

CITY OF MONROE
PUBLIC ENTERPRISE COMMITTEE
300 W. CROWELL STREET, MONROE, NC 28112
TUESDAY, FEBRUARY 6, 2024 - 4:00 PM
AGENDA
www.monroenc.org

1. Public Enterprise Committee Meeting Minutes of December 5, 2023
2. Public Enterprise Special Committee Meeting Minutes of January 5, 2024
3. Purchase of One DM47E-AWD Digger Derrick as Substitution for One DH50 Digger Derrick
4. Approval of Contract for Consulting Services for Cityworks Implementation and Integration
5. Budget Amendment for Consulting Services for Cityworks
6. Lining Rehabilitation of Domestic Water Distribution Main - Vann Street and Jackson Street
7. Olive Branch Road and NC 200 Improvements Project
8. Request for Sidewalk Variance at JLS Masonry, 1371 N Rocky River Road
9. John Glenn WTP Treatment Basin #3 Coating Project Change Order #1

**Public Enterprise Committee Minutes
December 5, 2023
City Hall Conference Room
4:00 p.m.**

Members Present: Council Member Freddie Gordon (Chair), Council Member Julie Thompson, Council Member James Kerr
Staff: Richard Long, Mark Watson, Lisa Hollowell, Ashley Ivey, Terry Sholar, Robert Miller, Cathy Nance, Scott Clark

Council Member Freddie Gordon called the December 5, 2023 Public Enterprise Committee meeting to order at 4:00 p.m.

Item #1: Adoption of Minutes of the Meeting

Recommendation:

Council Member Freddie Gordon asked if anyone would like to make a motion that the minutes of the November 7, 2023 Public Enterprise Committee be approved.

Motion: Adopt November 7, 2023 meeting minutes
Motion made by: Council Member Julie Thompson
Second: Council Member James Kerr
Voting: **In Favor** – Council Member Freddie Gordon and Council Member Julie Thompson, Council Member James Kerr
Opposed – None
Action: Motion adopted

Item #2: Purchase of Parcels Adjacent to Energy Services Property

Recommendations:

Energy Services staff requests the Public Enterprise Committee consider approving the City to begin the process to negotiate and acquire parcels 09150169 and 09150169A adjacent to the Energy Services property.

Presentation and Discussion:

Director of Energy Services Rob Miller asked the Public Enterprise Committee to approve the City moving forward with obtaining an appraisal for acquisition of property adjacent to the Energy Services warehouse project. He said he is requesting that the City Manager, City Attorney, and staff negotiate the purchase of the parcels and prepare a formal offer. The formal offer would come back to committee and Council. Energy Services is in the design process for building a new warehouse and offices for purchasing and IT. The existing warehouse space will be renovated to provide adequate facilities for Energy Services personnel, and site improvements will be made for additional material storage. Material storage has been challenging. The challenges include an unpermitted landfill that was in existence back in the 70s. Environmental

assessments have shown that any grading means debris will have to go to a permitted landfill site and therefore drives up cost significantly. Rob showed a map of where some infill material could go, and the rest would go off site. And if grading material has to go off site, then that drives up costs as well. Energy Services is looking at acquiring these two parcels, which total 6.51 acres. These two parcels would give us additional site storage as well as the ability to store any grading material that we need for the construction of the warehouse as well. Also this site would give us direct access to an existing road which would serve as an emergency exit route. Currently at our site, the road is steep, and in snow and ice, it's very tough to get in and out of our site. This would provide the safety of a secondary exit.

Council Member Kerr asked about other parcels on the map.

Rob Miller explained that if the purchase of the first two parcels is successful, then the City could pursue the other parcels.

Council Member Kerr asked if there would be any value in acquiring 1917 Steele Street.

Rob Miller said there had been discussion about it as a potential site for other future City uses. He said if the committee would like, they could recommend investigating that parcel as well.

Council Member Kerr said he would like to add an amendment to the motion to include parcel 09150168.

<u>Motion:</u>	Amended Motion to have City Manager, City Attorney and staff approved to have appraisals on, and negotiate the purchase of, parcels 09150169 and 09150169A, and include additional parcel 09150168.
<u>Motion made by:</u>	Council Member James Kerr
<u>Second:</u>	Council Member Julie Thompson
<u>Voting:</u>	In Favor – Council Member Freddie Gordon, Council Member Julie Thompson, and Council Member James Kerr. Opposed – None
<u>Action:</u>	Amended Motion adopted

After that discussion, City Manager Mark Watson asked City Attorney Richard Long to update the committee on the acquisition of the parcel adjacent to the Waste Water Treatment Plant. Mr. Long stated that after negotiations, they have come to an agreement of \$72,500. He will prepare the contract.

Item # 3: Energy Services Rate Study

Recommendation:

Staff recommends pursuing a rate study for Energy Services.

Presentation and Discussion:

Rob Miller said that since water and sewer were pursuing a rate study, the City should move forward with an electric and natural gas fee study as well, so that all utilities would be updated at the same time. Energy Services' last rate study was in 2018. There was also a cost of service study in 2021, which is mainly used to identify whether different rate classes are paying their appropriate share. Rates have not been updated

since 2018. On the power side, there have been significant additional expenses, but also a 29% decrease in wholesale power costs. On the natural gas side, there have been had significant expense increases as well, but no rate adjustments. The study would be brought back to City management and the Committee. The goal would be to update the fee schedule as part of the budget in May.

Motion: Proceed with pursuing a rate study for Energy Services.
Motion made by: Council Member James Kerr
Second: Council Member Julie Thompson
Voting: **In Favor** – Council Member Freddie Gordon, Council Member Julie Thompson, and Council Member James Kerr.
Opposed – None
Action: Amended Motion adopted

Item #4: Other

Council Member Freddie Gordon asked if there was any other business to discuss.

Council Member James Kerr thanked the Council Member Gordon for his service. Council Member Julie Thompson concurred.

Council Member Gordon said he had enjoyed it, and he wished everyone the best.

There was no other business. There being none, Council Member Gordon asked for a motion to adjourn.

Motion: Adjourn Public Enterprise Committee meeting
Motion made by: Council Member Julie Thompson.
Second: Council Member James Kerr
Voting: **In Favor** – Council Member Julie Thompson, Council Member Freddie Gordon and Council Member James Kerr
Opposed – None
Action: Motion is approved

There being no further business, the meeting adjourned at 4:19 p.m.

James Kerr, Chair

Next Meeting – January 2, 2023 at 4:00 p.m.

Public Enterprise Committee Minutes
Special Meeting
January 5, 2024
Energy Service Conference Room
1:00 p.m.

Members Present: Council Member James Kerr (Chair), Council Member Julie Thompson

Staff: Mark Watson, Terry Sholar, Robert Miller, Scott Clark, Lisa Strickland, Lisa Hollowell, Kyle Ketchum, Darrell Hobbs, Chuck Derrick, Rich Riser, Amy Cook, David Rankin

Guest: Loretta Malencon

Council Member James Kerr called the January 5, 2024 Public Enterprise Committee meeting to order at 1:15 p.m.

Item #1: Overview of Energy Services Department

Robert Miller provided an overview of the Energy Services Department which included electric, natural gas, and several future projects that are coming up that are joint between electric and gas and some that involve Water Resources.

The overview of the Electric system included information on the history, NCMPA #1 (Electricities), Growth, system improvements, rates, and reliability.

The overview of the Natural Gas system included information on the history, gas delivery, transmission pipeline, LNG Plant, gas purchasing, growth, system improvements, rates, and reliability.

Mr. Miller further explained the upcoming Energy Services projects including technology upgrades to support outage management, City Works, and Advanced Meter Infrastructure and the future warehouse facility.

Item #2: Overview of Water Resources Department

Scott Clark provided an overview of the Water Resources Department which included an overview of the current staffing, departmental facts, water supply information, information regarding potential future water supply options, and information on the water supply protection measures.

Mr. Clark gave an overview of the engineering data and upcoming projects/initiatives including the CIP pipeline projects, Water Treatment Plant, and Wastewater Treatment Plant. He addressed the upcoming regulatory challenges and the overall distribution/collection system challenges.

Upon closure of the discussions Council Member James Kerr, Council Member Julie Thompson, Mark Watson, Lisa Hollowell and various Water Resources staff members toured the Wastewater and Water Treatment plants.

Motion for adjournment was made by Council Member James Kerr and Second by Council Member Julie Thompson.

Next Meeting – February 6, 2024



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: February 6, 2024

FROM: Robert Miller, Director of Energy Services

PREPARED BY: Eric R. Howell, Electric Operations Manager

SUBJECT: Substitute the purchase of (1) DM47E-AWD Digger Derrick in the place of (1) DH50 Digger Derrick.

SUMMARY STATEMENT

The Public Enterprise Committee is requested to consider approving the substitution of (1) DM47E-AWD Digger Derrick for (1) previously approved DH50 Digger Derrick for the Energy Services Department – Electric Division due to the extension of the delivery schedule.

REVIEW

Altec, Inc. has extended the delivery schedule for the two (2) DH50 Digger Derrick trucks due to supply chain issues impacting the chassis manufacturer. Altec, Inc. has identified a truck that was built close to our specifications without a buyer. Two (2) DH50 Digger Derricks were approved by City Council on April 11, 2023 in the amount of \$340,321 per truck and funds were encumbered on Purchase Order #231155. The Electric division is requesting the substitution of one (1) DM47E-AWD Digger Derrick truck with one (1) previously approved DH50 Digger Derrick truck.

Altec Industries, Inc. has provided a quote to the City for one (1) DM47E-AWD Digger Derrick truck in the amount of \$281,146.00. Additional modifications will be needed upon delivery of the truck. These modifications are estimated to cost \$40,000. It is recommended to submit a change order to Purchase Order #231155 for the purchase of one (1) DM47E-AWD Digger Derrick and to keep the additional funding encumbered for modifications upon receipt of the truck. Staff seeks the Public Enterprise Committee's approval for a change order to Purchase Order #231155 for the substitution of one (1) DM47E-AWD for one (1) DH50 Digger Derrick truck.

RECOMMENDATION

Staff requests the Public Enterprise Committee approve sending this request to City Council for approval to submitting a change order to Purchase Order #231155 for the substitution of one (1) DM47E-AWD Digger Derrick for one (1) DH50 Digger Derrick truck and to keep the additional funding for future modifications. Staff requests that this item is placed on the City Council consent agenda to authorize the City Manager to execute the necessary documents.



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: February 6, 2024

FROM: Rob Miller, Director of Energy Services
Scott Clark, Director of Water Resources

PREPARED BY: Rob Miller, Director of Energy Services

SUBJECT: Approval of contract for Consulting Services for the Cityworks Implementation and Integration

SUMMARY STATEMENT

Energy Services and Water Resources staff requests the Public Enterprise Committee to consider approving the contract for Black and Veatch to provide consulting services for the Energy Services and Water Resources Cityworks project.

REVIEW

Energy Services and Water Resources will be implementing the Cityworks software as the work management software. The Energy Services department completed a Request for Qualifications (RFQ) in August 2022 to determine the best qualified firm and software to implement for work management. Black and Veatch was selected and has completed the initial scope of work.

Black and Veatch will provide Cityworks implementation and configuration, integration with MUNIS, personnel training, and system testing. The contract for Black and Veatch to provide the services will not exceed \$719,850.00. Energy Services will contract \$386,930, sufficient funds are available in the capital projects EL 2304 and NG 1202 budgets. Water Resources will contract \$332,920. Water Resources will present a staff report for a budget amendment.

RECOMMENDATION

Staff requests the Public Enterprise Committee approve sending the contract for Black and Veatch to provide consulting services for the Energy Services and Water Resources Cityworks project. City Council for approval. Staff requests that this item is placed on the City Council consent agenda to authorize the City Manager to execute the necessary documents.



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: February 6, 2024

FROM: Scott Clark, Water Resources Director

PREPARED BY: Scott Clark, Water Resources Director

SUBJECT: Budget Amendment to Cover Cost for Consulting Services for the Cityworks Implementation and Integration Project

SUMMARY STATEMENT

The Public Enterprise Committee (PEC) is requested to approve a budget amendment to the Water and Sewer Fund to provide needed funds to cover cost for Consulting Services for the Cityworks Implementation and Integration Project

REVIEW

Energy Services and Water Resources will be implementing the Cityworks software as the work management software. The Energy Services and Water Resources department completed a Request for Qualifications (RFQ) in August 2022 to determine the best qualified firm and software to implement for work management. Black and Veatch was selected and has completed the initial scope of work.

Black and Veatch will provide Cityworks implementation and configuration, integration with MUNIS, personnel training, and system testing. The contract for Black and Veatch to provide the services will not exceed \$719,850.00. Energy Services will contract \$386,930, sufficient funds are available in the capital projects EL 2304 and NG 1202 budgets.

Water Resources will need a Budget Amendment in the amount of \$332,920 from the Water and Sewer Fund Balance to cover the project costs.

RECOMMENDATION

Is it the recommendation of Staff that the Public Enterprise Committee takes the following action:

Approve the BA-2024-02 and forward to City Council for consideration on the February 13, 2024 consent agenda.

Attachment(s):
BA-2024-02

**CITY OF MONROE
BUDGET AMENDMENT
BA-2024-02**

Amendment necessary to appropriate an additional \$332,920 to cover cost for Consulting Services for the Cityworks Implementation and Integration Project.

Water & Sewer Fund:

Revenues:

Appropriation of Fund Balance

\$ 332,920

Expenditures:

Work Order Management System Project

\$ 332,920

Adopted this 13th day of February, 2024.

Marion Holloway, Mayor

Attest:

Bridgette H. Robinson, City Clerk



STAFF REPORT

TO: Public Enterprise Committee

VIA: William M. Watson, City Manager

DATE: February 6, 2024

FROM: Scott E. Clark, Director of Water Resources

PREPARED BY: Richard Riser, Water Resources Engineering Manager

SUBJECT: Lining Rehabilitation of Domestic Water Distribution Main – Vann Street and Jackson Street

SUMMARY STATEMENT

The PEC is requested to consider a water main lining contract for rehabilitation of existing City of Monroe water mains located along Vann Street and Jackson Street.

REVIEW

As part of the City of Monroe water asset management program, Staff has researched polymeric lining rehabilitation method for water main rehabilitation. The intent is to expand the City's ability to complete water main rehabilitation and maintain excavation to as little as possible. This will be a method of rehabilitation in addition to the water main pipe bursting and open cut replacement methods presently being used.

As part of the research of the lining system, Staff coordinated with Mainlining America, LLC, a company specializing in this lining methodology that has done this form of water main rehabilitation in the Charlotte area. Staff selected water main sections that would provide the least amount of service disruption as well as providing enhancement to the hydraulics of the water system. These sections are Vann Street between East Roosevelt Blvd. to Lockhart Street. and Jackson Street between McCarten Street and Welsh Street. Total length of lining is approximately 1,110 lineal feet of 6" cast iron pipe.

This lining methodology has a limited number of contractors in the local (Southeast United States) area. Staff obtained pricing from Mainlining America as well as a second company, American Pipeline Solutions, who also does this type of lining. Their pricing is shown below:

Mainlining America - \$206,650.00
American Pipeline Solutions - \$395,450.00

Staff believes Mainlining America, LLC total cost proposal for the lining project of \$206,650.00 is an acceptable cost when compared to comparable open cut or pipe bursting projects. Funds for the lining project are available as part of the operations budget for the Water Resources Department, Construction Division.

RECOMMENDATION

It is the recommendation of Staff that Public Enterprise Committee take the following action:

Staff recommends the award of a contract for the Lining Rehabilitation of Domestic Water Distribution Main project to Mainlining America, LLC in the amount of \$206,650.00, authorization for the City Manager to execute the necessary agreements and recommends forwarding to City Council for consideration on the February 13, 2024 consent agenda.

Attachments:

Contract for Lining Rehabilitation of Domestic Water Distribution Main



**WATER RESOURCES DEPARTMENT
PROJECT NUMBER 23-12**

**CONTRACT FOR
LINING REHABILITATION OF DOMESTIC
WATER DISTRIBUTION MAIN**

“Contract”

JACKSON STREET AND VANN STREET

CONTRACT FOR *Lining Rehabilitation of Domestic Water Distribution Main*

This Contract is made and entered into as of the ____ day of _____, 2023, by the City of Monroe (“City”) and Mainlining America, LLC (“Contractor”), () a corporation, () a professional corporation, () a professional association, (X) a limited partnership, () a sole proprietorship, or () a general partnership; organized and existing under the laws of the State of New York.

Section 1. **Background and Purpose.** The City seeks the services of a qualified contractor to perform polymeric lining rehabilitation of domestic water distribution main.

Section 2. **Services and Scope to be Performed.** The Contractor shall provide polymeric lining rehabilitation as described in Attachment C at locations including but not limited to those described in Attachment D. As part of the services described in Attachment C, the City may have an inspector present at the polymeric lining installation, service connections, water main appurtenances (i.e. fire hydrants reconnections) post construction video inspections impacted by this project.

The City reserves the right to adjust the amount of water main segments for polymeric lining rehabilitation. This may involve reduction and/or increase in quantities shown on documents within this contract. Final quantities will be reflected in a contract change order. Depending on the amount and time frame associated with the change in work, a change in contract time will also be considered and included in the change order if warranted.

It will be the responsibility of the Contractor to confirm all measurements, including length and diameter, listed in Attachments E as well as additional line segments added as needed, in the field prior to ordering any materials. The City will not be responsible for any shortage in the length or incorrect diameter of liner ordered by the Contractor.

Upon completion of the work the Contractor shall be responsible for restoring all work areas to a condition at least equal to that existing prior to work beginning. This shall include, but not be limited to; raking, minor grading to remove any tire ruts, seeding, mulching, trash pickup, etc.

After completion of the water distribution main polymeric lining repair portion of the project, the Contractor shall submit to the City paper and digital post-lining station maps, and also a digital copy of the post-lining inspection videos. The station maps and videos shall be submitted within three (3) weeks of the completion of the project.

Contractor shall notify City of their perceived need for traffic control and/or night work at least 2 weeks prior to needing such. City shall have the right

to remove any water distribution main segments requiring traffic control and/or night work from the contract.

In this contract, “Work” means the services that the Contractor is required to perform pursuant to this contract and all of the Contractor’s duties to the City that arise out of this contract. Any amendments, corrections, or change orders by either party must be made in writing signed in the same manner as the original. (This form may be used for amendments and change orders.) The City reserves the right to refuse payment for any work outside that authorized herein or pursuant to a duly approved amendment or change order.

Section 3. **Complete Work without Extra Cost.** Unless otherwise provided, the Contractor shall obtain and provide, without additional cost to the City, all labor, materials, equipment, transportation, facilities, services, permits, and licenses necessary to perform the Work.

Time frame for this contract is as follows:

Total Contract Time: 90 Calendar days from Contract Notice to Proceed.
Commencement of Construction: 15 Calendar days from Construction Notice to Proceed.

Construction Notice to Proceed anticipated on or about September 5, 2023

Section 4. **Compensation.** The City shall pay the Contractor for the Work as follows: as described in Attachment B. Total for Contract includes the base bid. The City shall not be obligated to pay the Contractor any payments, fees, expenses, or compensation other than those authorized by this section.

Section 5. **Contractor’s Billings to City.** Contractor shall submit an original pay request to the City construction inspector or project manager. It is suggested the Contractor superintendent meet with the City’s construction inspector or manager prior to submitting the pay request to verify quantities of work completed, materials, and values. The pay request shall contain the following items, all submitted on City forms (digital forms are available upon request):

- a. Recommendation for payment – all fields complete including history of change orders as appropriate;
- b. Affidavit and Lien Waiver or Release – Notarized original with all fields complete;
- c. Tax Statement and Certification – Notarized original with all fields complete;

- d. Tax Table listing itemized invoices and showing county where tax was paid. Include copies of invoices that are itemized in the tax table. Submit notarized originals. If claiming no tax for the period, submit the statement and certification with table and note “no sales tax for this period” on the form.

Upon receipt of the above the City will verify the amounts and if all of the forms are correct and the amounts correct, the Contractor can expect payment within 15 days. For final payment after acceptance of the work by the City, submit an official pay request as outlined above. In addition, the request shall include an Affidavit of Final Payment (notarized original with all fields complete), and a Consent of Surety to Final Payment (notarized original with all fields complete) if applicable.

Section 6. **Insurance.** Contractor shall maintain insurance policies at all times with minimum limits as follows:

COVERAGE	MINIMUM LIMITS
Workers’ Compensation	Statutory Limits
Employers’ Liability	\$500,000
General Liability	\$1,000,000 per occurrence/\$2,000,000 aggregate
Automobile Liability	\$1,000,000
Professional Liability (E & O)	\$1,000,000 per occurrence/\$2,000,000 aggregate

Contractor shall provide the City with a Certificate of Insurance for review prior to the issuance of any contract or Purchase Order. This should be an ACORD form (example attached). All Certificates of Insurance will require thirty (30) days written notice by the insurer or contractor’s agent in the event of cancellation, reduction or other modifications of coverage. In addition to the notice requirement above, Contractor shall provide the City with immediate written notice of cancellation, reduction, or other modification of coverage of insurance. Upon failure of the Contractor to provide such notice, Contractor assumes sole responsibility for all losses incurred by the City for which insurance would have provided coverage. The insurance certificate shall be for the initial contract period of one (1) year and shall be renewed by the contractor for each subsequent renewal period of the contract.

The City shall be named as an additional insured and it is required that coverage be placed with “A” rated insurance companies acceptable to the City. Statement should read “City of Monroe is to be added as an additional insured as evidenced by an endorsement attached to this certificate.” Failure to maintain the required insurance in force may be cause for contract

termination. In the event that the contractor fails to maintain and keep in force the insurance herein required, the City has the right to cancel and terminate the contract without notice.

Contractor shall provide proof that a Drug-Free Workplace Program is in place and that drivers meet DOT/CDL licensing requirements.

Section 7. **Performance of Work by City.** If the Contractor fails to perform the Work in accordance with the schedule referred to in Section 2 above, the City may, in its discretion, in order to bring the project closer to schedule, perform or cause to be performed some or all of the Work, and doing so shall not waive any of the City's rights and remedies. Before doing so, the City shall give the Contractor reasonable notice of its intention. The Contractor shall reimburse the City for all costs incurred by the City in exercising its right to perform or cause to be performed some or all of the Work pursuant to this section.

Section 8. **Attachments.** The following attachments are made a part of this contract and incorporated herein by reference:

Attachment A: Certificate of Insurance containing **One (1)** page(s).

Attachment B: Contractor Quote Form containing **Six (6)** page(s).

Attachment C: General Conditions and Special Provisions
containing **Twenty six (26)** page(s).

Attachment D: Technical Specifications containing **Twenty (20)** page(s).

Attachment E: Lining Candidates List containing **one (1)** page(s).

Attachment F: Lining Candidates Maps containing **(2)** page(s).

In case of conflict between an attachment and the text of this contract excluding the attachment, the text of this contract shall control. Any attachment which materially alters the standard terms contained herein must be reviewed pursuant to the City's Contract Review Procedure.

Section 9. **Notice.**

- a. All notices and other communications required or permitted by this contract shall be in writing and shall be given either by personal delivery, fax, or certified United States mail, return receipt requested, addressed as follows:

To the City:

To the Contractor:

(By hand delivery, overnight delivery services, or other methods requiring a physical address):

Richard Riser, P.E.
City of Monroe
300 West Crowell Street
Monroe, NC 28112
Phone: (704) 282-4601

Christopher Hardy, P.E.
Mainlining America, LLC
555 Pound Road
Elma, New York 14059
Phone: (716) 652-3700

*(By United States Postal
Service):*

City of Monroe
P.O. Box 69
Monroe, NC 28111-0069

Mainlining America, LLC
P.O. Box 96
Elma, New York 14059

Fax Number: (704) 290-1818

Fax Number: (716) 652-9234

- b. Change of Address, Date Notice Deemed Given: A change of address, fax number, or person to receive notice may be made by either party by notice given to the other party. Any notice or other communication under this contract shall be deemed given at the time of actual delivery, if it is personally delivered or sent by fax. If the notice or other communication is sent by US Mail, it shall be deemed given upon the third calendar day following the day on which such notice or other communication is deposited with the US Postal Service or upon actual delivery, whichever first occurs.

Section 10. **Indemnification.** To the maximum extent allowed by law, unless otherwise prohibited under applicable limitations in Chapter 22B-1 of the North Carolina General Statutes, the Contractor shall defend, indemnify, and save harmless the City of Monroe, its agents, officers, and employees, from and against all charges that arise in any manner from, in connection with, or out of this contract as a result of the acts or omissions of the Contractor or subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable except for damage or injury caused by the negligence of the City its agents, officers, or employees. In performing its duties under this section, the Contractor shall at its sole expense defend the City of Monroe, its agents, officers, and employees with legal counsel reasonably acceptable to City. As used in this subsection – “Charges” means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, expenses, interest, reasonable attorney’s fees, and amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders. Nothing in this section shall affect any warranties in favor of the City that are otherwise provided in or arise out of this contract. This section is in addition to and shall be construed separately from any other indemnification

provisions that may be in this contract. This section shall remain in force despite termination of this contract (whether by expiration of the term or otherwise) and termination of the services of the Contractor under this contract.

Section 11. **E-Verify Requirement.** The Contractor shall comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Further, if the Contractor utilizes a subcontractor, the Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes.

Section 12. **Miscellaneous.**

- a. **Choice of Law and Forum.** This contract shall be deemed made in Union County, North Carolina. This contract shall be governed by and construed in accordance with the law of North Carolina. The exclusive forum and venue for all actions arising out of this contract shall be the appropriate division of the North Carolina General Court of Justice, in Union County. Such actions shall neither be commenced in nor removed to federal court. This section shall not apply to subsequent actions to enforce a judgment entered in actions heard pursuant to this section.
- b. **Waiver.** No action or failure to act by the City shall constitute a waiver of any of its rights or remedies that arise out this contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.
- c. **Performance of Government Functions.** Nothing contained in this contract shall be deemed or construed so as to in any way estop, limit, or impair the City from exercising or performing any regulatory, policing, legislative, governmental, or other powers or functions.
- d. **Severability.** If any provision of this contract shall be unenforceable, the remainder of this contract shall be enforceable to the extent permitted by law.
- e. **Assignment, Successors and Assigns.** Without the City's written consent, the Contractor shall not assign (which includes to delegate) any of its rights (including the right to payment) or duties that arise out this contract. Unless the City otherwise agrees in writing, the Contractor and all assigns shall be subject to all of the City's defenses and shall be liable for all of the Contractor's duties that arise out of this contract and all of the City's claims that arise out of

this contract. Without granting the Contractor the right to assign, it is agreed that the duties of the Contractor that arise out of this contract shall be binding upon it and its heirs, personal representatives, successors, and assigns.

- f. Compliance with Law. In performing all of the Work, the Contractor shall comply with all applicable law.
- g. City Policy. THE CITY OPPOSES DISCRIMINATION ON THE BASIS OF RACE AND SEX AND URGES ALL OF ITS CONTRACTORS TO PROVIDE A FAIR OPPORTUNITY FOR MINORITIES AND WOMEN TO PARTICIPATE IN THEIR WORK FORCE AND AS SUBCONTRACTORS AND VENDORS UNDER CITY CONTRACTS.
- h. EEO Provisions. During the performance of this Contract the Contractor agrees as follows:
 - (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or handicap. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated equally during employment, without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or handicap. The Contractor shall post in conspicuous places available to employees and applicants for employment, notices setting forth these EEO provisions;
 - (2) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or handicap.
- i. No Third Party Right Created. This contract is intended for the benefit of the City and the Contractor and not any other person.
- j. Principles of Interpretation. In this contract, unless the context requires otherwise, the singular includes the plural and the plural the singular. The pronouns “it” and “its” include the masculine and feminine. Reference to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation. References to contracts and agreements shall be deemed to include all amendments to them. The word “person”

includes natural persons, firms, companies associations, partnerships, trusts, corporations, governmental agencies and units, and any other legal entities.

- k. Modifications, Entire Agreement. A modification of this contract is not valid unless signed by both parties and otherwise in accordance with requirements of law. Further, a modification is not enforceable against the City unless the City Manager or other duly authorized official signs it for the City. This contract contains the entire agreement between the parties pertaining to the subject matter of this contract. With respect to that subject matter, there are no promises, agreements, conditions, inducements, warranties, or understandings, written or oral, expressed or implied, between the parties, other than as set forth or referenced in this contract.



WATER RESOURCES DEPARTMENT

CONTRACT FOR LINING REHABILITATION OF DOMESTIC WATER DISTRIBUTION MAIN

“Payment Request Forms”

RECOMMENDATION FOR PAYMENT

CONTRACTOR: _____

PAY ESTIMATE NUMBER:

PROJECT TITLE:

APPLICATION DATE: _____

PROJECT NUMBER: _____

APPLICATION AMOUNT:**CONTRACT DATE:** _____

FOR PERIOD ENDED: _____

ORIGINAL CONTRACT PRICE: \$

PRIOR CHANGE ORDERS: \$ _____

CURRENT PERIOD CHANGE ORDERS: \$

CURRENT CONTRACT PRICE: \$ _____

WORK COMPLETED TO DATE: \$ _____

STORED MATERIALS: S

SUBTOTAL: \$ _____

**** LESS _____% AMOUNT RETAINED: \$ _____**

SUBTOTAL: \$ _____

LESS PREVIOUS PAYMENTS: \$

AMOUNT REQUESTED FOR PAYMENT:\$

CHANGE ORDER SUMMARY

Change Order #	Date	Add (Delete)
-------------------	------	--------------

CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information, and belief, the work covered by this Payment Request has been completed in accordance with the Contract Documents, that all previous payments to Contractor under the Contract have been applied to discharge in full all obligations in connection with the Work covered by all prior applications of payments, and that current payment requested herein is correct; due, and unpaid. Contractor has provided all supporting documentation necessary to support Payment Request, including invoice copies representing stored materials and a signed Tax Statement and Certification regarding sales taxes paid.

CONTRACTOR SIGNATURE: _____ DATE: _____

**** Retainage will be 5% up to 50% total completion of work, 2-1/2% thereafter until completion of contract, 0% retainage on contracts less than \$100,000.00.**

PAYMENT APPROVALS

Engineering Firm Field Representative: _____ Date: _____

Engineering Firm Project Manager: _____ Date: _____

City Utilities Director: _____ Date: _____

City Finance Officer: _____ Date: _____

Project Account Number to be charged: _____

AFFIDAVIT AND RELEASE OR WAIVER OF LIEN

The undersigned _____ of _____

For the construction Contract of the

For the City for Monroe, North Carolina, dated _____, covering labor and materials
is entitled to _____ due upon receipt of same does hereby state and represent
that:

All work is performed and materials furnished as required by the contract up to and including the
date hereof, including work and materials, if any, performed or furnished by subcontractors and
vendors; and that all costs including payroll for labor, bills for materials sales of privilege taxes or
license, Old Age Benefit Tax, State and Federal Unemployment Insurance, and any other liabilities
have been paid in full, or funds are in hand to discharge such costs and liabilities and that the
Contractor hereby waives any and all liens and will save the Owner harmless without additional
expense from any such claim or lien under this contract.

Exceptions: (If none, write **"None"**)

Signed this _____ day of _____, 20____.

Witness:

Contractor

By: _____

State of _____

County of _____

Subscribed and sworn to before the undersigned, a Notary Public, in and for the County and State
aforesaid, this _____ day of _____, 20____.

(Seal)

Notary Public

My commission expires:

TAX STATEMENT AND CERTIFICATION

This is to certify that the foregoing or attached statements is a true and complete statement of all North Carolina and Local Sales or Use Tax paid by the undersigned contractor from _____, 20__ to _____, 20__ inclusive for the materials and equipment that were or will become a part of the construction of the

(THE FOLLOWING PORTION TO BE FILLED OUT BY GENERAL CONTRACTOR ONLY)

It is further certified that

are all of the sub-contractors that are, or were engaged by this contractor in the performance of this contract and whose tax statements are also enclosed herewith.

"The CONTRACTOR will pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed. The CONTRACTOR shall provide along with each pay request a detailed list of all sales taxes paid along with a copy of all invoices, on forms approved by the OWNER, for all materials incorporated into this project and all consumable materials used in the construction of the PROJECT. The CONTRACTOR shall maintain on file for up to three (3) years a copy of all invoices and the list of sales tax paid on this PROJECT."

CONTRACTOR OR SUBCONTRACTOR

Sworn and subscribed before me:

This _____ day of _____, 20__.

Notary Public

My Commission Expires: _____

SALES TAX REPORT

CONTRACTOR
CONTRACT NO.

DATE
MONTH OF

[illegible]

This is to certify that the above enumerated sales tax amounts were paid by _____ on items purchased for use in construction of _____ during the period _____ through _____.

BY: _____

Sworn to and subscribed before me this _____ day of _____, 20_____

Notary Public

My commission expires:

* Recommendation to Contractor: Have vendor identify on all invoices the County where tax was paid and enter the names of the County here. Otherwise, enter County from where goods were shipped. If out of State, enter "Union".

***If the invoice is not a purchase from Mecklenburg County please enter zero in the Tax field for Additional Meck. Co. Tax ***

*** Insert any additional tax amount other than Mecklenburg or Union County

NORTH CAROLINA

UNION COUNTY

AFFIDAVIT OF FINAL PAYMENT

The undersigned _____ first being duly sworn deposes
and says: _____
Name of Affiant

2. That he is the _____ of
_____ Title
_____ and that as such has personal knowledge of the
Name of Company
things state herein and has authority to execute this affidavit.

3. That he is familiar with the various activities in which _____
Name of Company
_____ participated during the performance of its contract with the City of
Monroe dated _____, 20____.

4. That all work has been performed and materials furnished as required by the
contract.

5. That all costs incurred by _____ in its
performance of the contract including but not limited to labor, materials, subcontracts, taxes of
all kinds whether federal, state, or local, third party claims, and any other liabilities been paid in
full or will be paid in full from the proceeds of the final check.

6. That he is unaware of any claims which have been filed against the surety for the
contract.

7. That the affidavit is executed and given as an inducement to the City of Monroe
to issue the final check due the contractor on the contract.

(SEAL)

Sworn and subscribed before me

This _____ day of _____, 20____.

Notary Public

My Commission Expires: _____

Share\forms\contract\affidavi

AFP-1



WATER RESOURCES DEPARTMENT

CONTRACT FOR LINING REHABILITATION OF DOMESTIC WATER DISTRIBUTION MAIN

“Contractor Certificate of Insurance”

Attachment “A”



MAINSER-01

RHOHNE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/17/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Kore Insurance Holdings, LLC P.O. Box 473 354 Eisenhower Parkway, Plaza 1 Livingston, NJ 07039	CONTACT NAME: PHONE (A/C, No, Ext): (973) 577-8627 FAX (A/C, No): E-MAIL ADDRESS: rhohne@koreins.com
	INSURER(S) AFFORDING COVERAGE INSURER A: Starr Indemnity & Liability Company INSURER B: Travelers Indemnity Company INSURER C: INSURER D: INSURER E: INSURER F:
	NAIC # 38318 25658

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PROJECT ☐ LOC OTHER:	X		1000090667221	8/31/2022	8/31/2023	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY	X		1000635869221	8/31/2022	8/31/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☐ RETENTION \$	X		1000586537221	8/31/2022	8/31/2023	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000
A	☒ WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		100 0004765	8/31/2022	8/31/2023	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Excess Umbrella	X		EX-8T11363A-22-NF	8/31/2022	8/31/2023	Limit 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

If required by written contract:

- ~ City of Monroe is included as Additional Insured.
- ~ 30 days notice of cancellation, except 10 days for non-payment of premium.

CERTIFICATE HOLDER

CANCELLATION

CITY OF MONROE 300 W Crowell Street Monroe, NC 28112	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
---	---



WATER RESOURCES DEPARTMENT

**CONTRACT FOR
LINING REHABILITATION OF DOMESTIC
WATER DISTRIBUTION MAIN**

“Contract Proposal”

Attachment “B”

Mainlining America, Inc. (“Mainlining” or “Contractor”) hereby submits this proposal (hereinafter, the “Proposal”), designated as Proposal No. 23-501-1, to City of Monroe Water Resources (hereinafter, the “Owner”), relating to the performance of work on the following Project:

PROJECT Cleaning and Lining Jackson St

OWNER City of Monroe Water Resources
300 W Crowell St, Monroe NC 28112

The Scope of Work and Pricing under this Proposal is explained in detail below.

I. SCOPE OF WORK & PRICING

Mainlining proposes to perform field-applied pipe lining as per the bid tabulation quantities itemized in Section II of this Proposal. In consideration for the Scope of Work identified herein and pursuant to the terms of this Proposal, Owner agrees to pay Mainlining the sum of:

\$96,100.00 W/Out Temp Water System
\$101,600.00 W/ Temp Water System

The Price above is broken down in the work items below:

Bid Item	Qty.	Units	Description	Unit Price	Total Price
1	1	LS	Mobilization	\$15,000.00	\$15,000.00
2	550	LF	6” Water Main Cleaning and Lining	\$142.00	\$78,100.00
3	1	EA	6” Gate Valve Replacement	\$3,000.00	\$3,000.00
4	0	EA	Fire Hydrant Replacement	\$9,500.00	
5	1	LS	Temporary Water Main	\$5,500.00	\$5,500.00

Performed by Mainlining:

1. Mainlining will provide labor, equipment, and materials necessary to complete the above-referenced work items.
2. Mainlining will allow for one (1) equipment mobilization on the Project.
3. Mainlining will work on standard weekday shifts, for eight (8) hours per day (forty (40) hours per week).
4. Mainlining’s Scope of Work will be completed as per relevant local, federal, Owner, and ACI specifications.
5. Provide, install, and remove a complete temporary bypass system using 2” & 4” temporary pipe as needed for the entire duration of the project.
 - a. All bypass pipe and temporary service material will be NSF 61 approved
 - b. All bypass mains will be chlorinated and tested in line with state and county health requirements prior to connection to the buildings
 - c. MA will have an employee on call to address any emergency bypass concerns 24/7 during the duration of the project

6. Provide all needed access excavations and shoring for cleaning and lining operations. Excavations to be approximately 5' x 7' x 1' below pipe invert.
 - a. MA will shore and protect all excavations per OSHA standards
 - b. Due to existing layout not being known – Mainlining has included 4 excavations. Any additional excavations required due to unforeseen conditions will be billed at \$6,000/ea.
7. Cut out pipe (4'-5' sections), dewater the water main to be lined, and provide a suitable dry shut down for clean and line operations.
8. Clean and line 6" & 12" water mains as shown on the provided layout drawing using 3mm of polymeric lining
9. CCTV water main post cleaning and post lining.
10. All mains will be chlorinated and tested in line with state and county health requirements prior to reinstatement.
11. Provide labor, equipment and MJ material, pipe, couplings, tees, and misc. fittings needed to close and recommission the water mains for service. Spec for material will be to local requirements.
12. Reinstall existing fire hydrant, if a new one is requested it can be replaced for \$11,000.00 including a new gate valve
13. Provide Certificate of Insurance naming Owners as additional insureds with limits of \$1,000,000/\$2,000,000.
14. Provide standard traffic control and maintenance and protection of traffic (MPT).

Performed by Owner and/or Others:

1. Provide Mainlining with access to the Project site for necessary trucks, construction equipment, and machines at all access points.
2. Provide Mainlining with complete and free access to use necessary equipment in performing its Scope of Work.
3. Make staging areas available, as necessary, for Mainlining to perform its Scope of Work.
4. Supply water for mixing, cleaning, and curing through a 1-inch hose at the batching point.
5. Any surveying and layout necessary for Mainlining to perform its Scope of Work if required.
6. Utility identification and relocation as necessary to allow Mainlining to perform and complete its Scope of Work.
7. Temporary power and water supply.
8. Provide any required permits

Assumptions and General Conditions:

1. One mobilization of specialized lining equipment from various locations around the country is included in our proposal. Absent unforeseen and extraordinary circumstances, if additional mobilization is necessary, it will be provided at no additional charge.
2. Based on the uncertainty of the amount of bends in the mains, Mainlining America has used 4 lining access pits for the entire project (broken down above) built into our pricing – additional pits above and beyond our assumed number due to bends in the main will be charged at \$6,000.00 each
3. MA anticipates approximately 15-20 working days to complete this work weather permitting, but there will be no increase in price if additional working days are required for this work
4. Location of water mains, Hydrants, Valves and all other fittings are as per drawings provided by the Owners. MA will coordinate with Miss Utilities to survey all excavation locations as required by law.
5. No permits are included in our proposal.
6. All sales taxes are excluded based on capital improvements.
7. Owners will provide suitable safe staging and storage area near the project location – this includes an area large enough for a 20' Conex storage box, 3 flatbed trucks, a backhoe and new pipe / fittings
8. MA will provide a dumpster for its own construction debris



Payment Terms and schedule of values:

1. Payment shall be made to Mainlining no later than thirty (30) days after Mainlining submits its monthly payment estimates.
2. Standing time for delays to MA progress caused or allowed to exist by the Owners will be \$325.00 per half hour, due from delaying Owner. A delay will be deemed to be "caused or allowed to exist by the Owners" if Owners' principals, employees, agents, representatives, contractors (except MA) suppliers, vendors or tenants cause such delay and, upon MA providing written notice to Owners, Owners either refuse to remedy the situation or condition causing the delay and allow MA to proceed immediately with its work OR, upon notice to the Owners by MA, the Owners refuse to immediately promptly compel their principals, employees, agents, representatives, contractors (except MA), suppliers, vendors, laborers or tenants to remedy the situation or condition causing the delay to allow MA to proceed immediately with its work.
3. In the event unforeseen conditions are encountered, the Owners and their representatives will be contacted immediately, from that point on work outside of MA scope will be charged at a T&M rate upon written approval by Owners, which shall not be unreasonably withheld.
4. This proposal is valid for 30 days from the quotation date.
5. Written notice for MA to move onto site shall be issued at least 30 days in advance of the date on which MA is to start work.
6. Proposal is priced as a complete package. Any changes to this scope will require revised pricing.
7. If requested Mainlining can provide a bond for the project at a rate of 2.5% of the total contract value.
8. This Proposal, if accepted by Contractor, shall be incorporated by reference into any agreement entered into between Contractor and Mainlining.
9. In the event of any conflict between the Scope of Work set forth above and the terms of any such agreement and other documents incorporated by reference therein, the Scope of Work, terms, and conditions set forth in this Proposal shall govern.
10. Any controversy or dispute arising out of or relating to the Agreement or the breach hereof shall be settled by binding arbitration. The arbitration shall be conducted in accordance with the rule existing at the date of such controversy of the American Arbitration Associations (the "AAA"), except the dispute shall be submitted to one arbitrator who shall have working knowledge and experience with disputes regarding the subject matter of the Agreement. The arbitration proceedings shall be held in Baltimore, State of Maryland. Judgement may be entered on any award rendered by the arbitrator in any federal or state court having jurisdiction. Each of the parties shall bear its own fees and expenses in connection with the arbitration, hereunder, including legal fees and expenses, and shall each pay one-half (1/2) of any costs and expenses of the arbitrator.

The parties signed below agree to the scope of work, terms and conditions as set forth in this document.

Signed: Christopher Hardy, PE
Mainlining America, LLC

Date: 5/3/2023

Signed: _____
"Owner"
Address

Date: _____

Mainlining America, Inc. (“Mainlining” or “Contractor”) hereby submits this proposal (hereinafter, the “Proposal”), designated as Proposal No. 23-501, to City of Monroe Water Resources (hereinafter, the “Owner”), relating to the performance of work on the following Project:

PROJECT Cleaning and Lining Vann Street

OWNER City of Monroe Water Resources
300 W Crowell St, Monroe NC 28112

The Scope of Work and Pricing under this Proposal is explained in detail below.

I. SCOPE OF WORK & PRICING

Mainlining proposes to perform field-applied pipe lining as per the bid tabulation quantities itemized in Section II of this Proposal. In consideration for the Scope of Work identified herein and pursuant to the terms of this Proposal, Owner agrees to pay Mainlining the sum of:

\$105,050.00 W/ Temp Water System
\$99,550.00 W/Out Temp Water System

The Price above is broken down in the work items below:

Bid Item	Qty.	Units	Description	Unit Price	Total Price
1	1	LS	Mobilization	\$15,000.00	\$15,000.00
2	550	LF	6” Water Main Cleaning and Lining	\$131.00	\$72,050.00
3	1	EA	6” Gate Valve Replacement	\$3,000.00	\$3,000.00
4	1	EA	Fire Hydrant Replacement	\$9,500.00	\$9,500.00
5	1	LS	Temporary Water System	\$5,500.00	\$5,500.00

Performed by Mainlining:

1. Mainlining will provide labor, equipment, and materials necessary to complete the above-referenced work items.
2. Mainlining will allow for one (1) equipment mobilization on the Project.
3. Mainlining will work on standard weekday shifts, for eight (8) hours per day (forty (40) hours per week).
4. Mainlining’s Scope of Work will be completed as per relevant local, federal, Owner, and ACI specifications.
5. Provide, install, and remove a complete temporary bypass system using 2” & 4” temporary pipe as needed for the entire duration of the project.
 - a. All bypass pipe and temporary service material will be NSF 61 approved
 - b. All bypass mains will be chlorinated and tested in line with state and county health requirements prior to connection to the buildings
 - c. MA will have an employee on call to address any emergency bypass concerns 24/7 during the duration of the project

6. Provide all needed access excavations and shoring for cleaning and lining operations. Excavations to be approximately 5' x 7' x 1' below pipe invert.
 - a. MA will shore and protect all excavations per OSHA standards
 - b. Due to existing layout not being known – Mainlining has included 3 excavations. Any additional excavations required due to unforeseen conditions will be billed at \$6,000/ea.
7. Cut out pipe (4'-5' sections), dewater the water main to be lined, and provide a suitable dry shut down for clean and line operations.
8. Clean and line 6" water mains as shown on the provided layout drawing using 3mm of polymeric lining
9. CCTV water main post cleaning and post lining.
10. All mains will be chlorinated and tested in line with state and county health requirements prior to reinstatement.
11. Provide labor, equipment and MJ material, pipe, couplings, tees, and misc. fittings needed to close and recommission the water mains for service. Spec for material will be to local requirements.
12. Reinstall existing fire hydrant, if a new one is requested it can be replaced for \$11,000.00 including a new gate valve
13. Provide Certificate of Insurance naming Owners as additional insureds with limits of \$1,000,000/\$2,000,000.
14. Provide standard traffic control and maintenance and protection of traffic (MPT).

Performed by Owner and/or Others:

1. Provide Mainlining with access to the Project site for necessary trucks, construction equipment, and machines at all access points.
2. Provide Mainlining with complete and free access to use necessary equipment in performing its Scope of Work.
3. Make staging areas available, as necessary, for Mainlining to perform its Scope of Work.
4. Supply water for mixing, cleaning, and curing through a 1-inch hose at the batching point.
5. Any surveying and layout necessary for Mainlining to perform its Scope of Work if required.
6. Utility identification and relocation as necessary to allow Mainlining to perform and complete its Scope of Work.
7. Temporary power and water supply.
8. Provide any required permits

Assumptions and General Conditions:

1. One mobilization of specialized lining equipment from various locations around the country is included in our proposal. Absent unforeseen and extraordinary circumstances, if additional mobilization is necessary, it will be provided at no additional charge.
2. Based on the uncertainty of the amount of bends in the mains, Mainlining America has used 3 lining access pits for the entire project (broken down above) built into our pricing – additional pits above and beyond our assumed number due to bends in the main will be charged at \$6,000.00 each
3. MA anticipates approximately 10 working days to complete this work weather permitting, but there will be no increase in price if additional working days are required for this work
4. Location of water mains, Hydrants, Valves and all other fittings are as per drawings provided by the Owners. MA will coordinate with Miss Utilities to survey all excavation locations as required by law.
5. No permits are included in our proposal.
6. All sales taxes are excluded based on capital improvements.
7. Owners will provide suitable safe staging and storage area near the project location – this includes an area large enough for a 20' Conex storage box, 3 flatbed trucks, a backhoe and new pipe / fittings
8. MA will provide a dumpster for its own construction debris



Payment Terms and schedule of values:

1. Payment shall be made to Mainlining no later than thirty (30) days after Mainlining submits its monthly payment estimates.
2. Standing time for delays to MA progress caused or allowed to exist by the Owners will be \$325.00 per half hour, due from delaying Owner. A delay will be deemed to be "caused or allowed to exist by the Owners" if Owners' principals, employees, agents, representatives, contractors (except MA) suppliers, vendors or tenants cause such delay and, upon MA providing written notice to Owners, Owners either refuse to remedy the situation or condition causing the delay and allow MA to proceed immediately with its work OR, upon notice to the Owners by MA, the Owners refuse to immediately promptly compel their principals, employees, agents, representatives, contractors (except MA), suppliers, vendors, laborers or tenants to remedy the situation or condition causing the delay to allow MA to proceed immediately with its work.
3. In the event unforeseen conditions are encountered, the Owners and their representatives will be contacted immediately, from that point on work outside of MA scope will be charged at a T&M rate upon written approval by Owners, which shall not be unreasonably withheld.
4. This proposal is valid for 30 days from the quotation date.
5. Written notice for MA to move onto site shall be issued at least 30 days in advance of the date on which MA is to start work.
6. Proposal is priced as a complete package. Any changes to this scope will require revised pricing.
7. If requested Mainlining can provide a bond for the project at a rate of 2.5% of the total contract value.
8. This Proposal, if accepted by Contractor, shall be incorporated by reference into any agreement entered into between Contractor and Mainlining.
9. In the event of any conflict between the Scope of Work set forth above and the terms of any such agreement and other documents incorporated by reference therein, the Scope of Work, terms, and conditions set forth in this Proposal shall govern.
10. Any controversy or dispute arising out of or relating to the Agreement or the breach hereof shall be settled by binding arbitration. The arbitration shall be conducted in accordance with the rule existing at the date of such controversy of the American Arbitration Associations (the "AAA"), except the dispute shall be submitted to one arbitrator who shall have working knowledge and experience with disputes regarding the subject matter of the Agreement. The arbitration proceedings shall be held in Baltimore, State of Maryland. Judgement may be entered on any award rendered by the arbitrator in any federal or state court having jurisdiction. Each of the parties shall bear its own fees and expenses in connection with the arbitration, hereunder, including legal fees and expenses, and shall each pay one-half (1/2) of any costs and expenses of the arbitrator.

The parties signed below agree to the scope of work, terms and conditions as set forth in this document.

Signed: Christopher Hardy, PE
Mainlining America, LLC

Date: 5/3/2023

Signed: _____
"Owner"
Address
Address

Date: _____



WATER RESOURCES DEPARTMENT

CONTRACT FOR LINING REHABILITATION OF DOMESTIC WATER DISTRIBUTION MAIN

“General Conditions and Special Provisions”

Attachment “C”

GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

**CITY OF MONROE
WATER RESOURCES DEPARTMENT**

Table of Contents

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in Contract Price
15. Time for Completion and Liquidated Damages
16. Correction of Work
17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
19. Payments to Contractor
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights-of-Way
29. Guaranty
30. Taxes
31. Specific Safety Requirements for Especially Hazardous Work

1. DEFINITIONS:

- 1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:
- 1.2 ADDENDA: Written or graphic instruments issued prior to the Bid Opening which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS, by additions, deletions, clarifications or corrections.
- 1.3 AMENDMENT TO AGREEMENT: Written or graphic instruments executed at the same time as the execution of the Agreement authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the Bid Price or Bid Item.
- 1.4 BID: The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.5 BIDDER: Any person, firm or corporation, licensed as a **Public Utilities** Contractor by the State of North Carolina, submitting a BID for the WORK.
- 1.6 BONDS: Bid Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.
- 1.7 CHANGE ORDER: A written order executed by the OWNER and the CONTRACTOR after the execution of the Agreement authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT ITEM.
- 1.8 CONTRACT DOCUMENTS: The contract, including Advertisement for Bids, Invitation to Bid and Instructions to Bidders, Bid, Agreement, Notice of Award, Notice to Proceed, Change Order, Drawings, Specifications, Addenda, when required.
- 1.9 CONTRACT PRICE: The total monies payable to the CONTRACTOR under a lump sum bid, or the estimated total monies payable under a unit price bid based on estimated quantities of the WORK, under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.10 CONTRACT TIME: The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.
- 1.11 CONTRACTOR: The qualified BIDDER submitting the lowest responsive bid with whom the OWNER has executed the Agreement.
- 1.12 DRAWINGS: The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.

- 1.13 ENGINEER: The Water Resources Director of the City of Monroe, or the person, firm or corporation stated in the Project Special Provisions as the Engineer designated by said Director for the Project.
- 1.14 FIELD ORDER: A written order affecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.15 NOTICE OF AWARD: The WRITTEN NOTICE of the acceptance of the BID from the OWNER to the successful BIDDER.
- 1.16 NOTICE TO PROCEED: Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.
- 1.17 OWNER: The City of Monroe, a municipal corporation within and under the laws of the State of North Carolina, for whom the WORK is to be performed.
- 1.18 PROJECT: The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.19 RESIDENT PROJECT REPRESENTATIVE: The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.
- 1.20 SHOP DRAWINGS: ALL DRAWINGS, catalog cuts, diagrams, illustrations, brochures, samples, schedules and other data which are prepared by the CONTRACTOR, or a SUBCONTRACTOR, manufacturer, supplier, or distributor under contract with the CONTRACTOR, which illustrate how specific portions of the WORK shall be fabricated or installed.
- 1.21 SPECIFICATIONS: The Project Special Provisions, and all Standard Specifications and Details of the City of Monroe, North Carolina to which reference is made by the Project Special Provisions as incorporated as a part of the CONTRACT DOCUMENTS, consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.
- 1.22 SUBCONTRACTOR: An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.
- 1.23 SUBSTANTIAL COMPLETION: That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.

- 1.24 SUPPLIERS: Any person, supplier or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site beyond inspection, testing and certification, or start-up services.
- 1.25 WORK: All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.
- 1.26 WRITTEN NOTICE: Any notice to any part of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.
2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS:
- 2.1 The CONTRACTOR may be furnished additional instructions and detail DRAWINGS, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.
- 2.2 The additional DRAWINGS and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail DRAWINGS and instructions.
3. SCHEDULES, REPORTS, AND RECORDS:
- 3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the OWNER may request concerning WORK performed or to be performed.
- 3.2 Prior to the first partial payment estimate the CONTRACTOR shall submit schedules showing the order in which he proposed to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part, and, as applicable:
- 3.2.1 The dates at which special detail DRAWINGS will be required; and
- 3.2.2 Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.
- 3.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK.
4. DRAWINGS AND SPECIFICATIONS:
- 4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper

execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental WORK necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

- 4.2 In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.
- 4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the CONTRACTOR'S risk.

5. SHOP DRAWINGS:

- 5.1 Within fourteen (14) days following the beginning of the CONTRACT TIME, as stated in the Notice to Proceed, unless otherwise stated in the SPECIFICATIONS, the CONTRACTOR shall submit to the ENGINEER catalog cuts, drawings, calculations, etc. as defined in the contract detailing all materials and equipment proposed to be used by the CONTRACTOR for the construction of the project, and all appurtenances, as part of the WORK. If required by the SPECIFICATIONS, the CONTRACTOR shall also provide other SHOP DRAWINGS as may be necessary for the prosecution of the WORK. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING, which substantially deviates, from the requirements of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.
- 5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.
- 5.3 Portions of the WORK requiring a SHOP DRAWING submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

6. MATERIALS, SERVICES AND FACILITIES:

- 6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, sanitary sewer, electricity or other power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature

whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

- 6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection, either at the site of the WORK, or with the written approval of the OWNER at suitable locations off-site.
- 6.3 Materials and equipment shall be stored, applied, installed, connected, erected, used, cleaned and conditioned as directed by its manufacturer.
- 6.4 Materials, supplies and equipment shall be in accordance with SHOP DRAWINGS submitted by the CONTRACTOR, and approved by the ENGINEER.
- 6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale CONTRACT or other agreement by which an interest is retained by the seller. All materials, either stored or incorporated in the WORK, shall become the exclusive property of the OWNER upon payment by the OWNER, less retainage allowed by the CONTRACT DOCUMENTS, to the CONTRACTOR for such materials, and may not be removed from the site or approved off-site storage location without the consent of the OWNER..

7. INSPECTION AND TESTING:

- 7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards and the testing requirements of the SPECIFICATIONS.
- 7.2 The CONTRACTOR shall provide, at his expense, the necessary testing and inspection services required by the CONTRACT DOCUMENTS, unless otherwise provided.
- 7.3 The OWNER shall provide all other inspection and testing services not required by the CONTRACT DOCUMENTS. Included in such inspection is the right of the OWNER to provide video inspection of pipelines or other parts of the WORK.
- 7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction required any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing, or approval.
- 7.5 Neither observations by the ENGINEER nor inspections, tests or approval by persons other than the CONTRACTOR shall relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

- 7.6 The ENGINEER and his representatives will at all times have access to the WORK for inspection or to observe all testing. In addition, authorized representatives and agents of any participating Federal or state agency shall be permitted to inspect all WORK, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.
- 7.7 If any WORK is covered contrary to the written request of the ENGINEER it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.
- 7.8 If any WORK has been covered which the ENGINEER has not specifically requested to observe prior to its being covered, or if the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.
8. SUBSTITUTIONS:
- 8.1 Whenever a material, article or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality, and function may be considered except when expressly defined otherwise by the SPECIFICATIONS. The CONTRACTOR may recommend the substitution of a material, article or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approved its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.
9. PATENTS:

- 9.1 The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, but if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

10. SURVEYS, PERMITS, REGULATIONS:

- 10.1 The OWNER shall furnish all land surveys and establish all base lines for locating the principal component parts of the WORK. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.
- 10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be responsible for any mistakes that may be caused by the unnecessary loss of disturbance.
- 10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance with such permits, licenses or easements, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

11. PROTECTION OF WORK, PROPERTY AND PERSONS:

- 11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervision of all safety precautions and programs in connection with the WORK, including precautions and programs necessary to comply with specific safety policies of the OWNER provided under Section 31, SPECIFIC SAFETY REQUIREMENTS FOR ESPECIALLY HAZARDOUS WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.
- 11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may

affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused.

11.3 The CONTRACTOR shall confine all WORK within the project area shown on the DRAWINGS, except as allowed by Paragraph 11.4.

11.4 In emergencies which may immediately threaten or endanger the safety of persons, the WORK, or property either at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss until such is no longer threatened. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby. Provided the emergency condition resulted from occurrences beyond the control or negligence of the CONTRACTOR, his SUBCONTRACTORS, suppliers, or other agents, a CHANGE ORDER shall be issued covering the changes and deviations involved.

12. SUPERVISION OF CONTRACTOR:

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

13. CHANGES IN THE WORK:

13.1 The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER also may, at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or time, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof as soon as possible, but not later than fifteen (15) days after the receipt of the ordered change, and the CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

14. CHANGES IN CONTRACT PRICE:

- 14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed as follows: (1) unit prices previously approved; (2) an agreed lump sum; or (3) the actual cost for labor, direct overhead, materials, supplies, equipment and other services necessary to complete the WORK, plus an agreed added amount not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.
15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES:
- 15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.
- 15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.
- 15.3 OWNER and CONTRACTOR recognize that time is of the essence in the Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in the contract, plus any extensions thereof allowed in accordance with the contract. They also recognize the delays, expense, and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER the amount of \$100.00 for each day that expires after the time specified in the bid proposal for Substantial Completion until the Work is substantially complete.
- 15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER:
- 15.4.1 To any preference, priority or allocation order duly issued by the OWNER.
- 15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a CONTRACT with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and
- 15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in Paragraphs 15.4.1 and 15.4.2 of this Section.

16. CORRECTION OF WORK:

- 16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly repair or replace the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.
- 16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE; the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

17. SUBSURFACE CONDITIONS:

- 17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:
- 17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS; or
- 17.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as present in WORK of the character provided for in the CONTRACT DOCUMENTS.
- 17.2 The OWNER shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment hereunder shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE: provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.
- 17.3 Unless otherwise stated in the specifications and provided for in the BID DOCUMENTS, the natural soil conditions of the site of all WORK shall be unclassified and no additional payment will be due the CONTRACTOR for rock excavation.

18. SUSPENSION OF WORK, TERMINATION AND DELAY:

- 18.1 The OWNER may, at any time and without cause, suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK will be resumed. The CONTRACTOR

will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension without cause.

- 18.2 If the CONTRACTOR is adjudged a bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or if he disregards laws, ordinances, rules regulations, or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional service, such excess shall be paid to the CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.
- 18.3 If the CONTRACTOR is performing WORK in a manner which is in violation of the CONTRACT DOCUMENTS, including Section 31 of these General Conditions, or in violation of applicable laws, ordinances, rules, or regulations to the extent that the health and safety of individuals (including the employees of the OWNER or CONTRACTOR) or the public are threatened, the OWNER may issue an immediate Stop Work Order and may require the CONTRACTOR to immediately take corrective action to remove the threat to health and safety of the public or individuals. The CONTRACTOR shall NOT be entitled to an adjustment in CONTRACT PRICE or CONTRACT TIME if a Stop Work Order is issued solely on and limited in duration to a period of violation by the CONTRACTOR as defined within this Paragraph.
- 18.4 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.
- 18.5 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right of remedy, elect to abandon the PROJECT and terminate the CONTRACT. In such case, the

CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

- 18.6 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due in which even and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delay attributable to the stoppage of WORK.
- 18.7 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.
19. PAYMENTS TO CONTRACTOR:
- 19.1 The CONTRACTOR may submit to the ENGINEER, not more frequently than once per month, a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed since the last partial payment estimate and supported by the following documents: (1) The City of Monroe Recommendation for Payment form; (2) Itemized Unit Price Schedule showing quantities performed during pay period, total quantities performed to date, and value of such Work, or an Approved Schedule of Values for Lump Sum contracts; (3) City of Monroe approved "State and County Sales/Use Tax Statement" if sales taxes have been paid on materials for this PROJECT since the last pay request; (4) City of Monroe "Tax Statement and Certification" signed and properly notarized certifying that the statement in item (3) completely represents all sales tax paid or a certification that none were paid since the last request. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by an itemization of the stored materials, a copy of the invoice(s) for all new materials added to storage since the last pay request, and such supporting data, satisfactory to the OWNER, as will establish the OWNER'S title to the material and equipment and protect his interest therein, including applicable insurance. The partial pay request may also require further information as required in the Project Special Provisions.

- 19.2.1 The ENGINEER will, within ten days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within fourteen days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment until final completion and acceptance of all WORK covered by the CONTRACT DOCUMENTS. The OWNER is not permitted to withhold retainage on any progress payments where the total project costs are less than one hundred thousand dollars (\$100,000.00). However, for projects where the total project costs are greater than or equal to one hundred thousand dollars (\$100,000.00), the OWNER may withhold retainage on each progress payment up to a maximum amount of five percent (5%) of each progress payment until the project is deemed fifty percent (50%) complete per the CONTRACT DOCUMENTS. Once the project is deemed fifty percent (50%) complete, the OWNER may not withhold any further retainage on progress payments providing that the CONTRACTOR continues to perform work in a satisfactory manner per the CONTRACT DOCUMENTS. However, if the work done by the CONTRACTOR on the project is deemed unsatisfactory per the CONTRACT DOCUMENTS, the OWNER may reinstate retainage for each subsequent progress payment application up to the maximum amount of five percent (5%) per the CONTRACT DOCUMENTS.
- 19.2.2 The project is deemed fifty percent (50%) complete when the CONTRACTOR's gross project invoices, excluding materials stored off-site; equals fifty percent (50%) of the value of the contract, per the CONTRACT DOCUMENTS. Materials that are stored on-site shall not exceed twenty percent (20%) of the CONTRACTOR'S gross project invoices for the purpose of determining whether or not the project is fifty percent (50%) complete.
- 19.2.3 Once the project is deemed fifty percent (50%) complete per the CONTRACT DOCUMENTS, the OWNER is authorized to withhold additional retainage from a progress payment, not to exceed the maximum amount of five percent (5%) in order to allow the OWNER to retain two and one half percent (2.5%) total retainage through the completion of the project per the CONTRACT DOCUMENTS.
- 19.3 The CONTRACTOR shall use the OWNER's standard forms provided in these CONTRACT DOCUMENTS, or an acceptable computerized version of the same format, for all partial payments.
- 19.4 All WORK covered by partial payment made shall thereupon become the sole property of the OWNER, but this provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care, protection, and insurance of the WORK upon which payments have been made or the restoration of any damaged WORK, or as a waiver of the

right of the OWNER to require the fulfillment of all terms of the CONTRACT DOCUMENTS.

- 19.5 Upon completion and acceptance of the WORK, the CONTRACTOR shall submit a final pay request which shall include all of the documents required by the partial pay request, plus the Consent of Surety to Final Payment and the OWNER'S "Affidavit of Final Payment" form, all properly executed and notarized as required. The ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS and shall establish the beginning date of all warranties and guarantees the CONTRACTOR is required to uphold based on the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK. However, the OWNER may retain sufficient funds to secure the completion of the project or corrections on any work, not to exceed two and one half times (2.5) the estimated value of the work to be completed or corrected.
- 19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party.
- 19.7 If the OWNER fails to make payment 30 days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.
20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE:
- 20.1 The acceptance by the CONTRACTOR as final payment shall be and shall operate as a release to the OWNER of all claims and liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of the WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS.

21. INSURANCE:

21.1 Contractor shall maintain insurance policies at all times with minimum limits as follows:

<u>Coverage</u>	<u>Minimum Limits</u>
Workers' Compensation	Statutory Limits
Employers' Liability	\$ 500,000
General Liability	\$1,000,000 per occurrence /\$2,000,000 aggregate
Automobile Liability	\$1,000,000
Professional Liability (E&O)	\$1,000,000 per occurrence /\$2,000,000 aggregate

21.2 Contractor shall provide the City with a **Certificate of Insurance** for review prior to the issuance of any contract or Purchase Order. This should be an ACORD form. All Certificates of Insurance will require thirty (30) days written notice by the insurer or contractor's agent in the event of cancellation, reduction or other modifications of coverage. In addition to the notice requirement above, Contractor shall provide the City with immediate written notice of cancellation, reduction, or other modification of coverage of insurance. Upon failure of the Contractor to provide such notice, Contractor assumes sole responsibility for all losses incurred by the City for which insurance would have provided coverage. The insurance certificate shall be for the initial contract period of one (1) year and shall be renewed by the contractor for each subsequent renewal period of the contract.

21.3 The City shall be named as an **additional insured** and it is required that coverage be placed with "A" rated insurance companies acceptable to the City. Statement should read "City of Monroe is to be added as an additional insured as evidenced by an endorsement attached to this certificate." The endorsement must be written on ISO Form CG20_10. Failure to maintain the required insurance in force may be cause for contract termination. In the event that the contractor fails to maintain and keep in force the insurance herein required, the City has the right to cancel and terminate the contract without notice.

21.4 Contractor shall provide proof that a **Drug-Free Workplace Program** is in place and that drivers meet **DOT/CDL licensing** requirements.

22. CONTRACT SECURITY:

22.1 Performance Bond and Payment Bond shall be required for this Project. Bonds shall be issued by a certified surety company as listed on the Department of the Treasury's Circular 570, latest issue. Surety company must be certified to do business in the State of North Carolina.

23. ASSIGNMENTS:

- 23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the CONTRACT or any portion thereof, or of this right, title or interest therein or his obligations thereunder, without written consent of the other party.

24. INDEMNIFICATION:

To the maximum extent allowed by law, the Contractor shall defend, indemnify, and save harmless the City of Monroe, its agents, officers, and employees, from and against all charges that arise in any manner from, in connection with, or out of this contract as a result of the acts or omissions of the Contractor or subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable except for damage or injury caused solely by the negligence of the City its agents, officers, or employees. In performing its duties under this section, the Contractor shall at its sole expense defend the City of Monroe, its agents, officers, and employees with legal counsel reasonably acceptable to City. As used in this subsection – “Charges” means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, expenses, interest, reasonable attorney’s fees, and amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders. Nothing in this section shall affect any warranties in favor of the City that are otherwise provided in or arise out of this contract. This section is in addition to and shall be construed separately from any other indemnification provisions that may be in this contract. This section shall remain in force despite termination of this contract (whether by expiration of the term or otherwise) and termination of the services of the Contract under this contract.

25. SEPARATE CONTRACTS:

- 25.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.
- 25.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.
- 25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, WRITTEN NOTICE thereof shall be given to the CONTRACTORS prior to starting any

such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefore as provided in Sections 14 and 15.

26. SUBCONTRACTING:

- 26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK, which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.
- 26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(S) in excess of forty (40%) percent of the CONTRACT PRICE without prior written approval of the OWNER.
- 26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- 26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all SUBCONTRACTS relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.
- 26.5 Nothing contained in this Agreement shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

27. ENGINEERS AUTHORITY:

- 27.1 The ENGINEER shall act as the OWNER'S representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.
- 27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.
- 27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, or procedures of CONTRACTOR.
- 27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

28. LAND AND RIGHTS-OF-WAY:

- 28.1 Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.
- 28.2 The OWNER shall provide to the CONTRACTOR information, which delineates and describes the lands owned and rights-of-way acquired.
- 28.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

29. GUARANTY:

- 29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one year from the date of SUBSTANTIAL COMPLETION of the system that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred.

30. TAXES:

- 30.1 The CONTRACTOR will pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed. The CONTRACTOR shall provide along with each pay request a detailed list of all sales taxes paid along with a copy of all invoices, on forms approved by the OWNER, for all materials incorporated into this project and all consumable materials used in the construction of the PROJECT. The CONTRACTOR shall maintain on file for up to three (3) years a copy of all invoices and the list of sales tax paid on this PROJECT.

31. SPECIFIC SAFETY REQUIREMENTS FOR ESPECIALLY HAZARDOUS WORK:

- 31.1 The CONTRACTOR shall strictly abide by the specific Safety Policies for highly Hazardous areas of construction adopted by the City of Monroe when performing WORK for the OWNER under this PROJECT. These policies cover the following hazardous areas: (1) Trenching and Shoring; (2) Confined Space Entry; (3) "Lock-Out"/"Tag Out", (4) "Hot Work" Permitting, (5) "OSHA Process Safety, (6) Fall Protection; and any

additional specific policies referenced in the Project Special Provisions. The CONTRACTOR shall provide his own procedures and management practices to enforce these standards for both the CONTRACTOR's personnel and any SUBCONTRACTOR personnel.

- 31.2 The OWNER reserves the right at any time to inspect compliance with the safety policies being used by the CONTRACTOR and to require immediate corrective efforts if the procedures observed fail to comply with the approved safety policies. Should the CONTRACTOR fail to make timely corrective efforts, the OWNER may issue a Stop Work Order limited to the areas of noncompliance pursuant to Paragraph 18.3 until such time as compliance is obtained, or if the failure is persistent, the OWNER may declare a breach of contract pursuant to Paragraph 18.2.
- 31.3 The OWNER's decision to perform periodic inspections of safety policy compliance shall not relieve the CONTRACTOR of his full responsibility to have full knowledge of and fully comply with the occupational safety and health standards of state, federal, and local laws and the OWNER safety policies identified above.

CITY OF MONROE
VANN STREET AND JACKSON STREET WATER MAIN REPLACEMENT
PROJECT NUMBER: 23-12
SPECIAL PROVISIONS

Understanding of Existing Conditions:

1. All customers fronting Vann Street and Jackson Street shall be tied to a temporary above ground water main. No more than 20 customers may be served from one (1) source, unless approved by the Engineer.
2. Confirm that the following street is back-fed and will not require temporary above ground water main:
 - a. **Welsh Street east of Jackson Street**
 - b. **McCarten Street west of Jackson Street**
 - c. **Lockhart Street north of Vann Street**

City of Monroe Special Provisions:

1. The City of Monroe Water Resources Department will obtain NCDOT Encroachment Agreement for work within **E. Roosevelt Blvd** right-of-ways. Maintenance and Protection of Traffic shall be the responsibility of the Contractor and shall be in accordance with the NCDOT Standard Specifications and the Manual of Uniform Traffic Control Devices and all requirements set forth in the Encroachment Agreement. As a minimum, when lane closure is required to complete work, the work must be completed at night. One lane of traffic must remain open at all times with any required flagmen and traffic control devices.
2. The City shall be responsible for notifying affected customers and public services departments. The Contractor shall notify the onsite inspector or Engineer a minimum of 72 hours in advance of any proposed shutdown.
3. All salvageable material shall be delivered to the City of Monroe Operations Center at 2401 Walkup Avenue, Monroe, NC 28110.
4. The Contractor is advised that watertight conditions might not exist when valves are closed. Due to this problem, shutdowns might not be provided at the time requested or expected. There will be no additional payment to the Contractor for handling of water of for lost time waiting for a successful shutdown. Therefore, the Contractor shall schedule a “practice shutdown” a minimum of five (5) days ahead of tie-ins and interconnections.
5. The City shall be responsible for providing compliance testing of all compacted trenches.
6. Interconnections:
 - a. The water main shall be cleaned and swabbed with a minimum 1 percent chlorine solution, exercising care to prevent foreign material from entering the pipe during installation. Once the water main is returned to service, the main shall be flushed to scour the pipe, making sure that the flushed water is visually clear. Visual inspection will be done to detect leakage, once the main returns to service and is backfilled to the spring line.

- b. The Contractor shall have all equipment, manpower, tools, pipes, valves, fittings, etc. required for the construction on site and ready for use and/or installation prior to beginning any shutdown or removing any existing facilities.

Modification(s) of and addition(s) to the standard General Conditions are as follows:

1. BIDDER

Left Blank. No entry.

2. SCHEDULES, REPORTS, AND RECORDS

Add: The Contractor shall be responsible for the proper coordination of all work so as to maintain the schedules as approved. Should the Contractor fail to adhere to the approved schedule, he shall promptly adopt such additional means or methods of construction as may be required to make up lost time, all at no additional cost to the City.

Add: The Contractor shall provide a pre-construction video of the entire project area to the Engineer prior to beginning any work.

Add: The Contractor is required to submit progress photographs, in digital format, on a weekly basis. Each photo frame shall be numbered and dated, and a typed photo index shall be provided with each photo number and an appropriate description of the view.

Add: The Contractor shall keep a job diary listing the date, activities performed, the personnel on the job, manpower, equipment used, weather conditions, and any other noteworthy items. Such diary shall be available for review of the City.

Add: A Water Main Service Line and Meter Inventory form (provided by the Engineer) is to be completed by the Contractor and submitted to the Engineer at the end of the project. Information needed includes service size, location (NS-Near Side/LS-Long Side), service material, meter style, etc.).

Add: The Contractor shall submit delivery tickets (i.e. asphalt, concrete) with their Applications for Payment. Formal payment application requests shall be submitted to Steven Horvath, Civil Engineer II.

3. DRAWINGS AND SPECIFICATIONS

Add: All work indicated in the Contract Documents shall be cross referenced with the City of Monroe Standard Specifications and Details Manual.

4. SHOP DRAWINGS

To be submitted for review and approval before issuance of Notice to Proceed.

Add: An approved materials list is provided as an attachment to the Special Provisions. An additional copy will be provided to the Contractor by the Engineer along with the Notice of Award.

5. MATERIALS, SERVICES, AND FACILITIES

Add: The workmanship and materials of all items shall be of the best quality and shall be at all times subject to the observation and direction of the Engineer or authorized representative.

6. PAYMENTS TO CONTRACTOR

Description of Bid Items: The items listed below are the same bid items listed on the Bid Form. They constitute all of the bid items for the completion of work and method of payment.

Bid Item No. 1 - 6-inch Water Main Cleaning and Lining

- A. The Contractor shall furnish all labor, materials, tools, and equipment to install 6-inch Polymeric Lining, Gate Valve Replacement, Fire Hydrant Assemblies and Temporary Water Main. The unit prices for water main shall include, but not be limited to, the following:
1. All necessary sawcutting and excavation of pull and insertion pits;
 2. Complete handling of all materials;
 3. Locating and uncovering existing utilities;
 4. Protection of all utilities above and below ground;
 5. Use of the secured laydown area for staging and fusing operations;
 6. Removal and replacement of existing utilities where required;
 7. Temporary support of existing utilities at trench crossings;
 8. Dewatering/pumping and bailing of trench waters and storm flows;
 9. Removal of existing water main as required;
 10. In-place abandonment of existing water mains including removal of existing valve boxes and hydrants.
 11. Hauling and disposal of surplus excavated material from the trench;
 12. Fusing and installing pipe with tracer wire for the full length of pipe;
 13. Reconnection of existing hydrants as specified;
 14. All miscellaneous couplings, fittings, adapters, shorts, etc. as may be required to complete the installation;
 15. Backfilling and compaction of pipe trenches in accordance with Standard Detail;
 16. Stone bedding of pipe in accordance with Standard Detail;
 17. Filling of unauthorized excavation with structural fill and;
 18. All required restoration including improved and unimproved surfaces.
 19. Clean up of site.

- B. This item also includes testing and disinfection in accordance with the City of Monroe Standard Specifications and Details Manual. The Contractor shall make arrangement(s) with the City for supply of water. This shall be at no cost to the Contractor. Bacteriological analyses may be performed by the City, at no cost to the Contractor.
- C. Includes replacement of all other site amenities which are removed or damaged by the proposed construction not included under Bid Items.
- D. Maintenance and Protection of Traffic shall be the responsibility of the Contractor and shall be in accordance with the NCDOT Standard Specifications and the Manual of Uniform Traffic Control Devices. The plan must be submitted to the NCDOT and City for review and approval prior to the commencing of site activities.
- E. This item does include connections to existing water mains.
- F. Measurement of length for payment will be made in a horizontal plane along centerline of pipe for the length completed and approved by the Engineer. Payment of the unit price per foot as stated in the Bid Form will be made.
- G. Includes furnishing and installing tap saddles, corporation stops, copper tubing and fittings, as required, to angle yoke ball valve inside meter box. In the event it is discovered that non-copper services are on the customer side, through observation of the tube material inside the meter box, the Contractor shall inform the City of Monroe of the address of each location.
- H. To the extent possible, all far side water services shall be bored.
- I. In the event the meter box and/or assembly is determined to be deficient, the Contractor shall notify the City of Monroe.
- J. Includes all applicable incidentals not specifically listed in Bid Items No. 2, 3, and 5 required including complete the service replacement.
- K. All restoration as a result of the installation shall be included under this bid item..
- L. This item includes flushing the entire service as required and demonstrating that all system components properly operate.
- M. This item shall include reinstatement of all existing mainline and service connections. This shall include all necessary fittings, retainer glands, harnessing, abandonment of existing valves, valve boxes, and mains, etc.
- N. In regards to testing and disinfection, the water main shall be cleaned and swabbed with a minimum 1 percent chlorine solution, exercising care to prevent

foreign material from entering the pipe during installation. Once the water main is returned to service, the main shall be flushed to scour the pipe, making sure that the flushed water is visually clear. Visual inspection will be done to detect leakage, once the main returns to service and is backfilled to the spring line.

- O. The Contractor shall furnish all labor, materials, tools and equipment required for asphalt restoration for pavement repairs. See Attachment to this contract documents the “Policy on Street Cut Pavement Repair Standards” ED-06. The final surface overlay to be completed by the contractor.
- P. The Contractor shall furnish all labor, materials, tools and equipment required for concrete restoration.
- Q. The Contractor shall furnish all labor, materials, tools, and equipment required to restore asphalt surfaces, concrete surfaces, stone and gravel, landscape, curbs/gutters and other features disturbed or damaged during the performance of the work.
- R. Replacement and restoration of asphalt at all excavations, including final sawcutting, application of bituminous tack coat at all saw cut areas and between asphalt pavement layers, and proper consolidation of backfill before installing new pavement. Minimum required pavement replacement sections are as follows:
 - a. City Roads:
 - 2’’ S9.5C Asphalt
 - 4’’ B25.0C Asphalt
 - b. Asphalt Driveways:
 - Same depth and kind of existing
- S. This item shall include the replacement of concrete sidewalks, driveways, aprons, curbs, and gutters removed or damaged as a result of the construction operations. All work to be performed in accordance with the City of Monroe Standard Specifications Manual.
- T. This includes stone and gravel for walks and driveways, topsoil, fertilizer, seeding, final grading, trees, shrubs and landscape items damaged or destroyed as a result of the construction operations. All work to be performed in accordance with the City of Monroe Standard Specifications Manual.

Bid Item No. 2 - 6-inch Gate Valve Replacement

- A. This item includes gate valves 6” and larger in diameter except as needed for hydrant sets. All other valves to be included as incidental items.

- B. The quantity to be paid for under this item shall be the actual number of 6" or larger valves installed and approved by the Engineer.

Bid Item No. 3: Hydrant Assemblies

- A. The Contractor shall furnish all labor, materials, tools, and equipment to install fire hydrant assemblies including ductile iron pipe for hydrant leg, valve, valve box, concrete pad, gravel pit, and all required blocking and restraint.
- B. 6-inch resilient-seated hydrant gate valves shall be paid for under this Bid Item.
- C. 6-inch ductile iron pipe for hydrant leg shall be paid for under this Bid Item.
- D. The quantity to be paid for under this item shall be the actual number of fire hydrant assemblies installed and approved by the Engineer.

Bid Item No. 4 - Mobilization

- A. Mobilization shall be paid for one time, at the point of time and to the percentage as agreed to by Engineer.

Bid Item 5: Temporary Water Main Service

- A. Supply and maintain temporary bypass pipe to all affected customers is included in this Bid Item. This also includes disinfection and bacteriological sampling/testing, temporary connections to existing water services and temporary ramps, stone, plastic sheeting, or any other means to protect the bypass piping at driveway, road, and sidewalk crossings.



WATER RESOURCES DEPARTMENT

**CONTRACT FOR
LINING REHABILITATION OF DOMESTIC
WATER DISTRIBUTION MAIN**

“Technical Specifications”

Attachment “D”

SECTION 01 51 42

TEMPORARY WATER SERVICE

PART 1 GENERAL

1.1 DESCRIPTION

A. Scope:

1. Provide labor, materials, tools, equipment and incidentals shown, specified and required for temporary potable water service during the Work. Provide all materials, labor, equipment, power, maintenance, etc. to implement a temporary water system for the purpose of providing water service for the duration of the proposed Work.
2. Design and provide temporary bypass systems, including plugs, bulkheads, and line stops as required; pumps; piping, supports, and valves; fuel and electricity as required; personnel; and appurtenances. Conform to Laws and Regulations and requirements of authorities having jurisdiction. System shall be suitable for its service and operating environment.
3. ANSI/NSF Standard 61 Certified for Potable Water Use.
4. Capacity, General:
 - a. Provide the temporary bypass with a minimum 150 psi working pressure rating.
 - b. Pay costs associated with repairing damage to property, including cleaning costs, caused by undersized or inadequate temporary bypass system.
 - c. ENGINEER's acceptance of temporary bypass submittals does not relieve CONTRACTOR from responsibility for the temporary bypass system in accordance with the Contract Documents.
5. Obtain ENGINEER's acceptance of each temporary bypass system.
6. Leakage from temporary systems or improper discharge are not allowed. Leakage should be minimized and monitored. Leakage may be allowed if water is properly routed and does not impact citizens and traffic or create a hazardous environment. Leakage must be measured through the bypass meter, if required by the Engineer for tracking non-revenue water.

B. Coordination:

1. Coordinate Work that must be performed for temporary bypass and if required, notify ENGINEER and OWNER prior to beginning the bypass setup.

1.2 SUBMITTALS

A. Informational Submittals: Submit the following:

1. Temporary Bypass System Submittals: Submit the following for each temporary bypass system:
 - a. Basis for the capacity of the system proposed.
 - b. Technical data on temporary piping, pipe joints, valves, pipe supports, controls, flow meter, secondary containment for fuel tanks, and other information pertinent to the temporary pumping system.
 - c. Layout Drawings:
 - 1) Sketches showing proposed layout of temporary piping system and tie-in locations

- 2) Where it is necessary to bury or protect temporary lines, submit details of temporary lines.

PART 2 PRODUCTS

2.1 TEMPORARY BYPASS SYSTEMS

A. General

1. Hoses in good condition and suitable for system pressures can be used where accepted by ENGINEER.
2. Piping system shall have watertight joints of the following types: fused joints, restrained couplings, flanged coupling adapters, quick-connects by Camlok or equal, flanged joints, grooved and shouldered end-type couplings, and other watertight joints accepted by ENGINEER.
3. Provide valves as needed.

B. Materials:

1. Polyvinyl chloride such as, Certa-Lok Yelomine or C-900/RJ by Certain Teed
2. High density polyethylene
3. Reinforced synthetic rubber hose, such as Super Aquaduct by Angus Flexible Pipelines or Hitech21/2X100WTRPOT REM by Goodyear Tire & Rubber
4. Or as approved

C. Piping Sizes

1. Bypass water mains: minimum of 2-1/2 inch; provide larger size where necessary to meet commercial customer demand or fire protection. Minimum 4-inch supply in at least one direction to any temporary fire line connection.
2. Service connections to water meters: same size as existing permanent service connection

D. Reduced Pressure Zone Backflow Device:

1. Manufacturers such as, Conbraco, Zurn Wilkins, Watts, or as approved.

PART 3 EXECUTION

3.1 PREPARATION

A. General:

1. Temporary piping shall be located off of roads, driveways, and sidewalks. Piping shall not be located in environmentally sensitive areas such as wetlands.
2. Perform successful testing of temporary piping system to ensure no leakage.
3. Verify that entire temporary bypass system is ready for operation before commencing temporary bypass. Verify any fittings, valves and flow meter are properly connected and functional.
4. Temporary water supply shall not be put into operation until adequately disinfected and tested satisfactory.

B. Installing and Maintaining Temporary Water System

1. Provide temporary potable water to all affected services and temporary fire protection as required by the Monroe Fire Department and or the Engineer. Temporary potable water lines shall be flushed, chlorinated and sampled for any bacteria present, per AWWA and City of Monroe Standards. The Engineer can only accept the temporary water after receiving successful lab results, prior to the connection of any existing services.
2. Furnish and install temporary water system consisting of pipe or hose with valves and individual connections to meter boxes and fire hydrants to provide service to customer connections while water mains are out-of-service.
 - a. Connect temporary water system to 2-1/2-inch nozzles on existing fire hydrants or at other locations approved by the City. Install a reduced pressure (RPZ) backflow device at the fire hydrant connection of the same size as the temporary water main. Temporary water mains longer than 1,000 linear feet must be supplied by at least two fire hydrants, one at each end, and no single temporary water main shall exceed 2,000 feet in length, unless approved in writing by the City.
 - b. Lay pipe parallel to road along shoulder on each side where customer connections are located. In areas where sidewalk is present, lay at edge or beyond far side of sidewalk from Public Street.
 - c. Lay pipe on top of ground except where noted otherwise.
 - d. Minimize crossing paved public streets with temporary main. Where public street crossings are necessary, temporary water mains shall either be placed through storm water pipe or trenched across asphalt. No ramps, gravel, or cold patch over temporary water main will be allowed across roadways.
 - e. Trench, bore or punch temporary water main under high traffic commercial driveway. Notify Engineer prior to trenching for approval. If trenched, cost of repair to commercial driveway will be at Contractor's expense if not approved by Engineer prior.
 - f. Install ramps, designed to withstand traffic load, at all driveway crossings where pipe is laid above ground.
 - g. Install valves on the temporary water main to allow for minimal interruption of service in the event of a breakage. Where the temporary main crosses a street, one valve shall be installed on each side of the street. Where pipes intersect, install appropriate number of valves to isolate main (2 valves for a tee connection, 3 valves for a four-way connection).
 - h. Provide pipe or hose fittings and temporary service piping to each meter box where temporary service is required. Install temporary service piping with a valve on the end such that chlorinated water can be flushed through the line prior to connecting the temporary service to the customer's service.
 - i. Disinfect all temporary water main and service piping; follow AWWA C651, except as modified in Chlorination section of 33 01 30.83.
 - j. Once temporary water has been tested and approved for connection contractor should connect to customer's service within seven (7) days. If longer than seven (7) days, the City will need to check the Chlorine residual before Contractor connects to customer's service. Depending on results Contractor may need to flush or re-chlorinate line before placing in service.
 - k. Make temporary connections at each meter box following approval of disinfection. Close meter stop valve, remove water meter from meter box, and connect temporary piping to customer side of meter using appropriate fittings. Furnish a shut-off valve on temporary piping at connection to each service pipe.

- l. Immediately before closing meter stop valve, notify customer to expect a momentary loss of water service (if residence is occupied) during the conversion to temporary supply.
- m. Serve no single customer from temporary water system longer than 30 days, unless approved by Engineer.
- n. Suspend work during periods when ambient temperature is forecasted to be below freezing, or provide additional measures to prevent water in temporary system from freezing and maintain continuous service to customers.
- o. Maintain during entire time a temporary water system is in use a 24-hour/7 day-a-week local telephone answering service for the City or the water system customers to use in the event of problems with temporary service. Provide to the City the Contractor's phone number for emergency service at least 10 calendar days before customer service is initiated through temporary water system. Maintain an "on-call" repair crew at all times to respond to site within one hour of notification of service interruption. Any calls from the dispatcher to the Contractor shall be followed up back to the dispatcher after resolution of the call.
- p. Maintain and repair temporary water system as necessary to provide continuous water service to the City's customers. Contractor shall repair any leaks or drips on the temporary water system.
- q. Remove temporary water system and restore disturbed areas after cleaned and lined water mains are restored to service and permanent water service is restored to all meter boxes served by the temporary water system for a particular phase.
- r. The Contractor may be allowed to shut water off to customers for a short time (up to four hours), where temporary water service is not provided, to cut-in fittings or new pipe sections, with the approval of the City. The City may limit such work to periods of low water usage or night time as required. The Contractor is responsible for notifying all affected customers twenty-four (24) hours prior to shutting the water off, to include the approximate time and duration.
- s. Avoid creating hazards for all pedestrian traffic, including any handicapped, disabled, and/or special needs. Conform to ADA standards for access across any temporary water system. Do not cut off access to areas with temporary bypass piping.

C. Removing and Replacing Meters

- 1. When the Contractor is getting ready to tie customers on to temporary water he shall coordinate his work with the Water Resources maintenance department on picking up the old meters.
The Contractor is to place the meter in a sealable water tight bag and place inside the meter box, if room allows. When the customer is hooked back to the main the Contractor is to work with Meter Shop to determine whether to install the original meter or a City-supplied Automatic Read Meters in its place. The City will be responsible for picking up and delivering to the site, the meters for change out, if necessary.
- 2. If Customer already has the new Automatic Read Meter the Contractor needs to temporarily place meter in a sealable water tight bag and place in meter box if room allows.

D. Fire Protection

- 1. Maintain a sufficient number of in-service fire hydrants at any one time such that the Monore Fire Department can connect to a pressurized hydrant within 1000 feet of any structure within the area of the Project. If at any time this condition is not achievable, provide and maintain temporary fire-line connections to the temporary water system to

meet the spacing requirement of 1000 feet. Temporary fire-line connections shall be easily recognized by the Monroe Fire Department, with a storz-adaptor and cap using Monroe standard fire hydrant threads, Hydrants are National Standard Threads. Any temporary fire-line connection must be supplied by minimum 4-inch diameter temporary pipe from the connection to an approved tap on a pressurized City water main.

2. Fire protection for buildings with sprinkler systems shall be as follows. Contractor shall run two (2) four-inch (4") lines from two different sources with one (1) being connected to Sprinkler System and the other one (1) being connected to a Temporary Hydrant outside the building. The Contractor needs to make sure water supply for sprinkler system comes in on the system side of the indicator valve so the alarm will still work. Contractor may need to tap the fire line to keep the alarm in service. It shall be the Contractor's responsibility to make sure customer has adequate water supply at all times to keep sprinkler system under pressure without activating the alarm.
3. The Contractor is required to stay in contact with the Fire Department letting them know where they are working and which streets are out of service.
4. Place City-supplied orange plastic bags over fire hydrants connected to water mains
5. Contact City of Monroe Water Resources Department to notify location of hydrant to be out of service at 704-282-4601

while the mains are out-of-service.

3.2 DEMOBILIZATION

- A. Upon Conclusion of Temporary Bypass:
 1. Remove temporary bypass system and appurtenances from the Site and restore Site to its previous conditions or better.

END OF SECTION

SPRAY APPLIED POLYMERIC LININGS FOR WATER LINE REHABILITATION

PART 1 GENERAL1.01. DESCRIPTION

- A. Provide all labor, materials, equipment, and appliances required for the installation and testing of epoxy-based spray applied liner for the rehabilitation of water lines
- B. Achieve curing through controlled chemical reaction that results in a hard, water tight coating of specified thickness with a uniformly smooth interior
- C. Spray lining application method which uses centrifugal force to apply a plural component lining mixture to the interior of piping systems. The system shall be able to accommodate varying pipe diameters as well as be able to accommodate elbows and bends within the pipes, while applying an even, smooth lining throughout the entire length of pipe that is required within the specified scope of work.
- D. Work shall include surface preparation, liner application, inspection of coated surfaces and corrective action required, protection of adjacent surfaces, cleanup and appurtenant work required for the proper coating of all surfaces to be coated.
- E. Perform Work in strict accordance with manufacturer's published recommendations and instructions, unless the ENGINEER stipulates that deviations will be for the benefit of the project.
 - 1. Performance requirements
 - a. Cleaned and lined water mains shall be restored to an interior condition resulting in a measured Hazen-Williams "C" coefficient of 120, based on nominal diameter of pipe, using the Hazen-Williams formula and making proper allowances for bends and fittings in accordance with accepted practices.
 - b. Hazen-Williams "C" coefficient testing may be performed on up to 10% of the lined pipes. The Owner shall cover the cost of this testing. If the test fails to meet the required coefficient, the Contractor shall cover the costs of the re-test.

1.02. REFERENCE STANDARDS

- A. ANSI/AWWA C210-15 Standard for Liquid Epoxy Coatings and Linings for Steel Water Pipe and Fittings
- B. American Water Works Association (AWWA) Manual of Water Supply Practices M28
- C. Water UK Standards Board WIS 4-02-01 - Operational Requirements: In Situ Resin Lining Of Water Mains (<https://www.water.org.uk/technical-guidance>)
- D. Water UK Standards Board IGN 4-02-02 - Code of Practice: In Situ Resin Lining Of Water Mains (<https://www.water.org.uk/technical-guidance>)
- E. NSF/ANSI 61 - Drinking Water System Components - Health Effects

1.03. QUALITY ASSURANCE

A. Epoxy Lining

1. Comply with latest editions of AWWA C620 - "AWWA Standard for Spray-Applied In-Place Epoxy Lining of Water Pipelines, 3 In. (75 mm) and Larger"
2. Epoxy Manufacturer: Minimum of 10 years documented experience in the design, development, and production of products specified in this section.
3. Manufacturer shall have supplied the same specific epoxy product proposed for this project on other water main epoxy lining projects within the continental United States within the past two years, constituting a total of 20,000 linear feet of successfully applied epoxy liner, as supported by specific references (name, title, phone number) of water main OWNERS.
4. Submit all documentation at preconstruction meeting

B. System Applicator's Qualifications

1. Coating operations shall be accomplished by skilled craftsman and licensed by the state and certified by the product manufacturer to perform coating work. Submit a certified statement from the manufacturer that the lining craftsman is a certified installer of the lining material.
2. Provide a letter indicating that the coating applicator has five years of experience, and 5 references which show previously successful application of the specified or comparable coating systems. Include the name, address, and the telephone number for the OWNER of each installation for which the painting applicator provided services.
3. Applicator shall use approved specialty equipment adequate in size, capacity, and quantity sufficient to accomplish the work of this specification within a timely manner. Applicator shall implement and enforce quality control procedures consistent with applicable industry standards, as well as the engineering recommendations.
4. Applicator will maintain computerized controls that log material flow, mix ratio, material temperatures and pressures for the duration of the lining in no more than 20 second intervals. Applicator will have adequate safeties enabled to automatically abort a lining in the case of ratio or pump failures.
5. Applicator equipment operator has successfully performed at least 10,000 linear feet of spray-on liner in water pipelines over the past 10 years in the United States.
6. Any Subcontractor participating in the actual application of lining shall meet the same requirements above, through his own company, as is represented of CONTRACTOR.
7. The CONTRACTOR'S superintendent shall have been responsible for managing projects similar in size and scope to this proposed project. Experience of the on-site responsible person should total a minimum of 10,000 linear feet over the past ten (10) years in the United States. They should have experience working with connecting fire sprinklers services, customer service, roadway traffic safety, and following all OSHA guidelines in regards to trenching and shoring. CONTRACTOR should provide verifiable references, to document the proposed superintendent's ability and qualifications to meet the requirement.

8. CONTRACTOR/Sub-Contractor shall have successfully installed and maintained 10,000 linear feet of temporary water over the last five (5) years in the United States as documented by verifiable references.
 9. CONTRACTOR/Sub-contractor shall have a successful history of the installation of at least 10,000 linear feet of spray applied lining and 2,000 linear feet of spray applied lining of the proposed material type for this project.
 10. The CONTRACTOR/Sub-Contractor shall be fully qualified, experienced and equipped to complete the work within the time specified and in a satisfactory manner. The CONTRACTOR shall be capable of providing crews as needed to complete the work without undue delay
- C. Spray Lining Equipment: Certified by Manufacturer to provide the necessary and appropriate equipment and monitoring devices to apply the Manufacturer's spray liner to the interior of water main pipe in accordance with the Manufacturer's requirements, as well as all standards referenced in these specifications. CONTRACTOR to provide the OWNER written proof that the machine has been serviced and calibrated once a year or any other times between.
- D. Video Inspection
1. Provide video inspections for the following;
 - a. After cleaning
 - b. After coating application

1.04. SUBMITTALS

- A. Product Data
- a. Manufacture's literature, warranty, and Material Safety Data Sheets for each product
 - b. Lining schedule identifying surface preparation and lining systems proposed
 - c. Provide the name of the liner product manufacturer, and name, address, and telephone number of manufacturer's representative.
 - d. NSF Standard 61 certificate for the lining system.
 - e. For semi-structural liners and the thicknesses specified, provide data sheets and calculations supporting the structural integrity of the application. Provided test reports that verify the properties for the liner.
 - f. Data for the minimum and maximum curing temperatures, minimum and maximum allowable installation pressures and speeds, application rates, curing times and curing procedures.
 - g. Repair methods and equipment to be used to repair unacceptable liner defects and for removing failed liner.
- B. Provide qualification of CONTRACTOR'S personnel
- C. Provide a list of the type of equipment to be used for surface preparation and the lining system including calibration logs of the lining machine.
- D. Field testing equipment and procedures for each type of material/process/product proposed

- E. provide a dust collection plan
- F. Provide an access pit location plan.
- G. Provide a Temporary Water Service Plan in accordance with Section 01 51 41 Temporary Water Service for each location site.
- H. Pre-lining video inspection and post-lining video inspection in a video format
- I. Hydrant assemblies, valves, fittings submittals required for engineer review & approval before authorization to construct.

1.05. DELIVERY, STORAGE AND HANDLING

- A. Bring materials to the job site in the original sealed and labeled containers.
- B. Container label to include manufacturer's name, type of liner, brand name, lot number, brand code, and other pertinent information.
- C. Store liner materials at minimum ambient temperature of 45° F (7°C) and a maximum of 90° F (32° C), in ventilated area, and as required by manufacturer's instructions.

1.06. COORDINATION

- A. Coordinate Work of this Section with users connected to system.
 - 1. Notify all residents and businesses at least 2 weeks in advance of expected disruption of water service via a door hanger provided by the OWNER.
 - 2. Notify all residents and businesses at least 48 hours in advance of expected disruption of water service via a door hanger provided by the OWNER.
 - 3. Limit disruption of service to individual properties to one-time occurrence for maximum of eight hours.
 - 4. Do not disrupt customer service between hours of 5:00 PM and 8:00 AM without prior approval from ENGINEER/OWNER.
 - 5. Provide and maintain temporary facilities, including piping and pumps, to meet requirements.
- B. Preinstallation Meetings
 - 1. Pre-construction Conference.
 - 2. Convene minimum two weeks prior to commencing Work of this Section.
 - 3. Pre-installation meetings shall be held prior to moving from one site location to a new site location. These meetings will cover schedule, notification, and other site specific related information.

1.07. EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to application.
- B. Existing Pipe Conditions:
- C. Pipe material, size and condition may vary from the Drawings. Verify prior to

application.

1.08. WARRANTY

- A. All work shall be warranted/ guaranteed for five (5) years from date of installation against all defects in material, equipment and workmanship. Lining warranty shall include deterioration of liner or loss of adhesion of the lining to the pipe wall.
- B. This warranty shall be voided by the following:
 - 1. Welding or "hot" work performed on the pipe system around welded area.
 - 2. Introduction of acids into the pipe system with concentrations in excess of (10%)
 - 3. Obvious physical damage to the pipe or pipe system outside of the relined pipe
 - 4. Disassembly or mechanical altering of the pipe system without first consulting with the applicator to ensure warranty compliance.
 - 5. Damage to the pipe system due to natural causes (e.g. pipe bursting from internal expansion in freezing temperatures, earthquake or flooding damage.
 - 6. Other stresses placed on the pipe or pipe system or its contents which are not considered normal to the original intended use or function of the pipe system.
- C. Upon notification from the OWNER of any defect found, the CONTRACTOR shall promptly repair or adjust the necessary items required for the repair. The CONTRACTOR shall be responsible for all expenses incurred as a result of warranty work.
- D. The CONTRACTOR shall warrant to the OWNER that the equipment used on this Contract where covered by patents or license agreements is furnished in accordance with such agreements and that the prices included herein cover all applicable royalties and fees in accordance with such license agreements.
- E. The CONTRACTOR shall defend, indemnify and hold the OWNER and ENGINEER harmless from and against any and all costs, loss, damage or expense arising out of or in any way connected with any claim of infringement of patent, trademark or violation of license agreement.

PART 2 MATERIALS

2.01. SPRAY APPLIED LINER

- A. Liner material - A sprayable resin-based 100% solids, solvent-free system used to form a monolithic liner covering all interior pipe surfaces. All materials shall be NSF 61 potable water certified.
- B. Thickness:
 - 1. Structural lining: Individual liner thicknesses is called out in the bid item list and shall be verified by the CONTRACTOR and submitted prior to the start of Work. CONTRACTOR may elect to design and install multiple thickness liners for various diameters/configurations/depths within a given pipe segment or install a uniform thickness within a given pipe based on the thickest required portion of the liner.
 - a. Maximum internal pressure: 150 psi
 - b. Minimum internal pressure: 0 psi

- c. Minimum safety factor: 2
- d. A minimum service life of 50 years under continuous service.
- e. Physical Properties requirements on (1/8" casting)
 - 1) Tensile Strength (ASTM D638-86): 7,000psi
 - 2) Flexural Strength (ASTM D790-86): 11,000psi
 - 3) Flexural Modulus @ 0.100" (ASTM D790-86): 500,000psi
 - 4) Compressive Strength (ASTM D695-85): 12,000psi
 - 5) Tensile Elongation at Break: 4.8%
- C. Purchase liner product from an approved manufacturer. Ship in sealed containers each marked with a batch number, date manufactured, shelf life, mix ratio, storage temperature tolerance range, and instructions for storage and safe handling.
 - 1. CONTRACTOR shall not use a product that has exceeded its shelf life.
- D. Provide the same lining product for the entire project produced by the same manufacturer. Use only thinners approved by the manufacturer, and only within manufacturer's recommended limits.
- E. Ensure compatibility of total coating system for each substrate.
- F. The OWNER reserves the right to have the CONTRACTOR change liner materials at any time during the contract if, in the ENGINEER'S opinion, the material being used is performing unsatisfactory upon application
- G. Require that personnel perform work in strict accordance with the latest requirements of OSHA Safety and Health Standards for construction. Meet or exceed requirements of regulatory agencies having jurisdiction and the manufacturer's published instructions and recommendations. Maintain a copy of all Material Safety Data Sheets at the job site of each product being used prior to commencement of work. Provide and require that personnel use protective and safety equipment in or about the project site. Provide respiratory devices, eye and face protection, ventilation, ear protection, illumination and other safety devices required to provide a safe work environment
- H. Acceptable manufacturers
 - 1. Epoxy Structural Lining
 - a. Warren Environmental, Inc. 301-01
 - b. Radius-Subterra FLP Polyurethane; or
 - c. Approved equal.

2.02. APPLICATION EQUIPMENT

- A. Spray Lining Equipment
 - 1. The Pipe Lining Equipment will be controlled with a computer operated system control that will monitor the flow characteristics of the lining material as it flows through the machine for constant quality control. The system will have automatic alarms in place to allow the machine to abort lining should and abnormalities occur during the process.
 - 2. Spray lining equipment shall be in accordance with the manufacturer's recommendations and maintained and calibrated regularly.

PART 3 EXECUTION

3.01. MAINTAIN WATER SERVICE

- A. Maintain service to property OWNERS and hydrants during the installation process. Assume all responsibility for damages caused to public and private property as a result of CONTRACTOR'S actions.

3.02. ACCESS AND OBSTRUCTION PITS

- A. The locations and number of access pits (min. spaced 300') or as directed by the ENGINEER shall be determined as needed by the CONTRACTOR, consistent with the requirements of these specifications, and reviewed and approved in advance with the ENGINEER. If possible, avoid locating pits in areas that block flow of at least one lane of traffic on residential streets or block access to driveways. Provide temporary driveway access to property OWNERS when necessary and is considered incidental to the project. Verify with the OWNER that all main line valves have been closed and locked-out. Verify that all meter stop valves on service lines connected to out-of-service water mains have been fully closed.
- B. Where access pits or other excavations are made in public street right-of-way, provide and maintain appropriate traffic control devices. Except as noted otherwise on Drawings or approved by ENGINEER, maintain a minimum of one lane of traffic open during all working hours and maintain all lanes open outside of working hours.
- C. Excavate access pits where required or directed by ENGINEER. Place access pits directly over existing water main fittings or valves scheduled to be replaced whenever possible. All excavation, trenching, sheeting, bracing, etc shall comply with the requirements of OSHA regulations.
- D. When cutting into a water main within a distance to a pressurized valve, the CONTRACTOR to install pipe restraint measures in accordance with approved Pipe Restraint Plan. CONTRACTOR'S ENGINEER shall recommend distance from pressurized valve needing pipe restraint.
- E. Relieve any residual water pressure inside pipe within access pit before cutting and removing pipe sections, and confirm that pressure in the water system has been completely isolated from the pipes being cut. Cut water main pipe within access pit, providing sufficient space to allow access to the ends of pipe sections for cleaning and lining operations. Remove water main fittings as part of pipe section cut and removed.
- F. Protect existing water main from interior damage or contamination by placing a gasketed mechanical joint ductile iron end cap on each exposed pipe end at all times work is not actively being performed in access pit.
- G. Maintain access pit until cleaning and lining work, and television inspection from this location is completed and approved by ENGINEER.
- H. At all times access pit is open, maintain orange protective fencing around pit and reflective cones at each corner. Provide traffic bearing plates in roadways and according to the Specification.

- I. All excavations in the street shall be backfilled and restored to the latest Standard Specifications for Roads and Structures as published by the North Carolina Department of Transportation. Digable flowable fill can be used in backfilling access pits and can only be used to fill in up to the pavement sub grade.
- J. Obstruction pits
 - 1. The CONTRACTOR shall dig an obstruction pit to remove existing obstructions to the passage of cleaning or lining tools through an existing water main as directed by the ENGINEER. Such conditions may include a bend (horizontal and/or vertical) fitting in the existing pipe of 22 ½ degrees or greater that may or may not be shown on the Drawings that reroute the existing water main to avoid existing infrastructure(s). Other obstructions may include protruding corporation taps, fittings, bends, valves, valve bodies, storm sewer culvert wall crossings or any other type of unanticipated obstruction. The CONTRACTOR will cooperate with the OWNER to obtain the correct location, arrangement and sizing of the obstruction removal and repair.
 - a. Defective and/or obstructed pipe will be removed using the following steps or as directed by the ENGINEER:
 - b. Excavate and remove the existing pipe to 1 foot below the pipe invert.
 - c. Backfill the trench with ± 1 foot or as directed by the ENGINEER of clean #67 stone to bring the trench bottom back to the correct grade. Per local standards
 - d. Lay the pipe through the excavated area. Proceed to backfill to 1 foot above the top of the pipe with #67 stone. Per local standards.
 - e. Complete backfill operation using suitable backfill material to ground level. Per local standards.
 - f. Select backfill material may be classified as sand rock, ABC stone or flowable fill. CONTRACTOR will need to submit all proposed select backfill material and approved by ENGINEER prior to use.

3.03. VIDEO INSPECTION

- A. Pre-lining and post-lining video inspection is required.
 - 1. Conduct all video inspections with Engineer present.
 - 2. Provide video and output report to the Engineer for each pre-lining and post-lining video with pay application.
- B. Pre-Lining Video:
 - 1. Visually inspect pipeline after pipeline has been cleaned to ensure cleaning has adequately removed deposits and that the liner can adequately be installed.
 - 2. If the pipeline has to be re-cleaned, re-inspect with video equipment.
- C. Post-Lining Video:
 - 1. Visually inspect pipeline after lining has fully cured according to the cure times submitted.
 - 2. Clean and disinfect video inspection equipment.
 - 3. If the liner has repairs, re-inspect with video equipment for final post-lining

video submission.

4. Utilize rollers so that cables, rods, and wires do not come in direct contact with the cut pipe edge or excavation edge.
5. The video inspection shall meet all standards of PACP for camera lighting, speed, focus, etc. If the video inspection does not meet PACP standards and allow for a full inspection of the full diameter of the pipe, the video inspection will be rejected and the Contractor shall re-inspect.

3.04. PIPE CLEANING AND SURFACE PREPARATION

A. Pipe Cleaning and Surface Preparation

1. An opening at both ends of the pipe for access is required to allow access and egress for cleaning equipment.
2. Surface preparation methods shall be based upon the conditions of the substrate and the requirements of the spray in place pipe lining system.
3. Available methods include but are not limited to Hydro - jetting, pigging and brushing
4. Upon completion of the cleaning process the pipe shall be showered with compressed air to remove any leftover debris.
5. Coordinate with the OWNER to close the necessary valves or as directed by OWNER to isolate sections scheduled for cleaning from water mains providing active service. Verify that all customer connections affected by this action are served by the temporary water system and verify that no water is leaking into the sections to be cleaned and lined.
6. Field verify length of water main sections; limit lengths of individual pipe sections for cleaning and lining to not greater than the maximum length that can be lined with lining in one continuous operation using the CONTRACTOR'S equipment.
7. Isolate air release valves, if present, from water main section.
8. Clean and abrade pipe to produce a sound substrate with adequate profile and porosity to provide a strong bond between the monolithic surfacing system and the substrate. Remove heavy build up and scale in the pipe via approved method.
9. Water blast pipe interior surface by the use of a 6 - 10k psi water blast with turbo cutting nozzles to remove contamination and debris from the pits and pores of the host pipe. Include a dilute solution of chlorine to diminish bacterial growth and to kill any bacteria residing on or in the surface in the wash water. Vactor wash water and debris out of all pits and dispose of properly.
10. OWNER reserves the right to request the line to be cleaned by dry drag scrape method at no additional cost to the OWNER if water conservation ordinances are activated.
11. Notify Engineer if tees, crosses, valves, or reducers are encountered, other obstructions in pipe are found, or if bends, pipe sleeves, or couplings are encountered that the cleaning equipment will not pass through safely, or will not pass through and meet the cleaning standard specified.
12. Excavate to remove obstructions by installing obstruction pits at these locations when directed by ENGINEER.

13. Flush pipe with clean water to remove all dust from pipe surface. Remove all standing water and dry the inside surfaces of the cleaned water main by passing a sufficient number of oversized foam swabs through the main or squeegee the line. Use compressed air, free of oil or oil vapor, to push swabs through.
14. Pass a suitably sized mandrel or "prover" through the water main to ensure that there is adequate clearance without obstructions for passing the applicator head through the entire section of pipe during lining.
15. Remove and dispose of dirty water and materials from the cleaning operation; obtain necessary disposal permits as required by law. Take appropriate steps to minimize public view of the material removed from the water main. With the approval of the OWNER, CONTRACTOR may provide settling tanks to remove coarse debris from the cleaning wastewater and discharge decant to a sanitary sewer manhole
16. Patch or seal active leaks prior to application of the spray applied lining.

B. Pipe drying

1. A heated air blower shall be utilized to dry the pipe. Hot air dryer shall be mobile and capable of producing up to 150 degree of heated air to blow through the pipe, as manufactured by Sonic Air Systems, or approved equal.

3.05. APPLICATION

- A. The pipe matrix will be entered into the computer control system, mapping any abnormalities and or imperfection into the pipe. This will allow the controls of the system to apply more or less material at the particular points noted.
- B. The lining head will be implemented in an enclosure at the exit of the pipe matrix. The material flow and mix ratio will be checked for abnormalities as a final physical quality control measure prior to the lining heads entry.
- C. The lining head is entered into the pipe matrix and is then left to automated controls of the coating machine. The computer control system is monitored by a pipe lining operator during the entire process. The system is monitored at the opening of the pipe as well as monitored from the pipe entrance.
- D. During the lining process the computer control system is required to print off a quality assurance report at a minimum of every 20 seconds. This report must include current mix ratio of material, pressure at which the material is applied, temperature of material, flow rate of material, distance currently in pipe and thickness of material currently being applied to the pipe.
- E. Use equipment approved by the lining manufacturer for application of spray lining
- F. Conduct spray lining operations only when pipe temperature is within the manufacturer recommended limits.
- G. Conduct pre-lining checks on the lining equipment and the liner material in accordance with manufacturer's recommendations. Verify pump output; mix ratio, and material temperatures. Contractor to give a paper copy of the print out from lining machine that includes pre-lining checks and lining report at a minimum every 20 seconds to inspector to verify thickness and mix ratio per manufacturer specifications.
- H. Pump and re-circulate both components until each component reach and maintain the temperature range recommended by the manufacturer. The

equipment shall not allow the application of any lining material unless the specific conditions set by the manufacturer are met. When all necessary conditions are met the lining equipment shall be capable of autonomous operation monitored by failsafe protocols that will stop the application of material if the manufacturer's conditions for correct application are no longer met, or if an error or equipment failure is detected

- I. When end of hose assembly has been pulled to the second access pit, connect static mixer and application head to end of hose assembly and check for proper operation. Test spray the mixed epoxy into a container outside the pipeline; observe and record color of wet film. Typical spin up time of 60 to 90 seconds as needed to get the mix ratio right before lining. Begin spraying epoxy on pipe only after all the manufacturers lining requirements are met by the equipment and operator
- J. Dispose of all excess epoxy and cleaning agents in accordance with applicable federal, state and local laws and regulations

3.06. FIELD QUALITY CONTROL

- A. Upon completion of water main lining, the contractor will conduct closed circuit television inspection of the line

3.07. APPURTENANCES

A. Water Line Tie-overs

1. The CONTRACTOR shall perform tie-overs to install new fittings and pipe at each water main intersection. Tie-overs shall consist of all necessary piping up to one joint of ductile iron water pipe for each pipe size or run encountered, couplings, fittings, equipment, materials and labor required to satisfactorily connect the existing mainlines to the rehabilitated water line. Tie-overs are intersections to other water lines connected by either a tee or cross connection with possible changes in line size.

B. Fire Hydrant Assemblies

1. The CONTRACTOR shall confirm the date of the hydrant. Any hydrants encountered that are over 30 years old will be removed or as shown on the drawings. The CONTRACTOR shall remove the entire fire hydrant assemblies, except where specifically directed otherwise by ENGINEER. Any hydrants less than 30 years of age shall be reused and reconnected back to the main. The CONTRACTOR shall cut out the section of existing water main around old hydrant tee, and replacing with new hydrant tee, hydrant branch piping and new branch valve with valve box.

C. Gate Valves

1. Where shown on the drawings, remove all existing gate valves from the water mains being cleaned and lined under the Project and replace with new gate valves and boxes. The CONTRACTOR may remove and replace gate valves by any of the following three methods: (1) cut pipe on each side of an existing valve after the water main is removed from service but prior to cleaning and lining, by separate excavation, and install a new pipe section with two "cutting-in" sleeves in its place, then install the new gate valve on the same water main branch as part of the new water main replacement section in the nearest access pit after cleaning and lining is completed; (2) install an access pit over

the gate valve and replace the gate valve as part of the new water main replacement section after cleaning and lining; or (3) open existing gate valve completely and perform cleaning and lining through the valve, then cut pipe on each side of the existing valve after cleaning and lining but before leakage testing and disinfection and replace with a new valve, short pipe section, and two "cutting-in" sleeves.

D. Water Lateral Replacement

1. If low flow is detected when connecting the service back after the main has been lined, the CONTRACTOR is to determine the reason for low flow. The CONTRACTOR shall replace all galvanized service lines with copper tubing from the meter setter to the main. If the corporation or curb stop is not reusable, the CONTRACTOR shall furnish and replace. Service lines should be run from meter box perpendicular to the water main where possible. If certain select backfill material is used, the OWNER reserves the right to request 12" of approved soil be put over all existing infrastructure uncovered in the pit.
2. Contractor per lead-copper rule provide inspections / inventory two (2) feet past each lateral water meter (only if service replacement is required)

3.08. TESTING, CHLORINATION, AND RETURN TO SERVICE

A. Pressure testing

1. Furnish all labor and equipment necessary to perform the pressure tests. Pressure testing should be per AWWA standards (C600-17). The pressure tests shall be performed by the CONTRACTOR and observed by the ENGINEER on all pipe sections that have been relayed and can be tested with pressurizing against existing water main. The OWNER requires all relays 60 feet long or longer be pressure tested unless otherwise approved by Inspector / ENGINEER.
2. Prior to putting line back in service, the line must pass water quality and pressure testing. Pressurize the line to normal operating pressure.
3. The following conditions shall have been met before any pressure testing begins:
 - a. Water main cleaning and lining has been completed and accepted by the ENGINEER, pipe replacement sections have been installed, hydrant assemblies and valves have been replaced, and all concrete reaction blocking has been placed and cured to a minimum strength of 3,000 psi.
4. All new pipe joints installed by CONTRACTOR are accessible for inspection.

B. Chlorination

1. All water line sections removed from service, cleaned and lined, or replaced during this Project shall be properly chlorinated before being placed back into service. Chlorination methods should be per AWWA standards (C651-14). The CONTRACTOR under the supervision of the Inspector shall perform the chlorination.

2. Any pipe subjected to contaminating materials shall be treated as directed by the ENGINEER. Should such treatment fail to cleanse the pipe, the CONTRACTOR shall replace the pipe at no cost to the OWNER.
3. Water laterals shall be sterilized by the CONTRACTOR using methods acceptable to the ENGINEER. The CONTRACTOR shall bear the same responsibility for water laterals as he bears for water mains and appurtenances, including any costs for corrective measures needed to comply with the bacteriological requirements.
4. The CONTRACTOR shall exercise extreme caution at all times in order to prevent the HTH Solution from entering the City of Monroe's existing water system.

C. Residual chlorine disposal

1. The CONTRACTOR shall be responsible for either reducing the amount of residual chlorine in the water through chemical de-chlorination apparatus or by discharging the super-chlorinated water directly into the sanitary sewer.
2. Direct Discharge to Sanitary Sewer
 - a. The CONTRACTOR shall provide necessary pipe, hose or fittings to connect from blow-off's or hydrant outlets to sanitary sewer manholes. Hoses, piping or fittings shall be restrained at the entry of the manhole(s) to insure a continuous air-gap between the hose/pipe outlets and the sewer flow levels. Unless specifically approved by the ENGINEER in writing, the maximum flow discharge to the sanitary sewer shall not exceed 200 gallons per minute. A metering device that measures in gallons or gallons per minute with a control valve shall be used to regulate the flow (Pollard P743 Fire Hydrant Meter), or equal. The CONTRACTOR shall monitor the next three downstream manholes to verify that the sanitary sewer main(s) are not being surcharged and that the sewer capacity has not been exceeded. The ENGINEER may require additional downstream manholes to be monitored if critical flow conditions exist. The ENGINEER may also reduce the amount of discharge if conditions in the downstream manholes warrant this reduction.
3. De-chlorination of Discharge Water
 - a. In lieu of discharging the super-chlorinated water directly to the sanitary sewer system, the CONTRACTOR may elect to de-chlorinate the water by use of apparatus that injects or mixes EPA approved chemicals with the water to neutralize the chlorine before it is released to the ground, streams or storm sewer systems. Residual chlorine levels shall be reduced and maintained to a maximum of 0.1 parts per million (0.1mg/l). The CONTRACTOR shall test the discharge at 15-minute intervals to ensure that acceptable levels of neutralization are maintained. Discharge shall be stopped if chlorine levels exceed 0.1 parts per million.
 - b. Units shall be the Pollard LPD250 Diffuser and De-Chlorination System, the H2O Neutralizer, as manufactured by Measurement technologies, Inc., or approved equal. All procedures shall be in accordance with manufacturers recommendations and as approved by the ENGINEER.

D. Flushing and bacteriological sampling

1. The CONTRACTOR may proceed with flushing of the lines after the 24-hour or longer period outlined above, provided the free residual chlorine analysis is satisfactory. Flushing methods should be per AWWA standards (651-14) and follow construction requirements. Flushing shall continue until a check shows that the lines contain only the normal chlorine residual.
2. The CONTRACTOR shall be responsible for any damages to property as a result of flushing activities, including discolored water inside of any plumbing fixtures.
3. The ENGINEER shall collect water samples for bacteriological analysis 24 hours after flushing of the lines is completed. The CONTRACTOR shall furnish any reasonable amount of assistance that may be required by the ENGINEER to secure these samples. Bacteriological test results will be available 24 hours after the water samples have been submitted to the City of Monroe's Water Treatment Testing Laboratory. After 3 failed Bac-t, contractor required testing by independent lab & one successful bac-t performed by C.O.M. lab.
4. If test results are unsatisfactory, the CONTRACTOR shall immediately re-chlorinate the lines and proceed with such measures are necessary to secure sterile lines. All laterals shall be re-chlorinated during this process.
5. At the satisfactory completion of the bacteriological requirements, the lines shall be placed into service under the supervision of the ENGINEER. The OWNER shall open all valves relating to placing the main back in service

3.09. SITE RESTORATION AND PROJECT CLOSE-OUT

- A. Return project site to a condition equal to or better than the pre-construction condition of the site. Re-landscape and/or plant according to the Lawns and Meadows specification.
- B. Remove excess materials from the site.
- C. Complete final site restoration, including paving, in the project area prior to beginning work on a new project area. Only two project areas with outstanding work are allowed at any time.
- D. Site restoration
 1. Replace existing pavements, driveways (including "entire driveway apron"), parking areas, curbs, gutters, cobble stone, sidewalks, water lines, sewers, catch basins, drains, field tile, conduit pipes, cables, grassed areas, and other existing facilities removed or otherwise disturbed in carrying out the Work in as good a condition as found and to the approval of the OWNER.
 2. Specialty pavement in all other areas (sidewalks, etc.) shall be restored to existing conditions or better.
 3. All streets with pavement markings shall be relined with markings equal in type and location to match those existing prior to work.
- E. Site cleanup
 1. Maintain a clean site at all times from accumulations of waste material or rubbish. Each completed subproject shall be cleaned and ready for use prior to the CONTRACTOR proceeding on to the next subproject. In case of dispute the OWNER may remove rubbish and charge the CONTRACTOR through deduction to Contract Amount, or other means, based on a fair and equitable

amount determined by the ENGINEER.

F. Project final walkover

1. Upon completion of work within each project area (to include all restoration work completed except for the concrete restoration), the CONTRACTOR will notify the OWNER that he is ready to schedule a walkover of the sub-project area. If necessary, the OWNER will assemble a punch list of items for the CONTRACTOR to complete prior to release of the monthly pay application. The CONTRACTOR may submit the application for payment after the sub-project has reached substantial completion and a walkthrough has been conducted with the OWNER.
2. Upon the completion of work throughout the year all project areas shall have a Project Final Walkthrough completed before the CONTRACTOR demobilizes for the year. The CONTRACTOR may submit the application for payment after all project areas have been completed, a final walkthrough has been conducted with the OWNER, and deliverables sent to engineer

END OF SECTION



WATER RESOURCES DEPARTMENT

CONTRACT FOR LINING REHABILITATION OF DOMESTIC WATER DISTRIBUTION MAIN

“Lining Candidates List”

Attachment “E”

2023 Polymeric Lining ATTACHMENT "E"

Street	Distance	Dia	Material	Lats	FH	COMMENTS
Jackson	550	6	CIP	3	0	McCarten Street to Welsh Street
Vann Street	550	6	CIP	1	1	At 90-Deg Bend south of E Roosevelt Blvd to Lockhart Street



WATER RESOURCES DEPARTMENT

CONTRACT FOR LINING REHABILITATION OF DOMESTIC WATER DISTRIBUTION MAIN

“Lining Candidates Maps”

Attachment “F”



VANN STREET (South of E. Roosevelt Blvd to Lockhart Street)



JACKSON STREET (McCarten Street to Welsh Street)



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: February 6, 2024

FROM: Sarah McAllister, P.E., Engineering Director

PREPARED BY: Sarah McAllister, P.E. – Engineering Director

SUBJECT: Olive Branch Road and NC 200 Improvements Project

SUMMARY STATEMENT

The Public Enterprise Committee is requested to consider adopting a resolution in support of a North Carolina Department of Transportation (NCDOT) project to make intersection improvements to Olive Branch Road and NC 200 (Morgan Mill Road).

REVIEW

Engineering Staff and NCDOT have been working with multiple developers of residential and industrial projects regarding off-site roadway improvements identified in each projects' traffic impact analysis study. Multiple projects identified overlapping improvements at the intersection of Olive Branch Road and NC 200 (Morgan Mill Road). The improvements identified include turn lanes on both Olive Branch Road and NC 200 and one project identified the need for a signal at this intersection. What was not included in the improvements was a realignment of Olive Branch Road to create more of a T intersection with NC 200. For both safety and operational reasons, NCDOT has agreed to take on the realignment as a project and secure funding. Each developer will contribute the funds for the improvements identified in their studies and NCDOT will build all of the improvements at one time.

The creation of this construction project for NCDOT requires a resolution of support from the local municipality per North Carolina General Statute 136.11.1, "Local Consultation on Transportation Projects". Therefore, a resolution of support is attached for your consideration. There is no requirement for a local funding match associated with this project.

RECOMMENDATION

Staff recommends approval of the Resolution (R-2024-09) supporting NCDOT's project to improve the intersection of Olive Branch Road and NC 200 (Morgan Mill Road). If the Public Enterprise Committee is in agreement, the Resolution (R-2024-09) will be placed on the February 13th consent agenda for approval.

Attachments:
Resolution (R-2024-09) Supporting
NCDOT's Project at Olive Branch Road
and NC 200

**RESOLUTION IN SUPPORT OF
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROJECT FOR INTERSECTION IMPROVEMENTS AT
OLIVE BRANCH ROAD AND NC 200
R-2024-09**

WHEREAS, the North Carolina Department of Transportation (hereinafter "N.C.D.O.T.") is proposing to realign Olive Branch Rd where it intersects with NC 200 and coupled with developer funds install turn lanes along with a traffic signal at the newly realigned intersection (hereinafter referred to as the "Project"); and

WHEREAS, the estimated cost for the Project funding exceeds \$250,000.00; and

WHEREAS, North Carolina General Statute 136-11.1, "Local Consultation on Transportation Projects," requires N.C.D.O.T. to notify all municipalities and counties affected by a planned transportation project and to request that they submit a written resolution expressing their views on the same within 45 days; and

WHEREAS, N.C.D.O.T. has notified the City of Monroe (hereinafter the 'City') of the Project under date of January 2, 2024, and has requested that the Town submit a resolution expressing its views on the same; and

WHEREAS, the City, acting through its City Council in regular session assembled on the 13th day of February 2024, has expressed its support of the Project and has voted unanimously to adopt this Resolution evidencing the same, all in compliance with the requirements of N.C.G.S. 136-11.1;

NOW, THEREFORE, BE IT RESOLVED, that the City of Monroe, City Council does hereby express its support of the Project as set forth hereinabove.

BE IT FURTHER RESOLVED that the City of Monroe, City Council authorizes its Mayor and the Clerk to the Council to sign this Resolution and attach the City seal thereto, and to forward a copy of the same to N.C.D.O.T.

Adopted this 13th day of February 2024, by the City of Monroe, City Council.

Robert A. Burns, Mayor

Attest:

Bridgette H. Robinson, City Clerk



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: February 6, 2024

FROM: Sarah McAllister, P.E., Engineering Director

PREPARED BY: Sarah McAllister, P.E., Engineering Director

SUBJECT: Request for Sidewalk Variance at JLS Masonry, 1371 N Rocky River Road

SUMMARY STATEMENT

The Public Enterprise Committee is requested to consider a request from Clint Lawrence, with Lawrence Associates, to waive the eight-foot wide sidewalk requirement associated with the proposed JLS Masonry site development at 1371 N Rocky River Road.

REVIEW

The City of Monroe *Standard Specifications and Detail Manual*, Section 02.02.06 Sidewalk Requirements, requires sidewalk to be provided along existing arterial and collector streets as a development requirement based on a list of streets identified in section 02.02.06 B. Development Requirements of the Manual. An email is attached from Clint Lawrence, with Lawrence Associates, requesting a waiver of the sidewalk requirement. Reasons for the request cite topography, existing historic trees, jurisdictional stream/buffer, existing utilities, and an existing NCDOT 36" culvert.

As proposed, the site development requires approximately 306 linear feet of eight-foot wide sidewalk along N Rocky River Road. The intent of the sidewalk policy outlined in the Detail Manual is to allow new development to share in the placement of sidewalk along major arterials and collector streets, providing for an alternative means of transportation other than motor vehicle. Over time, this process will allow sections to be completed. Pedestrian friendliness correlates to the livability of the community.

The inclusion of pedestrian facilities meets the NCDOT Complete Streets Policy to consider and incorporate several modes of transportation when building new projects or making improvements to existing infrastructure. Existing pedestrian facilities are taken into consideration during the development of State Transportation Improvement Program Projects and decreases the costs to the City for their completion.

A copy of the email from Clint Lawrence requesting the variance is attached along with the site and grading plan for JLS Masonry. The 36" oak tree, utility easements, stream buffer, etc. are shown on the plans.

RECOMMENDATION

The Public Enterprise Committee is requested to consider the request for a variance from the City's *Standard Specifications and Detail Manual* regarding the sidewalk requirements along the property frontage for the JLS Masonry project located at 1371 N Rocky River Road.

Attachments:
Email of Request for Sidewalk
Variance dated December 24,
2023 from Clint Lawrence
JLS Masonry Site Plan

Sarah McAllister

From: Clint Lawrence <Clint@Lawrencesurveying.com>
Sent: Thursday, December 14, 2023 4:21 PM
To: Sarah McAllister
Cc: Tonya Griffin; Travis Ball; Chad Splawn
Subject: JLS Sidewalk Variance Request

Sarah,

We would like to request a variance for the requested eight-foot sidewalk along Rocky River Road on the JLS project. This request is based on the following site constraints; topography, existing historic trees, jurisdictional stream/buffer, existing utilities, and the existing NCDOT 36" culvert. Please let me know the date of the committee meeting and I will plan to attend.

Thanks,

Clint Lawrence, PE, PLS
Principal



106 W. Jefferson Street
Monroe, NC 28112
p: 704-289-1013
Clint@LawrenceSurveying.com
www.LawrenceSurveying.com

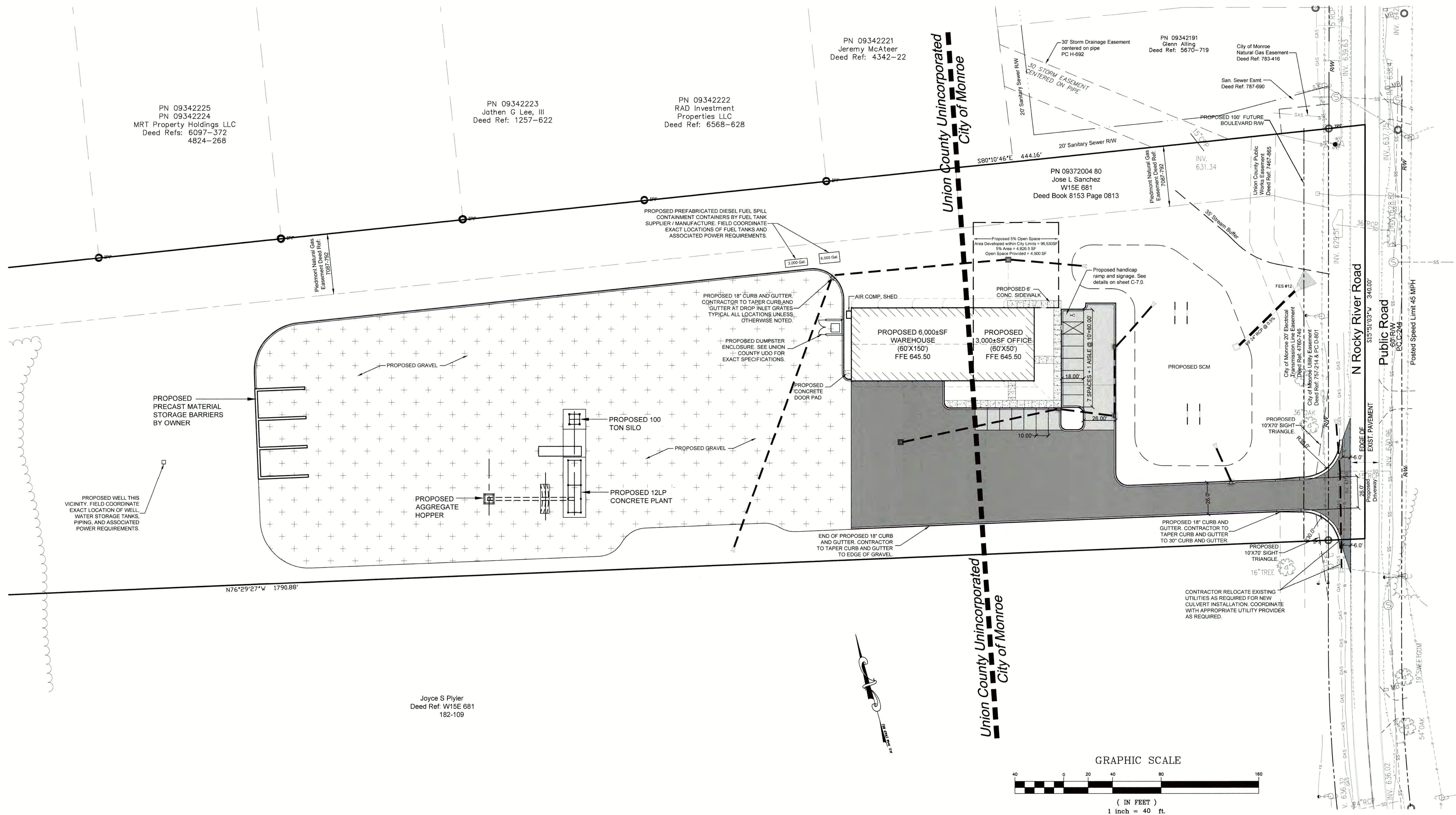
- 1) All boundary and topographic information was taken from a survey by Lawrence Associates, PA.
- 2) All improvements and construction shall be in accordance with state and local standards.
- 3) Any discrepancies between the field shall be called to the attention of the owner prior to proceeding with the work.
- 4) Prior to beginning construction, the contractor shall verify that all required permits and approvals have been obtained from all regulatory authorities.
- 5) The contractor shall contact all owners of easements, utilities, and right-of-ways, public and private, prior to working in these areas.
- 6) Contractor shall maintain the site in a manner such that workman and the general public shall be protected from injury.
- 7) Do not scale drawing for actual dimensions, as it is a reproduction and subject to distortion.
- 8) Refer to sheets C-3.0, C-3.1, C-3.2, C-3.3 and C-3.4 for grading and drainage.
- 9) All storm drainage pipe must be NCDOT approved and class 3 or greater.
- 10) All debris is to be disposed of at an approved offsite location.
- 11) An as-built survey shall be required for all new, expanded, or relocated structures which shall accurately show the footprint of the structure, appurtenances, all existing structures, applicable setbacks, and property lines prior to the release of any certificate of occupancy.
- 12) The developer must request any deviation from the Union County & City of Monroe Standard Detail Manual and Unified Development Ordinance in writing along with justification for review and recommendation by staff.

	Proposed Gravel 3" Thick ABC Stone with filter fabric on compacted subgrade.
	Proposed Sidewalk 4" Concrete (4,000 psi) with WWF reinforcement
	Proposed Standard Duty 6" Concrete (4,000 psi) Parking with 6X6 - 4/4 WWF. Field verify with Testing Agency and Owner.
	Proposed Heavy Duty 8" Concrete (4,000 psi) Truck Apron with #4 at 12" O.C. Each Way. Field verify with Testing Agency and Owner.
Field verify all sub-grade conditions and paving specifications with Testing Agency and Owner prior to installation.	



- 2) Site Acreage:
- 3) Parcel Number:
- 4) Current Zoning:
- 5) Soils:
- 6) Disturbed Area:
- 7) Drainage Basin:

JLS Masonry
Attn.: Jose Sanchez
Monroe, NC 28112
Phone: 704-242-7469
jlsasonryinc.@hotmail.com
11.65 Acres
09-372-004 80 & 09-372-004 90
Union County RA-40 / City of Monroe
CmB, BaB, & BdB2
5.40 Acres
Site drains to Bearskin Creek

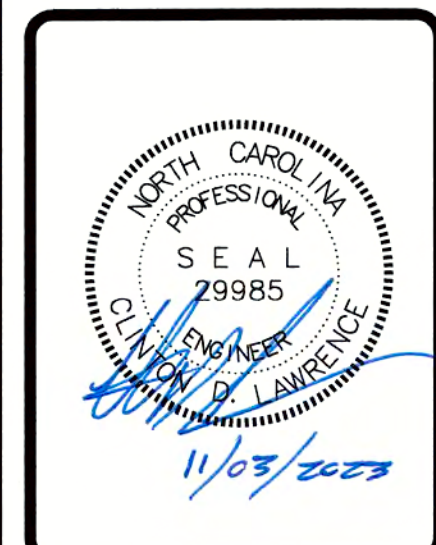


NO.	DATE	BY	ISSUE
1)	03/07/23	T58	ADDRESSED PLAN REVIEW COMMENTS
2)	11/03/23	T58	EROSION CONTROL PLAN REVIEW REVISIONS

**JLS Masonry
New Concrete Plant & Building**

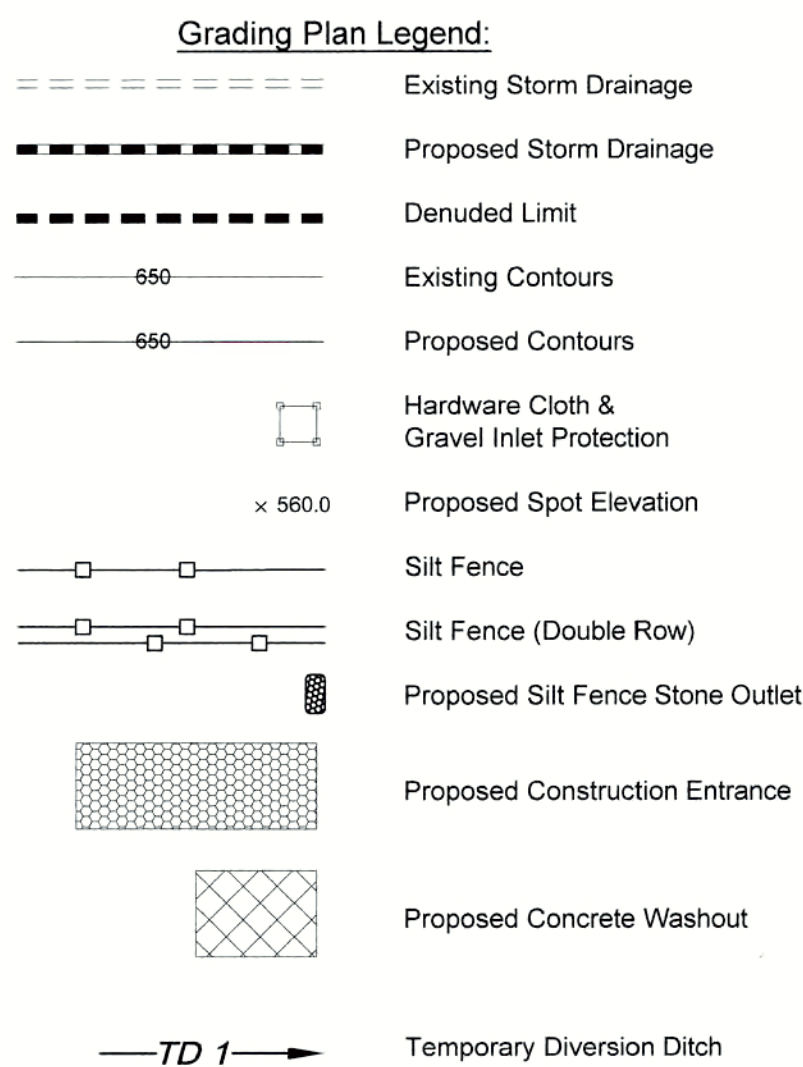


**LAWRENCE
ASSOCIATES**



DESIGNED BY:	COL	ISSUED BY:	COL	CHECKED BY:	WML
SCALE			JOB NUMBER		
1" = 40'			DATE		6026
08/30/2022					

C-2.1



- Grading Notes:**
- Approval of this plan is not an authorization to grade adjacent properties. When field conditions warrant off-site grading, permission must be obtained from the affected owners.
 - All contours and spot elevations reflect finished grades.
 - All elevations are in reference to the benchmark.
 - Contractor shall verify the benchmark prior to ground breaking.
 - The contractor shall immediately report to owner any discrepancies found between actual field conditions and construction documents and shall wait for instructions prior to proceeding.
 - Contractor shall verify location of all existing utilities in the field prior to beginning construction.
 - Contractor shall blend new earthwork smoothly to transition back to existing grade.
 - Limits of clearing shown on grading plan are based upon the approximate cut and fill slope limits, or other grading requirements.
 - Lawrence Associates, PA has not performed any geotechnical evaluations of the subject property and has not made any determinations as to the suitability of site soils for use as fill beneath proposed buildings, driveways, or for other uses. All earthwork shall be completed in accordance with the recommendations of a qualified geotechnical engineer who shall be retained by the owner.
 - Contractor shall ensure positive drainage such that runoff will drain by gravity flow across any disturbed area.
 - Contractor shall take all reasonable measures to prevent tracking mud/soil on adjacent roadways. Any mud/soil tracked on active roadways shall be cleaned daily.

- Construction Sequence:**
- Obtain Approval Letter for Erosion Control and schedule pre-construction meeting on-site with the City of Monroe Engineering Department Erosion Control Specialist, Owner, and all contractors involved with land disturbance prior to any clearing or grading. All approved plans and required permits will be issued at the meeting prior to any land disturbing activity.
 - Owner or their representative is to notify all affected property owners prior to construction.
 - First Land-disturbing activity-Clear only as need to install initial erosion control measures as shown on sheets C-3.0 & C-3.1. Stabilize bare areas immediately with gravel and temporary vegetation as construction takes place.
 - Install all erosion control measures as shown on Approved Plan as work takes place.
 - All erosion control measures shall be constructed in accordance with the City of Monroe Erosion and Sediment Control Planning and Design Manual.
 - Upon installation of the erosion control measures, call for an on-site inspection.
 - Submit Certification Form 1-01, Primary Erosion Control Inspection Form, to the Erosion Control Specialist during the inspection of installed erosion control measures.
 - Once all initial erosion control measures are installed the contractor can proceed with site grading and the installation of the permanent storm drainage and inlet protection as indicated on sheets C-3.0, C-3.1, 20, C-3.2, C-3.3 & C-3.4. Contractor is to maintain the initial erosion control measures during this phase. Maintain all erosion control measures installed during the initial grading phases.
 - The contractor shall diligently and continuously maintain all erosion control devices and structures to minimize erosion.
 - Clean sediment basins when one-half full. Check after every rain event. Maintain rain gauge and record keeping per NPDES permitting requirements.
 - Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete. Seed and mulch denuded area immediately after finished grades are established.
 - Last construction phase-Stabilize all open areas including borrow and spoil areas. Remove and stabilize all temporary control areas.
 - All erosion control devices are to remain in place until the site is properly stabilized with sufficient ground cover. Ground cover must be maintained to a degree that prevents soil erosion and sedimentation at all times.
 - Erosion Control Basin is then to be converted to permanent Storm Water Control Basin (SCM). See Final Grading Plans as necessary. Maintain soil erosion control measures until a permanent ground cover is established.
 - Additional measures may be required based upon actual site conditions.
 - Submit Certification Form 1-06, Final Erosion Control Acceptance Form, to the Erosion Control Specialist to schedule a final on-site inspection. Remove soil erosion control measures and stabilize these areas upon approval of Certification Form 1-06. Removal of erosion control devices shall occur only upon receipt of approval from erosion control inspector. Any modifications to the approved plans must be pre-approved and documented on the Self-Inspection Forms.
 - Submit Certification Form 1-07 when there is an intermediary removal of erosion control measures.
 - If compost blankets are to be installed for temporary erosion/sediment control, installation and maintenance shall be in accordance with Section 6.18 Compost Blanket in the North Carolina Erosion and Sediment Control Planning and Design Manual. Construction Specifications from Section 6.18 Compost Blanket shall be included in the construction sequence of the erosion and sedimentation control plan.

- Erosion Control Notes:**
- All exposed perimeter areas and slopes greater than 3:1 are to have ground stabilization within 7 days, all other areas are to have ground stabilization within 14 days.
 - Any off-site borrow and waste required for this project must come from a site with an approved erosion control plan, a site regulated under the Mining Act of 1971, or a landfill regulated by the Division of Solid Waste Management. Trash/debris from demolition activities or generated by any activities on site must be disposed of at a facility regulated by the Division of Solid Waste Management or per Division of Solid Waste Management or Division of Water Resources rules and regulations. [15A NCAC 4B .0110]
 - Debris from demolition activities should be disposed of at an approved facility.

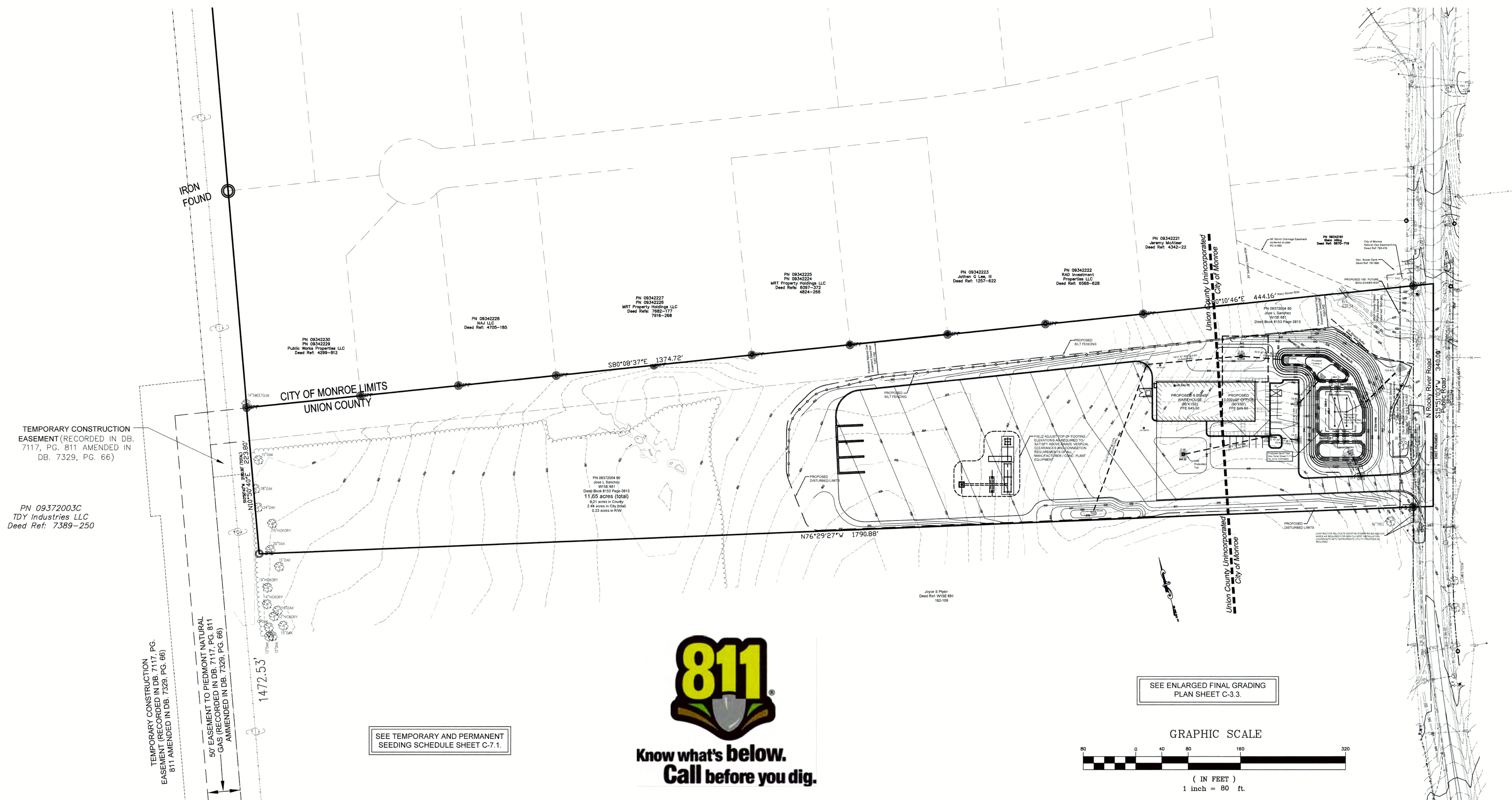
Temporary diversion ditches shall be lined with North American Green S150 liner or equivalent.

Site Notes:

1) Applicant:

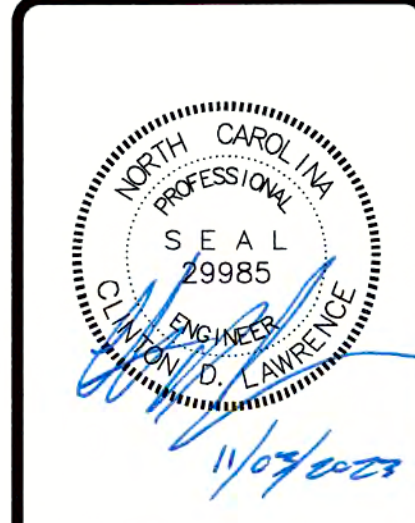
- 2) Site Acreage:
3) Parcel Number:
4) Current Zoning:
5) Soils:
6) Disturbed Area:
7) Drainage Basin:

JLS Masonry
Attn.: Jose Sanchez
Monroe, NC 28112
Phone: 704-242-7469
jlsasonryinc@hotmail.com
11.65 Acres
09-372-004 80 & 09-372-004 90
Union County RA-40 / City of Monroe
CmB, BaB, & BdB2
5.40 Acres
Site drains to Bearskin Creek



JLS Masonry
New Concrete Plant & Building
Attn.: Jose Sanchez
JLS Masonry
Monroe, NC 28112
Phone: 704-242-7469
jlsasonryinc@hotmail.com

LAWRENCE ASSOCIATES
106 W. Jefferson St.
Monroe, NC 28112
P 704-285-1013
www.lawrenceassoc.com
Firm License Number: C-2856



Master Grading and Erosion Control Plan - Final			
DESIGNED BY	CHECKED BY	DATE	SCALE
CDL	CDL	08/30/2022	1" = 80'
WML			6/26

C-3.2



STAFF REPORT

TO: Public Enterprise Committee

VIA: William M. Watson, City Manager

DATE: February 6, 2024

FROM: Scott E. Clark, Director of Water Resources

PREPARED BY: Amy Cook, Water Resources General Manager of Operations

SUBJECT: Change Order #1 – John Glenn WTP Treatment Basin #3 Coating Project

SUMMARY STATEMENT

The Public Enterprise Committee is requested to consider a change order request to repair an unforeseen quantity of cracks in the basin wall and repair the flocculator floor for John Glenn WTP treatment basin #3.

REVIEW

On June 13, 2023, City Council adopted the Annual Balanced Budget for Fiscal Year 2023-2024. The adopted budget included \$850,000 in funding for the John Glenn Water Treatment Plant Basin #3 Coating. A contract for coating Basin #3 was entered with Saffo Contractors Inc. (Saffo) in October, 2023 for a total amount of \$641,250.00 via a successful bid process. Once the basin was drained and Saffo progressed with cleaning, an excessive number of cracks were observed, with most of them extending through the concrete structure.

To properly repair the cracks that go through the wall, the coating on the exterior of the basin must be removed. Replacement of this coating is recommended to be completed on the exterior wall.

In order for the coating manufacturer to warranty their product installation and to maintain a watertight structure, all cracks must be properly repaired. Sherwin Williams has provided a statement to Saffo about warranty requirements (attached).

Staff has consulted with a structural engineer to ensure the number of cracks and proposed repairs will maintain the structural integrity of the basin. The report from Black & Veatch (Structural Engineer) is attached.

Additionally, the floor of the basin flocculator has exposed aggregate which is a sign of concrete degradation. Change Order #1 includes repair and coating of the flocculator floor to extend its service life.

Change Order #1 provided by Saffo to the City of Monroe is in the amount of \$585,000.00.

Funding in the amount of \$850,000.00 was adopted in the FY2023-2024 budget. A contract award in the amount of \$641,250.00 was awarded to Saffo Contractors, Inc. in October, 2023. The Change Order #1 submitted by Saffo for crack and flocculator floor repairs is in the amount of \$585,000. Repair of the cracks is imperative to maintain basin coatings which protects and extends the useful life of the infrastructure. Therefore, additional funding in the amount of \$376,250.00 is requested to be appropriated via budget amendment BO-2024-03 from the Water and Sewer Fund for the John Glenn Water Treatment Plant Basin #3 Coating project.

RECOMMENDATION

It is the recommendation of Staff that the Public Enterprise Committee take the following action:

Staff recommends approval to City Council of Budget Ordinance BO-2024-03 and forward to City Council for consideration on the February 13, 2024 Consent Agenda.

Staff recommends the approval of Change Order #1 for repair of an unforeseen quantity of cracks in the basin wall and repair of the flocculator floor for John Glenn WTP treatment basin #3, authorization for the City Manager to execute the necessary documents and recommends forwarding to City Council for consideration on the February 13, 2024 Consent Agenda.

Attachments:

Change Order #1, WTP Basin #3 Coating
Black & Veatch Report
Sherwin Williams Statement
BO-2024-03

CAPITAL PROJECT BUDGET ORDINANCE
John Glenn Water Treatment Plant Basin Coating Project
BO-2024-03

WHEREAS, the City desires to provide reliable, quality drinking water to the citizens of Monroe; and

WHEREAS, it is imperative to effectively maintain and operate the John Glenn Water Treatment Plant and related regulatory compliance to support current and future demand; and

WHEREAS, a detailed analysis has outlined a need for significant repairs additional to the original scope of the Basin Coating Project; and

WHEREAS, the original funds allocated in the FY2023-2024 adopted budget was \$850,000; and

WHEREAS, the Basin Coating contract was awarded to Saffo Contractors, Inc. during October, 2023 in the amount of \$614,250; and

WHEREAS, Saffo Contractors, Inc. submitted a Change Order request in the amount of \$585,000.00 to make necessary repairs; and

WHEREAS, it is recommended that \$376,250 be transferred from the Water and Sewer Fund to fund this Change Order #1 for repairs; and

NOW, THEREFORE, BE IT ORDAINED that the City Council hereby provides additional funding for the John Glenn Water Treatment Plant Basin Coating Project WR2426 funding as follows:

Water & Sewer Fund:

Revenues:

Appropriation of Fund Balance	\$ 376,250
-------------------------------	------------

Expenses:

Transfer to Water & Sewer Capital Project Fund	\$ 376,250
--	------------

Water & Sewer Capital Project Fund:

Revenues:

Transfer from Water and Sewer Fund	\$ 376,250
------------------------------------	------------

Expenditures

Contracted Services	\$ 376,250
---------------------	------------

Adopted this 13th day of February, 2024.

Attest:

Robert A. Burns, Mayor

Bridgette H. Robinson, City Clerk

CHANGE ORDER

CHANGE ORDER NUMBER: 1

DATE: 01/29/2024

PROJECT: WTP Basin #3 Coating

PROJECT NUMBER: 24-26

CONTRACT NUMBER: 12183

CONTRACTOR: SAFFO CONTRACTORS INC.

ADDRESS: PO BOX 7035, Wilmington, NC 28406

THE CONTRACTOR IS HEREBY AUTHORIZED AND REQUESTED TO MAKE THE FOLLOWING CHANGES TO THE ABOVE DESCRIBED CONTRACT:

ORIGINAL CONTRACT AMOUNT **\$ 641,250.00**

Contingency Included in Contract	\$ <u>0.00</u>	
Contingency Deduct	\$ <u>0.00</u>	(cumulative)
Remaining Contingency	\$ <u>0.00</u>	

NET CHANGE BY PREVIOUS CHANGE ORDER **\$ 0.00**

CONTRACT TOTAL PRIOR TO THIS CHANGE ORDER **\$ 641,250.00**

AMOUNT OF THIS CHANGE ORDER **\$ 585,000.00**

REVISED CONTRACT TOTAL INCLUDING THIS CHANGE ORDER **\$ 1,226,250.00**

CHANGE ORDER INCLUDES THE FOLLOWING WORK TO BE PERFORMED:

Unanticipated quantity of cracks on interior of basin and cracks that extend through entire wall
thickness to be repaired. Coating manufacturer requires all cracks to be repaired in order to
provide warranty of coating material. Due to the number of cracks that continue through the

wall to the exterior of the basin wall, the existing gunite coating is to be removed to properly
repair cracks. Replacement of gunite on exterior wall facing Old Camden Road to be completed.
Due to excessive aggregate exposure on flocculator floor, cleaning, resurfacing and painting is
necessary to extend its service life.

RECOMMENDED:

BY: _____
Architect/Engineer/Consulting Staff

DATE: _____

BY: Nina M. President
Contractor

DATE: 1/29/24

BY: Amy In Cook
City Project Superintendent

DATE: 1/29/2024

BY: [Signature]
Department Head

DATE: 1/29/2024

APPROVED:

BY: _____
City Manager

DATE: _____

This instrument has been pre-audited in the manner required
by the Local Government Budget and Fiscal Control Act.

Signature: _____
Finance Officer

Date: _____



P.O. Box 7035
Wilmington, NC 28406
Phone (910) 371-9499
Fax (910) 371-9422
saffo@saffocontractors.com

January 22nd, 2024

Attn: Amy Cook, acook@monroenc.org

Location of Work: 2119 Old Camden Rd, Monroe, NC 28110

Change Order Existing Quantities for John Glenn WTP Basin #3 Project: WR24-26

Saffo Contractors, Inc. is currently projected to go over existing quantities and has provided the following table to show the cost based on the unit pricing for the repair line items. This change order breakdown is for existing line items. The quantities listed in this breakdown are subject to change based on existing conditions found during repairs.

<u>Line #</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
1	Concrete Crack Epoxy Resin Repair Interior	1,815	LF	\$95.00	\$172,425.00
2	Concrete Crack Epoxy Resin Repair Exterior	1,435	LF	\$95.00	\$136,325.00
3	Concrete Surface Repair Type 1 Exterior (Vertical)	100	SF	\$400.00	\$40,000.00
4	Concrete Surface Repair Type 1 Interior (Vertical)	200	SF	\$400.00	\$80,000.00
Total Amount :					\$428,750.00

*Must have Change Order before beginning work. Please send CO to avery@saffocontractors.com

Avery Saffo, Project Manager

NOTES:

- ▶ Any alternation or deviation above specification involving extra costs will be executed upon written order and will become an extra charge over and above the estimate.
- ▶ All agreements contingent upon strikes, accidents, or delays beyond our control. Time and material circumstances are taken into consideration when matters occur under these circumstances.



P.O. Box 7035
Wilmington, NC 28406
Phone (910) 371-9499
Fax (910) 371-9422
saffo@saffocontractors.com

January 22nd, 2024
Attn: Amy Cook, acook@monroenc.org
Location of Work: 2119 Old Camden Rd, Monroe, NC 28110

Proposal: Change Order for New Line Items for John Glenn WTP Basin #3 Project: WR24-26

Saffo Contractors, Inc. would like to propose the following work for the price listed below the specifications. We will provide the necessary labor, material, equipment and insurance needed for the project.

New Scope of Work Exterior Guniting Layer Removal:

- Saffo to remove guniting layer from the exterior of Basin #3 to expose exterior cracks for repair.
- Saffo to utilize both abrasive blasting and pressure washing for removal methods as needed to remove guniting layer.
- Saffo to collect and dispose spent abrasive media waste as non-hazardous waste.

New Scope of Work Exterior Guniting Replacement:

- Saffo to replace protective guniting layer with up to ¼ inch Thin Patch Mortar to only exterior of front facing wall and flocculator wall on Basin #3.

New Scope of Work Interior Flocculator Floor:

- Saffo to clean, resurface and paint interior flocculator floor according to the existing specification for John Glenn WTP Basin #3 Project: WR24-26.

This change order breakdown is for new line items. The new line items will be performed according to the new scope of work listed above. The attached Change Order Breakdown on January the 22nd, 2024 is hereby incorporated into this contract.

<u>Line #</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
1	Remove Exterior Guniting Layer to Expose Exterior Cracks	1	LS	\$95,000.00	\$95,000.00
2	Replace Protective Guniting Layer on Exterior Front Facing Wall and Flocculator Wall on Basin #3	1	LS	\$35,000.00	\$35,000.00
3	Clean, Resurface & Paint Flocculator #3 floor	1	LS	\$26,250.00	\$26,250.00
				Total Amount :	\$156,250.00

*Must have Change Order before beginning work. Please send CO to avery@saffocontractors.com

Avery Saffo, Project Manager

NOTES:

- ▶ Any alternation or deviation above specification involving extra costs will be executed upon written order and will become an extra charge over and above the estimate.
- ▶ All agreements contingent upon strikes, accidents, or delays beyond our control. Time and material circumstances are taken into consideration when matters occur under these circumstances.
- ▶ Invoice payments are due on a Net 30-day payment schedule.
- ▶ Saffo Contractors Inc. reserves the right to increase the price after 15 days if proposal is not accepted.
- ▶ This proposal may be withdrawn if not accepted within 15 days.

ACORDTM**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

10/18/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER McGriff Insurance Services LLC Post Office Box 13941 Durham, NC 27709 919 281-4500		CONTACT NAME: Josh Hurley PHONE (A/C, No, Ext): 919 281-4500 FAX (A/C, No): 8887468761 E-MAIL ADDRESS: nccertificateteam@mcgriff.com	
INSURED Saffo Contractors, Inc. PO Box 7035 Wilmington, NC 28406		INSURER(S) AFFORDING COVERAGE INSURER A : Employers Insurance Company of Wausau	NAIC # 21458
		INSURER B : Liberty Insurance Corporation	42404
		INSURER C : American Interstate Insurance Company	31895
		INSURER D : Travelers Property Casualty Co of Amer	25674
		INSURER E : First Liberty Insurance Corporation	33588
		INSURER F : IUI Illinois Union Insurance Company	27960

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR ☒ PD Ded:10,000 GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☒ LOC OTHER:	Y	Y	TBCZ51290400	07/01/2023	07/01/2024	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000 \$
E	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☒ Drive Oth Car ☐ SCHEDULED AUTOS NON-OWNED AUTOS ONLY	Y	Y	AS6Z51290400	07/01/2023	07/01/2024	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$5,000 \$
B	☒ UMBRELLA LIAB ☒ EXCESS LIAB ☒ DED ☒ RETENTION \$0	Y	Y	TH7Z51290400	07/01/2023	07/01/2024	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y	N/A	VWCNC3102882	07/01/2023	07/01/2024	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
D	Leased/Rented			QT6604T58302	07/01/2023	07/01/2024	\$750,000
D	Installation Flt			QT6604T58302	07/01/2023	07/01/2024	\$100,000/jobsight
F	Excess Liability			G74401193001	07/01/2023	07/01/2024	\$5,000,000/\$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

City of Monroe is an additional insured on the General Liability and Auto Liability if required by written/executed contract before a loss on a primary and non-contributory basis, including ongoing and completed operations. Umbrella follows over the General Liability, Auto Liability and Employers Liability. Waiver of Subrogation applies to the General Liability, Auto Liability and Workers Compensation if required by contract and where permitted by law. Thirty (30) day notice of cancellation, except for 10 days non (See Attached Descriptions)

CERTIFICATE HOLDER**CANCELLATION**

City of Monroe PO Box 69 Monroe, NC 28111	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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DESCRIPTIONS (Continued from Page 1)

payment of premium, applies on the General Liability, Auto Liability, and Workers Compensation policies if required by contract.

**** Workers Comp Information ****

USLH ; Voluntary Compensation ; Other States Coverage

Blanket Waiver of Subrogation

U.S. Longshoremen & Harbor Workers

Maritime Coverage Endorsement

****Pollution Policy Information****

POL#CPLMOL117897; Evanston Insurance Company;

Limit \$10,000,000; Policy Term 7/1/2023 to 7/1/2024

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**COMMERCIAL GENERAL LIABILITY
ADDITIONAL INSURED ENHANCEMENT FOR CONTRACTORS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

Index of modified items:

Item 1. Blanket Additional Insured Where Required By Written Agreement

Lessors of Leased Equipment
Managers or Lessors of Premises
Mortgagees, Assignees or Receivers
Owners, Lessees or Contractors
Architects, Engineers or Surveyors
Any Person or Organization

Item 2. Blanket Additional Insured – Grantor Of Permits

Item 3. Other Insurance Amendment

Item 1. Blanket Additional Insured Where Required By Written Agreement

Paragraph 2. of **Section II – Who Is An Insured** is amended to add the following:

Additional Insured By Written Agreement

The following are insureds under the Policy when you have agreed in a written agreement to provide them coverage as additional insureds under your policy:

- 1. Lessors of Leased Equipment:** The person(s) or organization(s) from whom you lease equipment, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s).

This insurance does not apply to any "occurrence" which takes place after the equipment lease expires.

- 2. Managers or Lessors of Premises:** Any manager(s) or lessor(s) of premises leased to you in which the written lease agreement obligates you to procure additional insured coverage.

The coverage afforded to the additional insured is limited to liability in connection with the ownership, maintenance or use of the premises leased to you and caused, in whole or in part, by some negligent act(s) or omission(s) of you, your "employees", your agents or your subcontractors. There is no coverage for the additional insured for liability arising out of the sole negligence of the additional insured or those acting on behalf of the additional insured, except as provided below.

If the written agreement obligates you to procure additional insured coverage for the additional insured's sole negligence, then the coverage for the additional insured shall conform to the agreement, but only if the applicable law would allow you to indemnify the additional insured for liability arising out of the additional insured's sole negligence.

This insurance does not apply to:

- a. Any "occurrence" which takes place after you cease to be a tenant in that premises or to lease that land;
- b. Structural alterations, new construction or demolition operations performed by or on behalf of that manager or lessor; or
- c. Any premises for which coverage is excluded by endorsement.

3. Mortgagees, Assignees or Receivers: Any person(s) or organization(s) with respect to their liability as mortgagee, assignee or receiver and arising out of your ownership, maintenance or use of the premises.

This insurance does not apply to structural alterations, new construction and demolition operations performed by or on behalf of such person(s) or organization(s).

4. Owners, Lessees or Contractors: Any person(s) or organization(s) to whom you are obligated to procure additional insured coverage, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your act(s) or omission(s) or the act(s) or omission(s) of your "employees", your agents, or your subcontractors, in the performance of your ongoing operations.

This insurance does not apply to "bodily injury", "property damage", or "personal and advertising injury" arising out of "your work" included in the "products-completed operations hazard" unless you are required to provide such coverage for the additional insured by the written agreement, and then only for the period of time required by the written agreement and only for liability caused, in whole or in part, by your act(s) or omission(s) or the act(s) or omission(s) of your "employees", your agents, or your subcontractors.

There is no coverage for the additional insured for liability arising out of the sole negligence of the additional insured or those acting on behalf of the additional insured, except as provided below.

If the written agreement obligates you to procure additional insured coverage for the additional insured's sole negligence, then the coverage for the additional insured shall conform to the agreement, but only if the applicable law would allow you to indemnify the additional insured for liability arising out the additional insured's sole negligence.

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services, including:

- a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services.

5. Architects, Engineers or Surveyors: Any architect, engineer, or surveyor engaged by you but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your act(s) or omission(s) or the act(s) or omission(s) of those acting on your behalf:

- a. In connection with your premises; or
- b. In the performance of your ongoing operations.

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of or failure to render any professional services by or for you, including:

- a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by or for you.

6. Any Person or Organization Other Than a Joint Venture: Any person(s) or organization(s) (other than a joint venture of which you are a member) for whom you are obligated to procure additional insured coverage, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your act(s) or omission(s) or the act(s) or omission(s) of those acting on your behalf:

- a. In the performance of your ongoing operations; or
- b. In connection with premises owned by or rented to you.

This insurance does not apply to:

- a. Any person(s) or organization(s) more specifically covered in Paragraphs 1. through 5. above;
- b. Any construction, renovation, demolition or installation operations performed by or on behalf of you, or those operating on your behalf; or
- c. Any person(s) or organization(s) whose profession, business or occupation is that of an architect, surveyor or engineer with respect to liability arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving or failing to prepare or approve, maps, drawings, opinions, reports, surveys, field orders, change orders, designs and specifications; or
 - (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by or on behalf of you, or those operating on your behalf.

The insurance afforded to any person(s) or organization(s) as an insured under this **Item 1.:**

- 1. Applies to the extent permitted by law;
- 2. Applies only to the scope of coverage and the minimum limits of insurance required by the written agreement, but in no event exceeds either the scope of coverage or the limits of insurance provided by this Policy;
- 3. Does not apply to any person(s) or organization(s) for any "bodily injury", "property damage" or "personal and advertising injury" if any other additional insured endorsement attached to this Policy applies to such person(s) or organization(s) with regard to the "bodily injury", "property damage" or "personal and advertising injury";
- 4. Applies only if the "bodily injury" or "property damage" occurs, or the offense giving rise to the "personal and advertising injury" is committed, subsequent to the execution of the written agreement; and
- 5. Applies only if the written agreement is in effect at the time the "bodily injury" or "property damage" occurs, or at the time the offense giving rise to the "personal and advertising injury" is committed.

Item 2. Blanket Additional Insured – Grantor Of Permits

Paragraph 2. of **Section II – Who Is An Insured** is amended to add the following:

Any state, municipality or political subdivision that has issued you a permit in connection with any operations performed by you or on your behalf, or in connection with premises you own, rent or control, and to which this insurance applies, but only to the extent that you are required to provide additional insured status to the state, municipality or political subdivision as a condition of receiving and maintaining the permit. Such state, municipality or political subdivision that has issued you a permit is an insured only with respect to their liability as grantor of such permit to you.

However, with respect to the state, municipality or political subdivision:

1. Coverage will be no broader than required; and
2. Limits of insurance will not exceed the minimum limits of insurance required as a condition for receiving or maintaining the permit;

but neither the scope of coverage nor the limits of insurance will exceed those provided by this Policy.

This insurance does not apply to:

1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the state, municipality or political subdivision;
2. Any "bodily injury" or "property damage" included within the "products-completed operations hazard", except when required by written agreement initiated prior to loss; or
3. "Bodily injury", "property damage" or "personal and advertising injury", unless negligently caused, in whole or in part, by you or those acting on your behalf.

Item 3. Other Insurance Amendment

If you are obligated under a written agreement to provide liability insurance on a primary, excess, contingent, or any other basis for any person(s) or organization(s) that qualifies as an additional insured on this Policy, this Policy will apply solely on the basis required by such written agreement and Paragraph 4. **Other Insurance** of **Section IV – Commercial General Liability Conditions** will not apply. Where the applicable written agreement does not specify on what basis the liability insurance will apply, the provisions of Paragraph 4. **Other Insurance** of **Section IV – Commercial General Liability Conditions** will apply. However, this insurance is excess over any other insurance available to the additional insured for which it is also covered as an additional insured for the same "occurrence", claim or "suit".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

COMMERCIAL GENERAL LIABILITY ENHANCEMENT FOR CONTRACTORS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

Index of modified items:

- Item 1. **Reasonable Force**
- Item 2. **Non-Owned Watercraft Extension**
- Item 3. **Damage To Premises Rented To You – Expanded Coverage**
- Item 4. **Bodily Injury To Co-Employees**
- Item 5. **Health Care Professionals As Insureds**
- Item 6. **Knowledge Of Occurrence Or Offense**
- Item 7. **Notice Of Occurrence Or Offense**
- Item 8. **Unintentional Failure To Disclose**
- Item 9. **Bodily Injury Redefined**
- Item 10. **Supplementary Payments – Increased Limits**
- Item 11. **Property In Your Care, Custody Or Control**
- Item 12. **Mobile Equipment Redefined**
- Item 13. **Newly Formed Or Acquired Entities**
- Item 14. **Waiver Of Right Of Recovery By Written Contract Or Agreement**
- Item 15. **Contractual Liability – Railroads**

Item 1. Reasonable Force

Exclusion a. of Section I – Coverage A – Bodily Injury And Property Damage Liability is replaced by the following:

a. Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the insured. This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

Item 2. Non-Owned Watercraft Extension

Paragraph (2) of Exclusion g. of Section I – Coverage A – Bodily Injury And Property Damage Liability is replaced by the following:

(2) A watercraft you do not own that is:

- (a) Less than 55 feet long; and
- (b) Not being used to carry persons or property for a charge;

Item 3. Damage To Premises Rented To You – Expanded Coverage

A. The final paragraph of 2. Exclusions of Section I – Coverage A – Bodily Injury And Property Damage Liability is replaced by the following:

Exclusions c. through n. do not apply to damage by fire, lightning or explosion or subsequent damages resulting from such fire, lightning or explosion including water damage to premises while rented to you or temporarily occupied by you with permission of the owner. A separate limit of insurance applies to this coverage as described in Section III – Limits Of Insurance.

B. Paragraph 6. of Section III – Limits Of Insurance is replaced by the following:

6. Subject to Paragraph 5. above, the Damage To Premises Rented To You Limit is the most we will pay under Coverage A for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire, lightning, explosion or subsequent damages resulting from such fire, lightning or explosion including water damage to premises while rented to you or temporarily occupied by you with permission of the owner.

The Damage To Premises Rented To You Limit is the greater of:

- a. \$300,000; or
- b. The Damage To Premises Rented To You Limit shown on the Declarations.

C. Paragraph 9.a. of the definition of "insured contract" in Section V – Definitions is replaced by the following:

- a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire, lightning, explosion or subsequent damages resulting from such fire, lightning or explosion including water damage to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";

D. The paragraph immediately following Paragraph (6) of Exclusion j. of Section I – Coverage A – Bodily Injury And Property Damage Liability is replaced by the following:

Paragraphs (1), (3) and (4) of this exclusion do not apply to "property damage" (other than damage by fire, lightning or explosion or subsequent damages resulting from such fire, lightning or explosion including water damage) to premises, including the contents of such premises, rented to you for a period of seven or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in Section III – Limits of Insurance.

Item 4. **Bodily Injury To Co-Employees**

A. Paragraph 2. of Section II – Who Is An Insured is amended to include:

Each of the following is also an insured:

Your "employees" (other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company)) or "volunteer workers" are insureds while in the course of their employment or while performing duties related to the conduct of your business with respect to "bodily injury":

- (1) To you;
- (2) To your partners or members (if you are a partnership or joint venture);
- (3) To your members (if you are a limited liability company); or
- (4) To a co-"employee" or "volunteer worker" while that co-"employee" or "volunteer worker" is either in the course of his or her employment by you or while performing duties related to the conduct of your business (including participation in any recreational activities sponsored by you).

Paragraph 2.a.(1)(a) of Section II – Who Is An Insured does not apply to "bodily injury" for which insurance is provided by this paragraph.

- B. The insurance provided by this Item 4. for "bodily injury" to a co-"employee" or "volunteer worker" will not apply if the injured co-"employee's" or "volunteer worker's" sole remedy for such injury is provided under a workers' compensation law or any similar law.

C. Other Insurance

The insurance provided by this Item 4. is excess over any other valid and collectible insurance available to the insured, whether primary, excess, contingent or on any other basis.

Item 5. Health Care Professionals As Insureds

- A. Paragraph 2.a.(1)(d) of Section II – Who Is An Insured is replaced by the following:

(d) Arising out of his or her providing or failure to provide professional health care services. However, any "employee" or "volunteer worker" of the Named Insured who is acting as a Good Samaritan in response to a public or medical emergency or who is a "designated health care provider" is an insured with respect to "bodily injury" and "personal and advertising injury" that:

(i) Arises out of the providing of or failure to provide professional health care services; and

(ii) Occurs in the course of and within the scope of such "employee's" or "volunteer worker's" employment by the Named Insured.

- B. With respect to "employees" and "volunteer workers" providing professional health care services, the following exclusions are added to Paragraph 2. Exclusions of Section I – Coverage A – Bodily Injury And Property Damage Liability and Paragraph 2. Exclusions of Section I – Coverage B – Personal And Advertising Injury Liability:

This insurance does not apply to:

- (1) Liability assumed under an "insured contract" or any other contract or agreement;
- (2) Liability arising out of the providing of professional health care services in violation of law;
- (3) Liability arising out of the providing of any professional health care services while in any degree under the influence of intoxicants or narcotics;
- (4) Liability arising out of any dishonest, fraudulent, malicious or knowingly wrongful act or failure to act; or
- (5) Punitive or exemplary damages, fines or penalties.

- C. The following definition is added to Section V – Definitions:

"Designated health care provider" means any "employee" or "volunteer worker" of the Named Insured whose duties include providing professional health care services, including but not limited to doctors, nurses, emergency medical technicians or designated first aid personnel.

D. Other Insurance

The insurance provided by this Item 5. is excess over any other valid and collectible insurance available to the insured, whether primary, excess, contingent or on any other basis.

Item 6. Knowledge Of Occurrence Or Offense

Knowledge of an "occurrence" or offense by your agent, servant or "employee" will not in itself constitute knowledge by you unless your "executive officer" or "employee" designated by you to notify us of an "occurrence" or offense has knowledge of the "occurrence" or offense.

Item 7. Notice Of Occurrence Or Offense

For purposes of Paragraph 2.a. of Section IV – Commercial General Liability Conditions, you refers to your "executive officer" or "employee" that you have designated to give us notice.

Item 8. Unintentional Failure To Disclose

Unintentional failure of the Named Insured to disclose all hazards existing at the inception of this policy shall not be a basis for denial of any coverage afforded by this policy. However, you must report such an error or omission to us as soon as practicable after its discovery.

This provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.

Item 9. Bodily Injury Redefined

The definition of "bodily injury" in Section V – Definitions is replaced by the following:

"Bodily injury" means:

- a. Bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time; and
- b. Mental anguish, shock or humiliation arising out of injury as defined in Paragraph a. above. Mental anguish means any type of mental or emotional illness or distress.

Item 10. Supplementary Payments – Increased Limits

Paragraphs 1.b. and 1.d. of Section I – Supplementary Payments – Coverages A And B are replaced by the following:

- b. Up to \$3,000 for the cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.
- d. All reasonable expenses incurred by the insured at our request to assist in the investigation or defense of the claim or "suit", including actual loss of earnings up to \$500 a day because of time off from work.

Item 11. Property In Your Care, Custody Or Control

- A. Paragraphs (3) and (4) of Exclusion j. of Section I – Coverage A – Bodily Injury And Property Damage Liability are deleted.

B. Additional Exclusion

Coverage provided by this endorsement does not apply to "property damage" to property while in transit.

C. Limits of Insurance

Subject to Paragraphs 2., 3., and 5. of Section III – Limits Of Insurance, the most we will pay for insurance provided by Paragraph A. above is:

\$10,000 Each Occurrence Limit

\$75,000 Aggregate Limit

The Each Occurrence Limit for this coverage applies to all damages as a result of any one "occurrence" regardless of the number of persons or organizations who sustain damage because of that "occurrence".

The Aggregate Limit is the most we will pay for the sum of all damages under this Item 11.

D. Other Insurance

This insurance does not apply to any portion of a loss for which the insured has available any other valid and collectible insurance, whether primary, excess, contingent, or on any other basis, unless such other insurance was specifically purchased by the insured to apply in excess of this policy.

Item 12. Mobile Equipment Redefined

The definition of "mobile equipment" in Section V – Definitions is amended to include self-propelled vehicles with permanently attached equipment less than 1000 pounds gross vehicle weight that are primarily designed for:

- (1) Snow removal;
- (2) Road maintenance, but not construction or resurfacing; or
- (3) Street cleaning.

Item 13. Newly Formed Or Acquired Entities

A. Paragraph 3. of Section II – Who Is An Insured is replaced by the following:

- 3. Any organization you newly acquire or form, other than a partnership or joint venture, and over which you maintain majority ownership or majority interest, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

- a. Coverage under this provision is afforded only until:

- (1) The 180th day after you acquire or form the organization;
 - (2) Separate coverage is purchased for the organization; or
 - (3) The end of the policy period

whichever is earlier;

- b. Section I – Coverage A – Bodily Injury And Property Damage Liability does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and
 - c. Section I – Coverage B – Personal And Advertising Injury Liability does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

B. The insurance afforded to any organization as a Named Insured under this Item 13. does not apply if a Broad Form Named Insured endorsement attached to this policy applies to that organization.

Item 14. Waiver Of Right Of Recovery By Written Contract Or Agreement

The following is added to Paragraph 8. Transfer Of Rights Of Recovery Against Others To Us of Section IV – Commercial General Liability Conditions:

We waive any right of recovery because of payments we make under this policy for injury or damage arising out of your ongoing operations or "your work" included in the "products-completed operations hazard" that we may have against any person or organization with whom you have agreed in a written contract or agreement to waive your rights of recovery but only if the "bodily injury" or "property damage" occurs, or offense giving rise to "personal and advertising injury" is committed subsequent to the execution of the written contract or agreement.

Item 15. Contractual Liability – Railroads

Paragraph 9. of Section V – Definitions is replaced by the following:

9. "Insured contract" means:

- a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire, lightning, explosion or subsequent damages resulting from such fire, lightning or explosion including water damage to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";
- b. A sidetrack agreement;
- c. Any easement or license agreement;
- d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
- e. An elevator maintenance agreement;
- f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury" or "property damage" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. does not include that part of any contract or agreement:

- (1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:
 - (a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;
- (2) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failing to render professional services, including those listed in Paragraph (1) above and supervisory, inspection, architectural or engineering activities.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**DESIGNATED CONSTRUCTION PROJECT OR DESIGNATED LOCATION
COMBINED AGGREGATE LIMITS – WITH TOTAL AGGREGATE LIMIT
FOR ALL PROJECTS AND LOCATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

- A. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage A, and for all medical expenses caused by accidents under Section I - Coverage C, which can be attributed only to ongoing operations at a single designated construction project or a single designated "location":
1. A separate Designated General Aggregate Limit applies to each designated construction project and to each designated "location", and that limit is equal to the amount of the General Aggregate Limit shown in the Declarations.
 2. The Designated General Aggregate Limit is the most we will pay for the sum of all damages under Section I - Coverage A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard", and for medical expenses under Section I - Coverage C regardless of the number of:
 - a. Insureds;
 - b. Claims made or "suits" brought; or
 - c. Persons or organizations making claims or bringing "suits".
 3. Any payments made under Coverage A for damages or under Coverage C for medical expenses shall reduce the Designated General Aggregate Limit for that designated construction project or designated "location". Such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated General Aggregate Limit for any other designated construction project or designated "location".
 4. The limits shown in the Declarations for Each Occurrence, Damage to Premises Rented to You and Medical Expense continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated General Aggregate Limit and the Total Aggregate Limit for all Projects and Locations.
 5. The Total Aggregate Limit for all Projects and Locations shown in the Schedule of this endorsement is the most we will pay for the sum of all damages caused by "occurrences" under Section I – Coverage A and all medical expenses caused by accidents under Section I – Coverage C which can be attributed only to ongoing operations at a designated construction project or designated "location" shown in the Schedule of this endorsement, regardless of the number of construction projects, "locations", "occurrences" or accidents.
 6. Each Designated General Aggregate Limit is subject to the Total Aggregate Limit for all Projects and Locations shown in the Schedule of this endorsement.
- B. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage A, and for all medical expenses caused by accidents under Section I - Coverage C, which cannot be attributed only to ongoing operations at a single designated construction project or single designated "location":

1. Any payments made under Coverage A for damages or under Coverage C for medical expenses shall reduce the amount available under the General Aggregate Limit or the Products-Completed Operations Aggregate Limit, whichever is applicable; and
 2. Such payments shall not reduce any Designated General Aggregate Limit.
- C. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-Completed Operations Aggregate Limit, and not reduce the General Aggregate Limit nor the Designated General Aggregate Limit.
- D. If the applicable construction project has been abandoned, delayed, or abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.
- E. For the purposes of this endorsement, the Definitions Section is amended by the addition of the following definition:
- "Location" means any premise that you occupy for permanent operations as part of your business, but does not include any premises at which you are performing operations as part of a construction project. All premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad shall be considered a single "location".
- F. The provisions of Section III - Limits Of Insurance not otherwise modified by this endorsement shall continue to apply as stipulated.

Schedule

Designated Construction Project(s) or Designated Location(s):

On file with agent

Total Aggregate Limit for all Projects and Locations: \$ 15,000,000

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

AUTO ENHANCEMENT ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

- I. Newly Acquired or Formed Organizations
- II. Employees as Insureds
- III. Lessor - Additional Insured and Loss Payee
- IV. Supplementary Payments - Increased Limits
- V. Fellow Employee Coverage
- VI. Personal Property of Others
- VII. Additional Transportation Expense and Cost to Recover Stolen Auto
- VIII. Airbag Coverage
- IX. Tapes, Records and Discs Coverage
- X. Physical Damage Deductible - Single Deductible
- XI. Physical Damage Deductible - Glass
- XII. Physical Damage Deductible - Vehicle Tracking System
- XIII. Duties in Event of Accident, Claim, Suit or Loss
- XIV. Unintentional Failure to Disclose Hazards
- XV. Worldwide Liability Coverage - Hired and Nonowned Autos
- XVI. Hired Auto Physical Damage
- XVII. Auto Medical Payments Coverage Increased Limits
- XVIII. Drive Other Car Coverage - Broadened Coverage for Designated Individuals
- XIX. Rental Reimbursement Coverage
- XX. Notice of Cancellation or Nonrenewal
- XXI. Loan/Lease Payoff Coverage
- XXII. Limited Mexico Coverage
- XXIII. Waiver of Subrogation

I. NEWLY ACQUIRED OR FORMED ORGANIZATIONS

Throughout this policy, the words "you" and "your" also refer to any organization you newly acquire or form, other than a partnership or joint venture, and over which you maintain ownership of more than 50 percent interest, provided:

- A. There is no similar insurance available to that organization;
- B. Unless you notify us to add coverage to your policy, the coverage under this provision is afforded only until:
 - 1. The 90th day after you acquire or form the organization; or
 - 2. The end of the policy period,whichever is earlier; and
- C. The coverage does not apply to an "accident" which occurred before you acquired or formed the organization.

II. EMPLOYEES AS INSURED

Paragraph **A.1. Who Is An Insured** of **SECTION II - COVERED AUTOS LIABILITY COVERAGE** is amended to add the following:

Your "employee" is an "insured" while using with your permission a covered "auto" you do not own, hire or borrow in your business or your personal affairs.

III. LESSOR - ADDITIONAL INSURED AND LOSS PAYEE

A. Any "leased auto" will be considered an "auto" you own and not an "auto" you hire or borrow. The coverages provided under this section apply to any "leased auto" until the expiration date of this policy or until the lessor or his or her agent takes possession of the "leased auto" whichever occurs first.

B. For any "leased auto" that is a covered "auto" under **SECTION II - COVERED AUTOS LIABILITY COVERAGE**, Paragraph **A.1. Who Is An Insured** provision is changed to include as an "insured" the lessor of the "leased auto". However, the lessor is an "insured" only for "bodily injury" or "property damage" resulting from the acts or omissions by:

1. You.
2. Any of your "employees" or agents; or
3. Any person, except the lessor or any "employee" or agent of the lessor, operating a "leased auto" with the permission of any of the above.

C. Loss Payee Clause

1. We will pay, as interests may appear, you and the lessor of the "leased auto" for "loss" to the covered "leased auto".
2. The insurance covers the interest of the lessor of the "leased auto" unless the "loss" results from fraudulent acts or omissions on your part.
3. If we make any payment to the lessor of a "leased auto", we will obtain his or her rights against any other party.

D. Cancellation

1. If we cancel the policy, we will mail notice to the lessor in accordance with the Cancellation Common Policy Condition.
2. If you cancel the policy, we will mail notice to the lessor.
3. Cancellation ends this agreement.

E. The lessor is not liable for payment of your premiums.

F. For purposes of this endorsement, the following definitions apply:

"Leased auto" means an "auto" which you lease for a period of six months or longer for use in your business, including any "temporary substitute" of such "leased auto".

"Temporary substitute" means an "auto" that is furnished as a substitute for a covered "auto" when the covered "auto" is out of service because of its breakdown, repair, servicing, "loss" or destruction.

IV. SUPPLEMENTARY PAYMENTS - INCREASED LIMITS

Subparagraphs **A.2.a.(2)** and **A.2.a.(4)** of **SECTION II - COVERED AUTOS LIABILITY COVERAGE** are deleted and replaced by the following:

- (2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.
- (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

V. FELLOW EMPLOYEE COVERAGE

- A.** Exclusion **B.5.** of **SECTION II - COVERED AUTOS LIABILITY COVERAGE** does not apply.
- B.** For the purpose of Fellow Employee Coverage only, Paragraph **B.5.** of **SECTION IV - BUSINESS AUTO CONDITIONS** is changed as follows:

This Fellow Employee Coverage is excess over any other collectible insurance.

VI. PERSONAL PROPERTY OF OTHERS

Exclusion **6.** in **SECTION II - COVERED AUTOS LIABILITY COVERAGE** for a covered "auto" is amended to add the following:

This exclusion does not apply to "property damage" or "covered pollution cost or expense" involving "personal property" of your "employees" or others while such property is carried by the covered "auto". The Limit of Insurance for this coverage is \$5,000 per "accident". Payment under this coverage does not increase the Limit of Insurance.

For the purpose of this section of this endorsement, "personal property" is defined as any property that is not used in the individual's trade or business or held for the production or collection of income.

VII. ADDITIONAL TRANSPORTATION EXPENSE AND COST TO RECOVER STOLEN AUTO

- A.** Paragraph **A.4.a.** of **SECTION III - PHYSICAL DAMAGE COVERAGE** is amended as follows:

The amount we will pay is increased to \$50 per day and to a maximum limit of \$1,000.

- B.** Paragraph **A.4.a.** of **SECTION III - PHYSICAL DAMAGE COVERAGE** is amended to add the following:

If your business is shown in the Declarations as something other than an auto dealership, we will also pay up to \$1,000 for reasonable and necessary costs incurred by you to return a stolen covered "auto" from the place where it is recovered to its usual garaging location.

VIII. AIRBAG COVERAGE

Exclusion **B.3.a.** in **SECTION III - PHYSICAL DAMAGE COVERAGE** is amended to add the following:

This exclusion does not apply to the accidental discharge of an airbag.

IX. TAPES, RECORDS AND DISCS COVERAGE

Exclusion **B.4.a.** of **SECTION III - PHYSICAL DAMAGE COVERAGE** is deleted and replaced by the following:

- a.** Tapes, records, discs or other similar audio, visual or data electronic devices designed for use with audio, visual or data electronic equipment except when the tapes, records, discs or other similar audio, visual or data electronic devices:

(1) Are your property or that of a family member; and

(2) Are in a covered "auto" at the time of "loss".

The most we will pay for "loss" is \$200. No Physical Damage Coverage deductible applies to this coverage.

X. PHYSICAL DAMAGE DEDUCTIBLE - SINGLE DEDUCTIBLE

Paragraph D. in **SECTION III - PHYSICAL DAMAGE COVERAGE** is deleted and replaced by the following:

D. Deductible

For each covered "auto", our obligation to pay for, repair, return or replace damaged or stolen property will be reduced by the applicable deductible shown in the Declarations. Any Comprehensive Coverage deductible shown in the Declarations does not apply to "loss" caused by fire or lightning.

When two or more covered "autos" sustain "loss" in the same collision, the total of all the "loss" for all the involved covered "autos" will be reduced by a single deductible, which will be the largest of all the deductibles applying to all such covered "autos".

XI. PHYSICAL DAMAGE DEDUCTIBLE – GLASS

Paragraph D. in **SECTION III - PHYSICAL DAMAGE COVERAGE** is amended to add the following:

No deductible applies to "loss" to glass if you elect to patch or repair it rather than replace it.

XII. PHYSICAL DAMAGE DEDUCTIBLE - VEHICLE TRACKING SYSTEM

Paragraph D. in **SECTION III - PHYSICAL DAMAGE COVERAGE** is amended to add:

Any Comprehensive Coverage Deductible shown in the Declarations will be reduced by 50% for any "loss" caused by theft if the vehicle is equipped with a vehicle tracking device such as a radio tracking device or a global positioning device and that device was the method of recovery of the vehicle.

XIII. DUTIES IN EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS

Subparagraphs A.2.a. and A.2.b. of **SECTION IV- BUSINESS AUTO CONDITIONS** are changed to:

a. In the event of "accident", claim, "suit" or "loss", your insurance manager or any other person you designate must notify us as soon as reasonably possible of such "accident", claim, "suit" or "loss". Such notice must include:

(1) How, when and where the "accident" or "loss" occurred;

(2) The "insured's" name and address; and

(3) To the extent possible, the names and addresses of any injured persons and witnesses.

Knowledge of an "accident", claim, "suit" or "loss" by your agent, servant or "employee" shall not be considered knowledge by you unless you, your insurance manager or any other person you designate has received notice of the "accident", claim, "suit" or "loss" from your agent, servant or "employee".

b. Additionally, you and any other involved "insured" must:

(1) Assume no obligation, make no payment or incur no expense without our consent, except at the "insured's" own cost.

- (2) Immediately send us copies of any request, demand, order, notice, summons or legal paper received concerning the claim or "suit".
- (3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit".
- (4) Authorize us to obtain medical records or other pertinent information.
- (5) Submit to examination, at our expense, by physicians of our choice, as often as we reasonably require.

XIV. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

Paragraph **B.2.** in **SECTION IV - BUSINESS AUTO CONDITIONS** is amended to add the following:

Any unintentional failure to disclose all exposures or hazards existing as of the effective date of the Business Auto Coverage Form or at any time during the policy period will not invalidate or adversely affect the coverage for such exposure or hazard. However, you must report the undisclosed exposure or hazard to us as soon as reasonably possible after its discovery.

XV. WORLDWIDE LIABILITY COVERAGE - HIRED AND NONOWNED AUTOS

Condition **B.7.** in **SECTION IV - BUSINESS AUTO CONDITIONS** is amended to add the following:

For "accidents" resulting from the use or operation of covered "autos" you do not own, the coverage territory means all parts of the world subject to the following provisions:

- a. If claim is made or "suit" is brought against an "insured" outside of the United States of America, its territories and possessions, Puerto Rico and Canada, we shall have the right, but not the duty to investigate, negotiate, and settle or defend such claim or "suit".

If we do not exercise that right, the "insured" shall have the duty to investigate, negotiate, and settle or defend the claim or "suit" and we will reimburse the "insured" for the expenses reasonably incurred in connection with the investigation, settlement or defense. Reimbursement will be paid in the currency of the United States of America at the rate of exchange prevailing on the date of reimbursement.

The "insured" shall provide us with such information we shall reasonably request regarding such claim or "suit" and its investigation, negotiation, and settlement or defense.

The "insured" shall not agree to any settlement of the claim or "suit" without our consent. We shall not unreasonably withhold consent.

- b. We are not licensed to write insurance outside of the United States of America, its territories or possessions, Puerto Rico and Canada.

We will not furnish certificates of insurance or other evidence of insurance you may need for the purpose of complying with the laws of other countries relating to auto insurance.

Failure to comply with the auto insurance laws of other countries may result in fines or penalties. This insurance does not apply to such fines or penalties.

XVI. HIRED AUTO PHYSICAL DAMAGE

If no deductibles are shown in the Declarations for Physical Damage Coverage for Hired or Borrowed Autos, the following will apply:

- A. We will pay for "loss" under Comprehensive and Collision coverages to a covered "auto" of the private passenger type hired without an operator for use in your business:

1. The most we will pay for coverage afforded by this endorsement is the lesser of:
 - a. The actual cost to repair or replace such covered "auto" with other property of like kind and quality; or
 - b. The actual cash value of such covered "auto" at the time of the "loss".
 2. An adjustment for depreciation and physical condition will be made in determining actual cash value in the event of a total "loss".
 3. If a repair or replacement results in better than like kind or quality, we will not pay for the amount of the betterment.
- B.** For each covered "auto", our obligation to pay for, repair, return or replace the covered "auto" will be reduced by any deductible shown in the Declarations that applies to private passenger "autos" that you own. If no applicable deductible is shown in the Declarations, the deductible will be \$250.

If the Declarations show other deductibles for Physical Damage Coverages for Hired or Borrowed Autos, this Section XVI of this endorsement does not apply.

- C.** Paragraph **A.4.b.** of **SECTION III - PHYSICAL DAMAGE COVERAGE** is replaced by the following:

b. Loss of Use Expenses

For Hired Auto Physical Damage provided by this endorsement, we will pay expenses for which an "insured" becomes legally responsible to pay for loss of use of a private passenger vehicle rented or hired without a driver, under a written rental contract or agreement. We will pay for loss of use expenses caused by:

- (1) Other than collision only if the Declarations indicate that Comprehensive Coverage is provided for any covered "auto";
- (2) Specified Causes of Loss only if the Declarations indicate that Specified Causes of Loss Coverage is provided for any covered "auto"; or
- (3) Collision only if the Declarations indicate that Collision Coverage is provided for any covered "auto".

However, the most we will pay under this coverage is \$30 per day, subject to a maximum of \$900.

XVII. AUTO MEDICAL PAYMENTS COVERAGE - INCREASED LIMITS

For any covered "loss", the Limit of Insurance for Auto Medical Payments will be double the limit shown in the Declarations if the "insured" was wearing a seat belt at the time of the "accident". This is the maximum amount we will pay for all covered medical expenses, regardless of the number of covered "autos", "insureds", premiums paid, claims made, or vehicles involved in the "accident".

If no limit of insurance for Auto Medical Payments is shown on the Declarations, this paragraph Section XVII of this endorsement does not apply.

XVIII. DRIVE OTHER CAR COVERAGE - BROADENED COVERAGE FOR DESIGNATED INDIVIDUALS

- A.** This endorsement amends only those coverages indicated with an "X" in the Drive Other Car section of the Schedule to this endorsement.

- B. SECTION II - COVERED AUTOS LIABILITY COVERAGE** is amended as follows:

1. Any "auto" you don't own, hire or borrow is a covered "auto" for Liability Coverage while being used by any individual named in the Drive Other Car section of the Schedule to this endorsement or by his or her spouse while a resident of the same household except:

- a. Any "auto" owned by that individual or by any member of his or her household; or
- b. Any "auto" used by that individual or his or her spouse while working in a business of selling, servicing, repairing or parking "autos".

2. The following is added to **Who Is An Insured**:

Any individual named in the Drive Other Car section of the Schedule to this endorsement and his or her spouse, while a resident of the same household, are "insureds" while using any covered "auto" described in Paragraph **B.1.** of this endorsement.

C. Auto Medical Payments, Uninsured Motorist, and Underinsured Motorist Coverages are amended as follows:

The following is added to **Who Is An Insured**:

Any individual named in the Drive Other Car section of the Schedule to this endorsement and his or her "family members" are "insured" while "occupying" or while a pedestrian when struck by any "auto" you don't own except:

Any "auto" owned by that individual or by any "family member".

D. **SECTION III - PHYSICAL DAMAGE COVERAGE** is changed as follows:

Any private passenger type "auto" you don't own, hire or borrow is a covered "auto" while in the care, custody or control of any individual named in the Drive Other Car section of the Schedule to this endorsement or his or her spouse while a resident of the same household except:

- 1. Any "auto" owned by that individual or by any member of his or her household; or
- 2. Any "auto" used by that individual or his or her spouse while working in a business of selling, servicing, repairing or parking "autos".

E. For purposes of this endorsement, **SECTION V - DEFINITIONS** is amended to add the following:

"Family member" means a person related to the individual named in the Drive Other Car section of the Schedule to this endorsement by blood, marriage or adoption who is a resident of the individual's household, including a ward or foster child.

XIX. RENTAL REIMBURSEMENT COVERAGE

- A. For any owned covered "auto" for which Collision and Comprehensive Coverages are provided, we will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of a covered physical damage "loss" to an owned covered "auto". Such payment applies in addition to the otherwise applicable amount of physical damage coverage you have on a covered "auto". No deductibles apply to this coverage.
- B. We will pay only for those expenses incurred during the policy period beginning 24 hours after the "loss" and ending with the earlier of the return or repair of the covered "auto", or the exhaustion of the coverage limit.
- C. Our payment is limited to the lesser of the following amounts:
 - 1. Necessary and actual expenses incurred; or
 - 2. \$30 per day with a maximum of \$900 in any one period.

D. This coverage does not apply:

1. While there are spare or reserve "autos" available to you for your operations; or
2. If coverage is provided by another endorsement attached to this policy.

E. If a covered "loss" results from the total theft of a covered "auto" of the private passenger type, we will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under Paragraph **A.4. Coverage Extensions of SECTION III – PHYSICAL DAMAGE COVERAGE** of the Business Auto Coverage Form or Section VII of this endorsement.

XX. NOTICE OF CANCELLATION OR NONRENEWAL

A. Paragraph **A.2.** of the **COMMON POLICY CONDITIONS** is changed to:

2. We may cancel or non-renew this policy by mailing written notice of cancellation or non-renewal to the Named Insured, and to any name(s) and address(es) shown in the Cancellation and Non-renewal Schedule:

a. For reasons of non-payment, the greater of:

(1) 10 days; or

(2) The number of days specified in any other Cancellation Condition attached to this policy; or

b. For reasons other than non-payment, the greater of:

(1) 60 days;

(2) The number of days shown in the Cancellation and Non-renewal Schedule; or

(3) The number of days specified in any other Cancellation Condition attached to this policy,

prior to the effective date of the cancellation or non-renewal.

B. All other terms of Paragraph **A.** of the **COMMON POLICY CONDITIONS**, and any amendments thereto, remain in full force and effect.

XXI. LOAN/LEASE PAYOFF COVERAGE

The following is added to Paragraph **C. Limits Of Insurance** of **SECTION III - PHYSICAL DAMAGE COVERAGE**:

In the event of a total "loss" to a covered "auto" of the private passenger type shown in the schedule or declarations for which Collision and Comprehensive Coverage apply, we will pay any unpaid amount due on the lease or loan for that covered "auto", less:

1. The amount paid under the **PHYSICAL DAMAGE COVERAGE SECTION** of the policy; and

2. Any:

a. Overdue lease/loan payments at the time of the "loss";

b. Financial penalties imposed under a lease for excessive use, abnormal wear and tear or high mileage;

c. Security deposits not returned by the lessor;

d. Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease; and

- e. Carry-over balances from previous loans or leases.

This coverage is limited to a maximum of \$1,500 for each covered "auto".

XXII. LIMITED MEXICO COVERAGE

WARNING

AUTO ACCIDENTS IN MEXICO ARE SUBJECT TO THE LAWS OF MEXICO ONLY - **NOT** THE LAWS OF THE UNITED STATES OF AMERICA. THE REPUBLIC OF MEXICO CONSIDERS ANY AUTO ACCIDENT A **CRIMINAL OFFENSE** AS WELL AS A CIVIL MATTER.

IN SOME CASES THE COVERAGE PROVIDED UNDER **THIS ENDORSEMENT MAY NOT BE RECOGNIZED BY THE MEXICAN AUTHORITIES** AND WE MAY NOT BE ALLOWED TO IMPLEMENT THIS COVERAGE AT ALL IN MEXICO. YOU SHOULD CONSIDER PURCHASING AUTO COVERAGE FROM A LICENSED MEXICAN INSURANCE COMPANY BEFORE DRIVING INTO MEXICO.

THIS ENDORSEMENT DOES NOT APPLY TO ACCIDENTS OR LOSSES WHICH OCCUR BEYOND 25 MILES FROM THE BOUNDARY OF THE UNITED STATES OF AMERICA.

A. Coverage

1. Paragraph **B.7.** of **SECTION IV - BUSINESS AUTO CONDITIONS** is amended by the addition of the following:

The coverage territory is extended to include Mexico but only if all of the following criteria are met:

- a. The "accidents" or "loss" occurs within 25 miles of the United States border; and
 - b. While on a trip into Mexico for 10 days or less.
2. For coverage provided by this section of the endorsement, Paragraph **B.5. Other Insurance** in **SECTION IV - BUSINESS AUTO CONDITIONS** is replaced by the following:

The insurance provided by this endorsement will be excess over any other collectible insurance.

B. Physical Damage Coverage is amended by the addition of the following:

If a "loss" to a covered "auto" occurs in Mexico, we will pay for such "loss" in the United States. If the covered "auto" must be repaired in Mexico in order to be driven, we will not pay more than the actual cash value of such "loss" at the nearest United States point where the repairs can be made.

C. Additional Exclusions

The following additional exclusions are added:

This insurance does not apply:

1. If the covered "auto" is not principally garaged and principally used in the United States.
2. To any "insured" who is not a resident of the United States.

XXIII. WAIVER OF SUBROGATION

Paragraph **A.5.** in **SECTION IV - BUSINESS AUTO CONDITIONS** does not apply to any person or organization where the Named Insured has agreed, by written contract executed prior to the date of "accident", to waive rights of recovery against such person or organization.

Schedule

Premium

Liability
Physical Damage
Total Premium

XVIII. Drive Other Car Name of Individual	LIAB	MP	UM	UIM	COMP	COLL
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XX. Notice of Cancellation or Nonrenewal
Name and Address

Number of Days

This page has been left blank intentionally.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

Schedule1. ☒ Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching" clause need be completed only when this endorsement is issued subsequent to preparation of the policy.)

AMERICAN INTERSTATE INSURANCE COMPANY - 24759

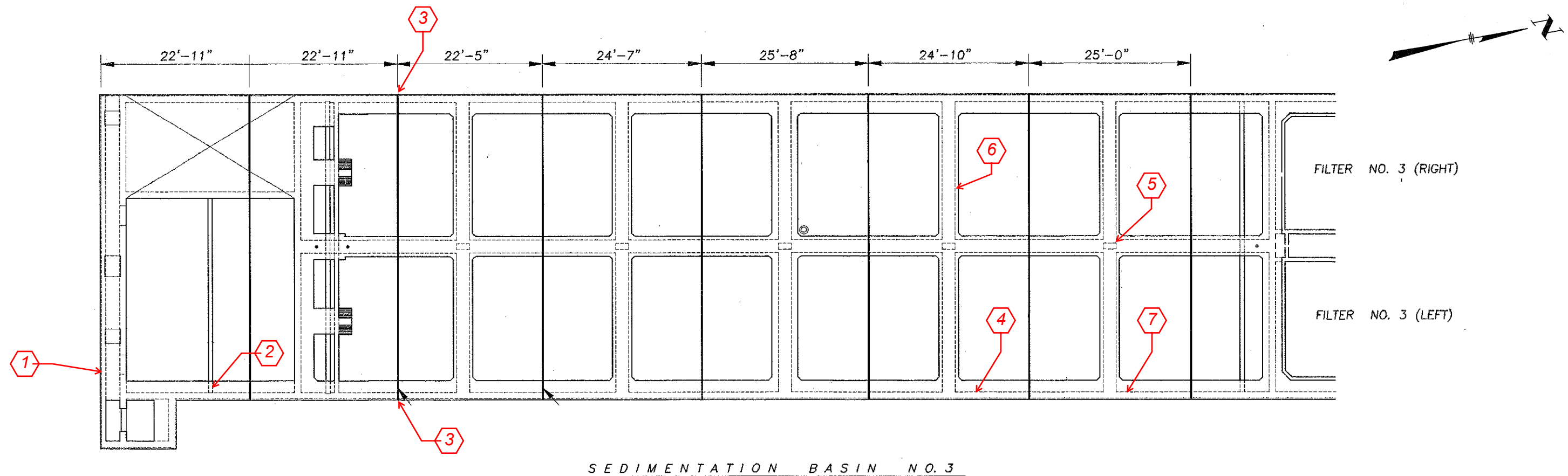
(Name of Insurance Carrier and NCCI Carrier Code)

Authorized Representative

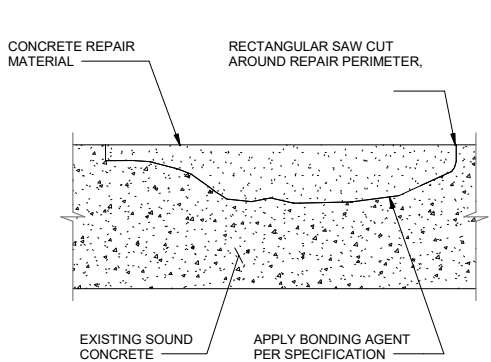
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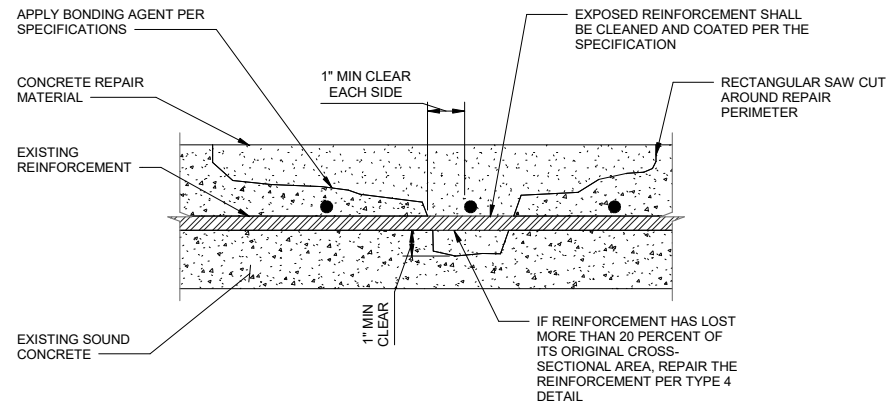
© 1983 National Council on Compensation Insurance



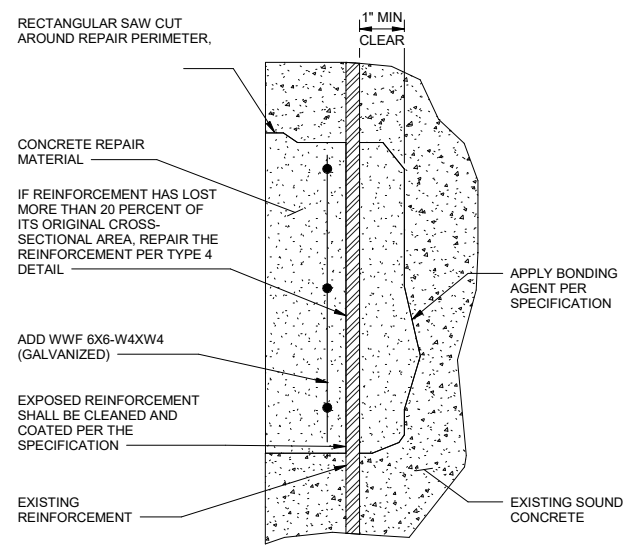
1. The influent channel was noted as leaking for the full length on the outside face of the wall in the location of the construction joint between the wall and the floor slab. Reviewing the drawings, it appears the original design may have used metal waterstops, which may be corroded enough to let water pass through. The inside of the wall was not inspected. The contractor said the inside face of the channel would be coated with the new liner system. Proper surface prep followed by extending the coating down and over the corner and along the floor by 10~12" will help eliminate the leaking issue. If the joint is still leaking after the basin is filled, then use foam injection repair to seal the remaining cracks.
2. A large crack was discovered in the middle baffle wall of the Flocculation Basin in the lower-east corner of the wall. The contractor shall cut two straight lines on each side of the crack. The saw cut depth shall be a minimum of one-half inch but shall be limited to prevent the saw from damaging embedded reinforcement. Remove concrete within repair boundaries to a depth that is as uniform as practicable and within the minimum and maximum layer thicknesses recommended by the material manufacturer. Install the approved vertical surface repair material shall then be applied and cured per the manufacturer's recommendations.
3. Large areas of delamination were found on the outside face of the walls at the first wall-to-wall construction joint within the sedimentation basin about mid-way up. Unsound concrete was found on the east wall. The contractor shall repair the areas similar to the repair noted above. The contractor shall remove all the delaminated grout coating. Then, the saw cut a uniform area around the crack. The contractor shall chip and remove the area of unsound concrete until sound concrete is found. The contractor shall limit the depth of removal to 6 inches (half the wall thickness). If no sound concrete is found, the contractor will need to replace the removed concrete with an approved repair product and contact a structural engineer for further instructions.
4. A long section of honeycombing was found at the base of the inside face of the south wall. This appears to be a consolidation issue from the original pour. This void shall be prepped uniformly as practicable and be cleaned and filled with the project-approved vertical surface repair material. The new coating system should extend over this repair area.
5. There was reinforcement found to be exposed and rusting on the last column as the clear cover had been eroded away. The surrounding concrete around the reinforcement will need to be removed. The reinforcement can then be inspected. Use Type 2, Type 3, or Type 4 repair based on the condition of the reinforcement.
6. The crosswalk beams over the basin had several cracks along the bottom, which appear to be shear cracks. Reviewing the existing drawing, the beams are very lightly reinforced, given the size and length of the beam. There was no scaffolding at the time of inspection, so the crack widths could not be inspected. At this time, we suggest monitoring these cracks and inspecting them as the lining installation project progresses. Any cracks over 1.0mm should be pointed out to a structural engineer for further instructions.
7. There was a large section of cracks in the south wall near the Filter Basin. The cracks appeared to originate from a central location, like there was an impact at some point. This could be the result of an alkali-silica reaction. The concrete was sounded with a hammer and was found to still be solid. There is a chemical solution that can be applied, but it must be pressure-treated to get the chemical into the wall. This fix can be expensive, and given the age of the concrete, its life expectancy, and the fact that the concrete still sounds solid, it may not be a prudent allocation of monies. The other repair for this is to remove the concrete and replace it with new. Again, given the age of the structure and its remaining life expectancy, it does not seem worth the expense. At this time, the contractor shall fill all cracks 1.0mm or wider and prep the surface as required for the new liner system.



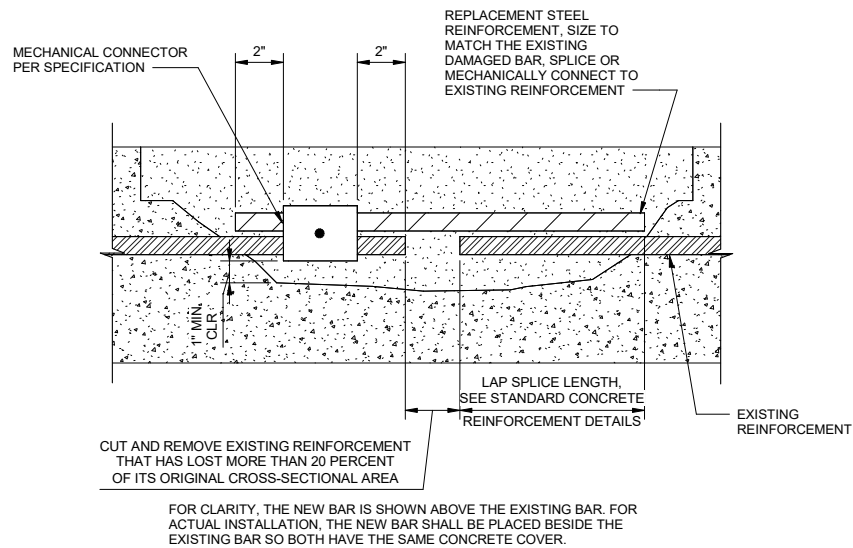
TYPE 1 - NO EXPOSED REINFORCEMENT



TYPE 2 - MINOR EXPOSED REINFORCEMENT



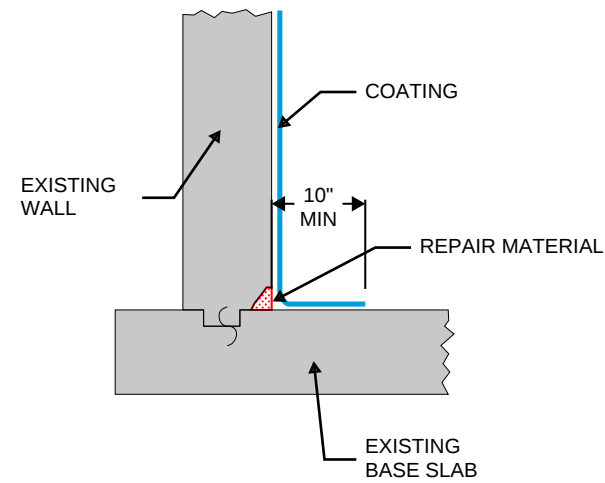
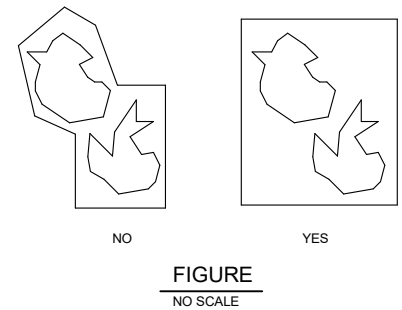
TYPE 3 - MAJOR EXPOSED REINFORCEMENT



TYPE 4 - REINFORCEMENT REPAIR

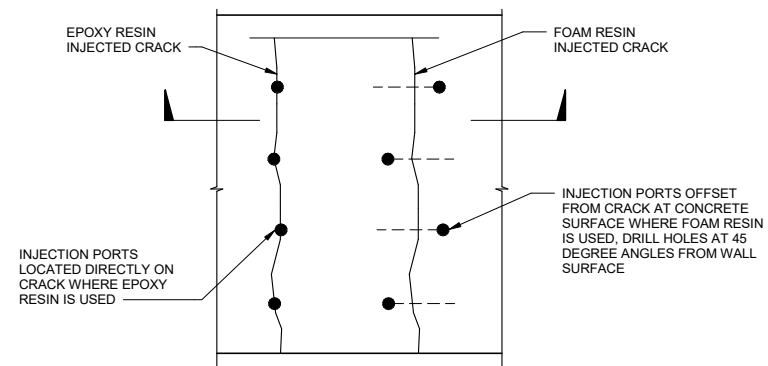
GENERAL REPAIR NOTES

- REPAIR PRODUCTS SHALL BE AS INDICATED IN THE PROJECT SPECIFICATIONS.
- REPAIR ACTIVITIES SUCH AS CLEANING, SURFACE PREPARATION, PRODUCT APPLICATION, AND CURING SHALL BE AS INDICATED IN THE PROJECT SPECIFICATIONS.
- THE CONCRETE SURFACE REPAIR DETAILS ARE APPLICABLE TO EXISTING CONCRETE THAT IS DAMAGED. SURFACE DEFECTS IN NEW CONCRETE CONSTRUCTED AS PART OF THIS PROJECT SHALL BE REPAIRED IN ACCORDANCE WITH THE CAST-IN-PLACE CONCRETE SPECIFICATIONS.
- SURFACE REPAIR AREAS LESS THAN 2 FEET APART SHALL BE COMBINED INTO ONE LARGER RECTANGULAR REPAIR AREA WITH NO IRREGULAR SHAPES. SEE FIGURE.
- IF CRACK REPAIR AND SURFACE REPAIR ARE REQUIRED IN A COMMON AREA, THE CRACK REPAIR PROCEDURE SHALL BE PERFORMED FIRST.



INFLUENT CHANNEL AND SOUTH BASIN WALL REPAIR DETAIL

A CONCRETE SURFACE REPAIR 3" = 1'-0"



WALL ELEVATION

INJECTION PORT SPACING AND ARRANGEMENT SHALL BE AS RECOMMENDED BY THE MATERIAL MANUFACTURER.

C CONCRETE CRACK REPAIR 1 1/2" = 1'-0"

EFFLORESCENCE REPAIR NOTES:

- EFFLORESCENCE IS DEFINED AS A GENERALLY WHITE DEPOSIT FORMED WHEN WATER-SOLUBLE COMPOUNDS EMERGE IN SOLUTION FROM CONCRETE OR MASONRY AND PRECIPITATE BY REACTION SUCH AS CARBONATION OR CRYSTALLIZE BY EVAPORATION.
- EFFLORESCENCE SALTS SHALL BE REMOVED WITH A STIFF BRUSH, WIRE BRUSH OR SCRAPER. IF THE EFFLORESCENCE IS SLIGHT, BRUSHING WITH WATER MAY REMOVE IT. IF NOT, BRUSHING WITH DILUTE ACID SUCH AS MURIATIC OR SULFAMIC ACID IS RECOMMENDED. IF THE CONCRETE IS PIGMENTED, IT IS RECOMMENDED THAT SULFAMIC ACID IN THE 5 TO 10% CONCENTRATION RANGE SHALL BE USED. NOTE THAT STRONGER ACIDS MAY ALTER THE COLOR.
- A PRESSURE WASHER SHALL NOT BE USED FOR REMOVING THE EFFLORESCENCE SALTS.

CRAZING REPAIR NOTES:

- CRAZING IS DEFINED AS A PATTERN OF FINE RANDOM CRACKS OCCURRED ON A CONCRETE SURFACE.
- ROUGHEN THE CRAZING AREA ON THE CONCRETE SURFACE TO A 1/4" AMPLITUDE AND APPLY AN APPROVED SURFACE REPAIR MORTAR.
- SURFACE PREPARATION, MIXING, APPLICATION AND CURING SHALL BE PERFORMED PER MANUFACTURER'S RECOMMENDATIONS.

D TYPICAL MISCELLANEOUS REPAIR NOTES 12" = 1'-0"



January 29, 2024

To Whom it May Concern,

A surface must be in sound condition to be coated. If the surface is not in that condition or repaired before coating, we will not be able to stand behind a warranty. Also, when a coating is brought onto a floor a termination cut must be made for the coating to hold to.

If you have any questions or concerns, please contact me at christa.m.holden@sherwin.com or 919-610-2393.

Regards,
Christa Holden
Protective and Marine Representative
The Sherwin-Williams Company