

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**SPECIFICATION AND BID DOCUMENTS
FOR THE RELOCATION OF
12.47 KV DISTRIBUTION STRUCTURES
ALONG DICKINSON AVENUE**

ISSUED FOR BIDS

ADVERTISEMENT FOR BIDS

Sealed proposals will be received in the Office of the Procurement Manager, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 3:00 PM (EDST) on September 22, 2021 and immediately thereafter publicly opened and read for the Relocation of 12.47 kV Distribution Structures along Dickinson Avenue.

Instructions for submitting bids and complete specifications will be available in the Office of the Procurement Manager, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina during regular office hours, which are 8:30AM – 5:00PM Monday through Friday.

Greenville Utilities Commission reserves the right to reject any or all bids. **Late bids will not be considered.**

Notice to Bidders:

Greenville Utilities Commission is committed to the health and safety of our customers and employees. We are taking the spread of COVID-19 very seriously and continue to monitor the latest Local, State, and Federal guidance.

Questions regarding this Request for Bid (RFB) should be received by or before noon, September 13, 2021. All questions shall be directed via e-mail to the attention of Cleve Haddock, CLGPO, Procurement Manager at: haddocqc@quc.com, (252) 551-1533.

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

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FOR THE RELOCATION OF
12.47 KV DISTRIBUTION STRUCTURES
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TABLE OF CONTENTS

REQUEST FOR PROPOSAL

| | |
|----------------------------|------|
| General Instructions | GI-1 |
| General Conditions | GC-1 |
| Special Conditions | SC-1 |
| Contract..... | C-1 |

FORM OF PROPOSAL

| | |
|---------------------------------------------------|------|
| Proposal..... | P-1 |
| Terms and Conditions | P-2 |
| Addenda/Clarifications/Bulletins..... | P-5 |
| Labor, Material, and Unit Pricing Proposals | P-6 |
| Proposed Construction Schedule | P-9 |
| Certificate of Insurance..... | P-10 |
| Copy of Contractor’s License | P-11 |
| Form of Exceptions..... | P-12 |
| Equal Employment Opportunity Affidavit | P-13 |
| Good Faith Efforts | P-14 |
| Proposed Project Management Staff..... | P-30 |
| References..... | P-31 |
| List of Subcontractors | P-32 |
| E-Verify Compliance | P-33 |
| Iran Divestment Act Certification..... | P-34 |
| Bid Bond | P-35 |
| Performance Bond/Payment Bond..... | P-36 |

TECHNICAL SPECIFICATIONS

| | |
|--------------------------------------------------------------|------|
| Technical Specifications – Installation Specifications | S-1 |
| Technical Specifications – Material Specifications | S-12 |

APPENDICES

- A. Detail Construction Drawings
- B. Standard Pole Framing
- C. Standard Assembly Drawings

SECTION I

GENERAL INSTRUCTIONS FOR FORMAL BIDS

RELATED TO THE RELOCATION OF 12.47 kV DISTRIBUTION

STRUCTURES ALONG DICKINSON AVENUE CONTRACT

1. NOTICE TO BIDDERS

Sealed bids, subject to the conditions made a part hereof, will be received in the Office of the Procurement Manager, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 3:00 PM (EDST) on September 22, 2021, the day of opening. Bids submitted in a fax or e-mail in response to this Invitation for Bids **will not be acceptable.**

2. STANDARD FORMS REQUIRED

Each bidder must submit a proposal on the enclosed bid forms. **The bid must be signed by an authorized official of the firm. Return only the attached Proposal Form. Do not return the Advertisement for Bids, Instructions to Bidders or Specifications.**

3. PREPARATION OF BID

Bids must be in sealed envelopes clearly marked on the outside with the name of the bid and the bid opening date and time. Bid shall be addressed to PROCUREMENT MANAGER, GREENVILLE UTILITIES COMMISSION, 401 S. GREENE STREET, GREENVILLE, NORTH CAROLINA 27834.

4. TIME FOR OPENING BIDS

Bids will be opened promptly and read at the hour and on the date set forth in the advertisement in the Office of the Procurement Manager, Greenville Utilities Main Office, 401 S. Greene Street, Greenville, North Carolina.

5. BID SECURITY

- 5.1. Each Proposal shall be accompanied by a cashier's check, or certified check drawn on a bank or trust company insured by the Federal Deposit Insurance Corporation, or the Savings Association Insurance Fund, or an original signed/sealed Bid Bond in an amount equal to not less than five percent (5%) of the total amount of the Proposal; said deposit to be retained by the Owner as liquidated damages in event of failure of the Successful Bidder to execute the Contract within ten (10) days after the award.

- 5.2. Bid Bond shall be conditioned that the Surety will upon demand forthwith make payment to the Obligee upon said Bond if the Bidder fails to execute the Contract in accordance with the Bid Bond, and upon failure to immediately make payment, the Surety shall pay to the Obligee an amount equal to double the amount of said Bond. Standard Form of Bid Bond is included in these Specifications.
- 5.3. Only one (1) bid Surety is required, the amount of which shall be based on the total amount of all bid schedules.

6. BULLETINS AND ADDENDA

Any bulletins issued during the time of bidding or addenda to Specifications are to be considered covered in the Proposal, and in executing a Contract will become a part thereof. Receipt of addenda shall be acknowledged by the bidder in the *Form of Proposal*.

7. NC SALES TAX

Do not include NC sales taxes in bid figure; however, Greenville Utilities Commission (GUC) does pay sales tax. Sales tax should be added to the invoice as a separate item.

8. FEDERAL EXCISE TAX

GUC is exempt from Federal Excise Tax and will issue a Federal Exemption Certificate upon request to the successful bidder.

9. FORM OF EXCEPTIONS

Proposals shall include a *Form of Exceptions* utilizing forms provided which shall itemize each exception from the Specifications. The Form of Exceptions shall state the section, subsection, and paragraph designations from the part of the Specifications to which exception is taken and explain in detail the nature of the exception. A copy of this *Form of Exceptions* is included in the Form of Proposals. Exceptions will not necessarily eliminate a Bidder from consideration, even if bids without exceptions are received from others. The treatment of exceptions will be based entirely on the overall best interests of the Owner.

10. DISCREPANCY

Should the Bidder find discrepancies in or omissions from the Drawings or Documents or should he be in doubt as to their meaning, he shall at once notify the Engineer who will send written instructions to all Bidders. Neither the Owner nor the Engineer will be responsible for any oral instructions. If Plans and Specifications are found to disagree after Contract is awarded, the Engineer shall be the judge as to what was intended. The Successful Bidder is hereby made responsible for the furnishing of the necessary labor, tools and equipment reasonably inferred or evidently necessary for the proper execution and completion of the work; for any additional work involved in the correction of apparent errors or

inconsistencies, and in executing the true intent and meaning of the Drawings and Specifications as interpreted by the Engineer and all such labor and equipment shall be provided at the Contractor's expense, and under no condition will any such labor and equipment be allowed as an extra.

11. EVALUATION AND AWARD OF BIDS

- 11.1. The award of the Contract will be made to the lowest responsible, responsive Bidder as soon as practicable. The bid shall be awarded to the Bidder who, in the judgment of the Owner, offers the best value to the Owner. Factors to be considered by the Owner are specified in Paragraph 11.3. The Owner reserves the right to reject any and all bids.
- 11.2. The Owner reserves the right to waive minor irregularities or minor errors in any Proposal if it appears to the Owner that such irregularities or errors were made through inadvertence. Any such irregularities or errors so waived must be corrected on the Proposal prior to its acceptance by the Owner.
- 11.3. In estimating the lowest cost to the Owner as one of the factors in deciding the award of the Contract, the Owner will consider, in addition to the prices quoted in the Proposal, the following:
 - 11.3.1. Completion date
 - 11.3.2. Adherence to the Plans and Specifications
 - 11.3.3. Contractor capabilities, crew experience, and past performance
 - 11.3.4. Conditional quotations (Only firm fixed prices in U.S. dollars)
 - 11.3.5. Any additional factors deemed appropriate by the Owner.
- 11.4. In the event the Bidder proposes any change or deviation from the Engineer's Plans and Specifications, such proposed changes or deviations must be submitted at the time bids are opened on the *Form of Exceptions* included. The Owner reserves the right to reject any proposed changes or deviations. All exceptions must be stated on the *Form of Exceptions*. Failure to provide a *Form of Exceptions* with the Proposal shall imply strict adherence to all details of the Plans and Specifications.
- 11.5. The Contract, when awarded, shall be deemed to include the Specifications for the equipment, and the Bidder shall not claim any modification thereof resulting from any representative or promise made at any time by any officer, agent, or employee of the Owner or by any other person.

12. PROMPT PAYMENT DISCOUNTS

Bidders are urged to compute all discounts into the price offered. If a prompt payment discount is offered, it may be considered in the award of the contract.

13. NUMERICAL ERRORS

In the case of a discrepancy between a unit price and the extension (the unit price multiplied by the number of units) the unit price governs. In the case where numerical bids are stated both in numbers and in words, the words govern.

14. BID WITHDRAWAL

If, within 24 hours after bids are opened, any Bidder files a duly signed written notice with the Owner and promptly thereafter demonstrates to the reasonable satisfaction of the Owner that there was a substantial mistake in the preparation of its bid, that Bidder will not be permitted to modify its bid, but may withdraw its bid in its entirety, and the Bid Security will be returned. Thereafter, the bidder will be disqualified from further bidding on the installation of the project herein specified.

15. MINORITY BUSINESS PARTICIPATION PROGRAM

GUC has adopted an Affirmative Action and Minority and Women Business Enterprise Plan (M/WBE) Program. Firms submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment, and to utilize M/WBE suppliers of materials and/or labor.

16. PERFORMANCE AND PAYMENT BONDS

- 16.1. The Successful Bidder shall be required to furnish separate Performance and Payment Bonds executed on the forms bound herein in amounts at least equal to one hundred percent (100%) of the Contract price as security for the faithful performance of this Contract and as security for the payment of all persons performing labor and furnishing materials and equipment in connection with this Contract.
- 16.2. Performance and Payment Bonds shall be with a Surety company authorized and licensed to do business in the State of North Carolina and shall be for the full Contract sum.

17. EXAMINATION OF CONDITIONS

Prior to the submission of the Proposal, the Bidder shall make and shall be deemed to have made a careful examination of the Plans and Specifications on file with the Owner and with the Engineer, and all other matters that may affect the cost and the time of completion of the work.

18. SUBCONTRACTORS

The Bidder shall include in the Proposal a listing of all subcontractors (if any) and their respective support services to be utilized during the project. All subcontractors will be subject to approval by the Owner and Engineer.

19. COMPLETION

- 19.1. The award of this Contract shall be issued as soon as possible, subsequent to the bid opening, by issuance of written contract to the Contractor by the Engineer or notification from the Owner. Work on the project shall begin after award of Contract and no later than November 1, 2021.
- 19.2. The completion date for the projects' on-site activities shall be February 1, 2022.
- 19.3. Time for completion shall be extended for delays due to bad weather days or other special cases with the written consent of the Owner and/or Engineer.
- 19.4. The Contractor shall include in the Proposal a project construction schedule using the completion date above, indicating each major construction activity with duration and the total number of calendar days of construction time he proposes to perform his work based on the above completion date.

20. LIQUIDATED DAMAGES

Time is of the essence, and it is critical that the work be performed on schedule and time is allowed for the completion of the work in the Contract Agreement included herewith. Damages for delay shall be at the rate of five-hundred dollars (\$500.00) per calendar day for failure of the Contractor to complete the work within the Construction Schedule. No credit shall be given for early completion of the work.

21. BIDS TO BE RETAINED

No bid may be withdrawn after the scheduled closing time for the receipt of bids for a period of sixty (60) days pending the execution of a Contract by the Successful Bidder. Should the Successful Bidder default and not execute a Contract, the Contract will be offered to the next lowest responsible, responsive Bidder.

22. DELIVERY LOCATION

The prices quoted shall include delivery of any Contractor-furnished materials and equipment to the project site, and complete installation of said materials and equipment and installation of the Owner- furnished materials. The location of the distribution facilities is shown on the Vicinity Map in the Appendices.

23. FORM OF PROPOSAL

Those bids not received on the Form of Proposal contained herein will be considered unresponsive. The forms shall be filled out completely. Any omissions may cause the entire Proposal to be rejected

24. CONTRACTOR'S INSURANCE

- 24.1. General Liability: Commercial General Liability Insurance, (with coverage consistent with ISO Form CG 00 01 12 07 or its equivalent) with a limit of not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) per project or per location general aggregate, and a deductible or self-insured retention not to exceed Twenty-five Thousand Dollars (\$25,000) per occurrence, covering liability for bodily injury and property damage, arising from premises, operations, independent contractors, personal injury/advertising injury, contractual liability, and products/completed operations for not less than two (2) years from the Substantial Completion Date.
- 24.2. Automobile Liability: Commercial Automobile Liability Insurance, including coverage for liability arising out of the use of owned (if any), non-owned, leased or hired automobiles, for both bodily injury and property damage in accordance with Applicable Legal Requirements, with a limit of not less than One Million Dollars (\$1,000,000) combined single limit per occurrence.
- 24.3. Workers Compensation: Worker's Compensation Insurance, with statutory limits, covering all of Subcontractor's employees, on terms and conditions as required by applicable Law and imposed by worker's compensation, occupational disease or similar laws, including the Longshore and Harbor Workers' Act, the Federal Employers' Liability and the Jones Act, if applicable.
- 24.4. Employers Liability: Employers' Liability Insurance with limits of not less than One Million Dollars (\$1,000,000) each accident for bodily injury by accident, One Million Dollars (\$1,000,000) each employee for bodily injury by disease, and One Million Dollars (\$1,000,000) policy limit.
- 24.5. Umbrella Liability: Subcontractor must provide an Umbrella form (not Excess Liability form) that provides additional liability for underlying General Liability, Auto Liability, and Employer Liability.
 - 24.5.1. Level 1 Contracts (Contract Value \$200,000 to \$499,999) - \$1,000,000
 - 24.5.2. Level 2 Contracts (Contract Value \$500,000 to \$999,999) - \$3,000,000
 - 24.5.3. Level 3 Contracts (Contract Value \$1,000,000 & up) - \$5,000,000

25. CONTRACTOR'S LICENSE

In accordance with the State of North Carolina General Statutes, Contractors performing work of this caliber in the State must be licensed to do so. A current copy of the Contractor's State of North Carolina Board for General Contractor's License must be submitted with this Proposal in the Form of Proposal. Additionally, a valid license must be maintained during the course of the work.

Contractor represents and warrants that it is fully experienced in projects of the nature, scope and magnitude of the Work, properly qualified, registered, licensed, equipped, organized and financed to perform the Work.

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GENERAL CONDITIONS

1. DRAWINGS AND SPECIFICATIONS

The Drawings and Specifications are complementary, one to the other. That which is shown on the Drawings or called for in the Specifications shall be as binding as if it were both called for and shown. The intention of the Drawings and Specifications is to include all labor, materials, transportation, equipment and any and all other items necessary to do a complete job which may include manufactured items and field service assistance. In case of discrepancy or disagreement in the Contract, the order of precedence shall be: Contract, Specifications, Drawings.

2. CLARIFICATIONS AND DETAILED DRAWINGS

In such cases where the nature of the work requires clarification by the Engineer, such clarification shall be furnished by the Engineer with reasonable promptness by means of written instructions or Detail Drawings or both. Clarifications and Drawings shall be consistent with the intent of Contract Documents and shall become a part thereof.

3. CHANGE OF DRAWINGS AND/OR SPECIFICATIONS

- 3.1. The Owner, or the Engineer on behalf of the Owner, may make changes to Drawings and/or Specifications after award of the Contract or while construction is in progress. The compensation for such changes shall be agreed upon in writing between the Contractor and the Owner prior to commencement of work involving the change. No payment shall be made to the Contractor for correcting work not in compliance with Specifications. Once the change of work has been agreed upon between all parties, the Engineer will initiate a change order.
- 3.2. Records of conditions above and below ground, water records or other observations which may have been made by or for Owner shall be made available to Contractor for its information, upon request. Site sub-surface conditions which differ materially from the results reasonably indicated in any reports furnished by Owner or undertaken by Contractor shall be deemed to be changed work.
- 3.3. Except as otherwise set forth in the Contract, all loss or damage to Contractor arising out of the Work or from the action of the elements, or from any unforeseen circumstance in the prosecution of the Work including inefficiencies or claims of inefficiencies, shall be sustained and borne by Contractor at its own cost and expense.

4. COPIES OF BID DOCUMENTS

The Engineer will furnish free of charge to each pre-qualified Bidder one (1) copy of bid documents. Additional sets of these Specifications for approved Bidders and sets for Bidders seeking approval may be obtained upon request for a non-refundable payment of Fifty Dollars (\$50) per set.

5. WORKING DRAWINGS AND SPECIFICATIONS AT THE JOB SITE

Contractor shall maintain, in readable condition at his office, one (1) complete set of as-built working Drawings and Specifications for his work. Such Drawings and Specifications shall be available for use by the Engineer or Owner. During construction, the Contractor will work diligently to keep the Owner abreast of electric system conditions, so as not to interfere with normal or emergency operations.

6. OWNERSHIP OF DRAWINGS AND SPECIFICATIONS

All Drawings and Specifications are instruments of service and remain the property of the Engineer whose name appears thereon. The use of these instruments on work other than this Contract without permission is prohibited. All copies of Drawings and Specifications other than Contract copies shall be returned to the Engineer upon request after completion of the work.

7. MATERIALS, EQUIPMENT, AND EMPLOYEES

7.1. The Contractor shall, unless otherwise specified, supply and pay for all labor, equipment, transportation, tools, apparatus, lights, heat, sanitary facilities, water, and incidentals necessary for the entire proper and substantial completion of his work. The Contractor shall install, maintain, and remove all equipment of the construction and be responsible for the safe, proper, and lawful construction, maintenance, and use of same. The Contractor shall construct, in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the Plans, stated in the Specifications, or reasonably implied therefrom, all in accordance with the Contract Documents. Some of the major material items required for the work will be furnished by the Owner as outlined in the Technical Specifications. All other necessary materials are to be furnished by the Contractor as outlined in the Technical Specifications.

7.2. The Contractor shall not re-use any "removed" materials in the completion of this project unless indicated as a transfer unit on the construction drawings. Materials damaged or lost during construction of the work due to carelessness of the Contractor's personnel, shall be replaced in kind by the Contractor at no cost to the Owner.

7.3. If at any time during the construction and completion of the work covered by these Specifications, the conduct of any workman of the various crafts is

adjudged ungentlemanly and a nuisance to the Owner or the Engineer, or if any workman is considered incompetent or detrimental to the work, the Contractor shall order such parties to be immediately removed from the grounds.

7.4. Any superintendent or foreman of the Contractor who ignores or refuses to follow written instructions of the Owner or the Engineer or his representative at the site shall be immediately removed and replaced.

7.5. The Contractor shall always ensure that he has sufficient crew compliments, both in terms of numbers and experience of personnel to perform work tasks safely. both for workers and the general public. Any instance noted to the contrary of this requirement may result in the complete shutdown of work on the project.

8. ROYALTIES, LICENSE, AND PATENTS

It is the intention of the Contract Documents that the work covered herein will not constitute in any way on an infringement on any patent whatsoever. The Contractor shall protect and save harmless the Owner against suit on account of alleged or actual infringement. The Contractor shall pay all royalties and/or license fees required on account of patented articles or processes, whether the patent rights are evidenced hereinafter.

9. INDEMNIFICATION

Bidder agrees to indemnify and save GUC of the City of Greenville, Pitt County, North Carolina, and the City of Greenville, North Carolina, its co-owners, joint-venturers, agents, employees, and insurance carriers harmless from any and all Third Party claims, actions, costs, expenses, including reasonable attorney fees, judgments, or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to third party tangible property arising out of the negligent performance of the terms of this Contract by Bidder; including, but not limited to, Bidder's employees, agents, subcontractors, and others designated by Bidder to perform work or services in, about, or attendant to, the work and services under the terms of this Contract. Bidder shall not be held responsible for any losses, expenses, claims, subrogation, actions, costs, judgments, or other damages, directly and proximately caused by the negligence of Greenville Utilities Commission of the City of Greenville, Pitt County, North Carolina. Insurance covering this indemnity agreement by Bidder in favor of Greenville Utilities Commission of the City of Greenville, Pitt County, North Carolina, and the City of Greenville, North Carolina, shall be provided by the Bidder.

10. SURVEYS

Unless otherwise specified, the Owner, will furnish all surveys and locations for locating the principal component parts of the work. Stakes missing at the time of construction will be replaced within a reasonable amount of time after notification by the Contractor.

11. UNCORRECTED FAULTY WORK

The Contractor shall be notified of faulty or damaged work and shall have the option to respond in a reasonable period. Should the correction of faulty or damaged work be considered inadvisable or inexpedient by the Owner or the Engineer, the Owner shall be reimbursed by the Contractor for the same by a deduction in the Contract prices arrived at by a fair estimate of the probable cost of correction, approved by the Engineer.

12. DELAYS AND EXTENSION OF TIME

- 12.1. The time to be allowed for construction of these facilities is stated in the Instructions to Bidders. The Contractor, upon notice of award of Contract, shall prepare a construction schedule based on the allowed time, and submit such schedule to the Engineer for approval. A Pre-Construction Conference will be scheduled for all parties concerned.
- 12.2. If the Contractor is delayed at any time in the progress of the work by any act of negligence by the Owner or the Engineer, or by any separate Contractor employed by the Owner or by changes ordered in the work, then the time of completion shall be extended for such reasonable time as the Engineer may decide.
- 12.3. No extension of time for completion will be made for ordinary delays and accidents. Extensions may be granted for delays ordered by the Owner or the Engineer if the request has been made in writing within forty-eight (48) hours after the order to cease work has been given.

13. LIQUIDATED DAMAGES

Time is of the essence, and it is critical that the work be performed on schedule and time is allowed for the completion of the work in the Contract Agreement included herewith. Damages for delay shall be at the rate of five-hundred dollars (\$500.00) per calendar day for failure of the Contractor to complete the work within the Construction Schedule. No credit shall be given for early completion of the work.

14. CORRECTION OF WORK BEFORE FINAL PAYMENT

- 14.1. Any work, materials, or other parts of the work which have been condemned or declared not in accordance with the Contract by the Owner or the Engineer shall be removed from the work site by the Contractor and shall be immediately replaced by new work in accordance with the Contract at no additional cost to the Owner. Work or property of others or the Owner damaged or destroyed by virtue of such faulty work shall be made good at the expense of the Contractor whose work is faulty.
- 14.2. Correction of condemned work described above shall commence within twenty-four (24) hours after receipt of notice from the Owner or the Engineer and shall be pursued to completion.
- 14.3. Final payment will not be made until certificates of the engineer have been duly issued

15. CORRECTION OF WORK AFTER FINAL PAYMENT

Neither the final certificate, final payment, acceptance of the premises by the Owner, nor any provision of the Contract, nor any other act or instrument of the Owner or Engineer shall relieve the Contractor from responsibility for negligence, or faulty materials or workmanship, or failure to comply with the Drawings and Specifications. He shall correct or make good any defects due thereto and repair any damage resulting there from which may appear during the period of the guarantee following final acceptance of the work by the Owner. The Owner will report any defects as they may appear to the Engineer who will give the instructions for a time limit for completion of corrections to the Contractor.

16. THE OWNER'S RIGHT TO PERFORM WORK

- 16.1. The Owner may perform or have performed by others work which is described in the Specifications to be performed by the Contractor, due to early delivery of equipment prior to the execution of this Contract. Upon the execution of the contract, the work performed will be deducted from the Contractor's price by the unit price set forth in the *Form of Proposal*.
- 16.2. If during the progress of the work or during the period of guarantee, the Contractor fails to execute the work properly or to perform any provision of the Contract, the Owner, after five (5) days' written notice to the Contractor from

the Engineer or the Owner, may perform or have performed that portion of the work and may deduct the cost thereof from any amounts due or to become due the Contractor, such action and cost of same having been first approved by the Engineer. Should the cost of such action of the Owner exceed the amount due or to become due the Contractor, then the Contractor or his surety, or both, shall be liable for and shall pay to the Owner the amount of said excess.

17. CONTRACTOR'S AFFIDAVIT

The final payment of retained amount due the Contractor on account of the Contract shall not become due until the Contractor has furnished to the Owner, with a copy to the Engineer, an affidavit signed, sworn and notarized to the effect that all payments for materials, services, or any other reason in connection with his Contract have been satisfied and that no claims or liens exist against the Contractor in connection with this Contract. In the event that the Contractor cannot obtain similar affidavits from Subcontractors to protect the Contractor and the Owner from possible liens or claims against the Subcontractor, the Contractor shall state in his affidavit that no claims or liens exist against any Subcontractor to the best of his (the Contractor's) knowledge and if any appear afterwards, the Contractor shall save the Owner harmless on account thereof.

18. ASSIGNMENTS

The Contractor shall not assign any portion of this Contract nor subcontract it in its entirety. Except as may be required under terms of the Payment and/or Performance Bond, no funds or sums of money due or to become due the Contractor under this Contract may be assigned.

19. GUARANTEE

The Contractor shall guarantee his work against defect due to faulty workmanship or negligence for a period of two (2) years following final acceptance of the work. He shall make good such defective workmanship and any damage resulting therefrom without cost to the Owner.

20. ENGINEER'S STATUS

The Engineer shall, within a reasonable time after their presentation to him, make decisions on all claims of the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents. All such decisions by the Engineer shall be final.

21. ENGINEER'S DECISIONS

The Engineer shall, within a reasonable time after their presentation to him, make decisions on all claims of the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents. All such decisions by the Engineer shall be final.

22. RIGHT-OF-WAY

The Owner will obtain all easements and/or rights-of-way required for the project.

23. ACCIDENTS

The Contractor shall provide at the site such equipment and medical facilities as are necessary to supply first-aid service to anyone who may be injured in connection with the work. The Contractor will provide a written report to the Owner of all accidents within twenty-four (24) hours of the event.

24. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, the Contractor agrees as follows:

- 24.1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap. Such action shall include but not be limited to the following employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of the nondiscrimination clause.
- 24.2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap.

- 24.3. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or other understanding, a notice advertising the labor union or workers' representative of the Contractor's commitments under the Equal Employment Opportunity Section of this Contract and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 24.4. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Owner contracts.
- 24.5. The owner has adopted an Affirmative Action & Minority & Women Business Enterprise Plan (M/WBE) Program. Contractors submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment, and to utilize M/WBE supplies of material and/or labor.

25. MEDIATION/BINDING ARBITRATION

- 25.1. In the event of any dispute between the Parties, the Parties agree to submit any dispute to non-binding mediation before a mutually agreeable Mediator prior to initiating litigation. If the Parties are unable to agree upon a Mediator within thirty (30) days after demand therefore, either Party may petition a Court of competent jurisdiction for the designation of a qualified Mediator for these purposes. Each Party shall bear its own costs and expenses of participating in the mediation (including, without limitation, reasonable attorneys' fees), and each Party shall bear one-half (1/2) of the costs and expenses of the Mediator. Unless otherwise agreed, the Parties will hold the mediation in Greenville, North Carolina. The matters discussed or revealed in the mediation session shall not be disclosed in any subsequent litigation.
- 25.2. In the event the matter is not resolved in mediation, either Party may request arbitration. The parties shall jointly select an Arbitrator and shall be bound by the decision of the Arbitrator with respect to any dispute between the parties with respect to this Agreement. If the parties are unable to mutually agree upon an Arbitrator, the Parties shall each select an Arbitrator, and the two Arbitrators so selected shall select a third Arbitrator, and the decision of the majority of the Arbitrators shall be conclusive and binding upon the Parties. The Parties at all times agree to equally split the costs of any Arbitrator(s) selected in an effort to

resolve the dispute between the Parties. Any party desiring to resolve a dispute under the terms of this Agreement shall notify the other Party in writing, and the Parties shall seek to agree upon a mutually agreed-upon Arbitrator within a period of ten (10) days from the date of such written demand. If the Parties are unable to agree within such ten (10) day period, the Parties shall each select an Arbitrator, and the two (2) Arbitrators so selected shall select a third Arbitrator within fifteen (15) days from the date of the written demand for arbitration, and a decision shall be rendered by the Arbitrator(s) so selected within five (5) days after such Arbitrator(s) is selected.

26. GOVERNMENT RESTRICTIONS

In the event any Governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship, or performance of the items offered on this bid prior to their delivery, it shall be the responsibility of the successful Bidder to notify the GUC Procurement Manager, at once, indicating in its letter the specific regulation which required such alterations. GUC reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or, in the sole discretion of GUC, to cancel the contract.

27. PATENTS AND COPYRIGHTS

The Bidder shall hold and save GUC, its officers, agents, and employees, harmless from liability of any kind, including costs and expenses, including reasonable attorney fees, on account of any copyrighted articles or any patented or unpatented invention, device or appliance manufactured or used in the performance of this contract.

28. PATENT AND COPYRIGHT INDEMNITY

The Bidder will defend or settle, at its own expense, any action brought against GUC to the extent that it is based on a claim that the product(s) provided pursuant to this agreement infringe any U.S. copyright or patent; and will pay those costs, damages, and attorney fees finally awarded against GUC in any such action attributable to any such claim, but such defense, settlements, and payments are conditioned on the following: (1) that Bidder shall be notified promptly in writing by GUC of any such claim; (2) that Bidder shall have sole control of the defense of any action on such claim and of all negotiations for its settlement or compromise; (3) that GUC shall cooperate with Bidder in a reasonable way to facilitate the settlement of defense of such claim; (4) that such claim does not arise from GUC modifications not authorized by the Bidder or from the use of combination of products provided by the Bidder with products provided by GUC or by others; and (5) should such

product(s) become, or in the Bidder's opinion likely to become, the subject of such claim of infringement, then GUC shall permit Bidder, at Bidder's option and expense, either to procure for GUC the right to continue using the product(s), or replace or modify the same so that it becomes non-infringing and performs in a substantially similar manner to the original product.

29. EXCEPTIONS

All proposals are subject to the terms and conditions outlined herein. All responses will be controlled by such terms and conditions and the submission of other terms and conditions, price catalogs, and other documents as part of a Bidder's response will be waived and have no effect on this Request for Proposal or any other contract that may be awarded resulting from this solicitation. The submission of any other terms and conditions by a Bidder may be grounds for rejection of the Bidder's proposal. The Bidder specifically agrees to the terms and conditions set forth in this set of Terms and Conditions by affixing its name on the signatory page contained herein.

30. CONFIDENTIAL INFORMATION

GUC will keep trade secrets which the Bidder does not wish to be disclosed, except as provided by statute and rule of law. Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL" by the Bidder. Cost information shall not be deemed confidential. The determination of whether a matter is confidential will be determined by North Carolina law.

31. ASSIGNMENT

No assignment of the Bidder's obligations or the Bidder's right to receive payment hereunder shall be permitted without the express written consent of GUC, provided however, upon written request approved by the GUC Procurement Manager, solely as a convenience to the Bidder, GUC may:

- 31.1. Forward the Bidder's payment check directly to any person or entity designated by the Bidder, and
- 31.2. Include any person or entity designated by Bidder as a joint payee on the Bidder's payment check.

31.3. In no event shall such approval and action obligate GUC to anyone other than the Bidder, and the Bidder shall remain responsible for fulfillment of all contract obligations.

32. AVAILABILITY OF FUNDS

Any and all payments of compensation of this specific transaction and any continuation or any renewal or extension are dependent upon and subject to the allocation of GUC funds for the purpose set forth in this Agreement.

33. GOVERNING LAWS

All contracts, transactions, agreements, etc., are made under and shall be governed by and construed in accordance with the laws of the State of North Carolina.

34. ADMINISTRATIVE CODE

Bids, proposals, and awards are subject to applicable provisions of the North Carolina Administrative Code.

35. EXECUTION

In the discretion of GUC, failure of a duly authorized official of Bidder to sign the Signatory Page may render the bid invalid.

36. CLARIFICATIONS/INTERPRETATIONS

Any and all questions regarding these Terms and Conditions must be addressed to the GUC Procurement Manager. Do not contact the user directly. **These Terms and Conditions are a complete statement of the parties' agreement and may only be modified in writing signed by Bidder and the GUC Procurement Manager.**

37. SITUS

The place of all contracts, transactions, agreements, their situs and forum, shall be North Carolina, where all matters, whether in contract or tort, relating to the validity, construction, interpretation, and enforcement shall be determined.

38. TERMINATION OF AGREEMENT

GUC or Bidder may terminate this Agreement for just cause at any time. Bidder will be paid for all time and expenses incurred as of the termination date. Termination for just cause by either party shall be by certified letter and shall be effective thirty (30) days after signed and acknowledged receipt of said letter. Just cause shall be based on reasonable grounds, and there must be a fair and honest cause or reason for such action. The causes for termination, include, but are not limited to:

- 38.1. Bidder's persistent failure to perform in accordance with the Terms and Conditions.
- 38.2. Bidder's disregard of laws and regulations related to this transaction
- 38.3. Bidder's substantial violation of the provisions of the Terms and Conditions.

39. FORCE MAJEURE

Neither party shall be considered in default in the performance of its obligations hereunder to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party. In any such event of force majeure, the parties shall advise each other of such event, and the parties shall negotiate an equitable adjustment to their respective obligations under this Agreement.

40. INTEGRATED CONTRACT

These Terms and Conditions, Instructions to Bidders, Specifications, and the selected Bidder's bid represents the entire contract between the Parties. No verbal or other written agreement(s) shall be held to vary the provisions of this Agreement.

41. CONTRACT PROVISIONS

Each of the provisions of these Terms and Conditions shall apply to the full extent permitted by law, and the invalidity in whole or in part of any provision shall not affect the remainder of such provision or any other provisions.

42. E-VERIFY

E-Verify- I understand that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or

equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25 et seq. I am aware of and in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes. To the best of my knowledge, any subcontractors employed by me as a part of this contract are in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes.

43. IRAN DIVESTMENT ACT CERTIFICATION

By acceptance of this purchase order, Vendor/Contractor certifies that, as of the date of the purchase order or contract, it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. § 143-6A-4. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 143C-6A-5(b), Vendor/Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.

44. UNIFORM GUIDANCE

Contracts funded with federal grant or loan funds must be procured in a manner that conforms with all applicable federal laws, policies, and standards, including those under the Uniform Guidance (2 C.F.R. Part 200).

45. NOTICES

Notices to the Parties should be sent to the names and addresses specified below:

Mr. Cleve Haddock, CLGPO
Procurement Manager
Greenville Utilities Commission
P.O. Box 1847
Greenville, NC 27835-1847

SPECIAL CONDITIONS

1. DEFECTIVE WORKMANSHIP

The acceptance of any workmanship by the Owner shall not preclude the subsequent rejection thereof if such workmanship shall be found to be defective after installation, and any such workmanship found defective before final acceptance of the work or within two (2) years after completion shall be remedied or replaced, as the case may be, by and at the expense of the Contractor. In the event of failure by the Contractor to do so, the Owner may remedy such defective workmanship and in such event the Contractor shall pay to the Owner the cost and expense thereof. The Contractor shall not be entitled to any payment hereunder so long as any defective workmanship, of which the Contractor shall have had notice, shall not have been remedied or replaced, as the case may be.

2. MATERIALS

- 2.1. At or prior to the commencement of construction, the Owner shall make available to the Contractor all materials which the Owner has on hand, and from time to time as such additional deliveries of materials, if any, are received by the Owner, the Owner shall make such materials available to the Contractor; Provided, however, that the Contractor or his authorized representative shall give to the Owner a receipt in such form as the Owner shall approve for all materials furnished to the Contractor by the Owner. Upon completion of the project, the Contractor shall return all materials furnished by the Owner which are in excess of those required for the construction. Excess will be determined by comparison of Contractor's material receipts with final inventory as approved by the Owner. The Contractor shall also return to the Owner all material, usable and scrap, removed during construction. The Contractor will reimburse the Owner, at the current invoice cost to the Owner, for loss and/or breakage resulting from Contractor's negligence, of materials furnished to the Contractor by the Owner.
- 2.2. The winning Bidder will use the material package supplied by the Owner. The structures and equipment lists are located in the Appendices.
- 2.3. The project foundation details (as applicable) will be provided to the Contractor prior to start of construction.

3. DEFECTIVE MATERIALS (SUPPLIED BY CONTRACTOR)

- 3.1. All materials supplied by the Contractor shall be subject to the inspection, tests and approval of the Owner. The Contractor shall furnish all information required concerning the nature or source of any materials and provide adequate facilities for testing and inspecting the materials at the plant of the Contractor.
- 3.2. The materials furnished hereunder shall become the property of the Owner when delivered at the point to which shipment is to be made. The Owner may, however, reject any materials and/or warranties of the Contractor and manufacturers. Recognition and subsequent rejection of any defective materials may occur either before or after incorporation of such materials into the work, provided such rejection is made within one (1) year of date of delivery of the materials. Upon any such rejection, the Contractor shall replace the rejected materials with materials complying with the Specification for Materials and warranties at the substation site. The Owner shall return the rejected materials F.O.B. truck at the same destination. In the event of the failure of the Contractor to so replace rejected materials, the Owner shall make such replacement and the cost and expense thereof shall be paid by and recoverable from the Contractor.

4. STORAGE OF MATERIALS

All material furnished by Owner shall be issued from the Owner's warehouse located at 701 Utility Way, Greenville, North Carolina. All driveways and public roadways must be kept clear. No parking, storage or staging of materials shall be placed in a driveway or roadway, causing said roadway impassable any time.

5. PROTECTION TO PERSONS AND PROPERTY

The Contractor shall always take all reasonable precautions for the safety of employees on the work and of the public, and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes, as well as the safety rules and regulations of the Owner. All machinery and equipment and other physical hazards shall be guarded in accordance with the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America unless such instructions are incompatible with Federal, State, or Municipal laws or regulations.

The following provisions shall not limit the generality of the above requirements:

- 5.1. The Contractor shall so conduct the construction as to cause the least possible obstruction of public highways or streets.
- 5.2. The Contractor shall provide and maintain all such guard lights and other protection for the public as may be required by applicable statutes, ordinances, and regulations or by local conditions.
- 5.3. The Contractor shall do all things necessary or expedient to protect properly any and all parallel, converging, and intersecting lines, joint line poles, highways, railways and any and all property of others from damage, and in the event that any such parallel, converging and intersecting lines, joint line poles, highways, railways or other property are damaged in the course of the construction of the line, the Contractor shall at his own expense immediately restore any or all of such damaged property to as good a state as before such damage occurred.
- 5.4. The Contractor shall enter and exit the right-of-way at those locations specified by Owner or the Engineer.

It shall be the responsibility of the Contractor to maintain safe and unobstructed control of traffic along all state roads, highways, and all other streets within the project area. The Contractor shall obtain sufficient and suitable traffic cones, barriers, warning signs, and other devices necessary to maintain a safe work environment for crews and the general public. Traffic control must be provided for in accordance with the Manual of Uniform Traffic Control Devices (MUTCD), the North Carolina Department of Transportation (NC D.O.T.) Supplement to the MUTCD, all local ordinances, and as approved by local and state authorities.

- 5.5. All ditches and access ways disturbed shall be returned to their pre-existing condition at the end of construction.
- 5.6. Any and all excess earth, rock, debris, underbrush, and other useless material shall be removed by the Contractor from the site of the work as rapidly as practicable as the work progresses.
- 5.7. Before beginning work in or around any areas where underground facilities are known to exist, the Contractor shall locate all such facilities including water, sewer, gas, telephone and electrical lines.

- 5.8. Upon violation by the Contractor of any provisions of this section, after written notice of such violation given to the Contractor by the Owner, the Contractor shall immediately correct such violation. Upon failure of the Contractor to do so, the Owner may correct such violation at the Contractor's expense.
- 5.9. The Contractor shall submit to the Owner monthly reports in duplicate of all accidents, giving such data as may be prescribed by the Owner.

6. SUPERVISION AND INSPECTION

- 6.1. The Contractor shall cause the construction work to receive constant supervision by a competent superintendent (hereinafter called the "Superintendent") who shall be present at all times during working hours where construction is being carried on. The Contractor shall also employ, in connection with the construction of the substation capable, experienced, and reliable foremen and such skilled workmen as may be required for the various classes of work to be performed. Directions and instructions given to the Superintendent by the Owner shall be binding upon the Contractor.
- 6.2. The Owner reserves the right to require the removal from the project of any employee of the Contractor if, in the judgment of the Owner, such removal shall be necessary in order to protect the interest of the Owner. The Owner shall have the right to require the Contractor to increase the number of his employees and to increase or change the amount or kind of tools and equipment if at any time the progress of the work shall be unsatisfactory to the Owner; the failure of the Owner to give any such directions shall not relieve the Contractor of his obligations to complete the work within the time and in the manner specified in this Proposal.
- 6.3. The manner of performance of the work, and all equipment used therein, shall be subject to the inspection, tests and approval of the Owner. The Contractor shall have an authorized agent accompany the Owner when final inspection is made and, if requested by the Owner, when any other inspection is made.
- 6.4. In the event that the Owner shall determine that the construction contains or may contain numerous defects, it shall be the duty of the Contractor, if requested by the Owner to have an inspection made by the Engineer for the purpose of determining the exact nature, extent, and location of such defects.

7. TEMPORARY CONSTRUCTION

All temporary construction required to accomplish the work covered in these Specifications shall be the sole responsibility of the Contractor. The Contractor shall furnish all labor and materials necessary for temporary construction including the installation and removal of structures, poles, insulators, hardware, guys, anchors, etc. All materials used for temporary construction shall be removed from the site as soon as practicable and the site restored to as good a state as before such construction. All temporary materials supplied by the Contractor will remain the property of the Contractor. All temporary construction shall be performed and shall adhere to the same safety and code requirements as the proposed work and shall be covered by all requirements of these Plans, Specifications, and Contract Documents.

No extra pay item will be issued for temporary construction, or for subsequent removal of same.

8. NORMAL WORK WEEK

- 8.1. The Contractor shall provide the Owner quoted prices on a per-hour basis, for various personnel and equipment, assuming a normal work week as being forty (40) hours.
- 8.2. The Contractor shall state in the Proposal his normal work week for the project.
- 8.3. Work on weekends or generally accepted holidays will only be allowed if specific outage arrangements are required or the Contractor falls behind in meeting the project's scheduled completion date.
- 8.4. The Contractor will not be paid for inclement weather days or for travel time to and from the job site, unless expressly requested by the Contractor as a written stipulation to his original Proposal.

9. JOB-SITE OBLIGATIONS

- 9.1. Except as otherwise provided in the Contract, necessary sanitary conveniences for use by the Contractor's employees and Subcontractors at the Jobsite shall be furnished and maintained by the Contractor in such manner and at such locations as shall be approved by the Company Representative and their use shall be strictly enforced.

- 9.2. The Contractor shall, at all times, keep its work areas in a neat, clean, and safe condition. The Contractor shall be responsible for continuous clean up and removal of its trash, debris, waste materials and scrap and disposal of same off the Jobsite. Upon completion of any portion of the Work, the Contractor shall immediately remove all its equipment, construction plant, temporary structures and surplus materials not to be used at or near the same location during later stages of the Work. Upon completion of the Work and before final payment is made, the Contractor shall, at its expense, satisfactorily dispose of all plant, buildings, rubbish, unused materials, and other equipment and materials belonging to it or used in the performance of the Work, including return to the Owner's warehouse or designated lay down area(s), at the Owner's option of any salvageable materials for which the Owner has reimbursed the Contractor or that has been supplied by the Owner for incorporation into the Work but not used; and the Contractor shall leave the premises in a neat, clean and safe condition acceptable to the Company Representative. In the event of the Contractor's failure to comply with the foregoing, the same may be accomplished by the Owner at the Contractor's expense.
- 9.3. The Owner reserves the right to authorize its agents or designees to enter the jobsite as it may elect for the purpose of inspecting the work or constructing or installing such collateral work as it may desire, or testing, boring or surveying, or any other purpose.
- 9.4. The Contractor understands and agrees that duly authorized representatives of government agencies having appropriate jurisdiction may enter the Jobsite at any time and from time to time.
- 9.5. If any Work or part thereof shall be covered contrary to the requirements of the Contract or the request of the Owner or Engineer, it must, if required by the Company Representative, be uncovered for observation and inspection and covered again at the Contractor's sole expense.
- 9.6. If any other Work that the Company Representative has not specifically requested to observe and inspect prior to being covered has been covered, the Owner or Engineer may request to see such Work or part thereof and it shall be uncovered by the Contractor. If such Work or part thereof is found to be in accordance with the Contract, the cost of uncovering and covering again shall, by appropriate Change Form, be charged to the Owner. If such Work or part thereof fails to meet the requirements of the Contract, the Contractor shall pay

all costs of uncovering, correcting, and covering again and any additional costs resulting there from.

- 9.7. The Contractor shall conduct daily and weekly on-site safety meetings at the beginning of each work period. These meetings should not preclude the Contractor from conducting tailgate safety meetings before each new work period, after break, different work assignments, etc. as determined by OSHA and other applicable safety laws and regulations. In addition, the Contractor shall be required to attend onsite safety meetings with the Owner.
- 9.8. All personnel / visitors / individuals shall have a safety briefing by the Contractor prior to entering the energized substation area.
- 9.9. The Contractor shall facilitate a formal safety program for all individuals entering the site.
- 9.10. The Contractor shall provide the Owner a copy of the Contractor's Safety Manual, outlining policies, procedures, documentation and training. The Owner will provide the Contractor with a copy of the Owner's Safety Manual. The Contractor shall perform the work using the more stringent of the two policies.

CONTRACT AGREEMENT

THIS CONTRACT made this _____ day of _____, 2021, by _____, hereinafter called Bidder, and GREENVILLE UTILITIES COMMISSION (GUC) OF THE CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA, a corporation, hereinafter called the Owner.

WITNESSETH

THAT WHEREAS, a Contract for

**GREENVILLE UTILITIES COMMISSION
RELOCATION OF 12.47 KV DISTRIBUTION
STRUCTURES ALONG DICKINSON AVENUE**

has recently been awarded to Bidder by the Owner at and for a total price of _____ AND 00/100 (\$ _____) named in the Bidder's Proposal attached hereto;

AND WHEREAS, it was provided in said award that a formal Contract would be executed by and between Bidder and Owner, evidencing the terms of said award, and that Bidder would commence the work to be performed under this agreement on a date to be specified in a written order of Owner, and would fully complete all work thereunder no later than 90 days from the date of contract.

NOW, THEREFORE, Bidder doth hereby covenant and agree with Owner that it will well and faithfully perform and execute such work and furnish such work and furnish such materials and equipment in accordance with each and every one of the conditions, covenants, stipulations, terms, and provisions contained in said Specifications in accordance with the Plans, at the total price named therefore in the Bidder's Proposal attached hereto, and will well and faithfully comply with and perform each and every obligation imposed upon it by said Plans and Specifications and the terms of said award.

Bidder shall promptly make payments to all laborers and others employed thereon.

Bidder shall be responsible for all damages to the property of the owner that may be consequent upon the normal procedure of its work or that may be caused by or result from the negligence of Bidder, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. Bidder must restore all property so injured to a condition as good as it was when Bidder entered upon the work.

By execution of this Contract, both parties acknowledge the following conditions as a part of their respective obligations:

- a) Governing Law – This Contract shall be construed and enforced in accordance with the laws of the State of North Carolina. All parties agree to the jurisdiction of the Courts of North Carolina with respect to an action or dispute arising between the parties.
- b) Further Assurances – The parties hereto agree to execute and deliver any and all papers and documents which may be necessary to carry out the terms of this Contract.
- c) Entire Contract – This Contract (including materials incorporated herein by reference) constitutes the entire agreement between the parties hereto and there are no agreements, representations, or warranties which are not set forth herein. All prior negotiations, agreements, and understandings are superseded hereby. This Contract may not be amended or revised except by a writing signed by all parties hereto. This Contract shall be construed and interpreted without any presumption either for or against the party who caused its preparation.
- d) Binding Effect – This Contract shall be binding upon an inure to the benefit of the heirs, legal representatives, successors and assigns of the respective parties hereto, provided that this Contract and all rights hereunder may not be assigned by any party hereto without the written consent of the other party.
- e) Time of Performance – Time is of the essence with regard to the performance of this Contract.
- f) Survivability – The terms of this Contract shall survive execution and delivery of any deeds or bills of sale called for hereunder.
- g) Headings – The headings in the paragraphs of this Contract are inserted for convenience only and do not constitute a part hereof.

Bidder shall furthermore be responsible for and required to make good at its expense any and all damages of whatever nature to persons or property arising during the period of the Contract caused by carelessness, neglect, or want of due precaution on the part of Bidder, its agents, employees, or workmen. Bidder shall also indemnify and save harmless the Owner, and the officers and agents thereof, from all third party claims, suits, and proceedings of every name and description which may be brought against the Owner, or the officers and agents thereof, for or on account of any injuries or damages to persons or property received or sustained by any person or persons, firm, or corporation, by or in consequence of any materials used in said work, to the extent caused by the negligence of Bidder, its agents, employees, servants, or workmen.

It is agreed and understood that the Notice to Prospective Bidders, Definitions, Instructions to Bidders, and Technical Specifications, the accepted Bidder's Proposal, and the enumerated addenda are incorporated in this Contract by reference and are an integral part thereof as set forth herein.

And the Owner doth hereby covenant and agree with Bidder that it will pay to Bidder, when due and payable under the terms of said Specifications and said award, the above-mentioned sum;

and that it will well and faithfully comply with and perform each and every obligation imposed upon it by said Specifications and the terms of said award.

Bidder shall, upon completion of all work awarded under this Contract, furnish to the Owner invoices or copies of invoices for all materials purchased for said work; and such invoices shall state the amount of North Carolina sales tax paid for said materials. Bidder shall also furnish the Owner and affidavit certifying the total costs of materials purchased for all work performed under the Contract and the total amount of state sales tax paid for said materials.

Whenever used herein, the singular shall include the plural, the plural the singular, and the use of any genders shall be applicable to all genders as the context may require.

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PROVIDE CURRENT LIABILITY INSURANCE CERTIFICATE(S)

Section I General Instructions, 24. Contractor's Insurance

COVERAGES:

1. Workmen's Compensation Insurance shall include all of the Bidder's employees employed at the site of the project under his contract. In case any class of employees engaged in hazardous work under this Contract at the site of the project is not protected under the Workmen's Compensation Statute, the Bidder shall provide adequate coverage for the protection of his employees not otherwise protected.

2. Public Liability and Property damage Insurance shall be in such amounts as to adequately protect the Owner and the Bidder from claims for damages for personal injury, including accidental death, as well as from claims for property damages which may arise from operations under this Contract, whether such operations be by himself or by anyone directly or indirectly employed by him. The amount of such insurance shall be for the following:
 - 2.1. Public Liability Insurance for bodily injury or death \$1,000,000 per one person, and \$2,000,000 for each accident.

 - 2.2. Property Damage Insurance \$2,000,000 for each accident and \$2,000,000 aggregate for accidents during the policy period.

3. Motor Vehicle Liability Insurance shall be for the following amounts:
 - 3.1. Bodily injury or death \$1,000,000 for one person and \$2,000,000 for each accident.

 - 3.2. Property damage is \$2,000,000 for each accident.

Copies of Certificates of Insurance for all aforementioned policies shall be furnished by the Bidder and shall be attached to the respective pages of the Contract Agreement at the time of signing.

It shall be understood that the above required insurance shall not be canceled or changed until thirty (30) days after written notice of such termination or alteration has been sent by registered mail to the certificate holder. Each certificate must not terminate before the contract completion date.

CERTIFICATE HOLDER:

Greenville Utilities Commission
401 South Green Street
Greenville, NC 27835-1847
Contact: Mr. Cleve Haddock, CLGPO
Phone: 252-551-1533

IN TESTIMONE WHEREOF, Bidder and Owner have duly signed and sealed this Contract.

BIDDER:

(Imprint Corporate Seal
Below this line)

_____(SEAL)

By _____(SEAL)

Title _____

ATTEST:

By: _____

Title: _____

**GREENVILLE UTILITIES COMMISSION
(GUC) OF THE CITY OF GREENVILLE,
PITT COUNTY, NORTH CAROLINA**

By _____

Anthony C. Cannon

Title _____

General Manager/CEO

ATTEST:

By: _____

Amy Wade

Title: _____

Executive Secretary

APPROVED AS TO FORM AND LEGALITY:

By: _____

Phillip R. Dixon

Title: _____

General Counsel

CERTIFICATE OF ATTORNEY

**GREENVILLE UTILITIES COMMISSION (GUC)
OF THE CITY OF GREENVILLE,
PITT COUNTY, NORTH CAROLINA**

This is to certify I have examined the attached Contract Documents, and after such examination I am of the opinion that such Documents conform to the laws of the State of North Carolina, the execution of the Contract is in due and proper form, the representatives of the respective contracting parties have full power and authority to execute such contract on behalf of the respective contracting parties, and the foregoing agreements constitute valid and binding obligations on such parties.

By: _____
Phillip R. Dixon

Title: _____
General Counsel

Date: _____

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

By: _____
Jeff W. McCauley

Title: _____
Chief Financial Officer

Date: _____

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**STRUCTURE RELOCATION
CONTRACT FOR 12.47 KV DISTRIBUTION
ALONG DICKINSON AVENUE**

FORM OF PROPOSAL
(Provide two (2) copies)

Respectfully submitted this _____ day of _____, 2021.

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|
| OWNER: | BIDDER | |
| <p>Greenville Utilities Commission 401 South Greene Street Greenville, North Carolina 27834 P.O. Box 1847 Greenville, North Carolina 27835</p> <p>Mr. Cleve Haddock, CLGPO Procurement Manager Office: 252-551-1533 Cell: 252-361-3655</p> | | |
| | NAME | TITLE |
| | STREET ADDRESS | |
| | CITY/STATE/ZIP | |
| | PHONE: | |
| | FAX: | |
| | EMAIL: | |
| | SIGNATURE | |
| MANUFACTURER OF PROPOSED EQUIPMENT | | |
| | | |
| MANUFACTURER | | |
| STREET ADDRESS | | |
| CITY/STATE/ZIP | | |

TERMS AND CONDITIONS

1. The undersigned, hereafter called the Contractor, hereby declares that the only person or persons interested in this Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.
2. The Contractor further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the locations where the work is to be done; that he has examined the Technical Specifications for the work and Contract Documents relative there to, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.
3. The Contractor proposes and agrees, if this Proposal is accepted, to contract with the Owner in the form of Contract specified, to furnish all necessary labor, equipment, and materials, except materials and equipment specified to be furnished by the Owner, required for the installation of the station, complete in accordance with the Plans, Specifications and Contract Documents, to the full and entire satisfaction of the Owner with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and Contract Documents, as filed on Change Order forms. No changes in work shall begin without prior written approval by the Owner or its representative Engineer.
4. The Bid Schedule is subject to the following terms and conditions which, by reference, are made a part of this Proposal.
5. The prices of materials set forth herein do not include any sums which are or may be payable by the Contractor on account of North Carolina Sales Tax upon the sale, purchase, or use of the materials hereunder, the amount thereof shall be added to the purchase price and paid by the Owner after the Contractor has ascertained the actual sales tax to be included in the Contract price.
6. The prices quoted in the Proposal shall be firm unless otherwise clearly noted in the Proposal.
7. The price quoted includes delivery FOB substation site of any equipment and materials and complete installation at substation site. The prices of the equipment and installation set forth herein shall include the cost of delivery at the Contractor's risk to the site.
8. The Contractor shall provide the Owner quoted prices on a per-hour basis, for various personnel and equipment, assuming a normal work week as being forty (40) hours.
9. The Contractor shall state his normal work week for the project:

_____ Five (5), eight (8) hour days (Monday through Friday)

_____ Four (4), ten (10) hour days (Monday through Thursday)

_____ Other, _____

10. Work on weekends or generally accepted holidays will only be allowed if specific outage arrangements are required, or if the Contractor falls behind in meeting the project's scheduled completion date. If the Contractor deems this necessary, he must receive the Owner's written approval five (5) business days prior to beginning the revised work scheme.
11. The time of completion for this project is of the essence.
12. The Contractor shall submit a proposed project construction schedule with the Proposal for review and approval by the Owner and Engineer. The targeted date for completion is February 1, 2022. If this date is not possible, please present an alternate date.
13. The time for delivery and installation shall be extended for the period of any reasonable delay due exclusively to causes beyond the control and without fault of the Contractor, including acts of God, fires, floods, strikes, and delay in transportation.
14. The Contractor will not be paid for inclement weather days or for travel time to and from the job site, unless expressly requested by the Contractor as a written stipulation to his original Proposal.
15. The Contractor-furnished materials shall conform to the "Technical Specifications" attached hereto and made a part hereof.
16. Title to the materials furnished by the Contractor shall pass to the Owner upon completion of the installation at the point above specified.
17. This Proposal is made pursuant to the provisions of the Notice and Instructions to Bidders, the Specifications, and the Contractor agrees to the terms and conditions thereof.
18. The Contractor warrants the accuracy of all statements contained in the Bidders Qualifications, if any shall be submitted, and agrees that the Owner shall rely upon such accuracy as a condition of the Contract if this Proposal is accepted.
19. The Contractor warrants that the Contractor-furnished Materials will conform to the performance data and guarantees attached which, by this reference, are made a part of this Proposal. Any exceptions or deviations from the Plans and Specifications must be clearly stated in the Proposal to warrant consideration.

20. The Contractor assumes liability for the proper care, handling, storage, and security of all materials furnished to the Contractor by the Owner for the project.
21. The undersigned further agrees that in case of failure on his part to execute said Contract within ten (10) consecutive calendar days after written notice has been given of the Award of the Contract, bid security accompanying this bid, and the monies payable thereon, shall be paid into the funds of the Owner's account set aside for this project, as liquidated damages for such failure, otherwise, the check, cash, or Bid Bond accompanying the Proposal shall be returned to the undersigned.
22. The Contractor shall maintain during the project and shall provide the Owner/Engineer one (1) complete set of "as-constructed" drawings upon the completion of the project.
23. The Contractor warrants that it possesses Electric Utility Contractor's License for the State of North Carolina. A copy of the license shall be included in this *Form of Proposal*.
24. The Contractor shall submit, in the *Form of Proposal*, the proposed project management staff, i.e., project manager, site superintendent, general foreman, etc. The qualifications / work experience level of the Bidder's proposed work force shall be included as well. The Contractor shall provide evidence of a minimum of 60% of the proposed work force having five (5) years or more tenure with the Bidder's firm. If other personnel are assigned to the project, similar information will be required prior to construction assignment.
25. The Contractor shall provide a list of recent projects of similar voltage class and complexity, along with the Owner and contact information of the representative who was reported to directly.
26. If the proposed staff along with their qualifications is not provided, the bid may be subject to non-compliance, thus, making it unacceptable.
27. The Contractor shall provide a list of subcontractors (if any) in the proposal and their respective support services which will be used by the Contractor when undertaking this project. All subcontractors will be subject to review and approval by the Owner.
28. **A mandatory pre-construction meeting will be scheduled at a later time based on the construction schedule.**
29. Uniform Guidance: Contracts funded with federal grant or loan funds must be procured in a manner that conforms with all applicable federal laws, policies, and standards, including those under the Uniform Guidance (2 C.F.R. Part 200).

INSERT

ADDENDA / CLARIFICATIONS / BULLETINS

Section I General Instructions, 6. Bulletins and Addenda

PROPOSAL PAGES

DISTRIBUTION CONSTRUCTION ASSEMBLY UNITS

Definitions:

POLE UNITS

A pole unit consists of one pole in place. It does not include pole-top construction assembly unit or other parts attached to the pole. The first two digits of the unit number column indicate the length of the pole; the following digits specify the RUS Class.

Pole Plan Under Which the Poles are to be Furnished: (Check one)

1. *Insured Warranted*
2. *Independently Inspected*
3. *Quality Assured*
4. *Either Insured Warranted, Independently Inspected, or quality Assured*

POLE TOP CONSTRUCTION ASSEMBLY UNITS

A pole top construction assembly unit generally consists of the insulator(s), crossarm(s), braces, and hardware, except tie wire, required to support the power conductors and overhead ground wire, as indicated on the applicable drawing. It does not include the pole, the downlead, and butt coil, which are separate units.

GUY CONSTRUCTION ASSEMBLY UNITS (DG UNITS)

A guy construction assembly unit consists of the hardware and wire. Guy guards are designated separately.

ANCHOR CONSTRUCTION ASSEMBLY UNITS

An anchor construction assembly unit consists of the anchor with rod or rods, complete, ready for attaching the guy wire.

DISTRIBUTION CONSTRUCTION ASSEMBLY UNITS

| Part 1a - Distribution Pole Units - Direct Embedded | | | Unit Price | | | Extended Price |
|-----------------------------------------------------|----------------------|--------------|------------|-----------|-------------------|-------------------|
| Unit Number | Embedment Depth (ft) | NO. of Units | Labor | Materials | Labor & Materials | Labor & Materials |
| 35/Class 5 | 5.5 | 33 | \$ | \$ | \$ | \$ |
| 40/Class 4 | 6 | 7 | \$ | \$ | \$ | \$ |
| 45/Class 4 | 5.6 | 16 | \$ | \$ | \$ | \$ |
| 50/Class 3 | 7 | 7 | \$ | \$ | \$ | \$ |
| 55/Class 3 | 7.5 | 9 | \$ | \$ | \$ | \$ |
| 65/Class 2 | 8.5 | 1 | \$ | \$ | \$ | \$ |

| Part 2a - Ckt 15 Pole Top Construction Assembly Units | | Unit Price | | | Extended Price |
|-------------------------------------------------------|--------------|------------|-----------|-------------------|-------------------|
| Drawing Number | NO. of Units | Labor | Materials | Labor & Materials | Labor & Materials |
| A4 | 6 | \$ | \$ | \$ | \$ |
| B1 | 3 | \$ | \$ | \$ | \$ |
| B4 | 5 | \$ | \$ | \$ | \$ |
| C1 | 21 | \$ | \$ | \$ | \$ |
| C3 | 5 | \$ | \$ | \$ | \$ |
| C4 | 14 | \$ | \$ | \$ | \$ |

| Part 3a - Guy Construction Assembly Units | | Unit Price | | | Extended Price |
|-------------------------------------------|--------------|------------|-----------|-------------------|-------------------|
| Drawing Number | NO. of Units | Labor | Materials | Labor & Materials | Labor & Materials |
| DG-12_14 | 72 | \$ | \$ | \$ | \$ |

| Part 4a - Ckt 15 Anchor Construction Assembly Units | | Unit Price | | | Extended Price |
|-----------------------------------------------------|--------------|------------|-----------|-------------------|-------------------|
| Drawing Number | NO. of Units | Labor | Materials | Labor & Materials | Labor & Materials |
| DA | 46 | \$ | \$ | \$ | \$ |

| Part 5a - Ckt 15 Conductor Construction Assembly Units | | Unit Price | | | Extended Price |
|--------------------------------------------------------|-------------------|------------|-----------|-------------------|-------------------|
| Unit | NO. of Units (ft) | Labor | Materials | Labor & Materials | Labor & Materials |
| 336 ACSR "Merlin" | 7000 | \$ | \$ | \$ | \$ |
| 1/0 ACSR | 3000 | \$ | \$ | \$ | \$ |
| 4/0 OH Triplex | 400 | \$ | \$ | \$ | \$ |
| 1/0 OH Triplex | 1000 | \$ | \$ | \$ | \$ |
| #6 OH Triplex | 2000 | \$ | \$ | \$ | \$ |

| Part 6a - OH/UG Service Units | | Unit Price | | | Extended Price |
|-------------------------------|--------------|------------|-----------|-------------------|-------------------|
| Drawing Number | NO. of Units | Labor | Materials | Labor & Materials | Labor & Materials |
| Overhead | 68 | \$ | \$ | \$ | \$ |
| Underground | 14 | \$ | \$ | \$ | \$ |
| Lights | 33 | \$ | \$ | \$ | \$ |

PROPOSAL SUMMARY

DISTRIBUTION CONSTRUCTION ASSEMBLY UNITS

| | |
|----------------------------|----------|
| Distribution Removal | \$ _____ |
| Wood Pole Install..... | \$ _____ |
| Pole Top Assembly..... | \$ _____ |
| Guy Assembly..... | \$ _____ |
| Anchor Assembly..... | \$ _____ |
| Conductor Assembly..... | \$ _____ |
| OH/UG Service Units..... | \$ _____ |

TOTAL DISTRIBUTION CONSTRUCTION ASSEMBLY UNITS \$ _____

INSERT

PROPOSED CONSTRUCTION SCHEDULE

*General Instructions, 19. Completion
Terms and Conditions – Item 12*

INSERT

CERTIFICATE(S) OF INSURANCE

General Instructions, 24. Contractor's Insurance

INSERT

CONTRACTOR'S LICENSE

*General Instructions, 25. Contractor's License
Terms and Conditions – Item 23*

EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT
General Conditions, 24. Equal Employment Opportunity

The Contractor shall include the provisions of the Equal Employment Opportunity, as found in General Conditions section, in every Subcontract unless exempted by rules, regulations, or orders of the Owner so that such provisions will be binding upon each Subcontractor.

Bidder: _____

By: _____

Date: _____

Special Instructions to Bidders

**City of Greenville/Greenville Utilities Commission
Minority and/or Women Business Enterprise (M/WBE) Program**

**GUC
Construction Guidelines and Affidavits
\$100,000 and above**

These instructions shall be included with each bid solicitation.

**City of Greenville/Greenville Utilities Commission
Minority and/or Women Business Enterprise Program**

\$100,000 and Construction Guidelines for M/WBE Participants

Policy Statement

It is the policy of the City of Greenville and Greenville Utilities Commission to provide minorities and women equal opportunity for participating in all aspects of the City’s and Utilities’ contracting and procurement programs, including but not limited to, construction projects, supplies and materials purchases, and professional and personal service contracts.

Goals and Good Faith Efforts

Bidders responding to this solicitation shall comply with the M/WBE program by making Good Faith Efforts to achieve the following aspiration goals for participation.

| | GUC | |
|---------------------------------------------------------------------|-----|-----|
| | MBE | WBE |
| Construction This Goal includes Construction Manager at Risk | 7% | 4% |

Bidders shall submit M/WBE information with their bids on the forms provided. This information will be subject to verification by GUC prior to contract award. **As of July 1, 2009, contractors, subcontractors, suppliers, service providers, or M/WBE members of joint ventures intended to satisfy GUC M/WBE goals shall be certified by the NC Office of Historically Underutilized Businesses (NC HUB) only.** Firms qualifying as “WBE” for GUC’s goals must be designated as a “women-owned business” by the HUB Office. Firms qualifying as “MBE” for GUC’s goals must be certified in one of the other categories (i.e.: Black, Hispanic, Asian American, American Indian, Disabled, or Socially and Economically Disadvantaged). Those firms who are certified as both a “WBE” and “MBE” may only satisfy the “MBE” requirement. A complete database of NC HUB certified firms may be found at <http://www.doa.nc.gov/hun/>. An internal database of firms who have expressed interest to do business with the City and GUC is available at www.greenvillencmwbe.org. However, the HUB status of these firms must be verified by the HUB database. GUC shall accept NCDOT certified firms on federally funded projects only. Please note: A contractor may utilize any firm desired. However, for participation purposes, all M/WBE vendors who wish to do business as a minority, or a female must be certified by NC HUB.

The Bidder shall make good faith efforts to encourage participation of M/WBEs prior to submission of bids in order to be considered as a responsive bidder. Bidders are cautioned that even though their submittal indicates they will meet the M/WBE goal, they should document their good faith efforts and be prepared to submit this information, if requested.

The M/WBE's listed by the Contractor on the **Identification of Minority/Women Business Participation** which are determined by the GUC to be certified shall perform the work and supply the materials for which they are listed unless the Contractors receive prior authorization

from the GUC to perform the work with other forces or to obtain materials from other sources. If a contractor is proposing to perform all elements of the work with his own forces, he must be prepared to document evidence satisfactory to the owner of similar government contracts where he has self-performed.

The Contractor shall enter into and supply copies of fully executed subcontracts with each M/WBE or supply signed Letter(s) of Intent to the Project Manager after award of contract and prior to Notice to Proceed. Any amendments to subcontracts shall be submitted to the Project Manager prior to execution.

Instructions

The Bidders Shall Provide with the bid the following documentation:

- Identification of Minority/Women Business Participation
(if participation is zero, please mark zero – Blank forms will be considered nonresponsive)
- Affidavit A (if subcontracting)

OR

- Identification of Minority/Women Business Participation
(if participation is zero, please mark zero – Blank forms will be considered nonresponsive)
- Affidavit B (if self-performing; must attest that bidder does not customarily subcontract work on this type of project – includes supplies and materials)

Within 72 hours or 3 business days after notification of being the apparent low bidder who is subcontracting anything must provide the following information:

- Affidavit C (if aspirational goals are met or are exceeded)

OR

- Affidavit D (if aspirational goals are not met)

After award of contract and prior to issuance of notice to proceed:

- Letter(s) of Intent or Executed Contracts

****With each pay request, the prime contractors will submit the Proof of Payment Certification, listing payments made to M/WBE subcontractors.**

*****If a change is needed in M/WBE Participation, submit a Request to Change M/WBE Participation Form. Good Faith Efforts to substitute with another M/WBE contractor must be demonstrated.**

Minimum Compliance Requirements:

All written statements, affidavits, or intentions made by the Bidder shall become a part of the agreement between the Contractor and the GUC for performance of contracts. Failure to comply with any of these statements, affidavits or intentions or with the minority business guidelines shall constitute a breach of the contract. A finding by the GUC that any information submitted (either prior to award of the contract or during the performance of the contract) is inaccurate, false, or incomplete, shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of the GUC whether to terminate the contract for breach or not. In determining whether a contractor has made Good Faith Efforts, the GUC will evaluate all efforts made by the Contractor and will determine compliance regarding quantity, intensity, and results of these efforts.

Greenville Utilities Commission AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of _____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

1 – (10 pts) Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government-maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.

2 – (10 pts) Made the construction plans, specifications and requirements available for review for review by prospective minority businesses or providing these documents to them at least 10 days before the bids are due.

3 – (15 pts) Broken down or combined elements of work into economically feasible units to facilitate minority participation.

4 – (10 pts) Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.

5 – (10 pts) Attended Prebid meetings scheduled by the public owner.

6 – (20 pts) Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.

7 – (15 pts) Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.

8 – (25 pts) Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder’s suppliers in order to help minority businesses in establishing credit.

9 – (20 pts) Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.

10 – (20 pts) Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the identification of Minority/Women Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d). Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority/women business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My Commission expires _____

Greenville Utilities Commission - AFFIDAVIT B - Intent to Perform Contract with Own Workforce

County of _____

Affidavit of _____
(Name of Bidder)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type of project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20_____

Notary Public _____

My commission expires _____

Greenville Utilities Commission – AFFIDAVIT C – Portion of the Work to be Performed by M/WBE Firms

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by M/WBE businesses as defined in GS143-128.2(g) and the COG/GUC M/WBE Plan sec. III is equal to or greater than 11% of the bidder’s total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification.

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

(Project Name)

Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises and a minimum of _____% of the total dollar amount of the contract with women business enterprises. Minority/women businesses will be employed a construction subcontractors, vendors, suppliers, or providers of professional services. Such work will be subcontracted to the following firms listed below.

| Name and Phone Number | *M/WBE Category | Work Description | Dollar Value |
|-----------------------|-----------------|------------------|--------------|
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*M/WBE categories: Black, African American (**B**), Hispanic, Latino (**L**), Asian American (**A**), American Indian (**I**), Female (**F**), Socially and Economically Disadvantaged (**S**), Disabled (**D**)

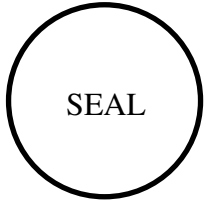
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with M/WBE Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

Greenville Utilities Commission – AFFIDAVIT D – Good Faith Efforts

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder)

If the goal of 11% participation by minority/women business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____ (Project Name)
Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises and a minimum of _____% of the total dollar amount of the contract with women business enterprises. Minority/women businesses will be employed a construction subcontractors, vendors, suppliers, or providers of professional services. Such work will be subcontracted to the following firms listed below.

| Name and Phone Number | *M/WBE Category | Work Description | Dollar Value |
|-----------------------|-----------------|------------------|--------------|
| | | | |
| | | | |
| | | | |
| | | | |

*M/WBE categories: Black, African American (**B**), Hispanic, Latino (**L**), Asian American (**A**), American Indian (**I**), Female (**F**), Socially and Economically Disadvantaged (**S**), Disabled (**D**)

Examples of documentation required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible, responsive sub-bidder, copies of quotes received from all firms submitting quotes for that subcontract.

- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder

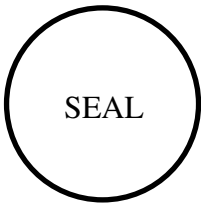
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with M/WBE Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

**LETTER OF INTENT
M/WBE Subcontractor Performance**

Please submit this form or executed subcontracts with M/WBE firms after award of contract and prior to issuance of notice to proceed.

PROJECT: _____
(Project Name)

TO: _____
(Name of Prime Bidder/Architect)

The undersigned intends to perform work in connection with the above project as a:

____ Minority Business Enterprise ____ Women Business Enterprise

The M/WBE status of the undersigned is certified by the NC Office of Historically Underutilized Businesses (required). ____ Yes ____ No

The Undersigned is prepared to perform the following described work or provide materials or services in connection with the above project at the following dollar amount:

| Work/Materials/Service Provided | Dollar Amount of Contract | Projected Start Date | Projected End Date |
|---------------------------------|---------------------------|----------------------|--------------------|
| | | | |
| | | | |

(Date)

(Address)

(Name & Phone No. of M/WBE Firm)

(Name & Title of Authorized Representative of M/WBE)

(Signature of Authorized Representative of M/WBE)

REQUEST TO CHANGE M/WBE PARTICIPATION

Submit changes only if notified as apparent lowest bidder, continuing through project completion)

Project: _____

Bidder or Prime Contractor: _____

Name & Title of Authorized Representative: _____

Address: _____ **Phone #:** _____

_____ **Email Address:** _____

Total Contract Amount (including approved change orders or amendments): \$ _____

Name of Subcontractor: _____

Good or service provided: _____

Proposed Action:

- _____ Replace subcontractor
- _____ Perform work with own forces

For the above actions, you must provide one of the following reasons (Please check applicable reason):

_____ The listed MBE/WBE, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract.

_____ The listed MBE/WBE is bankrupt or insolvent.

_____ The listed MBW/WBE fails or refuses to perform his/her subcontract or furnish the listed materials.

_____ The work performed by the listed subcontractor is unsatisfactory according to industry standards and is not in accordance with the plans and specifications; or the subcontractor is substantially delaying or disrupting the progress of the work.

If replacing subcontractor:

Name of replacement subcontractor: _____

The M/WBE status of the contractor is certified by the NC Office of Historically Underutilized Businesses (required). _____ Yes _____ No

Dollar amount of original contract \$ _____

Dollar amount of amended contract \$ _____

Other Proposed Action:

____ Increase total dollar amount of work

____ Add additional subcontractor

____ Decrease total dollar amount of work

____ Other

Please describe reason for requested action: _____

If adding additional subcontractor*

The M/WBE status of the contractor is certified by the NC Office of Historically Underutilized Businesses (required). ____ Yes ____ No

Please attach Letter of Intent or executed contract document

Dollar amount of original contract \$ _____

Dollar amount of amended contract \$ _____

Interoffice Use Only:

Approval __ Y __ N

Date _____

Signature _____

Proof of Payment Certification
M/WBE Contractors, Suppliers, Service Providers

Project Name: _____ Pay Application No. _____

Prime Contractor: _____ Purchase Order No. _____

Current Contract Amount (including change orders): \$ _____

Requested Payment Amount for this Period: \$ _____

Is this the final payment? Yes No

| Firm Name | *M/WBE Category | Total Amount Paid from this Pay Request | Total Contract Amount (including changes) | Total Amount Remaining |
|-----------|-----------------|-----------------------------------------|-------------------------------------------|------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*M/WBE categories: Black, African American (**B**), Hispanic, Latino (**L**), Asian American (**A**), American Indian (**I**), Female (**F**), Socially and Economically Disadvantaged (**S**), Disabled (**D**)

Date: _____

Certified By: _____

Name

Title

Signature

PROPOSED PROJECT MANAGEMENT STAFF

Terms and Conditions – Item 24

| Title/Function | Name | Years with Firm | Total Years Experience |
|-------------------------------|-------------|------------------------|-------------------------------|
| Project Manager | | | |
| Site Superintendent | | | |
| General Foreman - Foundations | | | |
| | | | |
| | | | |

CONTRACTOR HAS DOES NOT HAVE SIXTY PERCENT (60%) OF PROPOSED WORK FORCE WITH FIVE (5) YEARS CONTINUOUS SERVICE WITH BIDDER'S FIRM

REFERENCES

Terms and Conditions – Item 25

CONTACT INFORMATION FOR RECENT SIMILAR PROJECTS

| Owner Name | Project Description | Contact Name and Phone Number |
|-------------------|----------------------------|--------------------------------------|
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LIST OF SUBCONTRACTORS
Terms and Conditions – Item 27

| SUBCONTRACTOR | PROPOSED WORK TO BE PERFORMED |
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Letter of Compliance to E-Verify for Greenville Utilities Commission

1. I have submitted a bid for contract or desire to enter into a contract with the Greenville Utilities Commission;

2. As part of my duties and responsibilities pursuant to said bid and/or contract, I affirm that I am aware of and in compliance with the requirements of E-Verify, Article 2 of Chapter 64 of the North Carolina General Statutes, to include (mark which applies):
 - a. After hiring an employee to work in the United States I verify the work authorization of said employee through E-Verify and retain the record of the verification of work authorization while the employee is employed and for one year thereafter; or
 - b. I employ less than fifteen (15) employees in the State of North Carolina.

3. As part of my duties and responsibilities pursuant to said bid and/or contract, I affirm that to the best of my knowledge and subcontractors employed as a part of this bid and/or contract, are in compliance with the requirements of E-Verify, Article 2 of Chapter 64 of the North Carolina General Statutes, to include (mark which applies):
 - a. After hiring an employee to work in the United States the subcontractor verifies the work authorization of said employee through E-Verify and retains the record of the verification of work authorization while the employee is employed and for one year thereafter; or
 - b. Employ less than fifteen (15) employees in the State of North Carolina.

Specify subcontractor: _____

_____ (Company Name)

By: _____ (Typed Name)

_____ (Authorized Signatory)

_____ (Title)

_____ (Date)

**LETTER OF COMPLIANCE TO THE
IRAN DIVESTMENT ACT CERTIFICATION**

Name of Vendor or Bidder: _____

**IRAN DIVESTMENT ACT CERTIFICATION
REQUIRED BY N.C.G.S. 143C-6A-5(a)**

As of the date listed below, the vendor or bidder listed above is not listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 143-6A-4.

The undersigned hereby certifies that he or she is authorized by the vendor or bidder listed above to make the foregoing statement.

Signature

Date

Printed Name

Title

BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT WE _____

_____ as Principal, and _____ as Surety, who is duly licensed to act as Surety in North Carolina, are held and firmly bound unto the Greenville Utilities Commission, Greenville, NC, as Obligee, in the penal sum of _____ DOLLARS (\$ _____) (5% Bid Bond), lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, administrators, successors and assigns, jointly and severally, firmly by these present.

SIGNED, Sealed and dated this _____ day of _____, 2021.

WHEREAS, the said Principal is herewith submitting a Proposal for

**DISTRIBUTION STRUCTURE RELOCATION
ALONG DICKINSON AVENUE**

and the Principal desires to file this Bid Bond in Lieu of making the cash deposit as required by the bidding documents contained herein;

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such that if the principal shall be awarded the Purchase Order for which the bid is submitted and shall accept the Purchase Order within ten (10) days after the award of same to the principal, then this obligation shall be null and void; but if the principal fails to so accept such purchase order as required by the bidding documents contained herein, the Surety shall, upon demand, forthwith pay to the Obligee the amount set forth in the first paragraph hereof, and upon failure to forthwith make such payment, the Surety shall pay the Obligee an amount equal to double the amount of this Bid Bond as set forth in the first paragraph hereof. Power of Attorney from the surety to is Attorney-in-Fact is attached hereto.

Principal

By _____(SEAL)

Corporate Surety

By _____(SEAL)

PERFORMANCE BOND/PAYMENT BOND

Date of Execution: _____

Name of Principal: _____

(Contractor) _____

Name of Surety: _____

Name of Contracting
Body: _____

Amount of Bond: _____

Project: _____

KNOW ALL THESE MEN BY THESE PRESENT, That We, the Principal and Surety above named, are held and firmly bound unto the above named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these present.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal entered into a certain Contract with the Contracting Body, identified as shown above and hereto attached.

NOW, THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term of said Contract and any extensions there of that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under the several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed, and these present duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in five (5) counterparts.

Witness:

CONTRACTOR:

(Proprietorship or Partnership)

(Trade or Corporate Name)

ATTEST:

By: _____

By: _____

Title: _____
(Corporate Secretary or
Assistant Secretary Only)

Title: _____

(CORPORATE SEAL)

Witness:

SURETY COMPANY:

Countersigned:

By: _____

Title: _____
(Attorney-in-Fact)

N.C. Licensed Resident Agent

(Name and Address – Surety Agent)

(SURETY SEAL)

Surety Company Name and N.C.
Regional or Branch Office Address

***SPACE FOR ATTACHING POWER OF ATTORNEY
(Performance Bond)***

SECTION II

GREENVILLE UTILITIES COMMISSION

TECHNICAL SPECIFICATIONS INSTALLATION SPECIFICATIONS

September 22, 2021

1. SCOPE

This Specification covers the installation, removal, transfers, and materials of 73 distribution structures along Dickinson Avenue. The new distribution line will be built behind the existing line to allow for DOT road widening. The existing structures will be removed. All transfers are the responsibility of the contractor. New primary and secondary conductors will be pulled. All hardware and insulators will be replaced. The proposal submitted by the contractor shall include all labor, equipment, and all other necessary items to complete this project.

The distribution line consists of approximately 7000 feet of 336 ACSR and 3000 feet of 1/0 ACSR.

2. GENERAL

- 2.1. The new construction, rearrangements, relocations, modifications, and removals shall be complete in accordance with the Plans, Specifications, stringing charts, and Assembly Drawings. All work shall be done in a thorough and workmanlike manner.
- 2.2. The latest edition of the National Electrical Safety Code shall be followed. All construction shall conform to that required for a medium loading district. Deviations from the Plans, Specifications, and Construction Drawings will not be permitted except upon written permission from the Engineer.
- 2.3. All work shall be done in a thorough and workmanlike manner to produce a complete and functional system with minimal interruption to customers served by existing facilities.

3. CODES AND STANDARDS

Codes, standards, or other documents referred to in this specification shall be considered as part of this specification. The following codes and standards are referenced:

- 3.1. American Institute of Steel Construction (AISC), *Specification for the Design, Fabrication and Erection of Structural Steel for Buildings*, latest edition.

- 3.2. American Society of Civil Engineers (ASCE) Standard, *Design of Steel Transmission Pole Structures*, Manual 48, latest edition.
- 3.3. American Society for Testing and Materials (ASTM), various standards, latest version.
- 3.4. American Concrete Institute (ACI), *Building Code Requirements for Reinforced Concrete*, ACI 318, latest edition.
- 3.5. American Welding Society (AWS), *Structural Welding Code*, AWS D1.1, latest edition.
- 3.6. American National Standards Institute (ANSI), *National Electrical Safety Code*, ANSI C2, latest edition.
- 3.7. Society for Protective Coatings (SSPC, formerly Steel Structure Painting Council), *Surface Preparation Specification*, SSPC SP6/NACE NO.3, latest edition.

4. REMOVALS

- 4.1. Removals shall consist of removing each and every item designated on the drawings, the disassembling of structures into material items, and the transportation of the items from the site of the work to the storage area designated by the Commission.
- 4.2. Poles with telecommunication attachments shall be topped at the highest attachment. Poles without telecommunication attachments shall be removed.
- 4.3. Conductor removal shall include the coiling or reeling of the conductor removed in a workmanlike manner.
- 4.4. Anchor assemblies shall be removed by removing the anchor rod only. If the anchor rod cannot be unscrewed, the rod must be cut or bent down so as to be a minimum of eighteen inches (18") below the ground line. Screw-type anchors shall be completely removed.
- 4.5. The removal shall include any necessary handling, re-sagging, and retying of conductors in those cases where an existing assembly unit will be removed and replaced by a new assembly unit and where any existing conductor is to be retained. Removal will also include any holding or handling of main line or tap conductors at tap lines, angles, and deadends where such is involved and the reinstalling of such conductor, including re-sagging and reconnection. It shall also include reinstalling any conductors temporarily detached.

- 4.6. The Contractor shall reinstall, at his own expense, any other items removed by him for his own convenience.
- 4.7. Wood poles shall be cut into sections no longer than 45 feet in length and transported to the wood pole disposal area designated by the Commission.
- 4.8. All materials removed as part of the work and not specified to be reused will remain the property of the Commission.

5. TRANSFERRING

- 5.1. Transferring shall consist of disconnecting existing material and reinstalling this material in a different location on the same structure or a new structure, provided the new structure is adjacent to the existing structure.
- 5.2. The transfer shall include any necessary handling, re-sagging, and retying of all conductors in those cases where an existing assembly unit will be removed and replaced by a new assembly unit and where any existing conductor is to be retained. Transfer will also include any holding or handling of all conductors at tap lines, angles, and deadends where such is involved and the reinstalling of such conductor, including re-sagging and reconnection. It shall also include reinstalling any conductors temporarily detached.
- 5.3. Contractor will be responsible for all service transfers.

6. POLES-WOOD AND/OR TUBULAR STEEL

6.1. Inspection

- 6.1.1. All main-line distribution poles will be wood.
- 6.1.2. The Contractor shall not install a pole that, in his opinion, or the opinion of the Commission or Engineer, has been damaged or is otherwise unsafe. The Contractor shall promptly report any damaged or questionable pole or other component to the Commission and Engineer and confirm the report in writing.

6.2. Handling and Storage

- 6.2.1. The Contractor will be responsible for any damage to the poles and arms resulting from his handling, transporting, or storing procedures.
- 6.2.2. Poles and structural members' arms shall not be stored directly on the ground. Stored poles and arms shall be elevated from the ground using wood or other suitable non-abrasive blocking. Poles are to be stored with identification marks clearly visible.

6.3. Lifting and Setting

6.3.1. All poles shall be lifted in accordance with such precaution required to eliminate the possibility of bending or overstressing any section. Nylon slings shall be used to avoid damage to pole finish. During lifting, all flexible components shall be restrained to prevent any damage to insulators or pole finish.

6.3.2. The minimum setting depths shall be as follows:

| <u>Pole Length</u> (Feet) | <u>Setting Depth</u> (Feet) |
|------------------------------|--------------------------------|
| 30 | 5.5 |
| 35 | 6.0 |
| 40 | 6.0 |
| 45 | 6.5 |
| 50 | 7.0 |
| 55 | 7.5 |
| 60 | 8.0 |
| 65 | 8.5 |
| 70 | 9.0 |
| 75 | 9.5 |
| 80 | 10.0 |
| 85 | 10.5 |
| 90 | 11.0 |
| 95 | 11.5 |

Additional embedment may be required for some construction units

6.3.3. On sloping ground, the depth of the hole shall always be measured from the low side of the hole.

6.3.4. Holes shall be approximately eight inches (8") larger than the butt diameter of the pole unless noted otherwise and shall be at least as large at the bottom as at the top.

6.3.5. All poles shall be set plumb and in alignment except at line angle points. At line angles where horizontal post insulators are stacked on one side of the pole or suspension insulator construction is used, poles shall be offset on the bisector of the angle so that conductors will hang directly over the point of intersection in line with the tangent in both directions. All poles shall be plumb after conductors are strung. Where poles are set along the edge of cuts or embankments, or where the soil is liable to be washed out, special precautions shall be taken to ensure durable foundations and the setting depth shall be measured from the lower side of the hole.

6.4. Excavation and Backfill

- 6.4.1. Unsuitable Material: The Contractor shall excavate for the foundation to the dimensions and outline shown on the Drawings. Excavated material which conforms to the Specifications for backfill material may be used for this purpose. Materials which are not suitable for backfill and excess material shall be disposed of as directed by the Commission or Engineer.
- 6.4.2. Excavation Classification: All excavation will be classified as “common excavation.” All excavation including soft shale, gravel, or other material which can be removed by hand or machine is defined as common excavation.
- 6.4.3. Excavation Preparation: Excavation in earth shall be to clean level surfaces of undisturbed material of adequate bearing value. Over-excavation shall be backfilled with well compacted six-inch (6”) layers of aggregate base course (ABC) gravel. If the over-excavation is unnecessary, the cost of the backfill shall be borne by the Contractor. The quality of the soil and the adequacy of its bearing value shall be decided by the Engineer before backfill material is placed in any excavation. Where water is encountered, the excavation shall be kept dry by pumping during the installation of the structure and during the backfilling process. If unsuitable material is encountered at the proposed bearing surface, the Engineer may require further excavation to reach sound bearing. Backfill labor and material for this type of required over-excavation will be supplied at the Contractor’s expense and should be included in the Unit Price for “M-2 (Stone Backfill)” in the Proposal Section. The Contractor will be paid on a per cubic yard unit basis.
- 6.4.4. Gravel Base: The stone or gravel base cited in Section 6.4.3 shall consist of a mixture of graded aggregate, coarse and fine, together with soil binder. The coarse aggregate shall consist of sound, tough, durable particles or fragments of gravel or stone. The material shall be placed in six-inch (6”) layers and thoroughly compacted. A gravel base shall be formed before pole is placed in the excavated hole.
- 6.4.5. Excavation Maintenance: The excavation shall be maintained in a safe, clean and sound condition up to the time of placement of pole. The excavation shall be suitably protected when not attended. Whenever necessary, the Contractor shall re-excavate materials which have accumulated in the previously prepared excavation. Any muck or other unsatisfactory bearing material resulting from frost action or entrance of water into excavation previously prepared to the required

depth for sound bearing shall be removed and replaced with well compacted ABC gravel backfill at the Contractor's expense.

6.4.6. Sheeting and Shoring: The Contractor shall do all bracing, sheeting, and shoring necessary to support and protect all excavations as required for safety and to conform to laws and regulations of all governmental bodies having jurisdiction. When sheeting is used, it shall be removed during or upon completion of backfilling.

6.4.7. Backfill: All backfill around the pole base shall be compacted in six-inch (6") layers by means of mechanical tampers. Excavated material is suitable for backfill, the Contractor shall at his expense spread and aerate the material around the structure after the excavation has been completely backfilled with the specified material. The surplus earth shall be placed around the pole in a conical shape and packed tightly in order that water will drain away from the pole. The degree of compaction to be attained for all backfill shall be the equivalent density of adjacent undisturbed earth. Large stones, muck, frozen material, roots, or other undesirable material shall not be used for backfilling. This material, furnished by the Contractor, shall be locally available and when placed and compacted in six-inch (6") layers will bind and compact around the foundation. Sources of this material shall be approved by the Engineer.

6.5. Holes in Pole

The Contractor will be responsible for field drilling distribution, fiber attachments, or any other holes required for construction (see drawings for details). Cost for drilling these holes shall be part of the pole top assembly unit. In no instances will additional charges be paid for drilling holes.

7. ROCK ENCOUNTERED DURING EXCAVATIONS

- 7.1. The Contractor shall be responsible for the removal and disposition of solid rock when encountered in holes for wood poles and tubular steel poles. Solid rock shall be defined as solid, naturally occurring mineral formations that cannot be effectively removed by conventional trenchers, backhoes, or pressure augers on line-trucks. Loose rock or limestone in intermittent layers that result in "difficult digging" shall not be defined as solid rock excavations. "Solid rock" shall require the use of air hammers, blasting or other specialized equipment. (Note: Blasting must be approved by the Commission in accordance with local ordinances.)
- 7.2. An adder (M-1 (Rockhole)) will be quoted by the Bidder in the Proposal Section to establish a labor cost for rock excavations, including disposition to the Commission's landfill, on a per- cubic-yard basis. Quantities will be agreed

upon jointly by the Contractor and the Commission (or Engineer) as the excavations occur. Over excavation to remove rock will not be counted in the quantity of rock excavations. The volume of rock excavation adder will be computed based on the normal pole hole diameter and depth, as if no rock were encountered. Rock adders will not apply to man-made surface treatments, such as asphalt, concrete or gravel.

8. DAVIT ARMS (*NOT APPLICABLE TO THIS PROJECT*)

Davit arms are being used on some structures for this project. The arms and all attachment hardware are being supplied by the steel pole manufacturer. It will be the Contractor's responsibility to install the davit arms and ensure proper orientation of the arms.

9. GUYS AND ANCHORS

- 9.1. Guys shall be attachment type utilizing preformed guy grips or Strandvises. Guys shall be installed in locations specified by the Engineer. Points of attachment to poles shall be as shown on Construction Drawings. Guys shall be installed before conductors or overhead ground wires are strung.
- 9.2. All anchors and rods shall be in line with the strain. All anchors are to be single or multiple helix screw type or expanding rock type and shall be located as staked by the Engineer. Anchor rods shall be so installed that approximately six inches (6") of the rod shall remain out of the ground or extend more than twelve inches (12") out of the ground in cultivated fields. The setting of each anchor in regard to depth, torque, and position shall be inspected by the Commission's Construction representative and his approval given in writing. The Contractor shall fill out anchor installation reports, furnished by the Engineer, as each anchor is installed. No anchor installations shall be invoiced without copies of the installation reports properly filled out and attached.
- 9.3. All anchors shall be installed using a Hydraulic Torque Indicator control tool. Expanding rock type anchors shall be installed and torqued per manufacturer's recommendations.
- 9.4. Anchor locations shall be checked and verified by the Contractor prior to installation to assure that guys do not conflict with phase conductors. This is especially critical when transmission guying passes through distribution phase positions. Where fiberglass guy strain insulators are installed in guys, a minimum of ten inches (10") must be maintained to any under-build phase conductors.
- 9.5. Where multiple fiberglass guy strain insulators are to be installed, in one (1) guy strand, they shall be connected using a chain link of the appropriate size.

10. HARDWARE

- 10.1. Hardware shall be installed as indicated on the Drawings. All bolts shall be installed with nuts and locknuts. Bolts shall be long enough to accommodate the necessary nuts, washers, etc. without projecting more than one and one-half inches (1-1/2") or less than one-half inch (1/2") at the free end. They shall not project more than one-fourth inch (1/4") into an eye-nut installed.
- 10.2. Care should be exercised during all phases of construction to protect all bolt threads. Nuts should operate on bolt threads without forcing.

11. INSULATORS

- 11.1. Care shall be exercised in handling and erecting insulators.
- 11.2. All insulators shall be handled with utmost care during storage, transportation, assembly, and installation. Care shall be taken to avoid bending stresses in insulator strings during handling. Insulators shall not be dropped. Insulators subjected to these or any other abuses or damage shall be permanently marked, rejected from the job and charged to the Contractor.
- 11.3. All insulators shall be protected from the accumulation of all foreign materials insofar as is possible. Mud, grease, and other foreign materials shall be cleaned from insulators using clean rags. Wire brushes may not be used for the cleaning of any insulator parts. Upon installation, all insulators shall be clean on all surfaces. Workmen shall not climb on insulators at any time.

12. GROUNDING ASSEMBLY

- 12.1. Wood Poles
 - 12.1.1. Driven ground rods (DM-9) shall be installed on all wood distribution poles as indicated on the Staking Sheets.
 - 12.1.2. Refer to the following drawing for the grounding of wood distribution poles: DM-9
- 12.2. Where transmission and distribution assemblies are joint use structures, a common ground shall be shared. For wood poles, the common ground will be a ground wire. For steel poles, the common ground will be the pole itself.
- 12.3. Guys and overhead ground wires shall be attached to the common ground.
- 12.4. The distribution neutral shall be attached to the common ground.

- 12.5. Ground rods shall be driven to their full length into undisturbed earth according to the unit assembly drawings. The top of the ground rod shall be located a minimum of one foot (1'-0") below grade or as indicated otherwise on the Assembly Drawings.
- 12.6. Ground rods shall be 1-5/8" x 8'-0" and 1-5/8" x 12'-0" Copper. Extensions (DM-9) shall be added if necessary, to obtain a verifiable ground resistance of twenty-five (25) ohms or less.
- 12.7. Ground wire for distribution poles shall be No.4 AWG soft drawn tinned copper wire.

13. CONDUCTORS

13.1. Distribution Conductors-

- 13.1.1. Care shall be exercised to avoid kinking, twisting, or abrading the conductor in any manner. Conductors shall not be trampled on, run over by vehicles, or dragged over sharp rocks. The wire on each reel shall be inspected for cuts, kinks, or other injuries. Injured portions or crooked or imperfect splices in the conductor shall be cut out and the wire respliced.
- 13.1.2. Conductors shall be pulled over suitable rollers or stringing blocks properly mounted on the pole or crossarm to prevent binding while stringing.
- 13.1.3. Installation of conductors and accessories shall be done in accordance with manufacturer's recommendations.
- 13.1.4. With post- and pin-type insulators, the conductors shall be tied in the top groove of the insulator on tangent poles and on the side of the insulator away from the strain at angles greater than ten degrees (10°). Post- and pin-type insulators shall be tight on the pins and on tangent construction the top groove must be in line with the conductor after tying in
- 13.1.5. There shall not be more than one splice per conductor in any span and no splice shall be located within ten feet (10'-0") of the conductor support. Splices will not be permitted in road or street crossing spans.
- 13.1.6. Utmost care shall be exercised in installing parallel groove clamps. The contact surface of the conductor shall be clean and bright. A steel brush shall be the principal cleaning medium; contact compound shall be used for all connections to aluminum conductors. Those same

precautions for cleaning shall also apply to the conductor before splicing.

- 13.1.7. Conductors shall be sagged in accordance with sag and tension charts or tables furnished by the Engineer. Under no circumstances will a decrease in the specified sag be allowed. Sagging by sighting between targets or dynamometer is recommended.
- 13.1.8. The conductor temperature at the time and place of stringing shall be determined by a certified, thermometer inserted in a short section of conductor. The temperature at which the conductor is sagged and the spans in which sags are measured shall be recorded and the information given to the Engineer.

14. RIGHT OF WAY GENERAL

- 14.1. Access to right-of-way areas shall be from existing public or private roads or along existing Commission rights-of-way. Where private roads or trails are used, the Contractor shall obtain permission in writing from the property owner for their use with copies to be furnished to the Commission's Engineer.
- 14.2. All right-of-way clearing shall be completed for a section of the line before pole setting may begin. No poles shall be set with right-of-way not completely cleared.
- 14.3. All right-of-way clearing will be by the Commission.
- 14.4. At the completion of construction and clean-up the Contractor shall regrade all disturbed right-of-way areas to their preconstruction contours where practicable. All cuts or fills shall maintain a maximum slope of 3:1 in order to insure as little run off as possible. Any soil erosion and sedimentation devices required to stabilize and/or reduce further erosion shall be installed. All devices installed during construction and no longer required shall be removed. All disturbed or denuded areas shall be covered with topsoil, if required, fertilized, limed, seeded, strawed, and tacked as necessary. Fertilizer, lime, and seed rates and mixes shall be as specified by the local soil conservation service for the time of year applied. All cost for right-of-way clean-up and restoration shall be included in the overall price of the project.
- 14.5. Maintenance of Existing Rights-of-Way

Existing rights-of-way, both public and private, must be maintained during construction in such a manner so as not to create a hazard. Deep ruts shall be backfilled and graded out. Denuded grass and vegetation areas shall be replanted with a suitable seed mixture. At the end of the construction, the right-of-way should be left in as good or better condition than it was before

construction began. All cost of maintaining existing right- of-way and/or reseeded shall be borne by the Contractor.

14.6. Temporary Service or Access Roads

- 14.6.1. If, during the course of construction it should become necessary for the Contractor to construct, modify, widen, grade, or perform any other earth work in order to provide access to or work areas around any facilities covered in this Contract, he shall do so at his own cost.
- 14.6.2. The Contractor shall be responsible for all permits required for such construction. He shall also be responsible for the installation and maintenance of any soil erosion and sediment control devices required by local, county, or state agencies.
- 14.6.3. All cost associated with the construction, maintenance, removal, and rehabilitation of any area associated with the rights-of-way, access roads, service roads, etc., shall be included in the Contractor's overall price. A separate cost item will not be billed for this work.

14.7. Poles & Foundations in Wetlands

- 14.7.1. Any excavation for poles and/or foundations in wetland areas shall utilize extra precaution to avoid disturbing the root mat around the excavated area. Tree stumps and root mats must be left intact in forested wetlands.
- 14.7.2. Any excess excavated soil in wetland areas must be removed from the wetland area and deposited (spread evenly) on higher ground.
- 14.7.3. No concrete may be poured directly in wetland areas. The use of steel vibratory casings/forms must be used to prevent contact of concrete with surface waters. The cost of the casing/form must be included in the foundation unit.
- 14.7.4. No mechanized clearing (bulldozers) in jurisdictional wetlands.
- 14.7.5. Minimize soil disturbance in jurisdictional wetlands (use mats where possible).
- 14.7.6. Maintain preconstruction contours in jurisdictional wetlands.

SECTION III

GREENVILLE UTILITIES COMMISSION

TECHNICAL SPECIFICATIONS-MATERIALS SPECIFICATIONS

September 22, 2021

1. SCOPE

All hardware, conductors, and insulators needed to complete each structure will be replaced. Greenville Utilities Commission will furnish all distribution materials required for the construction unless otherwise noted in this specification. The proposal submitted by the contractor shall include all labor, equipment, and all other necessary items to complete this project.

2. GENERAL

- 2.1. All materials shall be new, except items specified for reuse, and will be furnished by the Commission and the Contractor as outlined in this specification.
- 2.2. All materials issued to the Contractor must be acknowledged by a material receipt.
- 2.3. Materials removed and salvaged must be returned to the Commission's warehouse and a receipt will be issued to the Contractor for materials returned.
- 2.4. The Contractor will be charged for all materials removed which are neither reused nor returned to the Commission's warehouse. Current stock item prices will be used to determine the removed material charge.
- 2.5. A brief description of the materials is furnished hereinafter for the Contractor's information.
- 2.6. Reference to ASTM, NEMA, AWS, SSPC, or ACI Standard implies reference to the latest revision or to its replacement if it has been discontinued.

3. POLES-WOOD

- 3.1. All poles shall meet the requirements of ANSI Standard "Specifications and Dimensions for Wood Poles 05.1," the latest revision thereof.
- 3.2. Poles shall be framed as indicated on the Drawings. All holes shall be field drilled and treated with a two percent (2%) solution of Copper Naphthenate or other EPA approved preservative before framing.

- 3.3. New poles shall be Southern Yellow Pine or Douglas Fir and shall meet the requirements set forth in ANSI Specification and Dimensions for Wood Poles 05.1. Treatment shall be AWWA Standard C4 for the Preservative Treatment of Poles by Waterborne Process. The preservative shall be Chromated Copper Arsenate, CCA, conforming to AWWA Specification P5, or the latest revisions thereof.

4. POLES-TUBULAR STEEL-*Not applicable to this project*

- 4.1. All poles will meet the requirements of the Tubular Steel Structures Specifications pertaining to this project.
- 4.2. Transmission and distribution under-build pole-top assembly attachment point holes will be predrilled at the factory, unless otherwise specified. The contractor will be responsible for field drilling any other holes required for construction. Cost for drilling these holes shall be part of the pole top assembly unit. In no instance will additional charges be paid for drilling holes. The Contractor shall touch up the finish of all field drilled holes using high zinc content paint (Galvon) supplied by the pole manufacturer.
- 4.3. Poles may be delivered in two (2) or three (3) pieces. The Contractor is responsible for all field assembly required for these poles. Additionally, the Contractor is responsible for providing any equipment (i.e., jacks) required to join pieces.
- 4.4. Any unused holes are to be plugged and sealed using galvanized steel plugs or caulk and plastic plugs.

5. HARDWARE-*Furnished by Owner*

Hardware shall be hot dip galvanized.

- 5.1. Bolts and nuts shall conform to ANSI Standards as follows:
 - 5.1.1. C135.1 for machine, carriage, and double-arming bolts
 - 5.1.2. C135.4 for eye bolts
 - 5.1.3. C135.3 for lag screws
- 5.2. Steel parts shall conform to ASTM Specifications A36.
- 5.3. Malleable iron shall conform to ASTM Specifications A47.
- 5.4. Galvanizing shall conform to ASTM Specifications A153.

6. GUY WIRE-*Furnished by Owner*

Guy wire shall be 3/8” High Strength Steel rated 10,800 pounds ultimate strength and supplied by the Owner.

7. OVERHEAD GROUND WIRE-*Not Applicable to this Project*

A 7 No. 9 Alumoweld overhead ground wire shall be installed.

8. ANCHORS-*Furnished by Owner*

- 8.1. Distribution anchors shall be a no wrench 96” long with a single 10” helix. Anchors have a tripeye and are rated 10,000 lbs. in Class 6 soil.
- 8.2. The anchors shall be installed per the manufacturer’s recommendations.
- 8.3. The ultimate holding capacity of these anchors is dependent upon the soil properties. Holding capacity for Class 6 soil is 10,000 lbs.
- 8.4. The holding capacity of the anchors is dependent upon the torque values achieved while setting the anchors. Additionally, it will be necessary for the eye of the anchor to be installed a specific distance out of the ground in accordance with the construction drawings.

In order for the Contractor to meet the specification criteria for both torque and depth, it may be necessary to use multiple shaft length extensions in increments of three and one- half feet (3’-6”), and six feet (6’-0”).

9. INSULATORS-*Furnished by Owner*

9.1. Suspension

9.1.1. Insulators shall be polymer and shall conform to ANSI, IEEE, ASTM, and AEIC Standards for insulators. All suspension insulators shall be gray.

9.1.2.

| Insulator Type | Flashover (kV) | | Leakage (in.) | Suggested Manufacturer | Catalog Number |
|--------------------|----------------|-----|---------------|------------------------|----------------|
| | Dry | Wet | | | |
| Polymer Suspension | 155 | 135 | 31 | Ohio Brass | 4010250215 |

9.1.3. Suspension insulators shall be attached via shoulder eye through bolts, or guy plates.

9.2. Horizontal Post

9.2.1. Porcelain 15 kV Pin insulators shall be Porcelain products or equivalent.

9.2.2.

| Insulator Type | Flashover (kV) | | Leakage (in.) | Suggested Manufacturer | Catalog Number |
|---------------------|----------------|-----|---------------|------------------------|----------------|
| | Dry | Wet | | | |
| Porcelain 15 kV Pin | 55 | 30 | 7 | Porcelain Products | 263-S |

9.2.3. Mechanical strength 2500 lbs, design cantilever load.

10. FIBERGLASS STRAIN INSULATOR-*Furnished by Owner*

Fiberglass strain insulator for use in guys shall have an ultimate strength of 16,000 pounds; shall have an insulating distance of thirty-six inches (36”) and shall be equipped with clevis ends and the number of rollers required.

11. CONNECTORS AND SPLICES-*Furnished by Owner*

All connectors and splices for 1272 AAC, 795 AAC, 556 ACSR, 336 ACSR, 1/0 ACSR, and 7 No. 9 Alumoweld OHGW conductors shall be the compression type. Full tension compression splices shall develop strength equal to not less than ninety-five percent (95%) of the ASTM rated strength of the conductor. See Material List and Cross Reference pages provided by Greenville Utilities Commission for preferred manufacturer and catalog numbers.

12. ARMOR RODS-*Furnished by Owner*

Where armor rods are installed on phase conductors or OHGW, they shall be of a type specifically designed for the conductor being protected and shall be manufactured with aluminum alloy, aluminized acceptable. Armor rods shall be installed with the midpoint within two inches (2”) of the center of the suspension clamp. The maximum distance between the ends of any two (2) individual rods within a bundle shall not exceed one-half inch (1/2”).

13. CONDUCTOR CLAMPS-*Furnished by Owner*

13.1. Trunnion Clamps and Suspension Clamps

Suspension clamps and connecting pieces, material items on tangent and light/medium angle type pole top assemblies for 1272 AAC, 795 AAC, 556 ACSR, 336 ACSR, 1/0 ACSR, and 7 No. 9 Alumoweld OHGW conductors shall be sized to fit conductor with Armor Rod as manufactured by Preformed or approved equal. See Material List and Cross Reference pages provided by

Greenville Utilities Commission for preferred manufacturer and catalog numbers.

13.2. Cushion Grip Supports

Cushion grip supports on tangent and light/medium angle type pole top assemblies shall be sized to fit 1272 AAC, 795 AAC, 556 ACSR, 336 ACSR, 1/0 ACSR, and 7 No. 9 Alumoweld OHGW conductors. See Material List and Cross Reference pages provided by Greenville Utilities Commission for preferred manufacturer and catalog numbers.

14. DEADENDS-*Furnished by Owner*

Deadends for 1272 AAC, 795 AAC, 556 ACSR, 336 ACSR, 1/0 ACSR, and 7 No. 9 Alumoweld OHGW conductors may be bolted, quadrant type or full compression. See Material List and Cross Reference pages provided by Greenville Utilities Commission for preferred manufacturer and catalog numbers.

15. GROUNDING-*Furnished by Owner*

- 15.1. All poles shall have driven grounds as indicated on the Drawings. Guys and overhead ground wire shall be attached to the common ground.
- 15.2. Ground rods shall be 5/8" x 8' and 5/8" x 12' copper. Extensions shall be added if necessary, to obtain a verifiable ground resistance of 25 ohms or less. Ground rods shall be installed at the direction of the Engineer. Threaded ground rod couplings shall be used to secure each ground rod section as it is installed.
- 15.3. Ground wire for poles shall be No. 4 AWG soft drawn tinned copper wire unless otherwise specified.

16. STATIC GROUND BRACKETS-*Not Applicable to this Project*

The ground wire cable supports shall be Hughes Brothers 2855 series or approved equal for tangent and light angle structures.

17. CONDUCTOR-

- 17.1. Overhead conductor for the distribution line is 336 kcmil ACSR. The neutral conductor is 1/0 ACSR.
- 17.2. Overhead Service conductors consist of 4/0, 1/0, and #6 triplex.

18. OWNER-FURNISHED MATERIAL STANDARDS*-Furnished by Owner*

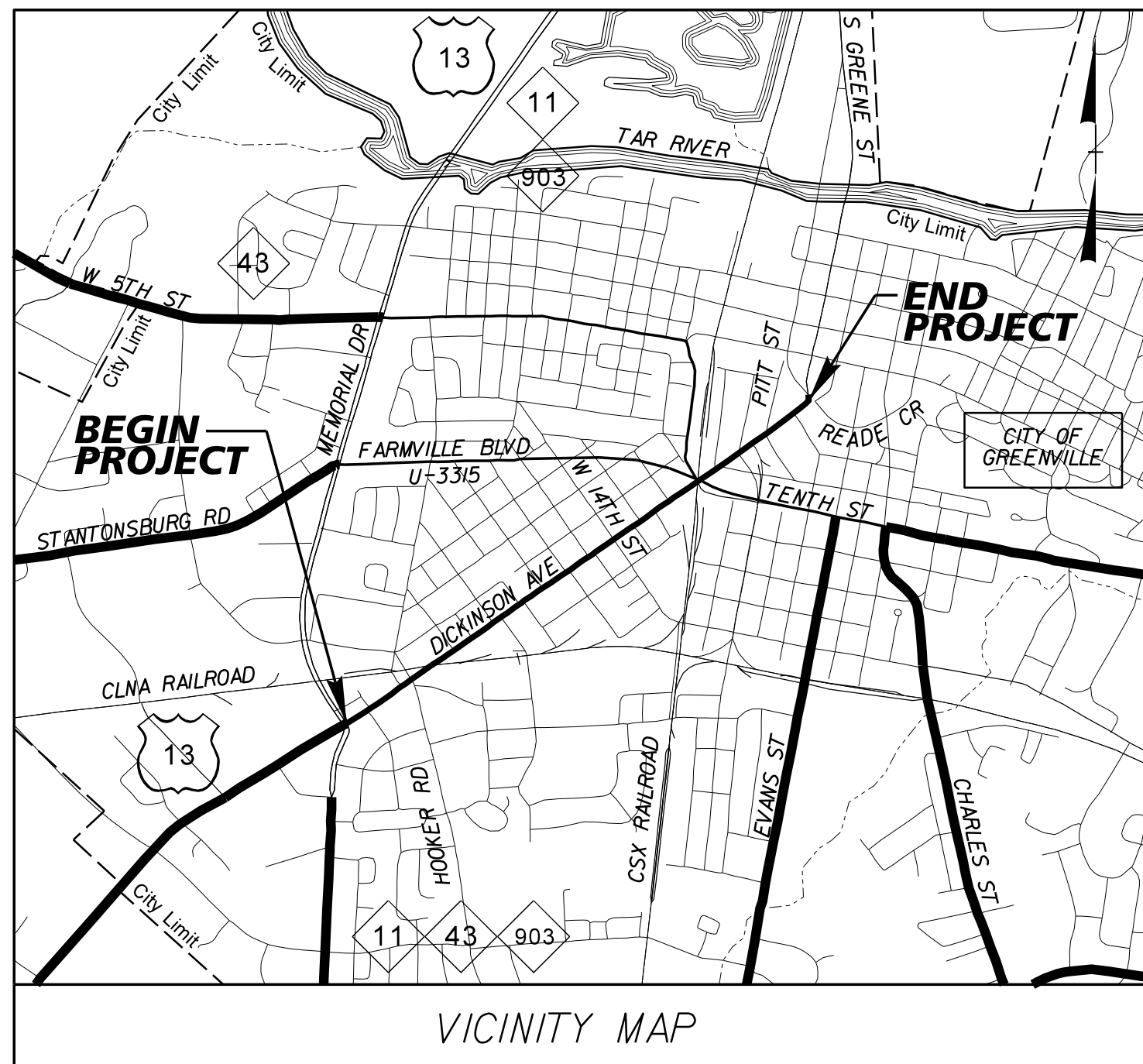
The successful bidder will be provided a list of Owner-furnished material pages as a "Standard" for reference. The Commission may substitute other manufacturer's products of equal or better quality.

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Appendix A: Detail Construction Drawings

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TIP PROJECT: U-5606



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

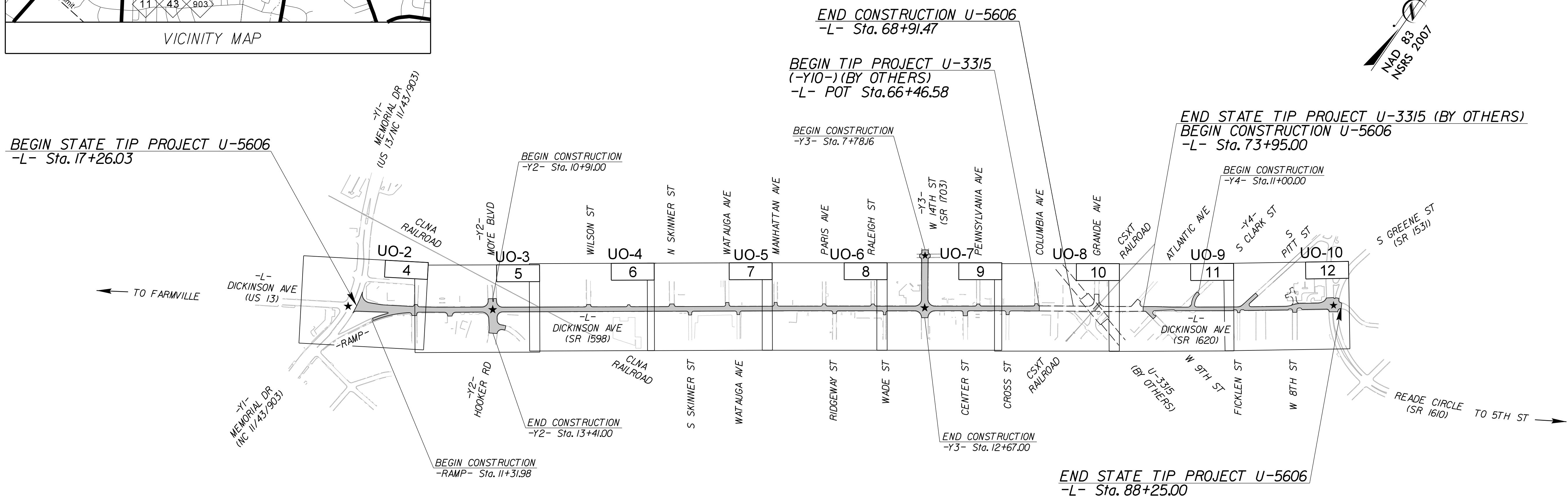
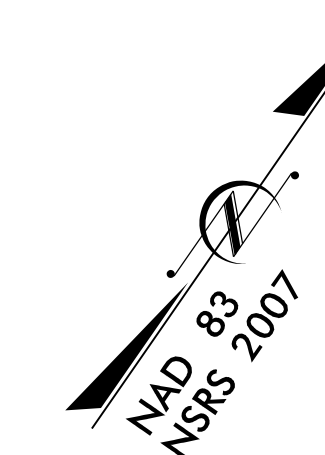
UTILITIES BY OTHERS PLANS
PITT COUNTY

LOCATION: SR 1598/SR 1620 (DICKINSON AVENUE) - FROM NC 11 (MEMORIAL DRIVE) TO SR 1610 (READE CIRCLE)

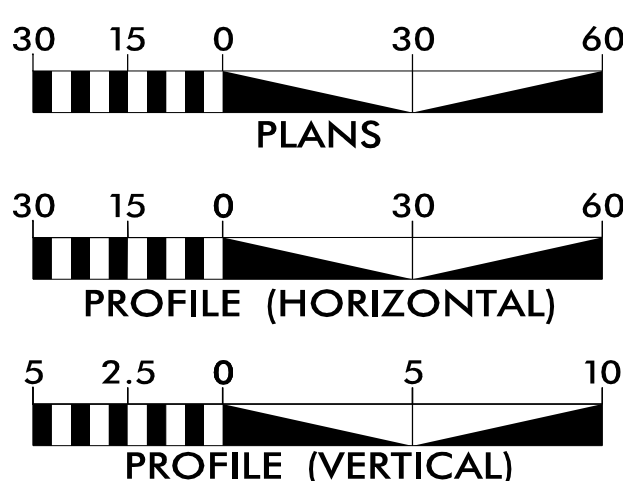
TYPE OF WORK: POWER DISTRIBUTION, GAS, TELEPHONE & CATV RELOCATION

| | |
|------------|-----------|
| T.I.P. NO. | SHEET NO. |
| U-5606 | UO-1 |

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET IS DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



GRAPHIC SCALES



INDEX OF SHEETS

| SHEET NO.: | DESCRIPTION: |
|-----------------|-----------------|
| UO-1 | TITLE SHEET |
| UO-2 THRU UO-10 | UBO PLAN SHEETS |

UTILITY OWNERS WITH CONFLICTS

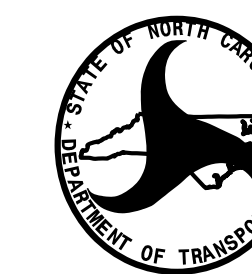
- (A) POWER - GREENVILLE UTILITIES COMMISSION
- (B) GAS - GREENVILLE UTILITIES COMMISSION
- (C) TELEPHONE - CENTURYLINK
- (D) CATV - SUDDENLINK

PREPARED IN THE OFFICE OF:



3220 GLEN ROYAL RD. RALEIGH, NC 27617
 TELE 919.788.0224 FAX 919.788.0232
 NC LICENSE #P-0189

UTILITIES PROJECT ENGINEER
 Mary Jo Lee, P.E.



DIVISION OF HIGHWAYS
 UTILITIES UNIT
 1555 MAIL SERVICES CENTER
 RALEIGH, NC 27699-1555
 PHONE (919) 707-6690
 FAX (919) 250-4151

| | |
|---------------|-----------------------------|
| NABIL HAMDAN | UTILITIES REGIONAL ENGINEER |
| ASHLEY COX | UTILITIES ENGINEER |
| KYLE PLEASANT | UTILITIES AREA COORDINATOR |
| DAYTON MARTIN | UTILITIES COORDINATOR |

UTILITIES BY OTHERS

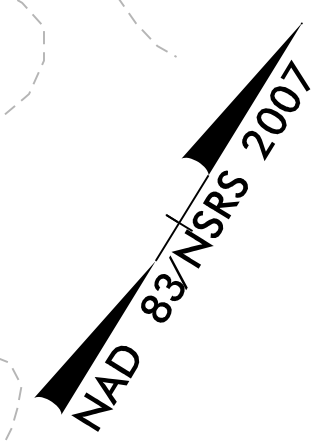
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

-L-
 PI Sta 22+35.26
 $\Delta = 3' 21' 08.7" (LT)$
 $D = 1' 38' 13.3"$
 $L = 204.79'$
 $T = 102.42'$
 $R = 3,500.00'$
 SE = SEE PLANS
 RO = SEE PLANS

-YI-
 PI Sta 18+66.67
 $\Delta = 43' 31' 23.9" (RT)$
 $D = 7' 00' 00.0"$
 $L = 621.76'$
 $T = 326.75'$
 $R = 818.51'$
 SE = EXISTING
 RO = EXISTING

-RAMP-
 PI Sta 12+83.37
 $\Delta = 28' 58' 33.3" (RT)$
 $D = 7' 12' 25.3"$
 $L = 402.05'$
 $T = 205.42'$
 $R = 795.00'$
 SE = EXISTING
 RO = EXISTING

BEGIN TIP PROJECT U-5606
 BEGIN CONSTRUCTION
 -L- POT Sta.17+26.03



GUC (ELEC)
 RETAINED

-L- POT Sta.16+82.31 =
 -YI- POC Sta.19+12.05
 $\Delta = 114' 25' 52.69"$

55' Pole
 C1 336 Framing.
 Transfer Exist. Facilities
 1-UG TPX Riser
 1-OH TPX
 1-Street Light

CENTURYLINK
 RETAINED

55' Pole
 C1 336 Framing.
 Transfer existing facilities.
 1- 3PH TX Bank
 5-OH QPX/TPX

55' Pole
 1- C1 336 framing
 1- C4 1/0 framing
 1-2 PHS TX Bank
 5- OH TPX/QPX
 2- Lights
 2- Anchors &
 4- DGs.

DICKINSON AVE (US 13)
 N 58' 25' 04.2" E

DICKINSON AVE (SR 1598)
 N 58' 25' 04.2" E

35' S/L Pole.
 1-OH TPX
 1- Street Light

35' S/L Pole.
 1- OH TPX
 1- Street Light

45' Pole
 (2) C4 1/0
 framing.
 (2) Anchors &
 (4) DGs.

CENTURYLINK
 RETAINED

35' S/L Pole.
 1-OH TPX
 1- Street Light

35' S/L Pole.
 1-OH TPX

GUC (GAS)
 ABANDONED EXISTING
 4" STEEL GAS LINE

GUC (ELEC)
 SL = STREETLIGHT

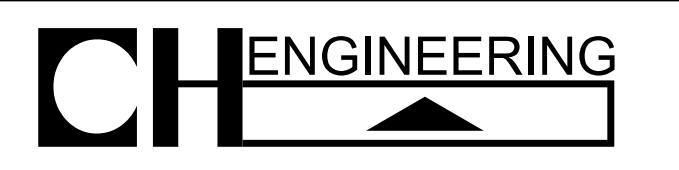
35' S/L Pole.
 1-OH TPX
 1- Street Light

GUC (ELEC)
 RETAINED

GUC (GAS)

-YI- PT Sta. 21+61.69

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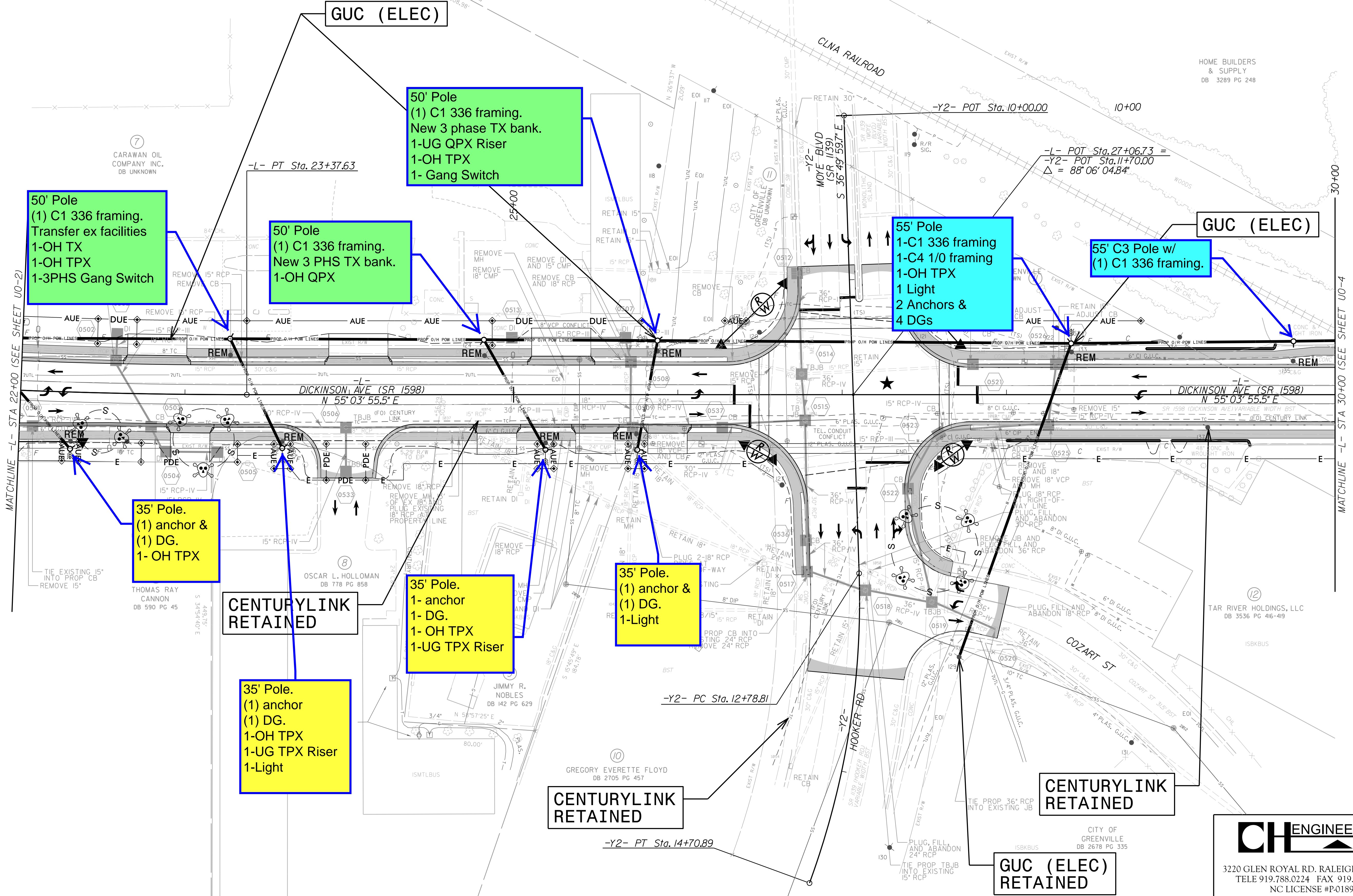
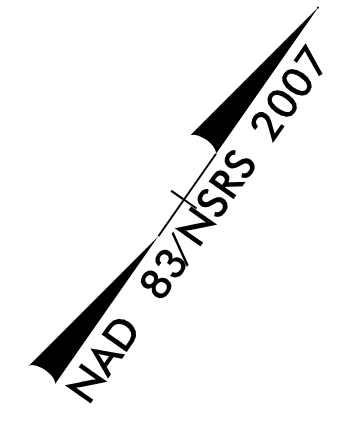


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UTILITIES BY OTHERS

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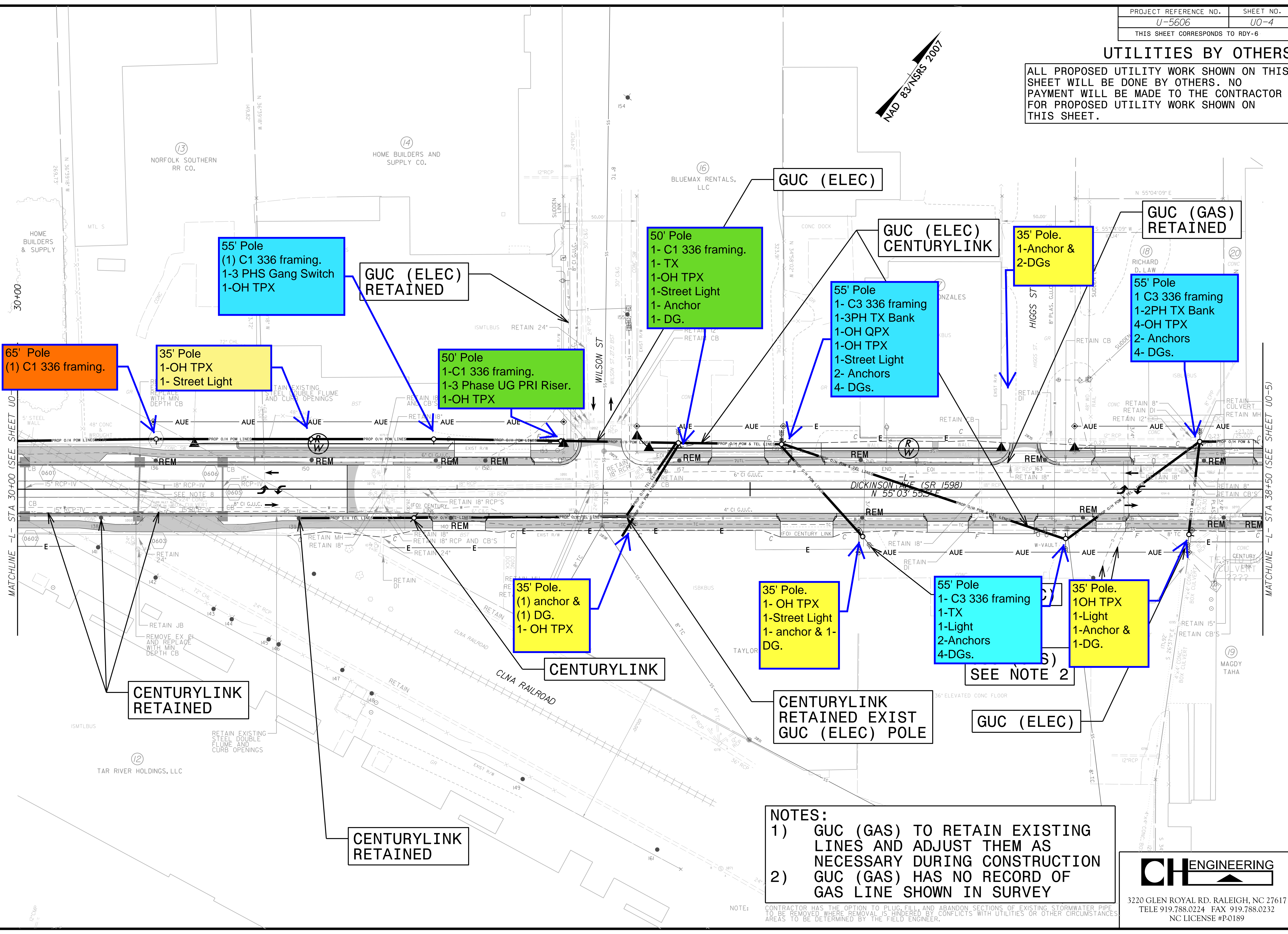
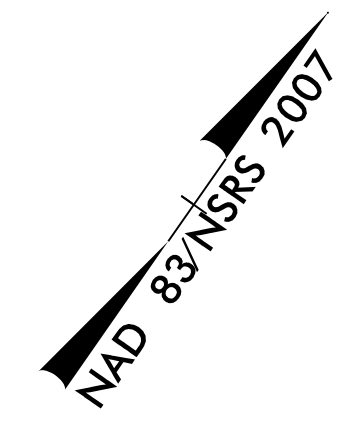
| | |
|-------------------------------------|--------------------------------------|
| -L- | -Y2- |
| PI Sta. 22+35.26 | PI Sta. 13+76.05 |
| $\Delta = 3^{\circ} 21' 08.7" (LT)$ | $\Delta = 22^{\circ} 00' 37.0" (RT)$ |
| D = 1' 38" 13.3" | D = 1' 27" 33.0" |
| L = 204.79' | L = 192.08' |
| T = 102.42' | T = 97.24' |
| R = 3,500.00' | R = 500.00' |
| SE = SEE PLANS | SE = EXISTING |
| RO = SEE PLANS | RO = EXISTING |



8/17/09
 4/30/2018
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 INFERRED

UTILITIES BY OTHERS

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65' Pole
(1) C1 336 framing.

55' Pole
(1) C1 336 framing.
1-3 PHS Gang Switch
1-OH TPX

35' Pole
1-OH TPX
1- Street Light

GUC (ELEC)
RETAINED

50' Pole
1-C1 336 framing.
1-3 Phase UG PRI Riser.
1-OH TPX

50' Pole
1- C1 336 framing.
1- TX
1-OH TPX
1-Street Light
1- Anchor
1- DG.

GUC (ELEC)

GUC (ELEC)
CENTURYLINK

55' Pole
1- C3 336 framing
1-3PH TX Bank
1-OH QPX
1-OH TPX
1-Street Light
2- Anchors
4- DGs.

35' Pole.
1-Anchor &
2-DGs

GUC (GAS)
RETAINED

55' Pole
1 C3 336 framing
1-2PH TX Bank
4-OH TPX
2- Anchors
4- DGs.

35' Pole.
(1) anchor &
(1) DG.
1- OH TPX

CENTURYLINK

35' Pole.
1- OH TPX
1-Street Light
1- anchor & 1-
DG.

CENTURYLINK
RETAINED EXIST
GUC (ELEC) POLE

55' Pole
1- C3 336 framing
1-TX
1-Light
2-Anchors
4-DGs.

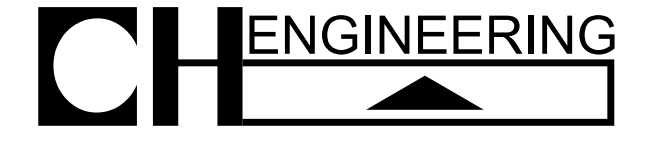
GUC (ELEC)

35' Pole.
1OH TPX
1-Light
1-Anchor &
1-DG.

CENTURYLINK
RETAINED

CENTURYLINK
RETAINED

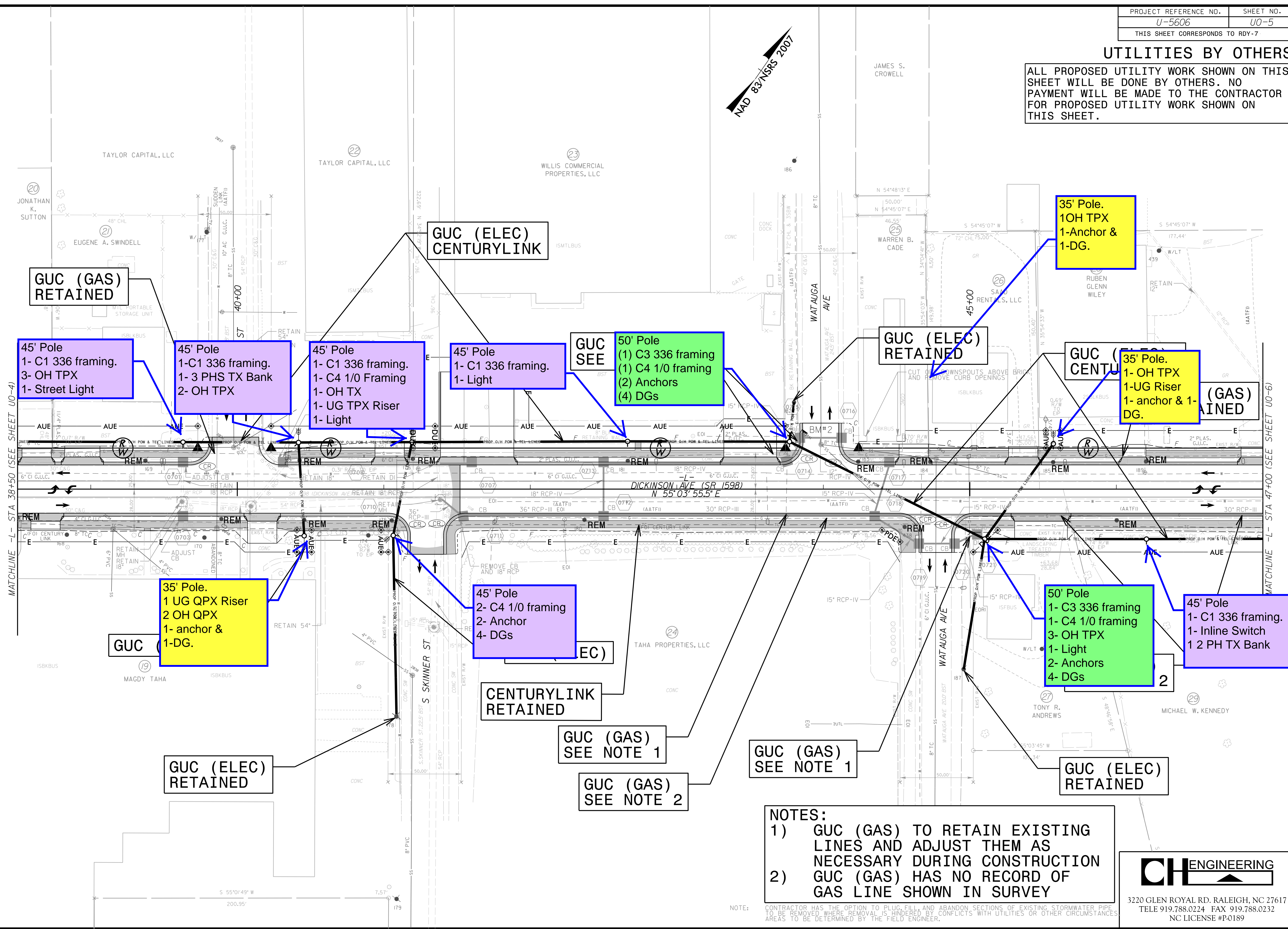
- NOTES:**
- 1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
 - 2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY



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UTILITIES BY OTHERS

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GUC (GAS) RETAINED

45' Pole
1- C1 336 framing.
3- OH TPX
1- Street Light

45' Pole
1-C1 336 framing.
1- 3 PHS TX Bank
2- OH TPX

45' Pole
1- C1 336 framing.
1- C4 1/0 Framing
1- OH TX
1- UG TPX Riser
1- Light

GUC (ELEC) CENTURYLINK

45' Pole
1- C1 336 framing.
1- Light

GUC SEE
50' Pole
(1) C3 336 framing
(1) C4 1/0 framing
(2) Anchors
(4) DGs

GUC (ELEC) RETAINED

35' Pole.
1OH TPX
1-Anchor &
1-DG.

GUC (ELEC) CENTURYLINK
35' Pole.
1- OH TPX
1-UG Riser
1- anchor & 1-DG.

(GAS) RETAINED

35' Pole.
1 UG QPX Riser
2 OH QPX
1- anchor &
1-DG.

GUC (GAS)

45' Pole
2- C4 1/0 framing
2- Anchor
4- DGs

CENTURYLINK RETAINED

GUC (GAS) SEE NOTE 1

GUC (GAS) SEE NOTE 2

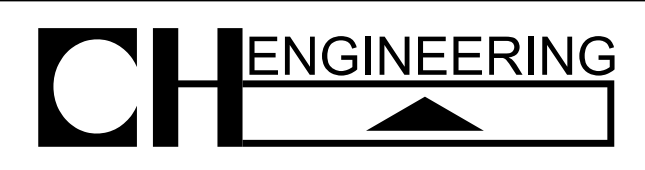
GUC (GAS) SEE NOTE 1

50' Pole
1- C3 336 framing
1- C4 1/0 framing
3- OH TPX
1- Light
2- Anchors
4- DGs

GUC (ELEC) RETAINED

45' Pole
1- C1 336 framing.
1- Inline Switch
2 PH TX Bank

NOTES:
1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY

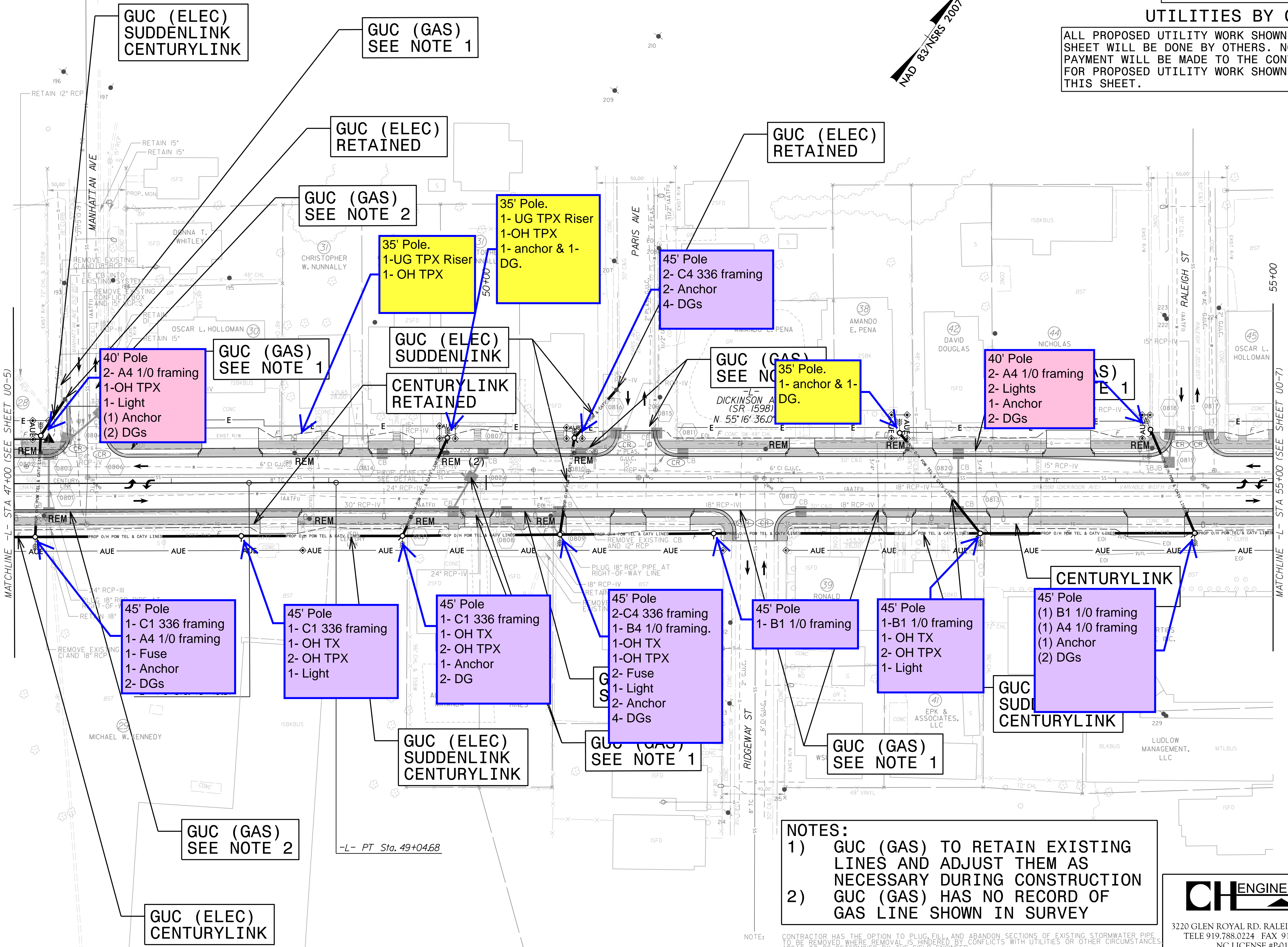
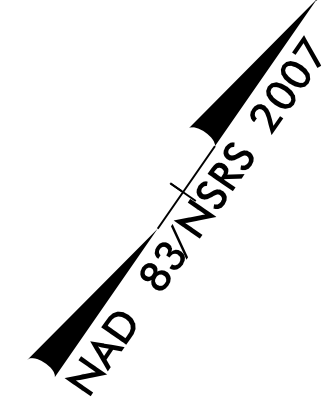


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UTILITIES BY OTHERS

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GUC (ELEC)
SUDDENLINK
CENTURYLINK

GUC (GAS)
SEE NOTE 1

GUC (ELEC)
RETAINED

GUC (GAS)
SEE NOTE 2

35' Pole.
1-UG TPX Riser
1- OH TPX

35' Pole.
1-UG TPX Riser
1- OH TPX
1- anchor & 1-
DG.

GUC (ELEC)
RETAINED

45' Pole
2- C4 336 framing
2- Anchor
4- DGs

40' Pole
2- A4 1/0 framing
1- OH TPX
1- Light
(1) Anchor
(2) DGs

GUC (GAS)
SEE NOTE 1

GUC (ELEC)
SUDDENLINK
CENTURYLINK
RETAINED

GUC (GAS)
SEE NOTE 1

35' Pole.
1- anchor & 1-
DG.

40' Pole
2- A4 1/0 framing
2- Lights
1- Anchor
2- DGs

45' Pole
1- C1 336 framing
1- A4 1/0 framing
1- Fuse
1- Anchor
2- DGs

45' Pole
1- C1 336 framing
1- OH TX
2- OH TPX
1- Light

45' Pole
1- C1 336 framing
1- OH TX
2- OH TPX
1- Anchor
2- DG

45' Pole
2-C4 336 framing
1- B4 1/0 framing.
1- OH TX
1- OH TPX
2- Fuse
1- Light
2- Anchor
4- DGs

45' Pole
1- B1 1/0 framing

45' Pole
1-B1 1/0 framing
1- OH TX
2- OH TPX
1- Light

45' Pole
(1) B1 1/0 framing
(1) A4 1/0 framing
(1) Anchor
(2) DGs

GUC (GAS)
SEE NOTE 2

GUC (ELEC)
SUDDENLINK
CENTURYLINK

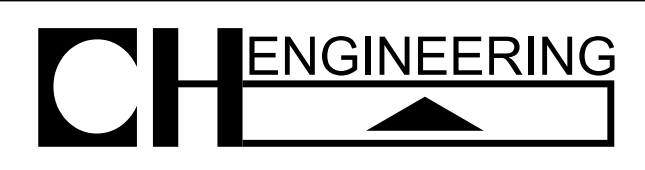
GUC (GAS)
SEE NOTE 1

GUC (GAS)
SEE NOTE 1

GUC (ELEC)
CENTURYLINK

- NOTES:**
- 1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
 - 2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY

NOTE: CONTRACTOR HAS THE OPTION TO PLUG, FILL, AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES AREAS TO BE DETERMINED BY THE FIELD ENGINEER.

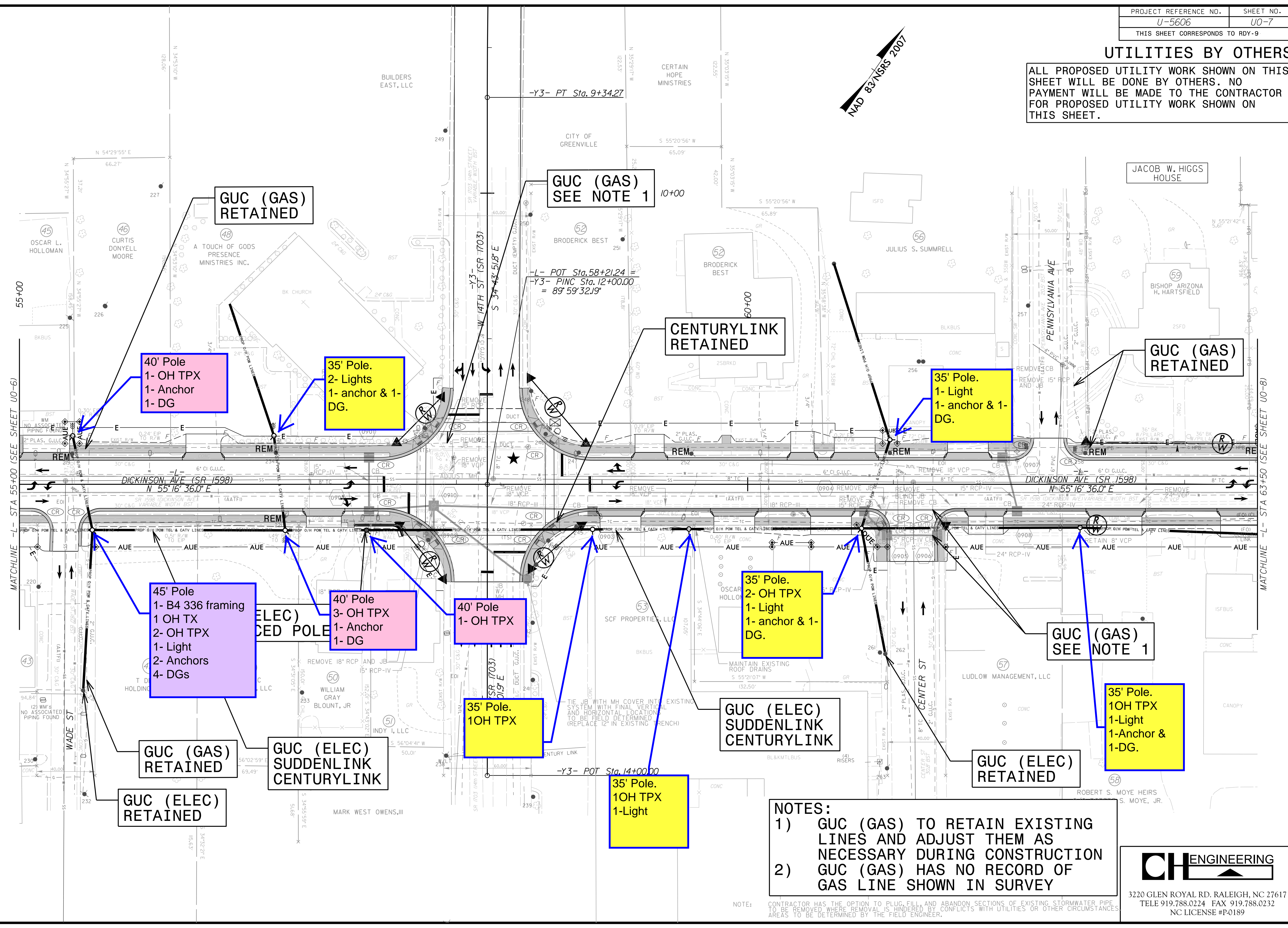
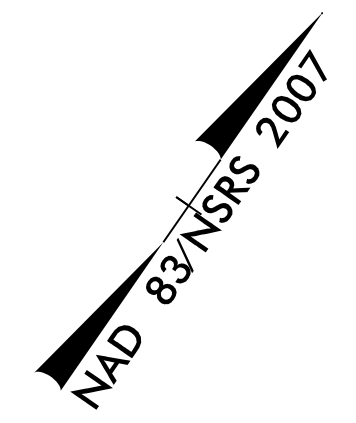


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4/30/2018
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UTILITIES BY OTHERS

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GUC (GAS)
SEE NOTE 1

GUC (GAS)
RETAINED

CENTURYLINK
RETAINED

GUC (GAS)
RETAINED

40' Pole
1- OH TPX
1- Anchor
1- DG

35' Pole.
2- Lights
1- anchor & 1-
DG.

35' Pole.
1- Light
1- anchor & 1-
DG.

45' Pole
1- B4 336 framing
1 OH TX
2- OH TPX
1- Light
2- Anchors
4- DGs

40' Pole
3- OH TPX
1- Anchor
1- DG

40' Pole
1- OH TPX

35' Pole.
2- OH TPX
1- Light
1- anchor & 1-
DG.

GUC (GAS)
SEE NOTE 1

35' Pole.
1OH TPX
1-Light
1-Anchor &
1-DG.

GUC (GAS)
RETAINED

GUC (ELEC)
SUDDENLINK
CENTURYLINK

35' Pole.
1OH TPX

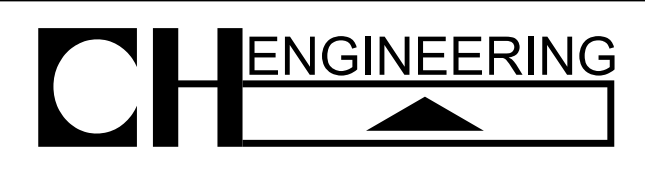
GUC (ELEC)
SUDDENLINK
CENTURYLINK

GUC (ELEC)
RETAINED

35' Pole.
1OH TPX
1-Light

- NOTES:**
- 1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
 - 2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY

NOTE: CONTRACTOR HAS THE OPTION TO PLUG, FILL, AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES AREAS TO BE DETERMINED BY THE FIELD ENGINEER.



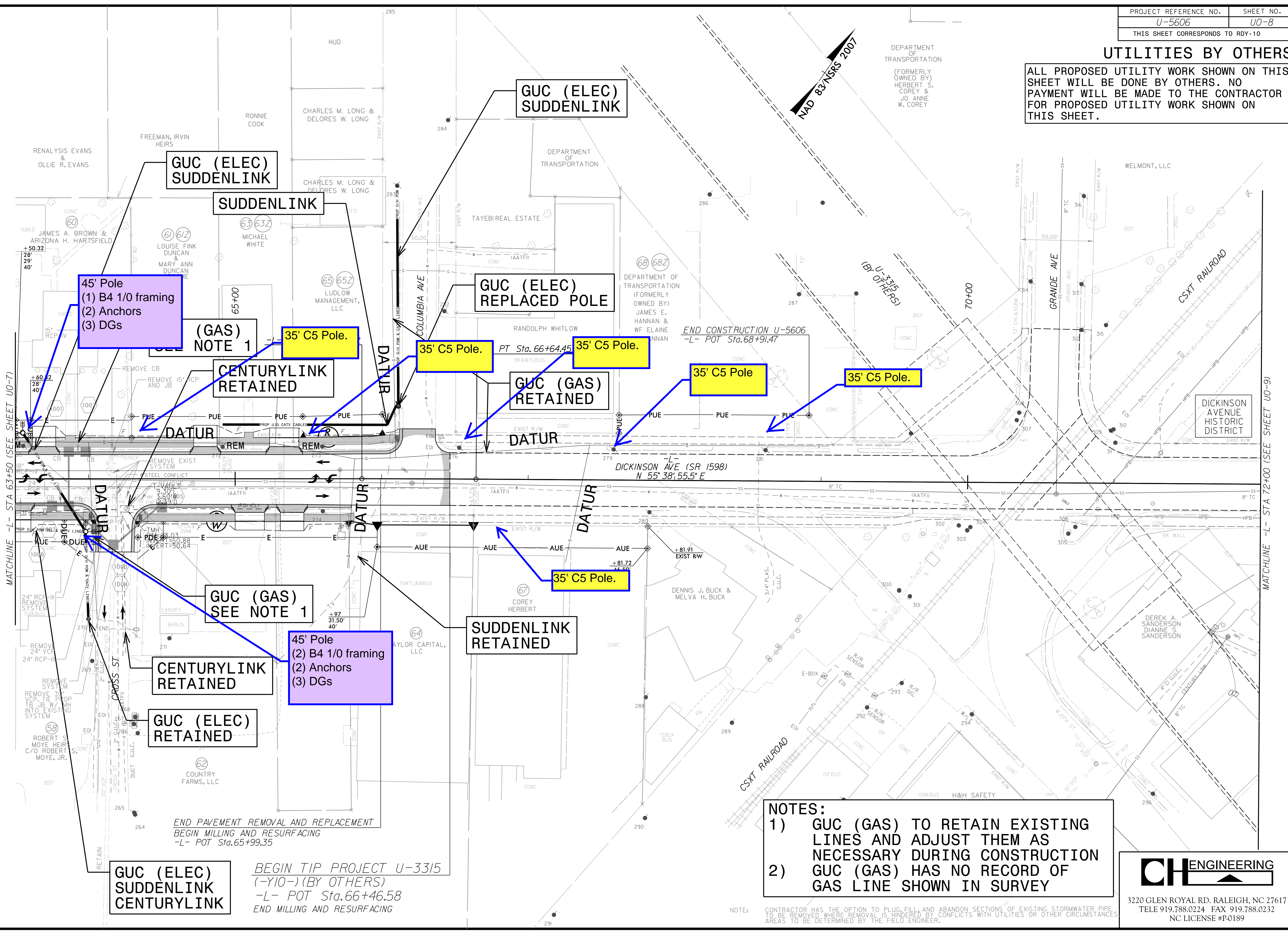
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UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

DEPARTMENT OF TRANSPORTATION
(FORMERLY OWNED BY) HERBERT S. COREY & JO ANNE W. COREY

NAD 83 NSRS 2007



MATCHLINE -L- STA 63+50 (SEE SHEET U0-7)

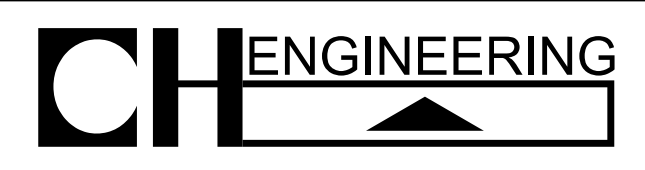
MATCHLINE -L- STA 72+00 (SEE SHEET U0-9)

END PAVEMENT REMOVAL AND REPLACEMENT
BEGIN MILLING AND RESURFACING
-L- POT Sta.65+99.35

BEGIN TIP PROJECT U-3315
(-Y10-) (BY OTHERS)
-L- POT Sta.66+46.58
END MILLING AND RESURFACING

NOTES:
1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY

NOTE: CONTRACTOR HAS THE OPTION TO PLUG, FILL, AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES AREAS TO BE DETERMINED BY THE FIELD ENGINEER.

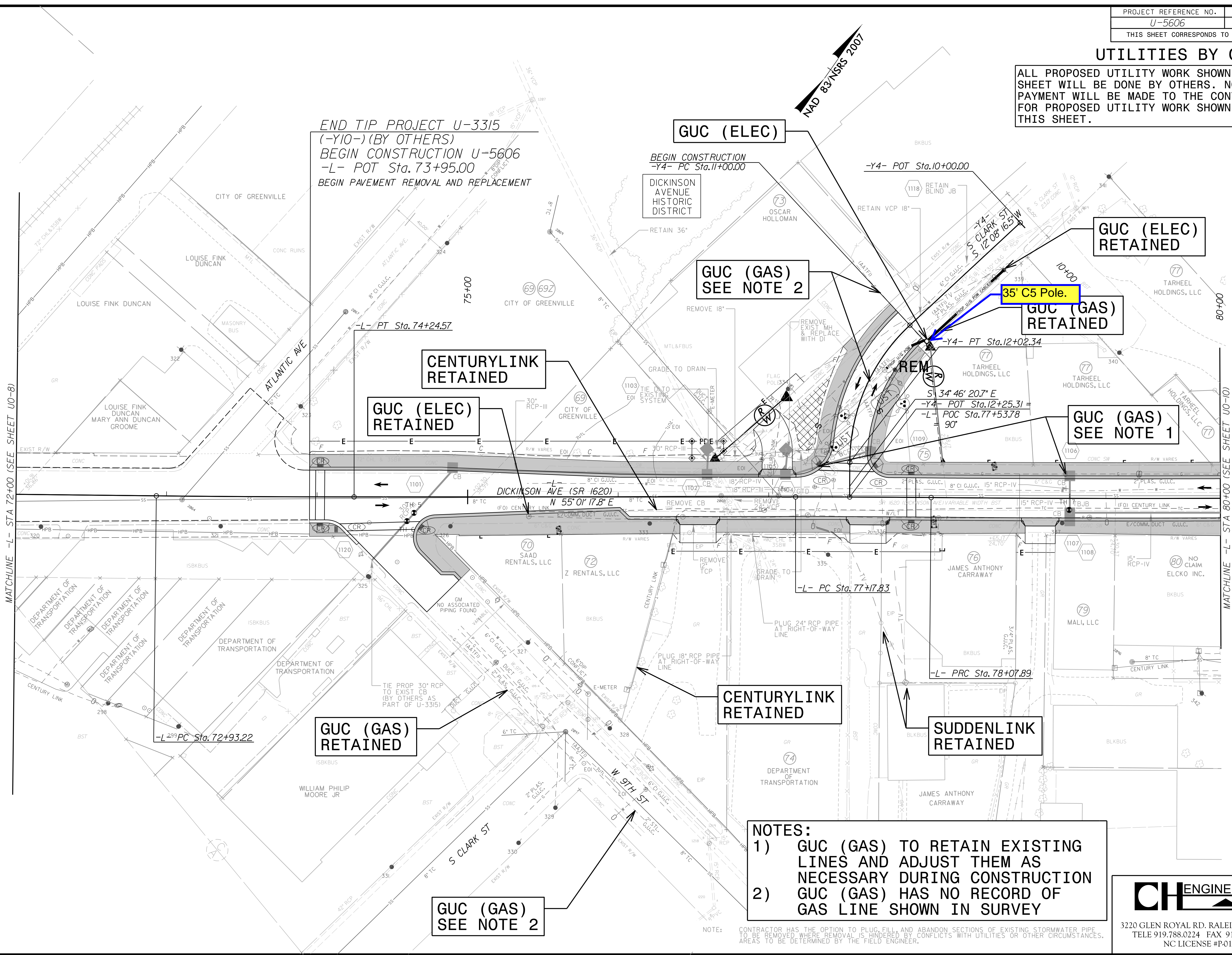


3220 GLEN ROYAL RD. RALEIGH, NC 27617
TELE 919.788.0224 FAX 919.788.0232
NC LICENSE #P0189

8/17/99
4/30/2018
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UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.



END TIP PROJECT U-3315
 (-Y10-) (BY OTHERS)
 BEGIN CONSTRUCTION U-5606
 -L- POT Sta. 73+95.00
 BEGIN PAVEMENT REMOVAL AND REPLACEMENT

GUC (ELEC)

BEGIN CONSTRUCTION
 -Y4- PC Sta. 11+00.00

-Y4- POT Sta. 10+00.00

GUC (ELEC) RETAINED

GUC (GAS) SEE NOTE 2

35' C5 Pole.

GUC (GAS) RETAINED

CENTURYLINK RETAINED

GUC (ELEC) RETAINED

GUC (GAS) SEE NOTE 1

CENTURYLINK RETAINED

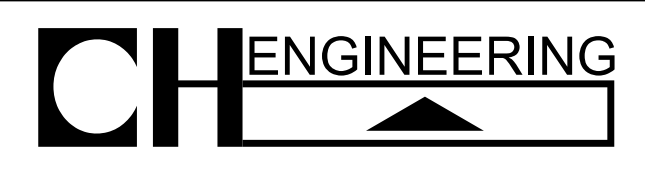
SUDDENLINK RETAINED

GUC (GAS) RETAINED

GUC (GAS) SEE NOTE 2

- NOTES:**
- 1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
 - 2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY

NOTE: CONTRACTOR HAS THE OPTION TO PLUG/FILL AND ABANDON SECTIONS OF EXISTING STORMWATER PIPE TO BE REMOVED WHERE REMOVAL IS HINDERED BY CONFLICTS WITH UTILITIES OR OTHER CIRCUMSTANCES. AREAS TO BE DETERMINED BY THE FIELD ENGINEER.



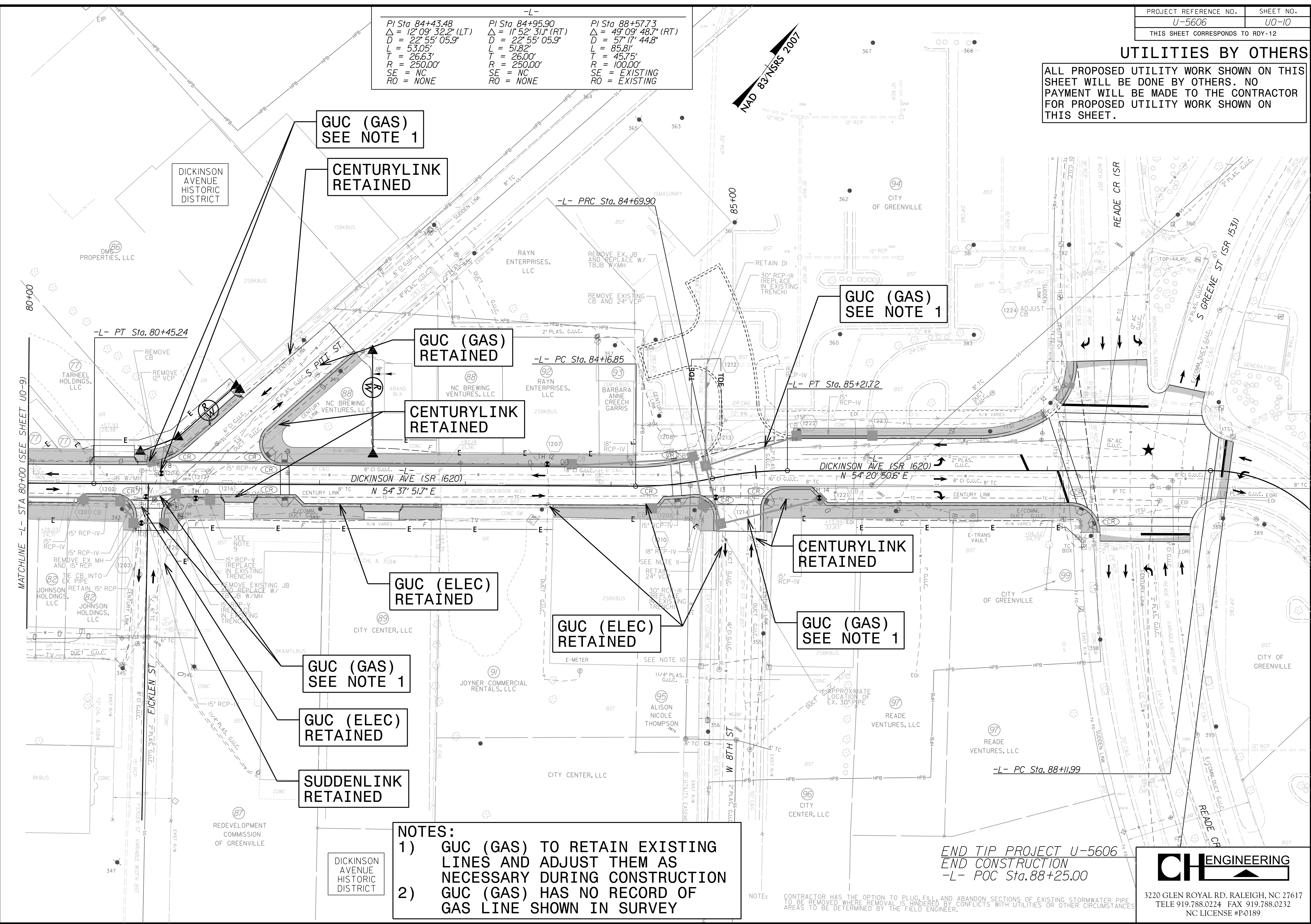
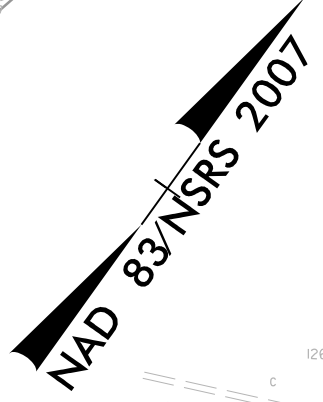
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 TELE 919.788.0224 FAX 919.788.0232
 NC LICENSE #P0189

8/17/99
 4/30/2018
 I:\SERVICES\Engineering\UB0\ProJ\U5606_Ut_rdy.11.U009.psh.dgn

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

| -L- | | |
|------------------------------------|------------------------------------|------------------------------------|
| PI Sta. 84+43.48 | PI Sta. 84+95.90 | PI Sta. 88+57.73 |
| $\Delta = 12^{\circ}09'32.2"$ (LT) | $\Delta = 11^{\circ}52'31.1"$ (RT) | $\Delta = 49^{\circ}09'48.7"$ (RT) |
| D = 22'55'05.9" | D = 22'55'05.9" | D = 57'17'44.8" |
| L = 53.05' | L = 51.82' | L = 85.81' |
| T = 26.63' | T = 26.00' | T = 45.75' |
| R = 250.00' | R = 250.00' | R = 100.00' |
| SE = NC | SE = NC | SE = EXISTING |
| RO = NONE | RO = NONE | RO = EXISTING |



GUC (GAS)
SEE NOTE 1

CENTURYLINK
RETAINED

GUC (GAS)
RETAINED

CENTURYLINK
RETAINED

GUC (GAS)
SEE NOTE 1

CENTURYLINK
RETAINED

GUC (ELEC)
RETAINED

GUC (ELEC)
RETAINED

GUC (GAS)
SEE NOTE 1

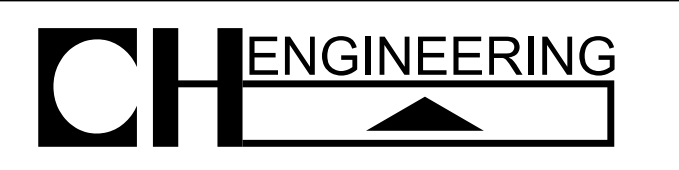
GUC (GAS)
SEE NOTE 1

GUC (ELEC)
RETAINED

SUDDENLINK
RETAINED

NOTES:
 1) GUC (GAS) TO RETAIN EXISTING LINES AND ADJUST THEM AS NECESSARY DURING CONSTRUCTION
 2) GUC (GAS) HAS NO RECORD OF GAS LINE SHOWN IN SURVEY

END TIP PROJECT U-5606
 END CONSTRUCTION
 -L- POC Sta. 88+25.00

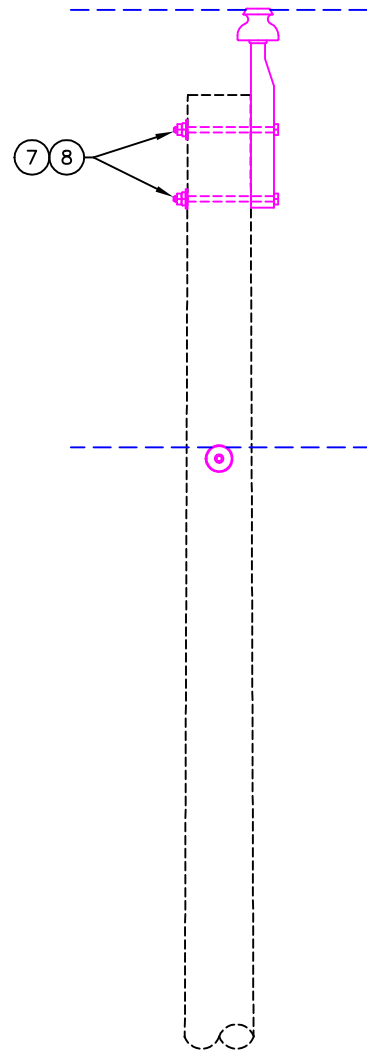
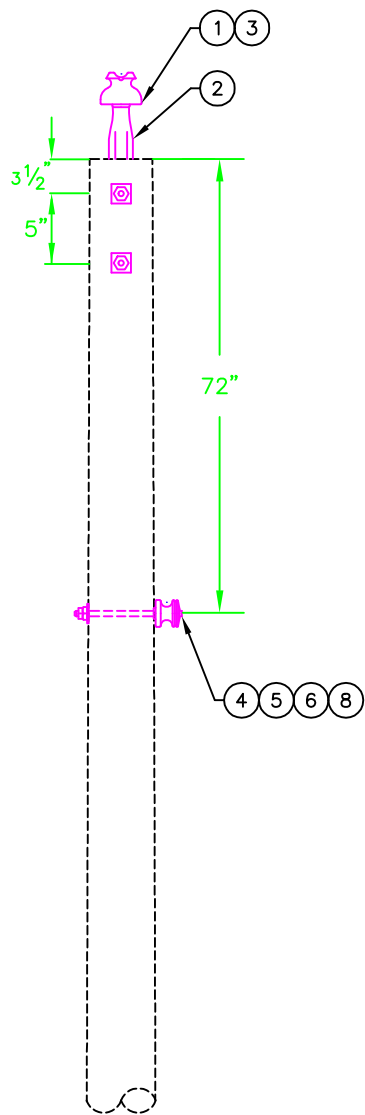


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 NC LICENSE #P0189

8/17/99
 4/30/2018
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Appendix B: Standard Pole Framing

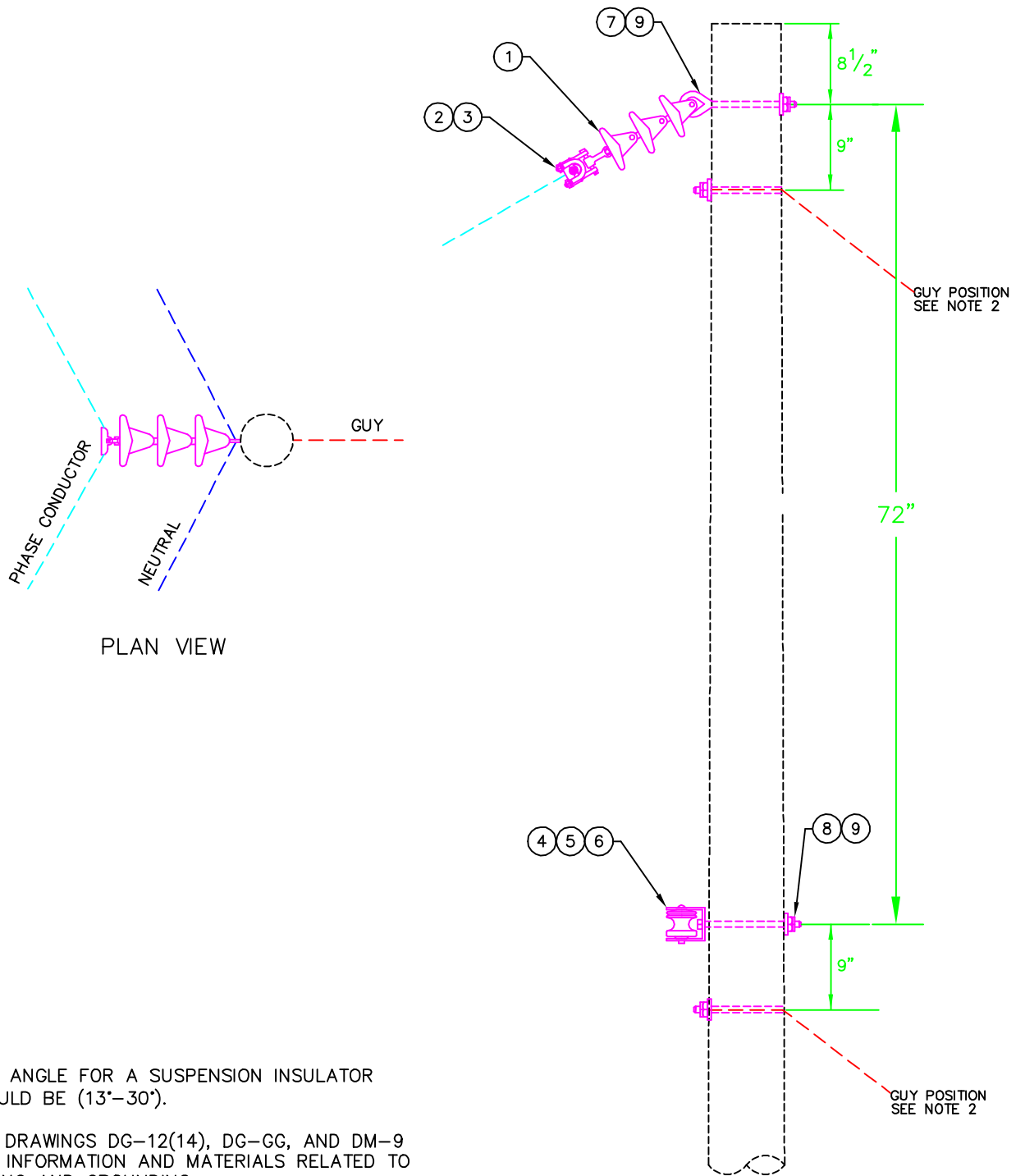
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NOTES:


- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | | | |
|---------|-----|----------------------------|---------|-------------------------------------------------------------------------------------|--------|----------|-------|----------|--------------------|
| | | DESCRIPTION | STOCK # | 7.2KV PRIMARY, SINGLE PHASE TANGENT, SINGLE PIN/POST | | | | | |
| 1 | 1 | INSULATORS, 15 kV PIN TYPE | 203710 |  | DWN. | JLS | DATE: | 08/21/19 | DWG. NO. A1 |
| 2 | 1 | PIN, 18" POLE TOP | 203430 | | CKD. | KW | APPD. | | |
| 3 | 1 | PREFORMS, 1/0 WRAP TIE | 203590 | | SCALE: | NONE | | | |
| 4 | 1 | INSULATORS, SPOOL "J-151" | 208280 | | DATE | REVISION | DATE | REVISION | |
| 5 | 1 | BOLTS, 5/8" x 12" SPOOL | 202000 | | | | | | |
| 6 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 | | | | | | |
| 7 | 2 | BOLTS, 5/8" x 12" | 202070 | | | | | | |
| 8 | 3 | WASHERS, 2 1/4" SQUARE | 204440 | | | | | | |

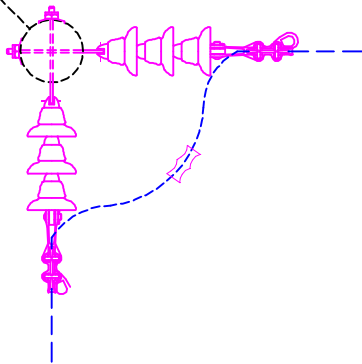


NOTES:

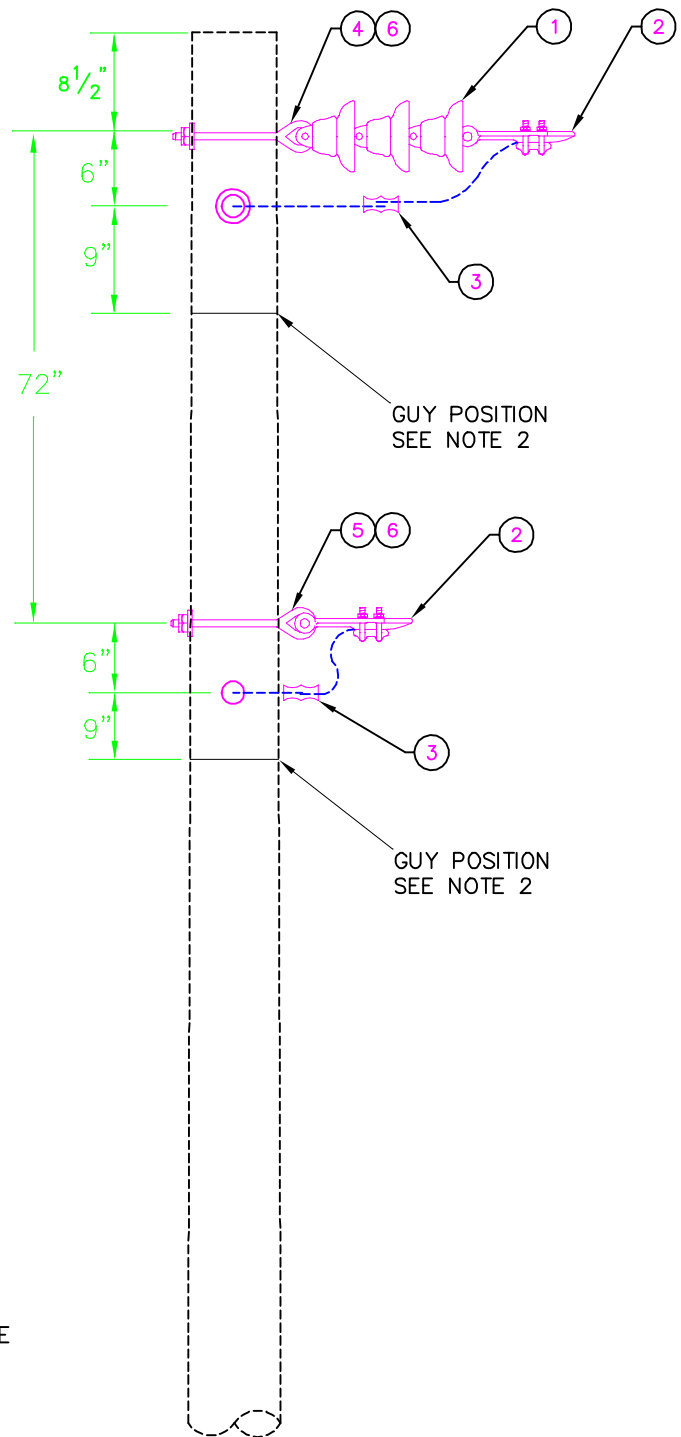
- 1) LINE ANGLE FOR A SUSPENSION INSULATOR SHOULD BE (13°-30°).
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | | | |
|---------|-----|------------------------------------|---------|-------------------------------------------------------------------------------------|-------------|----------|------------------|----------------|----------|
| | | DESCRIPTION | STOCK # | 7.2KV PRIMARY, SINGLE PHASE LARGE ANGLE, SUSPENSION INSULATOR | | | | | |
| 1 | 1 | INSULATORS, POLYMER DEAD END BELLS | 206920 |  | DWN. JLS | | DATE: 08/21/2019 | DWG. NO. A3 | |
| 2 | 1 | CLAMPS, 1/0 SUSPENSION | 202420 | | CKD. KW | | APPD. | | |
| 3 | 1 | RODS, 1/0 ARMOR | 201960 | | SCALE: NONE | | | | |
| 4 | 1 | INSULATORS, SPOOL "J-151" | 208280 | | DATE | REVISION | DATE | | REVISION |
| 5 | 1 | CLEVIS, 1342 | 208290 | | | | | | |
| 6 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 | | | | | | |
| 7 | 1 | BOLTS, 5/8" x 10" EYE | 202280 | | | | | | |
| 8 | 1 | BOLTS, 5/8" x 12" | 202070 | | | | | | |
| 9 | 2 | WASHERS, 3 X 3 CURVED | 204450 | | | | | | |

GUY POSITION




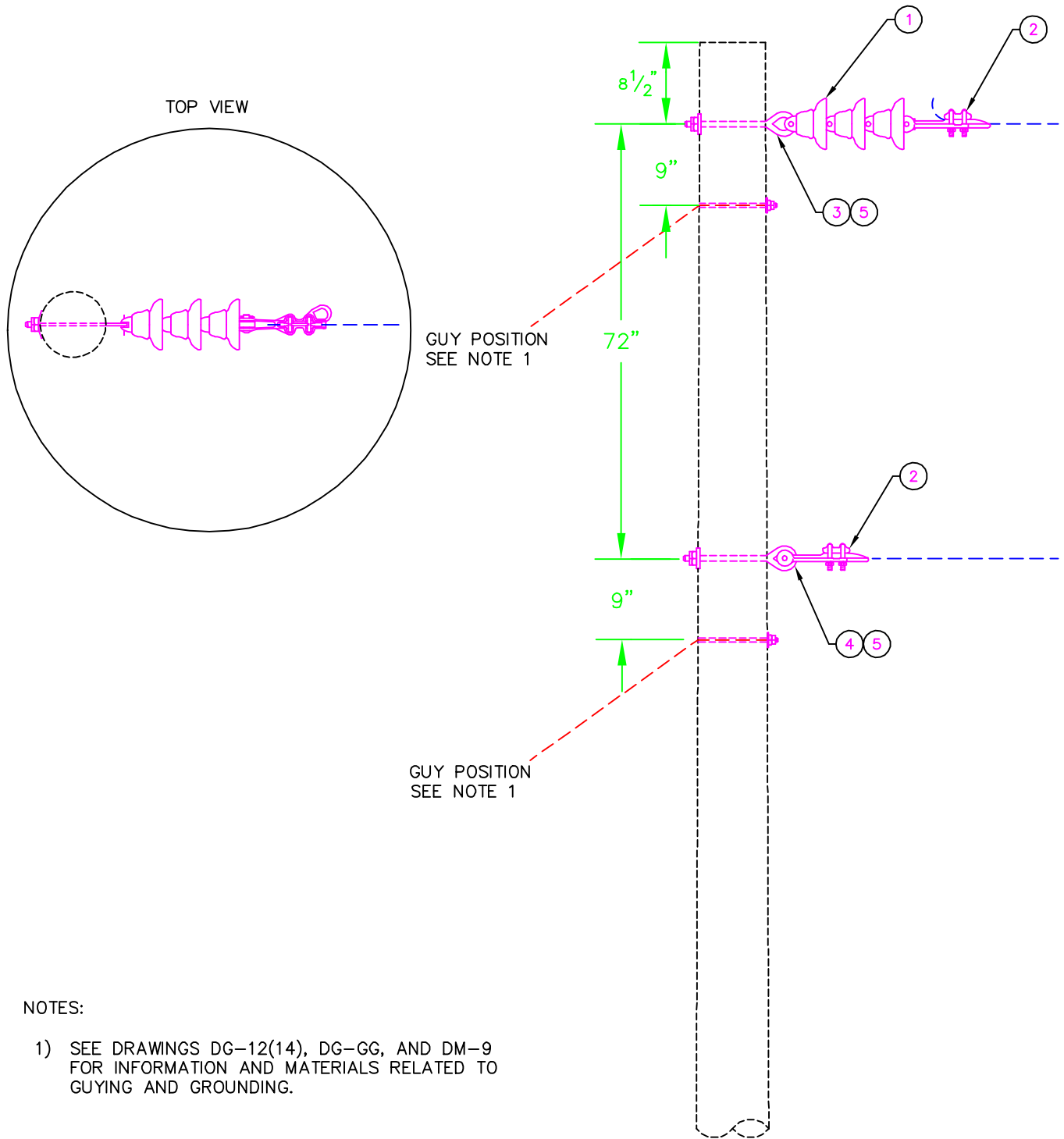
PLAN VIEW



NOTES:


- 1) LINE ANGLE FOR A DOUBLE DEADEND SHOULD BE GREATER THAN 30°.
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

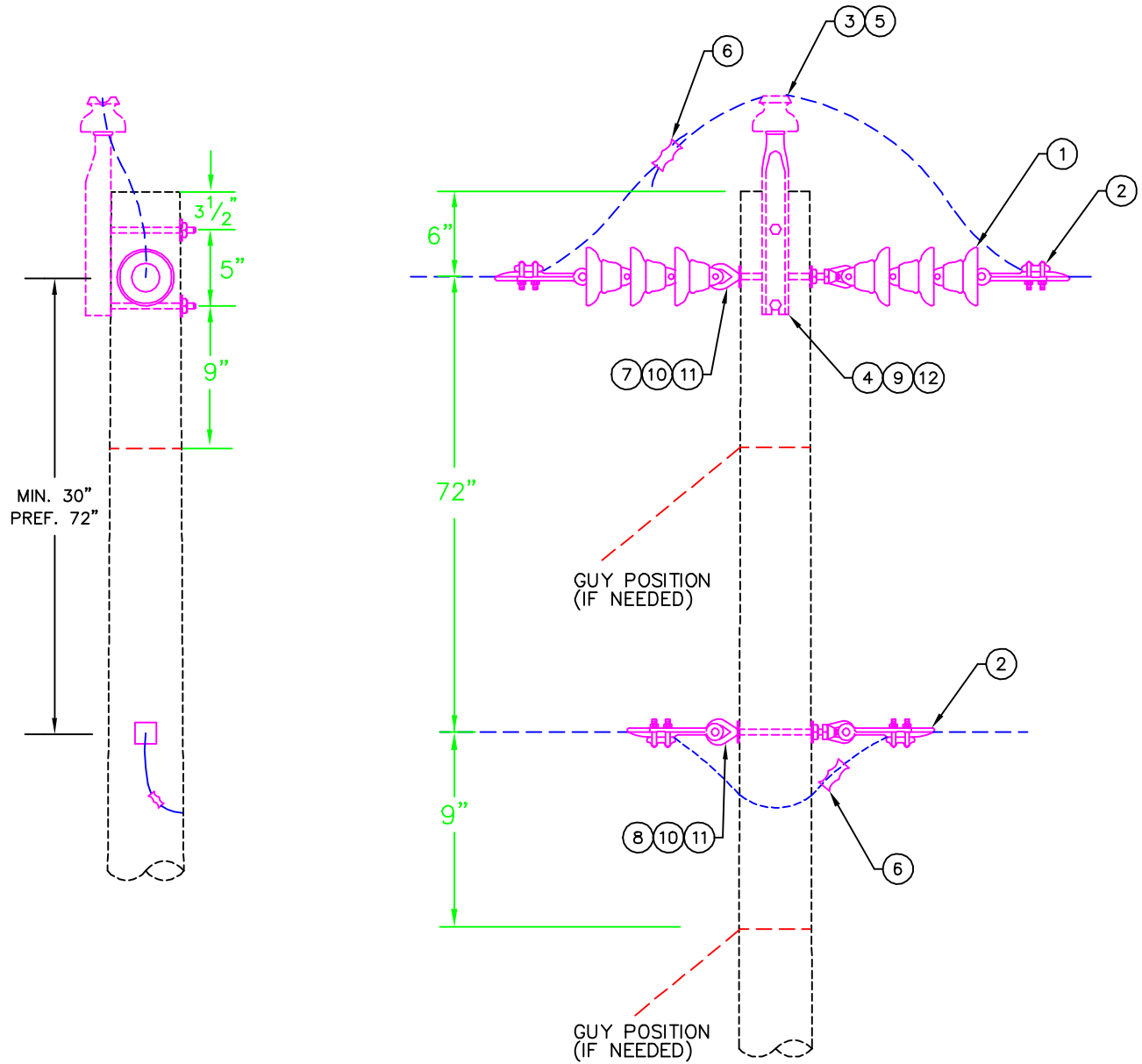
| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | |
|---------|-----|------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | | DESCRIPTION | STOCK # |  7.2KV PRIMARY, SINGLE PHASE LARGE ANGLE, DOUBLE DEADEND SUSPENSION | | | |
| 1 | 2 | INSULATORS, POLYMER DEAD END BELLS | 206920 | | | | |
| 2 | 4 | SHOE, #6 - 1/0 DEAD END | 207570 | | | | |
| 3 | 2 | SQUEEZONS, #4 | 203010 | | | | |
| 4 | 2 | BOLTS, 5/8" x 10" EYE | 202280 | | | | |
| 5 | 2 | BOLTS, 5/8" x 12" EYE | 202290 | | | | |
| 6 | 4 | WASHERS, 3 X 3 CURVED | 204450 | | | | |



NOTES:

- 1) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | |
|---------|-----|------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | | DESCRIPTION | STOCK # |  7.2KV PRIMARY, SINGLE PHASE SINGLE DEADEND (TAP), SUSPENSION | | | |
| 1 | 1 | INSULATORS, POLYMER DEAD END BELLS | 206920 | | | | |
| 2 | 2 | SHOE, #6 - 1/0 DEAD END | 207570 | APPD. | | | |
| 3 | 1 | BOLTS, 5/8" x 10" EYE | 202280 | | | | |
| 4 | 1 | BOLTS, 5/8" x 12" EYE | 202290 | | | | |
| 5 | 2 | WASHERS, 3 X 3 CURVED | 204450 | | | | |



NOTES:

- 1) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | |
|---------|-----|------------------------------------|---------|
| | | DESCRIPTION | STOCK # |
| 1 | 2 | INSULATORS, POLYMER DEAD END BELLS | 206920 |
| 2 | 4 | SHOE, #6 - 1/0 DEAD END | 207570 |
| 3 | 1 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 4 | 1 | PIN, 18" POLE TOP | 203430 |
| 5 | 1 | PREFORMS, 1/0 WRAP TIE | 203590 |
| 6 | 2 | SQUEEZONS, #4 | 203010 |
| 7 | 1 | BOLTS, 5/8" x 10" EYE | 202280 |
| 8 | 1 | BOLTS, 5/8" x 12" EYE | 202290 |
| 9 | 2 | BOLTS, 5/8" x 12" | 202070 |
| 10 | 2 | NUTS, 5/8" EYE | 204420 |
| 11 | 2 | WASHERS, 3 X 3 CURVED | 204450 |
| 12 | 2 | 2 1/4" SQUARE WASHER | 204440 |

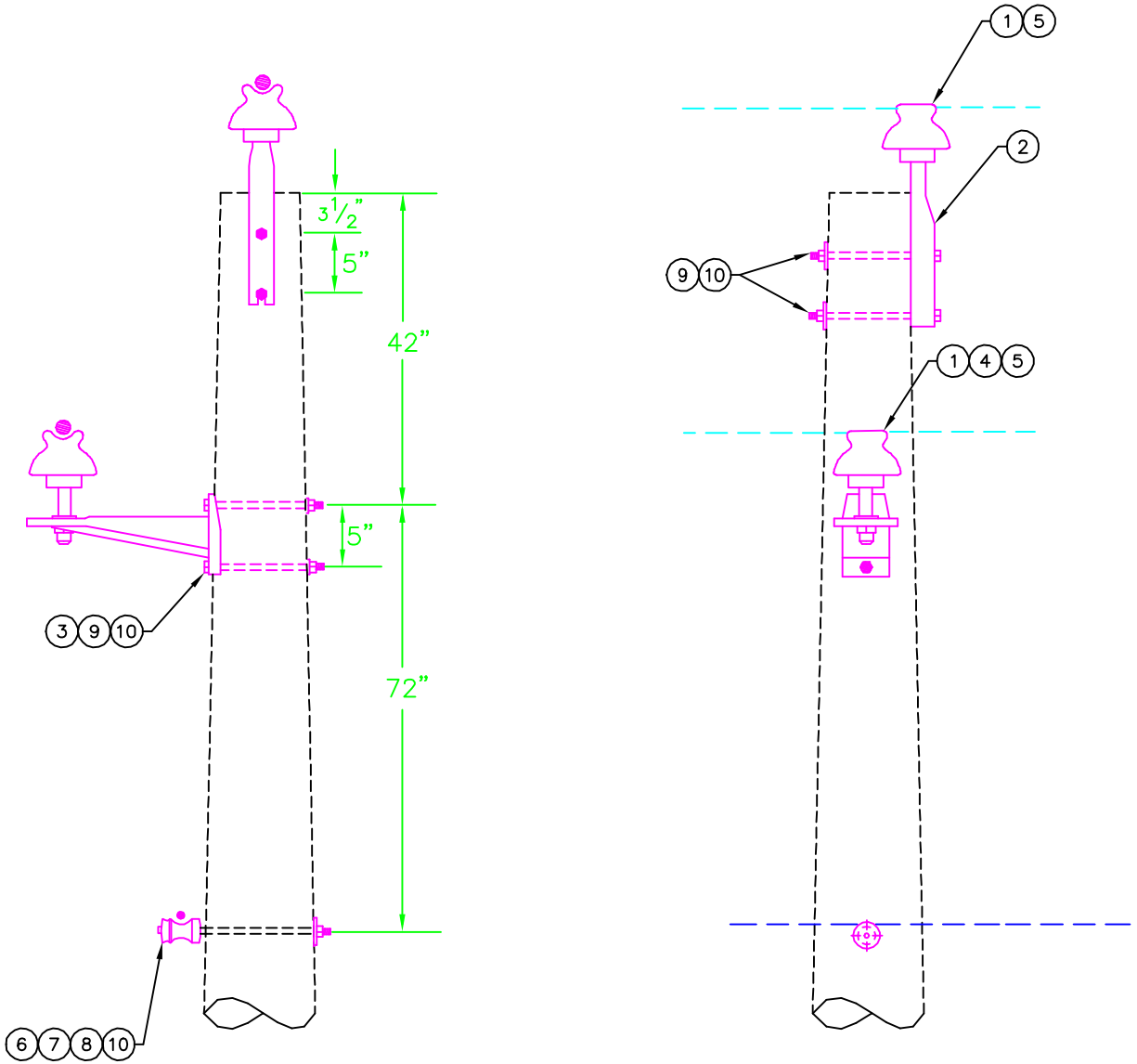
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



7.2KV PRIMARY, SINGLE PHASE
TANGENT, DOUBLE DEADEND SUSPENSION


| | | | |
|-------------|----------|------------------|----------|
| DWN. | JLS | DATE: 08/22/2019 | |
| CKD. | KW | APPD. | |
| SCALE: NONE | | | |
| DATE | REVISION | DATE | REVISION |
| | | | |

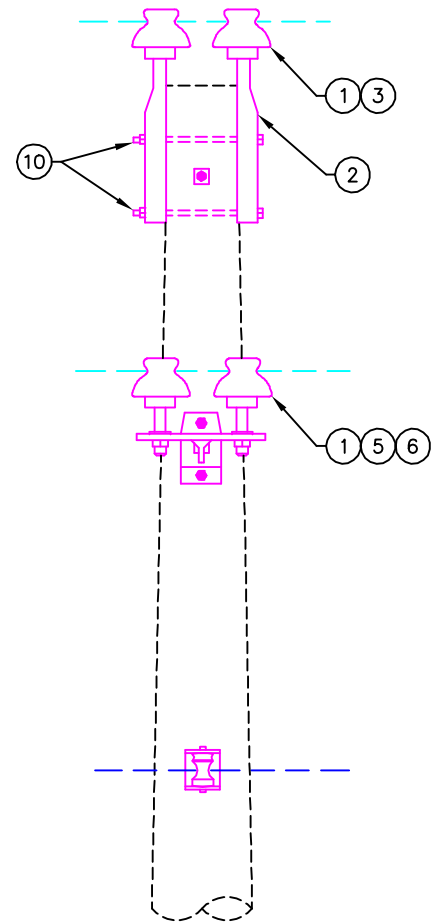
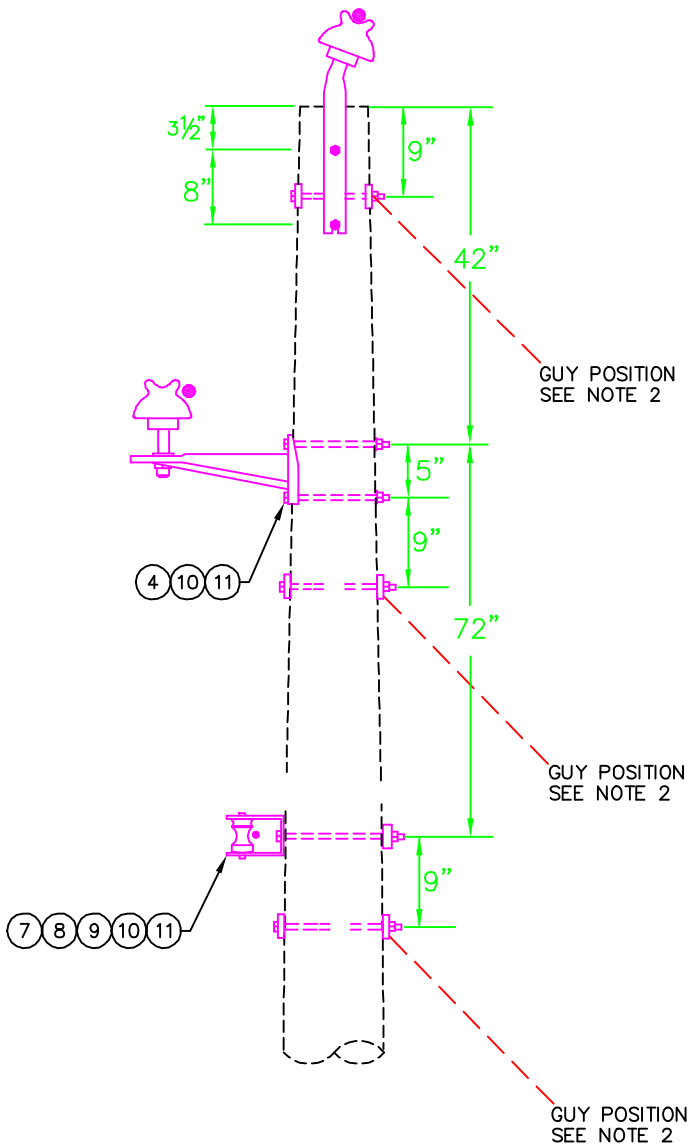
DWG. NO.
A6



NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | | | |
|---------|-----|----------------------------|---------|-------------------------------------------------------------------------------------|----------|------|----------|------------|--------------------|
| | | DESCRIPTION | STOCK # | 12.47/7.2KV PRIMARY, TWO PHASE TANGENT, MIF CONSTRUCTION SINGLE PIN | | | | | |
| 1 | 2 | INSULATORS, 15 kV PIN TYPE | 203710 |  | DWN. | JLS | DATE: | 08/23/2019 | DWG. NO. B1 |
| 2 | 1 | PIN, 18" POLE TOP | 203430 | | CKD. | EGS | APPD. | | |
| 3 | 1 | BRACKETS, MIF | 203420 | SCALE: | NTS | | | | |
| 4 | 1 | PIN, SHANK | 203440 | DATE | REVISION | DATE | REVISION | | |
| 5 | 2 | PREFORMS, 1/0 WRAP TIE | 203590 | | | | | | |
| 6 | 1 | INSULATORS, SPOOL "J-151" | 208280 | | | | | | |
| 7 | 1 | BOLTS, 5/8" x 12" SPOOL | 202000 | | | | | | |
| 8 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 | | | | | | |
| 9 | 4 | BOLTS, 5/8" x 12" | 202070 | | | | | | |
| 10 | 5 | WASHERS, 2 1/4" SQUARE | 204440 | | | | | | |



NOTES:

- 1) LINE ANGLE FOR A DOUBLE PIN INSULATOR SHOULD BE (1°-12°).
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | |
|---------|-----|-------------------------------|---------|
| | | DESCRIPTION | STOCK # |
| 1 | 4 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 2 | 2 | PIN, ANGLE POLE TOP | 206000 |
| 3 | 1 | PREFORMS, 1/0 DOUBLE SUPPORT | 203580 |
| 4 | 1 | BRACKETS, MIF | 203420 |
| 5 | 2 | PIN, SHANK | 203440 |
| 6 | 1 | PREFORMS, 1/0 DOUBLE SIDE TIE | 203540 |
| 7 | 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 8 | 1 | CLEVIS, 1342 | 208290 |
| 9 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 10 | 5 | BOLTS, 5/8" x 12" | 202070 |
| 11 | 3 | WASHERS, 3 X 3 CURVED | 204450 |

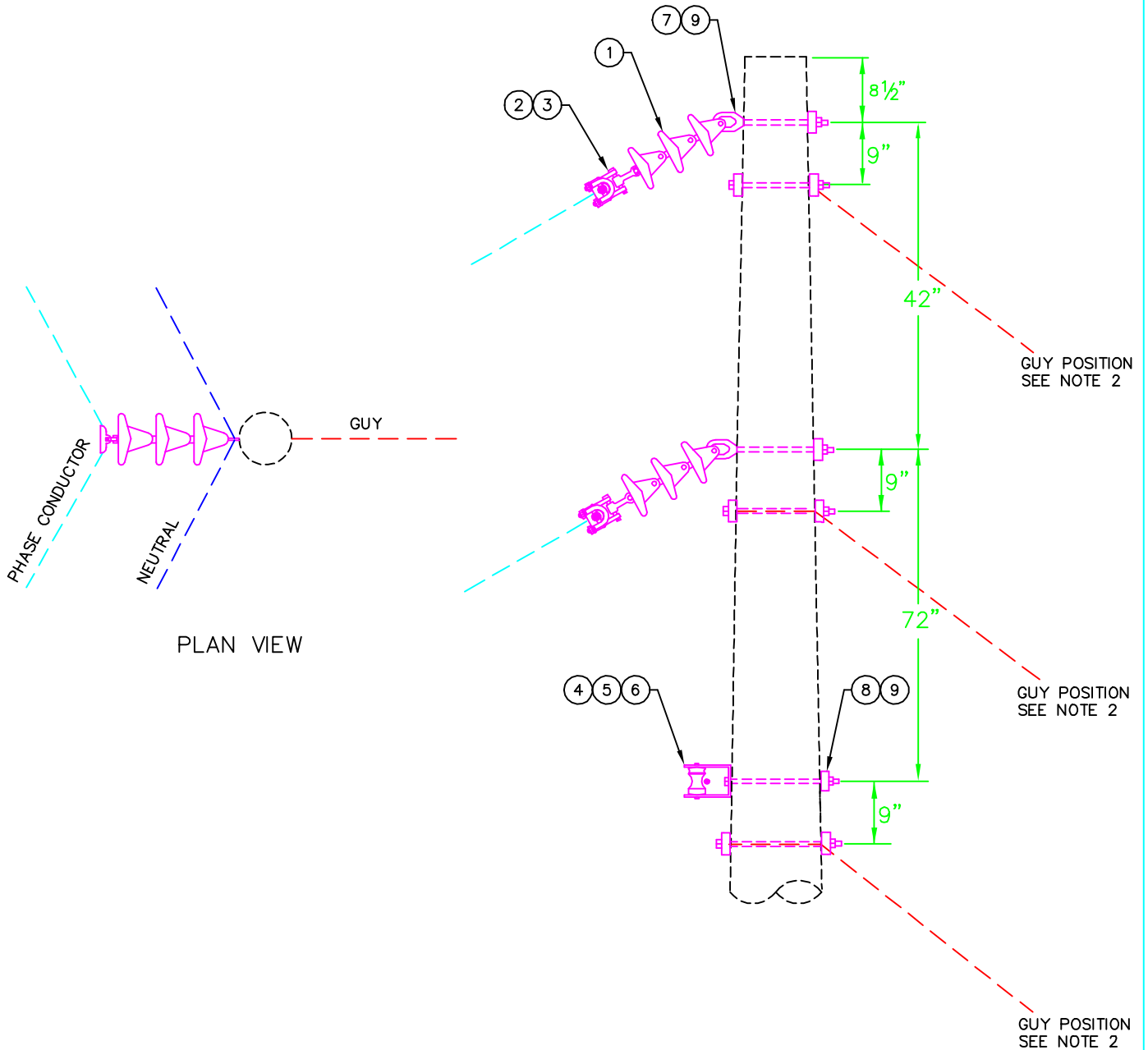
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, TWO PHASE
SMALL ANGLE, MIF CONSTRUCTION DOUBLE PIN


| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 08/23/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NTS | | |
| DATE | REVISION | DATE | REVISION |
| | | | |

DWG. NO.
B2

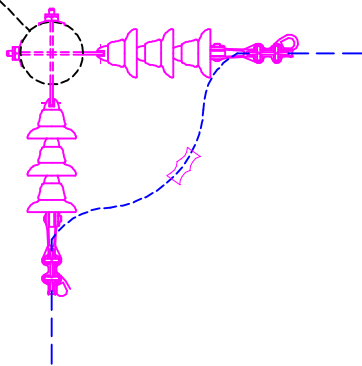


NOTES:

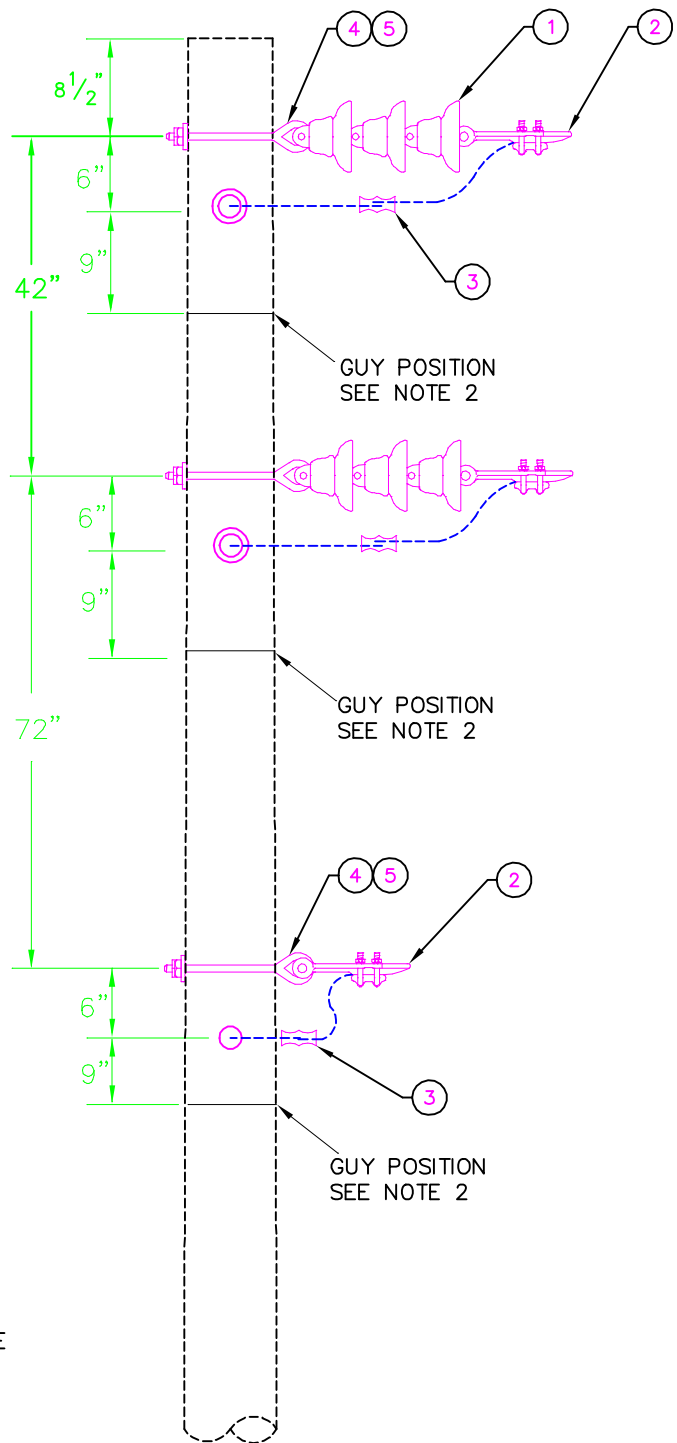
- 1) LINE ANGLE FOR A SUSPENSION INSULATOR SHOULD BE (13°-30°).
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | |
|---------|-----|------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | | DESCRIPTION | STOCK # |  12.47/7.2KV PRIMARY, TWO PHASE LARGE ANGLE, SUSPENSION INSULATOR | | | |
| 1 | 2 | INSULATORS, POLYMER DEAD END BELLS | 206920 | | | | |
| 2 | 2 | CLAMPS, 1/0 SUSPENSION | 202420 | APPD. | | | |
| 3 | 2 | RODS, 1/0 ARMOR | 201960 | | | | |
| 4 | 1 | INSULATORS, SPOOL "J-151" | 208280 | | | | |
| 5 | 1 | CLEVIS, 1342 | 208290 | | | | |
| 6 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 | | | | |
| 7 | 2 | BOLTS, 5/8" x 12" EYE | 202290 | | | | |
| 8 | 1 | BOLTS, 5/8" x 12" | 202070 | | | | |
| 9 | 3 | WASHERS, 3 X 3 CURVED | 204450 | | | | |

GUY POSITION




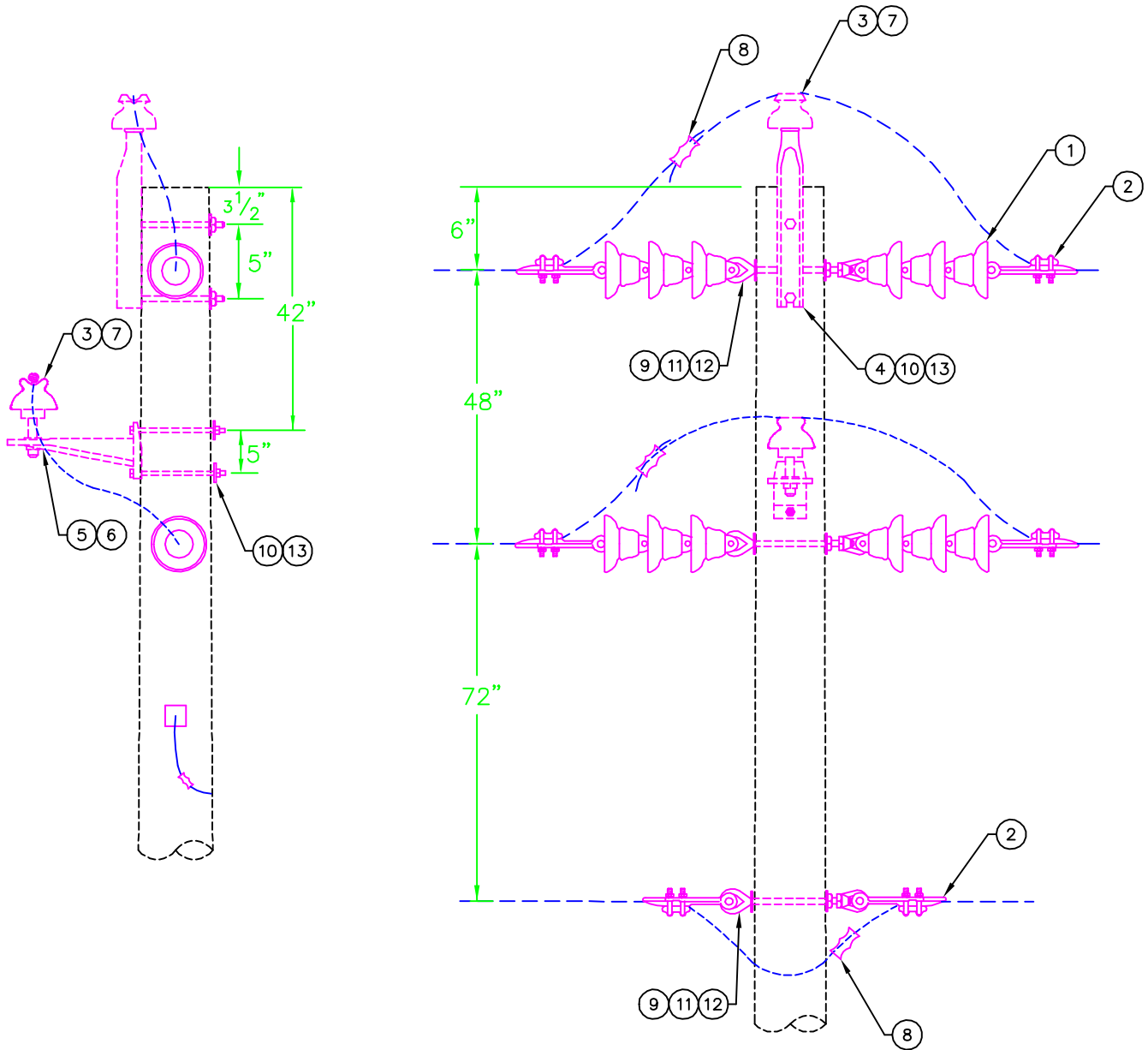
PLAN VIEW



NOTES:

- 1) LINE ANGLE FOR A DOUBLE DEADEND SHOULD BE GREATER THAN 30°.
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | | |
|---------|-----|------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|----------|------|
| | | DESCRIPTION | STOCK # |  12.47/7.2KV PRIMARY, TWO PHASE LARGE ANGLE, DOUBLE DEADEND SUSPENSION | | | | |
| 1 | 4 | INSULATORS, POLYMER DEAD END BELLS | 206920 | | | | | DWN. |
| 2 | 6 | SHOE, #6 - 1/0 DEAD END | 207570 | CKD. | KW | APPD. | | |
| 3 | 3 | SQUEEZONS, #4 | 203010 | SCALE: | NONE | | | |
| 4 | 6 | BOLTS, 5/8" x 12" EYE | 202290 | DATE | REVISION | DATE | REVISION | |
| 5 | 6 | WASHERS, 3 X 3 CURVED | 204450 | | | | | |



NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

| DWG REF | QTY | LIST OF MATERIALS | |
|---------|-----|------------------------------------|---------|
| | | DESCRIPTION | STOCK # |
| 1 | 4 | INSULATORS, POLYMER DEAD END BELLS | 206920 |
| 2 | 6 | SHOE, #6 - 1/0 DEAD END | 207570 |
| 3 | 2 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 4 | 1 | PIN, 18" POLE TOP | 203430 |
| 5 | 1 | BRACKETS, MIF | 203420 |
| 6 | 1 | PIN, SHANK | 203440 |
| 7 | 2 | PREFORMS, 1/0 WRAP TIE | 203590 |
| 8 | 3 | SQUEEZONS, #4 | 203010 |
| 9 | 3 | BOLTS, 5/8" x 12" EYE | 202290 |
| 10 | 4 | BOLTS, 5/8" x 12" | 202070 |
| 11 | 3 | NUTS, 5/8" EYE | 204420 |
| 12 | 3 | WASHERS, 3 X 3 CURVED | 204450 |
| 13 | 4 | 2 1/4" SQUARE WASHER | 204440 |

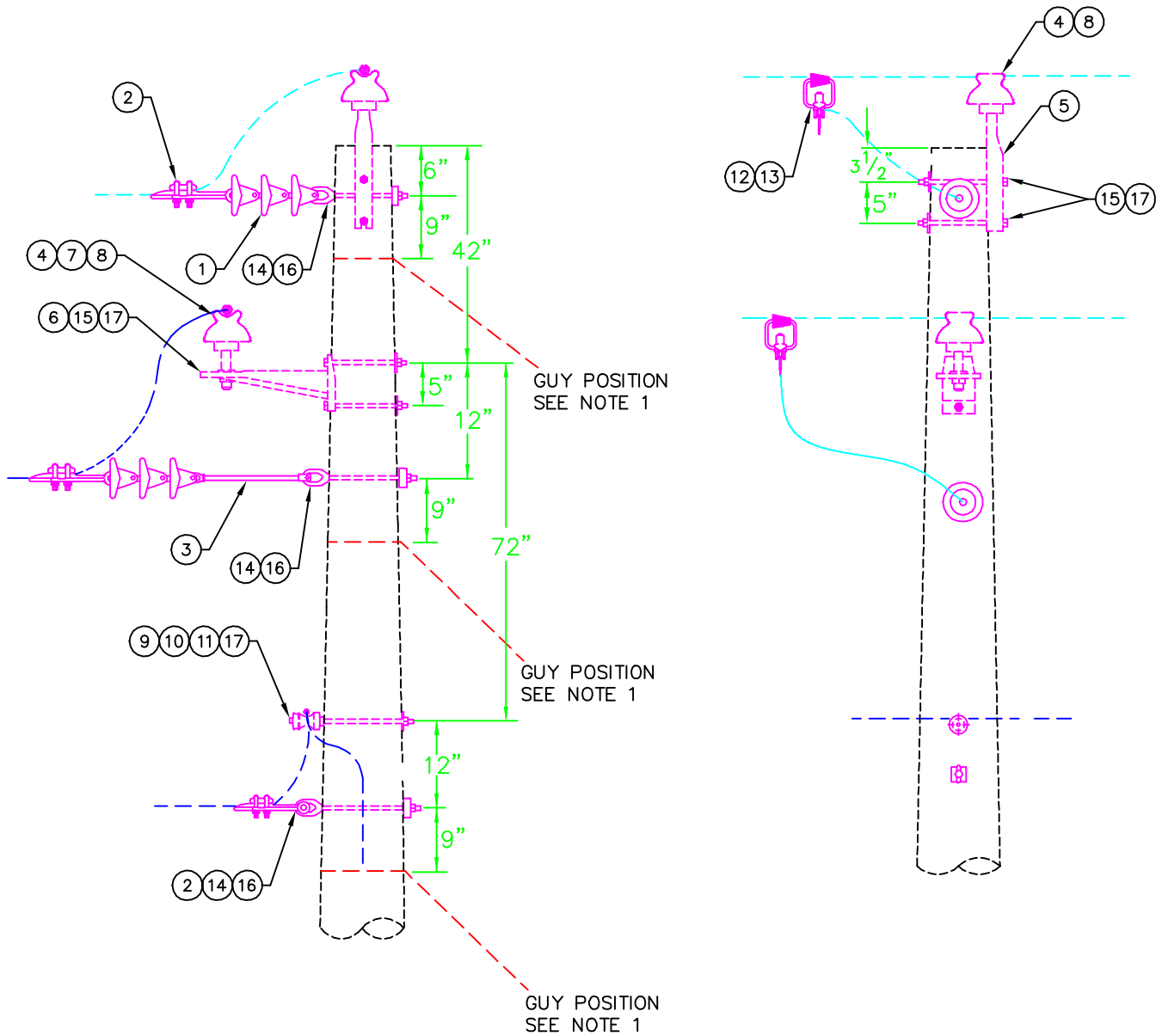
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, TWO PHASE
TANGENT, DOUBLE DEADEND SUSPENSION

| | | | |
|-------------|----------|------------------|----------|
| DWN. | JLS | DATE: 08/26/2019 | |
| CKD. | KW | APPD. | |
| SCALE: NONE | | | |
| DATE | REVISION | DATE | REVISION |
| | | | |

DWG. NO.
B6



NOTES:

- 1) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 2) BOND TAP NEUTRAL TO MAIN LINE NEUTRAL AND POLE GROUND. SEE DN-GG FOR DETAILS.

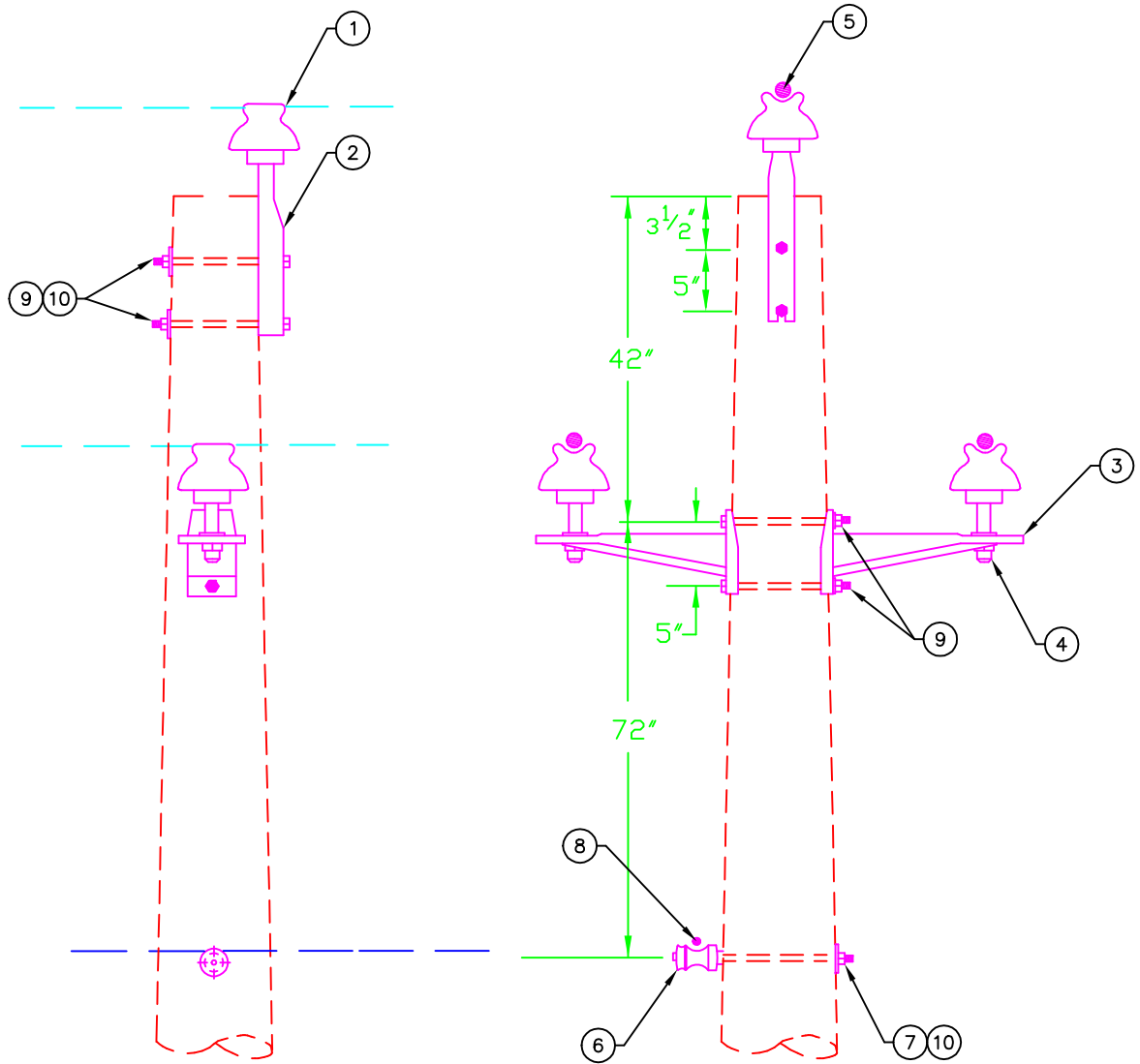
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, TWO PHASE
TANGENT WITH TWO PHASE DEAD END TAP

| DWG REF | QTY | LIST OF MATERIALS | |
|---------|-----|------------------------------------|---------|
| | | DESCRIPTION | STOCK # |
| 1 | 2 | INSULATORS, POLYMER DEAD END BELLS | 206920 |
| 2 | 3 | SHOE, #6 - 1/0 DEAD END | 207570 |
| 3 | 1 | EXTENSION, 14" LINKS | 210340 |
| 4 | 1 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 5 | 1 | PIN, 18" POLE TOP | 203430 |
| 6 | 1 | BRACKETS, MIF | 203420 |
| 7 | 1 | PIN, SHANK | 203440 |
| 8 | 2 | PREFORMS, 1/0 WRAP TIE | 203590 |
| 9 | 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 10 | 1 | BOLTS, 5/8" x 12" SPOOL | 202000 |
| 11 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 12 | 2 | CLAMPS, 1/0 SINGLE STIRRUP | 202390 |
| 13 | 2 | TAPS, HOT LINE CLAMPS | 202350 |
| 14 | 3 | BOLTS, 5/8" x 12" EYE | 202290 |
| 15 | 4 | BOLTS, 5/8" x 12" | 202070 |
| 16 | 3 | WASHERS, 3 X 3 CURVED | 204450 |
| 17 | 5 | 2 1/4" SQUARE WASHER | 204440 |

| | | | | |
|--------|----------|-------|------------|--------------------|
| DWN. | JLS | DATE: | 08/26/2019 | DWG. NO. B7 |
| CKD. | KW | APPD. | | |
| SCALE: | NONE | | | |
| DATE | REVISION | DATE | REVISION | |



NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

| DWG REF | QTY | LIST OF MATERIALS | STOCK# |
|-----------|-----|-----------------------------|--------|
| 1/0336795 | | DESCRIPTION | |
| 1 | 3 3 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 1 | - - | INSULATOR, 25 kV POST TYPE | 207720 |
| 2 | 1 1 | PIN, 18" POLE TOP | 203430 |
| 2 | - - | BRACKET, 35 kV POLE TOP | 207890 |
| 3 | 2 2 | BRACKETS, MIF | 203420 |
| 4 | 2 2 | PIN, SHANK | 203440 |
| 4 | - - | BOLTS, 3/4" x 3/4" STUD | 210361 |
| 5 | 3 - | PREFORMS, 1/0 WRAP TIE | 203590 |
| 5 | - 3 | PREFORMS, 336 WRAP LOCK TIE | 203600 |
| 5 | - - | PREFORMS, 795 WRAP LOCK TIE | 203660 |
| 6 | 1 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 7 | 1 1 | BOLTS, 5/8" x 12" SPOOL | 202000 |
| 8 | 1 1 | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 8 | - - | PREFORMS, 336 SPOOL TIE | 207580 |
| 9 | 4 4 | BOLTS, 5/8" x 12" | 202070 |
| 10 | 3 3 | WASHERS, 2 1/4" SQUARE | 204440 |

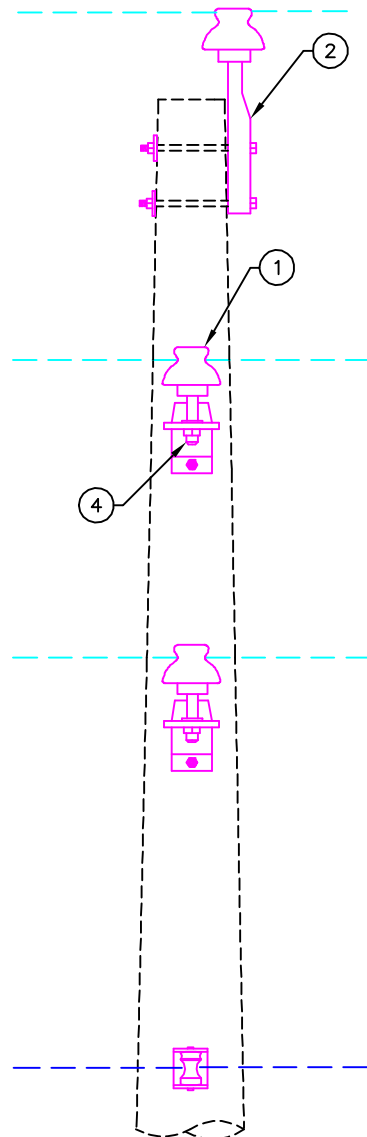
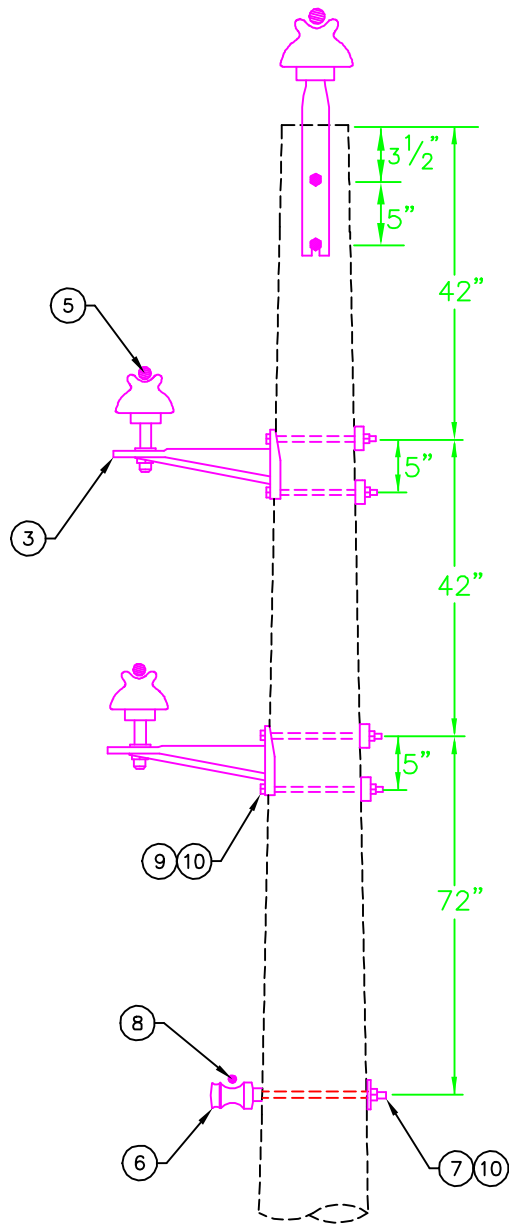
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, THREE PHASE
TANGENT, MIF CONSTRUCTION SINGLE PIN

| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 08/27/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NTS | | |
| DATE | REVISION | DATE | REVISION |
| | | | |

DWG. NO.
C1



NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

| DWG REF | QTY | | | LIST OF MATERIALS DESCRIPTION | STOCK# |
|---------|-----|-----|-----|-------------------------------|--------|
| | 1/0 | 336 | 795 | | |
| 1 | 3 | 3 | - | INSULATORS, 15 kV PIN TYPE | 203710 |
| 1 | - | - | 3 | INSULATOR, 25 kV POST TYPE | 207720 |
| 2 | 1 | 1 | - | PIN, 18" POLE TOP | 203430 |
| 2 | - | - | 1 | BRACKET, 35 kV POLE TOP | 207890 |
| 3 | 2 | 2 | 2 | BRACKETS, MIF | 203420 |
| 4 | 2 | 2 | - | PIN, SHANK | 203440 |
| 4 | - | - | 3 | BOLTS, 3/4" x 3/4" STUD | 210361 |
| 5 | 3 | - | - | PREFORMS, 1/0 WRAP TIE | 203590 |
| 5 | - | 3 | - | PREFORMS, 336 WRAP LOCK TIE | 203600 |
| 5 | - | - | 3 | PREFORMS, 795 WRAP LOCK TIE | 203660 |
| 6 | 1 | 1 | 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 7 | 1 | 1 | 1 | BOLTS, 5/8" x 12" SPOOL | 202000 |
| 8 | 1 | 1 | - | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 8 | - | - | 1 | PREFORMS, 336 SPOOL TIE | 207580 |
| 9 | 6 | 6 | 6 | BOLTS, 5/8" x 12" | 202070 |
| 10 | 7 | 7 | 7 | WASHERS, 2 1/4" SQUARE | 204440 |

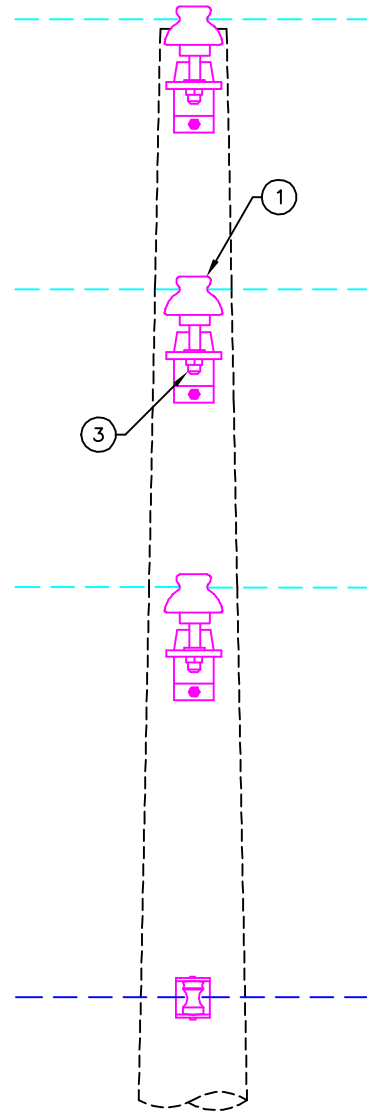
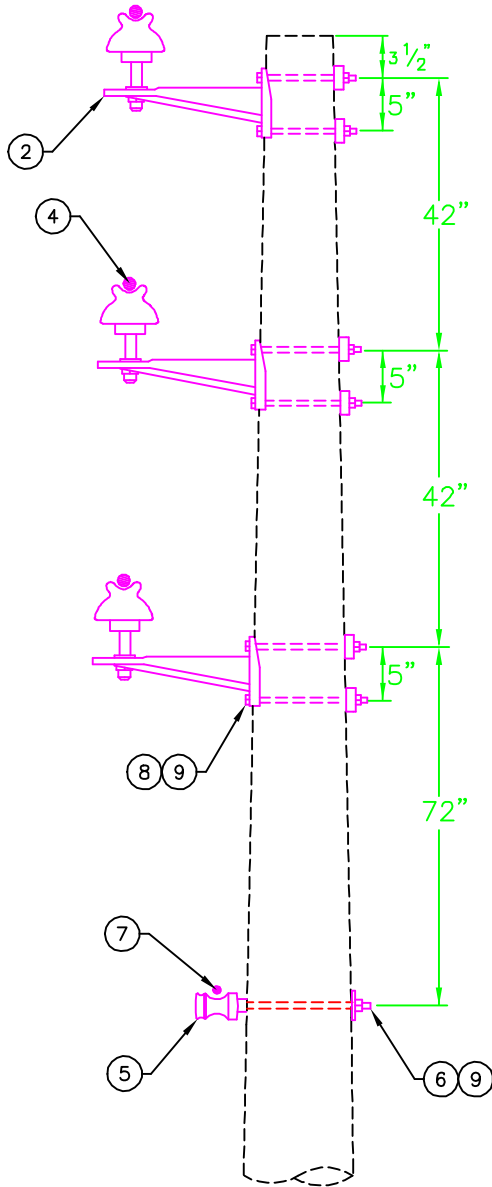
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, THREE PHASE
TANGENT, MIF VERTICAL SINGLE PIN, POLE TOP

| | | | |
|------------|----------|------------------|----------|
| DWN. | JLS | DATE: 08/28/2019 | |
| CKD. | KW | APPD. | |
| SCALE: NTS | | | |
| DATE | REVISION | DATE | REVISION |
| | | | |

DWG. NO.
C1.V



NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

| DWG REF | QTY | LIST OF MATERIALS | STOCK# | |
|---------|-----|-------------------|-----------------------------|--------|
| 1/0 | 336 | 795 | DESCRIPTION | STOCK# |
| 1 | 3 | 3 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 1 | - | - | INSULATOR, 25 kV POST TYPE | 207720 |
| 2 | 3 | 3 | BRACKETS, MIF | 203420 |
| 3 | 3 | 3 | PIN, SHANK | 203440 |
| 3 | - | - | BOLTS, 3/4" x 3/4" STUD | 210361 |
| 4 | 3 | - | PREFORMS, 1/0 WRAP TIE | 203590 |
| 4 | - | 3 | PREFORMS, 336 WRAP LOCK TIE | 203600 |
| 4 | - | - | PREFORMS, 795 WRAP LOCK TIE | 203660 |
| 5 | 1 | 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 6 | 1 | 1 | BOLTS, 5/8" x 12" SPOOL | 202000 |
| 7 | 1 | 1 | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 7 | - | 1 | PREFORMS, 336 SPOOL TIE | 207580 |
| 8 | 6 | 6 | BOLTS, 5/8" x 12" | 202070 |
| 9 | 7 | 7 | WASHERS, 2 1/4" SQUARE | 204440 |

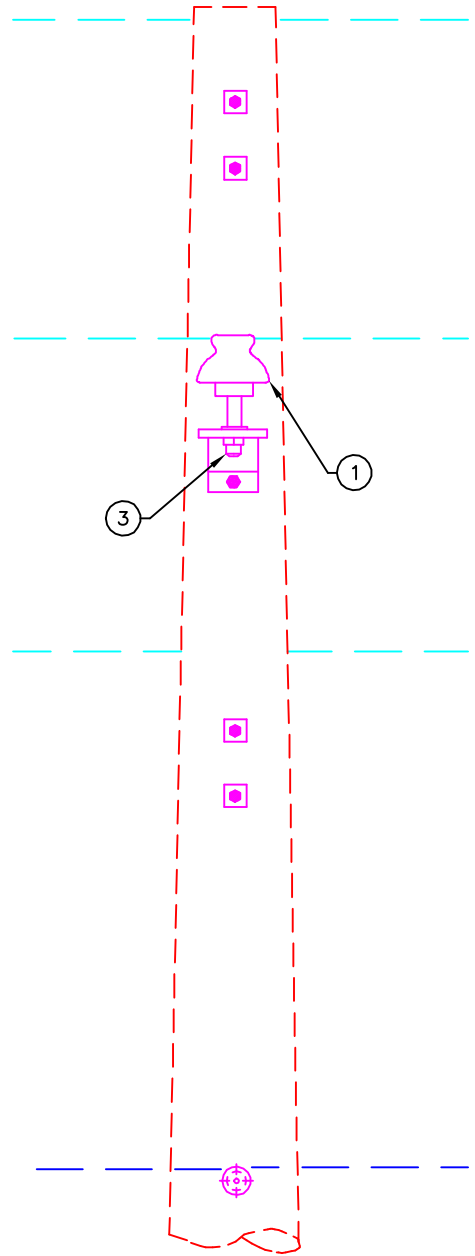
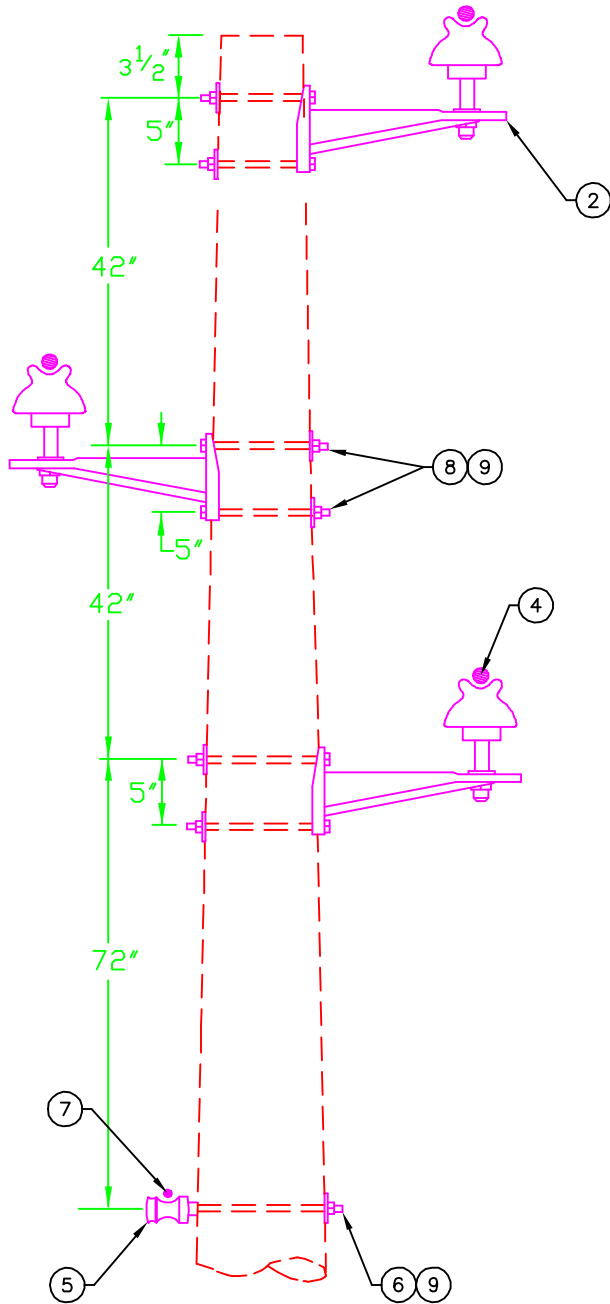
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, THREE PHASE
TANGENT, MIF VERTICAL SINGLE PIN

| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 08/28/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NTS | | |
| DATE | REVISION | DATE | REVISION |

DWG. NO.
C1.V1



NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

| DWG REF | QTY | | | LIST OF MATERIALS | |
|---------|-----|-----|-----|-----------------------------|--------|
| | 1/0 | 336 | 795 | DESCRIPTION | STOCK# |
| 1 | 3 | 3 | - | INSULATORS, 15 kV PIN TYPE | 203710 |
| 1 | - | - | 3 | INSULATOR, 25 kV POST TYPE | 207720 |
| 2 | 3 | 3 | 3 | BRACKETS, MIF | 203420 |
| 3 | 3 | 3 | - | PIN, SHANK | 203440 |
| 3 | - | - | 3 | BOLTS, 3/4" x 3/4" STUD | 210361 |
| 4 | 3 | - | - | PREFORMS, 1/0 WRAP TIE | 203590 |
| 4 | - | 3 | - | PREFORMS, 336 WRAP LOCK TIE | 203600 |
| 4 | - | - | 3 | PREFORMS, 795 WRAP LOCK TIE | 203660 |
| 5 | 1 | 1 | 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 6 | 1 | 1 | 1 | BOLTS, 5/8" x 12" SPOOL | 202000 |
| 7 | 1 | 1 | - | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 7 | - | - | 1 | PREFORMS, 336 SPOOL TIE | 207580 |
| 8 | 6 | 6 | 6 | BOLTS, 5/8" x 12" | 202070 |
| 9 | 7 | 7 | 7 | WASHERS, 2 1/4" SQUARE | 204440 |

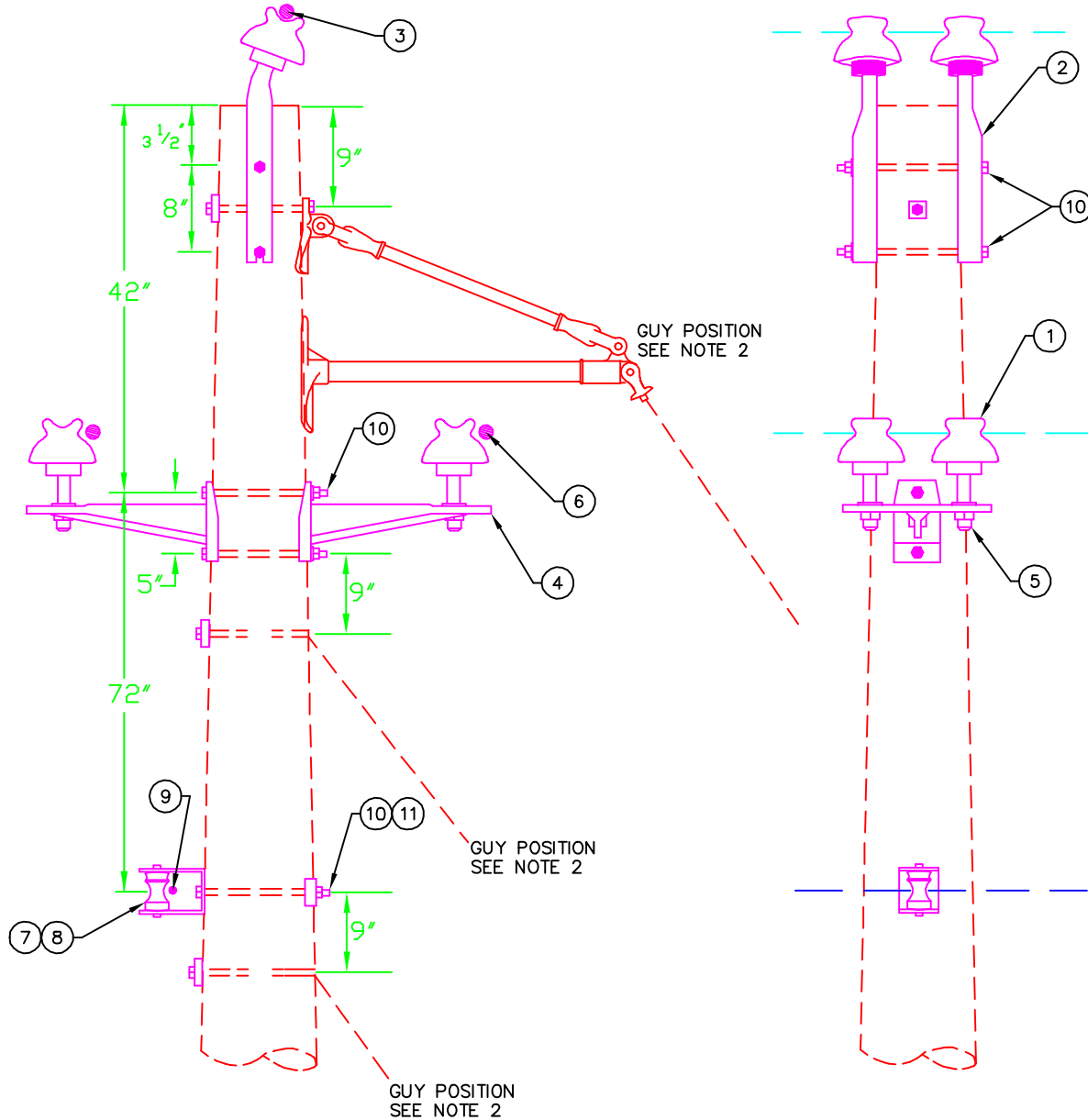
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, THREE PHASE
TANGENT, MIF Z CONSTRUCTION SINGLE PIN

| | | | |
|--------|----------|------------------|----------|
| DWN. | JLS | DATE: 08/28/2019 | |
| CKD. | KW | APPD. | |
| SCALE: | | NTS | |
| DATE | REVISION | DATE | REVISION |
| | | | |

DWG. NO.
C1.Z



NOTES:

- 1) LINE ANGLE FOR A DOUBLE PIN INSULATOR SHOULD BE (1°-12°).
- 2) SEE DRAWINGS SWG-12(14), DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 3) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS

| DWG REF | QTY | LIST OF MATERIALS | STOCK# |
|---------|-----------|----------------------------------|--------|
| | 1/0336795 | DESCRIPTION | |
| 1 | 6 6 | INSULATORS, 15 kV PIN TYPE | 203710 |
| 1 | - - 6 | INSULATOR, 25 kV POST TYPE | 207720 |
| 2 | 2 2 | PIN, 18" POLE TOP | 203430 |
| 2 | - - 2 | BRACKET, 35 kV POLE TOP | 207890 |
| 3 | 1 - - | PREFORMS, 1/0 DOUBLE SUPPORT | 203580 |
| 3 | - 1 - | PREFORMS, 336 DOUBLE SUPPORT TIE | 203570 |
| 3 | - - 1 | PREFORMS, 795 DOUBLE SUPPORT TIE | 203670 |
| 4 | 2 2 2 | BRACKETS, MIF | 203420 |
| 5 | 4 4 | PIN, SHANK | 203440 |
| 5 | - - 6 | BOLTS, 3/4" x 3/4" STUD | 210361 |
| 6 | 2 - - | PREFORMS, 1/0 DOUBLE SIDE TIE | 203540 |
| 6 | - 2 - | PREFORMS, 336 DOUBLE SIDE TIE | 203550 |
| 6 | - - 2 | PREFORMS, 795 DOUBLE SIDE TIE | 207800 |
| 7 | 1 1 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 8 | 1 1 1 | CLEVIS, 1342 | 208290 |
| 9 | 1 1 - | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 9 | - - 1 | PREFORMS, 336 SPOOL TIE | 207580 |
| 10 | 5 5 5 | BOLTS, 5/8" x 12" | 202070 |
| 11 | 1 1 1 | WASHERS, 3 X 3 CURVED | 204450 |

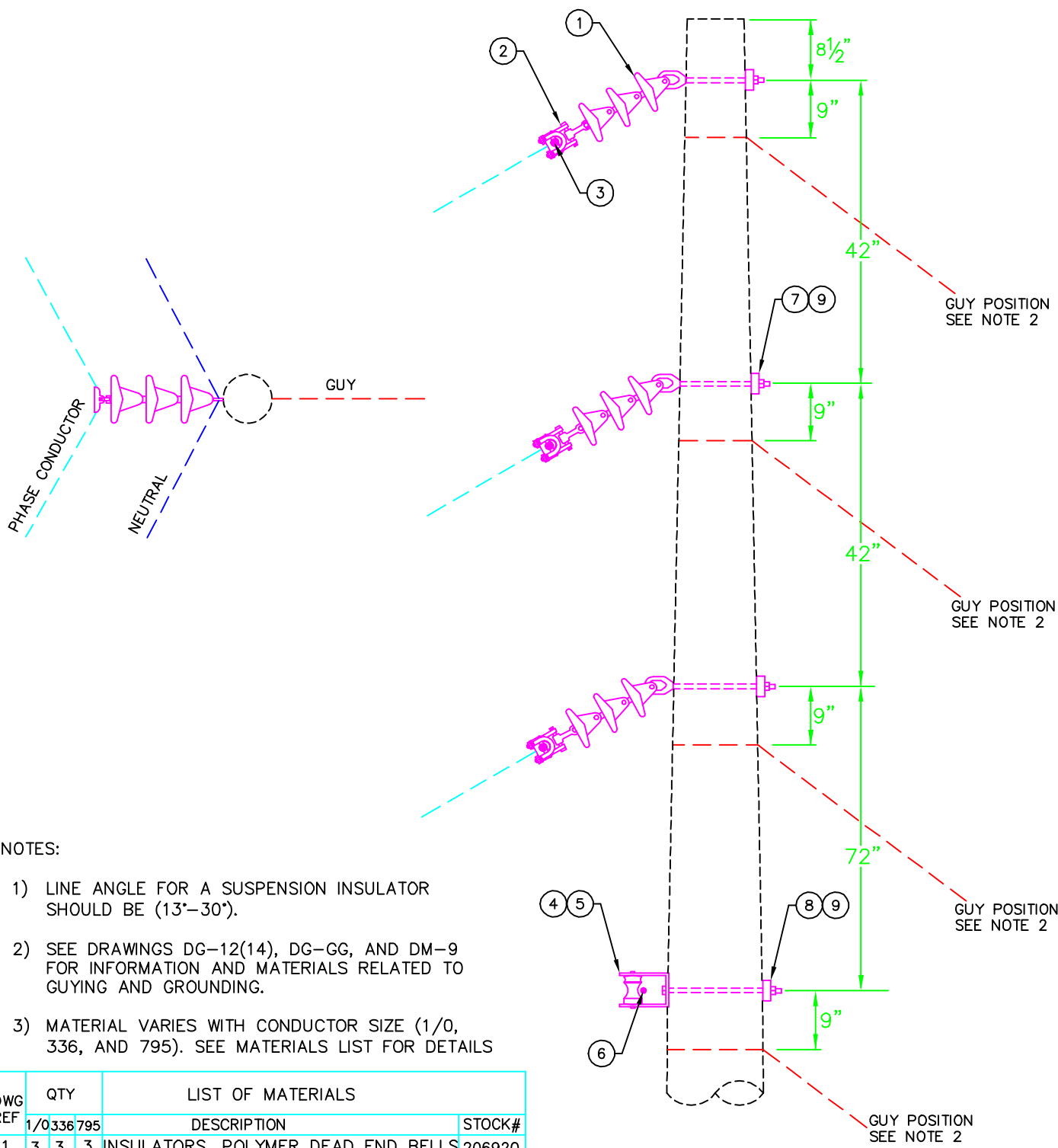
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, THREE PHASE
SMALL ANGLE, MIF CONSTRUCTION DOUBLE PIN

| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 08/28/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NTS | | |
| DATE | REVISION | DATE | REVISION |

DWG. NO.
C2



NOTES:

- 1) LINE ANGLE FOR A SUSPENSION INSULATOR SHOULD BE (13°-30°).
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 3) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS

| DWG REF | QTY | LIST OF MATERIALS | STOCK# |
|---------|-------|------------------------------------|--------|
| 1 | 3 3 3 | INSULATORS, POLYMER DEAD END BELLS | 206920 |
| 2 | 3 - - | CLAMPS, 1/0 SUSPENSION | 202420 |
| 2 | - 3 - | CLAMPS, 336 SUSPENSION | 202400 |
| 2 | - - 3 | CLAMPS, 795 SUSPENSION | 202430 |
| 3 | 3 - - | RODS, 1/0 ARMOR | 201960 |
| 3 | - 3 - | RODS, 336 ARMOR | 201980 |
| 3 | - - 3 | RODS, 795 ARMOR | 207740 |
| 4 | 1 1 1 | INSULATORS, SPOOL "J-151" | 208280 |
| 5 | 1 1 1 | CLEVIS, 1342 | 208290 |
| 6 | 1 1 - | PREFORMS, 1/0 SPOOL TIE | 203650 |
| 6 | - - 1 | PREFORMS, 336 SPOOL TIE | 207580 |
| 7 | 3 3 3 | BOLTS, 5/8" x 12" EYE | 202290 |
| 8 | 1 1 1 | BOLTS, 5/8" x 12" | 202070 |
| 9 | 4 4 4 | WASHERS, 3 X 3 CURVED | 204450 |

GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA

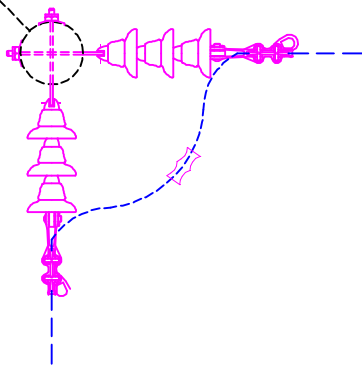


12.47/7.2KV PRIMARY, THREE PHASE
LARGE ANGLE, SUSPENSION INSULATOR

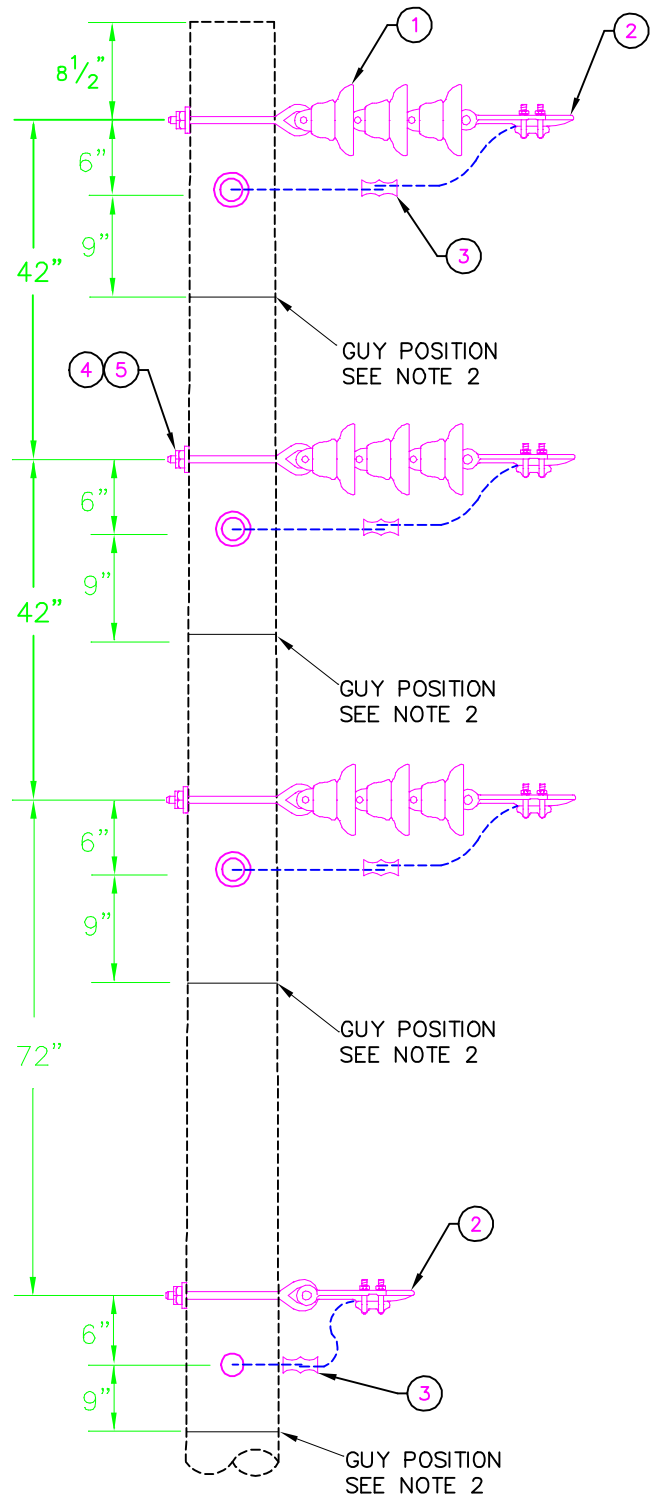
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|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 09/03/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NTS | | |
| DATE | REVISION | DATE | REVISION |

DWG. NO.
C3

GUY POSITION



PLAN VIEW



NOTES:

- 1) LINE ANGLE FOR A DOUBLE DEADEND SHOULD BE GREATER THAN 30°.
- 2) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 3) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

| DWG REF | QTY | LIST OF MATERIALS | STOCK # |
|-----------|-------|------------------------------------|---------|
| 1/0336795 | | DESCRIPTION | |
| 1 | 6 6 6 | INSULATORS, POLYMER DEAD END BELLS | 206920 |
| 2 | 8 2 - | SHOE, #6 - 1/0 DEAD END | 207570 |
| 2 | - 6 2 | SHOE, 336 DEAD END | 202450 |
| 2 | - - 6 | SHOE, 795 DEAD END | 202440 |
| 3 | 4 1 - | SQUEEZONS, #4 | 203010 |
| 3 | - 3 1 | CONN., 602007 AMPACT 336-336 | 202880 |
| 3 | - - 3 | CONN., 795-795 AMPACT | 202940 |
| 4 | 8 8 8 | BOLTS, 5/8" X 12" EYE | 202290 |
| 5 | 8 8 8 | WASHERS, 3 X 3 CURVED | 204450 |

GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA

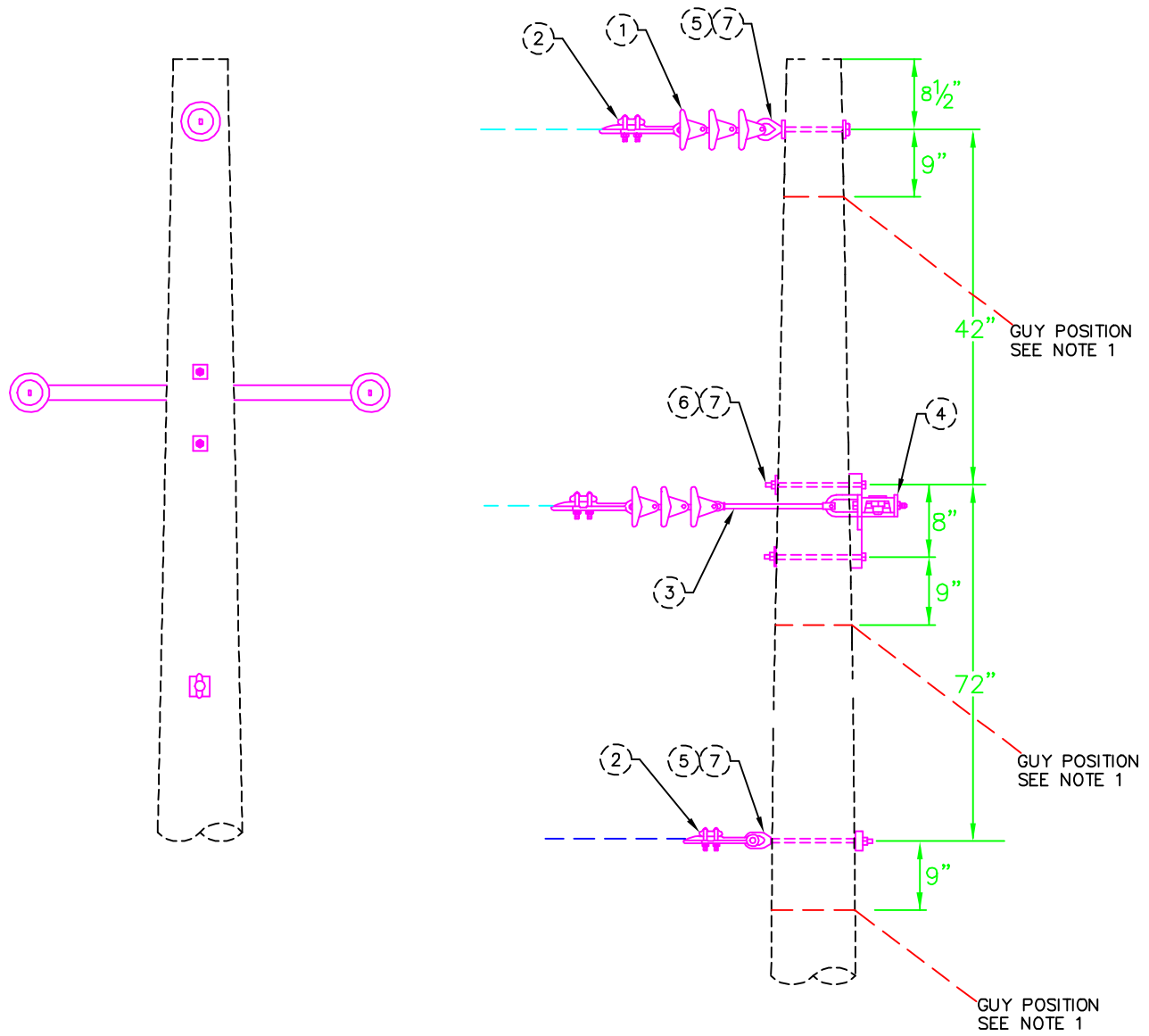


12.47/7.2KV PRIMARY, THREE PHASE
LARGE ANGLE, DOUBLE DEADEND SUSPENSION

| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 09/03/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NONE | | |
| DATE | REVISION | DATE | REVISION |
| | | | |


DWG. NO.

C4

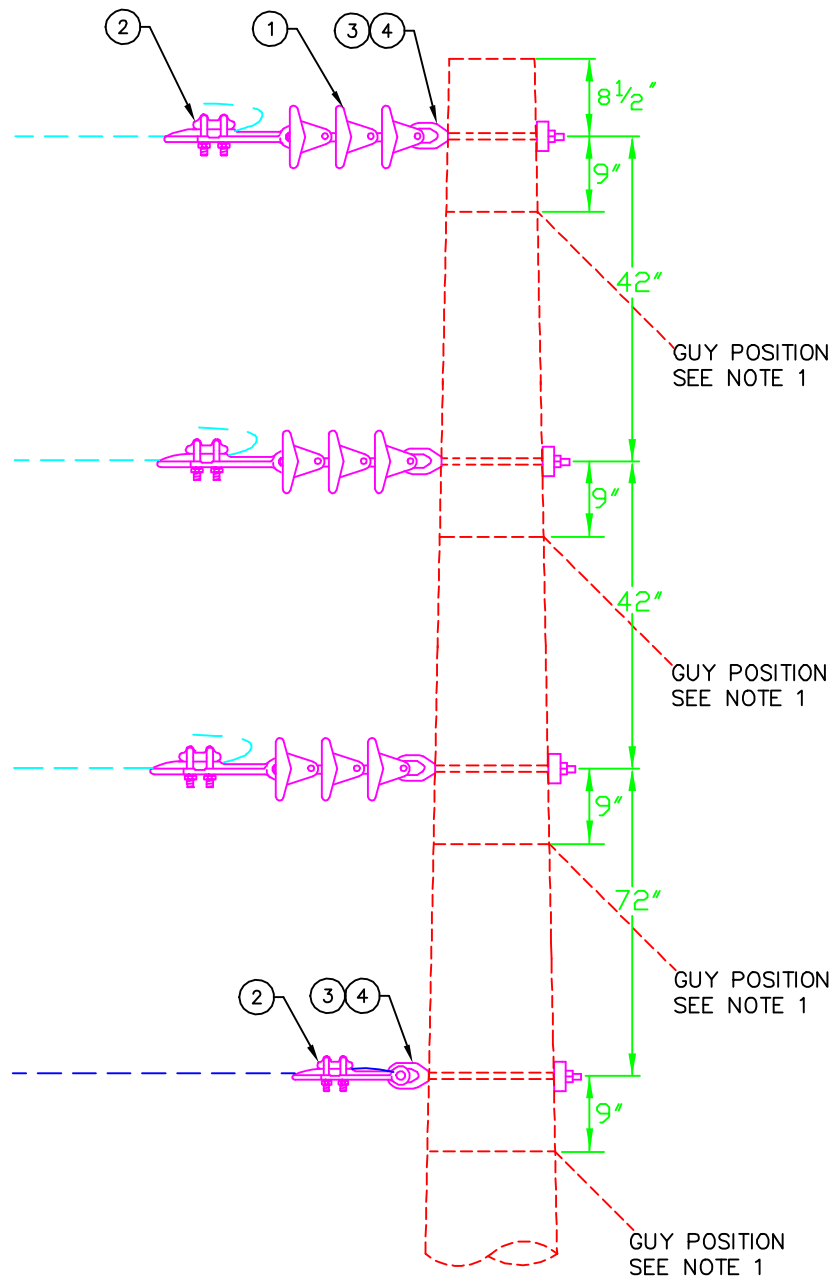


NOTES:

- 1) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.


| DWG REF | QTY | LIST OF MATERIALS | STOCK # | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | |
|---------|-------------|------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|----------|
| | 1/0 336 795 | DESCRIPTION | |  <p>12.47/7.2KV PRIMARY, THREE PHASE SINGLE DEADEND, CROSSARM SUSPENSION</p> | | | |
| 1 | 3 3 3 | INSULATORS, POLYMER DEAD END BELLS | 206920 | | | | |
| 2 | 4 1 - | SHOE, #6 - 1/0 DEAD END | 207570 | | | | |
| 2 | - 3 1 | SHOE, 336 DEAD END | 202450 | | | | |
| 2 | - - 3 | SHOE, 795 DEAD END | 202440 | | | | |
| 3 | 2 2 2 | EXTENSIONS, 14" LINKS | 210340 | | | | |
| 4 | 1 1 1 | ARMS, STEEL DEAD END CROSS | 203800 | | | | |
| 5 | 2 2 2 | BOLTS, 5/8" x 12" EYE | 202290 | DWN. | JLS | DATE: 09/03/2019 | |
| 6 | 2 2 2 | BOLTS, 3/4" x 12" | 202230 | CKD. | KW | APPD. | |
| 7 | 4 4 4 | WASHERS, 3 X 3 CURVED | 204450 | SCALE: | NONE | | |
| | | | | DATE | REVISION | DATE | REVISION |
| | | | | | | | |
| | | | | | | | |

DWG. NO.
C5

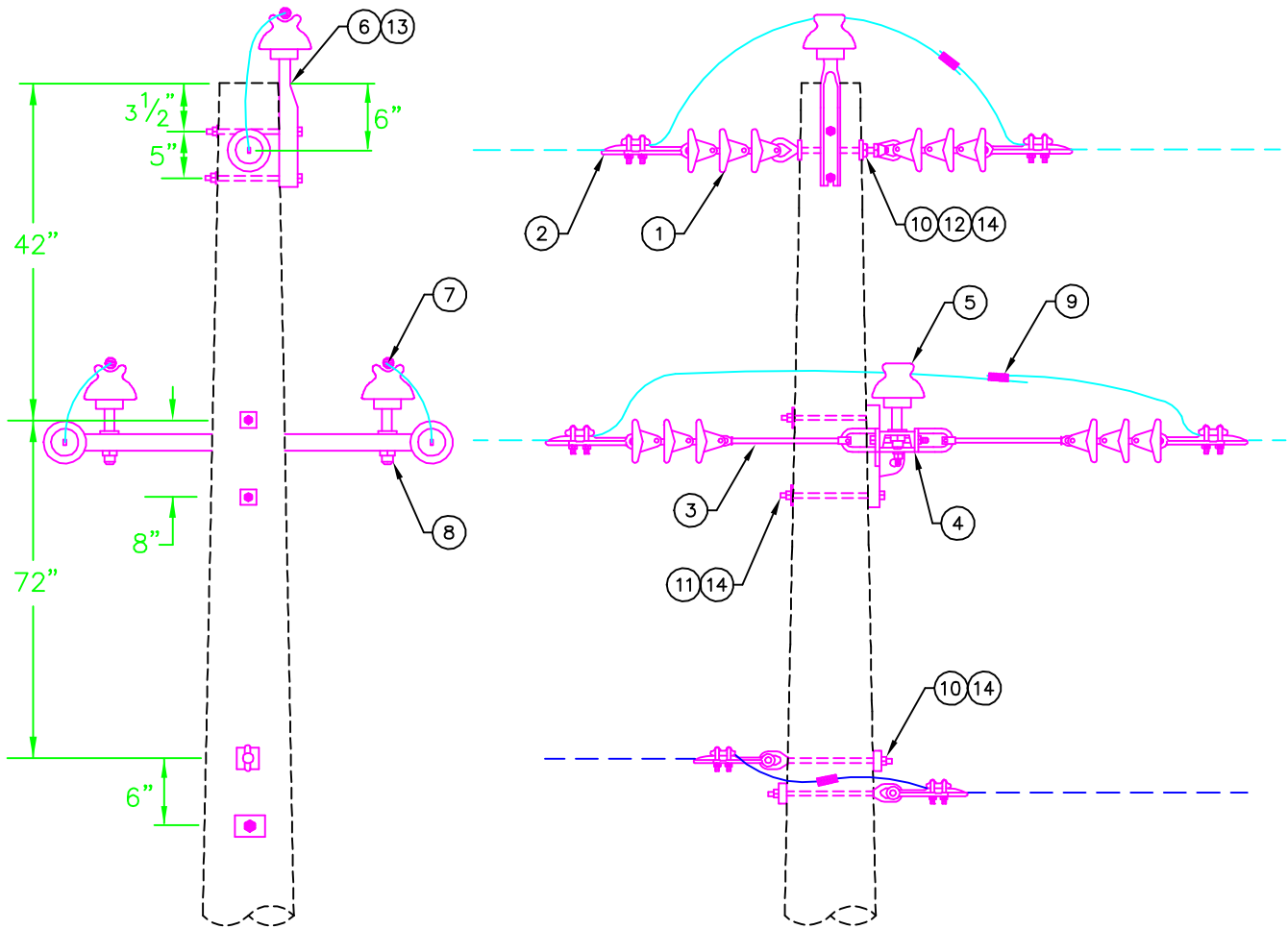


NOTES:

- 1) SEE DRAWINGS DG-12(14), DG-GG, AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

| DWG REF | QTY | LIST OF MATERIALS | STOCK # | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | |
|---------|-------------|------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|----------|
| | 1/0 336 795 | DESCRIPTION | |  12.47/7.2KV PRIMARY, THREE PHASE SINGLE DEADEND (TAP), VERTICAL SUSPENSION | | | |
| 1 | 3 3 3 | INSULATORS, POLYMER DEAD END BELLS | 206920 | | | | |
| 2 | 4 1 - | SHOE, #6 - 1/0 DEAD END | 207570 | | | | |
| 2 | - 3 1 | SHOE, 336 DEAD END | 202450 | | | | |
| 2 | - - 3 | SHOE, 795 DEAD END | 202440 | | | | |
| 3 | 4 4 4 | BOLTS, 5/8" X 12" EYE | 202290 | DWN. | JLS | DATE: 09/03/2019 | |
| 4 | 4 4 4 | WASHERS, 3 X 3 CURVED | 204450 | CKD. | KW | APPD. | |
| | | | | SCALE: | NONE | | |
| | | | | DATE | REVISION | DATE | REVISION |
| | | | | | | | |
| | | | | | | | |

DWG. NO.
C5.V



| DWG REF | QTY | LIST OF MATERIALS | STOCK# |
|---------|-------|------------------------------------|--------|
| 1 | 6 6 6 | INSULATORS, POLYMER DEAD END BELLS | 203710 |
| 2 | 8 2 - | SHOE, #6 - 1/0 DEAD END | 207570 |
| 2 | - 6 2 | SHOE, 336 DEAD END | 202450 |
| 2 | - - 6 | SHOE, 795 DEAD END | 202440 |
| 3 | 4 4 4 | EXTENSIONS, 14" LINKS | 210340 |
| 4 | 1 1 1 | ARMS, STEEL DEAD END CROSS | 203800 |
| 5 | 3 3 - | INSULATORS, 15 kV PIN TYPE | 203710 |
| 5 | - - 3 | INSULATOR, 25 kV POST TYPE | 207720 |
| 6 | 1 1 - | PIN, 18" POLE TOP | 203430 |
| 6 | - - 1 | BRACKET, 35 kV POLE TOP | 207890 |
| 7 | 3 - - | PREFORMS, 1/0 WRAP TIE | 203590 |
| 7 | - 3 - | PREFORMS, 336 WRAP LOCK TIE | 203600 |
| 7 | - - 3 | PREFORMS, 795 WRAP LOCK TIE | 203660 |
| 8 | 2 2 - | PINS, LONG SHANK CROSS ARM | 210311 |
| 8 | - - 2 | PINS, 35 kV CROSS | - |
| 9 | 4 1 - | SQUEEZONS, #4 | 203010 |
| 9 | - 3 1 | CONN., 602007 AMPACT 336-336 | 202880 |
| 9 | - - 3 | CONN., 795-795 AMPACT | 202940 |
| 10 | 3 3 3 | BOLTS, 5/8" x 12" EYE | 202290 |
| 11 | 2 2 2 | BOLTS, 3/4" x 12" | 202230 |
| 12 | 1 1 1 | NUTS, 5/8" EYE | 204420 |
| 13 | - - 1 | BOLTS, 3/4" x 3/4" STUD | 210361 |
| 14 | 5 5 5 | WASHERS, 3 X 3 CURVED | 204450 |

NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.
- 2) MATERIAL VARIES WITH CONDUCTOR SIZE (1/0, 336, AND 795). SEE MATERIALS LIST FOR DETAILS.

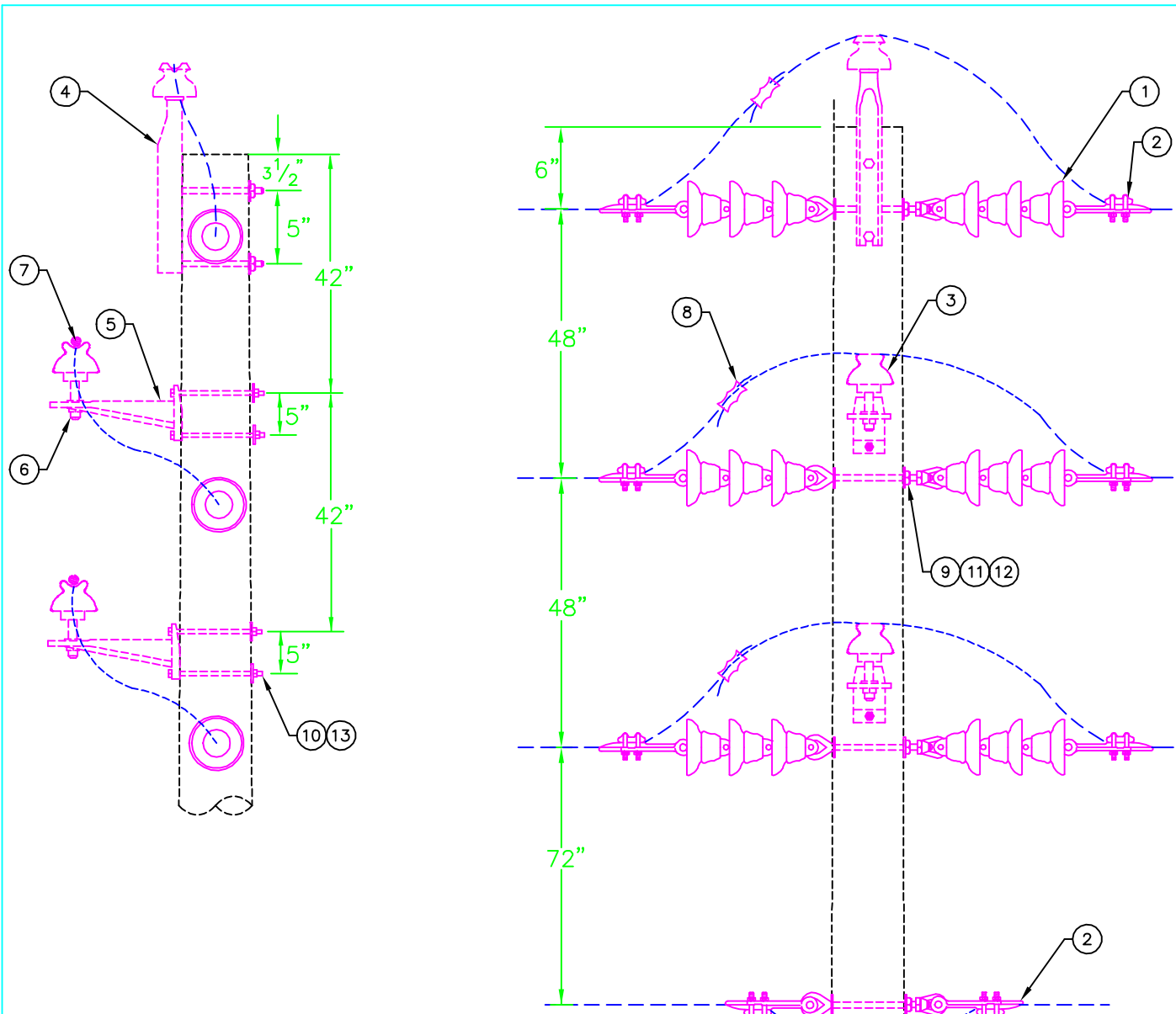
GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



12.47/7.2KV PRIMARY, THREE PHASE
TANGENT DOUBLE DEADEND, CROSS. SUSPEN.

| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 09/04/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NTS | | |
| DATE | REVISION | DATE | REVISION |

DWG. NO.
C6



| DWG REF | QTY | LIST OF MATERIALS DESCRIPTION | STOCK# |
|---------|-----|--------------------------------------|--------|
| 1 | 6 | 6 INSULATORS, POLYMER DEAD END BELLS | 203710 |
| 2 | 8 | 2 SHOE, #6 - 1/0 DEAD END | 207570 |
| 2 | - | 6 SHOE, 336 DEAD END | 202450 |
| 2 | - | 6 SHOE, 795 DEAD END | 202440 |
| 3 | 3 | 3 INSULATORS, 15 kV PIN TYPE | 203710 |
| 3 | - | 3 INSULATOR, 25 kV POST TYPE | 207720 |
| 4 | 1 | 1 PIN, 18" POLE TOP | 203430 |
| 4 | - | 1 BRACKET, 35 kV POLE TOP | 207890 |
| 5 | 1 | 1 BRACKETS, MIF | 203420 |
| 6 | 2 | 2 PIN, SHANK | 203440 |
| 6 | - | 3 BOLTS, 3/4" x 3/4" STUD | 210361 |
| 7 | 3 | - | 203590 |
| 7 | - | 3 PREFORMS, 1/0 WRAP TIE | 203600 |
| 7 | - | 3 PREFORMS, 336 WRAP LOCK TIE | 203660 |
| 7 | - | 3 PREFORMS, 795 WRAP LOCK TIE | 203660 |
| 8 | 4 | 1 SQUEEZONS, #4 | 203010 |
| 8 | - | 3 CONN., 602007 AMPACT 336-336 | 202880 |
| 8 | - | 3 CONN., 795-795 AMPACT | 202940 |
| 9 | 4 | 4 BOLTS, 5/8" x 12" EYE | 202290 |
| 10 | 6 | 6 BOLTS, 5/8" x 12" | 202070 |
| 11 | 4 | 4 NUTS, 5/8" EYE | 204420 |
| 12 | 3 | 3 WASHERS, 3 X 3 CURVED | 204450 |
| 13 | 5 | 5 2 1/4" SQUARE WASHER | 204440 |

NOTES:

- 1) SEE DRAWINGS DN-GG AND DM-9 FOR INFORMATION AND MATERIALS RELATED TO GUYING AND GROUNDING.

GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA



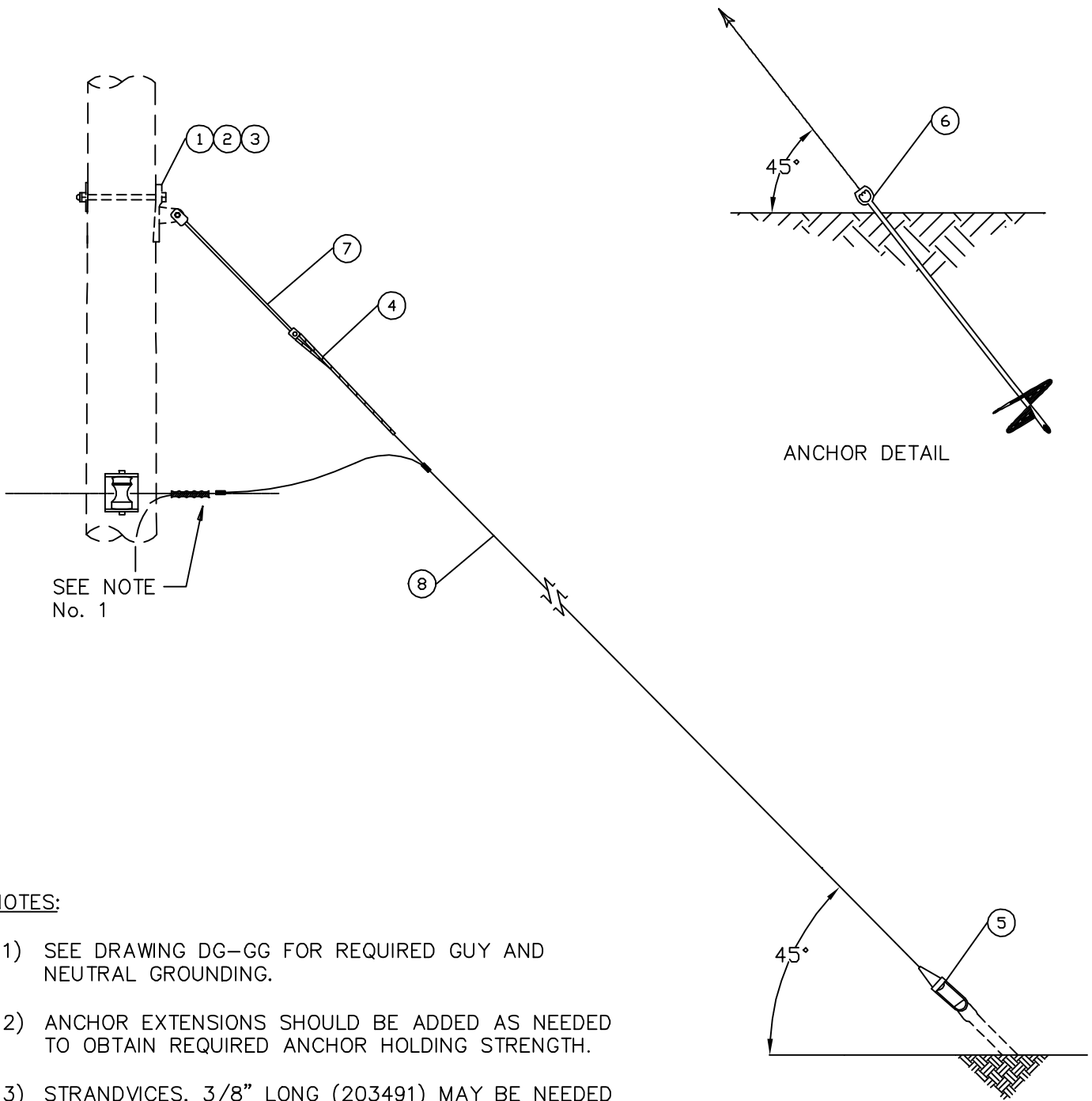
12.47/7.2KV PRIMARY, THREE PHASE
TANGENT, DOUBLE DEADEND SUSPENSION

| | | | |
|--------|----------|-------|------------|
| DWN. | JLS | DATE: | 09/04/2019 |
| CKD. | KW | APPD. | |
| SCALE: | NONE | | |
| DATE | REVISION | DATE | REVISION |

DWG. NO.
C6.V


Appendix C: Standard Assembly Drawings

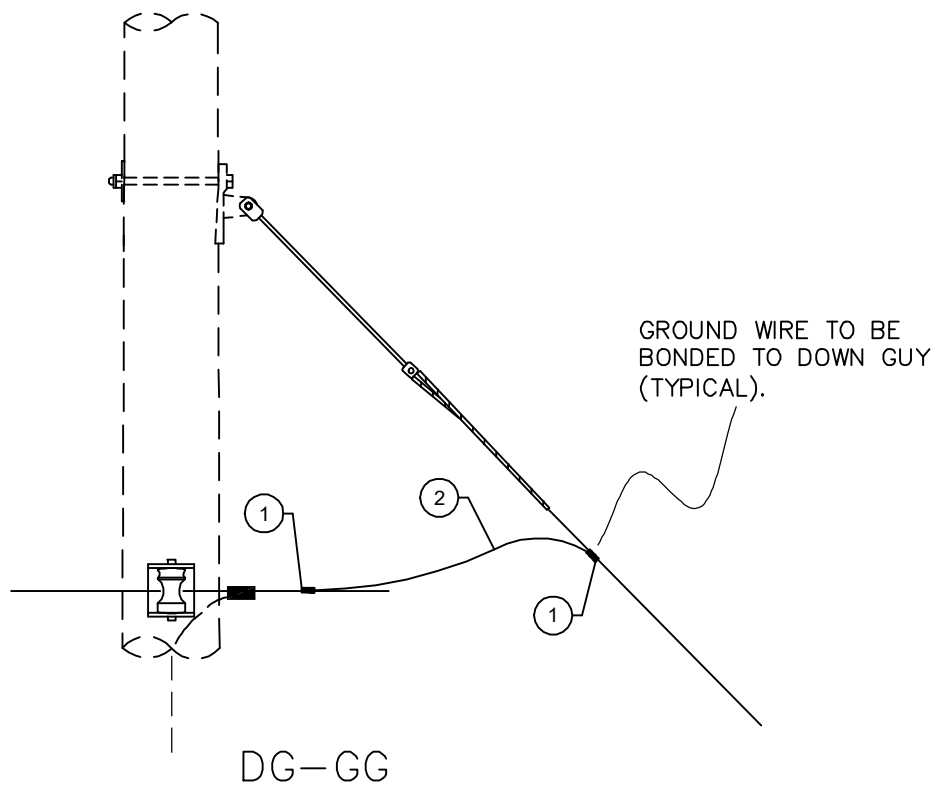
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NOTES:

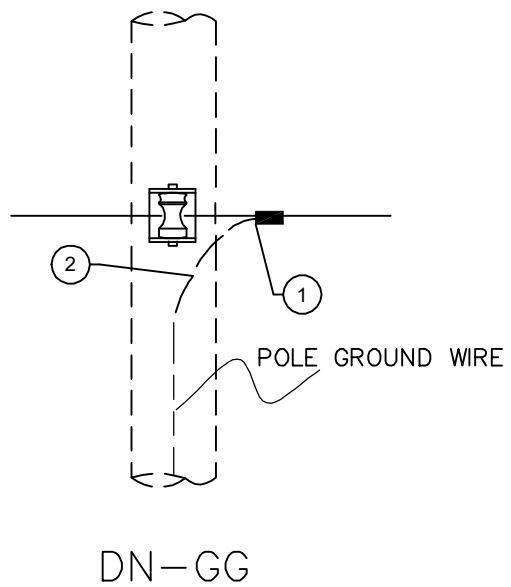
- 1) SEE DRAWING DG-GG FOR REQUIRED GUY AND NEUTRAL GROUNDING.
- 2) ANCHOR EXTENSIONS SHOULD BE ADDED AS NEEDED TO OBTAIN REQUIRED ANCHOR HOLDING STRENGTH.
- 3) STRANDVICES, 3/8" LONG (203491) MAY BE NEEDED WHEN ATTACHING 2 GUY TO A SINGLE ANCHOR.


| DWG. REF. | QTY | | LIST OF MATERIALS | STOCK # | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | | |
|---------------------------------------------------------|-----|----|-------------------------------------|---------|-------------------------------------------------------------------------------------|------------------------------|----------|----------------|----------------------------|
| | 12 | 14 | | | DESCRIPTION | DISTRIBUTION SINGLE DOWN GUY | | | |
| 1 | 1 | 1 | PLATES, P-345 GUY | 203410 |  | DWN. JLS | | DATE: 07/31/19 | DWG. NO. DG-12 DG-14 |
| 2 | 1 | - | BOLTS, 3/4" X 12" MACHINE | 202230 | | CKD. KW | | APPD. KW | |
| 2 | - | 1 | BOLTS, 3/4" X 14" MACHINE | 202240 | | SCALE: N.T.S. | | | |
| 3 | 1 | 1 | WASHERS, 3 X 3 CURVED | 204450 | | DATE | REVISION | | |
| 4 | 1 | 1 | GRIPS, 3/8" PREFORM GUY GDE-2107 | 207540 | | | | | |
| 5 | 1 | 1 | STRANDVICES, 3/8" | 203490 | | | | | |
| 6 | 1 | 1 | ANCHOR, 10" SCREW | 203980 | | | | | |
| 7 | * | * | ISOLATORS, STRAIN X REQUIRED LENGTH | - | | | | | |
| 8 | * | * | WIRE, 3/8" GUY | 204470 | | | | | |
| | 1 | 1 | GUARD, YELLOW GUY | 208690 | | | | | |
| * QUANTITY DEPENDS ON POLE HEIGHT & CONDUCTOR CLEARANCE | | | | | | | | | |

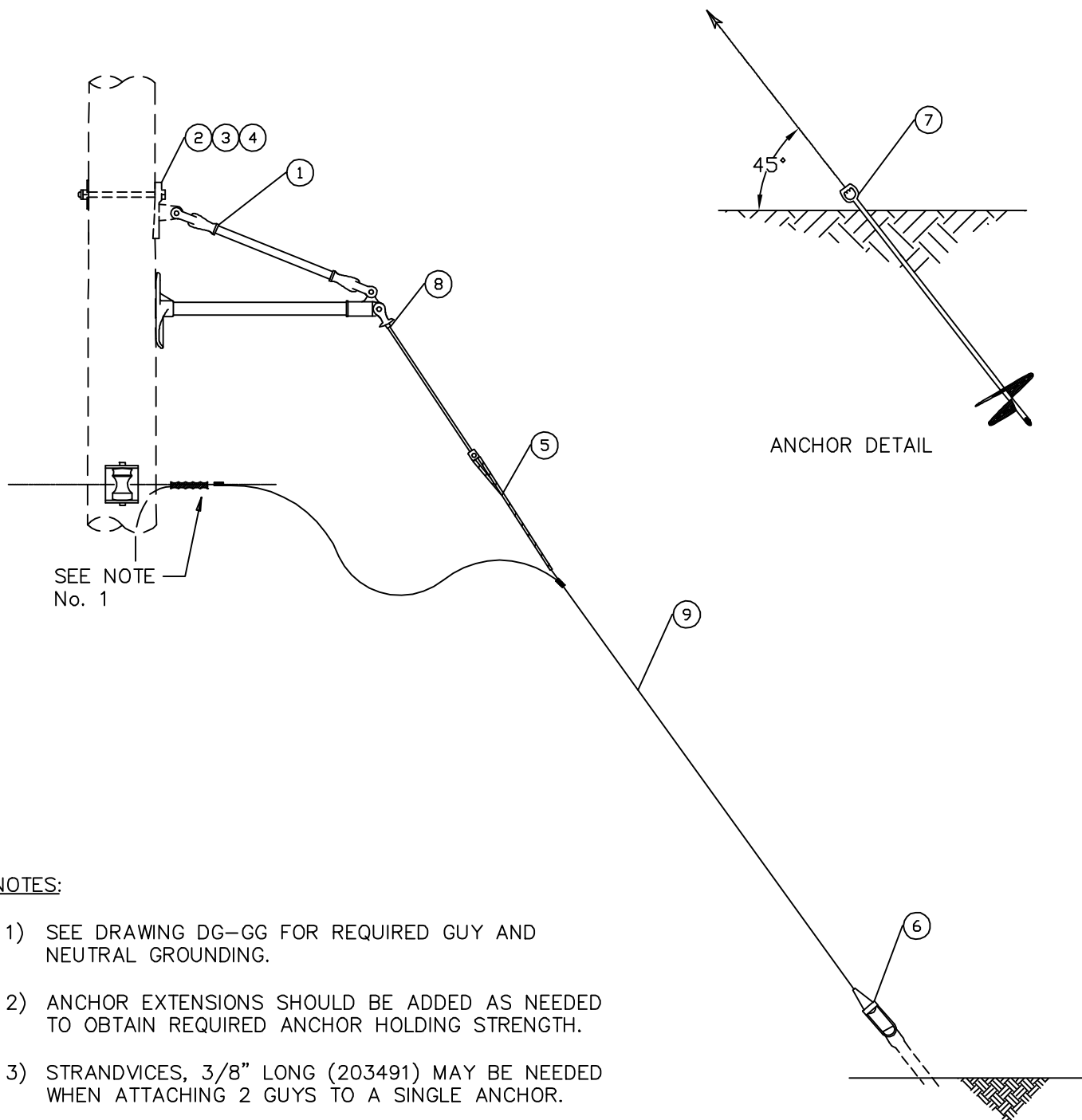


NOTES:

- 1) NEUTRAL SHALL BE GROUNDED AT EVERY TRANSFORMER LOCATION AND ADDITIONAL POINTS TO TOTAL NOT LESS THAN 4 GROUNDS PER MILE. (TYPICALLY 1 GROUND EVERY 4 POLES)
- 2) WHEN MULTIPLE GUYS ARE PRESENT, GUYS WILL BE TIED TOGETHER USING THE LAST GUY TO GROUND TO THE NEUTRAL. ADD WIRE AND SQUEEZONS AS NEEDED.
- 3) SEE DRAWING DM-9 FOR DRIVEN GROUND ROD GROUNDING ASSEMBLY.




| DWG. REF. | QTY | | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | | |
|-----------|-----|----|---------------------------------|---------|---------------------------------------------------------------|------|----------------|--|-------------------------------------------------------------------------------------|
| | DG | DN | DESCRIPTION | STOCK # | DISTRIBUTION GUY AND NEUTRAL GROUNDING GUIDE | | | | |
| 1 | 2 | 1 | SQUEEZONS, #2 | 203050 | | | | |  |
| 2 | * | * | WIRE, #4 SOFT DRAWN COPPER (ft) | 204490 | | | | | |
| | | | | | DWN. JLS | | DATE: 08/12/19 | | DWG. NO. DG-GG |
| | | | | | CKD. KW | | APPD. KW | | |
| | | | | | SCALE: N.T.S. | | | | DN-GG |
| | | | | | DATE | DATE | REVISION | | |
| | | | | | * As Required | | | | |



NOTES:

- 1) SEE DRAWING DG-GG FOR REQUIRED GUY AND NEUTRAL GROUNDING.
- 2) ANCHOR EXTENSIONS SHOULD BE ADDED AS NEEDED TO OBTAIN REQUIRED ANCHOR HOLDING STRENGTH.
- 3) STRANDVICES, 3/8" LONG (203491) MAY BE NEEDED WHEN ATTACHING 2 GUYS TO A SINGLE ANCHOR.

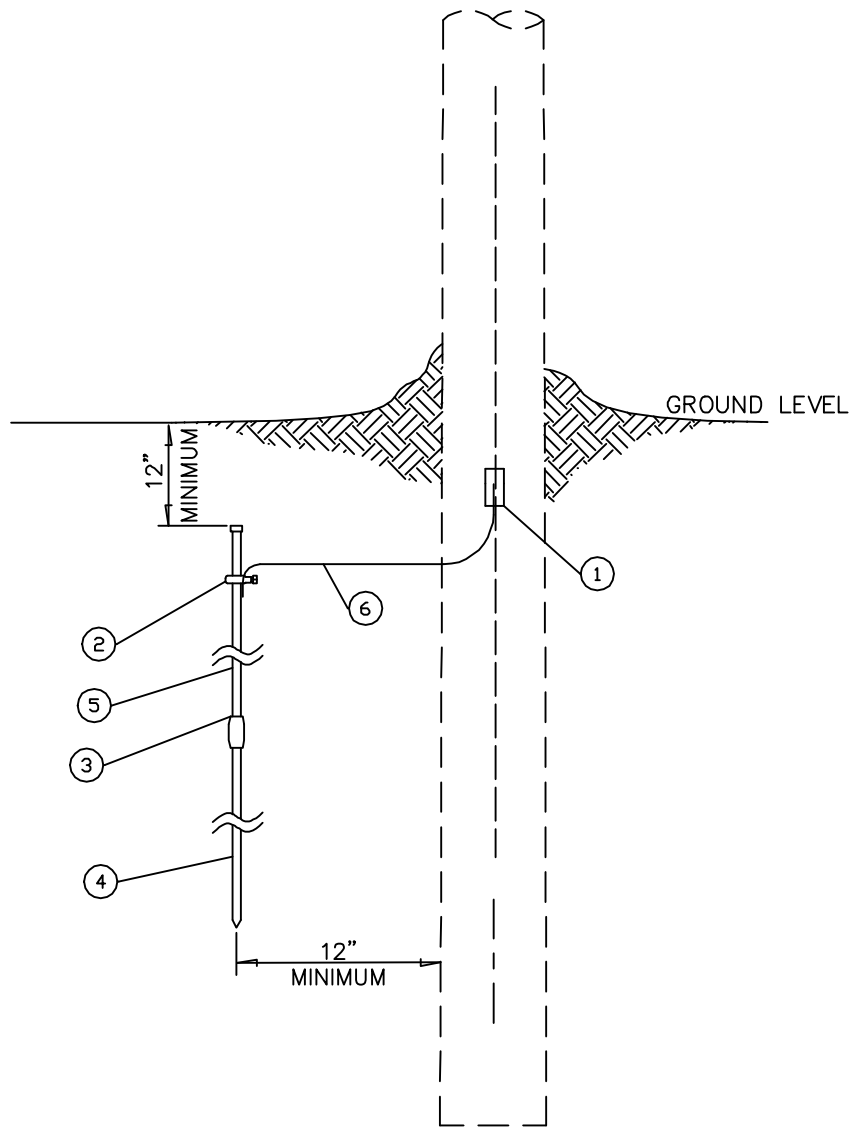
| DWG. REF. | QTY | | LIST OF MATERIALS | STOCK # |
|---------------------------------------------------------|-----|----|-------------------------------------|---------|
| | 12 | 14 | | |
| 1 | 1 | 1 | GUY, FIBERGLASS SIDEWALK | 207420 |
| 2 | 1 | 1 | PLATES, P-345 GUY | 203410 |
| 3 | 1 | - | BOLTS, 3/4" X 12" MACHINE | 202230 |
| 3 | - | 1 | BOLTS, 3/4" X 14" MACHINE | 202240 |
| 4 | 1 | 1 | WASHERS, 3 X 3 CURVED | 204450 |
| 5 | 1 | 1 | GRIPS, 3/8" PREFORM GUY GDE-2107 | 207540 |
| 6 | 1 | 1 | STRANDVICES, 3/8" | 203490 |
| 7 | 1 | 1 | ANCHOR, 10" SCREW | 203980 |
| 8 | * | * | ISOLATORS, STRAIN X REQUIRED LENGTH | - |
| 9 | * | * | WIRE, 3/8" GUY | 204470 |
| | 1 | 1 | GUARD, YELLOW GUY | 208690 |
| * QUANTITY DEPENDS ON POLE HEIGHT & CONDUCTOR CLEARANCE | | | | |



GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA


DISTRIBUTION SIDEWALK GUY

| | | | | |
|---------------|--|----------------|----------|--------------------------------------------|
| DWN. JLS | | DATE: 08/28/19 | | DWG. NO. SWG-12 SWG-14 |
| CKD. KW | | APPD. KW | | |
| SCALE: N.T.S. | | | | |
| DATE | | DATE | REVISION | |



NOTES:

- 1) MAXIMUM GROUND RESISTANCE READING SHALL BE 25 OHMS. IF THE CLAMP-ON RESISTANCE MEASUREMENT IS USED, THE GROUND ROD SHALL BE INSTALLED AND TEMPORARILY BONDED UNTIL THE GROUND RESISTANCE READING IS TAKEN.
- 2) ADDITIONAL ROD SECTIONS SHALL BE ADDED AS NECESSARY TO REDUCE RESISTANCE TO 25 OHMS MAXIMUM. HORIZONTAL SPACING BETWEEN ADDITIONAL RODS SHALL BE NO LESS THAN 6 FEET.
- 3) GROUND ROD SHALL BE INSTALLED IN UNDISTURBED SOIL.

| DWG. REF. | QTY | LIST OF MATERIALS | | GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA | | | |
|-----------|-----|-----------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|-----------------------------|
| | | DESCRIPTION | STOCK # | | | | |
| 1 | * | SQUEEZONS, YC4C4 COPPER | 206240 |  DRIVEN GROUND ROD GROUNDING ASSEMBLY - WOOD POLE | | | DWG. NO. DM-9 |
| 2 | 1 | GROUND - ROD CLAMP, 5/8" | NS | | | | |
| 3 | 1 | GROUND - ROD COUPLING, 5/8" | NS | | | | |
| 4 | 1 | GROUND - ROD, 5/8" x 12'-0" | 207440 | | | | |
| 5 | 1 | GROUND - ROD, 5/8" x 8'-0" | 203850 | DWN. JLS | DATE: 08/13/19 | | |
| 6 | * | GROUND - WIRE, #4 (ft.) | 204490 | CKD. KW | APPD. KW | | |
| | | | | SCALE: N.T.S. | | | |
| | | | | DATE | DATE | REVISION | |
| | | | | | | | |
| | | | | | | | |
| | | * - As Required | | | | | |