

NORTH CAROLINA  
WAKE COUNTY

DATE: AUGUST 18, 2022

NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION

LICENSE AGREEMENT FOR PROPERTY  
ENCROACHMENT  
D&SC RAILROAD CORRIDOR  
Milepost DD-16.45

AND

WBS: 42888

TOWN OF APEX

AND

JVI BUILDING & DEVELOPMENT, INC.

**THIS LICENSE AGREEMENT** is made and entered into on the last date executed below, by and among the NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, an agency of the State of North Carolina (hereinafter “Department” and/or “Licensor”), the TOWN OF APEX, a local government entity (hereinafter “Municipality” and/or “Assuming Party”), the JVI BUILDING & DEVELOPMENT, INC., a business corporation of the State of North Carolina (hereinafter referred to as the “Developer” and/or “Licensee”); each party will hereinafter be referred to individually as a “Party,” and collectively as the “Parties.”

**WITNESSETH:**

WHEREAS, the Licensor is the owner of the Rail Corridor right-of-way as described on Exhibit A (“Premises”) in Wake County as attached hereto and incorporated by reference, and known as the D&SC Rail Corridor; and

WHEREAS, the Licensee desires to encroach on the Premises located in Wake County, North Carolina with the construction, maintenance, and use of an eight-point-fifty-five-inch (8.55”) RJDIP sewer line inside a sixteen-inch (16”) steel casing installed by jack and bore and buried a minimum of seven feet (7’) beneath the D&SC Railroad Corridor, as shown on Exhibit B. This encroachment will be located north of Olive Chapel Road at D&SC Milepost (MP) DD-16.45 on the American Tobacco Trail. Specifications detailed in Exhibit C attached hereto. All installation shall be in accordance with the current American Railway Engineering and Maintenance of Way Association (AREMA) Manual for Railway Engineering, Section 5.3 “Specifications for Pipelines Conveying Non-Flammable Substances”; and

WHEREAS, the Licensor is willing to grant the Licensee the privilege of making such encroachment upon the Premises subject to and in accordance with this Agreement (such privilege, the "License").

NOW, THEREFORE, IT IS AGREED that the Licensor hereby grants to the Licensee the privilege to make this encroachment as shown on the attached plan sheet(s), specifications, and special provisions which are incorporated by reference upon the following conditions:

1. **SCOPE OF WORK**

This Agreement is for the construction, maintenance, and use of an eight-point-fifty-five-inch (8.55") RJDIP sewer line inside a sixteen-inch (16") steel casing installed by jack and bore and buried a minimum of seven feet (7') beneath the D&SC Railroad Corridor, as shown on Exhibit B. This encroachment will be located north of Olive Chapel Road at D&SC MP DD-16.45 on the American Tobacco Trail. Specifications detailed in Exhibit C attached hereto. All installation shall be in accordance with the current American Railway Engineering and Maintenance of Way Association (AREMA) Manual for Railway Engineering, Section 5.3 "Specifications for Pipelines Conveying Non-Flammable Substances".

**Prior to beginning work, the Licensee is to contact Matthew Simmons with NCDOT Rail Division (E-mail: [mbsimmons@ncdot.gov](mailto:mbsimmons@ncdot.gov)).**

2. **FEES/BILLING**

In consideration of the Licensor's granting of this privilege to encroach upon the Licensor's Premises, the Licensee agrees to make payment in the amount of NINE HUNDRED TWENTY-SIX AND 40/100 DOLLARS (\$926.40) to Licensor. The Licensee shall submit said payment to the Licensor upon execution and submittal of this License Agreement to the Licensor.

3. **LICENSE LIMITATIONS**

The License is granted solely and exclusively for the improvement, maintenance, and use of the encroachment for the purposes expressly set forth herein. This grant shall not be construed to convey to or otherwise vest in the Licensee any other greater interest to, right to enter upon, or estate in the Premises.

4. **TRANSFER OF RESPONSIBILITIES**

It is agreed between the Licensor, Licensee, and Assuming Party that this license is personal to the Licensee and/or Assuming Party and shall not inure to the successors or assigns of the Licensee and/or Assuming Party, except that Licensee may, with the written consent of the Licensor and Assuming Party which shall not be unreasonably withheld, assign its rights and obligations hereunder to any successor developer of the real property benefitted by the encroachment upon written notice to Licensor and Assuming Party and as expressly provided herein. The Parties understand and agree that any right or claim of Licensor created by this License Agreement shall inure to the benefit of, and be enforceable by, any successor or assignee of Licensor.

5. **CONDITION OF PREMISES**

The Licensor makes no warranties or representations regarding the condition of the Premises, and this Agreement shall not be construed to make or imply any warranty. The Licensee and/or Assuming Party accept the use of the Premises “AS IS” and expressly waives any and all claims against the Licensor relating to or arising from the use or condition of the Premises and the property surrounding the Premises, including, without limitation, any claims and costs related to environmental contamination (such as, without limitation, those claims which might arise under CERCLA, RCRA, and the North Carolina Oil Pollution and Hazardous Substances Act).

6. **COMPLIANCE WITH STANDARDS**

The installation of the eight-point-fifty-five-inch (8.55”) RJDIP sewer line inside a sixteen-inch (16”) steel casing by the Licensee (including the Licensee’s employees, contractors, and agents) will comply with the North Carolina Department of Transportation’s latest RAIL CORRIDOR PRESERVATION POLICY, POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION MANUAL (AREMA), and such revisions and amendments thereto as may be in effect at the date of this Agreement, all of which are hereby incorporated as terms and conditions of this Agreement, and compliance with which may not be waived except by written agreement of all parties. Information as to these policies and procedures may be obtained from the North Carolina Department of Transportation. The Licensee shall be responsible for the installation of the improvements within the encroachment and maintenance of the encroachment until such time as the improvements in the encroachment have been dedicated by deed, plat, or other instrument to Assuming Party and accepted by Assuming Party for public maintenance (the date of such acceptance by Assuming Party, the “Acceptance Date”), whereupon the Assuming Party shall be responsible for the maintenance of the improvements in the encroachment.

Each of the Licensee and the Assuming Party shall be referred to hereinafter as the “Responsible Party,” as applicable; prior to the Acceptance Date, “Responsible Party” shall be deemed to refer to the Licensee; on or after the Acceptance Date, “Responsible Party” shall be deemed to refer to the Assuming Party.

The Responsible Party shall be responsible for the operation and maintenance of the encroachment and will comply with the North Carolina Department of Transportation’s latest RAIL CORRIDOR PRESERVATION POLICY, POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION MANUAL, and such revisions and amendments thereto as may be in effect at the date of this Agreement, all of which are hereby incorporated as terms and conditions of this Agreement and may not be waived except by written agreement of all Parties. Information as to these policies and procedures may be obtained from the North Carolina Department of Transportation.

7. **SIGNAGE**

The Responsible Party agrees to provide, during construction and any subsequent maintenance, proper signs, signal lights, flagperson, and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and amendments or supplements thereto.

8. **IMPROVEMENT/MAINTENANCE COSTS**

The Responsible Party shall improve and/or maintain the encroachment at its own cost and expense. The Licensor shall be exempt from any costs, charges, or assessments of any kind or character on account of or incident to the License, location and improvement of the encroachment within the limits of the right-of-way, or on account of any action or omission by the Licensee and/or Assuming Party in connection therewith.

9. **MAINTENANCE OF FACILITIES**

The Licensee agrees to install and each Responsible Party agrees to maintain the encroachment, in accordance with this Agreement, in such safe and proper condition that the exercise of the License and the encroachment shall (i) not interfere with or endanger existing or future uses by the Licensor of said right-of-way for railroad, trail, or any other transportation purposes and (ii) neither obstruct nor interfere with the proper operation and maintenance of said right-of-way or any tracks, structures, or appurtenances located thereon.

10. **REIMBURSEMENT BY RESPONSIBLE PARTY**

The Responsible Party will reimburse the Licensor for any costs incurred by the Licensor including, but not limited to costs for repairs or maintenance to the Licensor's corridor, roadways, and structures resulting from the installation and existence of this encroachment, or the Responsible Party's exercise of the License granted pursuant to this Agreement. The Responsible Party shall take such measures as are required by applicable laws, rules, and regulations to identify improvements and encroachment facilities, including but not limited to those that are located beneath the surface of the ground.

11. **DRAINAGE**

The Responsible Party agrees to install and maintain, in accordance with this Agreement, in good order the encroachment in such a manner as not to interfere with the proper drainage of the roadbed/track bed and right-of-way. The Responsible Party will not allow or permit the diversion of any additional drainage into existing drainage facilities or upon the right-of-way; moreover, the Responsible Party will arrange its drainage system so as to prevent the ponding of water upon the right-of-way.

12. **PROPERTY OBSTRUCTIONS**

In the event the Responsible Party deems it necessary to remove, adjust, and relocate any structures or property of third persons or corporations, including, but not limited to, wire lines and poles or other supports, now located and constructed upon or near the Licensor's right-of-way, the Responsible Party shall obtain the consent of the Licensor prior to initiating any such removal, adjustment and/or relocation, and will remove, adjust and/or relocate or arrange for the removal, adjustment and/or relocation of same without

cost or expense to the Licensor, and in all respects in accordance with the requirements of the Licensor. Any utility changes must conform to specifications promulgated by the American Railroad Engineering and Maintenance of Way Association (AREMA) and the North Carolina Department of Transportation.

13. **INDEMNIFICATION**

To the extent permissible by law, the Responsible Party agrees to protect, indemnify, and save the Licensor wholly harmless from and against the consequences of any damages or loss of life, personal injury, or property which may be caused by or result from the improvement, maintenance or use of the encroachment, or the failure or neglect of the Responsible Party to maintain proper drainage in connection with the encroachment, or the failure of the Responsible Party to comply with applicable laws, rules, or regulations, or the terms of this Agreement. This provision shall survive the termination, lapse, or expiration of this Agreement or the abandonment of the encroachment by the Responsible Party.

14. **CONDITION OF PROPERTY**

The Responsible Party agrees to restore all areas disturbed during installation or maintenance of the encroachment to the Licensor's reasonable satisfaction. The Responsible Party agrees to exercise every reasonable precaution during construction or maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces, or other property; or pollution of the air. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the Responsible Party agrees to remove and replace the sod or otherwise reestablish the grass cover to the reasonable satisfaction of the Licensor.

15. **ENVIROMENTAL REGULATIONS**

The Responsible Party shall comply with applicable laws, rules, and regulations of the State of North Carolina, including but not limited to the rules and regulations of the Licensor and the North Carolina Department of Environmental Quality and ordinances and regulations of various counties, municipalities, and other agencies relating to pollution prevention and control. The Responsible Party agrees to comply with all federal, State, and local environmental laws, rules, and regulations. None of the terms of this paragraph, or of this Agreement elsewhere, shall be construed as a waiver of any environmental regulations. If hazardous or any other unauthorized material is discovered, and it is determined that such material is present as a result of action by Responsible Party, the Responsible Party shall be solely responsible and hold the Licensor harmless for all costs associated with the removal of the material and any damages caused by the existence of said material. This provision shall survive the termination, lapse, or expiration of this Agreement or the abandonment of the encroachment by the Licensee/Responsible Party.

16. **PERIOD OF PERFORMANCE/TERMINATION OF AGREEMENT**

It is agreed by all Parties that this Agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the Licensor unless written waiver is secured from the Licensor.

17. **NOTICES**

All notices, requests, or other communications permitted or required to be given by one Party to the other and all questions about the contract from one Party to the other shall be addressed and delivered to the other Party’s Contract Administrator. The name, post office address, street address, telephone number, fax number, and email address of the Parties’ respective initial Contract Administrators are set out below. Either Party may change the name, post office address, street address, telephone number, fax number, or email address of its Contract Administrator by giving timely written notice to the other Party.

**For the Department/Licensors:**

IF DELIVERED BY US POSTAL SERVICE:	IF DELIVERED BY ANY OTHER MEANS:
Matthew Simmons, PE Deputy Director NCDOT Rail Division 1556 Mail Service Center Raleigh, NC 27699-1556  Telephone: 919-707-4728 Email: <a href="mailto:mbsimmons@ncdot.gov">mbsimmons@ncdot.gov</a>	Matthew Simmons, PE Deputy Director NCDOT Rail Division 862 Capital Boulevard Raleigh, NC 27699

**For the Municipality/Assuming Party:**

IF DELIVERED BY US POSTAL SERVICE:	IF DELIVERED BY ANY OTHER MEANS:
Town of Apex Michael Deaton, Water Resources Director 105 Church Street Apex, NC 27502  Telephone: 919-249-3413 Email: <a href="mailto:Michael.Deaton@apexnc.org">Michael.Deaton@apexnc.org</a>	Town of Apex Michael Deaton, Water Resources Director 105 Church Street Apex, NC 27502

**For the Developer/Licensee:**

IF DELIVERED BY US POSTAL SERVICE:	IF DELIVERED BY ANY OTHER MEANS:
Jones & Cossen Engineering, PLLC Patrick L. Kiernan, PE 221 N Salem Street, Suite 001 Apex, NC 27502  Telephone: 919-387-1174 Email: <a href="mailto:patrick@jonescossen.com">patrick@jonescossen.com</a>	Jones & Cossen Engineering, PLLC Patrick L. Keirnan, PE 221 N Salem Street, Suite 001 Apex, NC 27502

18. **NONCOMPLIANCE**

In the case of noncompliance with any of the terms of this Agreement by the Licensee and/or Assuming Party, the Licensor will give the Licensee and/or Assuming Party written notice of such noncompliance. If the Licensee and/or Assuming Party fail to comply to the reasonable satisfaction of the Licensor within sixty (60) days after receiving such written notice, unless written waiver is secured from the Licensor, the Licensor reserves the right to discontinue the use of the encroachment until it has been brought into compliance. Alternatively, at no cost to the Licensor, Licensor may remove the encroachment from the right-of-way and require the Licensee and/or Assuming Party to reimburse the Licensor for all expenses for said removal, or the Licensor, in its sole discretion, may require the Licensee and/or Assuming Party to remove the encroachment within ninety (90) days of written notice from the Licensor to the Licensor's satisfaction.

19. **NOTICE OF COMPLETION**

The Licensee and/or Assuming Party agree to give written notice to the Licensor within thirty (30) days of completion of all work contained herein.

20. **CHANGES TO ENCROACHMENT**

The Licensee and/or Assuming Party shall make all necessary changes to the reasonable satisfaction of the Licensor, at the Responsible Party's own cost and expense, within sixty (60) days after written notice from the Licensor, to address the safety concerns of the Licensor or to accommodate the Licensors' use of the right-of-way for railroad, trail, or other transportation purposes, unless written waiver is secured from the Licensor. Such changes include, but are not limited to, the construction of a grade-separated facility for railroad, trail, or other transportation purposes; the installation, maintenance, and upgrading of any safety devices, signs, or other facilities necessary for the Licensor's use of the corridor; and any changes of location, height, depth, or design of the encroachment; or consolidation of at-grade crossings.

21. **REMOVAL OF THE ENCROACHMENT FROM LICENSOR PROPERTY**

In the event the Licensor requires the removal of the encroachment from the right-of-way, the Licensor shall have the right to demand such removal, and the Assuming Party, at its own cost and expense, within one hundred eighty (180) days after written notice

from the Licensor, unless written waiver is secured from Licensor, shall discontinue the use of the same, remove the encroachment from the right-of-way, and restore the same to the condition existing prior to the location of the encroachment upon the right-of-way.

22. **UTILITY ENCROACHMENT**

In the case of a utility encroachment, the Assuming Party agrees to periodically monitor and verify the depth or height of the utility in relation to the Licensor's tracks and facilities present on the Premises and to relocate the utility at Municipality's own cost and expense should such relocation or change be necessary to comply with the minimum clearance requirements as set forth in this Agreement or as required by any public authority.

23. **ENCROACHMENT INTERFERENCE**

If the operation, existence, or maintenance of the encroachment causes interference, physical, magnetic, or otherwise, with train control systems or facilities, or interference in any manner with the operation, maintenance, or use of the right-of-way, tracks, structures, pole lines, devices, other property, or any appurtenances thereto for railroad, trail, or other transportation-related purposes, the Assuming Party shall, within sixty (60) days of written notice from the Licensor, at the Assuming Party's own cost and expense, promptly make such changes in its encroachment as may be required in the reasonable judgment of the Licensor to eliminate all such interference, unless written waiver is secured from the Licensor.

24. **CHANGE ORDERS**

If the Responsible Party undertakes to revise, renew, relocate, or change in any manner whatsoever all or any part of the encroachment plans, such plans shall be submitted to the Licensor for approval before any such change is made. After approval, the terms and conditions of this Agreement shall apply thereto.

25. **EXHIBIT**

Reference Exhibit A (Vicinity Map), Exhibit B (Profile Drawing), and Exhibit C (Pipe Specification Form), and Exhibit D (Railroad Encroachment Application Form) are incorporated herein by this reference.

26. **ASSUMPTION OF ENCROACHMENT**

It is anticipated that, subsequent to the execution of this Agreement and the initiation and/or completion of the encroachment that is the subject matter of this Agreement, or pursuant to a separate transaction between the Licensee and Assuming Party, the Assuming Party shall assume the rights and obligations of the Licensee hereunder. Without limiting the rights of and remedies available to the Licensor, the Parties hereto agree that the Assuming Party shall assume the rights and obligations of the Licensee hereunder upon the earlier of (i) the effective date of such separate agreement between the Licensee and the Assuming Party or (ii) the Acceptance Date. In consideration of the Licensor's grant of the License and the benefits thereof, the Assuming Party expressly agrees to be bound by this Agreement to the same extent as the Licensee. Except as provided in this Agreement, any other purported transfer or assignment of this Agreement



by the Licensee and/or Assuming Party shall be void.

27. **GOVERNING LAWS**

This Agreement shall at all times be governed by the provisions of the law of North Carolina.

28. **RELATIONSHIP BETWEEN PARTIES**

This Agreement shall not be construed to create any relationship of agency or employment between the Parties hereto.

29. **ETHICS PROVISION**

By Executive Order 24, issued by Governor Perdue, and North Carolina General Statutes (N.C.G.S.) § 133-32, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e., Administration, Commerce, Cultural Resources, Environment and Natural Resources, Health and Human Services, Public Safety, Revenue, Transportation, and the Office of the Governor).

30. **E-VERIFY**

E-Verify is the federal program operated by the United States Department of Homeland Security and other Federal agencies, or any successor or equivalent program, used to verify the work authorization of newly hired employees pursuant to federal law. The Parties warrant that they and any subcontractor performing work under this Agreement: (i) uses E-Verify if required to do so by North Carolina law and (ii) otherwise complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes. A breach of this warranty by any Party will be considered a breach of this Agreement, which entitles the other Parties to terminate this Agreement, without penalty, upon notice to the breaching Party.

IT IS UNDERSTOOD AND AGREED that the approval of this License Agreement by the Department is subject to the conditions of this Agreement, and the terms of this Agreement will be complied with on the part of the Licensee and Assuming Party.

IN WITNESS WHEREOF, this License Agreement for Property Encroachment has been executed, the last day and year heretofore set out below, on the part of the Department, the Municipality, and the Developer by authority duly given.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this Agreement, you attest, for your entire organization and its employees or agents, that you are not aware that any gift in violation of N.C.G.S. § 133-32 and Executive Order 24 has been offered, accepted, or promised by any employees of your organization.

WITNESS

TOWN OF APEX

BY: \_\_\_\_\_

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

NAME: Michael Deaton

TITLE: \_\_\_\_\_

TITLE: Water Resources Director

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

MUNICIPAL SEAL

FEDERAL TAX IDENTIFICATION NUMBER

**MAILING ADDRESS**

Town of Apex  
105 Church Street  
Apex, NC 27502  
ATTN: Michael Deaton  
Water Resources Director  
[Michael.Deaton@apexnc.org](mailto:Michael.Deaton@apexnc.org)  
919-249-3413

IN WITNESS WHEREOF, this License Agreement for Property Encroachment has been executed, the last day and year heretofore set out below, on the part of the Department, the Municipality, and the Developer by authority duly given.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this Agreement, you attest, for your entire organization and its employees or agents, that you are not aware that any gift in violation of N.C.G.S. § 133-32 and Executive Order 24 has been offered, accepted, or promised by any employees of your organization.

WITNESS	JVI BUILDING & DEVELOPMENT, INC.
BY: _____	BY: _____
NAME: _____	NAME: <u>Joseph Iannone</u>
TITLE: _____	TITLE: <u>President</u>
DATE: _____	DATE: _____

CORPORATE SEAL

FEDERAL TAX IDENTIFICATION NUMBER

---

**MAILING ADDRESS**

JVI Building & Development, Inc.  
1600 Olive Chapel Road  
Suite 400  
Apex, NC 27502  
ATTN: Joseph Iannone  
President  
[Joey@jviconstruction.com](mailto:Joey@jviconstruction.com)  
919-387-8846

IN WITNESS WHEREOF, this License Agreement for Property Encroachment has been executed, the last day and year heretofore set out below, on the part of the Department, the Municipality, and the Developer by authority duly given.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this Agreement, you attest, for your entire organization and its employees or agents, that you are not aware that any gift in violation of N.C.G.S. § 133-32 and Executive Order 24 has been offered, accepted, or promised by any employees of your organization.

ATTEST

NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION

BY: \_\_\_\_\_

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

NAME: Julie White

TITLE: Processing Agent

TITLE: Deputy Secretary for Multi Modal  
Transportation

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

SEAL

**MAILING ADDRESS**

North Carolina Department of Transportation  
Rail Division, Operations & Facilities Branch  
1556 Mail Service Center  
Raleigh, NC 27699-1556  
ATTN: Matthew Simmons, PE  
Deputy Director  
[mbsimmons@ncdot.gov](mailto:mbsimmons@ncdot.gov)  
919-707-4728

# EXHIBIT A

## HATCHER SEWER OUTFALL CONSTRUCTION DRAWINGS



SITE DATA	
PROJECT NAME	HATCHER SEWER OUTFALL
PREPARED CONTACT INFORMATION	JONES & CROSSEN ENGINEERING, PLLC P.O. BOX 1002 APEX, NORTH CAROLINA 27502 PHONE - (919) 567-1124 FAX - (919) 567-9275
OWNER DEVELOPER CONTACT INFORMATION	JCI DEVELOPMENT 1000 OLIVE CHAPEL ROAD, SUITE 400 APEX, NC 27502 PHONE - (919) 567-4842 CONTACT PERSON - JEFF ANKWERE
WATERSHED INFORMATION	JORDAN LAKE PROTECTED AREA MAP #3720072200 (DATED MAY 2, 2006)
FEMA FLOODPLAIN INFORMATION	PROJECT IS NOT WITHIN 100-YEAR FLOODPLAIN

- SEWER OUTFALL SHEET INDEX**
1. COVER SHEET
  2. OVERALL PLAN
  3. EXISTING CONDITIONS
  4. STAGING & DIRECTION PLAN
  5. SEWER OUTFALL A
  6. CONSTRUCTION DETAILS

STANDARD SPECIFICATIONS & STANDARD DETAILS  
VERSION: MARCH 05, 2005

PUBLIC IMPROVEMENT SUMMARY (PHASE 1)	
LINEAR FOOTAGE OF NEW PUBLIC ROADS	NA
LINEAR FOOTAGE OF PUBLIC ROAD WIDENING	NA
LINEAR FOOTAGE OF PUBLIC CURB & GUTTER	NA
LINEAR FOOTAGE OF PUBLIC SIDEWALK	NA
LINEAR FOOTAGE OF PUBLIC GRASSMATS	NA
LINEAR FOOTAGE OF PUBLIC SANITARY SEWER	8' - 1.247 LF
LINEAR FOOTAGE OF PUBLIC WATERLINE	NA
LINEAR FOOTAGE OF PUBLIC STORM DRAINAGE	NA



**APPROVED EXCEPTIONS**

THE FOLLOWING ITEMS HAVE BEEN APPROVED AS EXCEPTIONS FOR THIS DRAWING BY THE TOWN OF APEX DEPARTMENT DIRECTORS, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS DRAWING CONFORMS TO THE REQUIREMENTS ESTABLISHED BY THE DIRECTOR(S) ALLOWING DEVIATION FROM THE STANDARD SPECIFICATIONS AND STANDARD DETAILS OF THE TOWN OF APEX. THE SIGNATURE BELOW REPRESENTS THAT THE REGISTERED ENGINEER HAS BEEN GRANTED A VARIANCE ONLY FOR THE ITEMS LISTED. THE DEVELOPER/ENGINEER/CONTRACTOR IS SOLELY RESPONSIBLE FOR MEETING ALL APPLICABLE REQUIREMENTS.

APPROVED EXCEPTION	DIRECTOR GRANTING EXCEPTION
VAR. 001 - SEE SHEET 1001	

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
(REGISTERING ENGINEER)

**BUILDING DEPARTMENT - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX BUILDING DEPARTMENT AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE REQUIREMENTS ESTABLISHED WITHIN THE TOWN'S CODE OF ORDINANCES AND THE NORTH CAROLINA STATE BUILDING CODES. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**PARKS, RECREATION, AND CULTURAL RESOURCES - TOWN OF APEX CERTIFICATION**

THESE PLANS HAVE BEEN REVIEWED BY THE TOWN OF APEX AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORM TO REPRESENTATIONS MADE BY THE DEVELOPER TO APEX AND THE PARKS, RECREATION AND CULTURAL RESOURCES MONITORING COMMISSION CONSISTENT WITH THE PROJECT'S REQUIREMENTS FOR PUBLIC PARKS AND RECREATION. OTHER IN TOTAL OR IN PART, AS OUTLINED IN THE TOWN OF APEX UNIFIED DEVELOPMENT ORDINANCE AND TOWN OF APEX CODE OF ORDINANCES. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**WATER RESOURCES UTILITY ENGINEERING - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX WATER RESOURCES DEPARTMENT, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATION AND STANDARD DETAILS OF THE TOWN OF APEX. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**FIRE DEPARTMENT - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX FIRE DEPARTMENT, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE REQUIREMENTS ESTABLISHED WITHIN THE TOWN'S FIRE PROTECTION ORDINANCES, AND THE NORTH CAROLINA INTERNATIONAL FIRE CODE. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**PLANNING DEPARTMENT - TOWN OF APEX CERTIFICATION**

THIS CONSTRUCTION DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX PLANNING DEPARTMENT, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE SUBDIVISION OR SITE PLAN THAT WAS APPROVED BY THE TOWN OF APEX TOWN COUNCIL OR TECHNICAL REVIEW COMMITTEE, AS APPROPRIATE, AND MEETS THE STANDARDS OF THE TOWN OF APEX UNIFIED DEVELOPMENT ORDINANCE. THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS OF THE ORIGINALLY APPROVED SUBDIVISION OR SITE PLAN CITED ABOVE, OR ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE, OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**PUBLIC WORKS & TRANSPORTATION - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX PUBLIC WORKS & TRANSPORTATION DEPARTMENT, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, PROVIDES AN ACCEPTABLE TRANSPORTATION SYSTEM WITH CONSIDERATION FOR THE ELEMENTS CONTAINED WITHIN THE TRANSPORTATION PLAN CONFORMING TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS & STANDARD DETAILS AND THE UNIFIED DEVELOPMENT ORDINANCE OF THE TOWN OF APEX. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**ELECTRIC - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX ELECTRIC DEPARTMENT, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD CONSTRUCTION DETAILS AND THE UNIFIED DEVELOPMENT ORDINANCE OF THE TOWN OF APEX. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_



**WATER RESOURCES SOIL EROSION & SEDIMENTATION CONTROL - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE OF THE TOWN OF APEX. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**WATER RESOURCES STORMWATER ENGINEERING - TOWN OF APEX CERTIFICATION**

THIS DRAWING HAS BEEN REVIEWED BY THE TOWN OF APEX WATER RESOURCES STORMWATER UTILITY ENGINEERING DIVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS AND STANDARD DETAILS AND THE UNIFIED DEVELOPMENT ORDINANCE OF THE TOWN OF APEX. HOWEVER, THIS SIGNATURE DOES NOT CONSTITUTE A VARIANCE FROM ANY REQUIREMENTS CONTAINED IN ANY FEDERAL, STATE, OR LOCAL CODE, LAW, SPECIFICATION, RULE OR ORDINANCE. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER, OR ANY OF HIS AGENTS OR CONTRACT PROFESSIONALS TO ENSURE THAT THIS CONSTRUCTION PLAN MEETS ALL THE AFORESAID REQUIREMENTS. THIS SIGNATURE SERVES AS THE STORMWATER PERMIT FOR THIS PROJECT.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**Jones & Crossen**  
ENGINEERING, PLLC  
Civil Engineering | Construction Management | Land Planning

221 N. SILVER ST.  
SUITE 201  
PO BOX 1002  
APEX, NC 27502  
Office: 919.567.1124  
Registration: 4281  
www.jonescrossen.com

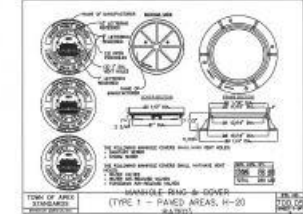
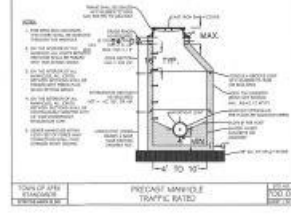
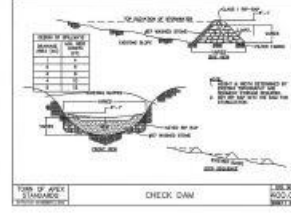
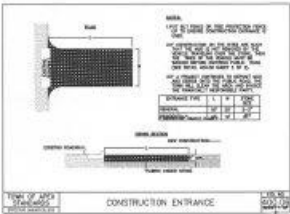
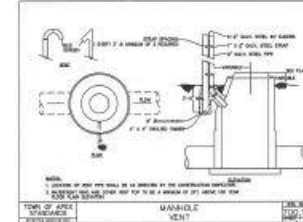
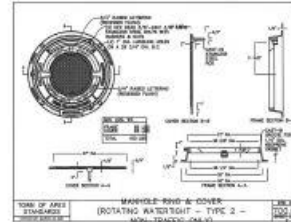
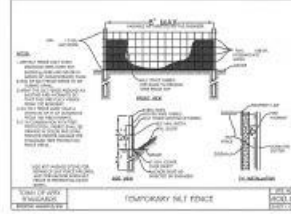
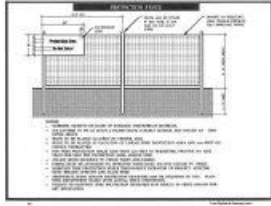
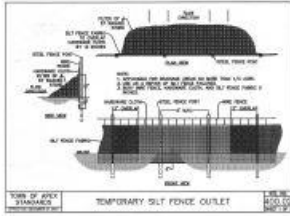
SEAL  
NORTH CAROLINA  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 12/31/2025

**HATCHER SEWER OUTFALL**  
CONSTRUCTION DRAWINGS  
TOWN OF APEX

COVER SHEET

1" = 100'	WCH
JANUARY 3, 2022	
0002	REV. 1/C
0002	REV. APPROX. 5/24
1	
2   12-5	

# EXHIBIT B



**REQUIRED PREPARATION**

1. Check contractor plans and specify layout 3 inches above clear surface on construction, use approved material. Contractor shall prepare subgrade for landscape preparation.
2. Rip the area to 6" or depth.
3. Rip out loose rock, boulders and other obstructions leaving surface reasonably smooth and uniform.
4. Apply agricultural lime, fertilizer, and other appropriate soil amendments and water as needed.
5. Compact using roller or self-propelled tamper, compactness uniform specified as prepared in 1 to 4 inches deep.
6. Seed on a healthy prepared seedbed and cover immediately with seeding equivalent or equivalent after seeding.
7. Mow immediately after seeding and water as needed.
8. Inspect all needed areas and make necessary repairs or adjustments within 30 days planting season. Fertilizer, Fertilizer to meet NGR standards, the contractor shall be responsible for fertilization using the original line, fertilizer and seeding rates.
9. Consult a Certified Irrigation or Landscape Irrigation and Irrigation after permanent lawn is established.

Verify Annualized Erosion - 2 Erosion of 100000 in dry soil  
 Fertilizer - 100000 lbs / 1000 sq ft  
 Seed - 100000 lbs / 1000 sq ft  
 Water - 100000 lbs / 1000 sq ft

**SOILS AND CONSTRUCTION SCHEDULE**

THE FOLLOWING SCHEDULES ONLY AFTER CONSTRUCTION PLANS ARE APPROVED, SIGNED BY TOWN STAFF AND COVER ARE REQUIRED:

1. THROUGH THE INFRASTRUCTURE ADMINISTRATION MANAGER AT 201 N. 24th STREET, SUITE 200, CONSTRUCTION MEETING WITH INSPECTORS AND OTHER TOWN STAFF.
2. FILL OUT THE PROTECTIVE FENCE APPLICATION FORMS THAT APPLY TO YOUR PROJECT AND SUBMIT TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.
3. FILL OUT THE PROTECTIVE FENCE APPLICATION FORMS THAT APPLY TO YOUR PROJECT AND SUBMIT TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.
4. CONTACT AN AT-RISK PLANNING DEPARTMENT ZONING COMPLIANCE OFFICER AT 201 N. 24th STREET TO DETERMINE IF YOUR PROJECT IS IN A ZONING DISTRICT THAT REQUIRES A ZONING VARIANCE. IF A ZONING VARIANCE IS REQUIRED, YOU MUST OBTAIN APPROVAL FROM THE ZONING DEPARTMENT BEFORE PROCEEDING WITH CONSTRUCTION.
5. SUBMIT THE APPROVED AND FINISHED PLANS TO THE DEVELOPMENT SERVICES SUPERVISOR AT 201 N. 24th STREET FOR REVIEW AND APPROVAL. THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
6. BEFORE A LETTER OF FINAL APPROVAL IS ISSUED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
7. BEFORE A LETTER OF FINAL APPROVAL IS ISSUED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
8. COMPLETE AND SIGN A CONTRACT NOTICE OF WORK WITH YOUR LOCAL AGENCY REQUIRING A CERTIFICATE OF LIABILITY COVERAGE (COVER YOUR OWN) CONSTRUCTION EQUIPMENT LIABILITY INSURANCE (EQUIPMENT LIABILITY INSURANCE).
9. COMPLETE A GRADING PLAN AND RECEIVE A GRADING PERMIT FROM THE BUILDING DEPARTMENT AND RECEIVE A SUFFICIENT AMOUNT OF EROSION CONTROL TO COVER YOUR LANDSCAPE AREA AT THE END OF THE PROJECT.
10. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
11. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
12. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
13. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
14. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
15. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
16. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
17. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
18. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
19. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
20. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.

**SEEDING SCHEDULE**  
(REVISED 1-1-2018)

DATE	DESCRIPTION	PLANTING RATE
Aug 15 - Nov 1	Full Fescue	300 lbs. / acre
Nov 1 - March 1	Full Fescue and Meadow Mix	300 lbs. / acre
March 1 - April 30	Full Fescue and Meadow Mix	25 lbs. / acre
April 15 - June 30	Full Fescue and Meadow Mix	25 lbs. / acre
July 1 - Aug 15	Full Fescue and Meadow Mix	25 lbs. / acre
Sept 1 - Nov 1	Full Fescue and Meadow Mix	25 lbs. / acre

**SOILS (1-1-2018)**

March 1 - June 1	Soil Loss (Soil Loss)	30 lbs. / acre
June 1 - April 30	Soil Loss (Soil Loss)	150 lbs. / acre
April 1 - June 30	Soil Loss (Soil Loss)	150 lbs. / acre
June 1 - Sept 1	Soil Loss (Soil Loss)	150 lbs. / acre
Sept 1 - Nov 1	Soil Loss (Soil Loss)	150 lbs. / acre
Nov 1 - March 1	Soil Loss (Soil Loss)	150 lbs. / acre

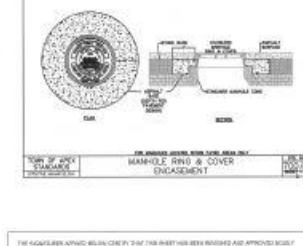
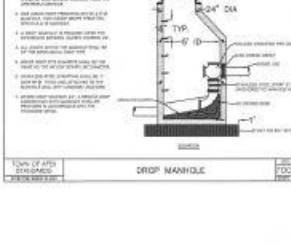
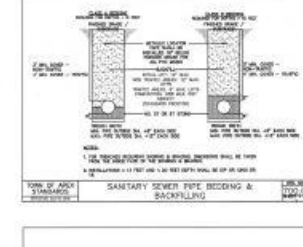
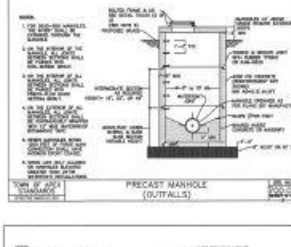
Consult Construction Engineer or Soil Conservation Service for additional information concerning other opportunities for modification of drainage areas. The above vegetation rates are based upon site soil under good conditions, other seeding rates may be possible.

Seeding according to minimum rates for desired protection vegetation. Do not allow temporary cover to grow over 12" in height before mowing, otherwise mowing may be required.

**SOILS AND CONSTRUCTION SCHEDULE**

THE FOLLOWING SCHEDULES ONLY AFTER CONSTRUCTION PLANS ARE APPROVED, SIGNED BY TOWN STAFF AND COVER ARE REQUIRED:

1. THROUGH THE INFRASTRUCTURE ADMINISTRATION MANAGER AT 201 N. 24th STREET, SUITE 200, CONSTRUCTION MEETING WITH INSPECTORS AND OTHER TOWN STAFF.
2. FILL OUT THE PROTECTIVE FENCE APPLICATION FORMS THAT APPLY TO YOUR PROJECT AND SUBMIT TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.
3. FILL OUT THE PROTECTIVE FENCE APPLICATION FORMS THAT APPLY TO YOUR PROJECT AND SUBMIT TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.
4. CONTACT AN AT-RISK PLANNING DEPARTMENT ZONING COMPLIANCE OFFICER AT 201 N. 24th STREET TO DETERMINE IF YOUR PROJECT IS IN A ZONING DISTRICT THAT REQUIRES A ZONING VARIANCE. IF A ZONING VARIANCE IS REQUIRED, YOU MUST OBTAIN APPROVAL FROM THE ZONING DEPARTMENT BEFORE PROCEEDING WITH CONSTRUCTION.
5. SUBMIT THE APPROVED AND FINISHED PLANS TO THE DEVELOPMENT SERVICES SUPERVISOR AT 201 N. 24th STREET FOR REVIEW AND APPROVAL. THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
6. BEFORE A LETTER OF FINAL APPROVAL IS ISSUED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
7. BEFORE A LETTER OF FINAL APPROVAL IS ISSUED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
8. COMPLETE AND SIGN A CONTRACT NOTICE OF WORK WITH YOUR LOCAL AGENCY REQUIRING A CERTIFICATE OF LIABILITY COVERAGE (COVER YOUR OWN) CONSTRUCTION EQUIPMENT LIABILITY INSURANCE (EQUIPMENT LIABILITY INSURANCE).
9. COMPLETE A GRADING PLAN AND RECEIVE A GRADING PERMIT FROM THE BUILDING DEPARTMENT AND RECEIVE A SUFFICIENT AMOUNT OF EROSION CONTROL TO COVER YOUR LANDSCAPE AREA AT THE END OF THE PROJECT.
10. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
11. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
12. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
13. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
14. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
15. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
16. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
17. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
18. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
19. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.
20. AFTER COMPLETION OF ANY FENCE OR GRADING OR OTHER LANDSCAPE ACTIVITIES HAVE TEMPORARILY COMPLETED, THE TOWN ENGINEER WILL REVIEW YOUR PLANS AND APPROVE THEM IF THEY MEET ALL REQUIREMENTS. THE TOWN ENGINEER WILL BE NOTIFIED OF ANY APPROVED PLANS AND YOU WILL BE NOTIFIED OF ANY APPROVED PLANS.



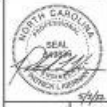
THE FOLLOWING APPROVED DRAWING CHECKS THAT THIS DRAWING HAS BEEN REVIEWED AND APPROVED AS SHOWN BY THE USER FOR YOUR OWN USE AND NOT FOR ANY OTHER PURPOSE.

NO.	DESCRIPTION	DATE	BY
1	PREPARED	07/18/2018	XXX
2	DESIGNED	07/18/2018	XXX
3	CHECKED	07/18/2018	XXX
4	APPROVED	07/18/2018	XXX
5	ISSUED	07/18/2018	XXX
6	REVISION	07/18/2018	XXX

**Jones & Crossen**  
ENGINEERING, PLLC  
Civil Engineering | Construction Management | Land Planning

201 N. SALMON ST.  
SUITE 200  
APEX, NC 27502  
Office: 919-581-1114  
Registration: 60481

www.jonescrossen.com



**HATCHER SEWER OUTFALL**  
CONSTRUCTION DRAWINGS

CONSTRUCTION DETAILS

DATE: 07/18/2018

NO.	DESCRIPTION	DATE	BY
1	PREPARED	07/18/2018	XXX
2	DESIGNED	07/18/2018	XXX
3	CHECKED	07/18/2018	XXX
4	APPROVED	07/18/2018	XXX
5	ISSUED	07/18/2018	XXX
6	REVISION	07/18/2018	XXX

JANUARY 3, 2022

6

2112-5

**EXHIBIT C**

**PIPE SPECIFICATION FORM**

**NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
RAIL DIVISION**

**Operations & Facilities Branch**

**1553 Mail Service Center**

**Raleigh, NC 27699**

**Note: Rail Corridor & Property Manager to complete form and submit to applicant for approval/signature**

<u>PIPE SPECIFICATIONS</u>	<u>CARRIER PIPE</u>	<u>CASING PIPE</u>
Material	<u>DIP</u>	<u>STEEL</u>
Material Specifications and Grade	<u>ASTM A746</u>	
Min. Yield Strength of Material PSI	<u>42,000 PSI</u>	
Mill Test Pressure PSI		
Inside Diameter	<u>8.55"</u>	
Wall Thickness	<u>0.25"</u>	
Outside Diameter	<u>9.05"</u>	<u>16"</u>
Type of Seam	<u>GASKET</u>	
Laying Lengths	<u>20'</u>	
Type of Joints	<u>BEWELLED</u>	
Total Length within RR R/W	<u>~101'</u>	<u>~101'</u>
VENTS: Number _____ Size _____ Hgt. Above ground _____		
SEALS: Both ends _____ One end _____		
BURY: Base of rail to top of casing _____ ft. _____ in.	<u>8</u>	<u>0</u>
BURY: (Not beneath tracks) _____ ft. _____ in.	<u>7</u>	<u>7</u>
BURY: (Roadway ditches) _____ ft. _____ in.	<u>7</u>	<u>3</u>
CATHODIC PROTECTION: ( ) Yes ( ) No		
PROTECTIVE COATING: ( ) Yes ( ) No		Kind _____
Type, Size and Spacing of Insulators or Supports _____		
Method of Installation <u>Bore &amp; Jack</u>		

If application is approved, applicant agrees to reimburse the Rail Division for any cost incurred by the Rail Division incident to installation, maintenance, and/or supervision necessitated by this pipe line installation, and further agrees to assume all liability for accidents or injuries which arise as a result of this installation.

7/11/22  
Date

*Patrick L. Kieran*  
Signature and Title of Officer Signing Application

PATRICK L. KIERAN  
(Please Type or Print) Name

EXHIBIT D

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION – RAIL DIVISION

 **Railroad Encroachment Application Form**

Operations & Facilities Branch, 1553 Mail Service Center, Raleigh, NC 27699-1553

**Instructions:** Complete all applicable information below and return this form with preliminary plans, sketches, specifications, calculations, etc. by E-mail to [samiller@ncdot.gov](mailto:samiller@ncdot.gov), or by mail to NCDOT, Rail Division, Operations & Facilities Branch, 1553 Mail Service Center, Raleigh, NC 27699-1553. Include two copies of plans if applying by mail. Sketches and drawings should include north arrow, scale, vicinity map, landmarks and reference points. **If you need additional information, please contact Andy Miller, Facilities & Properties Manager, by phone at (919) 707-4721 or by email at [samiller@ncdot.gov](mailto:samiller@ncdot.gov).**

Legal Name of Owner/Company: JVI BUILDING & DEVELOPMENT, INC.

Name/Title of Person Who Will Sign Agreement: JOSEPH IANNONE

Mailing address: 1600 OLIVE CHAPEL RD, STE 400

City: APEX State: NC Zip: 27502

Phone: (919) 387-8846 Fax: \_\_\_\_\_ E-mail: JOEY@JVI CONSTRUCTION.COM

Contact Name (e.g., Engineer in charge, if different from above): PATRICK L. KIERNAN

Company Name: JONES & CROSSEN ENGINEERING, PLLC

Mailing address: 221 N. SALEM ST, STE 001

City: APEX State: NC Zip: 27502

Phone: (919) 387-1174 Fax: \_\_\_\_\_ E-mail: PATRICK@JONESCROSSEN.COM

**Specific Information Needed for Application:**

County: WAKE Rail Corridor: AMERICAN TRIAL Nearest Railroad Milepost (if known): \_\_\_\_\_

Location description (attach map/sketch): NORTH OF OLIVE CHAPEL RD, WEST OF SMITH FARM SUB'D.

Permanent or Temporary installation? (check one)  Permanent  Temporary

**Type of encroachment:**

a) Driveway, Drain Pipe, etc.: \_\_\_\_\_

b) If underground-Type: (fiber optic, electric, water, gas, etc.) UNDERGROUND SEWER (BORE & JACK)

Dimension(s)/Size(s): 8" PVC IN 16" STEEL CASING

c) If aerial-Type: (overhead utility, conveyor belt, etc.) \_\_\_\_\_

Clearance above track: \_\_\_\_\_

d) Other: \_\_\_\_\_ Dimensions: \_\_\_\_\_

**Note:** From information furnished on application, NCDOT will complete a more detailed specification sheet which will specify how the installation is to be made. AREMA and NCDOT Standard Specifications will be part of the encroachment agreement, and NCDOT will require signature of applicant, agreeing to the terms set forth in the specifications.

**Other information:**

- 1. An applicable annual fee may be included in the encroachment agreement executed with NCDOT.
- 2. Where appropriate, additional engineered plans (or other information) may be required of applicant.