERINARY
CLINIC PARKING EXPANSION

| : TRS         |  |  |  |  |  |
|---------------|--|--|--|--|--|
| W10705-00     |  |  |  |  |  |
| Date:         |  |  |  |  |  |
| 01/12/2022    |  |  |  |  |  |
| Sheet Title:  |  |  |  |  |  |
| LANDSCAPE AND |  |  |  |  |  |
|               |  |  |  |  |  |

LIGHTING PLAN

Sheet Number

| TYPE 'A' LIGHT FIXTURE ILLUMINATION PATTERN                                                                    | TYPE 'B' LIGHT FIXTURE ILLUMINATION PATTERN | TREE TRUNK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                | (2) 15" PINES —                             | ROOT BALL EDGE OF SAUCER  15' NORTH REAR LANDSCAPE YARD  4" PINE 8" MAPLE 13" PINE 7  13" PINE 7  13" PINE 7  2" "" WOE WERRING OR POLYCIAM ENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                | (2) 19" DINES                               | 8" MAPLE  8" MAPLE  12" MAPLE  12-18" BACKFILL AREA STRAP TO ALLOW FOR 4"-6" OF TRIVING FIREN 1-2 FULL GROWE ALL STRAPS AND STRING FIREN 1-2 FULL GROWE ALL STRAPS AND STRING WITH TO PSOLO MILCH; KEPT AWAY FROM TRUNK. DO NOT COVER THE BACKFILL AREA WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRING WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRANG WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRANG WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRANG WITH TO PSOLO FIREN HER GROWE ALL STRAPS AND STRANG WITH TO PSOLO FIREN HER GROWE ALL STRANG WITH TO PSOLO FIRENCE WITH TO PSOLO FIREN HER GROWE ALL STRANG WITH TO PSOLO FIREN HER |
|                                                                                                                |                                             | BACKFILL WITH NATIVE TOP SOL: PARTIALLY BACKFILL WITH NATIVE TOP STILE SOLITAINS BACKFILL WITH NATIVE TOP SOLITAIN PARTIALLY BACKFILLING: TAMP LIGHTLY ROUGHEN HOLE WALLS AND BOTTOM TRENCH AROUND PERMETER OF MOUND TO DEPTH SHOWN.  TREE PLANTING  NOT TO SCALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| BUILDING FOUNDATION TAKEN FROM SURVEY BY PROJECT #8252-00 AI FITTED INTO THIS SURV (NOT PART OF THIS SUR       | ON<br>Y AES,<br>AND<br>VEY<br>RVEY)         | 8° PINE BH-6  8° POPLAR (30);3° UNÖBERSTORY TREES  36° PINE 15' EAST SIDE AMPSCAPE YARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ARY SERVICE AREA NETWORK JULY 1990 COORDINATES (ADB3)(1986) 21, RESET 1990                                     |                                             | (6) TYPE 'B' LICHT FIXTURES  (7) THICKET  OF 3" PINES  PD-4  PT-2  AB-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| JAMES CITY COUNTY, PRIMA GEODETIC GROUND CONTROL I MRGINIA STATE PLANE SOUTH ZONE 4502 (N MONUMENT STATION #33 |                                             | MC-3 NS-2 NS-2 15' FRONT LANDSCAPE YARD AB-4 AB-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                |                                             | GRAPHIC SCALE  20' 0' 20' 40'  SCALE: 1" = 20'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



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**FIXTURE** 

**TYPE** 

LITHONIA LIGHTING

RSX1 LED-P2-40K-R4-DDBXD

RSX1 AREA LIGHT, 72 WATT, 4000K

COLOR TEMP. TYPE 4 DISTRIBUTION, B.U.G.

RATING: 2-0-2, COLOR: DARK BRONZE

LITHONIA LIGHTING

DSXB LED-12C-350-40K-ASY-DDBXD

D-SERIES BOLLARD, 12 LEDS, 16 WATT,

4000K COLOR TEMP, B.U.G. RATING:

1-0-1, COLOR: DARK BRONZE

LIGHTING SCHEDULE

POLE TYPE/ MOUNTING

INSTRUCTIONS

LITHONIA LIGHTING

SSS-18-4C-DDBXD

SQUARE STRAIGHT STEEL

POLE, FLUSH POLE BASE,

BOLLARD FIXTURE

COLOR: DARK BRONZE

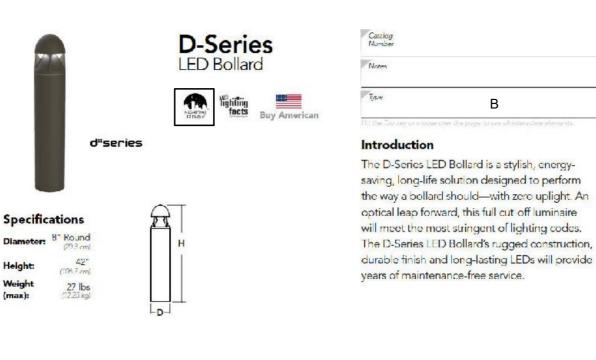
MOUNTING

HEIGHT

LITHONIA LIGHTING.

COMMERCIAL OUTDOOR

KEY



| DSXB LED | ing Inform                                                            | ation                                                   |                                                                                                       | E)                             | (AMPL                                                | E: DSXB LED 1                                                                                                                                                                                   | 6C 700 40K SYM                                                                                                                                                                                                      | MVOLT DDBXD                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                  |
|----------|-----------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| DSXB LED | Asymmetric<br>12C 12LFDxl<br>Symmetric<br>16C 16LEDs <sup>2</sup>     | 350 350 mA<br>450 450 mA 31<br>530 530 mA<br>700 700 mA | 30K 3000 K. 40K 4001 K. 50K 5000 K. AMBPC Amber phosphor converted AMBI W Amber limited wavelength 43 | ASY Asymmetric SYM Symmetric 2 | MVDLI 3<br>120 3<br>208 3<br>240 7<br>277 3<br>347 4 | Shipped installed PE Photoe ectric rel, buttor byte  DMG 00-10v dimming vites pulled uulside ichure (for 150 writ an external control, orderec separatriy)  ELCW Emergency batesip <sup>2</sup> | Shipped installed  SF Single fise (120, 277, 347V) 14  DF Double luse (203, 240V) 15  H24 24" overall height H30 30" overall height FG Ground-fault testoon outlet  L/A84 4-bn tretroff-base without anchor bolls 1 | Finish equated  DWHXD White  DNAXD katural aluminum  DDDXD Cark bronze  DBLXD Elark  DDBTXD Textured dark bronze  DBLBXD Extured black  DNATXD Textured natural aluminum  DWHGXD Textured white | NOTES: 1. Fandhole covers (HHC), full base cover time. For additional parts please order 2. Wall this times will be signified with a 0.1793.                                                                                                                                                                                                                                                                                                    | ras replace                                                                                      |
| MRAR U A | Accesso<br>Ordered and shipe sid<br>nutur bulls for DSXE <sup>8</sup> |                                                         |                                                                                                       |                                |                                                      | 2 Only<br>3 Only<br>4 Nota                                                                                                                                                                      | available in the 12C, ASY version<br>available in the 15C, SYM version<br>moliable with 450 AMELY version<br>vallette with 11CM.                                                                                    | n.                                                                                                                                                                                              | 3. If open top poles indude top cap. Whe example: DM22F120. The combination 4. Refer to the focure specished for the and orientation compatibility. 5. Insert "1" on "2" to designate features in Specify location and orientation when for "X". Specify the height above the Drample: 5ft — 5 and 20ft 3m — 20-3 Hir "y". Specify oriental ion from the Network in the Mandatale Chrestaffian along transpale: 12" chapting of 5 R", oriental. | n includes<br>correct dri<br>size; e.q. D<br>n ordering<br>he base of<br>andhole (/<br>prombelon |

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350 16 1,194 75 1 0 1 1,283 80 1 0 1 1,291 81 1 0 530 22 1,719 78 1 0 1 1,547 84 1 0 1 1,853 95 1 0

/00 | 31 | 2,1/3 /0 | 1 | 0 | 1 | 2,335 | /5 | 1 | 0 | 1 | 2,349 | /6 | 1 | 0 |

350 20 1,558 /8 1 0 0 1,674 84 1 0 0 1,685 84 1 0 0

0 25,000 50,000 100,000

1.00 0.98 0.97 0.95

3 4 3 2 1 3 1 2 4 1 4

TOTAL | FIXTURES | TOTAL

POLES | PER POLE | FIXTURES

39 2,802 /2 2 0 1 3,009 // 1 0 1 3,028 /8 2 0 1

1 1 1 1 1 1 1 2 4 4 4

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LITHONIA

Not available with 347V. Not available with fusing. Not available with 130 AMBLY.

8 MRAB U not available with L/AB4 option

TYPE B

343 22 1 0

120 208 240 277 347

Light engines consist of high-efficacy LEDs mounted to metal-core drout, boards to maximize boat dissipation and promote long life (I 95/100,000 hours at 200mA at 25°C). Class 2 electronic drivers are designed for an expected life.

of 100,000 hours with < 1% failure rate. Electrical components are mounted on

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated. Rated for -40°C minimum ambient. Cold-weather emergency battery backup

This product is assembled in the USA and meets the Buy America(n) government procure-ment requirements under FARS, DEARS and DOT Please refer to www.gouitybranes.com/

Note: Actual performance may differ as a result of end-user environment and

application.
All values are design or typical values, measured under laboratory conditions at 25 °C.

DSXB-LED

rated for -20°C minimum ambient

ev bay american for additional information

Specifications subject to change without notice

Five year limited warranty. Complete warranty terms located at

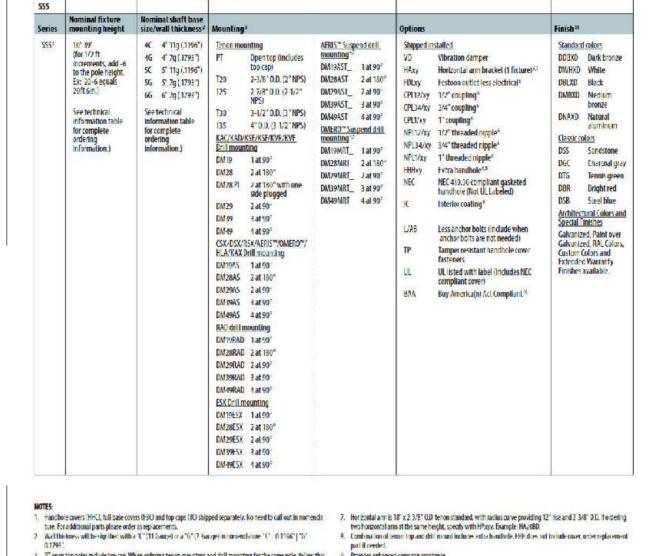
16W 0.158 0.138 0.114 0.109 0.1

22W 0.21/ 0.146 0.126 0.128 0.118

Amber 450 20W 0.199 0.139 0.130 0.123 0.116

To see complete photometric reports or download lies files for this product, visit Lithonia Lighting's D-Series Bollard homepage.

Single fuse (SI) requires 120, 277, or 347 voltage option. Double fuse (DI) requires 200 or 240 voltage option.



TYPE A POLE

Example: SSS 20 5C DM19 DDB

ide top cap. When ordering tenon mounting and drill mounting for the same pole, follow this 9. Provides enhanced corrosion resistance. e combination includes a required extra handhole, 10. Use when mill certifications are required

x sheet for the correct ciriling template pattern 11. Additional colors available; see www.lithonk Architectural Colors brochure (Form No. 794.3). Available by formal mate fixture size; e.g. DM19AST2. quote only, consult factory for details. tentation when ordering option. height above the base of pole in feet or feet and inches; separate feet and inches with a '

4.0 x 12.0 0.1196 11 24.4 610

OUTDOOR: One Lithonia Way Conyers, GA 30012 Phone: 800-705-SERV (7378) www.lithonia.com

SSS Square Straight Steel Poles

555 25 5C

SSS 35 6G

BASE DETAIL

/ LITHONIA LIGHTING

HPA values are based ASCE 7.93 wind map, for 1/2 ft increments, add, 6 to the pole height. Exc. 20.6 equals 20th film.

**SSS** Square Straight Steel Poles

NG INFORMATION | Lead times will vary depending on options selected. Consult with your sales representat

**MALITHONIA LIGHTING** 

TECHNICAL INFORMATION — EPA (ft2) with 1.3 gust

EPA (ft<sup>2</sup>) with 1.3 gust

4.0x16.0 0.1196 11 15.9 398 11.8 295 8.9 223 8-9 3/4x18x3 115 4.0x18.0 0.1196 11 12.6 315 9.2 230 6.7 168 8.9 3/4x18x3 125

4.0x25.0 0.1793 / 10.8 7/0 7/1 188 5.4 135 8-9 3/4x30x3 245 5.0x25.0 0.1196 11 9.8 245 6.3 157 3.7 150 10.12 1x36x4 225

5.0235.0 0.1793 / 5.9 150 2.5 100 -- -- 10-12 1x36x4 440 6.0x25.0 0.1793 7 12.4 310 7.6 190 4.2 105 11 13 1x36x4 540

39 6.0x39.0 0.1793 7 7.2 180 3 75 -- -- 11--13 1x36x4 605

4"G 8"-9" 3.38"-3.75" 8"-8.25" 0.875" ABTEMPLATE PI50004 AB30-0

5" 10" - 12" 3.5"-4" 11" 1" ABIEMPLATE PISODIO AB36-0

6" 11"-13" 4"-4.50' 12.5" 1" ABTEMPLATE PI50011 AB36-0

5.0x25.0 0.1793 7 18.5 463 13.3 333 9.5 238 10-12 1x36x4 360

4.0x20.0 0.1196 11 9.6 240 6.7 167 4.5 150 8-9 3/4x18x3

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TYPE A POLE

3/4 x 18 x 3

Anchor bolt Anchor bolt and Anchor bolt

1"x36"x4"

PCLE SSS

NOT TO SCALE

N/A 1'x36'x4"

Do not creet pokes without basing foliores installed.

Hing anchor bolls. Lithonia Lighting will not acce

daim for incorrect anthorage placement due to

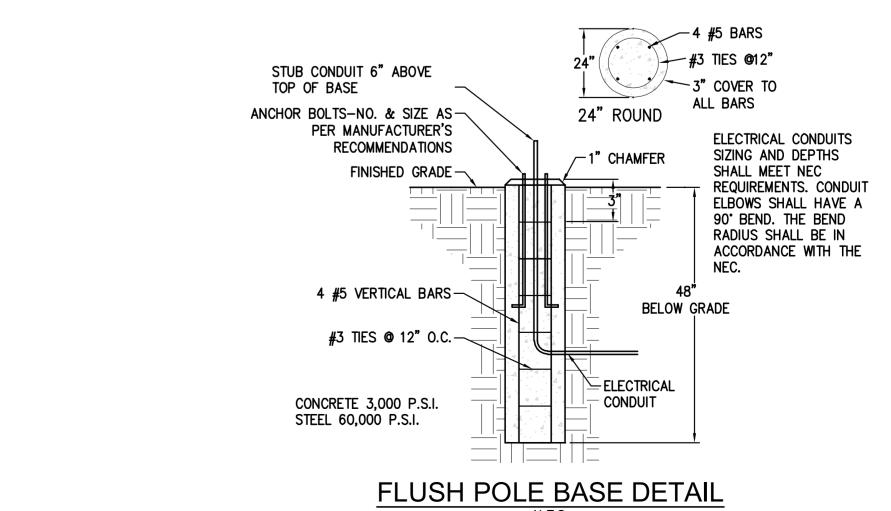
If poles are stored outside, all protective wrapping

- Lithonia Lighting is not responsible for the

prevent finish damage.

# **GENERAL NOTES**

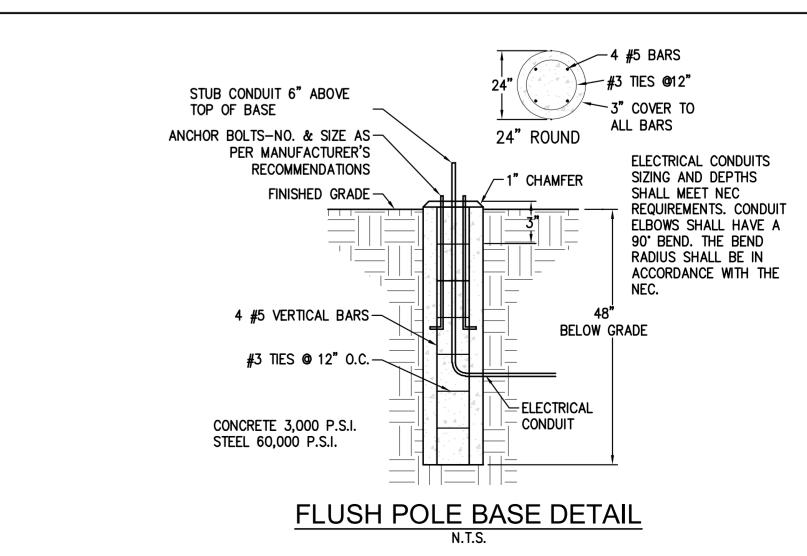
- 1. ALL PLANT STOCK SHALL MEET THE MINIMUM STANDARDS & SPECIFICATIONS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 2. ALL PLANT MATERIAL SHALL BE INSTALLED AS SPECIFIED IN THE VNLA STANDARDIZED LANDSCAPE SPECIFICATIONS, LATEST EDITION.
- 3. 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.
- 4. GROUPINGS OF PLANTS SHALL BE MULCHED IN CONTINUOUS PLANT BEDS.
- AREAS DISTURBED BY CONSTRUCTION. NOT OTHERWISE WITHIN PLANT BEDS OR COVERED IN SITE CONTRACT, ARE TO BE SODDED OR SEEDED WITH A STATE CERTIFIED TURF-TYPE TALL FESCUE VARIETY SELECTED FROM THE FOLLOWING LIST: Biltmore, Bingo, Cochise III, Constitution, Coyote II, Crossfire II, Endeavor, Fidelity, Good-en, Grande, Greenkeeper WAF, Inferno, Kalahari, Magellan, Masterpiece, Onyx, Padre, Picasso, Penn 1901, Quest, Raptor, Rebel Exeda, Rembrandt, Rendition, SR 8250, SR 8300, Tarheel, Titanium, Watchdog, Wolfpack, WPEZE.
- 6. AREAS OF THE SITE DEPICTED AS "TURF" REPRESENT MAINTAINED TURF AND MAY INCLUDE ALREADY ESTABLISHED AREAS. THE PROVISION OF TURF AREAS BY SEEDING OR SODDING SHALL BE DETERMINED AT THE OWNER'S DISCRETION.
- 7. TREES SUPPORT STAKING IS OPTIONAL FOR TREES THAT ARE 1" CAL. OR 6' HT. OR LESS. ALL TREE STAKING SHALL BE REMOVED AFTER 1-2 GROWING SEASONS.
- 8. ALL TREES ARE TO BE PLANTED SO TOP OF ROOT BALL IS 3" ABOVE FINISHED GRADE.
- 9. TREE SHALL BE INSTALLED PLUMB & STRAIGHT.
- 10. PRUNE ALL SUCKERS, RUBBING OR CROSSED BRANCHES, CODOMINANT LEADERS, NARROW CROTCH ANGLES, WATER SPROUTS, BROKEN BRANCHES.
- 11. DO NOT PRUNE CENTRAL LEADER OR BRANCH TIPS.
- 12. REMOVE TAGS, LABELS & PLASTIC SLEEVING.
- 13. DO NOT WRAP TRUNK.
- 14. IF PLANT MATERIAL IS CONTAINER-GROWN, REMOVE TOP OF WIRE BASKET, OR REMOVE CONTAINER & CUT CIRCLING ROOT; IF FIELD-GROWN, CUT ROPE SURROUNDING BOTTOM OF TREE TRUNK AFTER BACKFILLING BUT BEFORE MULCHING & REMOVE BURLAP FROM TOP 1/3 OF BALL ROOT.
- 15. REMOVE ALL STAKES, STRAPS, WRES, RUBBER HOSES, ETC. AFTER 1-2 GROWING SEASONS.
- 16. PLANT SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN CONSENT OF THE OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE PRIOR TO INSTALLATION.
- 17. ALL INSTALLED PLANT MATERIAL SHALL BE SUBJECT TO REGULAR MAINTENANCE, INCLUDING FERTILIZATION, PRUNING, REPLACEMENT, INSECT AND DISEASE CONTROL. WATERING, MULCHING, AND WEED CONTROL.
- 18. CONTRACTORS ARE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO THE BEGINNING OF WORK AND AVOIDING THEM DURING LANDSCAPING OPERATIONS.
- 19. ALL B&B AND CONTAINER PLANTS SHALL BE PLANTED BETWEEN MARCH 15-JUNE 30 OR SEPTEMBER 15-NOVEMBER 15. GRASSES SHALL BE PLANTED IN THE SPRING.
- 20. ACCEPTABLE SURVIVAL RATES AT THE END OF A GROWING SEASON FOR ALL WOODY PLANT MATERIAL IS 100% AND 85% FOR ALL HERBACEOUS PLANT MATERIAL.
  - 1. THE LIGHTING PLAN IS INTENDED SOLELY FOR THE PURPOSE OF FIXTURE SELECTION & PLACEMENT AND DEPICTING ASSOCIATED LUMINANCE LEVELS.
  - THE CONTRACTOR AND/OR ELECTRICAL ENGINEER SHALL BE RESPONSIBLE FOR: SOURCE OF ELECTRICAL POWER: CIRCUITRY: WIRE SIZE: CONDUIT LAYOUT: AND ANY OTHER ELECTRICAL REQUIREMENTS.
  - 3. LIGHT POLE BASES FLUSH WITH FINISHED GRADE LOCATED ON THE PERIMETER OF A PARKING LOT AREA OR WITHIN A PARKING LOT ISLAND SHALL BE INSTALLED TO BE CENTERED A MINIMUM OF 4' FROM THE BACK-OF-CURB AND SHALL BE LOCATED "IN-LINE" WITH PARKING LOT STRIPING WHERE APPLICABLE WHERE THIS MINIMUM DISTANCE CAN NOT BE MET. A 30" CONCRETE BASE SHALL BE INSTALLED. THE CONTRACTOR SHALL ENSURE THAT THE OVERALL MOUNTING HEIGHT IS STILL ACHIEVED AND/OR NOT EXCEEDED WITH THE
  - 4. LIGHT POLE BASES LOCATED WITHIN A PARKING LOT PAVED AREA SHALL BE INSTALLED TO BE CENTERED ON THE INTERSECTION OF THE ASSOCIATED PARKING LOT STRIPING. THE CONCRETE BASES FOR THESE POLES SHALL EXTEND A MINIMUM OF 30" ABOVE FINISHED GRADE. THE CONTRACTOR SHALL ENSURE THAT THE OVERALL MOUNTING HEIGHT IS STILL ACHIEVED AND/OR NOT
  - CONCRETE BASE ARE COMPATIBLE.
  - 8. CONTRACTORS ARE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO THE BEGINNING OF WORK AND AVOIDING THEM DURING INSTALLATION OPERATIONS.



OUTDOOR: One Lithonia Way Conyers, 6A 30012 Phone: 800-705-SERV (7378) www.lithonia.com 601994-2021 Acuity Brands Lighting, Inc. All rights reserved. Rev. 10/18/21 SET TOP OF ROOTBALL 3" ABOVE FINISH GRADE; COVER EDGES OF ROOTBALL WITH SOIL. TAPERING DOWN TO SURROUNDING SOIL LINE; CUT ROPE SURROUNDING CROWN OF ROOTBALL AFTER BACKFILLING BUT BEFORE MULCHING. 4" HT. SAUCER, FILL WITH SHREDDED HARDWOOD MULCH BACKFILL ---- EXISTING/FINISH GRADE AREA - BACKFILL WITH NATIVE TOP SOIL: PARTIALLY BACKFILL, WATER TO SETTLE SOIL; FINISH BACKFILLING; TAMP LIGHTLY CUT CIRCLING ROOTS; SCARIFY SIDES BEFORE PLANTING: REMOVE BURLAP FROM TOP 1/3 OF BALL ROOT. SCARIFY SUBSOIL TO 4" MIN. DEPTH SECTION VIEW 1. SPACE AS SHOWN ON PLAN OR AS INDICATED ON PLANT CHART. 2. WATER IMMEDIATELY AFTER PLANTING. SHRUB PLANTING



- ADDITIONAL HEIGHT OF THE 30" CONCRETE BASE.
- EXCEEDED WITH THE ADDITIONAL HEIGHT OF THE 30" CONCRETE BASE.
- 5. CONTRACTOR SHALL ENSURE THE LIGHT FIXTURE, POLE, POLE BASE, AND
- 6. INSTALLATION OF POLES AND LIGHTING FIXTURES SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- 7. THE CONTRACTOR SHALL ENSURE THAT THE POLE DIAMETER, GAUGE, AND CONCRETE BASE MEET OR EXCEED THE MINIMUM LOAD REQUIREMENTS BASED ON FIXTURE COUNT. REGIONAL WIND LOAD STATISTICS, ADDITIONAL BANNERS / POLE ARMS, AND THE FIXTURE SPECIFICATIONS.

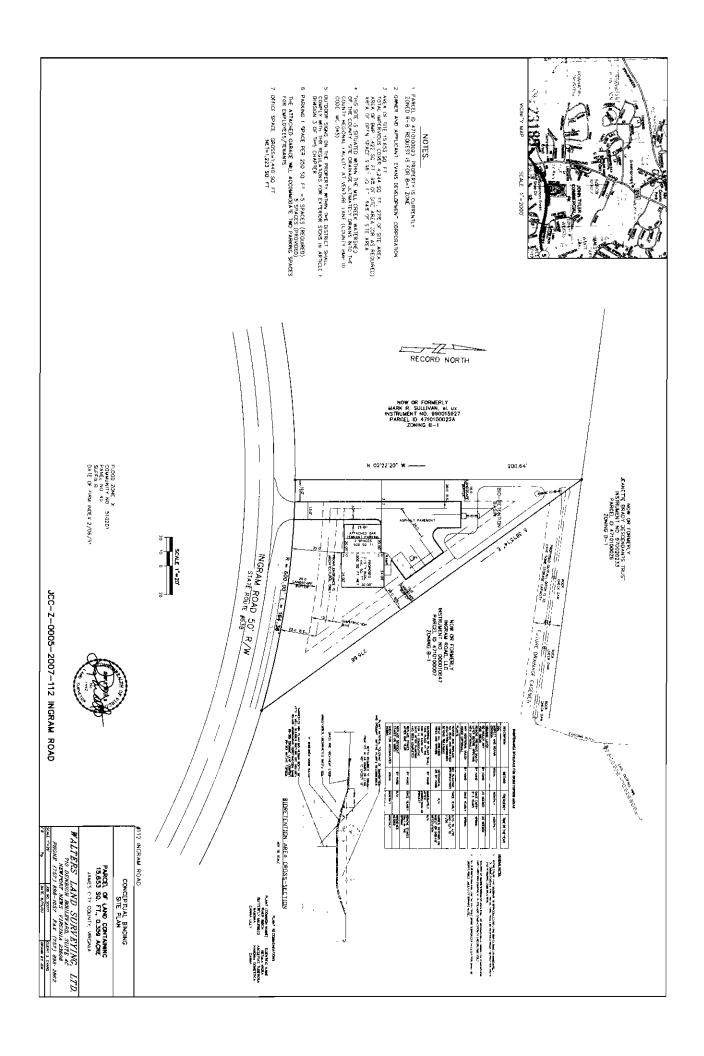


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Project Contacts: Project Number: W10705-00 Date: 1"=20' 01/12/2022 Sheet Title: LANDSCAPE AND LIGHTING NOTES AND DETAILS

Sheet Number



Z-0005-2007

# 112 INGRAM ROAD OFFICE BUILDING PROFFERS



These proffers are made as of this 25<sup>th</sup> day of January, 2008 by EVANS DEVELOPMENT CORPORATION, (together with its successors and assigns, the "Owner")

# RECITALS

- A. Owner is the Owner of a tract or parcel of land located in James City County, Virginia containing approximately 0.37 acres and being James City County Real Estate Tax Parcel (47-1) (1-23) and further described in "Attachment A" ("the Property"). The Property is now zoned R-8, Rural Residential.
- B. Owner has applied to rezone the Property from R-8, Rural Residential, to B-1, General Business, with proffers.
- C. Buyer has submitted to the County a Conceptual Plan entitled "Conceptual Site Plan" prepared by Walters Land Surveying, LTD, dated 8/15/07. ("the Plan")
- D. Owner desires to offer the County certain conditions on the development of the Property not generally applicable to land zoned B-I. Therefore, and in consideration of the approval by the Board of Supervisors of the rezoning, and pursuant to Section 15.2-2303. et seq. of the Code of Virginia, 1950, as amended, and Section 24-15, of the Zoning Ordinance, owner agrees that it shall meet and comply with all of the following conditions in developing the Property. If the requested rezoning is not granted by the County, these Proffers shall be void.

# **CONDITIONS**

- Uses and Conceptual Plan. The Property shall be put to one or more of the following possible
  uses: business, governmental, contractor's and professional offices and accessory uses thereto as
  defined in the James City County Zoning Ordinance. All other otherwise permissible uses shall be
  prohibited. The Property shall be developed generally in accordance with the Plan, with such
  minor changes as the Development Review Committee determines does not change the basic
  concept or character of the development.
- 2. Architecture. The office building on the Property shall be developed in an architectural design and color scheme generally consistent with the rendering revised November 9, 2007 made by DeBlasio Design and Architects and as shown in the Plan and consistent with the architectural standards set forth in the Primary Principles for Five Forks Area of James City County, adopted by the Board of Supervisors on September 28, 2004. Said design shall be approved by the Planning Director prior to final site plan approval.
- 3. <u>Landscaping.</u> An enhanced landscaping plan shall be provided to the Planning Director for approval prior to final site plan approval. This plan shall provide enhanced landscaping along the entire road frontage of the property. ("Enhanced landscaping" shall be defined as 125 percent of the zoning ordinance landscape size requirements)
- 4. Entrance. An entrance constructed in accordance with applicable VDOT standards shall be installed prior to issuance of any Certificate of Occupancy.
- 5. <u>Intersection Improvements.</u> A cash contribution of \$443.00 shall be made to the County prior to final site plan approval in order to mitigate traffic impacts resulting, in part, from the physical development and operation of the Property. The County shall use these funds towards the construction of intersection improvements to the Ironbound Road/John Tyler Highway intersection as detailed in section I.1 of the Primary Principles for Five Forks Area of James City County, adopted by the Board of Supervisors on September 28, 2004 or toward pedestrian improvements at said intersection.

- 6. Water Conservation. The Owner shall be responsible for developing and enforcing water conservation standards to be submitted to and approved by the James City Service Authority prior to final site plan approval. The standards may include, but shall not be limited to such water conservation measures as limitations on the installation and use of irrigation systems and irrigations wells, the use of approved landscaping materials including the use of drought tolerant plants, warm season grasses and the use of water conserving fixtures and appliances to promote water conservation and minimize the use of public water resources.
- Irrigation: In the design phase, the developer and designing engineer shall include the design of stormwater systems that can be used to collect stormwater for outdoor water use for the entire development. Only surface water collected from surface water impoundments (the "Impoundments") may be used for irrigating common areas on the Property (the "Irrigation"). In no circumstances shall James City Service Authority (the "JCSA") water or well water be used for Irrigation, except as otherwise provided by this condition. If the Owner demonstrates to the satisfaction and approval of the General Manager of the JCSA that the Impoundments cannot provide sufficient water for Irrigation, the General Manager of the JCSA may, in writing, approve a shallow (less than 100' feet) well to supplement the water provided by the Impoundments. If water from shallow wells is inadequate to irrigate common areas the General Manager of the JCSA may approve areas after reviewing site plans that demonstrate the common areas incorporate water conservation techniques (i.e. minimize turf, use of drought tolerant plant, drip irrigation, etc).

Witness the following signature and seal

| Evans Dev | elopment | Corporation |
|-----------|----------|-------------|
|           |          | 111         |

Scott Evans, President

COMMONWEALTH OF VIRGINIA

City/County of  $\underline{\mathcal{I}C'}$ , to wit:

The foregoing instrument was acknowledge before me by <u>SCONE Vans</u>, on this <u>AP</u>, day of <u>Vander</u>, 20 <u>OP</u>.

Notary Public

Notary Registration Number:

My Commission expires:

Prepared by: Scott Evans, 5251-18 John Tyler Hwy, #134, Williamsburg, VA 23185

Return to: James City County Attorneys Office, 101-C Mounts Bay Road, Williamsburg, VA 231285.

# EXHIBIT "A"

All that certain lot, piece or parcel of land situate, lying and being in the County of James City, Virginia, and designated as N/P Jenway LP, which contains approximately 0.359 acres more or less, as shown on that certain plat entitled, "A PHYSICAL SURVEY OF PROPERTY LOCATED AT 112 INGRAM ROAD, JAMES CITY COUNTY, VIRGINIA FOR EVANS DEVELOPMENT CORPORATION, JAMES CITY COUNTY, VIRGINIA", prepared by LandTech Resources, Inc., Surveying, Mapping, Land Design, dated March 9, 2006 which plat is duly recorded in the Circuit Court Clerk's Office for the City of Williamsburg and County of James City, Virginia, simultaneously with and immediately prior hereto.

VIRGINIA: CITY OF WILLIAMSBURG & COUNTY OF JAMES CITY
This cocument was admitted to record on // James City
at 9:55 AM/PM. The taxes imposed by Virginia Code
Section 58.1-801, 58.1-802 & 58.1-814 have been paid.
STATE TAX LOCAL TAX ADDITIONAL TAX

TESTE: BETSY 8. WOOLRIDGE, CLERK
BY Return Clerk

# RESOLUTION

# PRIMARY PRINCIPLES FOR FIVE FORKS AREA OF JAMES CITY COUNTY

- WHEREAS, Economic Development Action 12G of the 2003 Comprehensive Plan recommends that James City County evaluate redevelopment and land use issues in the Five Forks area; and
- WHEREAS, on June 8, 2004, the Board of Supervisors created the Five Forks Area Study Committee to conduct a comprehensive study of the area and develop a set of guiding principles for future development; and
- WHEREAS, these principles will be used by citizens, staff, Planning Commission, and the Board of Supervisors to guide recommendations and decisions in future land use cases and other development activity in the Five Forks area; and
- WHEREAS, after four public meetings the Five Forks Area Study Committee unanimously adopted primary principles for the Five Forks area of James City County; and
- WHEREAS, on September 13, 2004, the James City County Planning Commission recommended the adoption of the primary principles by a vote of 7-0.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, does hereby endorse the following Vision and Principles to be used alongside the 2003 Comprehensive Plan when reviewing Rezonings, Special Use Permits, and other development activities in the Five Forks area:

# Primary Principles for the Five Forks Area of James City County

Five Forks is an area with a unique village character. Bounded to the east by Mill Creek and to the west by the Powhatan Creek, Five Forks is within a significant natural area. Five Forks also supports a thriving commercial center and boasts a quality elementary school at its southern edge. Five Forks is generally understood to encompass the area that lies within three quarters of a mile of the intersection of John Tyler Highway and Ironbound Road.

Five Forks has grown and changed. With new growth, however, come questions about traffic levels, housing capacity, and preservation of the village qualities that make the area unique.

The Five Forks Area Study Committee was created by the Board of Supervisors to listen to the views of County citizens, particularly those who live and work in Five Forks. The Committee's purpose was to recommend principles that preserve and build upon the many positive qualities of Five Forks. These principles seek to protect the watersheds and safeguard the village character of the area. The principles will address residential growth, commercial development, traffic concerns, and alternative transportation. The principles will be incorporated into the next regularly scheduled update of the County's Comprehensive Plan. Until that time, these principles, when approved, serve as an addendum to the 2003 Comprehensive Plan.

# Vision Statement

Five Forks has a rich heritage and a community character unique to James City County. By cooperating with citizens and with local government we will preserve these qualities for future generations. Through these principles, the Committee envisions that Five Forks will be a place where future redevelopment or development:

- · Improves or maintains water quality and other environmental features;
- · Preserves Five Forks' unique village character;
- · Does not overburden the road network beyond capacity;
- · Provides adequate facilities for pedestrians and cyclists;
- · Provides goods and services needed by citizens; and
- · Ensures housing opportunities for all citizens.

# I. Transportation Principles

- Capitalize on and Enhance Existing Roadway Network (see the Environmental Principles for relevant information related to these recommended actions):
  - · Inventory/validate existing pavement and right-of-way width.
  - Reconfigure pavement markings/lane delineations to accommodate a 150-foot full-width exclusive right-turn lane for southbound Ironbound Road (i.e., north leg).
  - Construct a 150-foot full-width right-turn lane along the northbound approach of Ironbound Road (i.e. south leg).
  - Reduce the speed limit to 35 mph approximately a half mile from the intersection of Ironbound Road and John Tyler Highway.
  - Implement AM, Noon, PM, and Off-Peak signal timing modifications to best process traffic, maximize available and enhanced capacity, and to sustain acceptable level of operations for the isolated signalized intersection of Ironbound Road and John Tyler Highway.
- 2. In conjunction with any development proposals using Ingram Road West for access, encourage developers to make road improvements (reopening access from Ingram Road East from John Tyler Highway was considered but was not recommended. Such reopening might prove to be unsafe and possible benefits appear to be minimal. The initiative might prove to be beneficial at some time in the future depending on future development on Ingram Road East.):
  - Developers using Ingram Road West for access should rebuild this road as a two-lane roadway in accordance with current VDOT street requirements. Improvements could include:
    - 12 14-foot lanes to include roadway as well as curb and gutter;
    - 4-foot buffer between curb and sidewalk on one side of roadway;
    - Street trees and other aesthetic improvements; and
    - 25 mph posted speed limit.

- 3. Promote pedestrian and bicycle facility interconnectivity within Five Forks area (see the Land Use and Environmental Principles for relevant information related to these recommended actions):
  - Utilize available funds in the Sidewalk Capital Improvement Program budget as well as
    alternate sources of funding including grants or private contributions to construct sidewalks
    and pedestrian crosswalks in accordance with the phasing plan listed below.
  - Ensure that new development either provides sidewalks along public road frontages in accordance with the recommendations of the sidewalk inventory, or contributes funds to the Sidewalk Capital Improvement Program.
  - Coordinate the design and construction of roadway improvement projects with bicycle and pedestrian facilities. Bicycle and pedestrian facilities should be designed with an emphasis on safety, adequate lighting, signage, and Americans with Disabilities Act (ADA) compliant features.

# Phase I

- Using the Five Forks area sidewalk inventory, and considering existing and potential development, and existing sidewalk connections as a guide, develop an implementation plan to extend sidewalks to serve pedestrian activity within the businesses at the Ironbound Road/John Tyler Highway intersection.
- Stripe crosswalks and provide crossing ramps and pedestrian signals for each approach to the Ironbound Road/John Tyler Highway intersection.
- Provide paved shoulders on John Tyler Highway west of the Ironbound Road intersection during the next VDOT repaving to decrease road maintenance and provide more travel space for bicycles and pedestrians.

# Phase II

- Using the Five Forks area sidewalk inventory, existing and potential development, and
  existing sidewalk connections as a guide, develop an implementation plan to construct
  sidewalk segments that provide greater connectivity between the central business area and
  Clara Byrd Baker Elementary School, neighborhoods, and recreational areas.
- In accordance with the Greenway Master Plan, construct a multi-use path along John Tyler Highway that can connect to Jamestown High School and the Greensprings Trail.
- Construct shoulder bikeways along Ironbound Road using Federal grants. In accordance
  with the Greenway Master Plan, construct a multi-use path along Ironbound Road that can
  connect to Mid-County Park/Monticello Marketplace Shopping Center.
- Utilize Greenway Funds in the Capital Improvement Program budget and other sources of funding such as grants to support the construction of the above multi-use paths.

- 4. Promote opportunities for bus service in Five Forks:
  - Work with Williamsburg Area Transport (WAT) to investigate areas and routes with the highest ridership and potential for enhanced service (e.g., to serve activity/employment centers).
  - Work with WAT and Traffix to promote public transportation incentives and the use of alternative commuting modes (park-and-ride, ride sharing, express routes, etc.) to both employers and employees.
  - Investigate opportunities to increase ridership to/from centers of activity, businesses, residential areas and special event attractions.
- 5. Maintain a "C" level of service for traffic conditions in Five Forks by adhering to new trip generation thresholds established in the Five Forks Area Study Traffic Impacts Alternative Analysis prepared by Kimley Horn and Associates when approving new development through the rezoning and special use permit process (trip levels above the threshold result in the Level of Service decreasing from C to D. These new trip generation threshold numbers are on top of projected 2008 background trips.):
  - · Without Geometric Improvements
    - AM peak should not exceed 350 new trips
    - PM peak should not exceed 500 new trips
  - With Geometric Improvements recommended by Principle I.1
    - AM peak should not exceed 500 new trips
    - PM peak should not exceed 650 new trips
  - New development should be phased so that new trips do not exceed the lower thresholds until the improvements listed in Principle I.1 are either constructed or fully funded in the VDOT Six-Year Road Plan.
  - New development should provide a pro-rata share of the costs associated with implementing the geometric and signal improvements.

# II. Environmental Principles

- Maintain and improve water quality and reduce flooding risk in the Mill Creek and Powhatan Creek Watersheds by minimizing the amount of additional impervious cover and treating existing and additional stormwater runoff:
  - Develop a coordinated stormwater master plan for Five Forks. The stormwater master plan should address possibilities for regional treatment or other treatment approaches for new and existing development as well as opportunities to reduce and/or treat runoff from the existing roadway into Powhatan Creek and Mill Creek.
  - Minimize drainage of new sidewalks, multiuse paths, or other transportation improvements.
     Encourage drainage of these improvements into a treatment facility such as a grassy swale, regional and structural Best Management Practices (BMP), or other appropriate options.

- For new or modified residential or commercial development in the Powhatan Creek and Mill Creek watershed, encourage the use of Low Impact Design (LID) and Better Site Design (BSD) techniques such as, but not limited to, those listed in the 2003 Comprehensive Plan; the Builders for the Bay James City County Local Site Planning Roundtable consensus document (expected to be completed in Fall 2004); and the booklet entitled "Better Site Design: An Assessment of the Better Site Design Principles for Communities Implementing Virginia's Chesapeake Bay Preservation Act."
- Work with the Village Square Homeowners Association to ensure maintenance of the Village Square BMP and encourage the community to improve the existing BMP by pursuing a grant through the County PRIDE mini-grant program. Explore options for retrofitting and/or maintaining other Five Forks area BMPs.
- Investigate options for and encourage the undertaking of stream restoration projects in the Powhatan Creek and Mill Creek Watersheds.
- Ensure that any new development in the Powhatan Creek Watershed implements the recommendations of the Powhatan Creek Watershed Management Plan adopted by the Board of Supervisors on February 26, 2002:

# Watershed Management Plan Recommendations:

- Non-tidal mainstem in the Five Forks area (west of Ironbound and north of Ingram Road):
   By encouraging the use of expanded buffers along the Powhatan Creek mainstem.
- Tidal mainstem in the Five Forks area (west of Ironbound Road and south of Ingram Road):
   By encouraging the use of expanded buffers along the Powhatan Creek mainstem stormwater management with an added focus on fecal coliform removal.
- Stormwater Recommendations: Use of Special Stormwater Criteria; specialized on-site BMP design with emphasis on removal of nutrients and bacteria; minimize stormwater outfalls on steep slopes.
- 3. Explore options for land conservation in Five Forks:
  - Through the rezoning and special use permit process; encourage developers to set aside land as permanent open space.
  - Continue to target County Green Space Acquisition Funds to acquire properties that are environmentally sensitive or preserve the John Tyler Highway Community Character Corridor.

# III. Land Use Principles

- Promote mixed-use, pedestrian-friendly land-use patterns (see Principles III.6 for Land Use recommendations, including recommendations on moderate- and low-income housing):
  - Pursue regulatory and investment strategies that promote a safe and healthy mix of uses (e.g., retail, residential, office, and public facilities).

- Continue to promote Five Forks as a center of community activity with complementary mixed uses.
- Promote development patterns that support compact development, interconnected streets
  (connections to existing neighborhoods should be permitted only where practical and
  desired by those residents), sidewalks, etc., in an effort to encourage walkable
  neighborhoods within the Five Forks area.
- 2. Identify and re-utilize vacant buildings and properties that are no longer utilized:
  - Encourage master planning of available land for redevelopment or new uses in order to promote shared parking, fewer entrances onto arterial roads, better utilization of land and increased open space.
  - · Promote reuse and redevelopment of blighted and no longer utilized properties.
  - Target capital investments by James City County (e.g., infrastructure, underground utility lines, streetscape improvements, etc.) to support private reinvestment and redevelopment.
  - Through the Office of Housing and Community Development, investigate ways to renovate
    and rehabilitate the existing housing stock in the Five Forks area where appropriate. Work
    with private nonprofit groups such as Habitat for Humanity, the Community Action Agency
    and Housing Partnerships, Inc., to improve the condition and availability of the existing
    housing stock and assist residents that may be displaced by new development.
- 3. Reduce conflicts between incompatible land uses:
  - Promote transitional uses between different land uses.
  - Through the rezoning/special use permit process and standards in the subdivision and zoning ordinance, reduce the impacts of higher intensity on lower intensity uses (requirements for landscaping, buffering, signage, screening, noise, odor, light, traffic, etc.).
- 4. Connect the land use pattern to a supportive, multi-modal transportation system:
  - Establish compact, mixed-use development patterns that create a walkable environment and reduce the need to use the automobile by local residents.
  - Provide convenient pedestrian access from outlying residential areas to the Five Forks community activity center in accordance with Principle I.4.
- Establish guidelines to define and maintain the historic, cultural, and aesthetic character of the Five Forks area:
  - As part of the 2008 Comprehensive Plan update, designate Five Forks as a Community Character Area and incorporate the following guidelines as part of the Community Character element:
    - Building architecture, scale, materials, spacing, height, and color should respect the architectural context of existing structures such as the historic schoolhouse and veterinary

clinic and maintain the village character of Five Forks. New buildings should attempt to emulate distinguishing architectural elements of existing structures such as windows, roof lines, and cornices.

- Buildings that are traditional in character, massing, and detailing are preferred.
   Contemporary interpretations of traditional architecture are acceptable, if based on the scale and proportions of traditional architecture, and compatible with the context of the Five Forks village character.
- Building facade materials and architectural treatment should be consistent on all sides of buildings, including side and rear elevations.
- Where possible, parking should be located to the rear of buildings and should be well
  landscaped with shrubs and street trees. Shared access and parking should be pursued
  before constructing new access breaks and parking facilities.
- Existing specimen trees and shrubs should be preserved to the extent possible. New landscaping should be of a type, size, and scale to complement and enhance the building and site design. Native plant and tree species are encouraged.
- Signage should be of a scale, size, color, and materials to complement the village character of the area. Monument style signs, rather than pole signs, are the preferred type.
- All mechanical equipment should be screened from view with architectural elements, fencing, or landscaping.
- In addition to the above standards, residential buildings should have varied roof lines, wall articulations, window placements, and other features to reduce building mass and unbroken building lines. Arrangement and siting of buildings should preserve the buffers along the Community Character Corridor and complement existing structures such as the historic schoolhouse and maintain the village character of Five Forks.
- Develop and maintain defining traits that can be reflected through landscaping or streetscape design.
- Protect and enhance the visual character of John Tyler Highway and Ironbound Road.
   Transportation improvements and new development should be carefully sited to minimize loss to the existing tree canopy over the roads.
- 6. Ensure that future residential and non residential development/redevelopment is compatible with the vision and principles for the Five Forks area:
  - Ensure new trip generating developments do not exceed new trip thresholds in accordance with Principle I.5 through the rezoning/special use permit process.
  - Ensure proposed land uses are in compliance with the land use section of the 2003 Comprehensive Plan. The following descriptions provide additional guidance on acceptable land use proposals:

- Low Density Residential: Recommended gross densities are 1 to 3 dwelling units per acre. Higher densities should provide public benefits such as setting aside property for low-and moderate-cost housing developments; low- and moderate-income (Low income housing is defined as housing for persons earning less than 50 percent of area median income. Moderate income housing is defined as housing for persons earning 50 percent to 80 percent of the area median income.) housing; mixed-cost housing; or extraordinary environmental protection, including low impact design, better site design, open space preservation and implementation of the Powhatan Creek Watershed Management Plan.
- Moderate Density Residential: Recommended gross densities are 4 to 10 dwelling units per acre. Higher densities should provide public benefits such as setting aside property for low- and moderate-cost housing developments; low-income housing (including persons earning less than 30 percent of area median income); moderate income housing; mixed cost housing; or extraordinary environmental protection, including low-impact design, better site design, open space preservation and implementation of the Powhatan Creek Watershed Management Plan. Recommended housing types include townhouses, apartments, or attached cluster housing.
- Mixed Use: The recommended mix of uses includes offices and community commercial
  uses serving residents of the Five Forks area. Moderate-density housing may be a
  secondary use provided it is designed in accordance with these principles.
- As part of the 2008 Comprehensive Plan update, incorporate the above guidance into the Land-Use element.

# IV. Economic Development Principle

- 1. Promote and facilitate economic growth through development/redevelopment:
  - Facilitate the location of a new anchor tenant in Governor's Green Shopping Center should Winn-Dixie close.
  - Support the development of remaining undeveloped commercial land and vacant buildings in Five Forks to provide goods and services desired by residents of the Five Forks area.
  - Advise the Economic Development Authority on the outcomes of the Five Forks Study so that they may capitalize on future economic opportunities.

Bruce C. Goodson

Chairman, Board of Supervisors

| SUPERVISOR | VOTE |
|------------|------|
| BRADSHAW   | AYE  |
| HARRISON   | AYE  |
| BROWN      | NAY  |
| MCGLENNON  | AYE  |
| GOODSON    | AYE  |

ATTEST:

Sanford B. Wanner Clerk to the Board

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of September, 2004.

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