

**CITY OF NEW BERN
BOARD OF ALDERMEN MEETING
JUNE 13, 2023 – 6:00 P.M.
CITY HALL COURTROOM
300 POLLOCK STREET**

1. Meeting opened by Mayor Odham. Prayer Coordinated by Alderman Aster. Pledge of Allegiance.
2. Roll Call.
3. Approve Agenda.
4. Request and Petition of Citizens.

Consent Agenda

5. Consider Adopting a Resolution to Close Specific Streets for Guildfield Missionary Baptist Church Fun Day.
6. Consider Adopting a Resolution to Initiate the Upset Bid Process for 1724 Rhem Avenue.
7. Consider Adopting a Resolution to Initiate the Upset Bid Process for 2308 Pearson Street.
8. Approve Minutes.

9. Conduct a Public Hearing on the System Development Fee Evaluation and Consider Adopting a Resolution Approving the Evaluation.
10. Consider Adopting an Ordinance to Restate the Schedule of System Development and Connections Fees Applicable to Water and Sewer Customers of the City of New Bern.
11. Consider Adopting an Ordinance to Restate the Schedule of Water Rates Applicable to Customers of the City of New Bern.
12. Consider Adopting an Ordinance to Restate the Schedule of Sewer Rates Applicable to Customers of the City of New Bern.
13. Consider Adopting a Resolution to Approve Amendments to the City of New Bern Water and Sewer Design Standards.
14. Consider Adopting a Resolution Approving the Classification Pay Plan for Fiscal Year 2023-2024.

15. Consider Adopting an Ordinance Amending the Schedule of Fees and Charges.
16. Consider Adopting the Budget Ordinance for Fiscal Year 2023-2024.
17. Consider Adopting a Resolution Approving a Memorandum of Understanding with the Marine Forces Special Operations Command ("MARFORSOC").
18. Consider Adopting a Resolution Authorizing the Submission of an Application for the 2023 Bureau of Justice Assistance Bulletproof Vest Grant.
19. Appointment(s).
20. Attorney's Report.
21. City Manager's Report.
22. New Business.
23. Closed Session.
24. Adjourn.

INDIVIDUALS WITH DISABILITIES REQUIRING SPECIAL ASSISTANCE SHOULD CALL
639-2931 NO LATER THAN 3 P.M. THE DATE OF THE MEETING

Aldermen

Rick Prill
Hazel B. Royal
Robert V. Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



Jeffrey T. Odham
Mayor
Foster Hughes
City Manager
Brenda E. Blanco
City Clerk
Kimberly A Ostrom
Director of Finance

Memo to: Mayor and Board of Aldermen

From: Foster Hughes, City Manager

Date: June 09, 2023

Re: June 13, 2023 Agenda Explanations

- 1. Meeting opened by Mayor Jeffrey T. Odham. Prayer Coordinated by Alderman Aster. Pledge of Allegiance.**
- 2. Roll Call.**
- 3. Approve Agenda.**
- 4. Request and Petition of Citizens.**

This section of the agenda is titled Requests and Petitions of Citizens. This is an opportunity for public comment, and we thank you for coming to the Board of Aldermen meeting tonight to share your views. We value all citizen input.

Speaker comments are limited to a maximum of 4 minutes during the public comment period. At the conclusion of 4 minutes, each speaker shall leave the podium. Comments will be directed to the full board, not to an individual board member or staff member. Although the board is interested in hearing your comments, speakers should not expect any comments, action, or deliberation from the board on any issue raised during the public comment period.

In the board's discretion, it may refer issues to the appropriate city officials or staff for further investigation. If an organized group is present to speak on a common issue, please designate one person to present the group's comment, which shall be limited to a maximum of 4 minutes.

Consent Agenda

5. Consider Adopting a Resolution to Close Specific Streets for Guildfield Missionary Baptist Church Fun Day.

(Ward 5) Guildfield Missionary Baptist Church has scheduled a Fun Day for July 29, 2023. The church has requested the 800 block of Green Street be closed to vehicular traffic from 10:30 a.m. until 2:30 p.m. to accommodate the event. A rain date is not requested. A memo from Kari Warren, Director of Parks and Recreation, is attached.

6. Consider Adopting a Resolution to Initiate the Upset Bid Process for 1724 Rhem Avenue.

(Ward 1) Eugene Kelley, Jr. has tendered an offer of \$10,200 for the purchase of 1724 Rhem Avenue. The property is a vacant 0.044-acre residential lot with a tax value of \$20,250. The property was acquired jointly by the City and County in 2019 through tax foreclosure. If the property is sold for the initial bid, the City is projected to receive \$3,326.09 and the County \$6,873.91 from the proceeds. A memo from Brenda Blanco, City Clerk, is attached.

7. Consider Adopting a Resolution to Initiate the Upset Bid Process for 2308 Pearson Street.

(Ward 2) The Third Property Development & Estate Investment Group has tendered an offer of \$2,500 for the purchase of 2308 Pearson Street. The property is a vacant 0.115-acre residential lot with a tax value of \$5,000 that was acquired jointly by the City and County in 2018 through tax foreclosure. If the property is sold for the initial bid, the City is projected to receive \$478.51 and the County \$2,021.49 from the proceeds. A memo from Ms. Blanco is attached.

8. Approve Minutes.

Minutes from the March 28, 2023 closed session, the work session held on May 02, May 03, and May 09, 2023, and the regular meeting minutes from May 23, 2023 are provided for review and approval.

9. Conduct a Public Hearing on the System Development Fee Evaluation and Consider Adopting a Resolution Approving the Evaluation.

Prior to adopting updates to the water and sewer system development fee analysis, a public hearing is required pursuant to Chapter 162A, Article 8 of the NC General Statutes. The updated analysis was posted on the City's webpage to solicit and allow public input during a 45-day period. After conducting a public hearing for additional comment, the Board is asked to consider adopting a resolution approving

the system development fee evaluation. A memo from Jordan Hughes, City Engineer, is attached.

10. Consider Adopting an Ordinance to Restate the Schedule of System Development and Connections Fees Applicable to Water and Sewer Customers of the City of New Bern.

The current schedule of system development and connection fees was adopted by the Board on June 12, 2018. The schedule is required to be updated every five years. The proposed revision incorporates the recommendations from the evaluation referenced in the previous item. A memo from the City Engineer is attached.

11. Consider Adopting an Ordinance to Restate the Schedule of Water Rates Applicable to Customers of the City of New Bern.

The City's water rates have remained unchanged since 2015 when the rates decreased by 6%. The new schedule reflects an increase of \$1.67 per month in the readiness-to-serve portion of the rate. A memo from the City Engineer is attached.

12. Consider Adopting an Ordinance to Restate the Schedule of Sewer Rates Applicable to Customers of the City of New Bern.

The City's water rates have remained unchanged since 2015 when the rates decreased by 4.5%. The new schedule reflects an increase of 4.5% for all segments of the rate. A memo from the City Engineer is attached.

13. Consider Adopting a Resolution to Approve Amendments to the City of New Bern Water and Sewer Design Standards.

The current water and sewer design standards were adopted by the Board on July 14, 2020. The document is updated periodically to keep it consistent with state regulations, construction practices, and material standards. The proposed amendments include minor technical and grammatical changes as well as feedback from a group of stakeholders consisting of developers, home builders, utility contractors, and engineers. A memo from the City Engineer is attached.

14. Consider Adopting a Resolution Approving the Classification Pay Plan for Fiscal Year 2023-2024.

Annually, the Board adopts a Classification Pay Plan for the upcoming fiscal year. The Board is asked to consider a resolution approving the plan for FY2023-24, which reflects proposed changes that have been incorporated into the FY24 budget. In part, those changes include the addition of a Heavy Equipment Mechanic, deletion of four position titles, changes to some titles, and reclassification of several positions. A memo from Sonya Hayes, Director of Human Resources, is attached.

15. Consider Adopting an Ordinance Amending the Schedule of Fees and Charges.

As part of the budget process, the Board annually adopts an Amended Schedule of Fees and Charges to, in part, identify in one place all the fees charged by the City. The fees identified in the schedule are included in the revenue projections for Fiscal Year 2023-24 and will be effective July 1, 2023. A memo from Kim Ostrom, Director of Finance, is attached. A redlined version of the schedule is also provided to easily identify the changes.

16. Consider Adopting the Budget Ordinance for Fiscal Year 2023-2024.

The City Manager delivered the proposed budget to the Board on May 02, 2023 followed by a revised, proposed budget on May 09, 2023. A public hearing was conducted on May 23, 2023, at which time five individuals offered input, three of whom were residents of the Trolley Run subdivision. Subsequently, a majority of the Board provided direction to make cuts in the budget and set the property tax at the revenue-neutral rate of \$0.3734. Those changes are reflected in the final ordinance. A memo from Mrs. Ostrom is attached.

17. Consider Adopting a Resolution Approving a Memorandum of Understanding with the Marine Forces Special Operations Command ("MARFORSOC").

On November 12, 2019, the Board approved a Memorandum of Understanding ("MOU") with the U.S. Marine Corps Forces Special Operations Command to permit periodic training within the municipal limits of the City of New Bern. The agreement was executed by MARFORSOC in March of 2020 and valid for a three-year period. Those involved in the training exercises include military personnel, government civilian workers, or contractors, but no private citizens. The new agreement is for a five-year term. A memo from Police Chief Patrick Gallagher is attached.

18. Consider Adopting a Resolution Authorizing the Submission of an Application for the 2023 Bureau of Justice Assistance Bulletproof Vest Grant.

The New Bern Police Department desires to apply for the Bureau of Justice Assistance Bulletproof Vest grant in the amount of \$9,825. The grant does require a match in the same amount. If awarded, funds will be used to purchase approximately 15 vests. The FY24 budget includes funding for the required match. A memo from Chief Gallagher is attached.

19. Appointment(s).

Alderman Royal is requested to make an appointment to fill the seat held by Peter Dillon on the Board of Adjustment. Mr. Dillon has resigned due to relocating out of state. The new appointee will fill the remainder of his term which expires on June 30, 2025.

20. **Attorney's Report.**
21. **City Manager's Report.**
22. **New Business.**
23. **Closed Session.**
24. **Adjourn.**

INDIVIDUALS WITH DISABILITIES REQUIRING SPECIAL ASSISTANCE SHOULD CALL
639-2931 NO LATER THAN 3 P.M. THE DATE OF THE MEETING

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting a Resolution to close a street for Guildfield Missionary Baptist Church Fun Day.

Date of Meeting: June 13, 2023	Ward # if applicable: Ward 5
Department: Parks & Recreation	Person Submitting Item: Kari Warren, Director of Parks & Recreation
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing: N/A

Explanation of Item:	Guildfield Missionary Baptist Church has made a request to close the 800 block of Green Street between Cedar and Main Streets to vehicular traffic from 10:30 a.m. until 2:30 p.m. on Saturday, July 29, 2023, for Guildfield Missionary Baptist Church Fun Day.
Actions Needed by Board:	Adopt the Resolution
Backup Attached:	Resolution – Memo – Map - Petition
Is item time sensitive? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Cost of Agenda Item: N/A
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Additional Notes: N/A

Aldermen

Rick Prill
Hazel B. Royal
Bobby Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



Kari Warren, CPRP
Director of Parks & Recreation

Jeffrey T. Odham
Mayor
Foster Hughes
City Manager
Brenda E. Blanco
City Clerk
Kimberly A. Ostrom
Director of Finance



Date: May 31, 2023

Memo To: Mayor and Board of Aldermen

From: Kari Warren, CPRP *KW*
Director of Parks and Recreation

Re: Street Closure for Guildfield Missionary Baptist Church Fun Day

Background Information:

Guildfield Missionary Baptist Church has made a request to close the 800 block of Green Street between Cedar and Main Streets to vehicular traffic from 10:30 a.m. until 2:30 p.m. on Saturday, July 29, 2023, for Guildfield Missionary Baptist Church Fun Day.

Recommendation:

The Director of Parks and Recreation recommends approval and requests the Board adopt a Resolution approving the request.

If you have any questions concerning this matter, please let me know.

1307 Country Club Rd
New Bern, NC 28562
Office 252 639-2901
Fax 252 636-4138

RESOLUTION

THAT WHEREAS, Guildfield Missionary Baptist Church has scheduled a Fun Day event and requested the 800 block of Green Street between Cedar and Main Streets be closed to vehicular traffic from 10:30 a.m. until 2:30 p.m. on Saturday, July 29, 2023, and

WHEREAS the Director of Parks and Recreation of the City of New Bern recommends the street be closed as requested.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That the 800 block of Green Street between Cedar and Main Streets be closed to vehicular traffic from 10:30 a.m. until 2:30 p.m. on Saturday, July 29, 2023, for Guildfield Missionary Baptist Church's Fun Day

ADOPTED THIS 13th DAY OF JUNE 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

RECEIVED

MAY 29 2023

BY: NDJuly 29
Saturday**CITY OF NEW BERN****APPLICATION FOR PUBLIC ASSEMBLY, PARADE & SPECIAL EVENTS IN CITY PARKS**

This application is hereby made for a permit to hold a Public Assembly and/or Parade as described in the City of New Bern Code of Ordinances (Sec. 66-85; 66-86; and 66-87) – Public Assemblies and Parades. This application along with attachments must be presented at least 60 days prior to the event date.

Festival – A concert, fair, festival, exhibit, athletic event, promotion, community event, block party, or similar event.

Parade – A march, ceremony, pageant, procession or other similar activities consisting of persons, animals, vehicles or things, or any combination thereof, that disrupts the normal flow of traffic upon any public street.

Public Assembly – A festival or demonstration which is reasonably anticipated to obstruct the normal flow of traffic upon any public street and that is collected together in one place; or a festival in any city-controlled park.

Name of Event/Activity: Guildfield Church Fun Day
 Organization Name: Guildfield MB Church
 Responsible Contact: Carolyn Squires
 Address: 836 Green Street
 City: New Bern State: NC Zip code: 28560
 Phone: 252-514-1814 Alternate Phone: 252-638-4724
 Email: csquires332003@yahoo.com

street
Closing

Type of Event: ☐ Demonstration ☒ Festival ☐ Parade
 Date of Event: July 29, 2023 Proposed Rain Date: Called No 5/30/23 10:30 am
 Event Set up time: 10:30 am Event Tear Down Completed Time: 2:30 pm
 Event Start Time: 11:00 am Event End Time: 2:00 pm

What is the specific location and/or route of the proposed event? (Attach additional information if needed)
836 Green Street 800 Block of Green Street

Note: A detailed map of the proposed route as well as a specific list of streets is required. The specific location of the Public Assembly must include the aerial overview with location marked. **Festivals/Events require detailed aerial map with complete layout.**

What is the purpose of this event? Please be detailed in your description - (Attach additional information if needed)

The purpose is for the Guildfield Church to fellowship and get to know the citizens in the community surrounding the church

Estimated attendance: 100; Attendance not to exceed: 125

*Note: If more than 1,000 in attendance is expected 1) **Proof of Crowd Manager Training Certification is required.** Training is available at the following link: http://www.newbernnc.gov/departments/fire_department/crowd_manager_training.php 2) **Public Safety Plan is required.** Information must be submitted with application. For additional info, please contact the Fire Marshall at 252-639-2931.

Tents # _____ Sizes _____ Provide additional info as needed (Note: Tents 700 sq. ft. or bigger must be inspected by Fire Marshall.)

How will you handle trash generated from the event?

We are requesting # _____ trash cans.

☒ We will provide our own bags & dispose of any trash generated ourselves.

☐ We request that City Staff dispose of all trash generated. We understand additional fees will be charged for this service, including the cost of labor, and materials (bags, etc.) used.

Guildfield Missionary Baptist

Are you requesting any City of New Bern Street Closures?

☒ Yes*

☐ No

*Any street closures require approval of the Board of Aldermen. Street closures must be received **at least 60 days in advance** for consideration. Street closures require barricades. A fee of **\$5.00 per barricade** must be paid 48 business hours prior to the event.

*What Street(s) are you requesting to close? Be specific:

The 800 Block of Green Street from Cedar Street to main Street

Are you requesting any State Road or Bridge closures?

☐ Yes*

☒ No

*If yes, a 90 day notice and application is required by the NCDOT for in order to consider state roads or bridges. For additional information, please call NCDOT Office at 252-439-2816. The State Road/Bridge Closure permit must be attached to this application.

If this event includes the use of floats, vehicles, placards, loud speakers, or mechanical devices of any type, please provide a detailed explanation of their use, purpose and number.

Will Inflatables or other Play features be part of this event?

☒ Yes

☐ No (Additional insurance may be required)

Will Food Vendors or Commercial/Non-Profit vendors be part of this event?

☐ Yes

☒ No

(If you answered YES, Additional Fees apply. A detailed list of all vendors is required.)

The following items are required and must be attached at the time of Application:

☒ A detailed map – including the location, route with beginning and ending point and street names included.

☒ Petition of Signatures – of business/residents affected – If roads are closed.

The following items are required within **two (2) business days of the event or event shall be cancelled:**

☐ Certificate of Insurance – Listing the City of New Bern, PO Box 1129, New Bern, NC as "Additional Insured".

☐ List of all food/commercial/non-profit vendors.

☐ Payment in full of applicable fees and charges.

I attest that I am authorized on behalf of this group/organization to request the permit for the activities prescribed herein. I understand that this application must be submitted with full details and attachments. I understand that additional fees and charges may be incurred. Those charges include set-up tear down time for staff, rental of barricades, Public Safety, Trash collection, damages, etc. I further understand that failure to provide the requested information within the specified timelines shall result in application being denied. I agree to indemnify and hold harmless the City of New Bern, its departments, agents, employees, officials and volunteers for any injury, illness or damage to person or property during this activity.

The following items must be submitted with Application:

☒ Completed & Signed Application

☒ Detailed maps of parade route and/or festival layout

☒ Petition of signatures (if road closure is requested)

☐ Proof of Crowd Manager training & Public Safety Plan (if attendance is 1,000 or more)

Caroline Agnes

Authorized Signature

5-24-2023

Date

All documents have been provided and this application is recommended for approval

Administrative Support Supervisor

Date

This application has been approved.

Hari Warren

Director of Parks & Recreation

5-31-2023

Date

Total Anticipated Charges

Barricades:

4
\$ 20.00

Trash Collection:

\$ _____

City Staff:

\$ _____

Vendor Fees

\$ _____

Park/Facility Rental:

\$ _____

Total Due:

\$ 20.00

• ☒ Have HOA's been notified? ☒ Yes

☐ No

Spoke with:

Signatures

• ☒ Approved by Department

Date: 5-31-23

Staff Initials: KW

• ☒ Submitted for Board Approval

Date: 5-31-23

Staff Initials: KW

• ☐ All Paperwork collected

Date: _____

Staff Initials: _____

• ☐ All fees collected \$ _____

Date: _____

Staff Initials: _____

City Sponsored Event

☐ Yes ☒ No

Updated 6-3-2019

Guildfield M. B Church

836 Green Street

New Bern, N. C. 28560

252-633-2388

May 19, 2022

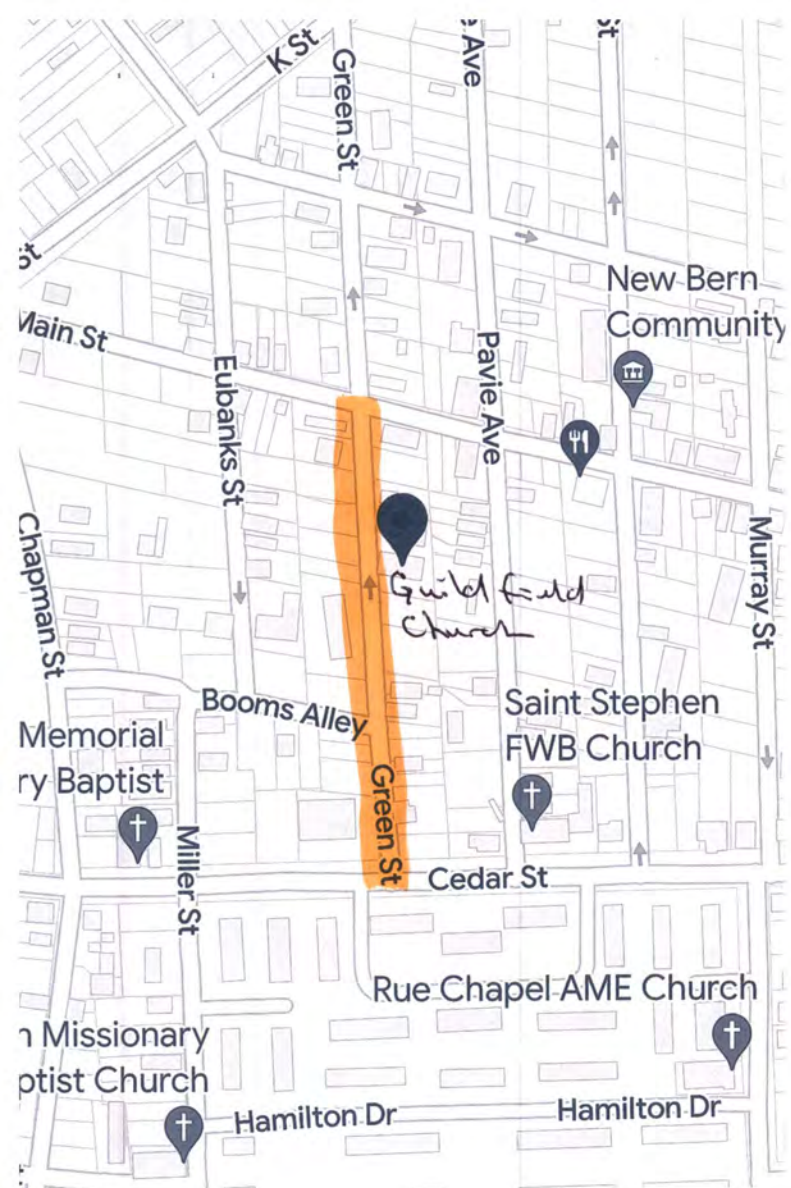
Petition to block the 800 Block of Green Street

Dear Neighbors of the Guildfield Missionary Baptist Church at 836 Green Street in New Bern, N. C.

The church is planning a Community Field Day on Saturday, July 29 from 11:00 a.m. until 2:00 p.m. We are requesting your support for this block of Green Street to be closed for this event. Your permission is needed for the church to submit a request to New Bern City officials for the block to be closed. You and your family are invited to share in this community fun day. Games, entertainment, and food will be provided for this event.

We thank you in advance for signing this petition below.

Address	Printed Name	Signature	Yes/No
844 Green	JAMES DOVE	James Dove	YES
843 Green	Dinah Fosky	[Signature]	Yes
822	Chrystal HARRIS	Capt D Harris	YES



AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting a Resolution to Initiate the Upset Bid Process for 1724 Rhem Avenue

Date of Meeting: 6/13/2023	Ward # if applicable: 1
Department: City Clerk	Person Submitting Item: Brenda Blanco
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing: N/A

Explanation of Item:	Eugene Kelley, Jr. has tendered an offer of \$10,200 for the purchase of 1724 Rhem Avenue. The property is a vacant .044-acre residential lot. It was acquired jointly by the City and County in 2019 through tax foreclosure.
Actions Needed by Board:	Consider adopting the resolution
Backup Attached:	Memo, resolution, offer to purchase, map and pictures of the property
Is item time sensitive? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:

Aldermen

Rick Prill
Hazel B. Royal
Robert V. Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

Jeffrey T. Odham
Mayor

Foster Hughes
City Manager
Brenda E. Blanco
City Clerk
Kimberly A. Ostrom
Director of Finance

MEMO TO: Mayor and Board of Aldermen

FROM: Brenda Blanco, City Clerk

DATE: May 31, 2023

SUBJECT: Offer to Purchase 1724 Rhem Avenue

Eugene Kelley, Jr. tendered an offer of \$10,200 for the purchase of 1724 Rhem Avenue. The property is a vacant 0.044-acre residential lot that was acquired jointly by the City and Craven County in 2019 through tax foreclosure. The tax value of the property is \$20,250, and the offer represents slightly more than 50% of the value.

If the property is sold for the initial bid, the City is projected to receive \$3,326.09 and the County \$6,873.91 from the proceeds. The City will also be reimbursed for the cost of advertising the offer.

/beb

RESOLUTION

THAT WHEREAS, the City of New Bern and Craven County own certain real property identified as 1724 Rhem Avenue, Craven County parcel identification number 8-024-094; and

WHEREAS, North Carolina General Statute § 160A-269 permits the City to sell property by upset bid after receipt of an offer for the property; and

WHEREAS, the City and Craven County have received an offer to purchase the above described property in the amount of \$10,200.00 submitted by Eugene C. Kelley, Jr.; and

WHEREAS, Eugene C. Kelley, Jr. has paid the required five percent (5%) deposit on the offer.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. The Board of Aldermen of the City of New Bern authorizes the sale of its interest in the property described above through the upset bid procedure of North Carolina General Statute § 160A-269.

Section 2. The City Clerk shall cause a notice of the proposed sale to be published. The notice shall describe the property and the amount of the offer, and shall state the terms under which the offer may be upset.

Section 3. Persons wishing to upset the offer that has been received shall submit a sealed bid with their offer to the office of the City Clerk within ten (10) days after the notice of sale is published. At the conclusion of the 10-day period, the City Clerk shall open the bids, if any, and the highest such bid will become the new offer. If there is more than one bid in the highest amount, the first such bid received will become the new offer.

Section 4. If a qualifying higher bid is received, the City Clerk shall cause a new notice of upset bid to be published, and shall continue to do so until a 10-day period has passed without any qualifying upset bid having been received. At that time, the amount of the final high bid shall be reported to the Board of Aldermen.

Section 5. A qualifying higher bid is one that raises the existing offer by not less than ten percent (10%) of the first \$1,000.00 of that offer and five percent (5%) of the remainder of that offer.

Section 6. A qualifying higher bid must also be accompanied by a deposit in the amount of five percent (5%) of the bid; the deposit may be made in cash, cashier's check or certified check. The City will return the deposit on any bid not accepted, and will return the deposit on an offer subject to upset bid if a qualifying higher bid is received. If the City and County accept the final high bid, the deposit of the final high bidder will be applied to the purchase price at closing, and if the final high bidder is unable to complete the purchase of the property, the deposit shall be forfeited.

Section 7. The terms of the final sale are:

(a) The Board of Aldermen must approve the final high offer before the sale is closed, which it may do within thirty (30) days after the final upset bid period has passed; and

(b) The buyer must pay with cash at the time of closing.

Section 8. The City reserves the right to withdraw the property from sale at any time before the final high bid is accepted, and the right to reject all bids at any time, specifically including the initial offer.

Section 9. If no qualifying upset bid is received after the initial public notice, and if the offer set forth above has not been subsequently rejected, the offer set forth above is hereby accepted, and the appropriate city officials are authorized to execute the instruments necessary to convey the property to Eugene C. Kelley, Jr. and Candance R. Kelley.

ADOPTED THIS 13th DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

NORTH CAROLINA

CRAVEN COUNTY

OFFER TO PURCHASE AND CONTRACT

Eugene C. Kelley Jr., as Buyer, hereby offers to purchase and **CRAVEN COUNTY and the CITY OF NEW BERN**, collectively as Seller, upon acceptance of said offer, agrees to sell and convey, all of that plot, piece or parcel of land described below (hereafter referred to as the "Property"), upon the following terms and conditions:

1. **REAL PROPERTY:** Located in or near the City of New Bern, Craven County, North Carolina, being known as and more particularly described as:

Street Address: 1724 Rhem Ave.

Subdivision Name: Ghent

Tax Parcel ID No.: 8-024-094

Plat Reference: 23415

Being all of that property more particularly described in Deed Book 3560, Page 893 in the Craven County Registry.

2. **PURCHASE PRICE:** The purchase price is \$ 10,200 and shall be paid as follows:

(a) \$ 510, EARNEST MONEY DEPOSIT with this offer by ☐ cash ☒ bank check ☐ certified check to be held by Seller until the sale is closed, at which time it will be credited to Buyer, or until this contract is otherwise properly terminated. In the event this offer is not accepted, then all earnest monies shall be refunded to Buyer. In the event of breach of this contract by Seller, all earnest monies shall be refunded to Buyer upon Buyer's request. In the event of breach of this contract by Buyer, then all earnest monies shall be forfeited to Seller upon Seller's request, but such forfeiture shall not affect any other remedies available to Seller for such breach.

(b) \$ 9,690, BALANCE of the purchase price in cash or readily available funds at Closing.

3. **CONDITIONS:**

(a) This contract is not subject to Buyer obtaining financing.

(b) The Property must be in substantially the same or better condition at Closing as on the date of this offer, reasonable wear and tear excepted.

(c) The Property is being sold subject to all liens and encumbrances of record, if any.

(d) Other than as provided herein, the Property is being conveyed "as is".

(e) This contract is subject to the provisions of G.S. §160A-269. Buyer acknowledges that this contract is subject to certain notice provisions and the rights in others to submit upset bids in accordance therewith.

(f) Title shall be delivered at Closing by QUITCLAIM DEED

4. **SPECIAL ASSESSMENTS:** Seller makes no warranty or representation as to any pending or confirmed governmental special assessments for sidewalk, paving, water, sewer, or other improvements on or adjoining the Property, or pending or confirmed owners' association special assessments. Buyer shall take title subject to all pending assessments, if any.

5. **PAYMENT OF TAXES:** Any ad valorem taxes to which the Property is subject shall be paid in their entirety by Buyer.

6. **EXPENSES:** Buyer shall be responsible for all costs with respect to any title search, title insurance, recording of the deed, and its legal fees. Seller shall pay for preparation of a deed and all other documents necessary to perform Seller's obligations under this agreement, and for any excise tax (revenue stamps) required by law.

7. **EVIDENCE OF TITLE:** Not Applicable.

8. **CLOSING:** Closing shall be defined as the date and time of recording of the deed. All parties agree to execute any and all documents and papers necessary in connection with Closing and transfer of title within thirty (30) days of the granting of final approval of the sale by Craven County's Board of Commissioners and the City of New Bern's Board of Aldermen pursuant to G.S. §160A-269. The deed is to be made to Eugene C. Kelley Jr. and Candance R. Kelley.

9. **POSSESSION:** Unless otherwise provided herein, possession shall be delivered at Closing.

10. **PROPERTY INSPECTION, APPRAISAL, INVESTIGATION:**

(a) This contract is not subject to inspection, appraisal or investigation, as the Property is being bought "as is." Seller makes no representation as to water, sewer, conditions, title, access, or fitness for any intended use.

(b) **CLOSING SHALL CONSTITUTE ACCEPTANCE OF THE PROPERTY IN ITS THEN EXISTING CONDITION.**

11. **RIGHT OF ENTRY, RESTORATION AND INDEMNITY:** Buyer and Buyer's agents and contractors shall not have the right to enter upon the Property for any purpose without advance written permission of the Seller. If such permission is given, Buyer will indemnify and hold Seller harmless from all loss, damage, claims, suits or costs, which shall arise out of any contract, agreement, or injury to any person or property as a result of any activities of Buyer and Buyer's agents and contractors relating to the Property. This indemnity shall survive this contract and any termination hereof.

12. **OTHER PROVISIONS AND CONDITIONS:** (ITEMIZE ALL ADDENDA TO THIS CONTRACT AND ATTACH HERETO.): None.

Buyer Initials

ECK Jr

Seller Initials

13. **RISK OF LOSS:** The risk of loss or damage by fire or other casualty prior to Closing shall be upon Seller.

14. **ASSIGNMENTS:** This contract may not be assigned without the written consent of all parties, but if assigned by agreement, then this contract shall be binding on the assignee and the assignee's heirs, successors or assigns (as the case may be).

15. **PARTIES:** This contract shall be binding upon and shall inure to the benefit of the parties, i.e., Buyer and Seller and their heirs, successors and assigns. As used herein, words in the singular include the plural and the masculine includes the feminine and neuter genders, as appropriate.

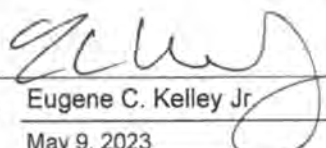
16. **SURVIVAL:** If any provision herein contained which by its nature and effect is required to be observed, kept or performed after the Closing, it shall survive the Closing and remain binding upon and for the benefit of the parties hereto until fully observed, kept or performed.

17. **ENTIRE AGREEMENT:** This contract contains the entire agreement of the parties and there are no representations, inducements or other provisions other than those expressed herein. All changes, additions or deletions hereto must be in writing and signed by all parties.

18. **NOTICE AND EXECUTION:** Any notice or communication to be given to a party herein may be given to the party or to such party's agent. This offer shall become a binding contract (the "Effective Date") when signed by both Buyer and Seller and such signing is communicated to the offering party. This contract is executed under seal in signed multiple originals, all of which together constitute one and the same instrument, with a signed original being retained by each party, and the parties adopt the word "SEAL" beside their signatures below.

BUYER:

(If an individual)

 (SEAL)
Name: Eugene C. Kelley Jr.
Date: May 9, 2023
Address: 407 North Franklin Street
Madison, NC 27025
Phone: 215-510-7169

SELLER

CRAVEN COUNTY

By: _____ (SEAL)
Its: _____
Date: _____

(If a business entity)

CITY OF NEW BERN

By: _____ (SEAL)
Its: _____
Date: _____
Address: _____
Phone: _____

By: _____ (SEAL)
Its: _____
Date: _____

Buyer Initials  ECKJr _____ Seller Initials _____

Craven County Geographic Information System



Craven County does NOT warrant the information shown on this page and should be used ONLY for tax assessments purposes. Page generated on 5/15/2023 at 12:44:03 PM

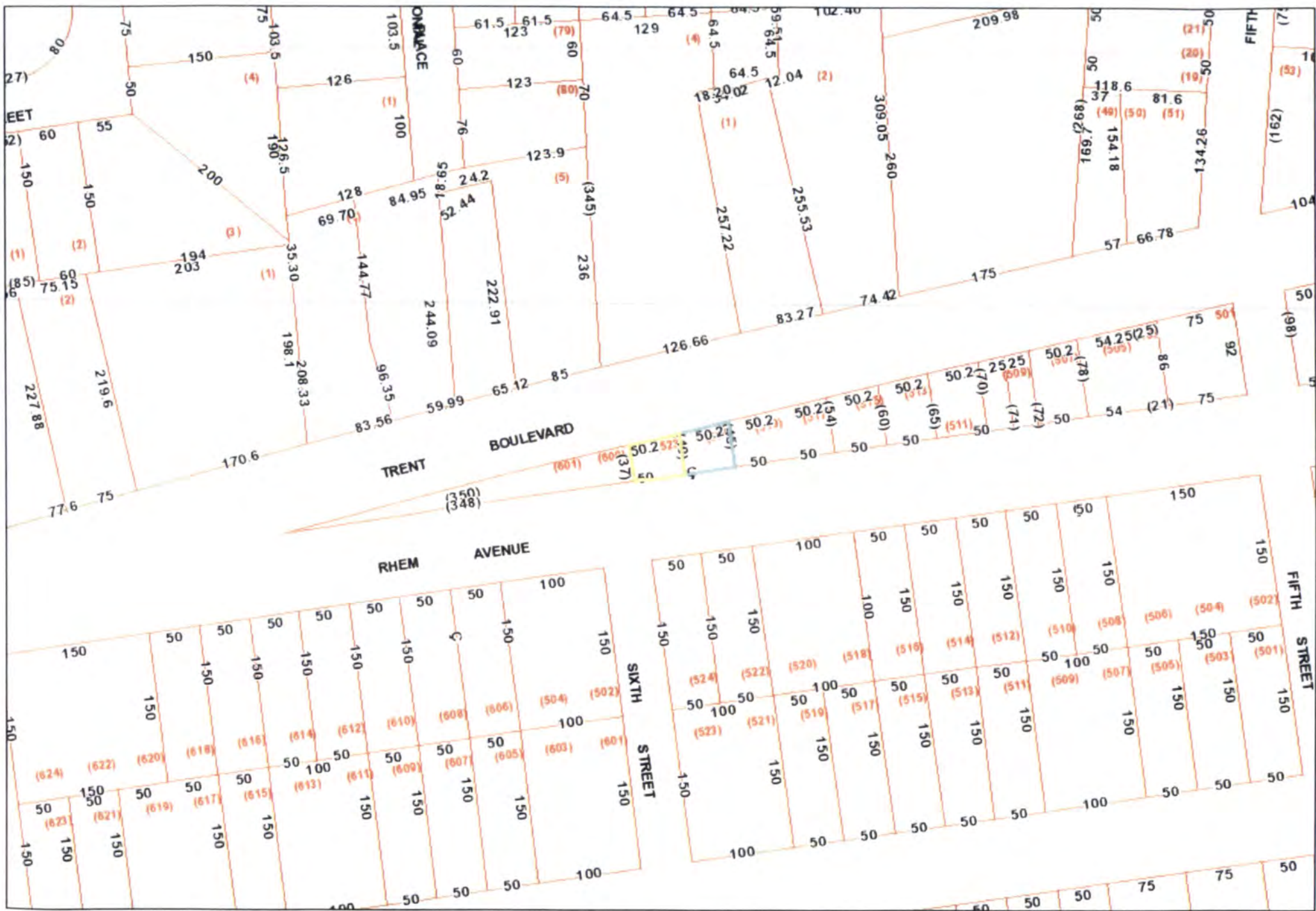
PARCEL ID : 8-024 -094

Owner :	CRAVEN COUNTY & NEW BERN-CITY		
Mailing Address :	406 CRAVEN ST NEW BERN, NC 28560		
Address of Property :	1724 RHEM AVE		
Subdivision :	GHENT		
Property Description :	LOT 523 GHENT		
Assessed Acreage :	0.044		
Deed Book Page :	3560 0893	Deed Recording Date :	2 6 2019
Land Value :	\$20,250	Recorded Survey :	
Total Improvement(s) Value :	\$0	Life Estate Deed :	
Total Assessed Value :	\$20,250	Estate File Year-E-Folder :	
Number of Improvements:	0	Tax Exempt :	Yes
City Name :	NEW BERN	Fire Tax District :	
Drainage District :		Lot Dimension :	
Special District :		Land Use :	VACANT - RESIDENTIAL TRACT

Recent Sales Information

Sale Date Deed	Seller Name	Buyer Name	Type of Sale	Sale Price
2/6/2019 3560-0893	GHENT LAND CO	CRAVEN COUNTY & NEW BERN-CITY	STRAIGHT TRANSFER	\$7,000

Buildings or improvements where not found on this parcel.



Craven County GIS PID 8-024-094 1724 Rhem Ave

Craven County does NOT warrant the information shown on this map and should be used ONLY for tax assessment purposes. Printed on May 15, 2023 at 12:45:20 PM

1 inch = 122 feet

1724 Rhem Avenue



ESTIMATED OF DIVISION OF PROCEEDS

Property: 1724 Rhem Ave., PID: 8-024-094			
Offer Amount			\$ 10,200.00
Less: Reimb to City for publication of notice of offer (approx)			
Balance			\$ 10,200.00
County cost reimbursement		\$ 1,492.12	
City cost reimbursement		\$ 210.14	\$ 1,702.26
Remaining Balance			\$ 8,497.74
County Taxes at Foreclosure	\$ 3,138.31	63.332%	\$ 5,381.79
City Taxes/Priority Liens at Foreclosure	\$ 1,817.02	36.668%	\$ 3,115.95
Total Taxes	\$ 4,955.33		
County Total	\$ 6,873.91		
City Total	\$ 3,326.09		

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting a Resolution to Initiate the Upset Bid Process for 2308 Pearson Street

Date of Meeting: 6/13/2023	Ward # if applicable: 2
Department: City Clerk	Person Submitting Item: Brenda Blanco
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing: N/A

Explanation of Item:	The Third Property Development & Estate Investment Group has tendered an offer of \$2,500 for the purchase of 2308 Pearson Street. The property is a vacant .0115-acre residential lot. It was acquired jointly by the City and County in 2018 through tax foreclosure.
Actions Needed by Board:	Consider adopting the resolution
Backup Attached:	Memo, resolution, offer to purchase, map and pictures of the property
Is item time sensitive? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:

Aldermen

Rick Prill
Hazel B. Royal
Robert V. Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

Jeffrey T. Odham
Mayor

Foster Hughes
City Manager
Brenda E. Blanco
City Clerk
Kimberly A. Ostrom
Director of Finance

MEMO TO: Mayor and Board of Aldermen

FROM: Brenda Blanco, City Clerk

DATE: May 31, 2023

SUBJECT: Offer to Purchase 2308 Pearson Street

The Third Property Development & Estate Investment Group LLC tendered an offer of \$2,500 for the purchase of 2308 Pearson Street. The property is a vacant 0.115-acre residential lot that was acquired jointly by the City and Craven County in 2018 through tax foreclosure. The tax value of the property is \$5,000, and the offer represents 50% of the value.

If the property is sold for the initial bid, the City is projected to receive \$478.51 and the County \$2,021.49 from the proceeds. The City will also be reimbursed for the cost of advertising the offer.

/beb

RESOLUTION

THAT WHEREAS, the City of New Bern and Craven County own certain real property identified as 2308 Pearson Street, Craven County parcel identification number 8-039-040; and

WHEREAS, North Carolina General Statute § 160A-269 permits the City to sell property by upset bid after receipt of an offer for the property; and

WHEREAS, the City and Craven County have received an offer to purchase the above described property in the amount of \$2,500.00 submitted by The Third Property Development & Estate Investment Group LLC; and

WHEREAS, The Third Property Development & Estate Investment Group LLC has paid the required five percent (5%) deposit on the offer.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. The Board of Aldermen of the City of New Bern authorizes the sale of its interest in the property described above through the upset bid procedure of North Carolina General Statute § 160A-269.

Section 2. The City Clerk shall cause a notice of the proposed sale to be published. The notice shall describe the property and the amount of the offer, and shall state the terms under which the offer may be upset.

Section 3. Persons wishing to upset the offer that has been received shall submit a sealed bid with their offer to the office of the City Clerk within ten (10) days after the notice of sale is published. At the conclusion of the 10-day period, the City Clerk shall open the bids, if any, and the highest such bid will become the new offer. If there is more than one bid in the highest amount, the first such bid received will become the new offer.

Section 4. If a qualifying higher bid is received, the City Clerk shall cause a new notice of upset bid to be published, and shall continue to do so until a 10-day period has passed without any qualifying upset bid having been received. At that time, the amount of the final high bid shall be reported to the Board of Aldermen.

Section 5. A qualifying higher bid is one that raises the existing offer by not less than ten percent (10%) of the first \$1,000.00 of that offer and five percent (5%) of the remainder of that offer.

Section 6. A qualifying higher bid must also be accompanied by a deposit in the amount of five percent (5%) of the bid; the deposit may be made in cash, cashier's check or certified check. The City will return the deposit on any bid not accepted, and will return the deposit on an offer subject to upset bid if a qualifying higher bid is received. If the City and County accept the final high bid, the deposit of the final high bidder will be applied to the purchase price at closing, and if the final high bidder is unable to complete the purchase of the property, the deposit shall be forfeited.

Section 7. The terms of the final sale are:

(a) The Board of Aldermen must approve the final high offer before the sale is closed, which it may do within thirty (30) days after the final upset bid period has passed; and

(b) The buyer must pay with cash at the time of closing.

Section 8. The City reserves the right to withdraw the property from sale at any time before the final high bid is accepted, and the right to reject all bids at any time, specifically including the initial offer.

Section 9. If no qualifying upset bid is received after the initial public notice, and if the offer set forth above has not been subsequently rejected, the offer set forth above is hereby accepted, and the appropriate city officials are authorized to execute the instruments necessary to convey the property to The Third Property Development & Estate Investment Group LLC.

ADOPTED THIS 13th DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

NORTH CAROLINA

OFFER TO PURCHASE AND CONTRACT

Craven County

The Third Property Development & Estate Investment Group
LLC

, as Buyer, hereby offers to purchase and **Craven County and the City of New Bern**, collectively as Seller, upon acceptance of said offer, agrees to sell and convey, all of that plot, piece or parcel of land described below (hereafter referred to as the "Property"), upon the following terms and conditions:

1. REAL PROPERTY: Located in or near the City of New Bern, Craven County, North Carolina, being known as and more particularly described as:

Street Address: 2308 Pearson St

Subdivision Name:

Tax Parcel ID No.: 8-039-040

Plat Reference:

Being all of that property more particularly described in Deed Book 3544, Page 0733 in the Craven County Registry.

2. PURCHASE PRICE: The purchase price is \$ 2,500 and shall be paid as follows:

(a) \$ 125.00, EARNEST MONEY DEPOSIT with this offer by ☒ cash ☐ bank check ☐ certified check to be held by Seller until the sale is closed, at which time it will be credited to Buyer, or until this contract is otherwise properly terminated. In the event this offer is not accepted, then all earnest monies shall be refunded to Buyer. In the event of breach of this contract by Seller, all earnest monies shall be refunded to Buyer upon Buyer's request. In the event of breach of this contract by Buyer, then all earnest monies shall be forfeited to Seller upon Seller's request, but such forfeiture shall not affect any other remedies available to Seller for such breach.

(b) \$ 2,375.00, BALANCE of the purchase price in cash or readily available funds at Closing.

3. CONDITIONS:

(a) This contract is not subject to Buyer obtaining financing.

(b) The Property must be in substantially the same or better condition at Closing as on the date of this offer, reasonable wear and tear excepted.

(c) The Property is being sold subject to all liens and encumbrances of record, if any.

(d) Other than as provided herein, the Property is being conveyed "as is".

(e) This contract is subject to the provisions of G.S. §160A-269. Buyer acknowledges that this contract is subject to certain notice provisions and the rights in others to submit upset bids in accordance therewith.

(f) Title shall be delivered at Closing by QUITCLAIM DEED

4. SPECIAL ASSESSMENTS: Seller makes no warranty or representation as to any pending or confirmed governmental special assessments for sidewalk, paving, water, sewer, or other improvements on or adjoining the Property, or pending or confirmed owners' association special assessments. Buyer shall take title subject to all pending assessments, if any.

5. PAYMENT OF TAXES: Any ad valorem taxes to which the Property is subject shall be paid in their entirety by Buyer.

6. EXPENSES: Buyer shall be responsible for all costs with respect to any title search, title insurance, recording of the deed, and its legal fees. Seller shall pay for preparation of a deed and all other documents necessary to perform Seller's obligations under this agreement, and for any excise tax (revenue stamps) required by law.

7. EVIDENCE OF TITLE: Not Applicable.

8. CLOSING: Closing shall be defined as the date and time of recording of the deed. All parties agree to execute any and all documents and papers necessary in connection with Closing and transfer of title within thirty (30) days of the granting of final approval of the sale by Craven County's Board of Commissioners and the City of New Bern's Board of Aldermen pursuant to G.S. §160A-269. The deed is to be made to The Third Property Development & Estate Investment Group LLC

9. POSSESSION: Unless otherwise provided herein, possession shall be delivered at Closing.

10. PROPERTY INSPECTION, APPRAISAL, INVESTIGATION:

(a) This contract is not subject to inspection, appraisal or investigation, as the Property is being bought "as is." Seller makes no representation as to water, sewer, conditions, title, access, or fitness for any intended use.

(b) CLOSING SHALL CONSTITUTE ACCEPTANCE OF THE PROPERTY IN ITS THEN EXISTING CONDITION.

11. RIGHT OF ENTRY, RESTORATION AND INDEMNITY: Buyer and Buyer's agents and contractors shall not have the right to enter upon the Property for any purpose without advance written permission of the Seller. If such permission is given, Buyer will indemnify and hold Seller harmless from all loss, damage, claims, suits or costs, which shall arise out of any contract, agreement, or injury to any person or property as a result of any activities of Buyer and Buyer's agents and contractors relating to the Property. This indemnity shall survive this contract and any termination hereof.

12. OTHER PROVISIONS AND CONDITIONS: (ITEMIZE ALL ADDENDA TO THIS CONTRACT AND ATTACH HERETO.): None.

Buyer Initials L L Seller Initials

- 13. RISK OF LOSS:** The risk of loss or damage by fire or other casualty prior to Closing shall be upon Seller.
- 14. ASSIGNMENTS:** This contract may not be assigned without the written consent of all parties, but if assigned by agreement, then this contract shall be binding on the assignee and the assignee's heirs, successors or assigns (as the case may be).
- 15. PARTIES:** This contract shall be binding upon and shall inure to the benefit of the parties, i.e., Buyer and Seller and their heirs, successors and assigns. As used herein, words in the singular include the plural and the masculine includes the feminine and neuter genders, as appropriate.
- 16. SURVIVAL:** If any provision herein contained which by its nature and effect is required to be observed, kept or performed after the Closing, it shall survive the Closing and remain binding upon and for the benefit of the parties hereto until fully observed, kept or performed.
- 17. ENTIRE AGREEMENT:** This contract contains the entire agreement of the parties and there are no representations, inducements or other provisions other than those expressed herein. All changes, additions or deletions hereto must be in writing and signed by all parties.
- 18. NOTICE AND EXECUTION:** Any notice or communication to be given to a party herein may be given to the party or to such party's agent. This offer shall become a binding contract (the "Effective Date") when signed by both Buyer and Seller and such signing is communicated to the offering party. This contract is executed under seal in signed multiple originals, all of which together constitute one and the same instrument, with a signed original being retained by each party, and the parties adopt the word "SEAL" beside their signatures below.

BUYER:

(If an individual)

____ (SEAL)

Name: _____

Date: _____

Address: _____

Phone: _____

(If a business entity)

By:  _____ (SEAL)

Its: Amair _____

Date: _____

Address: 2205 Foxburn Rd

Trat Wicks, NC

Phone: 252-624-1600

SELLER

CRAVEN COUNTY

By: _____ (SEAL)

Its: _____

Date: _____

CITY OF NEW BERN

By: _____ (SEAL)

Its: _____

Date: _____

Buyer Initials L W Seller Initials _____

Craven County Geographic Information System



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PARCEL ID : 8-039 -040

Owner :	CRAVEN COUNTY & NEW BERN-CITY OF		
Mailing Address :	PO BOX 1128 NEW BERN, NC 28563		
Address of Property :	2308 PEARSON ST		
Subdivision :	PEMBROKE		
Property Description :	733 A B PEMBROKE		
Assessed Acreage :	0.115	Deed Recording Date :	8 8 2018
Deed Book Page :	3544 0733	Recorded Survey :	
Land Value :	\$5,000	Life Estate Deed :	
Total Improvement(s) Value :	\$0	Estate File Year-E-Folder :	
Total Assessed Value :	\$5,000	Tax Exempt :	Yes
Number of Improvements:	0	Fire Tax District :	
City Name :	NEW BERN	Lot Dimension :	
Drainage District :		Land Use :	VACANT - RESIDENTIAL TRACT
Special District :			

Recent Sales Information

Sale Date Deed	Seller Name	Buyer Name	Type of Sale	Sale Price
8/8/2018 3544-0733	CREATIVE HOMES	CRAVEN COUNTY & NEW BERN-CITY OF	STRAIGHT TRANSFER	\$5,000

Buildings or improvements where not found on this parcel.



2308 Pearson Street





ESTIMATED OF DIVISION OF PROCEEDS

Property: 2308 Pearson St., PID: 8-0390040			
Offer Amount			\$ 2,500.00
Less: Reimb to City for publication of notice of offer (approx)			
Balance			\$ 2,500.00
County cost reimbursement		\$ 1,661.41	
City cost reimbursement		\$ 257.88	\$ 1,919.29
Remaining Balance			\$ 580.71
County Taxes at Foreclosure	\$ 1,544.64	62.006%	\$ 360.08
City Taxes/Priority Liens at Foreclosure	\$ 946.46	37.994%	\$ 220.63
Total Taxes	\$ 2,491.10		
County Total	\$ 2,021.49		
City Total	\$ 478.51		

AGENDA ITEM COVER SHEET

Agenda Item Title:

Approve Resolution to adopt the City of New Bern System Development Fee Analysis Evaluation.

Date of Meeting: 6/13/2023	Ward # if applicable: City wide
Department: Water Resources	Person Submitting Item: Jordan Hughes
Call for Public Hearing: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date of Public Hearing: 5/23/2023

Explanation of Item:	The system development fee evaluation is required to be updated every five years. The original evaluation was completed in 2018 and is due for updating in 2023. The updated evaluation has been completed by Rivers and Associates, Inc. and the City has completed the public review and comment requirements for the updated evaluation.
Actions Needed by Board:	Approve resolution system development fee evaluation
Backup Attached:	Memo from J. Hughes and a final draft of the 2023 system development fee evaluation.
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item: N/A
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



Department of Public Utilities
Water Resources
527 NC Highway 55 West, P.O. Box 1129
New Bern, NC 28563-1129
(252) 639-7526

MEMORANDUM

TO: Mayor and Board of Aldermen
FROM: Jordan B. Hughes P.E., City Engineer
DATE: May 25, 2023

SUBJECT: Recommendation to Adopt the System Development Fee Evaluation.

Background Information:

Chapter 162A, Article 8 of the NC General Statutes (NCGS) outlines the requirements for implementing system development fees for public water and sewer systems in North Carolina. This section of the NCGS specifies that a written analysis shall be performed to calculate a system development fee, based upon prescriptive criteria and that this analysis shall be updated at least every five years. The original analysis was completed in 2018 and this year the analysis must be updated to comply with the NCGS. As a requirement of the NCGS, the City of New Bern employed Rivers & Associates, Inc., a professional engineering consulting firm, to complete an update to the system development fee analysis.

The completion of the public hearing to be held on June 13th, 2023 will satisfy all requirements for public review and comment of the professional analysis as outlined NCGS. After completion of the public hearing, the City may consider adoption of the analysis.

Recommendation:

To fulfill the requirements of the NCGS, staff is recommending that after completion of the public hearing to be held on June 13th, 2023, the Board adopt updates to the "System Development Fee Evaluation" as prepared by Rivers and Associates, Inc.

Attached please find the final draft of the updated "System Development Fee Evaluation" and resolution for adopting the evaluation.

Please contact me if there are any questions or if additional information should be required.

RESOLUTION TO ADOPT THE CITY OF NEW BERN SYSTEM DEVELOPMENT FEE EVALUATION

THAT WHEREAS, pursuant to the authority granted in N.C.G.S. §160A-314 and Article 8 of N.C.G.S. §162A, the City of New Bern ("City") is authorized to adopt system development fees; and

WHEREAS, as required by N.C.G.S. §162A-205, the City retained the services of Rivers and Associates, Inc., a North Carolina licensed professional engineering firm to produce a written analysis, employing generally accepted accounting, engineering, and planning methodologies to calculate system development fees for the City's water and sewer systems; and

WHEREAS, Rivers and Associates, Inc., prepared an analysis entitled "City of New Bern North Carolina System Development Fee Evaluation 2023" ("Analysis"), and submitted the same to the City for review and possible adoption; and

WHEREAS, consistent with the requirements set forth in N.C.G.S. §162A-209(a), the City posted the Analysis on its website and solicited and furnished a means to submit written comments on the Analysis for consideration of possible modifications or revisions of the Analysis, the same posting having occurred not less than 45 days prior to consideration of adoption of the Analysis by the Board of Aldermen; and

WHEREAS, consistent with the requirements set forth in N.C.G.S. §162A-209(b), the Board of Aldermen of the City of New Bern conducted a duly advertised public hearing prior to considering adoption of the Analysis and resulting system development fees on June 13, 2023, at which all interested parties were given an opportunity to be heard; and

WHEREAS, the New Bern City Engineer and the New Bern Board of Aldermen, after reviewing the Evaluation and considering comments received before and during the public hearing, have determined that the Analysis meets the requirements outlined in N.C.G.S. §162A-205; and

WHEREAS, the Board of Aldermen of the City of New Bern desires to adopt the system development fees set forth in the Analysis.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That pursuant to the authority granted in N.C.G.S. §162A-203, the Board of Aldermen of the City of New Bern hereby adopts the system development fees set forth in the "City of New Bern North Carolina System Development Fee Evaluation 2023," prepared by Rivers and Associates, Inc.

Section 2. The system development fees approved herein shall be reflected in the annual budget to be adopted by the Board of Aldermen of the City of New Bern for fiscal year 2023-2024.

ADOPTED THIS 13^h DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK



CITY OF NEW BERN NORTH CAROLINA

System Development Fee Evaluation

January 2018
Revised March 2018
Updated April 2023
Rivers Project No. 2023028



ENGINEERS

PLANNERS

SURVEYORS

LANDSCAPE ARCHITECTS

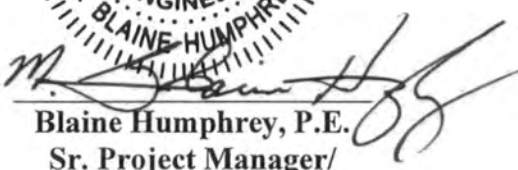


CITY OF NEW BERN NORTH CAROLINA

System Development Fee Evaluation

January 2018
Revised March 2018
Updated April 2023
Rivers Project No. 2023028
Firm License F-0334




Blaine Humphrey, P.E.
Sr. Project Manager/
Associate

6-5-23

Date

City of New Bern, North Carolina

System Development Fee Evaluation

Table of Contents

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7.0	System Development Fee Calculation	6
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9.0	References	8

Appendices

- A. NC House Bill 436
- B. Excerpts from CAFR 2022
- C. Water Fund Asset, Depreciation, Debt Credit and Grant Summary
- D. Sewer Fund Asset, Depreciation, Debt Credit and Grant Summary
- E. Flow Rate Determination, 15A NCAC Subchapter 2T .0114
- F. Capital Asset Grant Depreciation by Fund

1.0 Executive Summary

The North Carolina General Assembly passed House Bill 436 in July 2017, amending Chapter 162A of the General Statutes by adding "Article 8, System Development Fees." This amendment was enacted as "An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations."¹ As a requirement of the amended General Statute, the City of New Bern employed Rivers & Associates, Inc., a professional engineering consulting firm, to complete a system development fee analysis. The Statute specifies that a written analysis be performed to calculate a system development fee, based upon prescriptive criteria.

The initial analysis was completed in March 2018. The Statute also requires the analysis to be updated at least every five years. The City again employed Rivers & Associates, Inc. to complete an updated analysis.

The City of New Bern elected to re-evaluate utilizing the same “buy-in” method of the method alternatives to calculate their System Development Fee, similar to the original analysis. This method essentially recoups the costs of the existing facilities to serve new developments, with new development paying its proportionate share of the system value. The fee is calculated based upon the actual cost of non-depreciable and depreciable capital assets for each system less depreciation, less long-term debt and grant funds that was utilized to fund the capital projects. The value of grant funding has been adjusted to account for depreciation along with the assets.

The formula for calculation of the System Development Fee (SDF) is:

$$SDF = \frac{\text{Capital Asset Value} - \text{Depreciation} - \text{Debt Credit} - \text{Grants} + \text{Depreciated Grants}}{\text{Total System Capacity}}$$

By utilizing the above formula for each system, along with updated financial information for year ending June 2022, the resultant System Development Fees calculate to be:

Water System Fee	\$28,106,411/5,500,000 GPD* = \$5.11/ GPD*
------------------	---

Sewer System Fee $\$44,535,350 / 6,500,000 \text{ GPD}^* = \$6.85 / \text{GPD}^*$

* gallons per day

A Conversion Table is provided in Section 8.0 of this report to determine applicable specific flow rates for the development type, with general flow rates to apply provided in Appendix E.

New Bern System Development Fee Evaluation Update

2.0 Background

In 2016, the North Carolina Supreme Court ruled that municipalities did not have the authority under general law to assess “Water and Sewer Impact Fees” for developments seeking to connect to the municipality’s infrastructure. These fees, as defined by some municipalities and counties, are often assessed for future infrastructure improvements such as water treatment and wastewater treatment capacity that may be required to serve new developments. This ruling was followed by the North Carolina General Assembly passing House Bill 436 in July 2017, amending Chapter 162A of the General Statutes by adding “Article 8, System Development Fees.” This amendment was enacted as “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations.”¹ A copy of HB436 is included with this analysis as Appendix A.

As a requirement of the amended General Statute, the City of New Bern employed Rivers & Associates, Inc., a professional engineering consulting firm, to complete a system development fee analysis. The Statute specifies that a written analysis be performed to calculate a system development fee, based upon prescriptive criteria. This analysis must then be posted and made available to the public for a period of not less than 45 days, soliciting comments on the analysis, and modifying or revising the analysis based on those comments. Following this period, the local government unit must hold a public hearing on the system development fee, prior to consideration for adoption by the unit. An additional stipulation requires that the analysis be updated at least every five years. This report provides the five-year update of the analysis.

3.0 Description of the Analysis

A System Development Fee, as defined in the statute, is “...a charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new developments, or a combination of those costs,...”¹

The System Development Fee may be derived utilizing one of several methods to establish the fee. These methods include the buy-in method, incremental or marginal cost method, or a combined cost method. The buy-in method essentially recoups the costs of the existing facilities to serve new developments, with new development paying its proportionate share of the system capacity. The incremental/ marginal cost method is utilized if the local government unit desires to recoup the cost of expanding the water or sewer system to serve a new development. The new development would pay its proportionate share of the expansion. The combined cost method utilizes a combination of the buy-in and incremental cost methods to derive the fee.

The City elected to recommend the “buy-in” method for the analysis in 2018, and elected updating the 2023 System Development Fee based on the same method. Although the method name might imply that

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the new development “purchases” a proportionate share of the water and sewer systems, no ownership of the systems by the new development is granted.

In addition to selecting a generally accepted accounting, engineering, and planning methodology for the analysis, the General Statute also requires:

- 1) Documenting the facts and data used in the analysis in reasonable detail for their reliability and sufficiency;
- 2) Demonstrating and documenting the reliable application of the methodology to the facts and data;
- 3) Identifying the assumptions and limiting conditions of the analysis and demonstrating that these conditions do not materially undermine the reliability of the conclusions reached from the analysis;
- 4) Calculating a final system development fee per service unit of new development, including an equivalency or conversion table to determine fees applicable to various categories of demand;
- 5) Covering a planning period of not less than 10 years nor more than 20 years; and
- 6) Adoption by resolution or ordinance of the local government unit as outlined in GS 162A-209.¹

4.0 **Methodology**

Buy-In Method

The buy-in method utilizes the value of the existing system’s capacity as a basis, and is generally utilized when the existing system has sufficient capacity to serve new development at present and in the future. In 2022, the City of New Bern utilized approximately 58% of its wastewater treatment capacity and 67% of its water production capacity on an average daily basis. If past trending continues, the plateau effect the City has seen through water conservation and addressing inflow and infiltration issues will continue into the foreseeable future. This will allow the City to maintain their current capacities near-term. In utilizing the buy-in methodology, new development pays its proportionate cost share of capacity in the existing system assets. This method meets the requirements outlined in GS 162A-205. The method is a well established method for accounting practices in the water and sewer industry, and well documented in AWWA’s M1 Manual – Principles of Water Rates, Fees, and Charges (AWWA, 2017).² The basis for calculating the costs associated with previously completed capital improvements according the statute “*shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.*”³

The value of the cost of capital improvements (capital assets) can be readily determined utilizing capital asset information outlined in the City’s Comprehensive Annual Financial Report (CAFR). Excerpts from the 2022 CAFR are included in Appendix B. This value is based upon the original cost less accumulated depreciation, as outlined in AWWA M1 (p.332).⁴ The values assigned in the CAFR are based upon generally accepted accounting principles and practices, in accordance with governmental accounting standards and the *Policy Manual for Local Governments in North Carolina* (Department of State Treasurer, 2014).⁵ The

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CAFR is independently audited each year by a third party accounting firm who completes an audit of the financial information in accordance with *Government Auditing Standards*. The purpose of this audit is to provide an opinion of the City's representation of financial information with respect to changes, fund reporting, etc.

The City uses the straight line method to depreciate their capital assets over the assets' useful life, at a uniform rate of depreciation per period. The estimated useful life for different assets is outlined in the "Notes to Financial Statements" in the City's CAFR, Note 1.N.⁶ The estimates for useful life are consistent with industry standards for water and sewer infrastructure. In accordance with standard accounting practices, land and construction in progress are considered as non-depreciable assets. Construction in progress does not meet the "litmus" test for the owner receiving the benefit of use and risk of ownership of the asset, and therefore are not depreciable.

The Governmental Accounting Standards Board (GASB) Statement No. 34 defines capital assets as "*land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, ..., infrastructure, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.*"⁷ This definition is also presented in the Executive Summary of the North Carolina Department of the Treasurer's Policy Manual for Local Governments, Section 20, Capital Assets.⁸ The Policy Manual further states that the capital assets and the related depreciation expense should be recorded in the accounts of proprietary funds. The City's water and sewer funds are separately established as enterprise or proprietary funds in the CAFR and are considered business-type activities.

Although assets associated with the water and sewer systems, as defined above, include items such as equipment, vehicles and furniture and fixtures, the City has elected not to include these items in this capital asset calculation. The System Development Fee is calculated using non-depreciable and depreciable assets of land, buildings, treatment equipment and distribution/collection system components. These assets are the backbone of each system (water and sewer), assets necessary to provide capacity to customers. The system values are calculated as the value of the assets, less depreciation, less debt credits and less grant funds that may have been used to fund a particular capital asset project.

5.0 Water and Sewer System Values

Tables 1 and 2 below provide a summary of the net depreciated asset value for each enterprise fund utilizing information provided in Appendix C and D, respectively, for the water and sewer funds as of the fiscal year ending June 30, 2022:

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Table 1. Water Fund:

Non-depreciable and Depreciable Capital Assets		\$63,267,055
Less Accumulated Depreciation		(\$21,689,009)
Less Debt Credits, Grants, etc.		(\$13,482,640)
Plus Grant Depreciation		\$11,005
Net Depreciated Asset Value		\$28,106,411

Table 2. Sewer Fund:

Non-depreciable and Depreciable Capital Assets		\$97,836,623
Less Accumulated Depreciation		(\$36,959,441)
Less Debt Credits, Grants, etc.		(\$18,936,269)
Plus Grant Depreciation		\$2,594,437
Net Depreciated Asset Value		\$44,535,350

The formula utilized to calculate the System Development Fee (SDF) is:

$$\text{SDF} = \frac{\text{Capital Asset Value} - \text{Depreciation} - \text{Debt Credit} - \text{Grants} + \text{Depreciated Grants}}{\text{Total System Capacity}}$$

The values shown in the tables comprise the numerator of the above equation for each fund.

6.0 Current Treatment Facilities and Capacity

Water

Prior to enactment of the Central Coastal Plain Capacity Use Area Rule (CCPCUA) by the North Carolina Environmental Management Commission in 2001, all of the water for the City of New Bern was supplied from five (5) groundwater wells in the Cove City area, pulling water from the Black Creek Aquifer. These wells could provide as much as 9.0 MGD of water to the City for consumption. The raw water supply was pristine, requiring no treatment other than disinfection with chlorine prior to entering the distribution system. Although the City still utilizes this drinking water source and treatment process, the CCPCUA limited the amount of withdrawal from the aquifer allowed by the State. As a result, the City selected an

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alternate primary water supply source. The alternate source selected was raw water from the lower Castle Hayne Aquifer which required a conventional filtration and softening treatment plant to treat iron and manganese and reduce the hardness of the supply. Construction of the new 5.5 MGD water treatment plant was completed in May 2010, at a total project cost of \$33,606,624.00. Although the Cove City well field is still in use, the total reduction through the CCPCUA rule anticipated a reduction of available capacity to just over 1.0 MGD. The average daily water production in 2022 was 3.67 MGD.

The water distribution system consists of 348 miles of distribution and transmission mains, three ground storage tanks, six elevated storage tanks and three high service pumps.

Sewer

The original wastewater treatment plant was a single treatment train, trickling filter plant constructed in 1964. The original treatment capacity was 4.0 million gallons per day (MGD). A second treatment train was added in 1991 for an additional 0.7 MGD in capacity. The treatment process was changed in 2003 from the fixed film, trickling filter process to an activated sludge biological nutrient removal (BNR) process in order to meet more stringent environmental regulations for effluent characteristics and to comply with a Special Order by Consent (SOC). The construction of the new wastewater treatment plant increased the treatment capacity from 4.7 to 6.5 MGD (1.8 MGD increase), with a total project cost of \$23,644,079. The average daily flow from the treatment plant for calendar year 2022 was 3.78 MGD.

The sewer collection system consists of 440 miles of gravity collection sewer, pressure force mains, manholes and approximately 111 sewage pumping stations.

7.0 System Development Fee Calculation

The value of the water and sewer systems was calculated based upon the actual cost of capital assets for each system less depreciation, long-term debt and grant funds utilized to fund capital projects. As acceptable in good engineering judgment and generally accepted accounting practices, the value of grant funding has been depreciated along with the assets. Using the buy-in method, net depreciated asset value is divided by the total treatment capacity for water or sewer treatment for each respective fund. The previously shown formula for calculation of the System Development Fee (SDF) is presented as:

$$\text{SDF} = \frac{\text{Net Depreciated Asset Value}}{\text{Total System Capacity}}$$

By utilizing the above formula for each system, the resultant updated System Development Fees calculate to be:

Water System Fee \$28,106,411/5,500,000 GPD* = **\$5.11/ GPD***

Sewer System Fee \$44,535,350/6,500,000 GPD* = **\$6.85/ GPD***

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* gallons per day

8.0 Conversion Table

Flow rates for water and sewer shall be determined in accordance with flow rates established in Chapter 15A of the North Carolina Administrative Code, Subchapter 2T .0114(b) and (c), included as Appendix E except for the following previously established by the City of New Bern:

<i>Description</i>	<i>Quantity</i>
<i>General Commercial Buildings</i>	<i>Lesser of 100 GPD per 1,000 SQ. FT. of floor space or 100 GPD per fixture</i>
<i>Restaurants</i>	<i>300 GPD per 1,000 SQ. FT. of floor space</i>
<i>Residential</i>	<i>75 GPD per Bedroom</i>
<i>Hotels, Motels, Bed & Breakfasts</i>	<i>65 GPD per Bedroom</i>
<i>Convalescent, Nursing, and Rest Homes</i>	<i>65 GPD per Bedroom</i>

Definitions:

General Commercial Buildings shall be defined as follows:

- *General business and office facilities*
- *Churches, with or without kitchens, day care or camps*
- *Shopping centers and malls with food service*
- *Stores and shopping centers without food service*
- *Medical, dental, or veterinary offices*
- *Barber and beauty shops*
- *Schools, preschools, or daycares*
- *Service stations or gas stations*

Restaurant shall be defined as follows:

- *Banquet, dining halls*
- *Bars, cocktail lounges*
- *Caterers*
- *Restaurant, full service*
- *Deli*
- *Bakery*
- *Butcher shop*
- *Fish market*

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9.0 REFERENCES

- ¹ General Assembly of North Carolina – Session 2017; Session Law 2017-138; House Bill 436; (Pg. 2, 3) §162A-205. Supporting analysis; 2), 4), 5), 6), 7), 8).
- ² American Water Works Association, 7th Edition 2017; M1 Manual; Chapter VII.2, System Development Charges; APPROACHES TO CALCULATING SDCs; Basic Approaches; pp. 329-330; 1., 2., 3.
- ³ General Assembly of North Carolina – Session 2017; Session Law 2017-138; House Bill 436, (Pg 3) §162A-211. Use and administration of revenue; (b).
- ⁴ American Water Works Association, 7th Edition 2017; M1 Manual; Chapter VII.2, System Development Charges; EXAMPLES OF SDC METHODOLOGIES; Buy-in Method; p. 332; 2.
- ⁵ North Carolina Department of State Treasurer; Policy Manual for Local Governments; Section 20: Capital Assets; Revision Issues: August 2014
- ⁶ City of New Bern, North Carolina; Comprehensive Annual Financial Report; Year End June 30, 2022; NOTES TO FINANCIAL STATEMENTS; NOTE 1.N; p. 28.
- ⁷ North Carolina Department of State Treasurer; Policy Manual for Local Governments; Section 20: Capital Assets; Revision Issues: August 2014; p. 1.
- ⁸ North Carolina Department of State Treasurer; Policy Manual for Local Governments; Section 20: Capital Assets; Revision Issues: August 2014; Part V – Depreciation and Amortization; pp. 29-30.

APPENDIX A

NC House Bill 436

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2017**

**SESSION LAW 2017-138
HOUSE BILL 436**

AN ACT TO PROVIDE FOR UNIFORM AUTHORITY TO IMPLEMENT SYSTEM DEVELOPMENT FEES
FOR PUBLIC WATER AND SEWER SYSTEMS IN NORTH CAROLINA AND TO CLARIFY THE
APPLICABLE STATUTE OF LIMITATIONS.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 162A of the General Statutes is amended by adding a new Article to read:

"Article 8.

"System Development Fees.

"§ 162A-200. Short title.

This Article shall be known and may be cited as the "Public Water and Sewer System Development Fee Act."

"§ 162A-201. Definitions.

The following definitions apply in this Article:

- (1) Capital improvement. – A planned facility or expansion of capacity of an existing facility other than a capital rehabilitation project necessitated by and attributable to new development.
- (2) Capital rehabilitation project. – Any repair, maintenance, modernization, upgrade, update, replacement, or correction of deficiencies of a facility, including any expansion or other undertaking to increase the preexisting level of service for existing development.
- (3) Existing development. – Land subdivisions, structures, and land uses in existence at the start of the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee.
- (4) Facility. – A water supply, treatment, storage, or distribution facility, or a wastewater collection, treatment, or disposal facility, including for reuse or reclamation of water, owned or operated, or to be owned or operated, by a local governmental unit and land associated with such facility.
- (5) Local governmental unit. – Any political subdivision of the State that owns or operates a facility, including those owned or operated pursuant to local act of the General Assembly or pursuant to Part 2 of Article 2 of Chapter 130A, Article 15 of Chapter 153A, Article 16 of Chapter 160A, or Articles 1, 4, 5, 5A, or 6 of Chapter 162A of the General Statutes.
- (6) New development. – Any of the following occurring after the date a local government begins the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee, which increases the capacity necessary to serve that development:
 - a. The subdivision of land.
 - b. The construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure which increases the number of service units.
 - c. Any use or extension of the use of land which increases the number of service units.
- (7) Service. – Water or sewer service, or water and sewer service, provided by a local governmental unit.
- (8) Service unit. – A unit of measure, typically an equivalent residential unit, calculated in accordance with generally accepted engineering or planning standards.

- (9) System development fee. – A charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs, as provided in this Article. The term includes amortized charges, lump-sum charges, and any other fee that functions as described by this definition regardless of terminology. The term does not include any of the following:
- a. A charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development.
 - b. Tap or hookup charges for the purpose of reimbursing the local governmental unit for the actual cost of connecting the service unit to the system.
 - c. Availability charges.
 - d. Dedication of capital improvements on-site, adjacent, or ancillary to a development absent a written agreement providing for credit or reimbursement to the developer pursuant to G.S. 153A-280, 153A-451, 160A-320, 160A-499 or Part 3A of Article 18, Chapter 153A or Part 3D of Article 19, Chapter 160A of the General Statutes.
 - e. Reimbursement to the local governmental unit for its expenses in constructing or providing for water or sewer utility capital improvements adjacent or ancillary to the development if the owner or developer has agreed to be financially responsible for such expenses; however, such reimbursement shall be credited to any system development fee charged as set forth in G.S. 162A-207(c).
- (10) System development fee analysis. – An analysis meeting the requirements of G.S. 162A-205.

"§ 162A-202. Reserved.

"§ 162A-203. Authorization of system development fee.

(a) A local governmental unit may adopt a system development fee for water or sewer service only in accordance with the conditions and limitations of this Article.

(b) A system development fee adopted by a local governmental unit under any lawful authority other than this Article and in effect on October 1, 2017, shall be conformed to the requirements of this Article not later than July 1, 2018.

"§ 162A-204. Reserved.

"§ 162A-205. Supporting analysis.

A system development fee shall be calculated based on a written analysis, which may constitute or be included in a capital improvements plan, that:

- (1) Is prepared by a financial professional or a licensed professional engineer qualified by experience and training or education to employ generally accepted accounting, engineering, and planning methodologies to calculate system development fees for public water and sewer systems.
- (2) Documents in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.
- (3) Employs generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of this Article.
- (4) Documents and demonstrates the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.
- (5) Identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of conclusions reached.
- (6) Calculates a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
- (7) Covers a planning horizon of not less than 10 years nor more than 20 years.

- (8) Is adopted by resolution or ordinance of the local governmental unit in accordance with G.S. 162A-209.

"§ 162A-206. Reserved.

"§ 162A-207. Minimum requirements.

(a) Maximum. – A system development fee shall not exceed that calculated based on the system development fee analysis.

(b) Revenue Credit. – In applying the incremental cost or marginal cost, or the combined cost, method to calculate a system development fee with respect to water or sewer capital improvements, the system development fee analysis must include as part of that methodology a credit against the projected aggregate cost of water or sewer capital improvements. That credit shall be determined based upon generally accepted calculations and shall reflect a deduction of either the outstanding debt principal or the present value of projected water and sewer revenues received by the local governmental unit for the capital improvements necessitated by and attributable to such new development, anticipated over the course of the planning horizon. In no case shall the credit be less than twenty-five percent (25%) of the aggregate cost of capital improvements.

(c) Construction or Contributions Credit. – In calculating the system development fee with respect to new development, the local governmental unit shall credit the value of costs in excess of the development's proportionate share of connecting facilities required to be oversized for use of others outside of the development. No credit shall be applied, however, for water or sewer capital improvements on-site or to connect new development to water or sewer facilities.

"§ 162A-208. Reserved.

"§ 162A-209. Adoption and periodic review.

(a) For not less than 45 days prior to considering the adoption of a system development fee analysis, the local governmental unit shall post the analysis on its Web site and solicit and furnish a means to submit written comments, which shall be considered by the preparer of the analysis for possible modifications or revisions.

(b) After expiration of the period for posting, the governing body of the local governmental unit shall conduct a public hearing prior to considering adoption of the analysis with any modifications or revisions.

(c) The local governmental unit shall publish the system development fee in its annual budget or rate plan or ordinance. The local governmental unit shall update the system development fee analysis at least every five years.

"§ 162A-210. Reserved.

"§ 162A-211. Use and administration of revenue.

(a) Revenue from system development fees calculated using the incremental cost method or marginal cost method, exclusively or as part of the combined cost method, shall be expended only to pay:

- (1) Costs of constructing capital improvements including, and limited to, any of the following:

- a. Construction contract prices.
- b. Surveying and engineering fees.
- c. Land acquisition cost.
- d. Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local governmental unit to finance any costs for an item listed in sub-subdivisions a. through c. of this subdivision.

- (2) Professional fees incurred by the local governmental unit for preparation of the system development fee analysis.

- (3) If no capital improvements are planned for construction within five years or the foregoing costs are otherwise paid or provided for, then principal and interest on bonds, notes, or other obligations issued by or on behalf of a local governmental unit to finance the construction or acquisition of existing capital improvements.

(b) Revenue from system development fees calculated using the buy-in method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects. The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.

(c) A local governmental unit may pledge a system development fee as security for the payment of debt service on a bond, note, or other obligation subject to compliance with the foregoing limitations.

(d) System development fee revenues shall be accounted for by means of a capital reserve fund established pursuant to Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure of funds in accordance with this section.

"§ 162A-212. Reserved.

"§ 162A-213. Time for collection of system development fees.

For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit either at the time of plat recordation or when water or sewer service for the subdivision or other development is committed by the local governmental unit. For all other new development, the local governmental unit shall collect the system development fee at the time of application for connection of the individual unit of development to the service or facilities.

"§ 162A-214. Reserved.

"§ 162A-215. Narrow construction.

Notwithstanding G.S. 153A-4 and G.S. 160A-4, in any judicial action interpreting this Article, all powers conferred by this Article shall be narrowly construed to ensure that system development fees do not unduly burden new development."

SECTION 2. G.S. 130A-64 reads as rewritten:

"§ 130A-64. Service charges and rates.

(a) A sanitary district board shall apply service charges and rates based upon the exact benefits derived. These service charges and rates shall be sufficient to provide funds for the maintenance, adequate depreciation and operation of the work of the district. If reasonable, the service charges and rates may include an amount sufficient to pay the principal and interest maturing on the outstanding bonds and, to the extent not otherwise provided for, bond anticipation notes of the district. Any surplus from operating revenues shall be set aside as a separate fund to be applied to the payment of interest on or to the retirement of bonds or bond anticipation notes. The sanitary district board may modify and adjust these service charges and rates.

(b) The district board may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 3. G.S. 153A-277 reads as rewritten:

"§ 153A-277. Authority to fix and enforce rates.

(a) A county may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by a public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary for the same class of service in different areas of the county and may vary according to classes of service, and different schedules may be adopted for services provided outside of the county. A county may include a fee relating to subsurface discharge wastewater management systems and services on the property tax bill for the real property where the system for which the fee is imposed is located.

(a2) A county may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes.

...."

SECTION 4.(a) G.S. 160A-314 reads as rewritten:

"§ 160A-314. Authority to fix and enforce rates.

(a) A city may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

(e) A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 4.(b) G.S. 160A-317 is amended by adding a new subsection to read:

"(a4) System Development Fees. – A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 5.(a) G.S. 162A-6(a) is amended by adding a new subdivision to read:

"(9a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 5.(b) G.S. 162A-9 is amended by adding a new subsection to read:

"(a5) An authority may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(a) G.S. 162A-36(a) is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(b) G.S. 162A-49 reads as rewritten:

"§ 162A-49. Rates and charges for services.

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of land for the services furnished or to be furnished by any water system or sewerage system or both. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the water system or sewerage system or both, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the water system or the sewerage system or both, the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(a) G.S. 162A-69 is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(b) G.S. 162A-72 reads as rewritten:

"§ 162A-72. Rates and charges for services.

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of and for the services furnished or to be furnished by any sewerage system. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the sewerage system, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the sewerage system the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 8. G.S. 162A-85.13 is amended by adding a new subsection to read:

"(a1) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 9. G.S. 162A-88 reads as rewritten:

"§ 162A-88. District is a municipal corporation.

(a) The inhabitants of a county water and sewer district created pursuant to this Article are a body corporate and politic by the name specified by the board of commissioners. Under that name they are vested with all the property and rights of property belonging to the corporation; have perpetual succession; may sue and be sued; may contract and be contracted with; may acquire and hold any property, real and personal, devised, sold, or in any manner conveyed, dedicated to, or otherwise acquired by them, and from time to time may hold, invest, sell, or dispose of the same; may have a common seal and alter and renew it at will; may establish, revise

and collect rates, fees or other charges and penalties for the use of or the services furnished or to be furnished by any sanitary sewer system, water system or sanitary sewer and water system of the district; and may exercise those powers conferred on them by this Article.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 10.(a) G.S. 1-52(15) reads as rewritten:

"(15) For the recovery of taxes paid as provided in ~~G.S. 105-381~~ G.S. 105-381 or for the recovery of an unlawful fee, charge, or exaction collected by a county, municipality, or other unit of local government for water or sewer service or water and sewer service."

SECTION 10.(b) This section is to clarify and not alter G.S. 1-52.

SECTION 11. Sections 1 through 9 of this act become effective October 1, 2017, and apply to system development fees imposed on or after that date. Section 10 of this act, being a clarifying amendment, has retroactive effect and applies to claims accrued or pending prior to and after the date that section becomes law. Nothing in this act provides retroactive authority for any system development fee, or any similar fee for water or sewer services to be furnished, collected by a local governmental unit prior to October 1, 2017. The remainder of this act is effective when it becomes law and applies to claims accrued or pending prior to and after that date.

In the General Assembly read three times and ratified this the 29th day of June, 2017.

s/ Daniel J. Forest
President of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Roy Cooper
Governor

Approved 4:13 p.m. this 20th day of July, 2017

APPENDIX B

Excerpts from CAFR 2022

CITY OF NEW BERN
North Carolina



ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the Year Ended June 30, 2022

Prepared by:
City of New Bern Finance Department

Submitted by:
Kimberly A. Ostrom
Director of Finance

K. Interfund Receivables and Payables

Activity between funds that is representative of lending/borrowing arrangements outstanding at the end of the fiscal year as well as all other outstanding balances between funds are reported as "due to/from other funds." Any residual balances outstanding between the governmental activities and business-type activities are reported in the government wide financial statements as "internal balances."

L. Inventories

All inventories are valued at average cost using the first-in/first-out (FIFO) method. Inventories of governmental funds are recorded as expenditures when consumed rather than when purchased. Inventories of the enterprise funds are recorded as expenses when consumed rather than when purchased.

M. Prepaid Items

Payments made to vendors for services that will benefit periods beyond June 30, 2022, are recorded as prepaid items in both government-wide and fund financial statements. The City made a deposit on a fire truck that is classified as prepaid expenses.

N. Capital Assets

Capital assets, which include property, plant, equipment, infrastructure assets (e.g. roads, bridges, sidewalks, and similar items), and intangible assets are reported in the applicable governmental or business-type activities column in the government-wide financial statements. Capital assets are defined by the City as assets with an initial estimated useful life in excess of two years and individual cost capitalization thresholds as follows: land of more than \$1, infrastructure of more than \$100,000; building and land improvements of greater than \$25,000; and equipment of more than \$5,000. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets received prior to June 30, 2015 are recorded at their estimated fair value at the date of donation. Donated capital assets received after June 30, 2015 are recorded at acquisition value. The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

Capital assets are depreciated using the straight-line method over the following useful lives to cost of the assets:

Buildings	25-60 years
Improvements	20-50 years
Infrastructure	30-50 years
Plants and distribution systems	30-50 years
Vehicles and service equipment	3-10 years
Furniture and equipment	5-10 years

O. Right to Use Assets

The City has recorded right to use lease assets as a result of implementing GASB 87. The right to use assets are initially measured at an amount equal to the initial measurement of the related lease liability plus any lease payments made prior to the lease term, less lease incentives, and plus ancillary charges necessary to place the lease into service. The right to use assets are amortized on a straight-line basis over the life of the related lease.

Water Fund	<u>Beginning</u> <u>Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending</u> <u>Balances</u>
Capital assets not being depreciated:					
Land	\$ 852,479	\$ -	\$ -	\$ -	\$ 852,479
Construction in progress	776,924	201,243	(376,395)	-	601,772
Total capital assets not being depreciated	1,629,403	201,243	(376,395)	-	1,454,251
Capital assets being depreciated:					
Buildings	35,655,357	12,997	-	(220,756)	35,447,598
Equipment	5,469,347	31,366	(1,970)	695,169	6,193,912
Furniture and fixtures	7,731	-	(3,843)	-	3,888
Distribution systems	26,475,622	363,997	-	(474,413)	26,365,206
Vehicles	1,023,219	130,849	-	(26,759)	1,127,309
Total capital assets being depreciated	68,631,276	539,209	(5,813)	(26,759)	69,137,913
Less accumulated depreciation for:					
Buildings	(8,890,834)	(965,630)	-	132,505	(9,723,959)
Equipment	(1,795,494)	(102,936)	1,970	(379,821)	(2,276,281)
Furniture and fixtures	(7,731)	-	3,843	-	(3,888)
Distribution systems	(11,646,082)	(566,284)	-	247,316	(11,965,050)
Vehicles	(876,540)	(70,040)	-	26,759	(919,821)
Total accumulated depreciation	(23,216,681)	\$ (1,704,890)	\$ 5,813	\$ 26,759	(24,888,999)
Total capital assets being depreciated, net	45,414,595				44,248,914
Water Fund capital assets, net	\$ 47,043,998				\$ 45,703,165
Sewer Fund					
	<u>Beginning</u> <u>Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending</u> <u>Balances</u>
Capital assets not being depreciated:					
Land	\$ 12,389,511	\$ 14,469	\$ -	\$ -	\$ 12,403,980
Construction in progress	1,773,287	439,786	(1,194,821)	-	1,018,252
Total capital assets not being depreciated	14,162,798	454,255	(1,194,821)	-	13,422,232
Capital assets being depreciated:					
Buildings	40,575,063	556,098	-	-	41,131,161
Equipment	4,153,582	342,083	(35,223)	-	4,460,442
Furniture and fixtures	89,039	-	(12,824)	-	76,215
Distribution systems	42,393,208	890,022	-	-	43,283,230
Vehicles	2,045,562	495,587	(153,993)	(22,777)	2,364,379
Total capital assets being depreciated	89,256,454	2,283,790	(202,040)	(22,777)	91,315,427
Less accumulated depreciation for:					
Buildings	(21,922,681)	(1,115,157)	-	-	(23,037,838)
Equipment	(3,017,684)	(219,123)	34,531	-	(3,202,276)
Furniture and fixtures	(78,725)	(8,250)	12,824	-	(74,151)
Distribution systems	(13,061,627)	(859,976)	-	-	(13,921,603)
Vehicles	(1,664,196)	(128,931)	153,993	22,777	(1,616,357)
Total accumulated depreciation	(39,744,913)	\$ (2,331,437)	\$ 201,348	\$ 22,777	(41,852,225)
Total capital assets being depreciated, net	49,511,541				49,463,202
Sewer Fund capital assets, net	\$ 63,674,339				\$ 62,885,434

In the event of default the entire outstanding principal and interest is immediately payable, and the bank may proceed with additional options as legally allowed.

Future minimum payments as of June 30, 2022 for the installment purchase contracts are as follows:

For the Year Ending June 30	Governmental Activities		Business-Type Activities	
	Principal	Interest	Principal	Interest
2023	\$ 1,854,254	\$ 215,254	\$ 465,364	\$ 24,850
2024	1,475,589	166,739	333,210	14,406
2025	1,123,531	134,256	186,377	7,339
2026	1,131,690	108,689	186,377	3,145
2027	890,156	82,991	-	-
2028-2032	2,133,341	163,261	-	-
2033-2037	507,333	137,934	-	-
Total	<u>\$ 9,115,894</u>	<u>\$ 1,009,124</u>	<u>\$ 1,171,328</u>	<u>\$ 49,740</u>

c. Notes Payable

The City has various note payable agreements with the State outstanding for water and sewer distribution expansion and improvement projects. In the event of a default the entire outstanding principal and interest are immediately payable, additional action may be taken as legally allowed. The outstanding balances for the notes as of June 30, 2022 are as follows:

Business-Type activities:	Balance as of June 30, 2022
A direct borrowing note issued by North Carolina Department of Environment and Natural Resources for \$20,110,036 was issued in February 2003 with variable semi-annual payments for a wastewater treatment plant expansion. The note bears an interest rate of 2.57% and matures in 2023.	\$ 1,265,017
A direct borrowing note issued by North Carolina Department of Environment and Natural Resources for \$1,351,452 was issued in March 2003 with variable semi-annual payments for wastewater treatment plant expansion. The note bears an interest rate of 2.66% and matures in 2024.	135,145
A direct borrowing note issued by North Carolina Department of Environment and Natural Resources for \$33,606,624 was issued in July 2010 with variable semi-annual payments of \$1,680,331 for water treatment plant expansion. The note bears an interest rate of 2.27% and matures in 2030.	13,442,650
Total outstanding notes payable:	<u>\$ 14,842,812</u>

The debt service to maturity on the notes payable is as follows:

Year Ending June 30,	Principal	Interest	Total
2023	\$ 3,012,921	\$ 340,582	\$ 3,353,503
2024	1,747,904	268,214	2,016,118
2025	1,680,331	228,357	1,908,688
2026	1,680,331	190,298	1,870,629
2027	1,680,331	152,238	1,832,569
2028-2032	5,040,994	228,357	5,269,351
Total:	<u>\$ 14,842,812</u>	<u>\$ 1,408,046</u>	<u>\$ 16,250,858</u>

APPENDIX C

Water Fund Asset, Depreciation, Debt Credit and Grant Summary

with Asset Audit

Water Asset Valuation

Non-depreciable Capital Assets		
	Land	852,479.00
	Construction in Progress	601,772.00
	Subtotal	1,454,251.00
Depreciable Assets		
	Buildings, Treatment Equipment	35,447,598.00
	Distribution Systems	26,365,206.00
	Subtotal	61,812,804.00
	Total Asset Valuation	63,267,055.00
Less Accumulated Depreciation		
	Buildings, Treatment Equipment	(9,723,959.00)
	Distribution Systems	(11,965,050.00)
	Subtotal	(21,689,009.00)
Less Debt Credits, Grants, etc		
	Debt for Water Plant Expansion	(13,442,650.00)
	Water Treatment Project Grant	(39,990.00)
	Subtotal	(13,482,640.00)
	Total Asset Deductions	(35,171,649.00)
Plus Depreciated Grants	Water Treatment Project Grant Depreciation	11,005.08
	Net Depreciated Asset Value	28,106,411.08

APPENDIX D

Sewer Fund Asset, Depreciation, Debt Credit and Grant Summary with Asset Audit

Sewer Asset Valuation

Non-depreciable Capital Assets		
	Land	12,403,980
	Construction in Progress	1,018,252
	Subtotal	13,422,232
Depreciable Assets		
	Buildings, Treatment Equipment	41,131,161
	Distribution Systems	43,283,230
	Subtotal	84,414,391
	Total Asset Valuation	97,836,623
Less Accumulated Depreciation		
	Buildings, Treatment Equipment	(23,037,838)
	Distribution Systems	(13,921,603)
	Subtotal	(36,959,441)
Less Debt Credits, Grants, etc		
	February 2003 WWTP Debt	(1,265,017)
	March 2003 WWTP Debt	(135,145)
	Trent Woods Sewer Construction	(8,105,483)
	Wastewater Improvements (Quarry Project) Grant	(8,930,624)
	Waste Treatment Plant Upgrade Grant	(500,000)
	Subtotal	(18,936,269)
	Total Asset Deductions	(55,895,710)
Plus Depreciated Grants	Trent Woods Sewer Construction	2,269,535
	Wastewater Improvements (Quarry Project) Grant	99,776
	Waste Treatment Plant Upgrade Grant	225,125
	Subtotal	2,594,437
	Net Depreciated Asset Value	44,535,350

APPENDIX E

Flow Rate Determination, 15A NC AC Subchapter 2T .0114

15A NCAC 02T .0114 WASTEWATER DESIGN FLOW RATES

(a) This Rule shall be used to determine wastewater flow rates for all systems governed by this Subchapter unless alternate criteria are provided by a program-specific rule or for flow used for the purposes of 15A NCAC 02H .0105. Higher flow rates shall be required where usage and occupancy are atypical, including those in Paragraph (c) of this Rule. Wastewater flow calculations shall take hours of operation and anticipated maximum occupancies and usage into account when calculating peak flows for design.

(b) In determining the volume of sewage from dwelling units, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms shall increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.

(c) The following table shall be used to determine the minimum allowable design daily flow of wastewater facilities. Design flow rates for establishments not identified below shall be determined using available flow data, water-using fixtures, occupancy or operation patterns, and other measured data.

Type of Establishments	Daily Flow For Design
Barber and beauty shops	
Barber Shops	50 gal/chair
Beauty Shops	125 gal/booth or bowl
Businesses, offices and factories	
General business and office facilities	25 gal/employee/shift
Factories, excluding industrial waste	25 gal/employee/shift
Factories or businesses with showers or food preparation	35 gal/employee/shift
Warehouse	100 gal/loading bay
Warehouse – self storage (not including caretaker residence)	1 gal/unit
Churches	
Churches without kitchens, day care or camps	3 gal/seat
Churches with kitchen	5 gal/seat
Churches providing day care or camps	25 gal/person (child & employee)
Fire, rescue and emergency response facilities	
Fire or rescue stations without on site staff	25 gal/person
Fire or rescue stations with on-site staff	50 gal/person/shift
Food and drink facilities	
Banquet, dining hall	30 gal/seat
Bars, cocktail lounges	20 gal/seat
Caterers	50 gal/100 sq ft floor space
Restaurant, full Service	40 gal/seat
Restaurant, single service articles	20 gal/seat
Restaurant, drive-in	50 gal/car space
Restaurant, carry out only	50 gal/100 sq ft floor space
Institutions, dining halls	5 gal/meal
Deli	40 gal/100 sq ft floor space
Bakery	10 gal/100 sq ft floor space
Meat department, butcher shop or fish market	75 gal/100 sq ft floor space
Specialty food stand or kiosk	50 gal/100 sq ft floor space
Hotels and Motels	
Hotels, motels and bed & breakfast facilities, without in-room cooking facilities	120 gal/room
Hotels and motels, with in-room cooking facilities	175 gal/room
Resort hotels	200 gal/room
Cottages, cabins	200 gal/unit
Self service laundry facilities	500 gal/machine
Medical, dental, veterinary facilities	
Medical or dental offices	250 gal/practitioner/shift
Veterinary offices (not including boarding)	250 gal/practitioner/shift

Veterinary hospitals, kennels, animal boarding facilities	20 gal/pen, cage, kennel or stall
Hospitals, medical	300 gal/bed
Hospitals, mental	150 gal/bed
Convalescent, nursing, rest homes without laundry facilities	60 gal/bed
Convalescent, nursing, rest homes with laundry facilities	120 gal/bed
Residential care facilities	60 gal/person
Parks, recreation, camp grounds, R-V parks and other outdoor activity facilities	
Campgrounds with comfort station, without water or sewer hookups	75 gal/campsite
Campgrounds with water and sewer hookups	100 gal/campsite
Campground dump station facility	50 gal/space
Construction, hunting or work camps with flush toilets	60 gal/person
Construction, hunting or work camps with chemical or portable toilets	40 gal/person
Parks with restroom facilities	250 gal/plumbing fixture
Summer camps without food preparation or laundry facilities	30 gal/person
Summer camps with food preparation and laundry facilities	60 gal/person
Swimming pools, bathhouses and spas	10 gal/person
Public access restrooms	325 gal/plumbing fixture
Schools, preschools and day care	
Day care and preschool facilities	25 gal/person (child & employee)
Schools with cafeteria, gym and showers	15 gal/student
Schools with cafeteria	12 gal/student
Schools without cafeteria, gym or showers	10 gal/student
Boarding schools	60 gal/person (student & employee)
Service stations, car wash facilities	
Service stations, gas stations	250 gal/plumbing fixture
Car wash facilities	1200 gal/bay
Sports centers	
Bowling center	50 gal/lane
Fitness, exercise, karate or dance center	50 gal/100 sq ft
Tennis, racquet ball	50 gal/court
Gymnasium	50 gal/100 sq ft
Golf course with only minimal food service	250 gal/plumbing fixture
Country clubs	60 gal/member or patron
Mini golf, putt-putt	250 gal/plumbing fixture
Go-kart, motocross	250 gal/plumbing fixture
Batting cages, driving ranges	250 gal/plumbing fixture
Marinas without bathhouse	10 gal/slip
Marinas with bathhouse	30 gal/slip
Video game arcades, pool halls	250 gal/plumbing fixture
Stadiums, auditoriums, theaters, community centers	5 gal/seat
Stores, shopping centers, malls and flea markets	
Auto, boat, recreational vehicle dealerships/showrooms with restrooms	125 gal/plumbing fixture
Convenience stores, with food preparation	60 gal/100 sq ft
Convenience stores, without food preparation	250 gal/plumbing fixture
Flea markets	30 gal/stall
Shopping centers and malls with food service	130 gal/1000 sq ft
Stores and shopping centers without food service	100 gal/1000 sq ft
Transportation terminals – air, bus, train, ferry, port and dock	5 gal/passenger

(d) Design daily flow rates for proposed non-residential developments where the types of use and occupancy are not known shall be designed for a minimum of 880 gallons per acre, or the applicant shall specify an anticipated flow based upon anticipated or potential uses.

(e) Design daily flow rates for residential property on barrier islands and similar communities located south or east of the Atlantic Intracoastal Waterway and used as vacation rental as defined in G.S. 42A-4 shall be 120 gallons per day per habitable room. Habitable room shall mean a room or enclosed floor space used or intended to be used for living or sleeping, excluding kitchens and dining areas, bathrooms, shower rooms, water closet compartments, laundries, pantries, foyers, connecting corridors, closets, and storage spaces.

(f) An adjusted daily sewage flow design rate shall be granted for permitted but not yet tributary connections and future connections tributary to the system upon showing that the capacity of a sewage system is adequate to meet actual daily wastewater flows from a facility included in Paragraph (b) or (c) of this Rule without causing flow violations at the receiving wastewater treatment plant or capacity-related sanitary sewer overflows within the collection system as follows:

- (1) Documented, representative data from that facility or a comparable facility shall be submitted by an authorized signing official in accordance with Rule .0106 of this Section to the Division for all flow reduction requests, as follows:
 - (A) dates of flow meter calibrations during the time frame evaluated and indication if any adjustments were necessary;
 - (B) a breakdown of the type of connections (e.g. two bedroom units, three bedroom units) and number of customers for each month of submitted data as applicable. Identification of any non-residential connections including subdivision clubhouses and pools, restaurants, schools, churches and businesses. For each non-residential connection, information identified in Paragraph (c) of this Rule (e.g. 200 seat church, 40 seat restaurant, 35 person pool bathhouse);
 - (C) a letter of agreement from the owner or an official, meeting the criteria of Rule .0106 of this Section, of the receiving collection system or treatment works accepting the wastewater and agreeing with the adjusted design rate;
 - (D) age of the collection system;
 - (E) analysis of inflow and infiltration within the collection system or receiving treatment plant, as applicable;
 - (F) if a dedicated wastewater treatment plant serves the specific area and is representative of the residential wastewater usage, at least the 12 most recent consecutive monthly average wastewater flow readings and the daily total wastewater flow readings for the highest average wastewater flow month per customers, as reported to the Division;
 - (G) if daily data from a wastewater treatment plant cannot be used or is not representative of the project area: 12 months worth of monthly average wastewater flows from the receiving treatment plant shall be evaluated to determine the peak sewage month. Daily wastewater flows shall then be taken from a flow meter installed at the most downstream point of the collection area for the peak month selected that is representative of the project area. Justification for the selected placement of the flow meter shall also be provided; and
 - (H) an estimated design daily sewage flow rate shall be determined by calculating the numerical average of the top three daily readings for the highest average flow month. The calculations shall also account for seasonal variations, excessive inflow and infiltration, age and suspected meter reading and recording errors.
- (2) The Division shall evaluate all data submitted but shall also consider other factors in granting, with or without adjustment, or denying a flow reduction request including: applicable weather conditions during the data period (i.e. rainy or drought), other historical monitoring data for the particular facility or other similar facilities available to the Division, the general accuracy of monitoring reports and flow meter readings, and facility usage, such as whether the facility is in a resort area.
- (3) Flow increases shall be required if the calculations required by Subparagraph (f)(1) of this Rule yield design flows higher than that specified in Paragraphs (b) or (c) of this Rule.
- (4) The permittee shall retain the letter of any approved adjusted daily design flow rate for the life of the facility and shall transfer such letter to a future permittee.

*History Note: Authority G.S. 143-215.1; 143-215.3(a)(1).
Eff. September 1, 2006;
Readopted Eff. September 1, 2018.*

APPENDIX F

Capital Asset Grant Depreciation by Fund

Fund	Project	Grant/Reim Amount	
4513	Trent Woods Sewer Construction	8,105,483	S0320
4511	Wastewater Improvement	8,930,624	
4512	Wastewater Treatment Plant Upgrade	500,000	S0274
		17,536,107	

Total Assets Value	Grant Proceeds as a % of Asset	Total Accum Depr on Asset	Accum Depr on Grant by %	Accum Depr on Grant by Useful Life
11,131,589	72.82%	3,116,845	2,269,535	2,269,535
10,651,296	83.85%	119,000	99,776	99,776
20,631,581	2.42%	9,289,387	225,125	225,125
			Total	2,594,437

*Fund 4511					
	Asset	Accum Depr			
S0270	6,546,675	-	61.46%	5,489,087	
8-244-4000	2,625,961	-	24.65%	2,201,748	
S0556	30,000	-	0.28%	25,154	
S0262	119,000	119,000	1.12%	99,776	
S0612	422,470	-	3.97%	354,222	
8-242-096	907,191	-	8.52%	760,638	83.85%
	10,651,296	119,000	100.00%	8,930,624	

Fund
4313 Water Treatment Project

Project

Grant/Reim Amount
39,990 W1028

Grant Proceeds as a		Total Accum Depr	Accum Depr on	Accum Depr on Grant
Total Assets Value	% of Asset	on Asset	Grant by %	by Useful Life
33,000,750	0.12%	9,081,668	11,005	11,005

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting Ordinance to Restate the Schedule of System Development and Connection Fees Applicable to Customers of the City of New Bern

Date of Meeting: 6/13/2023	Ward # if applicable: City wide
Department: Water Resources	Person Submitting Item: Jordan Hughes
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	The current schedule of system development and connection fees was adopted in 2018. The proposed revisions in the enclosed ordinance reflect the recommendations of the system development fee evaluation that was updated this year and changes in connection fees to reflect current material pricing.
Actions Needed by Board:	Adopt an ordinance to restate the schedule of system development and connection fees for the customers of the City of New Bern.
Backup Attached:	Memo from J. Hughes, a red-line version of ordinance changes, and a clean version of the proposed ordinance.
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item: N/A
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



Department of Public Utilities
Water Resources
527 NC Highway 55 West, P.O. Box 1129
New Bern, NC 28563-1129
(252) 639-7526

MEMORANDUM

TO: Mayor and Board of Aldermen
FROM: Jordan B. Hughes P.E., City Engineer
DATE: May 25, 2023

SUBJECT: Recommendation to Restate the Schedule of System Development Fees and Connection Fees for the Water & Sewer Customers of the City of New Bern.

Background Information:

In 2018, the City of New Bern established a schedule of Water & Sewer System Development and Connection fees to be in compliance with House Bill 436 that was passed by the North Carolina General Assembly in July 2017. The water and sewer system development and connection fees have remained unchanged since they were established in 2018.

The professional evaluation that is utilized to calculate the system development fee rates is required to be updated every five years and is due for updating in 2023. This professional evaluation has been completed and identified the following as needed revisions to the City of New Bern System Development Fees:

	<u>2018 Rate</u>	<u>2023 Rate</u>	<u>Change</u>
Water System Development Fee:	\$4.78	\$5.11	6.90%
Sewer System Development Fee:	\$6.00	\$6.85	14.17%
Residential Demand Allocation:	85 GPD/BR	75 GPD/BR	-11.76%

Below is a summary of how the proposed changes in the system development fee ordinance will impact a typical, newly constructed 3-bedroom home in New Bern.

	<u>2018 Rate</u>	<u>2023 Rate</u>	<u>Change</u>
New 3-Bedroom Home - Water	\$1,218.90	\$1,149.75	-5.67%
New 3-Bedroom Home - Sewer	\$1,530.00	\$1,541.25	0.07%
New 3-Bedroom Home - Total	\$2,748.90	\$2,691.00	-2.11%

In addition to updates for the system development fees, the proposed ordinance revisions also include updates to the water and sewer connection fees. These connection fees are intended to recover costs of the City physically making new water and sewer connections. The current rates were developed in 2018, based on the material costs at the time. The proposed changes reflect the current costs of making these connections.

Recommendation:

To implement the recommendations of the updated system development fee evaluation and to recover the current costs of installing new water and sewer services, staff is recommending that the Board of Aldermen adopt the enclosed ordinance to restate the schedule of system development fees and connection fees for the water and sewer customers of the City of New Bern.

Attached please find a "red-line" copy of the proposed ordinance, along with a clean copy of the proposed ordinance.

Please contact me if there are any questions or if additional information should be required.

**AN ORDINANCE TO RESTATE THE SCHEDULE OF SYSTEM DEVELOPMENT
FEES AND CONNECTION FEES FOR WATER AND SEWER CUSTOMERS OF THE
CITY OF NEW BERN**

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That there is hereby established a system development fee for connections to the City of New Bern municipal water and sewer systems to be charged based on the customer's calculated anticipated daily flow rate, as follows:

Water	\$5.11/GPD
Sewer	\$6.85/GPD

System development fees shall be based on the calculated gallon per day (GPD) flow rate of the anticipated use of the proposed structure, or increased use anticipated by an addition to the floor space of an existing structure, and shall be the same regardless of the customer's location inside or outside the city's municipal limits. Flow rates shall be determined in accordance with the flow rates established in 15A NCAC 2T .0114 (a),(b) and (c), as amended from time to time, except for the following:

- General Commercial Buildings, the lesser of; 100 GPD per 1,000 SF of floor space, or 100 GPD per plumbing fixture.
- Restaurants; 300 GPD per 1,000 SF of floor space.
- Residential: 75 GPD per Bedroom.
- Hotels, Motels, Bed & Breakfasts: 65 GPD per Bedroom.
- Convalescent, Nursing, and Rest Homes: 65 GPD per Bedroom.
- Irrigation Services: 300 GPD per Acre

For purposes of this Ordinance, the terms used in this Section 1 shall have the meaning indicated below.

"General commercial building" shall include the following types of establishments identified in 15A NCAC 2T .0114(c), as amended from time to time:

- General business and office facilities
- Churches, with or without kitchens, day care or camps
- Shopping centers and malls with food service
- Stores and shopping centers without food service
- Medical, dental, or veterinary offices
- Barber and beauty shops
- Schools, preschools, or daycares
- Service stations or gas stations

"Restaurant" shall include the following types of establishments identified in 15A NCAC 2T .0114(c), as amended from time to time:

- Banquet, dining halls
- Bars, cocktail lounges

- Caterers
- Restaurant, full service
- Deli
- Bakery
- Butcher shop
- Fish market

Adjusted daily flow rates for a specific non-residential use may be granted by the City, in its sole discretion upon submittal and review of well-documented and representative data from other comparable facilities with the same specific use evidencing a flow rate that is significantly divergent from the flow rates established herein.

Section2. That there are hereby established connection fees for connection to the City of New Bern municipal water system, to be charged based on the customer's water meter size and proximity to the existing City of New Bern municipal water system, as follows:

Water-Tier 1: Connection fees applicable at locations where a water service line and water meter box assembly have been properly established as outlined by the most recent version of the "City of New Water & Sewer Design Standards".

<u>Meter Size</u>	<u>Fee</u>
5/8" & 3/4"	\$360.00
1"	\$535.00
1 1/2"	\$950.00
2"	\$1,110.00
3"	\$2,500.00
4"	\$3,150.00
6"	\$5,300.00

Water-Tier 2: Connection fees applicable at locations where a water service line and water meter box assembly are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards" and the connection will require a water service line of less than 25 feet.

<u>Meter Size</u>	<u>Fee</u>
5/8" & 3/4"	\$1,420.00
1"	\$1,595.00
1 1/2"	\$2,100.00
2"	\$2,360.00

Water-Tier 3: Connection fees applicable at locations where a water service line and water meter box assembly are not currently established as outlined by the most recent version of the “City of New Water & Sewer Design Standards” and the connection will require a water service line of more than 25 feet.

<u>Meter Size</u>	<u>Fee</u>
5/8" & 3/4"	\$61,560.00
1"	\$1,735.00
1 ½"	\$2,270.00
2"	\$2,560.00

Section 3. That there are hereby established connection fees for connections to the City of New Bern municipal sewer system, to be charged based on the customer’s sewer lateral size and proximity to the existing City of New Bern municipal sewer system, as follows:

There are no associated connection fees at locations where sewer service laterals and sewer clean out assemblies have been properly established as outlined by the most recent version of the “City of New Water & Sewer Design Standards”.

Sewer-Tier 1: Connection fees applicable at locations where a sewer service lateral and a sewer cleanout assembly are not currently established as outlined by the most recent version of the “City of New Water & Sewer Design Standards” and the connection will require a sewer service lateral of less than 25 feet.

<u>Sewer Lateral Size</u>	<u>Fee</u>
4"	\$1,450.00
6"	\$1,800.00

Sewer-Tier 2: Connection fees applicable at locations where a sewer service line and a sewer cleanout assembly are not currently established as outlined by the most recent version of the “City of New Water & Sewer Design Standards” and the connection will require a sewer service lateral of more than 25 feet.

<u>Sewer Lateral Size</u>	<u>Fee</u>
4"	\$1,950.00

6"

\$2,400.00

Sewer-Tier 3: Connection fees applicable for customers connecting to the City of New Bern Septic Tank Effluent Pump (S.T.E.P) collection system where a STEP service line and check valve box assembly have been properly established as outlined by the most recent version of the "City of New Water & Sewer Design Standards". This fee includes installing the equipment and components in the S.T.E.P. tank and constructing the service line from the tank to the check valve box as required for an operational service. The S.T.E.P. tank and electrical service must be installed by the customer in accordance with Section 4.0 of the "City of New Bern Water & Sewer Design Standards".

<u>Connection Type</u>	<u>Fee</u>
Simplex	\$2,150.00
Duplex	\$2,900.00

* Additional service line in excess of 150' will be charged at \$5/ft.

Sewer-Tier 4: Connection fees applicable for customers connecting to the City of New Bern Septic Tank Effluent Pump (S.T.E.P) collection system where a STEP service line and check valve box assembly are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards". This fee includes making a connection to the main, establishing the check valve box, installing the equipment and components in the S.T.E.P. tank and constructing the service line from the tank to the check valve box as required for an operational service. The S.T.E.P. tank and electrical service must be installed by the customer in accordance with Section 4.0 of the "City of New Bern Water & Sewer Design Standards".

<u>Connection Type</u>	<u>Fee</u>
Simplex	\$4,175.00
Duplex	\$4,925.00

* Additional service line in excess of 150' will be charged at \$5/ft.

Sewer-Tier 5: Connection fees applicable for customers connecting to the City of New Bern Air-Vac collection system where an Air-Vac pit is not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards". This fee includes making a

connection to the main, establishing the Air-Vac pit, and installing the lateral connection to the pit.

<u>Sewer Lateral Size</u>	<u>Fee</u>
4"	\$5,550.00
6"	\$5,900.00

Section 4. Rates for connections in excess of the meter and lateral sizes listed in section two and three shall be established by the Board of Aldermen after consultation with City staff.

Section 5. This ordinance shall be enforced to the maximum extent allowed as to services provided to customers where System Development Fees (formerly identified as "Capital Recovery Fess") and Connection Fees are controlled by contract validly entered into by the City, if such contract was executed and effective prior to the effective date of this ordinance. In such circumstances, such fees shall be increased consistent with the provisions of this Ordinance to the maximum allowed by such contract. In no event shall fees charged in accordance with such a contract be lowered based on this ordinance.

Section 6. System development fees and connection fees established herein shall be paid in full prior to the issuance of a building permit for the structure to be built at the service address.

Section 7. That previous ordinances in conflict with this ordinance are hereby repealed.

Section 8. That this Ordinance shall be in full force and effect as of July 1, 2023.

ADOPTED THIS 13th DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

**AN ORDINANCE TO ~~ESTABLISH~~ RESTATE THE SCHEDULE OF SYSTEM
DEVELOPMENT FEES AND CONNECTION FEES FOR WATER AND SEWER
CUSTOMERS OF THE CITY OF NEW BERN**

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That there is hereby established a system development fee for connections to the City of New Bern municipal water and sewer systems to be charged based on the customer's calculated anticipated daily flow rate, as follows:

Water	\$4.785 <u>\$4.785</u> /GPD	--
Sewer	\$6.006 <u>\$6.006</u> /GPD	-

System development fees shall be based on the calculated gallon per day (GPD) flow rate of the anticipated use of the proposed structure, or increased use anticipated by an addition to the floor space of an existing structure, and shall be the same regardless of the customer's location inside or outside the city's municipal ~~limits~~ limits. Flow rates shall be determined in accordance with the flow rates established in 15A NCAC 2T .0114 (a),(b) and (c), as amended from time to time, except for the following:

- General Commercial Buildings, the lesser of: 100 GPD per 1,000 SF of floor space, or 100 GPD per plumbing fixture.
- Restaurants: 300 GPD per 1,000 SF of floor space.
- Residential: ~~85~~ 75 GPD per Bedroom.
- Hotels, Motels, Bed & Breakfasts: 65 GPD per Bedroom.
- Convalescent, Nursing, and Rest Homes: 65 GPD per Bedroom.
- Irrigation Services: 300 GPD per Acre

For purposes of this Ordinance, the terms used in this Section 1 shall have the meaning indicated below.

"General commercial building" shall include the following types of establishments identified in 15A NCAC 2T .0114(c), as amended from time to time:

- General business and office facilities
- Churches, with or without kitchens, day care or camps
- Shopping centers and malls with food service
- Stores and shopping centers without food service
- Medical, dental, or veterinary offices
- Barber and beauty shops
- Schools, preschools, or daycares
- Service stations or gas stations

"Restaurant" shall include the following types of establishments identified in 15A NCAC 2T .0114(c), as amended from time to time:

- Banquet, dining halls
- Bars, cocktail lounges
- Caterers

- Restaurant, full service
- Deli
- Bakery
- Butcher shop
- Fish market

Adjusted daily flow rates for a specific non-residential use may be granted by the City, in its sole discretion upon submittal and review of well-documented and representative data from other comparable facilities with the same specific use evidencing a flow rate that is significantly divergent from the flow rates established herein.

~~In no event shall the total combined water and sewer system development fees for any single customer exceed \$50,000.~~

Section 2. That there are hereby established connection fees for connection to the City of New Bern municipal water system, to be charged based on the customer's water meter size and proximity to the existing City of New Bern municipal water system, as follows:

Water-Tier 1: Connection fees applicable at locations where a water service line and water meter box assembly have been properly established as outlined by the most recent version of the "City of New Water & Sewer Design Standards".

<u>Meter Size</u>	<u>Fee</u>
5/8" & 3/4"	\$196 <u>360.00</u>
1"	\$315 <u>535.00</u>
1 1/2"	\$485 <u>950.00</u>
2"	\$600 <u>1,110.00</u>
<u>3"</u>	<u>\$2,500.00</u>
<u>4"</u>	<u>\$3,150.00</u>
<u>6"</u>	<u>\$5,300.00</u>

Water-Tier 2: Connection fees applicable at locations where a water service line and water meter box assembly are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards" and the connection will require a water service line of less than 25 feet.

<u>Meter Size</u>	<u>Fee</u>
5/8" & 3/4"	\$500 <u>1,420.00</u>

1"	\$ 650 <u>1,595</u> .00
1 ½"	\$ 900 <u>2,100</u> .00
2"	\$ 1,200 <u>2,360</u> .00

Water-Tier 3: Connection fees applicable at locations where a water service line and water meter box assembly are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards" and the connection will require a water service line of more than 25 feet.

<u>Meter Size</u>	<u>Fee</u>
5/8" & 3/4"	\$ 600 <u>61,560</u> .00
1"	\$ 800 <u>1,735</u> .00
1 ½"	\$ 1,200 <u>2,270</u> .00
2"	\$ 1,400 <u>2,560</u> .00

Section 3. That there are hereby established connection fees for connections to the City of New Bern municipal sewer system, to be charged based on the customer's sewer lateral size and proximity to the existing City of New Bern municipal sewer system, as follows:

There are no associated connection fees at locations where sewer service laterals and sewer clean out assemblies have been properly established as outlined by the most recent version of the "City of New Water & Sewer Design Standards".

Sewer-Tier 1: Connection fees applicable at locations where a sewer service lateral and a sewer cleanout assembly are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards" and the connection will require a sewer service lateral of less than 25 feet.

<u>Sewer Lateral Size</u>	<u>Fee</u>
4"	\$ 425 <u>1,450</u> .00
6"	\$ 530 <u>1,800</u> .00

Sewer-Tier 2: Connection fees applicable at locations where a sewer service line and a sewer cleanout assembly are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards" and the connection will require a sewer service lateral of more than 25 feet.

<u>Sewer Lateral Size</u>	<u>Fee</u>
---------------------------	------------

4"	\$ <u>5301,950.00</u>
6"	\$ <u>6652,400.00</u>

Sewer-Tier 3: Connection fees applicable for customers connecting to the City of New Bern Septic Tank Effluent Pump (S.T.E.P) collection system where a STEP service line and check valve box assembly have been properly established as outlined by the most recent version of the "City of New Water & Sewer Design Standards;". This fee includes installing the equipment and components in the S.T.E.P. tank and constructing the service line from the tank to the check valve box as required for an operational service. The S.T.E.P. tank and electrical service must be installed by the customer in accordance with Section 4.0 of the "City of New Bern Water & Sewer Design Standards".

<u>Connection Type</u>	<u>Fee</u>
Simplex	\$ <u>1,8502,150.00</u>
Duplex	\$ <u>2,6502,900.00</u>

* Additional service line in excess of 150' will be charged at \$5/ft.

Sewer-Tier 4: Connection fees applicable for customers connecting to the City of New Bern Septic Tank Effluent Pump (S.T.E.P) collection system where a STEP service line and check valve box assembly have are not currently established as outlined by the most recent version of the "City of New Water & Sewer Design Standards". This fee includes making a connection to the main, establishing the check valve box, installing the equipment and components in the S.T.E.P. tank and constructing the service line from the tank to the check valve box as required for an operational service. The S.T.E.P. tank and electrical service must be installed by the customer in accordance with Section 4.0 of the "City of New Bern Water & Sewer Design Standards".

<u>Connection Type</u>	<u>Fee</u>
Simplex	\$ <u>4,175.00</u>
Duplex	\$ <u>4,925.00</u>

* Additional service line in excess of 150' will be charged at \$5/ft.

Sewer-Tier 5: Connection fees applicable for customers connecting to the City of New Bern Air-Vac collection system where an Air-Vac pit is not currently

established as outlined by the most recent version of the “City of New Water & Sewer Design Standards”. This fee includes making a connection to the main, establishing the Air-Vac pit, and installing the lateral connection to the pit.

<u>Sewer Lateral Size</u>	<u>Fee</u>
<u>4”</u>	<u>\$5,550.00</u>
<u>6”</u>	<u>\$5,900.00</u>

Section 4. Rates for connections in excess of the meter and lateral sizes listed in section ~~one, two, and three~~ shall be established by the Board of Aldermen after consultation with City staff.

Section 5. This ordinance shall be enforced to the maximum extent allowed as to services provided to customers where System Development Fees (formerly identified as “Capital Recovery Fess”) and Connection Fees are controlled by contract validly entered into by the City, if such contract was executed and effective prior to the effective date of this ordinance. In such circumstances, such fees shall be increased consistent with the provisions of this Ordinance to the maximum allowed by such contract. In no event shall fees charged in accordance with such a contract be lowered based on this ordinance.

Section 6. System development fees and connection fees established herein shall be paid in full prior to the issuance of a building permit for the structure to be built at the service address.

Section 7. That previous ordinances in conflict with this ordinance are hereby repealed.

Section 8. That this Ordinance shall be in full force and effect as of July 1, 2023.~~effective from and after the date of its adoption.~~

ADOPTED THIS ~~12th~~ 13th DAY OF JUNE-, ~~2018~~2023-.

MAYOR

CITY CLERK



NEW BERN

CITY OF NEW BERN

CITY OF NEW BERN NORTH CAROLINA

System Development Fee Evaluation

January 2018

Revised March 2018

Updated April 2023

Rivers Project No. 2023028



ENGINEERS

PLANNERS

SURVEYORS

LANDSCAPE ARCHITECTS



CITY OF NEW BERN NORTH CAROLINA

System Development Fee Evaluation

January 2018


Revised March 2018

Updated April 2023

Rivers Project No. 2023028

Firm License F-0334




Blaine Humphrey, P.E.
Sr. Project Manager/
Associate

4-11-23

Date

City of New Bern, North Carolina

System Development Fee Evaluation

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- A. NC House Bill 436
- B. Excerpts from CAFR 2022
- C. Water Fund Asset, Depreciation, Debt Credit and Grant Summary
- D. Sewer Fund Asset, Depreciation, Debt Credit and Grant Summary
- E. Flow Rate Determination, 15A NCAC Subchapter 2T .0114
- F. Capital Asset Grant Depreciation by Fund

1.0 Executive Summary

The North Carolina General Assembly passed House Bill 436 in July 2017, amending Chapter 162A of the General Statutes by adding “Article 8, System Development Fees.” This amendment was enacted as “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations.”¹ As a requirement of the amended General Statute, the City of New Bern employed Rivers & Associates, Inc., a professional engineering consulting firm, to complete a system development fee analysis. The Statute specifies that a written analysis be performed to calculate a system development fee, based upon prescriptive criteria.

The initial analysis was completed in March 2018. The Statute also requires the analysis to be updated at least every five years. The City again employed Rivers & Associates, Inc. to complete an updated analysis.

The City of New Bern elected to re-evaluate utilizing the same “buy-in” method of the method alternatives to calculate their System Development Fee, similar to the original analysis. This method essentially recoups the costs of the existing facilities to serve new developments, with new development paying its proportionate share of the system value. The fee is calculated based upon the actual cost of non-depreciable and depreciable capital assets for each system less depreciation, less long-term debt and grant funds that was utilized to fund the capital projects. The value of grant funding has been adjusted to account for depreciation along with the assets.

The formula for calculation of the System Development Fee (SDF) is:

$$SDF = \frac{\text{Capital Asset Value} - \text{Depreciation} - \text{Debt Credit} - \text{Grants} + \text{Depreciated Grants}}{\text{Total System Capacity}}$$

By utilizing the above formula for each system, along with updated financial information for year ending June 2022, the resultant System Development Fees calculate to be:

Water System Fee $\$28,106,411 / 5,500,000 \text{ GPD}^* = \$5.11 / \text{GPD}^*$

Sewer System Fee $\$44,535,350 / 6,500,000 \text{ GPD}^* = \mathbf{\$6.85 / GPD}^*$

* gallons per day

A Conversion Table is provided in Section 8.0 of this report to determine applicable specific flow rates for the development type, with general flow rates to apply provided in Appendix E.

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2.0 Background

In 2016, the North Carolina Supreme Court ruled that municipalities did not have the authority under general law to assess “Water and Sewer Impact Fees” for developments seeking to connect to the municipality’s infrastructure. These fees, as defined by some municipalities and counties, are often assessed for future infrastructure improvements such as water treatment and wastewater treatment capacity that may be required to serve new developments. This ruling was followed by the North Carolina General Assembly passing House Bill 436 in July 2017, amending Chapter 162A of the General Statutes by adding “Article 8, System Development Fees.” This amendment was enacted as “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations.”¹ A copy of HB436 is included with this analysis as Appendix A.

As a requirement of the amended General Statute, the City of New Bern employed Rivers & Associates, Inc., a professional engineering consulting firm, to complete a system development fee analysis. The Statute specifies that a written analysis be performed to calculate a system development fee, based upon prescriptive criteria. This analysis must then be posted and made available to the public for a period of not less than 45 days, soliciting comments on the analysis, and modifying or revising the analysis based on those comments. Following this period, the local government unit must hold a public hearing on the system development fee, prior to consideration for adoption by the unit. An additional stipulation requires that the analysis be updated at least every five years. This report provides the five-year update of the analysis.

3.0 Description of the Analysis

A System Development Fee, as defined in the statute, is “...a charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new developments, or a combination of those costs,...”¹

The System Development Fee may be derived utilizing one of several methods to establish the fee. These methods include the buy-in method, incremental or marginal cost method, or a combined cost method. The buy-in method essentially recoups the costs of the existing facilities to serve new developments, with new development paying its proportionate share of the system capacity. The incremental/ marginal cost method is utilized if the local government unit desires to recoup the cost of expanding the water or sewer system to serve a new development. The new development would pay its proportionate share of the expansion. The combined cost method utilizes a combination of the buy-in and incremental cost methods to derive the fee.

The City elected to recommend the “buy-in” method for the analysis in 2018, and elected updating the 2023 System Development Fee based on the same method. Although the method name might imply that

New Bern System Development Fee Evaluation Update

the new development “purchases” a proportionate share of the water and sewer systems, no ownership of the systems by the new development is granted.

In addition to selecting a generally accepted accounting, engineering, and planning methodology for the analysis, the General Statute also requires:

- 1) Documenting the facts and data used in the analysis in reasonable detail for their reliability and sufficiency;
- 2) Demonstrating and documenting the reliable application of the methodology to the facts and data;
- 3) Identifying the assumptions and limiting conditions of the analysis and demonstrating that these conditions do not materially undermine the reliability of the conclusions reached from the analysis;
- 4) Calculating a final system development fee per service unit of new development, including an equivalency or conversion table to determine fees applicable to various categories of demand;
- 5) Covering a planning period of not less than 10 years nor more than 20 years; and
- 6) Adoption by resolution or ordinance of the local government unit as outlined in GS 162A-209.¹

4.0 Methodology

Buy-In Method

The buy-in method utilizes the value of the existing system’s capacity as a basis, and is generally utilized when the existing system has sufficient capacity to serve new development at present and in the future. In 2022, the City of New Bern utilized approximately 58% of its wastewater treatment capacity and 67% of its water production capacity on an average daily basis. If past trending continues, the plateau effect the City has seen through water conservation and addressing inflow and infiltration issues will continue into the foreseeable future. This will allow the City to maintain their current capacities near-term. In utilizing the buy-in methodology, new development pays its proportionate cost share of capacity in the existing system assets. This method meets the requirements outlined in GS 162A-205. The method is a well established method for accounting practices in the water and sewer industry, and well documented in AWWA’s M1 Manual – Principles of Water Rates, Fees, and Charges (AWWA, 2017).² The basis for calculating the costs associated with previously completed capital improvements according the statute *“shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.”*³

The value of the cost of capital improvements (capital assets) can be readily determined utilizing capital asset information outlined in the City’s Comprehensive Annual Financial Report (CAFR). Excerpts from the 2022 CAFR are included in Appendix B. This value is based upon the original cost less accumulated depreciation, as outlined in AWWA M1 (p.332).⁴ The values assigned in the CAFR are based upon generally accepted accounting principles and practices, in accordance with governmental accounting standards and the *Policy Manual for Local Governments in North Carolina* (Department of State Treasurer, 2014).⁵ The

New Bern System Development Fee Evaluation Update

CAFR is independently audited each year by a third party accounting firm who completes an audit of the financial information in accordance with *Government Auditing Standards*. The purpose of this audit is to provide an opinion of the City's representation of financial information with respect to changes, fund reporting, etc.

The City uses the straight line method to depreciate their capital assets over the assets' useful life, at a uniform rate of depreciation per period. The estimated useful life for different assets is outlined in the "Notes to Financial Statements" in the City's CAFR, Note 1.N.⁶ The estimates for useful life are consistent with industry standards for water and sewer infrastructure. In accordance with standard accounting practices, land and construction in progress are considered as non-depreciable assets. Construction in progress does not meet the "litmus" test for the owner receiving the benefit of use and risk of ownership of the asset, and therefore are not depreciable.

The Governmental Accounting Standards Board (GASB) Statement No. 34 defines capital assets as "*land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, ..., infrastructure, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.*"⁷ This definition is also presented in the Executive Summary of the North Carolina Department of the Treasurer's Policy Manual for Local Governments, Section 20, Capital Assets.⁸ The Policy Manual further states that the capital assets and the related depreciation expense should be recorded in the accounts of proprietary funds. The City's water and sewer funds are separately established as enterprise or proprietary funds in the CAFR and are considered business-type activities.

Although assets associated with the water and sewer systems, as defined above, include items such as equipment, vehicles and furniture and fixtures, the City has elected not to include these items in this capital asset calculation. The System Development Fee is calculated using non-depreciable and depreciable assets of land, buildings, treatment equipment and distribution/collection system components. These assets are the backbone of each system (water and sewer), assets necessary to provide capacity to customers. The system values are calculated as the value of the assets, less depreciation, less debt credits and less grant funds that may have been used to fund a particular capital asset project.

5.0 Water and Sewer System Values

Tables 1 and 2 below provide a summary of the net depreciated asset value for each enterprise fund utilizing information provided in Appendix C and D, respectively, for the water and sewer funds as of the fiscal year ending June 30, 2022:

New Bern System Development Fee Evaluation Update

Table 1. Water Fund:

Non-depreciable and Depreciable Capital Assets		\$63,267,055
Less Accumulated Depreciation		(\$21,689,009)
Less Debt Credits, Grants, etc.		(\$13,482,640)
Plus Grant Depreciation		\$11,005
Net Depreciated Asset Value		\$28,106,411

Table 2. Sewer Fund:

Non-depreciable and Depreciable Capital Assets		\$97,836,623
Less Accumulated Depreciation		(\$36,959,441)
Less Debt Credits, Grants, etc.		(\$18,936,269)
Plus Grant Depreciation		\$2,594,437
Net Depreciated Asset Value		\$44,535,350

The formula utilized to calculate the System Development Fee (SDF) is:

$$\text{SDF} = \frac{\text{Capital Asset Value} - \text{Depreciation} - \text{Debt Credit} - \text{Grants} + \text{Depreciated Grants}}{\text{Total System Capacity}}$$

The values shown in the tables comprise the numerator of the above equation for each fund.

6.0 Current Treatment Facilities and Capacity

Water

Prior to enactment of the Central Coastal Plain Capacity Use Area Rule (CCPCUA) by the North Carolina Environmental Management Commission in 2001, all of the water for the City of New Bern was supplied from five (5) groundwater wells in the Cove City area, pulling water from the Black Creek Aquifer. These wells could provide as much as 9.0 MGD of water to the City for consumption. The raw water supply was pristine, requiring no treatment other than disinfection with chlorine prior to entering the distribution system. Although the City still utilizes this drinking water source and treatment process, the CCPCUA limited the amount of withdrawal from the aquifer allowed by the State. As a result, the City selected an

New Bern System Development Fee Evaluation Update

alternate primary water supply source. The alternate source selected was raw water from the lower Castle Hayne Aquifer which required a conventional filtration and softening treatment plant to treat iron and manganese and reduce the hardness of the supply. Construction of the new 5.5 MGD water treatment plant was completed in May 2010, at a total project cost of \$33,606,624.00. Although the Cove City well field is still in use, the total reduction through the CCPCUA rule anticipated a reduction of available capacity to just over 1.0 MGD. The average daily water production in 2022 was 3.67 MGD.

The water distribution system consists of 348 miles of distribution and transmission mains, three ground storage tanks, six elevated storage tanks and three high service pumps.

Sewer

The original wastewater treatment plant was a single treatment train, trickling filter plant constructed in 1964. The original treatment capacity was 4.0 million gallons per day (MGD). A second treatment train was added in 1991 for an additional 0.7 MGD in capacity. The treatment process was changed in 2003 from the fixed film, trickling filter process to an activated sludge biological nutrient removal (BNR) process in order to meet more stringent environmental regulations for effluent characteristics and to comply with a Special Order by Consent (SOC). The construction of the new wastewater treatment plant increased the treatment capacity from 4.7 to 6.5 MGD (1.8 MGD increase), with a total project cost of \$23,644,079. The average daily flow from the treatment plant for calendar year 2022 was 3.78 MGD.

The sewer collection system consists of 440 miles of gravity collection sewer, pressure force mains, manholes and approximately 111 sewage pumping stations.

7.0 System Development Fee Calculation

The value of the water and sewer systems was calculated based upon the actual cost of capital assets for each system less depreciation, long-term debt and grant funds utilized to fund capital projects. As acceptable in good engineering judgment and generally accepted accounting practices, the value of grant funding has been depreciated along with the assets. Using the buy-in method, net depreciated asset value is divided by the total treatment capacity for water or sewer treatment for each respective fund. The previously shown formula for calculation of the System Development Fee (SDF) is presented as:

$$\text{SDF} = \frac{\text{Net Depreciated Asset Value}}{\text{Total System Capacity}}$$

By utilizing the above formula for each system, the resultant updated System Development Fees calculate to be:

Water System Fee \$28,106,411/5,500,000 GPD* = **\$5.11/ GPD***

Sewer System Fee \$44,535,350/6,500,000 GPD* = **\$6.85/ GPD***

New Bern System Development Fee Evaluation Update

* gallons per day

8.0 Conversion Table

Flow rates for water and sewer shall be determined in accordance with flow rates established in Chapter 15A of the North Carolina Administrative Code, Subchapter 2T .0114(b) and (c), included as Appendix E except for the following previously established by the City of New Bern:

<i>Description</i>	<i>Quantity</i>
<i>General Commercial Buildings</i>	<i>Lesser of 100 GPD per 1,000 SQ. FT. of floor space or 100 GPD per fixture</i>
<i>Restaurants</i>	<i>300 GPD per 1,000 SQ. FT. of floor space</i>
<i>Residential</i>	<i>85 GPD per Bedroom</i>
<i>Hotels, Motels, Bed & Breakfasts</i>	<i>65 GPD per Bedroom</i>
<i>Convalescent, Nursing, and Rest Homes</i>	<i>65 GPD per Bedroom</i>

Definitions:

General Commercial Buildings shall be defined as follows:

- *General business and office facilities*
- *Churches, with or without kitchens, day care or camps*
- *Shopping centers and malls with food service*
- *Stores and shopping centers without food service*
- *Medical, dental, or veterinary offices*
- *Barber and beauty shops*
- *Schools, preschools, or daycares*
- *Service stations or gas stations*

Restaurant shall be defined as follows:

- *Banquet, dining halls*
- *Bars, cocktail lounges*
- *Caterers*
- *Restaurant, full service*
- *Deli*
- *Bakery*
- *Butcher shop*
- *Fish market*

New Bern System Development Fee Evaluation Update

9.0 REFERENCES

- ¹ General Assembly of North Carolina – Session 2017; Session Law 2017-138; House Bill 436; (Pg. 2, 3) §162A-205. Supporting analysis; 2), 4), 5), 6), 7), 8).
- ² American Water Works Association, 7th Edition 2017; M1 Manual; Chapter VII.2, System Development Charges; APPROACHES TO CALCULATING SDCs; Basic Approaches; pp. 329-330; 1., 2., 3.
- ³ General Assembly of North Carolina – Session 2017; Session Law 2017-138; House Bill 436, (Pg 3) §162A-211. Use and administration of revenue; (b).
- ⁴ American Water Works Association, 7th Edition 2017; M1 Manual; Chapter VII.2, System Development Charges; EXAMPLES OF SDC METHODOLOGIES; Buy-in Method; p. 332; 2.
- ⁵ North Carolina Department of State Treasurer; Policy Manual for Local Governments; Section 20: Capital Assets; Revision Issues: August 2014
- ⁶ City of New Bern, North Carolina; Comprehensive Annual Financial Report; Year End June 30, 2022; NOTES TO FINANCIAL STATEMENTS; NOTE 1.N; p. 28.
- ⁷ North Carolina Department of State Treasurer; Policy Manual for Local Governments; Section 20: Capital Assets; Revision Issues: August 2014; p. 1.
- ⁸ North Carolina Department of State Treasurer; Policy Manual for Local Governments; Section 20: Capital Assets; Revision Issues: August 2014; Part V – Depreciation and Amortization; pp. 29-30.

APPENDIX A

NC House Bill 436

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2017**

**SESSION LAW 2017-138
HOUSE BILL 436**

AN ACT TO PROVIDE FOR UNIFORM AUTHORITY TO IMPLEMENT SYSTEM DEVELOPMENT FEES FOR PUBLIC WATER AND SEWER SYSTEMS IN NORTH CAROLINA AND TO CLARIFY THE APPLICABLE STATUTE OF LIMITATIONS.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 162A of the General Statutes is amended by adding a new Article to read:

"Article 8.

"System Development Fees.

"§ 162A-200. Short title.

This Article shall be known and may be cited as the "Public Water and Sewer System Development Fee Act."

"§ 162A-201. Definitions.

The following definitions apply in this Article:

- (1) Capital improvement. – A planned facility or expansion of capacity of an existing facility other than a capital rehabilitation project necessitated by and attributable to new development.
- (2) Capital rehabilitation project. – Any repair, maintenance, modernization, upgrade, update, replacement, or correction of deficiencies of a facility, including any expansion or other undertaking to increase the preexisting level of service for existing development.
- (3) Existing development. – Land subdivisions, structures, and land uses in existence at the start of the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee.
- (4) Facility. – A water supply, treatment, storage, or distribution facility, or a wastewater collection, treatment, or disposal facility, including for reuse or reclamation of water, owned or operated, or to be owned or operated, by a local governmental unit and land associated with such facility.
- (5) Local governmental unit. – Any political subdivision of the State that owns or operates a facility, including those owned or operated pursuant to local act of the General Assembly or pursuant to Part 2 of Article 2 of Chapter 130A, Article 15 of Chapter 153A, Article 16 of Chapter 160A, or Articles 1, 4, 5, 5A, or 6 of Chapter 162A of the General Statutes.
- (6) New development. – Any of the following occurring after the date a local government begins the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee, which increases the capacity necessary to serve that development:
 - a. The subdivision of land.
 - b. The construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure which increases the number of service units.
 - c. Any use or extension of the use of land which increases the number of service units.
- (7) Service. – Water or sewer service, or water and sewer service, provided by a local governmental unit.
- (8) Service unit. – A unit of measure, typically an equivalent residential unit, calculated in accordance with generally accepted engineering or planning standards.

- (9) System development fee. – A charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs, as provided in this Article. The term includes amortized charges, lump-sum charges, and any other fee that functions as described by this definition regardless of terminology. The term does not include any of the following:
- a. A charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development.
 - b. Tap or hookup charges for the purpose of reimbursing the local governmental unit for the actual cost of connecting the service unit to the system.
 - c. Availability charges.
 - d. Dedication of capital improvements on-site, adjacent, or ancillary to a development absent a written agreement providing for credit or reimbursement to the developer pursuant to G.S. 153A-280, 153A-451, 160A-320, 160A-499 or Part 3A of Article 18, Chapter 153A or Part 3D of Article 19, Chapter 160A of the General Statutes.
 - e. Reimbursement to the local governmental unit for its expenses in constructing or providing for water or sewer utility capital improvements adjacent or ancillary to the development if the owner or developer has agreed to be financially responsible for such expenses; however, such reimbursement shall be credited to any system development fee charged as set forth in G.S. 162A-207(c).
- (10) System development fee analysis. – An analysis meeting the requirements of G.S. 162A-205.

"§ 162A-202. Reserved.

"§ 162A-203. Authorization of system development fee.

(a) A local governmental unit may adopt a system development fee for water or sewer service only in accordance with the conditions and limitations of this Article.

(b) A system development fee adopted by a local governmental unit under any lawful authority other than this Article and in effect on October 1, 2017, shall be conformed to the requirements of this Article not later than July 1, 2018.

"§ 162A-204. Reserved.

"§ 162A-205. Supporting analysis.

A system development fee shall be calculated based on a written analysis, which may constitute or be included in a capital improvements plan, that:

- (1) Is prepared by a financial professional or a licensed professional engineer qualified by experience and training or education to employ generally accepted accounting, engineering, and planning methodologies to calculate system development fees for public water and sewer systems.
- (2) Documents in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.
- (3) Employs generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of this Article.
- (4) Documents and demonstrates the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.
- (5) Identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of conclusions reached.
- (6) Calculates a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
- (7) Covers a planning horizon of not less than 10 years nor more than 20 years.

- (8) Is adopted by resolution or ordinance of the local governmental unit in accordance with G.S. 162A-209.

"§ 162A-206. Reserved.

"§ 162A-207. Minimum requirements.

(a) Maximum. – A system development fee shall not exceed that calculated based on the system development fee analysis.

(b) Revenue Credit. – In applying the incremental cost or marginal cost, or the combined cost, method to calculate a system development fee with respect to water or sewer capital improvements, the system development fee analysis must include as part of that methodology a credit against the projected aggregate cost of water or sewer capital improvements. That credit shall be determined based upon generally accepted calculations and shall reflect a deduction of either the outstanding debt principal or the present value of projected water and sewer revenues received by the local governmental unit for the capital improvements necessitated by and attributable to such new development, anticipated over the course of the planning horizon. In no case shall the credit be less than twenty-five percent (25%) of the aggregate cost of capital improvements.

(c) Construction or Contributions Credit. – In calculating the system development fee with respect to new development, the local governmental unit shall credit the value of costs in excess of the development's proportionate share of connecting facilities required to be oversized for use of others outside of the development. No credit shall be applied, however, for water or sewer capital improvements on-site or to connect new development to water or sewer facilities.

"§ 162A-208. Reserved.

"§ 162A-209. Adoption and periodic review.

(a) For not less than 45 days prior to considering the adoption of a system development fee analysis, the local governmental unit shall post the analysis on its Web site and solicit and furnish a means to submit written comments, which shall be considered by the preparer of the analysis for possible modifications or revisions.

(b) After expiration of the period for posting, the governing body of the local governmental unit shall conduct a public hearing prior to considering adoption of the analysis with any modifications or revisions.

(c) The local governmental unit shall publish the system development fee in its annual budget or rate plan or ordinance. The local governmental unit shall update the system development fee analysis at least every five years.

"§ 162A-210. Reserved.

"§ 162A-211. Use and administration of revenue.

(a) Revenue from system development fees calculated using the incremental cost method or marginal cost method, exclusively or as part of the combined cost method, shall be expended only to pay:

- (1) Costs of constructing capital improvements including, and limited to, any of the following:

- a. Construction contract prices.
- b. Surveying and engineering fees.
- c. Land acquisition cost.
- d. Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local governmental unit to finance any costs for an item listed in sub-subdivisions a. through c. of this subdivision.

- (2) Professional fees incurred by the local governmental unit for preparation of the system development fee analysis.

- (3) If no capital improvements are planned for construction within five years or the foregoing costs are otherwise paid or provided for, then principal and interest on bonds, notes, or other obligations issued by or on behalf of a local governmental unit to finance the construction or acquisition of existing capital improvements.

(b) Revenue from system development fees calculated using the buy-in method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects. The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.

(c) A local governmental unit may pledge a system development fee as security for the payment of debt service on a bond, note, or other obligation subject to compliance with the foregoing limitations.

(d) System development fee revenues shall be accounted for by means of a capital reserve fund established pursuant to Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure of funds in accordance with this section.

"§ 162A-212. Reserved.

"§ 162A-213. Time for collection of system development fees.

For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit either at the time of plat recordation or when water or sewer service for the subdivision or other development is committed by the local governmental unit. For all other new development, the local governmental unit shall collect the system development fee at the time of application for connection of the individual unit of development to the service or facilities.

"§ 162A-214. Reserved.

"§ 162A-215. Narrow construction.

Notwithstanding G.S. 153A-4 and G.S. 160A-4, in any judicial action interpreting this Article, all powers conferred by this Article shall be narrowly construed to ensure that system development fees do not unduly burden new development."

SECTION 2. G.S. 130A-64 reads as rewritten:

"§ 130A-64. Service charges and rates.

(a) A sanitary district board shall apply service charges and rates based upon the exact benefits derived. These service charges and rates shall be sufficient to provide funds for the maintenance, adequate depreciation and operation of the work of the district. If reasonable, the service charges and rates may include an amount sufficient to pay the principal and interest maturing on the outstanding bonds and, to the extent not otherwise provided for, bond anticipation notes of the district. Any surplus from operating revenues shall be set aside as a separate fund to be applied to the payment of interest on or to the retirement of bonds or bond anticipation notes. The sanitary district board may modify and adjust these service charges and rates.

(b) The district board may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 3. G.S. 153A-277 reads as rewritten:

"§ 153A-277. Authority to fix and enforce rates.

(a) A county may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by a public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary for the same class of service in different areas of the county and may vary according to classes of service, and different schedules may be adopted for services provided outside of the county. A county may include a fee relating to subsurface discharge wastewater management systems and services on the property tax bill for the real property where the system for which the fee is imposed is located.

...
(a2) A county may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes.
...."

SECTION 4.(a) G.S. 160A-314 reads as rewritten:

"§ 160A-314. Authority to fix and enforce rates.

(a) A city may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

...
(e) A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 4.(b) G.S. 160A-317 is amended by adding a new subsection to read:

"(a4) System Development Fees. – A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 5.(a) G.S. 162A-6(a) is amended by adding a new subdivision to read:

"(9a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 5.(b) G.S. 162A-9 is amended by adding a new subsection to read:

"(a5) An authority may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(a) G.S. 162A-36(a) is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(b) G.S. 162A-49 reads as rewritten:

"§ 162A-49. Rates and charges for services.

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of land for the services furnished or to be furnished by any water system or sewerage system or both. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the water system or sewerage system or both, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the water system or the sewerage system or both, the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(a) G.S. 162A-69 is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(b) G.S. 162A-72 reads as rewritten:

"§ 162A-72. Rates and charges for services.

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of and for the services furnished or to be furnished by any sewerage system. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the sewerage system, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the sewerage system the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 8. G.S. 162A-85.13 is amended by adding a new subsection to read:

"(a1) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 9. G.S. 162A-88 reads as rewritten:

"§ 162A-88. District is a municipal corporation.

(a) The inhabitants of a county water and sewer district created pursuant to this Article are a body corporate and politic by the name specified by the board of commissioners. Under that name they are vested with all the property and rights of property belonging to the corporation; have perpetual succession; may sue and be sued; may contract and be contracted with; may acquire and hold any property, real and personal, devised, sold, or in any manner conveyed, dedicated to, or otherwise acquired by them, and from time to time may hold, invest, sell, or dispose of the same; may have a common seal and alter and renew it at will; may establish, revise

and collect rates, fees or other charges and penalties for the use of or the services furnished or to be furnished by any sanitary sewer system, water system or sanitary sewer and water system of the district; and may exercise those powers conferred on them by this Article.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 10.(a) G.S. 1-52(15) reads as rewritten:

"(15) For the recovery of taxes paid as provided in ~~G.S. 105-381~~ G.S. 105-381 or for the recovery of an unlawful fee, charge, or exaction collected by a county, municipality, or other unit of local government for water or sewer service or water and sewer service."

SECTION 10.(b) This section is to clarify and not alter G.S. 1-52.

SECTION 11. Sections 1 through 9 of this act become effective October 1, 2017, and apply to system development fees imposed on or after that date. Section 10 of this act, being a clarifying amendment, has retroactive effect and applies to claims accrued or pending prior to and after the date that section becomes law. Nothing in this act provides retroactive authority for any system development fee, or any similar fee for water or sewer services to be furnished, collected by a local governmental unit prior to October 1, 2017. The remainder of this act is effective when it becomes law and applies to claims accrued or pending prior to and after that date.

In the General Assembly read three times and ratified this the 29th day of June, 2017.

s/ Daniel J. Forest
President of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Roy Cooper
Governor

Approved 4:13 p.m. this 20th day of July, 2017

APPENDIX B

Excerpts from CAFR 2022

CITY OF NEW BERN
North Carolina



NEW BERN



CITY OF NEW BERN

ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the Year Ended June 30, 2022

Prepared by:
City of New Bern Finance Department

Submitted by:
Kimberly A. Ostrom
Director of Finance

K. Interfund Receivables and Payables

Activity between funds that is representative of lending/borrowing arrangements outstanding at the end of the fiscal year as well as all other outstanding balances between funds are reported as "due to/from other funds." Any residual balances outstanding between the governmental activities and business-type activities are reported in the government wide financial statements as "internal balances."

L. Inventories

All inventories are valued at average cost using the first-in/first-out (FIFO) method. Inventories of governmental funds are recorded as expenditures when consumed rather than when purchased. Inventories of the enterprise funds are recorded as expenses when consumed rather than when purchased.

M. Prepaid Items

Payments made to vendors for services that will benefit periods beyond June 30, 2022, are recorded as prepaid items in both government-wide and fund financial statements. The City made a deposit on a fire truck that is classified as prepaid expenses.

N. Capital Assets

Capital assets, which include property, plant, equipment, infrastructure assets (e.g. roads, bridges, sidewalks, and similar items), and intangible assets are reported in the applicable governmental or business-type activities column in the government-wide financial statements. Capital assets are defined by the City as assets with an initial estimated useful life in excess of two years and individual cost capitalization thresholds as follows: land of more than \$1, infrastructure of more than \$100,000; building and land improvements of greater than \$25,000; and equipment of more than \$5,000. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets received prior to June 30, 2015 are recorded at their estimated fair value at the date of donation. Donated capital assets received after June 30, 2015 are recorded at acquisition value. The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

Capital assets are depreciated using the straight-line method over the following useful lives to cost of the assets:

Buildings	25-60 years
Improvements	20-50 years
Infrastructure	30-50 years
Plants and distribution systems	30-50 years
Vehicles and service equipment	3-10 years
Furniture and equipment	5-10 years

O. Right to Use Assets

The City has recorded right to use lease assets as a result of implementing GASB 87. The right to use assets are initially measured at an amount equal to the initial measurement of the related lease liability plus any lease payments made prior to the lease term, less lease incentives, and plus ancillary charges necessary to place the lease into service. The right to use assets are amortized on a straight-line basis over the life of the related lease.

Water Fund	<u>Beginning</u> <u>Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending</u> <u>Balances</u>
Capital assets not being depreciated:					
Land	\$ 852,479	\$ -	\$ -	\$ -	\$ 852,479
Construction in progress	776,924	201,243	(376,395)	-	601,772
Total capital assets not being depreciated	1,629,403	201,243	(376,395)	-	1,454,251
Capital assets being depreciated:					
Buildings	35,655,357	12,997	-	(220,756)	35,447,598
Equipment	5,469,347	31,366	(1,970)	695,169	6,193,912
Furniture and fixtures	7,731	-	(3,843)	-	3,888
Distribution systems	26,475,622	363,997	-	(474,413)	26,365,206
Vehicles	1,023,219	130,849	-	(26,759)	1,127,309
Total capital assets being depreciated	68,631,276	539,209	(5,813)	(26,759)	69,137,913
Less accumulated depreciation for:					
Buildings	(8,890,834)	(965,630)	-	132,505	(9,723,959)
Equipment	(1,795,494)	(102,936)	1,970	(379,821)	(2,276,281)
Furniture and fixtures	(7,731)	-	3,843	-	(3,888)
Distribution systems	(11,646,082)	(566,284)	-	247,316	(11,965,050)
Vehicles	(876,540)	(70,040)	-	26,759	(919,821)
Total accumulated depreciation	(23,216,681)	\$ (1,704,890)	\$ 5,813	\$ 26,759	(24,888,999)
Total capital assets being depreciated, net	45,414,595				44,248,914
Water Fund capital assets, net	\$ 47,043,998				\$ 45,703,165
Sewer Fund	<u>Beginning</u> <u>Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending</u> <u>Balances</u>
Capital assets not being depreciated:					
Land	\$ 12,389,511	\$ 14,469	\$ -	\$ -	\$ 12,403,980
Construction in progress	1,773,287	439,786	(1,194,821)	-	1,018,252
Total capital assets not being depreciated	14,162,798	454,255	(1,194,821)	-	13,422,232
Capital assets being depreciated:					
Buildings	40,575,063	556,098	-	-	41,131,161
Equipment	4,153,582	342,083	(35,223)	-	4,460,442
Furniture and fixtures	89,039	-	(12,824)	-	76,215
Distribution systems	42,393,208	890,022	-	-	43,283,230
Vehicles	2,045,562	495,587	(153,993)	(22,777)	2,364,379
Total capital assets being depreciated	89,256,454	2,283,790	(202,040)	(22,777)	91,315,427
Less accumulated depreciation for:					
Buildings	(21,922,681)	(1,115,157)	-	-	(23,037,838)
Equipment	(3,017,684)	(219,123)	34,531	-	(3,202,276)
Furniture and fixtures	(78,725)	(8,250)	12,824	-	(74,151)
Distribution systems	(13,061,627)	(859,976)	-	-	(13,921,603)
Vehicles	(1,664,196)	(128,931)	153,993	22,777	(1,616,357)
Total accumulated depreciation	(39,744,913)	\$ (2,331,437)	\$ 201,348	\$ 22,777	(41,852,225)
Total capital assets being depreciated, net	49,511,541				49,463,202
Sewer Fund capital assets, net	\$ 63,674,339				\$ 62,885,434

In the event of default the entire outstanding principal and interest is immediately payable, and the bank may proceed with additional options as legally allowed.

Future minimum payments as of June 30, 2022 for the installment purchase contracts are as follows:

For the Year Ending June 30	Governmental Activities		Business-Type Activities	
	Principal	Interest	Principal	Interest
2023	\$ 1,854,254	\$ 215,254	\$ 465,364	\$ 24,850
2024	1,475,589	166,739	333,210	14,406
2025	1,123,531	134,256	186,377	7,339
2026	1,131,690	108,689	186,377	3,145
2027	890,156	82,991	-	-
2028-2032	2,133,341	163,261	-	-
2033-2037	507,333	137,934	-	-
Total	<u>\$ 9,115,894</u>	<u>\$ 1,009,124</u>	<u>\$ 1,171,328</u>	<u>\$ 49,740</u>

c. Notes Payable

The City has various note payable agreements with the State outstanding for water and sewer distribution expansion and improvement projects. In the event of a default the entire outstanding principal and interest are immediately payable, additional action may be taken as legally allowed. The outstanding balances for the notes as of June 30, 2022 are as follows:

Business-Type activities:	Balance as of June 30, 2022
A direct borrowing note issued by North Carolina Department of Environment and Natural Resources for \$20,110,036 was issued in February 2003 with variable semi-annual payments for a wastewater treatment plant expansion. The note bears an interest rate of 2.57% and matures in 2023.	\$ 1,265,017
A direct borrowing note issued by North Carolina Department of Environment and Natural Resources for \$1,351,452 was issued in March 2003 with variable semi-annual payments for wastewater treatment plant expansion. The note bears an interest rate of 2.66% and matures in 2024.	135,145
A direct borrowing note issued by North Carolina Department of Environment and Natural Resources for \$33,606,624 was issued in July 2010 with variable semi-annual payments of \$1,680,331 for water treatment plant expansion. The note bears an interest rate of 2.27% and matures in 2030.	13,442,650
Total outstanding notes payable:	<u>\$ 14,842,812</u>

The debt service to maturity on the notes payable is as follows:

Year Ending June 30,	Principal	Interest	Total
2023	\$ 3,012,921	\$ 340,582	\$ 3,353,503
2024	1,747,904	268,214	2,016,118
2025	1,680,331	228,357	1,908,688
2026	1,680,331	190,298	1,870,629
2027	1,680,331	152,238	1,832,569
2028-2032	5,040,994	228,357	5,269,351
Total:	<u>\$ 14,842,812</u>	<u>\$ 1,408,046</u>	<u>\$ 16,250,858</u>

APPENDIX C

Water Fund Asset, Depreciation, Debt Credit and Grant Summary

with Asset Audit

Water Asset Valuation

Non-depreciable Capital Assets		
	Land	852,479.00
	Construction in Progress	601,772.00
	Subtotal	1,454,251.00
Depreciable Assets		
	Buildings, Treatment Equipment	35,447,598.00
	Distribution Systems	26,365,206.00
	Subtotal	61,812,804.00
	Total Asset Valuation	63,267,055.00
Less Accumulated Depreciation		
	Buildings, Treatment Equipment	(9,723,959.00)
	Distribution Systems	(11,965,050.00)
	Subtotal	(21,689,009.00)
Less Debt Credits, Grants, etc		
	Debt for Water Plant Expansion	(13,442,650.00)
	Water Treatment Project Grant	(39,990.00)
	Subtotal	(13,482,640.00)
	Total Asset Deductions	(35,171,649.00)
Plus Depreciated Grants	Water Treatment Project Grant Depreciation	11,005.08
	Net Depreciated Asset Value	28,106,411.08

APPENDIX D

Sewer Fund Asset, Depreciation, Debt Credit and Grant Summary with Asset Audit

Sewer Asset Valuation

Non-depreciable Capital Assets		
	Land	12,403,980
	Construction in Progress	1,018,252
	Subtotal	13,422,232
Depreciable Assets		
	Buildings, Treatment Equipment	41,131,161
	Distribution Systems	43,283,230
	Subtotal	84,414,391
	Total Asset Valuation	97,836,623
Less Accumulated Depreciation		
	Buildings, Treatment Equipment	(23,037,838)
	Distribution Systems	(13,921,603)
	Subtotal	(36,959,441)
Less Debt Credits, Grants, etc		
	February 2003 WWTP Debt	(1,265,017)
	March 2003 WWTP Debt	(135,145)
	Trent Woods Sewer Construction	(8,105,483)
	Wastewater Improvements (Quarry Project) Grant	(8,930,624)
	Waste Treatment Plant Upgrade Grant	(500,000)
	Subtotal	(18,936,269)
	Total Asset Deductions	(55,895,710)
Plus Depreciated Grants	Trent Woods Sewer Construction	2,269,535
	Wastewater Improvements (Quarry Project) Grant	99,776
	Waste Treatment Plant Upgrade Grant	225,125
	Subtotal	2,594,437
	Net Depreciated Asset Value	44,535,350

APPENDIX E

Flow Rate Determination, 15A NC AC Subchapter 2T .0114

15A NCAC 02T .0114 WASTEWATER DESIGN FLOW RATES

(a) This Rule shall be used to determine wastewater flow rates for all systems governed by this Subchapter unless alternate criteria are provided by a program-specific rule or for flow used for the purposes of 15A NCAC 02H .0105. Higher flow rates shall be required where usage and occupancy are atypical, including those in Paragraph (e) of this Rule. Wastewater flow calculations shall take hours of operation and anticipated maximum occupancies and usage into account when calculating peak flows for design.

(b) In determining the volume of sewage from dwelling units, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms shall increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.

(c) The following table shall be used to determine the minimum allowable design daily flow of wastewater facilities. Design flow rates for establishments not identified below shall be determined using available flow data, water-using fixtures, occupancy or operation patterns, and other measured data.

Type of Establishments	Daily Flow For Design
Barber and beauty shops	
Barber Shops	50 gal/chair
Beauty Shops	125 gal/booth or bowl
Businesses, offices and factories	
General business and office facilities	25 gal/employee/shift
Factories, excluding industrial waste	25 gal/employee/shift
Factories or businesses with showers or food preparation	35 gal/employee/shift
Warehouse	100 gal/loading bay
Warehouse – self storage (not including caretaker residence)	1 gal/unit
Churches	
Churches without kitchens, day care or camps	3 gal/seat
Churches with kitchen	5 gal/seat
Churches providing day care or camps	25 gal/person (child & employee)
Fire, rescue and emergency response facilities	
Fire or rescue stations without on site staff	25 gal/person
Fire or rescue stations with on-site staff	50 gal/person/shift
Food and drink facilities	
Banquet, dining hall	30 gal/seat
Bars, cocktail lounges	20 gal/seat
Caterers	50 gal/100 sq ft floor space
Restaurant, full Service	40 gal/seat
Restaurant, single service articles	20 gal/seat
Restaurant, drive-in	50 gal/car space
Restaurant, carry out only	50 gal/100 sq ft floor space
Institutions, dining halls	5 gal/meal
Deli	40 gal/100 sq ft floor space
Bakery	10 gal/100 sq ft floor space
Meat department, butcher shop or fish market	75 gal/100 sq ft floor space
Specialty food stand or kiosk	50 gal/100 sq ft floor space
Hotels and Motels	
Hotels, motels and bed & breakfast facilities, without in-room cooking facilities	120 gal/room
Hotels and motels, with in-room cooking facilities	175 gal/room
Resort hotels	200 gal/room
Cottages, cabins	200 gal/unit
Self service laundry facilities	500 gal/machine
Medical, dental, veterinary facilities	
Medical or dental offices	250 gal/practitioner/shift
Veterinary offices (not including boarding)	250 gal/practitioner/shift

Veterinary hospitals, kennels, animal boarding facilities	20 gal/pen, cage, kennel or stall
Hospitals, medical	300 gal/bed
Hospitals, mental	150 gal/bed
Convalescent, nursing, rest homes without laundry facilities	60 gal/bed
Convalescent, nursing, rest homes with laundry facilities	120 gal/bed
Residential care facilities	60 gal/person
Parks, recreation, camp grounds, R-V parks and other outdoor activity facilities	
Campgrounds with comfort station, without water or sewer hookups	75 gal/campsite
Campgrounds with water and sewer hookups	100 gal/campsite
Campground dump station facility	50 gal/space
Construction, hunting or work camps with flush toilets	60 gal/person
Construction, hunting or work camps with chemical or portable toilets	40 gal/person
Parks with restroom facilities	250 gal/plumbing fixture
Summer camps without food preparation or laundry facilities	30 gal/person
Summer camps with food preparation and laundry facilities	60 gal/person
Swimming pools, bathhouses and spas	10 gal/person
Public access restrooms	325 gal/plumbing fixture
Schools, preschools and day care	
Day care and preschool facilities	25 gal/person (child & employee)
Schools with cafeteria, gym and showers	15 gal/student
Schools with cafeteria	12 gal/student
Schools without cafeteria, gym or showers	10 gal/student
Boarding schools	60 gal/person (student & employee)
Service stations, car wash facilities	
Service stations, gas stations	250 gal/plumbing fixture
Car wash facilities	1200 gal/bay
Sports centers	
Bowling center	50 gal/lane
Fitness, exercise, karate or dance center	50 gal/100 sq ft
Tennis, racquet ball	50 gal/court
Gymnasium	50 gal/100 sq ft
Golf course with only minimal food service	250 gal/plumbing fixture
Country clubs	60 gal/member or patron
Mini golf, putt-putt	250 gal/plumbing fixture
Go-kart, motocross	250 gal/plumbing fixture
Batting cages, driving ranges	250 gal/plumbing fixture
Marinas without bathhouse	10 gal/slip
Marinas with bathhouse	30 gal/slip
Video game arcades, pool halls	250 gal/plumbing fixture
Stadiums, auditoriums, theaters, community centers	5 gal/seat
Stores, shopping centers, malls and flea markets	
Auto, boat, recreational vehicle dealerships/showrooms with restrooms	125 gal/plumbing fixture
Convenience stores, with food preparation	60 gal/100 sq ft
Convenience stores, without food preparation	250 gal/plumbing fixture
Flea markets	30 gal/stall
Shopping centers and malls with food service	130 gal/1000 sq ft
Stores and shopping centers without food service	100 gal/1000 sq ft
Transportation terminals – air, bus, train, ferry, port and dock	5 gal/passenger

(d) Design daily flow rates for proposed non-residential developments where the types of use and occupancy are not known shall be designed for a minimum of 880 gallons per acre, or the applicant shall specify an anticipated flow based upon anticipated or potential uses.

(e) Design daily flow rates for residential property on barrier islands and similar communities located south or east of the Atlantic Intracoastal Waterway and used as vacation rental as defined in G.S. 42A-4 shall be 120 gallons per day per habitable room. Habitable room shall mean a room or enclosed floor space used or intended to be used for living or sleeping, excluding kitchens and dining areas, bathrooms, shower rooms, water closet compartments, laundries, pantries, foyers, connecting corridors, closets, and storage spaces.

(f) An adjusted daily sewage flow design rate shall be granted for permitted but not yet tributary connections and future connections tributary to the system upon showing that the capacity of a sewage system is adequate to meet actual daily wastewater flows from a facility included in Paragraph (b) or (c) of this Rule without causing flow violations at the receiving wastewater treatment plant or capacity-related sanitary sewer overflows within the collection system as follows:

- (1) Documented, representative data from that facility or a comparable facility shall be submitted by an authorized signing official in accordance with Rule .0106 of this Section to the Division for all flow reduction requests, as follows:
 - (A) dates of flow meter calibrations during the time frame evaluated and indication if any adjustments were necessary;
 - (B) a breakdown of the type of connections (e.g. two bedroom units, three bedroom units) and number of customers for each month of submitted data as applicable. Identification of any non-residential connections including subdivision clubhouses and pools, restaurants, schools, churches and businesses. For each non-residential connection, information identified in Paragraph (c) of this Rule (e.g. 200 seat church, 40 seat restaurant, 35 person pool bathhouse);
 - (C) a letter of agreement from the owner or an official, meeting the criteria of Rule .0106 of this Section, of the receiving collection system or treatment works accepting the wastewater and agreeing with the adjusted design rate;
 - (D) age of the collection system;
 - (E) analysis of inflow and infiltration within the collection system or receiving treatment plant, as applicable;
 - (F) if a dedicated wastewater treatment plant serves the specific area and is representative of the residential wastewater usage, at least the 12 most recent consecutive monthly average wastewater flow readings and the daily total wastewater flow readings for the highest average wastewater flow month per customers, as reported to the Division;
 - (G) if daily data from a wastewater treatment plant cannot be used or is not representative of the project area: 12 months worth of monthly average wastewater flows from the receiving treatment plant shall be evaluated to determine the peak sewage month. Daily wastewater flows shall then be taken from a flow meter installed at the most downstream point of the collection area for the peak month selected that is representative of the project area. Justification for the selected placement of the flow meter shall also be provided; and
 - (H) an estimated design daily sewage flow rate shall be determined by calculating the numerical average of the top three daily readings for the highest average flow month. The calculations shall also account for seasonal variations, excessive inflow and infiltration, age and suspected meter reading and recording errors.
- (2) The Division shall evaluate all data submitted but shall also consider other factors in granting, with or without adjustment, or denying a flow reduction request including: applicable weather conditions during the data period (i.e. rainy or drought), other historical monitoring data for the particular facility or other similar facilities available to the Division, the general accuracy of monitoring reports and flow meter readings, and facility usage, such as whether the facility is in a resort area.
- (3) Flow increases shall be required if the calculations required by Subparagraph (f)(1) of this Rule yield design flows higher than that specified in Paragraphs (b) or (c) of this Rule.
- (4) The permittee shall retain the letter of any approved adjusted daily design flow rate for the life of the facility and shall transfer such letter to a future permittee.

*History Note: Authority G.S. 143-215.1; 143-215.3(a)(1);
Eff. September 1, 2006;
Readopted Eff. September 1, 2018.*

APPENDIX F

Capital Asset Grant Depreciation by Fund

Fund	Project	Grant/Reim Amount	
4513	Trent Woods Sewer Construction	8,105,483	S0320
4511	Wastewater Improvement	8,930,624	*
4512	Wastewater Treatment Plant Upgrade	500,000	S0274
		<u>17,536,107</u>	

Total Assets Value	Grant Proceeds as a % of Asset	Total Accum Depr on Asset	Accum Depr on Grant by %	Accum Depr on Grant by Useful Life
11,131,589	72.82%	3,116,845	2,269,535	2,269,535
10,651,296	83.85%	119,000	99,776	99,776
20,631,581	2.42%	9,289,387	225,125	225,125
		Total		2,594,437

*Fund 4511					
	Asset	Accum Depr			
S0270	6,546,675	-	61.46%	5,489,087	
8-244-4000	2,625,961	-	24.65%	2,201,748	
S0556	30,000	-	0.28%	25,154	
S0262	119,000	119,000	1.12%	99,776	
S0612	422,470	-	3.97%	354,222	
8-242-096	907,191	-	8.52%	760,638	83.85%
	<u>10,651,296</u>	<u>119,000</u>	<u>100.00%</u>	<u>8,930,624</u>	

Fund
4313 Water Treatment Project

Grant/Reim Amount
39,990 W1028

Grant Proceeds as a		Total Accum Depr	Accum Depr on	Accum Depr on Grant
Total Assets Value	% of Asset	on Asset	Grant by %	by Useful Life
33,000,750	0.12%	9,081,668	11,005	11,005

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting Ordinance to Restate the Schedule of Water Rates Applicable to Customers of the City of New Bern

Date of Meeting: 6/13/2023	Ward # if applicable: City wide
Department: Water Resources	Person Submitting Item: Jordan Hughes
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	The current water rates have remained unchanged since 2015, when the rates decreased by 6%. For FY2023-24, adjustments to the water rates will needed. The proposed revisions in the enclosed ordinance reflect an increase of \$1.67 per month in the readiness-to-serve portion of the water rate for all customers.
Actions Needed by Board:	Adopt an ordinance to restate the schedule of water rates for the customers of the City of New Bern.
Backup Attached:	Memo from J. Hughes, a red-line version of ordinance changes, and a clean version of the proposed ordinance.
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item: N/A
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



Department of Public Utilities
Water Resources
527 NC Highway 55 West, P.O. Box 1129
New Bern, NC 28563-1129
(252) 639-7526

MEMORANDUM

TO: Mayor and Board of Aldermen
FROM: Jordan B. Hughes P.E., City Engineer
DATE: May 25, 2023

SUBJECT: Recommendation to Restate the Schedule of Water Rates and Sewer Rates for the Water and Sewer Customers of the City of New Bern.

Background Information:

From 2010 to 2015, several adjustments were made within the organizational structure of the City of New Bern Water Resources divisions in efforts to increase the operational efficiencies of these divisions. Due to these adjustments, operational cost savings were realized, and these cost savings were passed along to customers in 2015 by way of across-the-board water and sewer rate decreases of 6.0% and 4.5% respectively.

From 2015 to 2021, the annual 2.5-3.5% percent growth in customer base supplied the additional revenue each year to keep pace with the rising operational costs, allowing the water and sewer rates to remain at the same level since 2015.

Over the past couple of years, the operational costs of the Water Resources divisions have seen steep increases as the cost of materials such as pipeline products, heavy equipment, brass components, and treatment chemicals have risen at rates much high than the CPI for other consumer goods. For certain items like treatment plant chemicals, the producer price index (PPI) has increased 150-200% since 2021.

In assembling the FY2023-24 budgets for the water and sewer funds it became apparent that revenue growth is being outpaced by rising operational costs and that adjustments to the water and sewer rates will be necessary. In order to meet the operational requirements of the Water Resources divisions in FY2023-24 and maintain adequate fund balance levels, City Staff is recommending revising the water rate ordinance to increase all of the readiness-to-serve charges by \$1.67 per month and to revise the sewer rate ordinance to increase all components of the sewer rates by 4.5%.

Below is a summary of how the proposed changes in the water and sewer rate ordinances will impact a typical water and sewer in New Bern with a monthly consumption of 4,000 gallons.

Monthly Charges	Existing	Proposed	Change
Water Charges	\$33.74	\$35.41	\$1.67
Sewer Charges	\$37.47	\$39.17	\$1.70
Total Charges	\$71.21	\$74.58	\$3.37

If approved, these proposed revisions to the water and sewer rate ordinances will become effective July 1, 2023.

Recommendation:

To meet the operational needs and fund balance requirements of the Water Resources divisions, staff is recommending that the Board of Aldermen adopt the enclosed ordinances to restate the schedules of water rates and sewer rates for the water and sewer customers of the City of New Bern

Attached please find "red-line" copies of the proposed ordinance revisions, along with a clean copies of the proposed ordinances.

Please contact me if there are any questions or if additional information should be required.

**AN ORDINANCE TO RESTATE THE SCHEDULE OF WATER RATES APPLICABLE
TO CUSTOMERS OF THE CITY OF NEW BERN**

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That there is hereby established, as one component of the water rates to be charged all water customers of the City of New Bern, monthly readiness-to-serve charges, based on the customer's water meter size and the customer's location: i.e. within or without the City of New Bern, as follows:

Effective with all billing beginning July 1, 2023

METER SIZE	<u>INSIDE THE CITY OF NEW BERN</u>	<u>OUTSIDE THE CITY OF NEW BERN</u>
5/8" & 3/4"	\$23.29	\$44.91
1" & 1 1/4"	\$55.72	\$109.77
1 1/2"	\$109.77	\$217.87
2"	\$174.63	\$347.59
3"	\$358.40	\$715.13
4"	\$591.90	\$1,182.12
6"	\$1,210.23	\$2,418.79
8"	\$1,828.56	\$3,655.45
10"	\$2,794.97	\$5,588.28

Section 2. That there are hereby established, as the second component of water rates to be charged all water customers of the City of New Bern, monthly commodity charges, i.e., rates per thousand gallons of water use, as follows:

Effective with all billing beginning July 1, 2023

Water Customers Located within the City Limits of the City of New Bern.	\$3.03	per 1,000 gallons (under 10,000 gallons)
Water Customers Located within the City Limits of the City of New Bern.	\$4.09	per 1,000 gallons (over 10,000 gallons)
Water Customers Located outside the City Limits of the City of New Bern.	\$6.06	per 1,000 gallons (under 10,000 gallons)
Water Customers Located outside the City Limits of the City of New Bern.	\$8.18	per 1,000 gallons (over 10,000 gallons)

Section 3. All contract rate terms which are based on the in-city rates are hereby changed in accordance with the terms of the contract and with the changes approved herein.

Section 4. That all Ordinances and Resolution heretofore adopted by the Board of Aldermen in fixing water rates to be charged to customers of the City of New Bern which are in conflict with the rates herein set forth be, and the same are hereby repealed.

Section 5. That this Ordinance shall be in full force and effect as of July 1, 2023.

ADOPTED THIS 13TH DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

**AN ORDINANCE TO RESTATE THE SCHEDULE OF WATER RATES APPLICABLE
TO CUSTOMERS OF THE CITY OF NEW BERN**

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That there is hereby established, as one component of the water rates to be charged all water customers of the City of New Bern, monthly readiness-to-serve charges, based on the customer's water meter size and the customer's location: i.e. within or without the City of New Bern, as follows:

Effective with all billing beginning July 1, ~~2015~~2023

METER SIZE	<u>INSIDE THE CITY OF NEW BERN</u>	<u>OUTSIDE THE CITY OF NEW BERN</u>
5/8" & 3/4"	\$21.62 <u>23.29</u>	\$43.24 <u>44.91</u>
1" & 1 1/4"	\$54.05 <u>55.72</u>	\$108.10 <u>109.77</u>
1 1/2"	\$108.10 <u>109.77</u>	\$216.20 <u>217.87</u>
2"	\$172.96 <u>174.63</u>	\$345.92 <u>347.59</u>
3"	\$356.73 <u>358.40</u>	\$713.46 <u>715.13</u>
4"	\$590.23 <u>591.90</u>	\$1,180.45 <u>1,182.12</u>
6"	\$1,208.56 <u>1,210.23</u>	\$2,417.12 <u>2,418.79</u>
8"	\$1,826.89 <u>1,828.56</u>	\$3,653.78 <u>3,655.45</u>
10"	\$2,793.30 <u>794.97</u>	\$5,586.61 <u>588.28</u>

Section 2. That there are hereby established, as the second component of water rates to be charged all water customers of the City of New Bern, monthly commodity charges, i.e., rates per thousand gallons of water use, as follows:

Effective with all billing beginning July 1, ~~2015~~2023

Water Customers Located within the City Limits of the City of New Bern.	\$3.03	per 1,000 gallons (under 10,000 gallons)
Water Customers Located within the City Limits of the City of New Bern.	\$4.09	per 1,000 gallons (over 10,000 gallons)
Water Customers Located outside the City Limits of the City of New Bern.	\$6.06	per 1,000 gallons (under 10,000 gallons)
Water Customers Located outside the City Limits of the City of New Bern.	\$8.18	per 1,000 gallons (over 10,000 gallons)

Section 3. All contract rate terms which are based on the in-city rates are hereby changed in accordance with the terms of the contract and with the changes approved herein.

Section 4. That all Ordinances and Resolution heretofore adopted by the Board of Aldermen in fixing water rates to be charged to customers of the City of New Bern which are in conflict with the rates herein set forth be, and the same are hereby repealed.

Section 5. That this Ordinance shall be in full force and effect as of July 1, ~~2015~~2023.

ADOPTED THIS ~~23RD~~13TH DAY OF JUNE, ~~2015~~2023

Mayor

~~Deputy~~ City Clerk

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting Ordinance to Restate the Schedule of Sewer Rates Applicable to Customers of the City of New Bern

Date of Meeting: 6/13/2023	Ward # if applicable: City wide
Department: Water Resources	Person Submitting Item: Jordan Hughes
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	The current sewer rates have remained unchanged since 2015, when the rates decreased by 4.5%. For FY2023-24, adjustments to the sewer rates will needed. The proposed revisions in the enclosed ordinance reflect an increase of 4.5% for all portions of the sewer rates.
Actions Needed by Board:	Adopt an ordinance to restate the schedule of sewer rates for the customers of the City of New Bern.
Backup Attached:	Memo from J. Hughes, a red-line version of ordinance changes, and a clean version of the proposed ordinance.
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item: N/A
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



Department of Public Utilities
Water Resources
527 NC Highway 55 West, P.O. Box 1129
New Bern, NC 28563-1129
(252) 639-7526

MEMORANDUM

TO: Mayor and Board of Aldermen
FROM: Jordan B. Hughes P.E., City Engineer
DATE: May 25, 2023

SUBJECT: Recommendation to Restate the Schedule of Water Rates and Sewer Rates for the Water and Sewer Customers of the City of New Bern.

Background Information:

From 2010 to 2015, several adjustments were made within the organizational structure of the City of New Bern Water Resources divisions in efforts to increase the operational efficiencies of these divisions. Due to these adjustments, operational cost savings were realized, and these cost savings were passed along to customers in 2015 by way of across-the-board water and sewer rate decreases of 6.0% and 4.5% respectfully.

From 2015 to 2021, the annual 2.5-3.5% percent growth in customer base supplied the additional revenue each year to keep pace with the rising operational costs, allowing the water and sewer rates to remain at the same level since 2015.

Over the past couple of years, the operational costs of the Water Resources divisions have seen steep increases as the cost of materials such as pipeline products, heavy equipment, brass components, and treatment chemicals have risen at rates much high than the CPI for other consumer goods. For certain items like treatment plant chemicals, the producer price index (PPI) has increased 150-200% since 2021.

In assembling the FY2023-24 budgets for the water and sewer funds it became apparent that revenue growth is being outpaced by rising operational costs and that adjustments to the water and sewer rates will be necessary. In order to meet the operational requirements of the Water Resources divisions in FY2023-24 and maintain adequate fund balance levels, City Staff is recommending revising the water rate ordinance to increase all of the readiness-to-serve charges by \$1.67 per month and to revise the sewer rate ordinance to increase all components of the sewer rates by 4.5%.

Below is a summary of how the proposed changes in the water and sewer rate ordinances will impact a typical water and sewer in New Bern with a monthly consumption of 4,000 gallons.

Monthly Charges	Existing	Proposed	Change
Water Charges	\$33.74	\$35.41	\$1.67
Sewer Charges	\$37.47	\$39.17	\$1.70
Total Charges	\$71.21	\$74.58	\$3.37

If approved, these proposed revisions to the water and sewer rate ordinances will become effective July 1, 2023.

Recommendation:

To meet the operational needs and fund balance requirements of the Water Resources divisions, staff is recommending that the Board of Aldermen adopt the enclosed ordinances to restate the schedules of water rates and sewer rates for the water and sewer customers of the City of New Bern

Attached please find "red-line" copies of the proposed ordinance revisions, along with a clean copies of the proposed ordinances.

Please contact me if there are any questions or if additional information should be required.

**AN ORDINANCE TO RESTATE THE SCHEDULE OF SEWER RATES APPLICABLE
TO CUSTOMERS OF THE CITY OF NEW BERN**

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That there is hereby established, as one component of the sewer rates to be charged all sewer customers of the City of New Bern, monthly readiness-to-serve charges, based on the customer's water meter size and the customer's location: i.e. within or without the City of New Bern, as follows:

Effective with all billing beginning July 1, 2023

METER SIZE	<u>INSIDE THE CITY OF NEW BERN</u>	<u>OUTSIDE THE CITY OF NEW BERN</u>
5/8" & 3/4"	\$15.41	\$30.82
1" & 1 1/4"	\$38.53	\$77.07
1 1/2"	\$77.07	\$154.13
2"	\$123.31	\$246.62
3"	\$254.31	\$508.63
4"	\$420.78	\$841.55
6"	\$861.60	\$1,723.21
8"	\$1,302.41	\$2,604.83
10"	\$1,991.39	\$3,982.78

Section 2. That there are hereby established, as the second component of sewer rates to be charged all sewer customers of the City of New Bern, monthly commodity charges, i.e., rates per thousand gallons of sewer use, as follows:

Effective with all billing beginning July 1, 2023

Sewer Customers Located within the City Limits of the City of New Bern.	\$5.94	per 1,000 gallons
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Sewer Customers Located outside the City Limits of the City of New Bern.	\$11.87	per 1,000 gallons
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Sewer Customers with Approved Sewer Meters Located within the City Limits of the City of New Bern.	\$7.43	per 1,000 gallons
---	---------------	--------------------------

**Sewer Customers with
Approved Sewer Meters
Located outside the City
Limits of the City of New
Bern.** **\$14.86 per 1,000 gallons**

Section 3. That there is hereby established, as the third component of the sewer rates to be charged to all sewer customers of the City of New Bern participating in the City of New Bern Pretreatment Program an allocation fee based on permitted flow, as follows:

- 1. An allocation fee of \$10.00 per gallon of additional permitted flow.**
- 2. Outside of the City of New Bern rates shall be 150% of the established rates.**
- 3. The Board of Aldermen may consider a reduction in allocation fees in excess of \$5,000 taking into consideration the economic impact and/or benefit to the City of New Bern as it relates to said increase.**

Section 4. That there is hereby established, as the forth component of the sewer rates to be charged to all sewer customers of the City of New Bern participating in the City of New Bern Pretreatment Program monthly pretreatment surcharges, i.e., rates per thousand gallons of sewer use, as follows:

**Sewer Customers Located in or out of the
City Limits of the City of New Bern.** **\$1.25 per 1,000 gallons**

Section 5. That there is hereby established, as a fifth component of the sewer rates to be charged to all sewer customers of the City of New Bern which have individual, sewer pump systems located on their property for the purpose of providing sewer service to the property, a monthly equipment replacement charge as follows:

**Sewer Customers with Individual Sewer
Pump Systems Located in or out of the
City Limits of the City of New Bern.** **\$8.70 per month**

Section 6. All contract rate terms which are based on in-city rates are hereby changed in accordance with the terms of the contract and the changes approved herein.

Section 7. That all Ordinances and Resolutions heretofore adopted by the Board of Aldermen in fixing sewer rates to be charged to customers of the City of New Bern which are in conflict with the rates herein set forth be, and the same are hereby repealed.

Section 2. The system development fees approved herein shall be reflected in the annual budget to be adopted by the Board of Aldermen of the City of New Bern for fiscal year 2023-2024.

ADOPTED THIS 13^h DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

**AN ORDINANCE TO RESTATE THE SCHEDULE OF SEWER RATES APPLICABLE
TO CUSTOMERS OF THE CITY OF NEW BERN**

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That there is hereby established, as one component of the sewer rates to be charged all sewer customers of the City of New Bern, monthly readiness-to-serve charges, based on the customer's water meter size and the customer's location: i.e. within or without the City of New Bern, as follows:

Effective with all billing beginning July 1, ~~2015~~2023

METER SIZE	<u>INSIDE THE CITY OF NEW BERN</u>	<u>OUTSIDE THE CITY OF NEW BERN</u>
5/8" & 3/4"	\$14.75 <u>15.41</u>	\$29.49 <u>30.82</u>
1" & 1 1/4"	\$36.87 <u>38.53</u>	\$73.75 <u>77.07</u>
1 1/2"	\$73.75 <u>77.07</u>	\$147.49 <u>154.13</u>
2"	\$118.00 <u>123.31</u>	\$236.00 <u>246.62</u>
3"	\$243.36 <u>254.31</u>	\$486.73 <u>508.63</u>
4"	\$402.66 <u>420.78</u>	\$805.31 <u>841.55</u>
6"	\$824.50 <u>861.60</u>	\$1,649.00 <u>1,723.21</u>
8"	\$1,246.33 <u>1,302.41</u>	\$2,492.66 <u>2,604.83</u>
10"	\$1,905.64 <u>1,991.39</u>	\$3,811.27 <u>3,982.78</u>

Section 2. That there are hereby established, as the second component of sewer rates to be charged all sewer customers of the City of New Bern, monthly commodity charges, i.e., rates per thousand gallons of sewer use, as follows:

Effective with all billing beginning July 1, ~~2015~~2023

Sewer Customers Located within the City Limits of the City of New Bern.	\$5.68 <u>5.94</u>	per 1,000 gallons
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Sewer Customers Located outside the City Limits of the City of New Bern.	\$11.36 <u>11.87</u>	per 1,000 gallons
--	---------------------------------	-------------------

Sewer Customers with Approved Sewer Meters Located within the City Limits of the City of New Bern.	\$7.41 <u>7.43</u>	per 1,000 gallons
--	-------------------------------	-------------------

**Sewer Customers with
Approved Sewer Meters
Located outside the City
Limits of the City of New
Bern.** ~~\$14.22~~14.86 per 1,000 gallons

Section 3. That there is hereby established, as the third component of the sewer rates to be charged to all sewer customers of the City of New Bern participating in the City of New Bern Pretreatment Program an allocation fee based on permitted flow, as follows:

1. An allocation fee of \$10.00 per gallon of additional permitted flow.
2. Outside of the City of New Bern rates shall be 150% of the established rates.
3. The Board of Aldermen may consider a reduction in allocation fees in excess of \$5,000 taking into consideration the economic impact and/or benefit to the City of New Bern as it relates to said increase.

Section 4. That there is hereby established, as the forth component of the sewer rates to be charged to all sewer customers of the City of New Bern participating in the City of New Bern Pretreatment Program monthly pretreatment surcharges, i.e., rates per thousand gallons of sewer use, as follows:

**Sewer Customers Located in or out of the
City Limits of the City of New Bern.** ~~\$1.20~~1.25 per 1,000 gallons

Section 5. That there is hereby established, as a fifth component of the sewer rates to be charged to all sewer customers of the City of New Bern which have individual, sewer pump systems located on their property for the purpose of providing sewer service to the property, a monthly equipment replacement charge as follows:

**Sewer Customers with Individual Sewer
Pump Systems Located in or out of the
City Limits of the City of New Bern.** ~~\$8.33~~8.70 per month

Section 6. All contract rate terms which are based on in-city rates are hereby changed in accordance with the terms of the contract and the changes approved herein.

Section 7. That all Ordinances and Resolutions heretofore adopted by the Board of Aldermen in fixing sewer rates to be charged to customers of the City of New Bern which are in conflict with the rates herein set forth be, and the same are hereby repealed.

Section 8. That this Ordinance shall be in full force and effect as of July 1, ~~2015~~2023.

ADOPTED THIS ~~23RD~~-13th DAY OF JUNE, ~~2015~~2023

Mayor

~~Deputy~~ City Clerk

AGENDA ITEM COVER SHEET

Agenda Item Title:

Adopt resolution to approve amendments to the City of New Bern Water and Sewer Design Standards”

Date of Meeting: 6/13/2023	Ward # if applicable: all
Department: Public Utilities – Water Resources	Person Submitting Item: Jordan Hughes
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing: N/A

Explanation of Item:	Approval of amendments to the City of New Bern of New Bern Water and Sewer Design Standards to reflect recent changes in State regulations, material standards, and construction practices.
Actions Needed by Board:	Adopt resolution approving amendments to the City of New Bern Water and Sewer Design Standards.
Backup Attached:	Memo from Jordan Hughes, “red-line” of the proposed revisions, a “clean” copy of the proposed revisions, and draft resolution for approving the amendments to the design standards.

Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Will there be advocates/opponents at the meeting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Cost of Agenda Item: N/A
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



Department of Public Utilities
Water Resources
527 NC Highway 55 West, P.O. Box 1129
New Bern, NC 28563-1129
(252) 639-7526

MEMORANDUM

TO: Mayor and Board of Aldermen
FROM: Jordan B. Hughes P.E., City Engineer
DATE: May 26, 2023

SUBJECT: Recommendation to Revise the City of New Bern Water & Sewer Design Standards.

Background Information:

The "City of New Bern Water and Sewer Design Standards" was originally issued by the City Engineer in November of 2007. The purpose of this document was to provide a comprehensive guideline for developers, builders, and engineers who desire to extend, connect to, or otherwise alter the City's existing water and/or sewer infrastructure. As State regulations, construction practices, and material standards evolve over time, this document has needed to be periodically evaluated and revised to keep current and be consistent with these changes. The most recent revision was issued in July 2020.

City staff have recently reviewed the current version of design standards, finding several minor technical and grammatical changes that need to be made. Once the first draft of the revisions was completed, the draft was submitted to a group of "stakeholders" for review and comment. This stakeholder group consisted of developers, home builders, utility contractors and engineers who collectively represented a broad range of the local development community. Feedback from the stakeholders group was incorporated into the final draft of revisions.

Recommendation:

Staff is recommending that the attached revisions be adopted, effective with the issuance of the updated "City of New Bern Water and Sewer Design Standards".

Attached please find a "red-line" copy of the proposed revisions, a clean copy of the proposed revisions and a draft resolution for adopting the revisions to the "City of New Bern Water and Sewer Design Standards".

Please contact me if there are any questions or if additional information should be required.

**RESOLUTION TO APPROVE AMENDMENTS TO THE CITY OF NEW BERN
WATER AND SEWER DESIGN STANDARDS**

THAT WHEREAS, the Board of Aldermen of the City of New Bern approved and adopted the “City of New Bern Water and Sewer Design Standards” in 2007; and

WHEREAS, the City of New Bern Water and Sewer Design Standards have been revised from time to time to reflect changes in State regulations, material standards, and construction practices; and

WHEREAS, the Board of Aldermen of the City of New Bern deems it advisable and in the public interest to effect certain revisions to the City of New Bern Water and Sewer Design Standards to reflect recent changes in State regulations, material standards, and construction practices, all as provided in City of New Bern Water and Sewer Design Standards as amended on June 13, 2023, a copy of which is attached hereto and incorporated herein by reference as Exhibit A.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That the Board of Aldermen hereby approves and adopts the City of New Bern Water and Sewer Design Standards as amended on June 13, 2023, a copy of which is attached hereto and incorporated herein by reference as Exhibit A.

Section 2. This ordinance shall be effective from and after June 14, 2023.

ADOPTED THIS 13th DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK



NEW BERN



CITY OF NEW BERN

Water Resources Department

*WATER & SEWER DESIGN
STANDARDS*

July 2023

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 W11 - RESTRAINED END CAP
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APPENDIX - A: PIPE RESTRAINT CHARTS

SECTION 1.0

INTRODUCTION

1.1 GENERAL

The purpose of this document is to provide a guideline for Property Owners, Developers and Engineers to assist with design of plans and specifications for projects which will become part of the City of New Bern water and/or sewer system. All proposed utility projects shall meet or comply with all applicable requirements set forth by the North Carolina Department of Environmental Quality (NCDEQ) and the standards contained herein. A project which shall require a variation from these requirements must be approved by the City of New Bern Water Resources Department prior to permitting.

1.2 CONTACT INFORMATION

All correspondence regarding proposed water & wastewater projects shall be directed to the Director of Water Resources at the following address:

Mr. Jordan B. Hughes, P.E.
Director of Water Resources
City of New Water Resources Department
P.O. Box 1129, New Bern, N.C. 28563
Phone: (252) 639-7527
Email: hughesj@newbernnc.gov

1.3 SYSTEM INFORMATION

1.3.1 Water System

Name: City of New Bern
Owner: City of New Bern
PWS I.D. No.: 04-25-010
WSMP No.: 01-00769
County: Craven

1.3.2 Sanitary Sewer System

The City of New Bern WWTF – Permit Number NC0025384
The City of New Bern Collection System – Permit Number WQCS00052

1.3.3 Low Pressure S.T.E.P. Sanitary Sewer System

The City of New Bern Township No. 7 Lagoon WWTF – Permit No.
WQ0003765

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SECTION 2.0

PLAN APPROVAL AND PERMIT SUBMITTAL

2.1 PLAN AND SPECIFICATION SUBMITTAL

Two (2) complete sets of plans, specifications, design calculations, and all other relative information shall be submitted for review to the City of New Bern Water Resources Department for any project which proposes to tap, extend, or otherwise alter the existing City of New Bern water or sanitary sewer systems. All modifications to the project plans and specifications which are requested after review by the Director of Water Resources must be complete and shown on revised plans prior to the project approval.

2.2 PERMIT APPLICATIONS

2.2.1 Commercial Sewer Use Permits (S.T.E.P. System Only)

All businesses requesting to connect to the City of New Bern low pressure S.T.E.P sewer system will have to make application for and obtain a Commercial Sewer Use Permit. The permit application has to be submitted to and approved by the Water Resources Department prior to establishing a water and sewer account with the City. Permit applications can be picked-up at the City of New Bern Water Resources Administration Office or downloaded from the City of New Bern webpage at www.newbernnc.gov.

The permit shall be non-transferable and shall be issued to the business owner not the property owner. Therefore, the permit will have to be renewed upon change of business owner or building occupancy use.

Businesses applying for a commercial sewer use permit for an existing building must have a daily designed sewer flow of less than 1,000 gallons per day or less than 120% of the average daily flow of the previous business, whichever is greater. The average daily flow of the previous business shall be based on actual water use records from the most recent 12 month period that the business was in operation. The daily designed sewer flow rate for the new business shall be based on the flow rate allocation criteria set forth in the most recent version of the City of New Bern Schedule of System Development fees and Connection fees.

Businesses applying for a new S.T.E.P system connection to serve a newly constructed building must meet the requirements of Section 4.4

2.2.2 State Water and Sewer System Extension Permits

Projects which will require an extension of the City of New Bern water system or sanitary sewer system shall be permitted through the appropriate State agency with the City of New Bern listed as the permit applicant. Once the proposed plans and specifications have been approved by the City of New Bern Water Resources Department, permit applications shall be executed by the City and returned to the responsible engineer for submittal to the appropriate State agency. The project engineer and/or developer shall be responsible for submitting all required fees and attachments that must accompany permit applications.

SECTION 3.0

DESIGN GUIDELINES FOR WATER & SEWER SYSTEM EXTENSIONS

3.1 GENERAL

At a minimum, all proposed water and sewer extensions shall be required to meet the design requirements contained in this section as well as all requirements set forth by the NCDEQ. In any case where the City of New Bern standards and the NCDEQ are not the same, the more stringent of the two shall apply.

3.2 PROPOSED WATER & SEWER MAINS

3.2.1 Sizing of Water and Sewer Mains

All proposed water and sewer main extensions shall be sized according to the latest requirements of NCDEQ and the standards set forth by the North Carolina Administrative Code. The City of New Bern reserves the right to increase the size of proposed mains as needed to accommodate future development within the general vicinity of the proposed project area as outlined in Section 74-74 of the Code of Ordinances of the City of New Bern.

3.2.2 Horizontal Location of Proposed Water & Sewer Mains

All proposed water and sewer mains shall be located within existing street rights-of-way or within a permanent utility easement. The minimum width of permanent utility easements for water mains and sewer force mains shall be ten feet (10'). The minimum width of permanent utility easements for gravity sewers shall be twenty feet (20'). All proposed water and sewer mains shall be located a minimum of ten feet (10') away from any existing or proposed permanent structure.

3.2.3 Vertical Location of Proposed Water & Sewer Mains

All proposed water and sewer mains shall be designed to provide at least three feet (3') of cover from the top of the pipe to the finished grade. At locations where this requirement cannot be met the main shall be constructed with ductile iron pipe.

Sewer force mains shall be designed where possible with uniform grade between low points and high points of the alignment. Air release valves shall be installed at all high points as described in section 3.6. Sewer force mains shall be installed to the designed grade to ensure that all high points are accounted for and air release valves are installed in the proper locations.

3.2.4 Separation of Water Mains and Sanitary Sewer Mains

Water mains shall be laid at least ten feet (10') laterally from existing or proposed sewers, unless local conditions or barriers prevent a ten foot (10') lateral separation in which case the following is required:

The water main shall be laid in a separate trench, with the elevation of the bottom of the water main at least eighteen inches (18") above the top of the sewer;
or

The water main shall be laid in the same trench as the sewer with the water main located at one side on a bench of undisturbed earth, and with the elevation of the bottom of the water main at least eighteen inches (18") above the top of the sewer.

3.2.5 Water and Sewer Main Crossings

A water main that crosses a sewer shall be laid a minimum vertical distance of 18 inches from the outside of the water main and the outside of the sewer, either above or below the sewer but, if practicable, the water main shall be located above the sewer. One full length of water pipe shall be located so that both joints will be as far from the sewer as possible.

3.2.6 Fire Flow Requirements for Water Mains

Fire Flow requirements for all proposed development shall be determined by the City of New Bern Fire Department (252) 639-2931.

3.2.7 Pressure Requirements for Water Mains

Water mains shall be designed to maintain a minimum residual pressure of twenty (20) psi at peak demand during fire flow. Peak Demand shall be determined as described in Title 15A, Subchapter 18C of the North Carolina Administrative Code.

3.2.8 Reaction Anchorage and Thrust Blocking

All exposed piping with mechanical couplings, push-on, mechanical joints, or similar joints subject to internal pressure shall be rodded or restrained with mechanical restraints (grip-rings, mega lugs, etc.) to preclude separation of joints. All mechanical joint tees, valves, all horizontal bends, vertical bends deflecting twenty two and one half (22 ½) degrees or more, and plugs which are installed in buried piping (subjected to internal hydrostatic heads in excess of thirty feet (30')) shall be provided with suitable reaction blocking and restrained with mechanical restraints (grip-rings, mega lugs, etc.) acceptable for preventing movement of the pipe

caused by internal pressure. The pipeline shall be restrained on either side of the fitting as indicated in the Pipe Restraint Chart listed in **Appendix-A**. Concrete blocking shall extend from the fitting to solid undisturbed earth and shall be installed so that all joints are accessible for repair. The fittings shall be wrapped in plastic to protect the fitting, bolts, and nuts from being permanently set in concrete and facilitate access for repair.

3.2.9 Detectable Tape and Tracer Wire

Detectable warning tape shall be installed on all water and sewer main extensions. Tracer wire shall be installed on all water and sewer main extensions, and all water/sewer services. The color of the detectable tape shall meet the standards of the AWWA color code.

All tracer wire must be maintained as a single strand in order to be effective. Breaks, gaps or distortion shall be cause for the contractor to repair the wire to the proper working order. The tracer wire shall be brought to the surface and located in a standard meter box at the following locations:

- At all bends and changes in horizontal direction.
- At all valves the tracer wire shall run along the exterior of the valve box and through a notch cut in the top (see detail W4).
- At the ends of a directional bore.
- Any location where two sections of tracer wire need to be spliced together. No underground wire connections shall be permitted.
- On straight runs of pipe, at 500' intervals.

3.3 PROPOSED WATER & SEWER SERVICES

3.3.1 Location of Water & Sewer Services

All projects shall provide for individual water and sewer services to be installed at each lot or residential unit. Services shall be installed flush to finished grade along the limit of the street right-of-way. Services shall not be located within sidewalks, driveways, or other paved areas which are subject to vehicular traffic. Service pipe or tubing shall be installed perpendicular to the main.

3.3.2 Water Service Sizing

Water meters shall be sized by the City of New Bern Water Resources Department based on water demand data provided by the Developer and/or Engineer.

3.3.3 Water Service Connections

Water services shall be designed with a corporation stop, an angle stop, polyethylene service tubing, and a meter box.

3.3.3.1 Corporation Stops

Taps shall be located at 10:00 or 2:00 o'clock with respect to the circumference of the pipe. Taps shall alternate from one side of the pipe to the other side, whenever possible, and be at least 12" apart. In the event two taps are made on the same side of the pipe in succession, they must be a minimum of 24" apart. All service taps shall be made using a double strap service saddle.

3.3.3.2 Angle Stops

Angle stops shall be installed so as not to cause a bind on the pipe once the meter is installed. The angle meter stop shall be perfectly plumb, 3" to 5" from the back of the meter box, centered between the sides of the meter box, and 3" to 4" above the bottom of the meter box.

3.3.3.3 Service Tubing

The water service tubing shall be one continuous piece of pipe from the corporation stop to the angle meter stop, with no unions. Each water service line shall run perpendicular to the main and straight to the meter with no kinks and/or bends.

3.3.3.4 Meter Boxes

Water meter boxes shall be placed on, no less than four (4), common brick to prevent settling. Meter boxes shall have four inches (4") of stone under the brick to aid in drainage.

3.3.4 Gravity Sewer Service Connection

Gravity sewer services shall be designed with a wye connection, a clean-out placed at the right-of-way and service piping. The minimum size of a gravity sewer service shall be four inches (4").

3.3.4.1 Wye Connections

Gravity sewer service line taps shall be located at 10:00 or 2:00 with respect to the circumference of the pipe. The sewer service line tap fitting shall be appropriate for the type of pipe being used.

3.3.4.2 Clean-outs

The sewer service line clean-outs shall be made using a long sweep wye on the sewer service line. A one foot (1') extension shall be placed on the through section of the wye with a cap glued in place. A single piece of sewer service line pipe shall be extended to grade

from the wye, with a cap glued in place and contained within an approved clean-out box, which shall be set flush to finished grade. The final clean-out cap shall have a slotted top or inverted nut. No raised nut clean-out caps will be permitted.

3.3.4.3 Service Piping

The sewer service line shall be constructed with the longest piece of pipe available from the manufacturer and the least amount of fittings. Couplings shall not be allowed on the sewer service lines to join short pieces together.

3.4 PROPOSED FIRE HYDRANTS

3.4.1 Location of Fire Hydrants

Proposed fire hydrants shall be placed within the street right-of-way and where possible at street intersections. On curbed streets the hydrant shall be placed no closer than two feet (2') and no further than five feet (5') from the back of the curb. On streets without curbing the hydrant shall be placed between the top of the ditch back slope and the right-of-way boundary. In no case will the hydrant be allowed to be placed in the ditch slopes. All hydrants shall be installed so that the pumper nozzle is perpendicular to the roadway and the centerline of the nozzle is a minimum of eighteen inches (18") and a maximum of twenty-four inches (24") above finished grade.

3.4.2 Spacing of Fire Hydrants

The spacing of proposed fire hydrants shall meet the following requirements:

<u>Residential Areas:</u>	Hydrants shall be spaced with a maximum of 1000 feet between hydrants.
<u>Commercial Areas:</u>	Hydrants shall be spaced with a maximum of 400 feet between hydrants.
<u>Industrial Areas:</u>	Hydrants shall be spaced with a maximum of 200 feet between hydrants.

The spacing length shall be measured along vehicle access routes which will allow for proper hose placement.

3.4.3 Fire Hydrant Assembly

All proposed fire hydrant assemblies shall include a water main tee, a hydrant leg, a gate valve, a riser, and the hydrant. Hydrants shall be installed perpendicular to water mains. Hydrant elbow shall be tied through all fittings and valves to the hydrant tee with the use of stainless steel threaded rods.

3.5 PROPOSED GATE VALVES

Gate valves shall be provided at all intersections of proposed water and sewer force mains. At each intersection a valve shall be provided for all but one of the branches (i.e. two (2) valves at a tee and three (3) valves at a cross).

3.6 PROPOSED AIR RELEASE VALVES

3.6.1 Location of Air Release Valves

Air release valves shall be located at all high points along pressure mains where the distance between the high point and the low point in the pressure main exceeds ten feet (10') in elevation. The City of New Bern Water Resources Department may require additional air release valves to be provided at other locations where it is determined that the possibility exists for the accumulation of excess air in the main.

3.6.2 Air Release Valve Assembly

All air release valves other than temporary blow-offs shall be automatic in type. The proposed ARV manholes shall be installed so that the manhole cover is flush with the existing grade and they shall not be installed in the centerline of any existing ditch or swale. If needed, these manholes shall be installed to back of the existing ditch and the ARV will be piped to the force main with the appropriate sized brass pipe.

3.7 PROPOSED BLOW-OFFS

3.7.1 Location of Blow-Offs

Manual blow-off assemblies shall be provided at dead-ends of all pressure mains.

3.7.2 Six Inch (6") and Larger Water Mains

At dead-end locations on all water mains six inches (6") in diameter and larger a standard fire hydrant shall be provided as a blow-off assembly.

3.7.3 Four Inch (4") and Smaller Water Mains

At dead-end locations on all water mains four inches (4") in diameter and smaller an end-of-line blow-off assembly shall be provided (See Detail W9)

3.7.4 Sewer Force Mains

At dead-end locations on all sewer force mains an end-of-line blow-off assembly shall be provided, in a meter box. (See Detail W9)

3.8 PROPOSED BACKFLOW PREVENTION ASSEMBLIES

Backflow prevention assemblies shall be required for all applications which the potential exists for the public water supply to be contaminated by the backflow from a private water system, as outlined in Chapter 74, Article VI "Cross-Connection Control" of the New Bern Code of Ordinances. The degree of protection required shall depend on the severity and type of possible contaminant. Protection requirements and device locations may vary by project and will be reviewed on an individual basis by the City of New Bern Cross Connection Control Coordinator.

3.9 PROPOSED SANITARY SEWER MANHOLES

3.9.1 Location of Proposed Manholes

All proposed gravity sanitary sewer mains shall be designed so that a manhole is installed at all locations where changes in horizontal alignment, vertical grade, or pipe diameter are required. The maximum distance between manholes as measured along the sewer main shall be 425 feet.

3.9.2 Manholes in Paved Areas

Where practical design allows, all manholes located within paved areas shall be set along the center line of the road and out of designated parking spaces.

3.9.3 Manhole Base

All precast concrete manholes shall be placed on a stable stone base. The depth of the stone base may vary depending on site soil conditions and actual depth of stone needed will be field determined by a representative for the City of New Bern, but shall consist of a minimum of 6 inches of stone leveling course beneath the base section. The manhole base shall be provided with a minimum of a 6" extended base section.

3.9.4 Drop Manholes

Manholes with sewer pipes entering 2 ½ feet, or more, above the bottom shall have an inside drop manhole connections installed. All drop manholes shall have a minimum inside diameter of 5 feet.

3.10 PROPOSED PUMP STATIONS

3.10.1 Option to Use Pump Stations

In the design of all proposed sanitary sewer system extensions every effort and consideration shall be made to use conventional gravity sewer for the

system extension. The use of pump stations and force mains shall only be permitted when the proposed extension can not be properly connected to the existing gravity system due to local conditions or when existing gravity sewer is unavailable.

3.10.2 Sizing of Proposed Pump Stations

Proposed pump stations shall be sized as required by the NCDEQ guidelines for the proposed property usage. The City of New Bern reserves the right to increase the size of proposed pump stations as needed to accommodate anticipated future development within the general vicinity of the proposed project area as outlined in Section 74-74 of the Code of Ordinances of the City of New Bern.

3.10.3 Pump Station Site

All proposed pump stations shall be placed on a site (50'x 50' min.) within the project area with a ground elevation above that of the flood plain. The site shall be graded to direct drainage away from the wet well structure. The site shall be accessible by an access road. At a minimum, the access road shall be twelve foot (12') wide and constructed of six inches (6") of compacted ABC stone. The site shall be enclosed by a vinyl coated, galvanized chain-link fence with a lockable gate. Compacted stone shall be placed within the entire fenced area. A concrete pad shall be poured to create a level surface between the wet well access and the control panel. An elevated area light shall be installed at the site, as well as a frost proof yard hydrant.

3.10.4 Pump Station Structure

3.10.4.1 Wet Well

All proposed wet well structures shall be constructed of precast concrete sections with the diameter as required by design and in no case less than six feet (6'). The top section shall be flat with the access openings cast in. Access openings and covers shall be sized and placed to allow for pump removal. A mushroom style vent shall also be cast in the top section of the wet well. Where applicable, the vent shall be piped to the area light pole and extended 36" above grade.

3.10.4.2 Pumps

All proposed pump stations shall use a duplex pump system. Pumps shall be submersible in type and of equal size and pumping capacity. Pumps shall be mounted on a guide rails and have a chain lifting system. Pumps shall be sized per the recommendations of the pump manufacturer for the designed flow.

3.10.4.3 Check Valves

Check valves shall be installed on each of the pump discharge lines. Check valves shall be the lever and weight type and installed in precast concrete valve vault. The valve vault shall be equipped with a lockable access cover and a sump drain, which shall be piped to return back into the wet well.

3.10.4.4 Control and Electrical Components Rack

All electrical components and pump controls shall be located on a single rack within the pump station site. The rack and rack supports shall be constructed of stainless steel or aluminum and installed on a concrete slab. The rack shall have a minimum thickness of ¼ inch. A sun shield shall be provided across the entire length of the rack.

3.10.4.5 Pump Station Piping

All piping in the wet well, check valve vault, and additional piping within the pump station site shall be 401 lined ductile iron. All piping within the pump station site shall have the same diameter.

3.10.4.6 Alternative Power Source

The alternative power source for all proposed pump stations shall be a generator or an independently powered back-up pumping system.

For pump stations with a designed average daily flow of less than 15,000 gallons per day, the pump station shall be equipped with a manual emergency transfer switch and hook-up for the generator.

For pump stations with a designed average daily flow of 15,000 gallons per day or more, the pump station shall be equipped with a permanently mounted generator and an automatic emergency transfer switch capable of running both pumps under full load or an independently powered back-up pumping system with a pumping rate equal to both of the primary pumps. For either application, a concrete pad shall be provided along with a fuel tank capable of handling enough fuel to operate for 24 hours.

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SECTION 4.0

GUIDELINES FOR USE OF THE TOWNSHIP NO. 7 LOW PRESSURE S.T.E.P. SEWER SYSTEM

4.1 GENERAL

This section identifies special requirements which are applicable to all customers located within the City of New Bern S.T.E.P. System Coverage Area. The boundaries of the S.T.E.P. System Coverage Area are illustrated in Figure 4.1 at the end of this Section.

Existing S.T.E.P. System users that are not within the boundaries of the S.T.E.P. system coverage area will be required to connect to the City's Conventional Sewer System for any new development or substantial redevelopment. "*Substantial Redevelopment*" will include development activities on a parcel in which the total cost (cumulative over 5 year period) of the proposed improvements to the existing structures exceeds 50% of the assessed, pre-construction value of the structures.

4.2 GENERAL REQUIREMENTS FOR S.T.E.P. SYSYEM USE

4.2.1 The City of New Bern will only provide (1) S.T.E.P. service per building lot. To be considered eligible for connection to the S.T.E.P. sewer system, a building lot shall meet one of the following conditions:

A. For parcels platted prior to July 1, 2014: The parcel shall be located in an area currently served by the S.T.E.P. system and the lot must front a road right-of-way or utility easement where a S.T.E.P. system main currently exist.

B. For parcels which are subdivided after July 1, 2014: The parcel shall be a minimum of 10,000 square feet and have at least 60 feet of frontage along a road right-of-way or utility easement where a S.T.E.P. system main currently exist.

New permits for the extension of S.T.E.P. system mains shall be prohibited.

4.2.2 The City of New Bern Water Resources Department will have final determination on service availability and shall have the right to refuse service if the existing infrastructure in a particular area cannot handle additional loading.

4.2.3 To determine if a lot will be eligible for connection to the S.T.E.P. sewer system, the property owner shall contact the City of New Bern Water Resources Service Coordinator at (252) 639-7596. No lot will be provided service without a Sewer Availability letter issued by the City of New Bern Water Resources Department.

4.2.4 The required System Development Fees and Connection fees for S.T.E.P. system users will be based on the schedule of fees as set forth by the City of New Bern Board of Aldermen.

4.2.5 Once S.T.E.P. system service is established at a property, the property owner shall be responsible for repairing or replacing the S.T.E.P. tank, at his/her own expense when notified in writing by the City of New Bern that tank repairs, tank replacement, or the removal of solids is necessary.

4.3 REQUIREMENTS FOR RESIDENTIAL INSTALLATION AND USE

4.3.1 Only one residence per eligible building lot will be allowed to connect to the S.T.E.P. system. However, duplexes and other multi-family units will be allowed by meeting the following requirements:

4.3.1.1 Each unit shall be on a separate lot as recorded at the Craven County Register of Deeds.

4.3.1.2 Each unit shall pay the applicable System Development fees and Connection fees based on the schedule of fees as set forth by the City of New Bern Board of Aldermen

4.3.1.3 Each unit shall be responsible for installation of the electrical service and S.T.E.P. tank as outlined in Sections 4.3.4 and 4.3.5.

4.3.1.4 A common onsite S.T.E.P. System will also be permitted for multifamily buildings provided that the onsite tank is sized by a N.C. Professional Engineer, the electrical service is provided as outlined in Section 4.4.6 and that the electrical service for the onsite S.T.E.P. system be a common building service, separate from any of the unit services.

4.3.2 For residential properties wanting to connect to the S.T.E.P. system, the property owner shall be responsible for obtaining a Sewer Availability letter, paying the required System Development fees and Connection fees, providing the required electrical service, and installing the S.T.E.P. tank.

4.3.3 After the Director of Water Resources has determined sewer service is available and issued the property owner a sewer availability letter, the applicable System Development fees and Connection fees can be paid during normal business hours at the City of New Bern Customer Service Office located at 606 Fort Totten Drive.

4.3.4 The property owner shall install (2) twenty amp three wire electrical circuits stubbed out from the residence as described below:(Also as approved by Craven County Building Inspections Department).

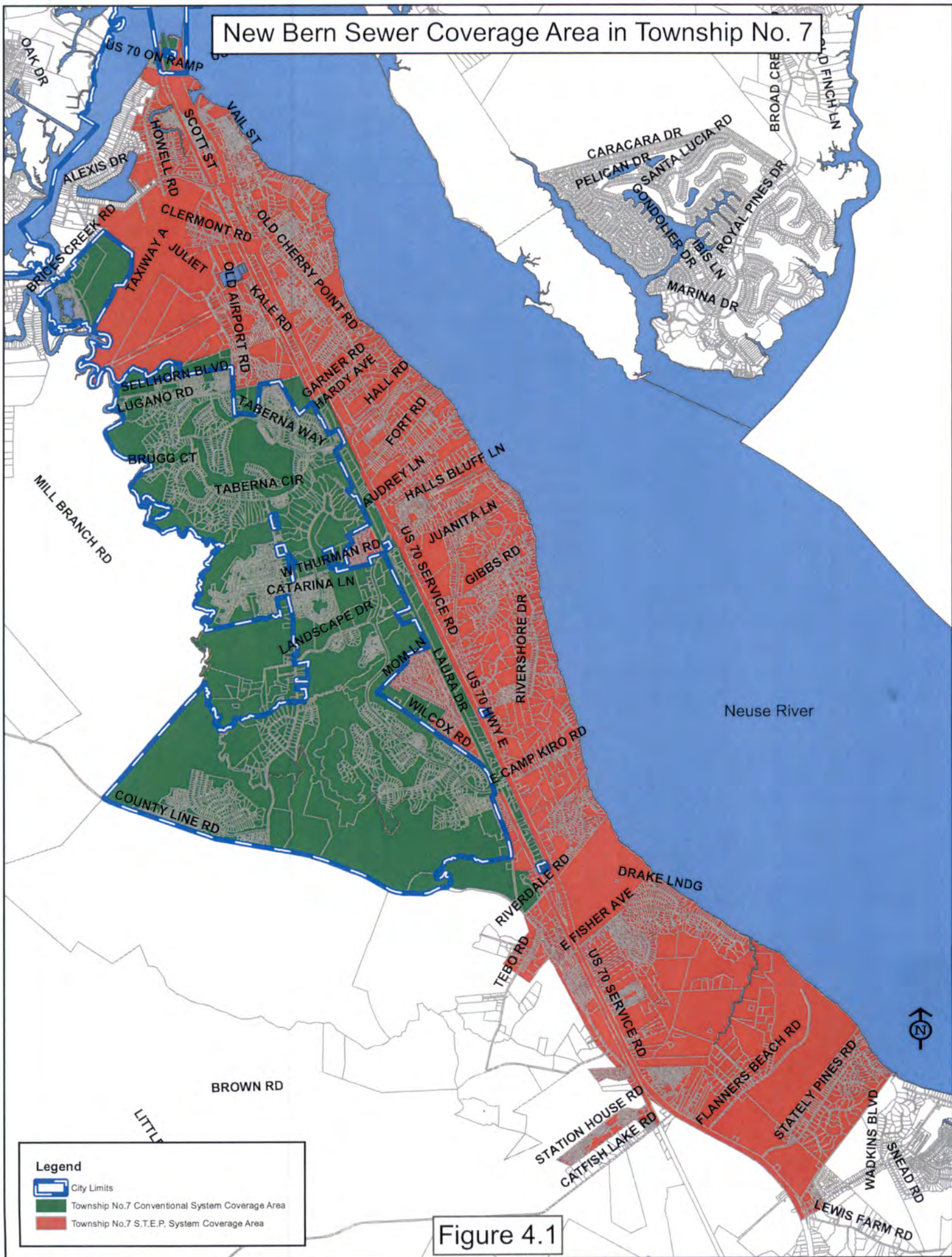
- 4.3.4.1 The power supply wiring should be installed within 20 feet of the discharge end of the S.T.E.P. tank. The control panel location should be visible from the road.
- 4.3.4.2 Two (2) twenty amp circuits on separate circuit breakers are required. One circuit is required for the pump and the other for the control panel.
- 4.3.4.3 The control panel will be mounted by the City as part of the pump installation.
- 4.3.4.4 Note that special provisions may be necessary for installations below the flood plain elevation of 10 feet above mean sea level. Any exceptions must meet the latest applicable National Electric Code
- 4.3.5 The S.T.E.P. tank to be installed by the property owner shall be a 1,300 gallon vacuum tested precast concrete septic tank/pump tank combination. A concrete riser ring shall be provided if needed to adjust ring and cover to final grade. A watertight manhole ring and cover shall be provided for access to the pump. The tank shall be manufactured by Futrells Precast, Inc. of Deep Run, N.C. (252- 568-3481) or The Stallings Company, Inc. of Greenville, N.C. (252-756-0267). The tank installer will need to contact the City of New Bern at (252) 639-7597 to witness the installation and vacuum testing of the S.T.E.P. tank at the time of installation.
- 4.3.6 Once the tank and electrical service have been installed, and the System Development fees and Connection fees are paid, the City of New Bern will schedule the installation of the pump components and the connection of the sewer service. The actual installation time will depend on the City's current work load

4.4 REQUIREMENTS FOR COMMERCIAL INSTALLATION AND USE

- 4.4.1 For commercial developments wanting to connect to the S.T.E.P. system, the property owner shall be responsible for obtaining a Sewer Availability letter, a Commercial Sewer Permit, paying the applicable System Development fees and Connection fees, providing the required electrical service, and installing the S.T.E.P. tank.
- 4.4.2 To be eligible for connection to the S.T.E.P. system, a commercial development must meet the requirements outlined in Section 4.2.1 and the proposed development shall have an average daily designed flow of less than 1,000 gallons per day based on the flow rate allocation criteria set forth in the most recent version of the City of New Bern Schedule of System Development fees and Connection fees.
- 4.4.3 After the Director of Water Resources has determined sewer service is available and issued the property owner a sewer availability letter, the applicable System Development fees and Connection fees can be paid

during normal business hours at the City of New Bern Customer Service Office located at 606 Fort Totten Drive.

- 4.4.4 Occupants of commercial buildings shall obtain a Commercial Sewer Permit prior to occupying a commercial building which is connected to the S.T.E.P. System. To obtain a Commercial Sewer Use Permit, the building occupant shall contact the City of New Bern Water Resources Service Coordinator at (252) 639-7596. All occupant use of commercial buildings connected to the S.T.E.P. System must meet the requirements of Sections 4.4.2. .
- 4.4.5 If the existing onsite S.T.E.P tank and electrical service for an existing building does not conform to the requirements of Section 4.4.5, Section, 4.4.6 and Section 4.4.7, then these components will be required to be brought into compliance as part of issuing a new Commercial Sewer Use Permit.
- 4.4.6 The property owner shall install (1) Single pole, 20 amp circuit and (1) double pole, 40 amp circuit for the electrical supply to the pumps and control panel as described below:(Also as approved by Craven County Building Inspections Department).
 - 4.4.6.1 The power supply wiring should be installed within 20 feet of the discharge end of the S.T.E.P. tank. The control panel location should be visible from the road.
 - 4.4.6.2 Two circuits on separate circuit breakers are required. One circuit is required for the pumps and the other for the control panel.
 - 4.4.6.3 The control panel will be mounted by the City as part of the pump installation.
 - 4.4.6.4 Note that special provisions may be necessary for installations below the flood plain elevation of 10 feet above mean sea level. Any exceptions must meet the latest applicable National Electric Code
- 4.4.7 For proposed commercial developments with an average daily designed flow of less than 400 gallons per day, the developer shall install the onsite S.T.E.P. tank outlined in Section 4.3.5.
- 4.4.8 For proposed commercial developments with an average daily designed flow of more than 400 gallons per day and for all multiple occupant developments, the developer shall have the onsite S.T.E.P. tank sized by a N.C. professional engineer. The engineer shall certify that the designed onsite S.T.E.P tank has adequate septic and storage capacity to be used in conjunction with the City's standard S.T.E.P. system pumps.



SECTION 5.0

MATERIAL SPECIFICATIONS FOR WATER & SEWER EXTENSIONS

5.1 PIPE FOR GRAVITY SEWER MAINS

5.1.1 PVC Pipe

All Polyvinyl Chloride (PVC) pipe used in the construction of gravity sewer main extensions shall meet the following standards:

Pipe: Pipe shall meet the requirements of ASTM D3034

Dimensions: Standard Dimension Ratio (SDR) 35

Material: Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.

Joints: Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477

Fittings: PVC fittings shall conform to ASTM D3034, 7.4

5.1.2 Ductile Iron Pipe

All Ductile Iron Pipe (DIP) used in the construction of gravity sewer main extensions shall meet the following standards:

Pipe: Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151

Fittings: Ductile Iron conforming to ANSI/AWWA A21.11/C-110

Joints: Mechanical joints conforming to ANSI/AWWA A21.11/C-111 or push-on joint conforming to ANSI/AWWA A21.51/C-151

Lining: All pipes and fittings shall be lined with Protecto 401 or approved equal.

Coating: All pipes and fittings shall be coated on the exterior with bituminous coating approximately 1 mil thick.

5.2 PIPE FOR SEWER FORCE MAINS

5.2.1 PVC Pipe

All PVC used in the construction of sewer force mains shall meet the following standards:

Pipe:	Pipe shall conform to the standards of AWWA C-900
Dimensions:	Standard Dimension Ratio (SDR) 18 for both bell and pipe thickness
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Pressure:	Pipe shall be pressure rated at 150 psi
Joints:	Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477. For fusible C-900 joints shall be butt-fused conforming to the requirements of ASTM D638 and ASTM D1599.
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110
Restraint Devices:	Restraint devices for use on PVC joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Star Pipe Products Pipe Restrainers, Series 1100, Romac Industries, Inc. Style 611, RieberLok gaskets or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.2.2 Ductile Iron Pipe

All Ductile Iron Pipe (DIP) used in the construction of sewer force mains shall meet the following standards:

Pipe:	Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110

Joints:	Mechanical joints conforming to ANSI/AWWA A21.11/C-111 or push-on joint conforming to ANSI/AWWA A21.51/C-151
Lining:	All pipes and fittings shall be lined with Protecto 401 or approved equal
Coating:	All pipes and fittings shall be coated on the exterior with bituminous coating approximately 1 mil thick.
Restraint Devices:	Restraint devices for use on DIP joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Uni-Flange Block Buster Series 1390-C, Romac Industries, Inc. Style 611, or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.2.3 High Density Polyethylene (HDPE) Pipe

All HDPE used in the construction of sewer force mains shall meet the following standards:

Pipe:	Pipe shall meet the requirements of AWWA C-906
Dimensions:	Standard Dimension Ratio (SDR) 9 for pipe thickness
Material:	Pipe shall be constructed of PE 3408 conforming to ASTM D1248, Minimum cell classification of 345434E.
Pressure:	Pipe shall be pressure rated at 200 psi
Joints:	All pipe and fittings shall be butt fusion jointed utilizing procedures, tools and equipment recommended by the pipe manufacturer
Fittings:	Fittings for HDPE Pipe shall be miter fusion fabricated and shall provide a pressure rating equal to that of the pipe. Molded butt fittings shall be manufactured in accordance with ASTM D-3261.

5.3 PIPE FOR WATER MAINS

5.3.1 PVC Pipe 4" and Larger

All PVC used in the construction of water mains four inches (4") in diameter and larger shall meet the following standards:

Pipe:	Pipe shall conform to the standards of AWWA C-900
Dimensions:	Standard Dimension Ratio (SDR) 18 for both bell and pipe thickness
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Pressure:	Pipe shall be pressure rated at 150 psi
Joints:	Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477. For fusible C-900 joints shall be butt-fused conforming to the requirements of ASTM D638 and ASTM D1599.
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110
Restraint Devices:	Restraint devices for use on PVC joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Star Pipe Products Pipe Restrainers, Series 1100, Romac Industries, Inc. Style 611, or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.3.2 PVC Pipe 3" and Smaller

All PVC used in the construction of water mains three inches (3") and smaller in diameter shall meet the following standards:

Pipe:	Pipe shall meet the requirements of ASTM D2241
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Dimensions:	Standard Dimension Ratio (SDR) 21 for both bell and pipe thickness
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Pressure:	Pipe shall be pressure rated at 200 psi
Joints:	Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477
Fittings:	Fittings shall be Schedule 80 PVC with solvent weld joints

5.3.3 Ductile Iron Pipe

All Ductile Iron Pipe (DIP) used in the construction of water mains shall meet the following standards:

Pipe:	Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110
Joints:	Mechanical joints conforming to ANSI/AWWA A21.11/C-111 or push-on joint conforming to ANSI/AWWA A21.51/C-151
Lining:	All pipes and fittings shall be lined in accordance with ANSI/AWWA A21.4/C-104
Coating:	All pipes and fittings shall be coated interior and exterior with bituminous coating approximately 1 mil thick.
Restraint Devices:	Restraint devices for use on DIP joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Uni-Flange Block Buster Series 1390-C, Romac Industries, Inc. Style 611, or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.3.4 High Density Polyethylene (HDPE) Pipe

All HDPE used in the construction of water mains shall meet the following standards:

Pipe:	Pipe shall meet the requirements of AWWA C-906
Dimensions:	Standard Dimension Ratio (SDR) 9 for pipe thickness
Material:	Pipe shall be constructed of PE 3408 conforming to ASTM D1248, Minimum cell classification of 345434E.
Pressure:	Pipe shall be pressure rated at 200 psi
Joints:	All pipe and fittings shall be butt fusion jointed utilizing procedures, tools and equipment recommended by the pipe manufacturer
Fittings:	Fittings for HDPE Pipe shall be miter fusion fabricated and shall provide a pressure rating equal to that of the pipe. Molded butt fittings shall be manufactured in accordance with ASTM D-3261.

5.4 SANITARY SEWER SERVICES

5.4.1 Gravity Sewer Services

All materials used in the construction of gravity sewer services shall meet the following standards:

Pipe:	Schedule 40 PVC - Drain, Waste, and Vent (DWV) conforming to the requirements of ASTM D2665
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Fittings:	Fittings shall be Schedule 40 PVC conforming to ASTM F1866 with solvent weld joints. Joint primer shall conform to ASTM F656 and joint solvent shall conform to ASTM D2564
Clean-out:	Service clean-out shall use a standard wye and clean-out plug as made or recommended by the pipe manufacturer.
Clean-out Box:	Clean-out boxes shall be constructed of cast iron conforming to ASTM A-48 Class 30B, with an asphalt coated finish. The box shall be a minimum of 10.5" H and have a minimum clear opening of 6.75". The word "SEWER" shall be cast into the lid. Box shall be Sigma Model CO-373S or approved equal.

Service

Connection: Service connection shall use a standard wye made or approved by the pipe manufacturer

5.4.2 S.T.E.P. System Services

All materials used in the construction of S.T.E.P system services shall meet the following standards:

Tank: All individual S.T.E.P systems shall use a vacuum tested, precast concrete septic tank/ pump tank combination. A concrete riser ring shall be provided to adjust ring and cover to final grade. A standard manhole ring and cover shall be provided for access to the pump chamber. For commercial applications, a manhole ring and cover shall also be provided for access to the septic chamber. Tanks for residential use shall be manufactured by The Stallings Company, Inc. of Greenville, N.C. (252-756-0267) or Futrells Precast, Inc. of Deep Run, N.C. (252- 568-3481).

Pump: The effluent pump shall be of the submersible type capable of delivering a flow and total dynamic head (TDH) as determined for each installation, and shall be sufficient to pump effluent to the mainline pressure pipe for elimination. The maximum pump shutoff head shall not exceed seventy-five percent (75%) of the working pressure of the pipe. Pump shall comply with the following:

- a. Pump shall be specifically designed and rated to pump sewage effluent into pressure wastewater collection systems.
- b. All residential effluent pumps shall be Zoeller model 163 pumps or approved equal.
- c. All pumps supplied must be constructed per (and bear the label of) an authorized testing authority such as Underwriter's Laboratories, Inc. (UL) for effluent duty.
- d. Pumps shall have a thirty-five-foot (35') long extra heavy-duty (SO) multi-conductor NEC rated electrical cord with ground to motor plug.
- e. The submersible pump shall pass a ¾ " spherical solid.
- f. Pump motor shall be of the submersible type.
- g. Motor shall be Single Phase, 115 Volts, 60 Hertz, 3500 RPM minimum or equal.
- h. Single-phase motors shall be thermally protected with an automatic reset feature.

Control

Panel:	<p>The pump control panel shall be CSI or approved equal simplex pump control/alarm panel with the following features:</p> <ol style="list-style-type: none"> All control components shall be contained in a single NEMA 4X fiberglass enclosure. The enclosure shall be of one piece, weatherproof construction and gray in color. Enclosure cover shall be hinged with a stainless steel piano hinge and be lockable with two (2) stainless steel latches. The panel shall be equipped with a red alarm light and an integrated audible alarm to indicate "high level" alarms. A silence switch for the audible alarm shall be located on the exterior of the panel. The audible alarm shall produce a minimum of 80 decibels of sound pressure. Level indication and pump operation shall be controlled with float switches.
Pipe:	Service pipe shall be 1 ½ inch CTS, polyethylene conforming to the standards of ANSI/AWWA C901. Pipe shall be made of PE3408 material with a standard dimension ratio of 9 (SDR 9) and a pressure rating of 200 psi. The pipe shall be green in color.
Service Saddles:	Service saddles shall be brass with stainless steel straps and/or bolts. Saddles shall have (AWWA) CC threads. Saddles with straps shall be the double strap type. Saddles shall be manufactured by McDonald, Ford, Romac, or approved equal.
Corporation Stops:	Corporation stops shall be bronze body with (AWWA) CC tapered threaded inlet and compression connection outlet. Corporation stops shall be manufactured by McDonald, Ford, Mueller, or approved equal.
Ball Valve:	Ball valves shall be bronze body and have a stainless steel ball & handle, with a quarter turn, lever handled shut-off. Ball valves shall be manufactured by McDonald, Ford, Mueller, or approved equal.
Check Valve:	Check valves shall be brass swing-check valves having 1 ½" FIP threaded type pipe connections. Valve body shall be constructed of brass and shall have a minimum pressure rating of 150 psi. Check valves shall be model U99SJ manufactured by United Industries or approved equal.
Meter Box:	Meter Boxes shall be constructed of cast iron conforming to ASTM A-48 Class 30B, with an asphalt coated finish. Dimensions shall be 20" L x 10" W x 12" H. The word

“SEWER” shall be cast into the lid. Box shall be manufactured by Capital Foundry, East Jordan Iron Works, Brass and Hays Foundry, or approved equal.

5.5 WATER SERVICES

All materials used in the construction of water services shall meet the following standards:

Pipe: Service pipe shall be one inch (1”) “CTS” polyethylene tubing conforming to the standards of ANSI/AWWA C901. Pipe shall be made of PE3408 material with a standard dimension ratio of 9 (SDR 9) and a pressure rating of 200 psi. The tubing shall be blue in color.

Service Saddles: Service saddles shall be brass with stainless steel straps and/or bolts. Saddles shall have (AWWA) CC threads. Saddles with straps shall be the double strap type. Saddles shall be constructed of No-Lead brass in accordance with AWWA C-800. Saddles shall be manufactured by McDonald, Ford, Mueller, or approved equal.

Corporation Stops: Corporation stops shall be bronze body with (AWWA) CC tapered threaded inlet and compression connection outlet. Corporation stops shall be constructed of No-Lead brass in accordance with AWWA C-800. Corporation stops shall be manufactured by McDonald, Ford, Mueller, or approved equal.

Angle Stop: Angle stops shall be bronze body with compression connections for the inlet and outlet. Ball valves shall have a stainless steel ball and a lockable, quarter turn, tee handled shut-off. Angle stops shall be constructed of No-Lead brass in accordance with AWWA C-800. Ball valves shall be manufactured by McDonald, Ford, Mueller, or approved equal.

In shallow water service installations straight meter valves shall be utilized instead of angle stops at locations where the service tubing has to come through the side of the meter box instead of up through the bottom. The straight meter valves shall be either Mueller Model B-24350 or Ford Model B43. Both valves will have a swivel meter nut on one side and a compression type pack joint for CTS tubing on the other side, along with a lockable wing.

Meter Box: Meter Boxes shall be standard MBX-1 size, constructed of cast iron conforming to ASTM A-48 Class 30B, with an asphalt coated finish. Dimensions shall be 20" L x 10" W x

12" H. The Box shall be manufactured by Capital Foundry, East Jordan Iron Works, Brass and Hays Foundry, or approved equal. The box lid shall be the standard MBX-1 cast iron lid with a 2" diameter hole cast in the lid and "WATER" cast on the top of the lid.

5.6 VALVES AND VALVE BOXES

5.6.1 Gate Valves

Gate valves shall be resilient seated and conform to AWWA C-509 for water and other liquids. Gate valves shall be iron bodied bronze mounted having non-rising stems and mechanical joints. Gate valves shall open counter clockwise, have a standard 2 inch square operating nut, and a cast-on direction arrow. Gate valves shall be manufactured by Mueller, Clow, American, or approved equal.

5.6.2 Butterfly Valves

Butterfly valves 20" and smaller shall conform to AWWA C504 for class 150B. Butterfly valves shall be iron bodied mechanical point with cast iron valve discs ASTM A-436 Type 1, Stainless steel valve shafts Type 316 recognized synthetic compound valve seals bonded to withstand 75 lbs. Pull butterfly valves shall be fitted with sleeve-type corrosion resistant bearings and self-adjusting valve packing. Valve operators for butterfly valve shall conform to AWWA C 504 with 2 inch square operating nut. The valve operators shall be the self-locking type designed to hold the valve in any position without creeping or fluttering. Butterfly valves shall open counter-clockwise. Butterfly valves shall be manufactured by American, Clow, Mueller, Pratt, or approved equal.

5.6.3 Tapping Sleeve & Valve

Tapping sleeves, sleeve flange and all required hardware shall be constructed of stainless steel and have a minimum working pressure of 150 psi. Tapping sleeves shall be manufactured by Ford, Mueller, Romac or approved equal. Tapping valves shall meet all the requirements for gate valves as set forth in Section 5.6.1.

5.6.4 Valve Box

Valve boxes shall be constructed of cast iron and rated for H-20 traffic loading. Valve boxes shall be two (2) piece adjustable screw type telescopic valve boxes with the tops marked SEWER or WATER for their relative use and location. Valve Boxes shall be manufactured by Capital Foundry, East Jordan Iron Works, Brass and Hays Foundry, or approved equal.

5.7 AIR RELEASE VALVES

5.7.1 Automatic Air Release Valves

Automatic Air Release Valves shall be combination air/vacuum automatic float operated valves designed to release accumulated air and prevent vacuum within the piping system while the system is in operation and under pressure. Automatic air release valves shall be Crispin UX20, Vent-Tech SDG, or approved equal

5.7.2 Manual Air Release Valves

Manual air release valves shall consist of the same materials as specified in Section 5.5 and shown in Detail W-8.

5.8 FIRE HYDRANTS

Fire hydrants shall conform to AWWA C502. Fire hydrants shall be manufactured with two (2) 2 ½ inch hose nozzles and one (1) 4 ½ inch pumper nozzle. All threads shall conform to the standard for the City of New Bern. All hydrant legs shall be six inch (6") ductile iron pipe with a mechanical joint valve. All hydrants furnished shall have a minimum 3'-6" inch bury depth hydrant. Hydrants shall be ordered for the correct bury depth so that extensions are not needed to properly set the final fire hydrant grade. All hydrants furnished are to be bronze to bronze threads between the seat or seat ring and the seat attaching assembly with a drain ring. Fire hydrants shall be dry top type with a breakable traffic feature assuring the hydrant remains closed should it be broken off at the ground level. In addition to the factory coat, all hydrants shall be painted after installation using high grade exterior enamel paint. All fire hydrants shall be Mueller Cat. No. A421, 4 ½" or American-Darling Mark73-5 with New Bern standard Storz connector on the pumper nozzle.

5.9 MANHOLES

All materials used in the construction of manholes shall meet the following standards:

5.9.1 Sections

All manholes shall be constructed using precast concrete sections conforming to ASTM C-478.

5.9.2 Steps

Manhole steps shall be constructed of 0.5" diameter, grade 60 steel bars. The steps shall have a plastic coating and meet the requirements of Federal Specification RR-F-621C.

5.9.3 Ring and Cover

Manhole rings and covers shall be constructed of Class 30 cast iron conforming to ASTM A48, and shall be traffic bearing. The words "SANITARY SEWER" shall be cast in top of the cover. Rings and covers shall be manufactured by Capital Foundry, East Jordan Iron Works, Brass and Hays Foundry, or approved equal.

In locations where the rim elevation of the manhole is below the 100-year flood elevation for the area, the manhole shall be provided with the water-tight ring and cover. In addition, all water tight manhole shall be vented above the flood elevation.

5.9.4 Flexible Pipe Sleeve

Pipe sleeves with stainless steel clamps conforming to ASTM C-923 shall be used for pipe to manhole connections. The pipe sleeve shall be design and constructed to provide a flexible watertight seal.

5.9.5 Inverts

Inverts shall be precast into the bottom section of the manhole.

5.9.6 Grout

All perforations pick holes, seams, transitions, joints and leaks shall be sealed with hydraulic cement or approved equal.

5.9.7 Joint Wrap

The exterior of all manhole joints shall be wrapped with a butyl joint wrap with plastic backing. The wrap shall be a minimum of 6" wide, 0.050" thick and conform to ASTM C 877 (Type III).

5.9.8 Joint Seal

Each manhole joint shall be sealed using a butyl-rubber based flexible sealant conforming to the requirements of ASTM C-990 and have a minimum round equivalent of 1".

5.10 PUMP STATIONS

All materials used in the construction of pump stations shall meet the following standards:

5.10.1 Wet Well Structure

All components of the wet well structure shall conform to the requirements for manholes as described in Section 5.9.

5.10.2 Pumps

Sanitary sewer wastewater pumps shall be manufactured by Flygt, or approved equal which meets the following requirements:

Pump

Construction: Major pump components shall be of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. All exposed nuts or bolts shall be AISI type 304 stainless steel construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile or Viton rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit.

Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

Cooling System:

Motors are sufficiently cooled by the surrounding environment or pumped media. A water jacket is not required.

Cable Entry Seal:

The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal. The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the body containing a strain relief function, separate from the function of sealing the cable. The assembly shall provide ease of changing the cable when necessary using the same entry seal. The cable entry junction chamber and motor shall be separated by a stator lead sealing gland or terminal board, which shall isolate the interior from foreign material gaining access through the pump top. Epoxies, silicones, or other secondary sealing systems shall not be considered acceptable.

Motor: The pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95%. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31. The stator shall be heat-shrink fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 40°C (104°F) and capable of up to 15 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of cast aluminum. Thermal switches set to open at 125°C (260°F) shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel. The junction chamber containing the terminal board shall be hermetically sealed from the motor by an elastomer compression seal. Connection between the cable conductors and stator leads shall be made with threaded compression type binding posts permanently affixed to a terminal board. The motor and the pump shall be produced by the same manufacturer.

The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15. The motor shall have a voltage tolerance of plus or minus 10%. The motor shall be designed for operation up to 40°C (104°F) ambient and with a temperature rise not to exceed 80°C. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics.

The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the control panel without the need of any splices. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

Bearings: The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable.

Mechanical Seal: Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydro-dynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating, corrosion resistant tungsten-carbide ring. The upper, secondary seal unit, located between the lubricant chamber and the motor housing, shall contain one stationary and one positively driven rotating, corrosion resistant tungsten-carbide seal ring. Each seal interface shall be held in contact by its own spring system. The seals shall require neither maintenance nor adjustment nor depend on direction of rotation for sealing. The position of both mechanical seals shall depend on the shaft. Mounting of the lower mechanical seal on the impeller hub will not be acceptable. For special applications, other seal face materials shall be available.

The following seal types shall not be considered acceptable nor equal to the dual independent seal specified: shaft seals without positively driven rotating members, or conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces. No system requiring a pressure differential to offset pressure and to effect sealing shall be used.

Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication. The motor shall be able to operate dry without damage while pumping under load.

Seal lubricant shall be FDA Approved, nontoxic.

Pump Shaft:	<p>Pump and motor shaft shall be the same unit. The pump shaft is an extension of the motor shaft. Couplings shall not be acceptable. The pump shaft shall be stainless steel – ASTM A479 S43100-T.</p> <p>If a shaft material of lower quality than stainless steel – ASTM A479 S43100-T is used, a shaft sleeve of stainless steel – ASTM A479 S43100-T is used to protect the shaft material. However, shaft sleeves only protect the shaft around the lower mechanical seal. No protection is provided for in the oil housing and above. Therefore, the use of stainless steel sleeves will not be considered equal to stainless steel shafts.</p>
Impeller:	<p>The impeller(s) shall be of gray cast iron, Class 35B, dynamically balanced, double shrouded non-clogging design having a long throughlet without acute turns. The impeller(s) shall be capable of handling solids, fibrous materials, heavy sludge and other matter found in wastewater. Whenever possible, a full vaned, not vortex, impeller shall be used for maximum hydraulic efficiency; thus, reducing operating costs.</p>
Wear Rings:	<p>A wear ring system shall be used to provide efficient sealing between the volute and suction inlet of the impeller. Each pump shall be equipped with a brass, or nitrile rubber coated steel ring insert that is drive fitted to the volute inlet.</p>
Volute:	<p>Pump volute(s) shall be single-piece grey cast iron, Class 35B, non-concentric design with smooth passages large enough to pass any solids that may enter the impeller.</p>
Protection:	<p>All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. The thermal switches shall open at 125°C (260°F), stop the motor and activate an alarm.</p>

5.10.3 Control Panel

All pump stations shall be provided with a control panel capable of operating the pump station across all flow requirements. The control panel shall be sized to match the voltage, phase, and load requirements of the station pumps. The control panel shall be configured as indicated on the New Bern standard control panel schematic. The control panel shall be produced by Multitrode, Inc., Pete Duty & Associates, Inc., Southern Flow, Inc. RS Integrators, Inc., or approved equal and be provided with the following general options:

- NEMA 4X Stainless steel enclosure with inner dead-front door, 3 point latch handle, enclosure light, and stainless steel sun shield.
- The Entire panel shall be UL/CUL approved
- Distribution, neutral & ground blocks
- Main & Generator(if needed) circuit breakers interlocked
- Generator Receptacle(if needed) – size and model to be determined by City
- Pump & control circuit breakers
- Control transformer
- Full voltage motor starters
- Indicator lights as illustrated on the New Bern standard schematic
- Hand-Off-Auto switches on the inner door
- Condensation strip heater for enclosure
- 12VDC battery, charger, and power supply
- Voltage phase monitoring
- 3-phase surge protection
- Hour meters mounted on inner door
- Convenience 120V GFCI power outlet and circuit breaker
- Current transformers for amps monitoring
- Multitrode - Multismart Pump Station Manager:
 - DNP3/MODBUS communication enabled
 - Flow calculation enabled
- New Bern Standard
- 1.5 meter primary liquid level sensing probe
- Ball float backup liquid level sensing system
- Alarm light and audible horn

For stations with pumps 60 HP or greater, the control panel shall be provided with a variable frequency drive (VFD) for each pump. Control panels with VFDs shall also be provided with appropriately sized auxiliary cooling system for the control panel. For stations with pumps between 25 and 60 HP, the control panel shall be provided with “soft start” motor starters for each pump.

5.10.4 Pressure Gauges

Each discharge pipe leaving the pump station shall be provided with a pressure gauge. The pressure gauge shall be located on top of the discharge pipe located within the valve vault. Each pressure gauge shall be oriented in a manner in which it is easily readable from above grade, without the need to enter the valve vault. Each gauge shall be provided with a ¼ turn brass ball valve that separates that gauge from the discharge pipe. The pressure gauge shall be liquid filled with single PSI indicator marks. The pressure gauge shall cover the full operational pressure range of the pump station.

5.10.5 Piping

All piping within the wet well structure and through the valve vault shall be Ductile Iron Pipe (DIP) conforming to the following standards:

Pipe:	Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.10/C-110
Joints:	Flanged joints conforming to ANSI A21.4
Lining:	All pipes and fittings shall be lined with Protecto 401 or approved equal.
Coating:	The exterior of all exposed pipes, fittings, and valves shall be coated with 2 coats (total 8 mils dried thickness) of Tnemec N69 Hi-Build Epoxoline II.

5.10.6 Check Valves

Check valves shall be provided on each pump discharge line and be located in a precast concrete valve vault. Check valves shall be horizontal mounted, swing type with a bronze disc and cast iron body. Check valves shall be manufactured by Mueller, American Darling, Apco Valves or an approved equal.

5.10.7 Access Hatches

Aluminum access hatches shall be provided for both the wet well and the valve vault. The frame shall be one piece and constructed of aluminum or stainless steel with integral concrete anchors. The cover(s) shall be constructed of one-quarter inch (1/4") thick diamond pattern plating, reinforced to withstand a live load three hundred pounds-per-square foot (300 psf). The cover(s) shall include a handle for raising and have a safety handle for locking in the open position. Access hatches shall be provided with a factory installed padlock hasp for locking each cover. All hatch hardware and hinges shall be constructed on stainless steel.

5.10.8 Vent Pipe

All proposed pump stations shall include a mushroom type vent for the wet well structure. The vent shall be constructed of four inch (4"), class 150 cast iron vent pipe. Vent outlets shall be provided with a two (2) mesh, 14 gauge, bronze wire screen.

5.10.9 Guide Bracket Assembly

Two (2) guide bars shall be provided for the raising and lowering of each pump. Guide bars shall be stainless steel pipe, extending from the lower guide holders to the upper guide holders. Lower guide holders shall be integral with the pump discharge connection. Guide bars shall not support any portion of the weight of the pumps.

5.10.10 Conduit

All conduit utilized in the construction of pump stations shall meet the NEC standards of for location and use. All conduits between the control panel and the wet well shall be no smaller than 1.5" and the conduits for the pump leads shall be no smaller than 2". All conduit from the wet well shall have a pull box (C-box) located prior to entering any panel. The pull box shall be sealed on both sides with removable sealer.

5.11 GENERATOR

All pump stations with a calculated average daily design flow of 15,000 gallons per day or more shall be provided with an onsite backup diesel generator with an automatic transfer switch. The generator shall be sized to provide full load of all pumps along with any auxiliary items located at the station. The generator shall be produced by Atlantic Cummins, MTU Onsite Energy, CAT Electric Power, Power Secure, Kohler or approved equal and be provided with the following general options:

- Tier 3 EPA Emissions Certified.
- UL2200 Listed.
- NFPA 110 alarm package.
- Radiator with engine driven fan.
- Output breaker mounted on generator.
- Steel weather protective enclosure, Level 2 sound attenuation.
- Sub-base fuel tank sized for min. of 24 hours at full load.
- Battery rack with battery and charger.
- Control panel with auto starts/stops, alarms, & shut downs.
- Coolant/block heater.

The generator shall be provided with the appropriate size automatic transfer switch housed in a NEMA 4X cabinet. The transfer switch shall include an integrated engine exerciser/exercise clock.

5.12 ENCASEMENT PIPE

Encasement pipe be uncoated steel pipe conforming to the standards of AWWA C200. Pipe sections shall be joined by a continuous weld. The minimum wall thickness shall be as follows:

<u>Encasement Pipe Dia.</u>	<u>Wall Thickness</u>
14"	0.216"
16" – 24"	0.250"
30"	0.312"
36"	0.375"
42"	0.438"
48"	0.500"

Encasement pipe install under a railroad shall meet the minimum wall thickness requirements as set forth by the governing railroad authority.

5.13 TRACER WIRE

The wire shall be 12 gauge, single strand copper wire, HDPE coated and water proof. Tracer wire for use in conjunction with directional bores shall be 12 AWG, copper-clad steel. The steel shall be high carbon 1055 grade and the HDPE coating shall be a minimum of 45 mils. Tracer wire for directional drilling shall be Soloshot by Copperhead Industries, Pro-Trace by Proline Safety Products, or an approved equal.

SECTION 6.0

TESTING REQUIREMENTS

6.1 GENERAL

All items which require testing shall be promptly cleaned and ready for testing after installation. Meeting all testing requirements specified herein shall be a condition of acceptance of the item by the City of New Bern. In no case shall an item be accepted into the City of New Bern municipal water or sanitary system without passing the required testing. A representative of the City of New Bern Water Resources Department must be on site to witness all required testing procedures. The City of New Bern Water Resources Department (252-639-7523) requires a 48 hour notice for each test.

6.2 WATER MAINS

6.2.1 Leakage Testing

All pressure pipe shall be tested in accordance with current AWWA standards; AWWA C600 for ductile iron pipe and AWWA605 for PVC pipe. All proposed water mains shall be subjected to a leakage test under the specified hydrostatic pressure. The pressure shall be maintained constant at one hundred fifty pounds per square inch (150 psi) (plus or minus five psi) during the entire time that line leakage measurements are being made.

The water lines are to be flushed thoroughly to remove all dirt and debris which may have collected in the line. After flushing has been completed, the pipelines shall be tapped on top at a point furthest from the point that the lines are to be filled with water. The valve at the end of the line shall be left open, and the valve between the new water line and the City Water System opened slightly to allow the water to enter the new pipe slowly. Once the pipe is full, the valve at the end of the line shall be left open until the valve between the new water line and the City Water System is completely shut off. At no time shall the City Water System valve be open without an outlet in the new pipe system. A representative of the City of New Bern is the only authorized operator of valves within the City Water System.

Leakage measurements shall not be started until a constant test pressure has been established; compression of air trapped in unvented pipes or fittings will give false leakage readings under changing pressure conditions. After the test pressure to be used has been established and stabilized, the line leakage shall be measured by means of a water meter installed on the line side of the force pump, and the leakage test shall extend over a total period of not less than four (4) hours.

Line leakage is defined as the total amount of water introduced into the line as measured by the meter during the leakage test. The pipeline or section being tested will not be accepted if it has a leakage rate in excess of:

$$L = \frac{S \times D \times (\text{square root of } P)}{148,000}$$

where L = allowable leakage in gallons per hour, S = length of pipe in feet, D = nominal diameter of the pipe in inches, and P = average test pressure during the leakage test in pounds per square inch (150 psi).

All visible leaks shall be repaired. The Contractor shall locate and repair leaking joints to the extent required to reduce the total leakage to an acceptable amount. All joints in piping shall be watertight and free from visible leaks during the prescribed test. Each leak which is discovered within one year after final acceptance of the work shall be located and repaired by and at the expense of the Contractor.

6.2.2 Disinfection

After passing the leakage test, all water mains shall be disinfected in accordance with AWWA C-651, and as specified herein. The valve at the end of the line shall be left open, and the valve between the new water line and the City Water System opened slightly to allow the water to enter the new pipe slowly. Chlorine is then to be applied under pressure by an ejector pump (or equal) to the water entering the new pipeline. Chlorine will be added in sufficient quantities to give an overall chlorine residual to the water of at least fifty (50) parts per million. Once the pipe is fully chlorinated, a representative of the City of New Bern Water Resources Department shall be contacted to perform a high chlorine test. At no time during testing shall the City Water System valve be open without an outlet in the new pipe system. A representative of the City of New Bern is the only authorized operator of the valves within the City Water System.

After the water main passes the high chlorine test the pipeline is to be valved off and the chlorinated water allowed remaining in the line for twenty four (24) hours. After the twenty four (24) period, the chlorine residual in the line must be at least ten (10) parts per million. After passing the chlorine residual test, the pipe line is to be thoroughly flushed until no evidence of chlorine exists as determined by the Orthotolidine Test.

After flushing the line, the Contractor shall furnish sterilized bottles and take water samples from various points along the line as directed and witnessed by the City of New Bern. A minimum of two samples shall be taken in any instance. The Contractor shall send the samples to an approved testing laboratory, for bacteriological analysis. If the analysis reveals that no bacteria is present and the requirements for final inspection have passed, the pressure pipe system may be placed into service upon written notification from the Director of Water Resources.

The City of New Bern reserves the right to modify and/or change the test, test procedures, and/or passing level results without prior notice.

6.3 SANITARY SEWER MAINS

6.3.1 Gravity Sewer Mains

Each section of proposed gravity sewer shall be promptly cleaned and tested after installation. The following test shall be performed on proposed gravity sewer mains:

Air Test – All proposed gravity sewer mains shall be air tested in accordance with ASTM C-828, ASTM C-924 and the following. Such tests shall consist of securely plugging the sewer line between manholes, pumping the section full of air to 4.0 psi and holding this pressure for at least two (2) minutes. Then the pressure should be reduced to 3.5 psi and the time recorded for the pressure to drop 1.0 psi to the new pressure of 2.5 psi. If groundwater is present, all test pressures shall be adjusted by adding 0.43 psi for each foot of groundwater head that exist above the pipe invert. The time required for the pressure drop shall exceed the minimum test time given in the chart below,

Pipe Diameter (in)	Minimum Test Time (Min)	Length for Minimum Test Time (ft)	Time for Longer Lengths (sec)	Specification Time for Length (L) Shown (min:sec)							
				100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	3:46	597	.380 (L)	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854 (L)	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520(L)	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374(L)	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418(L)	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342(L)	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692(L)	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41

Deflection Test - A Deflection test shall be performed on all sanitary sewer mains constructed of non-ferrous materials. This test shall be performed after all grading, paving, and compaction work has been completed. The allowable deflection shall be 4.5% of the nominal inside diameter of the pipe. The deflection shall be measured by the use of the mandrel test.

Closed Circuit T.V. Inspection – All proposed gravity sewer mains shall undergo a closed circuit T.V. inspection prior to being accepted by the City of New Bern. The City of New Bern will conduct the inspection. Any slumps, high points, low points, swells, standing water, accumulations of dirt and debris, rolled gaskets, leaks or other defects shall be corrected by the Contractor prior to any other test being performed. The Director of Water Resources shall have the final decision on all discrepancies.

6.3.2 Sewer Force Mains

All proposed sewer force mains shall be subjected to a leakage test under the specified hydrostatic pressure. The test pressure shall be one and one-half times the maximum working pressure of the pipe segment. The test pressure shall be maintained constant (plus or minus five psi) during the entire time that line leakage measurements are being made.

The sewer force mains are to be flushed thoroughly to remove all dirt and debris which may have collected in the line. After flushing has been completed, the force main shall be filled slowly with water. One end of the pipe shall be vented to allow the release of air during filling. Once the force main is full of water all vents shall be closed and a pump shall be used to increase the pressure in the force main to the required test pressure.

Leakage measurements shall not be started until a constant test pressure has been established; compression of air trapped in unvented pipes or fittings will give false leakage readings under changing pressure conditions. After the test pressure to be used has been established and stabilized, the line leakage shall be measured by means of a water meter installed on the line side of the force pump, and the leakage test shall extend over a total period of not less than two (2) hours.

Line leakage is defined as the total amount of water introduced into the line as measured by the meter during the leakage test. The pipeline or section being tested will not be accepted if it has a leakage rate in excess of:

$$L = \frac{S \times D \times (\text{square root of } P)}{148,000}$$

Where L = allowable leakage in gallons per hour, S = length of pipe in feet, D = nominal diameter of the pipe in inches, and P = average test pressure during the leakage test in pounds per square inch.

All visible leaks shall be repaired. The Contractor shall locate and repair leaking joints to the extent required to reduce the total leakage to an acceptable amount. All joints in piping shall be watertight and free from visible leaks during the prescribed test. Each leak which is discovered within one year after final acceptance of the work shall be located and repaired by and at the expense of the Contractor.

6.4 MANHOLES

All manholes on proposed sewer main extensions shall be vacuum tested as specified herein. Manholes shall be tested after complete assembly. Stub-outs, manhole boots and pipe plugs shall be secured to prevent movement while the vacuum is drawn. A measured vacuum of 10 inches of mercury shall be established in the manhole. Acceptance standards for leakage shall be established from the

elapsed time for a negative pressure change from 10 inches to nine inches of mercury. The maximum allowable leakage rate for a four-foot diameter manhole shall be in accordance with the following:

Minimum Elapsed Time for a

<u>Manhole Depth</u>	<u>Pressure Change of 1" Hg</u>
10 ft. or less	60 seconds
> 10 ft. but < 15 ft.	75 seconds
> 15 ft. but < 25 ft.	90 seconds

For manholes five feet in diameter, add an additional 15 seconds and for manholes six feet in diameter, add an additional 30 seconds to the time requirements for four foot diameter manholes.

If the manhole fails the test, necessary repairs shall be made and the vacuum test and repairs shall be repeated until the manhole passes the test. The extent and type of repairs that may be allowed shall be subject to the approval of the Director of Water Resources. Leaks shall be repaired on the outside of the manhole unless otherwise approved by the Director of Water Resources.

If manhole joint mastic is completely pulled out during the vacuum test, the manhole shall be disassembled and the mastic replaced.

6.5 PUMP STATION TESTING AND START-UP

Prior to the acceptance of a pump station, a run test and start-up shall be completed by a representative of the pump and generator manufacturer. During the start-up the pump station will be required to operate under the anticipated loading and system conditions. All pumps and control functions shall be tested during the start-up procedure. All possible run situations shall be tested to ensure proper flow is maintained at actual system pressures. The City of New Bern Water Resources Department shall be contacted at least 48 prior to conducting the pump station start-up. The contractor shall not discharge the new pump station into the existing City system without approval from the City of New Bern. The following items should be complete prior to scheduling the pump station start-up:

- Electrical work inspected and an energizing permit issued by the appropriate agency.
- The electrical service established with the City of New Bern as the customer.
- Verify the rotation of the pumps.
- Confirm that all main line valves and air release valves are open and in proper working order.

6.6 S.T.E.P. SYSTEM TANKS

All S.T.E.P. system tanks shall be vacuum tested by the manufacturer prior to delivery. Upon delivery all tanks shall be set in place and vacuum tested again by the tank installer to insure that no seals were damaged in the delivery and installation of the tank. The onsite test shall be performed in the presence of a City of New Bern representative. Tanks shall be tested with the riser and manhole ring installed. All testing equipment shall be supplied by the tank provider.

All tank inlets and outlets shall be sealed and a measured vacuum of 3.5 inches of mercury shall be established in the tank and held for a period of five (5) minutes. During the test period no leakage shall be allowed. If the tank fails the test, necessary repairs shall be made and the vacuum test and repairs shall be repeated until the tank passes the test. The extent and type of repairs that may be allowed shall be subject to the approval of the Director of Water Resources.

6.7 TAPPING SLEEVES

Prior to making any tap on an existing City of New Bern water or sewer main, the tapping sleeve or saddle shall pass a pressure test. The tapping sleeve shall be hydrostatically tested through the test plug for a period of five (5) minutes. During the test period, no leakage shall be allowed. Air testing of tapping sleeves shall not be permitted.

SECTION 7.0

REQUIREMENTS DURING CONSTRUCTION AND PROJECT CLOSEOUT

7.1 PRIOR TO CONSTRUCTION

The following shall be completed prior to any construction commencing on water or sewer extension projects:

7.1.1 Notice to Proceed Issued The City of New Bern

Once the City of New Bern Water Resources Department has approved the proposed design and confirmed that all required permits, encroachment agreements, and utility easements have been executed and issued by the appropriate agencies, a notice to proceed will be issued by the City to the Contractor.

7.1.2 Material Inspection

Once all materials are on site, the Contractor shall contact the City of New Bern Water Resources Project Coordinator (252-639-7523) to schedule an onsite inspection of all proposed construction materials. No material shall be used in utility construction until the material inspection has been performed.

7.1.3 Shop Drawing Submittal

Shop Drawings shall be submitted to the City of New Bern Water Resources Department for review of the following items:

- Pumps
- Control Panels
- Lift Station Electrical Components
- Generator
- Booster Pumps
- RPZ
- Automatic Air Release Valves

7.1.4 N.C. ONE CALL

The NC One Call Center (1-800-632-4949) shall be contacted a minimum of forty-eight (48) hours prior to beginning excavation. The Contractor shall be responsible for keeping locate tickets current and contacting the One Call Center if unmarked utilities should be encountered.

7.1.5 Contractor to Notify The City of New Bern

At least forty-eight (48) hours prior to the start of any construction, the contractor shall notify the City of New Bern Water Resources (252-639-7523). Depending on the nature of the project the Director of Water Resources may require that a preconstruction conference be held to discuss the details of the project.

7.2 DURING CONSTRUCTION

7.2.1 Notices to Property Owners and Local Utilities

The Contractor shall notify adjacent property owners and utilities when the project execution may affect adjacent properties. The contractor shall notify the appropriate authorities when the project operations will interrupt access or utility service to the property owner or tenant. Utilities and other agencies shall be contacted at least twenty four (24) hours prior to cutting or closing streets, or excavating near underground utilities or pole lines.

7.2.2 General Safety Requirements

Excavations shall provide adequate working space and clearance as necessary to provide proper pipe installation and work safety. Excavations performed on NCDOT rights of way shall be protected from traffic utilizing the NCDOT Uniform Traffic Control Manual (latest edition). Minimum requirements shall include proper signage, flagmen, protective vests and hardhats as outlined in the manual. The Contractor shall provide a Competent Person for trench construction on site, as outlined in OSHA regulations, for all excavations that exceed four feet (4') in depth. The Director of Water Resources may stop work for any violation of the aforementioned regulations when the safety of any person acting as a representative, agent, or employee of the Contractor is considered in imminent danger. Work may continue only after the violation has been rectified and the Director of Water Resources grants permission to proceed.

7.2.3 Connections to Existing Water or Sewer Mains

The Contractor shall make all necessary connections to existing water lines, unless otherwise directed by the City of New Bern. The City shall be notified at least twenty four (24) hours prior to making such connections. Taps shall be made only in the presence of the City of New Bern Water Resources Project Coordinator or a duly assigned representative of the City of New Bern Water Resources Department. At all times, the Contractor shall protect existing facilities against adverse conditions or substances and damage.

Connections to existing water and sewer lines shall be planned in advance with all required equipment, materials, and labor on hand prior to undertaking the connections. Work shall proceed continuously around the

clock if necessary to complete connections in minimum time. Operation of valves or other equipment on the existing water system shall be under the direct supervision of the City of New Bern.

7.2.4 Site Administration

The Contractor shall be responsible for all areas of the site under construction or occupied for administrative or storage purposes. The Contractor shall be responsible for all Subcontractors in their performance on the project. The Contractor will be responsible for the actions of all employees and other persons on the project to insure proper use and preservation of property and existing facilities, except when these responsibilities are specifically reserved to others. The Contractor has the right to exclude from the construction site any persons who are not directly related to the construction process or the inspection of the work by the Owner. The contractor may require all persons on the construction site to observe all operational or safety regulations required of his employees. The Contractor shall keep the project site free from accumulations of waste materials and rubbish at all times.

7.2.5 Project Inspections

For all proposed water and sewer extension projects, the Developer shall provide complete engineering services which shall include construction observation. It shall be the responsibility of the Project Engineer and ultimately the Developer, to insure that all construction is completed as shown on the plans which have been approved for construction by the City of New Bern.

The City of New Bern Water Resources Project Coordinator will periodically visit the site during construction and will be on site for all testing and inspections as required by the City of New Bern. It is NOT the duty of the City of New Bern Water Resources Project Coordinator to direct construction, provide solutions to design problems or maintain record drawings. These services shall be provided by the Project Engineer.

7.3 PROJECT CLOSEOUT

7.3.1 General

All items listed in this section must be completed before the City of New Bern will accept any new construction as part of the City's municipal water and sewer system.

7.3.2 Final Inspection

Upon completion of construction and all required testing, the Contractor shall contact the City of New Bern Water Resources Project Coordinator to schedule a final inspection. During the final inspection the Water Resources

Project Coordinator will insure that all aspects of the water and sewer construction have been completed in compliance with the current City standards. The Contractor shall provide all personal and tools which will be required for opening manholes, exercising valves, and flowing hydrants. The City of New Bern prefers for the streets within the development to be paved at the time of final inspection. If the streets have not been paved, then all structures within the street shall be set in place with concrete prior to requesting the final inspection. Valve boxes shall be set in a minimum of an 18"x18"x18" block of concrete and manhole rings shall be set in a minimum of a 36"x36"x18" block of concrete.

During the final inspection, the Water Resources Project Coordinator will create a punch-list if any deficiencies are discovered. The Contractor shall complete all items described on the punch-list prior to requesting a re-inspection.

7.3.3 Record Drawings

Upon completion of all utility projects, the Project Engineer shall submit an "As Built" set of plans to the Director of Water Resources. All As Built information on the plans shall be clearly identified (bold text, different text, boxed-out, etc.). Proposed information which has changed shall be marked through. The "As Built" plans shall indicate the horizontal and vertical location of all installed utilities. All bends, reducers, and valves shall be located with at least two (2) measurements to existing features (back of curb, utility pole, hydrant, etc.). Horizontal pipe location shall be shown at one hundred foot intervals along the pipe as measured from the back of curb or the edge of pavement. **For sewer force mains the elevation of the installed pipeline shall be indicated on the record drawings in 50' intervals. All elevations shown shall be based on a datum elevation from an existing USGS monument.** The record drawings shall be submitted in the following formats:

1. (1) – Sets of Plans 24" x 36" on Standard Bond Paper
2. (1) – Flash drive containing the project drawing files in PDF format.

7.3.4 Utility Easements

Prior to project acceptance, a final plat of the development shall be recorded with the Craven County Register of Deeds. The final development plat shall clearly illustrate all proposed utility easements.

7.3.5 Engineer's Certification

For projects which involve the extension of the City of New Bern water system the Project Engineer shall submit to the City a copy of the Engineer's Certification stating that the completed water system extension conforms to the approved plans and specifications as required by the NCDEQ.

For projects which involve the extension of the City of New Bern sewer system the Project Engineer shall submit to the City a copy of the Engineer's Certification stating that the completed sewer system extension conforms to the approved plans and specifications as required by the NCDEQ.

7.3.6 Total Project Cost

Upon completion of all construction, the Project Engineer shall submit to the Director of Water Resources the total cost all improvements related to the water and sewer system. This submittal shall include the Contractor's original Bid and all additional Change Orders.

7.3.7 Warranty

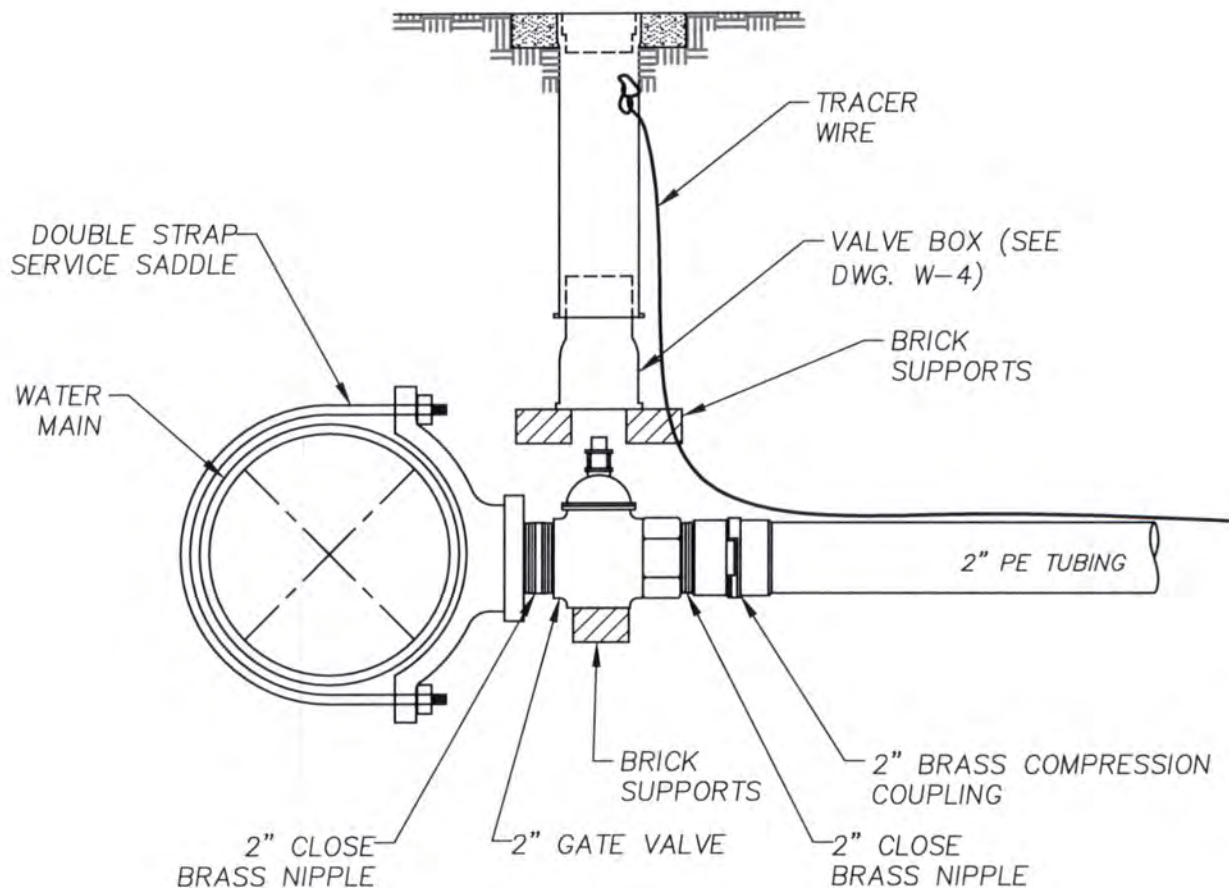
The Developer shall warrant all water and sewer work to be free of defects in materials or workmanship for a period of two (2) years. The warranty period shall begin from the date of City's acceptance of the project for permanent operation and maintenance.

7.3.8 Final Acceptance

Once the items listed in 7.3.1 – 7.3.6 have been completed the Director of Water Resources will issue the letter of acceptance, which will outline the terms, if any of the infrastructure acceptance and set the start/end dates for the (2) year warranty period.

SECTION 8.0
STANDARD WATER & SEWER DETAILS

STANDARD DRAWING No. W-1



NOTES:

1. METER TO BE SUPPLIED AND INSTALLED BY THE CITY.
2. METER BOX SHALL BE A STANDARD ASTM A-48 CLASS 35B CAST IRON MBX-1 BOX AND LID WITH 2" READ HOLE. METER BOX FOR 2" METERS AND LARGER SHALL BE A MBX-5 BOX.
3. TRACER WIRE SHALL BE INSTALLED ON ALL WATER SERVICES EXTENDING CONTINUOUS FROM THE MAIN INTO THE METER BOX. THE WIRE SHALL BE 12 GA. HDPE COATED, SOLID CORE COPPER. 18"-24" OF TRACER WIRE SHALL BE COILED UP IN THE METER BOX

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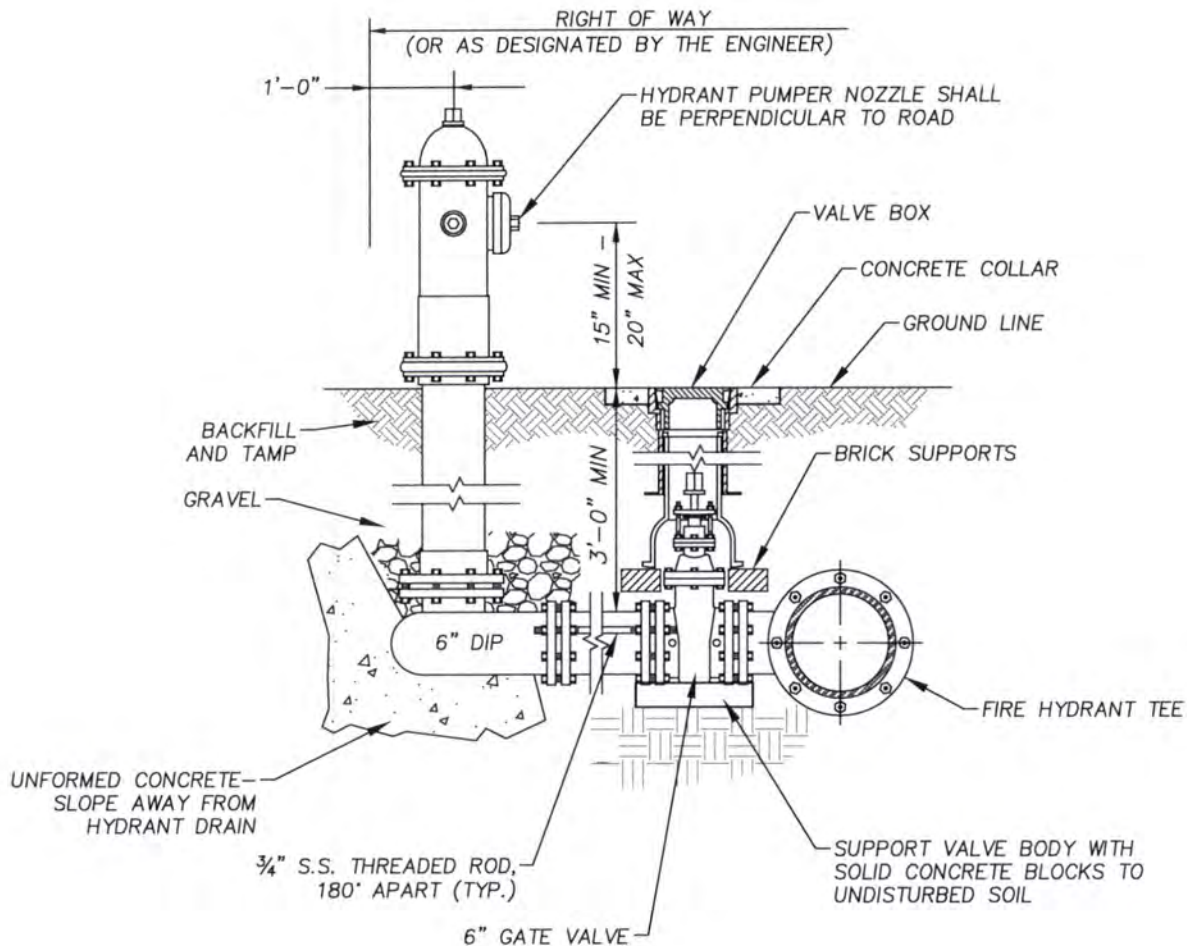
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Department of Water Resources

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TYPICAL 2" WATER SERVICE CONNECTION

STANDARD DRAWING No. W-2



NOTES:

1. HYDRANT SHALL BE MUELLER MODEL NO. A421, OR AMERICAN-DARLING MODEL MK73-5, 4-1/2".
2. HYDRANT SHALL BE PROVIDED WITH STANDARD NEW BERN STORZ CONNECTION ON THE PUMPER NOZZLE.

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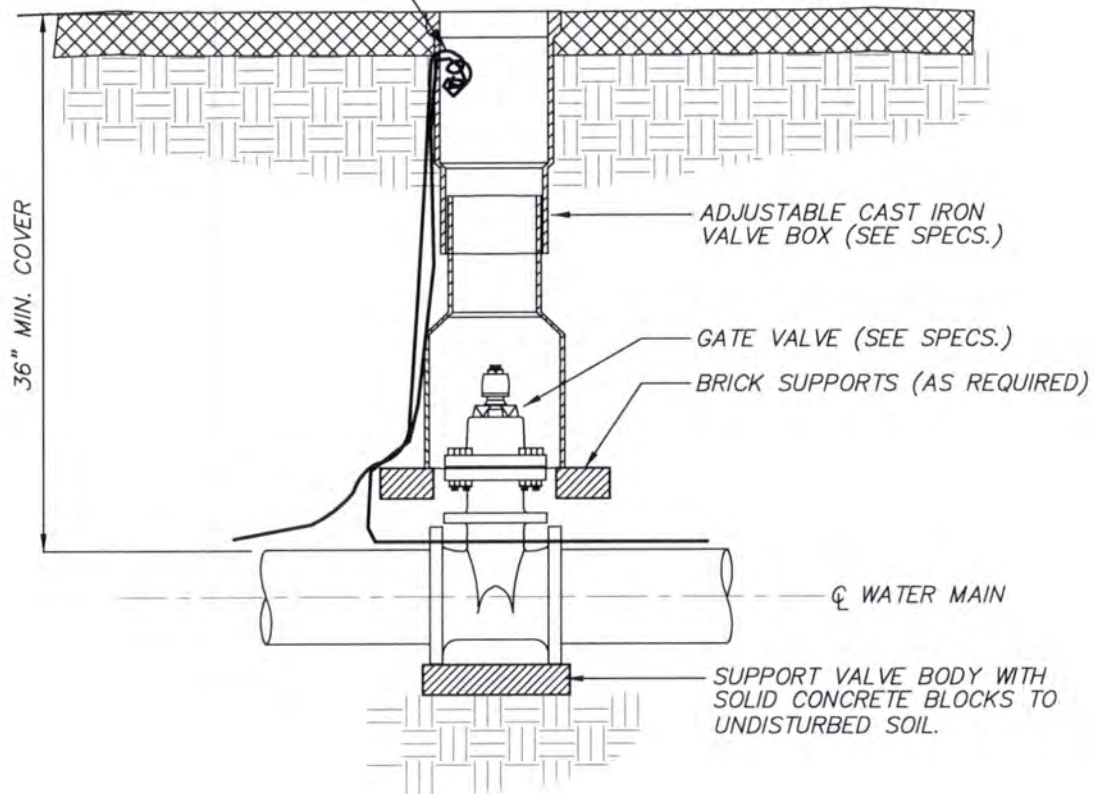
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TYPICAL FIRE HYDRANT ASSEMBLY

STANDARD DRAWING No. W-3

BRING TRACER WIRE INTO
AND OUT OF VALVE
BOX THROUGH $\frac{1}{2}$ " HOLE.
LEAVE 24" OF WIRE
COILED IN BOX.



NOTES:

1. PROVIDE PRECAST COLLAR FOR VALVES IN UNPAVED AREAS.

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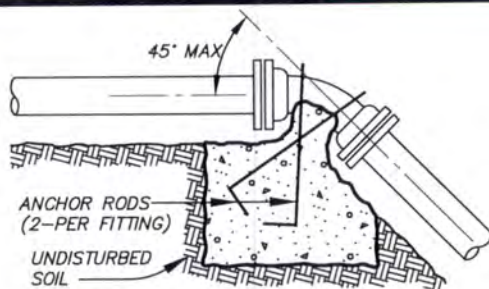
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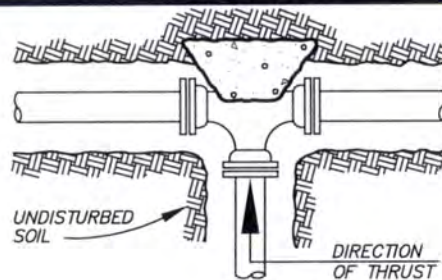
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TYPICAL VALVE AND VALVE BOX

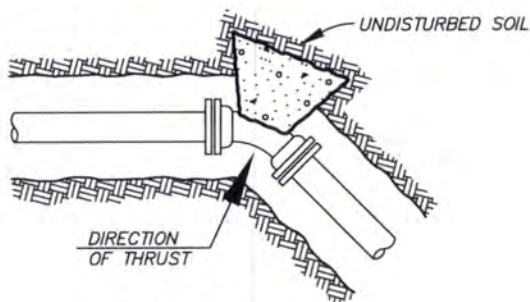
STANDARD DRAWING No. W-4



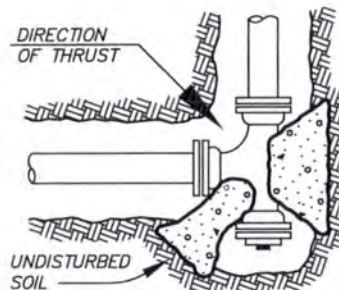
VERTICAL BENDS AND ANCHORS



TEE



HORIZONTAL BENDS



TEE AND PLUG

CONCRETE THRUST BLOCKING SCHEDULE						CONCRETE SCHEDULE VERTICAL BENDS				ANCHOR ROD SIZE
FITTING SIZE	BEARING AREA IN SQUARE FEET					MIN. CU. YARDS CONCRETE				FOR VERTICAL BEND AND ANCHORS
	TEE/PLUG	90°	45°	22-1/2°	11-1/4°	90°	45°	22-1/2°	11-1/2°	
4"	1	2	1	1	1	1	1	1	1	1/2"
6"	3	3	2	1	1	1	1	1	1	
8"	4	6	3	2	1	2	2	1	1	
10"	7	9	5	3	2	3	3	2	1	3/4"
12"	9	12	7	4	2	5	3	2	1	
14"	12	17	9	5	3	6	4	3	2	
16"	16	22	12	6	3	8	6	3	2	7/8"
18"	20	27	15	8	4	10	7	4	2	
20"	24	34	18	10	5	12	9	5	3	
24"	34	48	26	14	7	17	12	7	4	1-1/8"
30"	53	75	41	21	11	27	19	10	5	
36"	77	108	59	30	15	38	27	15	8	1-3/8"

NOTES:

1. MINIMUM BEARING AREA (IN SQUARE FEET) AGAINST UNDISTURBED TRENCH WALL OF SAND.
2. AREAS SHOWN ARE FOR 150 PSI TEST PRESSURE. IF TEST PRESSURE IS OTHER THAN 150 PSI, ADJUST AREA OF REACTION BACKING IN DIRECT PROPORTION.
3. OTHER SOIL CONDITIONS :

CEMENTED SAND OR HARDPAN - MULTIPLY ABOVE BY 0.5
GRAVEL OR HARD DRY CLAY - MULTIPLY ABOVE BY 0.7
SOFT CLAY - MULTIPLY ABOVE BY 2.0

MUCK: SECURE ALL FITTINGS WITH APPROVED HARNESS OR TIE ROD CLAMPS, WITH CONCRETE REACTION BACKING THE SAME AS LISTED FOR SAND CONDITIONS.

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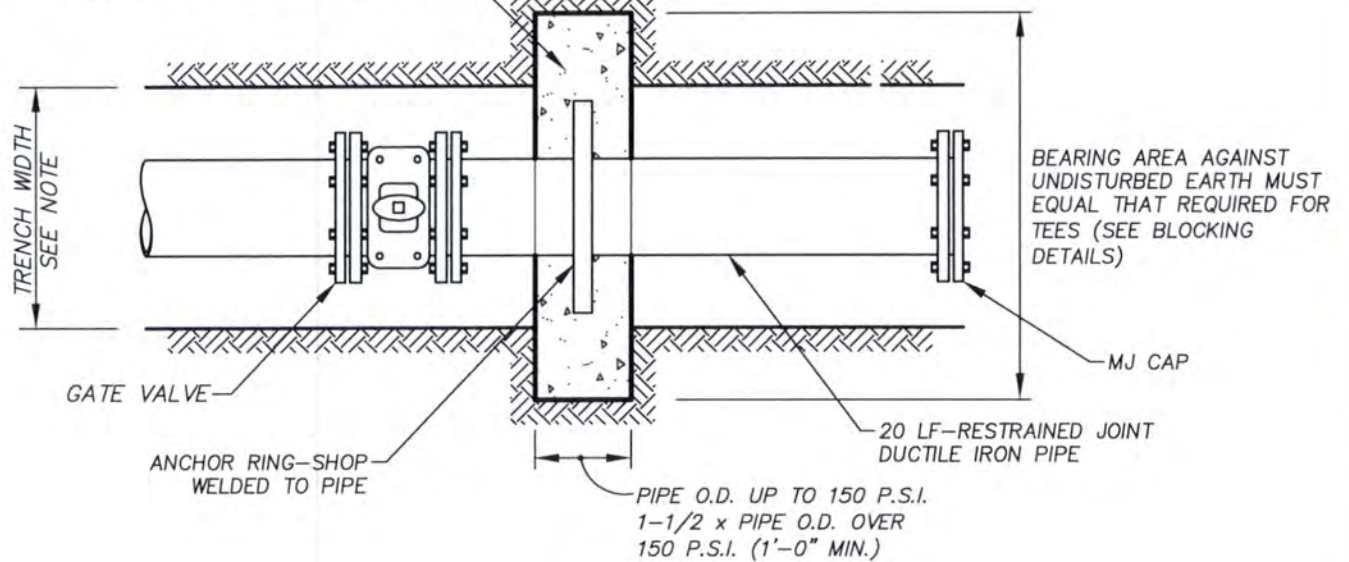
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THRUST BLOCKING AND ANCHORING SCHEDULE

STANDARD DRAWING No. W-5

2500 P.S.I. CONCRETE ENCASEMENT ALL
AROUND FOR REACTION BACKING



ANCHOR RING DIMENSIONS

NOMINAL PIPE SIZE	O.D. OF RINGS	THICKNESS
4" - 12"	PIPE O.D. + 6"	1/2"
16" - 24"	PIPE O.D. + 7"	3/4"

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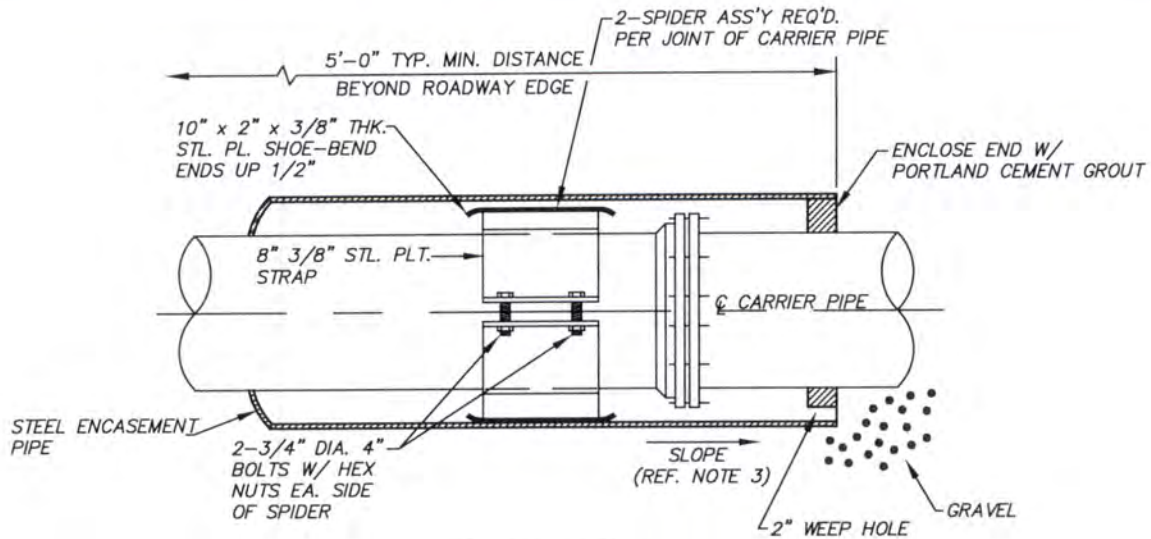
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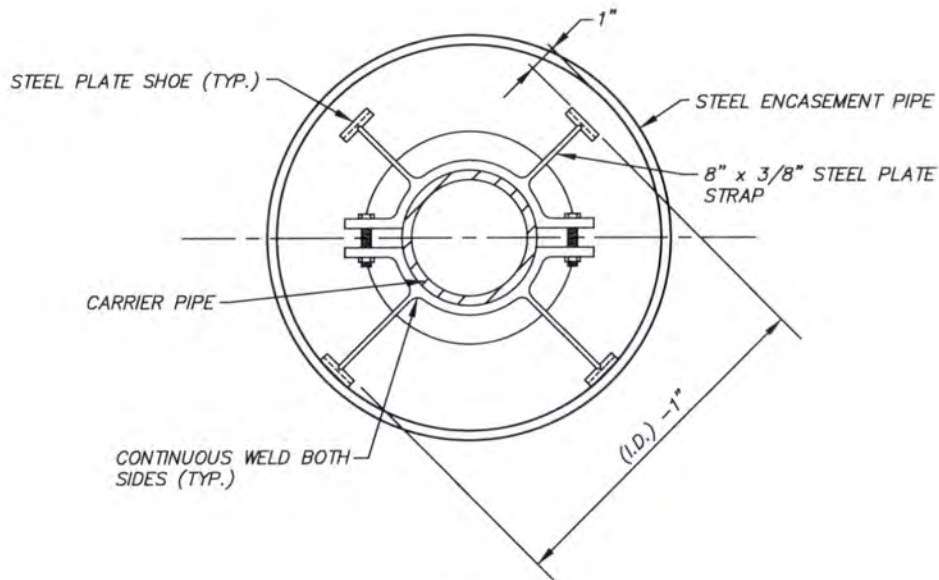
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TYPICAL THRUST COLLAR DETAIL

STANDARD DRAWING No. W-6



CASING SECTION



END ELEVATION

NOTES:

1. ENTIRE SPIDER ASSEMBLY TO BE BITUMINOUS COATED AFTER FABRICATION
2. FIELD MODIFY AS REQUIRED TO PROVIDE DESIGN SLOPE IN CARRIER PIPE.
3. STEEL ENCASEMENT TO BE INSTALLED IN ACCORDANCE WITH APPROVED DESIGN PLANS, ALL REVISIONS OR MODIFICATIONS ARE SUBJECT TO APPROVAL.

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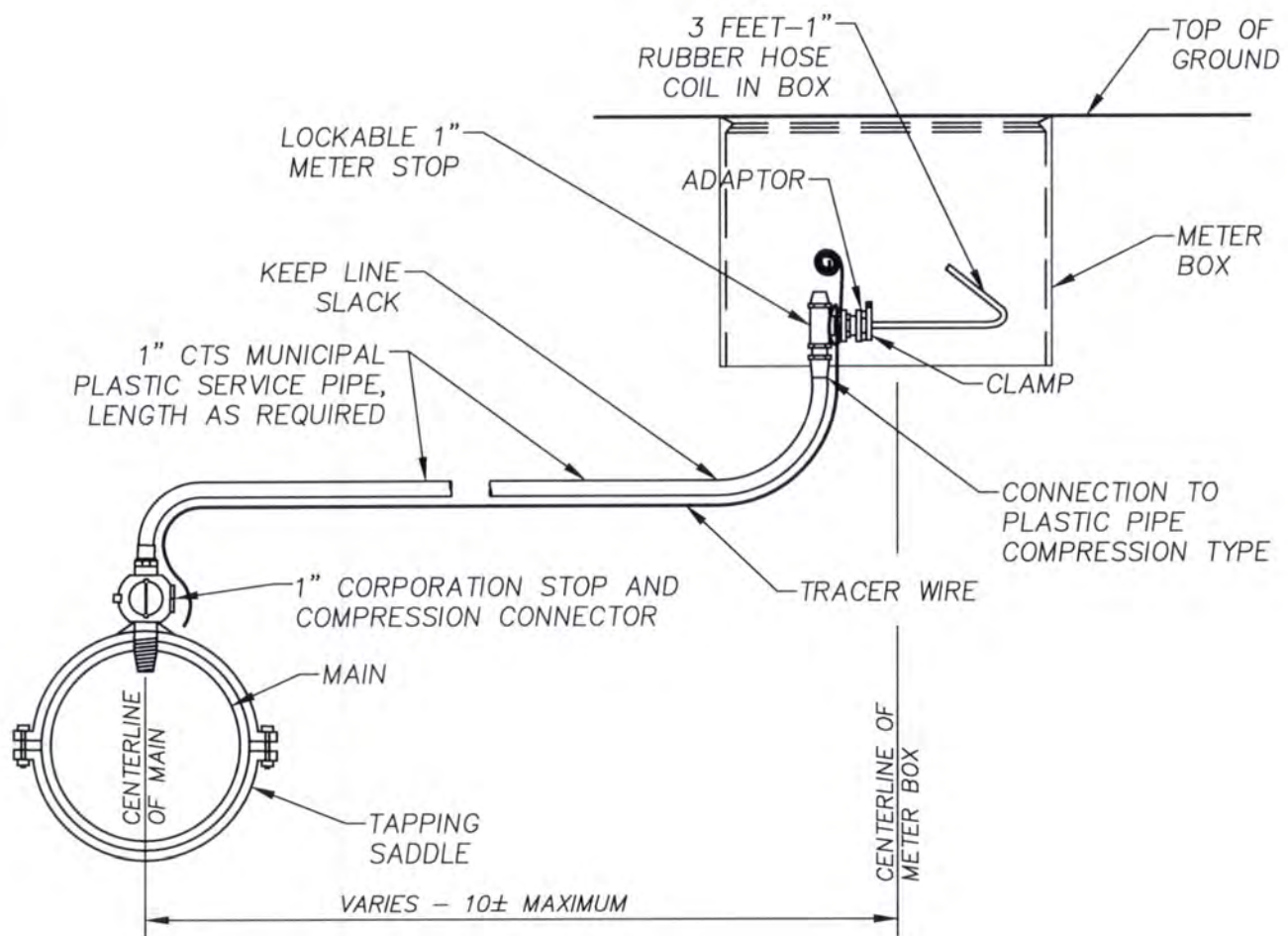
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TYPICAL PIPE ENCASEMENT DETAIL

STANDARD DRAWING No. W-7



NOTES:

1. TAP ON THE MAIN SHALL BE MADE IN THE POSITION SHOWN.
2. LOCATE METER BOX AS SHOWN ON THE PLAN OR AS DIRECTED IN THE FIELD.
3. PIPE FROM MAIN TO METER STOP TO BE LEVEL OR CONTINUOUS UPGRADE.
4. TOP OF BOX TO BE GREATER THAN OR EQUAL TO 10" BELOW ELEVATION OF ADJACENT EDGE OF PAVEMENT WHEN SET IN ROAD/STREET SHOULDER. EXACT LOCATION OF BOX TO BE DETERMINED IN THE FIELD. SET FLUSH WITH FINISH GRADE WHERE NO PAVEMENT EXISTS.

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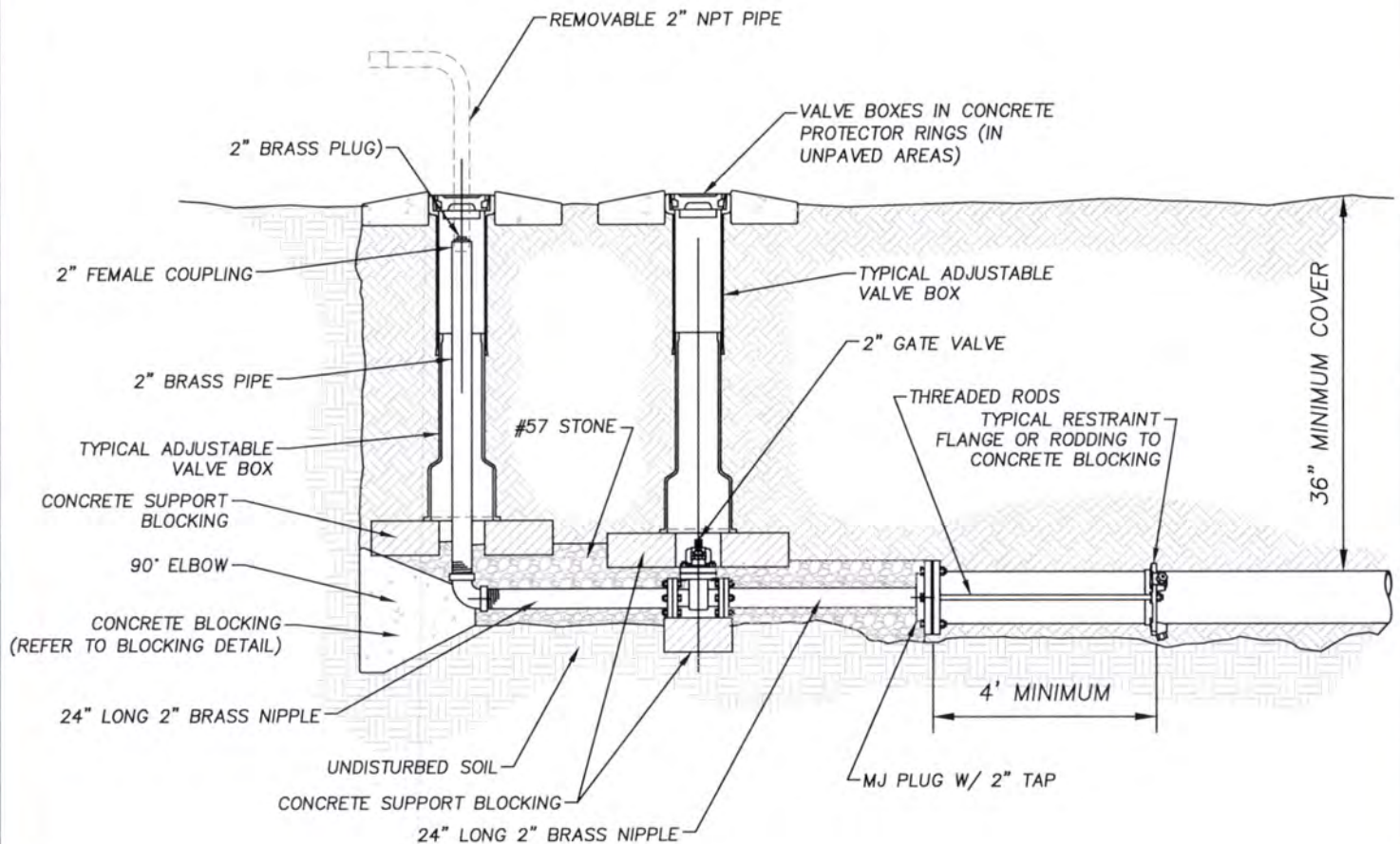
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MANUAL AIR RELEASE VALVE

STANDARD DRAWING No. W-8

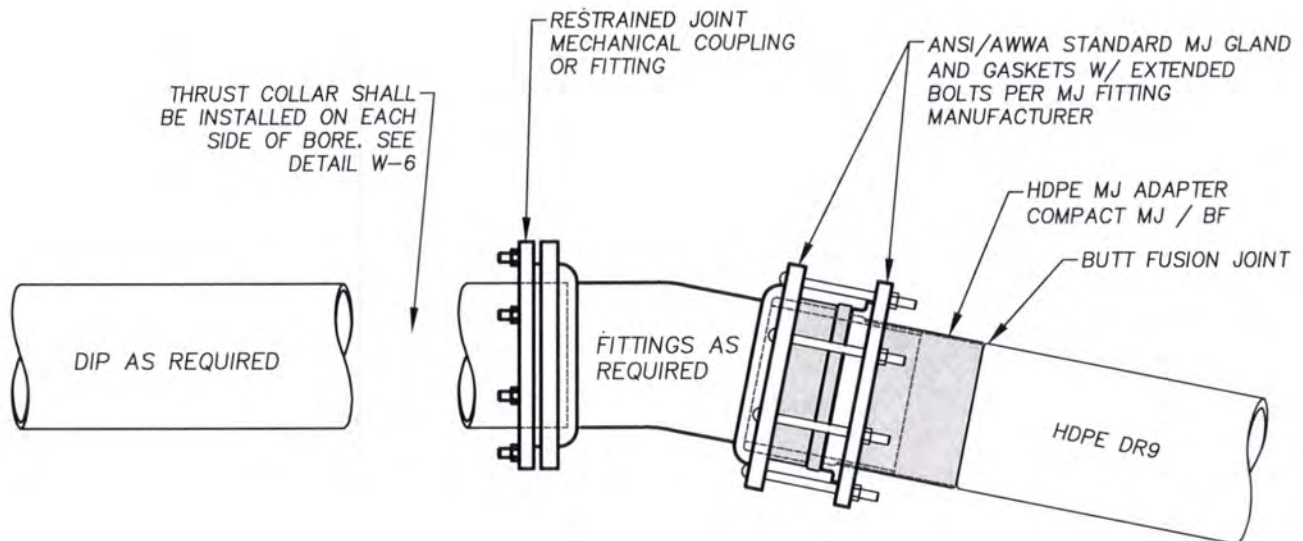


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PERMANENT 2" END-OF-LINE BLOWOFF

STANDARD DRAWING No. W-9



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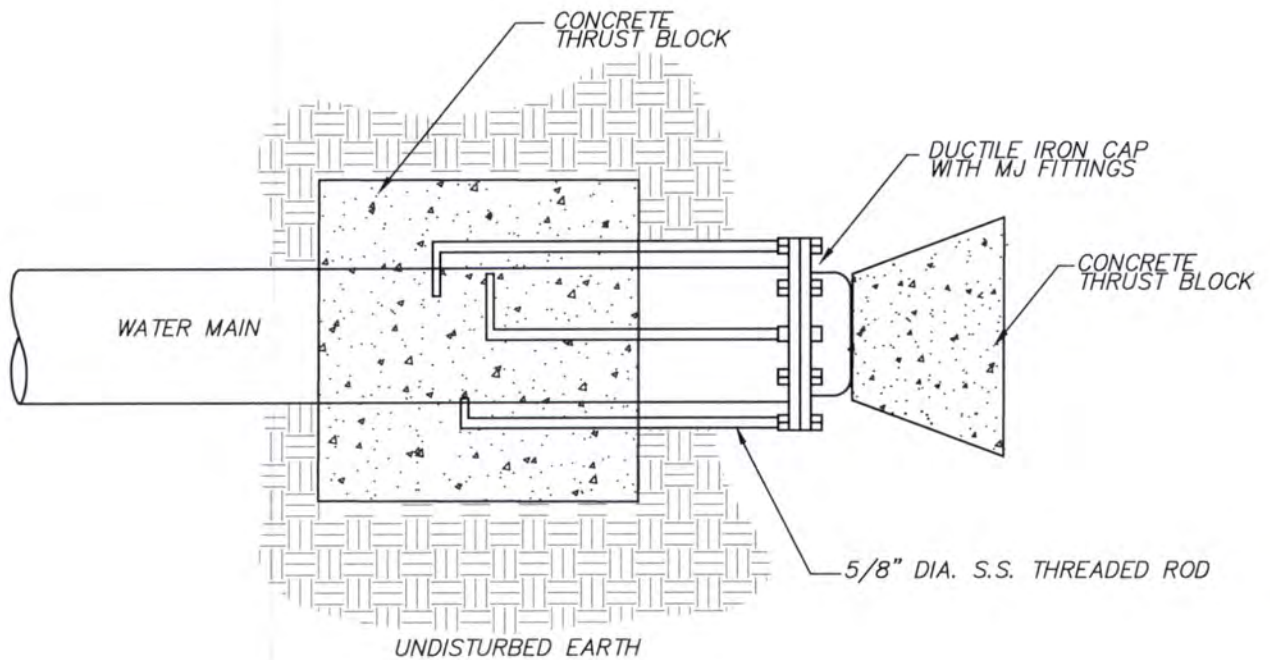
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TYPICAL HDPE TO DIP TRANSITION

STANDARD DRAWING No. W-10



NOTES:

1. CONCRETE RESTRAINT BLOCK SHALL BE SIZED TO PROVIDE RESTRAINT OF A 100PSI FORCE ON THE END CAP, WITH A FACTOR OF SAFETY OF 2.0.
2. THE MINIMUM SIZE FOR THE RESTRAINT BLOCK SHALL BE 1 CUBIC YARD.

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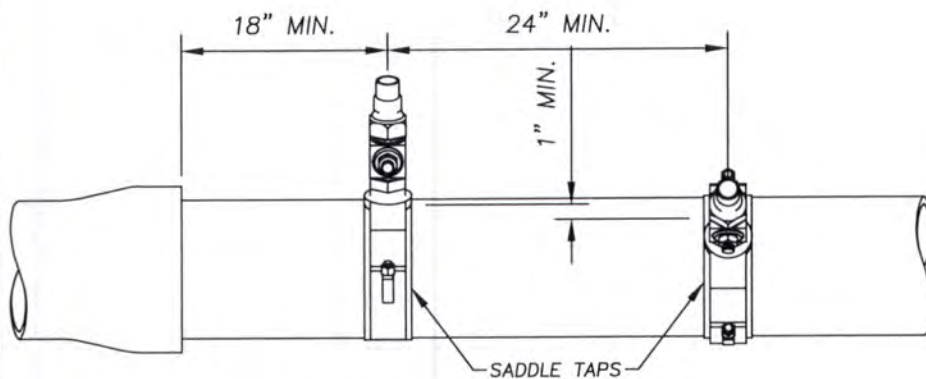
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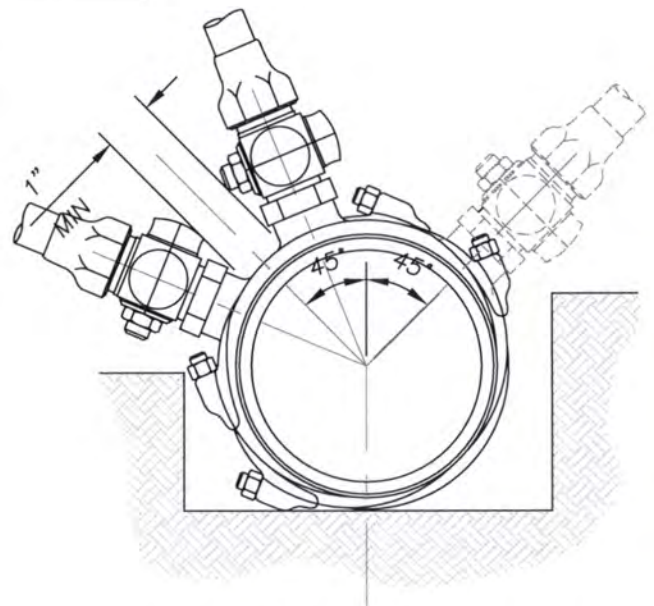
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TYPICAL RESTRAINED END CAP

STANDARD DRAWING No. W-11



TYPICAL SADDLE TAP SPACING



TYPICAL SADDLE TAP ELEVATION

NOTES:

1. TAPS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SEPARATION OF 24".
2. MULTIPLE TAPS ON THE SAME SIDE OF THE LINE SHALL BE STAGGERED A MINIMUM OF 1" VERTICALLY TO PREVENT DAMAGE TO THE MAIN.
3. SERVICE SADDLES SHALL BE INSTALLED A MINIMUM OF 18" FROM PIPE JOINTS.

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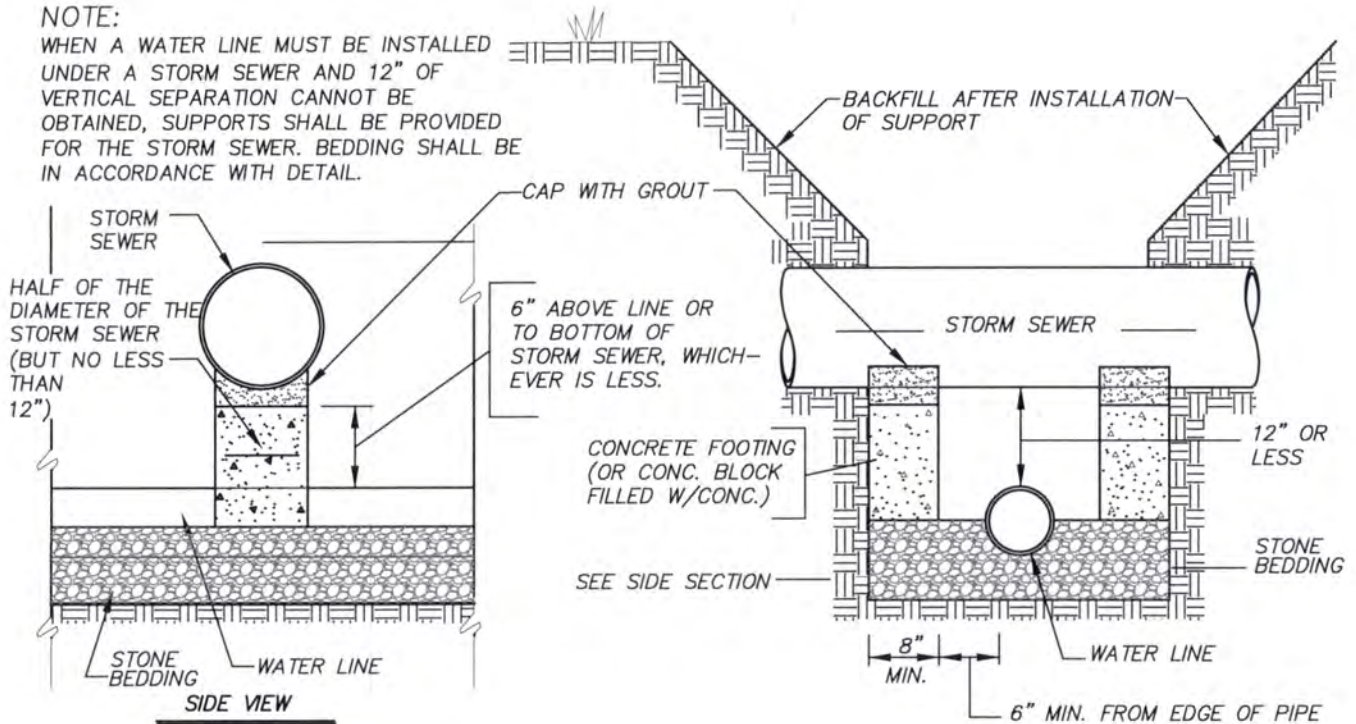
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TYPICAL TAPPING SADDLE

STANDARD DRAWING No. W-12

NOTE:

WHEN A WATER LINE MUST BE INSTALLED UNDER A STORM SEWER AND 12" OF VERTICAL SEPARATION CANNOT BE OBTAINED, SUPPORTS SHALL BE PROVIDED FOR THE STORM SEWER. BEDDING SHALL BE IN ACCORDANCE WITH DETAIL.



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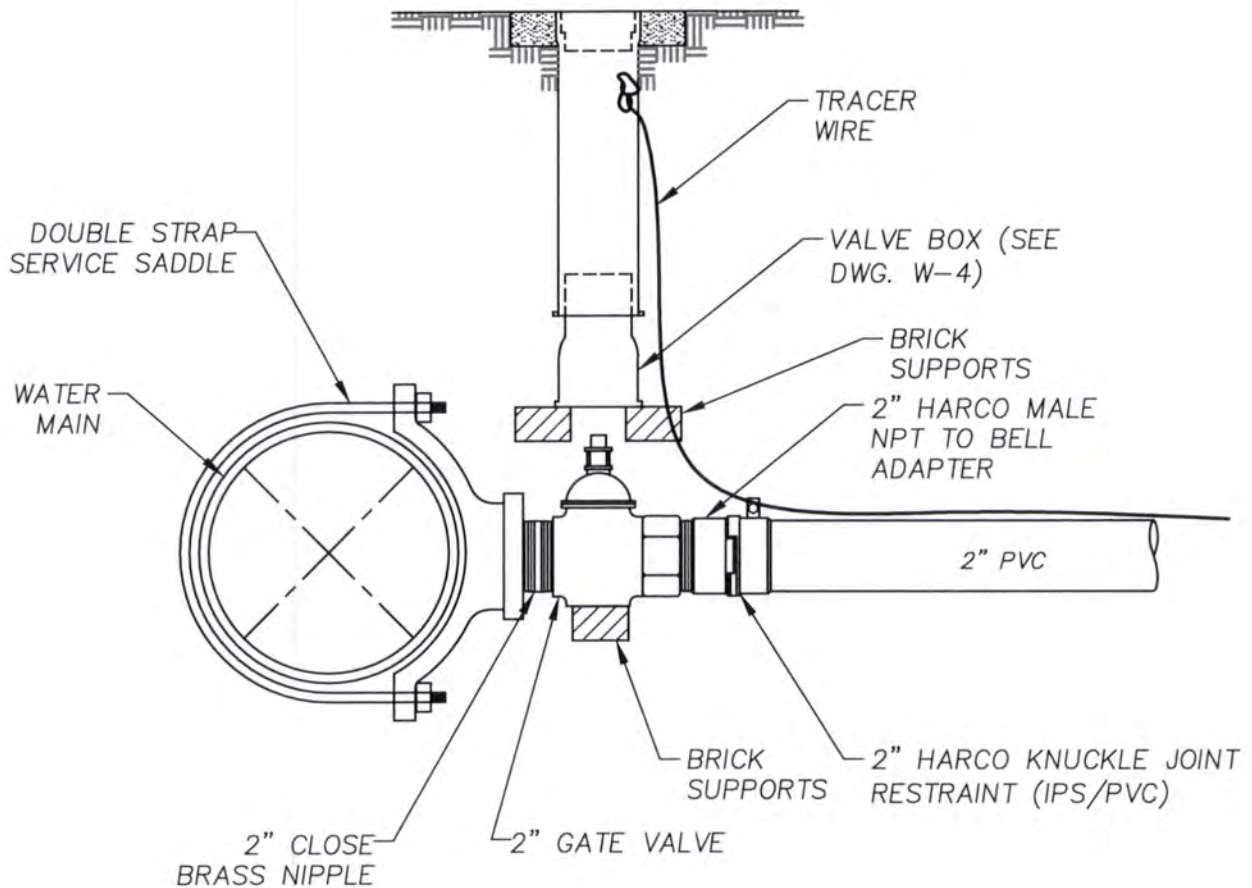
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SHALLOW WATER CROSSING BELOW STORM SEWER

STANDARD DRAWING No. W-13



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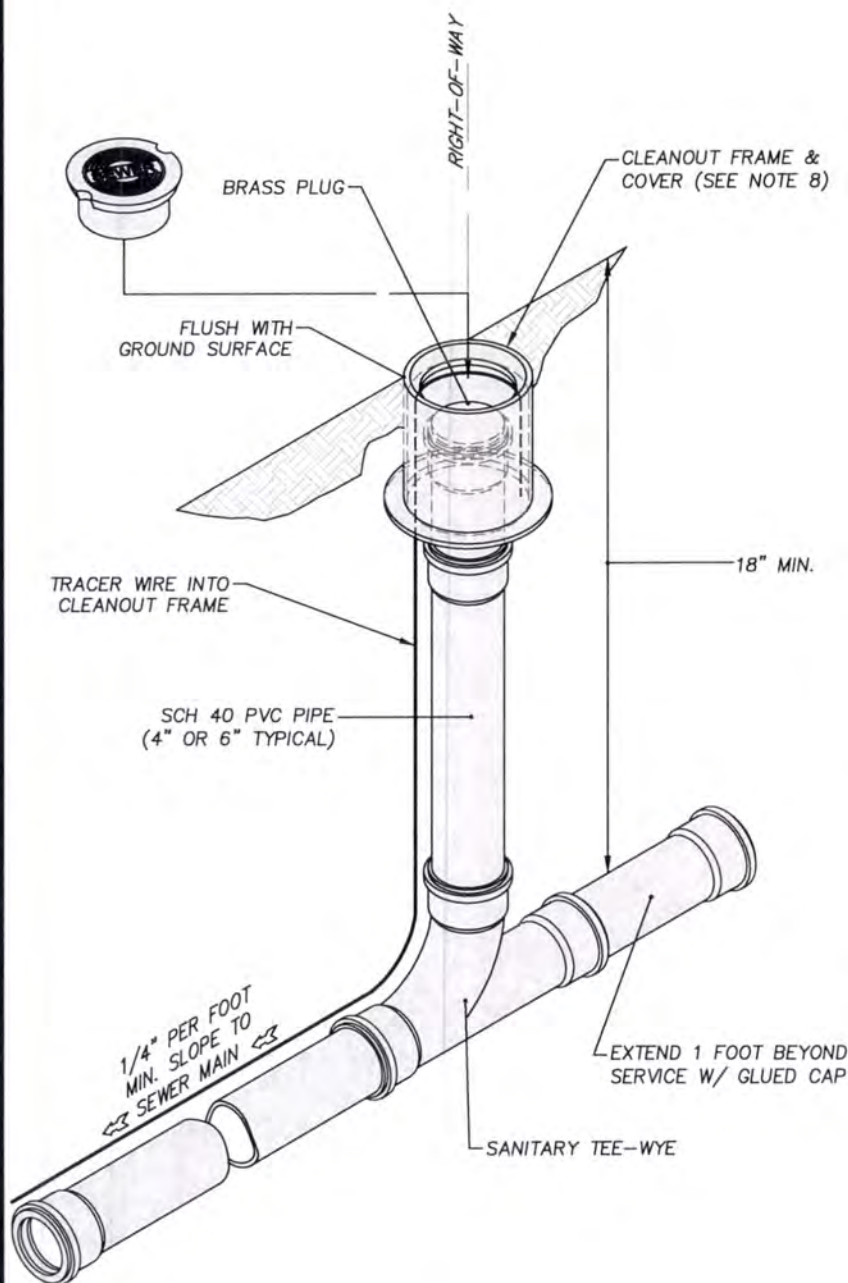
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TYPICAL 2" WATER MAIN CONNECTION

STANDARD DRAWING No. W-14



NOTES:

1. UNLESS OTHERWISE NOTED, THE LOCATION OF THE SERVICE CLEANOUT SHALL BE AT THE RIGHT-OF-WAY LINE.
2. CONTRACTOR SHALL PROVIDE CAST IRON CLEANOUT BOXES FOR ALL SERVICES.
3. CLEANOUTS SHALL BE INSTALLED AT GRADE FOR ALL SERVICES UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL COMPACT THE FULL LENGTH OF THE SERVICE TRENCH IN 6" LAYERS WITH A MECHANICAL TAMP.
5. SERVICE SADDLES TO BE USED IN LIEU OF IN-LINE WYES ONLY AS APPROVED BY THE ENGINEER AND ON A CASE BY CASE BASIS.
6. REFER TO THE IN-LINE WYE DETAIL TO SEWER MAIN TIE IN DETAILS.
7. REFER TO THE GRAVITY SEWER TRENCHING DETAIL FOR MAIN EMBEDMENT DETAILS.
8. ASTM A 48 CLASS 30B CAST IRON CLEAN OUT COVER AND FRAME P107 BY SIGMA CORP.-CATALOG NUMBER CO-373S.

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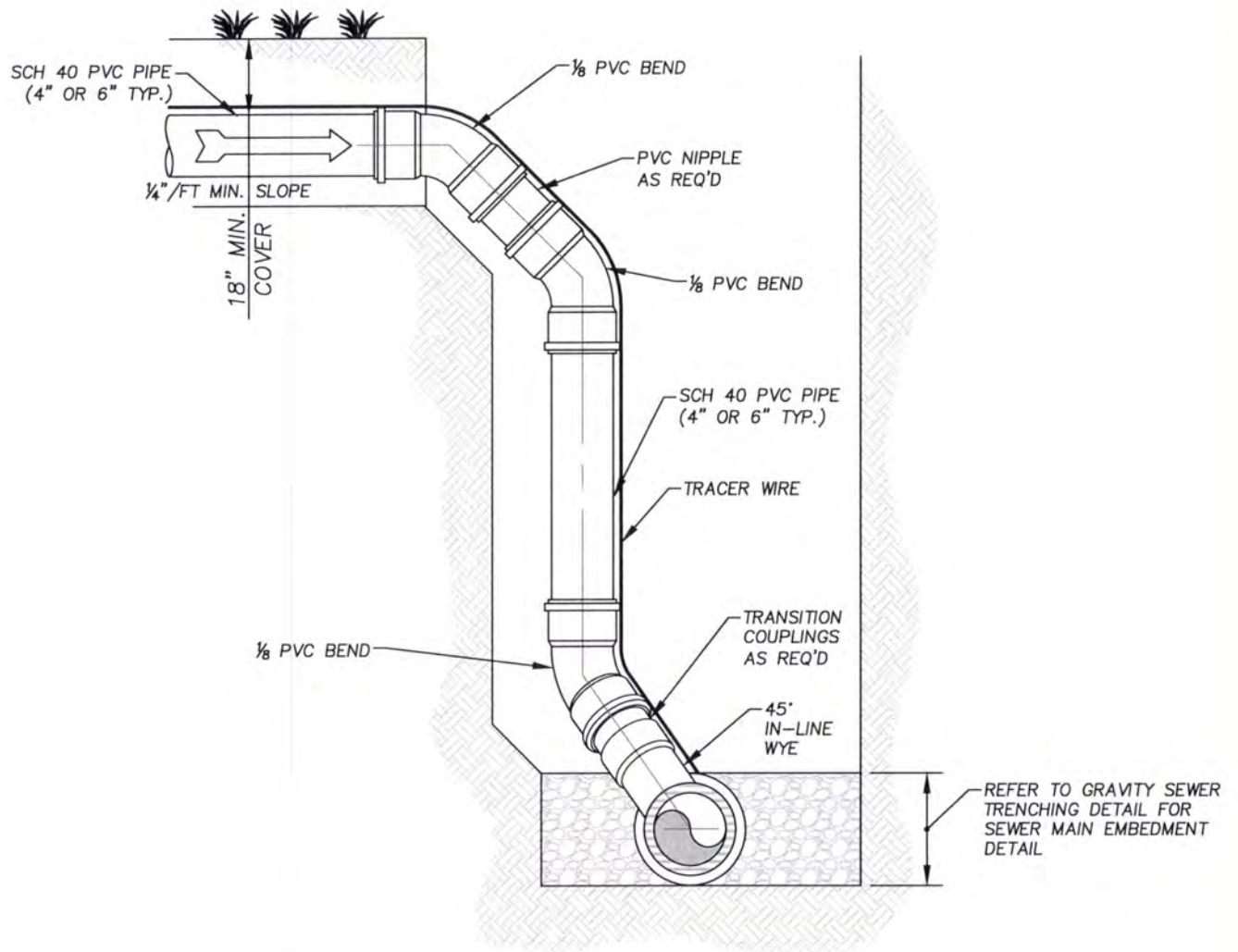
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TYPICAL SEWER SERVICE CONNECTION ELEVATION

STANDARD DRAWING No. S-1



NOTES:

1. THE CONTRACTOR SHALL COMPACT THE FULL LENGTH OF THE SERVICE TRENCH IN 6" LAYERS WITH A MECHANICAL TAMP.
2. SERVICE SADDLES TO BE USED IN LIEU OF IN-LINE WYES ONLY AS APPROVED BY THE ENGINEER AND ON A CASE BY CASE BASIS.
3. REFER TO TYPICAL SEWER SERVICE ELEVATION FOR RISER, PLUG, AND SERVICE WYE DETAILS.

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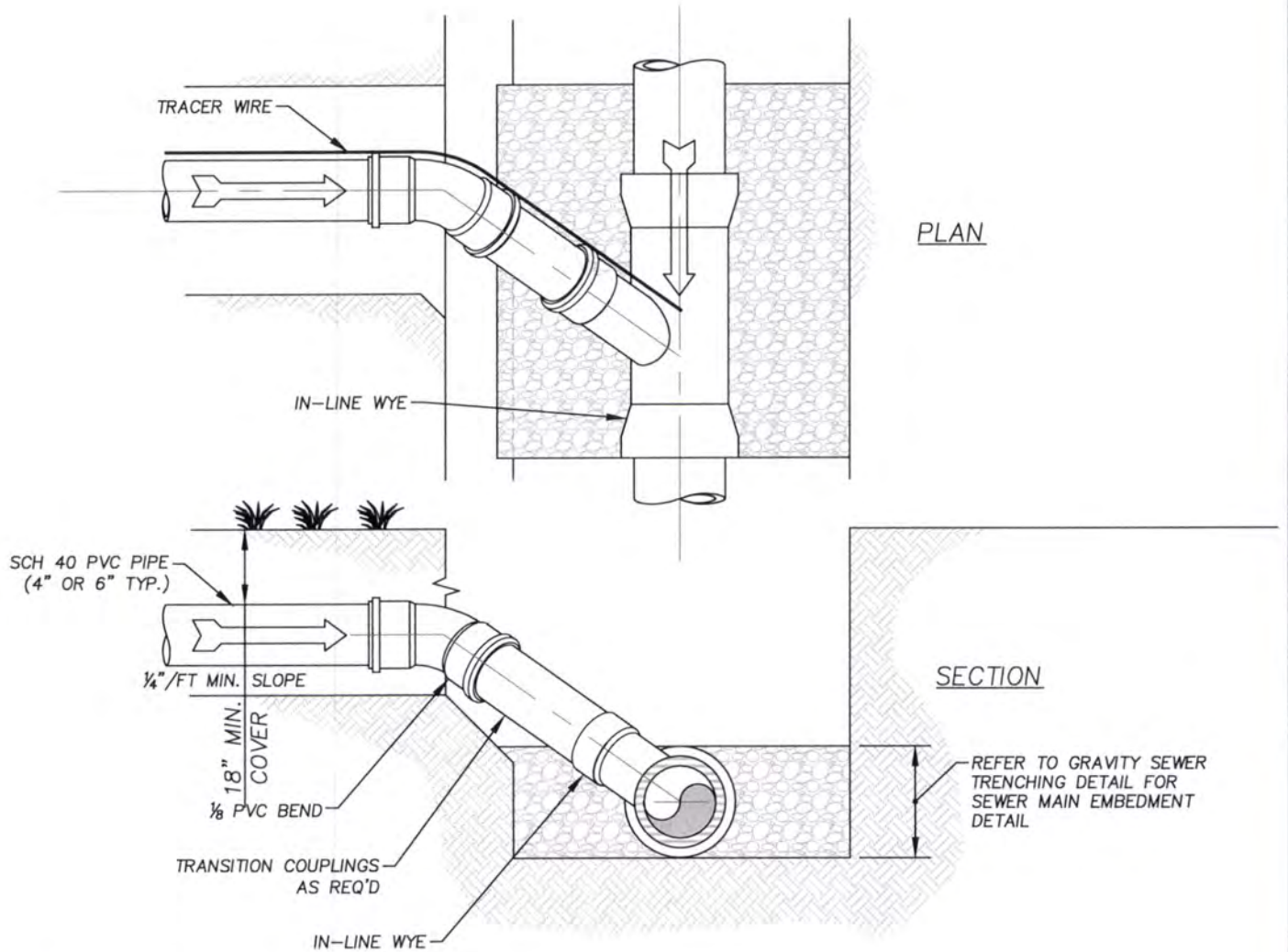
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DEEP-CUT SEWER SERVICE ELEVATION

STANDARD DRAWING No. S-2



NOTES:

1. THE CONTRACTOR SHALL COMPACT THE FULL LENGTH OF THE SERVICE TRENCH IN 6" LAYERS WITH A MECHANICAL TAMP.
2. SERVICE SADDLES TO BE USED IN LIEU OF IN-LINE WYES ONLY AS APPROVED BY THE ENGINEER AND ON A CASE BY CASE BASIS.

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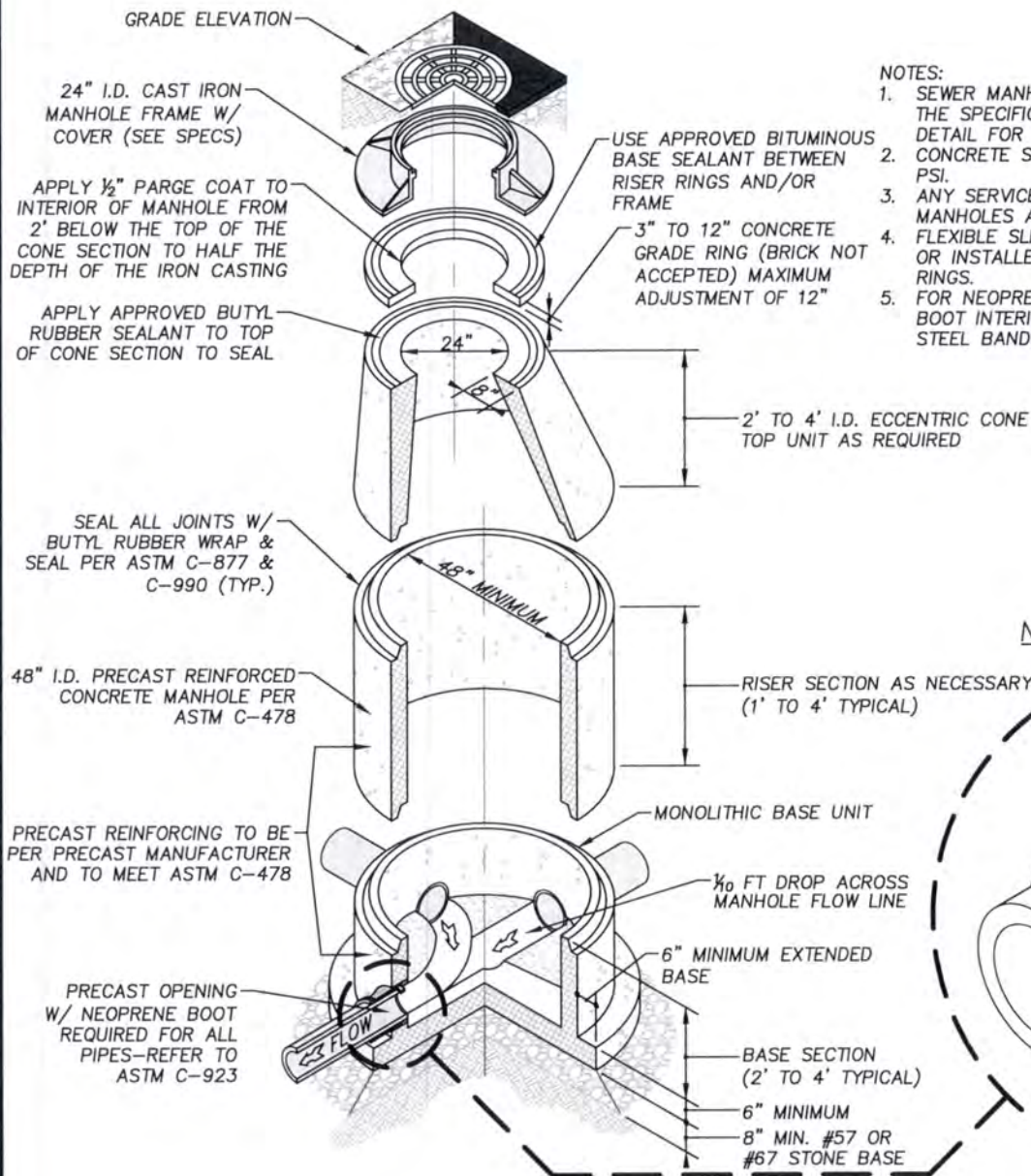
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TYPICAL IN-LINE WYE

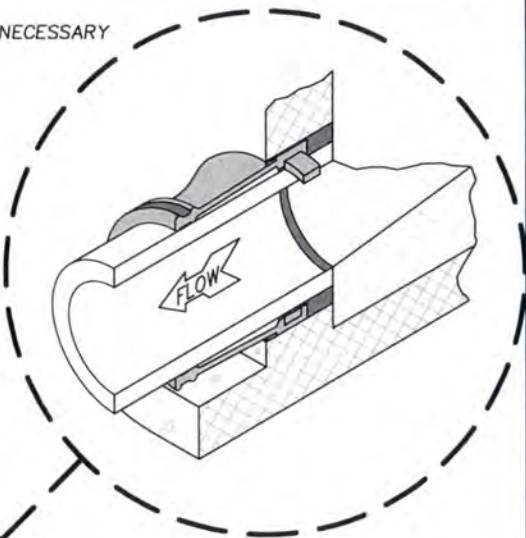
STANDARD DRAWING No. S-3



NOTES:

1. SEWER MANHOLES TO INCLUDE STEPS AS INCLUDED IN THE SPECIFICATIONS STEPS ARE NOT SHOWN IN THIS DETAIL FOR CLARITY.
2. CONCRETE STRENGTH SHALL BE A MINIMUM OF 4,000 PSI.
3. ANY SERVICE LATERAL LINE LAID INTO THE EXISTING MANHOLES ARE TO BE CORE DRILLED AND BOOTED.
4. FLEXIBLE SLEEVE BOOTS ARE TO BE CAST IN PLACE OR INSTALLED WITH STAINLESS STEEL EXPANDER RINGS.
5. FOR NEOPRENE BOOT CONNECTIONS, PIPE EXTERIOR, BOOT INTERIOR, BOOT EXTERIOR, AND STAINLESS STEEL BANDS SHALL BE LUBRICATED

NEOPRENE BOOT SECTION



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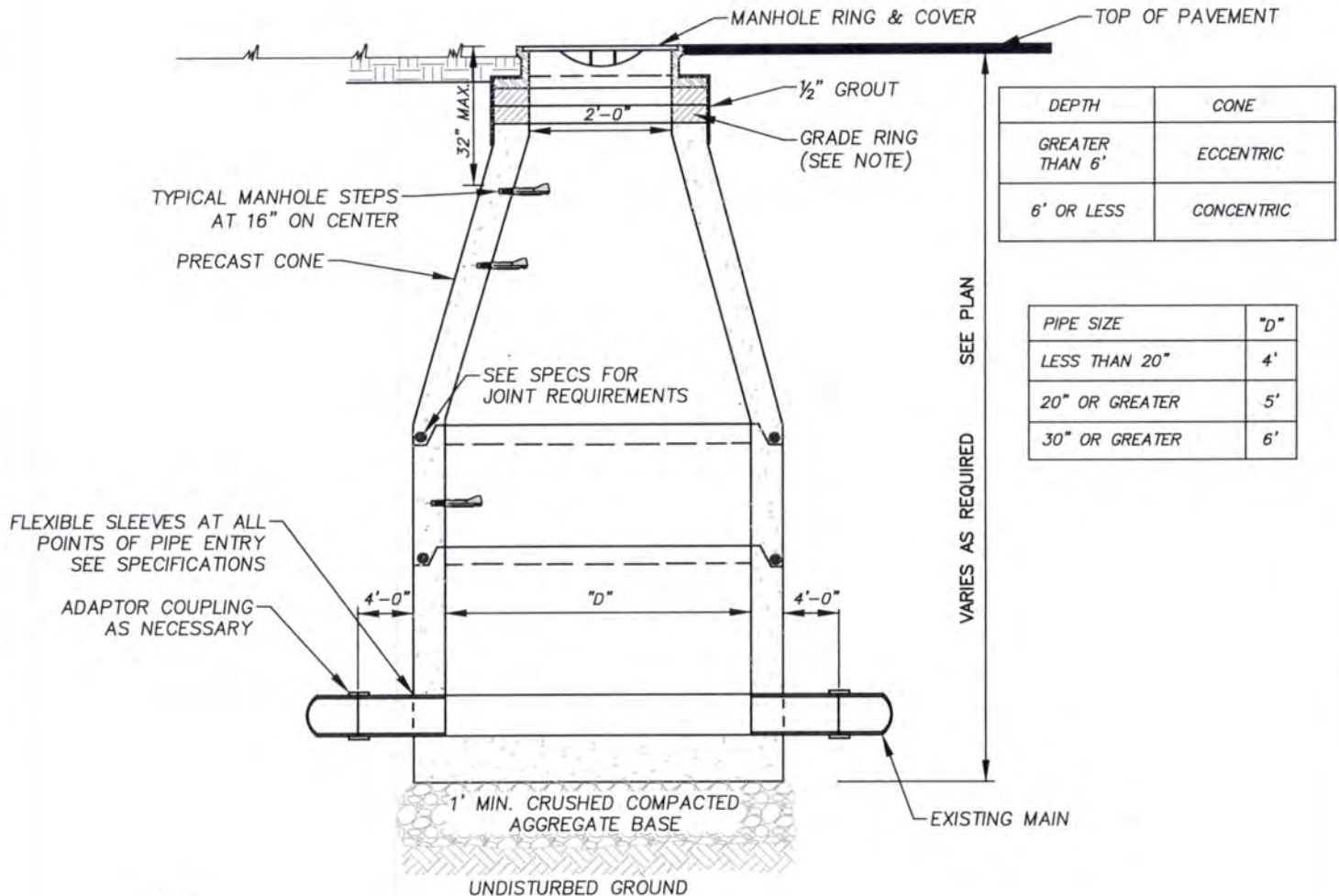
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Department of Water Resources

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252.639.7526 (FAX) 252.636.4103

TYPICAL PRECAST MANHOLE

STANDARD DRAWING No. S-4



NOTES:

1. SAW CUT EXISTING SEWER MAIN AND REMOVE SECTION TO ALLOW INSTALLATION OF PRECAST MANHOLE AND NEW SEWER MAIN. INSTALL NEW MAIN THROUGH MANHOLE.
2. INSTALL ABS COUPLINGS (EXISTING MAIN TO PROPOSED MAIN) AND ADAPTER COUPLINGS AS NECESSARY.
3. THE DISTANCE FROM THE TOP OF THE MANHOLE RING AND COVER TO FINISHED GRADE MAY VARY WIDELY, SEE PLAN.
4. POINTS OF EXIT AND ENTRY FOR PIPE SHALL BE PROVIDED WITH FLEXIBLE SLEEVES, PREFORMED INTO THE MANHOLE.
5. MIN. (1) GRADE RING REQ'D IN NON-PAVED AREAS. IN PAVEMENT, GRADE RING NOT REQ'D EXCEPT AS NECESSARY TO MEET FINISHED ELEVATION.
6. NO MORE THAN 2-4" GRADE RINGS SHALL BE INSTALLED.

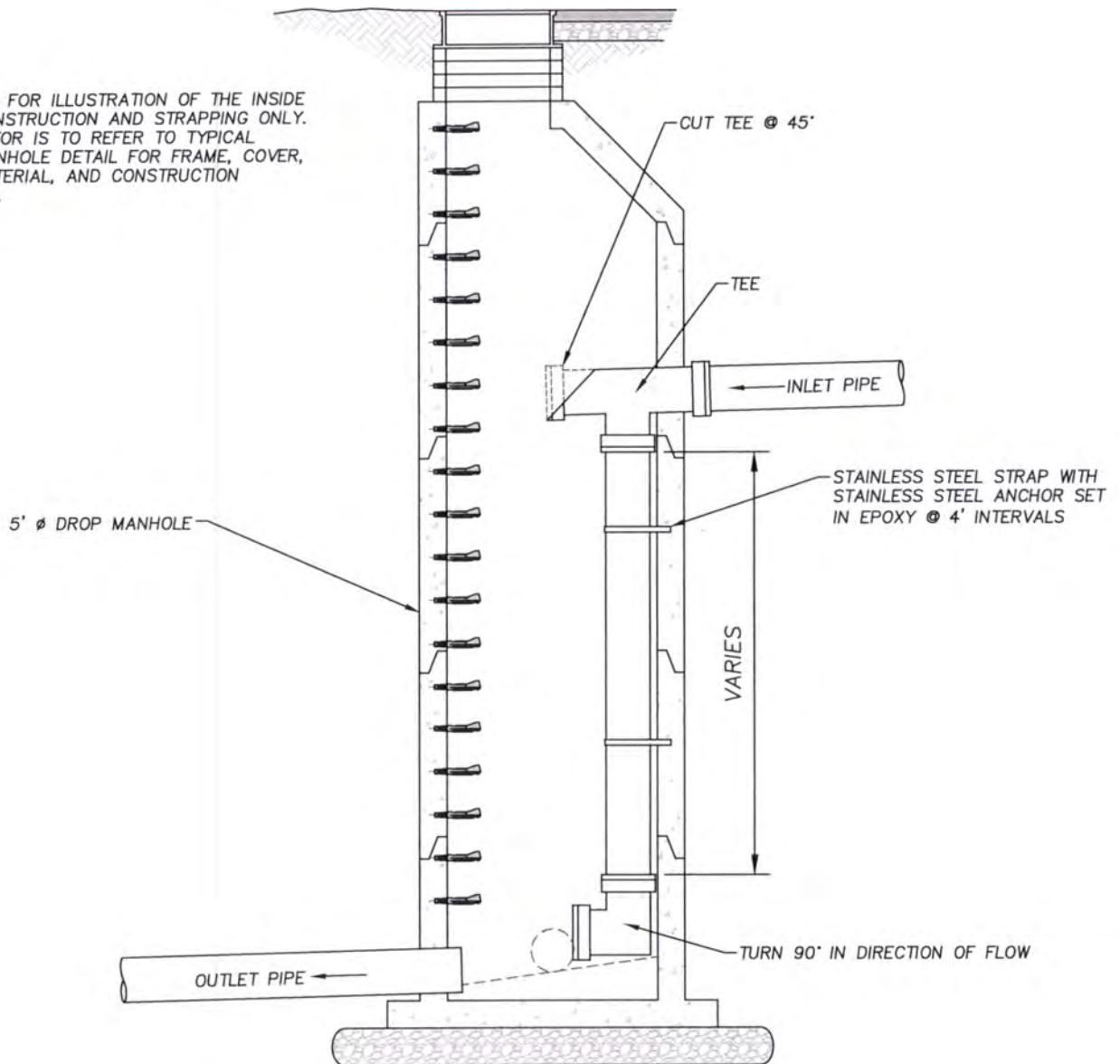
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TYPICAL MANHOLE OVER EXISTING SEWER MAIN

STANDARD DRAWING No. S-5

NOTES:

1. THIS DETAIL IS FOR ILLUSTRATION OF THE INSIDE DROP PVC CONSTRUCTION AND STRAPPING ONLY. THE CONTRACTOR IS TO REFER TO TYPICAL STANDARD MANHOLE DETAIL FOR FRAME, COVER, STACKING, MATERIAL, AND CONSTRUCTION REQUIREMENTS.



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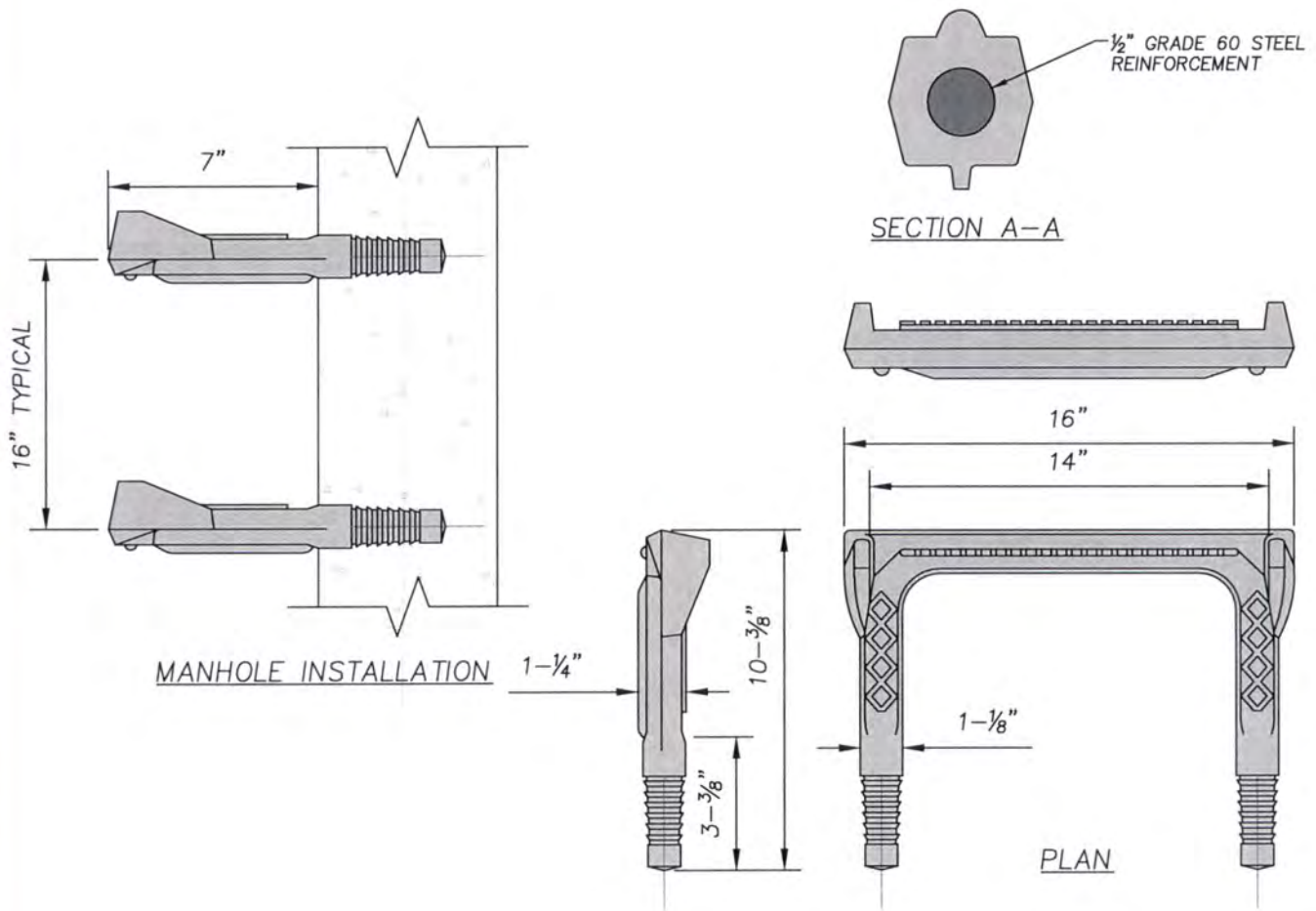


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TYPICAL INSIDE DROP MANHOLE

STANDARD DRAWING No. S-6



NOTES:

1. STEPS ARE TO BE DRIVEN INTO TAPERED HOLES IN PRECAST MANHOLE SECTIONS AND NOT TO BE USED AS A "GROUTED IN" STEP.
2. STEPS ARE TO MEET THE REQUIREMENTS OF ASTM C-140.
3. STEPS ARE TO BE COPOLYMER POLYPROPYLENE PLASTIC.

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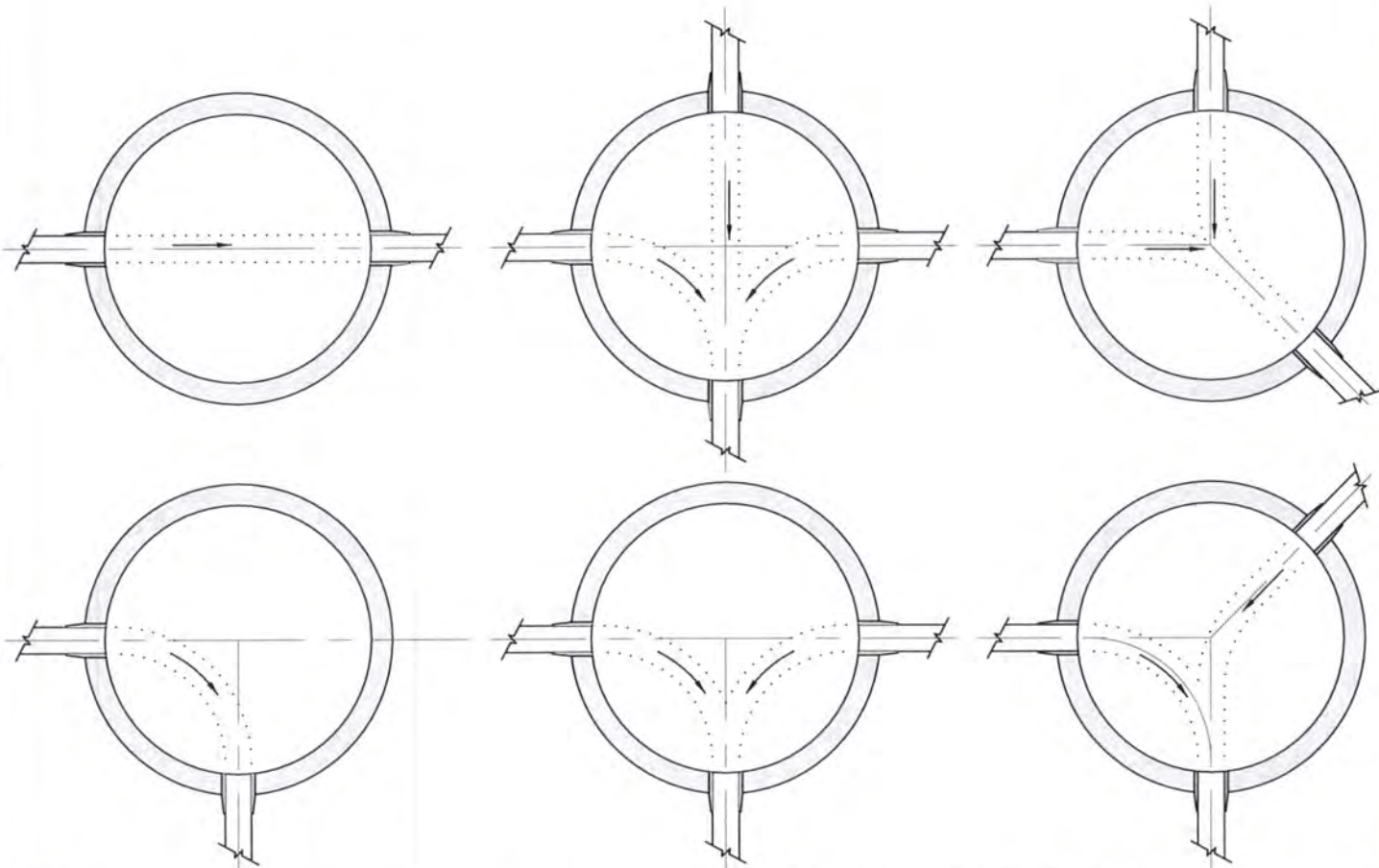
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TYPICAL POLYPROPYLENE PLASTIC STEP DETAIL

STANDARD DRAWING No. S-7



NOTES:

1. SERVICE LINE ENTRIES ARE TO HAVE CAST IN PLACE TROUGHS. ACCURATELY SHAPE THE INVERTS TO A SMOOTH SEMI-CIRCLE CONFORMING TO THE INSIDE CONTOUR OF THE ADJACENT SEWER SECTIONS.
2. ALL ENTERING BRANCHES AND CHANGES IN DIRECTIONS SHALL BE FORMED BY A CIRCULAR CURVE IN THE INVERT AS LARGE A RADIUS AS THE SIZE OF THE MANHOLE WILL PERMIT.
3. CHANGES IN SIZE AND GRADE OF THE CHANNELS SHALL BE MADE GRADUALLY AND EVENLY.

4. THE INVERT CHANNELS SHALL BE FORMED DIRECTLY IN THE CONCRETE OF THE MANHOLE BASE, OR SHALL BE BUILT UP WITH BRICK AND MORTAR.
5. MINIMUM CONCRETE STRENGTH SHALL BE 4,000 PSI.
6. THE FLOOR OF THE MANHOLE OUTSIDE THE CHANNELS SHALL BE SMOOTH AND SHALL SLOPE TOWARD THE CHANNELS NOT LESS THAN 1 INCH PER FOOT NOR MORE THAN 2 INCHES PER FOOT.
7. THE TOP OF THE CONCRETE PERIMETER SHELF SHALL BE NO LOWER THAN THE ELEVATION OF THE PIPE SPRING LINE AT THE MANHOLE WALL INTERIOR.

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TYPICAL MANHOLE INVERTS

STANDARD DRAWING No. S-8

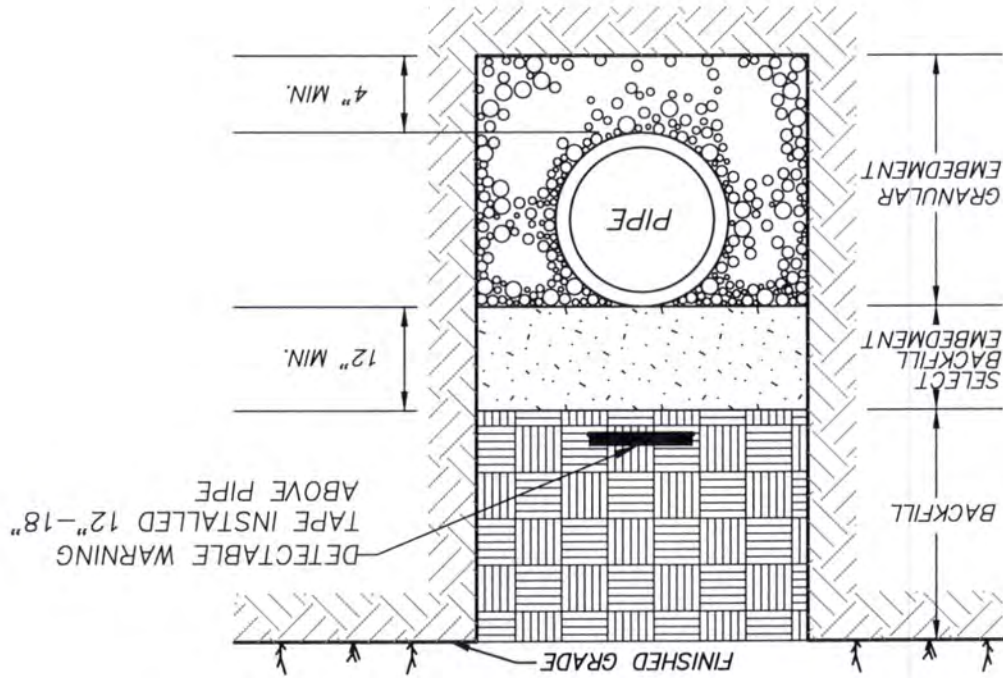
BEDDING FOR GRAVITY SEWER PIPE

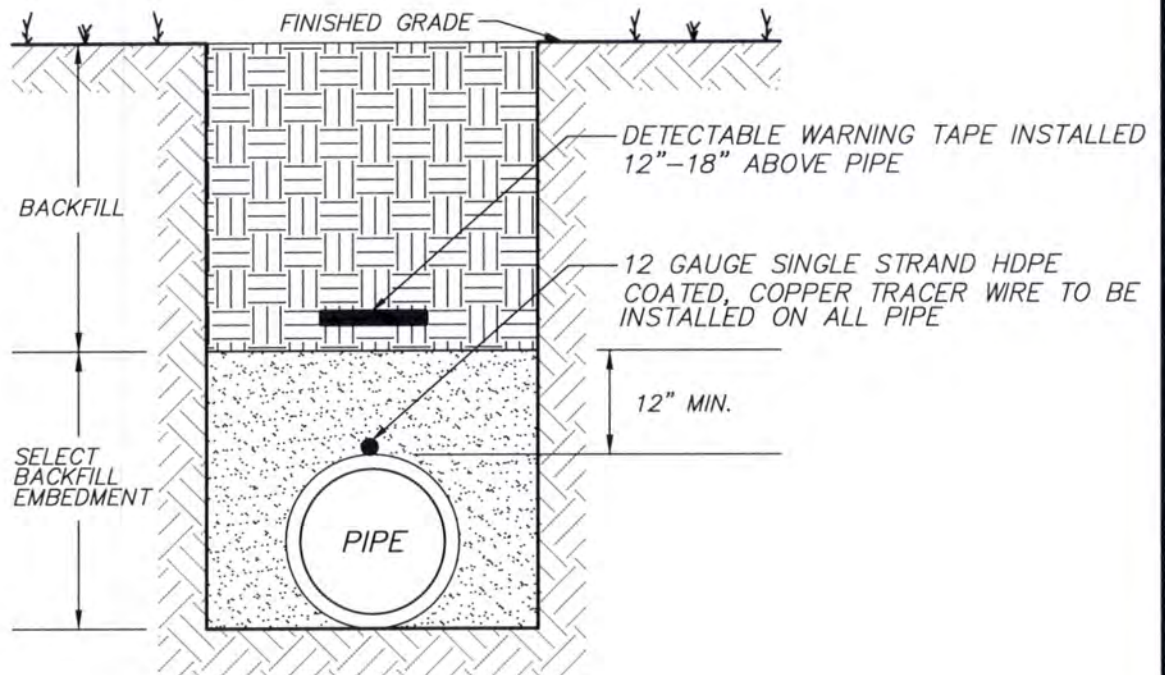
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252.639.7526

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1. BACKFILL SHALL BE PLACED AND COMPACTED IN 9" LIFTS.
2. SELECT FILL SHALL BE USED FOR ALL BACKFILL IF LOCAL SOIL IS CONSIDERED TO BE UNSUITABLE.

NOTES:





NOTES:

1. BACKFILL SHALL BE PLACED AND COMPACTED IN 9" LIFTS.
2. THE CITY ENGINEER MAY REQUIRE GRANULAR EMBEDMENT AS NECESSARY BASED ON LOCAL SOIL CONDITIONS.
3. SELECT FILL SHALL BE USED FOR ALL BACKFILL IF LOCAL SOILS CONSIDERED TO BE UNSUITABLE.

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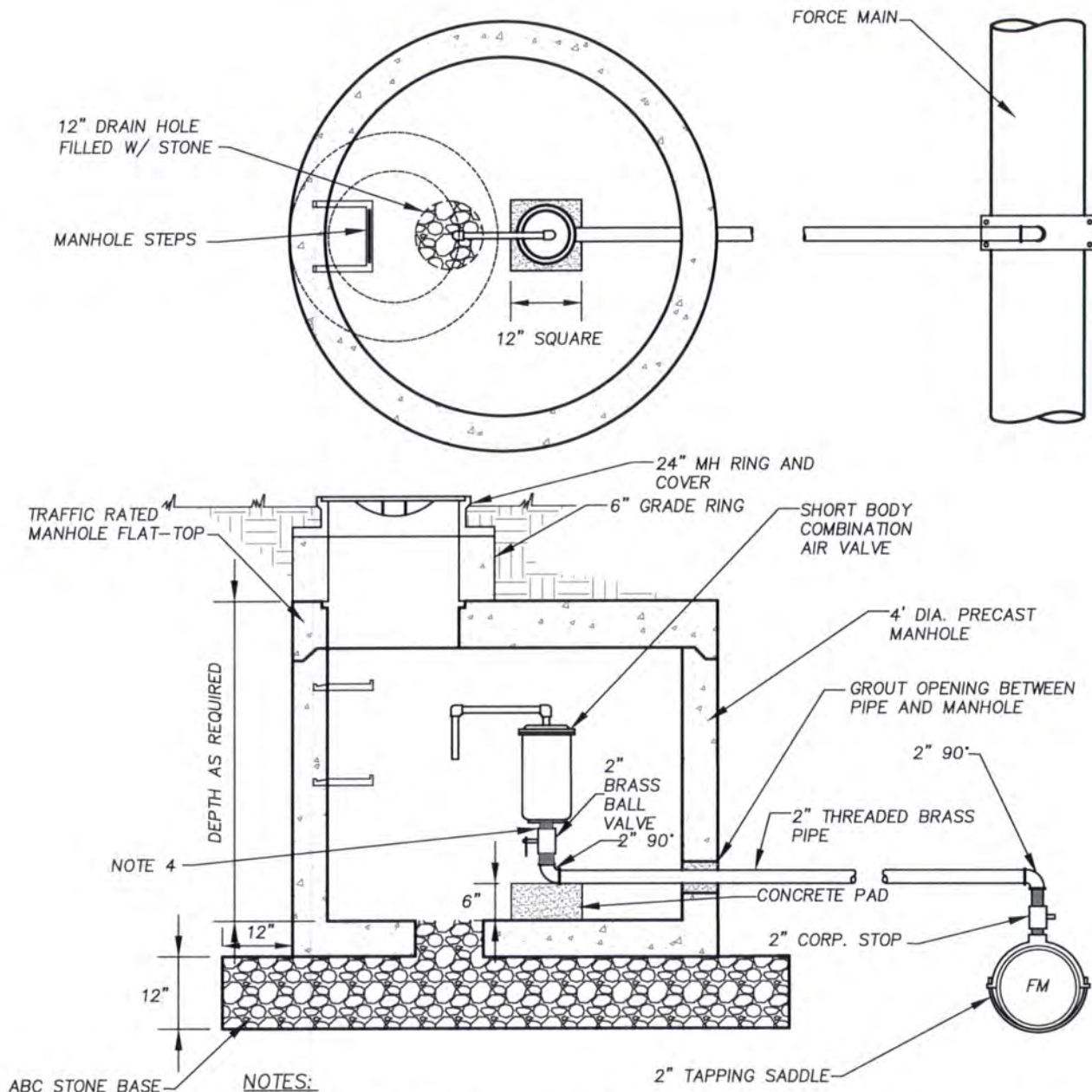


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BEDDING FOR WATER MAINS AND SEWER FORCE MAINS

STANDARD DRAWING No. S-10



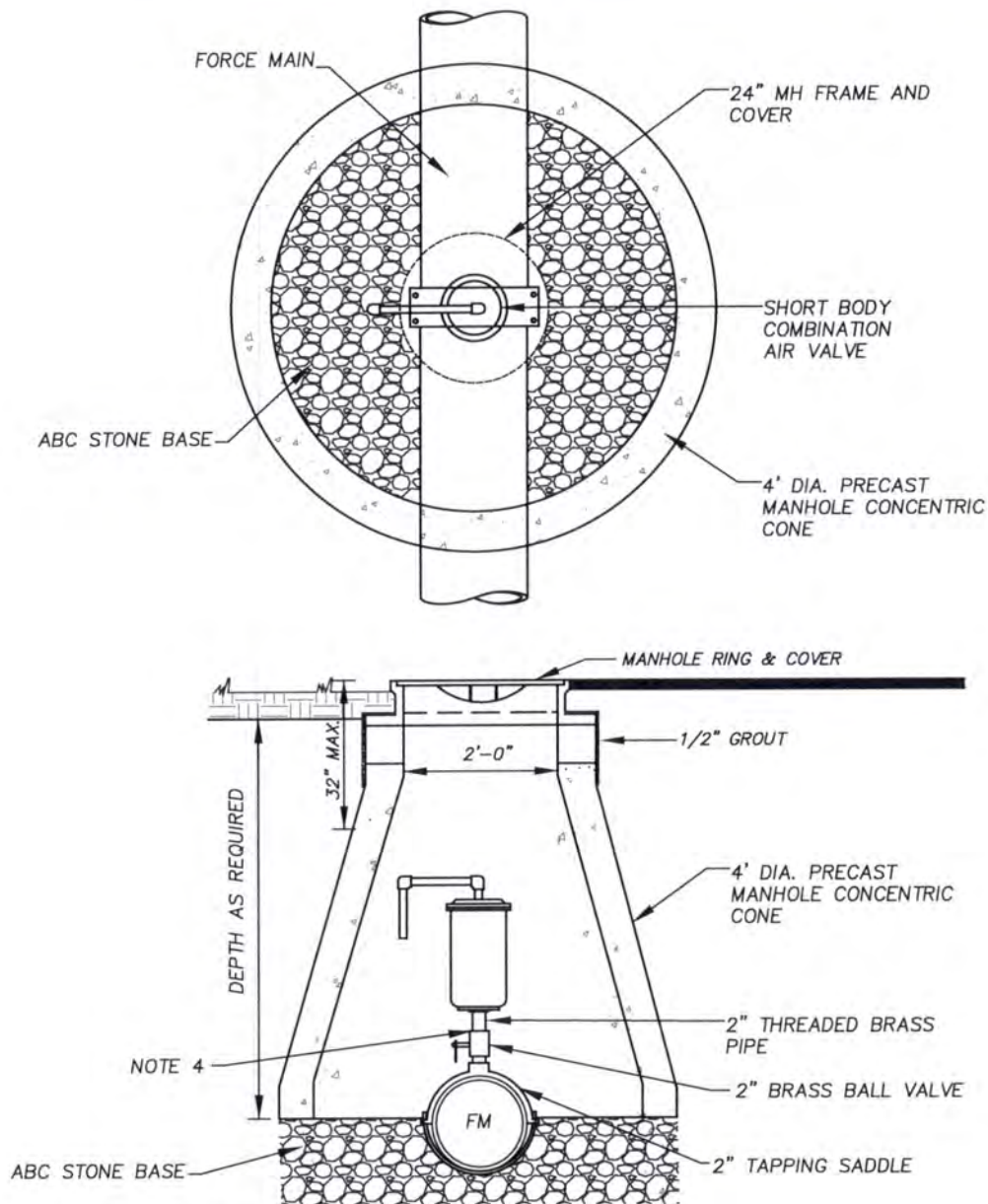
NOTES:

1. TAP ON THE MAIN SHALL BE MADE IN THE POSITION SHOWN.
2. LOCATE MANHOLE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE CITY ENGINEER.
3. ARV VENT DISCHARGE SHALL BE PIPED WITH BRASS PIPE IN A DIRECTION THAT WILL PREVENT SPLASHING.
4. CONNECT ARV TO VALVE WITH 2" BRASS METER FLANGE WITH STAINLESS STEEL BOLTS.

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AUTOMATIC AIR RELEASE VALVE - OFFSET

STANDARD DRAWING No. S-11



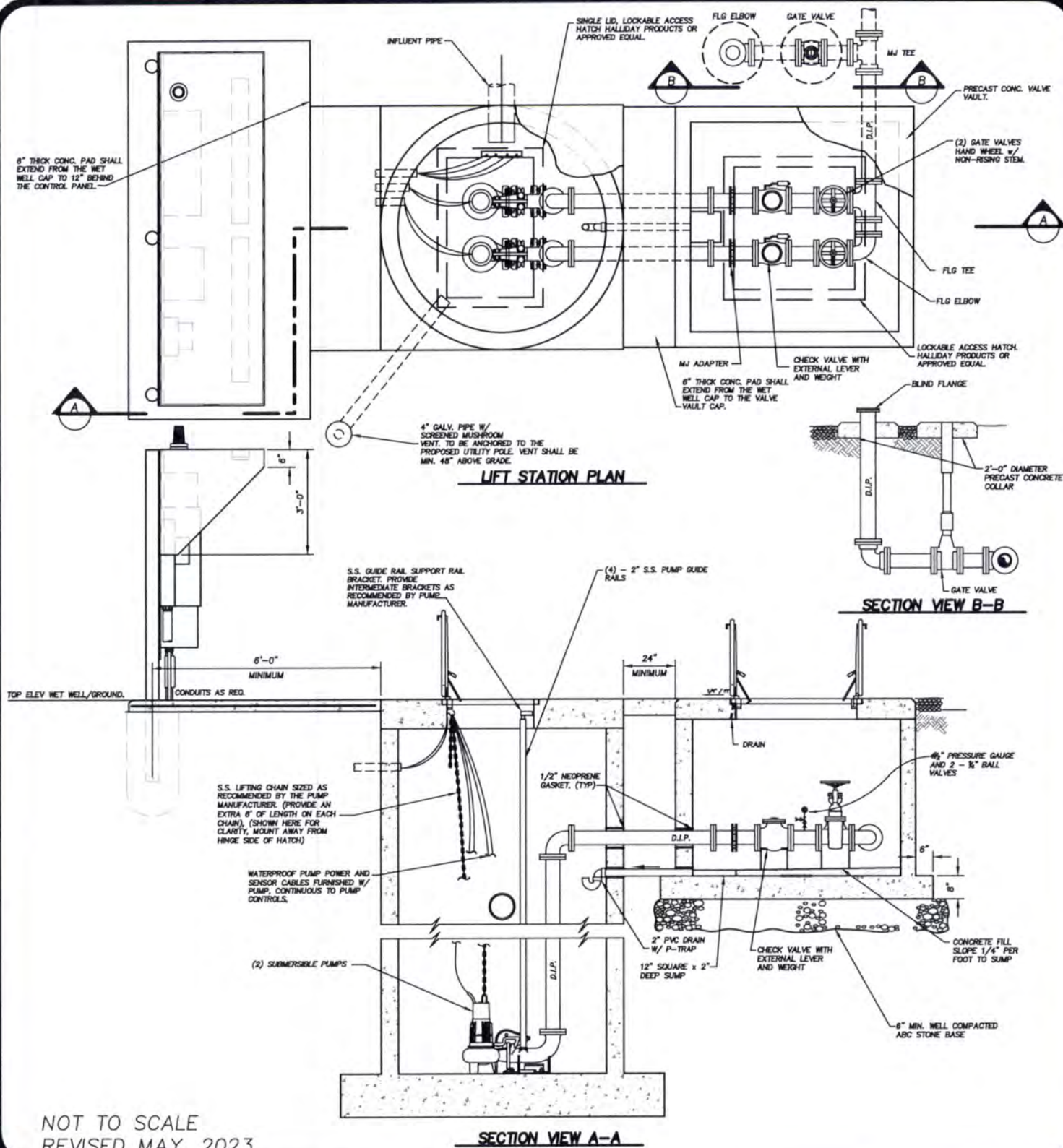
NOTES:

1. TAP ON THE MAIN SHALL BE MADE IN THE POSITION SHOWN.
2. LOCATE MANHOLE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE CITY ENGINEER.
3. ARV VENT DISCHARGE SHALL BE PIPED WITH BRASS PIPE IN A DIRECTION THAT WILL PREVENT SPLASHING.
4. CONNECT ARV TO VALVE WITH 2" BRASS METER FLANGE WITH STAINLESS STEEL BOLTS.

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AUTOMATIC AIR RELEASE VALVE - DIRECT

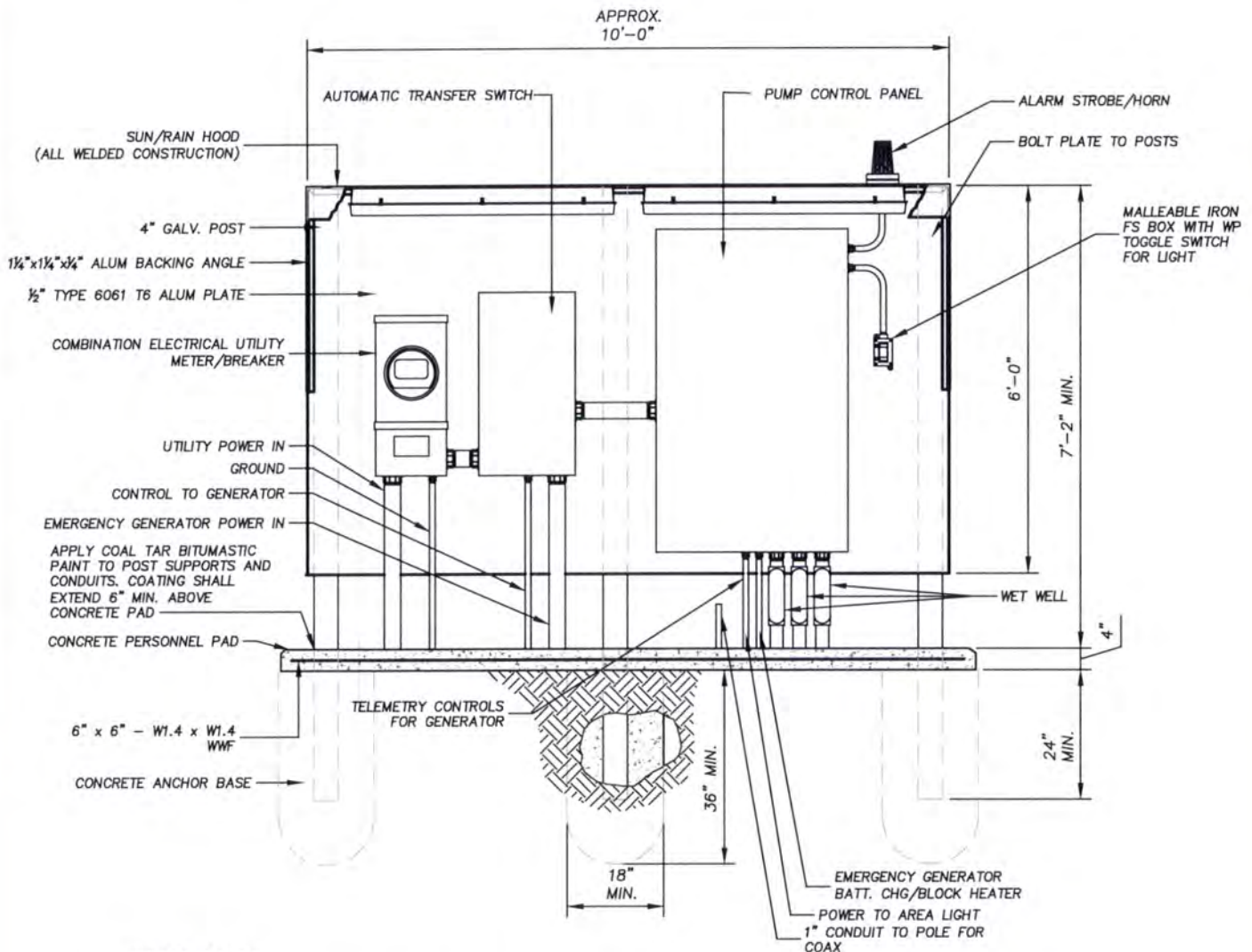
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TYPICAL DUPLEX SUBMERSIBLE LIFT STATION

STANDARD DRAWING No. S-13



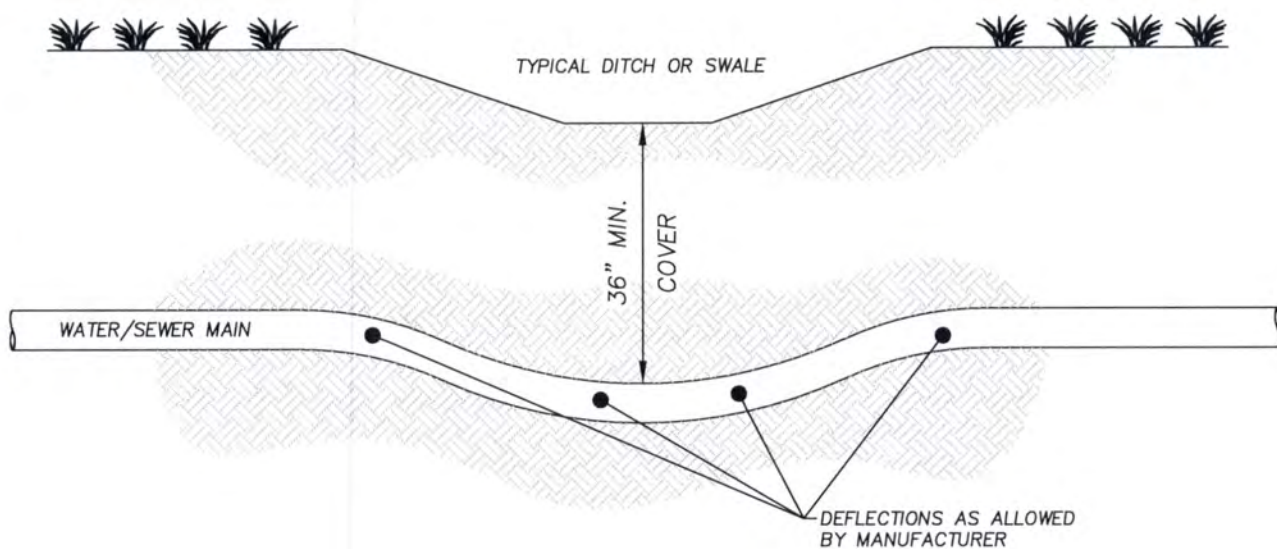
DETAIL NOTES:

1. CONTRACTOR SHALL SUBMIT LAYOUT OF ELECTRICAL EQUIPMENT RACK.
2. CONTRACTOR SHALL NOT CONSTRUCT ELECTRICAL EQUIPMENT RACK PRIOR TO RECEIVING APPROVED SUBMITTAL, INCLUDING ORDERING AND FABRICATION OF MATERIALS.
3. ALL EQUIPMENT MOUNTING HARDWARE SHALL BE 316 STAINLESS-STEEL.
4. CONCRETE SHALL BE 3000psi. CONCRETE PADS SHALL BE REINFORCED WITH 6x6-1.4Wx1.4W WWF. PAD SHALL EXTEND 36" OUT FROM DEEPEST PANEL AND 6" OUT FROM SIDES OF SUN/RAIN HOOD.
5. PROVIDE ADDITIONAL VERTICAL 4" POSTS AND BASES LIKE THOSE SHOWN ON PLANS TO SPAN GREATER DISTANCES GREATER THAN 96".
6. CONTRACTOR SHALL SIZE CONDUIT AS REQUIRED FOR NECESSARY CONDUCTORS.
7. ALARM STROBE SHALL BE MOUNTED, WATER-TIGHT, ATOP THE SUN SHIELD.
8. PROVIDE WEATHERPROOF CORROSION RESISTANT FLUORESCENT FIXTURE MOUNTED UNDERNEATH SUN/RAIN HOOD AND LIGHT SWITCH.

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TYPICAL LIFT STATION PUMP CONTROL PANEL

STANDARD DRAWING No. S-14



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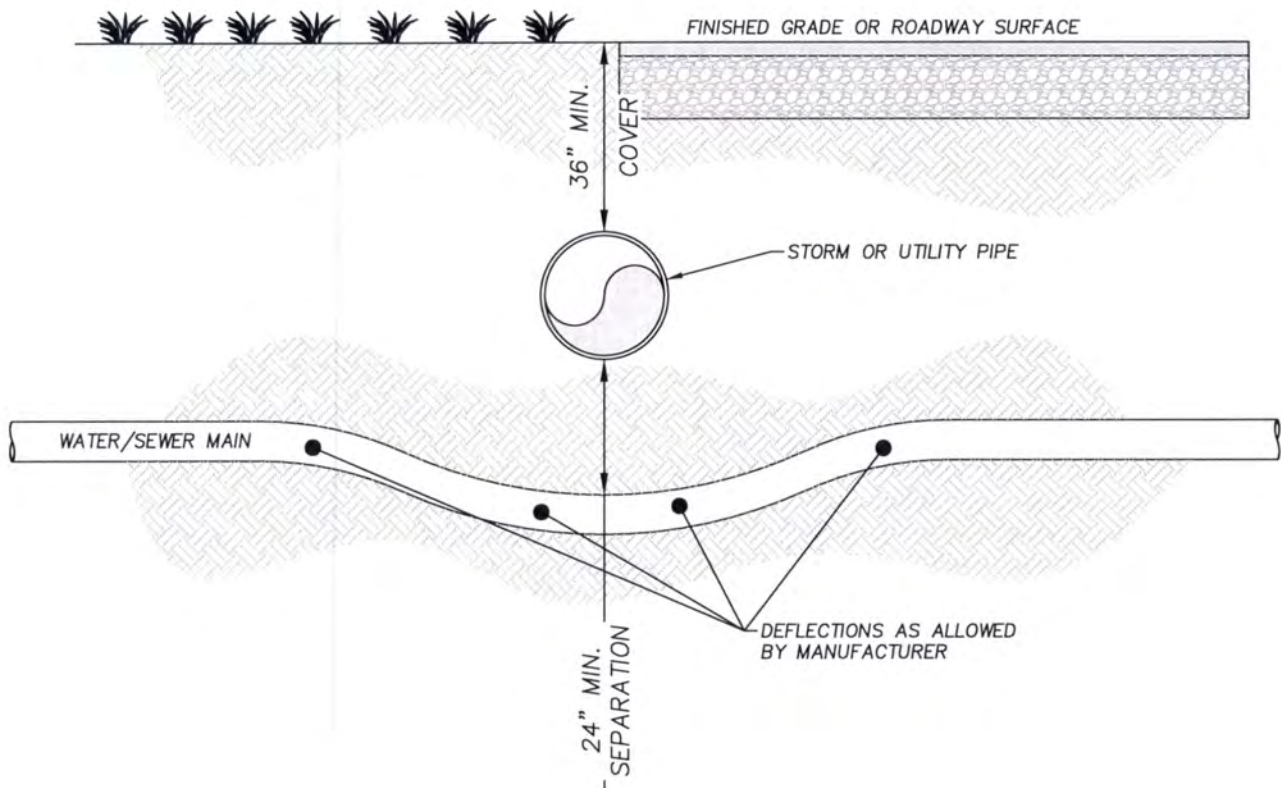
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WATER/SEWER MAIN CROSSING UNDER DITCH

STANDARD DRAWING No. S-15



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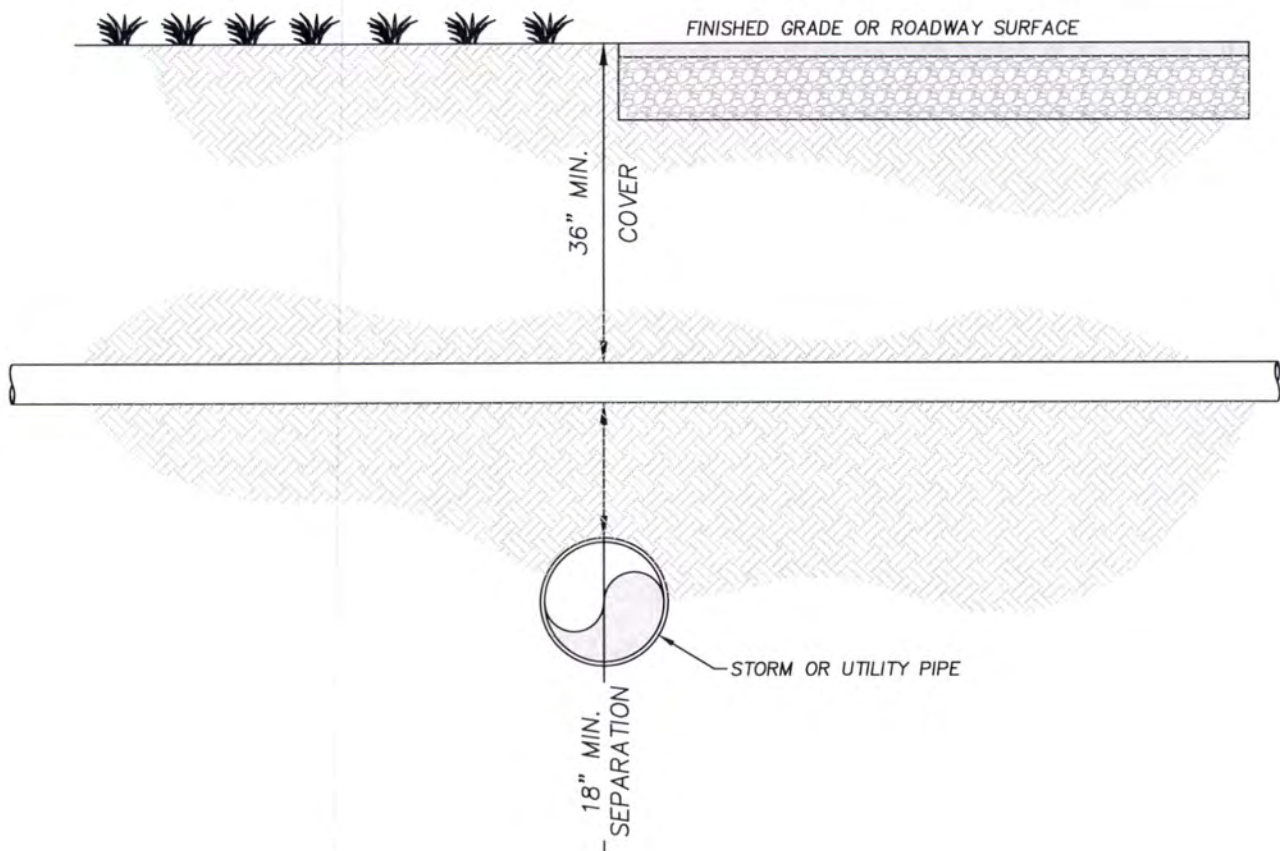


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WATER/SEWER MAIN CROSSING UNDER STORM/UTILITY PIPE

STANDARD DRAWING No. S-16



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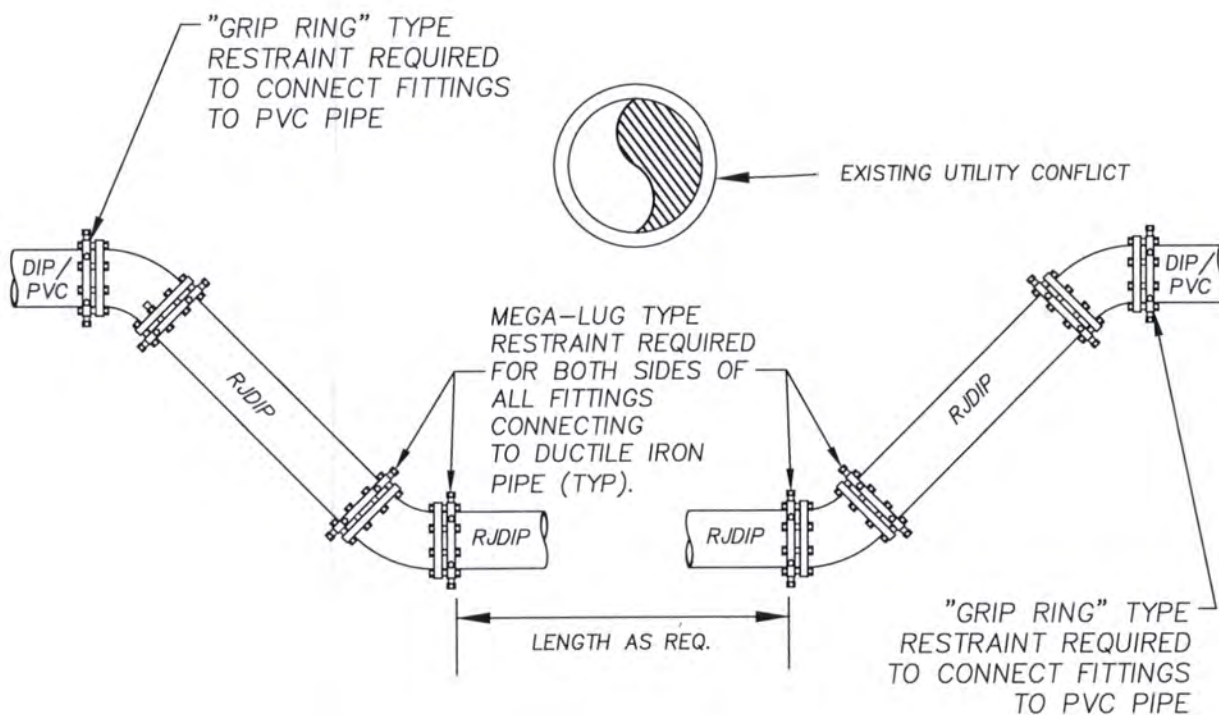


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WATER/SEWER MAIN OVER STORM/UTILITY PIPE

STANDARD DRAWING No. S-17



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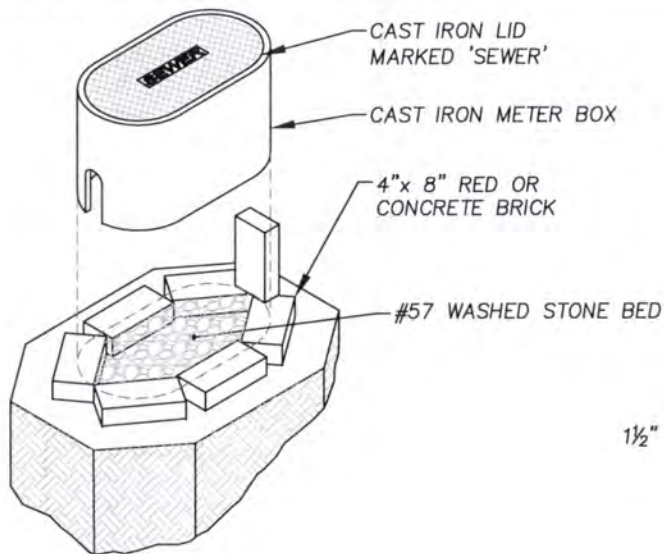
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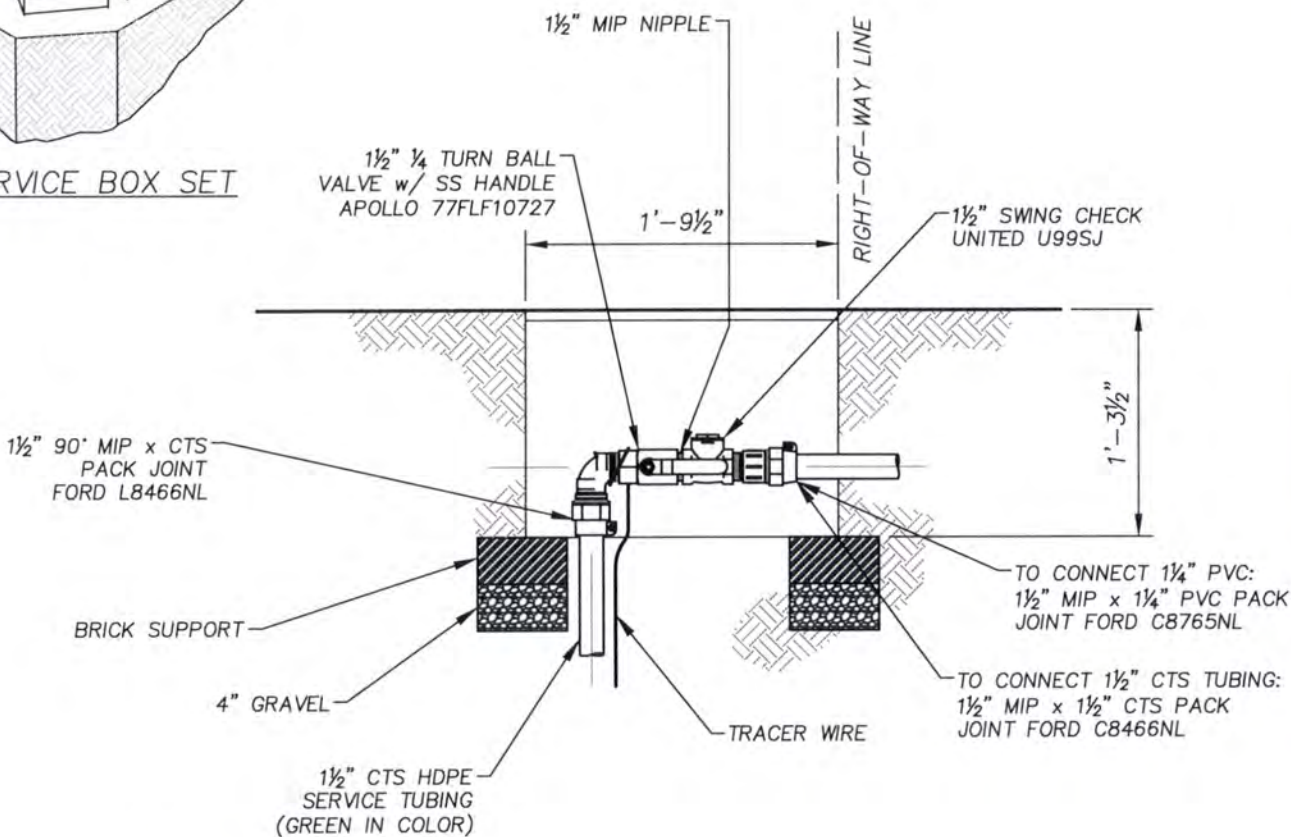
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LOWERING WATER/SEWER MAIN UNDER A UTILITY CONFLICT

STANDARD DRAWING No. S-18



SERVICE BOX SET



NOTES:

1. METER BOX SHALL BE A STANDARD MBX-1 BOX AND LID SHALL HAVE "SEWER" CAST IN LID.
2. TRACER WIRE SHALL BE INSTALLED ON ALL SEWER SERVICES EXTENDING CONTINUOUS FROM THE MAIN INTO THE METER BOX. THE WIRE SHALL BE 12 GA. HDPE COATED, SOLID CORE COPPER. 18"-24" OF TRACER WIRE SHALL BE COILED UP IN THE METER BOX

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TYPICAL S.T.E.P. SYSTEM CONNECTION

STANDARD DRAWING No. S-19

PIPE RESTRAINT CHARTS

Horizontal & Vertical Up Bends

<i>Pipe Size (inch)</i>	Bend Angle	Pipeline Restraint Req. (feet)
4"	11.25	2
	22.5	5
	30	6
	45	10
	60	14
	90	24
6"	11.25	3
	22.5	7
	30	9
	45	14
	60	19
	90	33
8"	11.25	4
	22.5	9
	30	11
	45	18
	60	25
	90	43
10"	11.25	5
	22.5	10
	30	14
	45	21
	60	30
	90	52
12"	11.25	6
	22.5	12
	30	16
	45	25
	60	35
	90	60

Vertical Down Bends

<i>Pipe Size (inch)</i>	Bend Angle	Pipeline Restraint Req. (feet)
4"	11.25	4
	22.5	8
	30	11
	45	17
	60	24
	90	41
6"	11.25	8
	22.5	12
	30	16
	45	24
	60	34
	90	59
8"	11.25	7
	22.5	15
	30	20
	45	31
	60	44
	90	76
10"	11.25	9
	22.5	18
	30	25
	45	38
	60	53
	90	92
12"	11.25	11
	22.5	21
	30	29
	45	44
	60	62
	90	107

Tees, Reducers, Caps

<i>Fitting Type</i>	Size (inch)	Pipeline Restraint Req. (feet)
Tee	4	35
	6	52
	8	70
	10	85
	12	101
Reducer	6x4	30
	8x6	32
	10x4	74
	10x6	58
	10x8	31
	12x4	93
	12x6	78
Cap	12x10	31
	4	41
	6	59
	8	76
	10	92
	12	107



NEW BERN



CITY OF NEW BERN

Water Resources Department

WATER & SEWER DESIGN STANDARDS

July 2023

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 S8 - TYPICAL MANHOLE INVERTS
 S9 - BEDDING FOR GRAVITY SEWER PIPE
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APPENDIX - A: PIPE RESTRAINT CHARTS

SECTION 1.0

INTRODUCTION

1.1 GENERAL

The purpose of this document is to provide a guideline for Property Owners, Developers and Engineers to assist with design of plans and specifications for projects which will become part of the City of New Bern water and/or sewer system. All proposed utility projects shall meet or comply with all applicable requirements set forth by the North Carolina Department of Environmental Quality (NCDEQ) and the standards contained herein. A project which shall require a variation from these requirements must be approved by the City of New Bern Water Resources Department ~~of Public Utilities~~ prior to permitting.

1.2 CONTACT INFORMATION

All correspondence regarding proposed water & wastewater projects shall be directed to the ~~City Engineer~~ Director of Water Resources at the following address:

Mr. Jordan B. Hughes, P.E.

~~City Engineer~~ Director of Water Resources

City of New Water Resources Department ~~of Public Utilities~~

P.O. Box 1129, New Bern, N.C. 28563

Phone: (252) 639-7527

Email: hughesj@newbernnc.gov

1.3 SYSTEM INFORMATION

1.3.1 Water System

Name: City of New Bern

Owner: City of New Bern

PWS I.D. No.: 04-25-010

WSMP No.: 01-00769

County: Craven

1.3.2 Sanitary Sewer System

The City of New Bern WWTF – Permit Number NC0025384

The City of New Bern Collection System – Permit Number WQCS00052

1.3.3 Low Pressure S.T.E.P. Sanitary Sewer System

The City of New Bern Township No. 7 Lagoon WWTF – Permit No. WQ0003765

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SECTION 2.0

PLAN APPROVAL AND PERMIT SUBMITTAL

2.1 PLAN AND SPECIFICATION SUBMITTAL

Two (2) complete sets of plans, specifications, design calculations, and all other relative information shall be submitted for review to the City of New Bern Water Resources Department ~~of Public Utilities~~ for any project which proposes to tap, extend, or otherwise alter the existing City of New Bern water or sanitary sewer systems. All modifications to the project plans and specifications which are requested after review by the ~~City Engineer~~Director of Water Resources -must be complete and shown on revised plans prior to the project approval.

2.2 PERMIT APPLICATIONS

2.2.1 Commercial Sewer Use Permits (S.T.E.P. System Only)

All businesses requesting to connect to the City of New Bern low pressure S.T.E.P sewer system will have to make application for and obtain a Commercial Sewer Use Permit. The permit application has to be submitted to and approved by the Water Resources Department ~~of Public Utilities~~ prior to establishing a water and sewer account with the City. Permit applications can be picked-up at the City of New Bern Water Resources Administration Office or downloaded from the City of New Bern webpage at www.newbernnc.gov.

The permit shall be non-transferable and shall be issued to the business owner not the property owner. Therefore, the permit will have to be renewed upon change of business owner or building occupancy use.

Businesses applying for a commercial sewer use permit for an existing building must have a daily designed sewer flow of less than 1,000 gallons per day or less than 120% of the average daily flow of the previous business, whichever is greater. The average daily flow of the previous business shall be based on actual water use records from the most recent 12 month period that the business was in operation. The daily designed sewer flow rate for the new business shall be based on the flow rate allocation criteria set forth in the most recent version of the City of New Bern Schedule of System Development fees and Connection fees.

Businesses applying for a new S.T.E.P system connection to serve a newly constructed building must meet the requirements of Section 4.4

2.2.2 State Water and Sewer System Extension Permits

Projects which will require an extension of the City of New Bern water system or sanitary sewer system shall be permitted through the appropriate State agency with the City of New Bern listed as the permit applicant. Once the proposed plans and specifications have been approved by the City of New Bern Water Resources Department ~~of Public Utilities~~, permit applications shall be executed by the City and returned to the responsible engineer for submittal to the appropriate State agency. The project engineer and/or developer shall be responsible for submitting all required fees and attachments that must accompany permit applications.

SECTION 3.0

DESIGN GUIDELINES FOR WATER & SEWER SYSTEM EXTENSIONS

3.1 GENERAL

At a minimum, all proposed water and sewer extensions shall be required to meet the design requirements contained in this section as well as all requirements set forth by the NCDEQ. In any case where the City of New Bern standards and the NCDEQ are not the same, the more stringent of the two shall apply.

3.2 PROPOSED WATER & SEWER MAINS

3.2.1 Sizing of Water and Sewer Mains

All proposed water and sewer main extensions shall be sized according to the latest requirements of NCDEQ and the standards set forth by the North Carolina Administrative Code. The City of New Bern reserves the right to increase the size of proposed mains as needed to accommodate future development within the general vicinity of the proposed project area as outlined in Section 74-74 of the Code of Ordinances of the City of New Bern.

3.2.2 Horizontal Location of Proposed Water & Sewer Mains

All proposed water and sewer mains shall be located within existing street rights-of-way or within a permanent utility easement. The minimum width of permanent utility easements for water mains and sewer force mains shall be ten feet (10'). The minimum width of permanent utility easements for gravity sewers shall be twenty feet (20'). All proposed water and sewer mains shall be located a minimum of ten feet (10') away from any existing or proposed permanent structure.

3.2.3 Vertical Location of Proposed Water & Sewer Mains

All proposed water and sewer mains shall be designed to provide at least three feet (3') of cover from the top of the pipe to the finished grade. At locations where this requirement cannot be met the main shall be constructed with ductile iron pipe.

Sewer force mains shall be designed where possible with uniform grade between low points and high points of the alignment. Air release valves shall be installed at all high points as described in section 3.6. Sewer force mains shall be installed to the designed grade to ensure that all high points are accounted for and air release valves are installed in the proper locations.

3.2.4 Separation of Water Mains and Sanitary Sewer Mains

Water mains shall be laid at least ten feet (10') laterally from existing or proposed sewers, unless local conditions or barriers prevent a ten foot (10') lateral separation in which case the following is required:

The water main shall be laid in a separate trench, with the elevation of the bottom of the water main at least eighteen inches (18") above the top of the sewer;

or

The water main shall be laid in the same trench as the sewer with the water main located at one side on a bench of undisturbed earth, and with the elevation of the bottom of the water main at least eighteen inches (18") above the top of the sewer.

3.2.5 Water and Sewer Main Crossings

A water main that crosses a sewer shall be laid a minimum vertical distance of 18 inches from the outside of the water main and the outside of the sewer, either above or below the sewer but, if practicable, the water main shall be located above the sewer. One full length of water pipe shall be located so that both joints will be as far from the sewer as possible.

3.2.6 Fire Flow Requirements for Water Mains

Fire Flow requirements for all proposed development shall be determined by the City of New Bern Fire Department (252) 639-2931.

3.2.7 Pressure Requirements for Water Mains

Water mains shall be designed to maintain a minimum residual pressure of twenty (20) psi at peak demand during fire flow. Peak Demand shall be determined as described in Title 15A, Subchapter 18C of the North Carolina Administrative Code.

3.2.8 Reaction Anchorage and Thrust Blocking

All exposed piping with mechanical couplings, push-on, mechanical joints, or similar joints subject to internal pressure shall be rodded or restrained with mechanical restraints (grip-rings, mega lugs, etc.) to preclude separation of joints. All mechanical joint tees, valves, all horizontal bends, vertical bends deflecting twenty two and one half (22 ½) degrees or more,

and plugs which are installed in buried piping (subjected to internal hydrostatic heads in excess of thirty feet (30')) shall be provided with suitable reaction blocking and restrained with mechanical restraints (grip-rings, mega lugs, etc.) acceptable for preventing movement of the pipe caused by internal pressure. The pipeline shall be restrained on either side of the fitting as indicated in the Pipe Restraint Chart listed in **Appendix-A**. Concrete blocking shall extend from the fitting to solid undisturbed earth and shall be installed so that all joints are accessible for repair. The fittings shall be wrapped in plastic to protect the fitting, bolts, and nuts from being permanently set in concrete and facilitate access for repair.

3.2.9 Detectable Tape and Tracer Wire

Detectable warning tape shall be installed on all water and sewer main extensions. Tracer wire shall be installed on all water and sewer main extensions, and all water/sewer services. The color of the detectable tape shall meet the standards of the AWWA color code.

All tracer wire must be maintained as a single strand in order to be effective. Brakes, gaps or distortion shall be cause for the contractor to repair the wire to the proper working order. The tracer wire shall be brought to the surface and located in a standard meter box at the following locations:

- At all bends and changes in horizontal direction.
- At all valves the tracer wire shall run along the exterior of the valve box and through a notch cut in the top (see detail W4).
- At the ends of a directional bore.
- Any location where two sections of tracer wire need to be spliced together. No underground wire connections shall be permitted.
- On straight runs of pipe, at 500' intervals.

3.3 PROPOSED WATER & SEWER SERVICES

3.3.1 Location of Water & Sewer Services

All projects shall provide for individual water and sewer services to be installed at each lot or residential unit. Services shall be installed flush to finished grade along the limit of the street right-of-way, ~~and at the center of the parcel or lot to be served.~~ Services shall not be located within sidewalks, driveways, or other paved areas which are subject to vehicular traffic. Service pipe or tubing shall be installed perpendicular to the main.

3.3.2 Water Service Sizing

Water meters shall be sized by the City of New Bern Water Resources Department ~~of Public Utilities~~ based on water demand data provided by the Developer and/or Engineer.

3.3.3 Water Service Connections

Water services shall be designed with a corporation stop, an angle stop, polyethylene service tubing, and a meter box.

3.3.3.1 Corporation Stops

Taps shall be located at 10:00 or 2:00 o'clock with respect to the circumference of the pipe. Taps shall alternate from one side of the pipe to the other side, whenever possible, and be at least 12" apart. In the event two taps are made on the same side of the pipe in succession, they must be a minimum of 24" apart. All service taps shall be made using a double strap service saddle.

3.3.3.2 Angle Stops

Angle stops shall be installed so as not to cause a bind on the pipe once the meter is installed. The angle meter stop shall be perfectly plumb, 3" to 5" from the back of the meter box, centered between the sides of the meter box, and 3" to 4" above the bottom of the meter box.

3.3.3.3 Service Tubing

The water service tubing shall be one continuous piece of pipe from the corporation stop to the angle meter stop, with no unions. Each water service line shall run perpendicular to the main and straight to the meter with no kinks and/or bends.

3.3.3.4 Meter Boxes

Water meter boxes shall be placed on, no less than four (4), common brick to prevent settling. Meter boxes shall have four inches (4") of stone under the brick to aid in drainage.

3.3.4 Gravity Sewer Service Connection

Gravity sewer services shall be designed with a wye connection, a clean-out placed at the right-of-way and service piping. The minimum size of a gravity sewer service shall be four inches (4").

3.3.4.1 Wye Connections

Gravity sewer service line taps shall be located at 10:00 or 2:00 with respect to the circumference of the pipe. The sewer service line tap fitting shall be appropriate for the type of pipe being used.

3.3.4.2 Clean-outs

The sewer service line clean-outs shall be made using a long sweep wye on the sewer service line. A one foot (1') extension shall be placed on the through section of the wye with a cap glued in place. A single piece of sewer service line pipe shall be extended to grade from the wye, with a cap glued in place and contained within an approved clean-out box, which shall be set flush to finished grade. The final clean-out cap shall have a slotted top or inverted nut. No raised nut clean-out caps will be permitted.

3.3.4.3 Service Piping

The sewer service line shall be constructed with the longest piece of pipe available from the manufacturer and the least amount of fittings. Couplings shall not be allowed on the sewer service lines to join short pieces together.

3.4 PROPOSED FIRE HYDRANTS

3.4.1 Location of Fire Hydrants

Proposed fire hydrants shall be placed within the street right-of-way and where possible at street intersections. On curbed streets the hydrant shall be placed no closer than two feet (2') and no further than five feet (5') from the back of the curb. On streets without curbing the hydrant shall be placed between the top of the ditch back slope and the right-of-way boundary. In no case will the hydrant be allowed to be placed in the ditch slopes. All hydrants shall be installed so that the pumper nozzle is perpendicular to the roadway and the centerline of the nozzle is a minimum of eighteen inches (18") and a maximum of twenty-four inches (24") above finished grade.

3.4.2 Spacing of Fire Hydrants

The spacing of proposed fire hydrants shall meet the following requirements:

<u>Residential Areas:</u>	Hydrants shall be spaced with a maximum of 1000 feet between hydrants.
<u>Commercial Areas:</u>	Hydrants shall be spaced with a maximum of 400 feet between hydrants.
<u>Industrial Areas:</u>	Hydrants shall be spaced with a maximum of 200 feet between hydrants.

The spacing length shall be measured along vehicle access routes which will allow for proper hose placement.

3.4.3 Fire Hydrant Assembly

All proposed fire hydrant assemblies shall include a water main tee, a hydrant leg, a gate valve, a riser, and the hydrant. Hydrants shall be installed perpendicular to water mains. Hydrant elbow shall be tied through all fittings and valves to the hydrant tee with the use of stainless steel threaded rods.

3.5 PROPOSED GATE VALVES

Gate valves shall be provided at all ~~intersection~~intersections of proposed water and sewer force mains. At each intersection a valve shall be provided for all but one of the branches (i.e. two (2) valves at a tee and three (3) valves at a cross).

3.6 PROPOSED AIR RELEASE VALVES

3.6.1 Location of Air Release Valves

Air release valves shall be located at all high points along pressure mains where the distance between the high point and the low point in the pressure main exceeds ten feet (10') in elevation. The City of New Bern Water Resources Department ~~of Public Utilities~~ may require additional air release valves to be provided at other locations where it is determined that the possibility exists for the accumulation of excess air in the main.

3.6.2 Air Release Valve Assembly

All air release valves other than temporary blow-offs shall be automatic in type. The proposed ARV manholes shall be installed so that the manhole cover is flush with the existing grade and they shall not be installed in the centerline of any existing ditch or swale. If needed, these manholes shall be installed to back of the existing ditch and the ARV will be piped to the force main with the appropriate sized brass pipe.

3.7 PROPOSED BLOW-OFFS

3.7.1 Location of Blow-Offs

Manual blow-off assemblies shall be provided at dead-ends of all pressure mains.

3.7.2 Six Inch (6") and Larger Water Mains

At dead-end locations on all water mains six inches (6") in diameter and larger a standard fire hydrant shall be provided as a blow-off assembly.

3.7.3 Four Inch (4") and Smaller Water Mains

At dead-end locations on all water mains four inches (4") in diameter and smaller an end-of-line blow-off assembly shall be provided (See Detail W9)

3.7.4 Sewer Force Mains

At dead-end locations on all sewer force mains an end-of-line blow-off assembly shall be provided. in a meter box. (See Detail W9)

3.8 PROPOSED BACKFLOW PREVENTION ASSEMBILES

Backflow prevention assemblies shall be required for all applications—~~if~~ which the potential exists for the public water supply to be contaminated by the backflow from a private water system, as outlined in Chapter 74, Article VI "Cross-Connection Control" of the New Bern Code of Ordinances. The degree of protection required shall depend on the severity and type of possible contaminant. Protection requirements and device locations may vary by project and will be reviewed on an individual basis by the City of New Bern ~~Department of Public Utilities~~Cross Connection Control Coordinator.

3.9 PROPOSED SANITRY SEWER MANHOLES

3.9.1 Location ~~of Proposed~~ of Proposed Manholes

All proposed gravity sanitary sewer mains shall be designed so that a manhole is installed at all locations where changes in horizontal alignment, vertical grade, or pipe diameter are required. The maximum distance between manholes as measured along the sewer main shall be 425 feet.

3.9.2 Manholes in Paved Areas

Where practical design allows, all manholes located within paved areas shall be set along the center line of the road and out of designated parking spaces.

3.9.3 Manhole Base

All precast concrete manholes shall be placed on a stable stone base. The depth of the stone base may vary depending on site soil conditions and actual depth of stone needed will be field determined by a representative for the City of New Bern, but shall consist of a minimum of 6 inches of stone leveling course beneath the base section. The manhole base shall be provided with a minimum of a 6" extended base section.

3.9.4 Drop Manholes

Manholes with sewer pipes entering 2 ½ feet, or more, above the bottom

shall have an inside drop manhole connections installed. All drop manholes shall have a minimum inside diameter of 5 feet.

3.10 PROPOSED PUMP STATIONS

3.10.1 Option to Use Pump Stations

In the design of all proposed sanitary sewer system extensions every effort and consideration shall be made to use conventional gravity sewer for the system extension. The use of pump stations and force mains shall only be permitted when the proposed extension can not be properly connected to the existing gravity system due to local conditions or when existing gravity sewer is unavailable.

3.10.2 Sizing of Proposed Pump Stations

Proposed pump stations shall be sized as required by the NCDEQ guidelines for the proposed property usage. The City of New Bern reserves the right to increase the size of proposed pump stations as needed to accommodate anticipated future development within the general vicinity of the proposed project area as outlined in Section 74-74 of the Code of Ordinances of the City of New Bern.

3.10.3 Pump Station Site

All proposed pump stations shall be placed on a site (50'x 50' min.) within the project area with a ground elevation above that of the flood plain. The site shall be graded to direct drainage away from the wet well structure. The site shall be accessible by an access road. At a minimum, the access road shall be twelve foot (12') wide and constructed of six inches (6") of compacted ABC stone. The site shall be enclosed by a vinyl coated, galvanized chain-link fence with a lockable gate. Compacted stone shall be placed within the entire fenced area. A concrete pad shall be poured to create a level surface between the wet well access and the control panel. An elevated area light shall be installed at the site, as well as a frost proof yard hydrant.

3.10.4 Pump Station Structure

3.10.4.1 Wet Well

All proposed wet well structures shall be constructed of precast concrete sections with the diameter as required by design and in no case less than six feet (6'). The top section shall be flat with the access openings cast in. Access openings and covers shall be sized and placed to allow for pump removal. A mushroom style vent shall also be cast in the top section of the wet well. Where applicable, the

vent shall be piped to the area light pole and extended 36" above grade.

3.10.4.2 Pumps

All proposed pump stations shall use a duplex pump system. Pumps shall be submersible in type and of equal size and pumping capacity. Pumps shall be mounted on a guide rails and have a chain lifting system. Pumps shall be sized per the recommendations of the pump manufacturer for the designed flow.

3.10.4.3 Check Valves

Check valves shall be installed on each of the pump discharge lines. Check valves shall be the lever and weight type and installed in precast concrete valve vault. The valve vault shall be equipped with a lockable access cover and a sump drain, which shall be piped to return back into the wet well.

3.10.4.4 Control and Electrical Components Rack

All electrical components and pump controls shall be located on a single rack within the pump station site. The rack and rack supports shall be constructed of stainless steel or aluminum and installed on a concrete slab. The rack shall have a minimum thickness of ¼ inch. A sun shield shall be provided across the entire length of the rack.

3.10.4.5 Pump Station Piping

All piping in the wet well, check valve vault, and additional piping within the pump station site shall be 401 lined ductile iron. All piping within the pump station site shall have the same diameter.

3.10.4.6 Alternative Power Source

The alternative power source for all proposed pump stations shall be a generator or an independently powered back-up pumping system.

For pump stations with a designed average daily flow of less than 15,000 gallons per day, the pump station shall be equipped with a manual emergency transfer switch and hook-up for the generator.

For pump stations with a designed average daily flow of 15,000 gallons per day or more, the pump station shall be equipped with a permanently mounted generator and an automatic emergency transfer switch capable of running both pumps under full load or an independently powered back-up pumping system with a pumping

rate equal to both of the primary pumps. For either application, a concrete pad shall be provided along with a fuel tank capable of handling enough fuel to operate for 24 hours.

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SECTION 4.0

GUIDELINES FOR USE OF THE TOWNSHIP NO. 7 LOW PRESSURE S.T.E.P. SEWER SYSTEM

4.1 GENERAL

This section identifies special requirements which are applicable to all customers located within the City of New Bern S.T.E.P. System Coverage Area. The boundaries of the S.T.E.P. System Coverage Area are illustrated in Figure 4.1 at the end of this Section.

Existing S.T.E.P. System users that are not within the boundaries of the S.T.E.P. system coverage area will be required to connect to the City's Conventional Sewer System for any new development or substantial redevelopment. "*Substantial Redevelopment*" will include development activities on a parcel in which the total cost (cumulative over 5 year period) of the proposed improvements to the existing structures exceeds 50% of the assessed, pre-construction value of the structures.

4.2 GENERAL REQUIREMENTS FOR S.T.E.P. SYSYEM USE

4.2.1 The City of New Bern will only provide (1) S.T.E.P. service per building lot. To be considered eligible for connection to the S.T.E.P. sewer system, a building lot shall meet one of the following conditions:

A. For parcels platted prior to July 1, 2014: The parcel shall be located in an area currently served by the S.T.E.P. system and the lot must front a road right-of-way or utility easement where a S.T.E.P. system main currently exist.

B. For parcels which are subdivided after July 1, 2014: The parcel shall be a minimum of 10,000 square feet and have at least 60 feet of frontage along a road right-of-way or utility easement where a S.T.E.P. system main currently exist.

New permits for the extension of S.T.E.P. system mains shall be prohibited.

4.2.2 The City of New Bern Water Resources Department ~~of Public Utilities~~ will have final determination on service availability and shall have the right to refuse service if the existing infrastructure in a particular area cannot handle additional loading.

- 4.2.3 To determine if a lot will be eligible for connection to the S.T.E.P. sewer system, the property owner shall contact the City of New Bern ~~Customer Service-Representative~~Water Resources Service Coordinator at (252) 639-7596. No lot will be provided service without a Sewer Availability letter issued by the City of New Bern Water Resources Department, ~~of Public Utilities.~~
- 4.2.4 The required System Development Fees and Connection fees for S.T.E.P. system users will be based on the schedule of fees as set forth by the City of New Bern Board of Aldermen.
- 4.2.5 Once S.T.E.P. system service is established at a property, the property owner shall be responsible for repairing or replacing the S.T.E.P. tank, at his/her own expense when notified in writing by the City of New Bern that tank repairs, tank replacement, or the removal of solids is necessary.

4.3 REQUIREMENTS FOR RESIDENTIAL INSTALLATION AND USE

- 4.3.1 Only one residence per eligible building lot will be allowed to connect to the S.T.E.P. system. However, duplexes and other multi-family units will be allowed by meeting the following requirements:
- 4.3.1.1 Each unit shall be on a separate lot as recorded at the Craven County Register of Deeds.
- 4.3.1.2 Each unit shall pay the applicable System Development fees and Connection fees based on the schedule of fees as set forth by the City of New Bern Board of Aldermen
- 4.3.1.3 Each unit shall be responsible for installation of the electrical service and S.T.E.P. tank as outlined in Sections 4.3.4 and 4.3.5.
- 4.3.1.4 A common onsite S.T.E.P. System will also be permitted for multifamily buildings provided that the onsite tank is sized by a N.C. Professional Engineer, the electrical service is provided as outlined in Section 4.4.6 and that the electrical service for the onsite S.T.E.P. system be a common building service, separate from any of the unit services.
- 4.3.2 For residential properties wanting to connect to the S.T.E.P. system, the property owner shall be responsible for obtaining a Sewer Availability letter, paying the required System Development fees and Connection fees, providing the required electrical service, and installing the S.T.E.P. tank.
- 4.3.3 After the ~~City Engineer~~Director of Water Resources has determined sewer service is available and issued the property owner a sewer availability letter, the applicable System Development fees and Connection fees can be paid during normal business hours at the City of New Bern Customer Service Office located at 606 Fort Totten Drive.

4.3.4 The property owner shall install (2) twenty amp three wire electrical circuits stubbed out from the residence as described below:(Also as approved by Craven County Building Inspections Department).

4.3.4.1 The power supply wiring should be installed within 20 feet of the discharge end of the S.T.E.P. tank. The control panel location should be visible from the road.

4.3.4.2 Two (2) twenty amp circuits on separate circuit breakers are required. One circuit is required for the pump and the other for the control panel.

4.3.4.3 The control panel will be mounted by the City as part of the pump installation.

4.3.4.4 Note that special provisions may be necessary for installations below the flood plain elevation of 10 feet above mean sea level. Any exceptions must meet the latest applicable National Electric Code

4.3.5 The S.T.E.P. tank to be installed by the property owner shall be a 1,300 gallon vacuum tested precast concrete septic tank/pump tank combination. A concrete riser ring shall be provided if needed to adjust ring and cover to final grade. A watertight manhole ring and cover shall be provided for access to the pump. The tank shall be manufactured by Futrells Precast, Inc. of Deep Run, N.C. (252- 568-3481) or The Stallings Company, Inc. of Greenville, N.C. (252-756-0267). The tank installer will need to contact the City of New Bern at (252) 639-7597 to witness the installation and vacuum testing of the S.T.E.P. tank at the time of installation.

4.3.6 Once the tank and electrical service have been installed, and the System Development fees and Connection fees are paid, the City of New Bern will schedule the installation of the pump components and the connection of the sewer service. The actual installation time will depend on the City's current work load

4.4 REQUIREMENTS FOR COMMERCIAL INSTALLATION AND USE

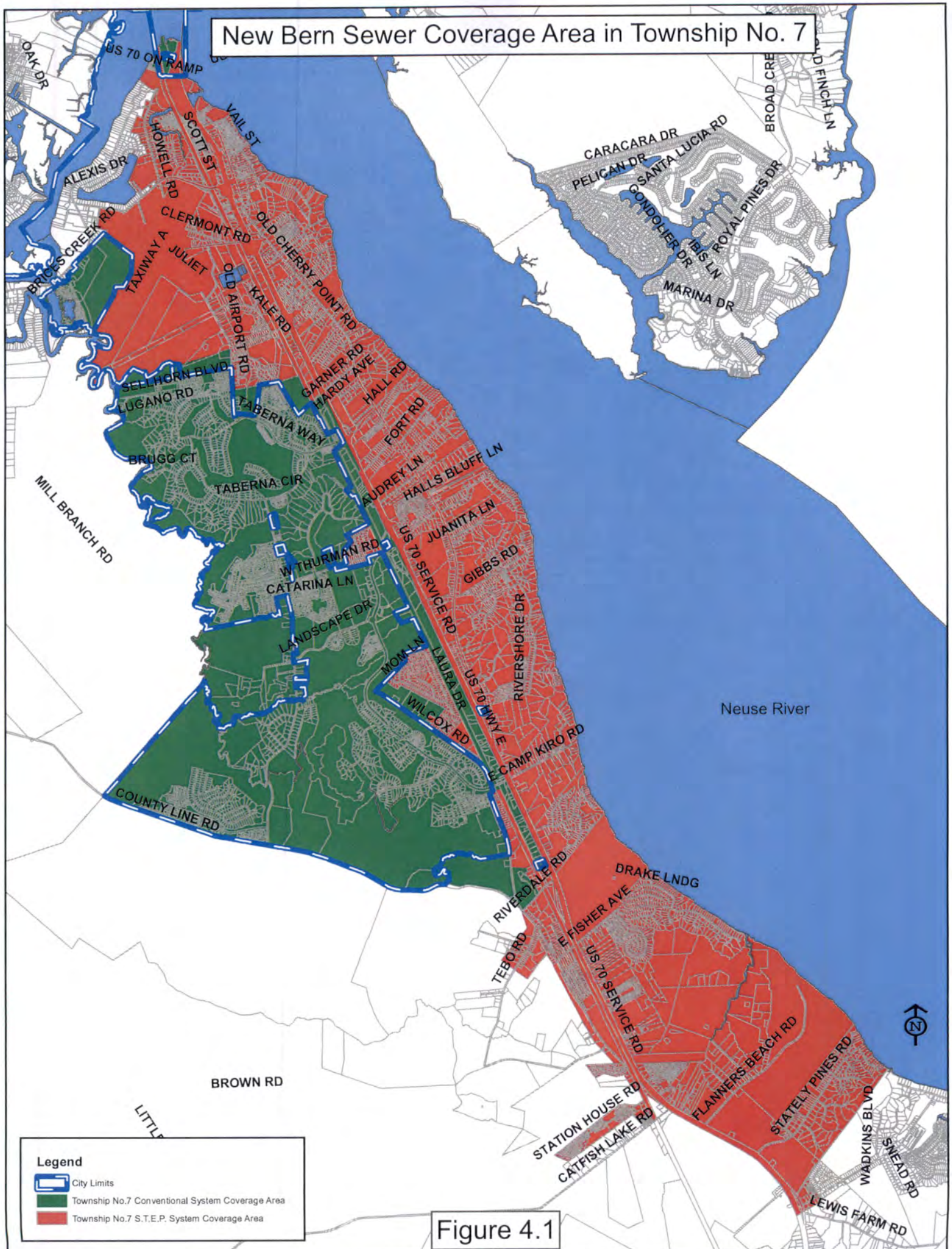
4.4.1 For commercial developments wanting to connect to the S.T.E.P. system, the property owner shall be responsible for obtaining a Sewer Availability letter, a Commercial Sewer Permit, paying the applicable System Development fees and Connection fees, providing the required electrical service, and installing the S.T.E.P. tank.

4.4.2 To be eligible for connection to the S.T.E.P. system, a commercial development must meet the requirements outlined in Section 4.2.1 and the proposed development shall have an average daily designed flow of less than 1,000 gallons per day based on the flow rate allocation criteria set forth

in the most recent version of the City of New Bern Schedule of System Development fees and Connection fees.

- 4.4.3 After the ~~City Engineer~~Director of Water Resources has determined sewer service is available and issued the property owner a sewer availability letter, the applicable System Development fees and Connection fees can be paid during normal business hours at the City of New Bern Customer Service Office located at 606 Fort Totten Drive.
- 4.4.4 Occupants of commercial buildings shall obtain a Commercial Sewer Permit prior to occupying a commercial building which is connected to the S.T.E.P. System. To obtain a Commercial Sewer Use Permit, the building occupant shall contact the City of New Bern ~~Customer—Service Representative~~Water Resources Service Coordinator at (252) 639-7596. All occupant use of commercial buildings connected to the S.T.E.P. System must meet the requirements of Sections 4.4.2. .
- 4.4.5 If the existing onsite S.T.E.P tank and electrical service for an existing building does not conform to the requirements of Section 4.4.5, Section, 4.4.6 and Section 4.4.7, then these components will be required to be brought into compliance as part of issuing a new Commercial Sewer Use Permit.
- 4.4.6 The property owner shall install (1) Single pole, 20 amp circuit and (1) double pole, 40 amp circuit for the electrical supply to the pumps and control panel as described below:(Also as approved by Craven County Building Inspections Department).
 - 4.4.6.1 The power supply wiring should be installed within 20 feet of the discharge end of the S.T.E.P. tank. The control panel location should be visible from the road.
 - 4.4.6.2 Two circuits on separate circuit breakers are required. One circuit is required for the pumps and the other for the control panel.
 - 4.4.6.3 The control panel will be mounted by the City as part of the pump installation.
 - 4.4.6.4 Note that special provisions may be necessary for installations below the flood plain elevation of 10 feet above mean sea level. Any exceptions must meet the latest applicable National Electric Code
- 4.4.7 For proposed commercial developments with an average daily designed flow of less than 400 gallons per day, the developer shall install the onsite S.T.E.P. tank outlined in Section 4.3.5.
- 4.4.8 For proposed commercial developments with an average daily designed flow of more than 400 gallons per day and for all multiple occupant developments, the developer shall have the onsite S.T.E.P. tank sized by a N.C. professional engineer. The engineer shall certify that the designed onsite S.T.E.P tank has

New Bern Sewer Coverage Area in Township No. 7



adequate septic and storage capacity to be used in conjunction with the City's standard S.T.E.P. system pumps.

SECTION 5.0

MATERIAL SPECIFICATIONS FOR WATER & SEWER EXTENSIONS

5.1 PIPE FOR GRAVITY SEWER MAINS

5.1.1 PVC Pipe

All Polyvinyl Chloride (PVC) pipe used in the construction of gravity sewer main extensions shall meet the following standards:

Pipe: Pipe shall meet the requirements of ASTM D3034

Dimensions: Standard Dimension Ratio (SDR) 35

Material: Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.

Joints: Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477

Fittings: PVC fittings shall conform to ASTM D3034, 7.4

5.1.2 Ductile Iron Pipe

All Ductile Iron Pipe (DIP) used in the construction of gravity sewer main extensions shall meet the following standards:

Pipe: Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151

Fittings: Ductile Iron conforming to ANSI/AWWA A21.11/C-110

Joints: Mechanical joints conforming to ANSI/AWWA A21.11/C-111 or push-on joint conforming to ANSI/AWWA A21.51/C-151

Lining: All pipes and fittings shall be lined with Protecto 401 or approved equal.

Coating: All pipes and fittings shall be coated on the exterior with bituminous coating approximately 1 mil thick.

5.2 PIPE FOR SEWER FORCE MAINS

5.2.1 PVC Pipe

All PVC used in the construction of sewer force mains shall meet the following standards:

Pipe:	Pipe shall conform to the standards of AWWA C-900
Dimensions:	Standard Dimension Ratio (SDR) 18 for both bell and pipe thickness
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Pressure:	Pipe shall be pressure rated at 150 psi
Joints:	Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477. For fusible C-900 joints shall be butt-fused conforming to the requirements of ASTM D638 and ASTM D1599.
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110
Restraint Devices:	Restraint devices for use on PVC joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Star Pipe Products Pipe Restrainers, Series 1100, Romac Industries, Inc. Style 611, <u>RieberLok gaskets</u> or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.2.2 Ductile Iron Pipe

All Ductile Iron Pipe (DIP) used in the construction of sewer force mains shall meet the following standards:

Pipe:	Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110
Joints:	Mechanical joints conforming to ANSI/AWWA A21.11/C-111 or push-on joint conforming to ANSI/AWWA A21.51/C-151
Lining:	All pipes and fittings shall be lined with Protecto 401 or approved equal
Coating:	All pipes and fittings shall be coated on the exterior with bituminous coating approximately 1 mil thick.
Restraint Devices:	Restraint devices for use on DIP joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Uni-Flange Block Buster Series 1390-C, Romac Industries, Inc. Style 611, or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.2.3 High Density Polyethylene (HDPE) Pipe

All HDPE used in the construction of sewer force mains shall meet the following standards:

Pipe:	Pipe shall meet the requirements of AWWA C-906
Dimensions:	Standard Dimension Ratio (SDR) 9 for pipe thickness
Material:	Pipe shall be constructed of PE 3408 conforming to ASTM D1248, Minimum cell classification of 345434E.
Pressure:	Pipe shall be pressure rated at 200 psi
Joints:	All pipe and fittings shall be butt fusion jointed utilizing

procedures, tools and equipment recommended by the pipe manufacturer

Fittings: Fittings for HDPE Pipe shall be miter fusion fabricated and shall provide a pressure rating equal to that of the pipe. Molded butt fittings shall be manufactured in accordance with ASTM D-3261.

5.3 PIPE FOR WATER MAINS

5.3.1 PVC Pipe 4" and Larger

All PVC used in the construction of water mains four inches (4") in diameter and larger shall meet the following standards:

Pipe: Pipe shall conform to the standards of AWWA C-900

Dimensions: Standard Dimension Ratio (SDR) 18 for both bell and pipe thickness

Material: Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.

Pressure: Pipe shall be pressure rated at 150 psi

Joints: Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477. For fusible C-900 joints shall be butt-fused conforming to the requirements of ASTM D638 and ASTM D1599.

Fittings: Ductile Iron conforming to ANSI/AWWA A21.11/C-110

Restraint Devices: Restraint devices for use on PVC joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which it is installed. Restraining devices for "push on" joints shall be Star Pipe Products Pipe Restrainers, Series 1100, Romac Industries, Inc. Style 611, or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.3.2 PVC Pipe 3" and Smaller

All PVC used in the construction of water mains three inches (3") and smaller in diameter shall meet the following standards:

Pipe:	Pipe shall meet the requirements of ASTM D2241
Dimensions:	Standard Dimension Ratio (SDR) 21 for both bell and pipe thickness
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Pressure:	Pipe shall be pressure rated at 200 psi
Joints:	Joints shall be push-on type with elastomeric gaskets conforming to ASTM F477
Fittings:	Fittings shall be Schedule 80 PVC with solvent weld joints

5.3.3 Ductile Iron Pipe

All Ductile Iron Pipe (DIP) used in the construction of water mains shall meet the following standards:

Pipe:	Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.11/C-110
Joints:	Mechanical joints conforming to ANSI/AWWA A21.11/C-111 or push-on joint conforming to ANSI/AWWA A21.51/C-151
Lining:	All pipes and fittings shall be lined in accordance with ANSI/AWWA A21.4/C-104
Coating:	All pipes and fittings shall be coated interior and exterior with bituminous coating approximately 1 mil thick.
Restraint Devices:	Restraint devices for use on DIP joints shall be constructed of high strength ductile iron, ASTM A536, Grade 65-45-12 and shall incorporate machined serration on the inside diameter to provide positive restraint, exact fit, full circle contact and support of the pipe in an even and uniform manner. Bolts and connecting hardware shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11, latest version thereof. All devices shall have a safety factor of no less than 2:1 at the full rated pressure of the pipe on which

it is installed. Restraining devices for “push on” joints shall be Uni-Flange Block Buster Series 1390-C, Romac Industries, Inc. Style 611, or approved equal. Restraining devices for mechanical joints shall be Romac Industries, Inc. Grip-Ring or approved equal.

5.3.4 High Density Polyethylene (HDPE) Pipe

All HDPE used in the construction of water mains shall meet the following standards:

Pipe:	Pipe shall meet the requirements of AWWA C-906
Dimensions:	Standard Dimension Ratio (SDR) 9 for pipe thickness
Material:	Pipe shall be constructed of PE 3408 conforming to ASTM D1248, Minimum cell classification of 345434E.
Pressure:	Pipe shall be pressure rated at 200 psi
Joints:	All pipe and fittings shall be butt fusion jointed utilizing procedures, tools and equipment recommended by the pipe manufacturer
Fittings:	Fittings for HDPE Pipe shall be miter fusion fabricated and shall provide a pressure rating equal to that of the pipe. Molded butt fittings shall be manufactured in accordance with ASTM D-3261.

5.4 SANITARY SEWER SERVICES

5.4.1 Gravity Sewer Services

All materials used in the construction of gravity sewer services shall meet the following standards:

Pipe:	Schedule 40 PVC - Drain, Waste, and Vent (DWV) conforming to the requirements of ASTM D2665
Material:	Pipe shall be constructed of PVC conforming to ASTM D1784, Minimum cell classification of 12454B.
Fittings:	Fittings shall be Schedule 40 PVC conforming to ASTM F1866 with solvent weld joints. Joint primer shall conform to ASTM F656 and joint solvent shall conform to ASTM D2564
Clean-out:	Service clean-out shall use a standard wye and clean-out plug as made or recommended by the pipe manufacturer.

Clean-out

Box: Clean-out boxes shall be constructed of cast iron conforming to ASTM A-48 Class 30B, with an asphalt coated finish. The box shall be a minimum of 10.5" H and have a minimum clear opening of 6.75". The word "SEWER" shall be cast into the lid. Box shall be Sigma Model CO-373S or approved equal.

Service

Connection: Service connection shall use a standard wye made or approved by the pipe manufacturer

5.4.2 S.T.E.P. System Services

All materials used in the construction of S.T.E.P system services shall meet the following standards:

Tank: All individual S.T.E.P systems shall use a vacuum tested, precast concrete septic tank/ pump tank combination. A concrete riser ring shall be provided to adjust ring and cover to final grade. A standard manhole ring and cover shall be provided for access to the pump chamber. For commercial applications, a manhole ring and cover shall also be provided for access to the septic chamber. Tanks for residential use shall be manufactured by The Stallings Company, Inc. of Greenville, N.C. (252-756-0267) or Futrells Precast, Inc. of Deep Run, N.C. (252- 568-3481).

Pump: The effluent pump shall be of the submersible type capable of delivering a flow and total dynamic head (TDH) as determined for each installation, and shall be sufficient to pump effluent to the mainline pressure pipe for elimination. The maximum pump shutoff head shall not exceed seventy-five percent (75%) of the working pressure of the pipe. Pump shall comply with the following:

- a. Pump shall be specifically designed and rated to pump sewage effluent into pressure wastewater collection systems.
- b. All residential effluent pumps shall be Zoeller model 163 pumps or approved equal.
- c. All pumps supplied must be constructed per (and bear the label of) an authorized testing authority such as Underwriter's Laboratories, Inc. (UL) for effluent duty.
- d. Pumps shall have a thirty-five-foot (35') long extra heavy-duty (SO) multi-conductor NEC rated electrical cord with ground to motor plug.
- e. The submersible pump shall pass a ¾ " spherical solid.
- f. Pump motor shall be of the submersible type.

- g. Motor shall be Single Phase, ~~230-115~~ Volts, 60 Hertz, 3500 RPM minimum or equal.
- h. Single-phase motors shall be thermally protected with an automatic reset feature.

Control
Panel:

The pump control panel shall be CSI or approved equal simplex pump control/alarm panel with the following features:

- a. All control components shall be contained in a single NEMA 4X fiberglass enclosure. The enclosure shall be of one piece, weatherproof construction and gray in color. Enclosure cover shall be hinged with a stainless steel piano hinge and be lockable with two (2) stainless steel latches.
- b. The panel shall be equipped with a red alarm light and an integrated audible alarm to indicate "high level" alarms. A silence switch for the audible alarm shall be located on the exterior of the panel. The audible alarm shall produce a minimum of 80 decibels of sound pressure.
- c. Level indication and pump operation shall be controlled with float switches.

Pipe:

Service pipe shall be 1 ½ inch CTS, polyethylene conforming to the standards of ANSI/AWWA C901. Pipe shall be made of PE3408 material with a standard dimension ratio of 9 (SDR 9) and a pressure rating of 200 psi. The pipe shall be green in color.

Service
Saddles:

Service saddles shall be brass with stainless steel straps and/or bolts. Saddles shall have (AWWA) CC threads. Saddles with straps shall be the double strap type. Saddles shall be manufactured by McDonald, Ford, Romac, or approved equal.

Corporation
Stops:

Corporation stops shall be bronze body with (AWWA) CC tapered threaded inlet and compression connection outlet. Corporation stops shall be manufactured by McDonald, Ford, ~~MullerMueller~~, or approved equal.

Ball
Valve:

Ball valves shall be bronze body and have a stainless steel ball & handle, with a quarter turn, lever handled shut-off. Ball valves shall be manufactured by McDonald, Ford, ~~MullerMueller~~, or approved equal.

Check
Valve:

Check valves shall be ~~PVC-wye-Chee~~brass swing-check valves having 1 ½" FIP threaded type pipe connections. ~~The valve shall incorporate a weighted piston seat carrier as the sealing closure. Valve end (bonnet) shall be configured with~~

~~a removal eye pin.~~ Valve body shall be constructed of PVC ~~which meets or exceeds the requirements of ASTM D-1784.~~ The valve brass and shall have a minimum pressure rating of 150 psi. ~~The check shall be a 1 ½", wye check threaded to accept 1 ½" MIP brass fitting on both ends. The wye check shall have a continuous stainless steel reinforcing ring around the outside of the threads to prevent fittings from being over tightened.~~ Check valves shall be model U99SJ manufactured by Spear, United Industries George Fischer or approved equal.

Meter
Box:

Meter Boxes shall be constructed of cast iron conforming to ASTM A-48 Class 30B, with an asphalt coated finish. Dimensions shall be 20" L x 10" W x 12" H. The word "SEWER" shall be cast into the lid. Box shall be manufactured by Capital Foundry, East Jordan Iron Works, Charlotte Pipe and Brass and Hays Foundry, or approved equal.

5.5 WATER SERVICES

All materials used in the construction of water services shall meet the following standards:

Pipe: Service pipe shall be one inch (1") "CTS" polyethylene tubing conforming to the standards of ANSI/AWWA C901. Pipe shall be made of PE3408 material with a standard dimension ratio of 9 (SDR 9) and a pressure rating of 200 psi. The tubing shall be blue in color.

Service
Saddles: Service saddles shall be brass with stainless steel straps and/or bolts. Saddles shall have (AWWA) CC threads. Saddles with straps shall be the double strap type. Saddles shall be constructed of No-Lead brass in accordance with AWWA C-800. Saddles shall be manufactured by McDonald, Ford, MullerMueller, or approved equal.

Corporation
Stops: Corporation stops shall be bronze body with (AWWA) CC tapered threaded inlet and compression connection outlet. Corporation stops shall be constructed of No-Lead brass in accordance with AWWA C-800. Corporation stops shall be manufactured by McDonald, Ford, MullerMueller, or approved equal.

Angle
Stop: Angle stops shall be bronze body with compression connections for the inlet and outlet. Ball valves shall have a stainless steel ball and a lockable, quarter turn, tee handled shut-off. Angle stops shall be constructed of No-Lead brass in accordance with AWWA C-800. Ball valves shall be

manufactured by McDonald, Ford, ~~MullerMueller~~, or approved equal.

In shallow water service installations straight meter valves shall be utilized instead of angle stops at locations where the service tubing has to come through the side of the meter box instead of up through the bottom. The straight meter valves shall be either ~~MullerMueller~~ Model B-24350 or Ford Model B43. Both valves will have a swivel meter nut on one side and a compression type pack joint for CTS tubing on the other side, along with a lockable wing.

Meter
Box:

Meter Boxes shall be standard MBX-1 size, constructed of cast iron conforming to ASTM A-48 Class 30B, with an asphalt coated finish. Dimensions shall be 20" L x 10" W x 12" H. The Box shall be manufactured by Capital Foundry, East Jordan Iron Works, ~~Charlotte Pipe and Brass and Hays~~ Foundry, or approved equal. The box lid shall be the standard ~~"City of New Bern" polymer lid (DFW Plastics, Inc. Model No. DFW1219SS-AF1MA-LIDMBX-1 cast iron lid with a 2" diameter hole cast in the lid and "WATER" cast on the top of the lid.~~

5.6 VALVES AND VALVE BOXES

5.6.1 Gate Valves

Gate valves shall be resilient seated and conform to AWWA C-509 for water and other liquids. Gate valves shall be iron bodied bronze mounted having non-rising stems and mechanical joints. Gate valves shall open counter clockwise, have a standard 2 inch square operating nut, and a cast-on direction arrow. Gate valves shall be manufactured by Mueller, Clow, American, or approved equal.

5.6.2 Butterfly Valves

Butterfly valves 20" and smaller shall conform to AWWA C504 for class 150B. Butterfly valves shall be iron bodied mechanical point with cast iron valve discs ASTM A-436 Type 1, Stainless steel valve shafts Type 316 recognized synthetic compound valve seals bonded to withstand 75 lbs. Pull butterfly valves shall be fitted with sleeve-type corrosion resistant bearings and self-adjusting valve packing. Valve operators for butterfly valve shall conform to AWWA C 504 with 2 inch square operating nut. The valve operators shall be the self-locking type designed to hold the valve in any position without creeping or fluttering. Butterfly valves shall open counter-clockwise. Butterfly valves shall be manufactured by American, Clow, Mueller, Pratt, or approved equal.

5.6.3 Tapping Sleeve & Valve

Tapping sleeves, sleeve flange and all required hardware shall be constructed of stainless steel and have a minimum working pressure of 150 psi. Tapping sleeves shall be manufactured by Ford, ~~Muller~~Mueller, Romac or approved equal. Tapping valves shall meet all the requirements for gate valves as set forth in Section 5.6.1.

5.6.4 Valve Box

Valve boxes shall be constructed of cast iron and rated for H-20 traffic loading. Valve boxes shall be two (2) piece adjustable screw type telescopic valve boxes with the tops marked SEWER or WATER for their relative use and location. Valve Boxes shall be manufactured by Capital Foundry, East Jordan Iron Works, ~~Charlotte Pipe and~~Brass and Hays Foundry, or approved equal.

5.7 AIR RELEASE VALVES

5.7.1 Automatic Air Release Valves

Automatic Air Release Valves shall be combination air/vacuum automatic float operated valves designed to release accumulated air and prevent vacuum within the from a piping system while the system is in operation and under pressure.

~~The valve body, cover, orifice, float and linkage mechanism shall be constructed of Type 316 stainless steel. Non-metallic floats or linkage mechanisms are not acceptable. The orifice button shall be Viton for simple lever valves and Buna-N for compound lever designs.~~ Automatic air release valves shall be Crispin UX20, Vent-Tech SDG, or approved equal.

5.7.2 Manual Air Release Valves

Manual air release valves shall consist of the same materials as specified in Section 5.5 and shown in Detail W-8.

5.8 FIRE HYDRANTS

Fire hydrants shall conform to AWWA C502. Fire hydrants shall be manufactured with two (2) 2 ½ inch hose nozzles and one (1) 4 ½ inch pumper nozzle. All threads shall conform to the standard for the City of New Bern. All hydrant legs shall be six inch (6") ductile iron pipe with a mechanical joint valve. All hydrants furnished shall have a minimum 3'-6" inch bury depth hydrant. Hydrants shall be ordered for the correct bury depth so that extensions are not needed to properly set the final fire hydrant grade. All hydrants furnished are to be bronze to bronze threads between the seat or seat ring and the seat attaching assembly with a drain ring. Fire hydrants shall be dry top type with a breakable traffic feature assuring the hydrant remains closed should it be broken off at the ground level. In addition to the factory coat, all hydrants shall be painted after installation using high grade exterior enamel

paint. All fire hydrants shall be Mueller Cat. No. A421, 4 ½" or American-Darling Mark73-5 with New Bern standard Storz connector on the pumper nozzle.

5.9 MANHOLES

All materials used in the construction of manholes shall meet the following standards:

5.9.1 Sections

All manholes shall be constructed using precast concrete sections conforming to ASTM C-478.

5.9.2 Steps

Manhole steps shall be constructed of 0.5" diameter, grade 60 steel bars. The steps shall have a plastic coating and meet the requirements of Federal Specification RR-F-621C.

5.9.3 Ring and Cover

Manhole rings and covers shall be constructed of Class 30 cast iron conforming to ASTM A48, and shall be traffic bearing. The words "SANITARY SEWER" shall be cast in top of the cover. Rings and covers shall be manufactured by Capital Foundry, East Jordan Iron Works, ~~Charlotte Pipe and~~ Brass and Hays Foundry, or approved equal.

In locations where the rim elevation of the manhole is below the 100-year flood elevation for the area, the manhole shall be provided with the water-tight ring and cover. In addition, all water tight manhole shall be vented above the flood elevation.

5.9.4 Flexible Pipe Sleeve

Pipe sleeves with stainless steel clamps conforming to ASTM C-923 shall be used for pipe to manhole connections. The pipe sleeve shall be design and constructed to provide a flexible watertight seal.

5.9.5 Inverts

Inverts shall be precast into the bottom section of the manhole.

5.9.6 Grout

All perforations pick holes, seams, transitions, joints and leaks shall be sealed with hydraulic cement or approved equal.

5.9.7 Joint Wrap

The exterior of all manhole joints shall be wrapped with a butyl joint wrap with plastic backing. The wrap shall be a minimum of 6" wide, 0.050" thick and conform to ASTM C 877 (Type III).

5.9.8 Joint Seal

Each manhole joint shall be sealed using a butyl-rubber based flexible sealant conforming to the requirements of ASTM C-990 and have a minimum round equivalent of 1".

5.10 PUMP STATIONS

All materials used in the construction of pump stations shall meet the following standards:

5.10.1 Wet Well Structure

All components of the wet well structure shall conform to the requirements for manholes as described in Section 5.9.

5.10.2 Pumps

Sanitary sewer wastewater pumps shall be manufactured by Flygt, or approved equal which meets the following requirements:

Pump

Construction: Major pump components shall be of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. All exposed nuts or bolts shall be AISI type 304 stainless steel construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile or Viton rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit.

Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

Cooling
System:

Motors are sufficiently cooled by the surrounding environment or pumped media. A water jacket is not required.

Cable Entry
Seal:

The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal. The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the body containing a strain relief function, separate from the function of sealing the cable. The assembly shall provide ease of changing the cable when necessary using the same entry seal. The cable entry junction chamber and motor shall be separated by a stator lead sealing gland or terminal board, which shall isolate the interior from foreign material gaining access through the pump top. Epoxies, silicones, or other secondary sealing systems shall not be considered acceptable.

Motor:

The pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95%. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31. The stator shall be heat-shrink fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 40°C (104°F) and capable of up to 15 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of cast aluminum. Thermal switches set to open at 125°C (260°F) shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel. The junction chamber containing the

terminal board shall be hermetically sealed from the motor by an elastomer compression seal. Connection between the cable conductors and stator leads shall be made with threaded compression type binding posts permanently affixed to a terminal board. The motor and the pump shall be produced by the same manufacturer.

The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15. The motor shall have a voltage tolerance of plus or minus 10%. The motor shall be designed for operation up to 40°C (104°F) ambient and with a temperature rise not to exceed 80°C. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics.

The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the control panel without the need of any splices. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

Bearings: The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable.

Mechanical Seal: Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydro-dynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating, corrosion resistant tungsten-carbide ring. The upper, secondary seal unit, located between the lubricant chamber and the motor housing, shall contain one stationary and one positively driven rotating, corrosion resistant tungsten-carbide seal ring. Each seal interface shall be held in contact by its own spring system. The seals shall require neither maintenance

nor adjustment nor depend on direction of rotation for sealing. The position of both mechanical seals shall depend on the shaft. Mounting of the lower mechanical seal on the impeller hub will not be acceptable. For special applications, other seal face materials shall be available.

The following seal types shall not be considered acceptable nor equal to the dual independent seal specified: shaft seals without positively driven rotating members, or conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces. No system requiring a pressure differential to offset pressure and to effect sealing shall be used.

Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication. The motor shall be able to operate dry without damage while pumping under load.

Seal lubricant shall be FDA Approved, nontoxic.

Pump
Shaft:

Pump and motor shaft shall be the same unit. The pump shaft is an extension of the motor shaft. Couplings shall not be acceptable. The pump shaft shall be stainless steel – ASTM A479 S43100-T.

If a shaft material of lower quality than stainless steel – ASTM A479 S43100-T is used, a shaft sleeve of stainless steel – ASTM A479 S43100-T is used to protect the shaft material. However, shaft sleeves only protect the shaft around the lower mechanical seal. No protection is provided for in the oil housing and above. Therefore, the use of stainless steel sleeves will not be considered equal to stainless steel shafts.

Impeller:

The impeller(s) shall be of gray cast iron, Class 35B, dynamically balanced, double shrouded non-clogging design having a long throughlet without acute turns. The impeller(s) shall be capable of handling solids, fibrous materials, heavy sludge and other matter found in wastewater. Whenever possible, a full vaned, not vortex, impeller shall be used for maximum hydraulic efficiency; thus, reducing operating costs.

Wear

- Rings: A wear ring system shall be used to provide efficient sealing between the volute and suction inlet of the impeller. Each pump shall be equipped with a brass, or nitrile rubber coated steel ring insert that is drive fitted to the volute inlet.
- Volute: Pump volute(s) shall be single-piece grey cast iron, Class 35B, non-concentric design with smooth passages large enough to pass any solids that may enter the impeller.
- Protection: All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. The thermal switches shall open at 125°C (260°F), stop the motor and activate an alarm.

5.10.3 Control Panel

All pump stations shall be provided with a control panel capable of operating the pump station across all flow requirements. The control panel shall be sized to match the voltage, phase, and load requirements of the station pumps. The control panel shall be configured as indicated on the New Bern standard control panel schematic. The control panel shall be produced by Multitrode, Inc. , Pete Duty & Associates, Inc., Southern Flow, Inc. RS Integrators, Inc., or approved equal and be provided with the following general options:

- NEMA 4X Stainless steel enclosure with inner dead-front door, 3 point latch handle, enclosure light, and stainless steel sun shield.
- The Entire panel shall be UL/CUL approved
- Distribution, neutral & ground blocks
- Main & Generator(if needed) circuit breakers interlocked
- Generator Receptacle(if needed) – size and model to be determined by City
- Pump & control circuit breakers
- Control transformer
- Full voltage motor starters
- Indicator lights as illustrated on the New Bern standard schematic
- Hand-Off-Auto switches on the inner door
- Condensation strip heater for enclosure
- 12VDC battery, charger, and power supply
- Voltage phase monitoring
- 3-phase surge protection
- Hour meters mounted on inner door
- Convenience 120V GFCI power outlet and circuit breaker
- Current transformers for amps monitoring
- Multitrode - Multismart Pump Station Manager:
 - DNP3/MODBUS communication enabled
 - Flow calculation enabled
- New Bern Standard
- 1.5 meter primary liquid level sensing probe

- Ball float backup liquid level sensing system
- Alarm light and audible horn

For stations with pumps 60 HP or greater, the control panel shall be provided with a variable frequency drive (VFD) for each pump. Control panels with VFDs shall also be provided with appropriately sized auxiliary cooling system for the control panel. For stations with pumps between 25 and 60 HP, the control panel shall be provided with “soft start” motor starters for each pump.

5.10.4 Pressure Gauges

Each discharge pipe leaving the pump station shall be provided with a pressure gauge. The pressure gauge shall be located on top of the discharge pipe located within the valve vault. Each pressure gauge shall be oriented in a manner in which it is easily readable from above grade, without the need to enter the valve vault. Each gauge shall be provided with a ¼ turn brass ball valve that separates that gauge from the discharge pipe. The pressure gauge shall be liquid filled with single PSI indicator marks. The pressure gauge shall cover the full operational pressure range of the pump station.

5.10.5 Piping

All piping within the wet well structure and through the valve vault shall be Ductile Iron Pipe (DIP) conforming to the following standards:

Pipe:	Class 50 Ductile iron conforming to ANSI/AWWA A21.51/C-151
Fittings:	Ductile Iron conforming to ANSI/AWWA A21.10/C-110
Joints:	Flanged joints conforming to ANSI A21.4
Lining:	All pipes and fittings shall be lined with Protecto 401 or approved equal.
Coating:	The exterior of all exposed pipes, fittings, and valves shall be coated with 2 coats (total 8 mils dried thickness) of Tnemec N69 Hi-Build Epoxoline II.

5.10.6 Check Valves

Check valves shall be provided on each pump discharge line and be located in a precast concrete valve vault. Check valves shall be horizontal mounted, swing type with a bronze disc and cast iron body. Check valves shall be manufactured by **MullerMueller**, American Darling, Apco Valves or an approved equal.

5.10.7 Access Hatches

Aluminum access hatches shall be provided for both the wet well and the valve vault. The frame shall be one piece and constructed of aluminum or stainless steel with integral concrete anchors. The cover(s) shall be constructed of one-quarter inch (1/4") thick diamond pattern plating, reinforced to withstand a live load three hundred pounds-per-square foot (300 psf). The cover(s) shall include a handle for raising and have a safety handle for locking in the open position. Access hatches shall be provided with a factory installed padlock hasp for locking each cover. All hatch hardware and hinges shall be constructed on stainless steel.

5.10.8 Vent Pipe

All proposed pump stations shall include a mushroom type vent for the wet well structure. The vent shall be constructed of four inch (4"), class 150 cast iron vent pipe. Vent outlets shall be provided with a two (2) mesh, 14 gauge, bronze wire screen.

5.10.9 Guide Bracket Assembly

Two (2) guide bars shall be provided for the raising and lowering of each pump. Guide bars shall be stainless steel pipe, extending from the lower guide holders to the upper guide holders. Lower guide holders shall be integral with the pump discharge connection. Guide bars shall not support any portion of the weight of the pumps.

5.10.10 Conduit

All conduit utilized in the construction of pump stations shall meet the NEC standards of for location and use. All conduits between the control panel and the wet well shall be no smaller than 1.5" and the conduits for the pump leads shall be no smaller than 2". All conduit from the wet well shall have a pull box (C-box) located prior to entering any panel. The pull box shall be sealed on both sides with removable sealer.

5.11 GENERATOR

All pump stations with a calculated average daily design flow of 15,000 gallons per day or more shall be provided with an onsite backup diesel generator with an automatic transfer switch. The generator shall be sized to provide full load of all pumps along with any auxiliary items located at the station. The generator shall be produced by Atlantic Cummins, MTU Onsite Energy, CAT Electric Power, Power Secure, Kohler or approved equal and be provided with the following general options:

- Tier 3 EPA Emissions Certified.
- UL2200 Listed.
- NFPA 110 alarm package.
- Radiator with engine driven fan.
- Output breaker mounted on generator.
- Steel weather protective enclosure, Level 2 sound attenuation.
- Sub-base fuel tank sized for min. of 24 hours at full load.
- Battery rack with battery and charger.
- Control panel with auto starts/stops, alarms, & shut downs.
- Coolant/block heater.

The generator shall be provided with the appropriate size automatic transfer switch housed in a NEMA 4X cabinet. The transfer switch shall include an integrated engine exerciser/exercise clock.

5.12 ENCASEMENT PIPE

Encasement pipe be uncoated steel pipe conforming to the standards of AWWA C200. Pipe sections shall be joined by a continuous weld. The minimum wall thickness shall be as follows:

<u>Encasement Pipe Dia.</u>	<u>Wall Thickness</u>
14"	0.216"
16" – 24"	0.250"
30"	0.312"
36"	0.375"
42"	0.438"
48"	0.500"

Encasement pipe install under a railroad shall meet the minimum wall thickness requirements as set forth by the governing railroad authority.

5.13 TRACER WIRE

The wire shall be 12 gauge, single strand copper wire, HDPE coated and water proof. Tracer wire for use in conjunction with directional bores shall be 12 AWG, copper-clad steel. The steel shall be high carbon 1055 grade and the HDPE coating shall be a minimum of 45 mils. Tracer wire for directional drilling shall be Soloshot by Copperhead Industries, Pro-Trace by Proline Safety Products, or an approved equal.

SECTION 6.0

TESTING REQUIREMENTS

6.1 GENERAL

All items which require testing shall be promptly cleaned and ready for testing after installation. Meeting all testing requirements specified herein shall be a condition of acceptance of the item by the City of New Bern. In no case shall an item be accepted into the City of New Bern municipal water or sanitary system without passing the required testing. A representative of the City of New Bern Water Resources Department ~~of Public Utilities~~ must be on site to witness all required testing procedures. The City of New Bern Water Resources Department ~~of Public Utilities~~ (252-639-7523) requires a 48 hour notice for each test.

6.2 WATER MAINS

6.2.1 Leakage Testing

All pressure pipe shall be tested in accordance with current AWWA standards; AWWA C600 for ductile iron pipe and AWWA605 for PVC pipe. All proposed water mains shall be subjected to a leakage test under the specified hydrostatic pressure. The pressure shall be maintained

constant at one hundred fifty pounds per square inch (150 psi) (plus or minus five psi) during the entire time that line leakage measurements are being made.

The water lines are to be flushed thoroughly to remove all dirt and debris which may have collected in the line. After flushing has been completed, the pipelines shall be tapped on top at a point furthest from the point that the lines are to be filled with water. The valve at the end of the line shall be left open, and the valve between the new water line and the City Water System opened slightly to allow the water to enter the new pipe slowly. Once the pipe is full, the valve at the end of the line shall be left open until the valve between the new water line and the City Water System is completely shut off. At no time shall the City Water System valve be open without an outlet in the new pipe system. A representative of the City of New Bern is the only authorized operator of valves within the City Water System.

Leakage measurements shall not be started until a constant test pressure has been established; compression of air trapped in unvented pipes or fittings will give false leakage readings under changing pressure conditions. After the test pressure to be used has been established and stabilized, the line leakage shall be measured by means of a water meter installed on the line side of the force pump, and the leakage test shall extend over a total period of not less than four (4) hours.

Line leakage is defined as the total amount of water introduced into the line as measured by the meter during the leakage test. The pipeline or section being tested will not be accepted if it has a leakage rate in excess of:

$$L = \frac{S \times D \times (\text{square root of } P)}{148,000}$$

where L = allowable leakage in gallons per hour, S = length of pipe in feet, D = nominal diameter of the pipe in inches, and P = average test pressure during the leakage test in pounds per square inch (150 psi).

All visible leaks shall be repaired. The Contractor shall locate and repair leaking joints to the extent required to reduce the total leakage to an acceptable amount. All joints in piping shall be watertight and free from visible leaks during the prescribed test. Each leak which is discovered within one year after final acceptance of the work shall be located and repaired by and at the expense of the Contractor.

6.2.2 Disinfection

After passing the leakage test, all water mains shall be disinfected in accordance with AWWA C-651, and as specified herein. The valve at the end of the line shall be left open, and the valve between the new water line and the City Water System opened slightly to allow the water to enter the new pipe slowly. Chlorine is then to be applied under pressure by an

ejector pump (or equal) to the water entering the new pipeline. Chlorine will be added in sufficient quantities to give an overall chlorine residual to the water of at least fifty (50) parts per million. Once the pipe is fully chlorinated, a representative of the City of New Bern Water Resources Department of Public Utilities shall be contacted to perform a high chlorine test. At no time during testing shall the City Water System valve be open without an outlet in the new pipe system. A representative of the City of New Bern is the only authorized operator of the valves within the City Water System.

After the water main passes the high chlorine test the pipeline is to be valved off and the chlorinated water allowed remaining in the line for twenty four (24) hours. After the twenty four (24) period, the chlorine residual in the line must be at least ten (10) parts per million. After passing the chlorine residual test, the pipe line is to be thoroughly flushed until no evidence of chlorine exists as determined by the Orthotolidine Test.

After flushing the line, the Contractor shall furnish sterilized bottles and take water samples from various points along the line as directed and witnessed by the City of New Bern. A minimum of two samples shall be taken in any instance. The Contractor shall send the samples to an approved testing laboratory, for bacteriological analysis. If the analysis reveals that no bacteria is present and the requirements for final inspection have passed, the pressure pipe system may be placed into service upon written notification from the City Engineer/Director of Water Resources.

The City of New Bern reserves the right to modify and/or change the test, test procedures, and/or passing level results without prior notice.

6.3 SANITARY SEWER MAINS

6.3.1 Gravity Sewer Mains

Each section of proposed gravity sewer shall be promptly cleaned and tested after installation. The following test shall be performed on proposed gravity sewer mains:

Air Test – All proposed gravity sewer mains shall be air tested in accordance with ASTM C-828, ASTM C-924 and the following. Such tests shall consist of securely plugging the sewer line between manholes, pumping the section full of air to 4.0 psi and holding this pressure for at least two (2) minutes. Then the pressure should be reduced to 3.5 psi and the time recorded for the pressure to drop 1.0 psi to the new pressure of 2.5 psi. If groundwater is present, all test pressures shall be adjusted by adding 0.43 psi for each foot of groundwater head that exist above the pipe invert. The time required for the pressure drop shall exceed the minimum test time given in the chart below,

Pipe Diameter (in)	Minimum Test Time (Min)	Length for Minimum Test Time (ft)	Time for Longer Lengths (sec)	Specification Time for Length (L) Shown (min:sec)							
				100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	3:46	597	.380 (L)	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854 (L)	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520(L)	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374(L)	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418(L)	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342(L)	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692(L)	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41

Deflection Test - A Deflection test shall be performed on all sanitary sewer mains constructed of non-ferrous materials. This test shall be performed after all grading, paving, and compaction work has been completed. The allowable deflection shall be 4.5% of the nominal inside diameter of the pipe. The deflection shall be measured by the use of the mandrel test.

Closed Circuit T.V. Inspection – All proposed gravity sewer mains shall undergo a closed circuit T.V. inspection prior to being accepted by the City of New Bern. The City of New Bern will conduct the inspection. Any slumps, high points, low points, swells, standing water, accumulations of dirt and debris, rolled gaskets, leaks or other defects shall be corrected by the Contractor prior to any other test being performed. The ~~City Engineer~~Director of Water Resources shall have the final decision on all discrepancies.

6.3.2 Sewer Force Mains

All proposed sewer force mains shall be subjected to a leakage test under the specified hydrostatic pressure. The test pressure shall be one and one-half times the maximum working pressure of the pipe segment. The test pressure shall be maintained constant (plus or minus five psi) during the entire time that line leakage measurements are being made.

The sewer force mains are to be flushed thoroughly to remove all dirt and debris which may have collected in the line. After flushing has been completed, the force main shall be filled slowly with water. One end of the pipe shall be vented to allow the release of air during filling. Once the force main is full of water all vents shall be closed and a pump shall be used to increase the pressure in the force main to the required test pressure.

Leakage measurements shall not be started until a constant test pressure has been established; compression of air trapped in unvented pipes or fittings will give false leakage readings under changing pressure conditions. After the test pressure to be used has been established and stabilized, the line leakage shall be measured by means of a water meter installed on the line side of the force pump, and the leakage test shall extend over a total period of not less than two (2) hours.

Line leakage is defined as the total amount of water introduced into the line as measured by the meter during the leakage test. The pipeline or section being tested will not be accepted if it has a leakage rate in excess of:

$$L = \frac{S \times D \times (\text{square root of } P)}{148,000}$$

Where L = allowable leakage in gallons per hour, S = length of pipe in feet, D = nominal diameter of the pipe in inches, and P = average test pressure during the leakage test in pounds per square inch.

All visible leaks shall be repaired. The Contractor shall locate and repair leaking joints to the extent required to reduce the total leakage to an acceptable amount. All joints in piping shall be watertight and free from visible leaks during the prescribed test. Each leak which is discovered within one year after final acceptance of the work shall be located and repaired by and at the expense of the Contractor.

6.4 MANHOLES

All manholes on proposed sewer main extensions shall be vacuum tested as specified herein. Manholes shall be tested after complete assembly. Stub-outs, manhole boots and pipe plugs shall be secured to prevent movement while the vacuum is drawn. A measured vacuum of 10 inches of mercury shall be established in the manhole. Acceptance standards for leakage shall be established from the elapsed time for a negative pressure change from 10 inches to nine inches of mercury. The maximum allowable leakage rate for a four-foot diameter manhole shall be in accordance with the following:

Minimum Elapsed Time for a

<u>Manhole Depth</u>	<u>Pressure Change of 1" Hg</u>
10 ft. or less	60 seconds
> 10 ft. but < 15 ft.	75 seconds
> 15 ft. but < 25 ft.	90 seconds

For manholes five feet in diameter, add an additional 15 seconds and for manholes six feet in diameter, add an additional 30 seconds to the time requirements for four foot diameter manholes.

If the manhole fails the test, necessary repairs shall be made and the vacuum test and repairs shall be repeated until the manhole passes the test. The extent and type of repairs that may be allowed shall be subject to the approval of the ~~City Engineer~~Director of Water Resources. Leaks shall be repaired on the outside of the manhole unless otherwise approved by the ~~City Engineer~~Director of Water Resources.

If manhole joint mastic is completely pulled out during the vacuum test, the manhole shall be disassembled and the mastic replaced.

6.5 PUMP STATION TESTING AND START-UP

Prior to the acceptance of a pump station, a run test and start-up shall be completed by a representative of the pump and generator manufacturer. During the start-up the pump station will be required to operate under the anticipated loading and system conditions. All pumps and control functions shall be tested during the start-up procedure. All possible run situations shall be tested to ensure proper flow is maintained at actual system pressures. The City of New Bern Water Resources Department ~~of Public Utilities~~ shall be contacted at least 48 prior to conducting the pump station start-up. The contractor shall not discharge the new pump station into the existing City system without approval from the City of New Bern. The following items should be complete prior to scheduling the pump station start-up:

- Electrical work inspected and an energizing permit issued by the appropriate agency.
- The electrical service established with the City of New Bern as the customer.
- Verify the rotation of the pumps.
- Confirm that all main line valves and air release valves are open and in proper working order.

6.6 S.T.E.P. SYSTEM TANKS

All S.T.E.P. system tanks shall be vacuum tested by the manufacturer prior to delivery. Upon delivery all tanks shall be set in place and vacuum tested again by the tank installer to insure that no seals were damaged in the delivery and installation of the tank. The onsite test shall be performed in the presence of a City of New Bern representative. Tanks shall be tested with the riser and manhole ring installed. All testing equipment shall be supplied by the tank provider.

All tank inlets and outlets shall be sealed and a measured vacuum of 3.5 inches of mercury shall be established in the tank and held for a period of five (5) minutes. During the test period no leakage shall be allowed. If the tank fails the test, necessary repairs shall be made and the vacuum test and repairs shall be repeated until the tank passes the test. The extent and type of repairs that may be allowed shall be subject to the approval of the ~~City Engineer~~ Director of Water Resources.

6.7 TAPPING SLEEVES

Prior to making any tap on an existing City of New Bern water or sewer main, the tapping sleeve or saddle shall pass a pressure test. The tapping sleeve shall be hydrostatically tested through the test plug for a period of five (5) minutes. During

the test period, no leakage shall be allowed. Air testing of tapping sleeves shall not be permitted.

SECTION 7.0

REQUIREMENTS DURING CONSTRUCTION AND PROJECT CLOSEOUT

7.1 PRIOR TO CONSTRUCTION

The following shall be completed prior to any construction commencing on water or sewer extension projects:

7.1.1 Notice to Proceed Issued The City of New Bern

Once the City of New Bern Water Resources Department ~~of Public Utilities~~ has approved the proposed design and confirmed that all required permits, encroachment agreements, and utility easements have been executed and issued by the appropriate agencies, a notice to proceed will be issued by the City to the Contractor.

7.1.2 Material Inspection

Once all materials are on site, the Contractor shall contact the City of New Bern Water Resources Project Coordinator (252-639-7523) to schedule an

onsite inspection of all proposed construction materials. No material shall be used in utility construction until the material inspection has been performed.

7.1.3 Shop Drawing Submittal

Shop Drawings shall be submitted to the City of New Bern Water Resources Department ~~of Public Utilities~~ for review of the following items:

- Pumps
- Control Panels
- Lift Station Electrical Components
- Generator
- Booster Pumps
- RPZ
- Automatic Air Release Valves

7.1.4 N.C. ONE CALL

The NC One Call Center (1-800-632-4949) shall be contacted a minimum of forty-eight (48) hours prior to beginning excavation. The Contractor shall be responsible for keeping locate tickets current and contacting the One Call Center if unmarked utilities should be encountered.

7.1.5 Contractor to Notify The City of New Bern

At least forty-eight (48) hours prior to the start of any construction, the contractor shall notify the City of New Bern Water Resources Department ~~of Public Utilities~~ (252-639-7523). Depending on the nature of the project the ~~City Engineer~~ Director of Water Resources may require that a preconstruction conference be held to discuss the details of the project.

7.2 DURING CONSTRUCTION

7.2.1 Notices to Property Owners and Local Utilities

The Contractor shall notify adjacent property owners and utilities when the project execution may affect adjacent properties. The contractor shall notify the appropriate authorities when the project operations will interrupt access or utility service to the property owner or tenant. Utilities and other agencies shall be contacted at least twenty four (24) hours prior to cutting or closing streets, or excavating near underground utilities or pole lines.

7.2.2 General Safety Requirements

Excavations shall provide adequate working space and clearance as necessary to provide proper pipe installation and work safety. Excavations performed on NCDOT rights of way shall be protected from traffic utilizing the NCDOT Uniform Traffic Control Manual (latest edition). Minimum requirements shall include proper signage, flagmen, protective vests and hardhats as outlined in the manual. The Contractor shall provide a Competent Person for trench construction on site, as outlined in OSHA regulations, for all excavations that exceed four feet (4') in depth. The ~~City Engineer~~Director of Water Resources may stop work for any violation of the aforementioned regulations when the safety of any person acting as a representative, agent, or employee of the Contractor is considered in imminent danger. Work may continue only after the violation has been rectified and the ~~City Engineer~~Director of Water Resources grants permission to proceed.

7.2.3 Connections to Existing Water or Sewer Mains

The Contractor shall make all necessary connections to existing water lines, unless otherwise directed by the City of New Bern. The City shall be notified at least twenty four (24) hours prior to making such connections. Taps shall be made only in the presence of the City of New Bern Water Resources Project Coordinator or a duly assigned representative of the City of New Bern Water Resources Department ~~of Public Utilities~~. At all times, the Contractor shall protect existing facilities against adverse conditions or substances and damage.

Connections to existing water and sewer lines shall be planned in advance with all required equipment, materials, and labor on hand prior to undertaking the connections. Work shall proceed continuously around the clock if necessary to complete connections in minimum time. Operation of valves or other equipment on the existing water system shall be under the direct supervision of the City of New Bern.

7.2.4 Site Administration

The Contractor shall be responsible for all areas of the site under construction or occupied for administrative or storage purposes. The Contractor shall be responsible for all Subcontractors in their performance on the project. The Contractor will be responsible for the actions of all employees and other persons on the project to insure proper use and preservation of property and existing facilities, except when these responsibilities are specifically reserved to others. The Contractor has the right to exclude from the construction site any persons who are not directly related to the construction process or the inspection of the work by the Owner. The contractor may require all persons on the construction site to observe all operational or safety regulations required of his employees. The Contractor shall keep the project site free from accumulations of waste materials and rubbish at all times.

7.2.5 Project Inspections

For all proposed water and sewer extension projects, the Developer shall provide complete engineering services which shall include construction observation. It shall be the responsibility of the Project Engineer and ultimately the Developer, to insure that all construction is completed as shown on the plans which have been approved for construction by the City of New Bern.

The City of New Bern Water Resources Project Coordinator will periodically visit the site during construction and will be on site for all testing and inspections as required by the City of New Bern. It is NOT the duty of the City of New Bern Water Resources Project Coordinator to direct construction, provide solutions to design problems or maintain record drawings. These services shall be provided by the Project Engineer.

7.3 PROJECT CLOSEOUT

7.3.1 General

All items listed in this section must be completed before the City of New Bern will accept any new construction as part of the City's municipal water and sewer system.

7.3.2 Final Inspection

Upon completion of construction and all required testing, the Contractor shall contact the City of New Bern Water Resources Project Coordinator to schedule a final inspection. During the final inspection the Water Resources Project Coordinator will insure that all aspects of the water and sewer construction have been completed in compliance with the current City standards. The Contractor shall provide all personal and tools which will be required for opening manholes, exercising valves, and flowing hydrants. The City of New Bern prefers for the streets within the development to be paved at the time of final inspection. If the streets have not been paved, then all structures within the street shall be set in place with concrete prior to requesting the final inspection. Valve boxes shall be set in a minimum of an 18"x18"x18" block of concrete and manhole rings shall be set in a minimum of a 36"x36"x18" block of concrete.

During the final inspection, the Water Resources Project Coordinator will create a punch-list if any deficiencies are discovered. The Contractor shall complete all items described on the punch-list prior to requesting a re-inspection.

7.3.3 Record Drawings

Upon completion of all utility projects, the Project Engineer shall submit an "As Built" set of plans to the ~~City Engineer~~Director of Water Resources.

All As Built information on the plans shall be clearly identified (bold text, different text, boxed-out, etc.). Proposed information which has changed shall be marked through. The “As Built” plans shall indicate the horizontal and vertical location of all installed utilities. All bends, reducers, and valves shall be located with at least two (2) measurements to existing features (back of curb, utility pole, hydrant, etc.). Horizontal pipe location shall be shown at one hundred foot intervals along the pipe as measured from the back of curb or the edge of pavement. **For sewer force mains the elevation of the installed pipeline shall be indicated on the record drawings in 50’ intervals. All elevations shown shall be based on a datum elevation from an existing USGS monument.** The record drawings shall be submitted in the following formats:

1. (1) – Sets of Plans 24” x 36” on Standard Bond Paper
2. (1) – ~~CD or flash~~ Flash drive containing the project drawing files in PDF format.

7.3.4 Utility Easements

Prior to project acceptance, a final plat of the development shall be recorded with the Craven County Register of Deeds. The final development plat shall clearly illustrate all proposed utility easements.

7.3.5 Engineer’s Certification

For projects which involve the extension of the City of New Bern water system the Project Engineer shall submit to the City a copy of the Engineer’s Certification stating that the completed water system extension conforms to the approved plans and specifications as required by the NCDEQ.

For projects which involve the extension of the City of New Bern sewer system the Project Engineer shall submit to the City a copy of the Engineer’s Certification stating that the completed sewer system extension conforms to the approved plans and specifications as required by the NCDEQ.

7.3.6 Total Project Cost

Upon completion of all construction, the Project Engineer shall submit to the ~~City Engineer~~ Director of Water Resources the total cost all improvements related to the water and sewer system. This submittal shall include the Contractor’s original Bid and all additional Change Orders.

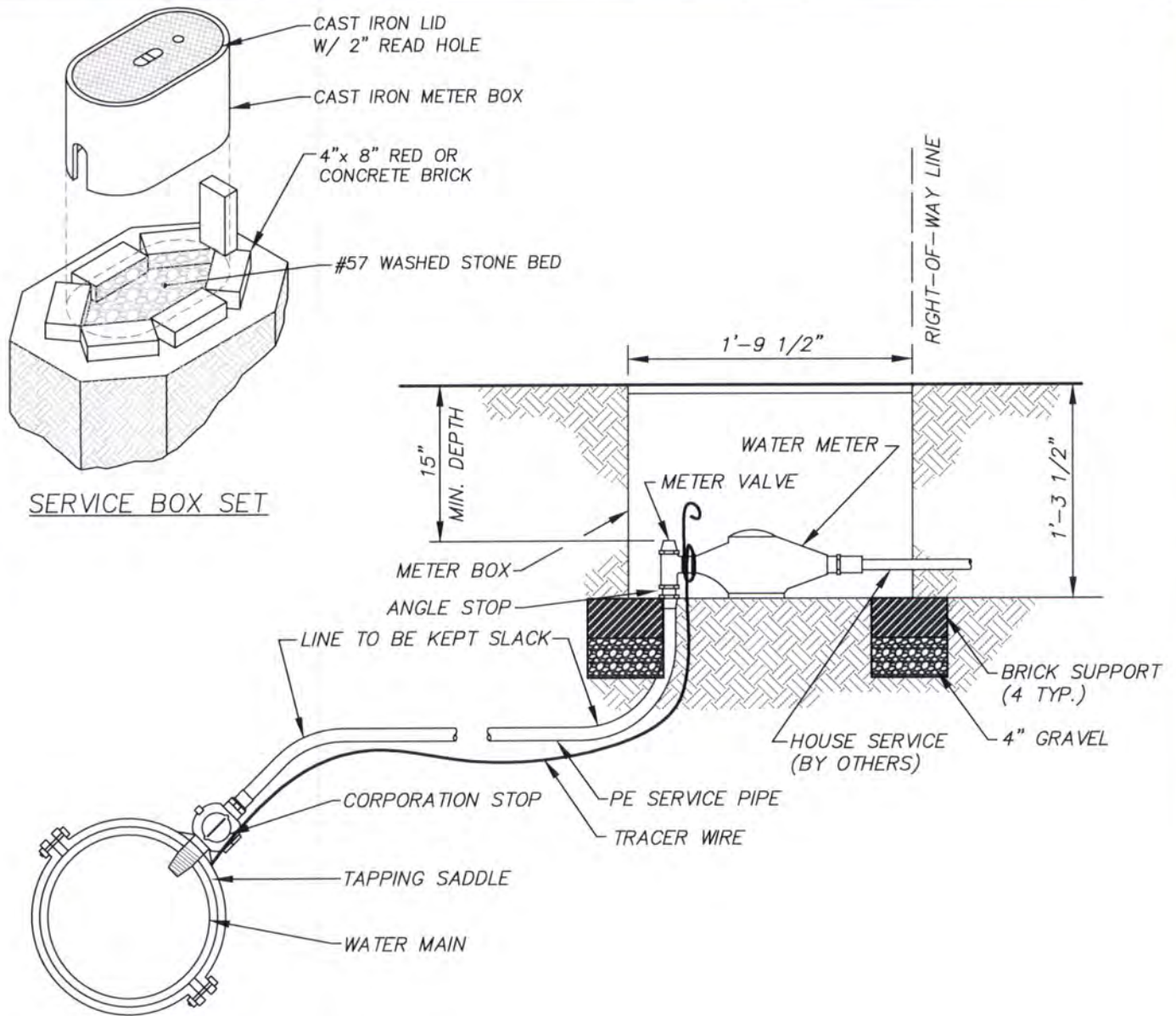
7.3.7 Warranty

The Developer shall warrant all water and sewer work to be free of defects in materials or workmanship for a period of two (2) years. The warranty period shall begin from the date of City’s acceptance of the project for permanent operation and maintenance.

7.3.8 Final Acceptance

Once the items listed in 7.3.1 – 7.3.6 have been completed the ~~City Engineer~~Director of Water Resources will issue the letter of acceptance, which will outline the terms, if any of the infrastructure acceptance and set the start/end dates for the (2) year warranty period.

SECTION 8.0
STANDARD WATER & SEWER DETAILS



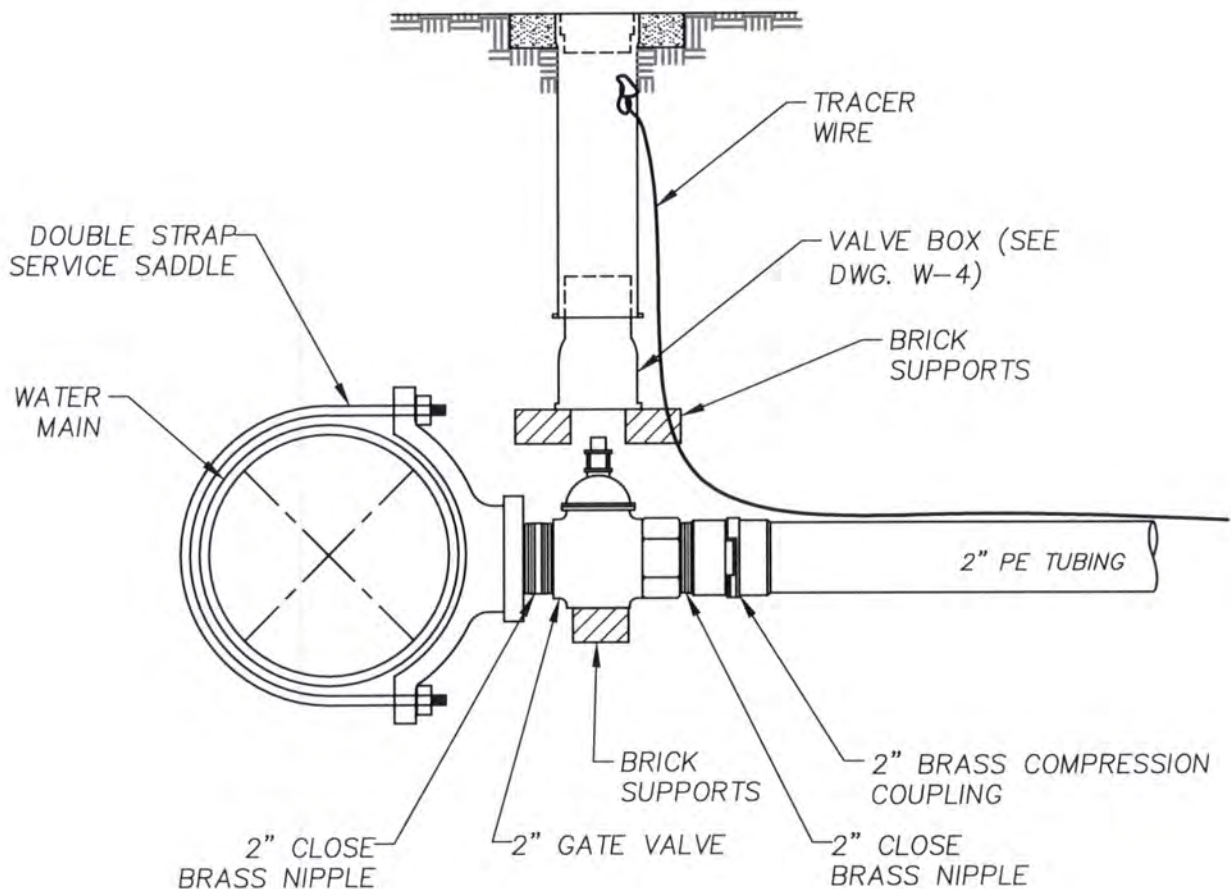
NOTES:

1. METER TO BE SUPPLIED AND INSTALLED BY THE CITY.
2. METER BOX SHALL BE A STANDARD ASTM A-48 CLASS 35B CAST IRON MBX-1 BOX AND LID WITH 2" READ HOLE. METER BOX FOR 2" METERS AND LARGER SHALL BE A MBX-5 BOX.
3. TRACER WIRE SHALL BE INSTALLED ON ALL WATER SERVICES EXTENDING CONTINUOUS FROM THE MAIN INTO THE METER BOX. THE WIRE SHALL BE 12 GA. HDPE COATED, SOLID CORE COPPER. 18"-24" OF TRACER WIRE SHALL BE COILED UP IN THE METER BOX

NOT TO SCALE
REVISED MAY, 2023

TYPICAL WATER SERVICE CONNECTION

STANDARD DRAWING No. W-1



NOTES:

1. METER TO BE SUPPLIED AND INSTALLED BY THE CITY.
2. METER BOX SHALL BE A STANDARD ASTM A-48 CLASS 35B CAST IRON MBX-1 BOX AND LID WITH 2" READ HOLE. METER BOX FOR 2" METERS AND LARGER SHALL BE A MBX-5 BOX.
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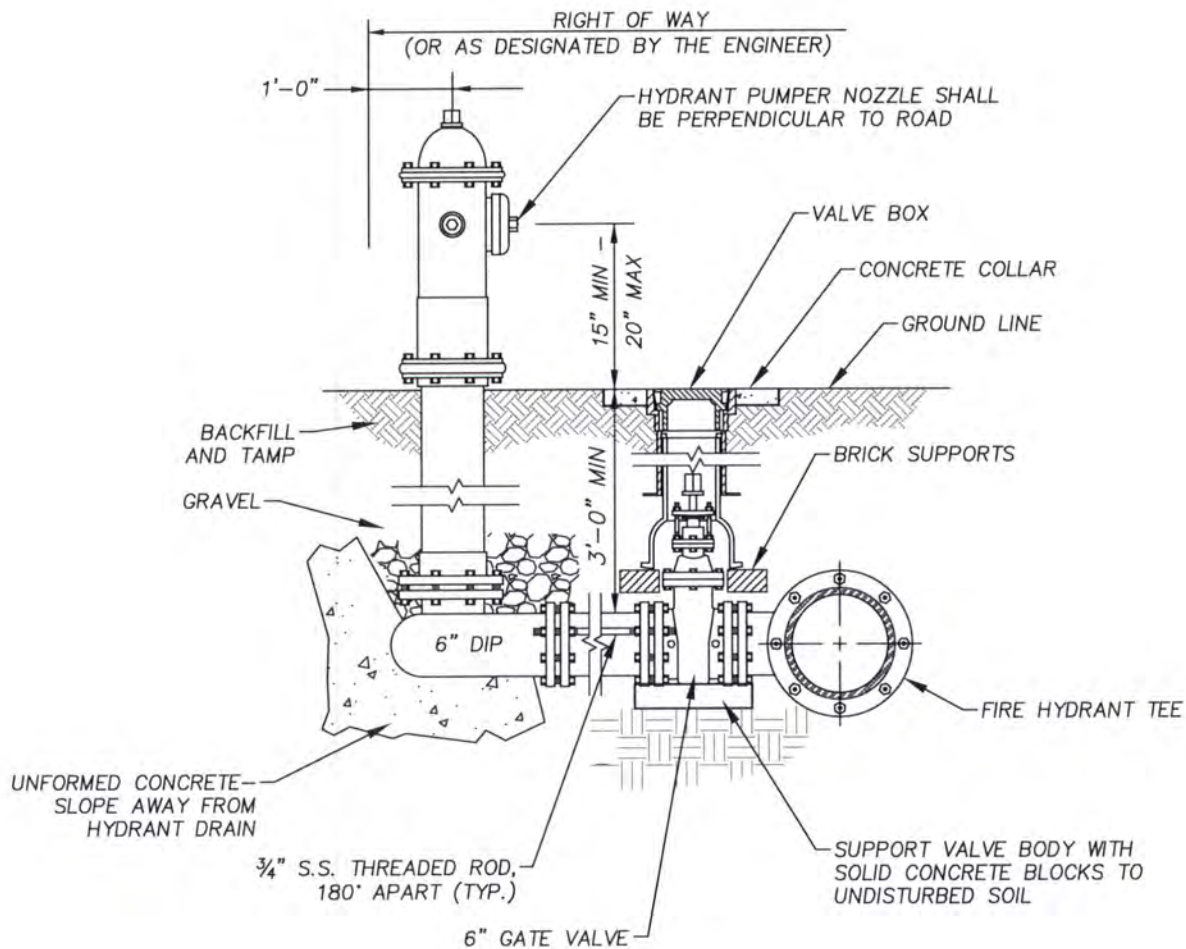
NORTH CAROLINA

Department of Water Resources

P.O. Box 1129, New Bern, NC 28563
252.639.7526 (FAX) 252.636.4103

TYPICAL 2" WATER SERVICE CONNECTION

STANDARD DRAWING No. W-2



NOTES:

1. HYDRANT SHALL BE MUELLER MODEL NO. A421, OR AMERICAN-DARLING MODEL MK73-5, 4-1/2".
2. HYDRANT SHALL BE PROVIDED WITH STANDARD NEW BERN STORZ CONNECTION ON THE PUMPER NOZZLE .

NOT TO SCALE
REVISED MAY, 2023



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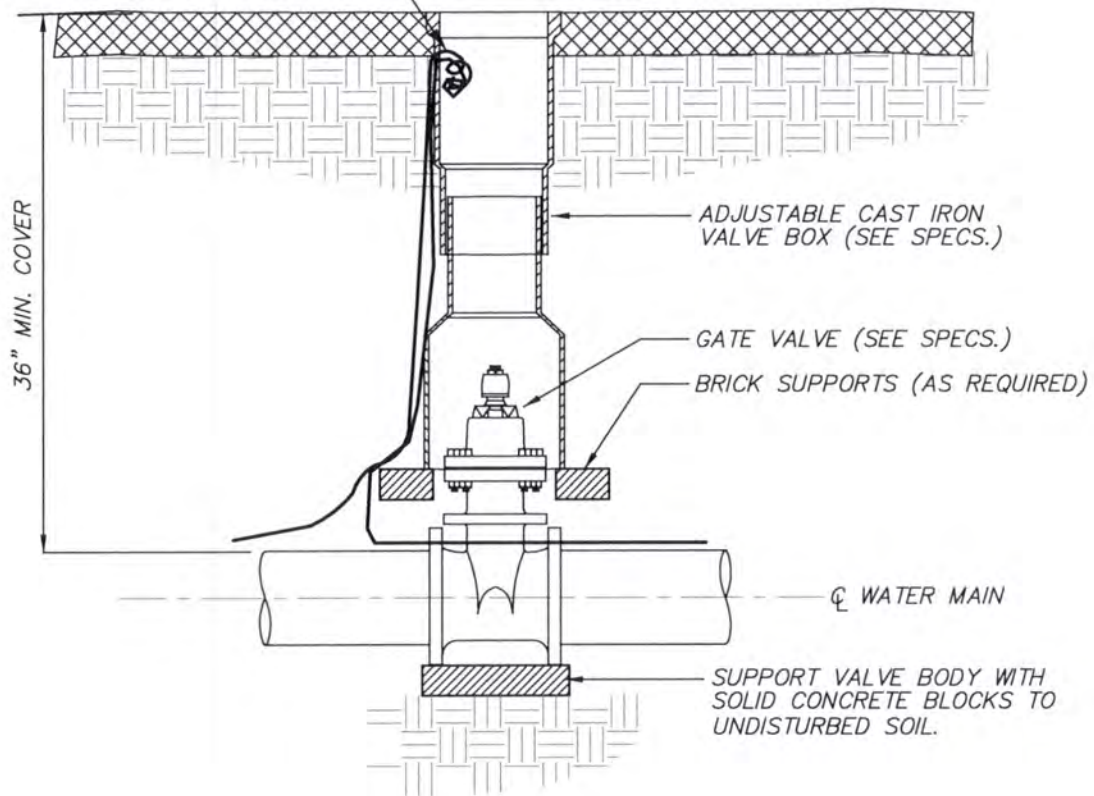
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252.639.7526 (FAX) 252.636.4103

TYPICAL FIRE HYDRANT ASSEMBLY

STANDARD DRAWING No. W-3

BRING TRACER WIRE INTO
AND OUT OF VALVE
BOX THROUGH $\frac{1}{2}$ " HOLE.
LEAVE 24" OF WIRE
COILED IN BOX.



NOTES:

1. PROVIDE PRECAST COLLAR FOR VALVES IN UNPAVED AREAS.

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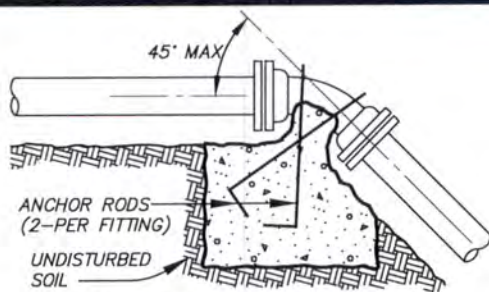
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Department of Water Resources

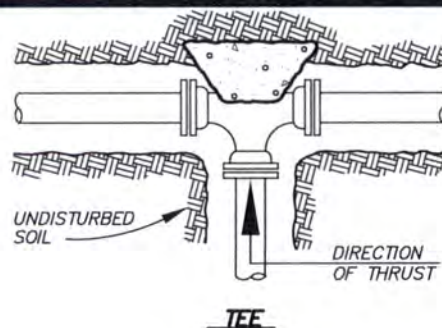
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TYPICAL VALVE AND VALVE BOX

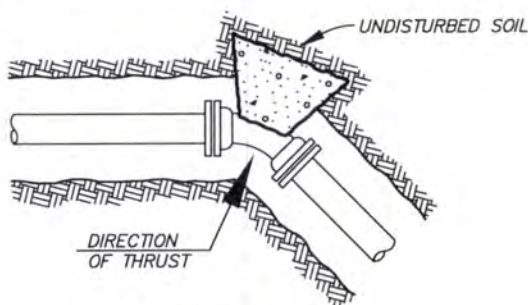
STANDARD DRAWING No. W-4



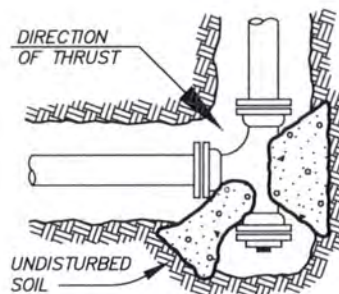
VERTICAL BENDS AND ANCHORS



TEE



HORIZONTAL BENDS



TEE AND PLUG

CONCRETE THRUST BLOCKING SCHEDULE						CONCRETE SCHEDULE VERTICAL BENDS				ANCHOR ROD SIZE
FITTING SIZE	BEARING AREA IN SQUARE FEET					MIN. CU. YARDS CONCRETE				FOR VERTICAL BEND AND ANCHORS
	TEE/PLUG	90°	45°	22-1/2°	11-1/4°	90°	45°	22-1/2°	11-1/2°	
4"	1	2	1	1	1	1	1	1	1	1/2"
6"	3	3	2	1	1	1	1	1	1	
8"	4	6	3	2	1	2	2	1	1	3/4"
10"	7	9	5	3	2	3	3	2	1	
12"	9	12	7	4	2	5	3	2	1	
14"	12	17	9	5	3	6	4	3	2	7/8"
16"	16	22	12	6	3	8	6	3	2	
18"	20	27	15	8	4	10	7	4	2	
20"	24	34	18	10	5	12	9	5	3	
24"	34	48	26	14	7	17	12	7	4	1-1/8"
30"	53	75	41	21	11	27	19	10	5	
36"	77	108	59	30	15	38	27	15	8	1-3/8"

NOTES:

1. MINIMUM BEARING AREA (IN SQUARE FEET) AGAINST UNDISTURBED TRENCH WALL OF SAND.
2. AREAS SHOWN ARE FOR 150 PSI TEST PRESSURE. IF TEST PRESSURE IS OTHER THAN 150 PSI, ADJUST AREA OF REACTION BACKING IN DIRECT PROPORTION.
3. OTHER SOIL CONDITIONS :

CEMENTED SAND OR HARDPAN — MULTIPLY ABOVE BY 0.5
GRAVEL OR HARD DRY CLAY — MULTIPLY ABOVE BY 0.7
SOFT CLAY — MULTIPLY ABOVE BY 2.0

MUCK: SECURE ALL FITTINGS WITH APPROVED HARNESS OR TIE ROD CLAMPS, WITH CONCRETE REACTION BACKING THE SAME AS LISTED FOR SAND CONDITIONS.

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REVISED MAY, 2023



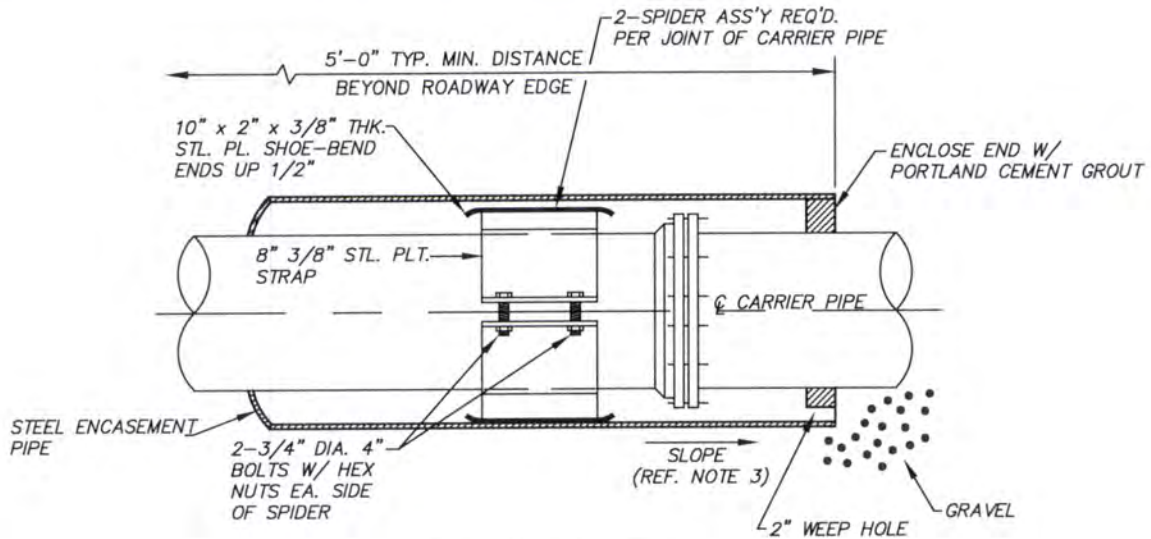
NORTH CAROLINA

Department of Water Resources

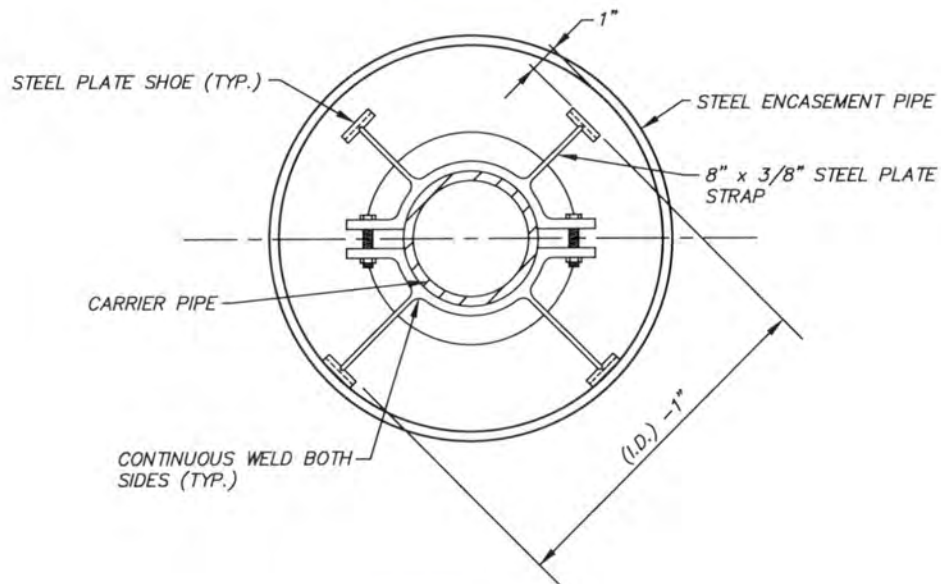
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252.639.7526 (FAX) 252.636.4103

THRUST BLOCKING AND ANCHORING SCHEDULE

STANDARD DRAWING No. W-5



CASING SECTION



END ELEVATION

NOTES:

1. ENTIRE SPIDER ASSEMBLY TO BE BITUMINOUS COATED AFTER FABRICATION
2. FIELD MODIFY AS REQUIRED TO PROVIDE DESIGN SLOPE IN CARRIER PIPE.
3. STEEL ENCASEMENT TO BE INSTALLED IN ACCORDANCE WITH APPROVED DESIGN PLANS, ALL REVISIONS OR MODIFICATIONS ARE SUBJECT TO APPROVAL.

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REVISED MAY, 2023



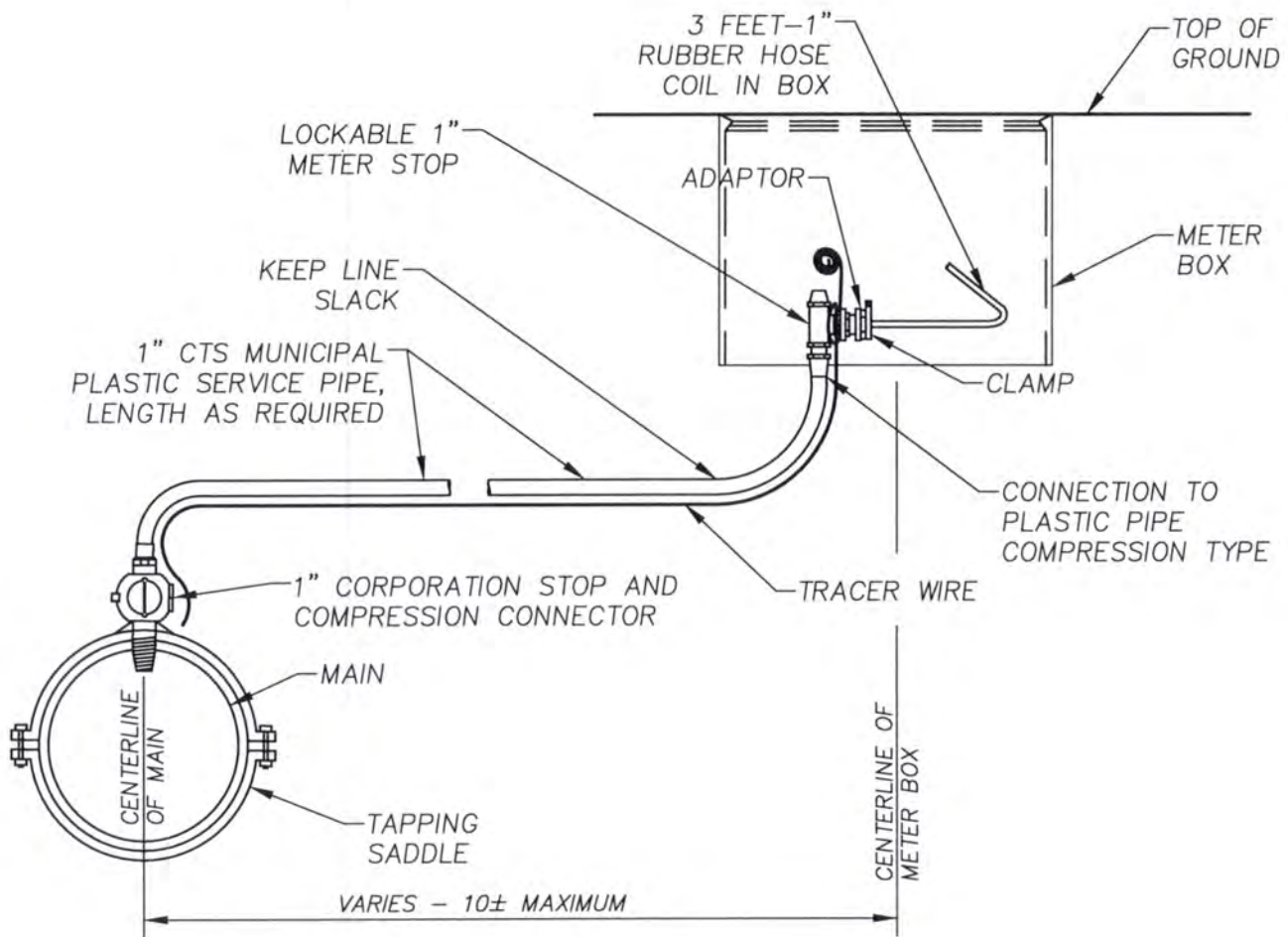
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252.639.7526 (FAX) 252.636.4103

TYPICAL PIPE ENCASEMENT DETAIL

STANDARD DRAWING No. W-7



NOTES:

1. TAP ON THE MAIN SHALL BE MADE IN THE POSITION SHOWN.
2. LOCATE METER BOX AS SHOWN ON THE PLAN OR AS DIRECTED IN THE FIELD.
3. PIPE FROM MAIN TO METER STOP TO BE LEVEL OR CONTINUOUS UPGRADE.
4. TOP OF BOX TO BE GREATER THAN OR EQUAL TO 10" BELOW ELEVATION OF ADJACENT EDGE OF PAVEMENT WHEN SET IN ROAD/STREET SHOULDER. EXACT LOCATION OF BOX TO BE DETERMINED IN THE FIELD. SET FLUSH WITH FINISH GRADE WHERE NO PAVEMENT EXISTS.

NOT TO SCALE
REVISED MAY, 2023



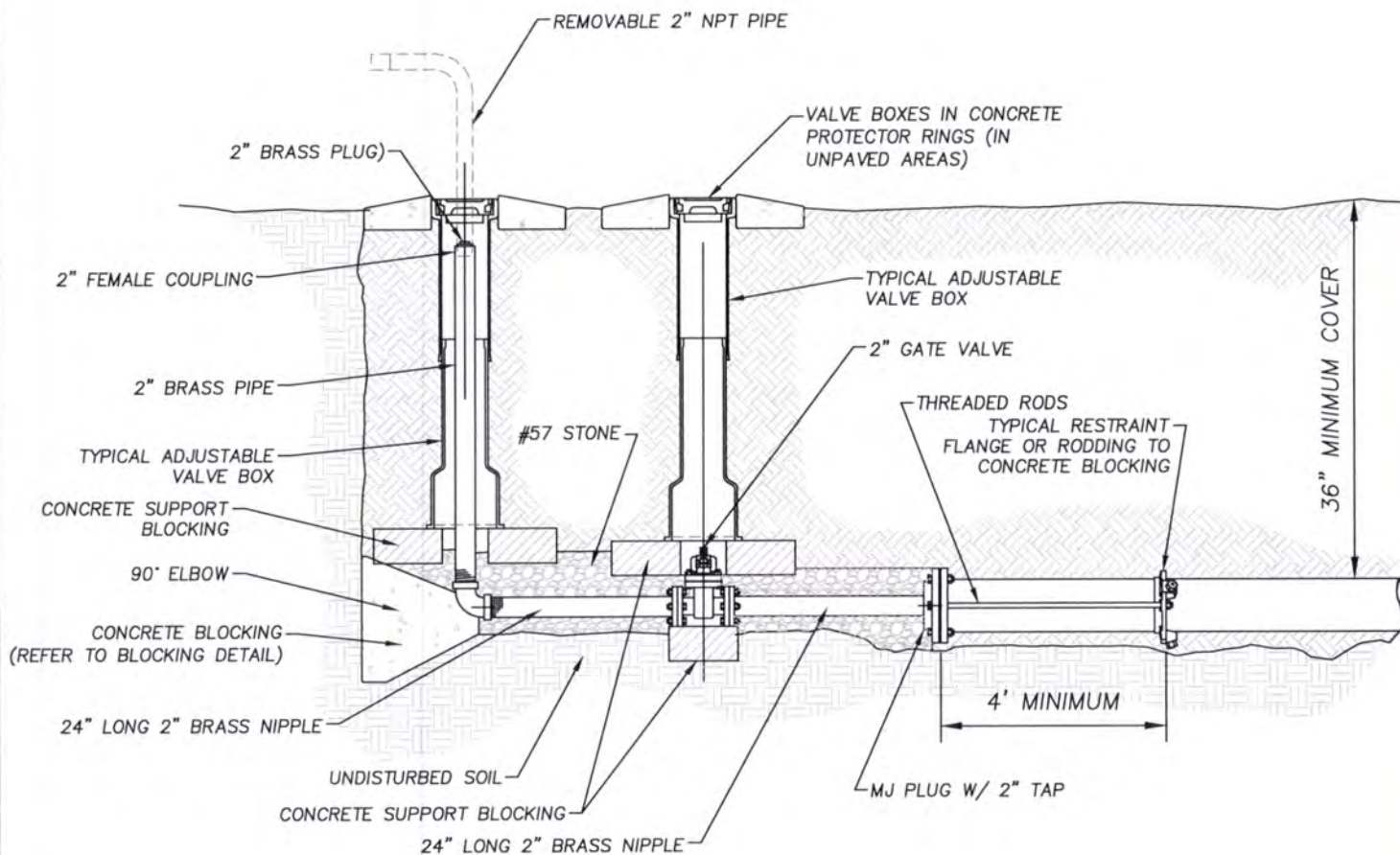
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Department of Water Resources

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MANUAL AIR RELEASE VALVE

STANDARD DRAWING No. W-8

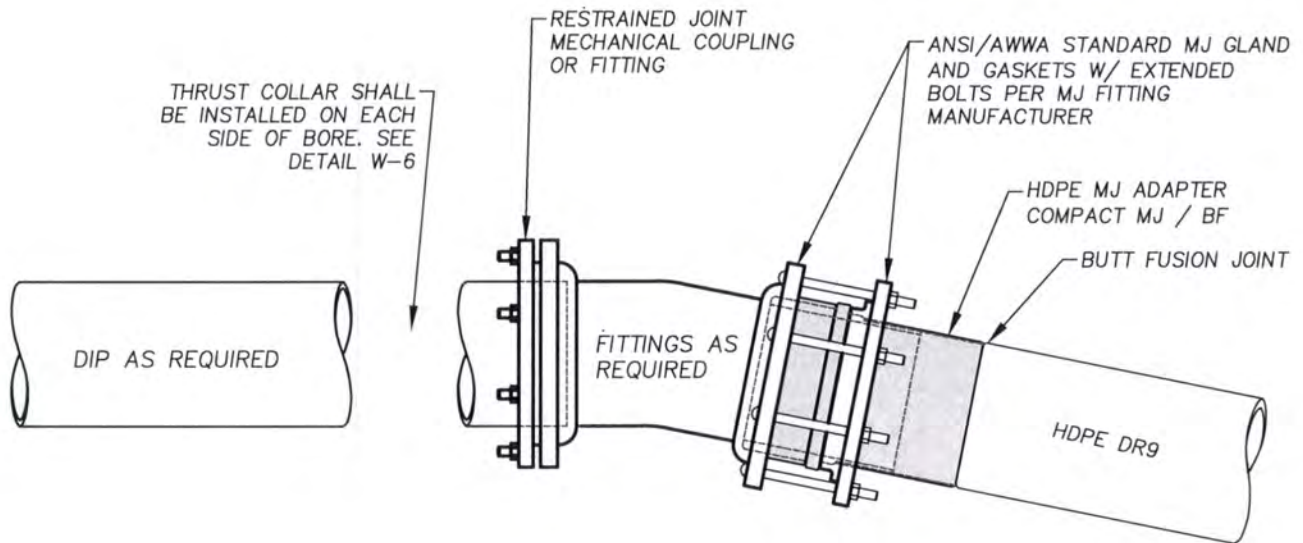


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REVISED MAY, 2023


NEW BERN
 NORTH CAROLINA
 Department of Water Resources
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 252.639.7526 (FAX) 252.636.4103

PERMANENT 2" END-OF-LINE BLOWOFF

STANDARD DRAWING No. W-9



NOT TO SCALE
REVISED MAY, 2023



NEW BERN

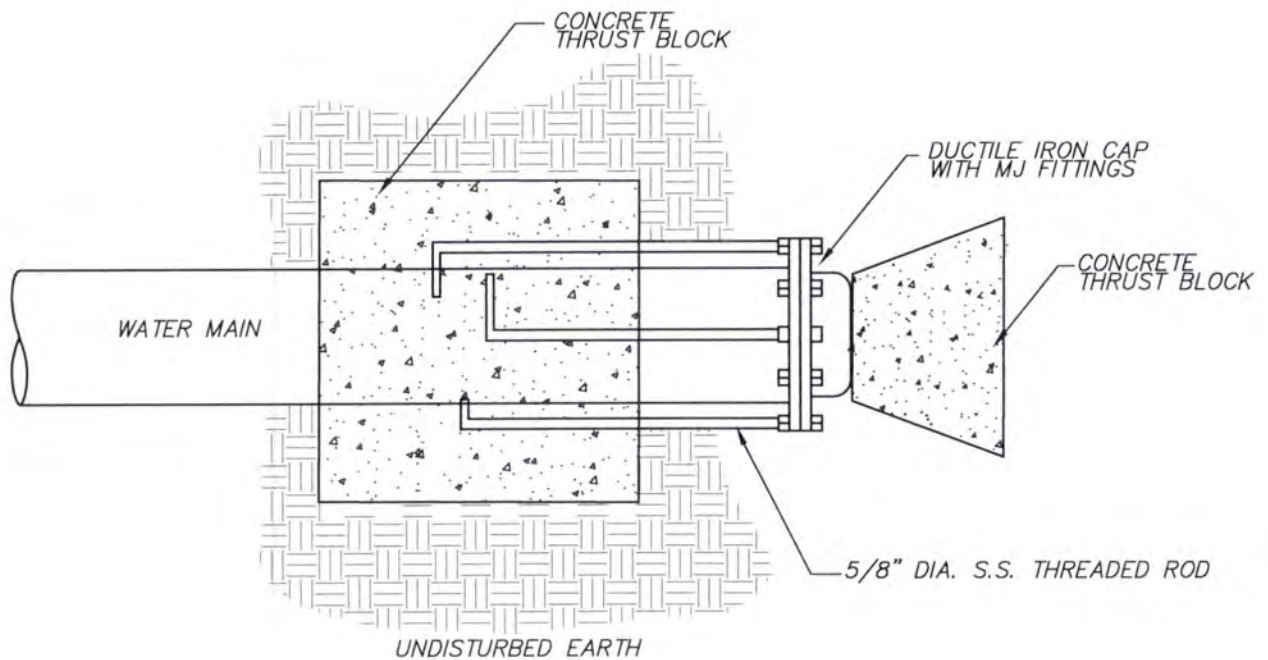
NORTH CAROLINA

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TYPICAL HDPE TO DIP TRANSITION

STANDARD DRAWING No. W-10



NOTES:

1. CONCRETE RESTRAINT BLOCK SHALL BE SIZED TO PROVIDE RESTRAINT OF A 100PSI FORCE ON THE END CAP, WITH A FACTOR OF SAFETY OF 2.0.
2. THE MINIMUM SIZE FOR THE RESTRAINT BLOCK SHALL BE 1 CUBIC YARD.

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REVISED MAY, 2023



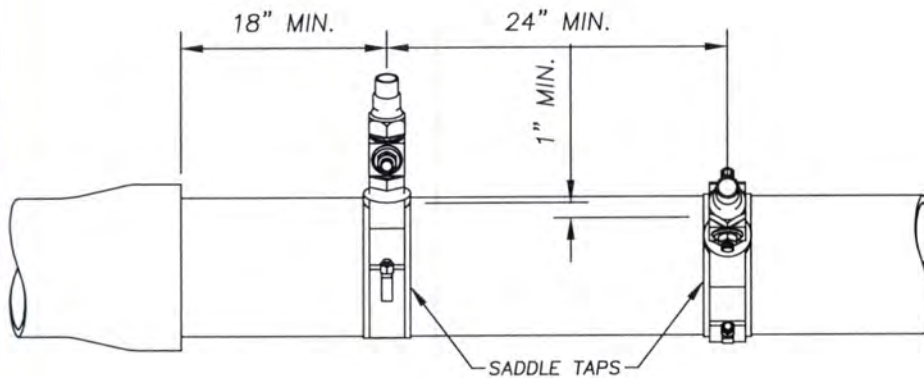
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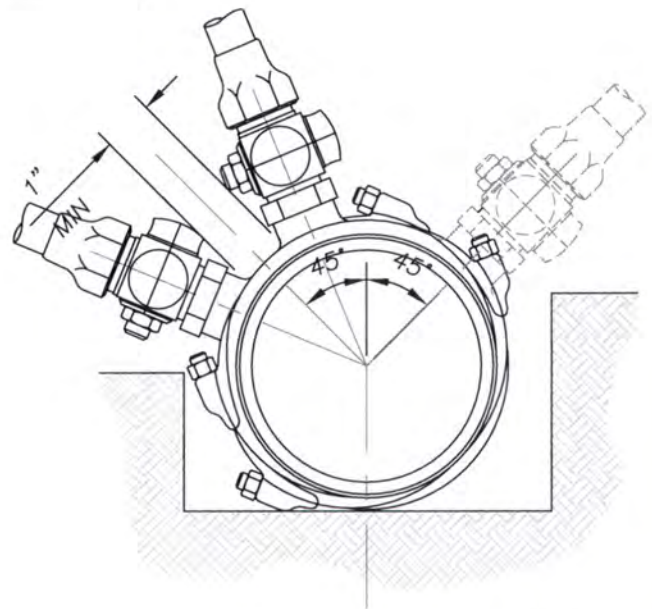
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TYPICAL RESTRAINED END CAP

STANDARD DRAWING No. W-11



TYPICAL SADDLE TAP SPACING



TYPICAL SADDLE TAP ELEVATION

NOTES:

1. TAPS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SEPARATION OF 24".
2. MULTIPLE TAPS ON THE SAME SIDE OF THE LINE SHALL BE STAGGERED A MINIMUM OF 1" VERTICALLY TO PREVENT DAMAGE TO THE MAIN.
3. SERVICE SADDLES SHALL BE INSTALLED A MINIMUM OF 18" FROM PIPE JOINTS.

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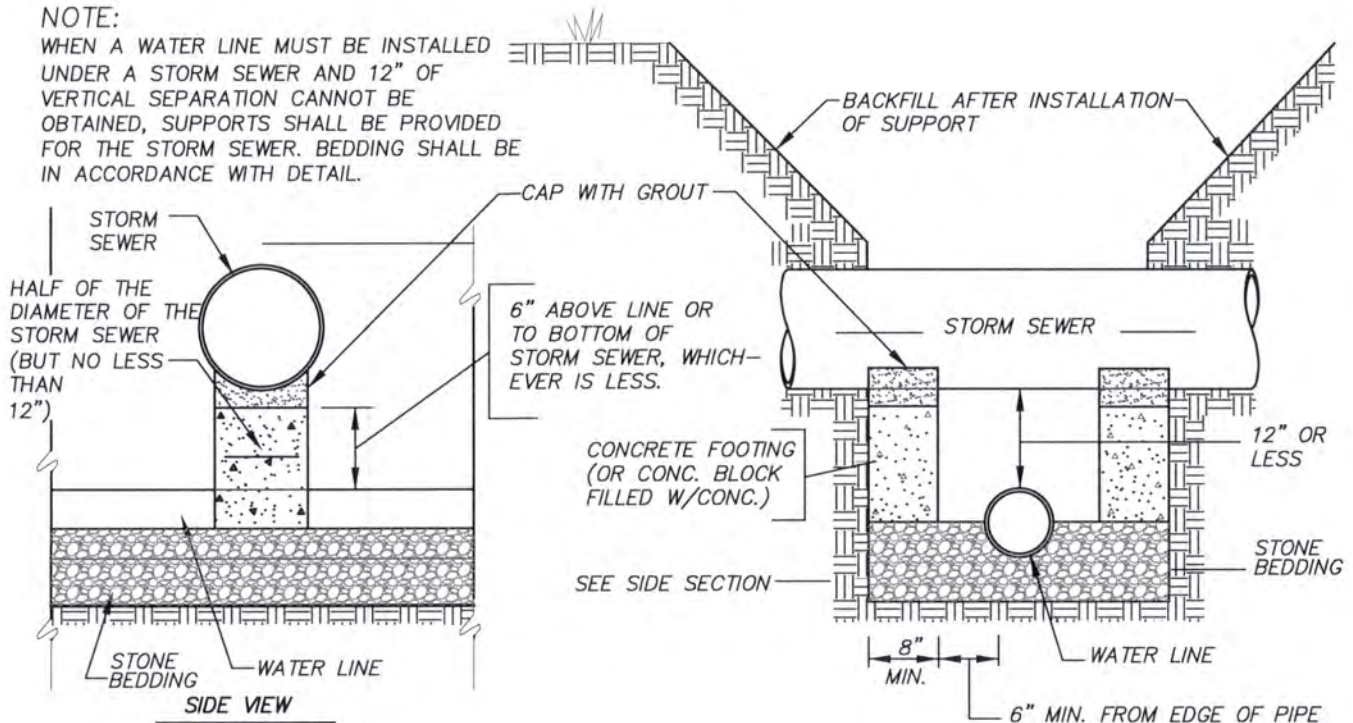
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**TYPICAL
TAPPING SADDLE**

STANDARD DRAWING No. W-12

NOTE:

WHEN A WATER LINE MUST BE INSTALLED UNDER A STORM SEWER AND 12" OF VERTICAL SEPARATION CANNOT BE OBTAINED, SUPPORTS SHALL BE PROVIDED FOR THE STORM SEWER. BEDDING SHALL BE IN ACCORDANCE WITH DETAIL.



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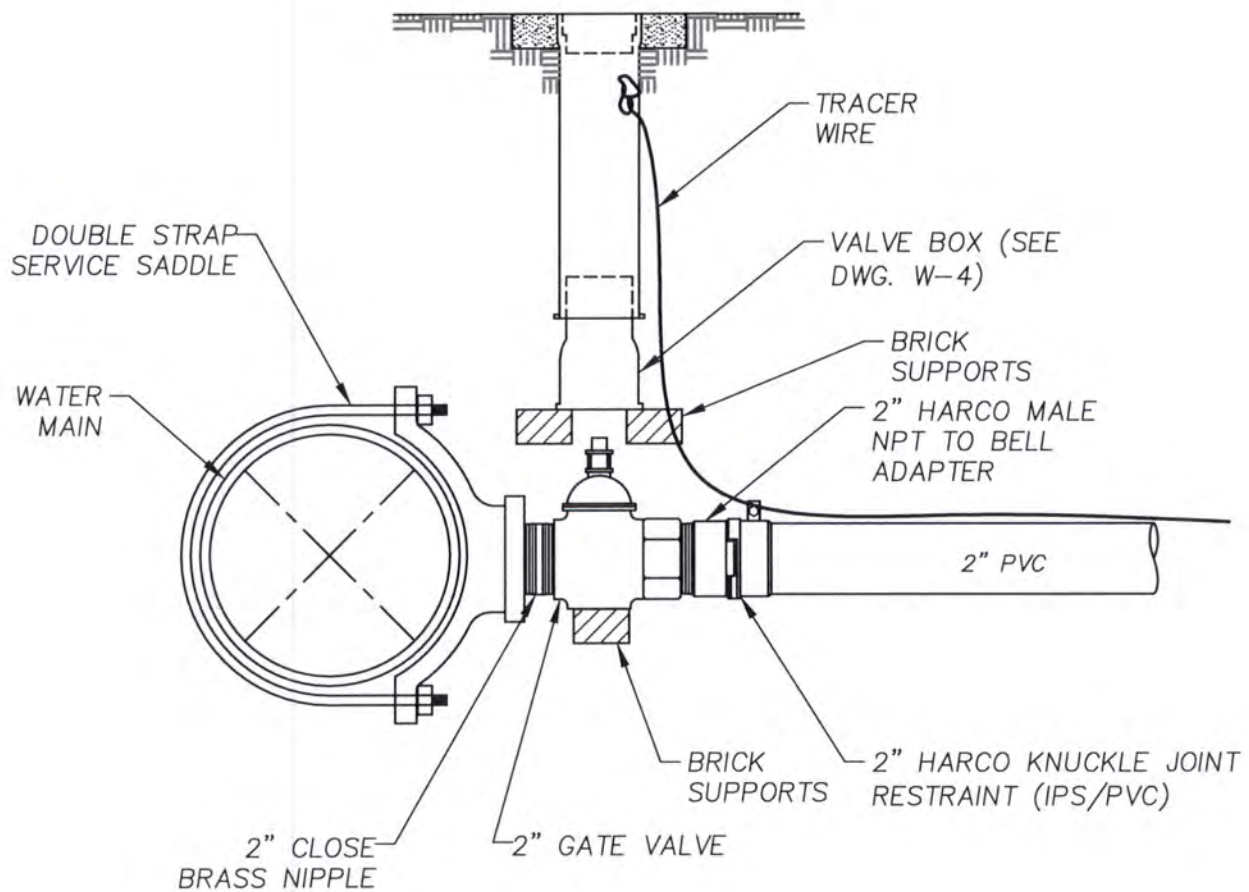


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SHALLOW WATER CROSSING BELOW STORM SEWER

STANDARD DRAWING No. W-13



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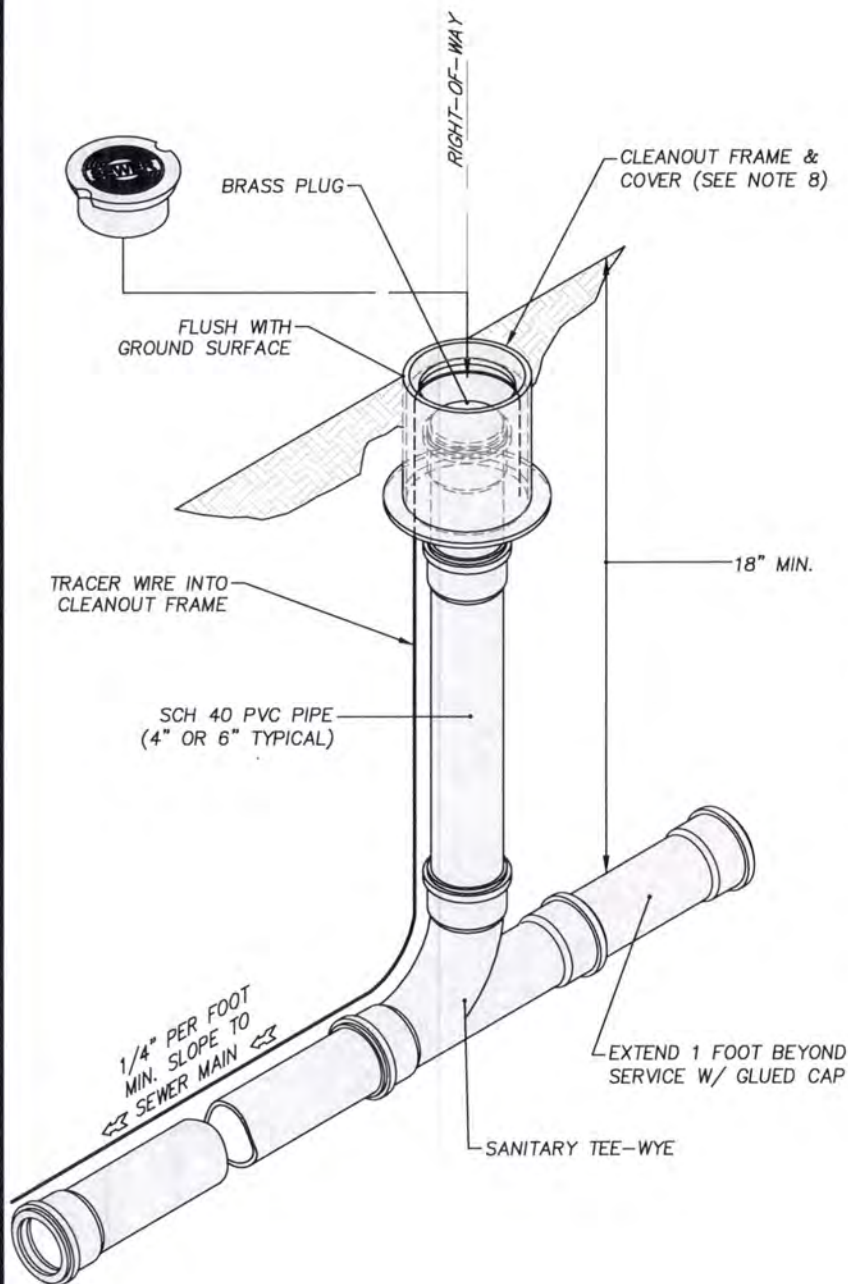
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TYPICAL 2" WATER MAIN CONNECTION

STANDARD DRAWING No. W-14



NOTES:

1. UNLESS OTHERWISE NOTED, THE LOCATION OF THE SERVICE CLEANOUT SHALL BE AT THE RIGHT-OF-WAY LINE.
2. CONTRACTOR SHALL PROVIDE CAST IRON CLEANOUT BOXES FOR ALL SERVICES.
3. CLEANOUTS SHALL BE INSTALLED AT GRADE FOR ALL SERVICES UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL COMPACT THE FULL LENGTH OF THE SERVICE TRENCH IN 6" LAYERS WITH A MECHANICAL TAMP.
5. SERVICE SADDLES TO BE USED IN LIEU OF IN-LINE WYES ONLY AS APPROVED BY THE ENGINEER AND ON A CASE BY CASE BASIS.
6. REFER TO THE IN-LINE WYE DETAIL TO SEWER MAIN TIE IN DETAILS.
7. REFER TO THE GRAVITY SEWER TRENCHING DETAIL FOR MAIN EMBEDMENT DETAILS.
8. ASTM A 48 CLASS 30B CAST IRON CLEAN OUT COVER AND FRAME P107 BY SIGMA CORP.-CATALOG NUMBER CO-373S.

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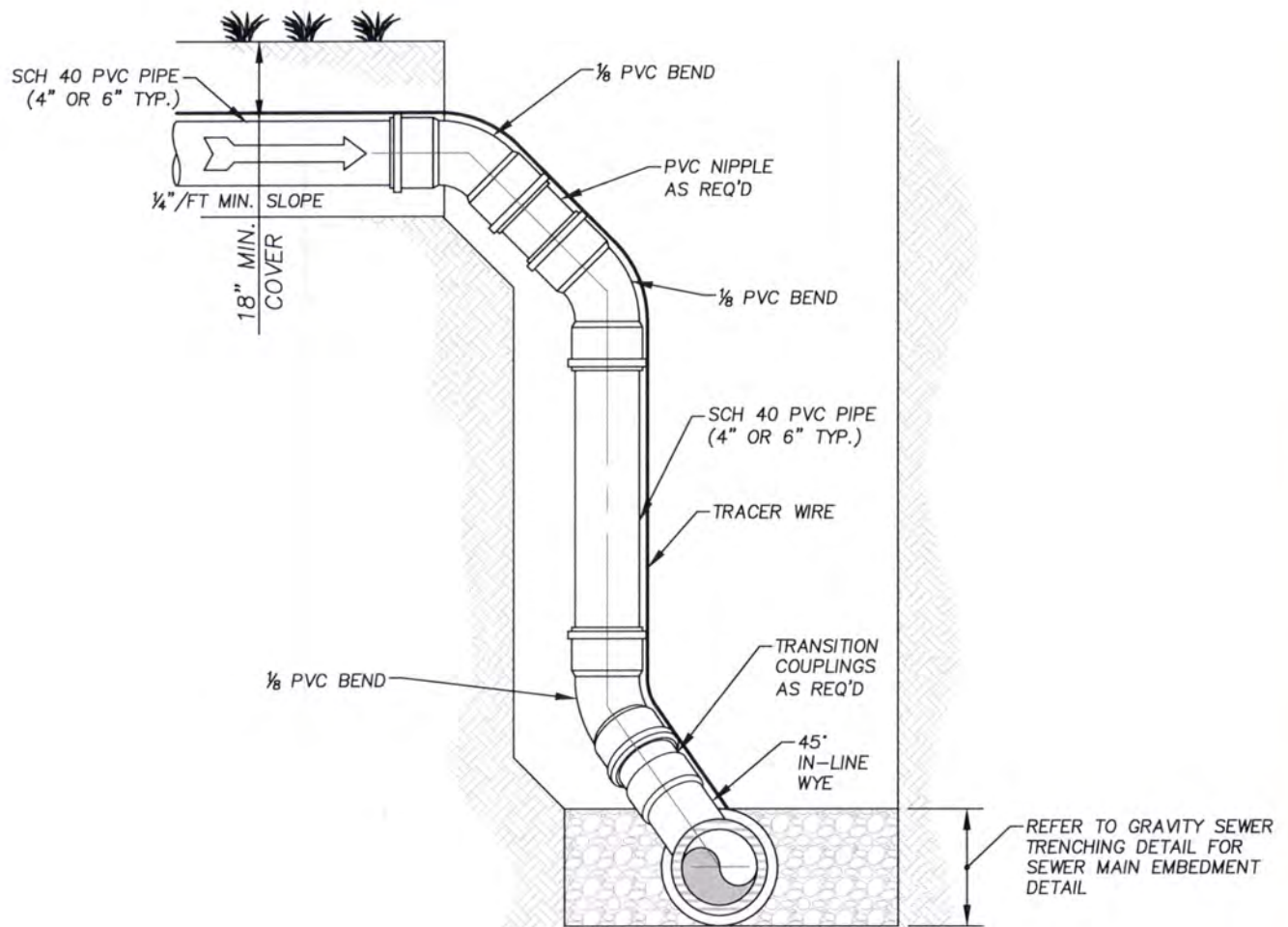
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TYPICAL SEWER SERVICE CONNECTION ELEVATION

STANDARD DRAWING No. S-1



NOTES:

1. THE CONTRACTOR SHALL COMPACT THE FULL LENGTH OF THE SERVICE TRENCH IN 6" LAYERS WITH A MECHANICAL TAMP.
2. SERVICE SADDLES TO BE USED IN LIEU OF IN-LINE WYES ONLY AS APPROVED BY THE ENGINEER AND ON A CASE BY CASE BASIS.
3. REFER TO TYPICAL SEWER SERVICE ELEVATION FOR RISER, PLUG, AND SERVICE WYE DETAILS.

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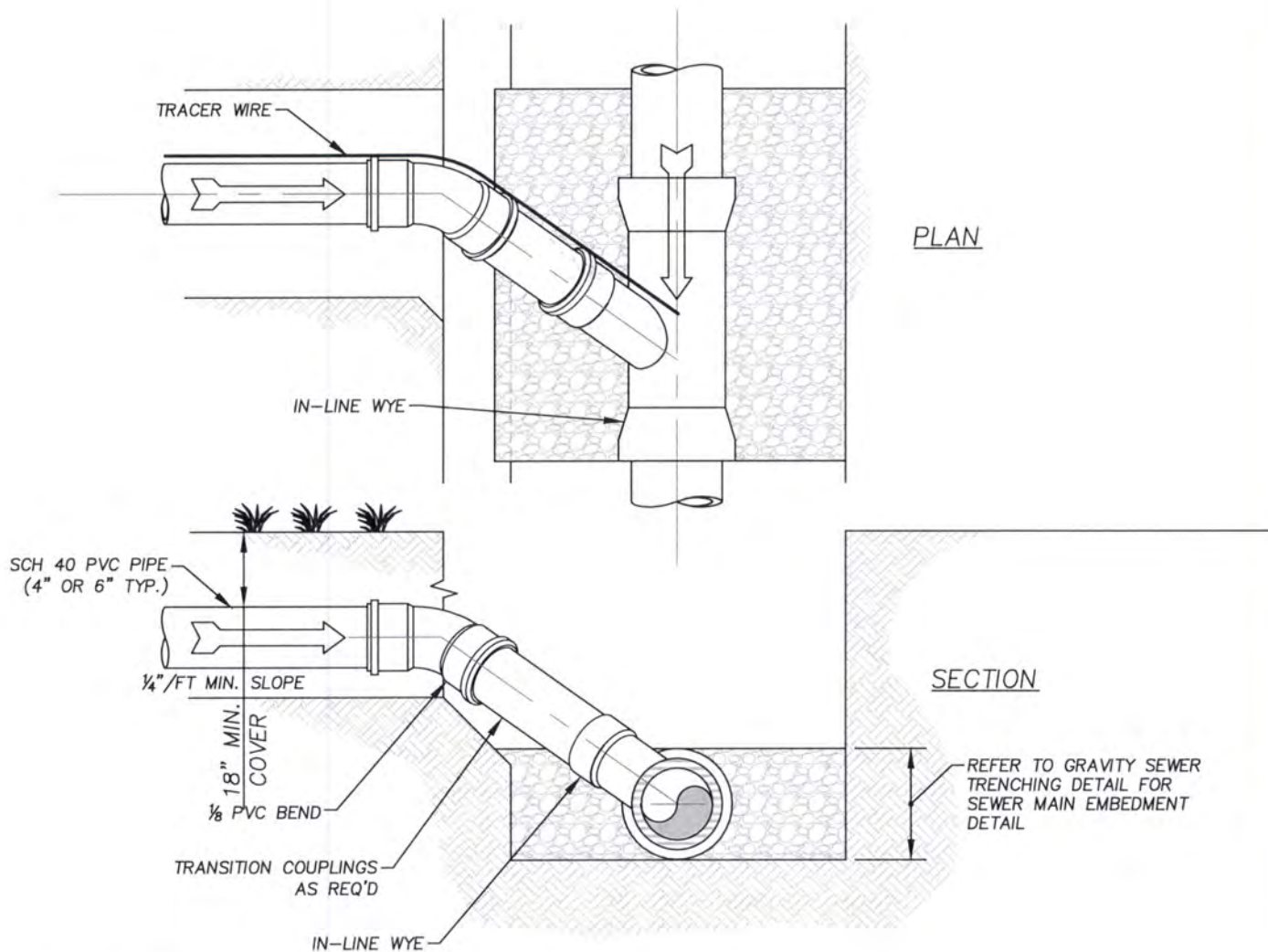
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DEEP-CUT SEWER SERVICE ELEVATION

STANDARD DRAWING No. S-2



NOTES:

1. THE CONTRACTOR SHALL COMPACT THE FULL LENGTH OF THE SERVICE TRENCH IN 6" LAYERS WITH A MECHANICAL TAMP.
2. SERVICE SADDLES TO BE USED IN LIEU OF IN-LINE WYES ONLY AS APPROVED BY THE ENGINEER AND ON A CASE BY CASE BASIS.

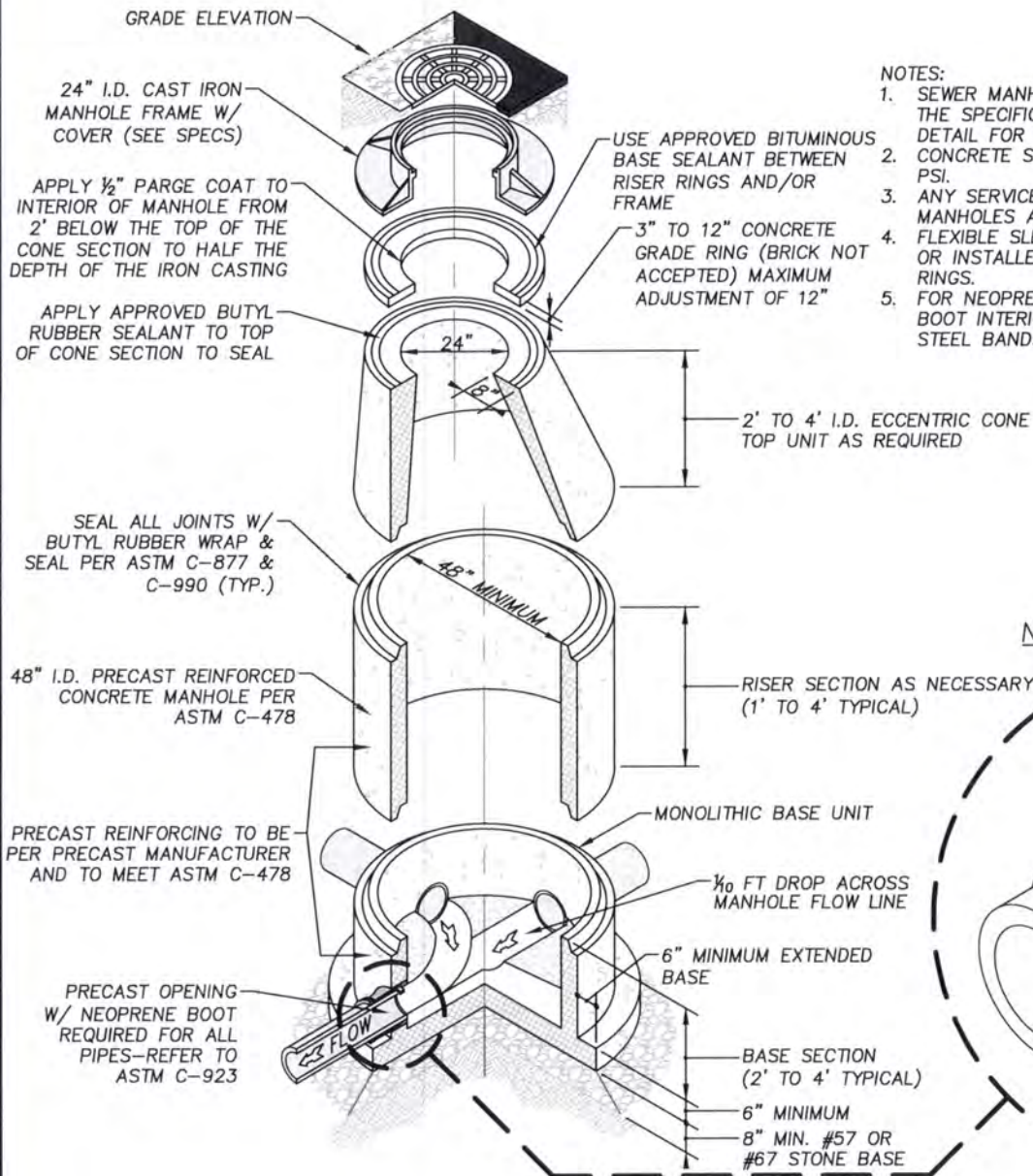
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TYPICAL IN-LINE WYE

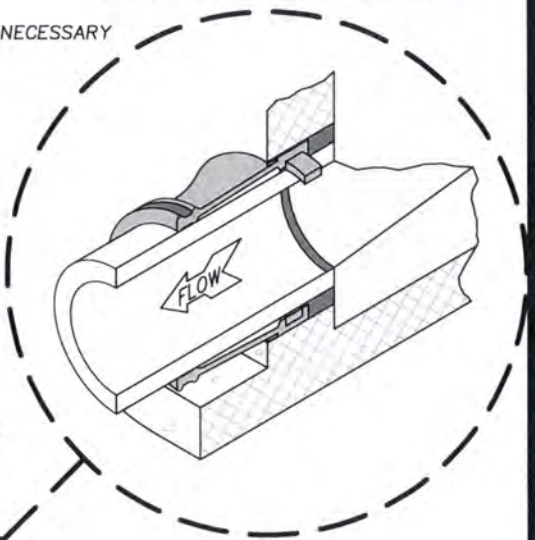
STANDARD DRAWING No. S-3



NOTES:

1. SEWER MANHOLES TO INCLUDE STEPS AS INCLUDED IN THE SPECIFICATIONS STEPS ARE NOT SHOWN IN THIS DETAIL FOR CLARITY.
2. CONCRETE STRENGTH SHALL BE A MINIMUM OF 4,000 PSI.
3. ANY SERVICE LATERAL LINE LAID INTO THE EXISTING MANHOLES ARE TO BE CORE DRILLED AND BOOTED.
4. FLEXIBLE SLEEVE BOOTS ARE TO BE CAST IN PLACE OR INSTALLED WITH STAINLESS STEEL EXPANDER RINGS.
5. FOR NEOPRENE BOOT CONNECTIONS, PIPE EXTERIOR, BOOT INTERIOR, BOOT EXTERIOR, AND STAINLESS STEEL BANDS SHALL BE LUBRICATED

NEOPRENE BOOT SECTION



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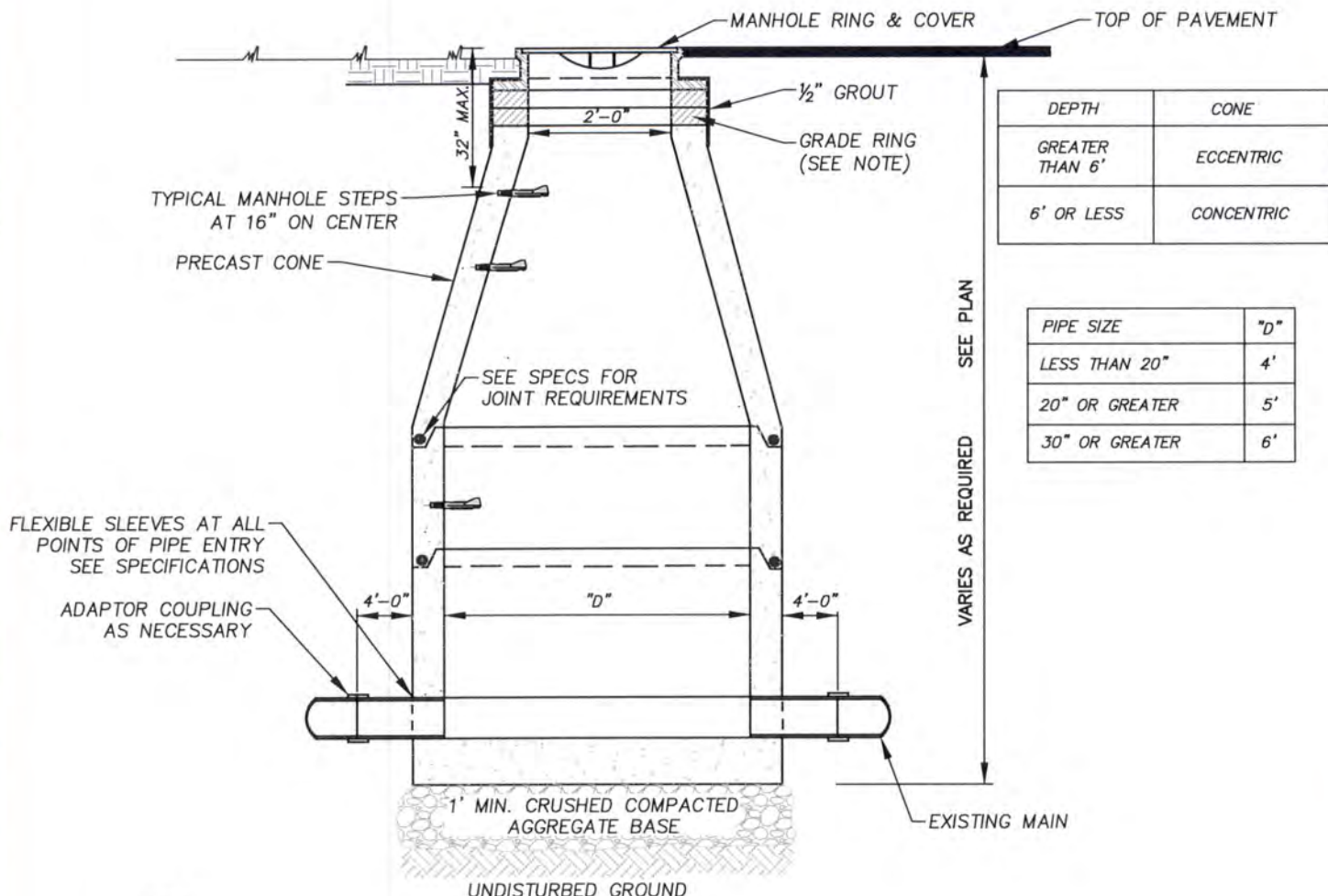
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TYPICAL PRECAST MANHOLE

STANDARD DRAWING No. S-4



NOTES:

1. SAW CUT EXISTING SEWER MAIN AND REMOVE SECTION TO ALLOW INSTALLATION OF PRECAST MANHOLE AND NEW SEWER MAIN. INSTALL NEW MAIN THROUGH MANHOLE.
2. INSTALL ABS COUPLINGS (EXISTING MAIN TO PROPOSED MAIN) AND ADAPTER COUPLINGS AS NECESSARY.
3. THE DISTANCE FROM THE TOP OF THE MANHOLE RING AND COVER TO FINISHED GRADE MAY VARY WIDELY, SEE PLAN.
4. POINTS OF EXIT AND ENTRY FOR PIPE SHALL BE PROVIDED WITH FLEXIBLE SLEEVES, PREFORMED INTO THE MANHOLE.
5. MIN. (1) GRADE RING REQ'D IN NON-PAVED AREAS. IN PAVEMENT, GRADE RING NOT REQ'D EXCEPT AS NECESSARY TO MEET FINISHED ELEVATION.
6. NO MORE THAN 2-4" GRADE RINGS SHALL BE INSTALLED.

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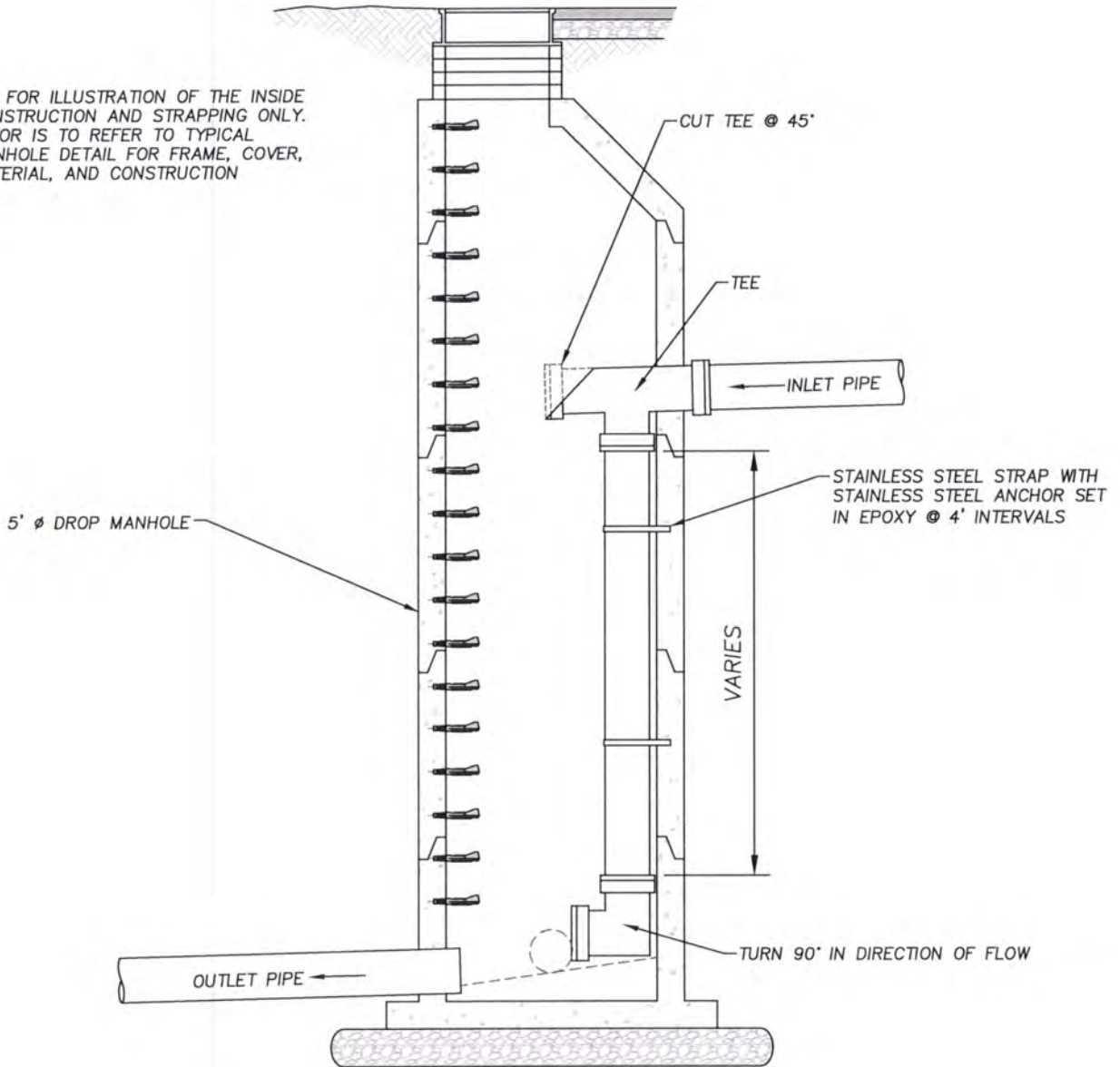
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TYPICAL MANHOLE OVER EXISTING SEWER MAIN

STANDARD DRAWING No. S-5

NOTES:

1. THIS DETAIL IS FOR ILLUSTRATION OF THE INSIDE DROP PVC CONSTRUCTION AND STRAPPING ONLY. THE CONTRACTOR IS TO REFER TO TYPICAL STANDARD MANHOLE DETAIL FOR FRAME, COVER, STACKING, MATERIAL, AND CONSTRUCTION REQUIREMENTS.



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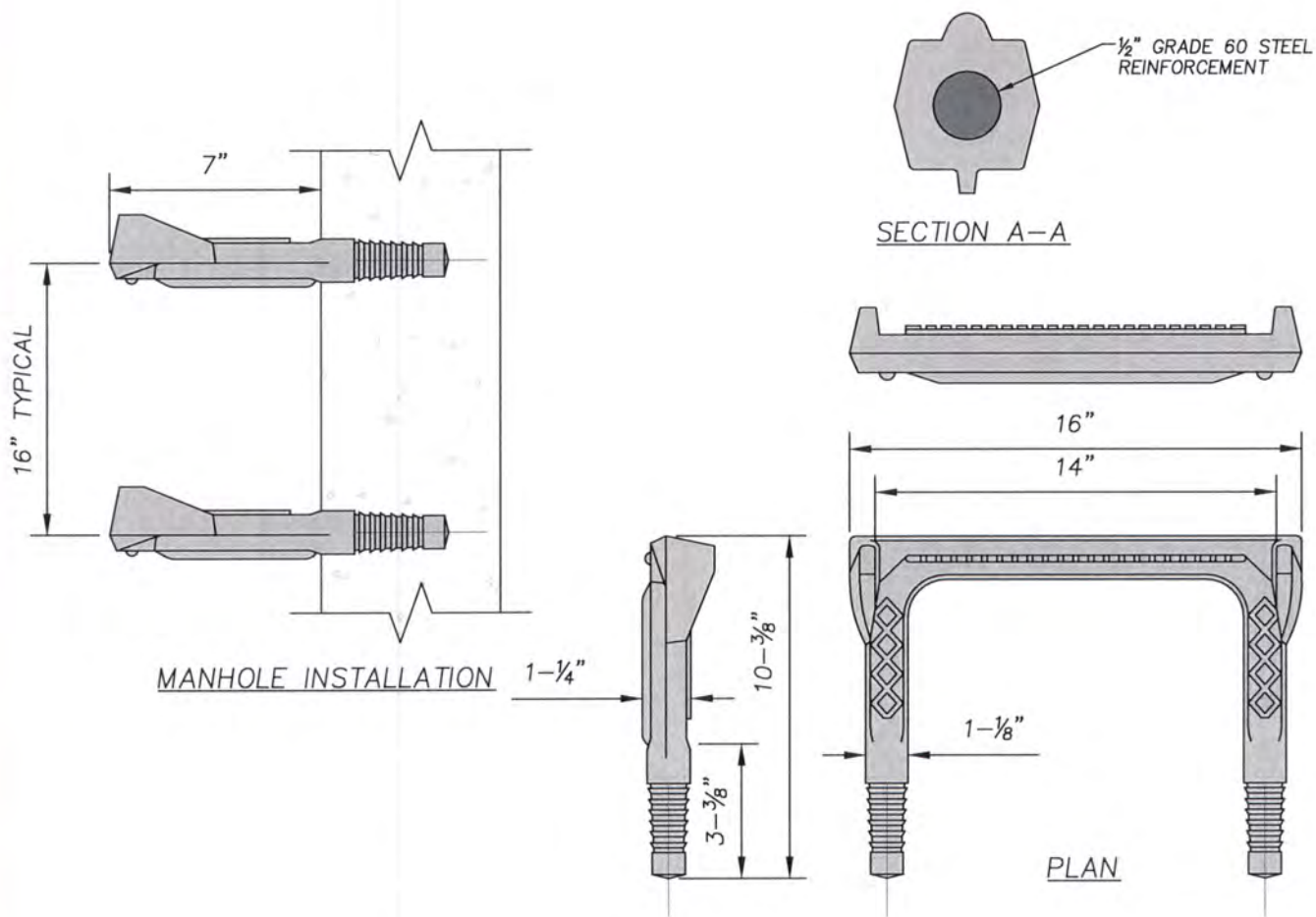
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TYPICAL INSIDE DROP MANHOLE

STANDARD DRAWING No. S-6



NOTES:

1. STEPS ARE TO BE DRIVEN INTO TAPERED HOLES IN PRECAST MANHOLE SECTIONS AND NOT TO BE USED AS A "GROUTED IN" STEP.
2. STEPS ARE TO MEET THE REQUIREMENTS OF ASTM C-140.
3. STEPS ARE TO BE COPOLYMER POLYPROPYLENE PLASTIC.

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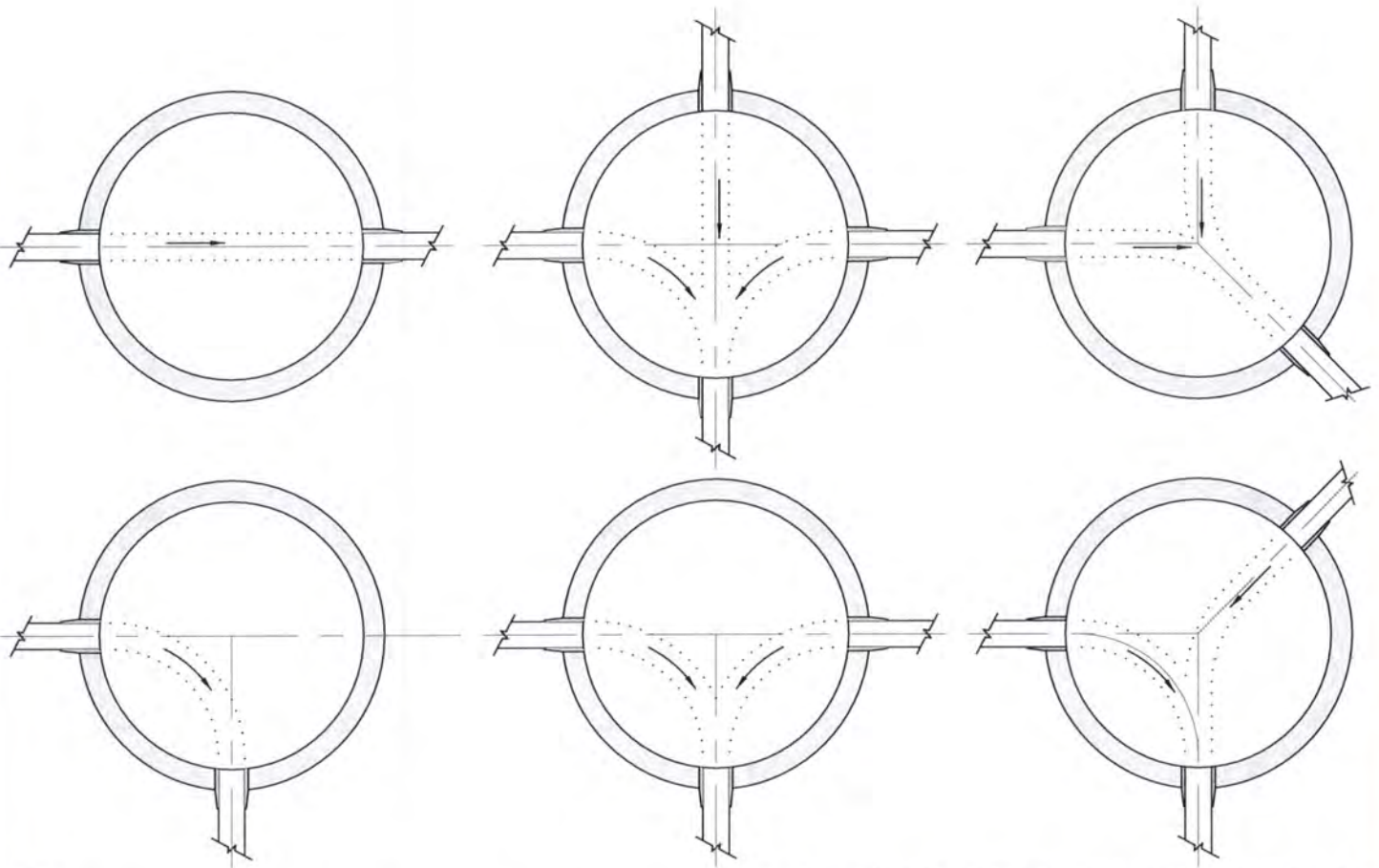
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TYPICAL POLYPROPYLENE PLASTIC STEP DETAIL

STANDARD DRAWING No. S-7



NOTES:

1. SERVICE LINE ENTRIES ARE TO HAVE CAST IN PLACE TROUGHS. ACCURATELY SHAPE THE INVERTS TO A SMOOTH SEMI-CIRCLE CONFORMING TO THE INSIDE CONTOUR OF THE ADJACENT SEWER SECTIONS.
2. ALL ENTERING BRANCHES AND CHANGES IN DIRECTIONS SHALL BE FORMED BY A CIRCULAR CURVE IN THE INVERT AS LARGE A RADIUS AS THE SIZE OF THE MANHOLE WILL PERMIT.
3. CHANGES IN SIZE AND GRADE OF THE CHANNELS SHALL BE MADE GRADUALLY AND EVENLY.
4. THE INVERT CHANNELS SHALL BE FORMED DIRECTLY IN THE CONCRETE OF THE MANHOLE BASE, OR SHALL BE BUILT UP WITH BRICK AND MORTAR.
5. MINIMUM CONCRETE STRENGTH SHALL BE 4,000 PSI.
6. THE FLOOR OF THE MANHOLE OUTSIDE THE CHANNELS SHALL BE SMOOTH AND SHALL SLOPE TOWARD THE CHANNELS NOT LESS THAN 1 INCH PER FOOT NOR MORE THAN 2 INCHES PER FOOT.
7. THE TOP OF THE CONCRETE PERIMETER SHELF SHALL BE NO LOWER THAN THE ELEVATION OF THE PIPE SPRING LINE AT THE MANHOLE WALL INTERIOR.

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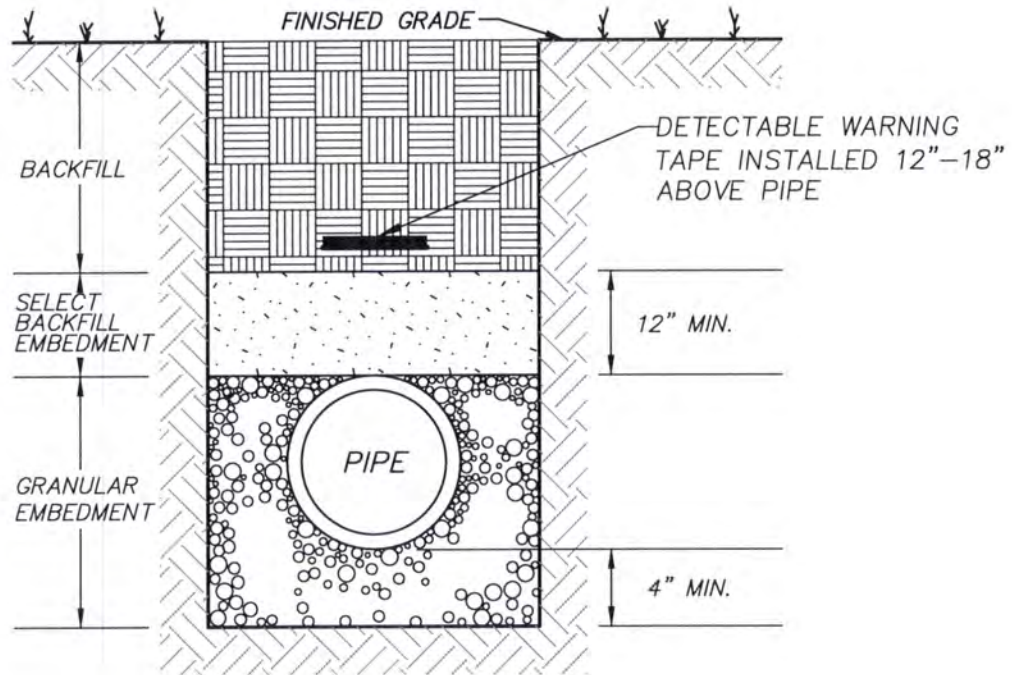
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TYPICAL MANHOLE INVERTS

STANDARD DRAWING No. S-8



NOTES:

1. BACKFILL SHALL BE PLACED AND COMPACTED IN 9" LIFTS.
2. SELECT FILL SHALL BE USED FOR ALL BACKFILL IF LOCAL SOIL IS CONSIDERED TO BE UNSUITABLE.

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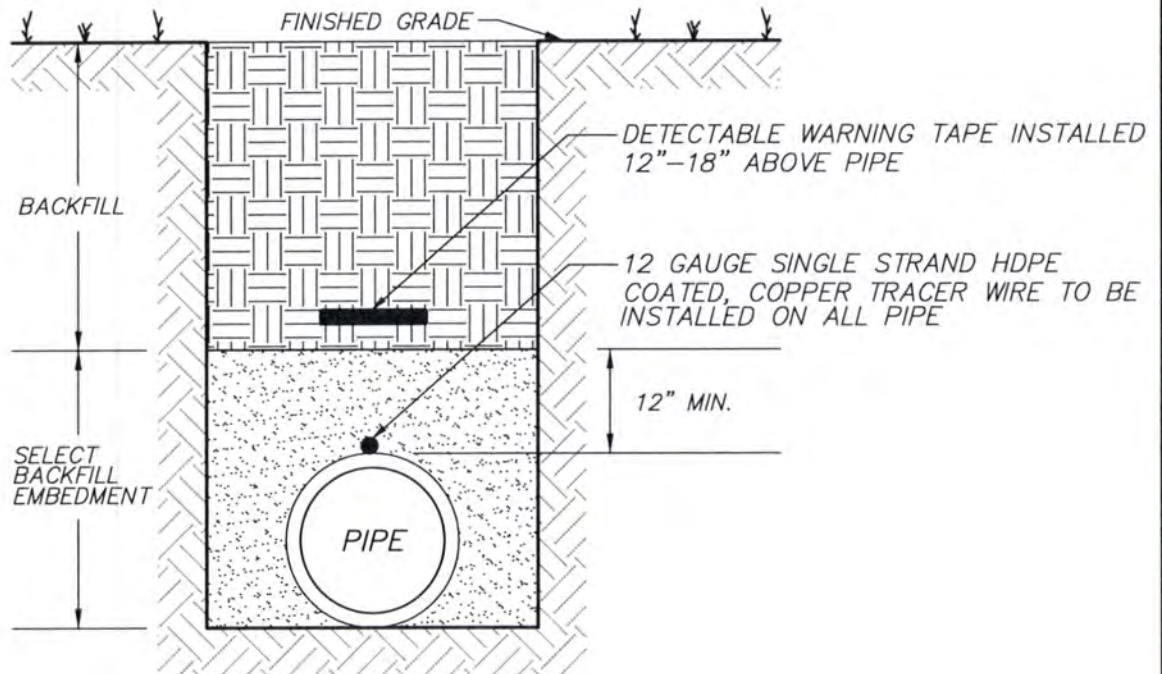
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BEDDING FOR GRAVITY SEWER PIPE

STANDARD DRAWING No. S-9



NOTES:

1. BACKFILL SHALL BE PLACED AND COMPACTED IN 9" LIFTS.
2. THE CITY ENGINEER MAY REQUIRE GRANULAR EMBEDMENT AS NECESSARY BASED ON LOCAL SOIL CONDITIONS.
3. SELECT FILL SHALL BE USED FOR ALL BACKFILL IF LOCAL SOILS CONSIDERED TO BE UNSUITABLE.

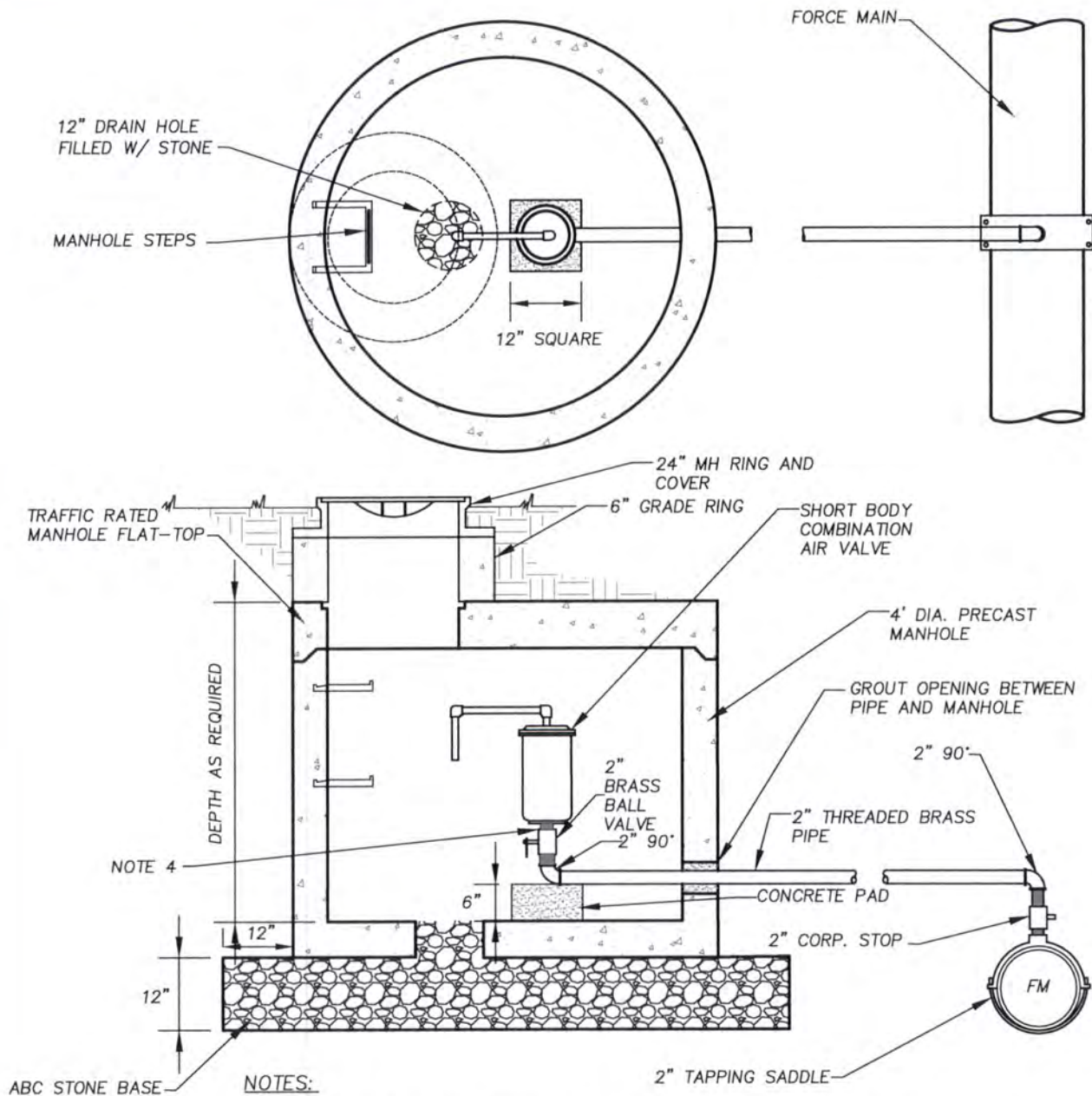
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BEDDING FOR WATER MAINS AND SEWER FORCE MAINS

STANDARD DRAWING No. S-10



NOTES:

1. TAP ON THE MAIN SHALL BE MADE IN THE POSITION SHOWN.
2. LOCATE MANHOLE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE CITY ENGINEER.
3. ARV VENT DISCHARGE SHALL BE PIPED WITH BRASS PIPE IN A DIRECTION THAT WILL PREVENT SPLASHING.
4. CONNECT ARV TO VALVE WITH 2" BRASS METER FLANGE WITH STAINLESS STEEL BOLTS.

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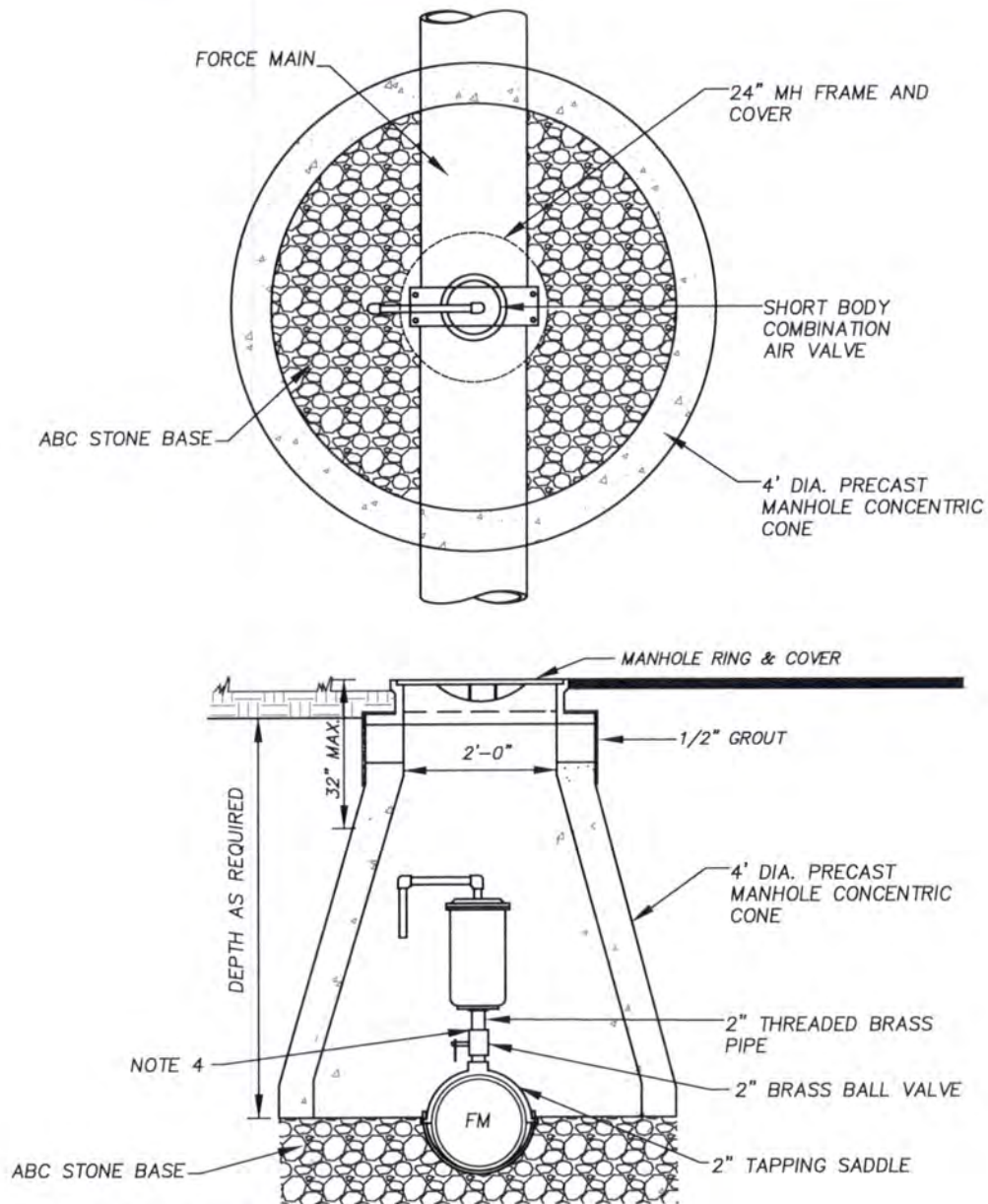
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AUTOMATIC AIR RELEASE VALVE - OFFSET

STANDARD DRAWING No. S-11



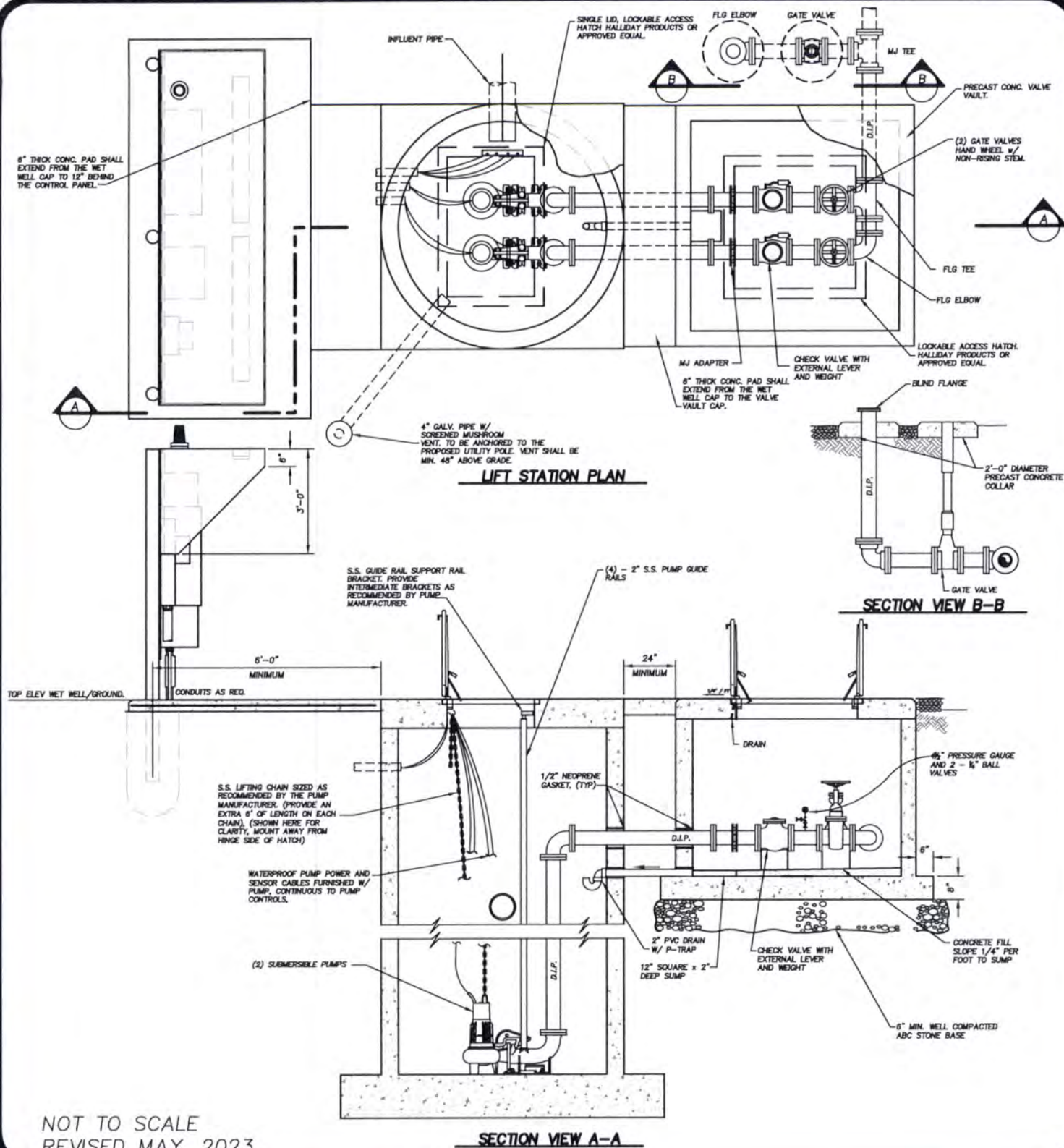
NOTES:

1. TAP ON THE MAIN SHALL BE MADE IN THE POSITION SHOWN.
2. LOCATE MANHOLE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE CITY ENGINEER.
3. ARV VENT DISCHARGE SHALL BE PIPED WITH BRASS PIPE IN A DIRECTION THAT WILL PREVENT SPLASHING.
4. CONNECT ARV TO VALVE WITH 2" BRASS METER FLANGE WITH STAINLESS STEEL BOLTS.

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AUTOMATIC AIR RELEASE VALVE - DIRECT

STANDARD DRAWING No. S-12

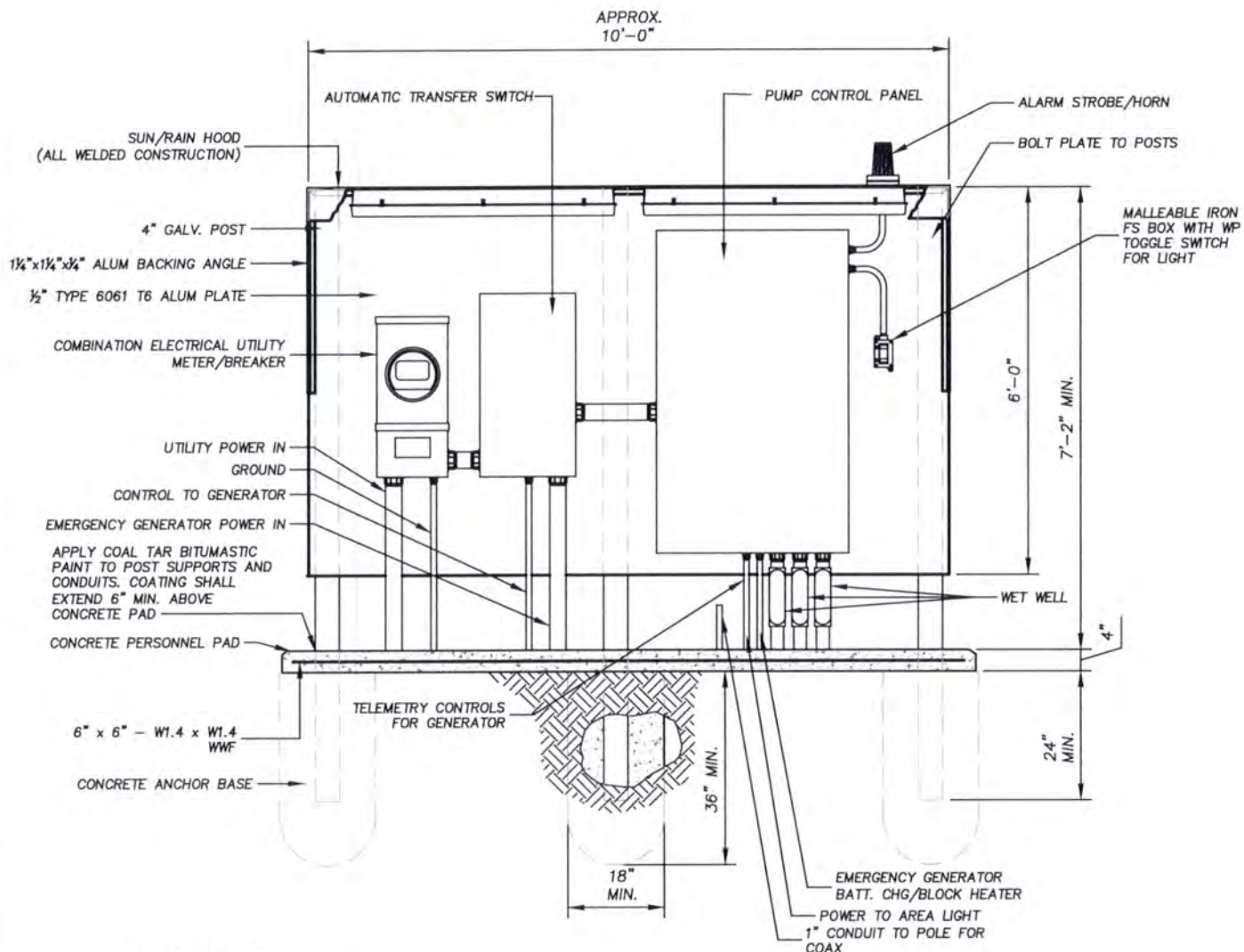


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TYPICAL DUPLEX SUBMERSIBLE LIFT STATION

STANDARD DRAWING No. S-13



DETAIL NOTES:

1. CONTRACTOR SHALL SUBMIT LAYOUT OF ELECTRICAL EQUIPMENT RACK.
2. CONTRACTOR SHALL NOT CONSTRUCT ELECTRICAL EQUIPMENT RACK PRIOR TO RECEIVING APPROVED SUBMITTAL, INCLUDING ORDERING AND FABRICATION OF MATERIALS.
3. ALL EQUIPMENT MOUNTING HARDWARE SHALL BE 316 STAINLESS-STEEL.
4. CONCRETE SHALL BE 3000psi. CONCRETE PADS SHALL BE REINFORCED WITH 6x6-1.4Wx1.4W WWF. PAD SHALL EXTEND 36" OUT FROM DEEPEST PANEL AND 6" OUT FROM SIDES OF SUN/RAIN HOOD.
5. PROVIDE ADDITIONAL VERTICAL 4" POSTS AND BASES LIKE THOSE SHOWN ON PLANS TO SPAN GREATER DISTANCES GREATER THAN 96".
6. CONTRACTOR SHALL SIZE CONDUIT AS REQUIRED FOR NECESSARY CONDUCTORS.
7. ALARM STROBE SHALL BE MOUNTED, WATER-TIGHT, ATOP THE SUN SHIELD..
8. PROVIDE WEATHERPROOF CORROSION RESISTANT FLUORESCENT FIXTURE MOUNTED UNDERNEATH SUN/RAIN HOOD AND LIGHT SWITCH.

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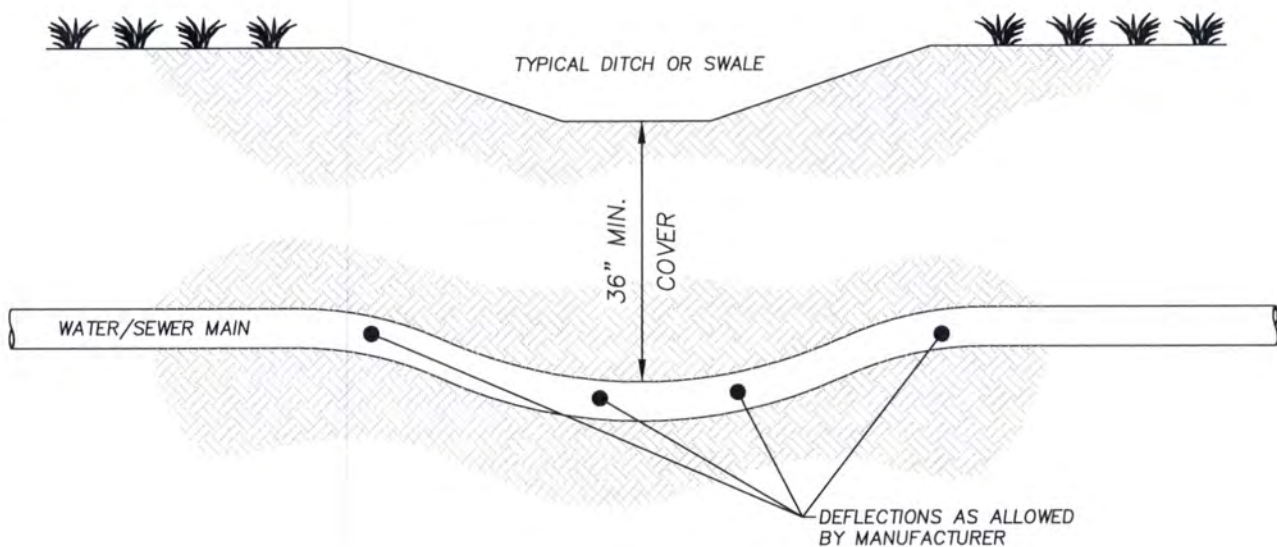
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TYPICAL LIFT STATION PUMP CONTROL PANEL

STANDARD DRAWING No. S-14



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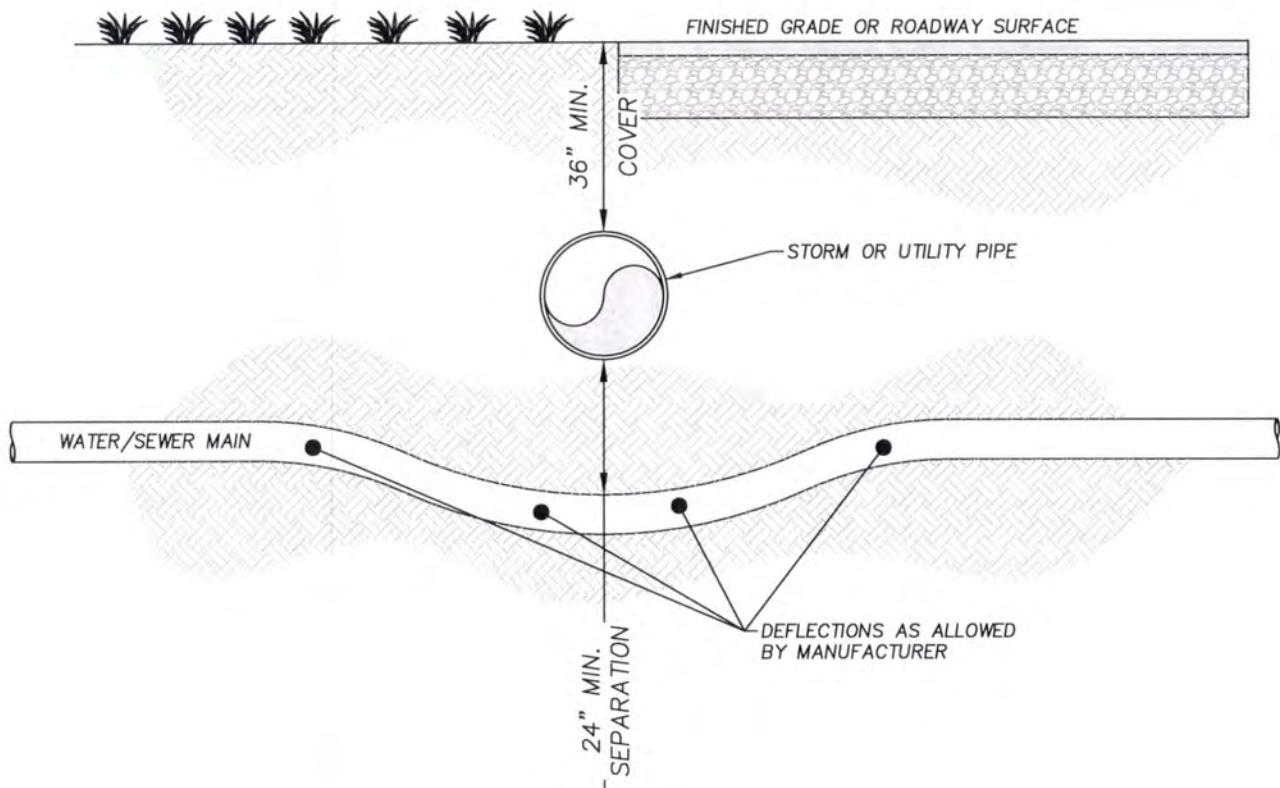
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WATER/SEWER MAIN CROSSING UNDER DITCH

STANDARD DRAWING No. S-15



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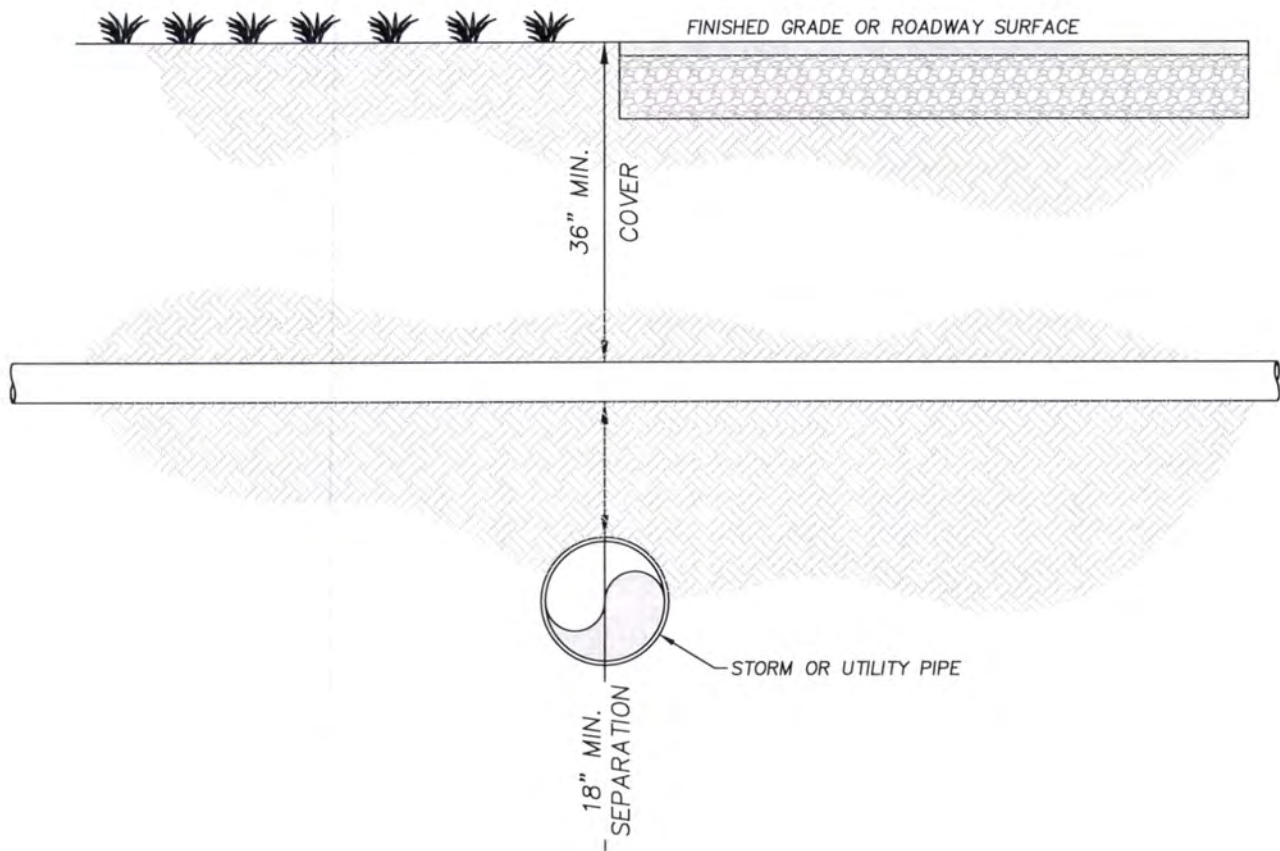


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WATER/SEWER MAIN CROSSING UNDER STORM/UTILITY PIPE

STANDARD DRAWING No. S-16



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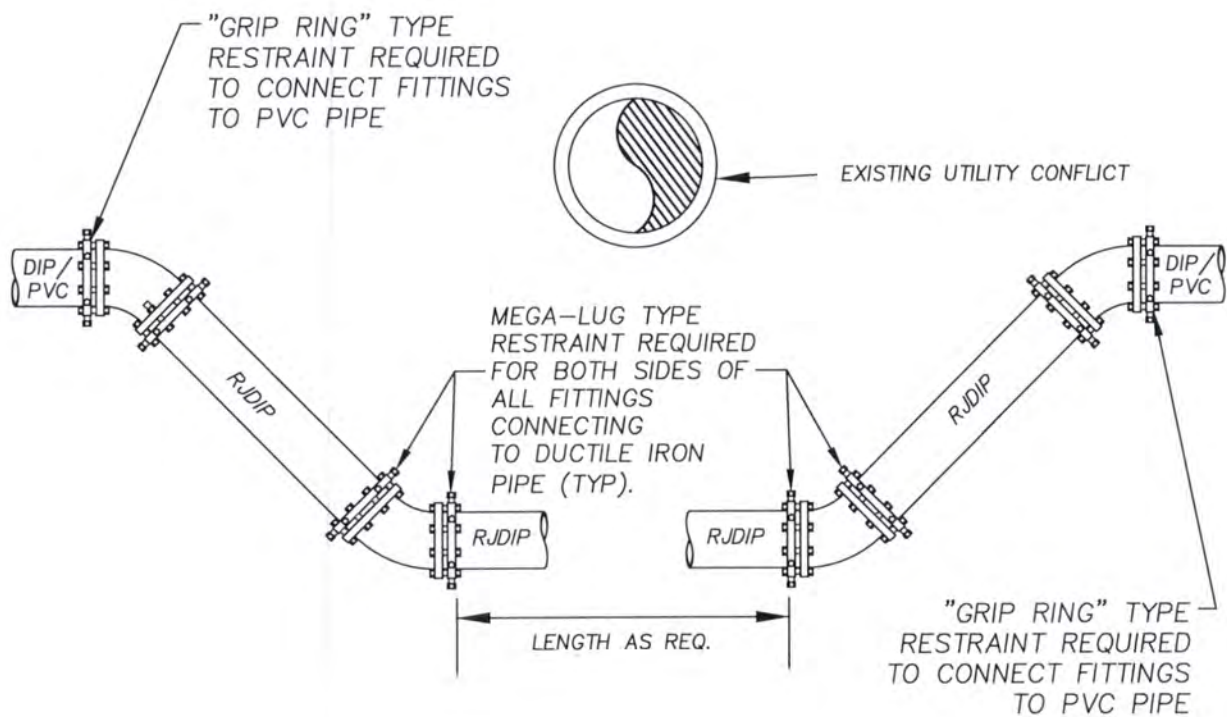


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WATER/SEWER MAIN OVER STORM/UTILITY PIPE

STANDARD DRAWING No. S-17



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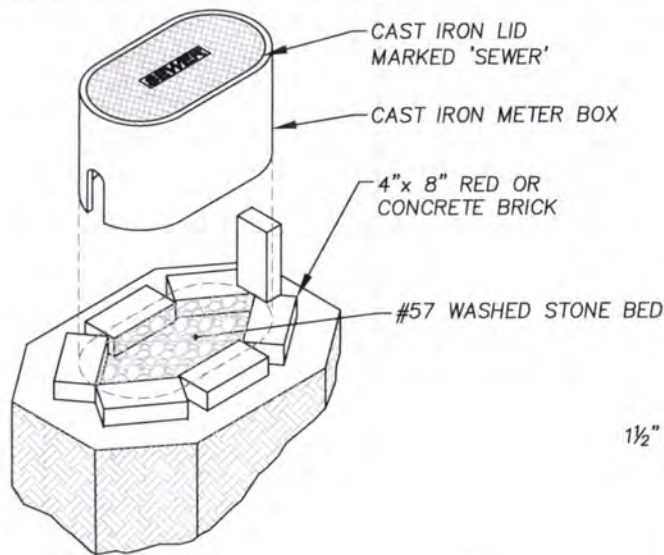
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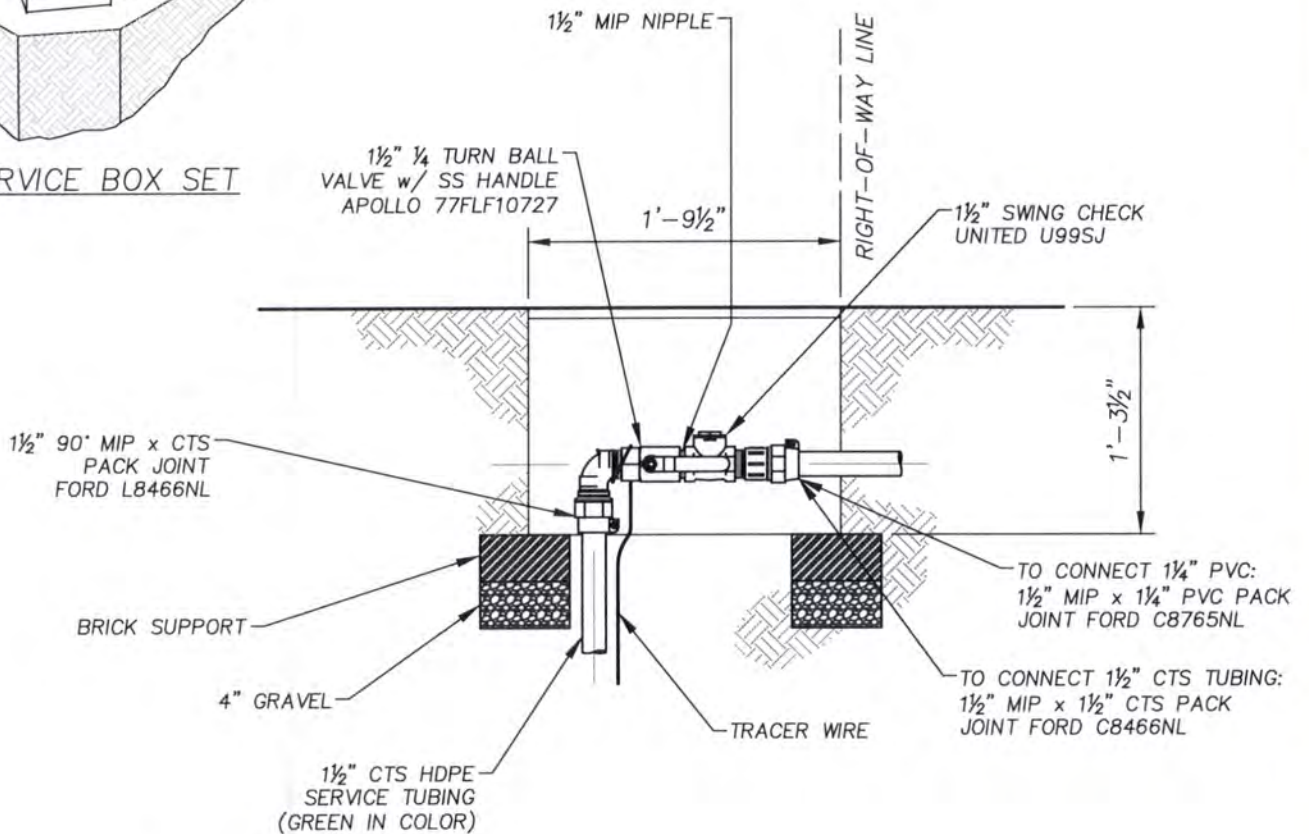
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LOWERING WATER/SEWER MAIN UNDER A UTILITY CONFLICT

STANDARD DRAWING No. S-18



SERVICE BOX SET



NOTES:

1. METER BOX SHALL BE A STANDARD MBX-1 BOX AND LID SHALL HAVE "SEWER" CAST IN LID.
2. TRACER WIRE SHALL BE INSTALLED ON ALL SEWER SERVICES EXTENDING CONTINUOUS FROM THE MAIN INTO THE METER BOX. THE WIRE SHALL BE 12 GA. HDPE COATED, SOLID CORE COPPER. 18"-24" OF TRACER WIRE SHALL BE COILED UP IN THE METER BOX

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TYPICAL S.T.E.P. SYSTEM CONNECTION

STANDARD DRAWING No. S-19

PIPE RESTRAINT CHARTS

Horizontal & Vertical Up Bends

Pipe Size (inch)	Bend Angle	Pipeline Restraint Req. (feet)
4"	11.25	2
	22.5	5
	30	6
	45	10
	60	14
	90	24
6"	11.25	3
	22.5	7
	30	9
	45	14
	60	19
	90	33
8"	11.25	4
	22.5	9
	30	11
	45	18
	60	25
	90	43
10"	11.25	5
	22.5	10
	30	14
	45	21
	60	30
	90	52
12"	11.25	6
	22.5	12
	30	16
	45	25
	60	35
	90	60

Vertical Down Bends

Pipe Size (inch)	Bend Angle	Pipeline Restraint Req. (feet)
4"	11.25	4
	22.5	8
	30	11
	45	17
	60	24
	90	41
6"	11.25	8
	22.5	12
	30	16
	45	24
	60	34
	90	59
8"	11.25	7
	22.5	15
	30	20
	45	31
	60	44
	90	76
10"	11.25	9
	22.5	18
	30	25
	45	38
	60	53
	90	92
12"	11.25	11
	22.5	21
	30	29
	45	44
	60	62
	90	107

Tees, Reducers, Caps

Fitting Type	Size (inch)	Pipeline Restraint Req. (feet)
Tee	4	35
	6	52
	8	70
	10	85
	12	101
Reducer	6x4	30
	8x6	32
	10x4	74
	10x6	58
	10x8	31
	12x4	93
	12x6	78
	12x10	31
Cap	4	41
	6	59
	8	76
	10	92
	12	107

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting a Resolution Approving the Classification Pay Plan

Date of Meeting: 6/13/2023	Ward # if applicable:
Department: Human Resources	Person Submitting Item: Sonya H. Hayes
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	The current Classification Pay Plan was adopted for FY 22-23. The Board must approve the recommended changes included in the FY 23-24 proposed budget as a resolution.
Actions Needed by Board:	Adopt resolution approving the Classification Pay Plan FY 23-24
Backup Attached:	
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



NEW BERN

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303 First Street, P.O. Box 1129

New Bern, NC 28563

(252) 639-7571

TO: Mayor and Board of Aldermen

FROM: Sonya H. Hayes
Director of Human Resources

DATE: June 13, 2023

RE: **Employee Classification Pay Plan FY 2023-2024**

Background

The Classification Pay Plan, adopted for Fiscal Year 2022-2023, should be amended to reflect proposed changes that have been incorporated into the Fiscal Year 2023-2024 budget.

The following new position titles have been added to the Classification Pay Plan:

- Grade 10 - Warehouse Technician (new position title for Warehouse Assistant)
- Grade 12 - Lead Warehouse Technician (reclassified from Warehouse Assistant)
- Grade 13 – Water Resources Service Technician (reclassified from Hydrant/Meter Maintenance Worker I, II and Hydrant Meter Maintenance Lead Worker)
- Grade 15 – Senior Water Resources Service Technician (reclassified from Hydrant/Meter Crew Supervisor)
- Grade 16 – Heavy Equipment Mechanic (new position)
- Grade 19 – Minimum Housing and Nuisance Abatement Supervisor (reclassified one Building Inspector I)
- Grade 25 – Assistant Director of Development Services (reclassified vacant Planner III)
- Grade 33 – Director of Water Resources (new position title for City Engineer)
- Grade 34 – Director of Electric Utility (new position title for Director of Utilities)

The following position titles have been deleted from the Classification Pay Plan:

- Grade 9 – Hydrant/Meter Maintenance Worker I
- Grade 11 – Hydrant/Meter Maintenance Worker II
- Grade 13 – Hydrant/Meter Maintenance Lead Worker
- Grade 17 – Hydrant/Meter Crew Supervisor

Requested Action

We are requesting that the Board of Aldermen consider approving the attached resolution which adopts the Classification Pay Plan effective July 1, 2023.

RESOLUTION

BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That the City of New Bern Classification Pay Plan, a copy of which is attached hereto and incorporated herein by reference, be and the same is hereby approved. The Classification Pay Plan shall be effective as of July 1, 2023.

ADOPTED THIS 13th DAY OF JUNE 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

City of New Bern
Classification Pay Plan
Fiscal Year 2023 - 24
Effective July 1, 2023

Grade	Title	Minimum	Midpoint	Maximum
1		20,687	27,178	33,668
2		21,722	28,537	35,352
3		22,808	29,965	37,119
4		23,948	31,463	38,976
5		25,146	33,035	40,924
6		26,403	34,686	42,971
7	Custodian	27,723	36,421	45,120
8	Accounting Clerk Inventory Control Clerk Lead Custodian Office Assistant II	29,109	38,243	47,375
9	Parks Maintenance Technician Police Service Technician Senior Maintenance Worker Utility Maintenance Worker I Utility Service Specialist	30,565	40,154	49,744
10	Billing Services Representative Equipment Operator I Maintenance Construction Worker Office Assistant III Parks Maintenance Specialist Payment Services Representative Tree Trim Groundworker Utility Service Technician Warehouse Technician	32,093	42,162	52,231
11	Accounting Technician I Bio-Solids Operator Customer Service Representative Engineering Assistant Fire Trainee Irrigation Operator Lead Equipment Operator I Lead Maintenance Worker Maintenance Technician Police Service Technician (Animal Control) Police Service Technician (Property & Evidence) Senior Billing Services Representative Senior Payment Services Representative	33,698	44,271	54,843

	Tree Trimmer Trainee			
	Utility Control System Operator			
	Utility Maintenance Worker II			
12	Administrative Assistant	35,383	46,484	57,585
	Electric Groundworker			
	Electric Meter Technician			
	Equipment Operator II			
	Human Resources Assistant			
	Lead Warehouse Technician			
	Senior Customer Service Representative			
	Wastewater Treatment Plant Operator I			
	Water Treatment Plant Operator I			
13	Fire Specialist	37,152	48,808	60,464
	Police Officer Trainee			
	Police Service Technician/Telecommunicator I			
	Tree Trimmer			
	Utility Locator			
	Utility Maintenance Lead Worker			
	Water Resources Service Technician			
14	Accounting Technician II	39,010	51,248	63,487
	Cross Connection Coordinator			
	Fire Specialist I			
	Laboratory Technician			
	Lead Equipment Operator II			
	Lead Maintenance Technician			
	Metering and Billing Coordinator			
	Parks Crew Leader			
	Police Service Technician/Telecommunicator II			
	Pump Station Mechanic			
	Wastewater Treatment Plant Operator II			
	Water Treatment Plant Operator II			
15	Auto Mechanic	40,959	53,810	66,662
	Billing Services Supervisor			
	Customer Service Supervisor			
	Electric Line Worker 3rd Class			
	Fire Specialist II			
	Human Resources Technician			
	Inflow and Infiltration Technician			
	Load Management Systems Technician			
	Payment Services Supervisor			

	Police Service Technician/Telecommunicator III			
	Senior Water Resources Service Technician			
	Utility Locate Coordinator			
16	Electric Svc. Representative	43,008	56,502	69,994
	Fire Specialist III			
	Heavy Equipment Mechanic			
	Nuisance Abatement Officer			
	Substation Technician I			
	Tree Trim Crew Leader			
	Wastewater Treatment Plant Operator III			
	Water Treatment Plant Operator III			
17	Account Services Supervisor	45,158	59,326	73,495
	Athletic Coordinator			
	Biosolids Supervisor			
	Building and Grounds Maintenance Supervisor			
	Building Inspector I			
	Electrical Engineer Technician			
	Electrician			
	Facilities Maintenance Crew Supervisor			
	Field Service and Metering Supervisor			
	GIS Technician			
	IT Technician			
	Lead Auto Mechanic			
	Police Officer			
	Pretreatment Coordinator			
	Recreation Program Coordinator			
	Special Events Coordinator			
	Special Projects Coordinator			
	Water/Sewer Crew Supervisor			
18	Accountant	47,415	62,292	77,169
	Administrative Support Supervisor			
	Civilian Unit Supervisor			
	Electric Line Worker 2nd Class			
	Fire Prevention Inspector			
	MPO Planner			
	Planner I			
	Substation Technician II			
	Wastewater Treatment Plant Oper. IV			
	Water Treatment Plant Operator IV			
19	Assistant Fire Marshal	49,787	65,407	81,028
	Athletic Supervisor			
	Building Inspector II			
	Center Supervisor			
	Energy Management Specialist			
	Financial and Budget Analyst			
	Fire Engineer			
	Heavy Equipment Manager			
	Master Police Officer I			
	Minimum Housing and Nuisance Abatement Supervisor			
	Senior IT Technician			

	Utility Control Room Supervisor			
20	Business Assistant/Analyst Chief Treatment Plant Operator Deputy Fire Marshal Electric Line Worker 1st Class Fiber Systems Technician Fire Captain IT Infrastructure Analyst IT Systems Analyst Key Accounts Analyst Laboratory Supervisor Master Police Officer II Planner II Project Coordinator Safety Officer Telemetry and Control Technician Treatment Plants Maint. Supervisor Water Resources Service Coordinator	52,275	68,678	85,079
21	Building & Grounds Maintenance Superintendent Building Inspector III Community Development Coordinator Facilities Maintenance Superintendent Fleet Maintenance Superintendent Master Police Officer III Parks Superintendent Purchasing and Warehouse Manager Recreation Superintendent Senior Accountant Stormwater Superintendent Waste Collection Superintendent Water Facilities Maintenance Superintendent Water/Sewer Construction Superintendent	54,890	72,111	89,333
22	City Clerk Planner III Police Sergeant Public Information Officer Utility Coordinator (Electric)	57,635	75,717	93,800
23	Electric Line Crew Leader Land & Community Development Administrator Metropolitan Planning Organization Administrator SCADA/Control Systems Supervisor Senior Financial and Budget Analyst Senior IT Analyst Streets Superintendent	60,516	79,502	98,489
24	Chief Building Inspector City Planner Fire Battalion Chief	63,541	83,477	103,414

	Fire Division Chief of Training			
	Fire Marshal/Division Chief of Fire Prevention			
	GIS Programmer Analyst			
	Staff Engineer			
	Support Services Division Chief			
	Utility Business Office Manager			
	Utility Maintenance Superintendent			
	Wastewater Treatment Plant Manager			
	Water Treatment Plant Manager			
25	Accounting Manager	66,719	87,652	108,584
	Assistant Director of Development Services			
	Assistant Director of Human Resources			
	Assistant Director of Public Works			
	Community & Economic Development Manager			
	Electric Substation Superintendent			
	GIS Manager			
	Police Lieutenant			
	Utility Business Operations Manager			
26	Electric Engineering Manager	70,054	92,034	114,014
27	Deputy Fire Chief/Operations Commander	73,557	96,636	119,715
	Police Captain			
28	Executive Director Redevelopment Commission	77,235	101,467	125,700
29	Deputy Chief of Police	81,096	106,541	131,985
	Electric Distribution Superintendent			
30		85,152	111,868	138,584
31	Transmission and Distribution Manager	89,409	117,461	145,513
32	Director of Human Resources	93,880	123,334	152,789
	Director of Information Technology			
	Director of Parks & Recreation			
33	City Engineer	98,575	129,501	160,429
	Director of Development Services			
	Director of Public Works			
	Director of Water Resources			
	Fire Chief			
34	Chief of Police	103,504	135,976	168,450
	Director of Finance			
	Director of Electric Utility			
35	Assistant City Manager	108,679	142,775	176,873

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting the Schedule of Fees and Charges Ordinance Amendment for Fiscal Year 2023-24

Date of Meeting: 6/13/2023	Ward # if applicable:
Department: Finance	Person Submitting Item: Kim Ostrom, Director of Finance
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	Amend the Schedule of Fees and Charges for FY 2023-24, effective July 1, 2023. Schedule of Fees and Charges with redline and Schedule of Fees and Charges without redline are attached.
Actions Needed by Board:	Adopt Ordinance Amendment for the FY 2023-24 Schedule of Fees and Charges
Backup Attached:	Memo; Ordinance
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:

Aldermen

Rick Prill
Hazel B. Royal
Robert V. Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



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(252) 636-4000

Jeffrey T. Odham
Mayor
Foster Hughes
City Manager
Brenda E. Blanco
City Clerk
Kimberly A. Ostrom
Director of Finance

TO: City Manager, Honorable Mayor and Members of the Board of Aldermen

FROM: Kim Ostrom - Director of Finance

DATE: May 31, 2023

RE: Adoption of the FY 2023-24 Annual Budget Ordinance

Background

The City of New Bern Schedule of Fees and Charges, adopted on January 24, 2023, should be amended to reflect proposed fee changes. These changes are included in the City Manager's recommended budget for FY 2023-24 as part of the revenue projections and will be effective July 1, 2023. Changes to the solid waste rates were also updated.

Current

These changes, additions and deletions are identified in red on the attached proposed City of New Bern Schedule of Fees and Charges. Please note fee amendments in the following sections:

- Section 3 Fire
- Section 5 Parks and Recreation
- Section 6 Development Services
- Section 7 Police
- Section 8 Public Assembly
- Section 9 Public Works
- Section 10 Refuse
- Section 11 Utilities – Electric, Water, and Sewer

Requested Action

It is requested that the Board consider adopting the attached FY 2023-24 Annual Budget Ordinance at its June 14, 2023 meeting.

**AN ORDINANCE TO AMEND
THE CITY OF NEW BERN SCHEDULE OF FEES AND CHARGES**

THAT WHEREAS, pursuant to the Code of Ordinances of the City of New Bern, upon recommendation from the City Manager, the Board of Aldermen of the City of New Bern desires to amend the City of New Bern "Schedule of Fees and Charges" adopted on January 24, 2023 by deleting the same in its entirety and adopting in its stead the attached "Schedule of Fees and Charges".

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

SECTION 1. That the City of New Bern "Schedule of Fees and Charges" adopted by the Board of Aldermen on January 24, 2023 is hereby amended by deleting the same in its entirety and adopting in its stead the attached "Schedule of Fees and Charges" to be effective as of July 1, 2023.

ADOPTED THIS 13th DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

SCHEDULE OF FEES AND CHARGES*
CITY OF NEW BERN
EFFECTIVE JULY 1, 2023
(Revised 6/13/2023)

1. ADMINISTRATIVE	FEES
CD or DVD	\$5
Copies - Other info not specifically listed	Minimum \$2.00 (1 - 10 copies) plus 20¢ each additional copy over 10
GIS Base Maps (8.5"x11")	B&W \$2; color \$3
GIS Base Maps (11"x17")	B&W \$3; color \$5
GIS Base Maps (24"x36")	B&W \$10; color \$15
GIS Base Maps (36"x48")	B&W \$15; color \$30
Plans/Plats (copies of) ariel view - letter size	\$5
Plans/Plats (copies of) ariel view - tabloid size	\$7.50
Plans/Plats (copies of) ariel view - large size	\$12.50
Maps - Other large formats	\$10.00
Maps - Street index map	\$15.00
Maps - Zoning	\$10 large; \$5 small
Maps - GIS staff time for non-existent maps or data:	
Analysis/Coordinator	\$50/hr
Technician	\$25/hr
Administration	\$20/hr
Motor vehicle fee	\$5
Publications:	
CAMA Land Use Plan	\$11
Historic Preservation Guidelines	\$11
Land Use Ordinance	\$12
Urban Design Plan	\$11
Street Atlas Book	\$25
Convenience fee for online payment	\$5
Returned payment fee	\$25
2. CEMETERIES: (Code Sections 18-26 and 18-32)	FEES
Opening/Closing:	
Weekdays before 4pm, adult	\$500 resident/\$750 nonresident
Weekdays before 4pm, infant/cremations/mausoleum	\$250 resident/\$500 nonresident
Weekdays after 4pm and weekends, adult	\$575 resident/\$1,000 nonresident
Weekdays after 4pm and weekends, infant/cremations/mausoleum	\$300 resident/\$500 nonresident
Holidays, adult	\$650 resident/\$1,000 nonresident
Holidays, infant/cremations/mausoleum	\$425 resident/\$750 nonresident
Wait time per hour (for noncompliance for "before 4pm" services that extend beyond 4pm)	\$150 resident/\$300 nonresident
Grave/Lot Sales - New Bern Memorial Cemetery:	
Plot - Single grave, resident	\$600
Plot - Single grave, nonresident	\$1,200
Plot - 4-Grave lot, resident	\$2,000
Plot - 4-Grave lot, nonresident	\$4,000
Plot - Infant grave, resident	\$100
Plot - Infant grave, nonresident	\$300
Plot - Mausoleum, resident	\$3,500
Plot - Mausoleum, nonresident	\$7,000
Plot - Cremations, resident	\$250
Plot - Cremations, nonresident	\$500
Transfer/resale of license (per grave)	\$25 resident-to-resident/\$100 nonresident
*This schedule of Fees and Charges establishes most of the fees and charges for services offered by the City of New Bern. It does not contain or establish all fines and penalties for violations of city code provisions, nor does it contain rates and charges for the provision of city utility services. In many instances, it will be necessary to refer to specific city code provisions, or to a specific utility rate-setting ordinance in order to determine when a fee, charge, rate or fine is to be imposed. For ease of reference, citations to applicable city code provisions are provided.	
3. FIRE: (Code Section 30-33)	FEES
Working without a permit	Cost of permit plus \$50
Fire Hydrant Flow Test (service provided by contractor and coordinated with fire inspector)	\$75/hydrant
Plan Review (Construction)	\$75
New Business Inspection	\$75
ABC/ALE Inspection	\$75
Special Requested Inspections	\$75
Care Homes (foster, respite, therapeutic)	\$75
2nd Reinspection (noncompliance when Codes ARE NOT met)	\$75
3rd Reinspection (noncompliance when Codes ARE NOT met)	\$150
Standby personnel-minimum 4-men engine company	\$250/hour
After hours fire inspection	\$150
Occupying building without a C/O or C/C	\$150

SCHEDULE OF FEES AND CHARGES*

CITY OF NEW BERN EFFECTIVE JULY 1, 2023 (Revised 6/13/2023)

Failure to obtain final inspection	\$100
Operational Permits:	
Amusement buildings	\$75
Carnivals and Fairs	\$75
Combustible dust-producing operations	\$75
Covered and open mall buildings	\$75
Exhibits and trade shows	\$75
Explosives	\$125
Flammable and combustible liquids (only mandated by NC Fire Prevention Code)	\$75
Fumigation and thermal insecticidal fogging	\$75
Liquid or gas vehicles or equipment in assembly buildings	\$75
Private fire hydrants	\$75
Pyrotechnic special effects material	\$125
Spraying or dipping	\$75
Temporary membrane structures and tents	\$75
Open burning - land clearing	\$50/acre cleared
Open burning - hazard reduction	No Fee
Open burning - camp fire	\$75
Construction Permits:	
Automatic fire extinguishing systems	\$100 + \$2 per head
Battery systems	\$75
Compressed gas	\$75
Cryogenic fluids	\$75
Emergency responder radio coverage systems	\$100 + \$2 per device
Fire alarm and detection systems and related equipment	\$100 + \$2 per device
Fire pump and related equipment	\$100
Flammable and combustible liquids (only mandated by NC Fire Prevention Code) (per tank if applicable)	\$75
Gates and barricades across fire apparatus access roads	\$75 per gate or barricade
Hazardous materials	\$75
Industrial ovens	\$75
Private fire hydrants	\$75 per hydrant
Smoke control or smoke exhaust systems	\$75
Solar photovoltaic power systems	\$75
Spraying or dipping	\$75
Standpipe systems	\$100
Storage Tank - AST/UST/Installation/Removal/Repiping/Abandonment	\$125
Temporary membrane structures and tents	\$75
Fire Main Inspection	\$100 + \$2 per foot of pipe
Life Safety Violation:	
1st Offense	\$100
2nd Offense	\$200
3rd Offense	\$300
4. PARKING: (Code Section 70-272)	FEES
Parking Spaces Monthly Fee: (billed annually)	\$35 Limited/\$45 Residential
Limited: 7:00am - 5:30pm - Monday to Friday	\$35
Residential: 24 hours	\$45
Sign Installation Fee - one-time fee for monthly spaces	\$20
Late Penalty - Parking leases billed and managed by Accounting (payment received after due date)	5% of monthly bill
Delinquent Fee - Parking leases billed and managed by Accounting (payment received 10+ days after due date)	\$30
Parking Penalties (Code Section 70-274)	\$25, see code for further details
Leased Space Parking Hangers	2 Free, \$3 each additional
5. PARKS AND RECREATION: (Code Section 50-2)	FEES
Athletics and Field Rentals:	
Admission fees for various activities (basketball, tournaments, outdoor concerts, etc) - Daily	not to exceed \$5
Admission fees for various activities (basketball, tournaments, outdoor concerts, etc) - Weekend	not to exceed \$13
Adult sports leagues - Men's basketball (per team)	\$350 resident/\$450 nonresident
Adult sports leagues - Adult 3 on 3 basketball (per team)	\$200 resident/\$275 non resident
Adult sports leagues - Women's basketball (per team)	\$350 resident/\$450 nonresident
Adult sports leagues - Men's flag football (per team)	\$250 resident/\$325 nonresident
Adult sports leagues - Kickball/Dodgeball/Wiffleball (per team)	\$200 resident/\$275 nonresident
Adult sports leagues - co-ed softball (per team)	\$400 resident/nonresident
Adult sports leagues - 5K events per participant	\$30 resident/\$45 nonresident
Adult sports leagues - Individual participation for all leagues	\$20 resident/\$30 nonresident

SCHEDULE OF FEES AND CHARGES*
CITY OF NEW BERN
EFFECTIVE JULY 1, 2023
(Revised 6/13/2023)

Adult sports leagues - Co-ed volleyball	\$35 resident/\$45 nonresident
Summer basketball program (Youth)	\$10 resident/\$15 nonresident
Summer basketball program (Adult)	\$15 resident/\$20 nonresident
Aquatic Center General Admission:	
Up to age 2	\$2.50 resident; \$3.25 nonresident
Parent and one child up to age 2 package	\$5.50 resident; \$6.75 nonresident
(\$1.00 for each additional child up to age 2. Limit of 3)	
Age 3-17	\$4.00 resident; \$5.00 nonresident
Age 18-54	\$4.50 resident; \$5.50 nonresident
Age 55 and up (seniors)	\$3.50 resident; \$4.50 nonresident
Aquatic Center Family Night:	
Up to age 2	\$1.00 resident; \$1.50 nonresident
Age 3-17	\$2.00 resident; \$2.50 nonresident
Age 18-54	\$2.50 resident; \$3.00 nonresident
Age 55 and up (seniors)	\$1.50 resident; \$2.00 nonresident
Aquatic Center season pass	\$60 resident; \$100 nonresident
Aquatic Center Pool Party:	
2 Hours - Up to 30 participants	\$150 resident; \$200 nonresident
31 or greater participants (per person)	\$5
Deposit - Refundable	\$50
Athletic Field - Ballfield Preparation (per field):	
Baseball/Softball	\$30
Football/Soccer/Lacrosse	\$100
Athletic field - Day use minimum 2 hours maximum 8 hours (additional after 8 hours):	
Civic organizations/private groups - city sponsored	N/C
Schools during school hours and/or athletic season	N/C
Recreation teams *	\$15/hr
Civic organizations/private groups not charging admission/donations*	\$20/hr resident; \$30/hr nonresident
*No charge if no field prep is done	
Civic organizations/private groups charging admission/donations	\$25/hr resident; \$50/hr nonresident
Athletic field - Night use minimum 2 hours maximum 4 lighted hours:	
Non-city recreation teams	\$30/hr
Civic organization/private groups - not charging admission/donations	\$25/hr resident; \$50/hr nonresident
Civic organizations/private groups charging admission/donations	\$40/hr resident; \$60/hr nonresident
Athletic field (full tournament not to exceed 3 days/2 nights)	\$350 + \$25/hr attendant fee
Athletic field (practice - night use - minimum 2 hours of light; not to exceed 4 hours)	\$20/hr resident; \$30/hr nonresident
EXCEPTION: Tournaments and other types of "special" events by non-profit "charitable" organizations for the purpose of fundraising for others are negotiated with and determined by the Parks and Recreation Department.	
Batting cages, parties only (2 hours). Available offseason only.	\$30
Bleacher rentals (daily rental fees)	\$100 (small); \$150 (medium); \$300 (large)
Deposit of 1/2 rental fee required per bleacher, refundable only upon evaluation (returned as rented)	(1-4 sets)
Recreation Programs:	
Childcare after-school recreation program (resident)	\$35/wk
Childcare after-school recreation program (non-resident)	\$50/wk
Classes - Adult recreation & fitness (annual) indoor	\$30 resident/\$35 nonresident
Classes - Adult recreation & fitness outdoor (20 city/80 split with instructor)	\$6 per class
Classes - Art (resident) includes instructor fee & some materials (20 city /80 split with instructor)	\$20-\$150
Classes - Art (nonresident) includes instructor fee & some materials	\$40-\$200
Classes - Ceramics (resident)	\$30; seniors \$25
Classes - Ceramics (nonresident)	\$40; seniors \$30
Dog Park:	
Yearly 1 dog	\$25 resident/\$50 nonresident
Each additional dog	\$20 resident/\$35 nonresident
One day pass	\$5 resident/\$15 nonresident
Weekend pass	\$15 resident/\$25 nonresident
Monthly pass	\$20 resident/\$25 nonresident
Honor/Memory Programs:	
Tree purchase program	\$150 - \$250 depending on the species
Memory bench program - new	\$750/bench (includes placard)
Memory bench program - existing	\$600/bench (includes placard)
Brick Pavers	\$75
Kidsville Pickets	\$50
Kidsville Tiles	\$25

SCHEDULE OF FEES AND CHARGES*
CITY OF NEW BERN
EFFECTIVE JULY 1, 2023
(Revised 6/13/2023)

Facility Rates (Recreation Centers, 408 Hancock, Community Center):	
Multi-purpose room rental (2 hours minimum):	
Resident	\$30/hr
Nonresident	\$45/hr
Gym rental (2 hours minimum):	
Resident	\$40/hr
Nonresident	\$55/hr
Meeting room rental (2 hours minimum):	
Resident	\$25
Nonresident	\$35
Gym - walk-in (1 day)	\$1
Gym - contracted lessons (Parks & Recreation receives 20% of fee)	80/20% split
Kitchen rental:	
Resident	\$25/hr
Nonresident	\$35/hr
Facility rental deposit	\$50
Admission Rate	\$25/hr
(If admission is charged, this additional hourly rate applies to each room rented)	
After hours rentals (per room) shall incur an additional rental rate and staff supervisor fee	\$15/hr room rental + \$20/hr staff
Park Fees:	
Gazebo rental (Union Point Park)	\$40/hr resident; \$70/hr nonresident
Union Point Park Green space - per side (adjacent to gazebo)	\$50/hr resident; \$80/hr nonresident
Park Green Space - Small	\$40/hr resident; \$70/hr nonresident
Park Green Space - Medium	\$50/hr resident; \$80/hr nonresident
Park Green Space - Large	\$60/hr resident; \$90/hr nonresident
Shelter Reservation:	
Resident (half day - up to 4 hours)	\$20 - \$50 based on location
Nonresident (half day - up to 4 hours)	\$30 - \$60 based on location
Resident (full day - up to 8 hours)	\$30 - \$60 based on location
Nonresident (full day - up to 8 hours)	\$40 - \$80 based on location
Sprayground (Daily admission before noon for group reservations)	\$1 resident/\$3 nonresident
Summer camps:	
Bear Bunch Camp (per session)	\$75 resident/\$95 nonresident
Cooking Camp	\$105 resident/\$125 nonresident
Sports Camp	\$75 resident/\$95 nonresident
Teen Camp	\$75 resident/\$95 nonresident
Y.E.S. Camp	\$35 for 1st/\$30 each additional resident
	\$45 for 1st/\$40 each additional nonresident
Adventure Camp	\$100 resident/\$125 nonresident
Swim lesson sessions - 8 classes per session	\$40 resident/\$70 nonresident
(Reduced rate of \$10 per session available for City residents who qualify (application available))	
Youth Sports:	
Youth football and cheerleading	\$50 resident/\$80 nonresident
Youth basketball	\$40 resident/\$70 nonresident
Youth baseball	\$20-\$40 resident/\$30-\$50 nonresident
Youth soccer	\$40 resident/\$70 nonresident
Youth lacrosse	\$40 resident/\$70 nonresident
Youth road races (per participant)	\$30 resident/\$45 nonresident
Fishing Tournament Attendant (opening/closing)	\$25/hour
Community Garden (per space)	\$25
Wedding Permit (City parks or green spaces)	\$100 resident/\$200 nonresident
Mobile Recreation Unit (2 hour minimum)	\$125/hour
Canoe/Kayak Rentals (2 hours)	\$15/\$10 each additional hour
Pedal boat	\$10/hour
Specialty Day Camp (One Week)	\$50 resident/\$75 nonresident
Mobile Stage (20'x24') Daily Rental	\$2,000.00
Mobile Stage Pieces (4'x8') Daily Rental	\$10 per piece
Mobile Stage Deposit (Refundable)	\$500.00
Staff Supervision Rate (2 staff minimum)	\$35.00/hour per staff
NOTE: Indoor facility rentals are limited to 10 hours per day, and outdoor facility rentals are limited to 12 hours per day. Rentals exceeding these hours will require director's approval.	
6. Development Services:	
Planning Fees:	
Certificate of zoning compliance letter	\$30
Historic Preservation - Minor works	\$50
Historic Preservation - After the fact minor fee	\$150

SCHEDULE OF FEES AND CHARGES*
CITY OF NEW BERN
EFFECTIVE JULY 1, 2023
(Revised 6/13/2023)

Historic Preservation - Major works requiring design review	\$150
Historic Preservation - After the fact major fee	\$300
Family Care facility approval	\$50
Modification of land use ordinance zoning map	\$500
Modification of land use ordinance text amendment	\$300
Site Plan review	\$375
Special use permit	\$375
P&Z General Subdivision Plan Review Application	\$250 + \$25/acre
Subdivision application - final review	\$400
Subdivision application - minor plats & recombination	\$50
Telecommunication - New wireless support structure	\$1,500
Telecommunication - other	\$500
Zoning compliance permit	\$50
Administrative Fees:	
Starting work without a permit	Double the permit fee
Inspection Fees:	
Residential: Building Permit new/addition	\$550 first 1,000 sf + .25/sf over
Residential Renovations	\$75 + .20/sf
Commercial: Building Permit new/addition	\$800 first 1,000 sf + .25/sf over
Commercial Renovation/upfit	\$125 + .20/sf
Demolition	Residential \$175; Commercial \$225
Residential singlewide manufactured home	\$200
Residential multiwide manufactured home or modular	\$300
Temporary Certificate of Occupancy	\$125, 30 days
Inspections - Reinspection (building, electrical, plumbing, HVAC, insulation)	\$75/each
Inspections - Plan Review Residential	\$75
Inspections - Plan Review Commercial	\$150
Residential Electrical new/addition/renovation	\$75 + .10/sf
Commercial Electrical new/addition/renovation	\$125 + .10/sf
Shell up to 20,000 sf	\$800
Shell more than 20,000 sf	\$2,000
Residential Gas Piping new/addition/renovation	\$75 + \$20/appliance
Commercial Gas Piping new/addition/renovation	\$125 + \$20/appliance
House Moving Permit	\$300
Residential Insulation	\$75
Commercial Insulation	\$125
Residential Mechanical new/addition/renovation	\$125/unit
Residential Mechanical Ductwork	\$75
Commercial Mechanical new/addition/renovation	\$125/unit
Commercial Mechanical Ductwork	\$125
Residential Plumbing new/addition/renovation	\$75 + \$10/fixture
Commercial Plumbing new/addition/renovation	\$125 + \$10/fixture
Sign Building Permit	\$125
Residential Roofing	\$125
Residential Deck/carport/pool/pre-built shed (up to 400 sf)	\$125
Residential Dock/pier	\$125
Residential Bulkhead/retaining wall	\$125
Residential Rooftop Solar array	\$125
Commercial Roofing	\$250
Commercial Modular/job trailer	\$125
Commercial Cell tower alteration	\$200
Commercial Dock/pier	\$125 + .10/sf
Commercial Bulkhead/retaining wall	\$125 + .10/lf
Commercial Fuel Tanks	\$125 per tank
Commercial Solar Farm	\$5/panel first + 200 \$1/panel each additional
Single trade-minimum fee permits:	
Mechanical, Fuel Piping, Plumbing, Electrical Residential	\$75
Mechanical, Fuel Piping, Plumbing, Electrical Commercial	\$125
Miscellaneous Fees:	
Floodplain Development Permit	\$100
Homeowners Recovery Fee	\$10
ABC Compliance Inspection	\$75
Permit Modification	\$25
Sign Return	\$10 per sign
Permit - Tree Removal	\$25

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7. POLICE: (Code Section 42-32)	FEES
Accident report	No charge
Citizens Academy fee	\$25
False Alarm	\$50 on and after 3rd offense
Alarm Registration Fee	\$25
Alarm Reinstatement Fee	\$50
Non-Permitted Alarm System	\$250
Alarm Appeal Fee	\$25
Illegal Use of Automatic Voice Dialer	\$100
Fingerprinting	\$10
Funeral escorts	\$50 per escort with 48 hours notice; \$100 per escort without 48 hours notice
Off Duty Fee	\$45/hr - 3 hours minimum paid to officer
Off Duty Fee for Federal/City Holiday	\$45/hr - 3 hours minimum paid to officer
Pawnbroker - initial license application fee	\$50
Pawnbroker - renewal license fee	\$25
Permit - Alarm Registration (first permit/annual renewal)	\$25
Permit - Alarm failure to register	No charge
Permit - Outdoor amplified sound	No charge
Vicious, Dangerous, or potentially Dangerous Dog Registration fee (annual)	\$100
Vicious Dog Permit Fee (annual)	\$500
Vicious, Dangerous, or potentially Dangerous Dog Appeal	\$50
Precious Metal Permits:	
Dealer permits (annual)	\$180
Special occasion permit	\$180
Employee certificate of compliance	\$10
Employee certificate of compliance (annual renewal fee)	\$10
Fingerprints (processed for dealer permits - SBI fee)	\$38
Wrecker - (includes inspection)	\$250 to be on rotation list
Parking Penalties (Code Section 70-235)	\$25, see code for further details
8. PUBLIC ASSEMBLY (PARADES AND FESTIVALS): (Code Section 66-86)	FEES
City Sponsored Event Fees:	
Vendor Permit Fee	\$25
Food Vendor Service Fee	\$35
NonCity Sponsored Event Fees:	
Vendor Permit Fee	\$35
Food Vendor Service Fee	\$45
Barricade (A-Frame)	\$5
Barricade (concrete/water filled) + labor rates for minimum of 3 staff required for setup	\$60
Safety cones	\$2
City Labor: (Hourly Rates)	
Fire	\$50
Police	\$45
Public Works	\$45
Recreation	\$45
9. PUBLIC WORKS: (Code Sections 66-12)	FEES
Repair Fees:	
Labor	Hourly rate with benefits*
Material	Actual cost
Equipment trucks	Hourly rate per FEMA schedule*
*See explanation at the end of this Fee Schedule	
Permit - Sidewalk Café	\$150
Permit - Street Café	\$150
Permit - Nonprofit street banners	\$75
Permit - Driveway (includes 1st inspection)	\$30
Permit - Driveway Re-Inspection	\$20
Public nuisance	Hourly equip rate per FEMA schedule + labor
Safety cones (use)	\$2
Safety cones (replacement)	\$25
Signs - regulatory/right-of-way	Material cost + labor
Signs - Community watch	Material cost + labor
Signs - Handicapped	Material cost + labor
Signs - Hardware (1 set)	Material cost + labor
Signs - Maximum penalty	Material cost + labor
Signs - No parking-fire lane	Material cost + labor

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Signs - Van accessible	Material cost + labor
Street closings (right-of-way abandonments)	\$500 plus cost of advertising
10. REFUSE: (Code Section 62-37)	FEES
Commercial refuse (65-gal cart / 1x week service)	\$19.00/month + \$19.00 each additional
Dumpster services - 2 yd (1x week service)	\$34.50/month
Dumpster services - 4 yd (1x week service)	\$68.50/month
Dumpster services - 6 yd (1x week service)	\$100.00/month
Dumpster services - 8 yd (1x week service)	\$135.00/month
Refuse container	1 at no charge
Residential service (65-gal cart / 1x week service)	\$19.00
Seniors Exemption Credit	50% of residential service
11. UTILITIES: Electric, Water, and Sewer (Code Section 74-46, 74-97, 74-101, and 74-121)	FEES
Electric rates	See rate ordinance adopted 6/14/22
Water & Sewer System Development Fees & Connection Fees	See ordinance adopted 6/12/18
Water & Sewer Rates	See ordinance adopted 6/23/15
Additional fee if service needs to be disconnected by	
City personnel at pole due to meter-service tampering	\$160
City personnel at pole due to delinquency	\$160
Changed payment arrangement fee	\$30
New service connection/transfer fee: requests after 11 am are next day service	\$30
New service connection/transfer fee added for same day request after 11 am	\$45
Delinquent Fee (for bills unpaid after 10th day following due date)	\$30
Deposit - Residential (exempt with excellent credit score)	2x highest bills in last 24 months
(refunded after 18 months with good payment history)	Not to exceed \$500
Deposit - Commercial/Industrial (refunded after 60 months with good payment history)	2x highest bills in last 24 months
Fee if payment is not made in night drop as agreed	\$100
Late penalty (payments received after due date)	5% of monthly bill
Meter change out fee	\$155
Meter Diversion Fee (Meter Tampering Investigation)	\$400
Meter test for meters less than 5 years old payable in advance (refunded if meter fails test)	\$75
Payment Arrangement Fee	No charge
Reconnection for Non-payment Fee weekdays 8am-5pm	No charge
Reconnection for Non-payment Fee weekdays 5pm-11pm	\$75
Reconnection for Non-payment Fee weekends 8am-11pm	\$75
Temporary electric service and/or utility pole (utility determines location)	See Customer Service Guidelines
Load management switch recovery fee	Cost of switch from latest bid
Extra facilities charge	2% installed costs minimum 5 years, \$75/month
Additional pole	\$350
OH extension beyond two pole spans	\$1.05/ft.
UG line extension beyond 300 ft.	\$7.70/ft.
OH to UG conversion of service	\$735
UG Crossings including streets, sidewalks, driveways and other obstacles	Time, material and equipment. See repair fee below
Underground service length	\$7.70
Cost per linear foot	\$6.43
Second trip to site	\$310
Service drop after normal working hours (24-hour notice required)	\$100/hr 2 hours minimum; if service is required to be reconnected, a minimum charge of 4 hours applies
Construction/Maintenance/Repair Fees:	
Labor	Hourly rate with benefits
Material	Actual cost of material
Vehicles and specialized equipment	FEMA hourly rate schedule
Contractual services	Actual cost of service
General overhead	10% calculated after labor, material, equipment and contractual services
12. UTILITIES - SEWER PRETREATMENT: (Code Sections 74-196)	FEES
Pretreatment Programs Fees for SIU's:	
Pretreatment - Permit Application	\$500
Pretreatment - Permit Modification	\$250
Pretreatment - Permit renewal	\$500
Pretreatment - Annual administrative fee	\$300
Pretreatment - Annual inspection	\$100
Pretreatment - Permit fine	\$250

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Pretreatment - Administrative fee for monthly review	\$100/month
Pretreatment - Unscheduled sampling	Contract analyses charges
Pretreatment - Permit limit violation	\$100
Pretreatment - Technical review criteria	\$250
Pretreatment - Significant noncompliance	\$500
Pretreatment - BOD:	
Surcharge ceiling conc. (mg/L)	\$350
Surcharge cost per pound	\$0.15
Charge for analysis	Contract labor cost
Pretreatment - TSS:	
Surcharge ceiling conc. (mg/L)	\$250
Surcharge cost per pound	\$0.27
Charge for analysis	Contract labor cost
<p>FEMA - Rates denoted as "FEMA" shall be the rates in effect at the time services are performed as provided by the United States Department of Homeland Security Federal Emergency Management Agency's Public Assistance Program and Policy Guide, FP 104-009-2. Equipment rates may be found at https://www.fema.gov/assistance/public/schedule-equipment-rates. Specific equipment not listed shall have a rate based on the rate of the nearest larger piece of equipment.</p>	
<p>Labor - Standard and overtime hourly labor rates are adjusted annually and applied to the service performed. Labor rates include, but are not limited to, benefits, taxes, social security, Medicare, retirement, workers compensation and health insurance. Annual labor rates are available upon request.</p>	

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1. ADMINISTRATIVE	FEES
CD or DVD	\$5
Copies - Other info not specifically listed	Minimum \$2.00 (1 - 10 copies) plus 20¢ each additional copy over 10
GIS Base Maps (8.5"x11")	B&W \$2; color \$3
GIS Base Maps (11"x17")	B&W \$3; color \$5
GIS Base Maps (24"x36")	B&W \$10; color \$15
GIS Base Maps (36"x48")	B&W \$15; color \$30
Plans/Plats (copies of) ariel view - letter size	\$5
Plans/Plats (copies of) ariel view - tabloid size	\$7.50
Plans/Plats (copies of) ariel view - large size	\$12.50
Maps - Other large formats	\$10.00
Maps - Street index map	\$15.00
Maps - Zoning	\$10 large; \$5 small
Maps - GIS staff time for non-existent maps or data:	
Analysis/Coordinator	\$50/hr
Technician	\$25/hr
Administration	\$20/hr
Motor vehicle fee	\$5
Publications:	
CAMA Land Use Plan	\$11
Historic Preservation Guidelines	\$11
Land Use Ordinance	\$12
Urban Design Plan	\$11
Street Atlas Book	\$25
Convenience fee for online payment	\$5
Returned payment fee	\$25
2. CEMETERIES: (Code Sections 18-26 and 18-32)	FEES
Opening/Closing:	
Weekdays before 4pm, adult	\$500 resident/\$750 nonresident
Weekdays before 4pm, infant/cremations/mausoleum	\$250 resident/\$500 nonresident
Weekdays after 4pm and weekends, adult	\$575 resident/\$1,000 nonresident
Weekdays after 4pm and weekends, infant/cremations/mausoleum	\$300 resident/\$500 nonresident
Holidays, adult	\$650 resident/\$1,000 nonresident
Holidays, infant/cremations/mausoleum	\$425 resident/\$750 nonresident
Wait time per hour (for noncompliance for "before 4pm" services that extend beyond 4pm)	\$150 resident/\$300 nonresident
Grave/Lot Sales - New Bern Memorial Cemetery:	
Plot - Single grave, resident	\$600
Plot - Single grave, nonresident	\$1,200
Plot - 4-Grave lot, resident	\$2,000
Plot - 4-Grave lot, nonresident	\$4,000
Plot - Infant grave, resident	\$100
Plot - Infant grave, nonresident	\$300
Plot - Mausoleum, resident	\$3,500
Plot - Mausoleum, nonresident	\$7,000
Plot - Cremations, resident	\$250
Plot - Cremations, nonresident	\$500
Transfer/resale of license (per grave)	\$25 resident-to-resident/\$100 nonresident
*This schedule of Fees and Charges establishes most of the fees and charges for services offered by the City of New Bern. It does not contain or establish all fines and penalties for violations of city code provisions, nor does it contain rates and charges for the provision of city utility services. In many instances, it will be necessary to refer to specific city code provisions, or to a specific utility rate-setting ordinance in order to determine when a fee, charge, rate or fine is to be imposed. For ease of reference, citations to applicable city code provisions are provided.	
3. FIRE: (Code Section 30-33)	FEES
Working without a permit	Cost of permit plus \$50
Fire Hydrant Flow Test (service provided by contractor and coordinated with fire inspector)	\$50 \$75 /hydrant
Plan Review (Construction)	\$50 \$75
New Business Inspection	\$50 \$75
ABC/ALE Inspection	\$50 \$75
Special Requested Inspections	\$50 \$75
Care Homes (foster, respite, therapeutic)	\$50 \$75
2nd Reinspection (noncompliance when Codes ARE NOT met)	\$75
3rd Reinspection (noncompliance when Codes ARE NOT met)	\$150
Standby personnel-minimum 4-men engine company	FEMA-equipment rate-plus-labor \$250 /hour
After hours fire inspection	\$150
Occupying building without a C/O or C/C	\$150

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Failure to obtain final inspection	\$100
Operational Permits:	
Amusement buildings	\$75
Carnivals and Fairs	\$75
Combustible dust-producing operations	\$75
Covered and open mall buildings	\$75
Exhibits and trade shows	\$75
Explosives	\$125
Flammable and combustible liquids (only mandated by NC Fire Prevention Code)	\$75
Fumigation and thermal insecticidal fogging	\$75
Liquid or gas vehicles or equipment in assembly buildings	\$75
Private fire hydrants	\$75
Pyrotechnic special effects material	\$125
Spraying or dipping	\$75
Temporary membrane structures and tents	\$75
Open burning - land clearing	\$50/acre cleared
Open burning - hazard reduction	No Fee
Open burning - camp fire	\$75
Construction Permits:	
Automatic fire extinguishing systems	\$100 +\$2 per head
Battery systems	\$75
Compressed gas	\$75
Cyrogenic fluids	\$75
Emergency responder radio coverage systems	\$75 \$100 + \$2 per device
Fire alarm and detection systems and related equipment	\$100 + \$2 per device
Fire pump and related equipment	\$100
Flammable and combustible liquids (only mandated by NC Fire Prevention Code) (per tank if applicable)	\$75
Gates and barricades across fire apparatus access roads	\$75 per gate or barricade
Hazardous materials	\$75
Industrial ovens	\$75
Private fire hydrants	\$75 per hydrant
Smoke control or smoke exhaust systems	\$75
Solar photovoltaic power systems	\$75
Spraying or dipping	\$75
Standpipe systems	\$100
Storage Tank - AST/UST/Installation/Removal/Repiping/Abandonment	\$125
Temporary membrane structures and tents	\$75
Fire Main Inspection	\$100 + \$2 per foot of pipe
Life Safety Violation:	
1st Offense	\$100
2nd Offense	\$200
3rd Offense	\$300
4. PARKING: (Code Section 70-272)	FEES
Parking Spaces Monthly Fee: (billed annually)	\$35 Limited/\$45 Residential
Limited: 7:00am - 5:30pm - Monday to Friday	\$35
Residential: 24 hours	\$45
Sign Installation Fee - one-time fee for monthly spaces	\$20
Late Penalty - Parking leases billed and managed by Accounting (payment received after due date)	5% of monthly bill
Delinquent Fee - Parking leases billed and managed by Accounting (payment received 10+ days after due date)	\$30
Parking Penalties (Code Section 70-274)	\$25, see code for further details
Leased Space Parking Hangers	2 Free, \$3 each additional
5. PARKS AND RECREATION: (Code Section 50-2)	FEES
Athletics and Field Rentals:	
Admission fees for various activities (basketball, tournaments,outdoor concerts, etc) - Daily	not to exceed \$5
Admission fees for various activities (basketball, tournaments,outdoor concerts, etc) - Weekend	not to exceed \$13
Adult sports leagues - Men's basketball (per team)	\$350 resident/\$450 nonresident
Adult sports leagues - Adult 3 on 3 basketball (per team)	\$200 resident/\$275 non resident
Adult sports leagues - Women's basketball (per team)	\$350 resident/\$450 nonresident
Adult sports leagues - Men's flag football (per team)	\$250 resident/\$325 nonresident
Adult sports leagues - Kickball/Dodgeball/Wiffleball (per team)	\$200 resident/\$275 nonresident
Adult sports leagues - co-ed softball (per team)	\$400 resident/nonresident
Adult sports leagues - 5K events per participant	\$30 resident/\$45 nonresident
Adult sports leagues - Individual participation for all leagues	\$20 resident/\$30 nonresident

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Adult sports leagues - Co-ed volleyball	\$35 resident/\$45 nonresident
Summer basketball program (Youth)	\$10 resident/\$15 nonresident
Summer basketball program (Adult)	\$15 resident/\$20 nonresident
Aquatic Center General Admission:	
Up to age 2	\$2.50 resident; \$3.25 nonresident
Parent and one child up to age 2 package	\$5.50 resident; \$6.75 nonresident
(\$1.00 for each additional child up to age 2. Limit of 3)	
Age 3-17	\$4.00 resident; \$5.00 nonresident
Age 18-54	\$4.50 resident; \$5.50 nonresident
Age 55 and up (seniors)	\$3.50 resident; \$4.50 nonresident
Aquatic Center Family Night:	
Up to age 2	\$1.00 resident; \$1.50 nonresident
Age 3-17	\$2.00 resident; \$2.50 nonresident
Age 18-54	\$2.50 resident; \$3.00 nonresident
Age 55 and up (seniors)	\$1.50 resident; \$2.00 nonresident
Aquatic Center season pass	\$60 resident; \$100 nonresident
Aquatic Center Pool Party:	
2 Hours - Up to 30 participants	\$150 resident; \$200 nonresident
31 or greater participants (per person)	\$5
Deposit - Refundable	\$50
Athletic Field - Ballfield Preparation (per field):	
Baseball/Softball	\$30
Football/Soccer/Lacrosse	\$100
Athletic field - Day use minimum 2 hours maximum 8 hours (additional after 8 hours):	
Civic organizations/private groups - city sponsored	N/C
Schools during school hours and/or athletic season	N/C
Recreation teams *	\$15/hr
Civic organizations/private groups not charging admission/donations*	\$20/hr resident; \$30/hr nonresident
*No charge if no field prep is done	
Civic organizations/private groups charging admission/donations	\$25/hr resident; \$50/hr nonresident
Athletic field - Night use minimum 2 hours maximum 4 lighted hours:	
Non-city recreation teams	\$30/hr
Civic organization/private groups - not charging admission/donations	\$25/hr resident; \$50/hr nonresident
Civic organizations/private groups charging admission/donations	\$40/hr resident; \$60/hr nonresident
Athletic field (full tournament not to exceed 3 days/2 nights)	\$350 + \$25/hr attendant fee
Athletic field (practice - night use - minimum 2 hours of light; not to exceed 4 hours)	\$20/hr resident; \$30/hr nonresident
EXCEPTION: Tournaments and other types of "special" events by non-profit "charitable" organizations for the purpose of fundraising for others are negotiated with and determined by the Parks and Recreation Department.	
Batting cages, parties only (2 hours). Available offseason only.	\$30
Bleacher rentals (daily rental fees)	\$100 (small); \$150 (medium); \$300 (large)
Deposit of 1/2 rental fee required per bleacher, refundable only upon evaluation (returned as rented)	(1-4 sets)
Recreation Programs:	
Childcare after-school recreation program (resident)	\$35/wk
Childcare after-school recreation program (non-resident)	\$50/wk
Classes - Adult recreation & fitness (annual) indoor	\$30 resident/\$35 nonresident
Classes - Adult recreation & fitness outdoor (20 city/80 split with instructor)	\$6 per class
Classes - Art (resident) includes instructor fee & some materials (20 city /80 split with instructor)	\$20-\$150
Classes - Art (nonresident) includes instructor fee & some materials	\$40-\$200
Classes - Ceramics (resident)	\$30; seniors \$25
Classes - Ceramics (nonresident)	\$40; seniors \$30
Dog Park:	
Yearly 1 dog	\$25 resident/\$50 nonresident
Each additional dog	\$20 resident/\$35 nonresident
One day pass	\$5 resident/\$15 nonresident
Weekend pass	\$15 resident/\$25 nonresident
Monthly pass	\$20 resident/\$25 nonresident
Honor/Memory Programs:	
Honor tree program	\$300 tree resident; \$350 nonresident
Tree purchase program	\$150 - \$250 depending on the species
Memory bench program - new	\$750/bench (includes placard)
Memory bench program - existing	\$600/bench (includes placard)
Brick Pavers	\$75
Kidsville Pickets	\$50

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Kidsville Tiles	\$25
Facility Rates (Recreation Centers, 408 Hancock, Community Center):	
Multi-purpose room rental (2 hours minimum):	
Resident	\$30/hr
Nonresident	\$45/hr
Gym rental (2 hours minimum):	
Resident	\$40/hr
Nonresident	\$55/hr
Meeting room rental (2 hours minimum):	
Resident	\$25
Nonresident	\$35
Gym - walk-in (1 day)	\$1
Gym - contracted lessons (Parks & Recreation receives 20% of fee)	80/20% split
Kitchen rental:	
Resident	\$25/hr
Nonresident	\$35/hr
Facility rental deposit	\$50
Admission Rate	\$25/hr
(If admission is charged, this additional hourly rate applies to each room rented)	
After hours rentals (per room) shall incur an additional rental rate and staff supervisor fee	\$15/hr room rental + \$20/hr staff
Park Fees:	
Gazebo rental (Union Point Park)	\$40/hr resident; \$70/hr nonresident
Union Point Park Green space - per side (adjacent to gazebo)	\$50/hr resident; \$80/hr nonresident
Park Green Space - Small	\$40/hr resident; \$70/hr nonresident
Park Green Space - Medium	\$50/hr resident; \$80/hr nonresident
Park Green Space - Large	\$60/hr resident; \$90/hr nonresident
Shelter Reservation:	
Resident (half day - up to 4 hours)	\$20 - \$50 based on location
Nonresident (half day - up to 4 hours)	\$30 - \$60 based on location
Resident (full day - up to 8 hours)	\$30 - \$60 based on location
Nonresident (full day - up to 8 hours)	\$40 - \$80 based on location
Sprayground (Daily admission before noon for group reservations)	\$1 resident/\$3 nonresident
Summer camps:	
Bear Bunch Camp (per session)	\$75 resident/\$95 nonresident
Cooking Camp	\$105 resident/\$125 nonresident
Sports Camp	\$75 resident/\$95 nonresident
Teen Camp	\$75 resident/\$95 nonresident
Y.E.S. Camp	\$35 \$25 for 1st/\$30 \$20 each additional resident \$45-\$35 for 1st/\$40 \$30 each additional nonresident
Adventure Camp	\$100 resident/\$125 nonresident
Swim lesson sessions - 8 classes per session	\$40 resident/\$70 nonresident
(Reduced rate of \$10 per session available for City residents who qualify (application available))	
Youth Sports:	
Youth football and cheerleading	\$50 resident/\$80 nonresident
Youth basketball	\$40 resident/\$70 nonresident
Youth baseball	\$20-\$40 resident/\$30-\$50 nonresident
Youth soccer	\$40 resident/\$70 nonresident
Youth lacrosse	\$40 resident/\$70 nonresident
Youth road races (per participant)	\$30 resident/\$45 nonresident
Fishing Tournament Attendant (opening/closing)	\$25/hour
Community Garden (per space)	\$25
Wedding Permit (City parks or green spaces)	\$100 resident/\$200 nonresident
Mobile Recreation Unit (2 hour minimum)	\$125/hour
Canoe/Kayak Rentals (2 hours)	\$15/\$10 each additional hour
Pedal boat	\$10/hour
Specialty Day Camp (One Week)	\$50 resident/\$75 nonresident
Mobile Stage (20'x24') Daily Rental	\$2,000.00
Mobile Stage Pieces (4'x8') Daily Rental	\$10 per piece
Mobile Stage Deposit (Refundable)	\$500.00
Staff Supervision Rate (2 staff minimum)	\$35.00/hour per staff
NOTE: Indoor facility rentals are limited to 10 hours per day, and outdoor facility rentals are limited to 12 hours per day. Rentals exceeding these hours will require director's approval.	
6. Development Services:	FEES
Planning Fees:	

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Certificate of zoning compliance letter	\$27 \$30
Conditional-use permit	\$375
Historic Preservation - Minor works	\$22 \$50
Historic Preservation - After the fact minor fee	\$150
Historic Preservation - Major works requiring design review	\$107 \$150
Historic Preservation - After the fact major fee	\$300
Historic preservation - Major works not requiring design review	\$27
Homeowners Recovery Fee (single family dwelling-only)	\$40
Family Care facility approval	\$50
Modification of land use ordinance zoning map	\$500
Modification of land use ordinance text amendment	\$300
Site Plan review	\$214 \$375
Special use permit	\$324 \$375
Subdivision-plan review	\$161
P&Z General Subdivision Plan Review Application	\$161 or \$11/lot whichever is greater \$250 + \$25/acre
Subdivision application - final review	\$214 or \$27/lot whichever is greater \$400
Subdivision application - minor plats & recombination	\$107 \$50
Telecommunication - New wireless support structure	\$1,500-per section 15-170 of Other Land Use Ordinance
Telecommunication - other	\$500
Zoning compliance permit	\$22 \$50
Zoning compliance - Residential flood plain	\$54
Zoning compliance - Commercial flood plain	\$107
Zoning permit	\$38
Administrative Fees:	
-Weed and debris clearance	\$71
-Removing abandoned vehicles	\$71
-Boarding up buildings (MHC)	\$84
Starting work without a permit	1st: \$107+permit; 2nd: \$161+permit; 3rd: \$214+permit; 4th: \$268+permit Double the permit fee
Convenience fee for online payment	\$5
Inspection Fees:	
Building permit (+ \$17 compliance fee):	
Residential: Single family/townhouse/duplex - per unit for multicomplex Building Permit new/addition	Heated \$0.21/sf; Unheated \$0.16/sf \$550 first 1,000 sf + .25/sf over
Building permit-Residential Renovations to existing bldg (+ \$17 compliance fee)	\$0.16/sf; Minimum \$38 \$75 + .20/sf
Minimum charge \$38	
Commercial: minimum charge \$38 Building Permit new/addition	\$0.18/sf \$800 first 1,000 sf + .25/sf over
Commercial Renovation/upfit	\$125 + .20/sf
Building permit- Demolition-(+ \$17 compliance fee)	Residential \$161 \$175; Commercial \$321 \$225
Residential singlewide manufactured home	\$200
Residential multiwide manufactured home or modular home: singlewide/construction trailer; doublewide; triplewide (per unit for multicomplex)	\$107; \$161; \$214 \$300
Certificate of occupancy	\$27/unit
Temporary Certificate of Occupancy	\$50 \$125, 30 days
First Extension of Temporary Certificate of Occupancy	\$300, 30 days
All Extension of Temporary Certificate of Occupancy thereafter	\$500, every 30 days
Inspections:	Incl. in building permit fee
Inspections - Building compliance	\$107 residential; \$161 commercial
	\$75-group homes
Inspections - Minimum housing as notified by Customer Service cutoffs	\$38
Inspections - Reinspection (building, electrical, plumbing, HVAC, insulation)	\$75/each
Inspections - Plan review, residential up to 1,500 sf-Plan Review Residential	\$54 \$75
Inspections - Plan review, residential over 1,500 sf	\$81
Inspections - Plan review, commercial up to 20,000 sf-Plan Review Commercial	\$214 \$150
Inspections - Plan review, commercial 20,001-40,000 sf	\$268
Inspections - Plan review, commercial 40,001 or greater	\$428
Permit - Electrical (signs & billboards)	\$43
Permit - Electrical (temporary buildings)	\$100
Residential Electrical new/addition/renovation	\$75 + .10/sf
Commercial Electrical new/addition/renovation	\$125 + .10/sf
Shell up to 20,000 sf	\$800

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Shell more than 20,000 sf	\$2,000
Permit-Electrical	60-150 amp-\$54; 200 amp-\$65
	400 amp-\$75; 401-600 amp-\$86
	601-800 amp-\$97
	801-1000 amp-\$107
	1001-1600 amp-\$118
	over 1600 amp-\$120 + \$11 for each additional 100 amp
Permit-Electrical heating & cooling	\$17/each
Permit-Electrical outlets & wall switches	\$33 for 1-5; \$43 for 6-50;
	\$65 for 51-100; \$81 for 101-200
	\$2 each over 200
Permit-Electrical light fixtures	\$3
Permit-Electrical (whirlpool, window AC, thru-the-wall heat pump, etc.)	\$17/each
Permit-Electrical equipment (motors, hoists, xrays, etc.)	\$17
Permit-Electrical disconnects & subpanels	\$13/each
Permit-Residential Gas Piping new/addition/renovation & distribution system (residential)	\$22 \$75 + \$20/appliance
Commercial Gas Piping new/addition/renovation	\$125 + \$20/appliance
Permit-Gas appliances	\$17
Permit-Gas refrigeration-coolers/freezers (each unit)	\$27
Permit-Gas boilers/water heaters (each unit)	\$22
Permit-Home Occupation	\$27
Permit-House Moving Permit	\$214 \$300
Permit-Insulation (+ \$17 compliance fee):	
Residential Insulation (minimum charge \$38)	\$54 per unit + \$27/each additional unit \$75
Commercial Insulation (minimum charge \$38)	\$65 per unit + \$33/each additional unit \$125
Permit-Residential Mechanical new/addition/renovation Residential (HVAC)	\$107 + \$54/each additional unit \$125/unit
Residential Mechanical Ductwork	\$75
Permit-Commercial Mechanical new/addition/renovation Commercial (HVAC)-Roof or ground-level units	\$43 + \$7/ton \$125/unit
Commercial Mechanical Ductwork	\$125
Permit-Residential Plumbing new/addition/renovation each fixture	\$11 \$75 + \$10/fixture
Commercial Plumbing new/addition/renovation	\$125 + \$10/fixture
Permit-Plumbing, backflow preventer (in system)	\$22
Permit-Plumbing, floor drain & grease traps	\$11
Permit-Plumbing, heat pump connections	\$22/each
Permit-Plumbing, lawn sprinkler	\$33
Permit-Plumbing, water distribution system	\$17
Permit-Plumbing, replace or alter existing system	\$17
Permit-Plumbing, sewer distribution system	\$17
Permit-Signs (building permit-based on sign value) Sign Building Permit	\$1-\$500=\$65; \$125
	\$501-\$1,000=\$75
	\$1,001-\$5,000=\$86
	\$5,001-\$10,000=\$97
	over \$10,000=\$107
Residential Roofing	\$125
Residential Deck/carport/pool/pre-built shed (up to 400 sf)	\$125
Residential Dock/pier	\$125
Residential Bulkhead/retaining wall	\$125
Residential Rooftop Solar array	\$125
Commercial Roofing	\$250
Commercial Modular/job trailer	\$125
Commercial Cell tower alteration	\$200
Commercial Dock/pier	\$125 + .10/sf
Commercial Bulkhead/retaining wall	\$125 + .10/lf
Commercial Fuel Tanks	\$125 per tank
Commercial Solar Farm	\$5/panel first + 200 \$1/panel each additional
Single trade-minimum fee permits:	
Mechanical, Fuel Piping, Plumbing, Electrical Residential	\$75
Mechanical, Fuel Piping, Plumbing, Electrical Commercial	\$125
Miscellaneous Fees:	
Floodplain Development Permit	\$100
Homeowners Recovery Fee	\$10
ABC Compliance Inspection	\$75
Permit Modification	\$25

SCHEDULE OF FEES AND CHARGES*
CITY OF NEW BERN
EFFECTIVE JULY 1, 2023
(Revised 6/13/2023)

Sign Return	\$10 per sign
Permit - Signs (shopping center master)	\$214
Permit - Signs (temporary, permanent) - (additional fees may apply)	\$33
Permit - Tree Removal	\$22 \$25
7. POLICE: (Code Section 42-32)	FEES
Accident report	No charge
Citizens Academy fee	\$25
False Alarm	\$50 on and after 3rd offense
Alarm Registration Fee	\$25
Alarm Reinstatement Fee	\$50
Non-Permitted Alarm System	\$250
Alarm Appeal Fee	\$25
Illegal Use of Automatic Voice Dialer	\$100
Fingerprinting	\$10
Funeral escorts	\$50 per escort with 48 hours notice; \$100 per escort without 48 hours notice
Off Duty Fee	\$40 \$45/hr - 3 hours minimum paid to officer
Off Duty Fee for Federal/City Holiday	\$40 \$45/hr - 3 hours minimum paid to officer
Pawnbroker - initial license application fee	\$50
Pawnbroker - renewal license fee	\$25
Permit - Alarm Registration (first permit/annual renewal)	\$25
Permit - Alarm failure to register	No charge
Permit - Outdoor amplified sound	No charge
Vicious, Dangerous, or potentially Dangerous Dog Registration fee (annual)	\$100
Vicious Dog Permit Fee (annual)	\$500
Vicious, Dangerous, or potentially Dangerous Dog Appeal	\$50
Precious Metal Permits:	
Dealer permits (annual)	\$180
Special occasion permit	\$180
Employee certificate of compliance	\$10
Employee certificate of compliance (annual renewal fee)	\$10
Fingerprints (processed for dealer permits - SBI fee)	\$38
Wrecker - (includes inspection)	\$250 to be on rotation list
Parking Penalties (Code Section 70-235)	\$25, see code for further details
8. PUBLIC ASSEMBLY (PARADES AND FESTIVALS): (Code Section 66-86)	FEES
City Sponsored Event Fees:	
Vendor Permit Fee	\$25
Food Vendor Service Fee	\$35
NonCity Sponsored Event Fees:	
Vendor Permit Fee	\$35
Food Vendor Service Fee	\$45
Barricade (A-Frame)	\$5 each
Barricade (concrete/water filled) + labor rates for minimum of 3 staff required for setup	\$60
Safety cones	\$2
City Labor: (Hourly Rates)	
Fire -Lieutenant/Inspector	\$29 \$50
Fire -Specialist	\$23
Police -Officers (On-Duty Rate)	\$35 \$45
Police -Officers (Off Duty Rate)	\$27
Public Works -Supervisor	\$35 \$45
Public Works -Equipment Operator	\$26
Public Works -Maintenance Worker	\$22
Recreation -Supervisor (per person)	\$35 \$45
Recreation -Park Staff (per person)	\$22
9. PUBLIC WORKS: (Code Sections 66-12)	FEES
Repair Fees:	
Labor	Hourly rate with benefits*
Material	Actual cost
Equipment trucks	Hourly rate per FEMA schedule*
*See explanation at the end of this Fee Schedule	
Permit - Sidewalk Café	\$150
Permit - Street Café	\$150
Permit - Nonprofit street banners	\$75
Permit - Driveway (includes 1st inspection)	\$20 \$30

SCHEDULE OF FEES AND CHARGES*

**CITY OF NEW BERN
EFFECTIVE JULY 1, 2023
(Revised 6/13/2023)**

Permit - Driveway Re-Inspection	\$20
Public nuisance	Hourly equip rate per FEMA schedule + labor
Safety cones (use)	\$2
Safety cones (replacement)	\$25
Signs - regulatory/right-of-way	Material cost + labor
Signs - Community watch	Material cost + labor
Signs - Handicapped	Material cost + labor
Signs - Hardware (1 set)	Material cost + labor
Signs - Maximum penalty	Material cost + labor
Signs - No parking-fire lane	Material cost + labor
Signs - Van accessible	Material cost + labor
Street closings (right-of-way abandonments)	\$500 plus cost of advertising
10. REFUSE: (Code Section 62-37)	FEES
Commercial refuse (65-gal cart / 1x week service)	\$14.93 \$19.00/month + \$14.93 \$19.00 each additional
Dumpster services - 2 yd (1x week service)	\$29.77 \$34.50/month
Dumpster services - 4 yd (1x week service)	\$59.54 \$68.50/month
Dumpster services - 6 yd (1x week service)	\$89.31 \$100.00/month
Dumpster services - 8 yd (1x week service)	\$119.08 \$135.00/month
Refuse container	1 at no charge
Residential service (65-gal cart / 1x week service)	\$14.93 \$19.00
Seniors Exemption Credit	50% of residential service
11. UTILITIES: Electric, Water, and Sewer (Code Section 74-46, 74-97, 74-101, and 74-121)	FEES
Electric rates	See rate ordinance adopted 7/1/21 6/14/22
Water & Sewer System Development Fees & Connection Fees	See ordinance adopted 6/12/18
Water & Sewer Rates	See ordinance adopted 6/23/15
Additional fee if service needs to be disconnected by	
City personnel at pole due to meter-service tampering	\$160
City personnel at pole due to delinquency	\$160
Changed payment arrangement fee	\$30
New service connection/transfer fee: requests after 11 am are next day service	\$30
New service connection/transfer fee added for same day request after 11 am	\$45
Delinquent Fee (for bills unpaid after 10th day following due date)	\$30
Deposit - Residential (exempt with excellent credit score)	2x highest bills in last 24 months
(refunded after 18 months with good payment history)	Not to exceed \$500
Deposit - Commercial/Industrial (refunded after 60 months with good payment history)	2x highest bills in last 24 months
Fee if payment is not made in night drop as agreed	\$100
Late penalty (payments received after due date)	5% of monthly bill
Meter change out fee	\$155
Meter Diversion Fee (Meter Tampering Investigation)	\$400
Meter test for meters less than 5 years old payable in advance (refunded if meter fails test)	\$75
Payment Arrangement Fee	No charge
Reconnection for Non-payment Fee weekdays 8am-5pm	No charge
Reconnection for Non-payment Fee weekdays 5pm-11pm	\$75
Reconnection for Non-payment Fee weekends 8am-11pm	\$75
Temporary electric service and/or utility pole (utility determines location)	See Customer Service Guidelines
Load management switch recovery fee	Cost of switch from latest bid
Extra facilities charge	2% installed costs minimum 5 years, \$75/month
Additional pole	\$350
OH extension beyond two pole spans	\$1.05/ft.
UG line extension beyond 300 ft.	\$7.70/ft.
OH to UG conversion of service	\$735
UG Crossings including streets, sidewalks, driveways and other obstacles	Time, material and equipment. See repair fee below
Underground service length	\$7.70
Cost per linear foot	\$6.43
Second trip to site	\$310
Service drop after normal working hours (24-hour notice required)	\$100/hr 2 hours minimum; if service is required to be reconnected, a minimum charge of 4 hours applies
Construction/Maintenance/Repair Fees:	
Labor	Hourly rate with benefits
Material	Actual cost of material

SCHEDULE OF FEES AND CHARGES*

CITY OF NEW BERN

EFFECTIVE JULY 1, 2023

(Revised 6/13/2023)

Vehicles and specialized equipment	FEMA hourly rate schedule
Contractual services	Actual cost of service
General overhead	10% calculated after labor, material, equipment and contractual services
12. UTILITIES - SEWER PRETREATMENT: (Code Sections 74-196)	FEES
Pretreatment Programs Fees for SIU's:	
Pretreatment - Permit Application	\$500
Pretreatment - Permit Modification	\$250
Pretreatment - Permit renewal	\$500
Pretreatment - Annual administrative fee	\$300
Pretreatment - Annual inspection	\$100
Pretreatment - Permit fine	\$250
Pretreatment - Administrative fee for monthly review	\$100/month
Pretreatment - Unscheduled sampling	Contract analyses charges
Pretreatment - Permit limit violation	\$100
Pretreatment - Technical review criteria	\$250
Pretreatment - Significant noncompliance	\$500
Pretreatment - BOD:	
Surcharge ceiling conc. (mg/L)	\$350
Surcharge cost per pound	\$0.15
Charge for analysis	Contract labor cost
Pretreatment - TSS:	
Surcharge ceiling conc. (mg/L)	\$250
Surcharge cost per pound	\$0.27
Charge for analysis	Contract labor cost
<p>FEMA - Rates denoted as "FEMA" shall be the rates in effect at the time services are performed as provided by the United States Department of Homeland Security Federal Emergency Management Agency's Public Assistance Program and Policy Guide, FP 104-009-2. Equipment rates may be found at https://www.fema.gov/assistance/public/schedule-equipment-rates. Specific equipment not listed shall have a rate based on the rate of the nearest larger piece of equipment.</p>	
<p>Labor - Standard and overtime hourly labor rates are adjusted annually and applied to the service performed. Labor rates include, but are not limited to, benefits, taxes, social security, Medicare, retirement, workers compensation and health insurance. Annual labor rates are available upon request.</p>	

AGENDA ITEM COVER SHEET

Agenda Item Title:

Consider Adopting the Fiscal Year 2023-24 Annual Budget Ordinance

Date of Meeting: 6/13/2023	Ward # if applicable:
Department: Finance	Person Submitting Item: Kim Ostrom, Director of Finance
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	FY 2023-24 Annual Budget Ordinance effective July 1, 2023
Actions Needed by Board:	Adopt FY 2023-24 Annual Budget Ordinance
Backup Attached:	Memo; Ordinance
Is item time sensitive? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:

Aldermen

Rick Prill
Hazel B. Royal
Robert V. Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

Jeffrey T. Odham
Mayor

Foster Hughes
City Manager
Brenda E. Blanco
City Clerk
Kimberly A. Ostrom
Director of Finance

TO: City Manager, Honorable Mayor and Members of the Board of Aldermen

FROM: Kim Ostrom - Director of Finance

DATE: May 31, 2023

RE: Adoption of the FY 2023-24 Annual Budget Ordinance

Current

The City Manager's recommended budget for FY 2023-24 has been prepared, reviewed by the Board of Aldermen, and made available for public inspection. The public hearing was held on May 23, 2023. At that meeting, the Board of Aldermen, by majority, requested that the City Manager revise the budget to set the property tax at the revenue neutral rate of .3734.

Requested Action

It is requested that the Board consider adopting the attached FY 2023-24 Annual Budget Ordinance at its meeting on June 13, 2023.

BUDGET ORDINANCE 2023-2024
CITY OF NEW BERN, NORTH CAROLINA

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN, NORTH CAROLINA:

SECTION 1. The following amounts are hereby appropriated for the operation of the City of New Bern beginning July 1, 2023 and ending June 30, 2024 according to the following schedules:

SCHEDULE A - GENERAL FUND

General Government	1,776,731
Technology	2,193,796
Finance	1,883,363
Human Resources	922,589
Police	13,967,519
Fire	8,954,238
Parks & Recreation	3,732,441
Development Services	2,538,744
Public Works	8,558,898
Debt Service	3,043,160
Interfund Transfers	37,560
Contingency	50,000
TOTAL GENERAL FUND	<u>\$ 47,659,039</u>

SCHEDULE B - MUNICIPAL SERVICE DISTRICT FUND

Municipal Service District	<u>\$ 421,200</u>
TOTAL MUNICIPAL SERVICE DISTRICT FUND	<u>\$ 421,200</u>

SCHEDULE C - WATER FUND

Water	\$ 7,562,794
Water Debt Service	\$ 2,318,936
Shared Services Charges	\$ 2,362,577
Interfund Transfers & Transfer Supports	<u>\$ 337,856</u>
TOTAL WATER FUND	<u>\$ 12,582,163</u>

SCHEDULE D - SEWER FUND

Sewer	\$ 9,455,525
Sewer Debt Service	\$ 102,559
Shared Services Charges	\$ 2,768,877
Interfund Transfers & Transfer Supports	<u>\$ 1,004,973</u>
TOTAL SEWER FUND	<u>\$ 13,331,934</u>

SCHEDULE E - ELECTRIC FUND

Electric	\$ 54,730,404
Electric Debt Service	\$ 986,080
Shared Services Charges	\$ 1,760,669
Interfund Transfers & Transfer Supports	\$ 3,104,596
TOTAL ELECTRIC FUND	<u>\$ 60,581,749</u>

SCHEDULE G - EMPLOYEES' BENEFIT INSURANCE FUND

Employee Benefits	<u>\$ 7,880,920</u>
TOTAL EMPLOYEES' BENEFIT INSURANCE FUND	<u>\$ 7,880,920</u>

SCHEDULE H - EMERGENCY TELEPHONE SYSTEM FUND

E-911	<u>\$ 156,353</u>
TOTAL EMERGENCY TELEPHONE SYSTEM FUND	<u>\$ 156,353</u>

SCHEDULE I - POLICE SPECIAL REVENUE FUND

Police Special Revenue	<u>\$ 21,940</u>
TOTAL POLICE SPECIAL REVENUE FUND	<u>\$ 21,940</u>

SCHEDULE J - COMMUNITY DEVELOPMENT FUND

TOTAL COMMUNITY DEVELOPMENT FUND	<u>\$ -</u>
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SCHEDULE K - GRANTS FUND

TOTAL GRANTS FUND	<u>\$ -</u>
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SCHEDULE L - PUBLIC-PRIVATE PARTNERSHIPS FUND

Partnership Programs	<u>\$ 10,000</u>
TOTAL PUBLIC-PRIVATE PARTNERSHIPS FUND	<u>\$ 10,000</u>

SCHEDULE M - WATER CAPITAL RESERVE FUND

Water Capital Reserve	<u></u>
TOTAL WATER CAPITAL RESERVE FUND	<u>\$ -</u>

SCHEDULE N - SEWER CAPITAL RESERVE FUND

Sewer Capital Reserve	<u></u>
TOTAL SEWER CAPITAL RESERVE FUND	<u>\$ -</u>

SCHEDULE O - RATE STABILIZATION FUND

TOTAL RATE STABILIZATION FUND	\$	-
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SCHEDULE P - SEWER DEBT SERVICE RESERVE FUND

Transfer to Sewer Fund		
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TOTAL SEWER DEBT SERVICE RESERVE FUND	\$	-
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SCHEDULE Q - MPO PLAN GRANT FUND

MPO Plan Grant	\$	245,375
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MPO Plan Grant (5303)	\$	60,080
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TOTAL MPO PLAN GRANT FUND	\$	305,455
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SCHEDULE R - EQUITABLE SHARING US DEPT OF JUSTICE

Equitable Sharing	\$	36,050
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TOTAL EQUITABLE SHARING US DEPT OF JUSTICE	\$	36,050
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SCHEDULE S - EQUITABLE SHARING US DEPT OF TREASURY

EQUITABLE SHARING	\$	8,000
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TOTAL EQUITABLE SHARING US DEPT OF TREASURY	\$	8,000
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SCHEDULE T - SOLID WASTE FUND

Solid Waste	\$	3,935,403
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Solid Waste Debt Service	\$	62,021
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Shared Services Charges	\$	382,972
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Interfund Transfers & Transfer Supports	\$	4,687
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TOTAL SOLID WASTE FUND	\$	4,385,083
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SCHEDULE U - REDEVELOPMENT FUND

Redevelopment		
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TOTAL REDEVELOPMENT FUND	\$	-
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SECTION 2. It is estimated that revenues from the following major sources will be available for the fiscal year beginning July 1, 2022 and ending June 30, 2023 to meet the foregoing schedules:

SCHEDULE A - GENERAL FUND

Taxes & Licenses	\$ 29,748,164
Intergovernmental Revenue	\$ 3,752,423
Investment Earnings	\$ 756,000
Miscellaneous Revenue	\$ 668,280
Police Revenues	\$ 40,000
Fire Revenues	\$ 35,000
Parks & Recreation Revenues	\$ 378,000
Development Services Revenues	\$ 100,000
Public Works Revenues	\$ 34,000
Interfund Reimbursement	\$ 4,069,767
Interfund Transfers	\$ 3,964,870
Proceeds from Borrowing	\$ 3,041,020
Permits and Fees	\$ 615,000
Fund Balance Appropriated	\$ 456,515
TOTAL GENERAL FUND	\$ 47,659,039

SCHEDULE B - MUNICIPAL SERVICE DISTRICT FUND

Taxes	\$ 344,900
Investment Earnings	\$ 10,000
Parking Fees	\$ 66,300
TOTAL MUNICIPAL SERVICE DISTRICT FUND	\$ 421,200

SCHEDULE C - WATER FUND

Charges for Sales & Service	\$ 11,410,000
Investment Earnings	\$ 201,000
Miscellaneous Revenue	\$ 233,000
Interfund Reimbursements	\$ 405,422
Fund Balance Appropriated	\$ 332,741
TOTAL WATER FUND	\$ 12,582,163

SCHEDULE D - SEWER FUND

Charges for Sales & Service	\$ 12,995,000
Investment Earnings	\$ 150,400
Miscellaneous Revenue	\$ 10,000
Fund Balance Appropriated	\$ 176,534
TOTAL SEWER FUND	\$ 13,331,934

SCHEDULE E - ELECTRIC FUND

Charges for Sales & Service	\$ 56,681,000
Investment Earnings	\$ 201,000

Miscellaneous Revenue	\$ 208,731
Interfund Reimbursements	\$ 2,799,906
Fund Balance Appropriated	\$ 691,112
TOTAL ELECTRIC FUND	\$ 60,581,749

SCHEDULE G - EMPLOYEES' BENEFIT INSURANCE FUND

Investment Earnings	\$ 89,315
Miscellaneous Revenue	\$ 7,791,605
TOTAL EMPLOYEES' BENEFIT INSURANCE FUND	\$ 7,880,920

SCHEDULE H - EMERGENCY TELEPHONE SYSTEM FUND

State 911 Distributions	\$ 156,353
TOTAL EMERGENCY TELEPHONE SYSTEM FUND	\$ 156,353

SCHEDULE I - POLICE SPECIAL REVENUE FUND

Restricted Police Revenue	\$ 21,940
TOTAL POLICE SPECIAL REVENUE FUND	\$ 21,940

SCHEDULE J - COMMUNITY DEVELOPMENT FUND

TOTAL COMMUNITY DEVELOPMENT FUND	\$ -
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SCHEDULE K - GRANTS FUND

TOTAL GRANTS FUND	\$ -
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SCHEDULE L - PUBLIC-PRIVATE PARTNERSHIPS FUND

Transfer from General Fund	\$ 10,000
TOTAL PUBLIC-PRIVATE PARTNERSHIPS FUND	\$ 10,000

SCHEDULE M - WATER CAPITAL RESERVE FUND

Investment Earnings	
TOTAL WATER CAPITAL RESERVE FUND	\$ -

SCHEDULE N - SEWER CAPITAL RESERVE FUND

Investment Earnings	
TOTAL SEWER CAPITAL RESERVE FUND	\$ -

SCHEDULE O - RATE STABILIZATION FUND

TOTAL RATE STABILIZATION FUND	\$	-
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SCHEDULE P - SEWER DEBT SERVICE RESERVE FUND

Fund Balance Appropriated		
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TOTAL SEWER DEBT SERVICE RESERVE FUND	\$	-
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SCHEDULE Q - MPO PLAN GRANT FUND

Grant Revenue	\$	218,148
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Grant Revenue (5303)	\$	54,072
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Transfer from General Fund	\$	33,235
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TOTAL MPO PLAN GRAND FUND	\$	305,455
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SCHEDULE R - EQUITABLE SHARING US DEPT OF JUSTICE

Restricted Police Revenue	\$	36,050
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TOTAL EQUITABLE SHARING US DEPT OF JUSTICE	\$	36,050
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SCHEDULE S - EQUITABLE SHARING US DEPT OF TREASURY

Fund Balance Appropriated	\$	8,000
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TOTAL EQUITABLE SHARING US DEPT OF TREASURY	\$	8,000
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SCHEDULE T - SOLID WASTE FUND

Charges for Sales & Service	\$	4,070,000
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Investment Earnings	\$	20,100
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Miscellaneous Revenue	\$	19,983
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Proceeds from Borrowing	\$	275,000
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TOTAL SOLID WASTE FUND	\$	4,385,083
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SCHEDULE U - REDEVELOPMENT FUND

Transfer from General Fund		
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TOTAL REDEVELOPMENT FUND	\$	-
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SECTION 3.

- (a) There is hereby levied a tax at the rate of thirty-seven and thirty-four hundredths cents (\$0.3734) per one hundred dollars (\$100.00) valuation of property as listed for taxes as of January 1, 2023, for the purpose of raising the revenue listed in "Taxes & Licenses" in Schedule A - General Fund in Section 2 of this ordinance. This rate is based on an estimated total valuation of Property for the purpose of taxation of \$4,722,540,000 and an estimated rate of collection of 99.15%.
- (b) There is hereby levied an additional tax at the rate of eleven and twenty-two hundredths cents (\$0.1122) per hundred dollars (\$100.00) valuation of property as listed for taxes as of January 1, 2023, on all property located in Municipal Service District, as defined and established by resolution adopted by the Board of Aldermen of the City of New Bern on June 27, 1978, expanded on June 26, 1986, and amended on January 8, 2008, for the purpose of raising revenue listed in Schedule B - Municipal Service District Fund in Section 2 of this Ordinance.

SECTION 4. Special Authorization - Budget Officer

- (a) The Budget Officer and Director of Finance shall be authorized to reallocate appropriations within departments and among the various line accounts not organized by departments as he or she deems necessary.
- (b) Interfund transfers and transfer supports, established in the Budget Ordinance, may be accomplished without additional approval from the Board.

SECTION 5. Restrictions - Budget Officer

- (a) Interfund transfers and transfer supports of monies, except as noted in Section 4(b), shall be accomplished by Board of Aldermen authorizations only.
- (b) Utilization of appropriations contained in Contingencies and Appropriations to Fund Balance may be accomplished only with specific approval of the Board of Aldermen.

SECTION 6.

The Director of Finance is authorized to write off accounts receivable 120 or more days delinquent and to place said accounts in a collection status.

SECTION 7.

The use of facsimile signatures for checks and other documents is re-authorized as established by a resolution adopted by the Board of Aldermen of the City of New Bern on the 9th day of December, 1986.

SECTION 8.

Copies of this Budget Ordinance shall be filed with the Budget Officer, Director of Finance and City Clerk.

SECTION 9.

This Ordinance shall take effect on July 1, 2023.

ADOPTED THIS 13TH DAY OF JUNE, 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

AGENDA ITEM COVER SHEET

Agenda Item Title:

Adopt a Resolution Authorizing the Execution of a Memorandum of Understanding (MOU) with Marine Corps Forces Special Operations Command (MARFORSOC).

Date of Meeting: 6/13/2023	Ward # if applicable:
Department: Police	Person Submitting Item: Chief Patrick Gallagher
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	MARFORSOC has requested a revised Memorandum of Understanding with the New Bern Police Department.
Actions Needed by Board:	Approve the MOU.
Backup Attached:	Memorandum to BOA, MOU, Resolution
Is item time sensitive? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Cost of Agenda Item: \$0.00
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Additional Notes:



Founded 1797

NEW BERN

NEW BERN POLICE DEPARTMENT

P.O. Box 1129, New Bern, NC 28563-1129
(252) 672-4100

Police and Community Come Together Here



Patrick L. Gallagher
Chief of Police

To: Mayor Jeffrey T. Odham and the Board of Aldermen
From: Chief Patrick Gallagher
Date: June 13, 2023
Subject: **New Bern Police and City Manager MOU with Marine Forces Special Operations Command (MARFORSOC)**

The agreement with MARFORSOC is up for renewal. The original MOU was signed in 2019. This MOU grants Marine Corps personnel under the command of MARFORSOC the ability to conduct training operations in New Bern. The training does not expose any citizen to undue harm or safety concerns. Over the past many years, the City of New Bern and the Police Department have been notified in advance by MARFORSOC when training will occur within our city limits. No issues have been reported over that timeframe.

A legal review has been conducted. Indemnification concerns have been evaluated based on current U.S. Government statutory authority. It should be noted that the U.S. Government, via the U.S. Marine Corps, has waived sovereign immunity to hold the federal government liable for damages and/or injuries.

We do not object to continuing this arrangement and recommend the BOA approve the terms of the MOU.



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RESOLUTION

WHEREAS, the Chief of Police and City Manager recommend the adoption of a Memorandum of Understanding ("MOU") with the Marine Forces Special Operations Command ("MARFORSOC") for periodic training within the municipal limits of New Bern; and

WHEREAS, the agreement is for a term of five years, and the Board deems it advisable to approve said MOU.

NOW, THEREFORE, BE IT RESOLVED by the Board of Aldermen of the City of New Bern that the MOU with the Marine Forces Special Operations Command ("MARFORSOC"), a copy of which is attached hereto and incorporated herein by reference, is hereby approved, and the Chief of Police and City Manager are authorized to execute said agreement in duplicate originals.

ADOPTED THIS 13TH DAY OF JUNE 2023

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK



UNITED STATES MARINE CORPS
MARINE FORCES SPECIAL OPERATIONS COMMAND
PSC BOX 20116
CAMP LEJEUNE, NC 28542-0116

3307
G-7
MAR 17 2023

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
MARINE FORCES SPECIAL OPERATIONS COMMAND (MARFORSOC)
AND
THE CITY OF NEW BERN AND THE NEW BERN CITY POLICE DEPARTMENT

Unique Agreement Identification # MRSG-TC-001

1. Purpose. The purpose of this memorandum is to memorialize the approval by the municipal leadership for the city of New Bern for MARFORSOC to conduct training in the city of New Bern. MARFORSOC requests that the city of New Bern grant MARFORSOC the authority to periodically conduct required training within New Bern city. All such training will be coordinated under the guidelines set forth in this agreement. All personnel involved in these exercises will be consenting military personnel, government civilian workers, or contractors; no private citizens will be part of or involved in the training exercises in any manner.

2. Agreement Creation or Renewal. This is an amended agreement which amends the previous agreement from March 2020.

3. Approval. The City of New Bern and the New Bern Police Department hereby agrees to permit members of MARFORSOC (to include all military, civilian, and contractor support personnel) to conduct military training, to include surveillance, advanced communications, raid, reconnaissance, Convoy, Foot Movement of troops and Equipment, Drop Zone, Landing or Pick up Zone, other helicopter operations, and other required training necessary to develop special operations skills within the boundaries of the city of New Bern. Training and informal meetings will be restricted specifically to commercial/restaurant and public gathering areas of the above stated city and will not involve direct contact with the local populace. Any training to be conducted on private property in the city of New Bern will be coordinated with and approved by the property owners involved. This approval is subject to the following:

a. This MOU becomes effective upon execution by the city of New Bern, the New Bern Police Department and MARFORSOC and will

MEMORANDUM OF UNDERSTANDING BETWEEN MARFORSOC AND THE CITY OF
NEW BERN AND THE NEW BERN POLICE DEPARTMENT

run for five (5) years from the date of execution of the last signing party unless sooner terminated under the provisions of paragraph 10(b). This MOU recognizes that MARFORSOC intends to conduct training in the city of New Bern on multiple occasions over that time period. Prior to conducting any training, MARFORSOC will provide advance written notice to civilian leadership and law enforcement officials. The notice will include current contact information, training personnel points of contact, type of training to be conducted, areas to be utilized during training and dates of intended usage (see enclosures (1) and (2)). The information will be provided in order to give the city of New Bern the maximum possible visibility over training and to provide notice to law enforcement activities of our presence in the area. Every effort will be made by MARFORSOC to provide written notice at least thirty (30) days in advance of any training in order to allow sufficient time for both parties to mutually resolve any outstanding issues and address any concerns. During the conduct of any training, MARFORSOC will conduct daily liaison with the designated law enforcement personnel.

b. MARFORSOC shall not knowingly use any commercial/public gathering areas in any unlawful way.

c. MARFORSOC and the city of New Bern are responsible to bear its own personnel costs. MARFORSOC and the city of New Bern are responsible for the supervision and management of its respective personnel.

d. 31 U.S.C. Sect. 1341, "The Anti-Deficiency Act", prohibits open-ended indemnification and "hold harmless agreements" by the U.S. Government. However, sovereign immunity is waived if any damages do occur, in order to hold the federal government liable. The U.S. Government is responsible, under the terms of the Federal Tort Claims Act (FTCA), 28 U.S.C. 1346(b), 2671-2680, or the Military Claims Act (MCA) 10 U.S.C. 2733, as applicable, for any injury to persons or damage to property proximately caused by acts or omissions of Government employees acting within the scope of their employment. The FTCA, and supporting case law, provides several means of recovery for negligent acts of Government personnel. The injured party may submit a claim directly against the U.S. Government; a defendant may implead the U.S. Government as a third-party tortfeasor; or a defendant may later pursue the U.S. Government in a separate indemnity action or claim submission, for any amounts paid to the injured party due to negligence of the U.S. Government. A perfected claim requires a completed U.S. Government Standard Form 95 and proof substantiating the

MEMORANDUM OF UNDERSTANDING BETWEEN MARFORSOC AND THE CITY OF
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claimed amount. Other documentation may be required on a case-by-case basis. Claims packages may be submitted to the below offices by email, fax, or standard mail. For required documents, see [http://www.jag.navy.mil/organization/code 15 packets forms.htm](http://www.jag.navy.mil/organization/code_15_packets_forms.htm). Claims packages may be submitted to the Camp Lejeune Office by standard mail.

Commanding General
LSSS-E (Claims)
PSC Box 20005
MCIEAST-MCB
Camp Lejeune, NC 28542-0005

4. For all training exercises, MARFORSOC, via the officer in charge (OIC) of the exercise, will ensure that local law enforcement is informed of all areas, times, and dates that will be utilized for training. All activities conducted at these venues will be appropriate for the intended training objective. Additionally, MARFORSOC staff will embed a liaison element within the New Bern Police Department that will notify the requisite elements of the New Bern Police Department of any activity within each district. MARFORSOC instructors will either be on site or in the vicinity of training in order to critique training as well as function as an on-site liaison to ensure training is conducted in accordance with this agreement. In the event a situation presents itself involving local law enforcement, an Exercise Participant Card will be provided that includes contact information of the MARFORSOC leadership responsible for the training and the MARFORSOC Public Affairs Office. The New Bern Police Department will intervene and act as they deem necessary to handle and resolve any situation.

5. Unless otherwise agreed upon in writing, MARFORSOC training activities in the city of New Bern will be low-impact and low-visibility. MARFORSOC activities are not likely to attract undue attention, nor should the conduct of activities alert any civilians/members of the establishment who are in the immediate area. In the event that a civilian/non-law enforcement official or uniformed member of local law enforcement approach and begin to question any personnel conducting training about their activities, the personnel conducting training will provide an Exercise Participant Card and Military Identification Card. The personnel conducting training will contact their OIC in any situation where civilians or law enforcement personnel intervene in the training. In this instance, all personnel conducting training will comply with instructions from local law enforcement officials and will immediately inform their OIC.

MEMORANDUM OF UNDERSTANDING BETWEEN MARFORSOC AND THE CITY OF
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6. Prior to the start of the exercise, MARFORSOC members will receive classes and be thoroughly briefed on the safety plan and rules of training. No personal vehicles are authorized for use by the Marines conducting this training. Tactical vehicles, Rental and/or government plated vehicles consisting of sedans, mini-vans, and sport utility vehicles will be utilized during this training.

7. MARFORSOC personnel conducting training will not conduct concealed carry of firearms at any time during training. MARFORSOC personnel will not conduct open carry of firearms, simulated firearms, or pyrotechnic devices during the course of active training in the city of New Bern without advance notice to the city of New Bern and the New Bern Police Department.

a. "Active training" does not include transportation of weapons between training locations.

b. MARFORSOC may be permitted to carry firearms, simulated firearms, or pyrotechnic devices on a case-by-case basis. In such instances, MARFORSOC will provide a description of the desired activity to the city of New Bern in the required notification letter four weeks prior to commencement of the exercise. MARFORSOC will coordinate with The New Bern Police Department detailing the starting and ending point of each movement, time of movement, activities to be exercised, make/model/license plate of vehicles, and number of personnel executing activity. The city of New Bern maintains the right to refuse to permit the desired activity. Any refusal will be provided by the city of New Bern in writing in response to the notification within two weeks of receipt of the notification of training.

8. All MARFORSOC personnel will be in civilian attire or military uniforms; however, they will be able to always produce an Exercise Participant Card and a government identification card. All MARFORSOC personnel conducting training and exercise staff will obey all traffic laws and posted speed limits. At no time will MARFORSOC personnel engage in any activity that will put themselves or others in danger, and they will obey all orders from civilian law enforcement agencies. The training exercise will culminate when all exercise participants have departed the city of New Bern. The MARFORSOC OIC will notify the New Bern Police Department upon completion of the exercise. The MARFORSOC OIC will provide the city of New Bern a signed copy of this document and a copy of the notification for each training event for the record.

MEMORANDUM OF UNDERSTANDING BETWEEN MARFORSOC AND THE CITY OF
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9. Non-Disclosure. The city of New Bern agrees not to disclose any MARFORSOC tactics, techniques, procedures, methods of training, or exercise concepts or scenarios that the city of New Bern may learn during discussions with MARFORSOC about exercises or by observation during the conduct of an exercise. Additionally, the city of New Bern agrees not to disclose the identity of MARFORSOC personnel conducting training or, if not active-duty Marines, their affiliation with MARFORSOC (e.g., contracted civilian role players or members of other armed services). Furthermore, the city of New Bern agrees not to disclose the locations or dates of the MARFORSOC exercises beyond those with a need to know within the city of New Bern's affiliation.

10. Modification or Termination

a. Modifications to this MOU must be in writing and signed by authorized representatives of the city of New Bern and MARFORSOC. The representative for MARFORSOC can be contacted at MARFORSOC ATTN: Office of the Staff Judge Advocate, PSC Box 20116, Camp Lejeune, NC 28542-0116 or via phone at 910-440-0928. The representative for the office of New Bern City Manager can be contacted at 252-636-4000; or hughesf@newbernnc.gov, or the New Bern Police Department at via email at gallagherp@newbernnc.gov, or 252-672-4190.

b. This MOU shall remain in effect for five (5) years from the date of execution of the last signing party. Agreement must be reviewed and validated by both parties at the mid-point from the agreement effective date. Review may be conducted through informal coordination with the respective parties. Proposed amendments to this agreement must be submitted to the MARFORSOC Office of Staff Judge Advocate prior to signature. Both the city of New Bern and MARFORSOC retain the right to terminate this MOU at any time, with ninety (90) days written notice to the other party, for any reason.

11. Point of Contact.

a. The primary point of contact for MARFORSOC is: Name: Dennis Downey; Position: MRSG T-Cell; Marine Raider Support Group S3; Phone Number: 910-44-2029; Email: dennis.downey.ctr@socom.mil.

b. The secondary point of contact for MARFORSOC is: Name: Roger Ralls; Position: MRSG T-Cell; Raider Support Group

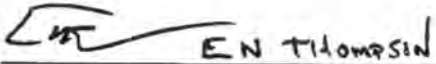
MEMORANDUM OF UNDERSTANDING BETWEEN MARFORSOC AND THE CITY OF
NEW BERN AND THE NEW BERN POLICE DEPARTMENT

S3; Phone Number: 910-440-0814; Email:
roger.d.rall.ctr@socom.mil.

- c. The primary point of contact for New Bern Police Department is: Name: Patrick L. Gallagher; Position: Chief of Police; Office Identification New Bern Police Department; Phone Number: 252-672-4190; Email: gallagherp@newbernnc.gov.
- d. The secondary point of contact for the City Manager is: Name: Foster Hughes; Position: New Bern City Manager; Office Identification New Bern City Manager; Phone Number: 252-636-4000; Email: hughesf@newbernnc.gov.

MEMORANDUM OF UNDERSTANDING BETWEEN MARFORSOC AND THE CITY OF
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12. Entire Agreement. It is expressly understood that this MOU embodies the entire agreement between MARFORSOC and the city of New Bern regarding the MOU's subject matter, thereby merging and superseding all prior agreement and representations by MARFORSOC and the city of New Bern with respect to such subject matter.

 EN Thomas

Deputy Commander

MARFORSOC

Date: 17 March 2023

Foster Hughes

New Bern City Manager

Date: _____

[OR]

Patrick L. Gallagher

New Bern Police Department

Date: _____

AGENDA ITEM COVER SHEET

Agenda Item Title:

Request to Apply for Grant Funding From Bureau of Justice Assistance for Bulletproof Vest Program

Date of Meeting: 6/13/2023	Ward # if applicable:
Department: Police	Person Submitting Item: Chief Patrick Gallagher
Call for Public Hearing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date of Public Hearing:

Explanation of Item:	Request to apply for grant funding from Bureau of Justice Assistance for Bulletproof Vest Program. NBPD has applied for this grant almost every year since 2000 with a total savings of \$135,346 over this timeframe.
Actions Needed by Board:	Approve the submission of grant application for grant funding with a 50% match from the City.
Backup Attached:	Agenda Cover Sheet, Memorandum, Grant Application and Resolution
Is item time sensitive? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Cost of Agenda Item: 9,825.00
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Additional Notes:



Founded 1797

NEW BERN

NEW BERN POLICE DEPARTMENT

P.O. Box 1129, New Bern, NC 28563-1129
(252) 672-4100

Police and Community Come Together Here



Patrick L. Gallagher
Chief of Police

TO: Mayor Jeffrey Odham and Board of Aldermen
FROM: Patrick L. Gallagher, Chief of Police
DATE: May 16, 2023
SUBJECT: Bulletproof Vest Grant

Overview

The New Bern Police Department is applying for the Bureau of Justice Assistance Bulletproof Vest Partnership for FY2023 in the amount of \$9,825.00 which is 50% of the total cost of the required \$19,650.00 to purchase the ballistic vests. Based on our tracking of ballistic vests and expiration dates, we are projecting the purchase of 15 replacement vests for this year and the timeframe of the grant, which is 2023 – 2025. Our uniform line item includes the financial obligation in the 2023-24 budget.

Recommendation

It is recommended that the Board of Aldermen approve the submission of an application for the Bureau of Justice Assistance Bulletproof Vest Program for grant funding in the amount of \$19,650.00, with a 50/50 match from the City, to procure ballistic vests.



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RESOLUTION

WHEREAS, the City of New Bern desires to apply for grant funding from the 2023 Bureau of Justice Assistance Bulletproof Vest Grant Program. The grant funding is in the amount of \$19,650.00 and requires a 50% matching amount of \$9,825.00 from the City.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMAN OF THE CITY OF NEW BERN:

The Board authorizes the New Bern Police Department to submit an application for grant funding from the 2023 Bureau of Justice Assistance Bulletproof Vest Grant Program to procure 15 new bulletproof vests for new officers or to replace expired vests for existing officers.

ADOPTED THIS 13th DAY OF JUNE 2023.

JEFFREY T. ODHAM, MAYOR

BRENDA E. BLANCO, CITY CLERK

Aldermen

Rick Prill
Hazel B. Royal
Robert V. Aster
Johnnie Ray Kinsey
Barbara J. Best
Robert Brinson, Jr.



Jeffrey T. Odham
Mayor

Foster Hughes
City Manager

Brenda E. Blanco
City Clerk
Kimberly A. Ostrom
Director of Finance

Memorandum

TO: Alderman Hazel Royal
FROM: Brenda Blanco, City Clerk
DATE: June 08, 2023
SUBJECT: Appointment to Board of Adjustment

Peter Dillon has resigned from the Board of Adjustment as he is moving out of state. A new appointment is needed to fill the remainder of his term, which expires on June 30, 2025.

/beb