



## CITY OF HAVELOCK

Post Office Box 368  
Havelock, NC 28532

### INVITATION TO BID

Pursuant to North Carolina General Statutes §143-129 the City of Havelock invites formal bids on the following:

Bids must be submitted in accordance with the attached specifications and must include an itemized schedule of quantity, unit price and total. Bids must be sealed and clearly marked on the outside of the envelope:

#### *“City of Havelock, 2025 Webb Blvd. Manhole and Sewer Line Installation”*

**Address Bids to:**     **Kimberly Walters, Director of Finance**  
                                  **City of Havelock**  
                                  **P.O. Box 368**  
                                  **1 Governmental Ave.**  
                                  **Havelock, NC 28532**  
                                  **Email: [Bids@havelocknc.us](mailto:Bids@havelocknc.us)** (formal bids cannot be emailed)

Bids will be accepted until **11:00 AM (EST) on Friday, September 19, 2025**, at which time they will be reviewed in the office of the City Finance Director.

Bids on contracts for construction or repair work in the formal bidding range must be accompanied by a bid bond or deposit in the amount of not less than 5 percent of the bid. Bid bonds shall be enclosed in a separate envelope and attached to the outside of the sealed bid package. This security is held by the City of Havelock to guarantee that the successful bidder will execute the contract and provide performance and payment bonds if required. If a bidder backs out of his or her bid or refuses to enter into a contract, the City of Havelock may retain the bid deposit or seek payment under the bid bond. Bids will be considered incomplete if not accompanied by a bid bond or deposit. The bids are good for 75 days after opening. The winning bidder will be issued a Notice To Proceed (NTP) along with a Purchase Order. The performance period is 45 calendar days from the NTP.

**Bidders are cautioned not to submit bids until the proposed requirements and specifications have been carefully examined. It will be considered that bidders will have satisfied themselves as to the accuracy of the specifications. No proposal will be considered unless prices are submitted for all items requested in any section. The City reserves the right to change the amount of quantities.**

**All bids submitted should be to the desired specifications. Any exceptions to the specifications will be evaluated based on the best interest of the City. Any deviation from specifications indicated herein must be clearly pointed out; otherwise, it will be considered that items offered are in strict compliance with these specifications, and bidder will be held responsible therefore. Deviations shall be explained in detail. The bidder shall not construe this paragraph as inviting deviation or implying that any deviation will be acceptable.**

The names of certain brands or makes denote quality standard in the article desired, but do not restrict bidders to the specific brand, make or manufacturer named. They are meant to convey to prospective bidders the general style, type, character and quality of the article desired.

The successful bidder on all construction contracts will be required to conduct the operation in accordance with all Federal, State, and Municipal health and safety rules, regulations and laws applicable to the operation. The successful bidder may be asked to provide the City with a copy of the company's safety plan prior to commencing work. For all projects over \$30,000, a general contractor's license must be furnished to the City if applicable.

Certificate to Transact Business in North Carolina: As a condition of contract award, each out-of-State Vendor that is a corporation, limited-liability company or limited-liability partnership shall have received, and shall maintain throughout the term of The Contract, a Certificate of Authority to Transact Business in North Carolina from the North Carolina Secretary of State, as required by North Carolina law. A contract requiring only an isolated transaction completed within a period of six months, and not in the course of a number of repeated transactions of like nature, shall not be considered as transacting business in North Carolina and shall not require a Certificate of Authority to Transact Business.

The City will not sell bid packages. Plans, specifications, and addenda may be viewed and obtained online at [www.havelocknc.us](http://www.havelocknc.us). Click on: “Bid on a Contract”; “Current Bids”. The Bidder’s List is maintained by Vendor Registry. Registration for the Bidder’s List is made online at [www.havelocknc.us](http://www.havelocknc.us). Click on: “Bid on a Contract”; “Vendor login/Registration”.

N.C.G.S. (North Carolina General Statutes), specifically §160A-20.1(b), prohibit the City from entering into contracts with contractors and subcontractors who have not complied with the requirement of Article 2 or Chapter 64. The Contractor shall submit the E-Verify Affidavit, located in the Bid Proposal section, with their bid. Bids that do not include this Affidavit will be considered non-responsive.

N.C.G.S 147-86.42-84 requires that contractors with a North Carolina Local Government must not utilize any subcontractor found on the State Treasurer’s Iran Divestment list or Companies Boycotting Israel list. The referenced lists can be found on the State Treasurer’s website at the address [www.nctreasurers.com](http://www.nctreasurers.com) and will be updated every 180 days.

The City of Havelock reserves the right to reject any or all proposals and to purchase items from the state contract in the efforts to award the contract to the bidder it deems to be for the best interest of the City.

**MODIFICATION AND WITHDRAWAL OF BIDS.** Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids. A request to withdraw a bid may be made to the Owner within 72 hours after Bids are opened in accordance with NCGS § 143-129.1 Requests to withdraw a Bid will be subject to the requirements of NCGS §143-129.1 and in the sole discretion of the City of Havelock Finance Officer.

This institution is an equal opportunity provider, and employer.

**Contact person(s) for information on this bid:**

For questions in regards to the bid specifications, the City requires and only responds to questions submitted in writing and sent via email to: [Bids@havelocknc.us](mailto:Bids@havelocknc.us). Questions must be received by **12:00 PM (EST) on Friday, September 5, 2025, and will be answered by 11:00 AM (EST) on Thursday, September 11, 2025.**

Today is the 14<sup>th</sup> day of August 2025.

Published: Vendor Registry August 14, 2025

CITY OF HAVELOCK

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Kimberly Walters Director of Finance



**STATE OF NORTH CAROLINA  
AFFIDAVIT  
CITY OF HAVELOCK**

I, \_\_\_\_\_ (the individual attesting below), being duly authorized by and on behalf of \_\_\_\_\_ (the entity hereinafter "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify 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 in accordance with NCGS §64-25(5).
2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of employee through E-Verify in accordance with NCGS §64-26(a).
3. Employer is a person, business entity, or other organization that transacts business in the State and that employs 25 or more employees in this State. (mark Yes or No)
  - a. YES \_\_\_\_\_
  - b. NO \_\_\_\_\_
4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project, Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Signature of Affiant: \_\_\_\_\_

Print or Type Name: \_\_\_\_\_

State of North Carolina County of \_\_\_\_\_

Signed and sworn to (or affirmed) before me, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Signature of Notary                      Printed Name of Notary

My Commission Expires: \_\_\_\_\_

## Bid Sheet

Base Bid: \_\_\_\_\_

NC Sales Tax: \_\_\_\_\_

Delivery Cost (if applicable): \_\_\_\_\_

Total Cost to City: \_\_\_\_\_

Bids must include an itemized schedule by quantity, unit price and total for each work element.

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

NC Contractor's License Type and Number: \_\_\_\_\_

Number of Addendums Acknowledged (circle one):    N/A    1    2    3    4

***As of the date listed below, the vendor or bidder listed above is compliant with N.C.G.S. 147-86.42-84, the Iran Divestment Act and the Companies Boycotting Israel Act.***

Authorized Signature: \_\_\_\_\_

Print Name of Authorized Signature: \_\_\_\_\_

Title: \_\_\_\_\_

**Address Bid to:**    Kimberly Walters, Director of Finance  
                            City of Havelock  
                            P.O. Drawer 368  
                            1 Governmental Avenue  
                            Havelock, NC 28532  
                            [Bids@Havelocknc.us](mailto:Bids@Havelocknc.us) (formal bids cannot be emailed)

**Please indicate the Bid name on the outside of the envelope.**

# 2025 Webb Blvd. Manhole and Sewer Line Installation

## 528 Webb Blvd. Havelock, NC. 28532

### **Objective:**

Removal of the existing B-9 manhole, Installation of a new manhole 170 lineal feet to the West, and Replacement of the 8" PVC SRD 35 Sanitary Gravity Sewer Pipe from the newly installed B-9 manhole to the Brown Lift Station.

### **Scope:**

The existing manhole B-9 is currently located in between addresses 530 and 528 Webb Blvd within the center of Webb Blvd. Existing manhole B-9 is 4' in diameter and from the invert to the rim elevation is 62" deep; this manhole is to be excavated, removed, disposed of, and a new manhole will be installed approximately 170' lineal feet to the West of removed manhole. See figure 1. The new manhole shall be 4' in diameter and from the invert to the rim elevation shall be 40.6" deep. See figure 5. This manhole shall be vacuum tested according to ASTM C1244; all testing shall be completed by a third party. The City of Havelock shall receive all testing results before the completion of the project. The new manhole shall be pre-cored to fit one 8" pipe boot and 8" PVC SRD 35 Sanitary Sewer Line. The second opening shall be core drilled onsite to fit one 4" pipe boot and 4" PVC service line. The manhole channeling shall be from the center of the floor of the manhole at the invert elevation to the 8" PVC SDR 35 Sanitary Sewer Line.

The existing 8" Sanitary Sewer Line to the East of the existing B-9 manhole is approximately 285 lineal feet of Truss Pipe. This section of pipe spans between the existing B-9 manhole and the Brown Lift Station and shall be removed and replaced with new 8" PVC SDR 35 pipe. See figure 1. The depth of the Truss Pipe at the B-9 manhole is approximately 5 feet deep; the depth of the Truss Pipe at the Brown Lift Station is approximately 6.5 feet deep. This Gravity Sanitary Sewer Main shall be low-pressure tested according to ASTM F1417; all testing shall be completed by a third party. The City of Havelock shall receive all testing results before the completion of the project. There are approximately four laterals within this section of Sanitary Gravity Sewer Pipe which are 530, 528, 526, and 524 Webb Blvd., these service laterals shall be replaced up to and including the cleanout. The Sanitary Gravity Sewer Line terminates within the Wet Well inside the Brown Lift Station. The Brown Lift Station is enclosed by a 14'X14' wooden shed. The contractor shall be responsible for accessing the 8" Gravity Sanitary Sewer Line for removal and replacement within the Brown Lift Station enclosure. Modifications to the wooden shed shall be remediated to an as was or better condition by the contractor at no additional cost to the City of Havelock before the project is completed.

Where there is no cleanout or where the cleanout is outside the right-of-way, service laterals shall be replaced to the right-of-way line and a new cleanout shall be installed. Removal and disposal of this Sanitary Gravity Sewer Main, laterals, and residential service pipe shall be the responsibility of the Contractor, and shall follow all Federal, State, and local regulations. The Sanitary Sewer Force Main from the Brown Lift Station is at an elevation of 3 feet deep, the contractor shall strap and support this Force Main at every 10' of exposure and at any exposed bell joint. The contractor shall be diligent not to create any damage to the Force Main; damage created to this force main shall be remediated by the contractor, including any and all associated fines, at no additional cost to the City of Havelock. See figure 3 for Force Main and Sanitary Gravity Sewer Main locations, contractor shall field verify locations of the Force Main and Sanitary Gravity Sewer Main.

The existing 8" Sanitary Sewer Line to the West of the Existing B-9 manhole is approximately 170 lineal feet of 8" PVC SDR 35 this section of Sanitary Sewer Line shall be removed and replaced with new 8" PVC SDR 35 pipe. There are two lateral connections coming into this section of Sanitary Gravity Sewer Main; the addresses of the service lateral connections are 603 and 532 Webb Blvd. The service laterals shall be replaced up to and including the cleanout. Where there is no cleanout or where the cleanout is outside the right-of-way, service laterals shall be replaced to the right-of-way line and a new cleanout shall be installed. Removal

and disposal of this Sanitary Gravity Sewer Main, laterals, and residential service pipe shall be the responsibility of the Contractor, and shall follow all Federal, State, and local regulations.

Bypass pumping shall be the responsibility of the contractor. See section 8. All commercial and residential service lines shall be bypassed during the manhole installation, sanitary gravity main replacement, and inspections of both the newly installed manhole and sanitary gravity main line. A bypass plan shall be submitted to a representative of the City of Havelock for approval prior to the beginning of the project.

Traffic control shall be the responsibility of the contractor. See section 9. A traffic control plan shall be submitted to a representative of the City of Havelock for approval prior to the beginning of the project.

The contractor shall dewater as required for completion of work. Excavation shall be kept free of water at all times during manhole removal, manhole installation, pipe removal, pipe installation, all testing and inspections, and backfill. See section 5. A copy of the dewatering plan shall be submitted to a representative of the City of Havelock prior to the beginning of the project.

A site visit is highly recommended but not mandatory. All measurements are approximate contractor to verify. The contractor shall comply with all requirements of OSHA 1926, including but not limited to trench box, and confined space regulations. The contractor is responsible for all locates and verification, any utility damage caused by the contractor shall be remediated by the contractor before the end of the project at no additional cost to the City of Havelock. Contractor is to supply all labor, materials, equipment to complete this project, unless otherwise specified in writing. The City of Havelock shall not be held responsible for omissions or errors in description.

## **1. Relocating, Setting and Testing the New Manhole**

- a. Locate the area for the installation of the new manhole; the manhole shall be approximately 170 lineal feet to the West of the existing manhole and within the center of Webb Blvd. Contractor shall locate the lateral service from 603 Webb Blvd. and provide direct connection of this lateral to the newly installed manhole.
- b. Excavated material shall not be stockpiled, excavated material shall be hauled and disposed of daily. In no manner shall excavated material be used for compacted material.
- c. All excavations shall be protected from cave in by use of shoring, the contractor shall be responsible for remediation created by any and all excavation growth. All excavations shall be protected by use of fabric fencing, and shall be designed to stop trespassing into the work area.
- d. The contractor shall excavate a minimum of 100 square feet (10'X10') of base soil underneath the manhole base by a minimum of twenty-four inches deep and replace with 57 stone. All 57 stone within the base stone shall be wrapped on all sides, top, and bottom with geo-textile fabric. The 57 stone shall be compacted to 98% standard proctor in no more than eight-inch lifts.
- e. The contractor shall determine the base elevation of the new manhole by utilizing the rim elevation of the existing B-9 manhole.
- f. The assembly of the manhole shall include a CS-102 Butyl Rubber sealant and shall create a durable and watertight seal.
- g. Before any backfilling, the manhole shall be inspected and vacuum tested by a third-party inspector for structural integrity and watertightness. All testing shall be scheduled between the contractor, a representative of the City of Havelock, and the third-party inspector. The representative from the City of Havelock shall be given a 24-hour notice prior to the testing taking place.
- h. Criteria for the manhole testing shall follow ASTM C1244 and shall be as follows:
  1. Utilizing an 8" plug and manhole testing head, seal the manhole.
  2. Draw a vacuum on the manhole equal to 10 inches of Mercury.

3. Allow the drawn vacuum to stabilize to 9 inches of Mercury, noting the time for the stabilization to occur.
  4. The manhole will fail the vacuum testing if the stabilization from 10 to 9 inches of mercury happens within a time span of 30 seconds. The manhole will pass the vacuum testing if the stabilization from 10 to 9 inches of mercury happens outside of a 30 second timeframe.
  5. Upon failing the ASTM C1244 manhole vacuum testing; the manhole shall be resealed and retested.
- i. After installation and testing, the new manhole shall be site core drilled for the 4" influent service line from 603 Webb Blvd.

## **2. Installation and Testing the new 8" PVC SDR 35 Sanitary Sewer Main Line.**

- a. Excavate and remove all Sanitary Sewer Main Line, Manhole, and service laterals between the newly installed manhole and Brown Lift Station. See figure 1. Piping excavation shall be no less than the width of the pipe plus 36".
- b. Excavated material shall not be stockpiled, excavated material shall be hauled and disposed of daily. In no manner shall excavated material be used for compacted material.
- c. All excavations shall be protected from cave in by use of shoring, the contractor shall be responsible for remediation created by any and all excavation growth. All excavations shall be protected by use of fabric fencing, and shall be designed to stop trespassing into the work area.
- d. The newly installed Gravity Sanitary Sewer Piping shall be installed into the manhole and lift station by use of pipe boots and shall be grouted both inside and out of the manhole and lift station.
- e. The newly installed piping shall have a bedding of no less than 12" of ABC stone and shall be brought to the mid-section of the pipe.
- f. Install piping beginning at low point at existing sewer, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, fittings, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements. Maintain swab or drag in line, and pull past each joint as it is completed.
- g. Use factory fittings for branch / lateral connections. Install lateral connection fittings turned within 10 degrees of vertical, whenever possible.
- h. Criteria for the 8" PVC SDR 35 Gravity Sanitary Sewer Pipe testing shall follow ASTM F1417 and ASTM 3040, and shall be as follows:

### **ASTM 1417 / Low Pressure Pipe Testing**

1. Conduct an air test between the newly installed B-9 manhole and Brown Lift Station by plugging each end of the section to be tested and all pipe outlets and laterals in the section with suitable test plugs; one plug used at a manhole shall have an inlet tap or other provision for connecting an air hose from the air supply equipment.
2. Pneumatic plugs shall be able to resist internal pressures without external blocking.
3. The equipment shall include valves to control the rate at which air flows into the test section and pressure gauges with minimum graduations of 0.1 psi and an accuracy of +0.04 psi to monitor the air pressure within the test section.
4. Apply air pressure slowly to the test section until the pressure reaches 4.0 psi, plus an adjustment of 0.433 psi for each foot of ground water above the pipe crown in the line being tested. Internal air pressure, including adjustment for ground water, should never exceed 5.0 psi.

5. When the pressure reaches 4.0 psi, plus adjustment for ground water, throttle the air supply so that the internal pressure is maintained between 4.0 and 3.5 psi for at least 2 minutes to permit temperature stabilization. When the pressure has stabilized and is at or above 3.5 psi, disconnect the air supply, start a stopwatch, and allow stopwatch to run until the pressure has dropped 1.0 psi.
6. Calculate the permissible time allocated for the 1.0 psi pressure drop on the basis of the diameter and length of main sewer tested, no adjustment being made for service connections included in the test section. The air test for a section shall be considered acceptable if the time elapsed for the 1.0 psi pressure drop is equal to or greater than the time indicated, and shall be considered unacceptable if the elapsed time is less than that indicated in the following table.

<b>MINIMUM HOLDING TIME (Min:Sec) REQUIRED FOR 1.0 PSI PRESSURE DROP</b>								
<b>PIPE DIAMETER</b>	<b>LENGTH OF MAIN LINE TESTED</b>							
	<b>100'</b>	<b>150'</b>	<b>200'</b>	<b>250'</b>	<b>300'</b>	<b>350'</b>	<b>400'</b>	<b>450'</b>
8"	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10"	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48

7. If the tested pipe fails to meet these requirements, the source of leakage shall be repaired and the pipe section re-inspected.

**ASTM D3040 / Visual light or laser Testing for Pipe Alignment**

1. Adhere a light or laser in the center of one pipe end. Shine the light or laser through the pipe to ensure a straight and true alignment and confirm no misplaced or damaged pipes.
  2. Adhere a target at the receiving end of pipe and record where the light or laser impacts the target.
  3. If deflection exceeds the allowed 5% limit the pipe segment is considered failed and needs correction.
  4. This visual light or laser testing shall be performed prior to backfilling of the pipe excavation.
- i. Connect all service laterals. Service laterals shall be replaced up to and including the cleanout. Where there is no cleanout or where the cleanout is outside the right-of-way, service laterals shall be replaced to the right-of-way line and a new cleanout shall be installed.

**3. Pavement Resurfacing and Utility Cut**

- a. The utility cut shall be the excavation for the manhole and pipe installation.
- b. The contractor shall be responsible for square cutting the utility cut back to undisturbed asphalt before the Pavement Restoration portion of this project can begin.
- c. For the utility cut the contractor shall utilize a 12" bedding of 57 stone for both the newly installed 8" sanitary sewer line and 4" lateral services and fill the excavation with 57 or ABC stone to 12" above the top of the sanitary sewer lines. Engineered select fill shall

backfill of the remainder of the excavation to 13.5" from the top of the existing asphalt. ABC stone shall be utilized to 1.5" from the top of the existing asphalt. See figure 2.

- d. Pavement resurfacing shall be the entire width of Webb Blvd. The utility cut shall be the excavation for the manhole and pipe installation. The pavement resurfacing shall be approximately 11,400 square feet at approximately 475' X 24'. See figure 4.
- e. Pavement resurfacing shall begin 10 lineal feet to the West of the newly installed manhole and finish 10 lineal feet beyond the Brown Lift Station. See figure 4.
- f. All pavement restoration, resurfacing, and utility cut shall adhere to section 12 for pavement restoration and figure 2.
- g. Both ends of the pavement resurfacing shall be incidental milled 1.5" deep and be 4' wide to allow a smooth transition from existing pavement to new pavement.
- h. Water valves and manholes shall have a riser ring installed to maintain valves and lids at pavement elevation.
- i. The asphalt shoulder shall be straight, level and even. Top soil shall be utilized for shoulder treatment and shall begin at the same elevation as the newly installed asphalt pavement transitioning into the shoulder on a 3 to 1 slope. The shoulder treatment shall be seeded and straw placed on top.
- j. Any concrete driveway aprons damaged will be replaced full width, from the asphalt shoulder to the first contraction joint in the driveway. See section 13 for Concrete Restoration.

#### **4. Gravity Sewer Materials:**

- a. PVC SDR35 Gravity Sewer Pipe: Pipe shall conform to all requirements of AWWA and shall be capable of withstanding the overburden pressures determined by the depth of burial in the field.
- b. Non-pressure-type Pipe Couplings: Couplings for joining new PVC pipe to existing pipe shall be solid sleeve type suitable for all types of pipe. When applicable, material shall be ductile iron with gaskets suitable for sewer service. Coupling shall be Maxadaptor coupling or equal, per AWWA C605.
- c. Solid Wall Plastic Pipe Cutting: Cutting of pipe lengths shall be performed using tools and or equipment that will provide a neat, perpendicular cut without damage to the plastic. All burrs shall be removed using a file, knife or abrasive paper. Ends on the cut pipe shall be beveled to prevent gasket damage.

#### **5. Dewatering:**

- a. The contractor shall dewater as required for completion of work. Excavation shall be kept free of water at all times during manhole removal, manhole installation, pipe removal, pipe replacement, all testing and inspections, and backfill operation.
- b. All dewatering shall flow through a sediment filter bag. Sediment filter bags shall be of Polypropylene non-woven geotextile fabric with a sewn-in sleeve of sufficient size to accept a 4-inch diameter discharge hose. The discharge hose shall be extended into the sleeve a minimum of six (6) inches and be tightly secured with a hose clamp or other suitable device to prevent leakage. Contractor shall size sediment filter bags as necessary to dewater excavations. Effluent to be directed to adjacent stormwater conveyance areas and Contractor shall remove any accumulation of sediment from such areas following dewatering operations.
- c. Upon removal of any dewatering header pipe system the contractor shall be responsible for filling the header pipe hole with filter sand to 50% of the depth of the hole while compacting to 95% standard proctor in 8" lifts. Grout shall be utilized to fill to 90% of the depth of the hole and the remaining 10% shall be topsoil, or select fill.

- d. The usage of water from a hydrant will only be accomplished by use of a Hydrant Meter which will be issued from Customer Service at City Hall within the City of Havelock. The Hydrant Meter must be returned to Customer Service at City Hall within the City of Havelock at the completion of the project.
- e. Upon submission of the Hydrant Meter Application there will be a \$ 500.00 dollar deposit due. The Hydrant Meter will be delivered to the project site upon the contractor calling 1-252-670-0663 and scheduling the delivery. Hydrant Meters are subject to availability.
- f. Upon return of the Hydrant Meter, usage will be read and the metered charge will be applied. If the metered charge is less than the deposit the contractor will receive a refund which will be minus the metered charge, if the metered charge is over the deposit amount a usage bill will be issued to the contractor for the balance over the deposit amount.

#### **6. Excavation and Shoring:**

- a. Contractor is responsible for the design and protection of all excavation and shoring. Standard shoring practices including trench boxes, which can be used if certified/stamped by manufacturer. If required, shoring shall be designed and sealed by a professional engineer registered in the State of North Carolina, as required by OSHA, CFR1926.
- b. Contractor shall notify NC 811 for utility locations prior to any excavations.
- c. In no case shall excavations exceed that which cannot be backfilled by the end of the work day.
- d. Excavated material shall not be stockpiled, excavated material shall be hauled and disposed of daily. In no manner shall excavated material be used for compacted material.

#### **7. Backfill and Compaction:**

- a. All excavations shall be backfilled with 57 stone, ABC stone, or select fill material, in no manner can excavated material be utilized for compactable material. Contractor shall be responsible for removal and disposal of all excavation material and construction debris within all Federal, State, and local regulations.
- b. Compaction in embankment shall be to 95% standard proctor.
- c. Compaction in roadways, driveways, and sidewalks shall be to 98% standard proctor.

#### **8. Pipe and Manhole Bedding:**

- a. Pipe bedding shall consist of a twelve-inch (12") depth of # 57 stone under pipe and #57 or ABC stone to top of pipe.
- b. Manhole Bedding shall consist of 100 square feet (10'X10') of 57 stone underneath the manhole base by a minimum of twenty-four inches deep. All 57 stone within the base stone shall be wrapped on all sides, top, and bottom with geo-textile fabric. The 57 stone shall be compacted to 98% standard proctor in no more than eight-inch lifts.

#### **9. Erosion and Sediment Control and Restoration:**

- a. The contractor shall be responsible for the installation and maintenance of all erosion and sediment control in accordance with the NC DEQ Erosion and Sediment Control Manual.
- b. Construction activities shall be completed in such a manner that erosion of disturbed areas and off-site sedimentation is absolutely minimized.
- c. All disturbed areas shall be restored as soon as construction is complete. Seed or sod type shall match existing grass in maintained areas. Follow the NC DEQ Erosion and Sediment Control

Manual for type or as directed by City of Havelock representative.

## **10. Bypass Pumping:**

- a. Sewage bypass pumping shall be required for completion of repairs. Contractor shall design and furnish all material, labor, equipment, power, fuel, fuel storage, maintenance, etc. to implement a temporary bypass arrangement for the purpose of diverting flow around the work area on a daily basis for the duration of the repair. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction. Contractor shall be held liable for any and all fines imposed by local, State, and/or Federal agencies for failure to maintain flows or contain spills and/or overflows.
- b. Bypass pumping shall be the responsibility of the contractor. All commercial and residential service lines shall be bypassed during the course of this project, which shall include manhole removal, manhole installation, sanitary gravity main line replacement, and testing or inspections of both the newly installed manhole and sanitary gravity main line. A bypass plan shall be submitted to a representative of the City of Havelock for approval prior to the beginning of the project.

## **11. Traffic Control**

- a. Contractor shall submit a Traffic Control Plan for any operations affecting traffic including but not limited to lane and road closures. City must approve the traffic plan prior to implementation and must receive a 48-hour notice prior to any lane or road closure.
- b. Access to residences and businesses for local traffic shall be maintained throughout contract. Contractor shall provide a minimum of 24-hour notice to City of Havelock for any road closure.

## **12. Pavement Restoration**

- a. Replacement of asphalt roadway and/or concrete driveways/sidewalks are the responsibility of the contractor and shall be returned to original condition or better before the end of the project.
- b. The contractor shall utilize a 12" bedding of 57 stone for both the newly installed 8" sanitary sewer line and 4" lateral services and fill the excavation with 57 or ABC stone to 12" above the top of the sanitary sewer lines. Engineered select fill shall backfill of the remainder of the excavation to 13.5" from the top of the existing asphalt. ABC stone shall be utilized to 1.5" from the top of the existing asphalt. Contractor shall follow specifications within figure 2 for both the utility cut and asphalt resurfacing.
- c. The contractor shall be responsible for square cutting the utility cut back to undisturbed asphalt before the Pavement Restoration portion of this project can begin.
- d. Engineered select fill shall be utilized within the utility cut from the top of the 57 or ABC stone above the top of the newly installed sanitary sewer lines and manhole to 13.5" from the top of the existing asphalt. ABC Stone shall complete the remainder of the backfill to 1.5" from the top of the existing asphalt. The Engineered select fill and ABC stone shall be compacted to 95% standard proctor in a maximum of eight-inch lifts.
- e. Asphalt base course to be applied within the utility cut shall be a minimum of one and a half inches thick and meet the requirements of B25.OB per NCDOT Standards for Roads

- and Structures. The asphalt base will remain at the elevation of the existing asphalt.
- f. Asphalt tack coat shall be sprayed or brushed on the existing asphalt to be tied into and shall be in accordance with section 605 asphalt tack coat of the NCDOT Standard Specifications for Roads and Structures.
  - g. The asphalt surface course shall be S9.5B at one and a half inches thick per NCDOT Standards for Roads and Structures. Prior to placement of the asphalt surface course, the base course shall be inspected for damage or defects and repaired to the satisfaction to the representative of the City of Havelock.
  - h. Asphalt stripping shall be restored to an as was condition. Stripping which is done on a DOT roadway will meet all DOT specifications.
  - i. Access to residents' driveways must remain as accessible as possible during the course of this project.

### **13. Concrete Restoration**

- a. Any concrete rubble from removal of the driveway aprons will be the responsibility of the contractor to remove and dispose of in accordance with all local, state, and federal regulations.
- b. Concrete is to be 3500-pound fiber reinforced concrete mix.
- c. The foundation for the concrete shall be compacted to 95% standard proctor in no more than 8" lifts before the concrete is poured.
- d. The concrete driveway aprons and sidewalks shall be no less than four inches thick.
- e. The concrete driveway aprons and sidewalks will require no wire mesh or rebar.
- f. The seams where the new concrete meets the old concrete will be tooled to a ½" radius.
- g. The seams where the new concrete meets the existing concrete shall have a ½" expansion joint between the existing and newly poured concrete.
- h. Until completely cured the contractor will supply signage "No walking, Wet concrete".

### **14. Site Restoration**

- a. Disturbance of existing landscape features shall be held to a minimum and all disturbed areas returned to a condition equal or better when repair is complete. Care shall be taken so as not to damage existing features to remain such as roadways, curbs, driveways, sidewalks, etc. All features removed or damaged shall be replaced or repaired to existing condition or better. All demolished material shall become the property of the contractor and shall be removed from the work site and disposed of in accordance with all local State, and Federal requirements. As-built documentation shall include a description of materials used and repair procedures completed at each site.

### **15. Performance and Payment Bonds**

- a. The successful bidder, within 14 calendar days after the notice of award is received by them shall provide the City with a payment bond and performance bond in an amount equal to 100 percent of the amount of the contract. All bonds shall be in conformance with G.S. 44A-33. The corporate surety furnishing the bonds shall be authorized to do business in the state.

### **16. Performance Period**

- a. It will be the contractor's responsibility to set a start date with a representative from the City of Havelock to begin a project within thirty (30) days from the issuance of a Notice

of Award - Proceed.

- b. The performance period is 45 days from the listed date on the Notice to Proceed.
- c. The contractor shall work diligently to complete the project from the arranged start date. Work hours shall be 8am to 5pm, Monday through Friday. No work shall be performed on City holidays. Work outside established work hours must be scheduled with the City, 48 hours in advance and is subject to approval.
- d. The contractor will be responsible for contacting a representative of the City of Havelock in the event that a project will be extended outside of the arranged performance period. Contact must be in the form of an email and acceptance of the extension of the performance period from a representative of the City of Havelock must also be in the form of an email.

**17. Access:**

- a. Access to project site is within existing City of Havelock right of way.

**18. Termination Clause:**

- a. Any agreement and issuance of purchase orders shall be terminated upon the expiration of (90) ninety days without work commencing. At the end of ninety days the City of Havelock will give written notice to the other party of its intention to terminate.
- b. Any intent to begin a project ninety (90) days or more after a purchase order has been issued must be submitted in writing and approved by a representative of the City of Havelock.

**19. Warranty:**

- a. Contractor will be held responsible for the materials and workmanship utilized within this project for a term of one year from the time that the equipment is put back into service.
- b. The City of Havelock will be responsible for the warranty of any materials that are supplied to the contractor by the City of Havelock during the course of this project.

**General Provisions:**

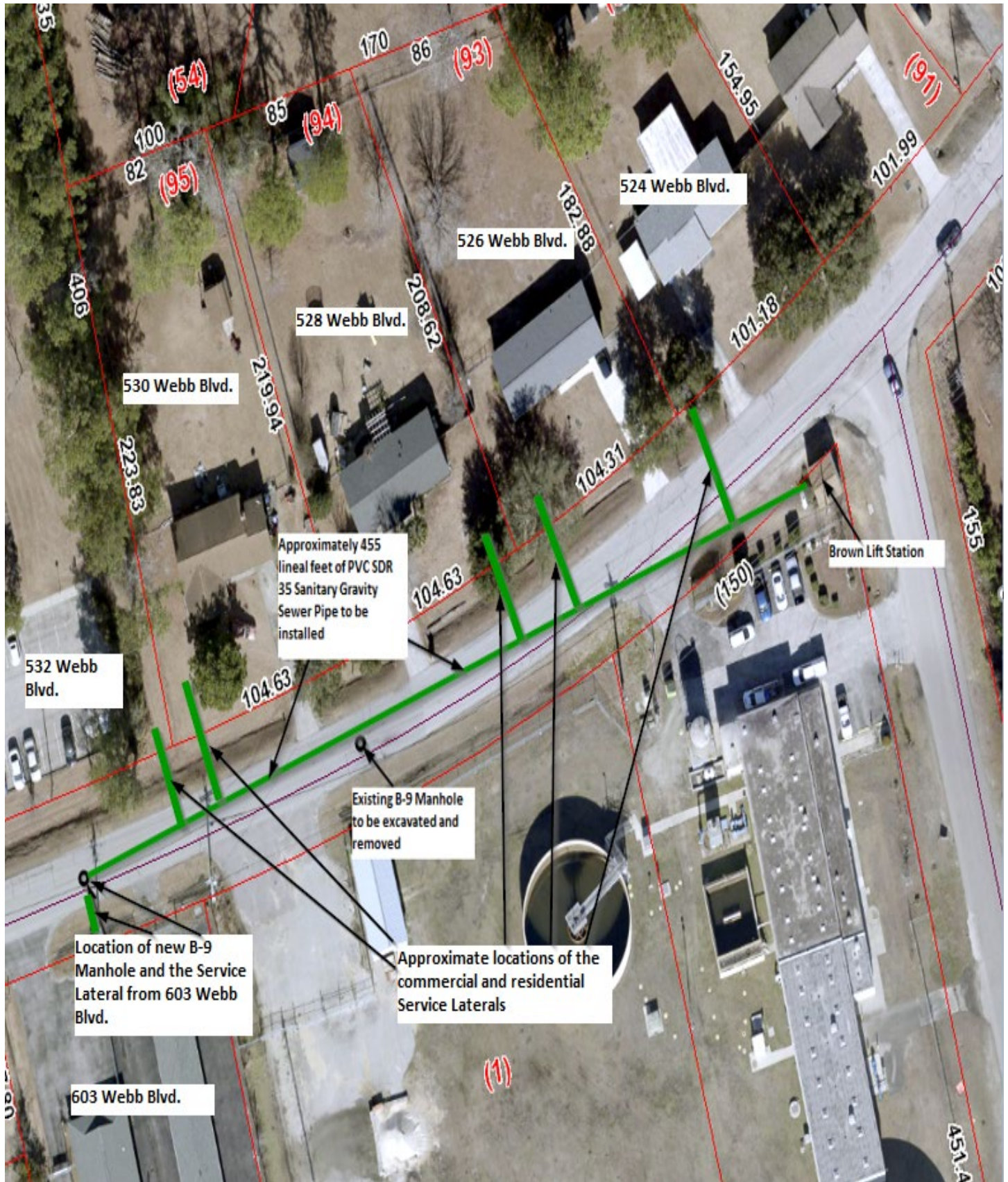
- a. Contractor shall comply with all requirements of OSHA 1926.
- b. Work hours shall be 8am to 5pm, Monday through Friday. No work shall be performed on City holidays. Work outside established work hours must be scheduled with the City, 48 hours in advance and is subject to approval.
- c. Contractor will obtain all necessary permits. Permits required by City of Havelock are provided free of charge.
- d. Roadway repair is the responsibility of the contractor.
- e. Contractor shall control erosion and sediment release while this project is under construction.
- f. The contractor is to clean and remove all debris at the end of each work day.
- g. All underground utilities are to be 811 located, prior to work being started.
- h. Contractor is responsible for all damage to existing roads, driveways, drainage, or utilities that occur as a result of the construction project.

- i. Contractor is responsible for all damage to City property that occurs as a result of the construction of the project.
- j. Contractor shall provide safety measures during the entire length of the project.
- k. Contractor is responsible for the storage and safety of materials and equipment on jobsite.
- l. Submittals must be approved by the City of Havelock prior to any work starting.
- m. The performance period is 45 days from the Notice to Proceed.

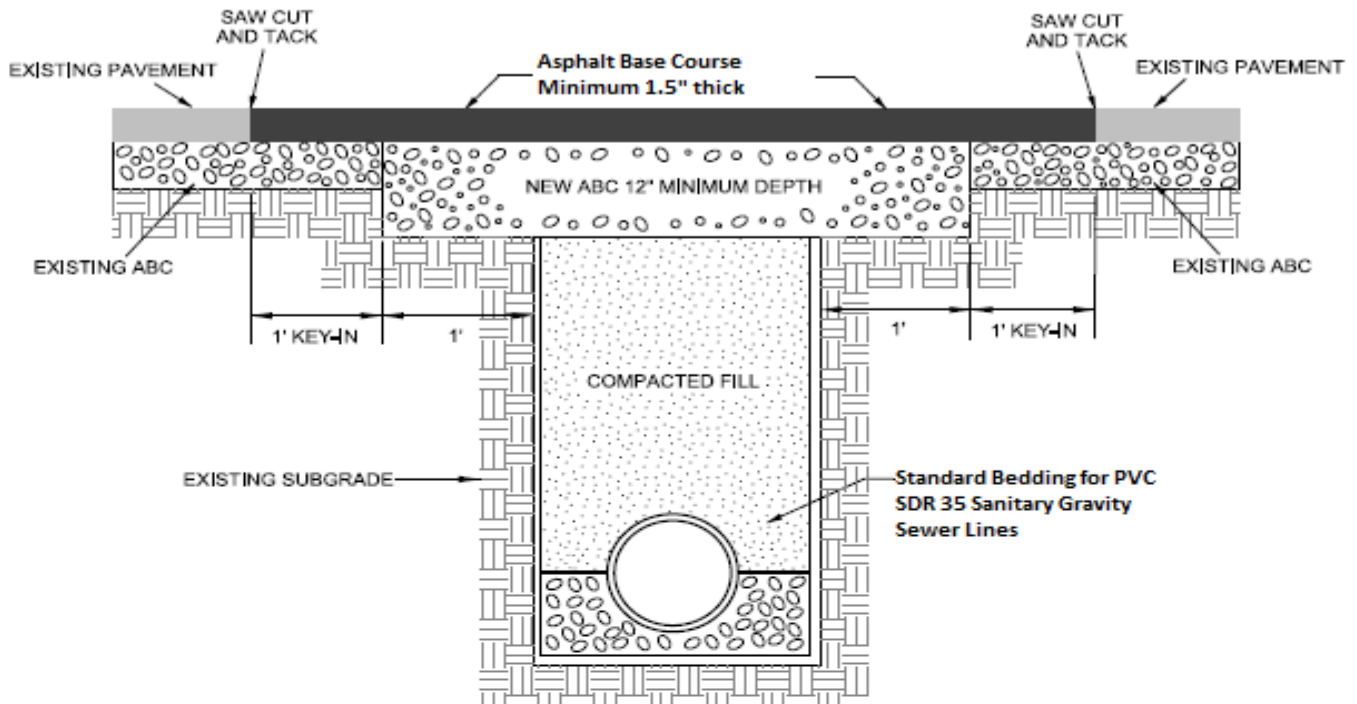
**Liquidated Damages:**

- a. The Contractor agrees to pay the owner \$300 per day in liquidated damages for each day beyond the period of performance.

**Figure 1: Work area map, Approximate Location of the Sanitary Gravity Sewer Line and Service Laterals.**



**Figure 2: Pipe Bedding and Pavement Cross Section, Typical.**



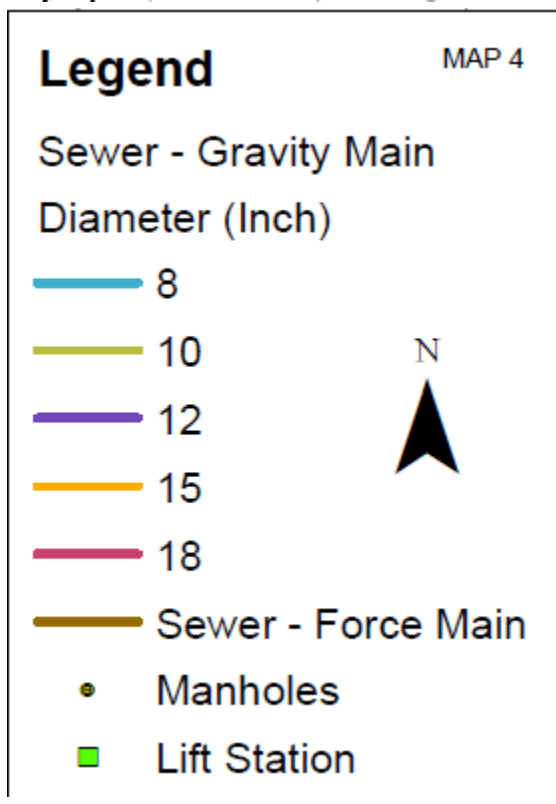
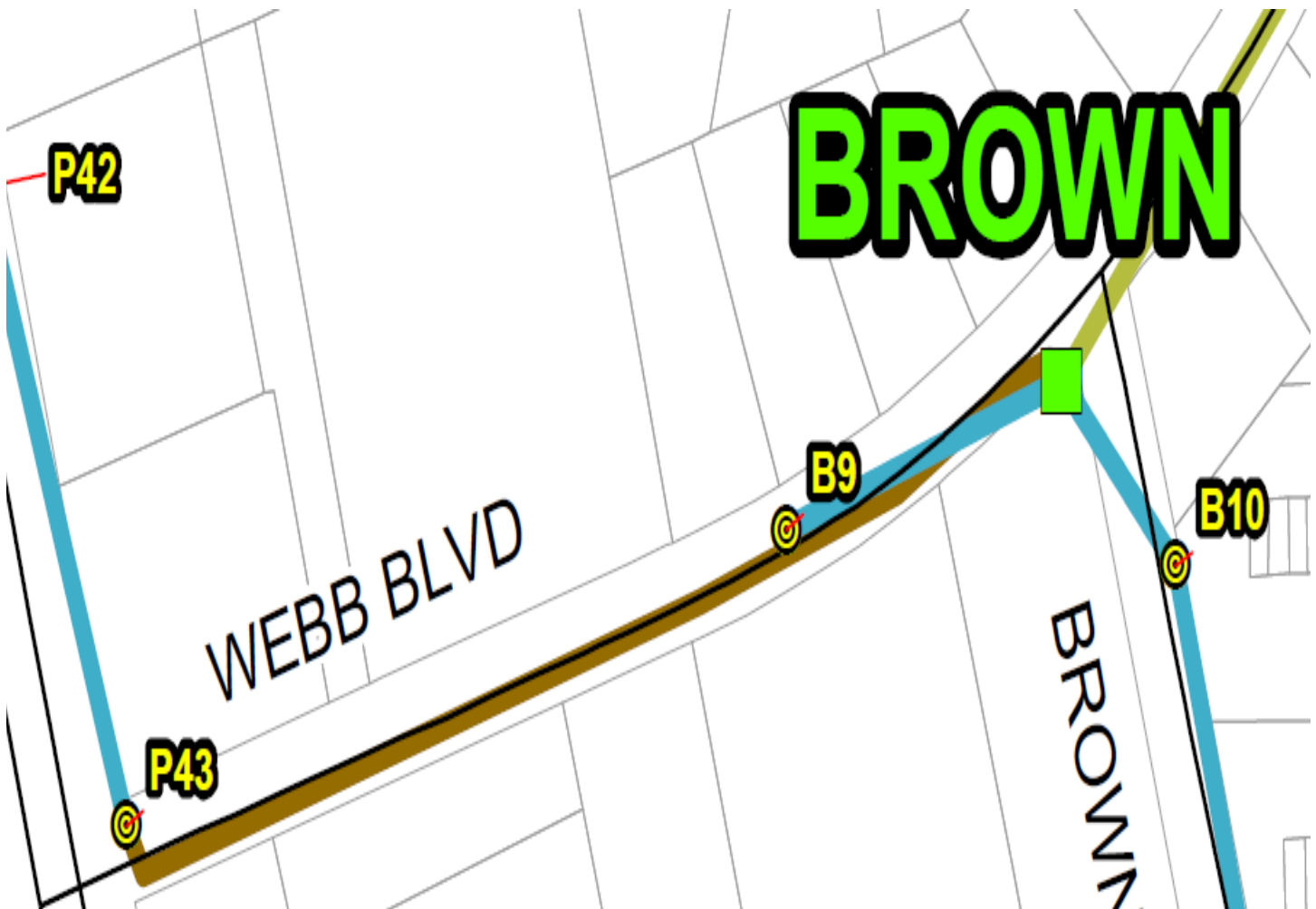
**NOTES:**

1. THE PAVEMENT EDGE SHALL BE DEFINED BY A STRAIGHT EDGE FORMED BY A MACHINED SAW CUT.
2. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.
3. THE FINAL 1' OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-80 AS MODIFIED BY NCDOT. BITUMINOUS BASE OR BINDER MAY BE SUBSTITUTED IF APPROVED BY TRANSPORTATION DIRECTOR OR DESIGNEE.
4. THE ENTIRE THICKNESS/VERTICAL EDGE OF THE CUT SHALL BE TACKED.
5. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 3" THICK.
6. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY AND ROLLED WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH, LEVEL PATCH.

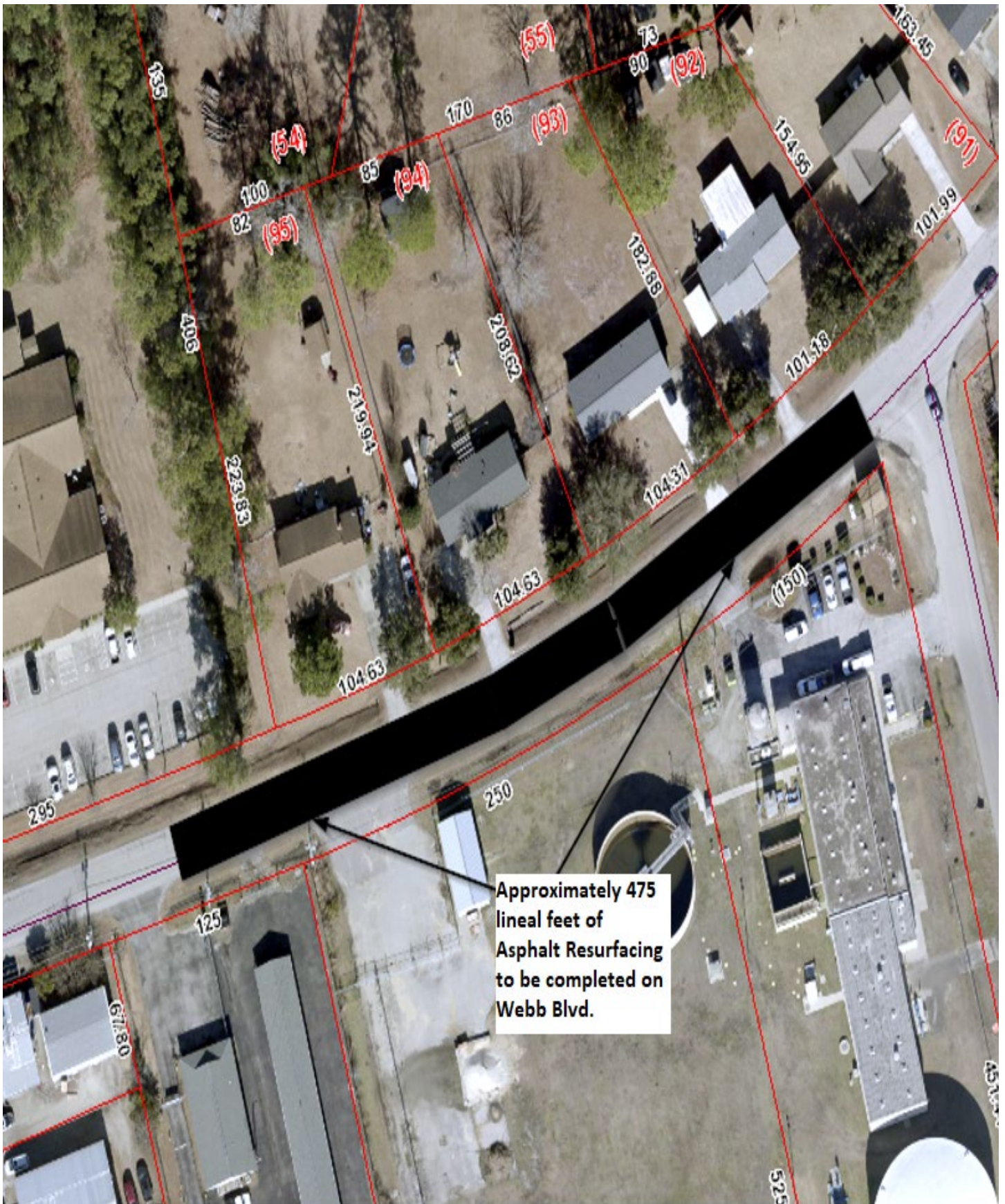
SHEET 1 OF 2

<b>City of Havelock Standard Detail</b>		
REVISIONS	DATE: 8/2020	NOT TO SCALE
	ASPHALT PAVEMENT PATCH AND RCP PIPE BACKFILL	

Figure 3: Existing Sanitary Sewer Line, Force Main, and Legend



*Figure 4: Area of Asphalt Resurfacing on Webb Blvd.*



*Figure 5: New B-9 Manhole*

