

**GREENVILLE UTILITIES COMMISSION  
GREENVILLE, NORTH CAROLINA**

**SPECIFICATION AND BID DOCUMENTS  
FOR FY 2022-2023 115 KV TRANSMISSION  
POLE REPLACEMENTS**

**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 August 24, 2022 and immediately thereafter publicly opened and read for the replacement of 115 kV Transmission structures along Circuit 11, 12, 16, and 17.

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:**

**Questions regarding this bid request should be directed to Cleve Haddock, CLGPO, Procurement Manager at (252) 551-1533, [haddocgc@quc.com](mailto:haddocgc@quc.com). Questions should be received by or before August 10, 2022 end of business day.**

**GREENVILLE UTILITIES COMMISSION  
GREENVILLE, NORTH CAROLINA**

**SPECIFICATION AND BID DOCUMENTS  
FOR FY 2022-2023 115 KV TRANSMISSION POLE REPLACEMENTS**

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## SECTION I

### GENERAL INSTRUCTIONS FOR FORMAL BIDS

#### RELATED TO FY 2022-2023 115 KV TRANSMISSION POLE REPLACEMENTS

##### **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 August 24, 2022, 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 Oct 1, 2022.
- 19.2. The completion date for the projects' on-site activities shall be April 1, 2023.
- 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 station 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**

The pole line structures for this construction will be delivered and stored in the vicinity of G230 Substation site, shown on the Vicinity Map in the Appendices. All other materials furnished by Owner shall be issued from the Owner's warehouse located at 801 Mumford Road, 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 \_\_\_\_\_, 2022, 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  
REPLACEMENT OF 115 KV TRANSMISSION  
STRUCTURES ALONG CIRCUIT 11, 12, 16, AND 17**

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 150 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.

**[Balance of Page Left Blank Intentionally]**

## **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**

**TRANSMISSION STRUCTURE REPLACEMENT  
CONTRACT FOR FY 2022-2023 115 KV TRANSMISSION POLE REPLACEMENTS**

**FORM OF PROPOSAL**  
*(Provide two (2) copies)*

Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

<b>OWNER:</b>	<b>BIDDER</b>	
Greenville Utilities Commission 401 South Greene Street Greenville, North Carolina 27834 P.O. Box 1847 Greenville, North Carolina 27835  Mr. Cleve Haddock, CLGPO Procurement Manager Office: 252-551-1533 Cell: 252-361-3655		
	NAME	TITLE
	STREET ADDRESS	
	CITY/STATE/ZIP	
	PHONE:	
	FAX:	
	EMAIL:	
	SIGNATURE	
<b>MANUFACTURER OF PROPOSED EQUIPMENT</b>		
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 thereto, 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 April 1, 2023. 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**

### **TRANSMISSION 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 (TG 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.*

## STEEL POLE TRANSMISSION CONSTRUCTION ASSEMBLY UNITS

Part 1a - Ckt 11 Pole Units - Galvanized Steel Direct Embedded				Unit Price			Extended Price
Stucture Number	Unit Number	Embedment Depth (ft)	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
1	65/S-03.5	8.5	3	\$	\$	\$	\$
2	80/S-07.4	10	1	\$	\$	\$	\$
3	85/S-07.4	10.5	1	\$	\$	\$	\$
4	85/S-07.4	10.5	1	\$	\$	\$	\$
5	85/S-07.4	10.5	1	\$	\$	\$	\$
6	90/S-0.80	11	1	\$	\$	\$	\$
7	90/S-0.80	11	1	\$	\$	\$	\$
8	85/S-07.4	10.5	1	\$	\$	\$	\$
9	85/S-07.4	10.5	1	\$	\$	\$	\$
10	85/S-07.4	10.5	1	\$	\$	\$	\$
11	85/S-07.4	10.5	1	\$	\$	\$	\$
12	85/S-07.4	10.5	1	\$	\$	\$	\$
13	85/S-07.4	10.5	1	\$	\$	\$	\$
14	85/S-07.4	10.5	1	\$	\$	\$	\$
15	85/S-07.4	10.5	1	\$	\$	\$	\$
16	85/S-07.4	10.5	1	\$	\$	\$	\$
17	85/S-07.4	10.5	1	\$	\$	\$	\$
18	85/S-07.4	10.5	1	\$	\$	\$	\$
19	85/S-07.4	10.5	1	\$	\$	\$	\$
*20	85/S-07.4	10.5	1	\$	\$	\$	\$
21	85/S-07.4	10.5	1	\$	\$	\$	\$

\*Pole 20 will be installed in a different location at Engineer's Discretion

Part 1b - Ckt 12 Pole Units - Galvanized Steel Direct Embedded				Unit Price			Extended Price
Stucture Number	Unit Number	Embedment Depth (ft)	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
1	75/S-06.5	9.5	1	\$	\$	\$	\$
2	75/S-06.5	9.5	1	\$	\$	\$	\$
3	75/S-06.5	9.5	1	\$	\$	\$	\$
4	75/S-06.5	9.5	1	\$	\$	\$	\$
5	75/S-06.5	9.5	1	\$	\$	\$	\$
6	75/S-06.5	9.5	1	\$	\$	\$	\$
7	75/S-06.5	9.5	1	\$	\$	\$	\$



Part 1c - Ckt 16 Pole Units - Galvanized Steel Direct Embedded				Unit Price			Extended Price
Structure Number	Unit Number	Embedment Depth (ft)	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
1	70/S-05.7	9	1	\$	\$	\$	\$
2	70/S-05.7	9	1	\$	\$	\$	\$
3	70/S-05.7	9	1	\$	\$	\$	\$
4	70/S-05.7	9	1	\$	\$	\$	\$
5	70/S-05.7	9	1	\$	\$	\$	\$
6	70/S-05.7	9	1	\$	\$	\$	\$
7	85/S-07.4	10.5	1	\$	\$	\$	\$
8	80/S-07.4	10	1	\$	\$	\$	\$
9	80/S-07.4	10	1	\$	\$	\$	\$
10	80/S-07.4	10	1	\$	\$	\$	\$
11	80/S-07.4	10	1	\$	\$	\$	\$
12	80/S-07.4	10	1	\$	\$	\$	\$
13	85/S-07.4	10.5	1	\$	\$	\$	\$
14	75/S-06.5	9.5	1	\$	\$	\$	\$
15	65/S-03.5	8.5	1	\$	\$	\$	\$
16	60/S-03.5	8	1	\$	\$	\$	\$

Part 1d - Ckt 17 Pole Units - Galvanized Steel Direct Embedded				Unit Price			Extended Price
Stucture Number	Unit Number	Embedment Depth (ft)	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
1	85/S-07.4	10.5	1	\$	\$	\$	\$
2	80/S-07.4	10	1	\$	\$	\$	\$
3	80/S-07.4	10	1	\$	\$	\$	\$
4	80/S-07.4	10	1	\$	\$	\$	\$
5	80/S-07.4	10	1	\$	\$	\$	\$
6	75/S-06.5	9.5	1	\$	\$	\$	\$
7	70/S-05.7	9	1	\$	\$	\$	\$
8	70/S-05.7	9	1	\$	\$	\$	\$
9	70/S-05.7	9	1	\$	\$	\$	\$
10	70/S-05.7	9	1	\$	\$	\$	\$
11	70/S-05.7	9	1	\$	\$	\$	\$
12	70/S-05.7	9	1	\$	\$	\$	\$
13	70/S-05.7	9	1	\$	\$	\$	\$
14	70/S-05.7	9	1	\$	\$	\$	\$
15	70/S-05.7	9	1	\$	\$	\$	\$
16	70/S-05.7	9	1	\$	\$	\$	\$
17	70/S-05.7	9	1	\$	\$	\$	\$
18	70/S-05.7	9	1	\$	\$	\$	\$
19	70/S-05.7	9	1	\$	\$	\$	\$
20	70/S-05.7	9	1	\$	\$	\$	\$
21	70/S-05.7	9	1	\$	\$	\$	\$
22	70/S-05.7	9	1	\$	\$	\$	\$
23	70/S-05.7	9	1	\$	\$	\$	\$
24	70/S-05.7	9	1	\$	\$	\$	\$
25	70/S-05.7	9	1	\$	\$	\$	\$
26	70/S-05.7	9	1	\$	\$	\$	\$
27	65/S-03.5	8.5	1	\$	\$	\$	\$
28	75/S-06.5	9.5	1	\$	\$	\$	\$
29	75/S-06.5	9.5	1	\$	\$	\$	\$
30	75/S-06.5	9.5	1	\$	\$	\$	\$
31	75/S-06.5	9.5	1	\$	\$	\$	\$
32	75/S-06.5	9.5	1	\$	\$	\$	\$
33	75/S-06.5	9.5	1	\$	\$	\$	\$
34	80/S-07.4	10	1	\$	\$	\$	\$
35	75/S-06.5	9.5	1	\$	\$	\$	\$
36	75/S-06.5	9.5	1	\$	\$	\$	\$
37	75/S-06.5	9.5	1	\$	\$	\$	\$
38	75/S-06.5	9.5	1	\$	\$	\$	\$
39	75/S-06.5	9.5	1	\$	\$	\$	\$
40	75/S-06.5	9.5	1	\$	\$	\$	\$
41	75/S-06.5	9.5	1	\$	\$	\$	\$
42	75/S-06.5	9.5	1	\$	\$	\$	\$
43	75/S-06.5	9.5	1	\$	\$	\$	\$
44	75/S-06.5	9.5	1	\$	\$	\$	\$
45	75/S-06.5	9.5	1	\$	\$	\$	\$
46	75/S-06.5	9.5	1	\$	\$	\$	\$
47	75/S-06.5	9.5	1	\$	\$	\$	\$
48	75/S-06.5	9.5	1	\$	\$	\$	\$
49	75/S-06.5	9.5	1	\$	\$	\$	\$
50	75/S-06.5	9.5	1	\$	\$	\$	\$

## STEEL POLE TRANSMISSION CONSTRUCTION ASSEMBLY UNITS

Part 2a - Ckt 11 Pole Top Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TST6	1	\$	\$	\$	\$
TPZ1	1	\$	\$	\$	\$
TPZD1.C1	12	\$	\$	\$	\$
TPZD1.C1	1	\$	\$	\$	\$
TPVD2.C2	1	\$	\$	\$	\$
TPZD1.C1.2	2	\$	\$	\$	\$
TSVD6.V6	2	\$	\$	\$	\$
TPZD1.C1	1	\$	\$	\$	\$

Part 2b - Ckt 12 Pole Top Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TPZ1	7	\$	\$	\$	\$

Part 2c - Ckt 16 Pole Top Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TPZ1	7	\$	\$	\$	\$
TPZD1.DC6.2	1	\$	\$	\$	\$
TPZD1.DC1	5	\$	\$	\$	\$
TPZD1.DC4	1	\$	\$	\$	\$
TSV6	1	\$	\$	\$	\$
TSV4	1	\$	\$	\$	\$

Part 2d - Ckt 17 Pole Top Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TPZD1.C5.2	1	\$	\$	\$	\$
TPZD1.C1	34	\$	\$	\$	\$
TPZD1.V6	1	\$	\$	\$	\$
TPZD1.C5	1	\$	\$	\$	\$
TPZ1	11	\$	\$	\$	\$
TPZD1.C4	1	\$	\$	\$	\$
TSV3.C4	1	\$	\$	\$	\$

Part 3a - Ckt 11 Guy Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TG-21A	50	\$	\$	\$	\$

Part 3b - Ckt 16 Guy Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TG-21A	19	\$	\$	\$	\$

Part 3c - Ckt 17 Guy Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TG-21A	12	\$	\$	\$	\$

Part 4a - Ckt 11 Anchor Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TA-2H	46	\$	\$	\$	\$

Part 4b - Ckt 16 Anchor Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TA-2H	17	\$	\$	\$	\$

Part 4c - Ckt 17 Anchor Construction Assembly Units		Unit Price			Extended Price
Drawing Number	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
TA-2H	8	\$	\$	\$	\$

Part 5a - Ckt 16 Pole Units - Removal Only (Wood)				Unit Price			Extended Price
Stucture Number	Unit Number	Embedment Depth (ft)	NO. of Units	Labor	Materials	Labor & Materials	Labor & Materials
17812	40/D-5.0	6	1	\$	\$	\$	\$
17790	50/D-5.0	7	1				
17787	40/D-5.0	6	1				
17789	40/D-5.0	6	1				
18518	45/D-5.0	6.5	1				
18519	40/D-5.0	6	1				
18545	40/D-5.0	6	1				
18543	40/D-5.0	6	1				
18539	40/D-5.0	6	1				

Part 6a - Ckt 16 Conductor Construction Assembly Units		Unit Price			Extended Price
Unit	NO. of Units (ft)	Labor	Materials	Labor & Materials	Labor & Materials
795 AAC "Arbutus"	7395	\$	\$	\$	\$

**PROPOSAL SUMMARY**

**TRANSMISSION CONSTRUCTION ASSEMBLY UNITS**

Steel Pole Transmission Line  
Replacement ..... \$ \_\_\_\_\_

Wood Pole Distribution Line  
Removal ..... \$ \_\_\_\_\_

**TOTAL TRANSMISSION CONSTRUCTION ASSEMBLY UNITS** \$ \_\_\_\_\_

**TOTAL** ..... \$ \_\_\_\_\_

**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*

**FORM OF EXCEPTIONS**  
*General Instructions, 9. Form of Exceptions,*  
*General Instructions, 11. Evaluation and Award of Bids*

BIDDER: \_\_\_\_\_

OWNER: GREENVILLE UTILITIES COMMISSION, NORTH CAROLINA

PROJECT DESCRIPTION: FY 2022-2023 115 KV TRANSMISSION POLE REPLACEMENTS

INSTRUCTIONS: The following is a list of exceptions to the Bidding Documents and/or Technical Specifications pertaining to the furnishing of the subject materials. Bidders shall identify each exception by Specification page and paragraph number on this form. The omission of exception implies complete compliance with Plans and Specifications.

<b>BID DOCUMENT/ SPECIFICATION PAGE NO. AND PARAGRAPH</b>	<b>EXCEPTION/VARIATION</b>
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**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
<b>Construction</b> 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](http://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.**

## Identification of Minority/Women Business Participation

I, \_\_\_\_\_,  
(Name of Bidder)

do hereby certify that on this project, we will use the following minority/women business enterprises as construction subcontractors, vendors, suppliers, or providers of professional services

Firm Name, Address and Phone #	Work Type	M/WBE Category

\*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**)

**If you will not be utilizing M/WBE contractors, please certify by entering “0”**

**The total value of MBE business contracting will be (\$) \_\_\_\_\_.**

**The total value of WBE business contracting will be (\$) \_\_\_\_\_.**



**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

\*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

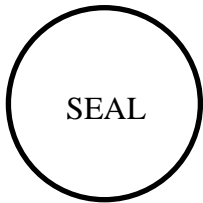
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with M/WBE Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

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*

<b>Title/Function</b>	<b>Name</b>	<b>Years with Firm</b>	<b>Total Years Experience</b>
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**

<b>Owner Name</b>	<b>Project Description</b>	<b>Contact Name and Phone Number</b>

**LIST OF SUBCONTRACTORS**  
*Terms and Conditions – Item 27*

<b>SUBCONTRACTOR</b>	<b>PROPOSED WORK TO BE PERFORMED</b>

**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 \_\_\_\_\_, 2022.

WHEREAS, the said Principal is herewith submitting a Proposal for

**TRANSMISSION STRUCTURE REPLACEMENT  
OF CIRCUIT 11, 12, 16, AND 17**

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: FY 2022-2023 115 KV TRANSMISSION POLE REPLACEMENTS

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

August 24, 2022

#### **1. SCOPE**

This specification covers the removal, installation, and materials of 21 transmission structures along Greenville Utilities' Circuit 11, 115kV transmission line, 7 transmission structures along Circuit 12, 115 kV transmission line, 16 transmission structures along Circuit 16, 115 kV transmission line, and 50 transmission structures along Circuit 17. The existing wooden transmission structures will be replaced with new steel structures. The existing conductors will not be replaced except for 7,395 feet of 3 phase, 795 conductor on distribution circuit adjacent to Circuit 16. 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.

- 1.1. The Circuit 11 115 kV transmission line consists of approximately 1.15 miles of 1272 AAC with 7#9 Alumoweld OHGW. Circuit 11 has a 3 phase 12.47 kV underbuild consisting of 1.1 miles of 336 ACSR with 1/0 ACSR Neutral.
- 1.2. Circuit 12 115 kV transmission line consists of approximately 0.48 miles of 1272 AAC with 7#9 Alumoweld OHGW.
- 1.3. Circuit 16 115 kV transmission line consists of approximately 0.90 miles of 1272 AAC with 7#9 Alumoweld OHGW with 0.5 miles of double circuit 3 phase 12.47 kV distribution under build. The underbuild consists of 0.5 miles of 556 ACSR with 336 ACSR Neutral and 0.5 miles of 795 AAC that will be installed during this project. Adjacent to Circuit 16 is a 3 phase 12.47 kV distribution circuit consisting of approximately 0.45 miles of 556 ACSR with 336 ACSR neutral conductor. Conductor and structures along the adjacent distribution circuit will be removed once the under build along the new steel structures is complete.
- 1.4. Circuit 17 115 kV transmission line consists of approximately 3.50 miles of 1272 AAC with 7#9 Alumoweld OHGW. There are 3 separate distribution circuit under builds along Circuit 17.
  - 1.4.1. 3 phase 12.47 kV distribution from Pole ID 03226 to Pole ID 05581 consisting of 0.6 miles of 1/0 conductor with 1/0 neutral.
  - 1.4.2. 3 phase 12.47 kV distribution from Pole ID 11377 to Pole ID 11368 consisting of 0.43 miles of 336 ACSR with 1/0 neutral.

- 1.4.3. 3 phase 12.47 kV distribution from Pole ID 11729 to Pole ID 12131 consisting of 1.75 miles of 336 ACSR with 1/0 neutral.
- 1.4.4. The entire length of Circuit 17 is proximal to a CSX owned railroad track. It will be the contractor's responsibility to obtain proper permits, coordinate with CSX, and costs associated with flagging if needed during construction. Below are the CSX guidelines for when flagging is required. Circuit 17 structures are approximately 60' from center of rail.
  - 1.4.4.1. All work in the FRA Red Zone (within 4 feet from outside of the rail on each side of the track) will be done only with a CSXT, FRA qualified flagman or watchman as specified by the local Engineering representative.
  - 1.4.4.2. All work beyond 4 feet from the outside rails and within 25 feet must be done under the supervision of a qualified inspector or CSXT flagman.
  - 1.4.4.3. Certain types of work done beyond 25 feet from the outside of the rails, and with equipment that will not reach beyond this point, may be done without flagging protection or a watchman. This must be approved by the local Engineering representative, the area must be protected by a construction fence, and the work must be stationary (will not be used for cat plowing).
  - 1.4.4.4. All work must be stopped while trains are passing within the work zone.
  - 1.4.4.5. All workers will remain off the tracks. If necessary to perform the work on track, protection will be provided as stated above.
  - 1.4.4.6. All workers must comply with federal, state, and local laws and regulations, including but not limited to those of the Occupational Safety and Health Administration (OSHA) and the Federal Railroad Administration (FRA).

## **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. Conductor removal shall include the coiling or reeling of the conductor removed in a workmanlike manner.

- 4.3. 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.
- 4.4. 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.
- 4.5. The Contractor shall reinstall, at his own expense, any other items removed by him for his own convenience.
- 4.6. 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.
- 4.7. 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 or services 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 is responsible for all transfers.

## **6. POLES-WOOD AND/OR TUBULAR STEEL**

- 6.1. Inspection
  - 6.1.1. All main-line transmission poles will be steel.



- 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. Steel shall be lifted and supported during manufacturing, stockpiling, transporting, and erection operations only at the points shown on the Contract and Shop Drawings. Nylon slings shall be used to avoid damage to pole finish. Transportation, site handling, and erection shall be performed with appropriate equipment and methods and by qualified personnel.
- 6.2.3. Poles shall not be dragged along the ground. Nylon slings of adequate strength rating shall be used for handling all steel poles. Pole tongs, cant hooks, and other pointed tools capable of producing indentations more than one inch (1") in depth shall not be used in handling wood poles. No tools shall be applied to the ground line section of any pole.

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. Repair or Alteration

- 6.3.1. Repair: Bent, twisted, or otherwise damaged structural members shall not be repaired or installed except at the written direction of the Engineer. Repair methods shall be approved by the manufacturer. Damaged base plates or butt splice plates shall not be repaired or installed. Pole wall sections shall not be repaired in the area of slip joints or lap splices.
- 6.3.2. Touch-Up: It will be the responsibility of the Contractor to touch up all galvanized steel pole and bolt surfaces or Ameron Dimetcote painted surfaces that are damaged by the Contractor during handling, transporting, storing, or erecting. Galvon or similar touch-up material for galvanized surfaces or Ameron Dimetcote for painted surfaces will be furnished by the Commission and will be applied in accordance with the manufacturer's recommendations. Areas of the pole to be

below the ground line shall be repaired prior to pole installation with materials designated by the manufacturer to inhibit corrosion

6.4. Lifting and Setting

- 6.4.1. 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.
- 6.4.2. Before setting surface mounted poles, the bottom anchor bolt nuts shall be leveled unless otherwise directed by the Engineer. After setting, if the pole is not to be raked it shall be plumbed to within one-half of one percent (0.5%) or 0.005 times the pole length. Such plumbing shall take into account any built-in camber.
- 6.4.3. No surface mounted pole shall be set on a foundation before it has been established by ASTM testing methods that the concrete meets the minimum compressive strength specified.
- 6.4.4. 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 (See Appendix A, B, C, and Drawings for more details regarding embedment).

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

- 6.4.6. 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.
- 6.4.7. 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.

6.5. Excavation and Backfill

- 6.5.1. 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.
- 6.5.2. 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.
- 6.5.3. 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.

- 6.5.4. Gravel Base: The stone or gravel base cited in Section 6.5.3 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.
- 6.5.5. 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.
- 6.5.6. 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.
- 6.5.7. Backfill: Backfill around the pole base shall be aggregate base course (ABC) gravel. All backfill around the pole base shall be compacted in six-inch (6") layers by means of mechanical tampers. Excavated material is not 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.

6.6. Vibratory Pole Base – *Not Applicable to this Project*

- 6.6.1. Vibratory pole bases shall be installed by use of a vibratory hammer. The Contractor shall include the cost of the vibratory hammer in the pole labor installation unit.

- 6.6.2. Vibratory pole bases shall be installed in accordance with the construction assembly drawings. (See TMF-VPB)
- 6.6.3. Vibratory pole bases shall be installed with a frequency between 400 and 1600 vibrations per minute and a stroke amplitude between one-half inch (1/2") and one and one-half inches (1-1/2") maximum.
- 6.6.4. The Contractor is responsible for any damages incurred during vibratory pole base installation. The Contractor is responsible for obtaining the services of a geotechnical engineering firm to provide vibration monitoring.
- 6.6.5. Peak Particle Velocity shall be limited to two inches (2") per second maximum for residences.
- 6.6.6. Ground vibrations shall be limited to 40 Hz minimum and should be monitored in areas in close proximity to building, walls, driveways, underground utilities, etc. to prevent damage.

6.7. Holes in Pole

- 6.7.1. Transmission and distribution under-build pole top assembly attachment point holes will be predrilled at the factory. However, the Contractor may be responsible for field drilling transmission, 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. The contractor shall touch up the finish of all other holes with cold galvanizing.
- 6.7.2. Mismatched Bolts and/or Holes: The Engineer shall be promptly notified of the discovery of mismatched bolts and holes, misaligned connections, or misaligned foundation bolts. The Engineer will decide upon the corrective action to be taken.
- 6.7.3. Any unused holes are to be plugged and sealed using galvanized steel plugs or caulk and plastic plugs.

**7. CONCRETE FOUNDATIONS FOR STEEL POLES – *Not Applicable for this Project***

7.1. Subsurface Conditions:

Results of soil test borings taken along the proposed line are provided with these Specifications (See Book II, Exhibit No. 5). The Contractor shall familiarize himself with the subsurface conditions as shown on the boring logs and exercise his own judgment as to the nature and difficulty of the proposed work. It should

be noted in particular that the ground water level may change from the level existing at the time of the test borings.

7.2. Line and Grade:

The Engineer will set a hub at the pole center and provide a benchmark and reference hubs on the longitudinal and transverse center lines. The Contractor shall perform all subsequent layout work necessary to ensure that the foundation is constructed to the correct dimensions and in the locations specified on the Drawings. If the Contractor finds that the hubs have been disturbed, are missing or are in error, he shall stop work immediately and notify the Engineer who will replace the hubs as soon as practicable. The Contractor shall carefully protect all reference hubs and shall give such assistance as may be required when it is found necessary to replace or move the same.

7.3. Site Grading:

In general, the natural earth at the pole site shall be disturbed as little as possible during construction. The ground surface shall be graded to provide drainage away from the pole and shall be reasonably smooth and compact. The Contractor shall comply with all Federal, State, and local regulations governing soil erosion and sediment control.

7.4. Drilled Cylindrical Foundation Excavation:

7.4.1. General: The drilled cylindrical foundation diameter and depth shall be as shown on the Drawings. The hole shall be drilled with drilling equipment which will produce the excavation shown on the Drawings. Drill rigs which do not run true will not be acceptable.

7.4.2. Depth/Diameter Required: The depth/diameter noted on the Drawings is to be considered minimum. If in the opinion of the Engineer, unsuitable soils are encountered, the excavation shall be continued to whatever depth/diameter is necessary to obtain suitable bearing. If depth/diameter required by the Engineer is greater than depth/diameter shown on the Drawings, the additional excavation and volume of reinforced concrete to fill it will be paid for by the Commission.

7.4.3. Depth/Diameter Required: The depth/diameter noted on the Drawings is to be considered minimum. If in the opinion of the Engineer, unsuitable soils are encountered, the excavation shall be continued to whatever depth/diameter is necessary to obtain suitable bearing. If depth/diameter required by the Engineer is greater than depth/diameter shown on the Drawings, the additional excavation and volume of reinforced concrete to fill it will be paid for by the Commission.

7.4.4. Temporary Casings: Temporary casing will be required in the excavation if it becomes necessary for workmen to do hand excavation, remove obstructions, or clean out the lower sections prior to the placement of concrete. Temporary casings will also be required if soil characteristics or the infiltration of ground water make excavation walls unstable. The Contractor shall have immediately available for use on the job an ample supply of casing in the event it is needed to stabilize the excavation. Casing may be assembled using short pieces if jointing devices are of sufficient strength to allow assembled sections of casing to be pulled as a unit as concrete is being placed or immediately thereafter. The casing shall also be of such strength and rigidity as to maintain the required excavation lines against the pressure of material sloughing from the sides of the excavation. All temporary casing shall be removed from excavations as concrete is placed or immediately thereafter, and in such a manner as to prevent sloughing material from dropping to the bottom of the excavation, falling on top of freshly placed concrete or intruding into the concrete mass.

7.4.5. Dimensional Tolerances: The location and dimensions of the foundation shall be as close as possible to those shown on the Drawings and staked in the field. The maximum allowable tolerance will be as follows:

7.4.5.1. Top of the foundation shall be set to the elevation shown on Drawings, except where otherwise directed by the Engineer.

7.4.5.2. The variation in elevation of the bottom of the drilled caisson from the specified depth shall be from zero to plus six inches (6"), except where required to be deeper due to soil conditions.

7.4.5.3. Maximum deviation of the axis of the hole from the vertical shall be no more than one inch (1") in eight feet (8'-0").

7.4.5.4. The diameter of the drilled caisson shall not be less than specified or more than four inches (4") greater than specified.

## 7.5. Concrete For Surface Mounted Pole

7.5.1. Strength: The Contractor shall supply ready mixed concrete prepared in accordance with ASTM C94. It shall have a minimum compressive strength of 4,000 PSI at twenty-eight (28) days for surface mounted structures.

- 7.5.2. Slump Test: Consistency will be determined in the field by the slump test, in accordance with ASTM C143. The specified slump for all concrete shall be three to four inches (3" to 4"). A minimum of one (1) slump test shall be made for each load of concrete used on the job site. If water is added at the job site to increase the slump, the recorded slump shall be that tested after the final addition of water.
- 7.5.3. Air Entrainment: Air entrained concrete shall be used in all applications where concrete will be exposed to moisture and cycles of freezing and thawing. The air content shall be between four percent and six percent (4% and 6%).
- 7.5.4. Concrete Testing: The Contractor shall be required to make four (4) test cylinders from each truck load of concrete used in pouring the foundation for the surface mounted structure in accordance with standard ASTM sampling procedures. Cylinders are to be cured and tested prior to the surface mounted pole erection. The test cylinders shall be broken as follows: one (1) cylinder at seven (7) days; two (2) cylinders at twenty-eight (28) days; one (1) cylinder at fifty-six (56) days if 4,000 psi is not achieved by twenty-eight (28) days. It will be the Contractor's responsibility to arrange for onsite and laboratory testing by a qualified testing laboratory approved by the Engineer. The cost of testing will be borne by the Contractor. The Contractor will require the laboratory to send two (2) sets of compressive test reports to the Commission and Engineer, in addition to those copies furnished to the Contractor.

Testing will be in accordance with ASTM C31 and will cover compressive strength, slump, and quality of aggregates. In cases where the strength of the test cylinders for any portion of the work falls below the requirements specified herein, the Engineer may require the Contractor to secure test specimens of the hardened concrete represented by these cylinders. Specimens shall be secured and tested in accordance with ASTM C-42 and shall have a minimum diameter of three inches (3"). If the specimen test further substantiates that the concrete represented by the cylinders and specimens are below the strength requirements specified herein, the Engineer may order such concrete removed and replaced at the expense of the Contractor.

Dependent upon the location of the concrete section in question, the Engineer may approve low frequency ultrasonic testing or other non-destructive techniques as an alternate to core drilling and testing.



## 7.6. Concrete Placement

7.6.1. Dry Hole: Concrete shall be placed as soon as possible after excavation. Immediately prior to the placement of concrete, the excavation shall be cleaned of water, debris, ice, clods and piles of loose earth, and any other material which should be excluded from the concrete. Surfaces against which concrete is to be placed shall be free of frost, and in cold weather shall be enclosed or heated, if necessary, prior to placing concrete to ensure this requirement is met. Water in the bottom of the excavation must be removed or absorbed. Equipment for placing concrete shall include a pump and two (2) vibrators in good working condition, hoppers and elephant trunks for directing the flow of concrete and an ample supply of sacked cement for use in drying the bottom of the excavation. The Contractor shall not place any concrete until the excavation, reinforcing steel and anchor bolts are checked and approved by the Engineer. In a drilled caisson where the contractor can free fall the concrete down the center of the caisson without having the concrete come in contact with the embedded items, which will cause segregation of the aggregate, the Contractor may place the concrete with the use of an elephant trunk or drop chutes and shall use vibrators. The maximum free fall distance shall be no more than five feet (5'-0"). If the Engineer sees the above method cannot be implemented, then the Contractor shall place the concrete for the first lift using hoppers and sections of elephant trunk or drop chutes. The normal procedure expected to be followed by the Contractor will be to place the concrete to an elevation approximately five feet (5'-0") above the bottom of the caisson and vibrate this deposit with one (1) pass of the vibrator down to the bottom of the caisson and back to the top of concrete. Following this, the remainder of the concrete may be poured in two (2) or more lifts of equal height with one (1) pass of the vibrator down to the bottom of the lift and back up on each lift. In placing concrete, internally operated vibrators of a minimum diameter of two and one-quarter inches (2-1/4") and having a speed of 5,000 rpm or more, are to be used. On the upper lifts of concrete, elephant trunks will not be required, but the placing of the concrete shall be done in such a manner as to prevent segregation of the aggregates.

7.6.2. Wet Hole: Immediately prior to the start of the concrete placement, water shall be pumped from the excavation to expose the bottom or, if a sump is used, leaving a depth of water not exceeding four inches (4") in the sump. The use of cement to dry up the water left in the sump will then be permissible provided the rate of inflow is sufficiently slow to permit placement of concrete without increasing the water- cement ratio. To meet this requirement, the Contractor must have cement ready to place into the excavation immediately after pumping, and also have adequate concrete at the site. If in the opinion of the Engineer,

the influx of ground water is too great to obtain concrete of acceptable quality, it will be necessary for the Contractor to place concrete by tremie.

7.6.3. Tremie Method: If the inflow of water into the excavation is too rapid to permit placement of concrete in the dry, the Contractor shall place the concrete under water by the tremie method. In such cases, a special mix of concrete will be required with coarse aggregate (gravel), three-fourth inch (3/4") maximum size, and a minimum of seven (7) bags of cement per yard. A retarding agent may be used if approved by the Engineer. The slump of the concrete, when being placed, shall be between five inches (5") and seven and one-half inches (7-1/2"). Minimum mix strength of 4,000 PSI shall be maintained. No vibration of the tremie concrete will be required or permitted, but it will be permissible to vibrate the tremie pipe under certain conditions when the flow of concrete becomes sluggish. It will also be permissible to vibrate the casing, if used, when the excavation is filled with concrete at the time the casing pull is started. The tremie pipe shall have a minimum diameter of eight inches (8") and shall be equipped with a watertight foot valve or gate at the discharge end which can be positively controlled from the ground surface. If joints are required in the tremie pipe, they shall be watertight. The entire assembly shall be watertight, and under no circumstances will concrete be permitted to flow through water in the tremie. In placing concrete, the discharge end of the tremie shall be placed no more than six inches (6") above the bottom of the excavation and shall not be raised until the pipe has become submerged in the concrete to a depth which establishes a seal between the tremie pipe and the concrete sufficient to prevent entry of water into the tremie. The discharge end of the tremie shall be kept submerged in the concrete a sufficient depth to maintain, at all times, an adequate seal during underwater placement. Once started, the underwater placement shall proceed without interruption until this seal has been well established. At that point, the Contractor shall start removing the water being displaced by the concrete. The placing of concrete by tremie shall not be started until a supply of concrete is at the site sufficient to complete placing up to the ground surface. Concrete may be placed by tremie only when authorized by the Engineer.

7.6.4. Placement Temperature: The temperature of concrete when being placed shall be:

7.6.4.1. Not less than 40°F in moderate weather.

7.6.4.2. Not less than 50°F in weather during which the mean daily temperature drops below 40°F.

7.6.4.3. Not greater than 90°F during hot weather.

7.7. Protection

The Contractor shall protect all concrete against injury until final acceptance by the Commission. The Contractor shall be prepared to protect all concrete in accordance with the requirements of this paragraph. Temperature of concrete being poured shall be controlled by controlling the temperature of aggregate and mixing water. Mixing time and elapsed time between mixing and placing shall be kept at a minimum. The interior surfaces of forms and ground upon which concrete is to be placed shall be thoroughly wetted before concrete is poured. After the first frost and until the mean daily temperature in the vicinity of the work rises above 40°F for more than one (1) day, the concrete shall be protected against freezing for not less than forty-eight (48) hours after it is placed.

7.8. Finishing

Smooth, solid concrete surfaces are required throughout the work. The top surface of the concrete foundation shall be finished to conform to the detail shown on the Drawings. In general, steel trowel finish on the concrete is required. Care shall be taken in the steel troweling not to bring excessive fine material to the surface. Finishing of concrete surfaces shall be performed only by skilled workmen.

7.9. Surface Treatment

All exposed concrete shall be properly cured for seven (7) days by moist curing using a wetted burlap covering with craft paper or polyethylene sheets or by spray application of a liquid membrane-forming compound conforming to ASTM Designation C309-89 to prevent evaporation. The membrane shall be applied according to the manufacturer's recommendations. Surface defects shall be filled prior to application of the curing compound. All concrete surfaces on which curing compound has been applied, shall be adequately protected for the duration of the curing period from any cause which will destroy the continuity of the curing membrane. No curing compound shall be used on surfaces requiring subsequent bonding.

7.10. Reinforcing Steel

7.10.1. Grade: Reinforcing bars shall conform to the latest revision of ASTM Standard Specifications for Deformed Billet Steel Bars for Concrete Reinforcement, Designation A615 or A617, Grade 60.

7.10.2. Placement: Steel reinforcing bars shall be placed in the concrete wherever shown on the Drawings. Unless otherwise shown on the Drawings or directed, measurements made in placing the bars shall be

to the center lines of the bars. Before the reinforcing bars are placed, the surfaces of the bars and the surfaces of any metal bar supports shall be cleaned of heavy flaky rust, loose mill scale, dirt, grease, or other foreign substances. After being placed, the reinforcing bars shall be maintained in a clean condition until they are completely embedded in the concrete. Main reinforcement shall have a minimum clear protective cover to the face of concrete as shown on the Drawings. Reinforcing bars shall be accurately placed and secured in position so that they will not be displaced during the placing of the concrete. Special care shall be exercised to prevent any disturbance of the reinforcing bars in concrete which has already been placed. Rust-proof metal chairs, metal hangars, metal spacers or other satisfactory metal supports may be used for supporting reinforcing bars. Precast concrete blocks may be used for supporting reinforcing bars.

#### 7.11. Anchor Bolts

7.11.1. Material Assemblies: All anchor bolt assemblies furnished by the Commission and required for permanent installation in the foundations will be installed by the Contractor. Any anchor bolts damaged during installation shall be replaced by the Contractor to the original Specifications at no cost to the Commission. All pre-clustered anchor bolt assemblies shall be checked against the Drawings by the Contractor before pouring concrete to ensure the cluster has not been damaged and complies with the Specifications and Drawings.

7.11.2. Bolt Protection: Prior to setting, the threads on the upper end of each anchor bolt shall be given a light coat of oil or grease to prevent the adherence of concrete. When installed, the bolts shall be clean and the portions to be embedded in concrete shall be free of heavy scale, oil or other deleterious substances which would adversely affect the bond between the bolts and concrete. During the concrete finish and clean-up, the Contractor shall remove concrete adhering to the portions of anchor bolts extending above finished concrete grade. No pipe sleeves are to be installed with the anchor bolts. The bolts shall be accurately positioned. It will be the Contractor's responsibility to accurately set the bolts initially and to maintain the required accuracy of their positioning until final acceptance by the Engineer.

7.11.3. Assembly Tolerance: Deviations from specified positions of anchor bolts, after concrete has set, shall not exceed the following:

7.11.3.1. Horizontal distance between centers of adjacent anchor bolts shall be within one-sixteenth inch (1/16") of the specified distance, measured at the top of concrete.

- 7.11.3.2. The elevation of the top of the lowest anchor bolt in a set shall not be less than specified, and that of the highest bolt shall not exceed the specified elevation by more than one-quarter inch (1/4”).
- 7.11.3.3. Angular deviation from specified alignment of the installed anchor bolt set relative to the vertical center line shall not exceed one degree (IE).
- 7.11.3.4. The foundation must comply with the specified requirements for line and grade in order to be accepted. No payment shall be made for any defective foundations until the Contractor has completed the necessary corrective work to the satisfaction of the Engineer. The Contractor shall bear the full expense of all such corrective work.

## **8. ROCK ENCOUNTERED DURING EXCAVATIONS**

- 8.1. 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.)
- 8.2. 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.

## **9. DAVIT ARMS**

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.

## **10. GUYS AND ANCHORS**

- 10.1. Guys shall be attachment type utilizing preformed guy grips. 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.
- 10.2. 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.
- 10.3. 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.
- 10.4. 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.
- 10.5. 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.

## **11. HARDWARE**

- 11.1. 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.
- 11.2. All bolts and nuts shall be installed to torques specified by the pole manufacturer or the Engineer. Wrenches used in assembly of anchor bolts shall not deform nuts nor damage factory finish.
- 11.3. Upon completion of pole setting, conductor sagging and pole plumbing, all top and bottom anchor bolt nuts shall be secured by tack welding to the pole base

plate. The weld area shall be cleaned, primed and painted in accordance with the manufacturers' recommendations.

- 11.4. Care should be exercised during all phases of construction to protect all bolt threads. Nuts should operate on bolt threads without forcing. In case of anchor bolt thread damage during pole installation, repairs shall be made as directed by the Engineer.
- 11.5. Any unused holes are to be plugged and sealed using galvanized steel plugs or caulk and plastic plugs. No holes or voids are to be left unsealed when installation is complete.

## **12. INSULATORS**

- 12.1. Care shall be exercised in handling and erecting insulators.
- 12.2. 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.
- 12.3. 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.

## **13. GROUNDING ASSEMBLY**

### **13.1. Wood Poles**

- 13.1.1. Butt plates (M2-12) or driven ground rods (M2-11) shall be installed on all wood distribution poles as indicated on the Staking Sheets.
- 13.1.2. Refer to the following drawings for the grounding of wood distribution poles: M2-11, M2-12

### **13.2. Direct Embedded and Vibratory Base Steel Poles**

- 13.2.1. Driven pole grounds (TM-9SP) shall be installed on all steel transmission poles.
- 13.2.2. Steel transmission poles with distribution under-build shall share a common ground rod (TM-9SP).

- 13.2.3. Refer to the following drawings for the grounding of direct embedded steel transmission poles:

TM-9SP  
TM-9R  
TM-9X(S)

- 13.2.4. Installation cost of ground rods to include testing of ground resistance and generating a report of test results.

The following is the minimum information to be included in the test report:

- 13.2.4.1. Ambient Air Temperature
- 13.2.4.2. Relative soil moisture content (i.e. Dry, Moist, Wet)
- 13.2.4.3. Total number of rods installed to achieve 25 ohms
- 13.2.4.4. Ground Resistance Reading after installation of each ground rod section
- 13.2.4.5. Type of meter used
- 13.2.4.6. Date and time of test
- 13.2.4.7. Person or persons performing test

All measurements are to be made without connection to steel pole or neutrals.

Ground Resistance Test reports to be submitted to Owner and Engineer for all installed structures.

### 13.3. Surface Mounted Steel Poles

- 13.3.1. Driven pole grounds (TM-9SP) shall be installed on the surface mounted steel pole as indicated on the Plan & Profile sheets.
- 13.3.2. Steel transmission poles with distribution under-build shall share a common ground rod (TM-9SP).

- 13.4. 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.



- 13.5. Guys and overhead ground wires shall be attached to the common ground.
- 13.6. The distribution neutral shall be attached to the common ground.
- 13.7. 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.
- 13.8. Ground rods shall be 5/8" x 10'-0" galvanized steel for transmission. Extensions (TM-9R) shall be added if necessary, to obtain a verifiable ground resistance of twenty-five (25) ohms or less.
- 13.9. Ground wire for transmission poles shall be No.4 AWG soft drawn tinned copper wire.

## 14. CONDUCTORS

### 14.1. Distribution Conductors-

- 14.1.1. 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.
- 14.1.2. Conductors shall be pulled over suitable rollers or stringing blocks properly mounted on the pole or crossarm to prevent binding while stringing.
- 14.1.3. Installation of conductors and accessories shall be done in accordance with manufacturer's recommendations.
- 14.1.4. 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
- 14.1.5. 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. Automatic splices are not permitted on primary, neutral, or secondary conductors.

- 14.1.6. 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.
- 14.1.7. 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.
- 14.1.8. 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.

#### 14.2. Transmission Conductors

- 14.2.1. The Contractor shall install all phase conductors and shield wires by the tension stringing method. This method shall always result in the conductor having sufficient tension to clear all obstructions by an amount adequate to provide safety to personnel and the public. The conductor shall not be allowed to touch or drag across the surface of the ground, any obstruction or guard structure.
- 14.2.2. If at any time during the construction of the line the conductor should come into contact with the ground or should suffer any other form of damage the conductor shall be lowered and inspected by the Commission's designated Construction Representative. The Commission's Construction Representative shall judge the method of repair or cleaning to be exercised by and at the expense of the Contractor. Forms of repair may include but will not be limited to cleaning of foreign matter, smoothing with suitable abrasives (emery cloth or equal), cutting and splicing, or replacing.
- 14.2.3. The Contractor shall install guard structures at crossings of all other overhead utilities, all railroads, public roads, and navigable waterways. Other guard structures may be installed for the protection of the conductor. Guard structures shall be of such construction as to prevent the conductor from dragging on the structure surface since such contact would require conductor repair. Upon completion of conductor stringing in a line section, all guard structures shall be immediately removed in their entirety and all pole holes shall be

backfilled and properly compacted to original grade. The Contractor shall be responsible for obtaining the required local, state, and/or federal permits for erection of guard structures on public rights-of-way.

The Contractor shall submit to the Commission a sketch of the guard pole installations with dimensions locating and outlining the number of guard poles and their placement on public rights-of-way. The Contractor shall supply this information two weeks in advance of the guard pole use. Once this sketch has been approved by the state, no changes regarding number and placement of guard structures will be allowed without proper written approval.

- 14.2.4. The Contractor shall notify the Commission's designated construction representative at least five (5) days in advance of the intended date of conductor pulling across any transmission or distribution line, any highway, stream, or environmentally sensitive area (wetlands, etc.). The Contractor shall also directly notify any public authorities of such operations as may be required in permits, which the Commission or Contractor has obtained.
- 14.2.5. OHGWs will deadend at structure prior to crossing under DEP transmission lines and will begin at the structure immediately following the DEP crossing.
- 14.2.6. The Contractor shall make himself aware of potential sources of electrical contact, induction, or static charge buildup which may be encountered during construction of the line. The Contractor shall be responsible for conducting operations in such a manner as to avoid hazards of this type. Measures shall be taken by the Contractor to prevent dangerous voltages between various pieces of equipment and between equipment and ground in cases of accidental contact with foreign electric sources. Such measures shall include but not be limited to bonding of pulling equipment and installation of adequate conductor and equipment grounds during all phases of construction. The Contractor shall be responsible for the evaluation of hazards and the determination of protective methods. The Contractor's methods must be in compliance with OSHA Safety Regulations and are subject to review by the Commission's Engineer and the Commission's Construction Representative.
- 14.2.7. All equipment used by the Contractor shall be of such type and condition as to ensure installation of conductor without damage. Such damage would include strand overstress, birdcaging, marring of the surface, or the accumulation of foreign material. Tensioning and

pulling equipment shall be operated in such a manner as to avoid overstressing of conductors or structures.

- 14.2.7.1. The tensioner shall be of a double bullwheel design with an offset of approximately one-half (1/2) groove width between the tandem bullwheels. Bullwheels shall be arranged so that conductor enters the system on the left and exits on the right side of the system (facing direction of pull). These directions shall be reversed for left-handed lay conductors.

Single V-groove bullwheels will not be allowed. Bullwheel grooves shall be of a polished smooth finish or may be elastomer lined. However, polished smooth bullwheel grooves will not be allowed where the pulling line passes in the same grooves as the conductor. The tensioner shall have a braking system capable of continuously holding a desired tension. Heat from the braking system shall not be transmitted to the conductor. Conductor reels shall be located behind the tensioner with a maximum recommended angle of two degrees (2°) for entry of conductor into the bullwheel. A constant back tension of approximately 1,000 pounds should be maintained on the conductor to minimize birdcaging in the tensioner and conductor over-running. The tensioner and puller shall be located so that under no condition is the average slope of the top conductor less than four (4) horizontal to one (1) vertical. If sagging temperature is 60°F or greater, the Commission's Construction Representative may allow a slope of as low as 3:1 to be used.

- 14.2.7.2. Stringing blocks (stringing sheaves or travelers) shall be of such a design as to minimize conductor deformation during pulling and to enhance good sagging practice through low friction. Blocks shall be equipped with ball or roller bearings and shall be maintained in accordance with the manufacturer's recommendations. It is recommended that block grooves be elastomer lined. Unlined smooth polished grooves may be used for conductor stringing if the block material is aluminum or magnesium alloy. However, in no case shall unlined grooves be used if steel pulling line is used.

- 14.2.8. Pulling and sagging of conductor shall be accomplished as specified below.

- 14.2.8.1. Pulling tensions shall be limited to seventy percent (70%) of the sag tension for the temperature at time of pulling, or 2,900 pounds, whichever is less. The Contractor is instructed to select pulling sites such that maximum sags near the tensioner position will not result in inadequate ground clearances. Block efficiency and pulling tension limits may preclude pulls of the maximum dimension noted above.
- 14.2.8.2. Conductor shall not be left in stringing blocks for more than twenty-four (24) hours before pulling to initial sags specified by the Commission's Engineer. If so directed by the Commission's Construction Representative, sag tables corrected for creep time shall be used. After being sagged, the conductor shall remain in the stringing blocks for twelve (12) hours prior to being clipped in. However, the total time in stringing blocks shall not exceed four (4) days, ninety-six (96) hours prior to clipping in.
- 14.2.8.3. Conductor sagging shall be accomplished by use of a combination of dynamometer and sag boards. Sags will be checked at a minimum of three (3) locations for each mile of sag distance. No sag distance shall have less than two (2) spans checked before acceptance. Sags shall be checked in each unusually long span and on each side of unusual horizontal or vertical angles. The Contractor and the Commission's Construction Representative will mutually agree on which spans are to be used as sag checks at least two (2) days prior to the commencement of a pulling operation. The Contractor shall make available to the Commission's Engineer for sag checking such instruments and setups as are being used to sag the conductor. Sag tolerances shall be minus zero (0) plus six inches (6") from those furnished by the Engineer. Temperatures used in establishing sags shall be established by a certified etched- glass thermometer inserted in a sample conductor section exposed to sunlight and air temperatures the same as those to which the tensioned conductor is exposed.
- 14.2.8.4. If emergency conditions or inclement weather require the pulling- sagging sequence to be interrupted before the completion of clipping in, it shall be the responsibility of the Contractor to make sure that adequate clearances exist under the conductor at all points and that the conductor is

secure. The conductor tension shall not exceed seventy percent (70%) of the sag tension for the average temperature of the period. The Commission's Engineer will notify the Contractor of any adjustments required to the standard sag tables.

- 14.2.9. 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.
- 14.2.10. Jumpers and other leads connected to line conductors shall have sufficient slack to allow free movement of the conductors. Slack will be provided at least two (2) bends in a vertical plane, one in a horizontal plane or the equivalent.

## **15. RIGHT OF WAY GENERAL**

- 15.1. 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.
- 15.2. 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.
- 15.3. All right-of-way clearing will be by the Commission.
- 15.4. 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.

15.5. 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 reseeding shall be borne by the Contractor.

15.6. Temporary Service or Access Roads

15.6.1. 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.

15.6.2. 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.

15.6.3. 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.

15.7. Poles & Foundations in Wetlands

15.7.1. 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.

15.7.2. Any excess excavated soil in wetland areas must be removed from the wetland area and deposited (spread evenly) on higher ground.

15.7.3. 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.

15.7.4. No mechanized clearing (bulldozers) in jurisdictional wetlands.

15.7.5. Minimize soil disturbance in jurisdictional wetlands (use mats where possible).

15.7.6. Maintain preconstruction contours in jurisdictional wetlands.



## **SECTION III**

### **GREENVILLE UTILITIES COMMISSION**

#### **TECHNICAL SPECIFICATIONS-MATERIALS SPECIFICATIONS**

**August 24, 2022**

#### **1. SCOPE**

All hardware and insulators needed to complete each transmission structure will be replaced. Conductors will not be replaced unless stated otherwise. Greenville Utilities Commission will furnish all transmission and 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. Steel poles are expected to be delivered mid-August.

#### **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-*Not Applicable for this Project***

- 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 Napthenate 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-*Furnished by Owner***

- 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*

- 6.1. Guy wire shall be 7/16" Extra High Strength Steel rated 20,800 pounds ultimate strength and supplied by the Owner.
- 6.2. All transmission guys shall be attached to steel poles via pole eye plates or pre-manufactured vangs built into the steel pole as shown on the drawings.

**7. OVERHEAD GROUND WIRE**-*Furnished by Owner*

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

**8. ANCHORS**-*Furnished by Owner*

- 8.1. Transmission anchors shall be double helix (8" and 10"), with one and one-half inch (1- 1/2") square shaft rod and a twin eye, rated 23,000 lbs. in Class 6 soil. Combined with a twelve-inch (12") Helix-extension, the anchor is rated at 32,000 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 23,000 lbs. (32,000 lbs. when combined with a twelve-inch (12") Helix-extension).
- 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 will 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	530	470	139.0	NGK Locke	251-SS410-YJ

9.1.3. Suspension insulators shall be attached via shoulder eye through bolts, transmission guy plates, or pre-manufactured vangs built into the steel pole.

9.2. Horizontal Post

9.2.1. Polymer horizontal mounting line post insulators for 115 kV shall be Ohio Brass or NGK Locke for steel pole mounting.

9.2.2.

Insulator Type	Flashover (kV)		Leakage (in.)	Suggested Manufacturer	Catalog Number
	Dry	Wet			
Polymer Horizontal Post	475	420	119.9	NGK Locke	L2-SN291-13

9.2.3. Mechanical strength 7.4 kN, design cantilever load.

**10. FIBERGLASS STRAIN INSULATOR-Furnished by Owner**

Fiberglass strain insulator for use in guys shall have an ultimate strength of 30,000 pounds; shall have an insulating distance of seventy-eight inches (78”) 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 Total Transmission 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 Total Transmission 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 Total Transmission 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 Total Transmission 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 steel poles shall have driven grounds (transmission and distribution) as indicated on the Drawings. Guys and overhead ground wire shall be attached to the common ground which is the pole itself in the case of steel poles.
- 15.2. Ground rods shall be 5/8" x 10' galvanized steel. 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 steel poles shall be No. 4 AWG soft drawn tinned copper wire unless otherwise specified.
- 15.4. Installation cost of ground rods to include testing of ground resistance and generating a report of test results.

The following is the minimum information to be included in the test report:

- 15.4.1. Ambient Air Temperature.
- 15.4.2. Relative soil moisture content (i.e. Dry, Moist, Wet).
- 15.4.3. Total number of rods installed to achieve 25 ohms.
- 15.4.4. Ground Resistance Reading after installation of each ground rod section.
- 15.4.5. Type of meter used.
- 15.4.6. Date and time of test.
- 15.4.7. Person or persons performing test.

All measurements to be made without connection to steel pole or neutrals.

Ground Resistance Test reports to be submitted to Owner and Engineer for all installed structures.

#### **16. STATIC GROUND BRACKETS**-*Furnished by Owner*

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

#### **17. CONDUCTOR**-*Existing Conductor to be used*

- 17.1. Overhead conductor for the Circuit 11, 115kV Transmission Line is 1272 kcmil AAC and will be reused. Distribution underbuild is 12.47 kV with 795 kcmil phases and 336 ACSR neutral conductors which will be reused.
- 17.2. Overhead conductor for the Circuit 12, 115kV Transmission Line is 1272 kcmil AAC and will be reused.
- 17.3. Overhead conductor for the Circuit 16, 115kV Transmission Line is 1272 kcmil AAC and will be reused. Overhead conductor for Circuit 16, 12.47 kV distribution under build is 556 kcmil ACSR and will be reused. Additional distribution under build is 795 kcmil AAC of new conductor.
- 17.4. Overhead conductor for the Circuit 17, 115 kV Transmission Line is 1272 kcmil AAC and will be reused. 3 separate distribution under builds: 1) 3 phase 1/0 ACSR with 1/0 neutral will be reused, 2) 3 phase 336 ACSR with 1/0 neutral to be reused, 3) 3 phase 336 ACSR with 1/0 neutral to be reused.

**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: Circuit 11 Pole Replacement Schedule

Circuit 11					
Structure #	Pole Height (ft.)	RUS Class	Embedment (ft.)	Structure Type	Drawing #
1	65	S-03.5	8.5	3 pole Heavy angle	TST6
2	80	S-07.4	10	Z-Frame tangent with Single Phase Dist. MIF	TPZ1
3-5, 8-10, 12, 13, 15, 18-19	85	S-07.4	10.5	Z-Frame tangent with Dist. UB on Crossarm	TPZD1.C1
6	90	S-08.0	11	Z-Frame tangent with Dist. UB on Crossarm	TPZD1.C1
7	90	S-08.0	11	Vertical Slight Angle with Dist. UB on Crossarm	TPVD2.C2
11, 14	85	S-07.4	10.5	Z-Frame Tangent with Dist. UB on Crossarm	TPZD1.C1.2
16, 17	85	S-07.4	10.5	Vertical Deadend Large Angle w/ post insulators & dist. UB	TSVD6.V6
*20	80	S-07.4	10	Z-Frame tangent with Dist. UB on Crossarm	TPZD1.C1
21	85	S-07.4	10.5	Z-Frame Tangent with Dist. UB Crossarm.	TPZD1.C1

\*Structure 20 will be installed in a different location at Engineer's discretion.



## Appendix B: Circuit 12 Pole Replacement Schedule

Circuit 12					
Structure #	Pole Height (ft.)	RUS Class	Embedment (ft.)	Structure Type	Drawing #
1-7	75	S-06.5	9.5	Z-Frame Tangent	TPZ1

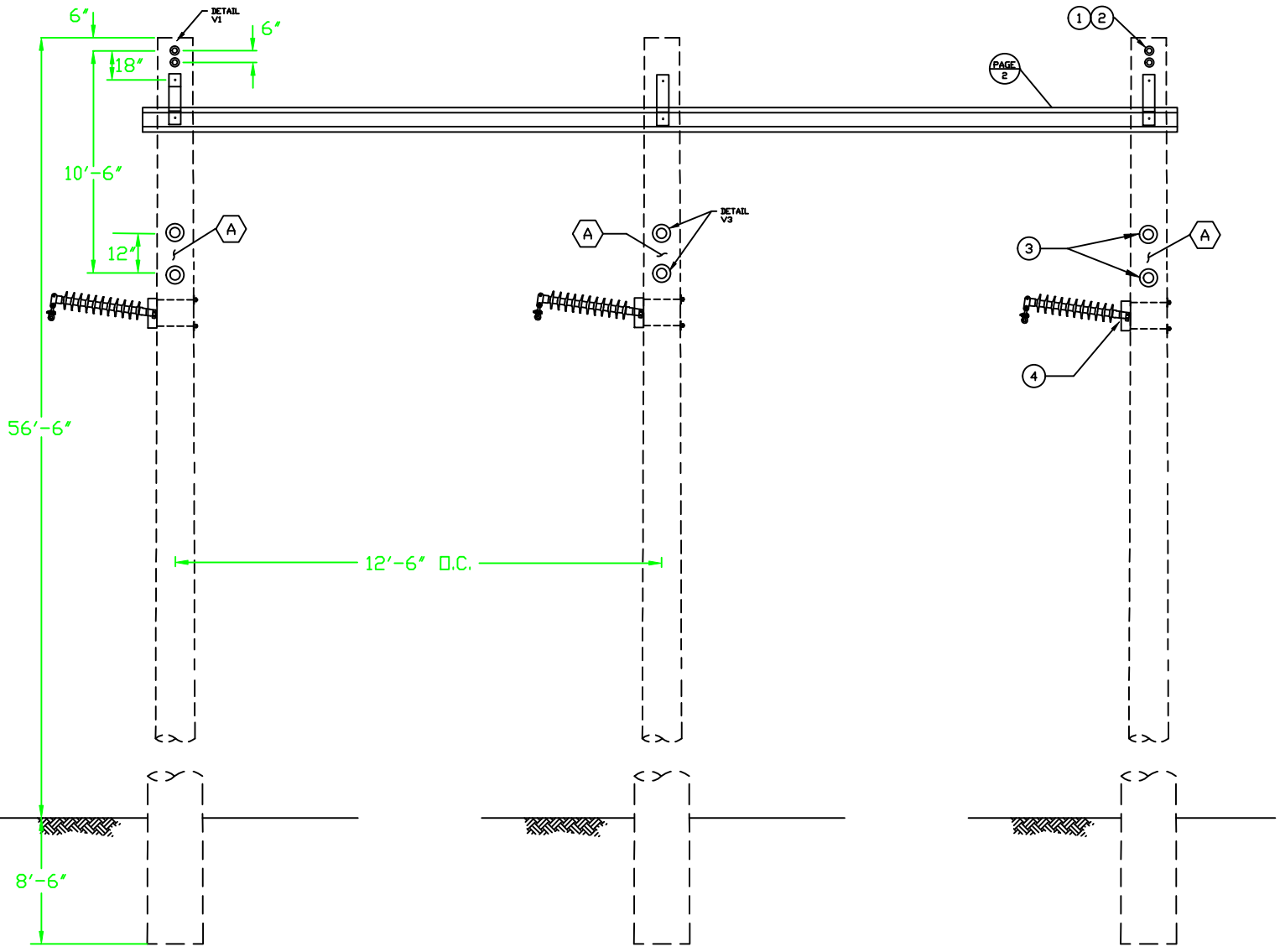
## Appendix C: Circuit 16 Pole Replacement Schedule

Circuit 16					
Structure #	Pole Height (ft.)	RUS Class	Embedment (ft.)	Structure Type	Drawing #
1-6	70	S-05.7	9	Z-Frame Tangent	TPZ1
7	85	S-07.4	10.5	Z-Frame Tangent with 3 Dist. UB on Crossarm	TPZD1.DC6.2
8-12	80	S-07.4	10	Z-Frame Tangent with Dist. UB on Crossarm	TPZD1.DC1
13	85	S-07.4	10.5	Z-Frame Tangent with 2 Dist. UB on Crossarm DDE	TPZD1.DC4
14	75	S-06.5	9.5	Vertical DDE Tangent w/post insulators	TSV6
15	65	S-03.5	8.5	Z Frame Tangent	TPZ1
16	60	S-03.5	8	Vertical DDE Large Angle	TSV4

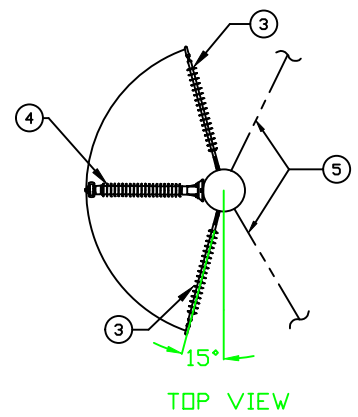
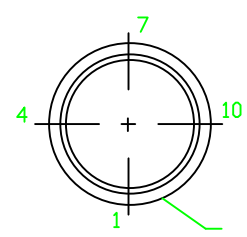
## Appendix D: Circuit 17 Pole Replacement Schedule

Circuit 17					
Structure #	Pole Height (ft.)	RUS Class	Embedment (ft.)	Structure Type	Drawing #
1	85	S-07.4	10.5	Z-Frame Tangent with Dist. UB 3 phase DE XRM & 1 phase DE	TPZD1.C5.2
2, 3, 5	80	S-07.4	10	Z-Frame Tangent with Dist. UB on Crossarm	TPZD1.C1
4	80	S-07.4	10	Z-Frame Tangent with Dist. UB vertical 4 way DDE	TPZD1.V6
6, 28-33, 35-50	75	S-06.5	9.5	Z-Frame Tangent with Dist. UB on Crossarm	TPZD1.C1
7-10, 23-26	70	S-05.7	9	Z-Frame Tangent with Dist. UB on Crossarm	TPZD1.C1
11	70	S-05.7	9	Z-Frame Tangent with Dist. UB on Crossarm DE	TPZD1.C5
12-21	70	S-05.7	9	Z-Frame Tangent	TPZ1
22	70	S-05.7	9	Z-Frame Tangent with Dist. UB on Crossarm DDE	TPZD1.C4
27	65	S-03.5	8.5	Z-Frame Tangent	TPZ1
34	80	S-07.4	10	Vertical Bell Turn with Dist UB on Crossarm DDE	TSV3.C4

**Appendix E: Detail Construction Drawings**



- NOTES:
- DRAWING IS NOT TO SCALE.
  - SEE TOP VIEW FOR ANGLE OF V3 VANGS. ANGLE IS MEASURED FROM FLAT 1 AND 7.
- (A) SEE TOP VIEW FOR GUY WIRE PLACEMENT.



THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.25"	2'-0.00"	1
1.25"	3'-3.00"	1
1.00"	11'-6"	10
1.00"	12'-6"	10

GREENVILLE UTILITIES COMMISSION  
GREENVILLE, NORTH CAROLINA

DWG. REF.	ed.	LIST OF MATERIALS		ITEM	DET.
		DESCRIPTION			
1	4	OHWG ASSEMBLY, DEADEND		-	TM-4E
2	2	OHWG/NEUTRAL GROUNDING ASSEMBLY		-	TM-2B
3	6	DEAD END ASSEMBLY, PRIMARY		-	TM-1EM
4	3	115 KV POST INSULATOR		-	TM-3DM
5	10	SINGLE DOWN GUY		-	TG-21A
6	3	DRIVEN GROUND ROD ASSEMBLY		-	TM-9
7	10	ANCHOR ASSEMBLY, TRANSMISSION		-	TA-2H

STRUCTURE 11.1  
115 KV 3 PHASE 3 POLE STRUCTURE  
SMALL ANGLE, DOUBLE DEADEND

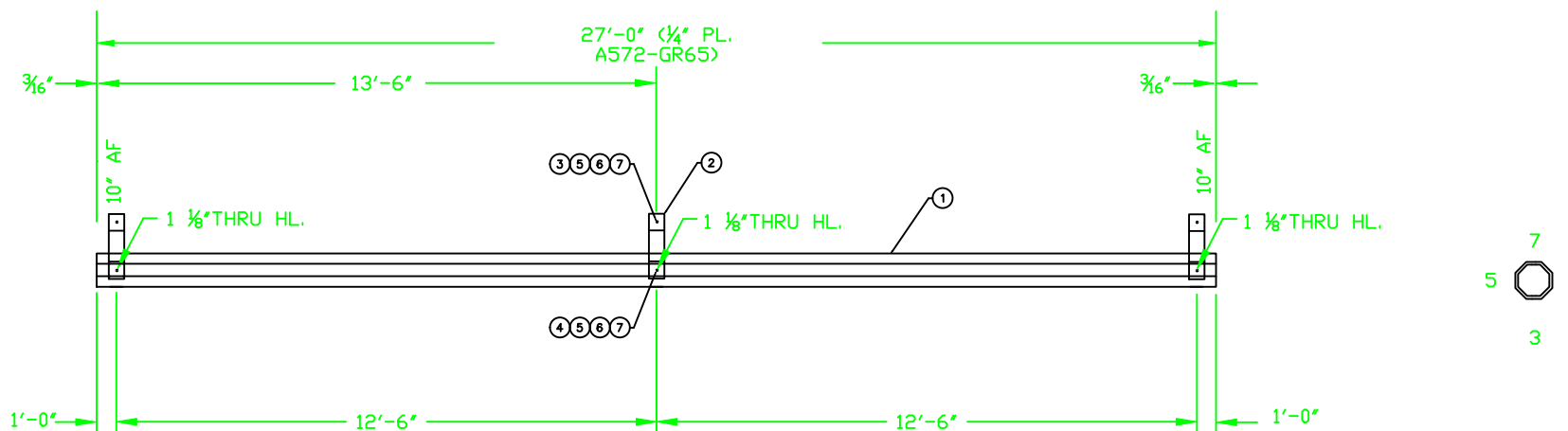
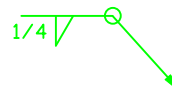
DWN. JLS		DATE: 12/22/2021	
CKD. JLS		APPD. JLS	
SCALE: N.T.S.		PAGE 1 OF 2	
DATE	REVISION	DATE	REVISION
4/4/2022	1		

DWG. NO.  
**TST6**


MANUFACTURER NOTE:

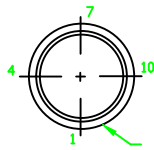
MANUFACTURER IS RESPONSIBLE FOR MOUNTING BOLTS BEING LONG ENOUGH TO FIT POLE CLASSES SPECIFIED.

ALL WELDS UNLESS NOTED.



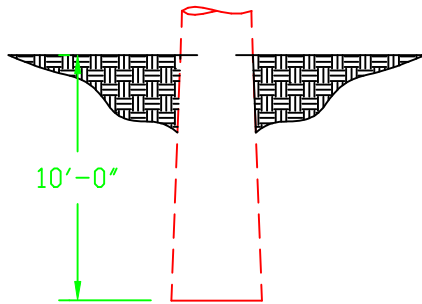
NOTE: DRAWING IS NOT TO SCALE.

DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
	ea.	DESCRIPTION	ITEM	DET.	 STRUCTURE 11.1 115 KV 3 PHASE 3 POLE STRUCTURE SMALL ANGLE, DOUBLE DEADEND			
1	1	27' GALVANIZED STEEL CROSS ARM	—					
2	3	GALVANIZED STEEL MOUNTING STRAP	—					
3	3	BOLT, MACHINE 1" x 14"	—					
4	3	BOLT, MACHING 1" x REQ. LENGTH	—					
5	6	SPRING LOCK WASHER, 1"	—					
6	6	NUT, 1"	—					
7	6	WASHER, SQUARE, 4" x 4" x 1/4" w/ 1-1/8"	—					



THRU HOLE BORING DETAIL

DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0.00"	4
1.00"	9'-0.00"	4
1.00"	14'-0.00"	4
1.00"	15'-0.00"	4
1.00"	20'-0.00"	4
1.00"	21'-0.00"	4

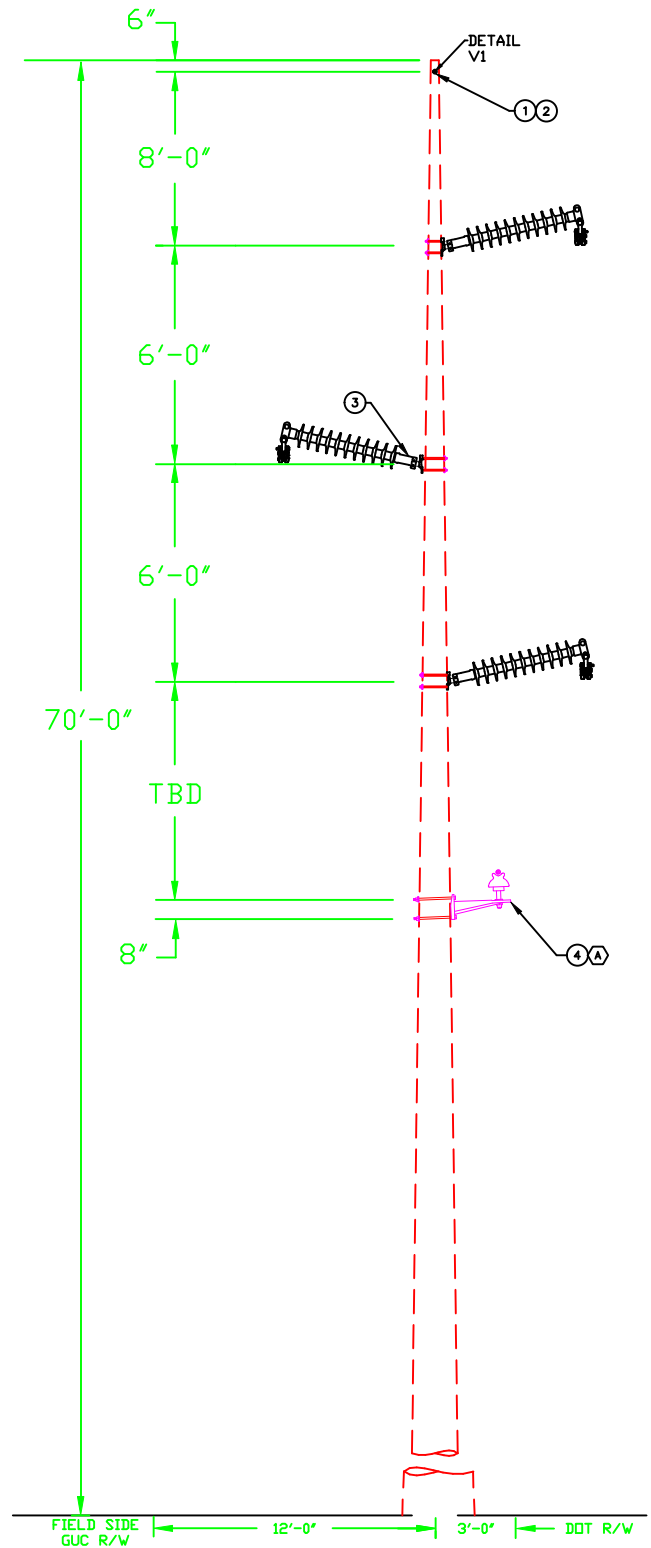



80' STRUCTURE EMBEDMENT

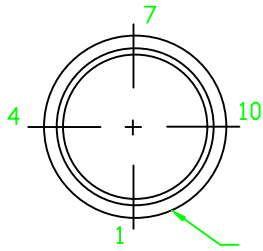
NOTES:

1. DRAWING IS NOT TO SCALE. ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.

(A) MIF BRACKET WILL BE FIELD DRILLED TO APPROPRIATE HEIGHT.

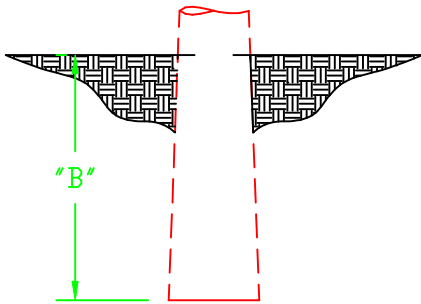


DWG. REF.	ea.	LIST OF MATERIALS DESCRIPTION	ITEM	DET.	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
1	3	OHGW ASSEMBLY, DEADEND	-	TM-4E		STRUCTURE 11.2 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT, POST INSULATORS			
2	1	OHGW GROUNDING ASSEMBLY	-	TM-2B					
3	3	HORIZONTAL POST INSULATOR ASSY	-	TM-3DM					
4	1	MIF BRACKET TANGENT ASSY (336)	-	MIF-336					
5	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9					
					DWN. JLS	DATE: 12/23/2021		DWG. NO.  TPZ1	
					CKD. JLS	APPD. JLS			
					SCALE: N.T.S.				
					DATE	REVISION	DATE		REVISION
					4/5/2022	1			



THRU HOLE BORING DETAIL

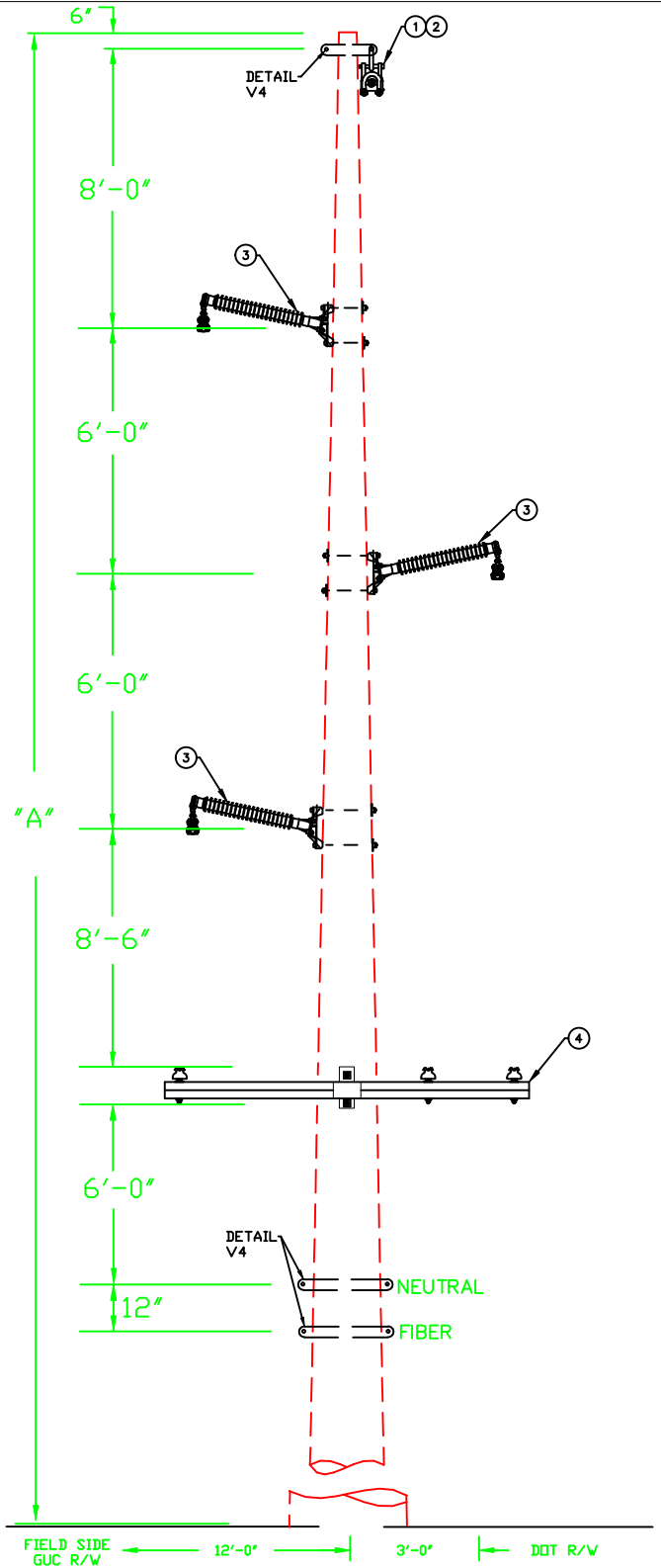
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4
0.75"	29'-0"	1
0.75"	30'-0"	1




Structure Embedment

NOTES:

- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) CROSSARM BRACE NOT SHOWN ON DRAWING.
- 4) SEE PAGE 2 FOR DIMENSIONS A AND B.




DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
	ea.	DESCRIPTION	ITEM	DET.					
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A		MULTI STRUCTURE 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT POST, W/DISTRIBUTION UB			
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)					
3	3	HORIZONTAL POST INSULATOR ASSY	-	TM-3DM					
4	1	10' TANGENT DISTRIBUTION XRM ASSY	-	XRM-10A					
5	1	TANGENT NEUTRAL ON VANG ASSY	-	N-1/0					
6	1	NEUTRAL GROUNDING ASSY	-	NG-1/0					
7	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9					
					DWN. JLS	DATE: 12/23/2021		DWG. NO. TPZD1.C1	
					CKD. JLS	APPD. JLS			
					SCALE: N.T.S.	PAGE 1 OF 2			
					DATE	REVISION	DATE		REVISION
					4/5/2022	1			

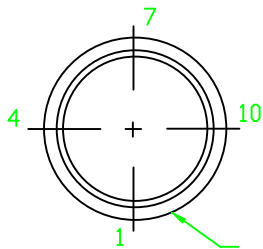


## TPZD1.C1 STRUCTURE DIMENSIONS

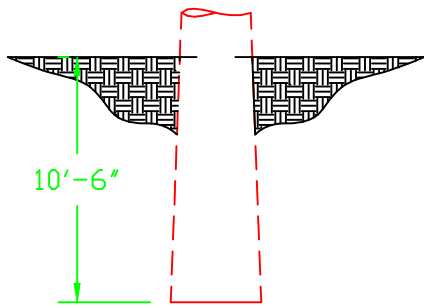
POLE NUMBER	HEIGHT/CLASS	A	B
11.3-11.5, 11.8-11.10, 11.12, 11.13, 11.15, 11.18, 11.19	85/S-07.4	74'-6"	10'-6"
11.6	90/S-08.0	79'-0"	11'-0"
11.21	85/S-07.4	74'-6"	10'-6"
11.20, 17.2, 17.3, 17.5	80/S-07.4	70'-0"	10'-0"
17.6, 17.28-17.33, 17.35-17.50	75/S-06.5	65'-6"	9'-6"
17.7-17.10, 17.23-17.26	70/S-05.7	61'-0"	9'-0"

DWG. REF.	ea.	LIST OF MATERIALS DESCRIPTION	ITEM	DET.	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
			-		 TPZD1.C1 STRUCTURE DIMENSIONS			DWG. NO.  TPZD1.C1	
						DWN. JLS			DATE: 12/23/21
						CKD. JLS			APPD. JLS
						SCALE: N.T.S.			PAGE 2 OF 2
						DATE	REVISION		DATE
					4/5/2022	1			





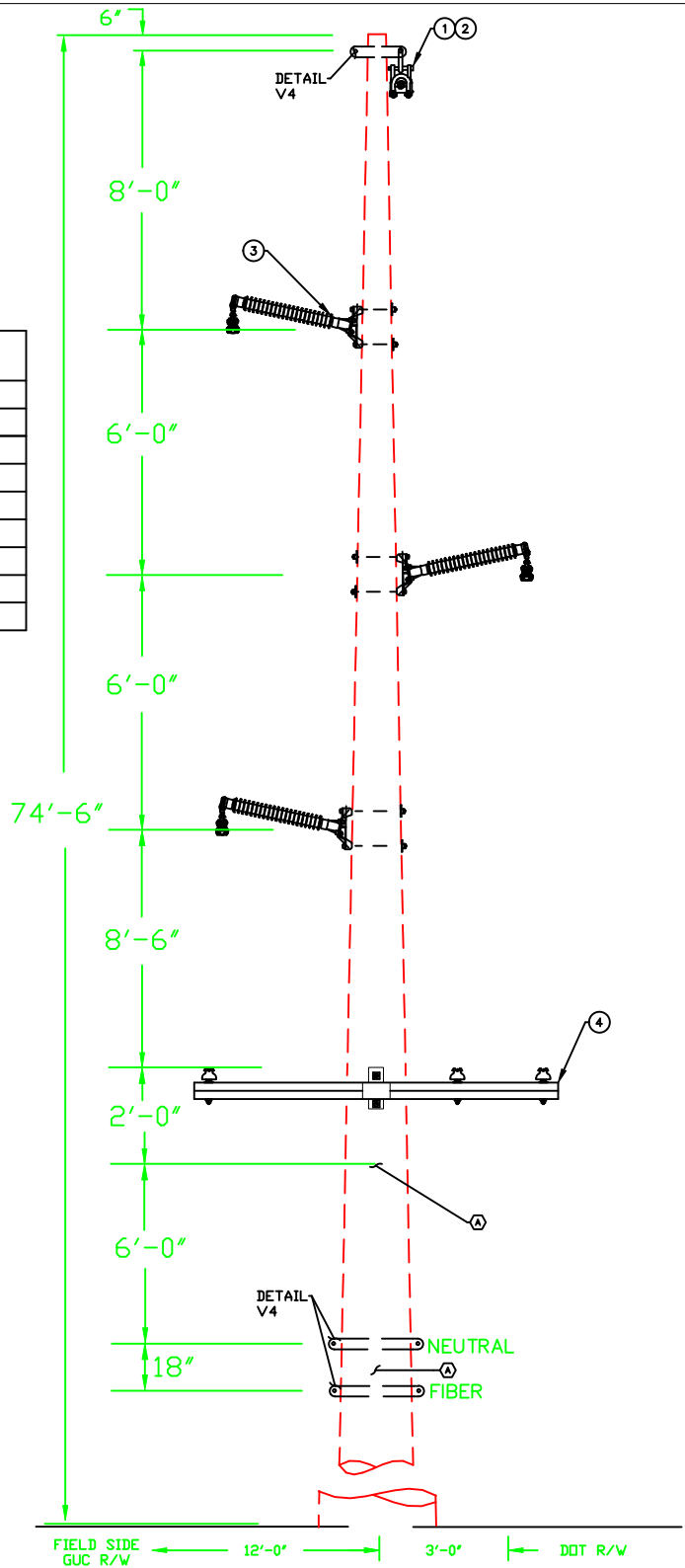
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4
0.75"	29'-0"	1
0.75"	30'-0"	1



85' Structure Embedment

**NOTES:**

- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) CROSSARM BRACE AND 2 GUYS NOT SHOWN ON DRAWING.
- Ⓐ DEADEND CROSSARM AND NEUTRAL TO BE FIELD DRILLED FOR DISTRIBUTION TAP.



DWG. REF.	LIST OF MATERIALS			
	ea.	DESCRIPTION	ITEM	DET.
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)
3	3	HORIZONTAL POST INSULATOR ASSY	-	TM-3DM
4	1	10' TANGENT DIST. XRM ASSY	-	XRM-10A
5	1	10' DEADEND DIST. XRM ASSY	-	XRM-10B
6	1	TANGENT NEUTRAL VANG ASSY	-	N-1/0
7	1	NEUTRAL DEADEND ASSY	-	NDE-1/0
8	1	NEUTRAL GROUNDING ASSY	-	NG-1/0
9	2	SINGLE DOWN GUY	-	TG-21
10	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9
11	2	TRANSMISSION ANCHOR ASSY	-	TA-2H

GREENVILLE UTILITIES COMMISSION  
GREENVILLE, NORTH CAROLINA

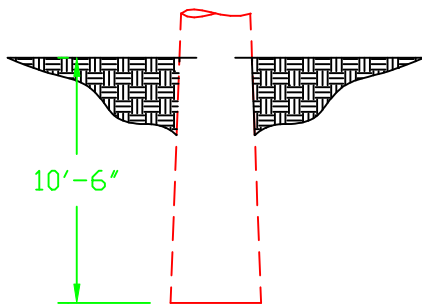
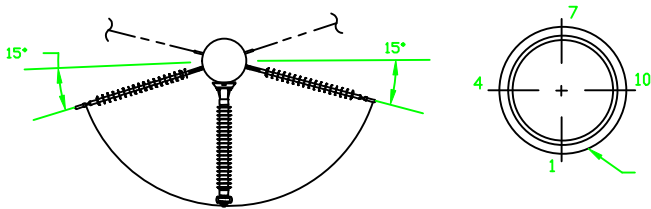
STRUCTURES 11.11 & 11.14  
115 KV 3 PHASE, Z-FRAME STRUCTURE,  
TANGENT POST, W/DISTRIBUTION UB & TAP

DWN. JLS		DATE: 01/05/2022		DWG. NO. <b>TPZD1.C1.2</b>
CKD. JLS		APPD. JLS		
SCALE: N.T.S.				
DATE	REVISION	DATE	REVISION	
4/7/2022	1			

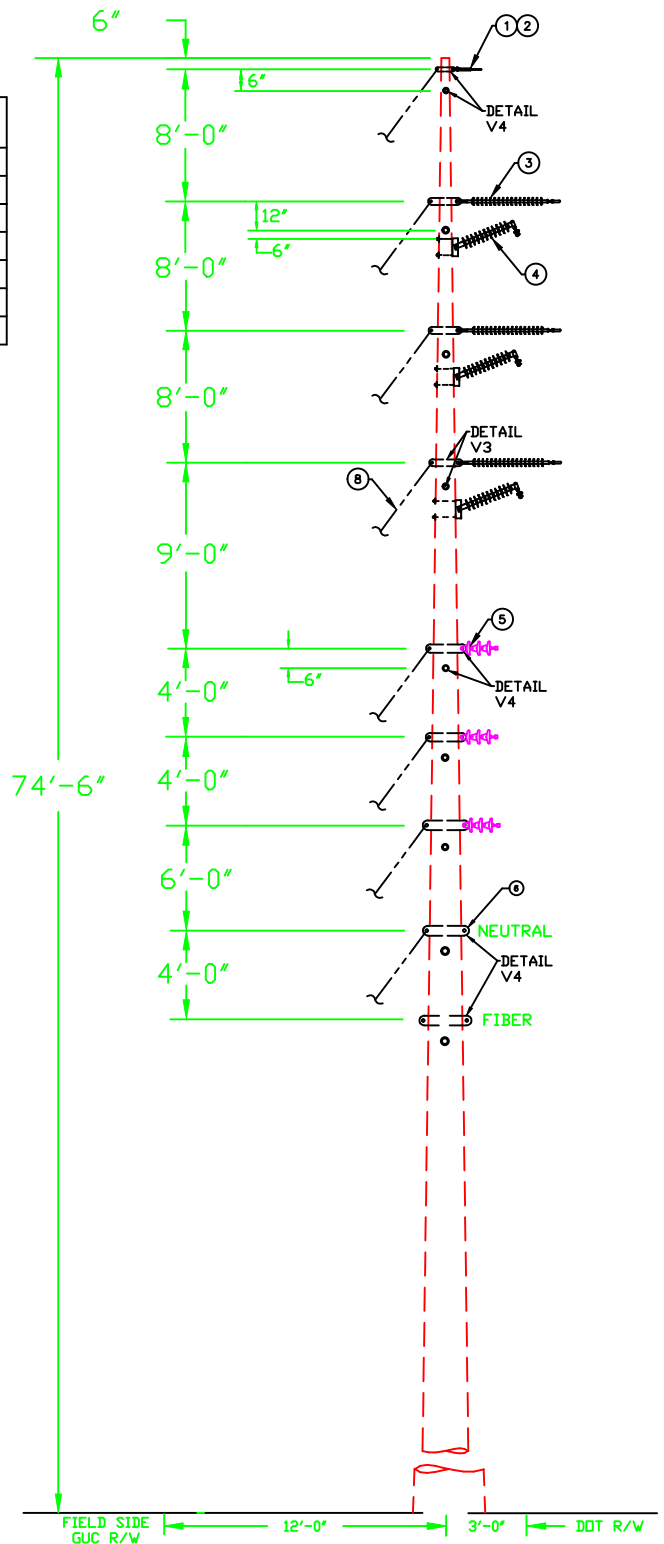
### THRU HOLE BORING DETAIL

DIAMETER	FROM SMALL END	FLAT#
1.00"	10'-0"	1
1.00"	11'-0"	1
1.00"	18'-0"	1
1.00"	19'-0"	1
1.00"	26'-0"	1
1.00"	27'-0"	1

#### OVERHEAD VIEW




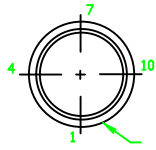
85' Structure Embedment



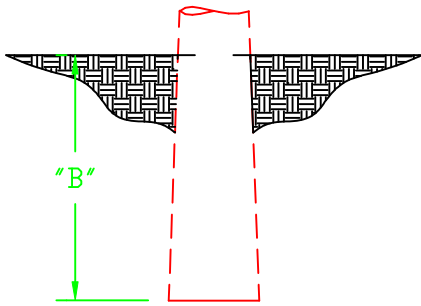
#### NOTE:

- DRAWING IS NOT TO SCALE.
- GUY'S OPPOSITE EACH CONDUCTOR DEADEND.

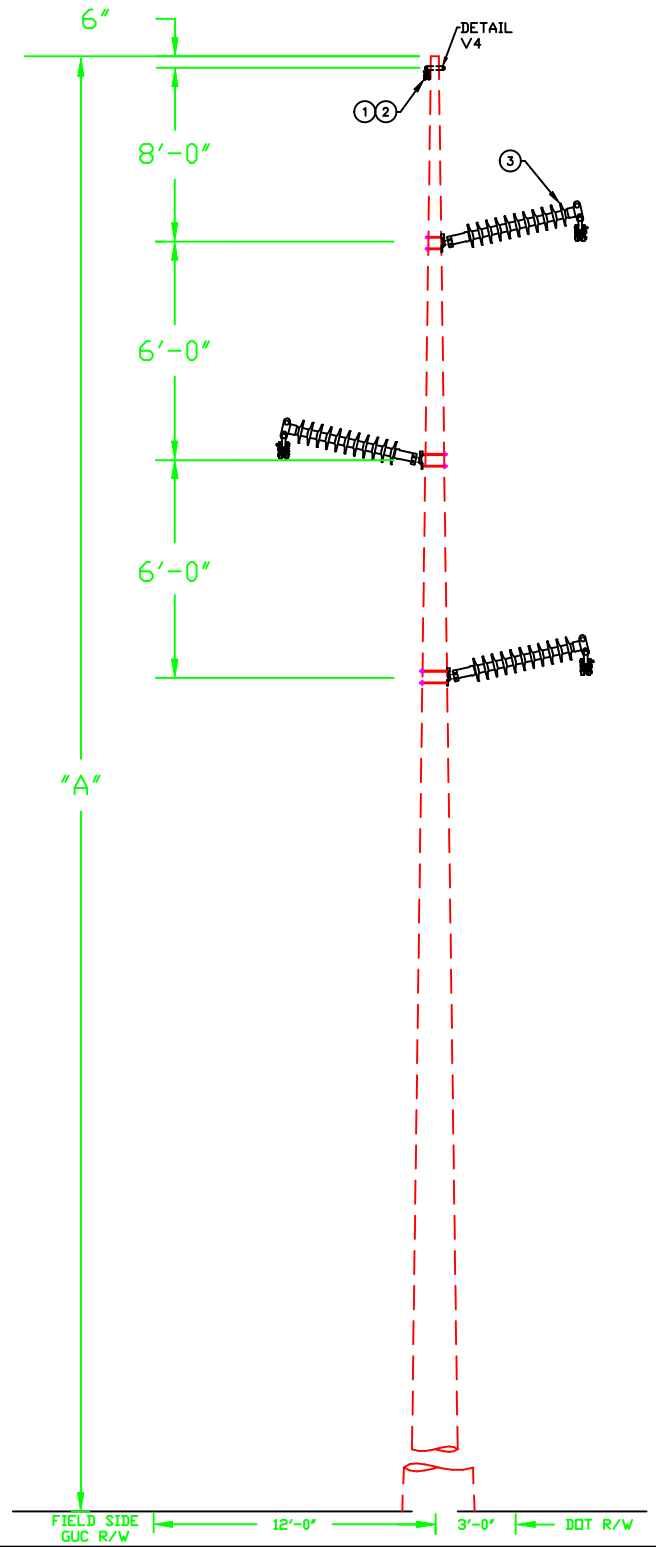
DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
	ea.	DESCRIPTION	ITEM	DET.					
1	2	OHGW ASSEMBLY, DEADEND	-	TM-4E		STRUCTURE 11.16 & 11.17 115 KV 3 PHASE, VERTICAL STRUCTURE, SMALL ANGLE DOUBLE DEADEND SUSPENSION, W/POST			
2	1	OHGW GROUNDING ASSEMBLY	-	TM-2B					
3	6	DEADEND ASSEMBLY, PRIMARY	-	TM-1EM					
4	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM					
5	6	SUSPENSION INSULATOR DEADEND	-	DM-1EM					
6	2	DEADEND NEUTRAL ON VANG	-	DENV-1/0	DWN. JLS	DATE: 01/11/2022		DWG. NO. TSVD6.V6	
7	1	NEUTRAL GROUNDING ASSY	-	NG-1/0	CKD. JLS	APPD. JLS			
8	16	SINGLE DOWN GUY	-	TG-21A	SCALE: N.T.S.				
9	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9	DATE	REVISION	DATE		REVISION
10	14	ANCHOR ASSEMBLY, TRANSMISSION	-	TA-2H	4/8/2022	1			



THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0.00"	4
1.00"	9'-0.00"	4
1.00"	14'-0.00"	4
1.00"	15'-0.00"	4
1.00"	20'-0.00"	4
1.00"	21'-0.00"	4




STRUCTURE EMBEDMENT




NOTES:

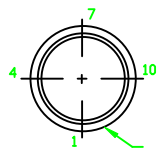
1. DRAWING IS NOT TO SCALE. ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
2. SEE PAGE 2 FOR DIMENSIONS A AND B.

DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
	ea.	DESCRIPTION	ITEM	DET.	 MULTI STRUCTURE 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT, POST INSULATORS				
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A					
2	1	OHGW GROUNDING ASSEMBLY	-	TM-9X(S)					
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM					
4	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9					
					DWN. JLS	DATE: 01/11/2022		DWG. NO.  TPZ1	
					CKD. JLS	APPD. JLS			
					SCALE: N.T.S.		PAGE 1 OF 2		
					DATE	REVISION	DATE		REVISION
					04/11/2022	1			

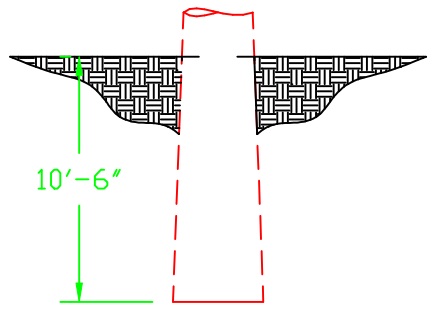
## TPZ1 STRUCTURE DIMENSIONS

POLE NUMBER	HEIGHT/CLASS	A	B
16.1-16.6	70/S-05.7	61'-0"	9'-0"
16.15	65/S-03.5	56'-6"	8'-6"
17.12-17.21	70/S-05.7	61'-0"	9'-0"
17.27	65/S-03.5	56'-6"	8'-6"
12.1-12.7	75/S-06.5	65'-6"	9'-6"

DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA																							
ea.	DESCRIPTION	ITEM	DET.	 TPZ1 STRUCTURE DIMENSIONS																								
		-						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">DWN. JLS</td> <td colspan="2">DATE: 01/11/2022</td> <td rowspan="5" style="width: 10%; text-align: center; vertical-align: middle;">DWG. NO.  TPZ1</td> </tr> <tr> <td colspan="2">CKD. JLS</td> <td colspan="2">APPD. JLS</td> </tr> <tr> <td colspan="2">SCALE: N.T.S.</td> <td colspan="2">PAGE 2 OF 2</td> </tr> <tr> <td>DATE</td> <td>REVISION</td> <td>DATE</td> <td>REVISION</td> </tr> <tr> <td>04/11/2022</td> <td style="text-align: center;">1</td> <td> </td> <td> </td> </tr> </table>				DWN. JLS		DATE: 01/11/2022		DWG. NO.  TPZ1	CKD. JLS		APPD. JLS		SCALE: N.T.S.		PAGE 2 OF 2		DATE	REVISION	DATE	REVISION
DWN. JLS		DATE: 01/11/2022		DWG. NO.  TPZ1																								
CKD. JLS		APPD. JLS																										
SCALE: N.T.S.		PAGE 2 OF 2																										
DATE	REVISION	DATE	REVISION																									
04/11/2022	1																											



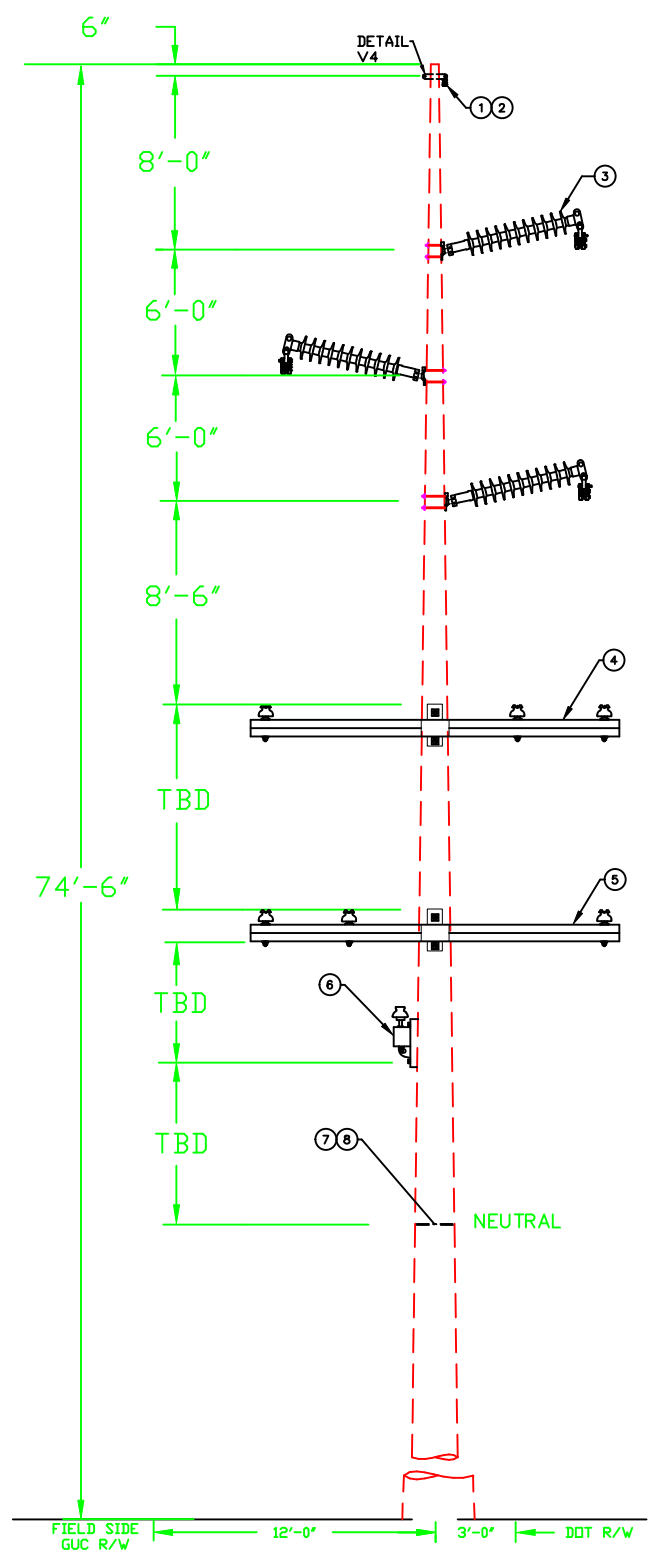
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4
0.75"	29'-0"	1
0.75"	30'-0"	1



85' STRUCTURE EMBEDMENT


**NOTE:**

- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) BOTTOM CROSSARMS AND NEUTRAL WILL BE FIELD DRILLED AT APPROPRIATE HEIGHTS.
- 4) CROSSARM BRACES NOT SHOWN IN DRAWING. WILL BE FIELD DRILLED.



DWG. REF.	LIST OF MATERIALS			
	ea.	DESCRIPTION	ITEM	DET.
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM
4	1	10' TANGENT DIST. XRM ASSY (795)	-	XRM-10A
5	1	10' TANGENT DIST. XRM ASSY (556)	-	XRM-10A
6	1	10' TANGENT DIST. XRM ASSY (336)	-	XRM-10A
7	1	DBL DEADEND NEUTRAL EYEBOLT (336)	-	NDDE-336
8	1	DBL DEADEND NEUTRAL EYEBOLT (1/0)	-	NDDE-1/0
9	1	NEUTRAL GROUNDING ASSY	-	NG-1/0
10	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9

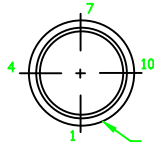
GREENVILLE UTILITIES COMMISSION  
GREENVILLE, NORTH CAROLINA



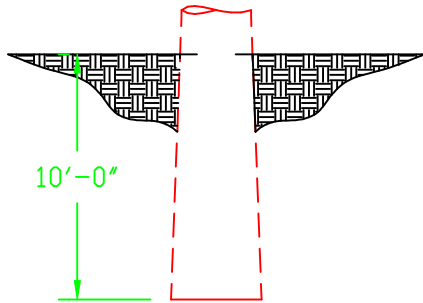
**Greenville Utilities**

STRUCTURE 16.7  
115 KV 3 PHASE, Z-FRAME STRUCTURE,  
TANGENT, POST INSULATORS, WITH DOUBLE  
CROSSARM DISTRIBUTION

DWN. JLS		DATE: 02/01/2022		DWG. NO.  TPZD1.DC6.2
CKD. JLS		APPD. JLS		
SCALE: N.T.S.				
DATE	REVISION	DATE	REVISION	
4/11/2022	1			



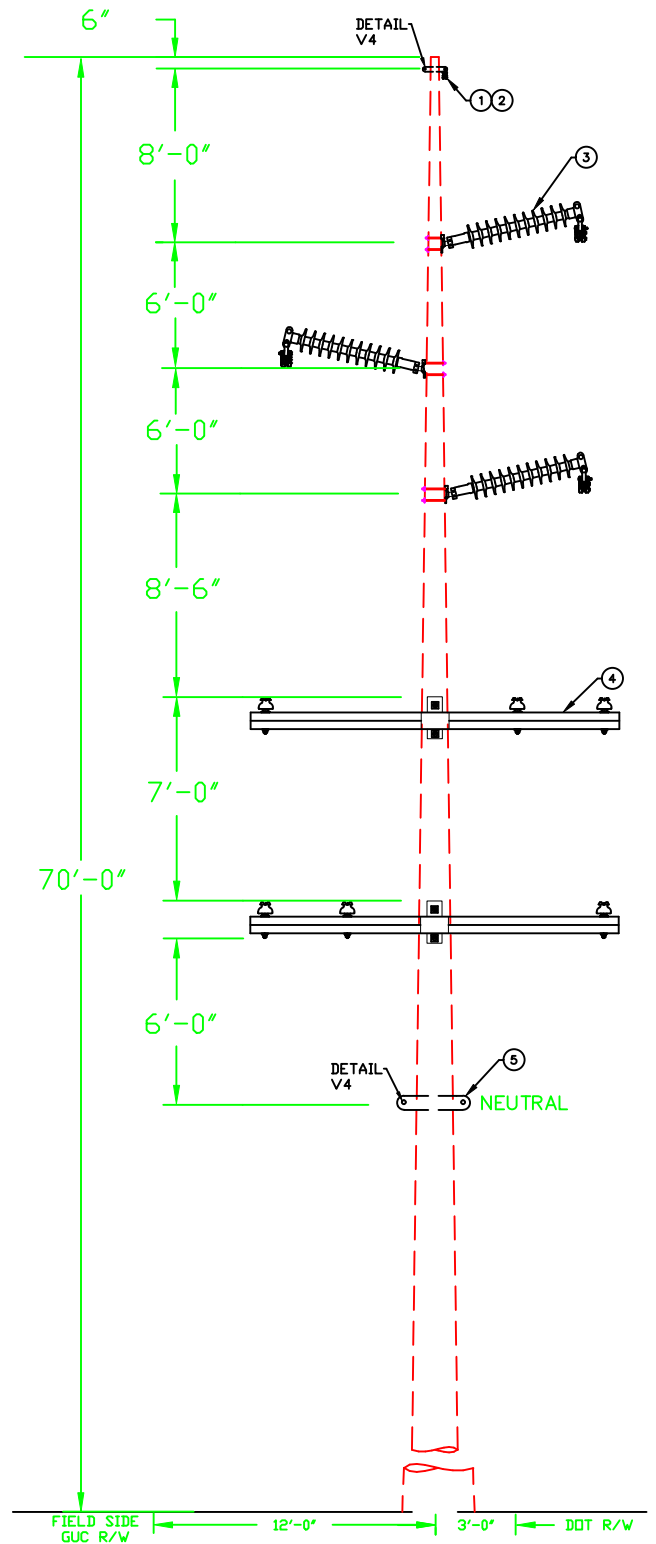
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4
0.75"	29'-0"	1
0.75"	30'-0"	1
0.75"	36'-0"	1
0.75"	37'-0"	1



80' STRUCTURE EMBEDMENT

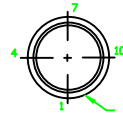
**NOTE:**

- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) CROSSARM BRACES NOT SHOWN IN DRAWING. WILL BE FIELD DRILLED.

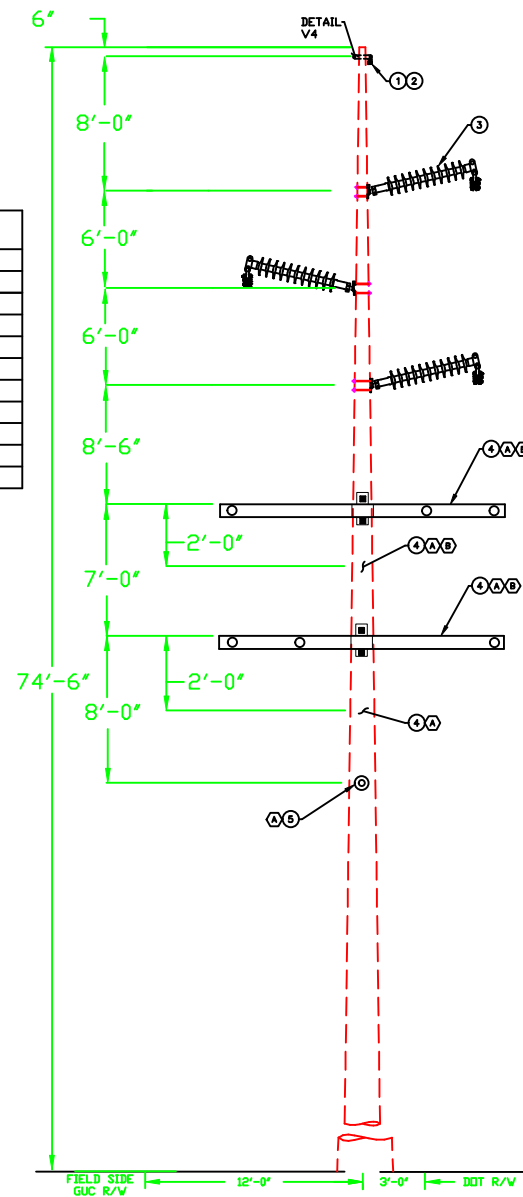
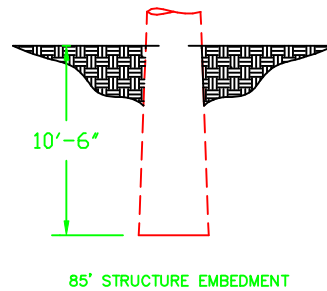


DWG. REF.	ea.	LIST OF MATERIALS DESCRIPTION	ITEM	DET.	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A		STRUCTURE 16.8-16.12 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT, POST INSULATORS, WITH DOUBLE CROSSARM DISTRIBUTION		
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)				
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM				
4	2	10' TANGENT DIST. XARM ASSY	-	XRM-10A				
5	1	TANGENT NEUTRAL ON VANG ASSY	-	N-336				
6	1	NEUTRAL GROUNDING ASSY	-	NG-336	DWN. JLS	DATE: 02/01/2022		DWG. NO. TPZD1.DC1
7	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9	CKD. JLS	APPD. JLS		
					SCALE: N.T.S.			
					DATE	REVISION	DATE	
					4/11/2022	1		





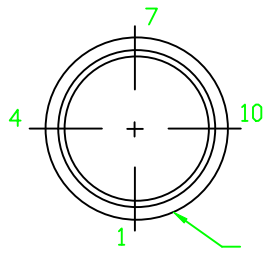
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4
0.75"	29'-0"	1
0.75"	30'-0"	1
0.75"	36'-0"	1
0.75"	37'-0"	1



**NOTE:**

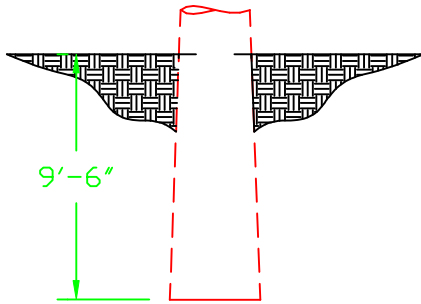
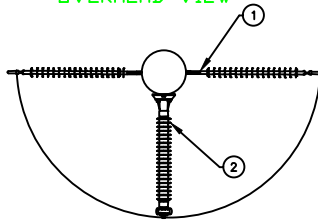
- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- Ⓐ NEUTRAL DEADEND AND DOUBLE DEADEND CROSSARMS WILL BE FIELD-DRILLED.
- Ⓑ SINGLE DOWN GUYS TO BE INSTALLED ON DOUBLE DEADEND CROSSARM & NEUTRAL.

DWG. REF.	ea.	LIST OF MATERIALS DESCRIPTION	ITEM	DET.	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA					
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A		STRUCTURE 16.13 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT, POST INSULATORS, WITH DOUBLE DEADEND CROSSARM DISTRIBUTION				
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)						
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM						
4	4	10' DBL DE DIST. CROSSARM ASSY	-	XRM-10DDE						
5	2	DBL DEADEND NEUTRAL EYEBOLT	-	NDDE-336	DWN. DRB	DATE: 7/1/2022		DWG. NO.		
6	1	NEUTRAL GROUNDING ASSY	-	NG-336	CKD. JLS	APPD. JLS				
7	6	SINGLE DOWN GUY	-	TG-21	SCALE: N.T.S.		TPZD1.DC4			
8	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9	DATE	REVISION			DATE	REVISION
9	6	TRANSMISSION ANCHOR ASSY	-	TA-2H						



THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	3'-0"	1
1.00"	4'-0"	1
1.00"	11'-0"	1
1.00"	12'-0"	1
1.00"	19'-0"	1
1.00"	20'-0"	1

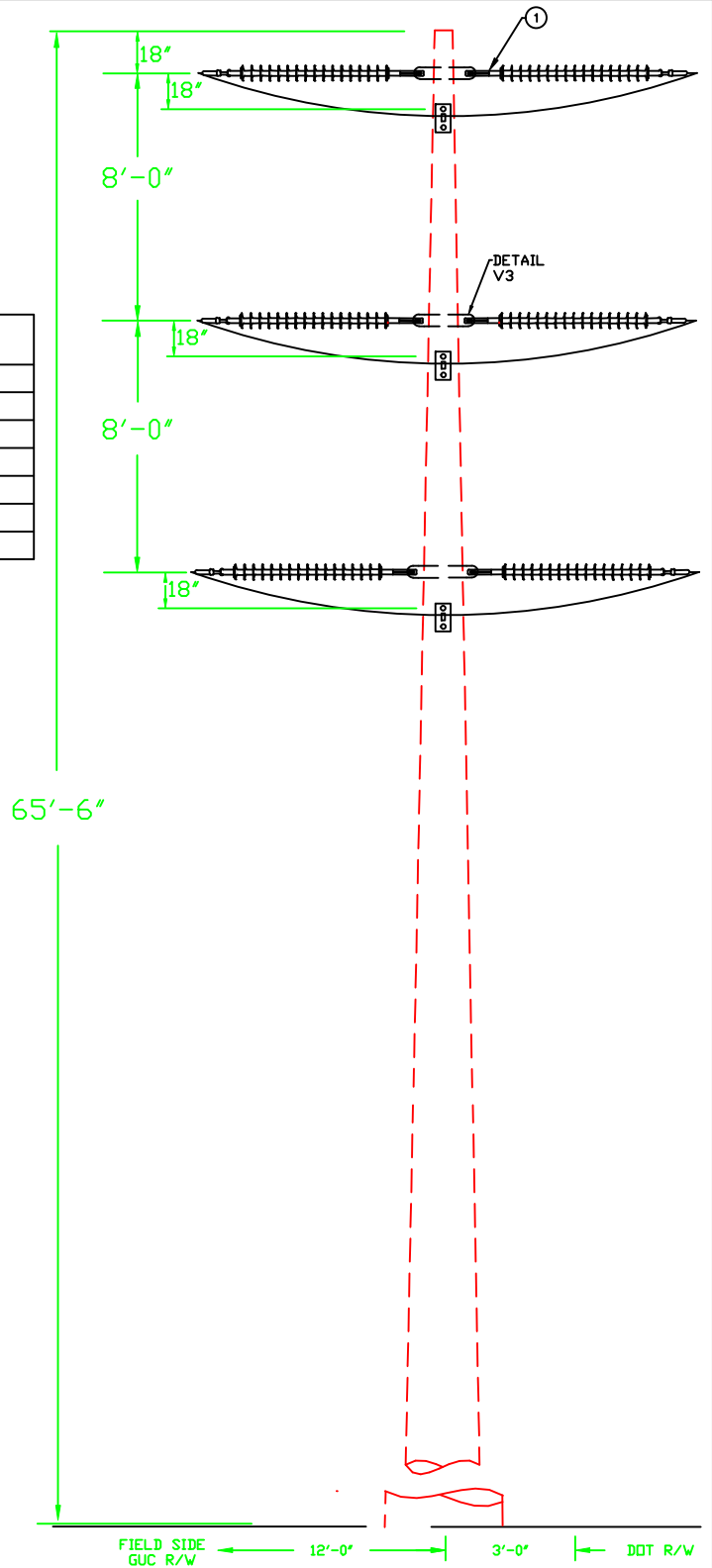
OVERHEAD VIEW




75' Structure Embedment

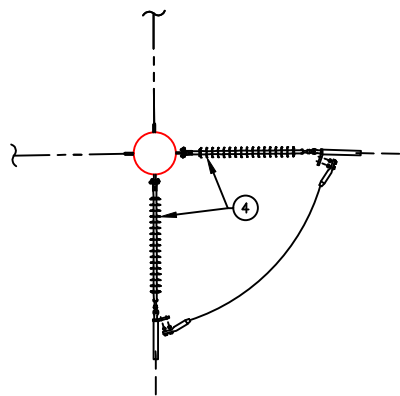
NOTES:

- DRAWING IS NOT TO SCALE.
- ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.

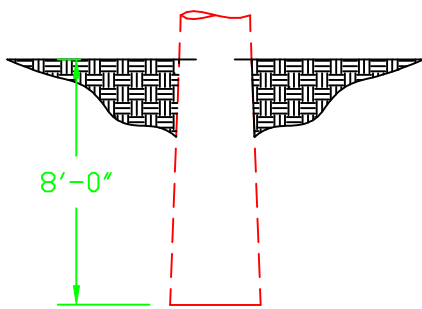


FIELD SIDE GUC R/W ← 12'-0" → 3'-0" → DDT R/W

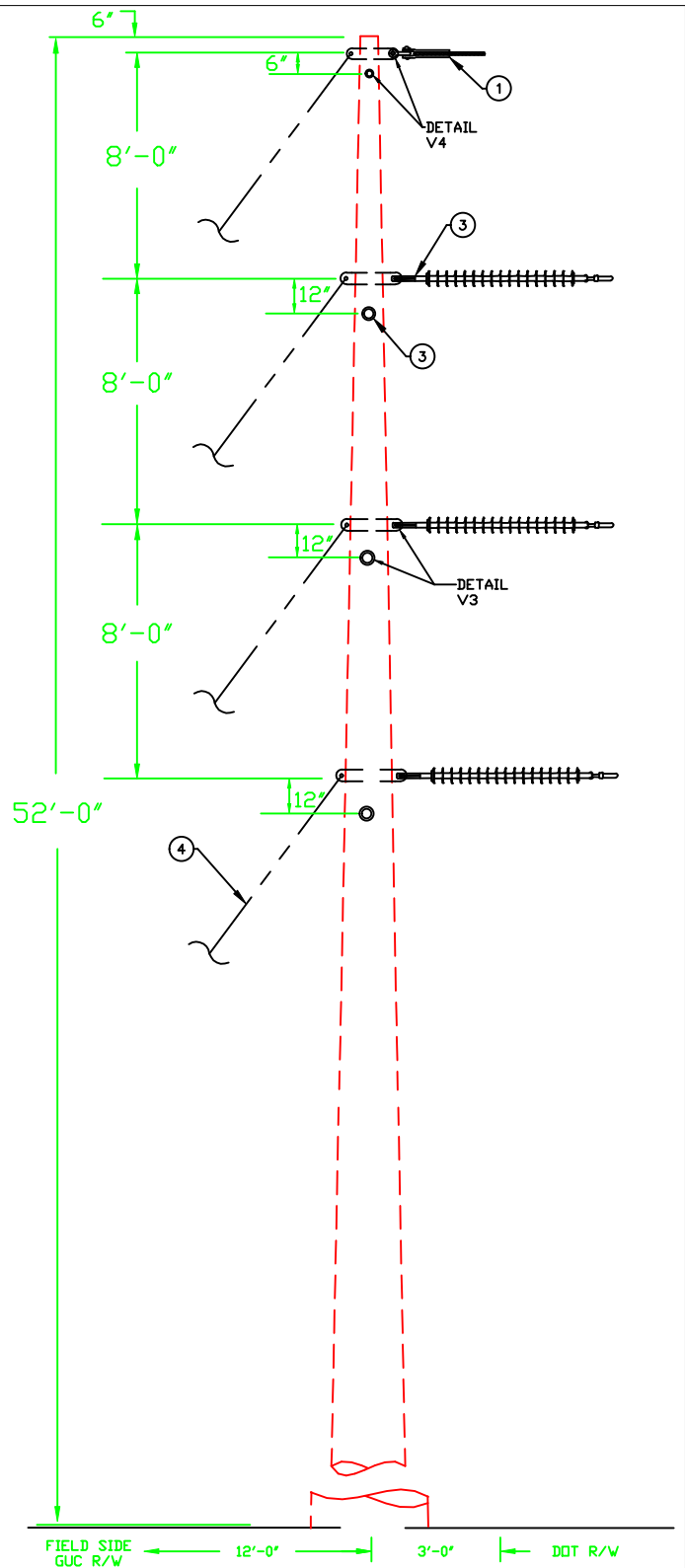
DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
	ea.	DESCRIPTION	ITEM	DET.	 STRUCTURE 16.14 115 KV 3 PHASE, VERTICAL STRUCTURE TANGENT DOUBLE DEADEND, SUSPENSION			
1	6	DEADEND ASSEMBLY, PRIMARY	-	TM-1EM				
2	3	115 KV POST INSULATOR TANGENT	-	TM-3DM				
3	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9				
4	5	SINGLE DOWN GUY	-	TG-21				
5	2	TRANSMISSION ANCHOR ASSY	-	TA-2H				
					DWG. NO. TSV6			



OVERHEAD VIEW




60' Structure Embedment

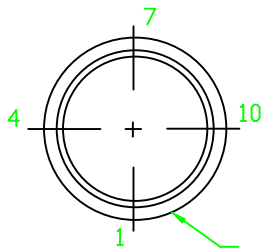


NOTE:

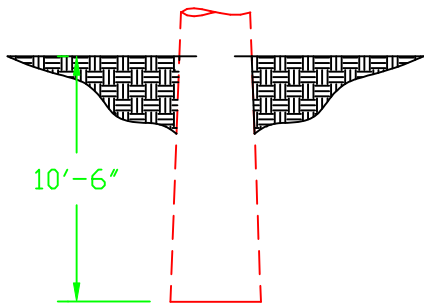
- 1. DRAWING IS NOT TO SCALE.

DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
	ea.	DESCRIPTION	ITEM	DET.					
1	3	OHGW ASSEMBLY, DEADEND	-	TM-4E		STRUCTURE 16.16 115 KV 3 PHASE, VERTICAL STRUCTURE LARGE ANGLE, DOUBLE DEADEND SUSPENSION			
2	1	OHGW GROUNDING ASSEMBLY	-	TM-2B					
3	6	SUSPENSION INSULATOR ASSY DE	-	TM-1EM					
4	8	SINGLE DOWN GUY	-	TG-21A					
5	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9					
6	8	ANCHOR ASSEMBLY, TRANSMISSION	-	TA-2H					
					DWN. JLS	DATE: 01/11/2022		DWG. NO.  TSV4	
					CKD. JLS	APPD. JLS			
					SCALE: N.T.S.				
					DATE	REVISION	DATE		REVISION
					4/11/2022	1			

FIELD SIDE GUC R/W ← 12'-0" → | 3'-0" → DDT R/W



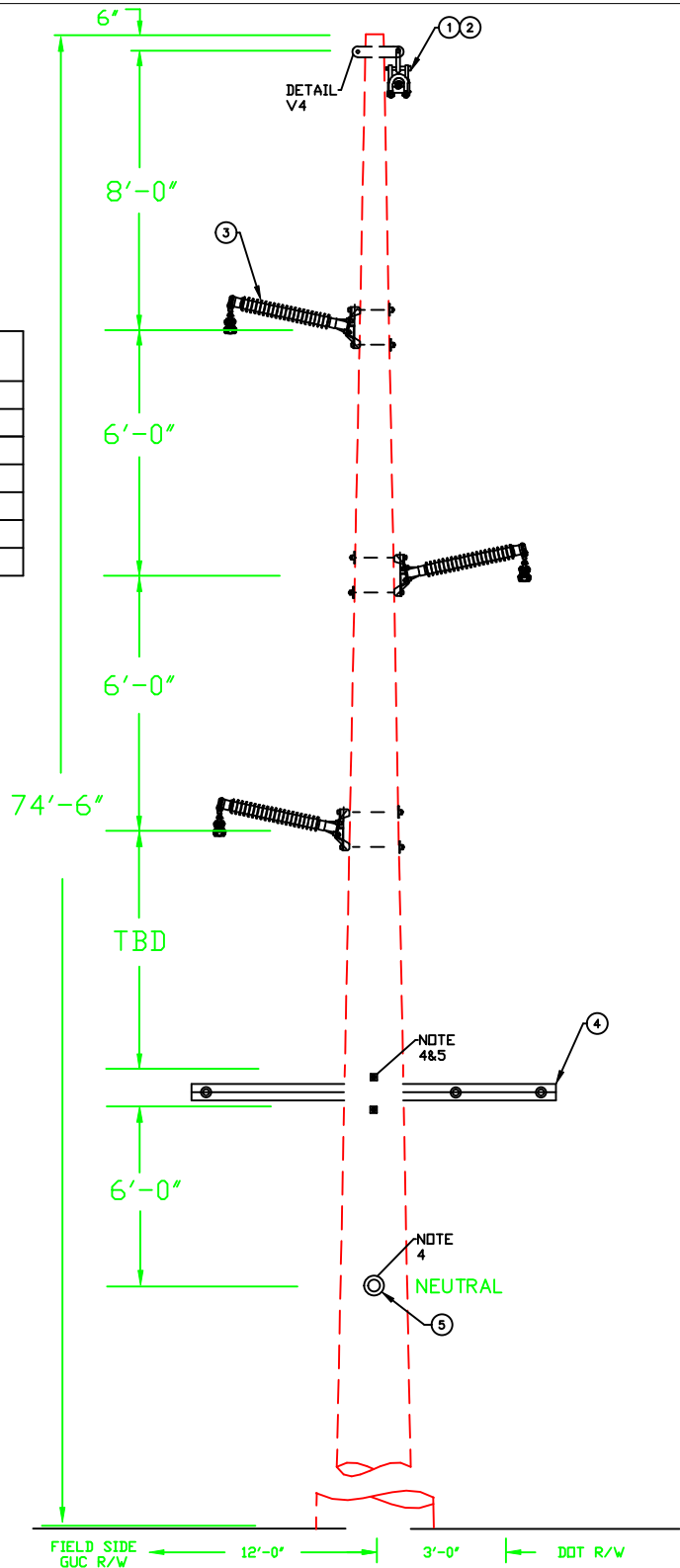
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4




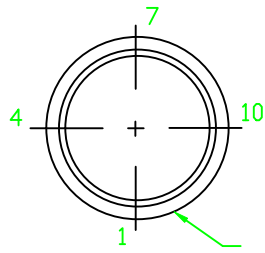
85' Structure Embedment

**NOTES:**

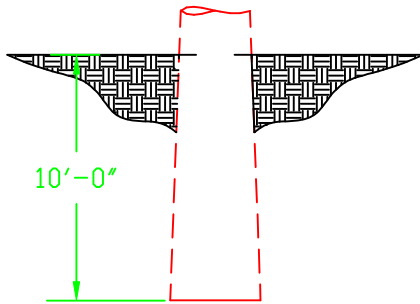
- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) 3 PHASE RISER ON POLE
- 4) CROSSARM AND NEUTRAL WILL BE FIELD DRILLED BASED ON RISER HEIGHT.
- 5) SINGLE PHASE DEADEND TO ATTACH TO TOP BOLT OF CROSSARM.



DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
	ea.	DESCRIPTION	ITEM	DET.					
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A		STRUCTURE 17.1 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT POST, W/DISTRIBUTION UB			DWG. NO.  TPZD1.C5.2
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)					
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM					
4	1	10' DEADEND DIST. XRM ASSY	-	XRM-10B					
5	1	DBL DEADEND NEUTRAL EYEBOLT	-	NDE-1/0	DWN. JLS	DATE: 01/14/2022			
6	1	NEUTRAL GROUNDING ASSY	-	NG-1/0	CKD. JLS	APPD. JLS			
7	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9	SCALE: N.T.S.				
					DATE	REVISION	DATE	REVISION	
					4/11/2022	1			



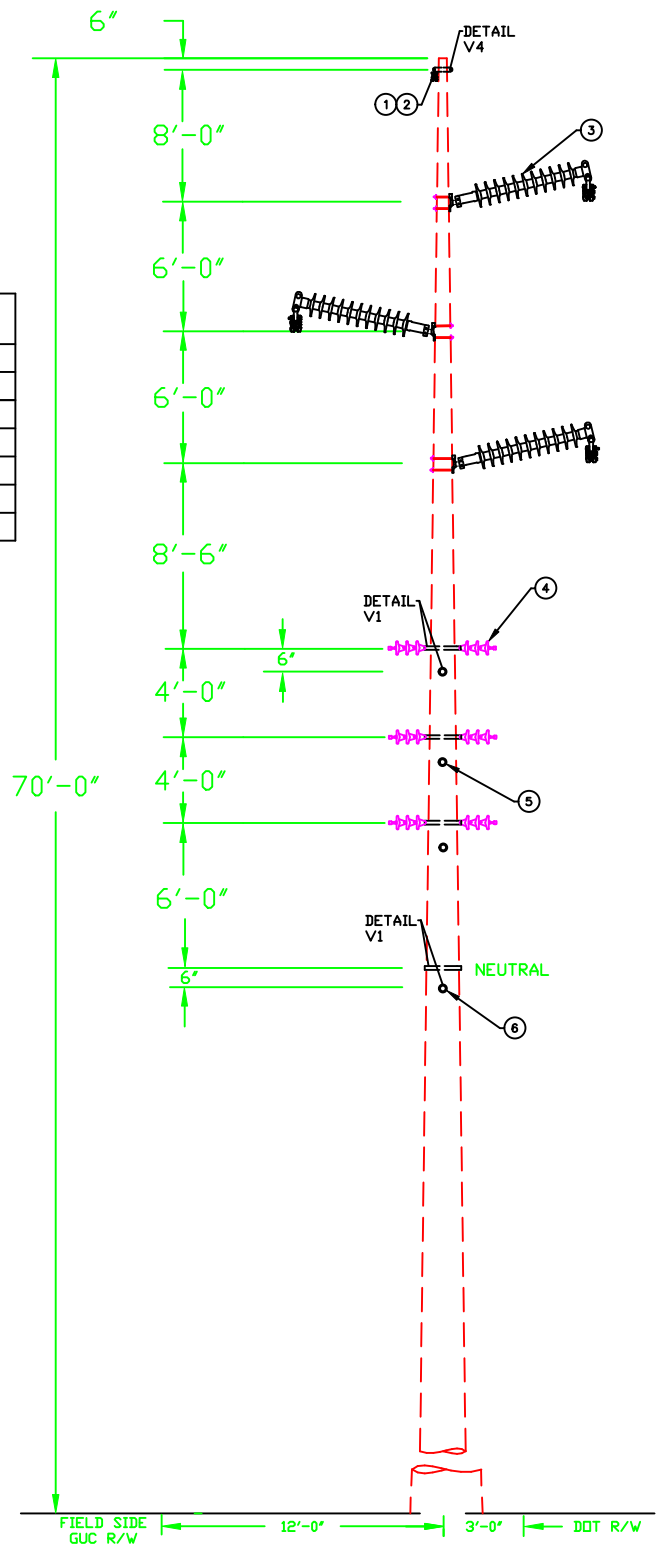
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4




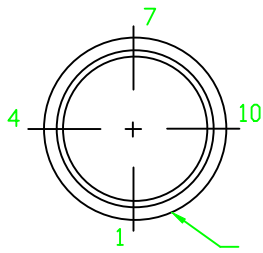
80' STRUCTURE EMBEDMENT

**NOTES:**

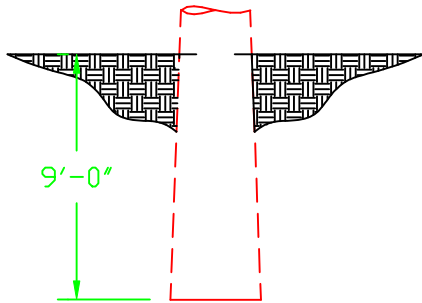
- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) DISTRIBUTION THRU VANGS FROM FLAT 4-10 AND 1-7.



DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA					
	ea.	DESCRIPTION	ITEM	DET.						
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A		STRUCTURE 17.4 115 KV 3 PHASE, Z-FRAME STRUCTURE, TANGENT POST, W/ DISTRIBUTION UB			DWG. NO. TPZD1.V6	
2	1	OHGW GROUNDING ASSEMBLY	-	TM-2B						
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM						
4	6	SUSP INSULATOR DEADEND (336)	-	DM-1EM		DWN. JLS	DATE: 01/14/2022			
5	6	SUSP INSULATOR DEADEND (1/0)	-	DM-1EM		CKD. JLS	APPD. JLS			
6	2	DBL DEADEND NEUTRAL EYEBOLT	-	NDDE-1/0		SCALE: N.T.S.				
7	1	NEUTRAL GROUNDING ASSY	-	NG-1/0		DATE	REVISION	DATE		REVISION
8	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9		4/11/2022	1			



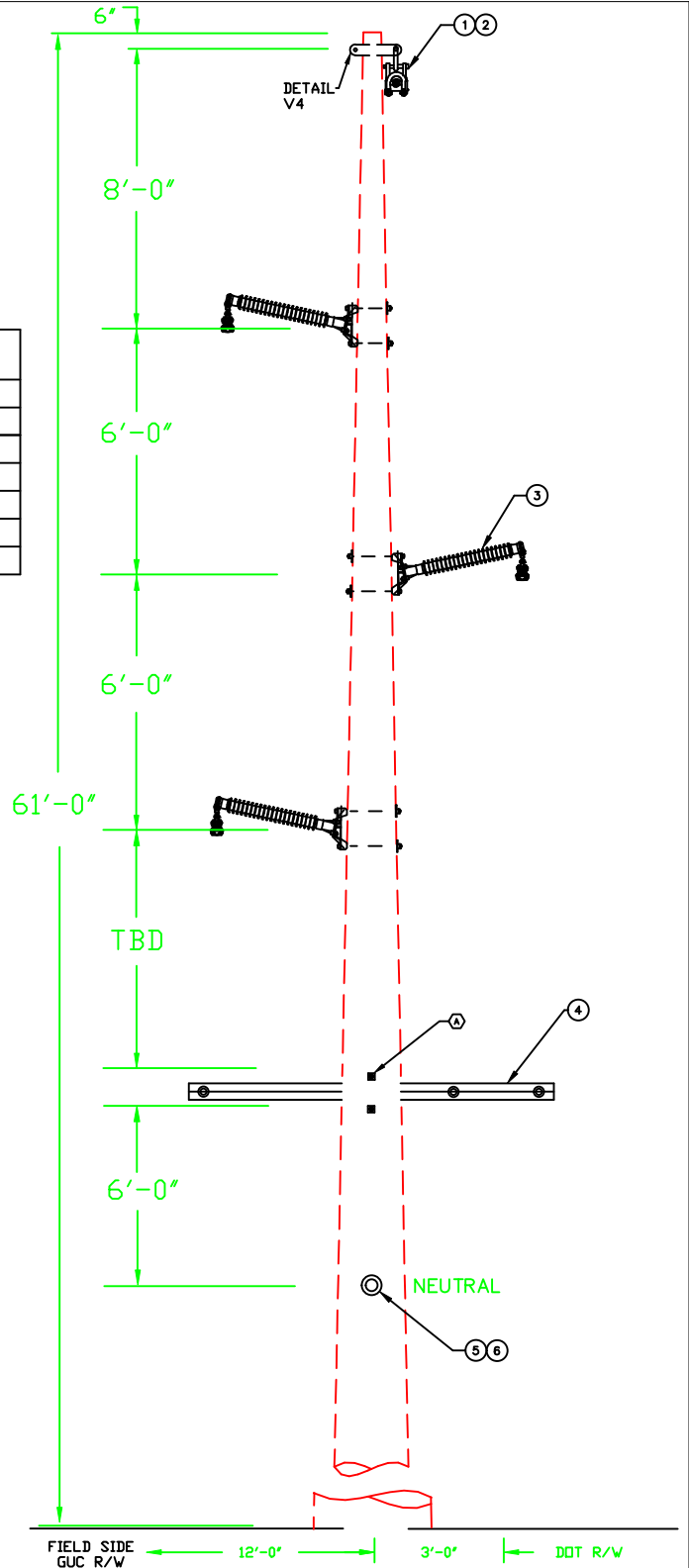
THRU HOLE BORING DETAIL		
DIAMETER	FROM SMALL END	FLAT#
1.00"	8'-0"	4
1.00"	9'-0"	4
1.00"	14'-0"	4
1.00"	15'-0"	4
1.00"	20'-0"	4
1.00"	21'-0"	4



70' Structure Embedment

**NOTES:**

- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) 3 PHASE RISER ON POLE
- 4) 4 DOWN GUYS NOT SHOWN IN DRAWING.
- Ⓐ CROSSARM AND NEUTRAL WILL BE FIELD DRILLED BASED ON RISER HEIGHT.



DWG. REF.	LIST OF MATERIALS			
	ea.	DESCRIPTION	ITEM	DET.
1	1	OHGW ASSEMBLY, TANGENT	-	TM-4A
2	1	OHGW GROUNDING ASSY	-	TM-9X(S)
3	3	115 KV POST INSULATOR, TANGENT	-	TM-3DM
4	1	10' DEADEND DIST. XRM ASSY	-	XRM-10B
5	1	NEUTRAL GROUND ASSY	-	NG-1/0
6	1	DBL DEADEND NEUTRAL EYEBOLT	-	NDDE-1/0
7	4	SINGLE DOWN GUY	-	TG-21
8	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9
9	2	TRANSMISSION ANCHOR ASSY	-	TA-2H
			-	
			-	

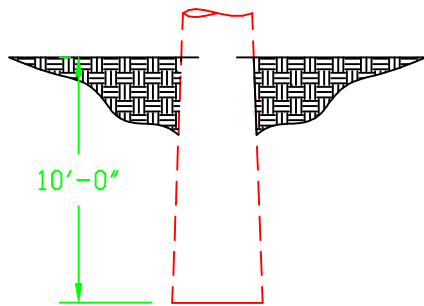
FIELD SIDE ← 12'-0" → 3'-0" → DDT R/W

**GREENVILLE UTILITIES COMMISSION**  
GREENVILLE, NORTH CAROLINA

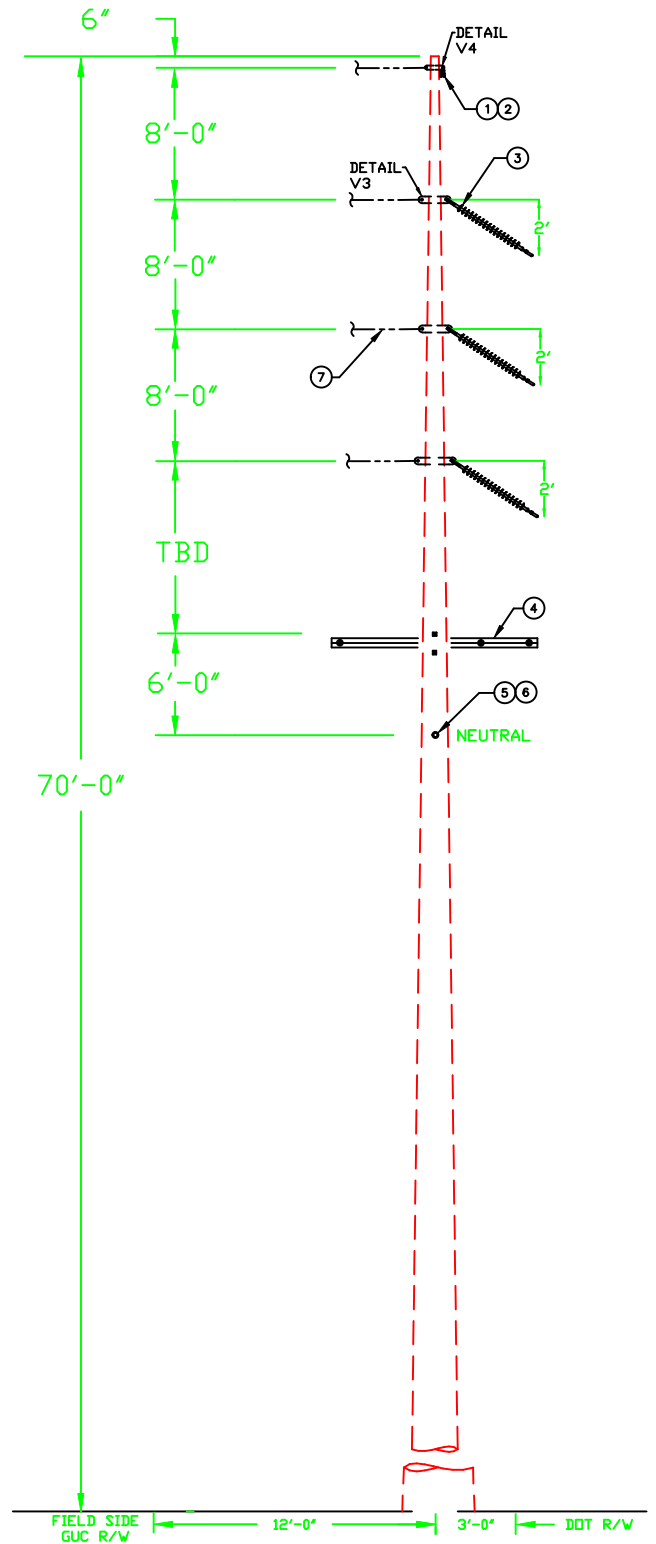
STRUCTURE 17.11  
115 KV 3 PHASE, Z-FRAME STRUCTURE,  
TANGENT POST, W/DISTRIBUTION UB

DWN. JLS	DATE: 01/25/2022	DWG. NO.
CKD. JLS	APPD. JLS	
SCALE: N.T.S.		TPZD1.C5
DATE	REVISION	
4/11/2022	1	






80' Structure Embedment



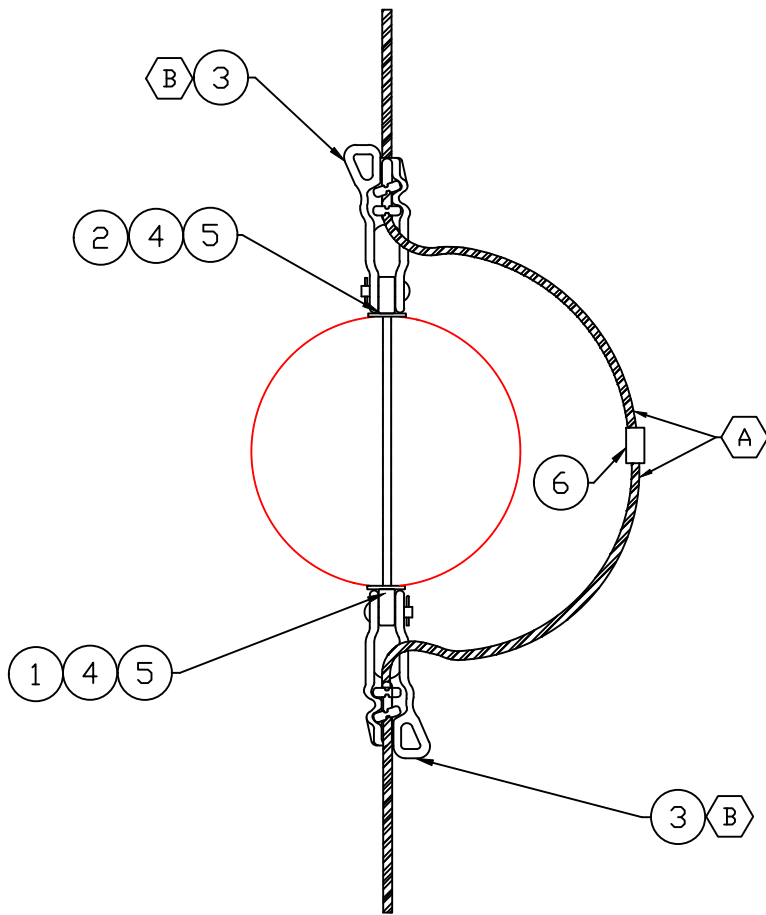
**NOTES:**

- 1) DRAWING IS NOT TO SCALE.
- 2) ALL DIMENSIONS ARE O.C. OF INSULATOR MOUNTS.
- 3) CROSSARM AND NEUTRAL WILL BE FIELD DRILLED AT APPROPRIATE HEIGHT FOR RISER.
- 4) GUYS FOR DISTRIBUTION AND NEUTRAL NOT SHOWN ON DRAWING. WILL BE FIELD DRILLED.

DWG. REF.	LIST OF MATERIALS				GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
	ea.	DESCRIPTION	ITEM	DET.	 STRUCTURE 17.34 115 KV 3 PHASE, VERTICAL LARGE ANGLE, SUSPENSION W/ DISTRIBUTION UB				
1	1	OHGW ASSEMBLY, ANGLE	-	TM-4A					DWN. JLS CKD. JLS SCALE: N.T.S.
2	1	OHGW GROUNDING ASSEMBLY	-	TM-9X(S)					
3	3	SUSP INSULATOR ASSY ANGLE	-	TM-1CM					
4	2	10' DISTRIBUTION DE CROSSARM	-	XRM-10B					
5	1	DBL DEADEND NEUTRAL EYEBOLT	-	NDDE-1/0	DATE	REVISION	DATE	REVISION	
6	1	NEUTRAL GROUNDING ASSY	-	DENV-1/0	4/12/2022	1			
7	4	SINGLE SPAN GUY	-	TG-SG					
8	1	DRIVEN GROUND ROD ASSEMBLY	-	TM-9					





OVERHEAD VIEW

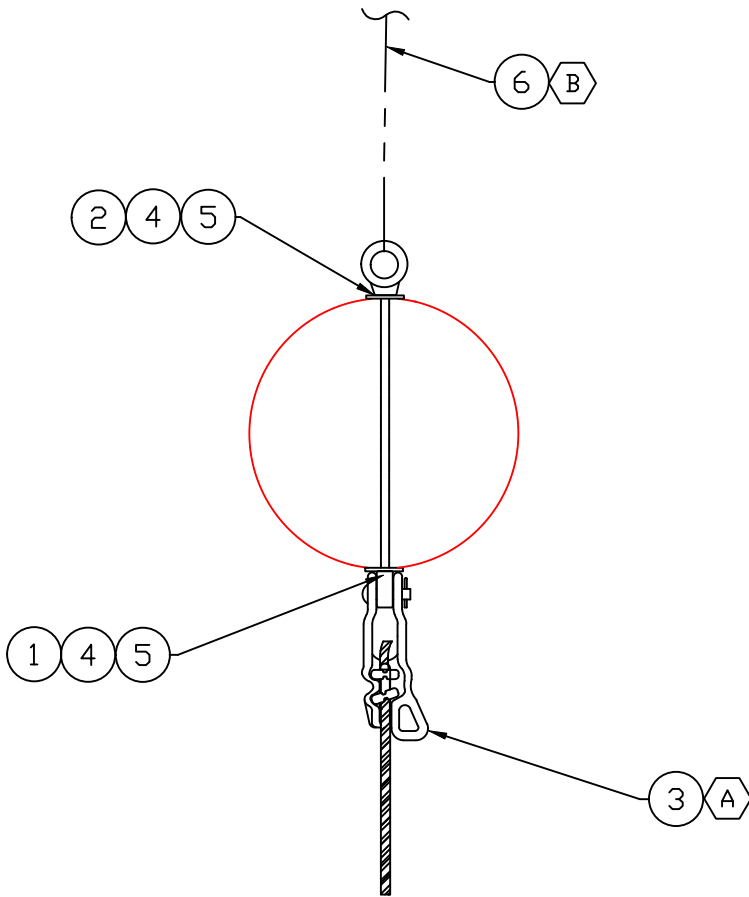


NOTES:

- Ⓐ MEASURE AND TRIM EXCESS NEUTRAL CONDUCTORS AS REQUIRED AND CONNECT ENDS WITH SQUEEZON/AMPACT, ITEM (5).
- Ⓑ SELECT DEADEND SHOE & SQUEEZON/AMPACT APPROPRIATE FOR WIRE SIZE.



DWG. REF.	QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
		DESCRIPTION		NEUTRAL DOUBLE DEADEND			
1	1	EYE BOLT, 5/8" X LENGTH"			DWN. DRB      DATE: 06/03/2022 CKD. JLS      APPD. JLS SCALE: N.T.S. DATE      DATE      REVISION		
2	1	5/8" EYE NUT					
3	2	DEADEND SHOE					
4	2	WASHER, SQUARE, 4" X 4" X 13/16" HOLE					
5	2	SPRING LOCK WASHER, 5/8"					
6	1	SQUEEZON/AMPACT (REQUIRED SIZE)					

OVERHEAD VIEW

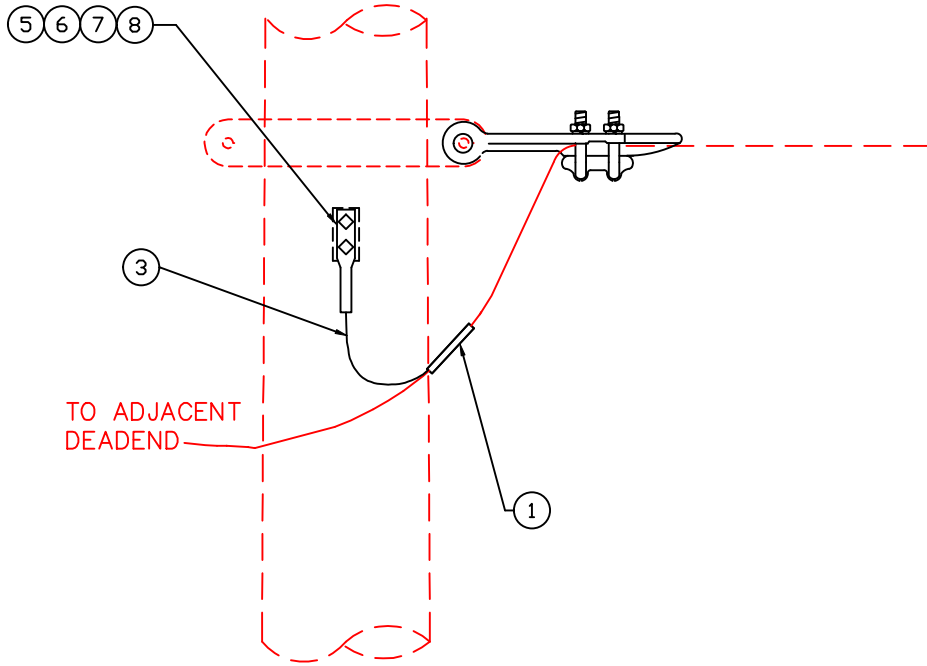


NOTES:

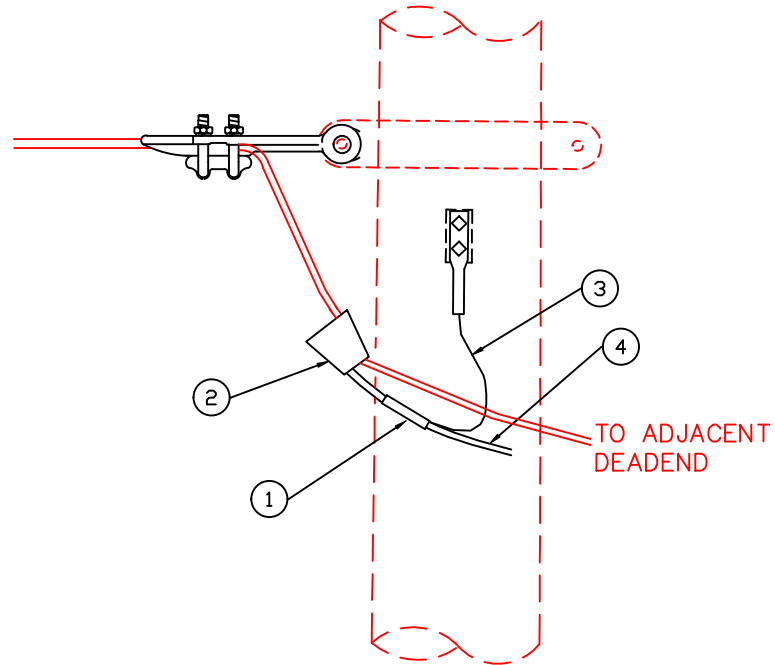
- Ⓐ SELECT DEADEND SHOE APPROPRIATE FOR WIRE SIZE.
- Ⓑ REFERENCE DWG TG-21 FOR SINGLE DOWN GUY ASSEMBLY.


DWG. REF.	QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
		DESCRIPTION		NEUTRAL DEADEND			
1	1	EYE BOLT, 5/8" X LENGTH"			DWN. DRB      DATE: 06/03/2022 CKD. JLS      APPD. JLS SCALE: N.T.S. DATE      DATE      REVISION		
2	1	5/8" EYE NUT					
3	1	DEADEND SHOE					
4	2	WASHER, SQUARE, 4" X 4" X 13/16" HOLE					
5	2	SPRING LOCK WASHER, 5/8"					
6	1	SINGLE DOWN GUY					

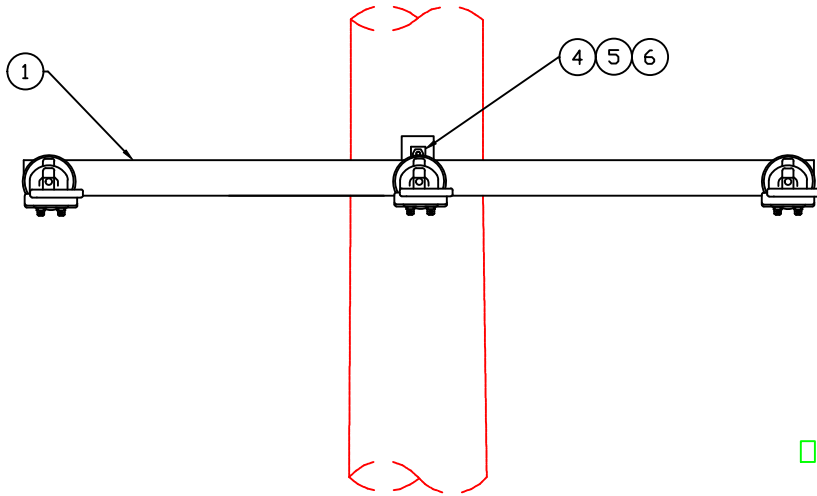
NG-1/0 SUB-ASSY



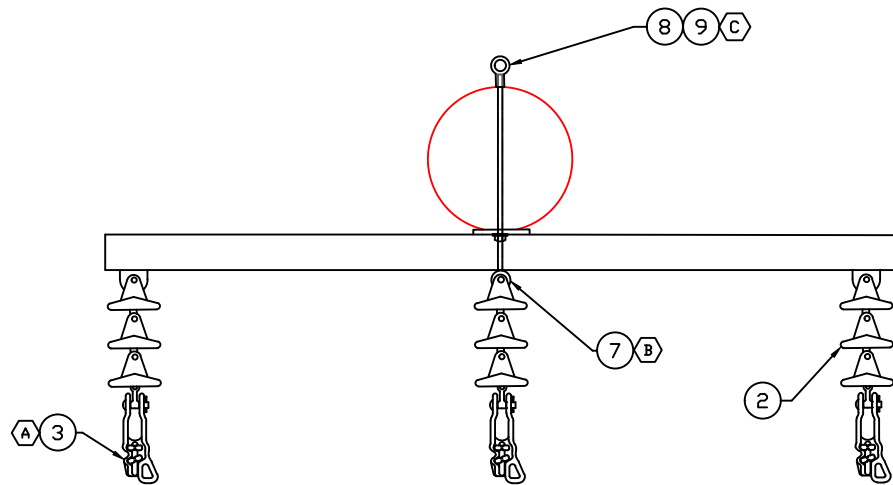
NG-336 SUB-ASSY



DWG. REF.	NG-1/0 QTY	NG-336 QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
			DESCRIPTION		NEUTRAL GROUNDING ASSEMBLY		
1	1	1	SQUEEZEON CONNECTOR #2		DWN. DRB	DATE: 06/01/2022	
2		1	AMPACT CONNECTOR 336-1/0	APPD. JLS			
3	*	*	WIRE, #4 SOFT DRAWN	SCALE: N.T.S.			
4		*	WIRE 1/0 ACSR	DATE		DATE	REVISION
5	1	1	#4 COPPER 2-HOLE NEMA PAD				
6	2	2	BOLT MACHINE, 1/2" X 1"				
7	2	2	FLAT WASHER, 1/2"				
8	2	2	LOCK WASHER, 1/2"				
			*LENGTH OF WIRE AS REQUIRED				





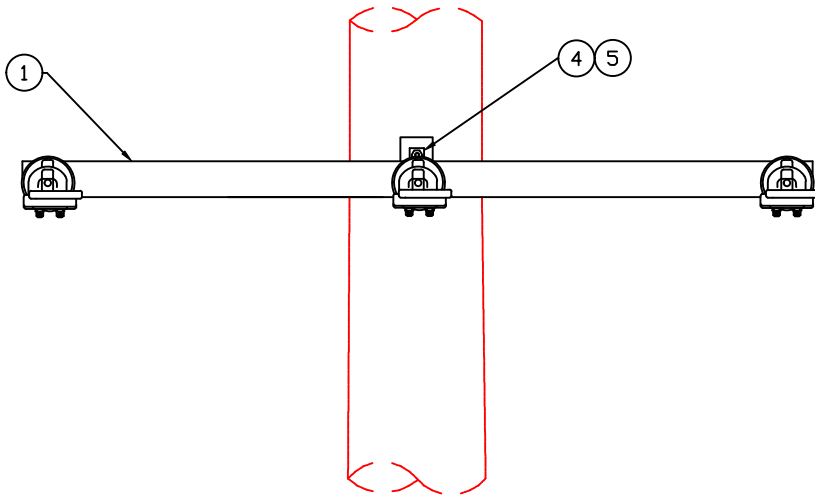
OVERHEAD VIEW



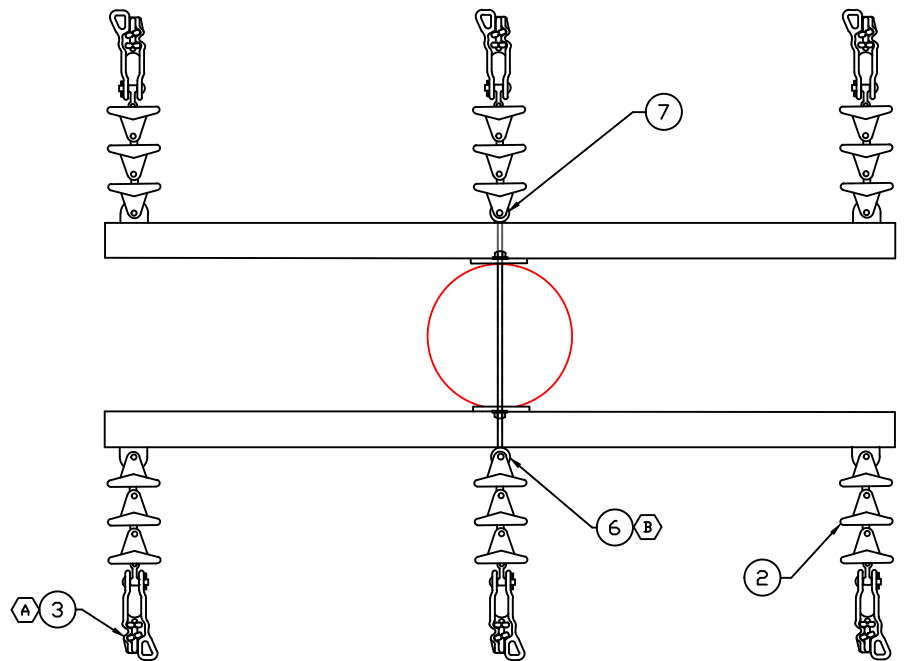
NOTES:

- (A) SELECT DEADEND SHOE APPROPRIATE FOR WIRE SIZE.
- (B) EYEBOLT TO BE INSTALLED IN TOP HOLE OF CROSSARM BRACKET, AS SHOWN.
- (C) GUY ASSEMBLY NOT SHOWN. SEE DWG TG-21 FOR REFERENCE.

DWG. REF.	XRM-10B QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA							
		DESCRIPTION		10' DEADEND DISTRIBUTION CROSSARM						
1	1	ARMS, 10' DE FIBERGLASS			DATE: 5/27/2022			DWG. NO. XRM-10B		
2	3	INSULATORS, POLY DE BELLS	APPD. JLS							
3	3	DEADEND SHOE								
4	1	BOLT, MACHINE 5/8" X LENGTH"	DWN. DRB		SCALE: N.T.S.					
5	2	SPRING LOCK WASHER, 5/8"	CKD. JLS		DATE	REVISION				
6	3	WASHER, SQ. 4 X 4 X 13/16"	DATE		DATE	REVISION				
7	1	EYE BOLT, 5/8" X LENGTH"								
8	1	5/8" EYE NUT								
9	1	GUY ASSEMBLY								




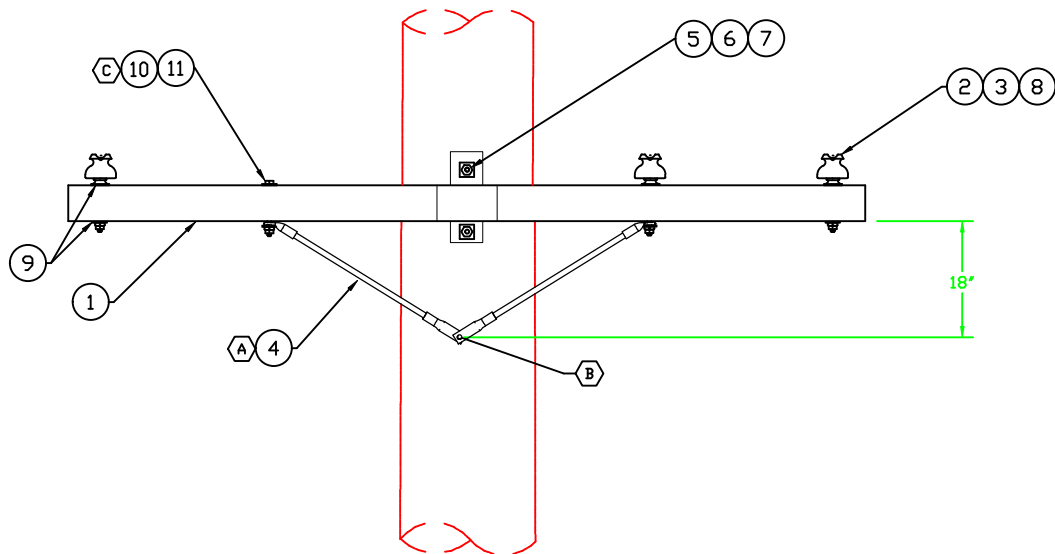
OVERHEAD VIEW



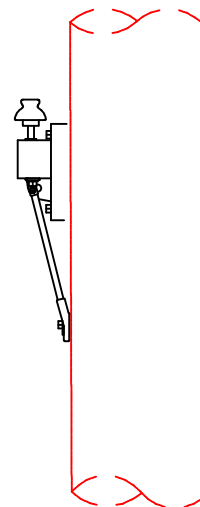
NOTES:

- (A) SELECT DEADEND SHOE APPROPRIATE FOR WIRE SIZE.
- (B) EYEBOLT TO BE INSTALLED IN TOP HOLE OF CROSSARM BRACKET, AS SHOWN.

DWG. REF.	QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
		DESCRIPTION	 10' DOUBLE DEADEND DISTRIBUTION CROSSARM	DATE: 5/27/2022		DWG. NO. XRM-10DDE
1	2	ARMS, 10' DE FIBERGLASS		DWN. DRB	APPD. JLS	
2	6	INSULATORS, POLY DE BELLS	CKD. JLS	SCALE: N.T.S.		
3	6	DEADEND SHOE	DATE	DATE	REVISION	
4	1	BOLT, MACHINE 5/8" X LENGTH"				
5	2	SPRING LOCK WASHER, 5/8"				
6	1	EYE BOLT, 5/8" X LENGTH"				
7	1	5/8" EYE NUT				




SIDE VIEW



NOTES:

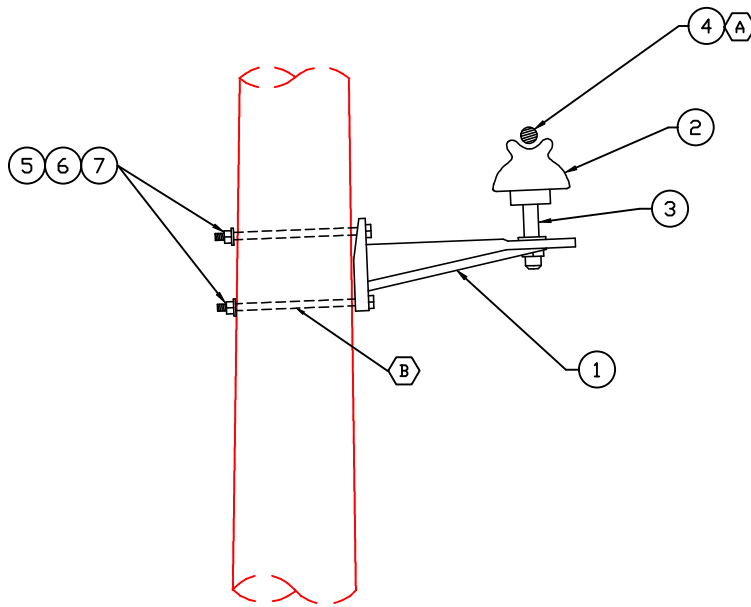
- 1) INSULATOR ITEM(2) & ITEM(3) WILL VARY BASED ON WIRE SIZE.
- (A) MOUNT BRACE USING EXISTING HOLES IN CROSSARM.
- (B) HOLE TO BE FIELD DRILLED AT SPECIFIED LOCATION.
- (C) INSTALL 3 X 3 SQUARE WASHER, ITEM(9), ON TOP AND BOTTOM OF CROSSARM.

DWG. REF.	XRM-10A QTY	LIST OF MATERIALS DESCRIPTION
1	1	ARMS, 10' H/T FIBERGLASS
2	3	PIN INSULATOR
3	3	PREFORMS, WRAP LOCK
4	1	CROSSARM BRACE
5	3	BOLT, MACHINE 5/8" X LENGTH"
6	3	SPRING LOCK WASHER, 5/8"
7	3	WASHER, SQ. 4 X 4 X 13/16"
8	3	CROSSARM PINS
9	8	3 X 3 SQUARE WASHERS
10	1	5/8" x 8" BOLT
11	1	5/8" LOCK WASHER

GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA	
	10' TANGENT DISTRIBUTION CROSSARM
DWN. DRB	DATE: 5/27/2022
CKD. JLS	APPD. JLS
SCALE: N.T.S.	
DATE	DATE
	REVISION


DWG. NO.  
XRM-10A

SIDE VIEW

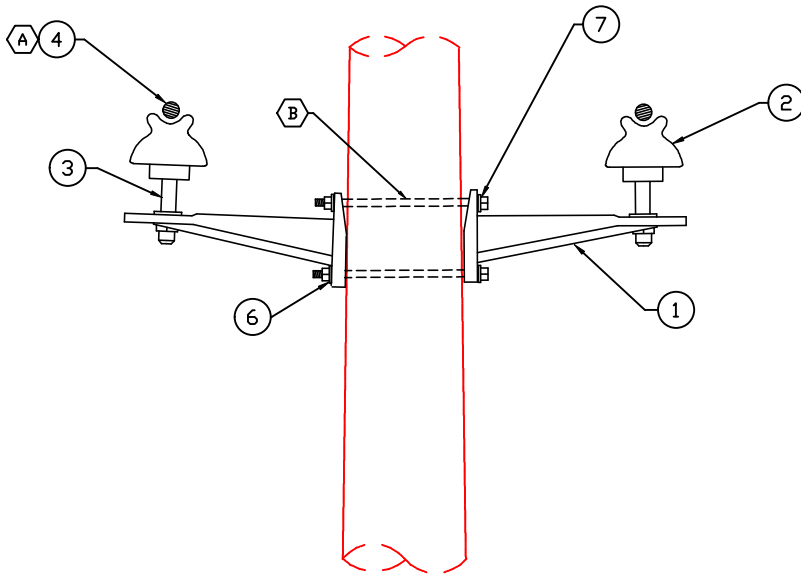


NOTES:

- (A) SELECT INSULATOR & WRAP LOCK APPROPRIATE FOR WIRE SIZE.
- (B) SELECT BOLT LENGTH APPROPRIATE FOR POLE DIAMETER


DWG. REF.	QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
		DESCRIPTION	 MIF BRACKET ASSEMBLY			
1	1	BRACKET, 18" FIBERGLASS				
2	1	INSULATOR, PIN TYPE				
3	1	PIN SHANK				
4	1	PREFORM, WRAP LOCK				
5	2	BOLT, MACHINE 5/8" REQUIRED LENGTH				
6	2	WASHERS, 2 1/4" SQUARE				
7	2	SPRING LOCK WASHER 5/8"				

SIDE VIEW



NOTES:

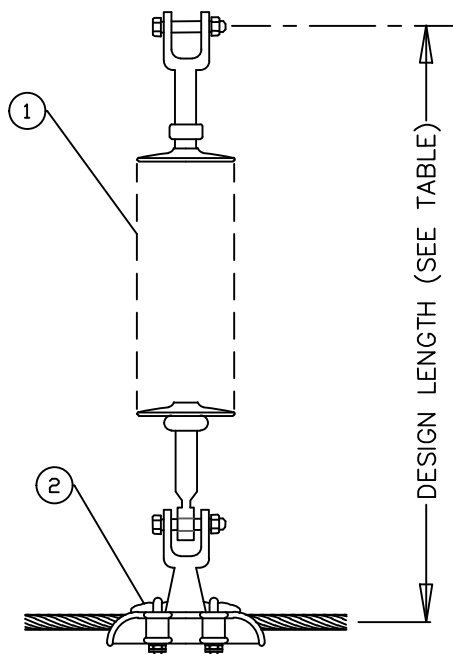
- (A) SELECT INSULATOR & WRAP LOCK APPROPRIATE FOR WIRE SIZE.
- (B) SELECT BOLT LENGTH APPROPRIATE FOR POLE DIAMETER

DWG. REF.	QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA			
		DESCRIPTION	 DOUBLE MIF BRACKET ASSEMBLY			
1	2	BRACKET, 18" FIBERGLASS				
2	2	INSULATOR, PIN TYPE				
3	2	PIN SHANK				
4	2	PREFORM, WRAP LOCK				
5	2	BOLT, MACHINE 5/8" REQUIRED LENGTH				
6	2	SPRING LOCK WASHER 5/8"				
			DATE	REVISION		

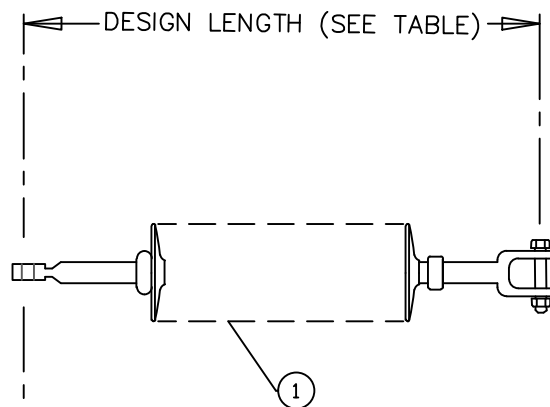


**NOTES:**

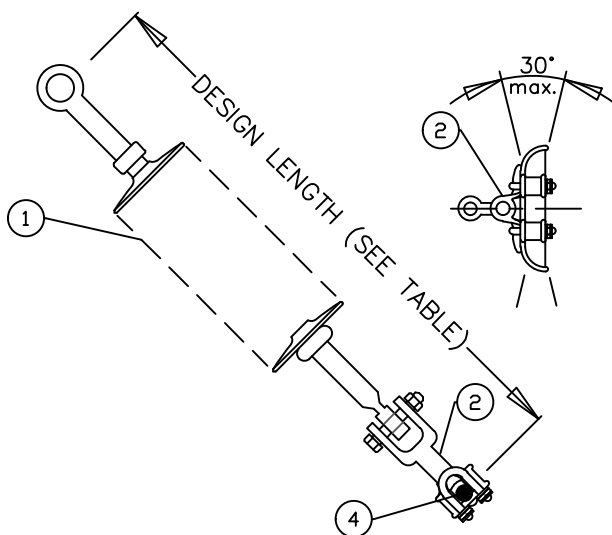
1. THE TABLE BELOW SHALL BE COMPLETED FOR EACH PROJECT.
2. SUITABLE SUSPENSION CLAMPS MUST BE SELECTED FOR THE CONDUCTOR BEING USED. THE FOLLOWING ARE TO BE CONSIDERED: TYPE OF CONDUCTOR, DIAMETER OF CONDUCTOR (CONSIDERING ARMOR RODS AND/OR LINERS), ETC.
3. THE CAPACITY OF THE HARDWARE MUST BE EQUAL TO OR GREATER THAN THE SPECIFIED MECHANICAL LOAD OF THE INSULATOR UNITS SHOWN IN THE TABLE BELOW.



TANGENT ASSEMBLY  
STM-1AM (OR) STM-1BM



DEADEND ASSEMBLY  
STM-1EM



ANGLE ASSEMBLY  
STM-1CM

35 KV STOCK NUMBER: 208330	ASSEMBLY		
	TANGENT	ANGLE	DEADEND
QUANTITY OF UNITS	1	1	1
INSULATION LEVEL (kV)	42	42	42
LEAKAGE DISTANCE (in.)	33	33	33
SPEC. MECH. LOAD (lb.)	10,000	10,000	10,000
INSULATOR WEIGHT (lb.)	2.8	2.8	2.8
DESIGN LENGTH (in.)	25.0	25.0	25.0
COLOR OF UNITS	GRAY	GRAY	GRAY

DWG. REF.	LIST OF MATERIALS	
	ITEM	DESCRIPTION
1		INSULATOR, SUSPENSION. POLYMER
2		CLAMP, SUSPENSION x REQ. CONDUCTOR SIZE
3		DEADEND SHOE, x REQ. CONDUCTOR SIZE
4	*	ARMOR ROD x REQ. CONDUCTOR SIZE
5		
	*	Armor Rod not required if suspension clamp is cushioned

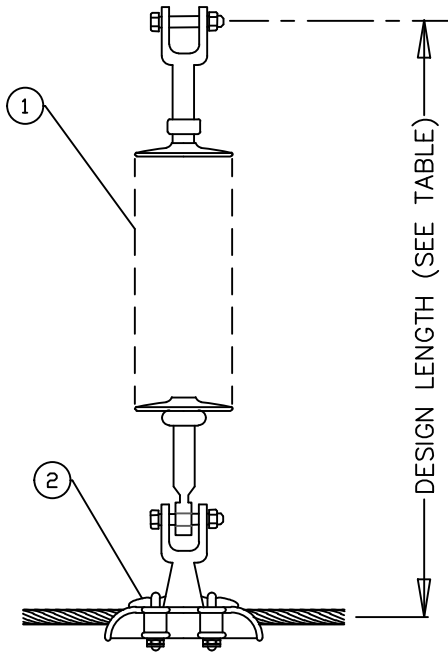
GREENVILLE UTILITIES COMMISSION  
GREENVILLE, NORTH CAROLINA

SUSPENSION INSULATOR ASSEMBLY

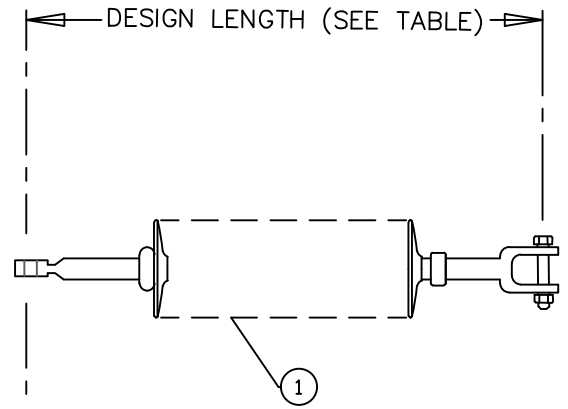
DWN. DRB	DATE: 06/01/2022	DWG. NO.  <b>STM-1</b>
CKD. JLS	APPD. JLS	
SCALE: N.T.S.		
DATE	DATE REVISION	

**NOTES:**

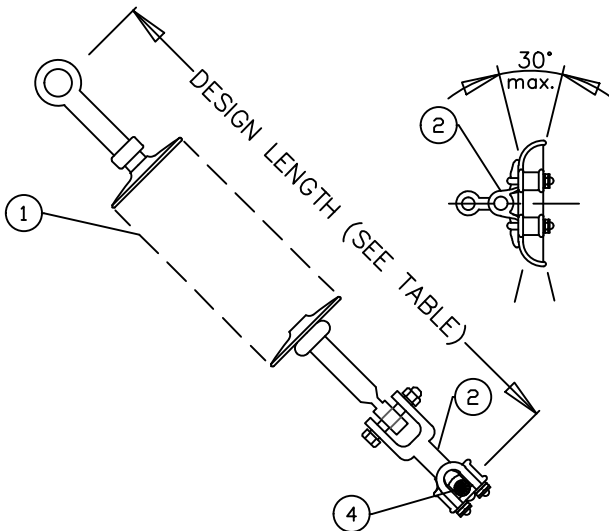
1. THE TABLE BELOW SHALL BE COMPLETED FOR EACH PROJECT.
2. SUITABLE SUSPENSION CLAMPS MUST BE SELECTED FOR THE CONDUCTOR BEING USED. THE FOLLOWING ARE TO BE CONSIDERED: TYPE OF CONDUCTOR, DIAMETER OF CONDUCTOR (CONSIDERING ARMOR RODS AND/OR LINERS), ETC.
3. THE CAPACITY OF THE HARDWARE MUST BE EQUAL TO OR GREATER THAN THE SPECIFIED MECHANICAL LOAD OF THE INSULATOR UNITS SHOWN IN THE TABLE BELOW.



TANGENT ASSEMBLY  
DM-1AM (OR) DM-1BM




DEADEND ASSEMBLY  
DM-1EM



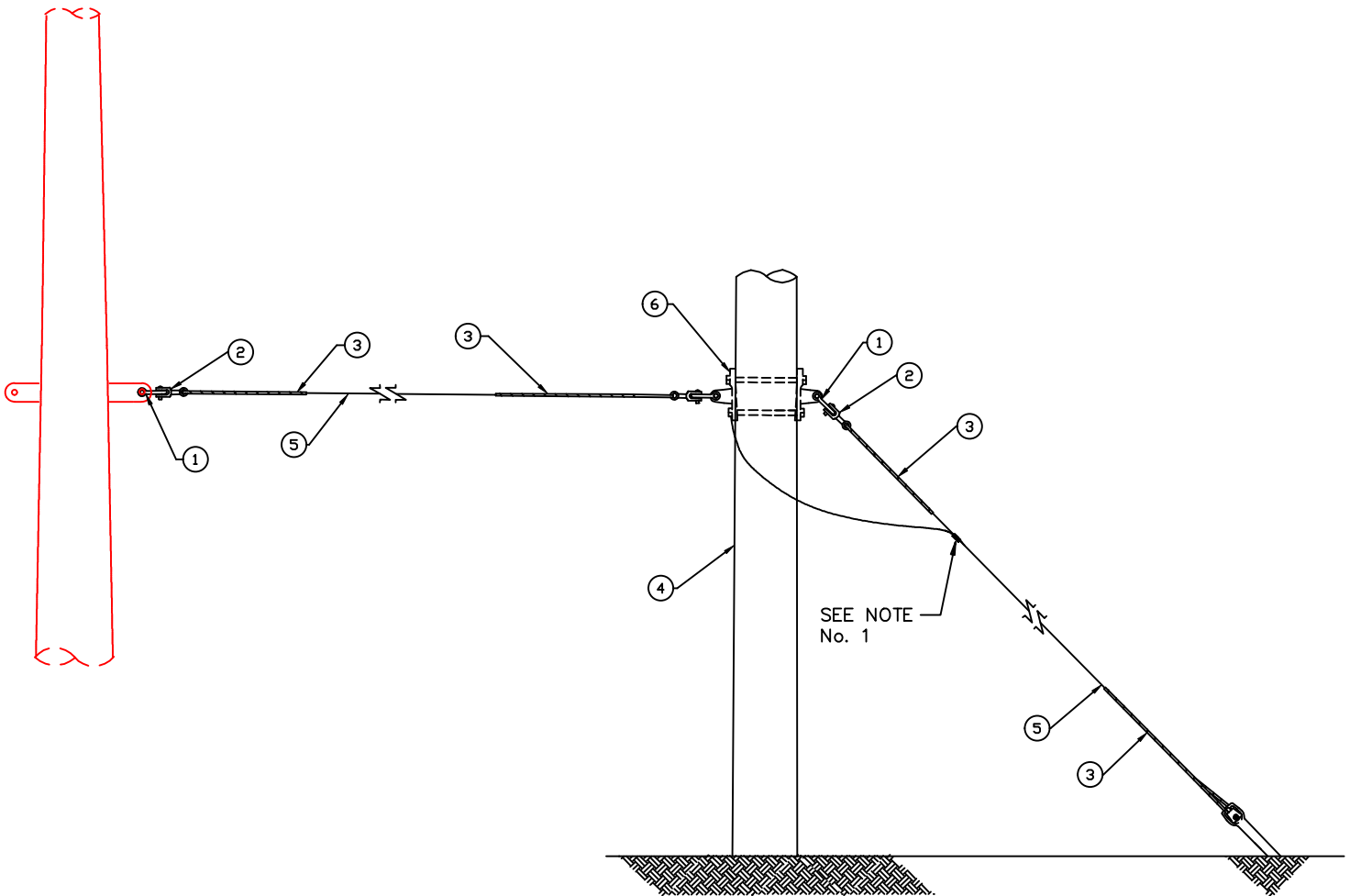
ANGLE ASSEMBLY  
DM-1CM

15 KV STOCK NUMBER: 206920	ASSEMBLY		
	TANGENT	ANGLE	DEADEND
QUANTITY OF UNITS	1	1	1
INSULATION LEVEL (kV)	18	18	18
LEAKAGE DISTANCE (in.)	16	16	16
SPEC. MECH. LOAD (lb.)	10,000	10,000	10,000
INSULATOR WEIGHT (lb.)	2.3	2.3	2.3
DESIGN LENGTH (in.)	12.5	12.5	12.5
COLOR OF UNITS	GRAY	GRAY	GRAY

DWG. REF.	LIST OF MATERIALS	
	ITEM	DESCRIPTION
1		INSULATOR, SUSPENSION. POLYMER
2		CLAMP, SUSPENSION x REQ. CONDUCTOR SIZE
3		DEADEND SHOE, x REQ. CONDUCTOR SIZE
4	*	ARMOR ROD x REQ. CONDUCTOR SIZE



GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA	
	SUSPENSION INSULATOR ASSEMBLY
DWN. DRB	DATE: 06/01/2022
CKD. JLS	APPD. JLS
SCALE: N.T.S.	
DATE	DATE REVISION
*	Armor Rod not required if suspension clamp is cushioned

DWG. NO.  
**DM-1**



**NOTES:**

- 1) SEE DRAWING TG-GG FOR REQUIRED GUY GROUNDING TO BE INCLUDED WITH THE GUY UNIT.
- 2) SPECIFY SIZE OF GUY WIRE, MAXIMUM ULTIMATE RATED STRENGTH TO BE 33,000 LBS. REFER TO SPECIFIC WIRE SPECIFICATIONS FOR RATED STRENGTH.
- 3) GUY STRAIN INSULATOR MAY BE REQUIRED. SEE STRUCTURE DRAWING/MATERIAL LIST TO VERIFY.

DWG. REF.	QTY	LIST OF MATERIALS	GREENVILLE UTILITIES COMMISSION GREENVILLE, NORTH CAROLINA				
		DESCRIPTION		SPAN GUY – WITH PREFORMED GRIPS.			
1	3	ANCHOR SHACKLE, 30,000 LBS (MINIMUM)					
2	3	CLEVIS – THIMBLE TYPE (40,000 LBS)					
3	4	GUY – GRIP, PREFORMED					
4	1	WOODEN POLE					
5	*	GUY – WIRE					
6	2	PLATE, P-345 GUY					
* GUY WIRE AS REQUIRED							

## **Appendix F: Pole Manufacturer's Drawings**

# GREENVILLE UTILITIES COMMISSION

## 22-23 TRANSMISSION REPLACEMENTS

# 42444A

### POLE DRAWING INDEX

RELEASE	QTY	STRUCTURE TYPE	STRUCTURE LENGTH	EMBEDMENT LENGTH	POLE NO	ERECTION DRAWING	POLE LAYOUT DRAWING	ARM LAYOUT DRAWING	CAMBER AMOUNT
A	1	115KV 3 PHASE 3 POLE DE TST6	65'-0"	8'-6"	11.1	42444-0265S3AT	42444-3012, 42444-3013 42444-3026, 42444-3013 42444-3012, 42444-3013	42444-7603	-
	1	115KV 3 PHASE TANGENT TPZ1	80'-0"	10'-0"	11.2	42444-0780S3AT	42444-3028, 42444-3022	NONE	-
	11	115KV 3 PHASE TANGENT POST TPZD1.C1	85'-0"	10'-6"	11.3, 11.4, 11.5, 11.8, 11.9, 11.10, 11.12, 11.13, 11.15, 11.18, 11.19	42444-0785S3AT	42444-3030, 42444-3019	NONE	-
	1	115KV 3 PHASE TANGENT POST TPZD1.C1	90'-0"	11'-0"	11.6	42444-0890S3AT	42444-3029, 42444-3021	NONE	-
	1	115KV 3 PHASE TANGENT POST TPZD1.C1	85'-0"	10'-6"	11.20	42444-0785S3GT <sup>A</sup> / <sub>B</sub>	42444-3053, 42444-3019	NONE	-
	3	ZINC PAINT TOUCH UP KIT (1 GAL.0 PER 5 POLES)	-	-	-	42444-MSZINCAT	-	NONE	-

### SSG DRAWING INDEX

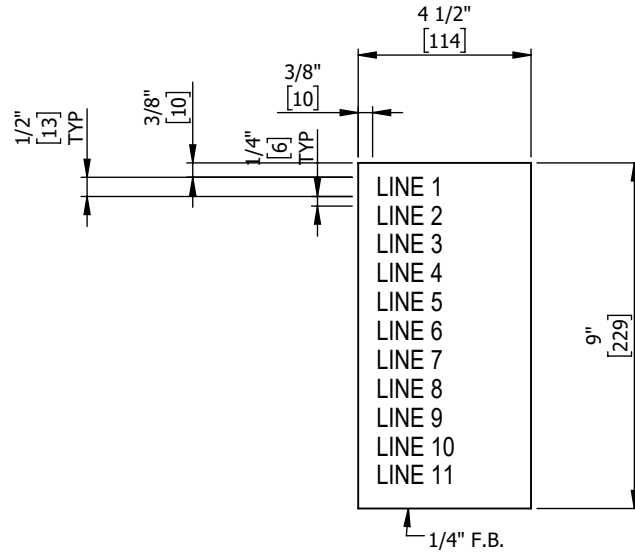
STANDARD DRAWINGS	DRAWING NO
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION	SSG001
GALVANIZED POLE LIFTING REQUIREMENTS	SSG002
JACKING NUT LOCATIONS	SSG004
WELDING DETAILS	SSG007

### Meyer Utility Structures

6750 Lenox Center Court, Suite 400  
 Memphis, TN 38115  
 Phone: (901) 566-6500  
 Engr. Fax: (901) 566-6650

### CENTRAL/EAST VALUE STREAM

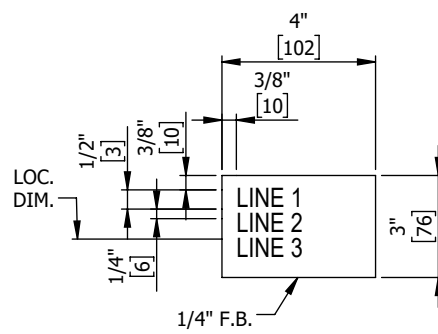
REV	DESCRIPTION	DRFT/DATE
B	BILLABLE UPDATED	SAN/06-23-22
A	INITIAL RELEASE	SAN/06-02-22
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ 06/02/2022	
CHECKED/DATE:	PT 06/16/2022	
ENGINEER:	MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE A		
SHEET 1 OF 2	42444-INDEX_A	REV. B



**NAME PLATE  
42444-1401**

LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11
GUC	11.1	65'-0"	S-03.5	TST6	7470 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444A
GUC	11.1	65'-0"	S-03.5	TST6	7470 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444A
GUC	11.1	65'-0"	S-03.5	TST6	7470 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444A
GUC	11.1	65'-0"	S-03.5	TST6	7470 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444A
GUC	11.1	65'-0"	S-03.5	TST6	7470 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444A
GUC	11.2	80'-0"	S-07.4	TPZ1	4310 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444A
GUC	11.2	80'-0"	S-07.4	TPZ1	4310 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444A
GUC	11.3	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.3	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.4	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.4	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.5	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.5	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.8	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.8	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.9	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.9	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.10	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.10	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.12	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.12	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.13	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.13	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.15	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.15	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.18	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.18	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.19	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.19	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.6	90'-0"	S-08.0	TPZD1.C1	5280 LBS	612 FT-K	MEYER	MM/YYYY	42444-3021	42444A
GUC	11.6	90'-0"	S-08.0	TPZD1.C1	5280 LBS	612 FT-K	MEYER	MM/YYYY	42444-3021	42444A
GUC	11.20	85'-0"	S-07.4	TPZD1.C1	4690 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A
GUC	11.20	85'-0"	S-07.4	TPZD1.C1	4690 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444A

78413	LINE 1	LINE 2	LINE 3
1	11.1	42444-3012	42444A
2	11.1	42444-3026	42444A
3	11.1	42444-3012	42444A
4	11.1	42444-7603	42444A
5	11.1	42444-7603	42444A
6	11.2	42444-3028	42444A
7	11.3	42444-3030	42444A
8	11.4	42444-3030	42444A
9	11.5	42444-3030	42444A
10	11.8	42444-3030	42444A
11	11.9	42444-3030	42444A
12	11.10	42444-3030	42444A
13	11.12	42444-3030	42444A
14	11.13	42444-3030	42444A
15	11.15	42444-3030	42444A
16	11.18	42444-3030	42444A
17	11.19	42444-3030	42444A
18	11.6	42444-3029	42444A
19	11.20	42444-3053	42444A



**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

B	BILLABLE UPDATED	SAN/06-23-22
A	INITIAL RELEASE	SAN/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/02/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

DRAWING INDEX  
RELEASE A

SPECIAL NOTES:

STANDARD NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. UNLESS OTHERWISE NOTED REFER SSG007 FOR WELDING DETAILS.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

SHAFT/ARM NOTES:

1. MARK "+" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
2. HOT DIP GALVANIZED PER ASTM A-123.
3. NO PRE-GALV BLAST REQUIRED; BRUSH BLAST PER ASTM D6386 AND SSPC-SP16 PRIOR TO APPLICATION OF MEYERCLAD OVER GALV.
4. COAT WITH MEYERCLAD PNT 218A AND 218B 20 MILS MINIMUM DFT 25 MILS AVERAGE DFT.

MIDDLE/BOTTOM SHAFT NOTES:

1. WELD A 2" INVERTED V (MATCH MARK) ON  $\phi$  OF FLAT TO ALIGN WITH THE  $\phi$  OF THE NAMEPLATE/ID TAG ON THE ABOVE SHAFT ASSEMBLY.

NOTAS:

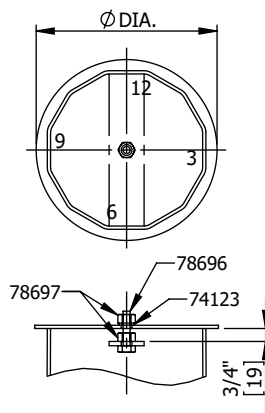
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO AMUS-EN-P-018 PARA TOLERANCIAS.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO SSG007 PARA DETALLE DE SOLDADURA.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

SHAFT/ARM NOTES:

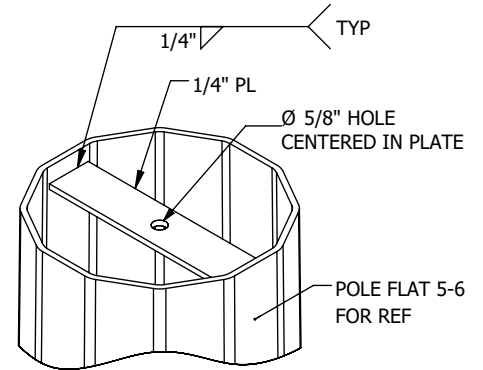
1. MARCAR "+" AL CENTRO DE GARAVEDAD APROXIMADO. (EN CUALQUIER PISO - SOLO PARA EL USO DEL FABRICANTE).
2. GALVANIZADO POR INMERSION EN CALIENTE DE ACUERDO A ASTM A-123.
3. NO SE REQUIERE BLASTEADO PREVIO A GALVANIZAR; PULIR CON EPILLO ABRASIVO POR ASTM D6386 Y SSPC-SP16 ANTES DE LA APLICACIÓN DE MEYERCLAD SOBRE EL GALVANIZADO.
4. RECUBRIR CON MEYERCLAD PNT 218A Y 218B MINIMO 20 MILS. PROMEDIO MINIMO 25 MILS.

MIDDLE/BOTTOM SHAFT NOTAS:

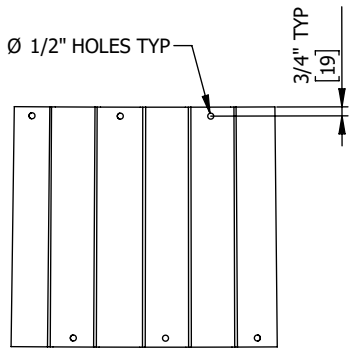
1. SOLDAR UNA V INVERTIDA ( MARCA DE COINCIDENCIA) DE 2" ( 50.8 MM) EN EL  $\phi$  DEL PLANO PARA ALINEAR CON EL  $\phi$  DE LA PLACA DE IDENTIFICACION/PLACA ID EN EL ENSAMBLAJE SUPERIOR ANTERIOR.



POLE CAP DETAIL

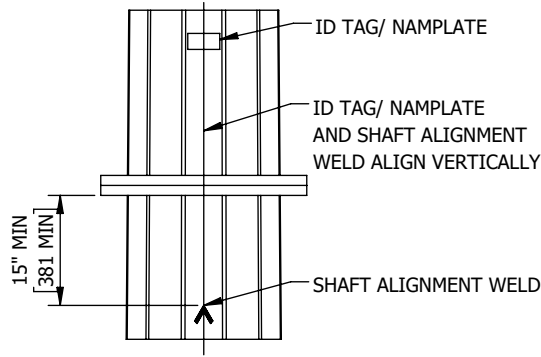


POLE CAP ANCHOR DETAIL

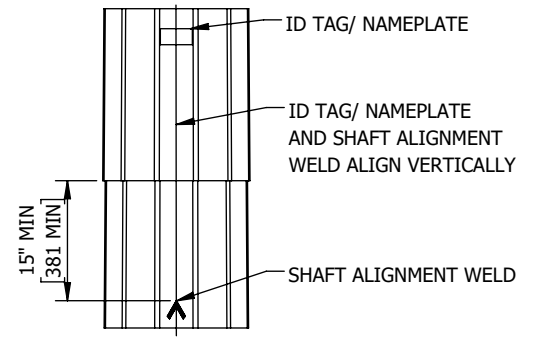


GALVANIZED GROUND SLEEVE VENT HOLES

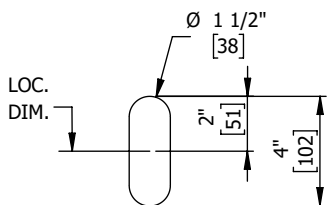
1 PER FLAT, LOCATE ON THE  $\phi$  OF THE FLAT, ALTERNATING SIDES



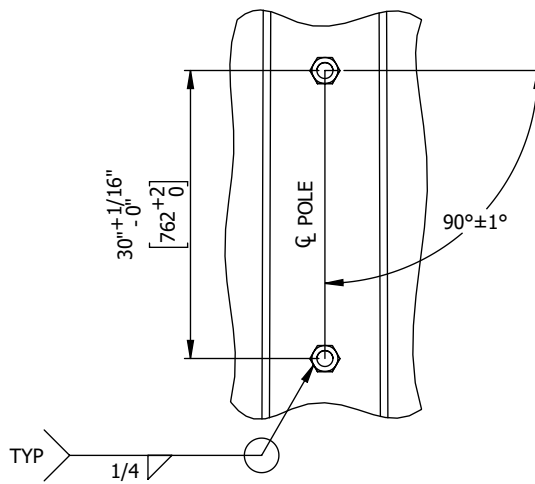
FLANGE ASSEMBLY ALIGNMENT



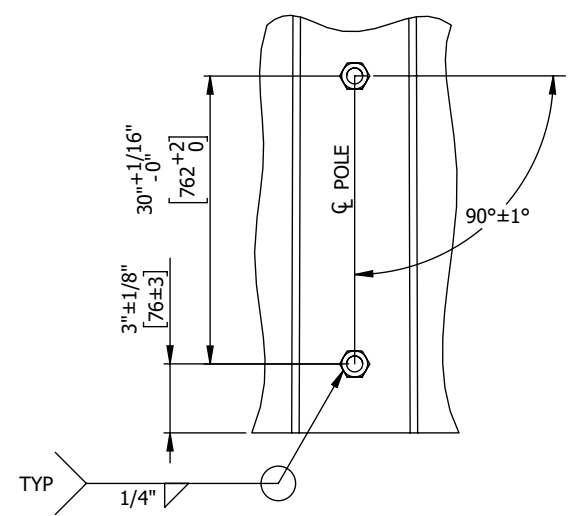
SLIP JOINT ASSEMBLY ALIGNMENT



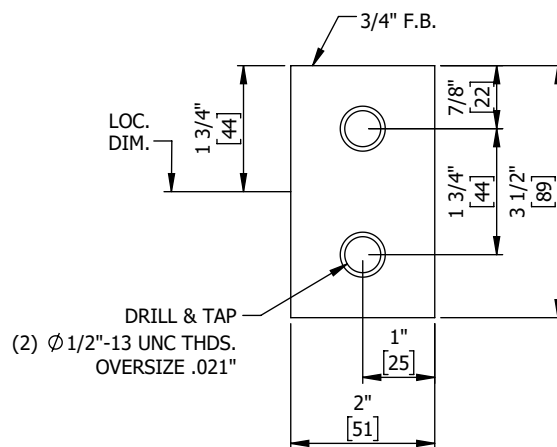
TOP LIFTING SLOT DETAIL



TOP JACKING NUT DETAIL 74547



BOTTOM JACKING NUT DETAIL 74547



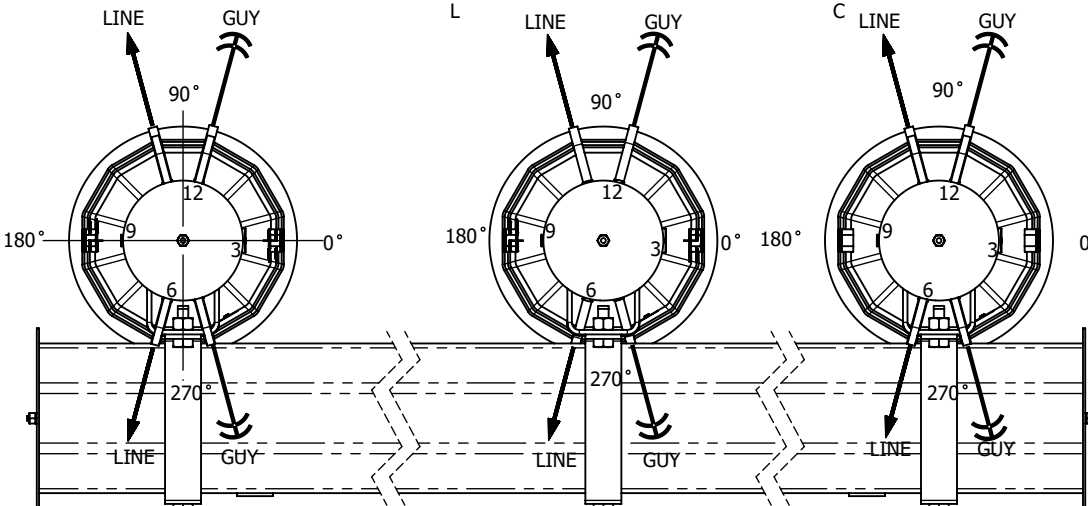
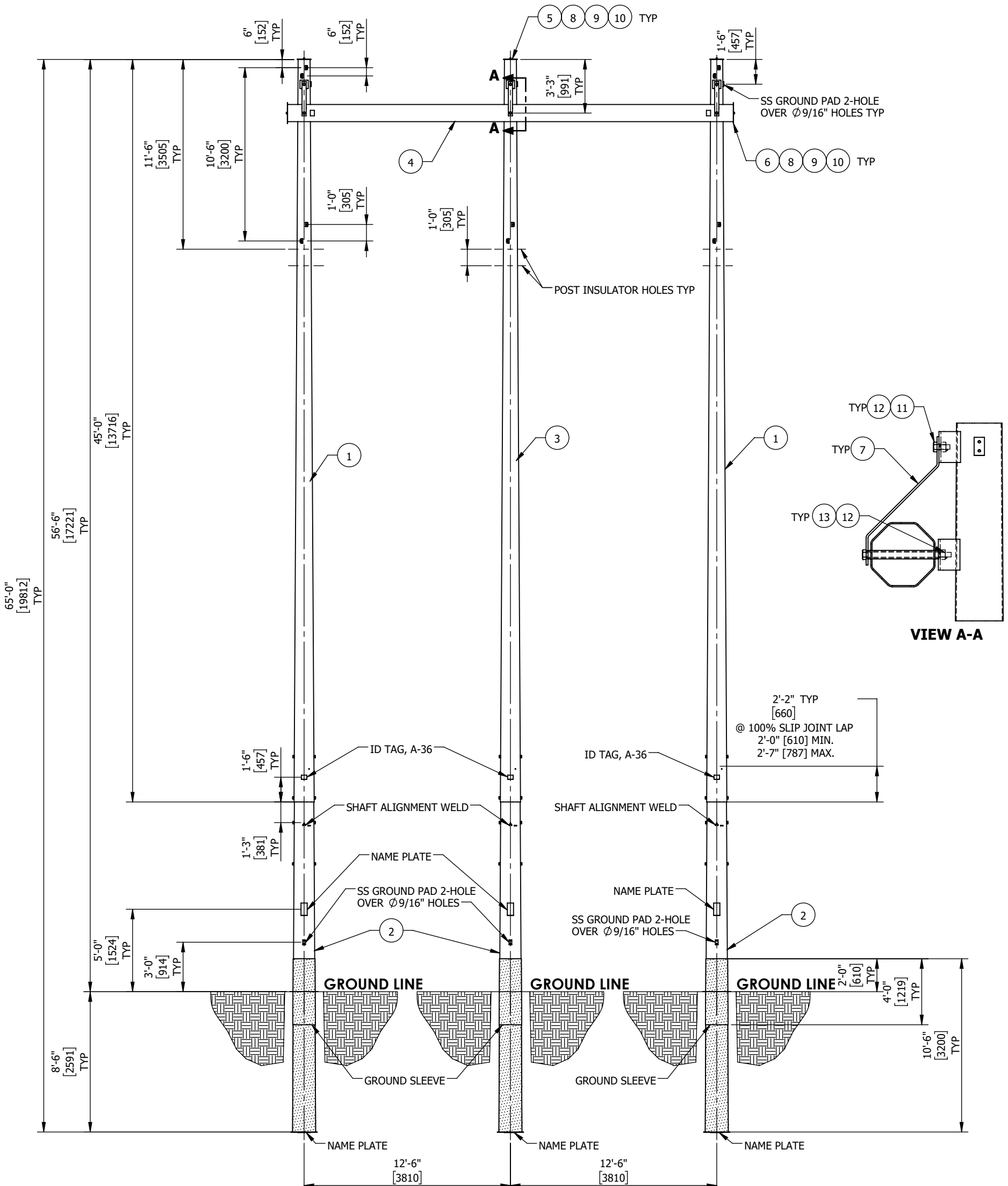
78412

78430, 0.75 X 2.00  
STAINLESS STEEL TYPE 304  
1.41 LBS

A	INITIAL RELEASE	THO/05-31-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/31/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.		
<b>MEYER</b> UTILITY STRUCTURES		
SPECIAL NOTE		
SHEET 1 OF 1	<b>42444-SPECNOTE</b>	REV. <b>A</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0265S3AT	11.1	56'-6" [17221]	9" [229]	16 7/32" [412]	0.13700	8 11/16" [221]	15 11/16" [398]	0.13233



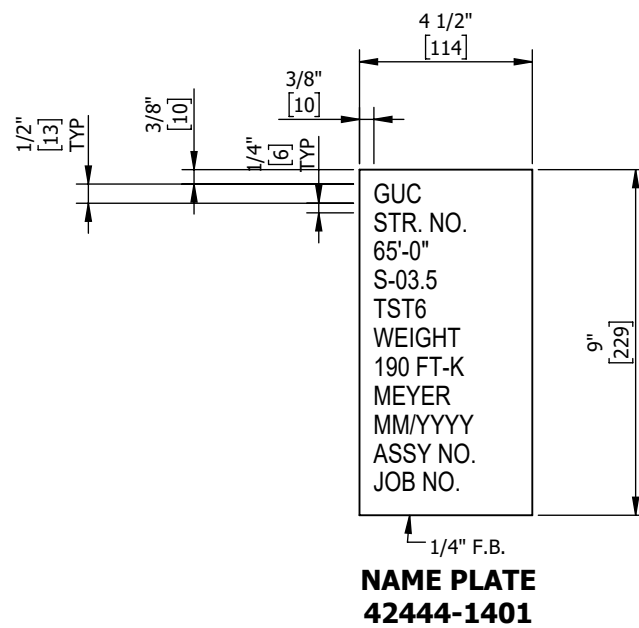
PLAN VIEW  
POLE CAP NOT SHOWN FOR CLARITY

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>65'-0" 115KV 3 PHASE 3 POLE DE TST6 POLE NO: 11.1</p>		
SHEET 1 OF 3	<b>42444-0265S3AT</b>	REV. <b>A</b>

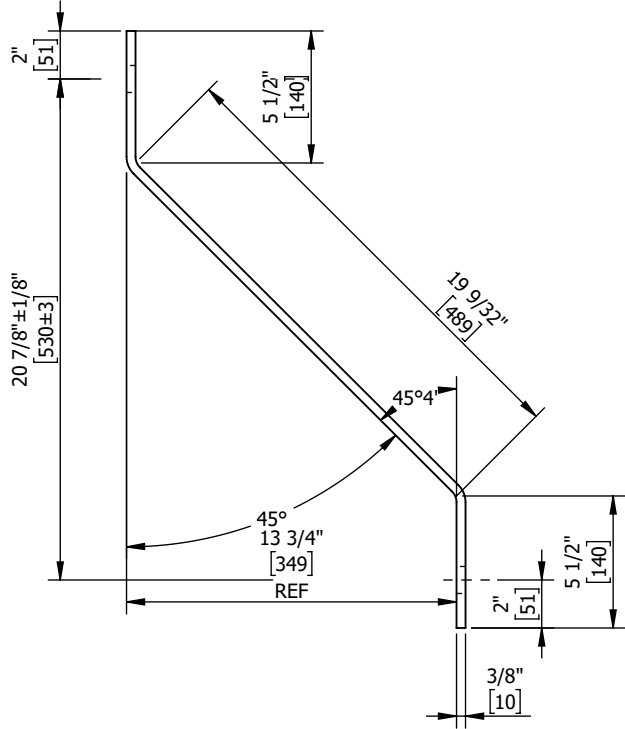
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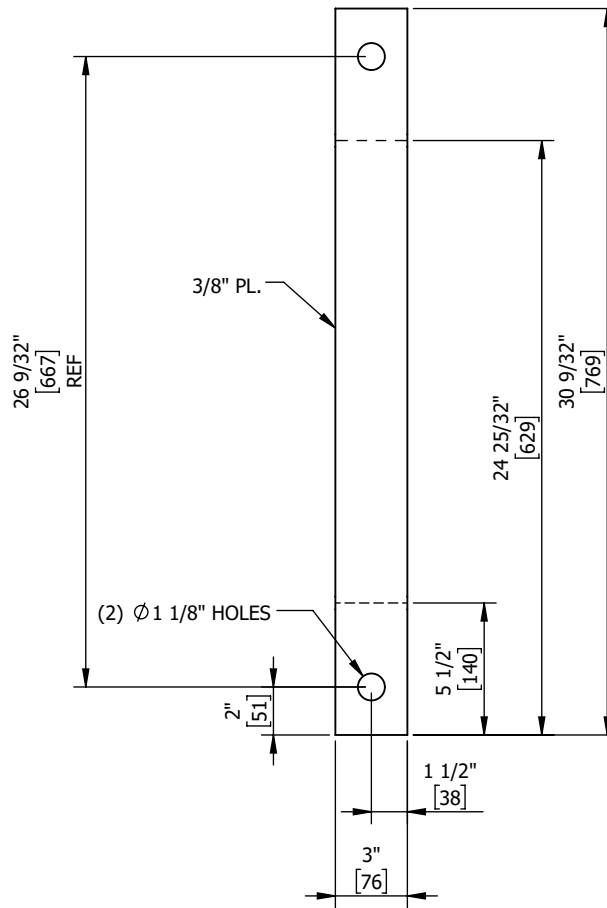
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3012	2	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 009.0 015.2 000		1220.00	1220.00		
2	42444-3013	3	SHAFT ASSEMBLY, 22'-2" LONG	POLE-BASE 022.17 014.4 017.4 000		910.00	2730.00		
3	42444-3026	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 009.0 015.2 000		1200.00	1200.00		
4	42444-7603	1	CROSS ARM ASSEMBLY, 27'-0" LONG	CROSS ARM 027.00 013.5 013.5 000		954.85	1020.00		
5	R3PD0100	3	POLE CAP, 3/16" THK X 10" DIA		036-ASTM A36	4.16	12.48		
6	R3PD0150	2	POLE CAP, 3/16" THK X 15" DIA		036-ASTM A36	9.38	18.76		
7	42444-1802	3	CROSSARM STRAP	0.38 X 3.00 X 30.28	065-ASTM A572 Gr65	9.52	28.56		
8	78696	5	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.75		
9	78697	10	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.80		
10	74123	5	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.10		
11	76453	3	BOLT, 1" DIA. x 2 1/2"		ASTM A-354 GRADE BC GALV	0.90	2.70		
12	74071	6	ANCO LOCKNUT, 1" DIA.		ASTM A-563 GRADE DH	0.41	2.46		
13	76602	3	BOLT, 1" DIA. x 16 1/2" (NON STD THRD)		ASTM A-354 GRADE BC GALV	4.00	12.00		
TOTAL STRUCTURE FINISHED WEIGHT								7470.00	



A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
65'-0" 115KV 3 PHASE 3 POLE DE TST6 POLE NO: 11.1		
SHEET 2 OF 3	<b>42444-0265S3AT</b>	REV. <b>A</b>



**42444-1802**  
 0.38 X 3.00 X 30.28  
 065-ASTM A572 Gr65  
 9.52 LBS

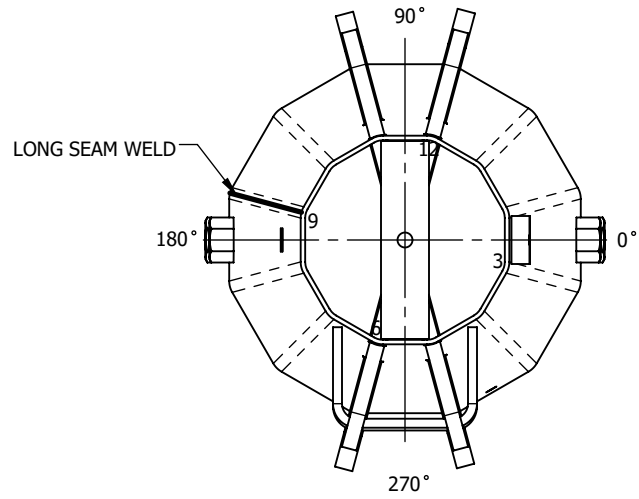
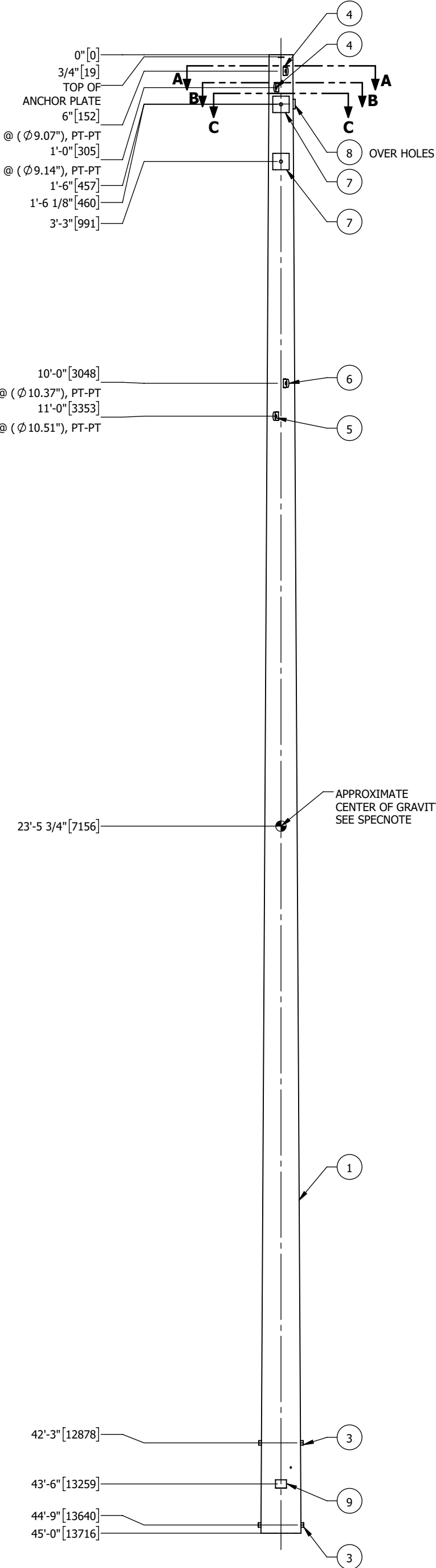


**FLAT VIEW OF 42444-1802**

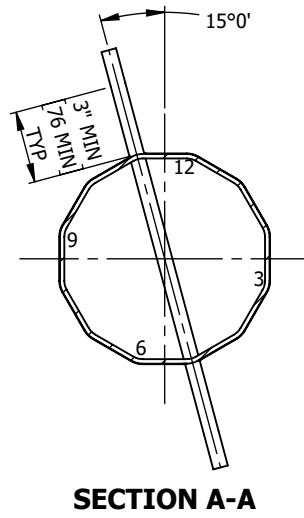
A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
65'-0" 115KV 3 PHASE 3 POLE DE POLE ASSEMBLY SHIP LOOSE PARTS DETAIL		
SHEET 3 OF 3	<b>42444-0265S3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

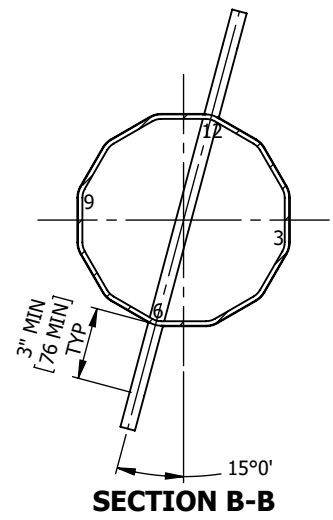
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4019	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	9" [229]	15 5/32" [385]	0.13700	8 11/16" [221]	14 21/32" [372]	0.13233



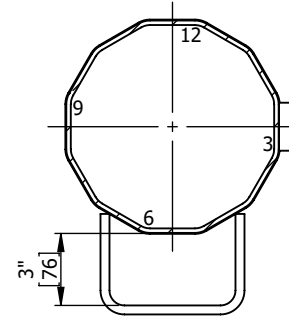
**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.87" [378]	46" [1168]
	BOTTOM	15.16" [385]	46 15/16" [1192]

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
**UTILITY STRUCTURES**

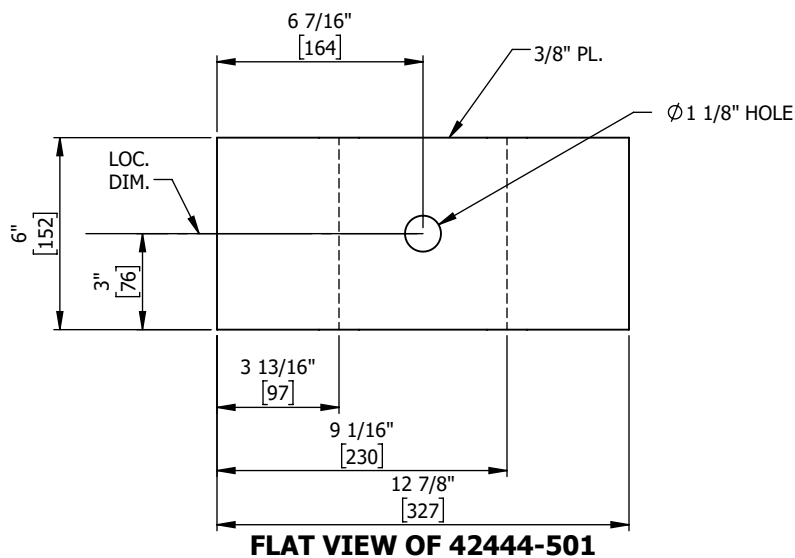
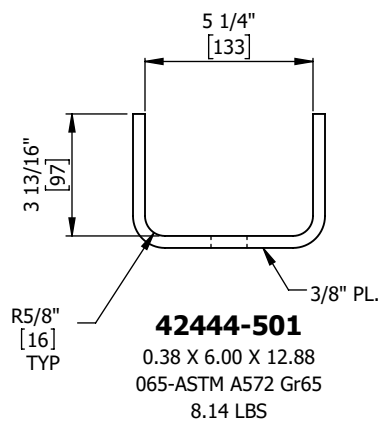
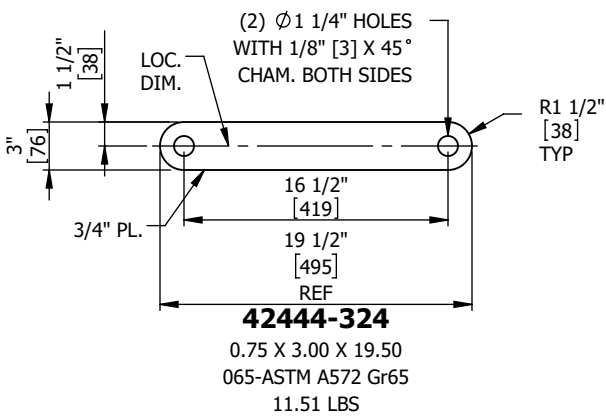
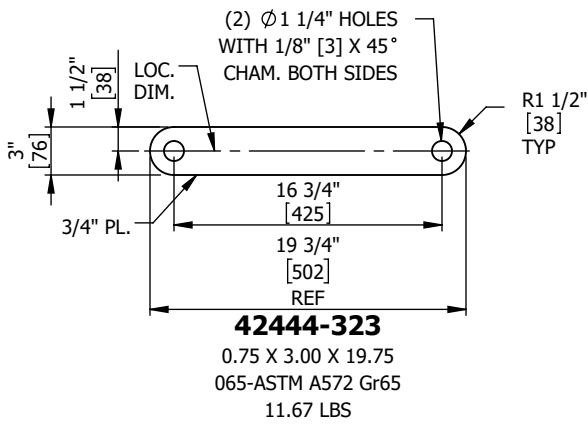
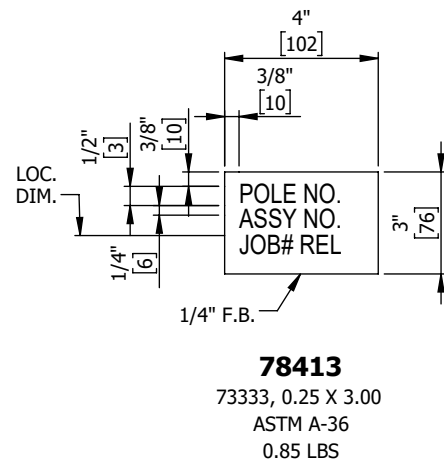
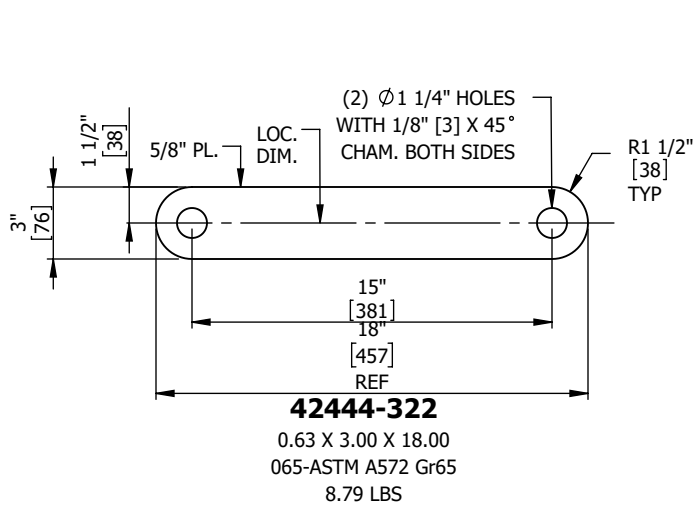
SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4019	1	TOWER PLATE TUBE	0.19 X 27.44 X 540.00 X 46.63	065-ASTM A572 Gr65	1076.79	1076.79	
2	PCA082	1	ANCHOR PLATE	0.25 X 2.00 X 8.25	099-ASTM A36	1.15	1.15	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-322	2	THROUGH VANG	0.63 X 3.00 X 18.00	065-ASTM A572 Gr65	8.79	17.58	
5	42444-323	1	THROUGH VANG	0.75 X 3.00 X 19.75	065-ASTM A572 Gr65	11.67	11.67	
6	42444-324	1	THROUGH VANG	0.75 X 3.00 X 19.50	065-ASTM A572 Gr65	11.51	11.51	
7	42444-501	2	HARDWARE BRACKET	0.38 X 6.00 X 12.88	065-ASTM A572 Gr65	8.14	16.28	
8	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
9	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1138.96	
TOTAL UNFINISHED WEIGHT							1150.00	
TOTAL FINISHED WEIGHT							1220.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA082	1
2	6" [152]	105 DEG / POINT 11												THROUGH VANG / SECTION A-A	4	42444-322	1
3	1'-0" [305]	255 DEG / POINT 6												THROUGH VANG / SECTION B-B	4	42444-322	1
4	1'-6" [457]			1										SS GROUND PAD 2-HOLE	8	78412	1
5	1'-6 1/8" [460]						1							HARDWARE BRACKET / SECTION C-C	7	42444-501	1
6	3'-3" [991]						1							HARDWARE BRACKET / SECTION C-C	7	42444-501	1
7	10'-0" [3048]	105 DEG / POINT 11												THROUGH VANG / SECTION A-A	6	42444-324	1
8	11'-0" [3353]	255 DEG / POINT 6												THROUGH VANG / SECTION B-B	5	42444-323	1
9	23'-5 3/4" [7156]	APPROX. CENTER OF GRAVITY WELD													-	1	
10	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	3	74547	2
11	42'-10" [13056]	BOTTOM SLIP JOINT LENGTH 26"													-	1	
12	43'-6" [13259]						1							ID TAG, A-36	9	78413	1
13	44'-0" [13411]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
14	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	3	74547	2
15	45'-0" [13716]	TOWER PLATE TUBE												1	42444-4019	1	

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]			1										9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]			1										9/16"	HOLE UNDER GRND PAD
3	11'-6" [3505]			1						1				1"	POST INSULATOR
4	12'-6" [3810]			1						1				1"	POST INSULATOR
5	43'-0" [13106]						1							1/2"	SJ INSPECTION

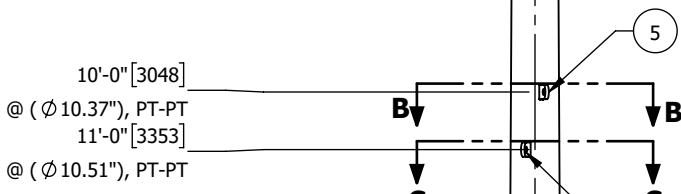
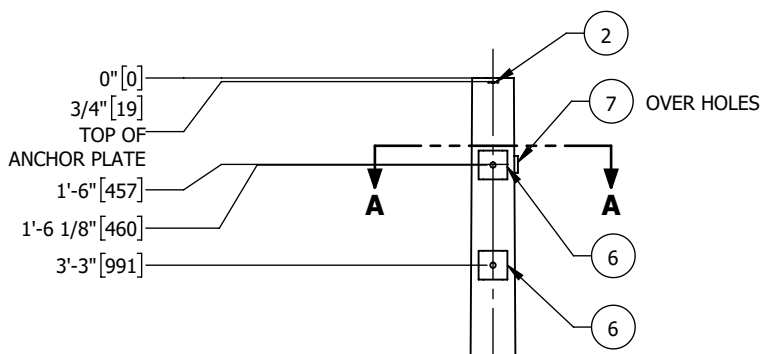
<b>A</b>	<b>INITIAL RELEASE</b>	<b>SAN/06-01-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ 06/01/2022	
CHECKED/DATE:	PT 06/16/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP		
SHEET 2 OF 3	<b>42444-3012</b>	REV. <b>A</b>



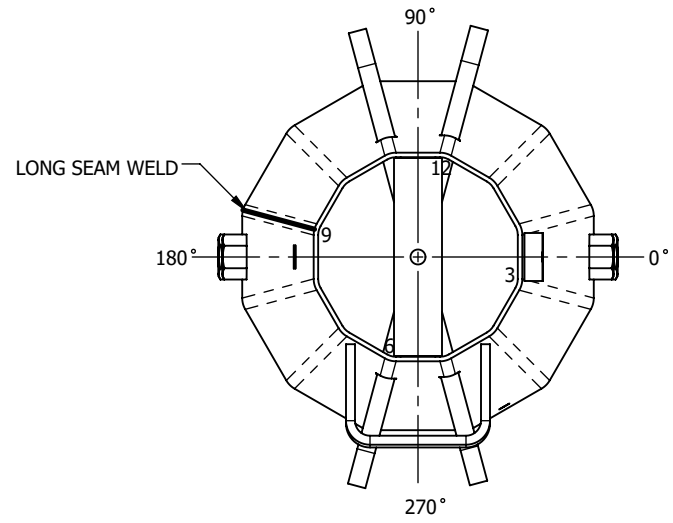
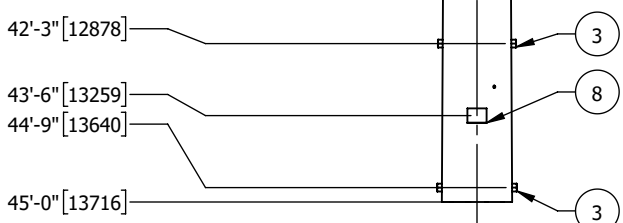
A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3012</b>	REV. <b>A</b>

SHAFT INFORMATION

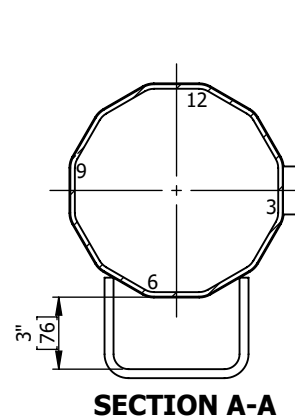
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4019	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	9" [229]	15 5/32" [385]	0.13700	8 11/16" [221]	14 21/32" [372]	0.13233



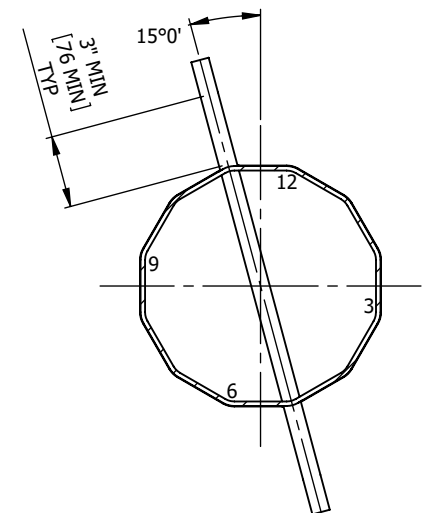
23'-10" [7264] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



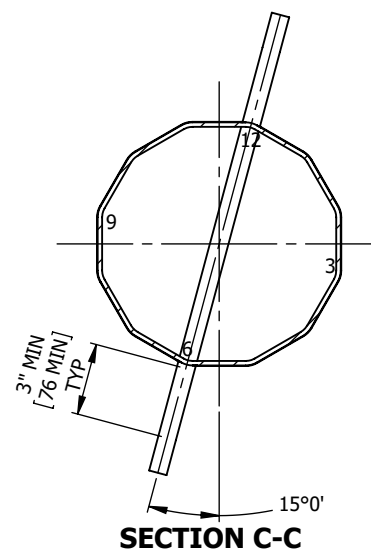
**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.87" [378]	46" [1168]
	BOTTOM	15.16" [385]	46 15/16" [1192]

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

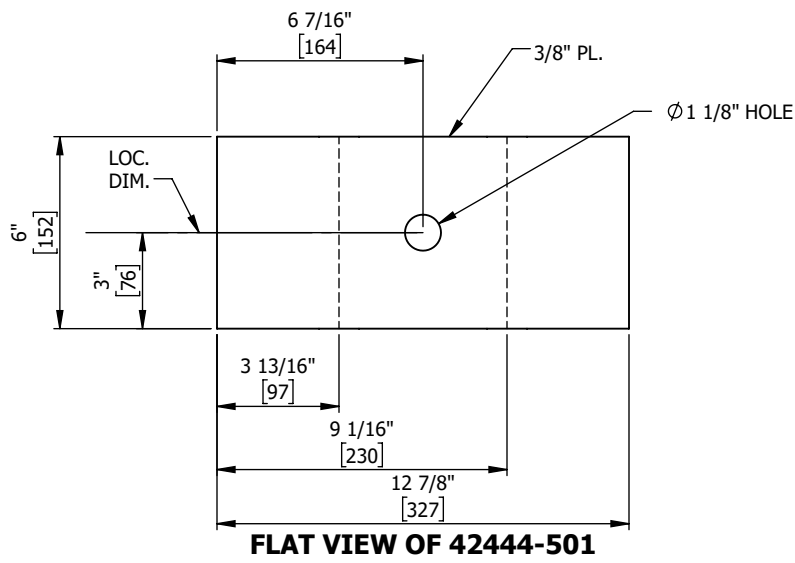
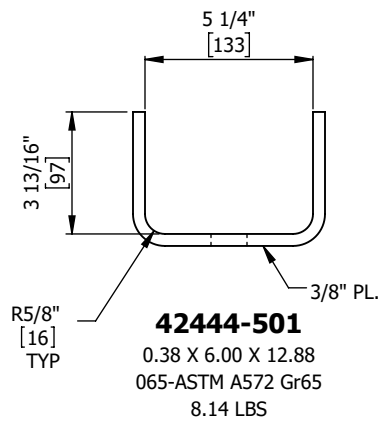
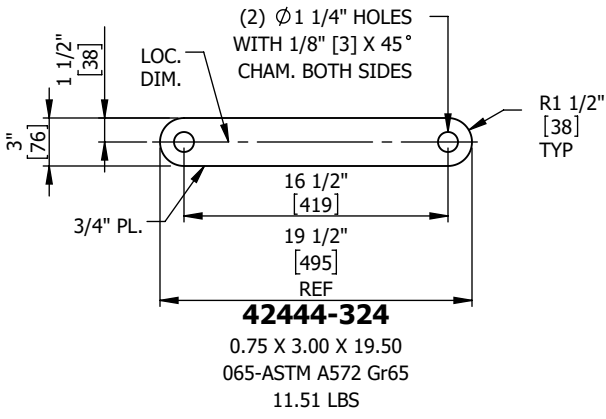
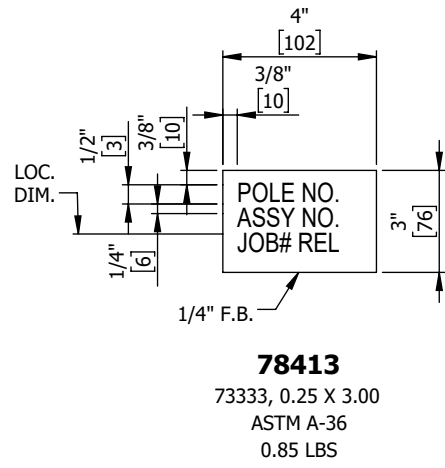
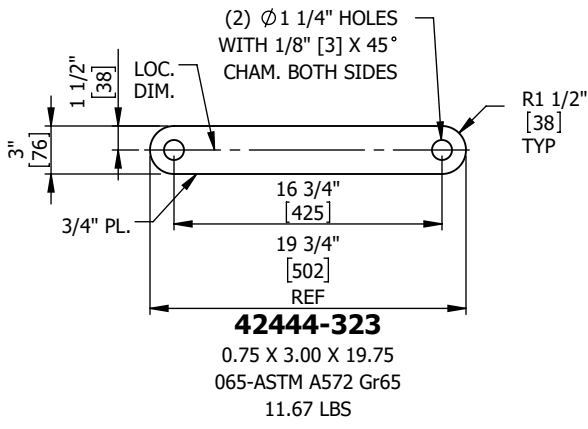
SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4019	1	TOWER PLATE TUBE	0.19 X 27.44 X 540.00 X 46.63	065-ASTM A572 Gr65	1076.79	1076.79	
2	PCA082	1	ANCHOR PLATE	0.25 X 2.00 X 8.25	099-ASTM A36	1.15	1.15	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-323	1	THROUGH VANG	0.75 X 3.00 X 19.75	065-ASTM A572 Gr65	11.67	11.67	
5	42444-324	1	THROUGH VANG	0.75 X 3.00 X 19.50	065-ASTM A572 Gr65	11.51	11.51	
6	42444-501	2	HARDWARE BRACKET	0.38 X 6.00 X 12.88	065-ASTM A572 Gr65	8.14	16.28	
7	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
8	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1121.38	
TOTAL UNFINISHED WEIGHT							1130.00	
TOTAL FINISHED WEIGHT							1200.00	

HARDWARE LOCATION AND ORIENTATION														ITEM NO	PART NUMBER	QTY	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT			
1	3/4" [19]						1							ANCHOR PLATE	2	PCA082	1
2	1'-6" [457]			1										SS GROUND PAD 2-HOLE	7	78412	1
3	1'-6 1/8" [460]						1							HARDWARE BRACKET / SECTION A-A	6	42444-501	1
4	3'-3" [991]						1							HARDWARE BRACKET / SECTION A-A	6	42444-501	1
5	10'-0" [3048]	105 DEG / POINT 11												THROUGH VANG / SECTION B-B	5	42444-324	1
6	11'-0" [3353]	255 DEG / POINT 6												THROUGH VANG / SECTION C-C	4	42444-323	1
7	23'-10" [7264]	APPROX. CENTER OF GRAVITY WELD												-	-	1	
8	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	3	74547	2
9	42'-10" [13056]	BOTTOM SLIP JOINT LENGTH 26"												-	-	1	
10	43'-6" [13259]						1							ID TAG, A-36	8	78413	1
11	44'-0" [13411]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	3	74547	2
13	45'-0" [13716]	TOWER PLATE TUBE												1	42444-4019	1	

HOLE INFORMATION														HOLE DIA	DESCRIPTION
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12		
1	1'-5 1/8" [435]			1										9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]			1										9/16"	HOLE UNDER GRND PAD
3	11'-6" [3505]			1						1				1"	POST INSULATOR
4	12'-6" [3810]			1						1				1"	POST INSULATOR
5	43'-0" [13106]						1							1/2"	SJ INSPECTION

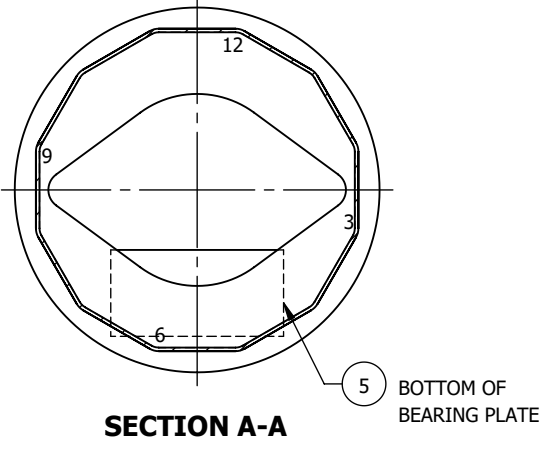
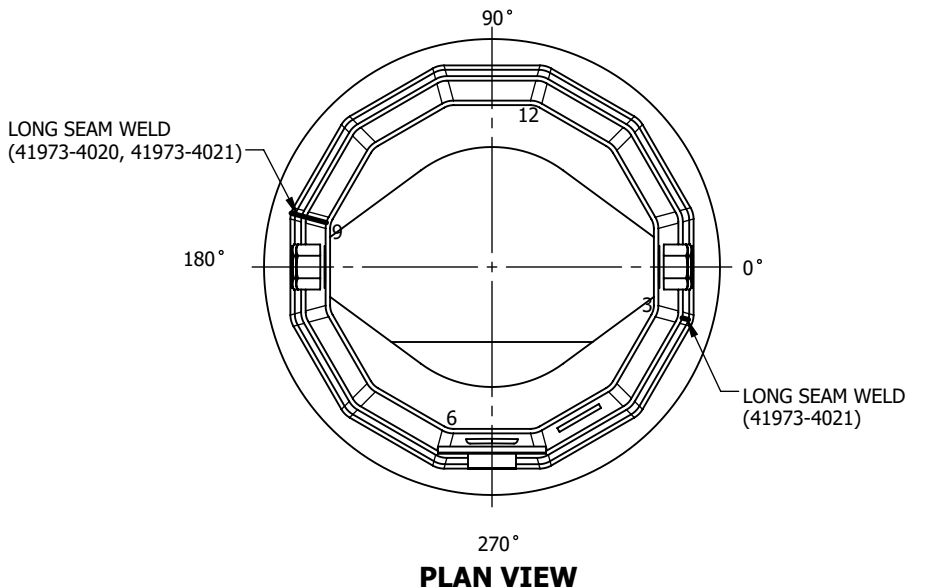
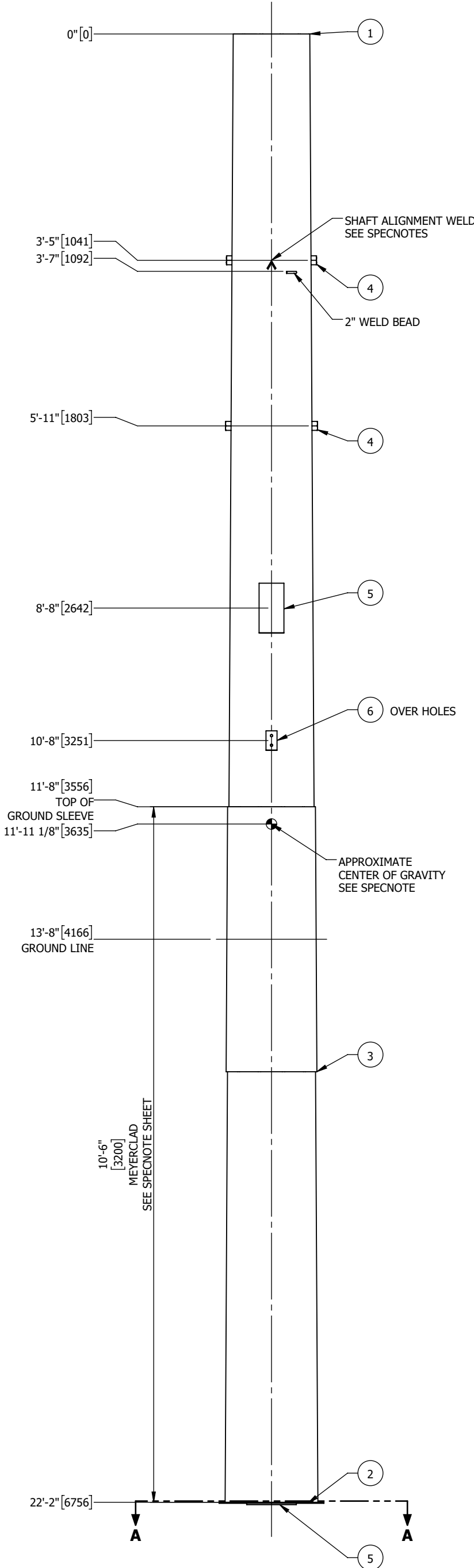
A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP		
SHEET 2 OF 3	<b>42444-3026</b>	REV. <b>A</b>



A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3026</b>	REV. <b>A</b>



SHAFT INFORMATION									
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4020	065-ASTM A572 Gr65	22'-2" [6756]	3/16"	14 11/32" [365]	17 13/32" [442]	0.13700	13 7/8" [352]	16 13/16" [427]	0.13233
42444-4021	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	16 15/32" [418]	17" [432]	0.13700	15 29/32" [404]	16 7/16" [417]	0.13233



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.36" [365]	44 1/2" [1130]
	BOTTOM	14.65" [372]	45 3/8" [1153]

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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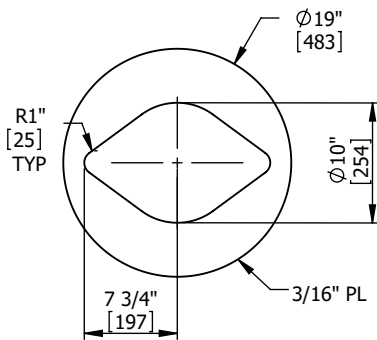
SHAFT ASSEMBLY, 22'-2" LONG  
PBAS

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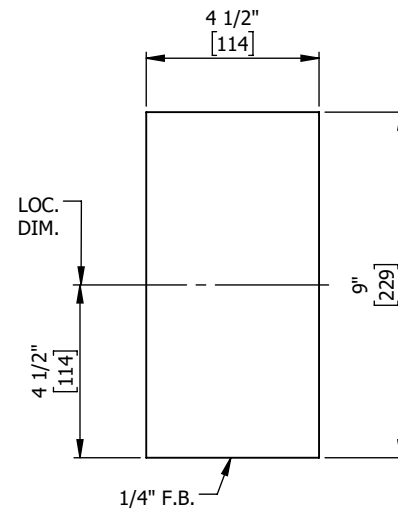
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4020	1	TOWER PLATE TUBE	0.19 X 44.13 X 266.00 X 53.50	065-ASTM A572 Gr65	700.15	700.15	
2	42444-201	1	BEARING PLATE, 3/16" THK X 19" DIA	0.19 X 19.00 X 19.00	065-ASTM A572 Gr65	9.82	9.82	
3	42444-4021	1	GROUND SLEEVE	(2) 0.19 X 25.31 X 48.00 X 26.19	065-ASTM A572 Gr65	130.84	130.84	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							849.68	
TOTAL UNFINISHED WEIGHT							860.00	
TOTAL FINISHED WEIGHT							910.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-2" [660]													TOP SLIP JOINT LENGTH 26"		-	1
3	3'-5" [1041]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	3'-5" [1041]						1							SHAFT ALIGNMENT WELD		-	1
5	3'-7" [1092]						1							2" WELD BEAD		-	1
6	5'-11" [1803]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	8'-8" [2642]						1							NAME PLATE	5	42444-1401	1
8	10'-8" [3251]						1							SS GROUND PAD 2-HOLE	6	78412	1
9	11'-8" [3556]													TOP OF GROUND SLEEVE	3	42444-4021	1
10	11'-11 1/8" [3635]													APPROX. CENTER OF GRAVITY WELD		-	1
11	13'-8" [4166]													GROUND LINE		-	-
12	21'-8" [6604]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	22'-2" [6756]													TOWER PLATE TUBE	1	42444-4020	1
14	22'-2" [6756]													BEARING PLATE, 3/16" THK X 19" DIA / SECTION A-A	2	42444-201	1
15	22'-2 7/16" [6768]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	10'-7 1/8" [3229]						1							9/16"	HOLE UNDER GRND PAD
2	10'-8 7/8" [3273]						1							9/16"	HOLE UNDER GRND PAD



**42444-201**  
0.19 X 19.00 X 19.00  
065-ASTM A572 Gr65  
9.82 LBS



**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

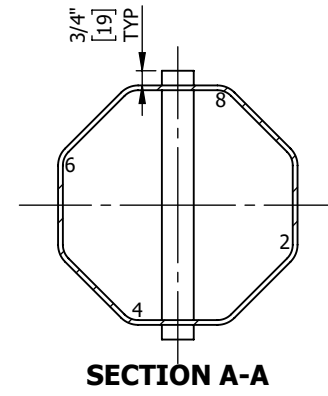
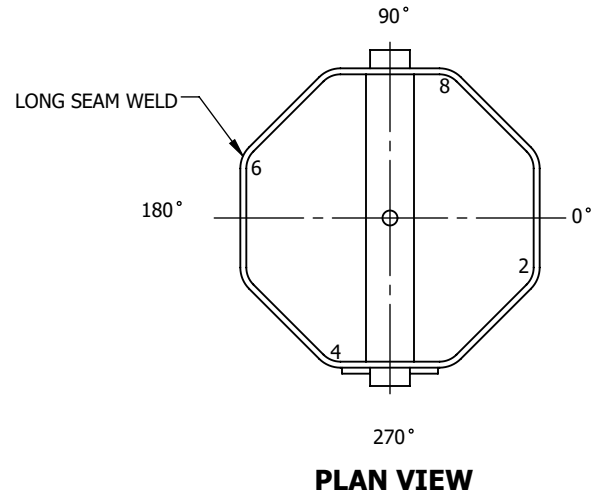
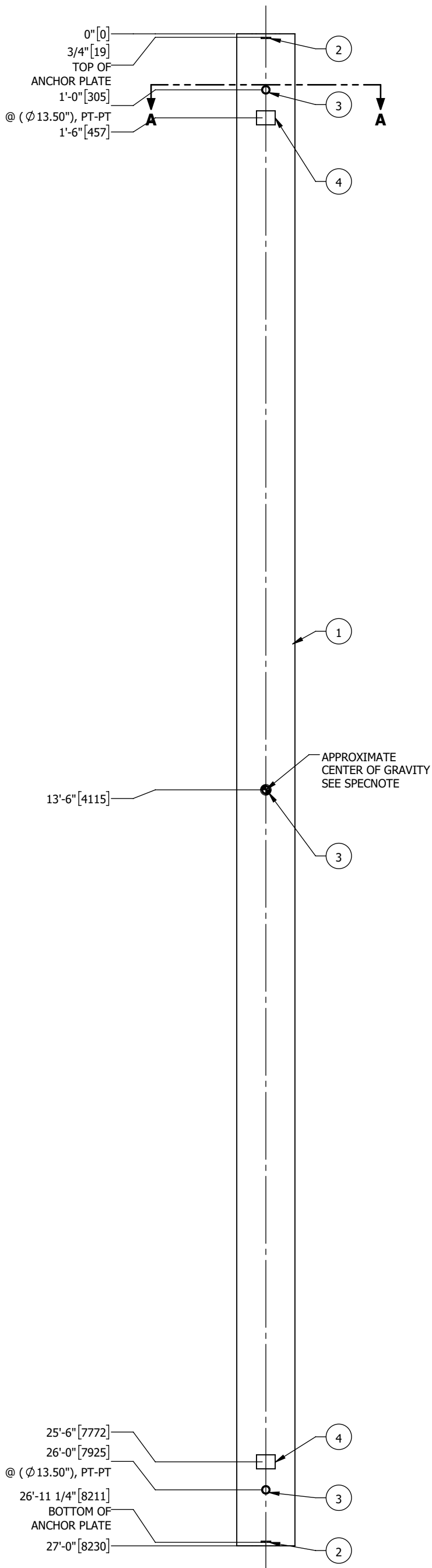
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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 22'-2" LONG  
PBAS

SHAFT INFORMATION

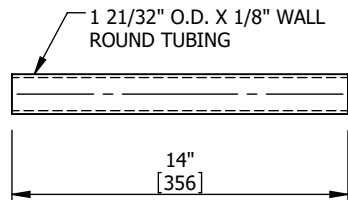
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-7020	065-ASTM A572 Gr65	27'-0" [8230]	1/4"	13 1/2" [343]	13 1/2" [343]	0.00000	12 15/32" [317]	12 15/32" [317]	0.00000



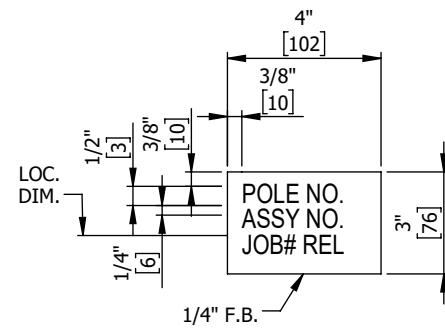
A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>CROSS ARM ASSEMBLY, 27'-0" LONG XARM</p>		
SHEET 1 OF 2	<b>42444-7603</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-7020	1	TOWER PLATE TUBE	0.25 X 40.31 X 324.00 X 40.31	065-ASTM A572 Gr65	941.83	941.83	
2	PCA120	2	ANCHOR PLATE	0.25 X 2.00 X 12.00	099-ASTM A36	1.68	3.36	
3	42444-1302	3	THROUGH PIPE	70912, 1.656 OD X 0.140 WALL	ASTM A-53 GRADE B	2.65	7.95	
4	78413	2	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	1.70	
TOTAL MODEL WEIGHT							954.84	
TOTAL UNFINISHED WEIGHT							960.00	
TOTAL FINISHED WEIGHT							1020.00	

HARDWARE LOCATION AND ORIENTATION													
EL.	LOCATION FROM TOP	8-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]				1					ANCHOR PLATE	2	PCA120	1
2	1'-0" [305]	90 DEG ON FLAT 7-8								THROUGH PIPE / SECTION A-A	3	42444-1302	1
3	1'-6" [457]				1					ID TAG, A-36	4	78413	1
4	13'-6" [4115]	90 DEG ON FLAT 7-8								THROUGH PIPE / SECTION A-A	3	42444-1302	1
5	13'-6" [4115]	APPROX. CENTER OF GRAVITY WELD											
6	25'-6" [7772]				1					ID TAG, A-36	4	78413	1
7	26'-0" [7925]	90 DEG ON FLAT 7-8								THROUGH PIPE / SECTION A-A	3	42444-1302	1
8	26'-11 1/4" [8211]				1					ANCHOR PLATE	2	PCA120	1
9	27'-0" [8230]	TOWER PLATE TUBE											



**42444-1302**  
70912, 1.656 OD X 0.140 WALL  
ASTM A-53 GRADE B  
2.65 LBS

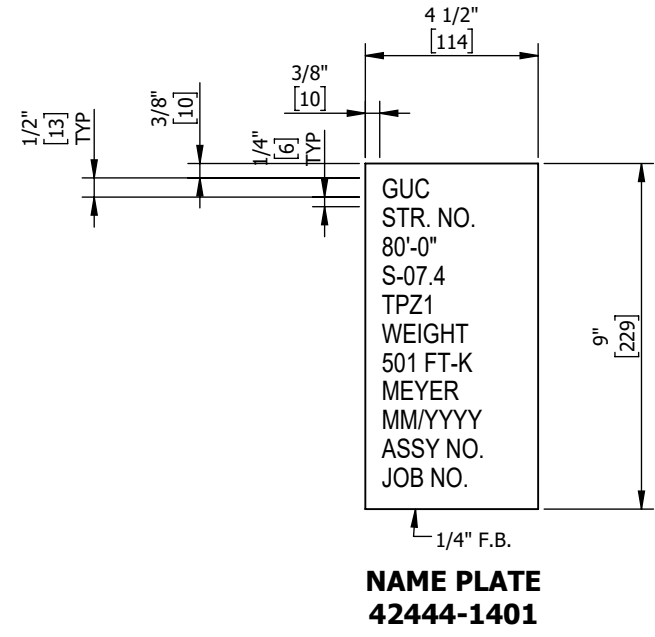
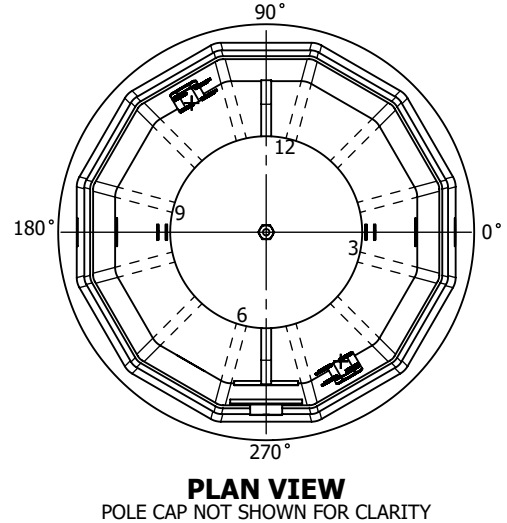
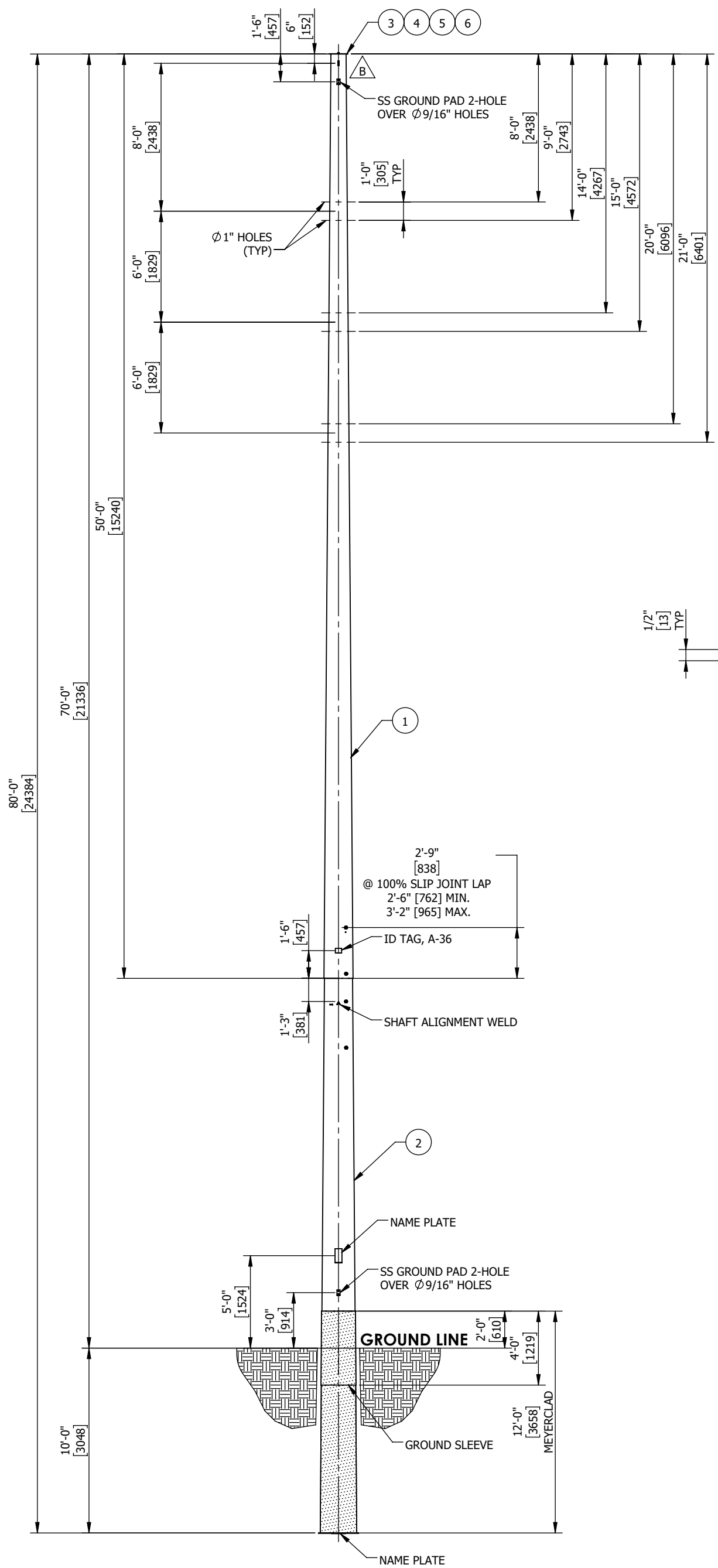


**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>CROSS ARM ASSEMBLY, 27'-0" LONG XARM</p>		
SHEET 2 OF 2	<b>42444-7603</b>	REV. <b>A</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0780S3AT	11.2	70'-0" [21336]	10 3/16" [259]	22 21/32" [575]	0.18700	9 27/32" [250]	21 7/8" [556]	0.18063



REV	DESCRIPTION	DRFT/DATE
B	ROTATED TOP VANG	SAN/06-23-22
A	INITIAL RELEASE	SAN/05-23-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	BZ 05/23/2022
CHECKED/DATE:	PT 06/16/2022
ENGINEER:	MELVIN PORTILLO

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UTILITY STRUCTURES

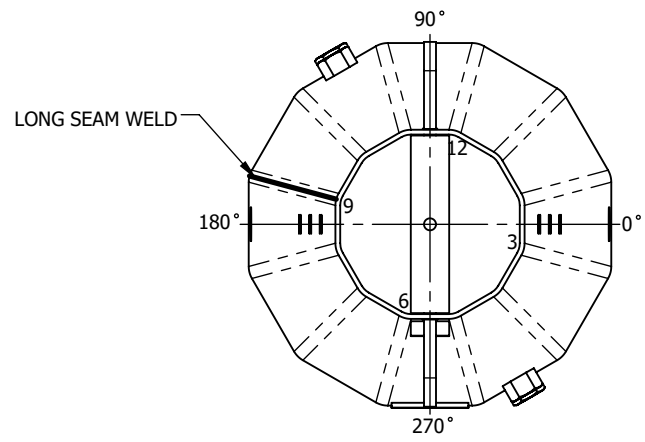
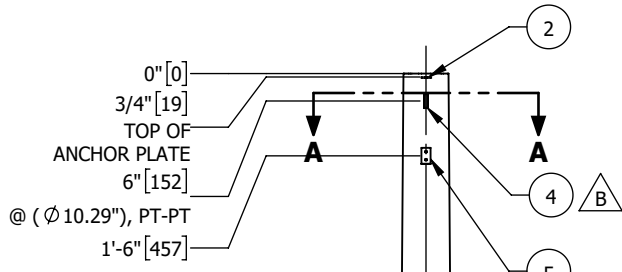
80'-0" 115KV 3 PHASE TANGENT  
TPZ1  
POLE NO: 11.2

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3028	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2080.00	2080.00		
2	42444-3022	1	SHAFT ASSEMBLY, 32'-9" LONG	POLE-BASE 032.75 018.4 024.5 000		2220.00	2220.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>							<b>4310.00</b>		

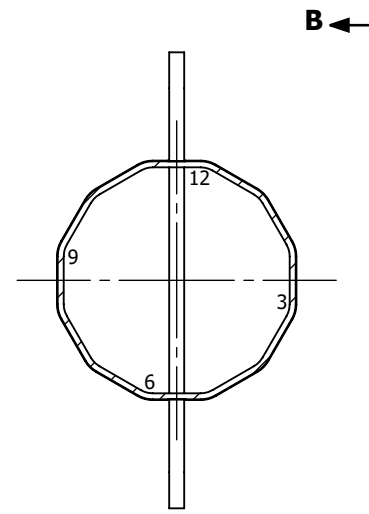
<b>B</b>	<b>ROTATED TOP VANG</b>	<b>SAN/06-23-22</b>
<b>A</b>	INITIAL RELEASE	SAN/05-23-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ	05/23/2022
CHECKED/DATE:	PT	06/16/2022
ENGINEER:	MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>80'-0" 115KV 3 PHASE TANGENT TPZ1 POLE NO: 11.2</b>		
SHEET 2 OF 2	<b>42444-0780S3AT</b>	REV. <b>B</b>

SHAFT INFORMATION

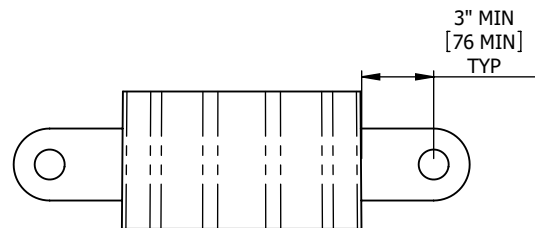
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY

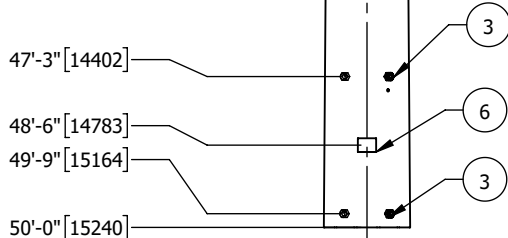


**SECTION A-A**



**VIEW B-B**

27'-6 3/8" [8392] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]


B	ROTATED VANG 90 DEG	SAN/06-23-22
A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/23/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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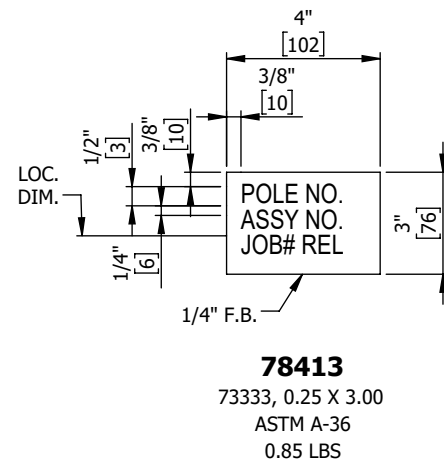
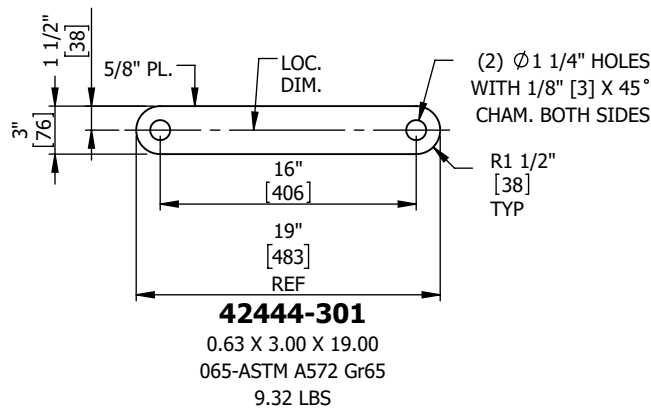
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
5	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
6	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1950.16	
TOTAL UNFINISHED WEIGHT							1960.00	
TOTAL FINISHED WEIGHT							2080.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]					90 DEG ON FLAT 11-12							THROUGH VANG / SECTION A-A	4	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	5	78412	1
4	27'-6 3/8" [8392]													APPROX. CENTER OF GRAVITY WELD		-	1
5	47'-3" [14402]					1						1		JACKING NUT, 1" DIA.	3	74547	2
6	47'-3" [14402]													BOTTOM SLIP JOINT LENGTH 33"		-	1
7	48'-6" [14783]						1							ID TAG, A-36	6	78413	1
8	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	49'-9" [15164]					1						1		JACKING NUT, 1" DIA.	3	74547	2
10	50'-0" [15240]													TOWER PLATE TUBE	1	42444-4028	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	47'-6" [14478]					1								1/2"	SJ INSPECTION



<b>B</b>	<b>ROTATED VANG 90 DEG</b>	<b>SAN/06-23-22</b>
<b>A</b>	INITIAL RELEASE	SAN/05-23-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	BZ 05/23/2022	
CHECKED/DATE:	PT 06/16/2022	
ENGINEER:	MELVIN PORTILLO	

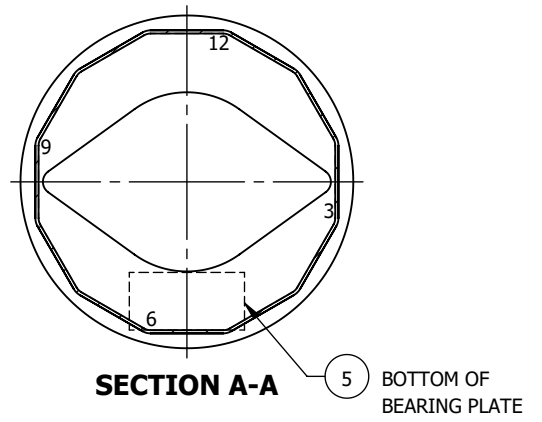
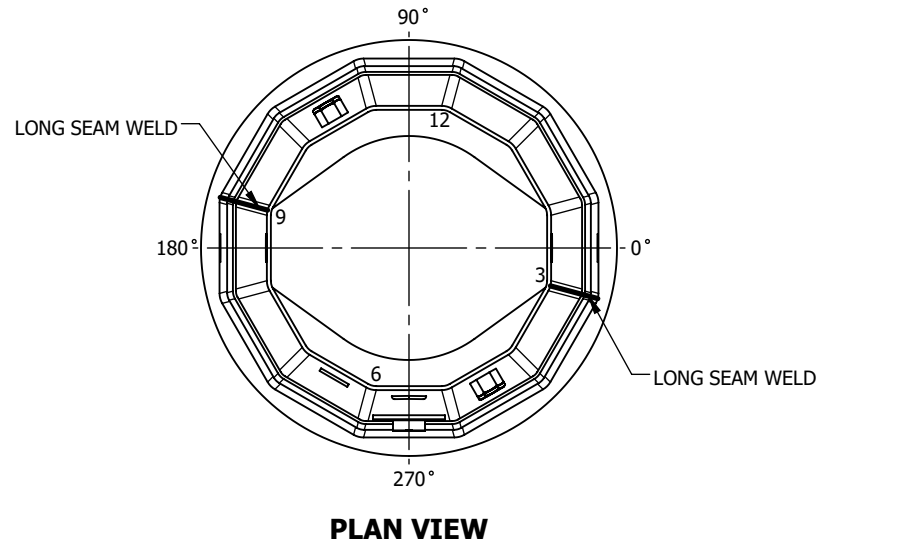
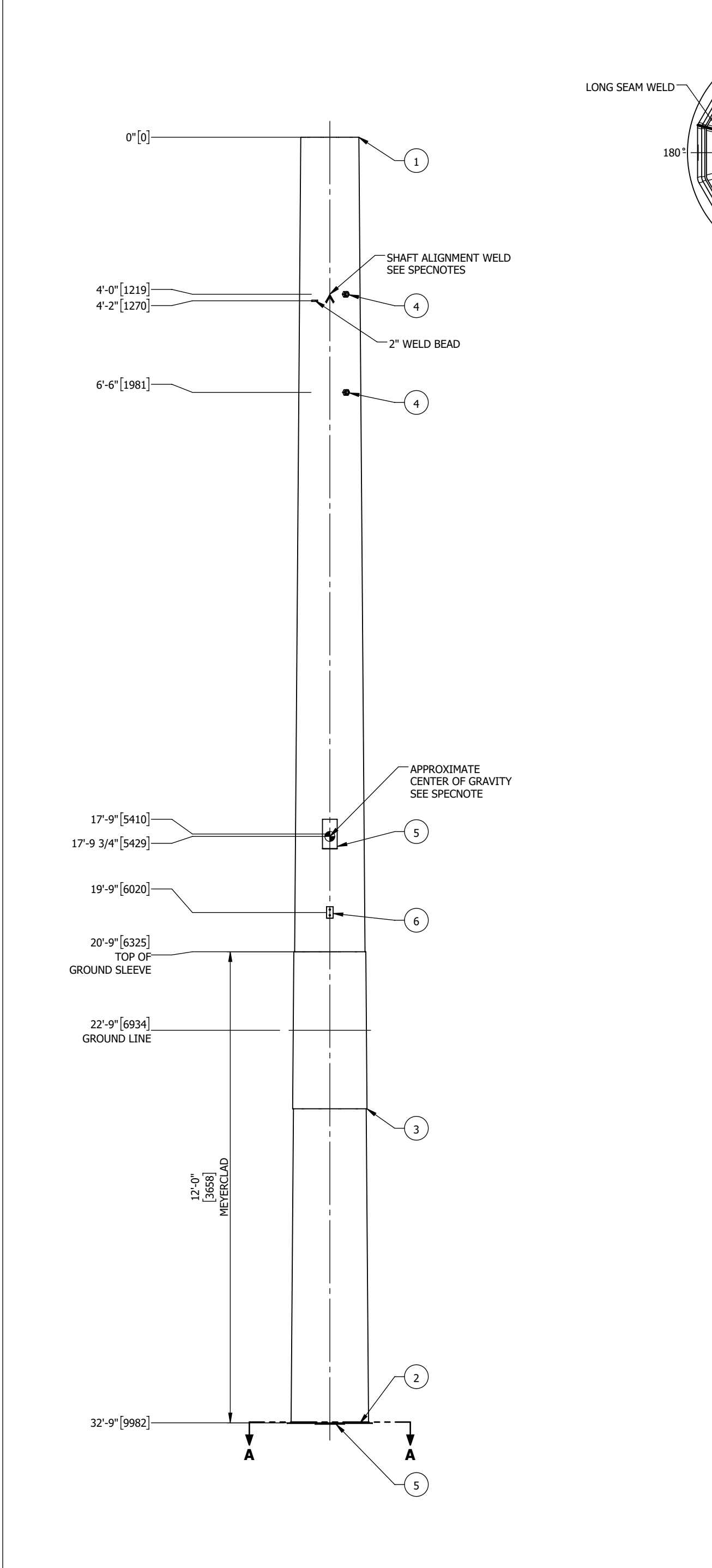
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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP



SHAFT INFORMATION									
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4034	065-ASTM A572 Gr65	32'-9" [9982]	1/4"	18 13/32" [467]	24 17/32" [623]	0.18700	17 25/32" [451]	23 11/16" [602]	0.18063
42444-4035	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	22 25/32" [579]	23 17/32" [598]	0.18700	22" [559]	22 23/32" [577]	0.18063



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	18.39" [467]	57" [1448]
	BOTTOM	18.91" [480]	58 9/16" [1487]

B	MOVED WELD BEAD FROM 4-5 TO 6-7	HIG/06-27-22
A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
PROJECT: 22-23 TRANSMISSION REPLACEMENTS		
CUSTOMER: GREENVILLE UTILITIES COMMISSION		
CUSTOMER P.O. NO: 81212		
JOB NO: 42444		
DRAWN/DATE: BZ 05/23/2022		
CHECKED/DATE: PT 06/16/2022		
ENGINEER: MELVIN PORTILLO		

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**MEYER**  
UTILITY STRUCTURES

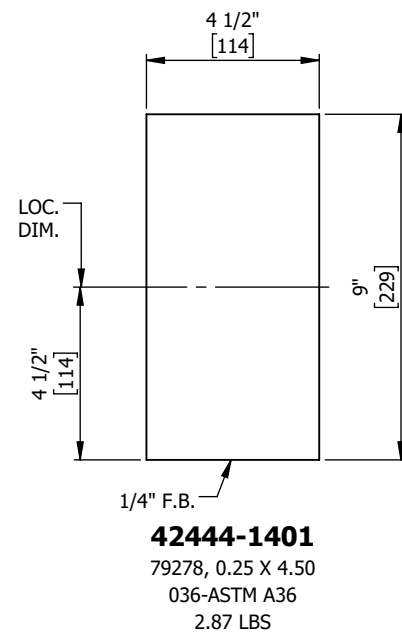
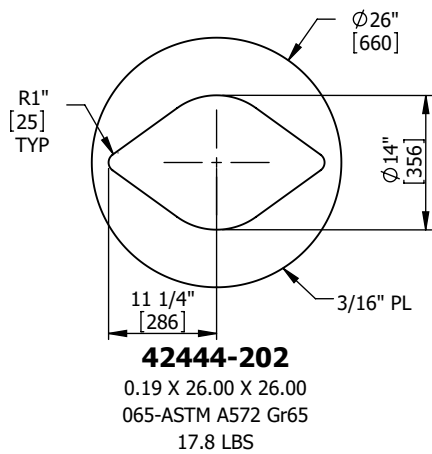
SHAFT ASSEMBLY, 32'-9" LONG  
PBAS

SHEET 1 OF 2	<b>42444-3022</b>	REV. <b>B</b>
--------------	-------------------	---------------

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4034	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 393.00 X 37.69	065-ASTM A572 Gr65	1866.87	1866.87	
2	42444-202	1	BEARING PLATE, 3/16" THK X 26" DIA	0.19 X 26.00 X 26.00	065-ASTM A572 Gr65	17.8	17.80	
3	42444-4035	1	GROUND SLEEVE	(2) 0.19 X 35.13 X 48.00 X 36.31	065-ASTM A572 Gr65	181.73	181.73	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2075.27	
TOTAL UNFINISHED WEIGHT							2080.00	
TOTAL FINISHED WEIGHT							2220.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	4'-0" [1219]					1						1		JACKING NUT, 1" DIA.	4	74547	2
4	4'-0" [1219]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-2" [1270]							1						2" WELD BEAD		-	1
6	6'-6" [1981]					1						1		JACKING NUT, 1" DIA.	4	74547	2
7	17'-9" [5410]						1							NAME PLATE	5	42444-1401	1
8	17'-9 3/4" [5429]													APPROX. CENTER OF GRAVITY WELD		-	1
9	19'-9" [6020]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	20'-9" [6325]													TOP OF GROUND SLEEVE	3	42444-4035	1
11	22'-9" [6934]													GROUND LINE		-	-
12	32'-3" [9830]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	32'-9" [9982]													TOWER PLATE TUBE	1	42444-4034	1
14	32'-9" [9982]													BEARING PLATE, 3/16" THK X 26" DIA / SECTION A-A	2	42444-202	1
15	32'-9 7/16" [9993]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	19'-8 1/8" [5998]						1							9/16"	HOLE UNDER GRND PAD
2	19'-9 7/8" [6042]						1							9/16"	HOLE UNDER GRND PAD



B	MOVED WELD BEAD FROM 4-5 TO 6-7	HIG/06-27-22
A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	BZ 05/23/2022	
CHECKED/DATE:	PT 06/16/2022	
ENGINEER:	MELVIN PORTILLO	

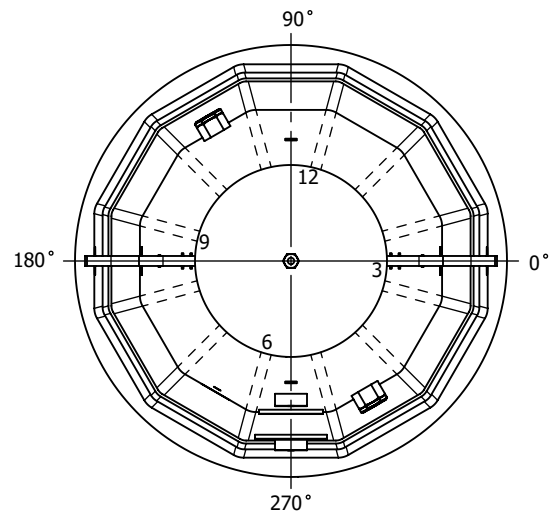
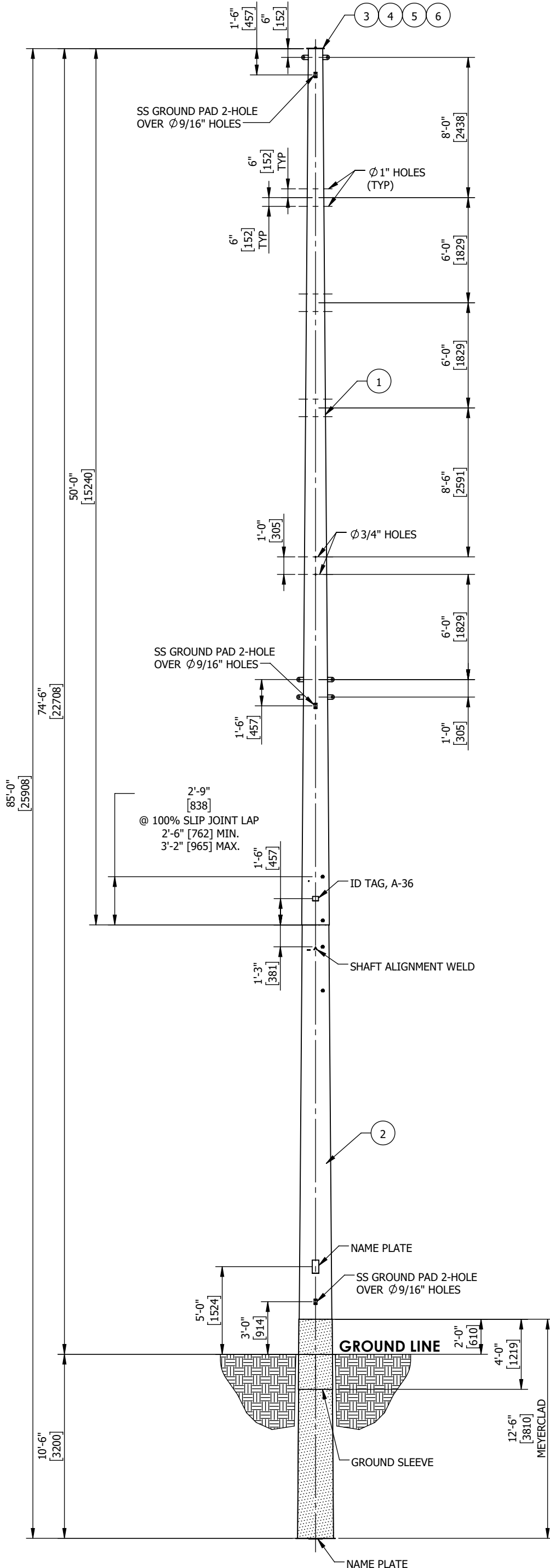
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**MEYER**  
UTILITY STRUCTURES

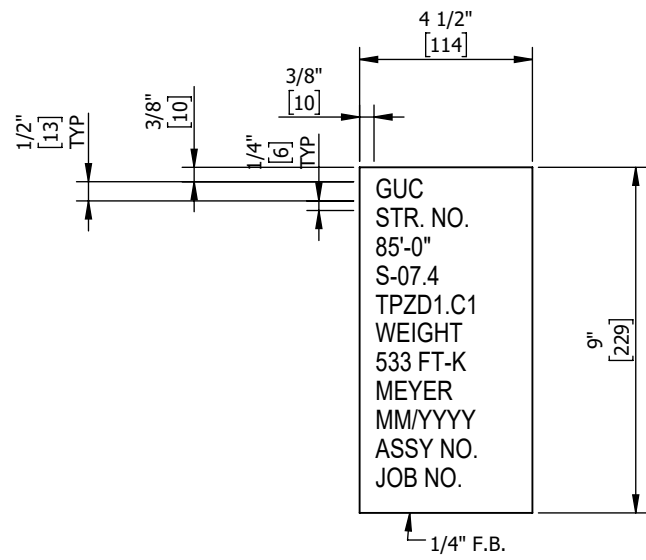
SHAFT ASSEMBLY, 32'-9" LONG  
PBAS

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0785S3AT	11.3, 11.4, 11.5, 11.8, 11.9, 11.10, 11.12, 11.13, 11.15, 11.18, 11.19	74'-6" [22708]	10 3/16" [259]	23 1/2" [597]	0.18700	9 27/32" [250]	22 11/16" [576]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**NAME PLATE**  
**42444-1401**

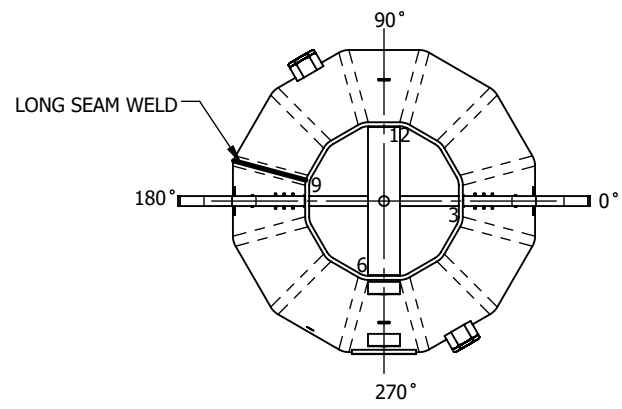
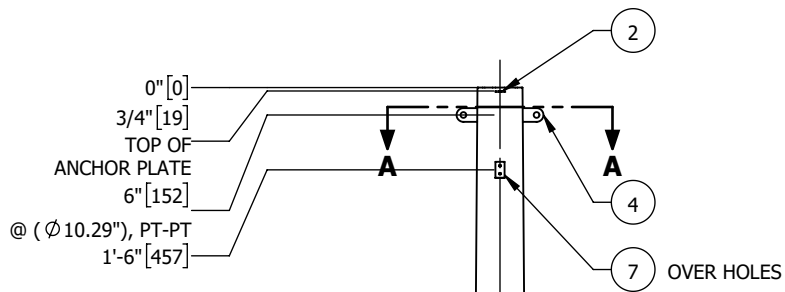
A	INITIAL RELEASE	SAN/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/24/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>85'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 SEE INDEX</p>		
SHEET 1 OF 2	<b>42444-0785S3AT</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3030	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2110.00	2110.00		
2	42444-3019	1	SHAFT ASSEMBLY, 37'-9" LONG	POLE-BASE 037.75 018.4 025.5 000		2600.00	2600.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								4720.00	

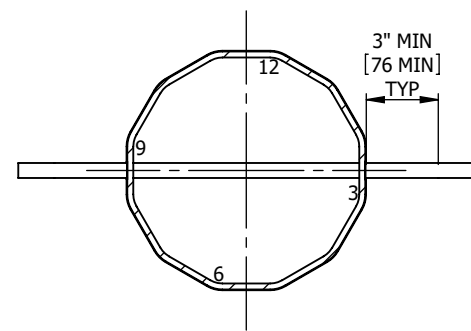
<b>A</b>	<b>INITIAL RELEASE</b>	<b>SAN/05-24-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ 05/24/2022	
CHECKED/DATE:	PT 06/16/2022	
ENGINEER:	MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>85'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 SEE INDEX</p>		
SHEET 2 OF 2	<b>42444-0785S3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

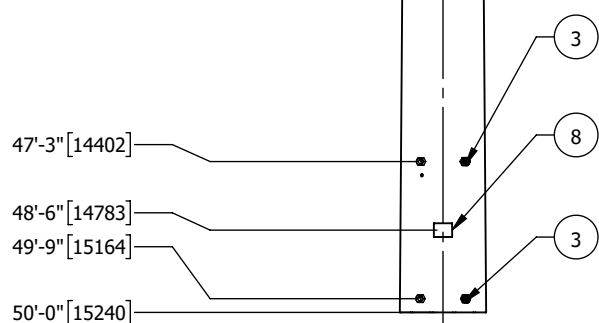
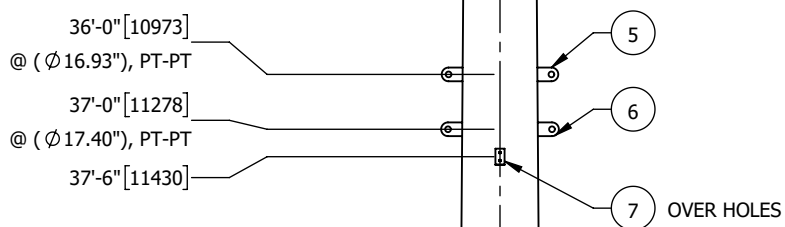
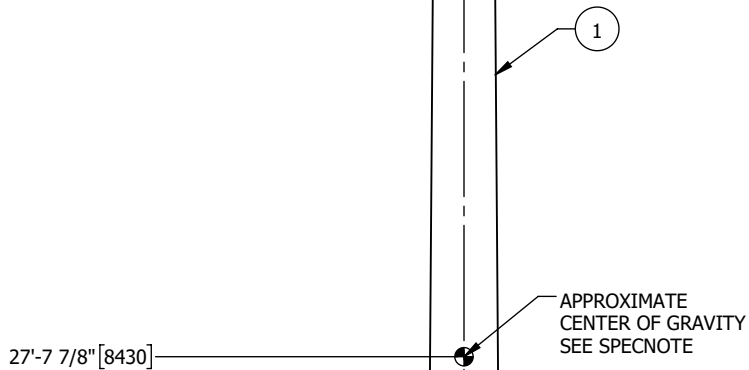
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

<b>B</b>	<b>MOVED SJ HOLE FROM 5-6 TO 6-7</b>	<b>HIG/06-27-22</b>
<b>A</b>	INITIAL RELEASE	SAN/05-24-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/24/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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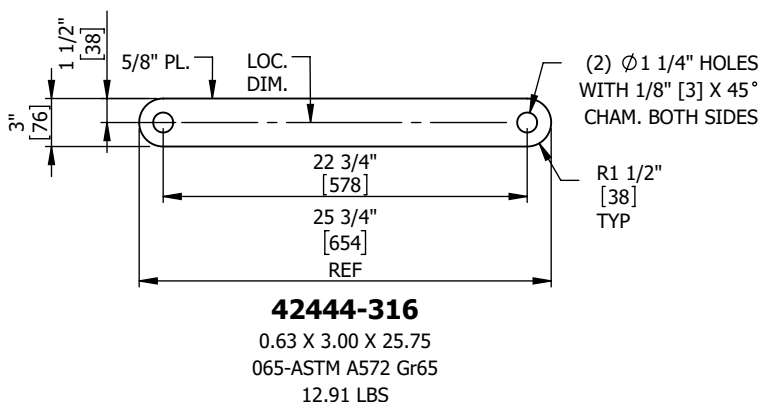
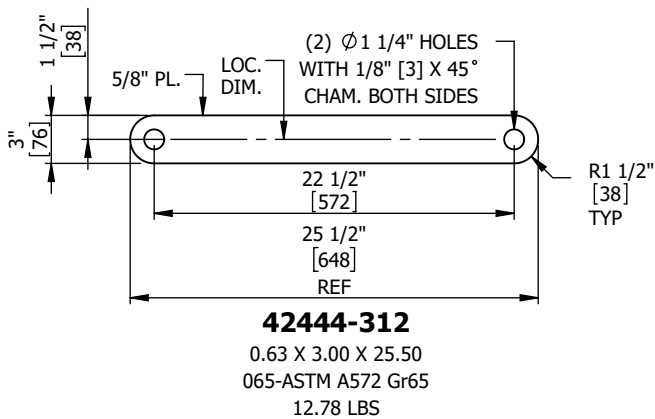
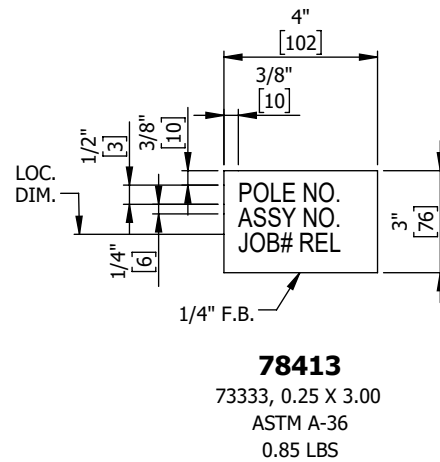
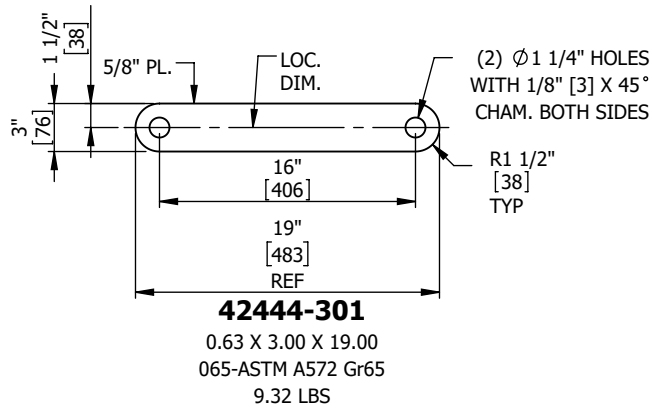
**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
5	42444-312	1	THROUGH VANG	0.63 X 3.00 X 25.50	065-ASTM A572 Gr65	12.78	12.78	
6	42444-316	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
7	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
8	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1977.26	
TOTAL UNFINISHED WEIGHT							1980.00	
TOTAL FINISHED WEIGHT							2110.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	4	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	7	78412	1
4	27'-7 7/8" [8430]	APPROX. CENTER OF GRAVITY WELD													-		1
5	36'-0" [10973]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	5	42444-312	1
6	37'-0" [11278]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	6	42444-316	1
7	37'-6" [11430]						1							SS GROUND PAD 2-HOLE	7	78412	1
8	47'-3" [14402]					1						1		JACKING NUT, 1" DIA.	3	74547	2
9	47'-3" [14402]	BOTTOM SLIP JOINT LENGTH 33"													-		1
10	48'-6" [14783]						1							ID TAG, A-36	8	78413	1
11	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	49'-9" [15164]					1						1		JACKING NUT, 1" DIA.	3	74547	2
13	50'-0" [15240]	TOWER PLATE TUBE												1	42444-4028	1	

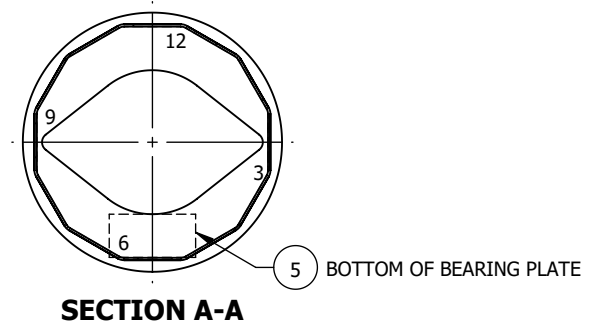
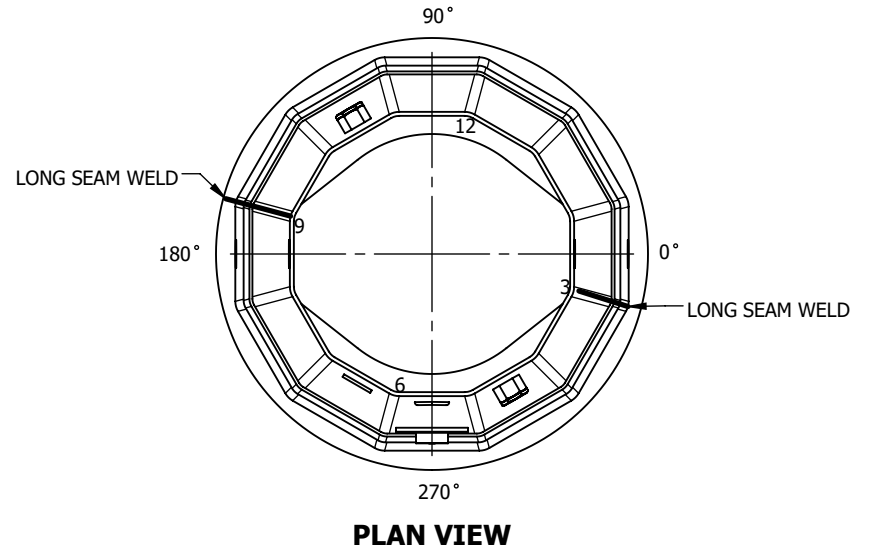
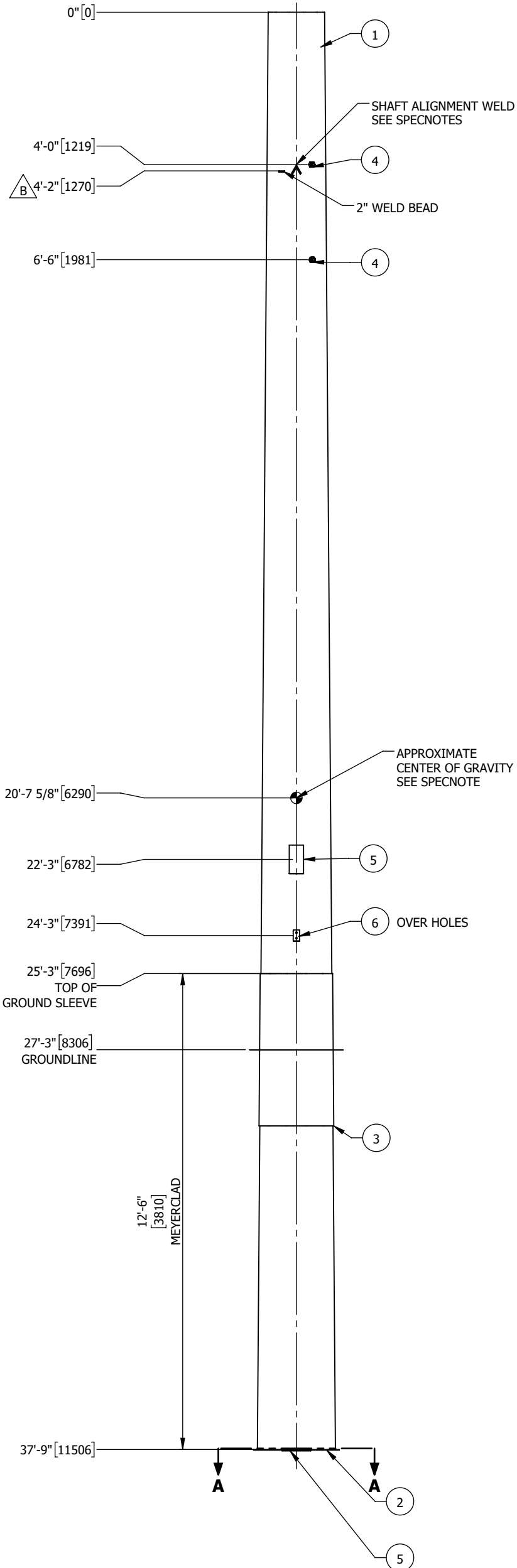
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	POST INSULATOR
10	30'-0" [9144]						1					1		3/4"	POST INSULATOR
11	37'-5 1/8" [11408]						1							9/16"	HOLE UNDER GRND PAD
12	37'-6 7/8" [11452]						1							9/16"	HOLE UNDER GRND PAD
13	47'-6" [14478]								1					1/2"	SJ INSPECTION HOLE



B	MOVED SJ HOLE FROM 5-6 TO 6-7	HIG/06-27-22
A	INITIAL RELEASE	SAN/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/24/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3030</b>	REV. <b>B</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4029	065-ASTM A572 Gr65	37'-9" [11506]	1/4"	18 13/32" [467]	25 7/16" [646]	0.18700	17 25/32" [451]	24 19/32" [624]	0.18063
42444-4030	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	23 5/8" [600]	24 3/8" [619]	0.18700	22 13/16" [580]	23 17/32" [598]	0.18063



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	18.39" [467]	57" [1448]
	BOTTOM	18.91" [480]	58 9/16" [1487]

C	REORDERED PARTS LIST	HIG/06-24-22
B	ORDINATE DIMENSION UPDATED	SAN/06-16-22
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	CT 05/24/2022
CHECKED/DATE:	LM 06/16/2022
ENGINEER:	MELVIN PORTILLO

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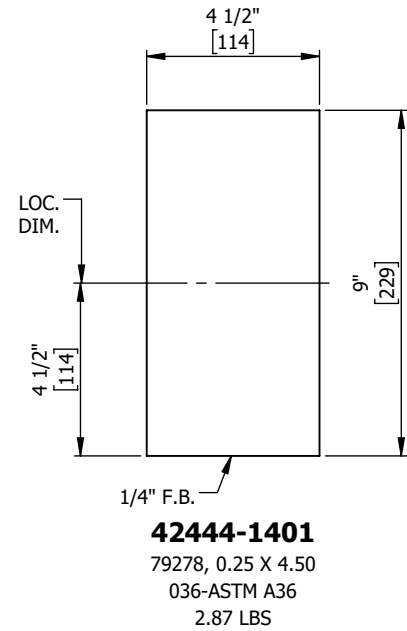
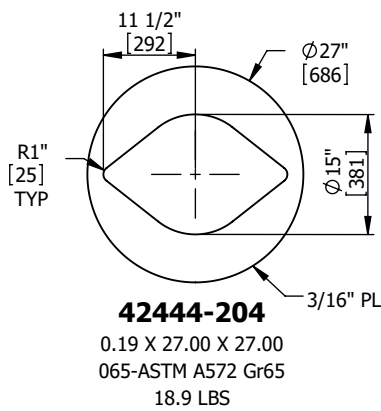
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 37'-9" LONG  
PBAS

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4029	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 453.00 X 39.13	065-ASTM A572 Gr65	2216.12	2216.12	
2	42444-204	1	BEARING PLATE, 3/16" THK X 27" DIA	0.19 X 27.00 X 27.00	065-ASTM A572 Gr65	18.9	18.90	
3	42444-4030	1	GROUND SLEEVE	(2) 0.19 X 36.44 X 48.00 X 37.56	065-ASTM A572 Gr65	188.4	188.40	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2432.29	
TOTAL UNFINISHED WEIGHT							2440.00	
TOTAL FINISHED WEIGHT							2600.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	4'-0" [1219]					1						1		JACKING NUT, 1" DIA.	4	74547	2
4	4'-0" [1219]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-2" [1270]							1						2" WELD BEAD		-	1
6	6'-6" [1981]					1						1		JACKING NUT, 1" DIA.	4	74547	2
7	20'-7 5/8" [6290]													APPROX. CENTER OF GRAVITY WELD		-	1
8	22'-3" [6782]						1							NAME PLATE	5	42444-1401	1
9	24'-3" [7391]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	25'-3" [7696]													TOP OF GROUND SLEEVE	3	42444-4030	1
11	27'-3" [8306]													GROUND LINE		-	-
12	37'-3" [11354]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	37'-9" [11506]													TOWER PLATE TUBE	1	42444-4029	1
14	37'-9" [11506]													BEARING PLATE, 3/16" THK X 27" DIA / SECTION A-A	2	42444-204	1
15	37'-9 3/16" [11511]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	24'-2 1/8" [7369]						1							9/16"	HOLE UNDER GRND PAD
2	24'-3 7/8" [7414]						1							9/16"	HOLE UNDER GRND PAD

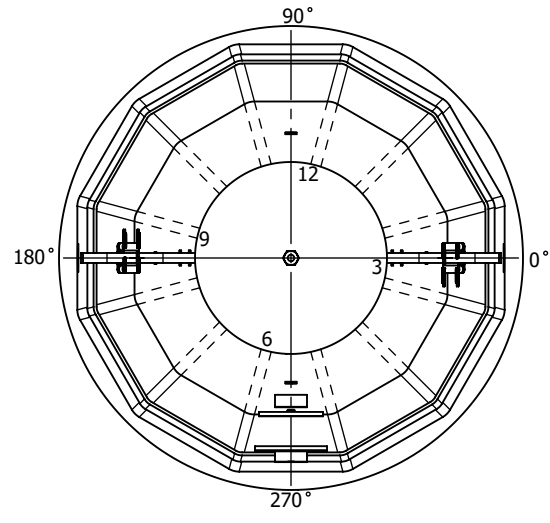
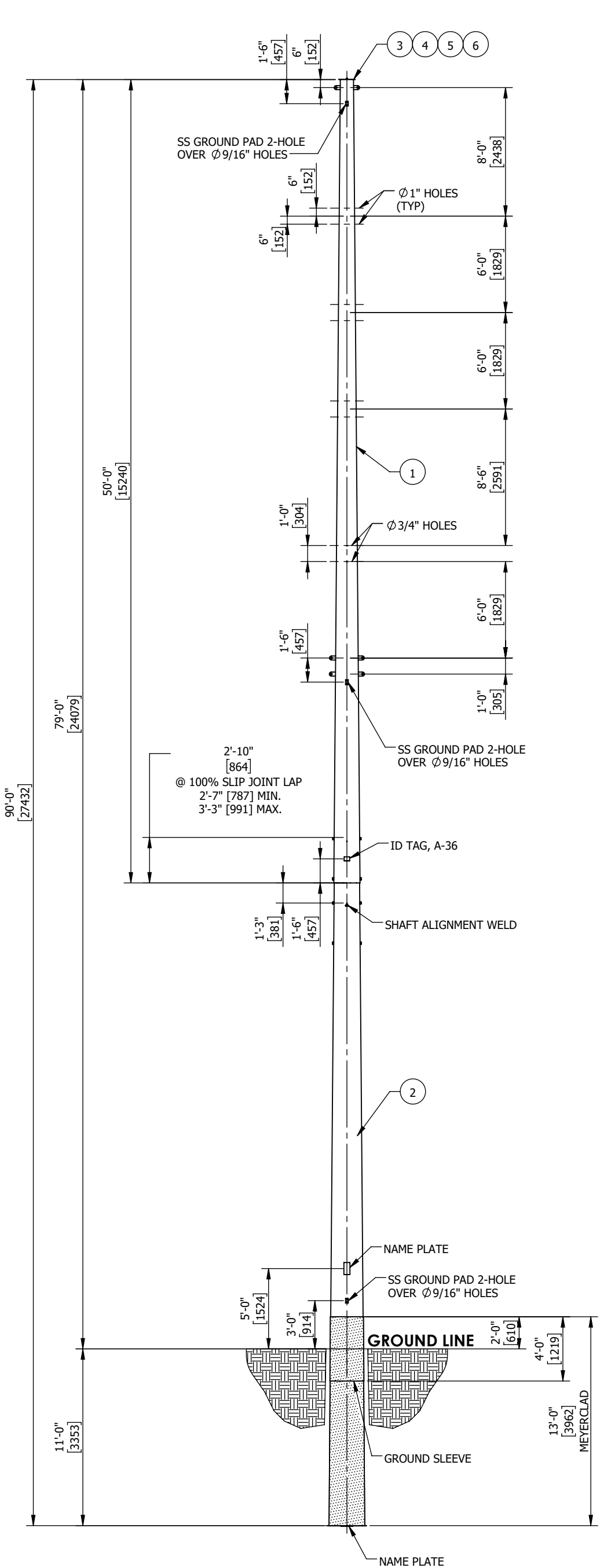


C	REORDERED PARTS LIST	HIG/06-24-22
B	ORDINATE DIMENSION UPDATED	SAN/06-16-22
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 37'-9" LONG PBAS		
SHEET 2 OF 2	<b>42444-3019</b>	REV. <b>C</b>

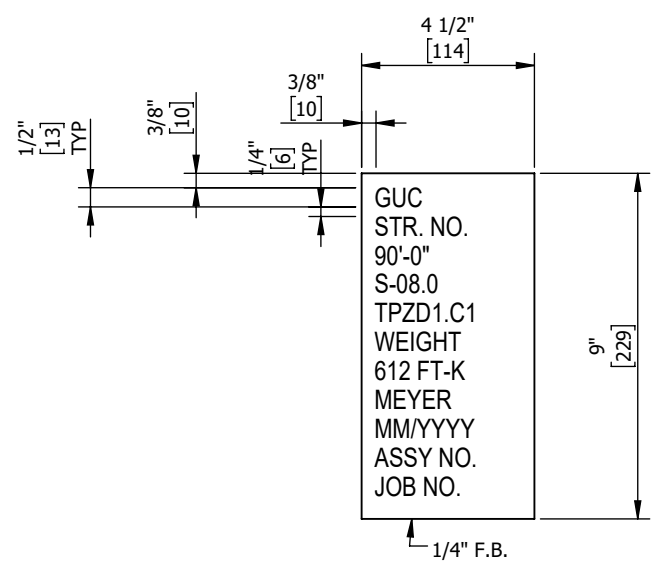


STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0890S3AT	11.6	79'-0" [24079]	10 3/16" [259]	25 7/16" [646]	0.20100	9 27/32" [250]	24 9/16" [624]	0.19415



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



GUC  
STR. NO.  
90'-0"  
S-08.0  
TPZD1.C1  
WEIGHT  
612 FT-K  
MEYER  
MM/YYYY  
ASSY NO.  
JOB NO.

**NAME PLATE**  
**42444-1401**

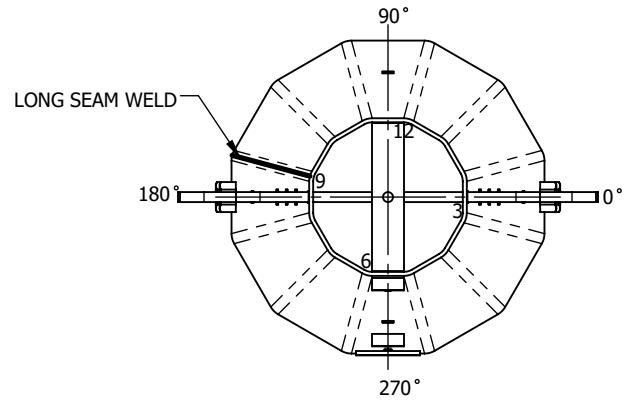
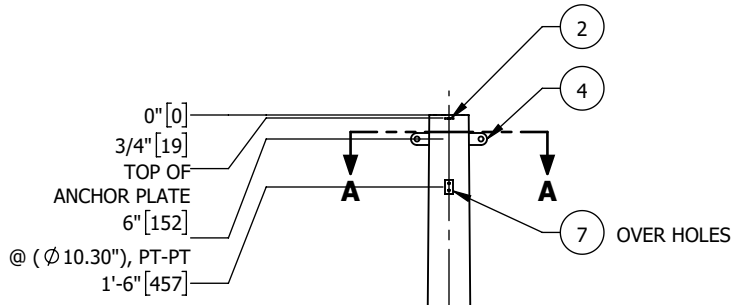
A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/23/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>90'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 POLE NO: 11.6</p>		
SHEET 1 OF 2	<b>42444-0890S3AT</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-3029	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 020.3 000		2180.00	2180.00	
2	42444-3021	1	SHAFT ASSEMBLY, 42'-10" LONG	POLE-BASE 042.83 019.0 027.6 000		3090.00	3090.00	
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00	
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
TOTAL STRUCTURE FINISHED WEIGHT								5280.00

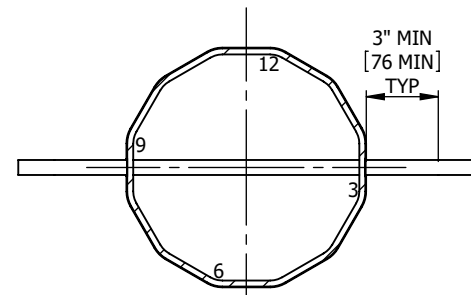
<b>A</b>	<b>INITIAL RELEASE</b>	<b>SAN/05-23-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ 05/23/2022	
CHECKED/DATE:	PT 06/16/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>90'-0" 115KV 3 PHASE TANGENT POST</b> <b>TPZD1.C1</b> <b>POLE NO: 11.6</b>		
SHEET 2 OF 2	<b>42444-0890S3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

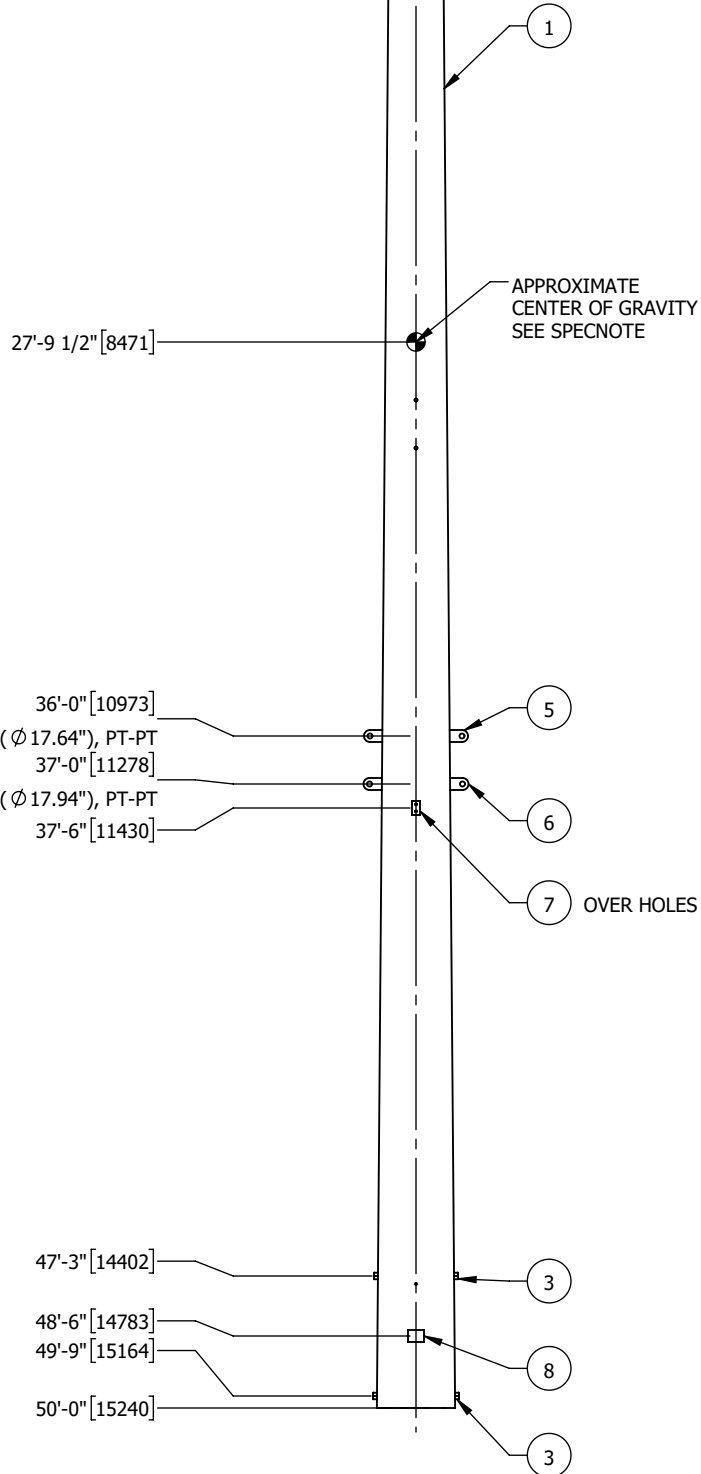
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4031	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	20 1/4" [514]	0.20100	9 27/32" [250]	19 9/16" [497]	0.19415



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	19.68" [500]	60 15/16" [1548]
	BOTTOM	20.25" [514]	62 11/16" [1592]

A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/23/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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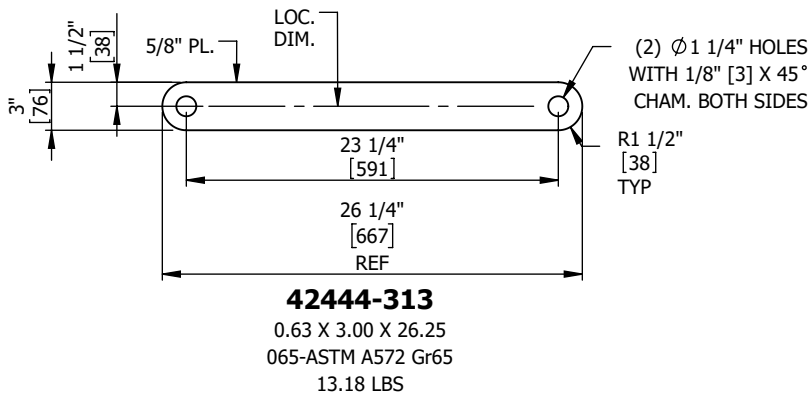
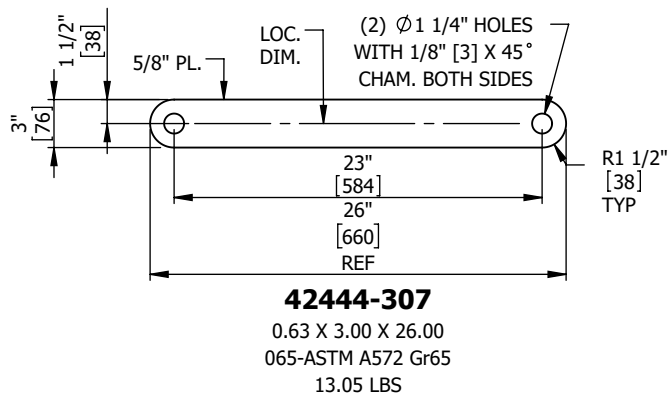
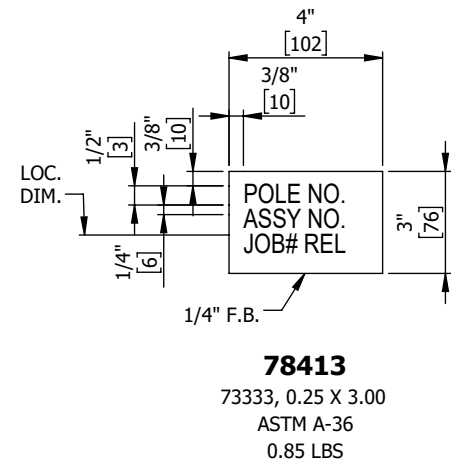
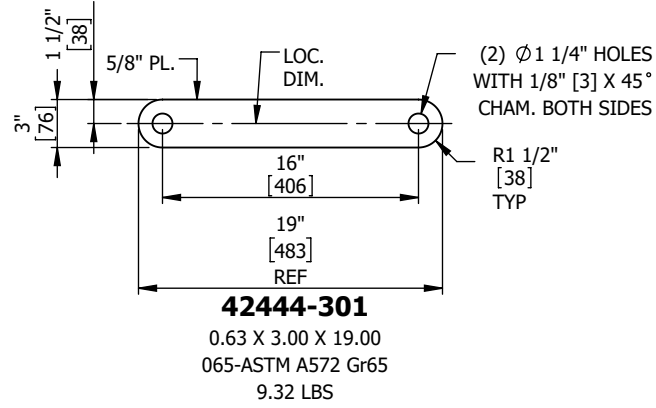
**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4031	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 62.13	065-ASTM A572 Gr65	1999.38	1999.38	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
5	42444-307	1	THROUGH VANG	0.63 X 3.00 X 26.00	065-ASTM A572 Gr65	13.05	13.05	
6	42444-313	1	THROUGH VANG	0.63 X 3.00 X 26.25	065-ASTM A572 Gr65	13.18	13.18	
7	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
8	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							2041.61	
TOTAL UNFINISHED WEIGHT							2050.00	
TOTAL FINISHED WEIGHT							2180.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	4	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	7	78412	1
4	27'-9 1/2" [8471]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	36'-0" [10973]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	5	42444-307	1	
6	37'-0" [11278]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	6	42444-313	1	
7	37'-6" [11430]						1							SS GROUND PAD 2-HOLE	7	78412	1
8	47'-2" [14376]	BOTTOM SLIP JOINT LENGTH 34"												-	1		
9	47'-3" [14402]			1						1				JACKING NUT, 1" DIA.	3	74547	2
10	48'-6" [14783]						1							ID TAG, A-36	8	78413	1
11	48'-8" [14834]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	49'-9" [15164]			1						1				JACKING NUT, 1" DIA.	3	74547	2
13	50'-0" [15240]	TOWER PLATE TUBE											1	42444-4031	1		

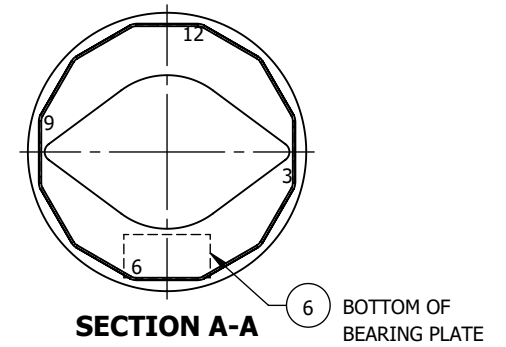
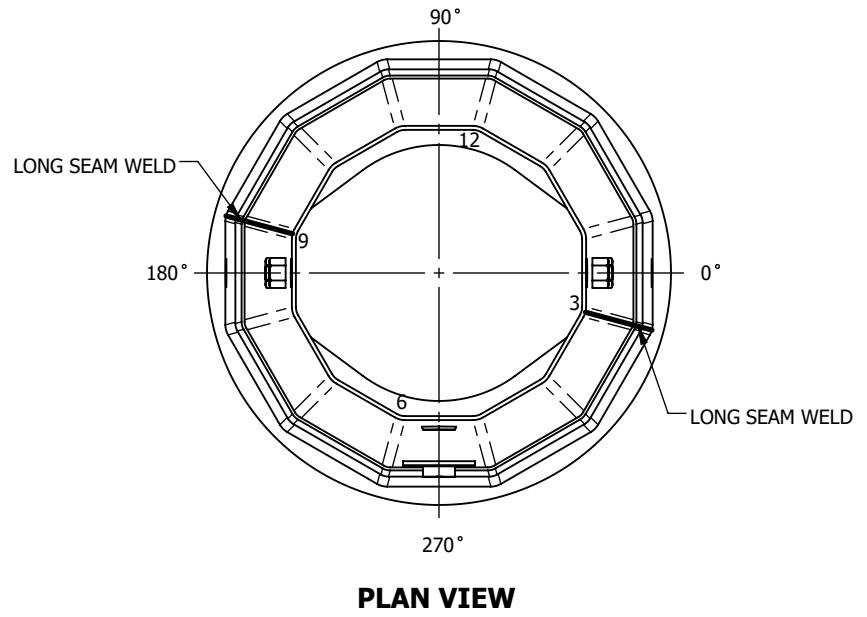
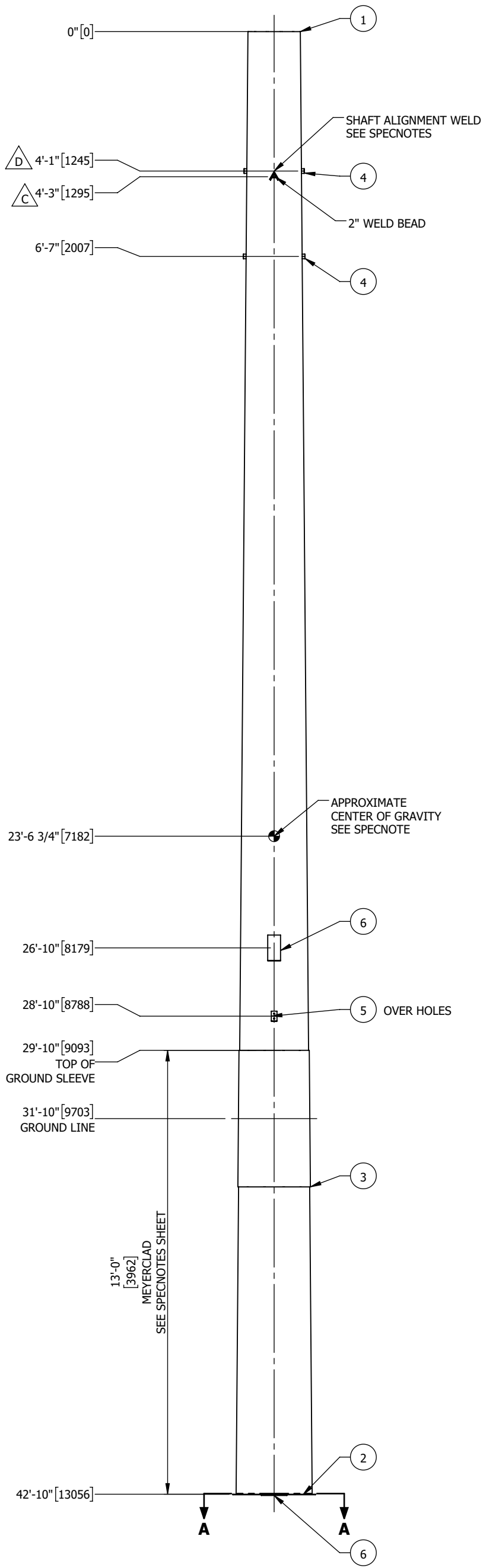
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	POST INSULATOR
10	30'-0" [9144]						1					1		3/4"	POST INSULATOR
11	37'-5 1/8" [11408]						1							9/16"	HOLE UNDER GRND PAD
12	37'-6 7/8" [11452]						1							9/16"	HOLE UNDER GRND PAD
13	47'-5" [14453]						1							1/2"	SJ INSPECTION



A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/23/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3029</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4032	065-ASTM A572 Gr65	42'-10" [13056]	1/4"	19 1/32" [484]	27 21/32" [702]	0.20100	18 3/8" [467]	26 23/32" [678]	0.19415
42444-4033	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	25 9/16" [649]	26 11/32" [669]	0.20100	24 11/16" [627]	25 15/32" [647]	0.19415



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	19.04" [484]	59" [1499]
	BOTTOM	19.61" [498]	60 3/4" [1543]

REV	DESCRIPTION	DRFT/DATE
D	ALIGNMENT WELD LOCATION CHANGED	SAN/06-28-22
C	ORDINATE DIMENSION UPDATED	SAN/06-16-22
B	TYPO	THO/06-13-22


PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	BZ 05/23/2022
CHECKED/DATE:	PT 06/16/2022
ENGINEER:	MELVIN PORTILLO

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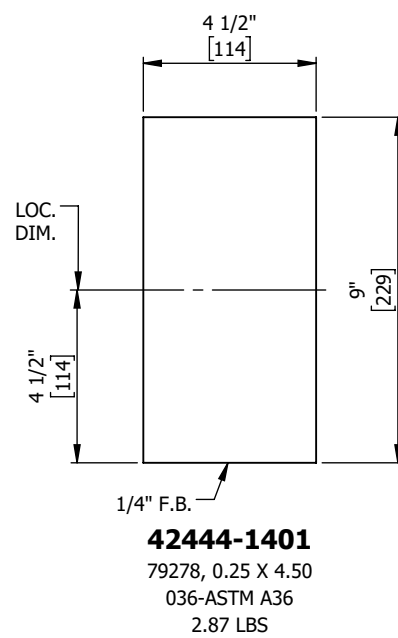
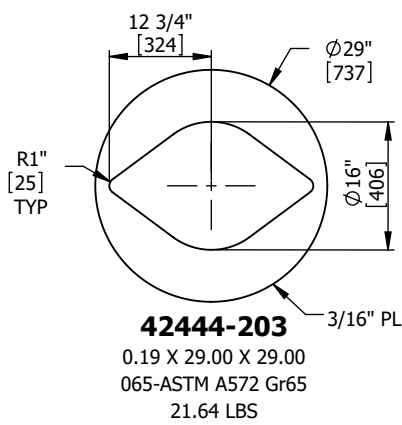
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 42'-10" LONG  
PBAS

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4032	1	TOWER PLATE TUBE	(2) 0.25 X 29.13 X 514.00 X 42.50	065-ASTM A572 Gr65	2660.31	2660.31	
2	42444-203	1	BEARING PLATE, 3/16" THK X 29" DIA	0.19 X 29.00 X 29.00	065-ASTM A572 Gr65	21.64	21.64	
3	42444-4033	1	GROUND SLEEVE	(2) 0.19 X 39.44 X 48.00 X 40.69	065-ASTM A572 Gr65	203.83	203.83	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
6	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	7.02	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2895.93	
TOTAL UNFINISHED WEIGHT							2900.00	
TOTAL FINISHED WEIGHT							3090.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-10" [864]													TOP SLIP JOINT LENGTH 34"		-	1
3	4'-1" [1245]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	 4'-1" [1245]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-3" [1295]						1							2" WELD BEAD		-	1
6	6'-7" [2007]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	23'-6 3/4" [7182]													APPROX. CENTER OF GRAVITY WELD		-	1
8	26'-10" [8179]						1							NAME PLATE	6	42444-1401	1
9	28'-10" [8788]						1							SS GROUND PAD 2-HOLE	5	78412	1
10	29'-10" [9093]													TOP OF GROUND SLEEVE	3	42444-4033	1
11	31'-10" [9703]													GROUND LINE		-	-
12	42'-4" [12903]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	42'-10" [13056]													TOWER PLATE TUBE	1	42444-4032	1
14	42'-10" [13056]													BEARING PLATE, 3/16" THK X 29" DIA / SECTION A-A	2	42444-203	1
15	42'-10 3/16" [13060]													NAME PLATE / SECTION A-A	6	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	28'-9 1/8" [8766]						1							9/16"	HOLE UNDER GRND PAD
2	28'-10 7/8" [8811]						1							9/16"	HOLE UNDER GRND PAD



REV	DESCRIPTION	DRFT/DATE
D	ALIGNMENT WELD LOCATION CHANGED	SAN/06-28-22
C	ORDINATE DIMENSION UPDATED	SAN/06-16-22
B	TYPO	THO/06-13-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	BZ 05/23/2022
CHECKED/DATE:	PT 06/16/2022
ENGINEER:	MELVIN PORTILLO

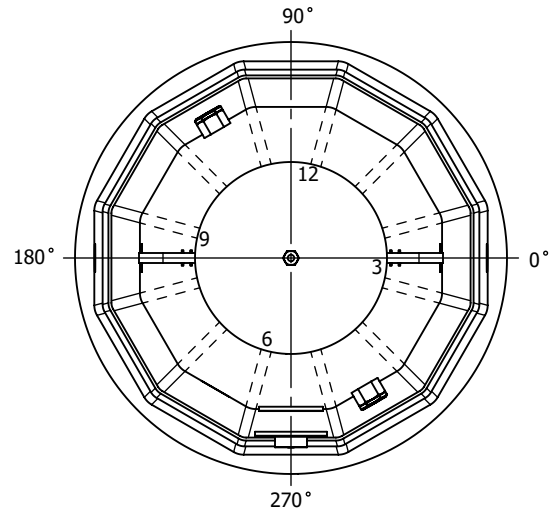
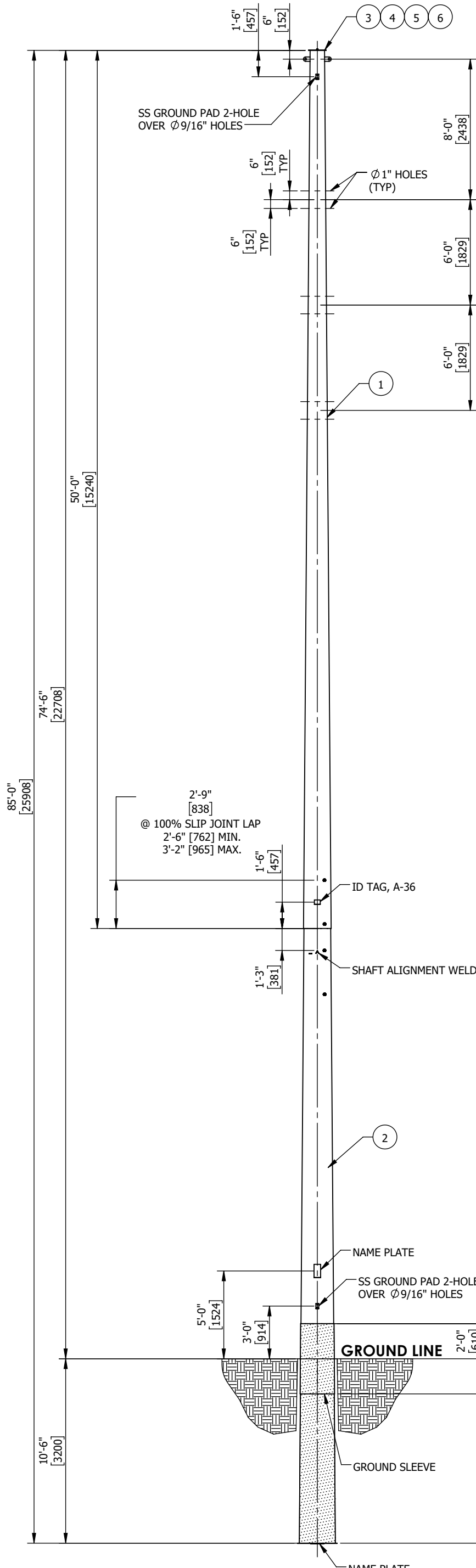
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**MEYER**  
UTILITY STRUCTURES

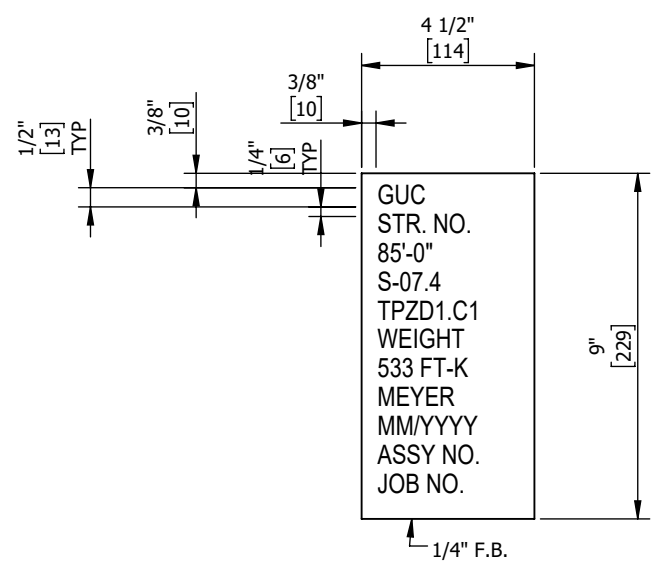
SHAFT ASSEMBLY, 42'-10" LONG  
PBAS

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0785S3GT	11.20	74'-6" [22708]	10 3/16" [259]	23 1/2" [597]	0.18700	9 27/32" [250]	22 11/16" [576]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**NAME PLATE**  
**42444-1401**

A	INITIAL RELEASE	SAN/06-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/23/2022	
	CHECKED/DATE: PT 06/28/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>85'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 POLE NO: 11.20</p>		
SHEET 1 OF 2	<b>42444-0785S3GT</b>	REV. <b>A</b>

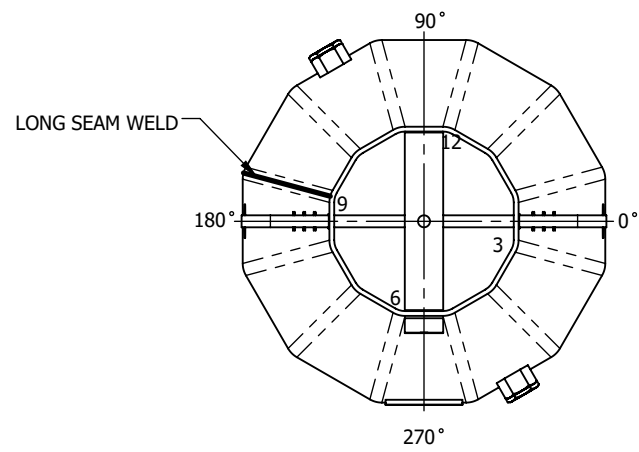
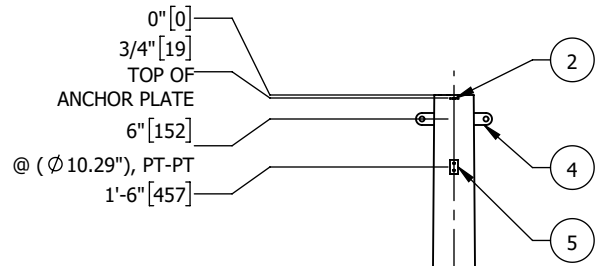
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3053	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2080.00	2080.00		
2	42444-3019	1	SHAFT ASSEMBLY, 37'-9" LONG	POLE-BASE 037.75 018.4 025.5 000		2600.00	2600.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								4690.00	

<b>A</b>	<b>INITIAL RELEASE</b>	<b>SAN/06-23-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ 06/23/2022	
CHECKED/DATE:	PT 06/28/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>85'-0" 115KV 3 PHASE TANGENT POST</b> TPZD1.C1 POLE NO: 11.20		
SHEET 2 OF 2	<b>42444-0785S3GT</b>	REV. <b>A</b>

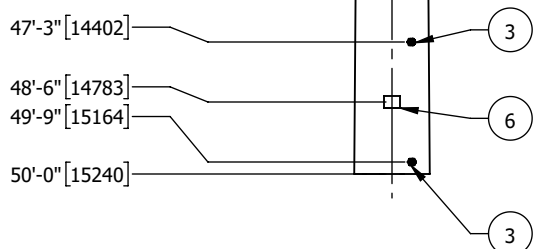
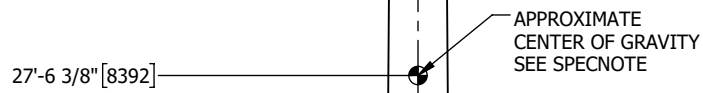


SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

A	INITIAL RELEASE	SAN/06-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/23/2022	
	CHECKED/DATE: PT 06/28/2022	
	ENGINEER: MELVIN PORTILLO	

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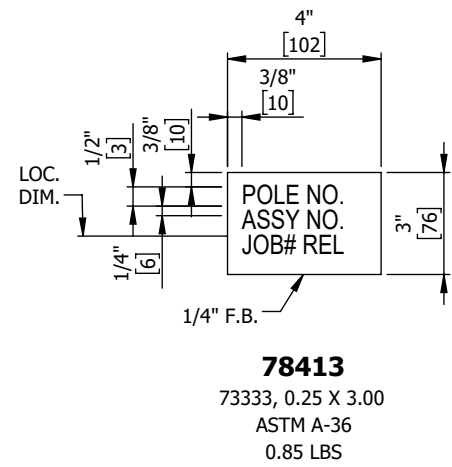
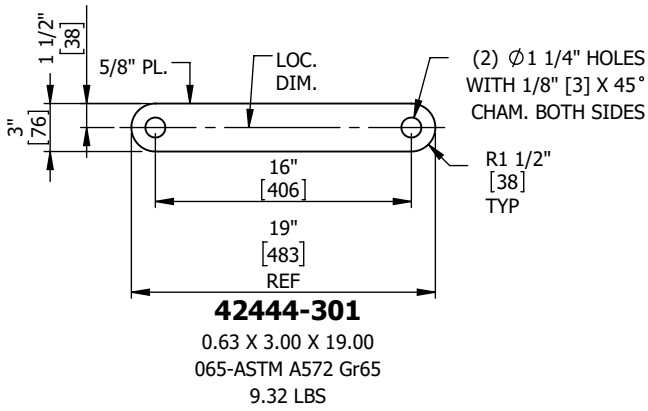
**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
5	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
6	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1950.16	
TOTAL UNFINISHED WEIGHT							1960.00	
TOTAL FINISHED WEIGHT							2080.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	4	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	5	78412	1
4	27'-6 3/8" [8392]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	47'-3" [14402]					1						1		JACKING NUT, 1" DIA.	3	74547	2
6	47'-3" [14402]	BOTTOM SLIP JOINT LENGTH 33"												-	1		
7	48'-6" [14783]						1							ID TAG, A-36	6	78413	1
8	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	49'-9" [15164]					1						1		JACKING NUT, 1" DIA.	3	74547	2
10	50'-0" [15240]	TOWER PLATE TUBE											1	42444-4028	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	8'-0" [2438]			1						1				1"	POST INSULATOR
2	9'-0" [2743]			1						1				1"	POST INSULATOR
3	14'-0" [4267]			1						1				1"	POST INSULATOR
4	15'-0" [4572]			1						1				1"	POST INSULATOR
5	20'-0" [6096]			1						1				1"	POST INSULATOR
6	21'-0" [6401]			1						1				1"	POST INSULATOR



A	INITIAL RELEASE	SAN/06-23-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/23/2022	
	CHECKED/DATE: PT 06/28/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3053</b>	REV. <b>A</b>

**GENERAL INFORMATION ON MANUFACTURING, MATERIALS, AND ASSEMBLY**

**MATERIALS:**

**1A: FOR GALVANIZED STRUCTURES:**

STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 1 1/4"	65 KSI	A572 MODIFIED TO LIMIT SILICON CONTENT TO 0.06%
PLATE > 1 1/4"	50, 60 KSI	A572
BOLTS ≤ 5/8"	92 KSI	A449*
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADE BC*
BOLTS > 2 1/2"	99 KSI	A354 GRADE BC*
QUICK PIN	92 KSI	AISI 4140/4340 (EQUIVALENT TO F3125 / A325 MATERIAL)
NUTS ≤ 5/8"	---	A563 GRADE C
NUTS ≥ 3/4"	---	A563 GRADE DH
NUTS (ANCHOR BOLTS)	---	A563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A563 GRADE C3
ANCHOR BOLTS	75 KSI	A615 GRADE 75
STEEL SHAPES	36 KSI	A36 or A572 or EQUIVALENT
PIPE	36, 50 KSI	A36, A53 GRADE B, A106 GRADE B, OR A501
STAINLESS STEEL SHAPES	30 KSI	
NON-STRUCTURAL MISC.	36 KSI	

**1B: FOR WEATHERING STEEL STRUCTURES:**

STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 3/4"	65 KSI	A871
BOLTS 1/2" DIA.	---	A307
PLATE > 3/4"	50, 60 KSI	A871, A588
BOLTS < 5/8"	92 KSI	A449*
BOLTS 5/8"	92 KSI	F3125, A325 TYPE 3
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADE BC MODIFIED TO PROVIDE WEATHERING PROPERTIES*
BOLTS > 2 1/2"	99 KSI	A354 GRADE BC MODIFIED TO PROVIDE WEATHERING PROPERTIES*
QUICK PIN	92 KSI	AISI 4140/4340 (EQUIVALENT TO F3125 / A325 MATERIAL)
NUTS < 5/8"	---	A563 GRADE C3
NUTS ≥ 5/8"	---	A563 GRADE C3
NUTS (ANCHOR BOLTS)	---	A563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A563 GRADE C3
ANCHOR BOLTS	75 KSI	A615 GRADE 75
STEEL SHAPES	50 KSI	A588 OR EQUIVALENT
PIPE	50 KSI	A847 OR EQUIVALENT
STAINLESS STEEL SHAPES	30 KSI	TYPE 304
NON-STRUCTURAL MISC	50 KSI	A588

\*BASED ON STRUCTURE AND CONNECTION DESIGN, F3125 BOLTS MAY BE SUBSTITUTED FOR A354 OR A449

**1C: FORGED RINGS (HOT ROLLED RINGS):** ASTM A1090

2. CHARPY IMPACT TEST REQUIREMENTS: MATERIAL FOR TUBE SHAFT, BASE PLATES, FLANGE PLATES, ARM BRACKET AND STRUCTURAL BRACKETS TESTED TO 15 FT-LBS AT -20 DEGREES F.

3. ALL PLATES TO HAVE A CHARPY V-NOTCH IMPACT VALUE OF 15 FT-LBS MINIMUM AT -20°F PER HEAT LOT TEST (UNLESS OTHERWISE NOTED).

**5. ASSEMBLY:**

A. FINAL WEIGHTS ON ERECTION DRAWINGS ARE ROUNDED UP TO THE NEXT 10 LBS.

B. FINISHED WEIGHTS ON ERECTION DRAWINGS ARE ESTIMATED. FINISHED WEIGHTS WILL VARY BASED ON THE THICKNESS OF GALVANIZING AND TOTAL SURFACE AREA OF SHAFT ASSEMBLIES.

C. CUSTOMER SHALL VERIFY THE FIT OF THEIR EQUIPMENT (INSULATORS, GUY WIRES, ETC.) TO ATTACHMENTS PROVIDED.

D. ALL STRUCTURE ARMS SHALL BE DAMPED AT ERECTION TIME. DAMPING MAY BE ACCOMPLISHED BY STRINGING, HANGING INSULATORS OR WEIGHTS, OR TYING ARMS OFF TO THE STRUCTURE AT ATTACHMENT POINTS.

**6. BOLT AND NUT TIGHTENING INFORMATION:**

THE NUTS ON ALL CONNECTION BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

A. ARM CONNECTIONS ARE DESIGNED TO ACCOMMODATE MEYER STANDARD MANUFACTURING TOLERANCES WHICH MAY RESULT IN GAPS BETWEEN THE BRACKET AND THE THROUGH VANGS. BOLT INSTALLATION AND TIGHTENING SHALL BE PERFORMED IN A SEQUENCE TO PROVIDE DISTRIBUTION OF THESE GAPS SO THAT A GAP DOESN'T EXCEED 1/4" ON EITHER SIDE OF THE BRACKET. THIS MAY BE ACCOMPLISHED BY TIGHTENING A PAIR OF BOLTS ON OPPOSITE SIDES OF A CONNECTION FOLLOWED BY SIMILAR PAIRS. THE ERECTOR IS RESPONSIBLE FOR DETERMINING THE REQUIRED SEQUENCE.

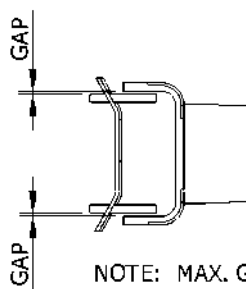
B. THE NUTS SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION, WITH THE EXCEPTION THAT THE PLIES DO NOT NEED TO BE BROUGHT INTO FIRM CONTACT. TO VERIFY THAT BOLTS ARE TENSIONED, THE ERECTOR SHALL "MATCH MARK" THE BOLTS AND NUTS BEFORE APPLYING THE FINAL TURN BASED ON THE DIAMETER AND LENGTH OF THE BOLT AS NOTED BELOW:

**FINAL TURN REQUIREMENTS**

**BOLT LENGTH**

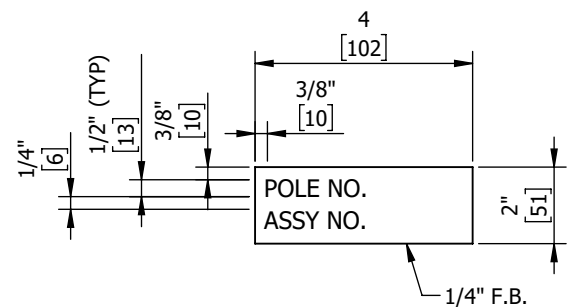
BOLT DIA.	1/3 NUT TURN	1/2 NUT TURN	2/3 NUT TURN
1"	0"-4"	4"-8"	8"-12"
1 1/2"	0"-6"	6"-12"	12"-18"

C. GAPS PRESENT AFTER THIS BOLT TIGHTENING PROCESS ARE ACCEPTABLE AS LONG AS THEY DO NOT EXCEED 1/4". ARM TO POLE CONNECTIONS ARE DESIGNED AND FABRICATED TO ACCOMMODATE A MAXIMUM 1/4" GAP BETWEEN EACH BRACKET AND THROUGH VANG.

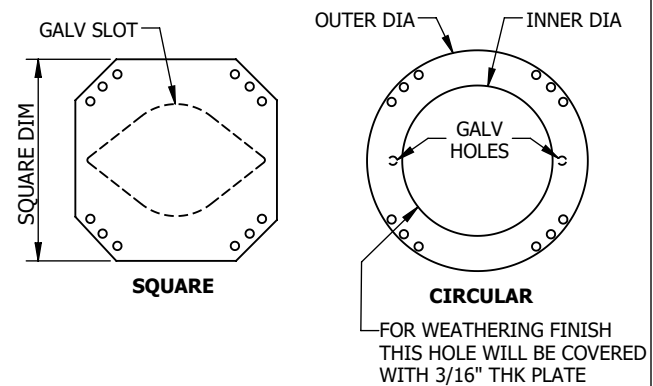
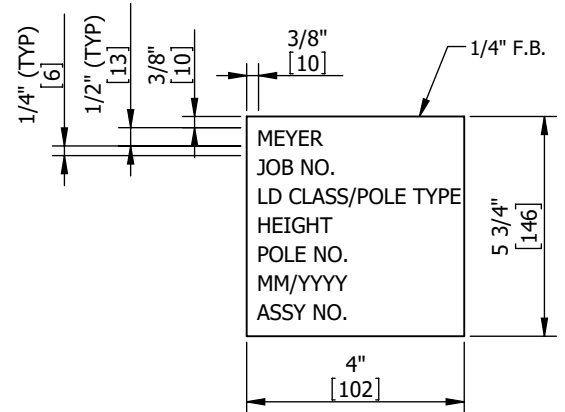


NOTE: MAX. GAP = 1/4"

**EXAMPLE ID TAG:**



**EXAMPLE NAME PLATE:**



REV	DESCRIPTION	DRFT/DATE
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19

PROJECT:	
CUSTOMER:	Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	----
DRAWN/DATE:	JRB 05/23/1994
CHECKED/DATE:	ST 01/31/2018
ENGINEER:	

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**MEYER**  
UTILITY STRUCTURES

GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION

D. NUTS FOR 2 1/4" DIAMETER ANCHOR BOLTS (ASTM A-615, GRADE 75) SHOULD BE TURNED 1/6 TURN AFTER APPLYING THE FORCE AS DESCRIBED IN AISC FOR THE SNUG TIGHT CONDITION.

E. LONG ARM CONNECTION BOLTS (L>8") SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION BUT DO NOT NEED TO BE FULLY TENSIONED BEYOND THE SNUG TIGHT CONDITION. GAPS PRESENT AFTER THIS BOLT TIGHTENING PROCESS ARE ACCEPTABLE AS LONG AS THEY DO NOT EXCEED 1/4". ARM TO POLE CONNECTIONS ARE DESIGNED AND FABRICATED TO ACCOMMODATE A MAXIMUM 1/4" GAP BETWEEN EACH BRACKET AND VANG

F. CROSSBRACE U-BOLT NUTS SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION BRINGING THE CROSS BRACES IN CONTACT WITH EACH OTHER. CARE SHALL BE TAKEN NOT TO OVER TIGHTEN THE U-BOLT AND DAMAGE THE CROSS BRACE.

7. FOR SLIP JOINTED POLES, SEE SHEETS SSG004 AND SSG005 FOR ASSEMBLY AND JACKING INFORMATION. MEYER APPROVED JACKS SHALL BE USED TO ASSEMBLE SLIP JOINTS.

8. STORAGE REQUIREMENT - HORIZONTAL STORAGE

A. STORAGE METHOD FOR STRUCTURES THAT ARE COATED WITH PAINT, OR OTHER PROTECTIVE OR BELOW GRADE COATINGS.

B. ALL STRUCTURES INCLUDING WEATHERING STEEL POLES SHALL BE RAISED OFF OF THE GROUND AND KEPT FREE FROM AREAS WITH MOISTURE PRESENT.

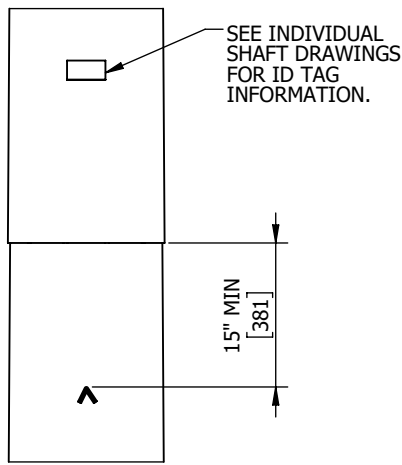
C. STRUCTURES LYING HORIZONTALLY FOR EXTENDED PERIODS OF TIME SHALL BE TARPED OR PROTECTED BY OTHER MEANS TO SHIELD THE COATINGS FROM THE ELEMENTS OF THE ENVIRONMENT.

9. LIFTING/HANDLING

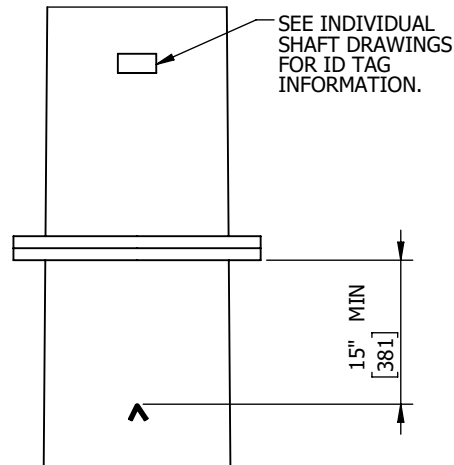
A. LIFTING, LOADING, UNLOADING AND HANDLING TO BE PERFORMED IN A SAFE MANNER WITH EQUIPMENT CAPABLE OF SAFELY LIFTING AND HANDLING THE MEMBERS AND SECTIONS.

B. WHEN LIFTING DEVICES, VANGS, SLOTS ARE PROVIDED ON A MEMBER OR SECTION, PAIRS OF DEVICES, VANGS, SLOTS SHALL BE USED TO LIFT OR HANDLING ANY MEMBER OR SECTION.

C. UNLESS NOTED OTHERWISE ON DRAWINGS, THE LIFTING DEVICES ARE TO BE USED TO LIFT OR HANDLE EACH SECTION OF THE STRUCTURE AND NOT LIFT THE FULLY ASSEMBLED STRUCTURE.



**EXAMPLE:  
SLIP JOINT MATCH MARK**



**EXAMPLE:  
FLANGE CONNECTION  
MATCH MARK**

REV	DESCRIPTION	DRFT/DATE																					
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20																					
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20																					
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19																					
<table border="1"> <tr> <td>PROJECT:</td> <td colspan="2"></td> </tr> <tr> <td>CUSTOMER:</td> <td colspan="2">Meyer Utility Structures</td> </tr> <tr> <td>CUSTOMER P.O. NO:</td> <td colspan="2"></td> </tr> <tr> <td>JOB NO:</td> <td colspan="2">----</td> </tr> <tr> <td>DRAWN/DATE:</td> <td>JRB</td> <td>05/23/1994</td> </tr> <tr> <td>CHECKED/DATE:</td> <td>ST</td> <td>01/31/2018</td> </tr> <tr> <td>ENGINEER:</td> <td colspan="2"></td> </tr> </table>			PROJECT:			CUSTOMER:	Meyer Utility Structures		CUSTOMER P.O. NO:			JOB NO:	----		DRAWN/DATE:	JRB	05/23/1994	CHECKED/DATE:	ST	01/31/2018	ENGINEER:		
PROJECT:																							
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<p>GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION</p>																							
SHEET 2 OF 4		SSG001																					
		REV. AD																					

**INFORMACION GENERAL DE MANUFACTURA MATERIALES Y ENSAMBLE**

MATERIALES:

1A: PARA ESTRUCTURAS GALVANIZADAS:

ESPECIFICACIONES DEL ACERO	CEDENCIA MIN.	ESPEC. ASTM
PLACA ≤ 1 1/4"	65 KSI	A572 MODIFICADO AL LIMITE DE CONTENIDO DE SILICON A 0.06%
PLACA > 1 1/4"	50, 60 KSI	A572
TORNILLOS ≤ 5/8"	92 KSI	A449*
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADO BC*
TORNILLOS > 2 1/2"	99 KSI	A354 GRADO BC*
PERNO	92 KSI	AISI 4140/4340 (EQUIVALENTE A MATERIAL F3125 / A325)
TUERCAS ≤ 5/8"	---	A563 GRADO C
TUERCAS ≥ 3/4"	---	A563 GRADO DH
TUERCAS (PERNOS DE ANCLAJE)	---	A563 GRADO DH
TUERCAS (P/GATEO EN JUN.TRASLAPADAS)	---	A563 GRADO C3
PERNOS DE ANCLAJE	75 KSI	A615 GRADO 75
PERFILES DE ACERO	36 KSI	A36 Ó A572 Ó EQUIVALENTE
TUBO	36, 50 KSI	A36, A53 GRADO B, A106 GRADO B, Ó A501
PERFILES DE ACERO INOXIDABLE	30 KSI	
MISELANEOS NO ESTRUCTURALES.	36 KSI	

1B: PARA ESTRUCTURAS DE ACERO RESISTENTE AL AMBIENTE:

ESPECIFICACIONES DEL ACERO	CEDENCIA MIN.	ESPEC. ASTM
PLATA ≤ 3/4"	65 KSI	A871
TORNILLOS 1/2" DIA.	---	A307
PLATA > 3/4"	50, 60 KSI	A871, A588
TORNILLOS < 5/8"	92 KSI	A449*
TORNILLOS 5/8"	92 KSI	F3125, A325 TIPO 3
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADO BC MODIFICADO P/PROVEER PROPIEDADES DE RESISTENCIA AL AMBIENTE*
TORNILLOS > 2 1/2"	99 KSI	A354 GRADO BC MODIFICADO P/PROVEER PROPIEDADES DE RESISTENCIA AL AMBIENTE*
PERNO	92 KSI	AISI 4140/4340 (EQUIVALENTE A F3125 / A325 MATERIAL)
TUERCAS < 5/8"	---	A563 GRADO C3
TUERCAS ≥ 5/8"	---	A563 GRADO C3
TUERCAS (PERNOS DE ANCLAJE)	---	A563 GRADO DH
TUERCAS (P/GATEO EN JUN. TRASLAPADAS)	---	A563 GRADO C3
PERNOS DE ANCLAJE	75 KSI	A615 GRADO 75
PERFILES DE ACERO	50 KSI	A588 Ó EQUIVALENTE
TUBO	50 KSI	A847 Ó EQUIVALENTE
PERFILES DE ACERO INOXIDABLE	30 KSI	TIPO 304
MISELANEOS NO ESTRUCTURALES	50 KSI	A588

\*BASADO EN DISEÑO DE ESTRUCTURAS Y CONEXIONES, TORNILLOS F3125 PODRIAN SER SUSTITUIDOS POR A354 O A449

1C: ANILLOS FORJADOS (ANILLOS ROLADOS EN CALIENTE): ASTM A1090

- REQUERIMIENTOS PARA PRUEBA DE IMPACTO CHARPY: PROBAR A 15 FT-LBS A LOS -20 GRADOS FARENHEITH EL MATERIAL PARA FUSTES, PLACAS BASE, PLACAS DE BRIDA, BRACKETS DE BRAZOS Y BRACKETS ESTRUCTURALES.
- TODAS LAS PLACAS TENDRAN UN VALOR DE IMPACTO CHARPY V-NOTCH DE 15 FT-LBS. MINIMO A -20°F POR PRUEBA DE LOTE DE COLADA (A MENOS QUE SE INDIQUE OTRA COSA)

5. ENSAMBLE:

- LOS PESOS FINALES EN DIBUJOS DE MONTAJE SE REDONDEAN HACIA ARRIBA A LAS PROXIMAS 10 LBS.
- LOS PESOS FINALES EN DIBUJOS DE MONTAJE SON ESTIMADOS. LOS PESOS TERMINADOS PODRIAN VARIARAN BASADOS EN EL ESPESOR DEL GALVANIZADO Y EL TOTAL DEL AREA DE LA SUPERFICIE DE LOS ENSAMBLES DE LAS SECCIONES.
- EL CLIENTE DEBERA VERIFICAR EL AJUSTE DE SU EQUIPO (AISLADORES, CABLES DE RETENCION, ETC.) A LA CONEXION PROPORCIONADA.
- TODOS LOS BRAZOS DE LA ESTRUCTURA DEBEN SER ASEGURADOS AL MOMENTO DEL MONTAJE. EL ASEGURAMIENTO PUEDE SER COMPLEMENTADO SUJETANDOLOS CON CUERDAS, COLGANDO AISLADORES O CONTRAPESOS O FIJANDO LOS BRAZOS A LA ESTRUCTURA EN LOS PUNTOS DE SUJECION.

6. INFORMACION DE APRIETE DE TORNILLOS Y TUERCAS:

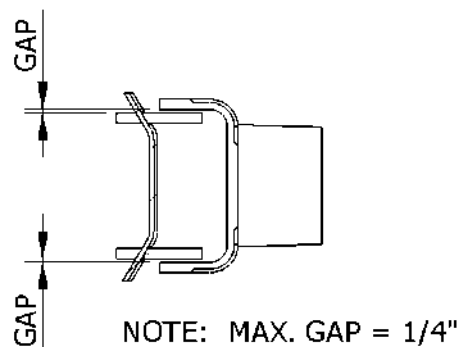
LAS TUERCAS EN TODOS LOS TORNILLOS DE CONEXION DEBEN SER INSTALADAS DE ACUERDO A LO SIGUIENTE:

- LAS CONEXIONES DE BRAZOS SON DISEÑADAS PARA CUMPLIR LAS TOLERANCIAS ESTANDAR DE MANUFACTURA DE MEYER LO CUAL QUIZA RESULTEN SEPARACIONES ENTRE BRACKETS Y LOS VANGS. LA INSTALACION Y APRETADO DE TORNILLO DEBE SER REALIZADO EN UNA SECUENCIA PARA PROVEER UNA DISTRIBUCION DE ESTAS SEPARACIONES TANTO QUE LA SEPARACION NO EXCEDA 1/4" EN CUALQUIER LADO DEL BRACKET. ESTO SE PUEDE LOGRAR POR EL APRIETE DE UN PAR DE TORNILLOS EN LADOS OPUESTOS DE UNA CONEXIÓN SEGUIDA POR PAREJAS SIMILARES. EL INSTALADOR ES RESPONSABLE DE DETERMINAR LA SECUENCIA REQUERIDA.
- LAS TUERCAS DEBEN SER APRETADAS CON UNA FUERZA COMO ES DESCRITA POR EL AISC PARA LA CONDICION DE AJUSTE APRETADO, CON LA EXCEPCION QUE LAS CAPAS NO NECESIAN ESTAR EN CONTACTO FIRME. PARA VERIFICAR QUE LOS TORNILLOS ESTAN TENSIONADOS, EL INSTALADOR DEBERA "MARCAR" LOS TORNILLOS Y TUERCAS ANTES DE APLICAR EL GIRO FINAL BASADO EN EL DIAMETRO Y LONGITUD DEL TORNILLO COMO SE MENCIONA ABAJO:

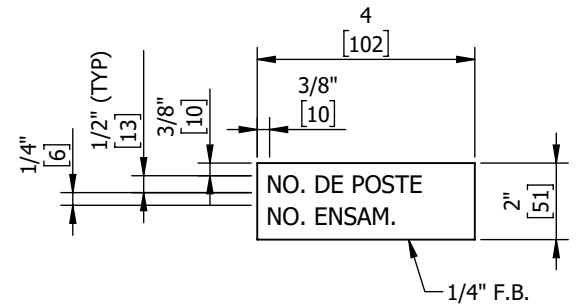
REQUERIMIENTOS DEL GIRO FINAL

LONGITUD DEL TORNILLO	GIRAR 1/3 DE TUERCA			GIRAR 1/2 TUERCA		GIRAR 2/3 DE TUERCA	
DIA. DEL TORNILLO.	GIRAR 1/3 DE TUERCA		GIRAR 1/2 TUERCA		GIRAR 2/3 DE TUERCA		
1"	0"-4"		4"-8"		8"-12"		
1 1/2"	0"-6"		6"-12"		12"-18"		

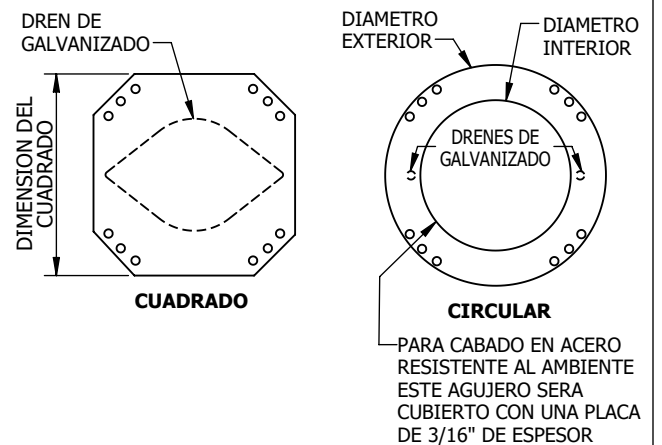
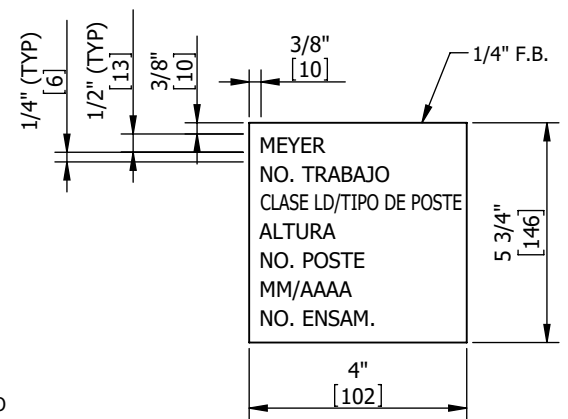
- LAS SEPARACIONES PRESENTES DESPUES DE ESTE PROCESO DE APRIETE DE TORNILLOS ES ACEPTABLE, SIEMPRE QUE NO EXCEDA DE 1/4". LAS CONECCIONES DE BRAZO A POSTE SON DISEÑADAS Y FABRICADAS PARA EN EL ACOMODO TENER UNA SEPARACION MAX. DE 1/4" ENTRE CADA BRACKET Y VANG.



**EJEMPLO DE ID TAG:**



**EJEMPLO DE PLACA ID:**



AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19
REV	DESCRIPTION	DRFT/DATE
PROJECT:		
CUSTOMER: Meyer Utility Structures		
CUSTOMER P.O. NO:		
JOB NO: ----		
DRAWN/DATE: JRB 05/23/1994		
CHECKED/DATE: ST 01/31/2018		
ENGINEER:		
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<b>MEYER</b>		
<b>UTILITY STRUCTURES</b>		
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION		
SHEET 3 OF 4	<b>SSG001</b>	REV. <b>AD</b>

D. LAS TUERCAS DE 2 1/4" DE DIAMETRO PARA PERNOS DE ANCLAJE (ASTM A-615, GR.75) DEBERAN SER GIRADAS 1/6 DE GIRO DESPUES DE APLICADA LA FUERZA DESCRITA EN AISC PARA UNA CONDICION DE AJUSTE APRETADO.

E. CONECCION DE BRAZO CON TORNILLOS LARGOS (L>8") DEBERAN SER APRETADOS CON UNA FUERZA COMO SE DESCRIBE POR EL AISC PERO NO NECESITA ESTAR TOTALMENTE TENSIONADO MAS ALLA DE LA CONDICION DE AJUSTE APRETADO. LAS SEPARACIONES PRESENTES DESPUES DE ESTE PROCESO DE APRIETE DE TORNILLOS ES ACEPTABLE, SIMPRE QUE NO SE EXCEDA DE 1/4". LAS CONECCIONES DE BRAZO A POSTE SON DISEÑADAS Y FABRICADAS PARA EN EL ACOMODO TENER UNA SEPARACION MAX. DE 1/4" ENTRE CADA BRACKET Y VANG.

F. LAS TUERCAS DE PERNOS EN U EN REFUERZO CRUZADO SE DEBEN APRETAR CON LA FUERZA QUE DESCRIBA AISC PARA QUE SE ENCUENTREN EN LA CONDICION DE AJUSTE APRETADO QUE TRAIGAN LOS REFUERZOS CRUZADOS EN CONTACTO UNO CON OTRO. SE DEBERA TENER CUIDADO DE NO SOBREPRETAR EL PERNO EN U Y DAÑAR EL REFUERZO CRUZADO

7. PARA POSTES DE JUNTAS TRASLAPADAS, VER HOJAS SSG004 Y SSG005 PARA INFORMACION DE ENSAMBLE Y GATEO. LOS GATOS APROBADOS POR MEYER DEBERAN SER USADOS PARA EL ENSAMBLE DE JUNTAS TRASLAPADAS

8. REQUERIMIENTO DE ALMACENAJE - ALMACENAJE HORIZONTAL

A. METODO DE ALMACENAJE PARA ESTRUCTURAS QUE SON RECUBIERTAS CON PINTURA, U OTRA PROTECCION O RECUBRIMIENTOS DE BAJO GRADO.

B. TODAS LAS ESTRUCTURAS INCLUYENDO POSTES DE ACERO RESISTENTE AL AMBIENTE DEBRAN SER LEVANTADOS DEL SUELO Y MANTENIDOS EN AREAS LIBRES DE HUMEDAD.

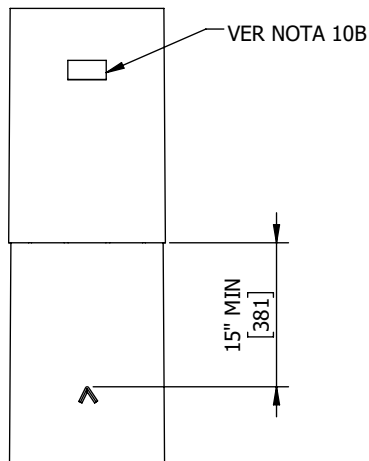
C. ESTRUCTURAS TENDIDAS HORIZONTALMENTE POR LARGOS PERIODOS DE TIEMPO DEBRAN SER CUBIERTAS POR CUALQUIER MEDIO PARA PROTEGER LOS RECUBRIMIENTOS DE LOS ELEMENTOS DEL AMBIENTE.

9. IZAJE/MANEJO

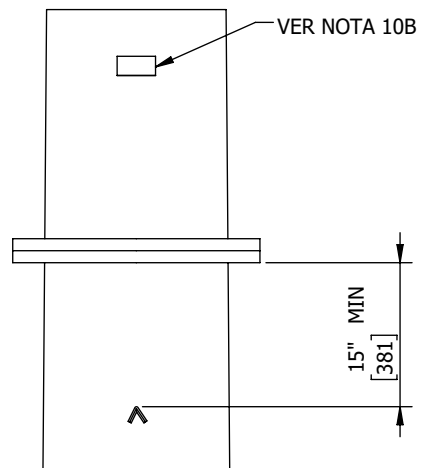
A. IZAJE, CARGADO, DESCARGADO Y MANEJO DEBERA SER DESEMPEÑADO DE MANERA SEGURA CON EQUIPO CAPAZ DE IZAR Y MANIPULAR CON SEGURIDAD MIEMBROS Y SECCIONES

B. CUANDO DISPOSITIVOS DE IZAJE, VANGS, RANURAS SON PROVEIDOS EN UN MIEMBRO O SECCION, PARES DE DISPOSITIVOS, VANGS, RANURAS SE DEBEN USAR PARA IZAR O MANIPULAR CUALQUIER MIEMBRO O SECCION.

C. A MENOS QUE SE INDIQUE OTRA COSA EN LOS DIBUJOS, LOS DISPOSITIVOS DE IZAJE DEBERAN SER USADOS PARA IZAR O MANEJAR CADA SECCION DE LA ESTRUCTURA Y NO IZAR LA ESTRUCTURA COMPLETAMENTE ENSAMBLADA.

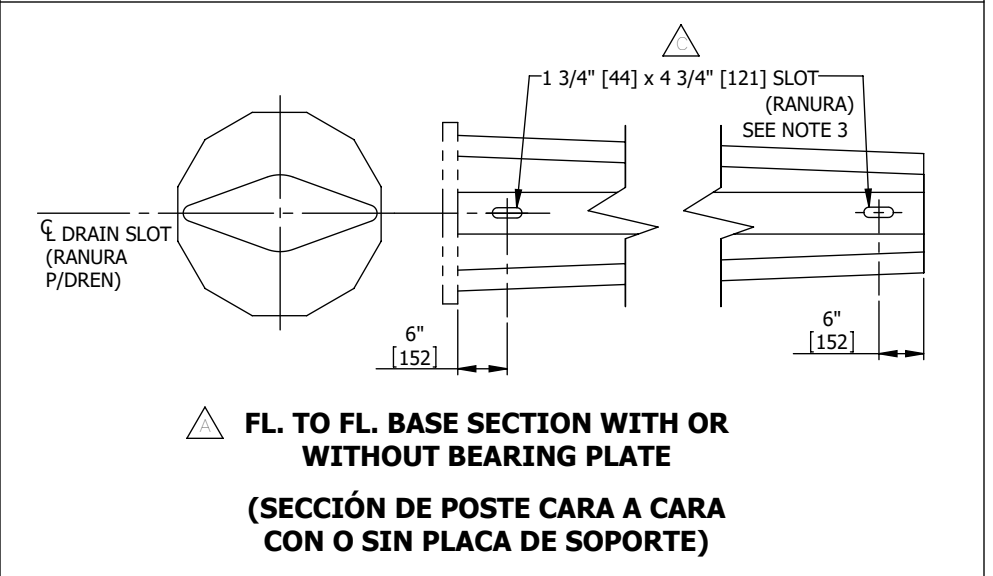
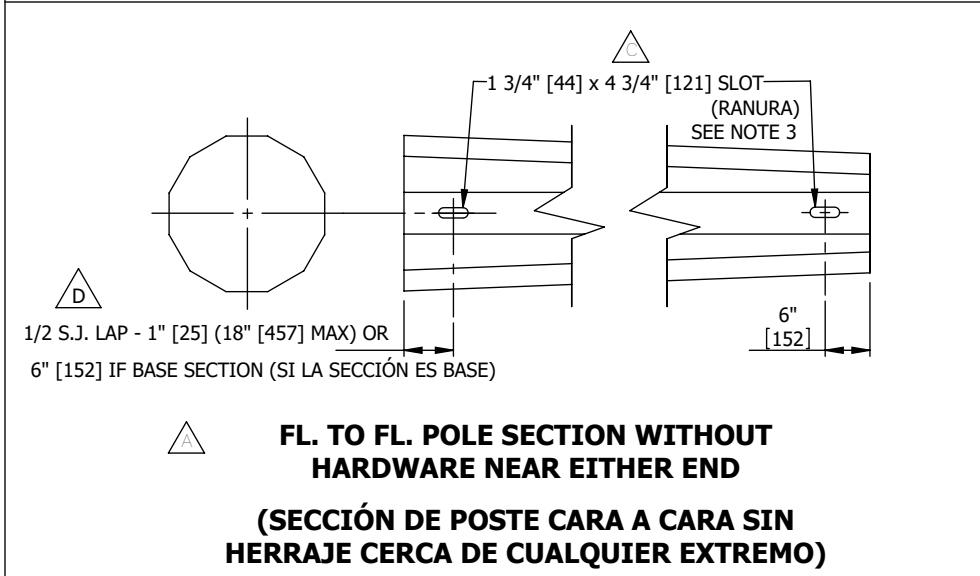
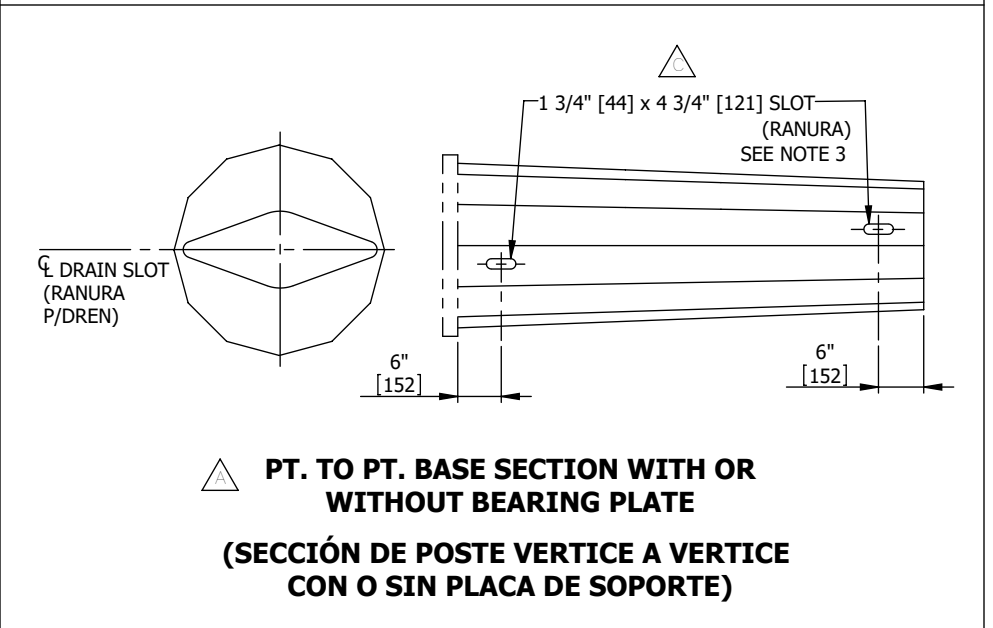
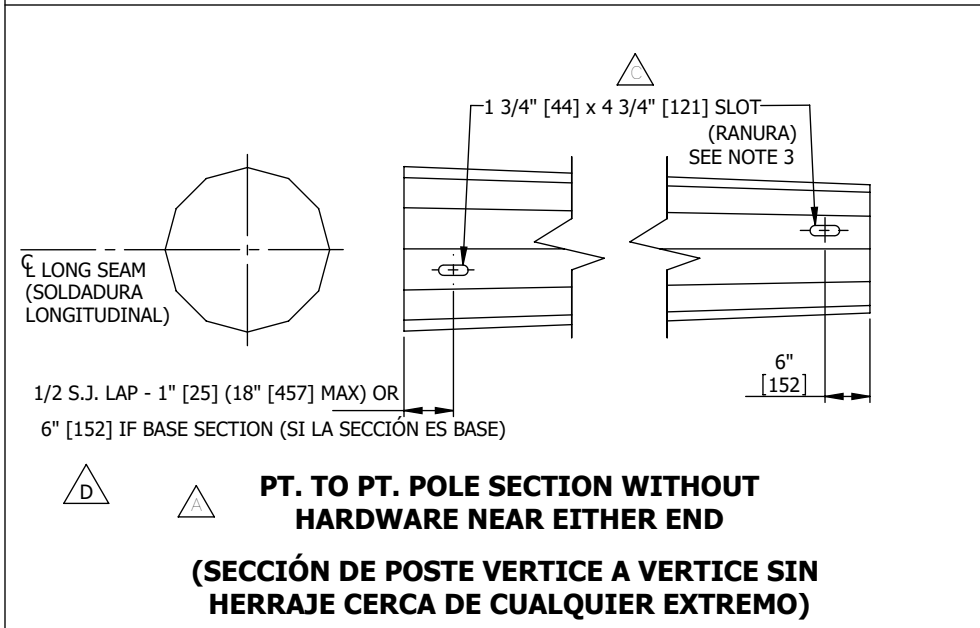
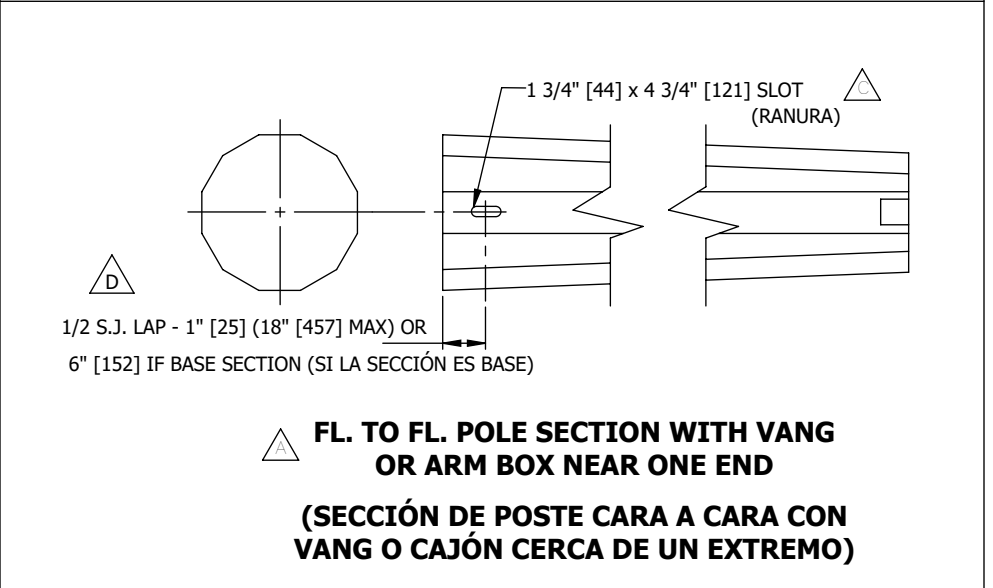
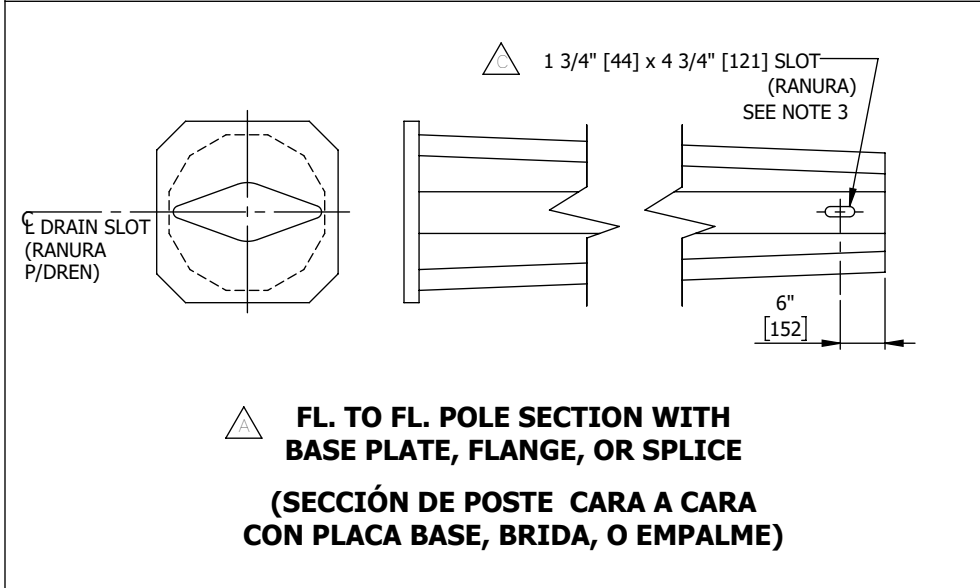
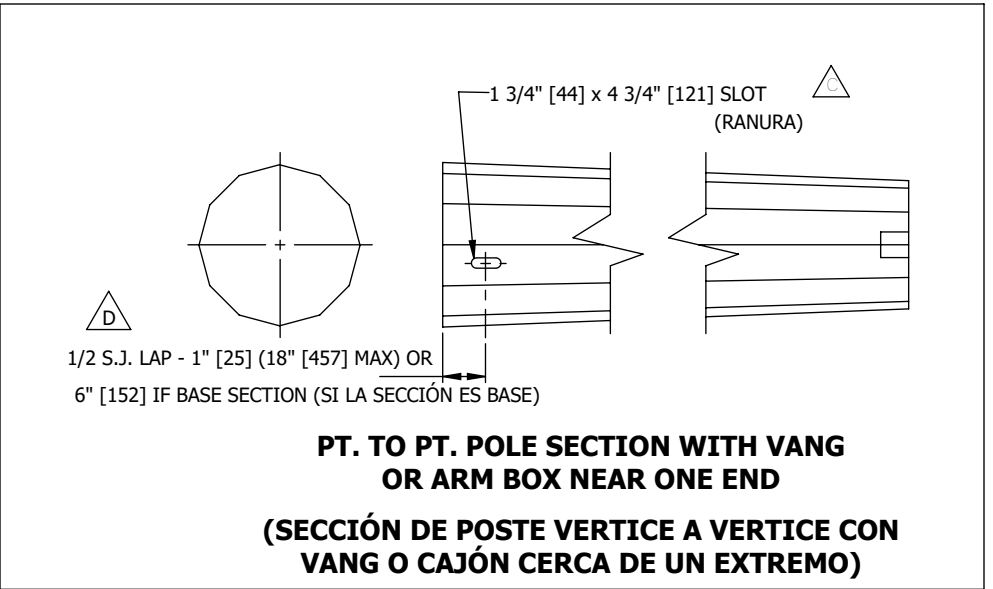
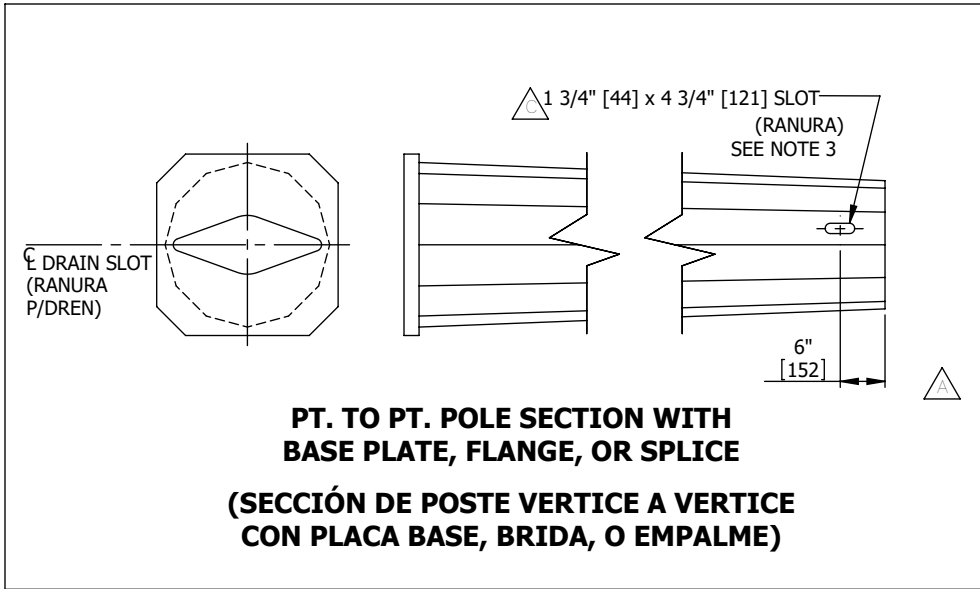


**EJEMPLO:  
TRANSLAPE MARCA  
DE COINCIDENCIA**



**EJEMPLO:  
CONEXION CON BRIDA  
MARCA DE COINCIDENCIA**

REV	DESCRIPTION	DRFT/DATE																					
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20																					
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20																					
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19																					
<table border="1"> <tr> <td>PROJECT:</td> <td colspan="2"></td> </tr> <tr> <td>CUSTOMER:</td> <td colspan="2">Meyer Utility Structures</td> </tr> <tr> <td>CUSTOMER P.O. NO:</td> <td colspan="2"></td> </tr> <tr> <td>JOB NO:</td> <td colspan="2">----</td> </tr> <tr> <td>DRAWN/DATE:</td> <td>JRB</td> <td>05/23/1994</td> </tr> <tr> <td>CHECKED/DATE:</td> <td>ST</td> <td>01/31/2018</td> </tr> <tr> <td>ENGINEER:</td> <td colspan="2"></td> </tr> </table>			PROJECT:			CUSTOMER:	Meyer Utility Structures		CUSTOMER P.O. NO:			JOB NO:	----		DRAWN/DATE:	JRB	05/23/1994	CHECKED/DATE:	ST	01/31/2018	ENGINEER:		
PROJECT:																							
CUSTOMER:	Meyer Utility Structures																						
CUSTOMER P.O. NO:																							
JOB NO:	----																						
DRAWN/DATE:	JRB	05/23/1994																					
CHECKED/DATE:	ST	01/31/2018																					
ENGINEER:																							
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<p><b>MEYER</b> UTILITY STRUCTURES</p>																							
<p>GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION</p>																							
SHEET 4 OF 4		REV. <b>AD</b>																					



NOTES:

- LIFTING SLOT MAY ALSO BE USED TO AIDE IN ERECTION OF POLE.
- LIFTING SLOTS ARE TO BE LOCATED ON BOTH SIDES OF POLE, 180° APART.
- FOR POLE TOP DIAMETERS ≤11", LIFTING SLOT NEAR POLE TOP TO BE 1 1/2" [38] x 4" [102].
- LIFTING SLOTS AT THE TOP AND BOTTOM OF A SECTION MUST BE WITHIN 1 FLAT OF EACH OTHER. THE LIFTING SLOT AT THE LOWEST ELEVATION ON THE BASE SECTION MUST ALIGN WITH THE GALV SLOT DRAINAGE ON THE BEARING PLATE.

NOTAS:

- LAS RANURAS DE IZAJE TAMBIEN SE PUEDE UTILIZAR PARA AYUDAR EN EL MONTAJE DEL POSTE.
- LAS RANURAS DE IZAJE DEBEN SER LOCALIZADAS EN AMBOS LADOS DEL POSTE, SEPARADAS 180°.
- PARA DIAMETROS DE SECCIONES SUPERIORES DE POSTE < 11", LAS RANURAS DE IZAJE CERCA DE LA PUNTA SERAN DE 1 1/2" [38] x 4" [102].
- LAS RANURAS DE IZAJE EN LA PARTE SUPERIOR E INFERIOR DE UNA SECCION DEBERAN ESTAR DENTRO DE UN MISMO PLANO. LA RANURA DE IZAJE EN LA ELEVACION MAS BAJA DE LA SECCION BASE DEBERA ESTAR ALINEADA CON LA RANURA DE DRENAJE PARA EL GALVANIZADO DE LA PLACA DE SOPORTE.

F	ADDED NOTE 4.	RB/01-14-22
E	UPDATE COMPANY NAME	WR/12-19-18
D	REVISE LIFTING SLOT LOCATION	WR/10-18-18
REV	DESCRIPTION	DRFT/DATE

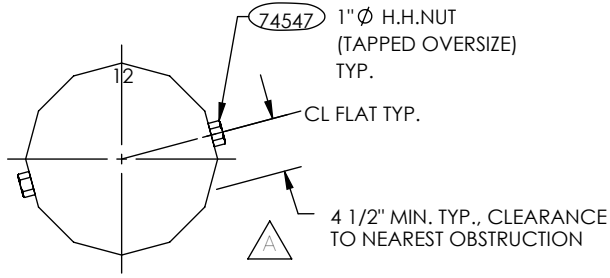
PROJECT:		
CUSTOMER:	Meyer Utility Structures	
CUSTOMER P.O. NO.:		
JOB NO.:	----	
DRAWN/DATE:	JRB	05/23/1994
CHECKED/DATE:	-	-
ENGINEER:		

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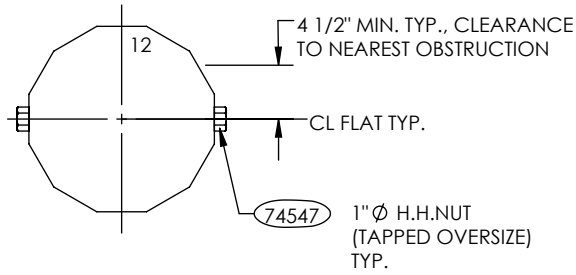
**MEYER**  
UTILITY STRUCTURES

GALVANIZED POLE  
LIFTING REQUIREMENTS  
(REQUERIMIENTOS DE IZAJE PARA POSTES GALVANIZADOS)

**ONLY MEYER JACKS ARE RECOMMENDED FOR USE ON MEYER POLES. FOR MEYER JACKING INSTRUCTIONS REFER TO SSG005**



STANDARD LOCATION (POINT-POINT)



STANDARD LOCATION (FLAT-FLAT)

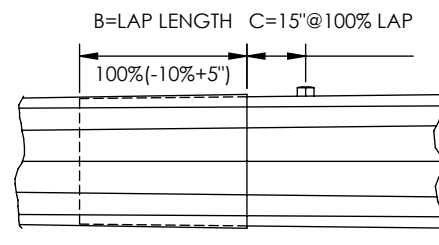
**JACKING NUT ORIENTATION**  
NUTS MUST BE OPPOSITE EACH OTHER.

NOTES:

1. ALL NUTS MUST BE ORIENTED SO THAT TWO FLATS ARE PERPENDICULAR TO THE POLES LONG AXIS.
2. JACKING NUT JIG MUST BE USED TO MOUNT NUTS.
3. IF THERE ARE 2 SETS OF JACKING NUTS (8 NUTS TOTAL) THEN 2 SLIP JOINT JACKS (ONE COMPLETE TMUS UNIT) MUST BE USED TO JACK THE POLE TOGETHER. SECTIONS WHICH CONTAIN 4 SETS OF JACKING NUTS (16 NUTS TOTAL) THEN 4 SLIP JOINT JACKS (TWO COMPLETE MUS UNITS) MUST BE USED TO JACK THE POLE TOGETHER.
4. SLIP JOINT JACK MUST BE SEATED FLUSH AGAINST THE TOWER WALL (SEE DETAIL 5/SSG005). **WARNING:** DO NOT ATTACH SLIP JOINT JACKS TO THE TOP OF THE JACKING NUTS AS THIS MAY CAUSE THE JACKING NUT TO FAIL PREMATURELY.
5. THE SLIPJOINT SHALL BE TIGHT WITHOUT MISALIGNMENT BETWEEN THE MATING POLE SECTIONS. THERE SHALL BE NO GAPS EXCEEDING 1/4". ANY GAPS SHALL BE LIMITED TO 2 FLATS OR LESS.



EXAMPLE: 100% LAP = 5'-6" (66")  
TO BE WITHIN TOLERANCE, THE SLIPJOINT LAP "B", MUST BE BETWEEN 59.4" (66"-6.6") AND 71" (66"+5"). THUS, THE DISTANCE BETWEEN THE BOTTOM OF THE FEMALE JOINT AND THE CENTER OF THE TOP JACKING NUT ON THE MALE SECTION "C" MUST BE BETWEEN 21.6" (15"+6.6") AND 10" (15"-5").

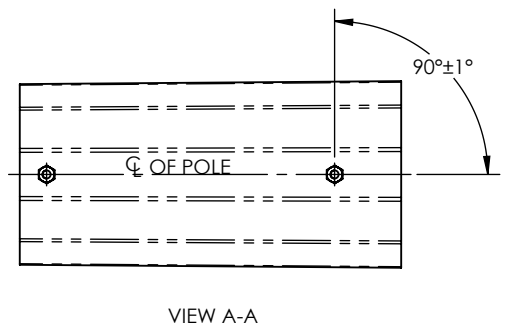
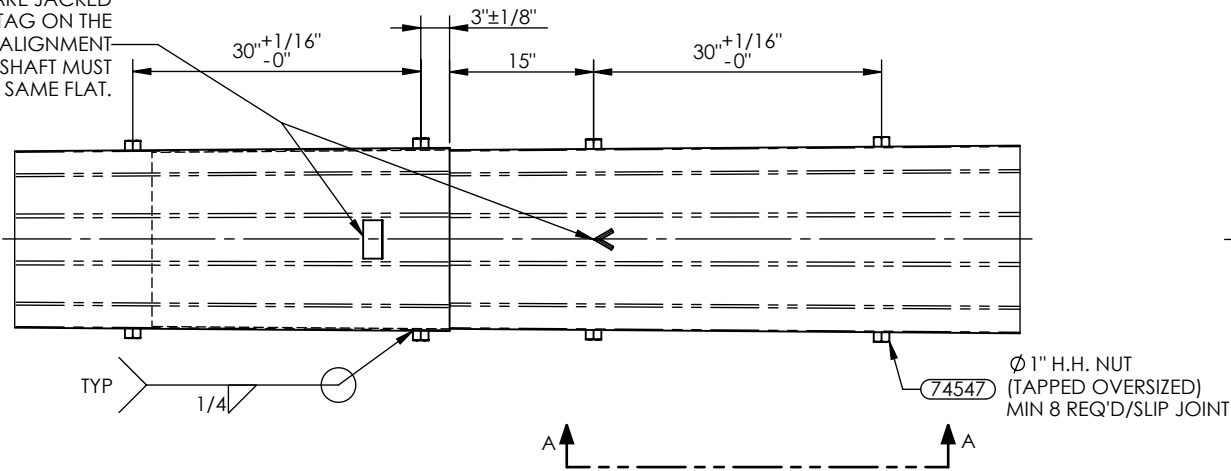


EXAMPLE:	100% LAP	MIN.LAP(-10%)	MAX.LAP(+5")
B =	66"	59.4"	71"
C =	15"	21.6"	10"



7. IT IS RECOMMENDED THAT THE CONTRACTOR KEEP RECORDS THAT DOCUMENT THE NUMBER OF JACKS USED, THE AMOUNT OF TOTAL FORCE APPLIED, AND THE DIMENSION OF THE LAP AFTER JACKING.

WHEN SECTIONS ARE JACKED TOGETHER THE ID TAG ON THE FEMALE SHAFT & ALIGNMENT WELD ON THE MALE SHAFT MUST BE IN LINE ON THE SAME FLAT.



**JACKING NUT LOCATIONS**

REV	DESCRIPTION	DRFT/DATE
J	REVISED VIEW TO SHOW ID TAG & ALIGNMENT WELD	RB/03-08-21
H	UPDATED COMPANY NAME	WR/12-20-18
G	REVISED TOLERANCE	DT/10-13-17

PROJECT:	
CUSTOMER:	Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	
DRAWN/DATE	JRB 05/23/1994
CHECKED/DATE:	- -
ENGINEER:	

# MEYER

## UTILITY STRUCTURES

### JACKING NUT LOCATIONS

SHEET 1 OF 1	<b>SSG004</b>
--------------	---------------



<b>MEYER UTILITY STRUCTURES STANDARD WELDS</b>	
<b>DESCRIPTION</b>	<b>SHEET NO.</b>
<b>STANDARD WELD INDEX</b>	1
<b>FILLET WELDS - FW1 - FW6</b> - GENERAL NOTES, NAME PLATES/ID TAGS, GROUND PADS/TAB, CLIMBING PAD, NON-STRUCTURAL POLE CAP, BEARING PLATE, BP CUTOUT COVER PLATE, SEALER PLATE, STRUCTURAL POLE CAP, ARM END PLATE, POLE CAP ANCHOR, JACKING NUT.	2
<b>FILLET WELDS - FW7 - FW14</b> - NUT TO POLE FACE, NUT TO ARM SHANK, LD ARM - BRKT & END PLATE TO ARM SHANK, BAIL STEP & STEP LUG (NO BEVEL), HAND GRAB, CHAIN DAMPER, SS HAND GRAB, SADDLE BRKT, T-VANG, SLIDE OVER VANG	3
<b>LONG SEAMS &amp; CJP -LS1 &amp; LS2, CP1 - CP3</b> -SQ. TUBE LS, 8, 12, 16 SIDED LS, FEMALE SJ LS, CJP TUBE TO ARM BRKT, BASE PLATE, FLANGE PLATE, DIAPHRAM PLATE, CIRCUMFERENTIAL WELD, BASE PLATE, FLANGE PLATE, DIAPHRAM PLATE, CIRCUMFERENTIAL WELD, 3-PC MT CHANNEL	4
<b>POLE HARDWARE - HH1 &amp; HH2, MB1 - MB4, GS1</b> - HAND HOLE, HAND HOLE TO TUBE, U-SHAPED VERT. BRKT ON ANGLE, U-SHAPED VERT. BRKT ON FLAT, U-SHAPED HORZ. BRKT, 2-PC BRKT, GRD SLEEVE W/O BASE PLATE	5
<b>VANG &amp; DBLR, THRU PIPES, X BRACE - VD1, PS1 &amp; PS2, CB1</b> - VANG & DOUBLER, THRU PIPE W/ DOUBLER, THRU PIPE TO TUBE, X BRACE THRU VANG	6
<b>ARM MOUNTING - G1 - G3, HG1, WR1</b> - THROUGH PLATE GUSSETS, S & C TYPE THRU PLATE, GUSSETS, MOUNT CHANNEL GUSSET, ROUND ROD TO MT CHANNEL, SINGLE PC WRAP	7
<b>ARM MOUNTING - WB1, AB1, AB2, AB3</b> - WRAP ARM BOX, STD ARM BOX -2 FL W/SEALER, STD ARM BOX - 2 FL W/O SEALER, STD ARM BOX - SINGLE FLAT	8
<b>DROP BRACKETS - DB1 &amp; DB2</b> - SMALL, MEDIUM & LARGE DROP BRACKETS	9
<b>THROUGH VANGS</b> - TOWER PLATE < 3/8", TOWER PLATE ≥ 3/8"	10
<b>THROUGH PLATES</b> - TOWER PLATE < 3/8", TOWER PLATE ≥ 3/8"	11
<b>NOTES</b> - THROUGH VANGS & PLATES WELDING NOTES	12

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO:	-
JOB NO:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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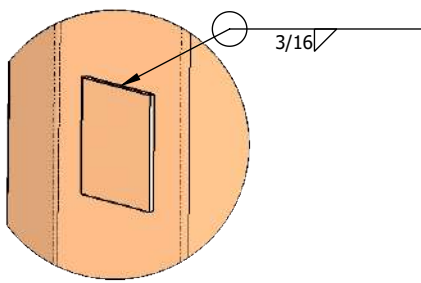
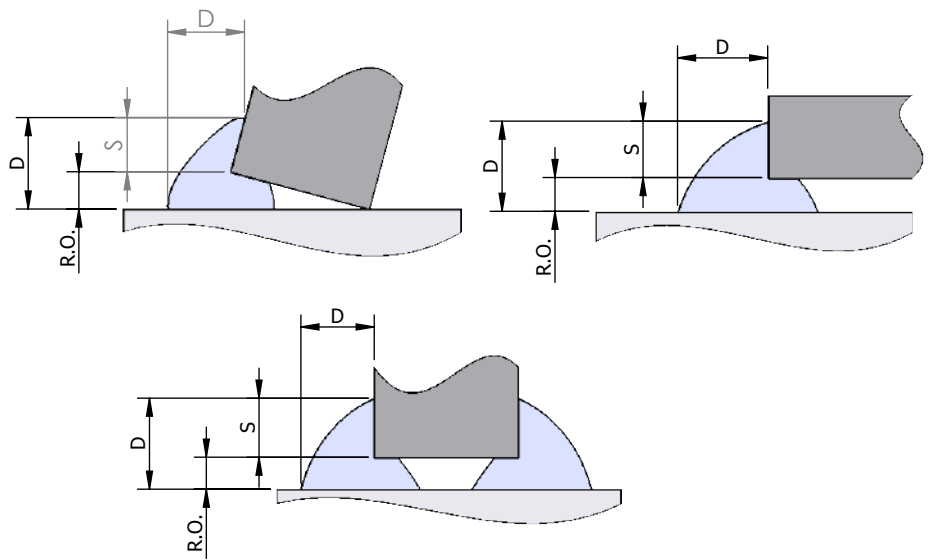
STANDARD WELDING DETAILS

# FILLET WELDS

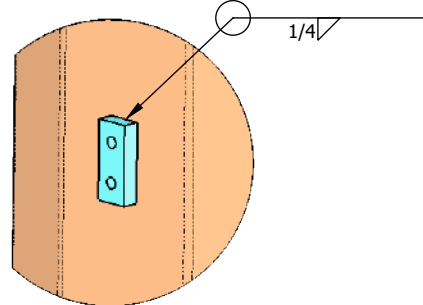
**FW1**

**GENERAL NOTES**

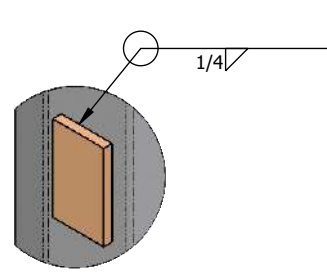
1. WELDING PROCEDURES USED FOR PRIMARY JOINTS SHALL BE QUALIFIED IN ACCORDANCE WITH THE AWS D1.1 LATEST EDITION. (AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE)
2. WHEN ROOT OPENING IS > 1/16" FOR FILLET WELDED JOINTS, THE DEPOSITED FILLET WELD SIZE "D" SHALL BE THE SPECIFIED SIZE "S" PLUS THE ROOT OPENING WIDTH.
3. SPECIAL WELD SHOWN ON PART DETAILS TAKES PRECEDENCE OVER STANDARD WELDS ON THESE SHEETS.
4. ALL NON- STRUCTURAL WELDS NOT SPECIFIED SHALL BE 3/16" MIN. FILLET WELDS. (NAME PLATES, SEALER PLATES)
5. CODE LETTERS:  
 T = THICKNESS OF THINNEST PLATE (UNLESS NOTED)  
 R.O. = ROOT OPENING  
 PJP = PARTIAL JOINT PENETRATION  
 CJP = COMPLETE JOINT PENETRATION  
 D = DEPOSITED FILLET SIZE  
 S = SPECIFIED SIZE



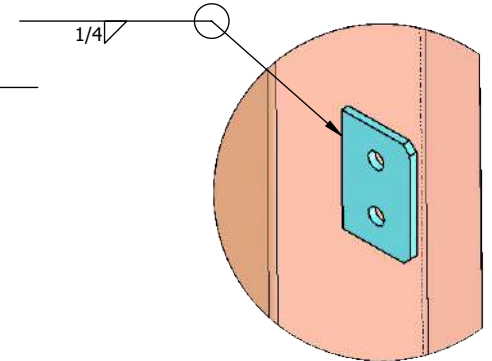
**NAME PLATES AND ID TAGS**



**GROUND PADS**

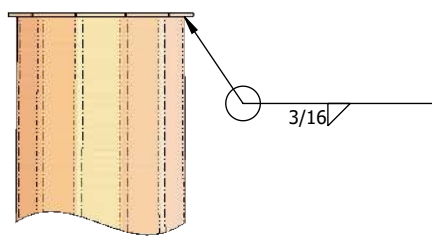


**CLIMBING PAD**



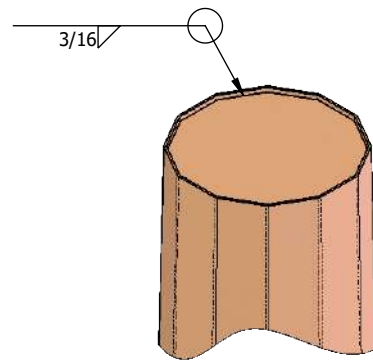
**GROUNDING TAB**

**FW2**



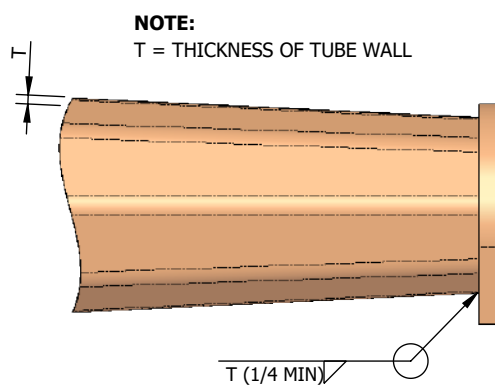
**NON-STRUCTURAL POLE CAPS, BEARING PLATES TO TUBE, & BASEPLATE WEIGHT REDUCTION CUTOUT COVER PLATE**

**FW3**



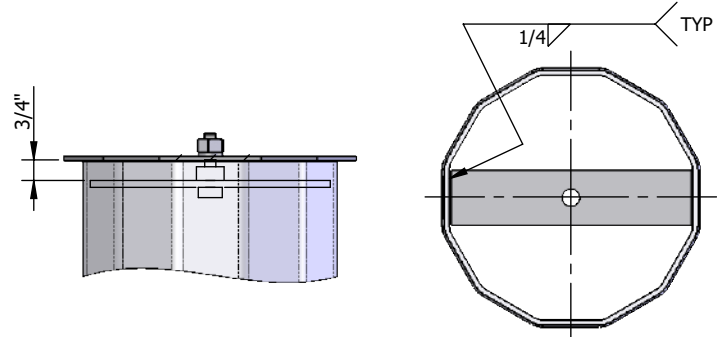
**SEALER PLATES TO TUBE**

**FW4**



**STRUCTURAL POLE CAP AND ARM ENDPLATE TO TUBE**

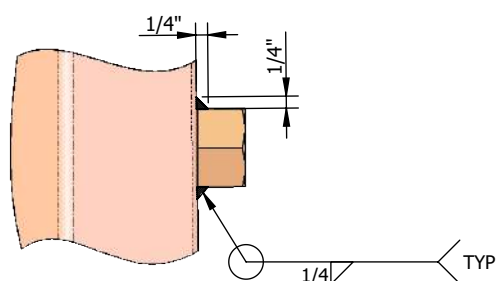
**FW5**



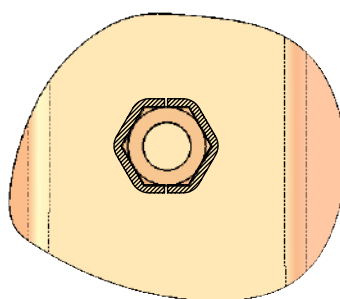
**POLE CAP ANCHOR PLATE**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

**FW6**



**JACKING NUT**



**JACKING NUT DETAIL  
WELDING START & STOP ON NUT FLATS**

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

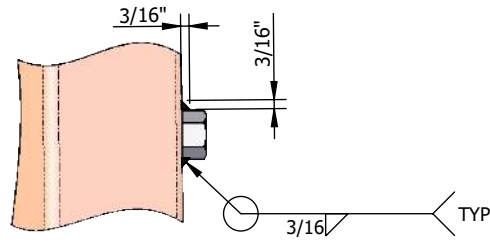
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STANDARD WELDING DETAILS

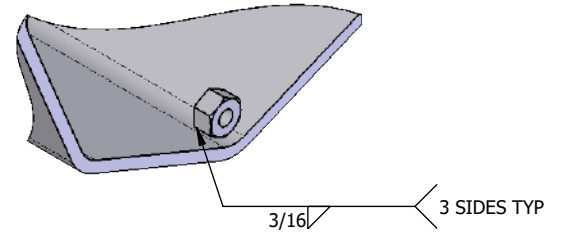
**FILLET WELDS  
(CONTINUED)**

**FW7**



**NUT TO POLE FACE**

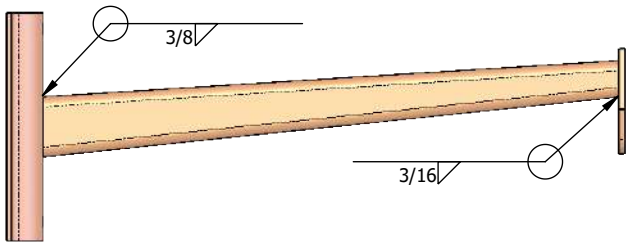
**FW8**



**NUT TO ARM SHANK**

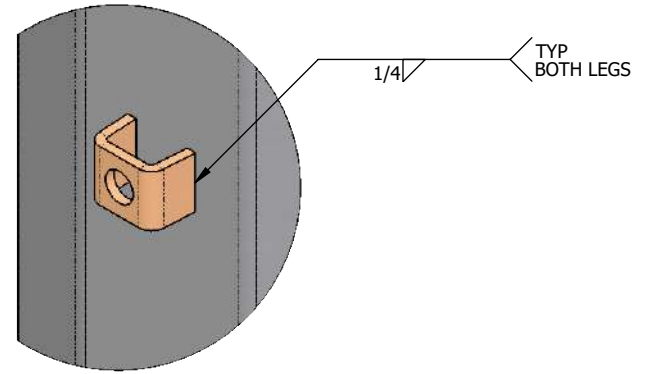
**NOTE:**  
PREPARE ARM END TO FIT CURVATURE OF  
LD ARM BRACKET "A" AS NEEDED

**FW9**



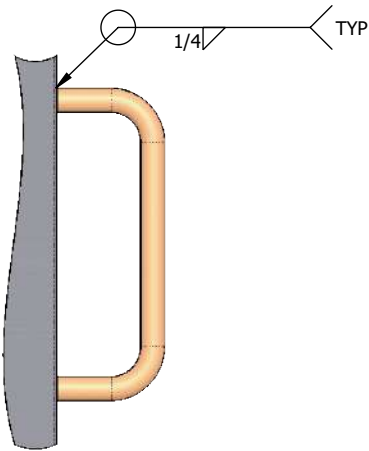
**LD ARM - BRACKET TO ARM SHANK,  
END PLATE TO ARM SHANK**

**FW10**



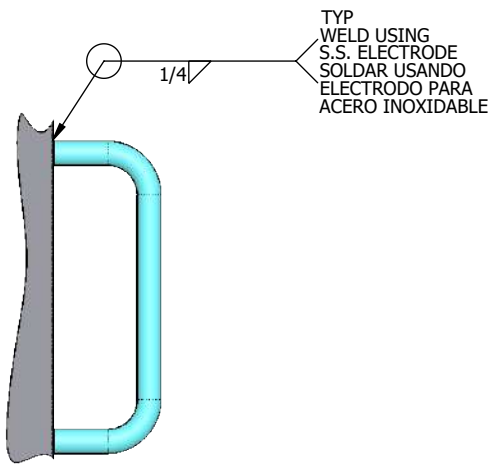
**BAIL STEP CLIP & STEP LUG  
(WITH NO BEVEL)**

**FW11**



**BENT ROD (WEATH/GALV)  
HAND GRAB, TOWEL RACK  
CHAIN DAMPER**

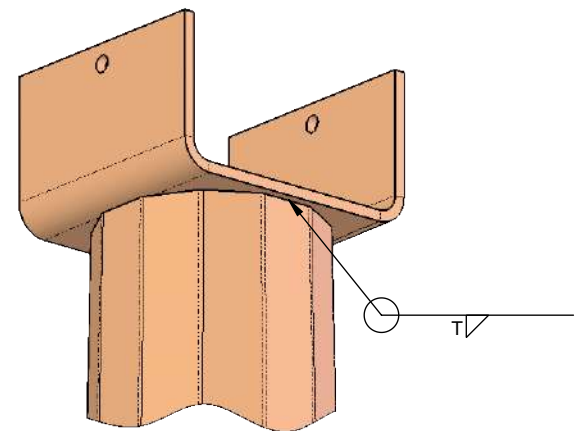
**FW11S**



**BENT ROD (STAINLESS)  
HAND GRAB  
GROUND LOOP**

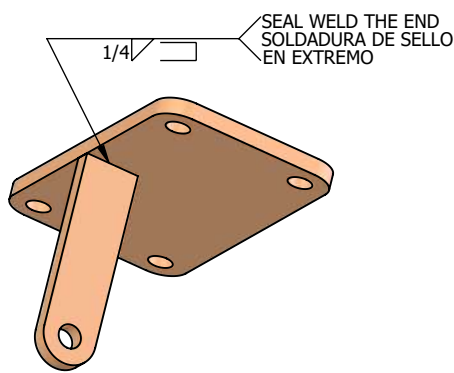
**FW12**

**NOTE:**  
T=THICKNESS OF TUBE WALL



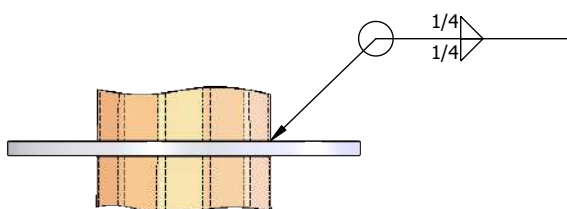
**SADDLE BRACKET**

**FW13**



**T-VANG AT ARM END**

**FW14**



**SLIDE OVER VANG**

REV	DESCRIPTION	DRFT/DATE
Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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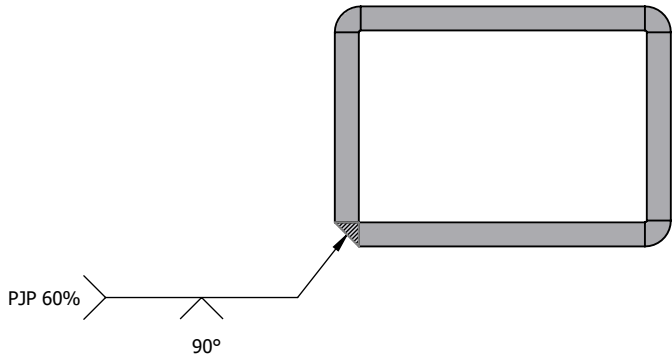
**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

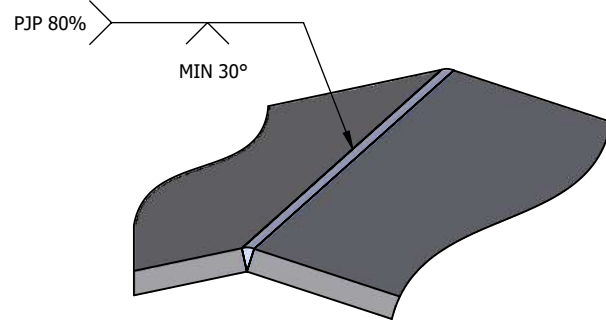
**LONGSEAM NOTES**

1. CJP ABOVE AND BELOW CIRCUMFERENCE WELDS AND HANDHOLES 6" FOR PLATE < 1/2" AND 12" FOR PLATE >= 1/2".
2. CJP IN FEMALE S.J. LAP + 6".
3. USE INSIDE REINFORCING WELDS ON ALL ENDS OF OPEN TUBES.  
FOR DIAMETERS < 6" USE 3" LONG REINFORCING WELDS  
FOR DIAMETERS > 6" AND < 24" USE 6" LONG REINFORCING WELDS  
FOR DIAMETERS > 24" USE 12" LONG REINFORCING WELDS

**LS1**



**SQUARE TUBE LONG SEAM**

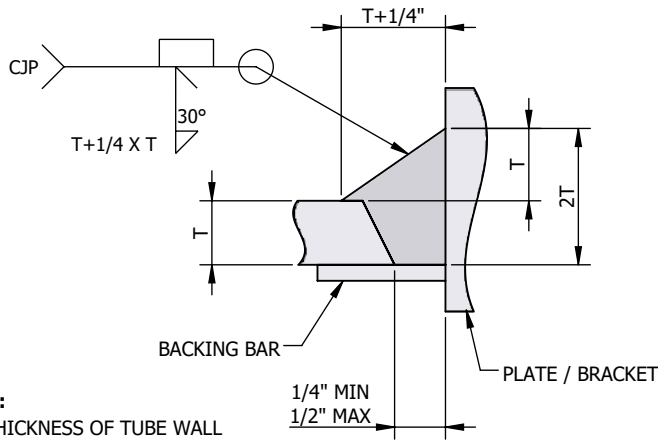


**8, 12 AND 16 SIDED TUBE LONG SEAMS**

**APPLICATION:**

- FOR TUBE TO ARM BRACKET OR CROSS ARM BRACKET
- FOR TUBE TO DIAPHRAGM PLATE (MITERS ONLY)
- FOR TUBE TO BASE PLATE OR FLANGE PLATE

**CP1**



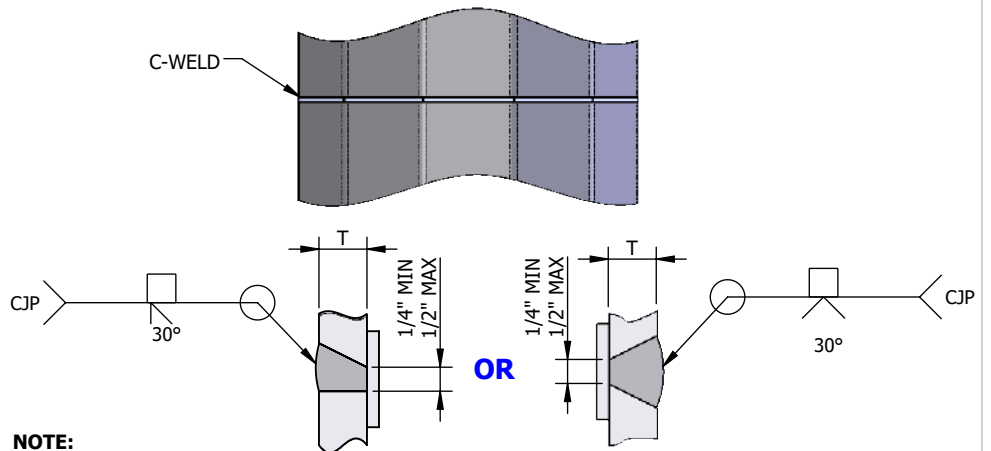
**NOTE:**  
T = THICKNESS OF TUBE WALL

**TUBE TO ARM BRACKET, BASE PLATE, FLANGE PLATE AND DIAPHRAGM PLATE**

**NOTES FOR CIRCUMFERENTIAL WELDS**

1. NO TACK WELDS OR WELD START/STOPS ON A BEND RADIUS OR LONG SEAM.
2. ALL TACK WELDS OR WELD START/STOPS SHALL BE ON FLATS.
3. STAGGER WELD START/STOPS AT LEAST ONE (1) INCH ON MULTI-PASS WELDS.
4. BEND LINE REINFORCEMENT WELDS SHALL NOT BE MADE.

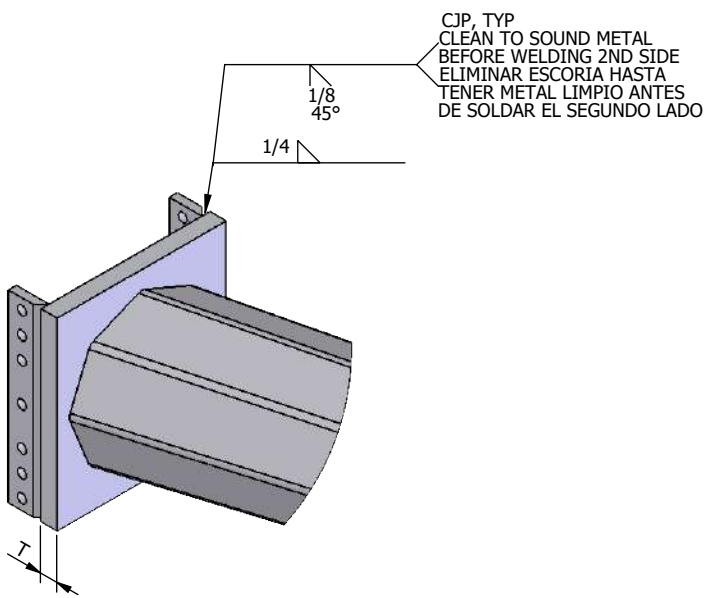
**CP2**



**NOTE:**  
T = THICKNESS OF TUBE WALL

**CIRCUMFERENTIAL WELD**

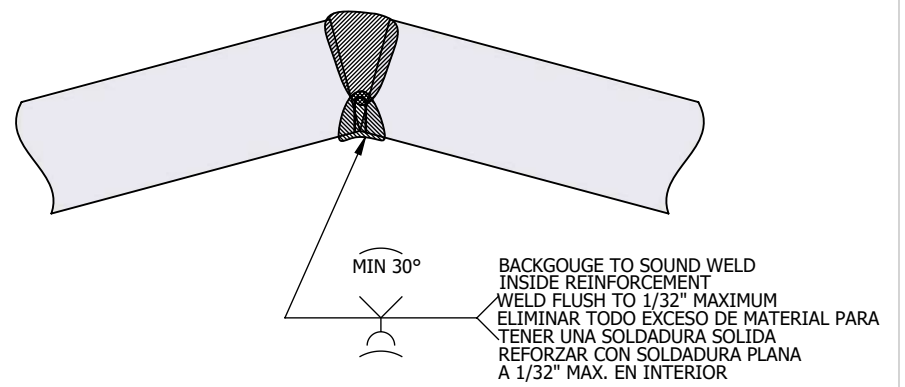
**CP3**



**3-PIECE MOUNT CHANNEL**

MFG TOLERANCES:  
ANGLE: +10°, -5°

**LS2**



**LONG SEAM AT THE FEMALE SLIP JOINT**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

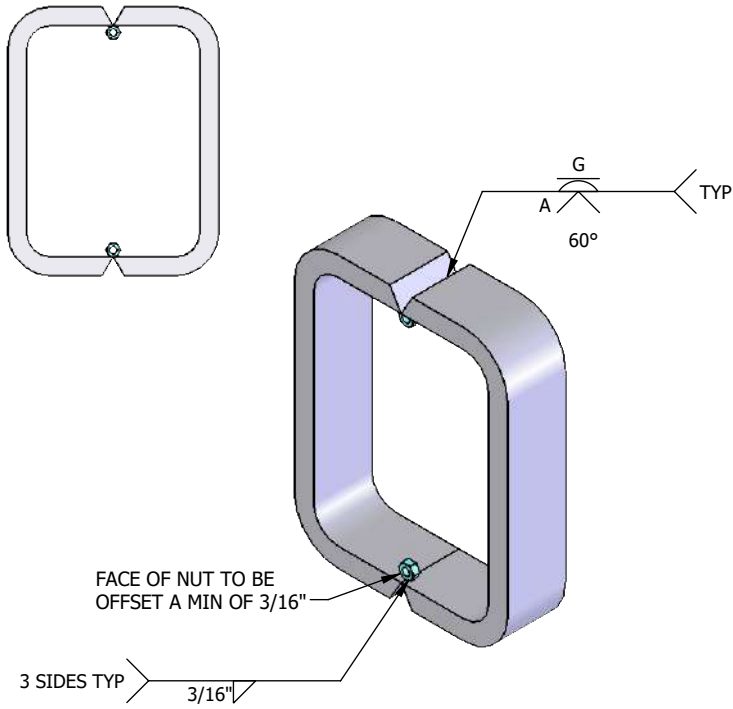
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STANDARD WELDING DETAILS

**NOTE:**  
A = THICKNESS OF HAND HOLE

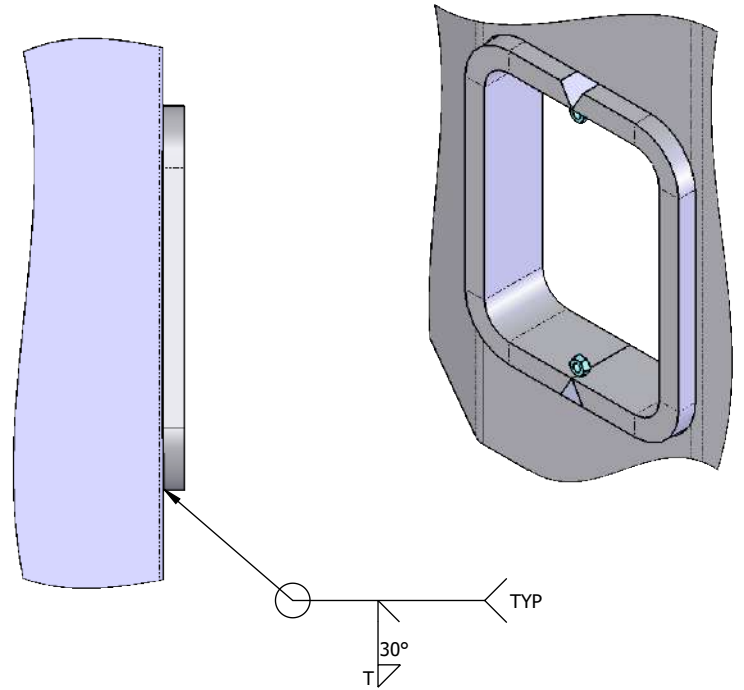
### HH1



**HAND HOLE**

**NOTE:**  
T = THICKNESS OF TUBE WALL

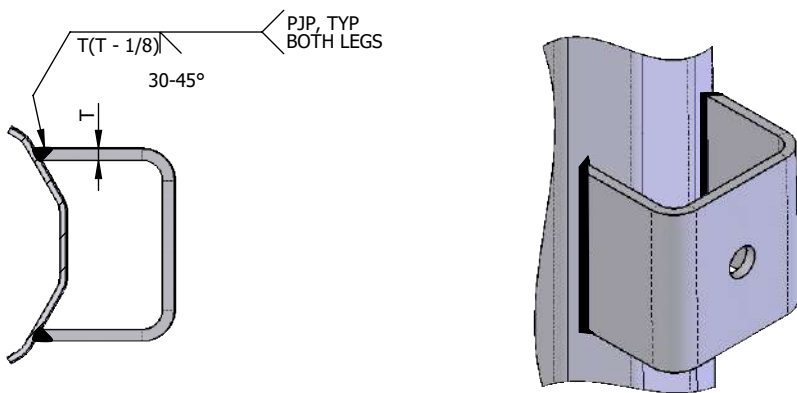
### HH2



**HAND HOLE TO TUBE**

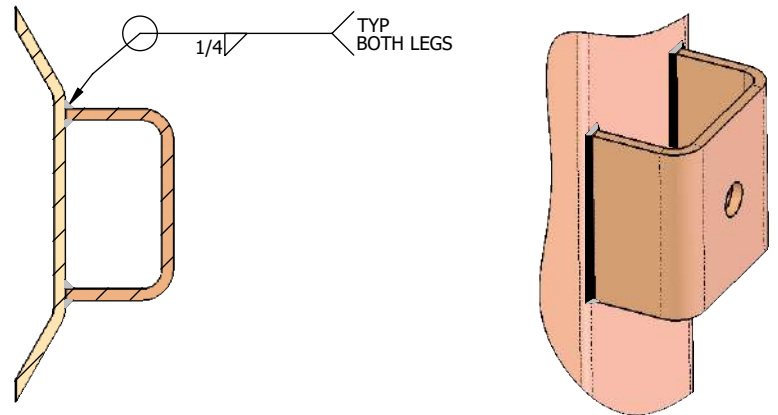
**NOTE:**  
OPTIONAL SEAL WELD MAY BE WRAPPED TO ACCESSIBLE PORTION OF INSIDE BRACKET.  
T = THICKNESS OF BRACKET PLATE

### MB1



**U-SHAPED VERTICAL BRACKET ON ANGLED FACE OF POLE**

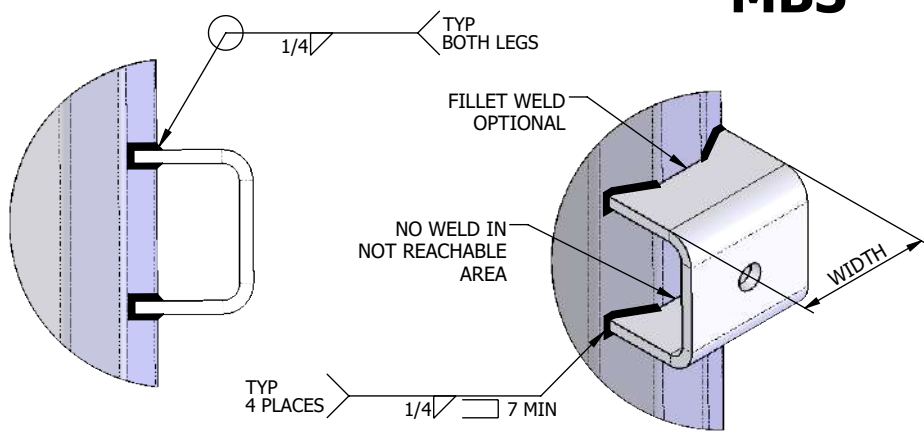
### MB2



**U-SHAPED VERTICAL BRACKET ON FLAT FACE OF POLE**

FOR SHORT BRACKETS: WIDTH ≤ 6"

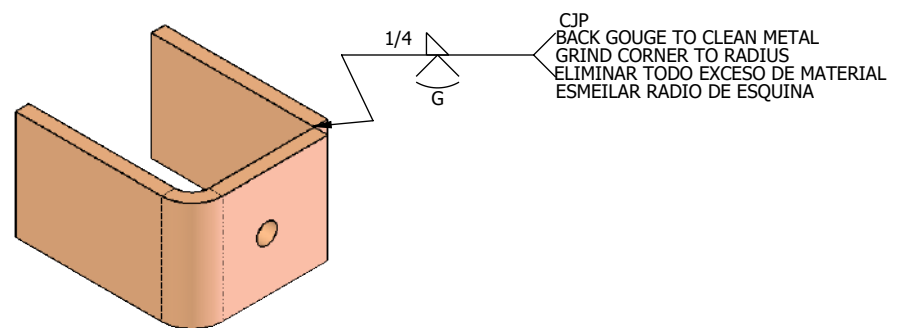
### MB3



**U-SHAPED HORIZONTAL BRACKET**

FOR WIDE BRACKETS: WIDTH > 6"

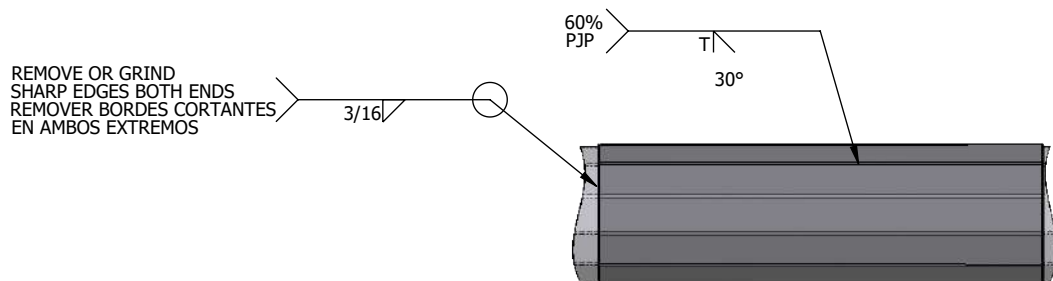
### MB4



**2-PIECE BRACKET**

**NOTE:**  
T=THICKNESS OF GROUND SLEEVE

### GS1



**GROUND SLEEVE WITHOUT BASE PLATE**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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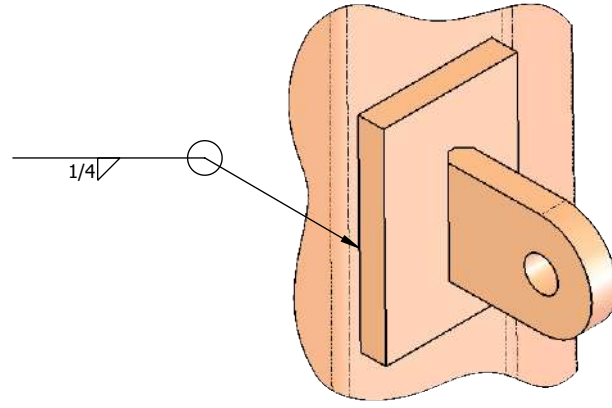
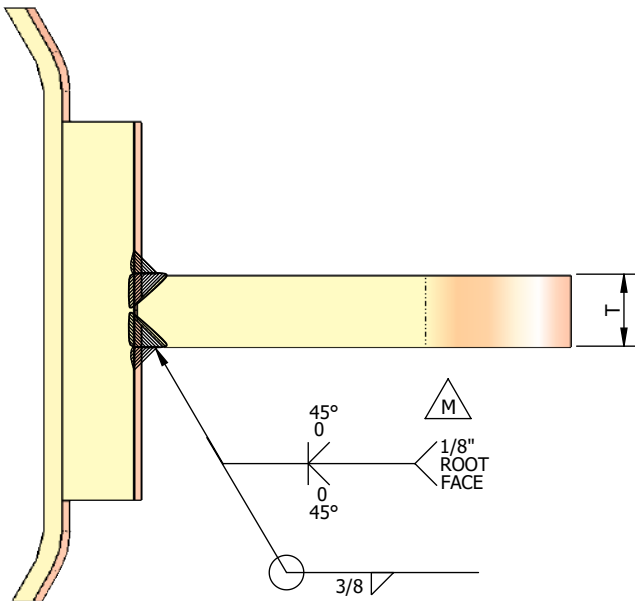
STANDARD WELDING DETAILS



**VD1**

**NOTES:**

1. T = THICKNESS OF VANG.
2. FIT UP TOLERANCE FOR VANG BEVEL, +10° -5°.
3. ROOT FACE FIT UP TOLERANCE, ±1/16".
4. ROOT OPENING FIT UP TOLERANCE = 1/8" MAX.

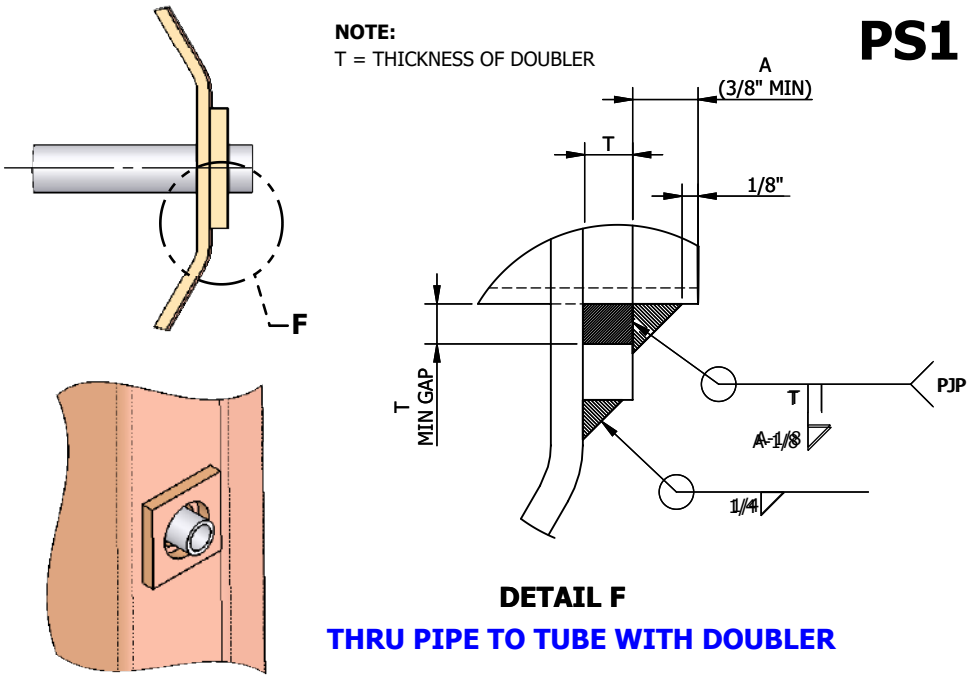


**VANG TO PLATE AND DOUBLER TO TUBE**

**NOTE:**

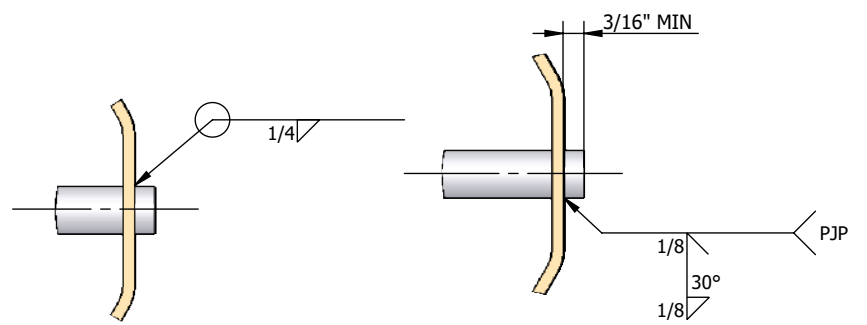
T = THICKNESS OF DOUBLER

**PS1**



**THRU PIPE TO TUBE WITH DOUBLER**

**PS2**



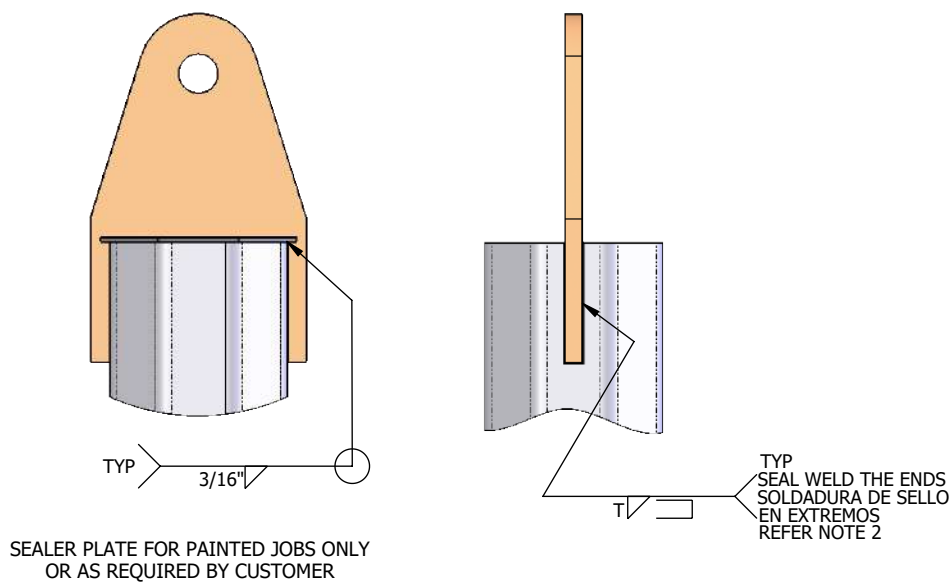
**THRU PIPE TO TUBE**

**"GRIND FLUSH" THRU PIPE TO TUBE IF CUSTOMER REQUESTS "GRIND FLUSH" AND TOWER PLATE > 1/4" THICK (NOT ABLE TO "GRIND FLUSH" FOR TOWER PLATE TUBE THICKNESS ≤ 1/4")**

**NOTE:**

1. T = TUBE WALL THICKNESS.
2. IF ACCESSIBLE, WRAP WELD TO INSIDE OF TUBE AND WELD ACCESSIBLE LENGTH.

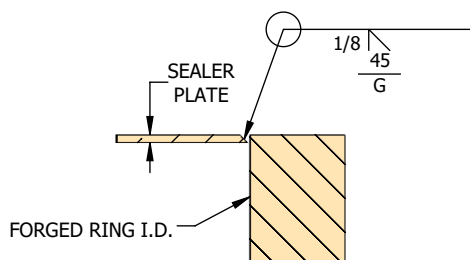
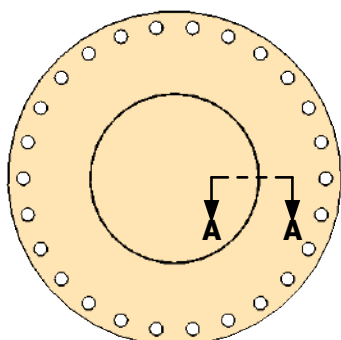
**CB1**



SEALER PLATE FOR PAINTED JOBS ONLY OR AS REQUIRED BY CUSTOMER

**CROSS BRACING THROUGH VANG**

**SP1**



**SECTION A-A**

NOTE: SEALER PLATE SHOULD BE FLUSH, BUT IS ACCEPTABLE TO HAVE 1/8" RECESS FROM THE FORGED RING - FLANGE.

**FORGED RING - FLANGE TO SEALER PLATE (WEATHERING ONLY)**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

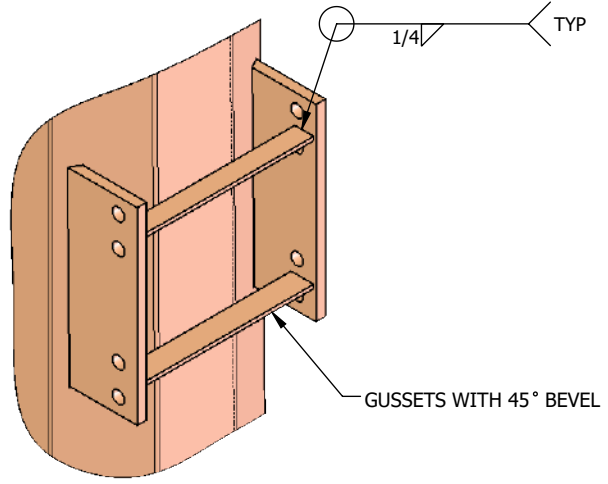
PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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STANDARD WELDING DETAILS

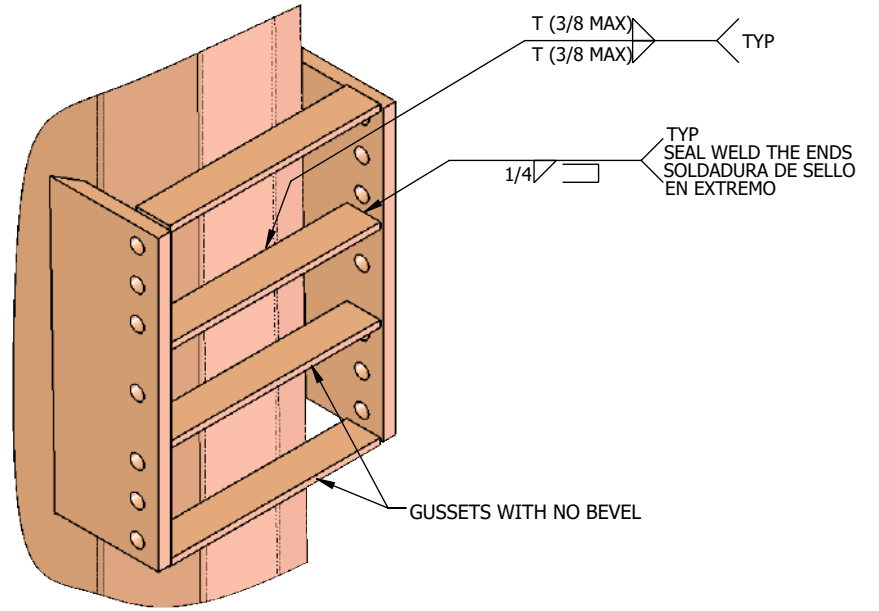
**G1**



**THROUGH PLATE GUSSETS**

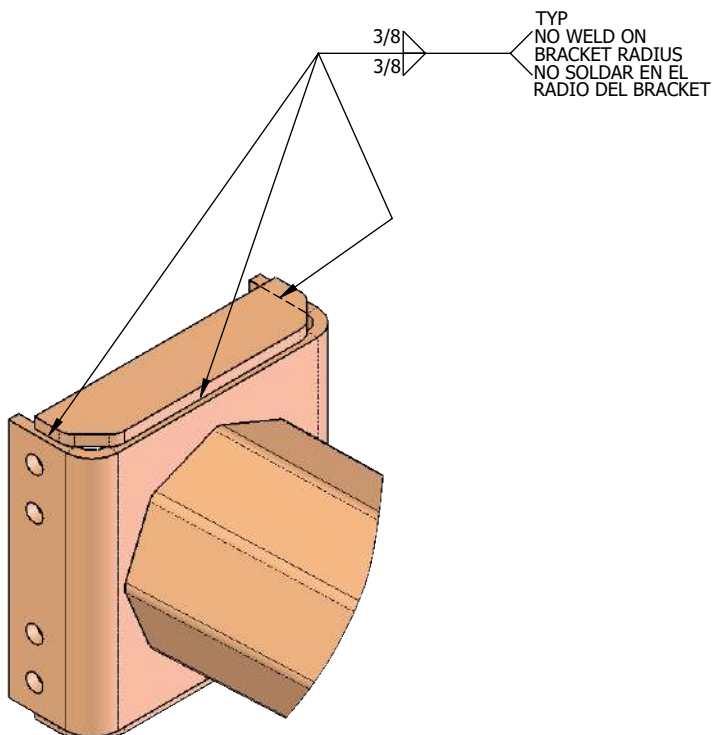
**G2**

**NOTE:**  
T = THICKNESS OF TUBE WALL



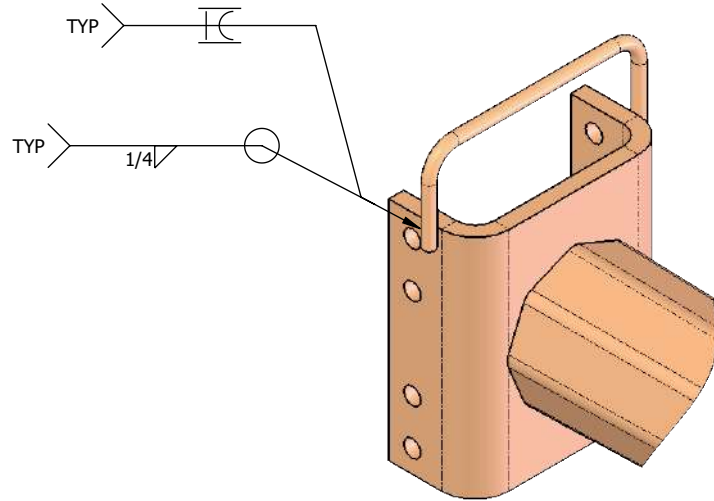
**S & C TYPE THROUGH PLATE GUSSETS (WELDED TO POLE FACE)**

**G3**



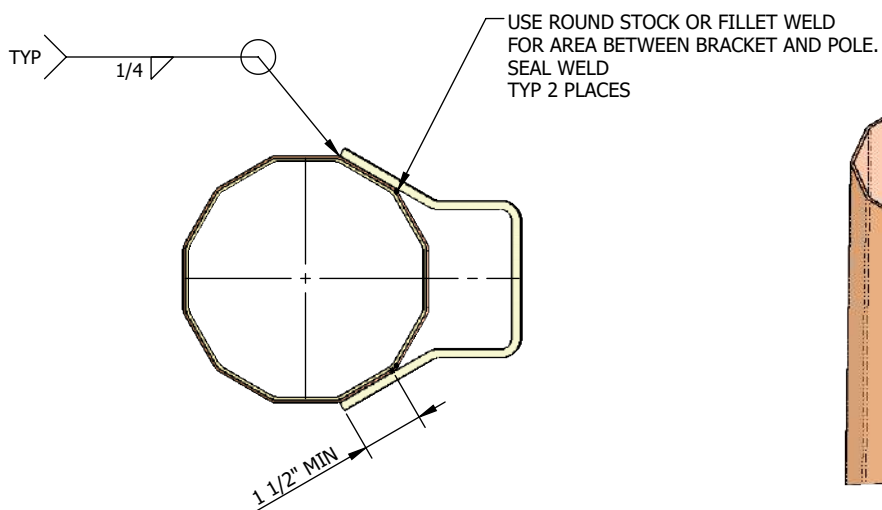
**MOUNT CHANNEL WITH GUSSETS**

**HG1**

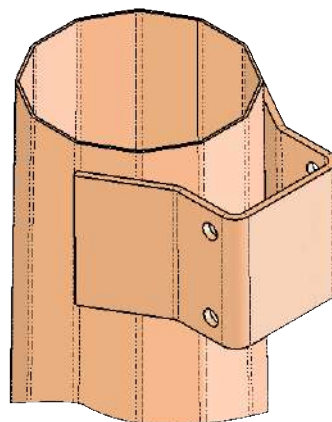


**ROUND ROD TO PLATE**

**WR1**



**SINGLE PIECE WRAP**



Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

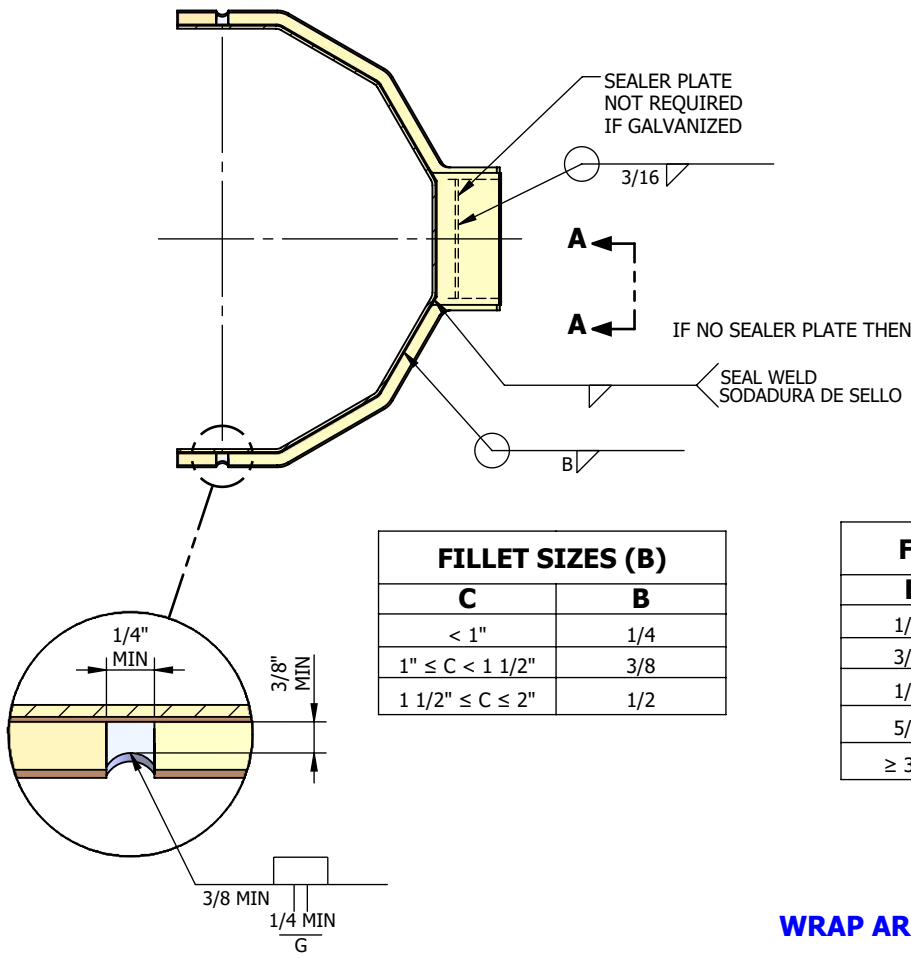
PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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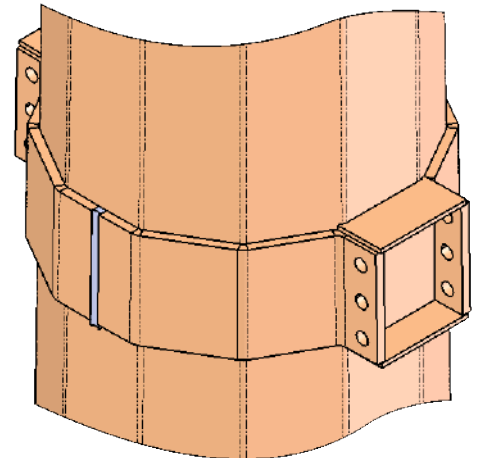
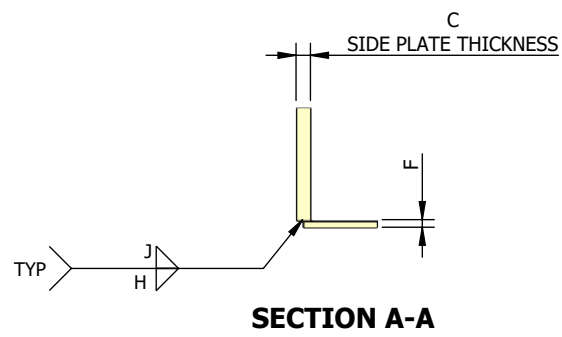
STANDARD WELDING DETAILS

**WB1**



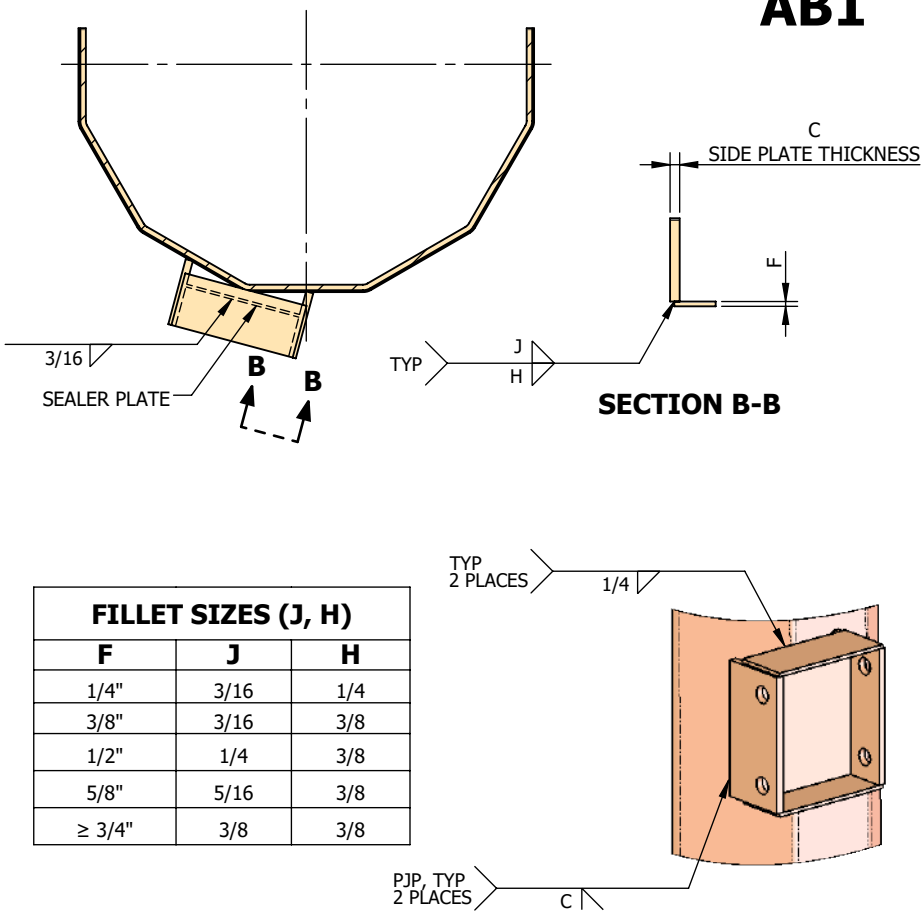
FILLET SIZES (B)	
C	B
< 1"	1/4
1" ≤ C < 1 1/2"	3/8
1 1/2" ≤ C ≤ 2"	1/2

FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8



**WRAP ARM BOX**

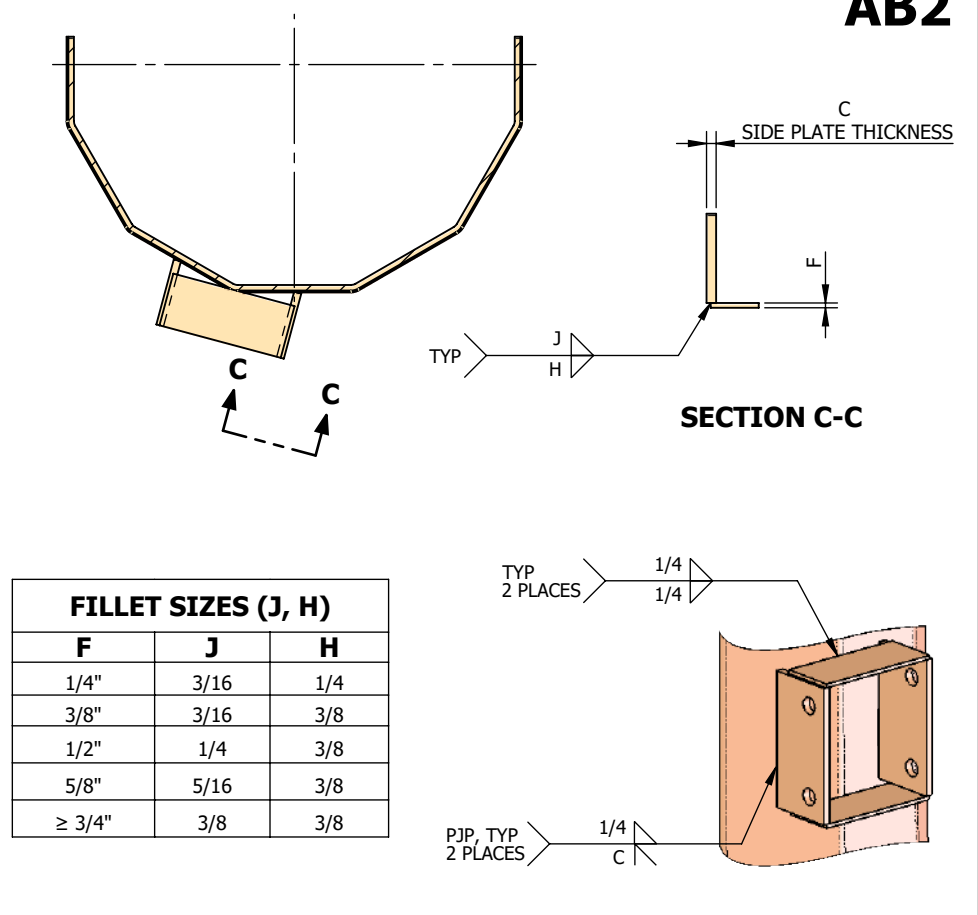
**AB1**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - 2 FLATS W/ SEALER PLATE**

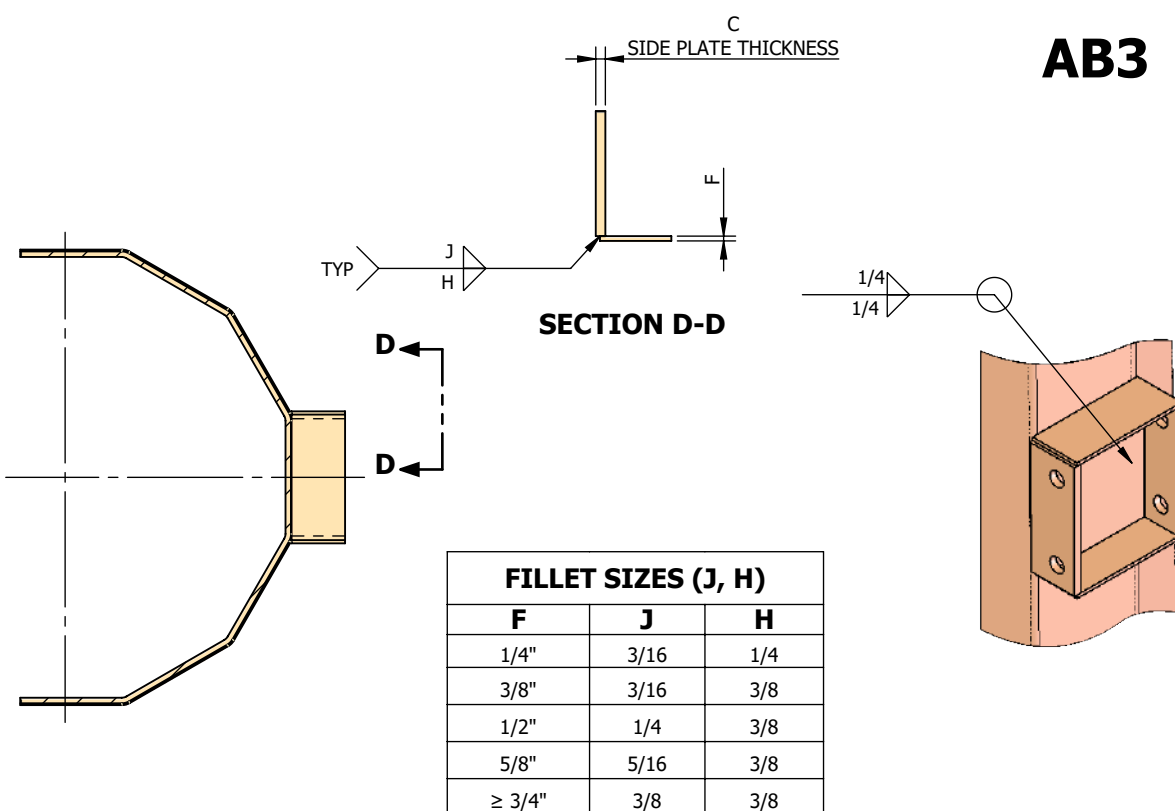
**AB2**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - 2 FLATS W/O SEALER PLATE**

**AB3**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - SINGLE FLAT**

S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
R	REVISED CP3 BACKSIDE WELD TO 1/2"	RB/11-08-21
P	REVISED BACKSIDE WELD DEFINITION ON 3 PC MT CHANNEL (PJP)	RB/10-01-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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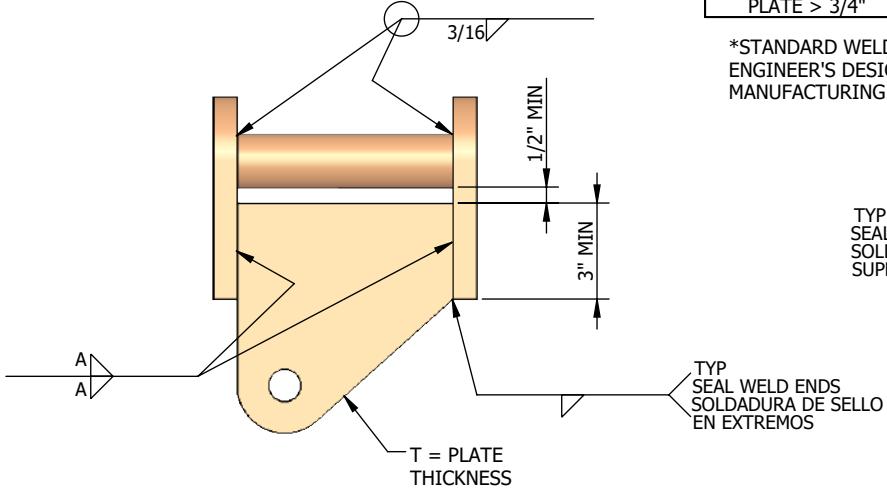
STANDARD WELDING DETAILS



**NOTE:**  
DROP BRACKET CUTOUT PER PRINTS.

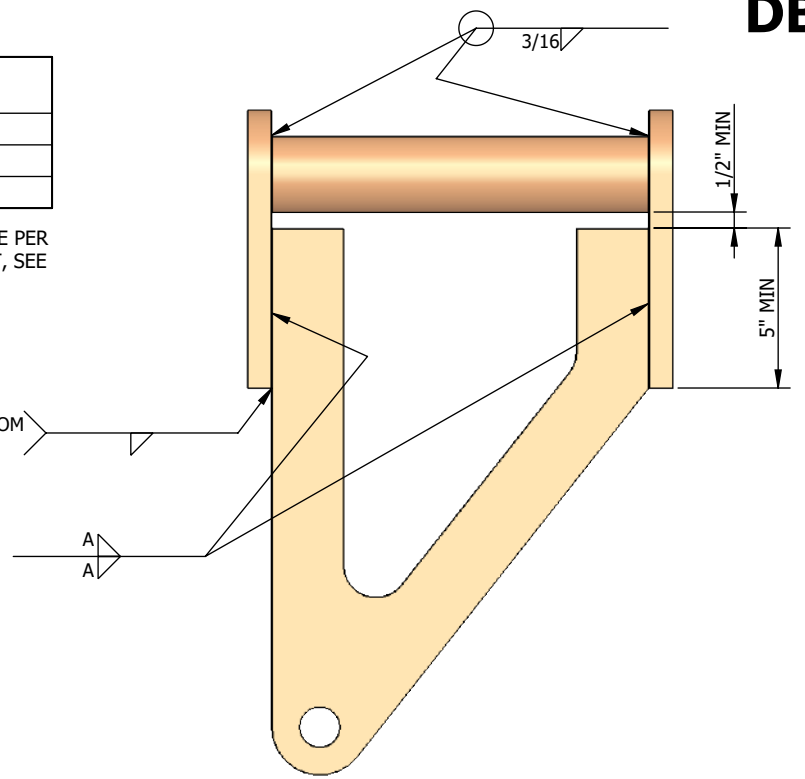
FILLET SIZES	
T	A*
PLATE ≤ 3/4"	1/4"
PLATE > 3/4"	5/16"

\*STANDARD WELDS COULD INCREASE PER ENGINEER'S DESIGN. IN THIS EVENT, SEE MANUFACTURING DRAWING.



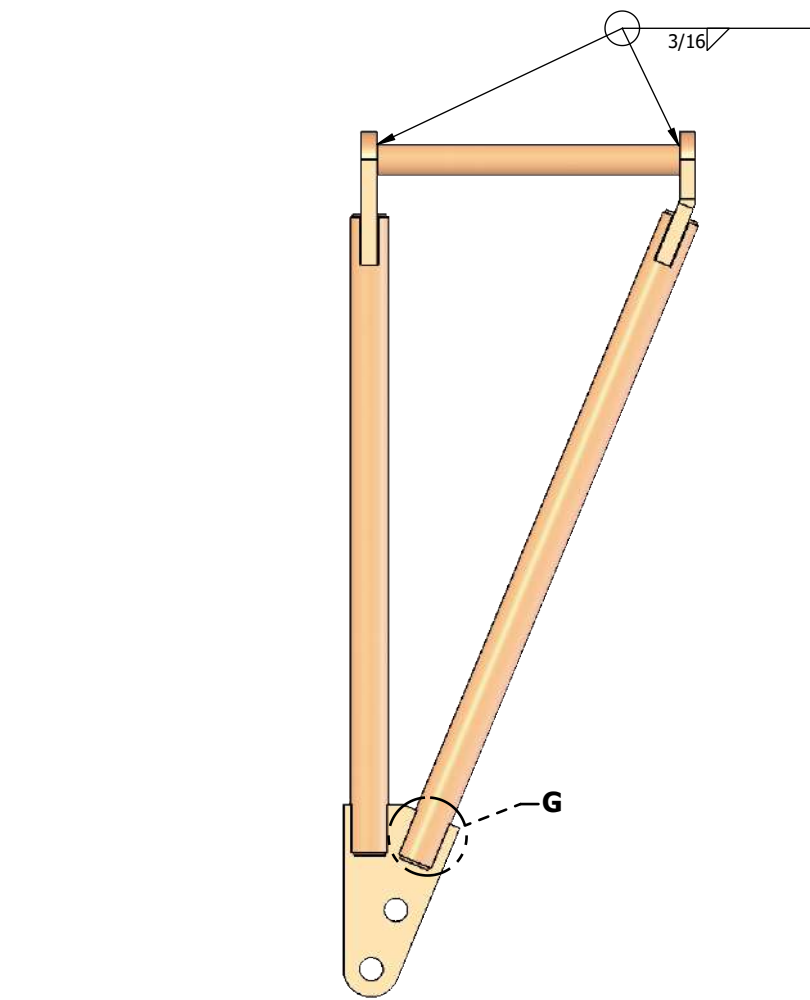
**6" THRU 11"**

**DROP BRACKETS**

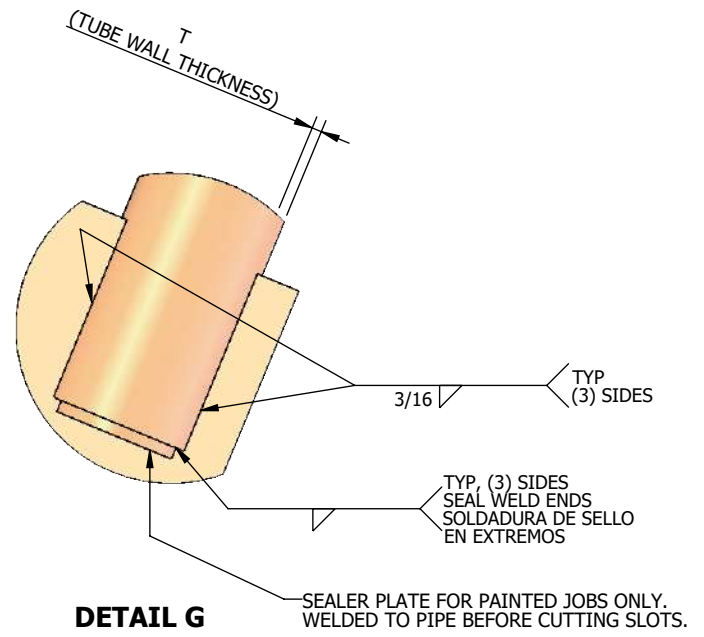


**12" THRU 21"**

**DB1**



**DROP BRACKETS - 37" THRU 60"**



**DB2**

REV	DESCRIPTION	DRFT/DATE
Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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**MEYER**  
UTILITY STRUCTURES

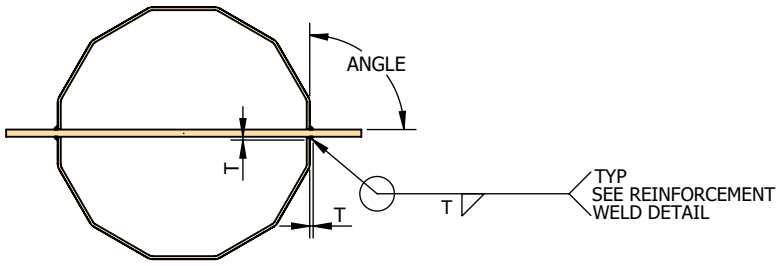
STANDARD WELDING DETAILS

### THROUGH VANG WELDS

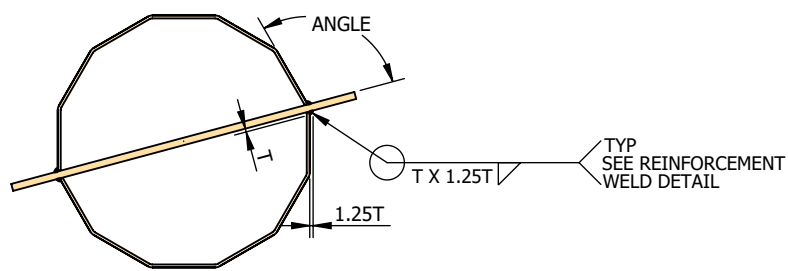
T=POLE WALL THICKNESS

<b>T</b>	<b>3/16"</b>	<b>1/4"</b>	<b>5/16"</b>	<b>3/8"</b>	<b>7/16"</b>	<b>1/2"</b>	<b>9/16"</b>	<b>5/8"</b>	<b>11/16"</b>	<b>3/4"</b>	<b>13/16"</b>	<b>7/8"</b>	<b>15/16"</b>	<b>1"</b>	<b>1 1/16"</b>	<b>1 1/8"</b>	<b>1 3/16"</b>	<b>1 1/4"</b>
<b>T/2</b>	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	1/2	9/16	9/16	5/8	5/8
<b>1.25T</b>	1/4	5/16	7/16	1/2	9/16	5/8	3/4	13/16	7/8	15/16	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 9/16

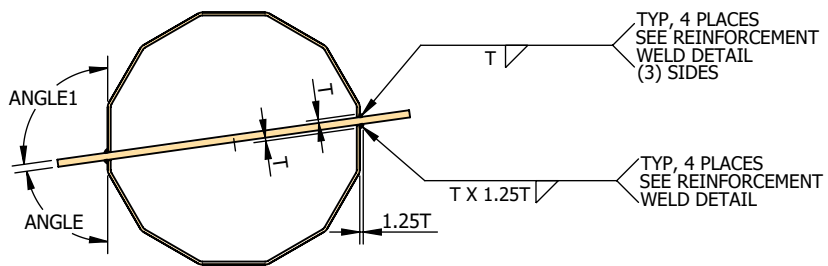
#### TOWER PLATE LESS THAN 3/8" THK



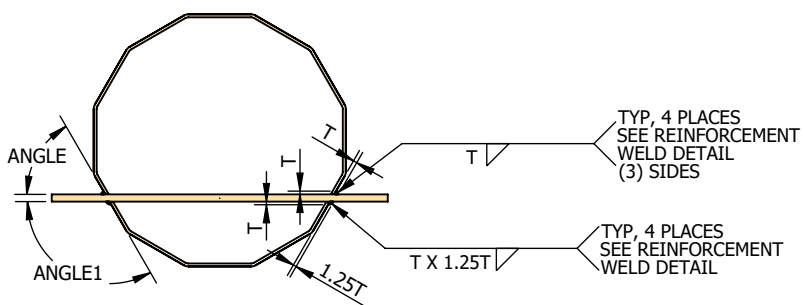
ANGLE = 90°



ANGLE > 90°

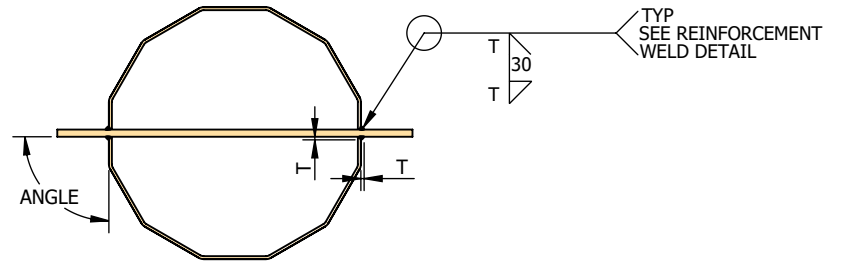


ANGLE > 60°  
ANGLE1 > 90°

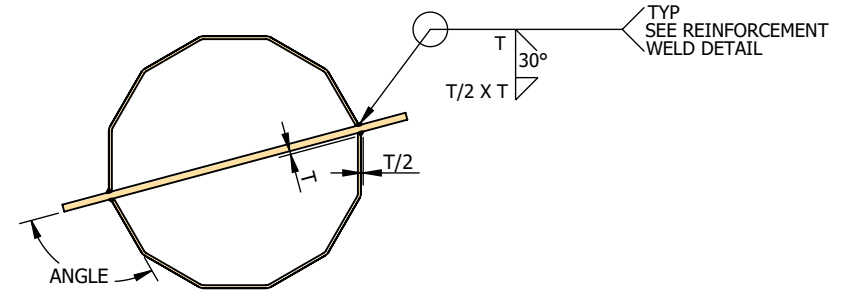


ANGLE = 60°  
ANGLE1 = 120°

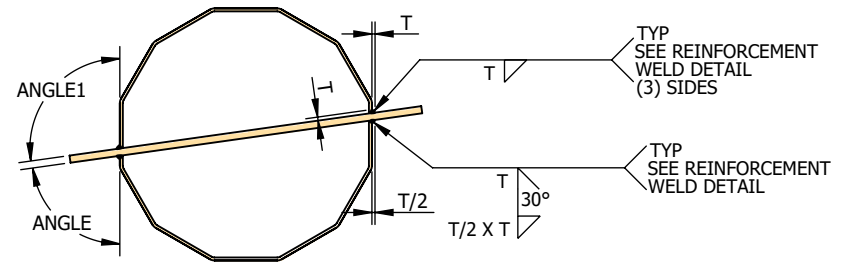
#### TOWER PLATE GREATER THAN/EQUAL TO 3/8" THK



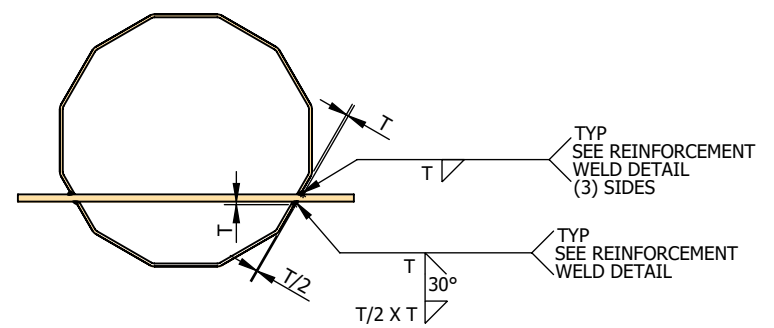
ANGLE = 90°



ANGLE > 90°



ANGLE > 60°  
ANGLE1 > 90°



ANGLE = 60°  
ANGLE1 = 120°

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
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REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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# MEYER

UTILITY STRUCTURES

STANDARD WELDING DETAILS

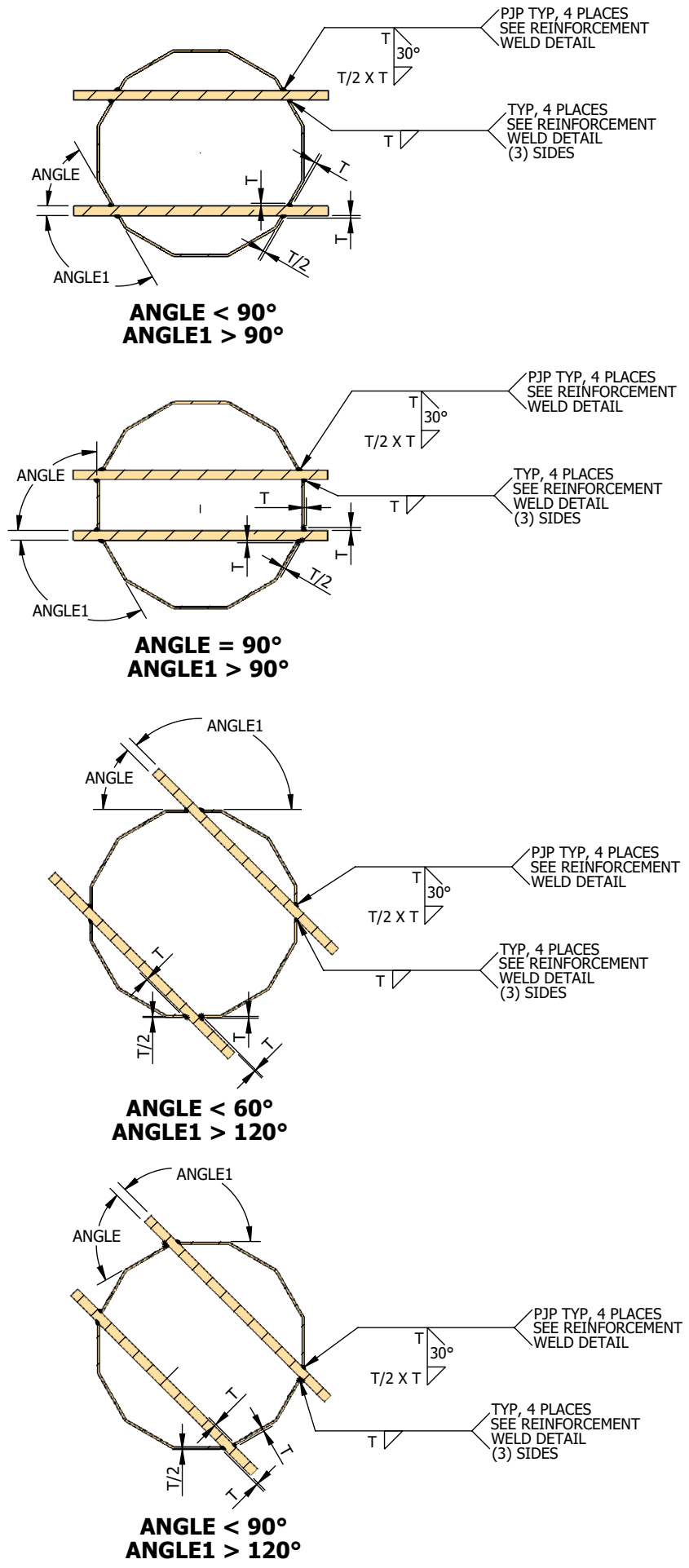
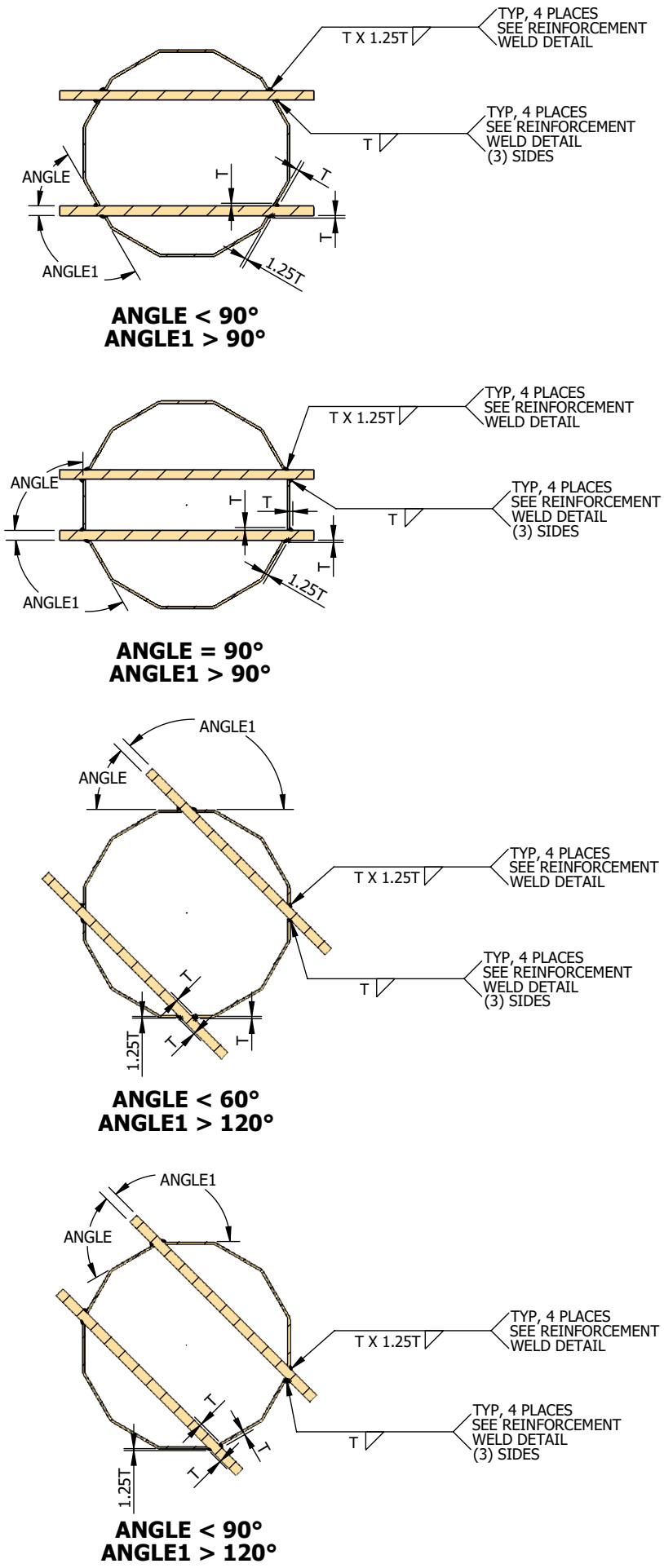
### THROUGH PLATES WELDS FOR ARM MOUNTING

T=POLE WALL THICKNESS

T	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 1/4"
T/2	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	1/2	9/16	9/16	5/8	5/8
1.25T	1/4	5/16	7/16	1/2	9/16	5/8	3/4	13/16	7/8	15/16	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 9/16

#### TOWER PLATE LESS THAN 3/8" THK

#### TOWER PLATE EQUAL TO OR GREATER THAN 3/8" THK



Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
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REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
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ENGINEER:	MEYER

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# MEYER

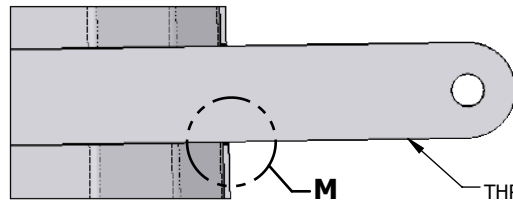
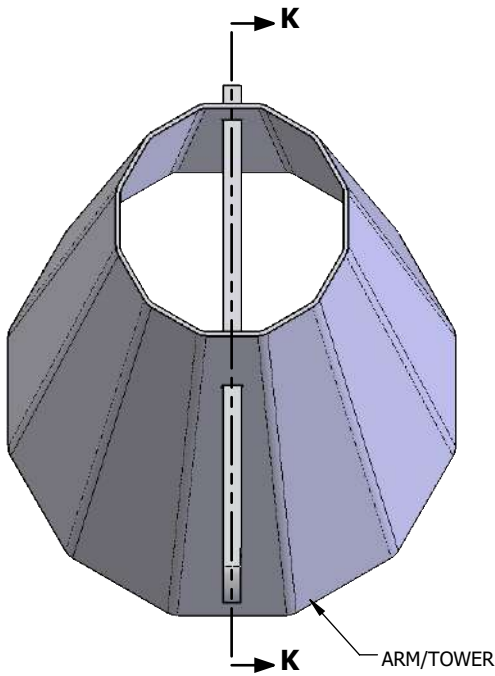
## UTILITY STRUCTURES

STANDARD WELDING DETAILS

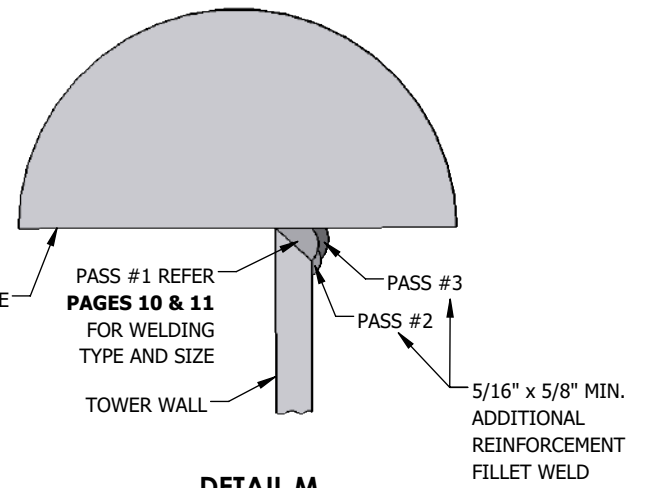
**NOTE:**

1. ALL WELD PASSES MUST STOP/START ON THE SIDES OF THE VANG/PLATE ONLY AND AWAY FROM THE 1" MINIMUM ZONE.
2. AN OPTIONAL FULL PASS IS ACCEPTABLE FOR PASS 3.
3. APPLICABLE FOR ALL MULT-SIDED STRUCTURES AND ARMS.
4. ALL WELD JOINTS ARE PJP. ADD GAP DIMENSION TO FILLET WELD DIMENSION.  
EXAMPLE: A 1/8" GAP WOULD REQUIRE A 7/16" x 3/4" MIN. FILLET.
5. IF ACCESSIBLE, WRAP WELD TO INSIDE OF ARM AND WELD ACCESSIBLE LENGTH.

**VERTICAL THRU PLATES AND VANGS (CONTINUED)**

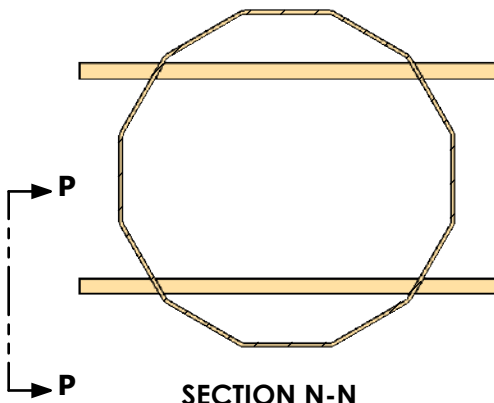


**SECTION K-K**

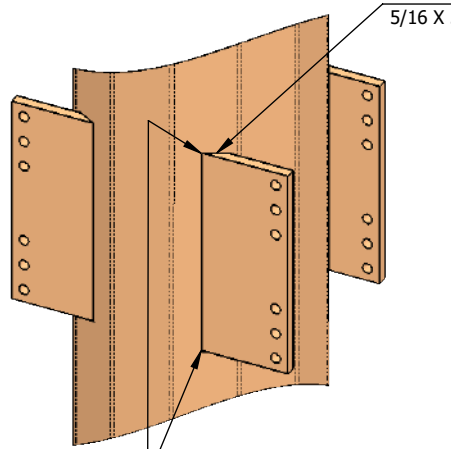


**DETAIL M**

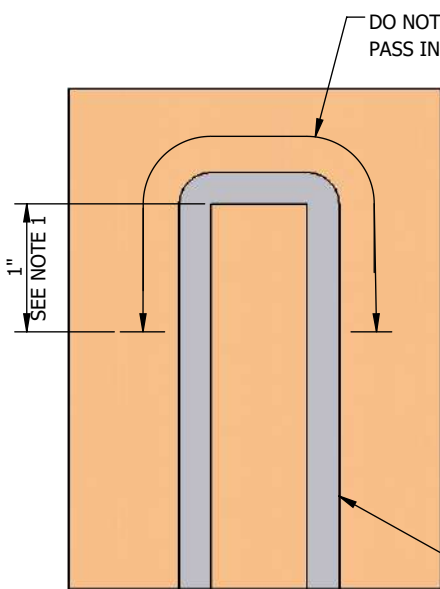
TYP 4 PLACES  
ADDITIONAL REINFORCEMENT  
TYP ALL THRU HARDWARE  
REFER WELD DETAIL  
REFUERZO ADICIONAL  
TIPO EN ACCESORIOS  
VER DETALLE DE SOLDADURA



**SECTION N-N**

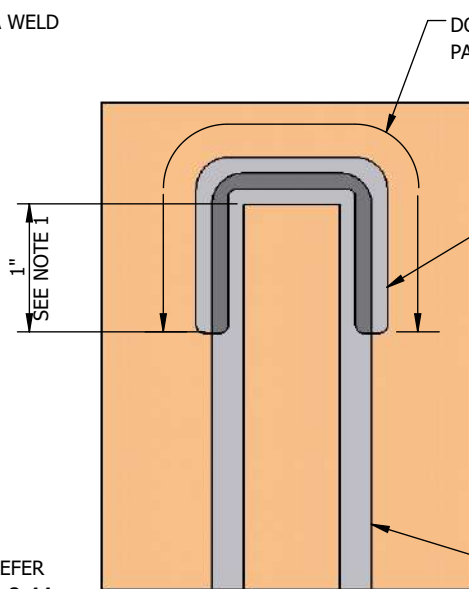


IF GAP BETWEEN TOWER WALL  
AND THRU VANG/PLATE > 3/16"  
ADD BACKING BAR



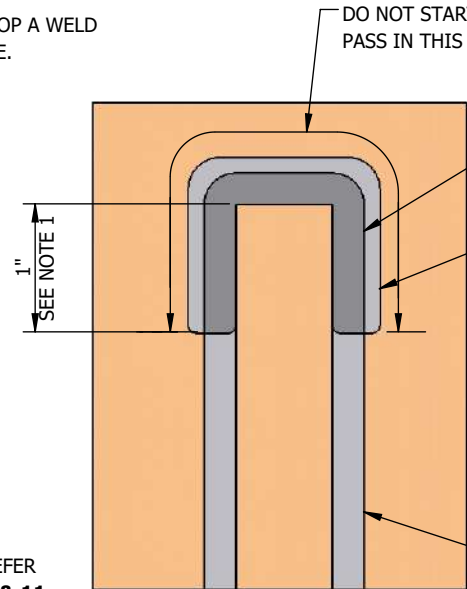
**VIEW P-P  
FIRST PASS  
WELD1**

PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



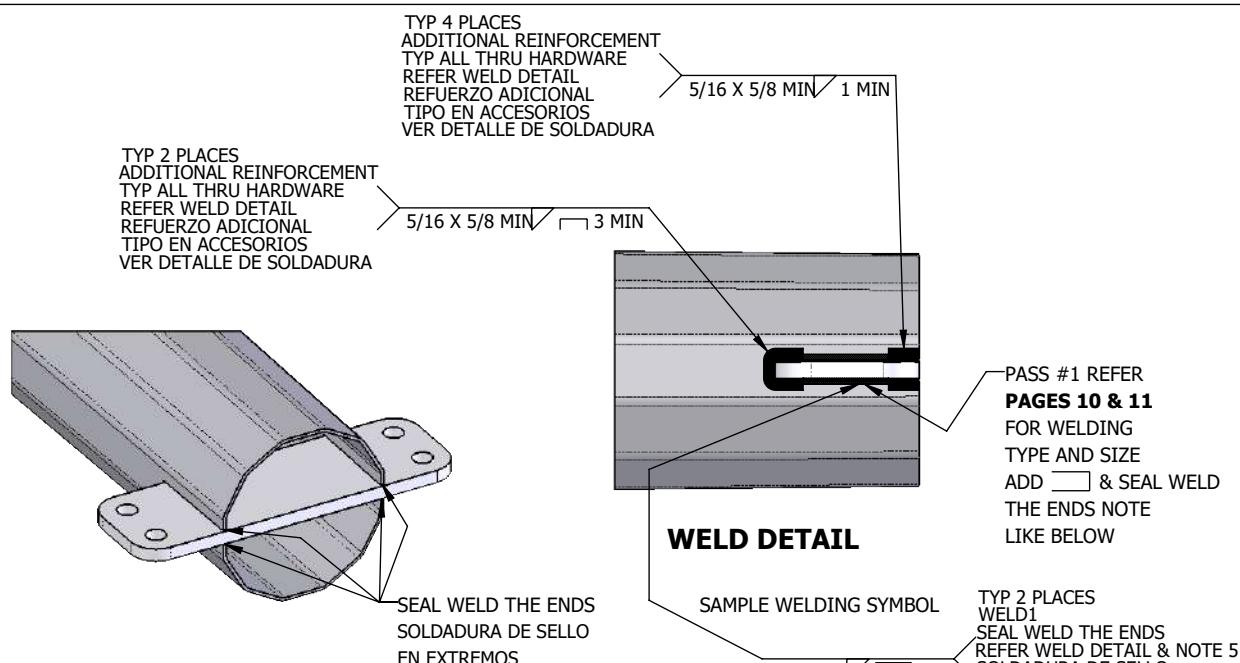
**VIEW P-P  
SECOND PASS**

PASS #2 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



**VIEW P-P  
THIRD PASS  
WELD DETAIL**

PASS #3 (SEE NOTE 2)  
PASS #2  
5/16" x 5/8" MIN.  
ADDITIONAL  
REINFORCEMENT  
FILLET WELD  
PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



**ARM THROUGH VANGS FLUSH WITH ARM END**

**WELD DETAIL**

**SAMPLE WELDING SYMBOL**

TYP 2 PLACES  
ADDITIONAL REINFORCEMENT  
TYP ALL THRU HARDWARE  
REFER WELD DETAIL & NOTE 5  
SOLDADURA DE SELLO  
EN EXTREMOS  
VER DETALLE DE SOLDADURA  
& NOTA 5

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
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REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
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CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

# GREENVILLE UTILITIES COMMISSION

## 22-23 TRANSMISSION REPLACEMENTS

# 42444B

**POLE DRAWING INDEX**

RELEASE	QTY	STRUCTURE TYPE	STRUCTURE LENGTH	EMBEDMENT LENGTH	POLE NO	ERECTION DRAWING	POLE LAYOUT DRAWING	ARM LAYOUT DRAWING	CAMBER AMOUNT
B	1	115KV 3 PHASE VERTICAL SMALL ANGLE TPVD2.C2 S-08.0	90'-0"	11'-0"	11.7	42444-0890S3BT	42444-3020, 42444-3021	NONE	-
	2	115KV 3 PHASE TANGENT TPZD1.C1.2 S-07.4	85'-0"	10'-6"	11.11, 11.14	42444-0785S3BT	42444-3018, 42444-3019	NONE	-
	1	115KV 3 PHASE TANGENT TPZD1.C1 S-07.4	85'-0"	10'-6"	11.21	42444-0785S3DT	42444-3025, 42444-3019	NONE	-
	7	115KV 3 PHASE TANGENT TPZ1 S-06.5	75'-0"	9'-6"	12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7	42444-0675S3AT	42444-3016, 42444-3017	NONE	-
	2	ZINC PAINT TOUCH UP KIT (1 GAL.0 PER 5 POLES)	-	N/A	-	42444-MISCZINCBT	-	NONE	-

**SSG DRAWING INDEX**

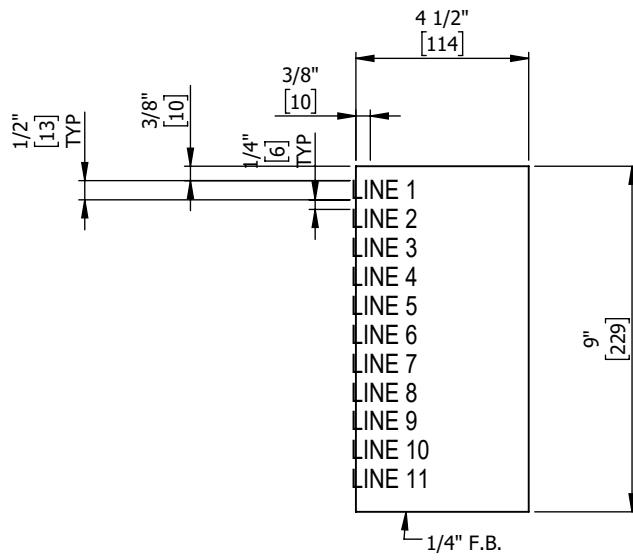
STANDARD DRAWINGS	DRAWING NO
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION	SSG001
GALVANIZED POLE LIFTING REQUIREMENTS	SSG002
JACKING NUT LOCATIONS	SSG004
WELDING DETAILS	SSG007

**Meyer Utility Structures**

**6750 Lenox Center Court, Suite 400  
Memphis, TN 38115  
Phone: (901) 566-6500  
Engr. Fax: (901) 566-6650**

**CENTRAL/EAST VALUE STREAM**

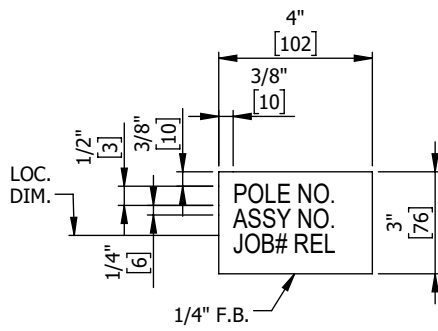
A	INITIAL RELEASE	THO/05-31-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/31/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE B		
SHEET 1 OF 2	<b>42444-INDEX_B</b>	REV. <b>A</b>



**42444-1401**

79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

42444-1401	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11
1	GUC	11.7	90'-0"	S-08.0	TPVD2.C2	5310 LBS	612 FT-K	MEYER	MM/YYYY	42444-3021	
2	GUC	11.11	85'-0"	S-07.4	TPZD1.C1.2	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444B
3	GUC	11.14	85'-0"	S-07.4	TPZD1.C1.2	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444B
4	GUC	11.21	85'-0"	S-07.4	TPZD1.C1	4720 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444B
5	GUC	12.1	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B
6	GUC	12.2	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B
7	GUC	12.3	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B
8	GUC	12.4	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B
9	GUC	12.5	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B
10	GUC	12.6	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B
11	GUC	12.7	75'-0"	S-06.5	TPZ1	3280 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444B



**78413**

73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

78413	LINE 1	LINE 2	LINE 3
1	11.7	42444-3020	42444B
2	11.11	42444-3018	42444B
3	11.14	42444-3018	42444B
4	11.21	42444-3025	42444B
5	12.1	42444-3016	42444B
6	12.2	42444-3016	42444B
7	12.3	42444-3016	42444B
8	12.4	42444-3016	42444B
9	12.5	42444-3016	42444B
10	12.6	42444-3016	42444B
11	12.7	42444-3016	42444B

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	CT 05/31/2022
CHECKED/DATE:	LM
ENGINEER:	MELVIN PORTILLO

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**MEYER**  
UTILITY STRUCTURES

DRAWING INDEX  
RELEASE B  
PARTS DETAIL

**SPECIAL NOTES:**

**STANDARD NOTES:**

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. UNLESS OTHERWISE NOTED REFER SSG007 FOR WELDING DETAILS.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

**SHAFT/ARM NOTES:**

1. MARK "+" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
2. HOT DIP GALVANIZED PER ASTM A-123.
3. NO PRE-GALV BLAST REQUIRED; BRUSH BLAST PER ASTM D6386 AND SSPC-SP16 PRIOR TO APPLICATION OF MEYERCLAD OVER GALV.
4. COAT WITH MEYERCLAD PNT 218A AND 218B 20 MILS MINIMUM DFT 25 MILS AVERAGE DFT.

**MIDDLE/BOTTOM SHAFT NOTES:**

1. WELD A 2" INVERTED V (MATCH MARK) ON  $\phi$  OF FLAT TO ALIGN WITH THE  $\phi$  OF THE NAMEPLATE/ID TAG ON THE ABOVE SHAFT ASSEMBLY.

**NOTAS:**

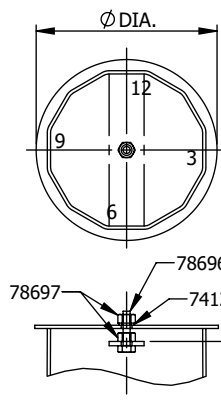
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO AMUS-EN-P-018 PARA TOLERANCIAS.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO SSG007 PARA DETALLE DE SOLDADURA.
4. COLOCAR TAPÓN DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

**SHAFT/ARM NOTES:**

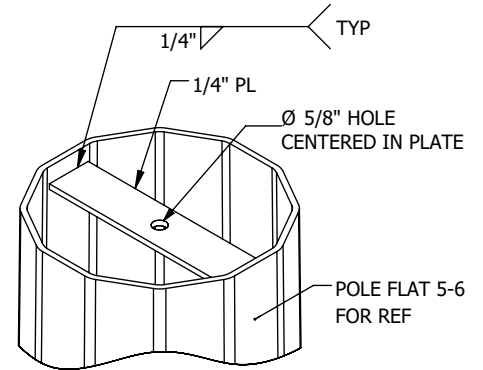
1. MARCAR "+" AL CENTRO DE GARAVEDAD APROXIMADO. (EN CUALQUIER PISO - SOLO PARA EL USO DEL FABRICANTE).
2. GALVANIZADO POR INMERSION EN CALIENTE DE ACUERDO A ASTM A-123.
3. NO SE REQUIERE BLASTEADO PREVIO A GALVANIZAR; PULIR CON EPILLO ABRASIVO POR ASTM D6386 Y SSPC-SP16 ANTES DE LA APLICACIÓN DE MEYERCLAD SOBRE EL GALVANIZADO.
4. RECUBRIR CON MEYERCLAD PNT 218A Y 218B MÍNIMO 20 MILS. PROMEDIO MÍNIMO 25 MILS.

**MIDDLE/BOTTOM SHAFT NOTES:**

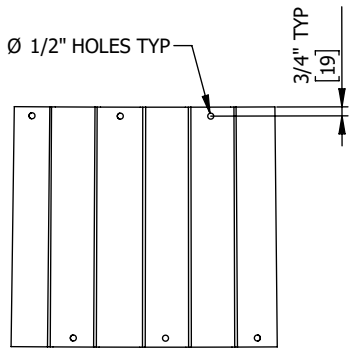
1. SOLDAR UNA V INVERTIDA ( MARCA DE COINCIDENCIA) DE 2" ( 50.8 MM) EN EL  $\phi$  DEL PLANO PARA ALINEAR CON EL  $\phi$  DE LA PLACA DE IDENTIFICACION/PLACA ID EN EL ENSAMBLAJE SUPERIOR ANTERIOR.



**POLE CAP DETAIL**

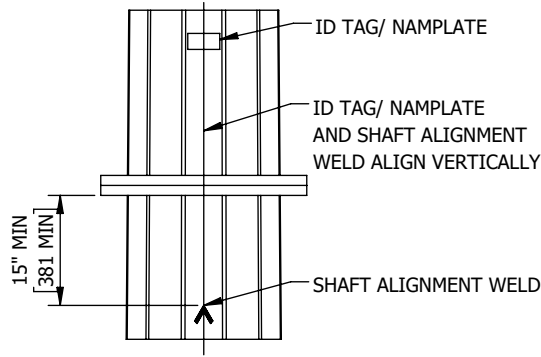


**POLE CAP ANCHOR DETAIL**

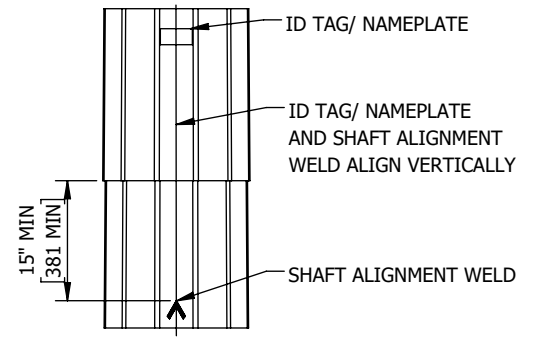


**GALVANIZED GROUND SLEEVE VENT HOLES**

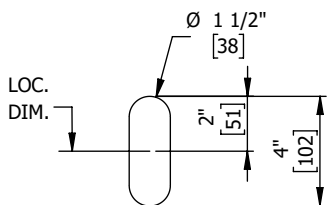
1 PER FLAT, LOCATE ON THE  $\phi$  OF THE FLAT, ALTERNATING SIDES



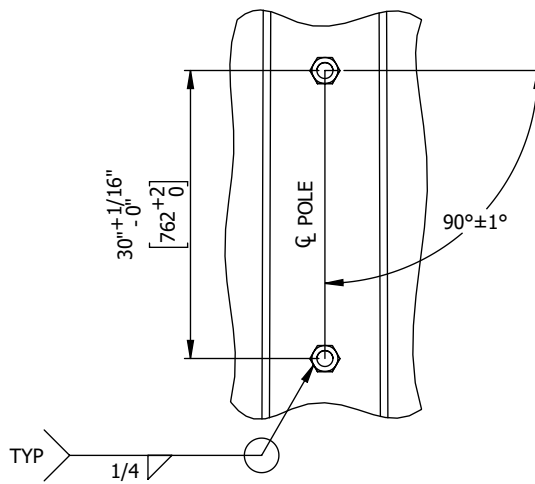
**FLANGE ASSEMBLY ALIGNMENT**



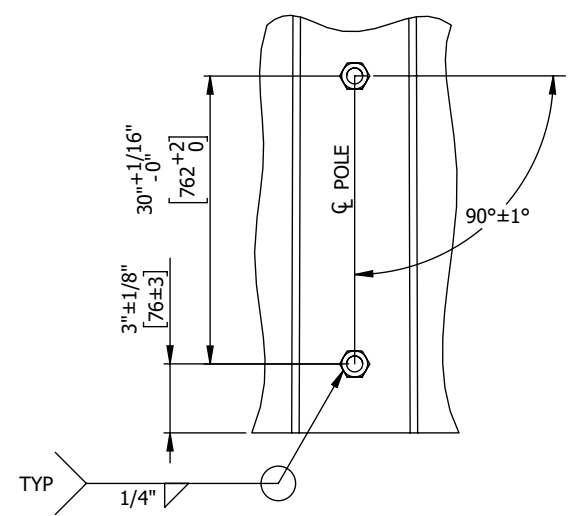
**SLIP JOINT ASSEMBLY ALIGNMENT**



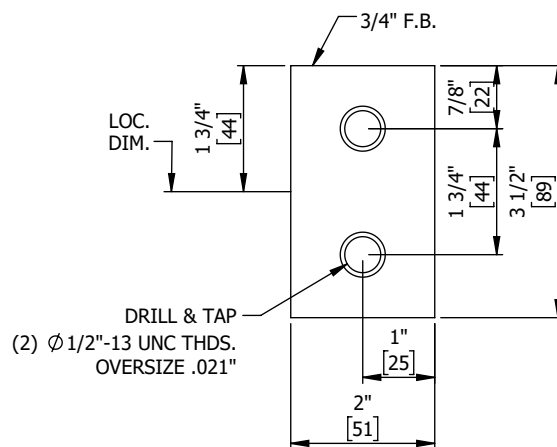
**TOP LIFTING SLOT DETAIL**



**TOP JACKING NUT DETAIL 74547**



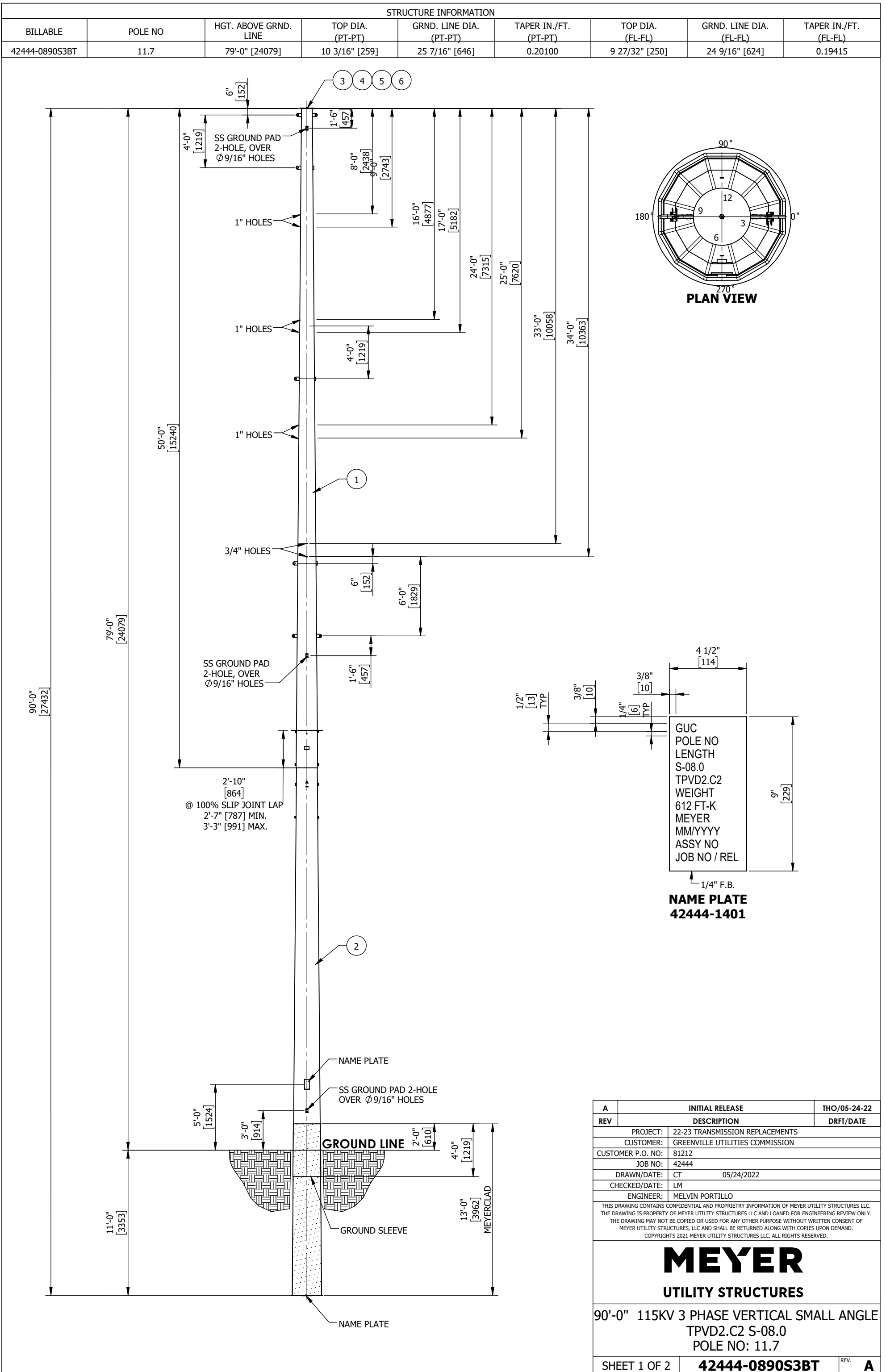
**BOTTOM JACKING NUT DETAIL 74547**



**78412**

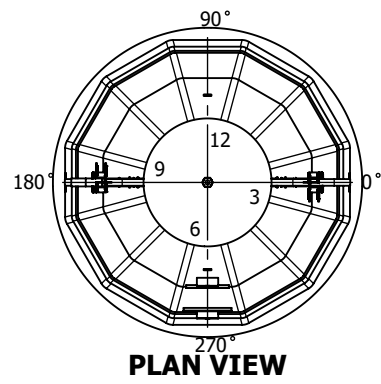
78430, 0.75 X 2.00  
STAINLESS STEEL TYPE 304  
1.41 LBS

A	INITIAL RELEASE	THO/05-31-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/31/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SPECIAL NOTE		
SHEET 1 OF 1	<b>42444-SPECNOTE</b>	REV. <b>A</b>



STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0890S3BT	11.7	79'-0" [24079]	10 3/16" [259]	25 7/16" [646]	0.20100	9 27/32" [250]	24 9/16" [624]	0.19415



PLAN VIEW

GUC  
POLE NO  
LENGTH  
S-08.0  
TPVD2.C2  
WEIGHT  
612 FT-K  
MEYER  
MM/YYYY  
ASSY NO  
JOB NO / REL

NAME PLATE  
42444-1401

A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>90'-0" 115KV 3 PHASE VERTICAL SMALL ANGLE TPVD2.C2 S-08.0 POLE NO: 11.7</p>		
SHEET 1 OF 2	42444-0890S3BT	REV. <b>A</b>

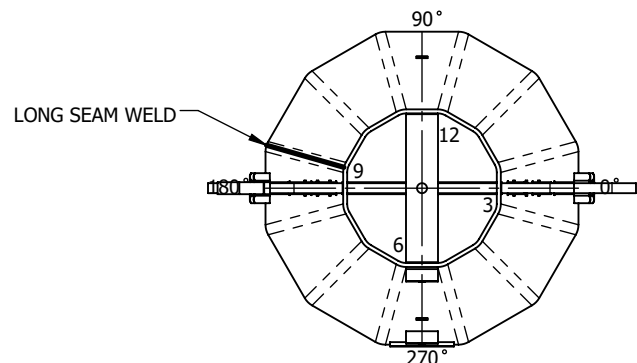
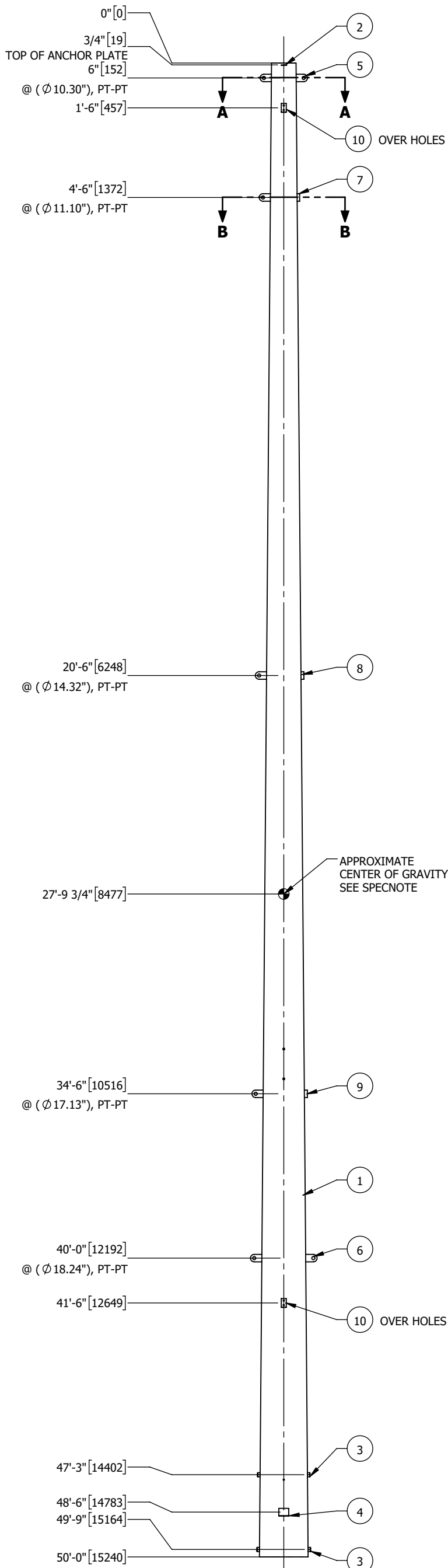


PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3020	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 020.3 000		2210.00	2210.00		
2	42444-3021	1	SHAFT ASSEMBLY, 42'-10" LONG	POLE-BASE 042.83 019.0 027.6 000		3090.00	3090.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>							<b>5310.00</b>		

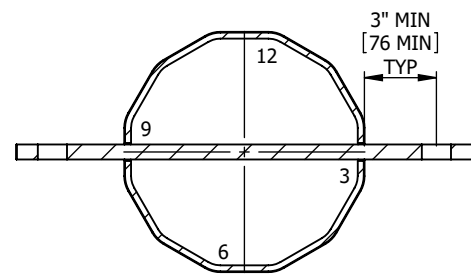
<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/05-24-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/24/2022	
CHECKED/DATE:	LM	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>90'-0" 115KV 3 PHASE VERTICAL SMALL ANGLE TPVD2.C2 S-08.0 POLE NO: 11.7</b>		
SHEET 2 OF 2	<b>42444-0890S3BT</b>	REV. <b>A</b>

SHAFT INFORMATION

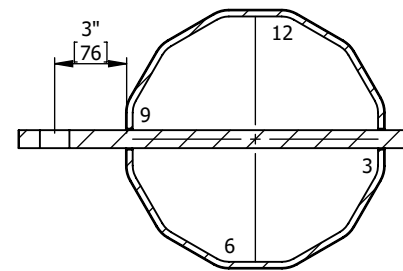
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4031	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	20 1/4" [514]	0.20100	9 27/32" [250]	19 9/16" [497]	0.19415



PLAN VIEW



SECTION A-A



SECTION B-B

FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	19.68" [500]	60 15/16" [1548]
	BOTTOM	20.25" [514]	62 11/16" [1592]

A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

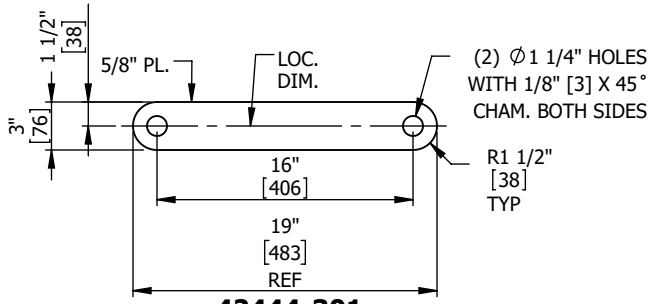
SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4031	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 62.13	065-ASTM A572 Gr65	1999.38	1999.38	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	42444-302	1	THROUGH VANG	0.63 X 3.00 X 26.75	065-ASTM A572 Gr65	13.45	13.45	
7	42444-303	1	THROUGH VANG	0.75 X 3.00 X 16.25	065-ASTM A572 Gr65	9.9	9.90	
8	42444-304	1	THROUGH VANG	0.75 X 3.00 X 19.50	065-ASTM A572 Gr65	11.97	11.97	
9	42444-305	1	THROUGH VANG	0.75 X 3.00 X 22.25	065-ASTM A572 Gr65	13.73	13.73	
10	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
TOTAL MODEL WEIGHT								2064.43
TOTAL UNFINISHED WEIGHT								2070.00
TOTAL FINISHED WEIGHT								2210.00

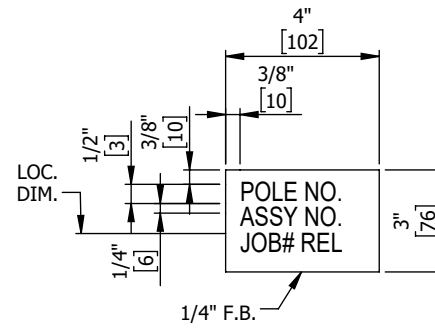
HARDWARE LOCATION AND ORIENTATION														ITEM NO	PART NUMBER	QTY	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT			
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	5	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	10	78412	1
4	4'-6" [1372]	180 DEG ON FLAT 8-9												THROUGH VANG / SECTION B-B	7	42444-303	1
5	20'-6" [6248]	180 DEG ON FLAT 8-9												THROUGH VANG / SECTION B-B	8	42444-304	1
6	27'-9 3/4" [8477]	APPROX. CENTER OF GRAVITY WELD													-		1
7	34'-6" [10516]	180 DEG ON FLAT 8-9												THROUGH VANG / SECTION B-B	9	42444-305	1
8	40'-0" [12192]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	6	42444-302	1
9	41'-6" [12649]						1							SS GROUND PAD 2-HOLE	10	78412	1
10	47'-2" [14376]	BOTTOM SLIP JOINT LENGTH 34"													-		1
11	47'-3" [14402]			1						1				JACKING NUT, 1" DIA.	3	74547	2
12	48'-6" [14783]						1							ID TAG, A-36	4	78413	1
13	48'-8" [14834]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
14	49'-9" [15164]			1						1				JACKING NUT, 1" DIA.	3	74547	2
15	50'-0" [15240]	TOWER PLATE TUBE												1	42444-4031	1	

HOLE INFORMATION														HOLE DIA	DESCRIPTION
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12		
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	16'-0" [4877]			1						1				1"	POST INSULATOR
6	17'-0" [5182]			1						1				1"	POST INSULATOR
7	24'-0" [7315]			1						1				1"	POST INSULATOR
8	25'-0" [7620]			1						1				1"	POST INSULATOR
9	33'-0" [10058]						1						1	3/4"	DISTRIBUTION ARM
10	34'-0" [10363]						1						1	3/4"	DISTRIBUTION ARM
11	41'-5 1/8" [12627]						1							9/16"	HOLE UNDER GRND PAD
12	41'-6 7/8" [12671]						1							9/16"	HOLE UNDER GRND PAD
13	47'-5" [14453]						1							1/2"	SJ INSPECTION

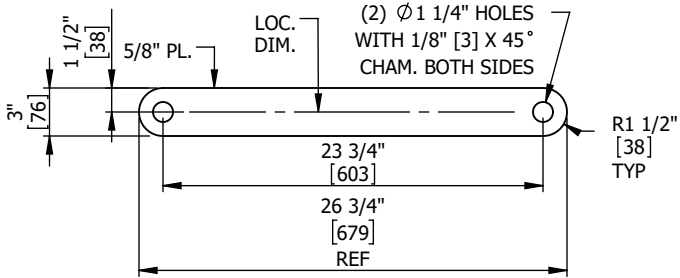
<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/05-24-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/24/2022	
CHECKED/DATE:	LM	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 3	<b>42444-3020</b>	REV. <b>A</b>



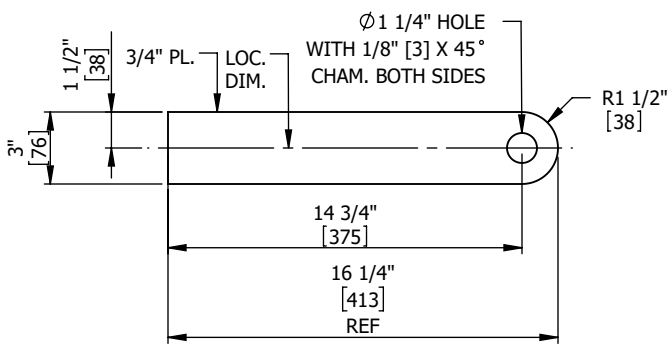
**42444-301**  
0.63 X 3.00 X 19.00  
065-ASTM A572 Gr65  
9.32 LBS



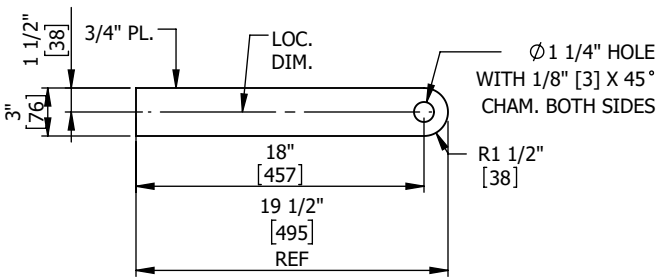
**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS



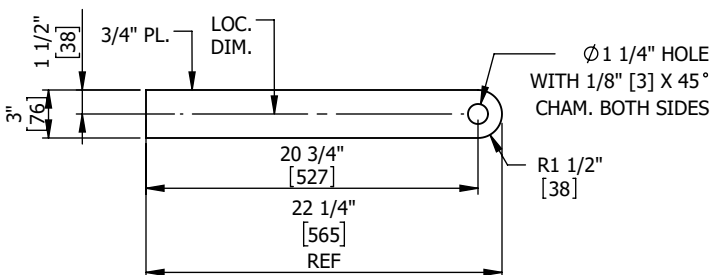
**42444-302**  
0.63 X 3.00 X 26.75  
065-ASTM A572 Gr65  
13.45 LBS



**42444-303**  
0.75 X 3.00 X 16.25  
065-ASTM A572 Gr65  
9.9 LBS



**42444-304**  
0.75 X 3.00 X 19.50  
065-ASTM A572 Gr65  
11.97 LBS



**42444-305**  
0.75 X 3.00 X 22.25  
065-ASTM A572 Gr65  
13.73 LBS

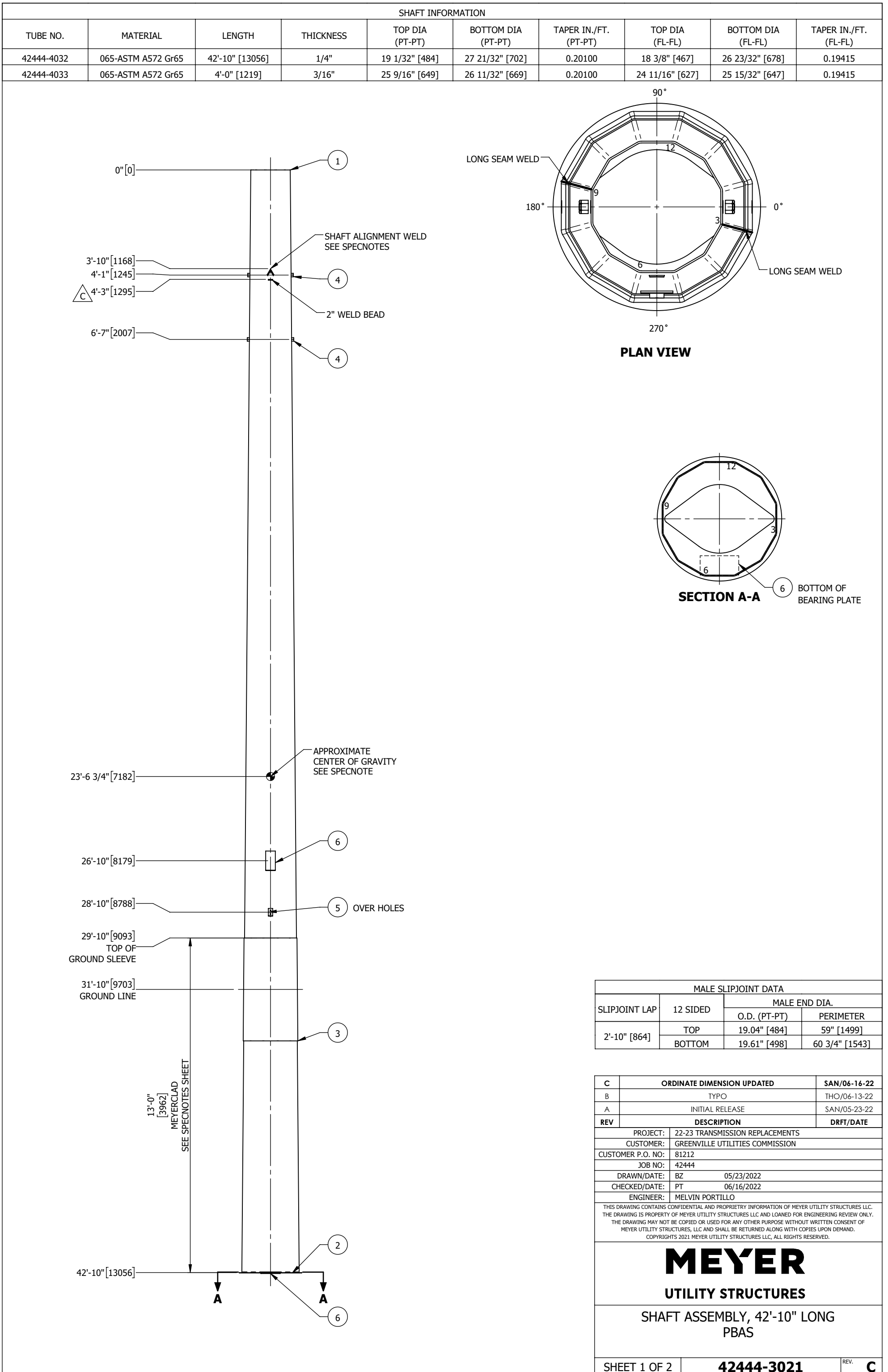
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP  
PARTS DETAIL

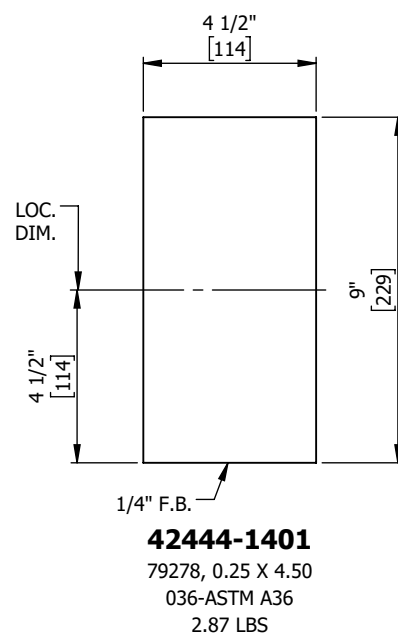
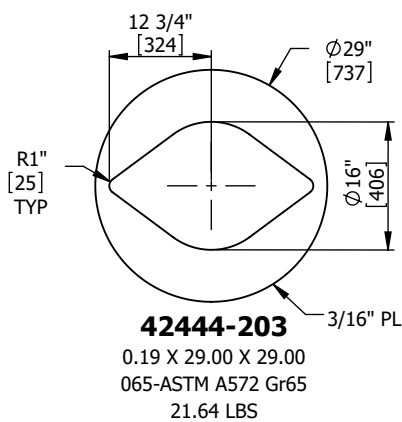
SHEET 3 OF 3	<b>42444-3020</b>	REV. <b>A</b>
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PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4032	1	TOWER PLATE TUBE	(2) 0.25 X 29.13 X 514.00 X 42.50	065-ASTM A572 Gr65	2660.31	2660.31	
2	42444-203	1	BEARING PLATE, 3/16" THK X 29" DIA	0.19 X 29.00 X 29.00	065-ASTM A572 Gr65	21.64	21.64	
3	42444-4033	1	GROUND SLEEVE	(2) 0.19 X 39.44 X 48.00 X 40.69	065-ASTM A572 Gr65	203.83	203.83	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
6	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	7.02	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2895.93	
TOTAL UNFINISHED WEIGHT							2900.00	
TOTAL FINISHED WEIGHT							3090.00	

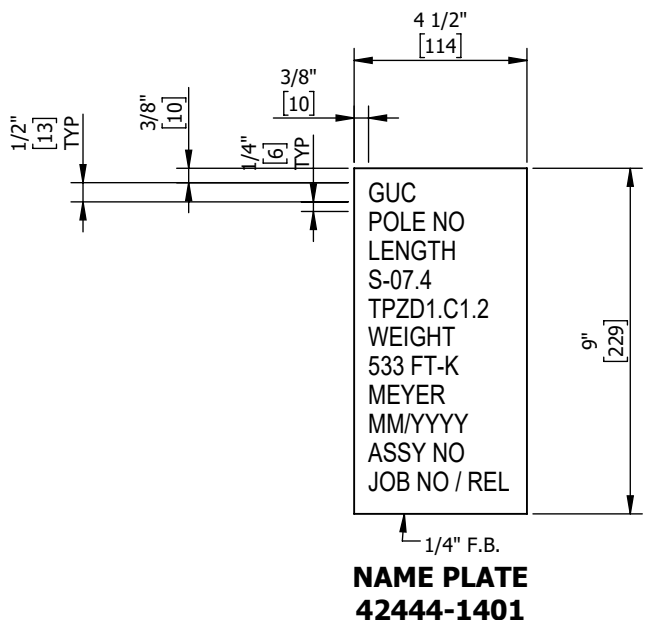
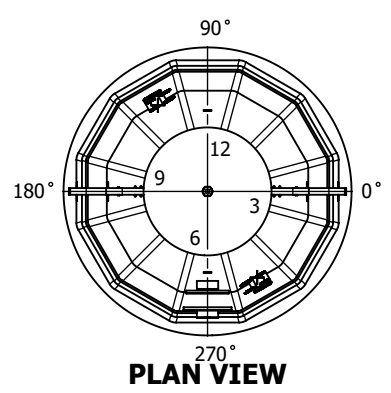
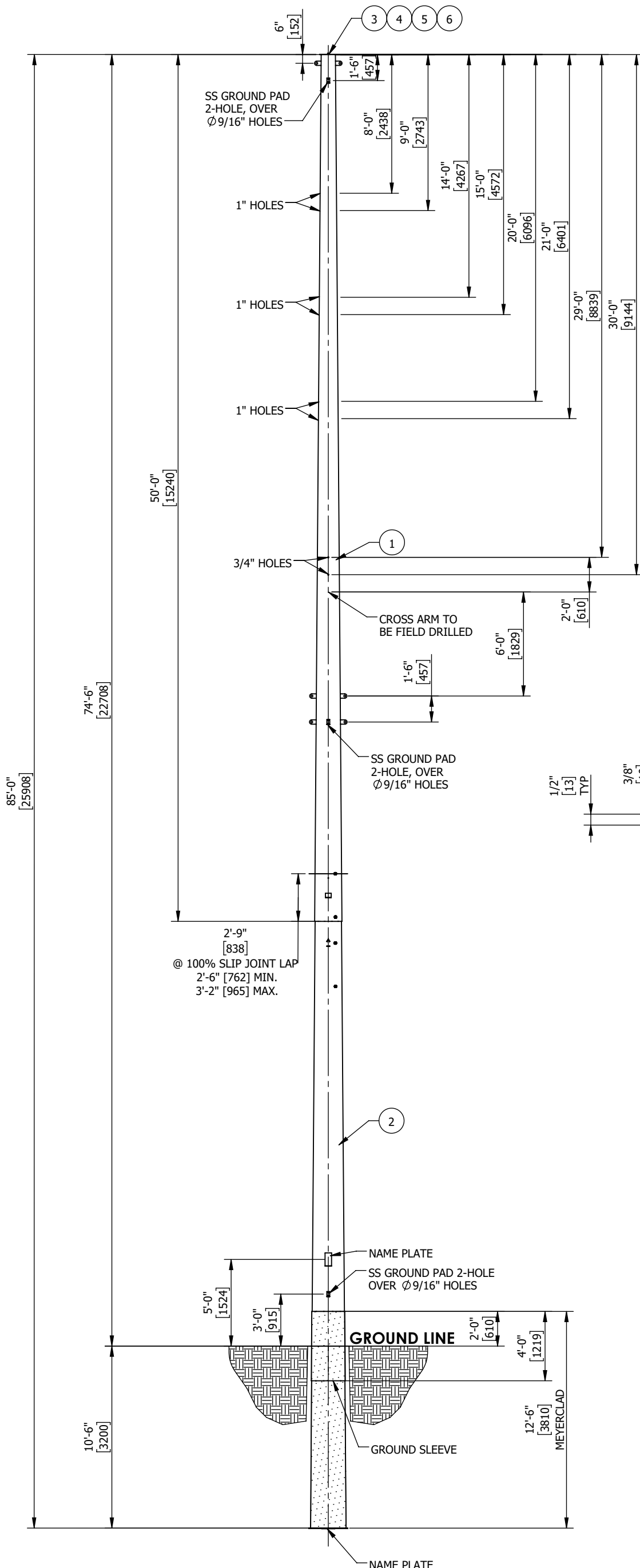
HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-10" [864]													TOP SLIP JOINT LENGTH 34"		-	1
3	3'-10" [1168]						1							SHAFT ALIGNMENT WELD		-	1
4	4'-1" [1245]			1						1				JACKING NUT, 1" DIA.	4	74547	2
5	4'-3" [1295]						1							2" WELD BEAD		-	1
6	6'-7" [2007]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	23'-6 3/4" [7182]													APPROX. CENTER OF GRAVITY WELD		-	1
8	26'-10" [8179]						1							NAME PLATE	6	42444-1401	1
9	28'-10" [8788]						1							SS GROUND PAD 2-HOLE	5	78412	1
10	29'-10" [9093]													TOP OF GROUND SLEEVE	3	42444-4033	1
11	31'-10" [9703]													GROUND LINE		-	-
12	42'-4" [12903]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	42'-10" [13056]													TOWER PLATE TUBE	1	42444-4032	1
14	42'-10" [13056]													BEARING PLATE, 3/16" THK X 29" DIA / SECTION A-A	2	42444-203	1
15	42'-10 3/16" [13060]													NAME PLATE / SECTION A-A	6	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	28'-9 1/8" [8766]						1							9/16"	HOLE UNDER GRND PAD
2	28'-10 7/8" [8811]						1							9/16"	HOLE UNDER GRND PAD



C	ORDINATE DIMENSION UPDATED	SAN/06-16-22
B	TYPO	THO/06-13-22
A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
PROJECT: 22-23 TRANSMISSION REPLACEMENTS		
CUSTOMER: GREENVILLE UTILITIES COMMISSION		
CUSTOMER P.O. NO: 81212		
JOB NO: 42444		
DRAWN/DATE: BZ 05/23/2022		
CHECKED/DATE: PT 06/16/2022		
ENGINEER: MELVIN PORTILLO		
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 42'-10" LONG PBAS		
SHEET 2 OF 2	<b>42444-3021</b>	REV. <b>C</b>

STRUCTURE INFORMATION								
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0785S3BT	11.11, 11.14	74'-6" [22708]	10 3/16" [259]	23 1/2" [597]	0.18700	9 27/32" [250]	22 11/16" [576]	0.18063



REV	DESCRIPTION	DRFT/DATE
B	TYPO	THO/06-13-22
A	INITIAL RELEASE	THO/05-24-22
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT	05/24/2022
CHECKED/DATE:	LM	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3 PHASE TANGENT TPZD1.C1.2 S-07.4 POLE NO: 11.11, 11.14		
SHEET 1 OF 2	<b>42444-0785S3BT</b>	REV. <b>B</b>

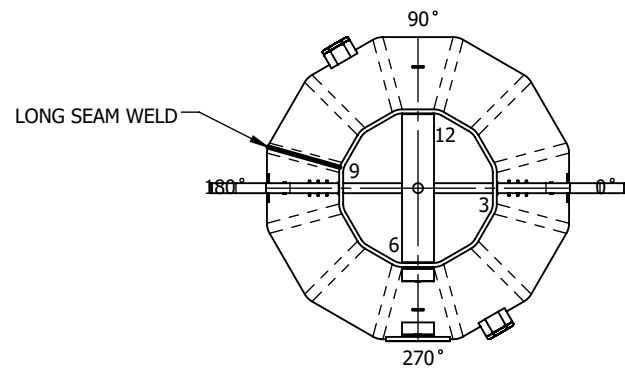
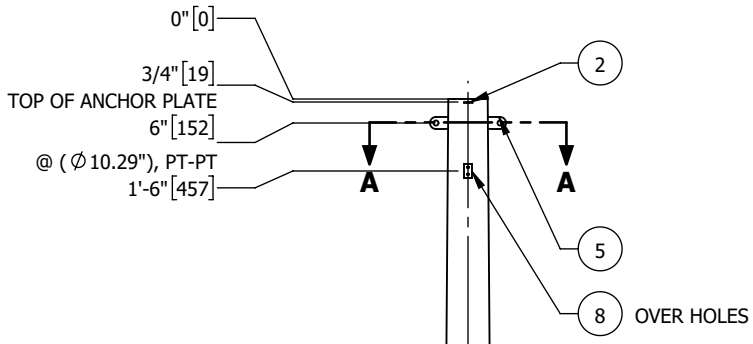
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-3018	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2110.00	2110.00	
2	42444-3019	1	SHAFT ASSEMBLY, 37'-9" LONG	POLE-BASE 037.75 018.4 025.5 000		2600.00	2600.00	
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00	
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
TOTAL STRUCTURE FINISHED WEIGHT								4720.00

<b>B</b>	<b>TYPO</b>	<b>THO/06-13-22</b>
<b>A</b>	INITIAL RELEASE	THO/05-24-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3 PHASE TANGENT TPZD1.C1.2 S-07.4 POLE NO: 11.11, 11.14		
SHEET 2 OF 2	<b>42444-0785S3BT</b>	REV. <b>B</b>

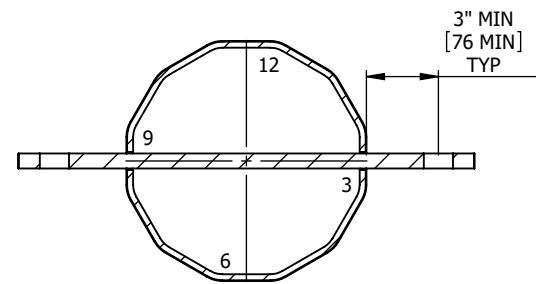


SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063

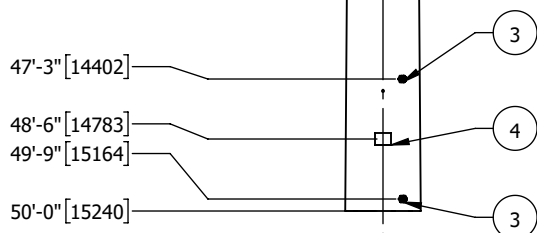
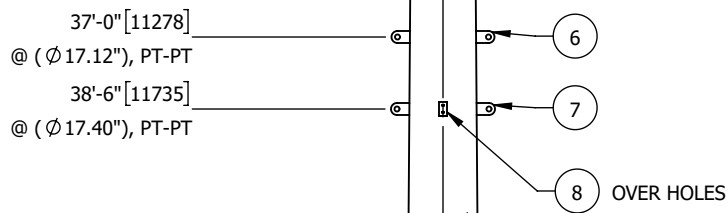


PLAN VIEW



SECTION A-A

27'-8 1/8" [8436] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	

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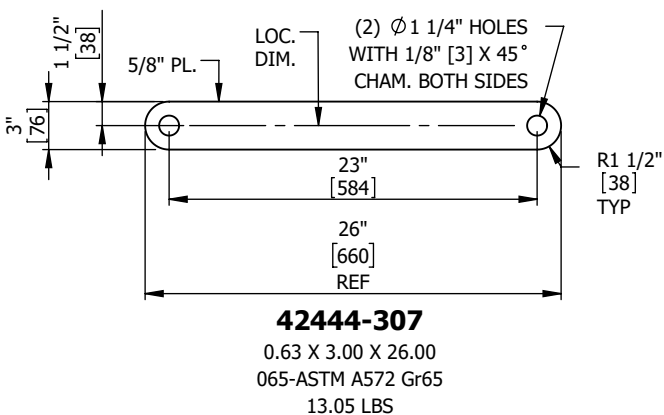
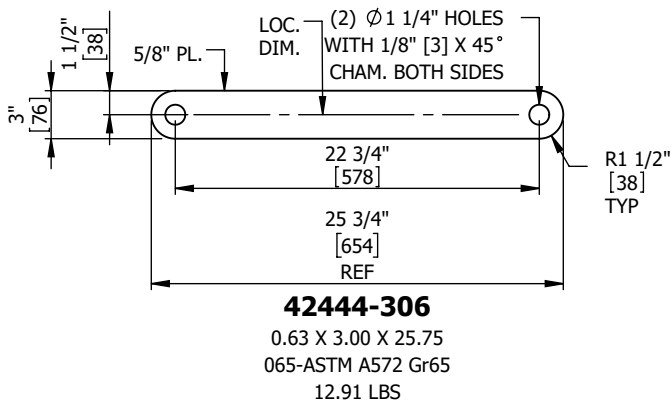
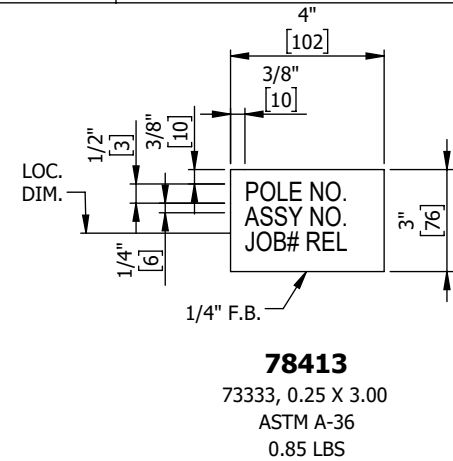
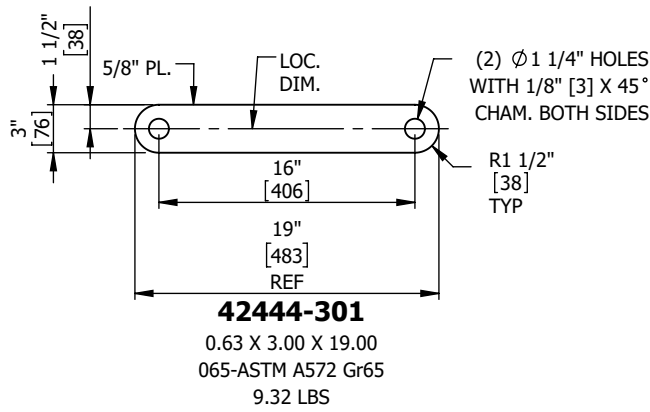
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	42444-306	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
7	42444-307	1	THROUGH VANG	0.63 X 3.00 X 26.00	065-ASTM A572 Gr65	13.05	13.05	
8	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
TOTAL MODEL WEIGHT							1977.53	
TOTAL UNFINISHED WEIGHT							1980.00	
TOTAL FINISHED WEIGHT							2110.00	

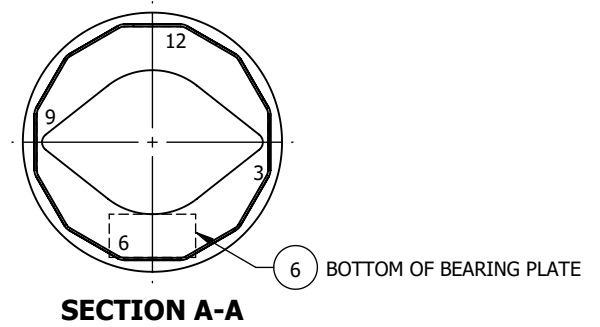
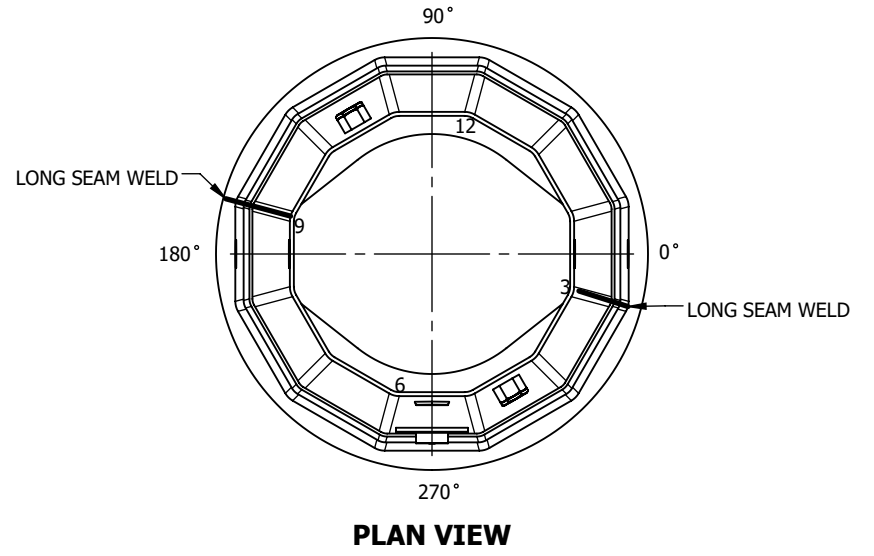
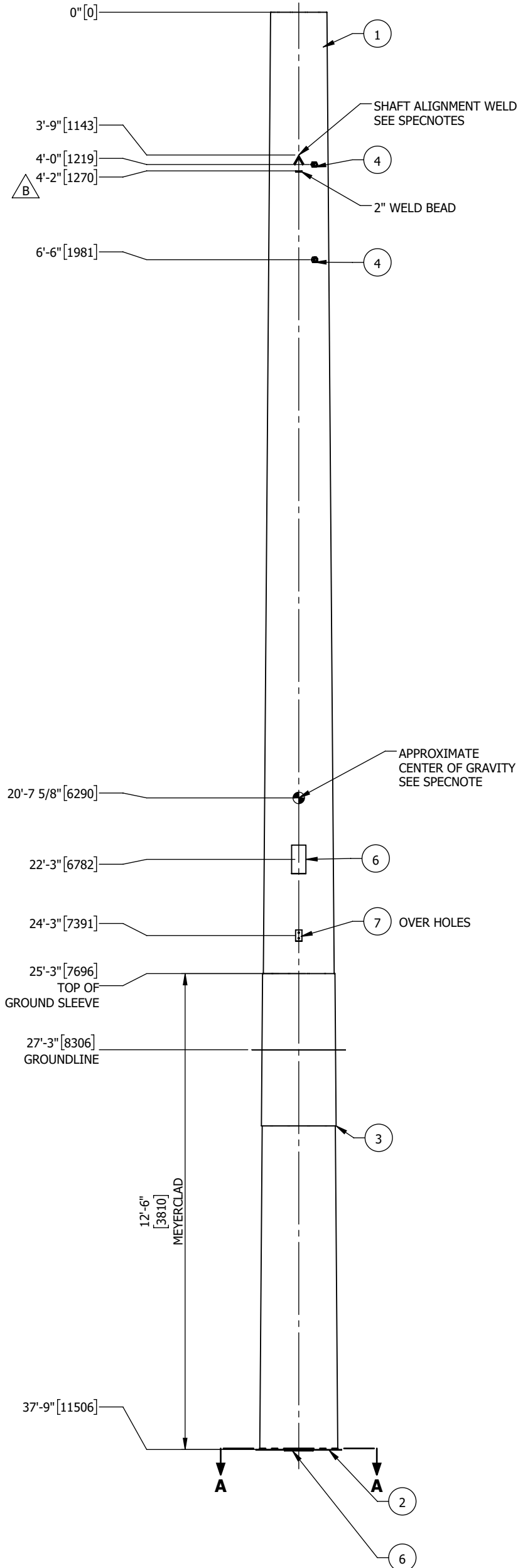
HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	5	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	8	78412	1
4	27'-8 1/8" [8436]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	37'-0" [11278]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	6	42444-306	1	
6	38'-6" [11735]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	7	42444-307	1	
7	38'-6" [11735]						1							SS GROUND PAD 2-HOLE	8	78412	1
8	47'-3" [14402]						1					1		JACKING NUT, 1" DIA.	3	74547	2
9	47'-3" [14402]	BOTTOM SLIP JOINT LENGTH 33"												-	1		
10	48'-6" [14783]						1							ID TAG, A-36	4	78413	1
11	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	49'-9" [15164]						1					1		JACKING NUT, 1" DIA.	3	74547	2
13	50'-0" [15240]	TOWER PLATE TUBE											1	42444-4028	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]				1					1				1"	POST INSULATOR
4	9'-0" [2743]				1					1				1"	POST INSULATOR
5	14'-0" [4267]				1					1				1"	POST INSULATOR
6	15'-0" [4572]				1					1				1"	POST INSULATOR
7	20'-0" [6096]				1					1				1"	POST INSULATOR
8	21'-0" [6401]				1					1				1"	POST INSULATOR
9	29'-0" [8839]												1	3/4"	DISTRIBUTION ARM
10	30'-0" [9144]												1	3/4"	DISTRIBUTION ARM
11	38'-5 1/8" [11713]													9/16"	HOLE UNDER GRND PAD
12	38'-6 7/8" [11757]													9/16"	HOLE UNDER GRND PAD
13	47'-6" [14478]													1/2"	SJ INSPECTION



A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3018</b>	REV. <b>A</b>

SHAFT INFORMATION									
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4029	065-ASTM A572 Gr65	37'-9" [11506]	1/4"	18 13/32" [467]	25 7/16" [646]	0.18700	17 25/32" [451]	24 19/32" [624]	0.18063
42444-4030	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	23 5/8" [600]	24 3/8" [619]	0.18700	22 13/16" [580]	23 17/32" [598]	0.18063



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	18.39" [467]	57" [1448]
	BOTTOM	18.91" [480]	58 9/16" [1487]

B	ORDINATE DIMENSION UPDATED	SAN/06-16-22
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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UTILITY STRUCTURES

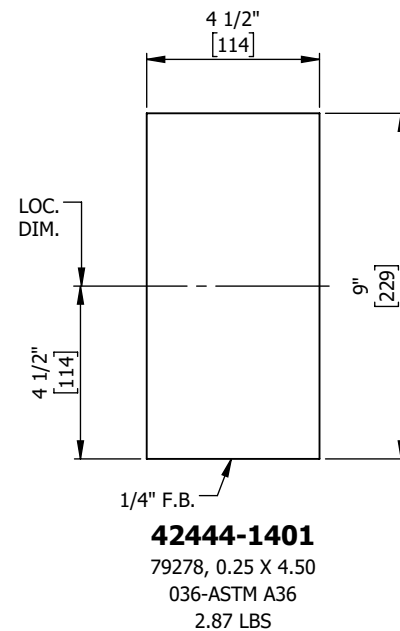
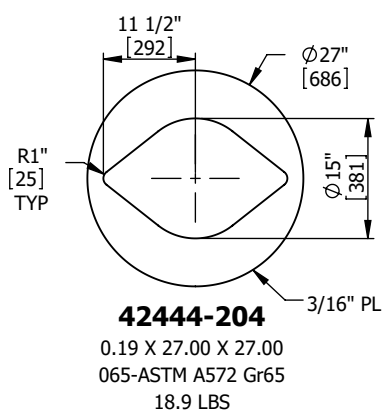
SHAFT ASSEMBLY, 37'-9" LONG  
PBAS

SHEET 1 OF 2	<b>42444-3019</b>	REV. <b>B</b>
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PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4029	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 453.00 X 39.13	065-ASTM A572 Gr65	2216.12	2216.12	
2	42444-204	1	BEARING PLATE, 3/16" THK X 27" DIA	0.19 X 27.00 X 27.00	065-ASTM A572 Gr65	18.9	18.90	
3	42444-4030	1	GROUND SLEEVE	(2) 0.19 X 36.44 X 48.00 X 37.56	065-ASTM A572 Gr65	188.4	188.40	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
6	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	7.02	
7	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
5	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2433.57	
TOTAL UNFINISHED WEIGHT							2440.00	
TOTAL FINISHED WEIGHT							2600.00	

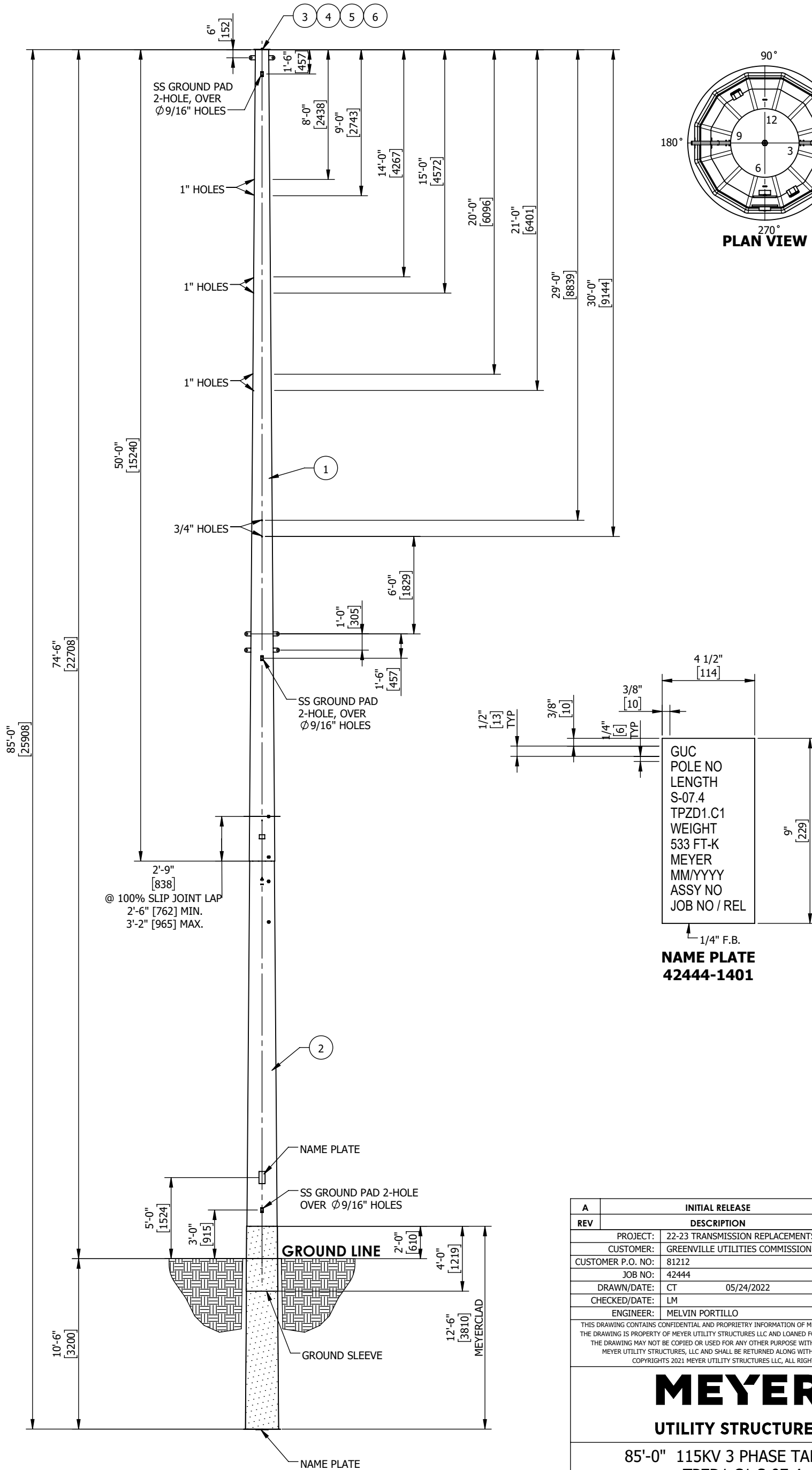
HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	3'-9" [1143]						1							SHAFT ALIGNMENT WELD		-	1
4	4'-0" [1219]					1						1		JACKING NUT, 1" DIA.	4	74547	2
5	4'-2" [1270]						1							2" WELD BEAD		-	1
6	6'-6" [1981]					1						1		JACKING NUT, 1" DIA.	4	74547	2
7	20'-7 5/8" [6290]													APPROX. CENTER OF GRAVITY WELD		-	1
8	22'-3" [6782]						1							NAME PLATE	6	42444-1401	1
9	24'-3" [7391]						1							SS GROUND PAD 2-HOLE	7	78412	1
10	25'-3" [7696]													TOP OF GROUND SLEEVE	3	42444-4030	1
11	27'-3" [8306]													GROUND LINE		-	-
12	37'-3" [11354]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	37'-9" [11506]													TOWER PLATE TUBE	1	42444-4029	1
14	37'-9" [11506]													BEARING PLATE, 3/16" THK X 27" DIA / SECTION A-A	2	42444-204	1
15	37'-9 3/16" [11511]													NAME PLATE / SECTION A-A	6	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	24'-2 1/8" [7369]						1							9/16"	HOLE UNDER GRND PAD
2	24'-3 7/8" [7414]						1							9/16"	HOLE UNDER GRND PAD



B	ORDINATE DIMENSION UPDATED	SAN/06-16-22
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	CT	05/24/2022
CHECKED/DATE:	LM	06/16/2022
ENGINEER:	MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 37'-9" LONG PBAS		
SHEET 2 OF 2	<b>42444-3019</b>	REV. <b>B</b>

STRUCTURE INFORMATION								
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0785S3DT	11.21	74'-6" [22708]	10 3/16" [259]	23 1/2" [597]	0.18700	9 27/32" [250]	22 11/16" [576]	0.18063



@ 100% SLIP JOINT LAP  
2'-6" [762] MIN.  
3'-2" [965] MAX.

GUC  
POLE NO  
S-07.4  
TPZD1.C1  
WEIGHT  
533 FT-K  
MEYER  
MM/YYYY  
ASSY NO  
JOB NO / REL

1/4" F.B.  
**NAME PLATE  
42444-1401**

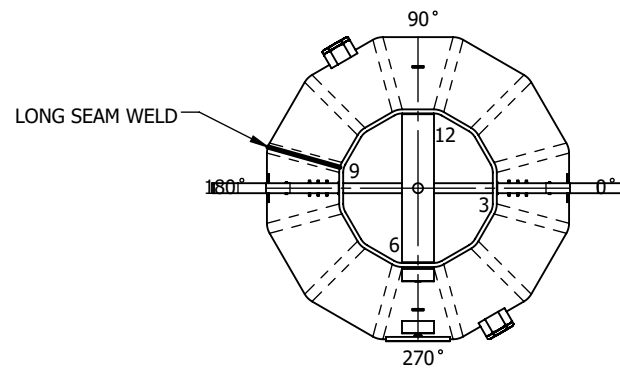
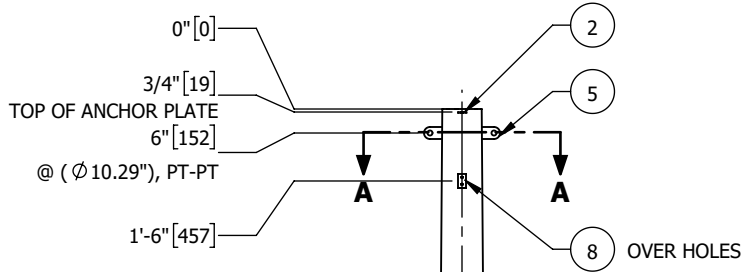
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>85'-0" 115KV 3 PHASE TANGENT TPZD1.C1 S-07.4 POLE NO: 11.21</b>		
SHEET 1 OF 2	<b>42444-0785S3DT</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3025	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2110.00	2110.00		
2	42444-3019	1	SHAFT ASSEMBLY, 37'-9" LONG	POLE-BASE 037.75 018.4 025.5 000		2600.00	2600.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
							TOTAL STRUCTURE FINISHED WEIGHT		4720.00

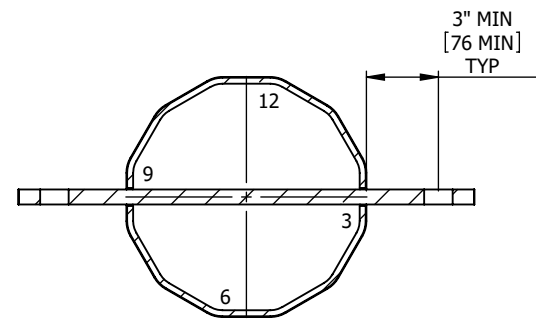
<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/05-24-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/24/2022	
CHECKED/DATE:	LM	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3 PHASE TANGENT TPZD1.C1 S-07.4 POLE NO: 11.21		
SHEET 2 OF 2	<b>42444-0785S3DT</b>	REV. <b>A</b>

SHAFT INFORMATION

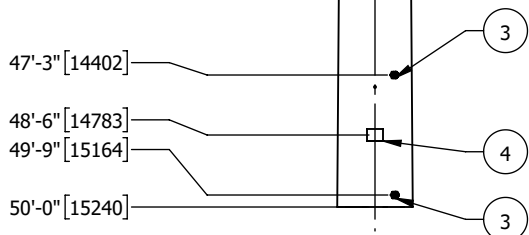
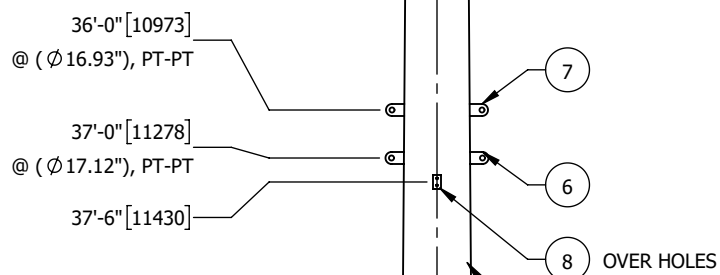
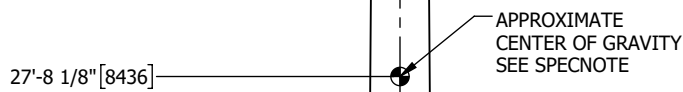
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



PLAN VIEW



SECTION A-A



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	

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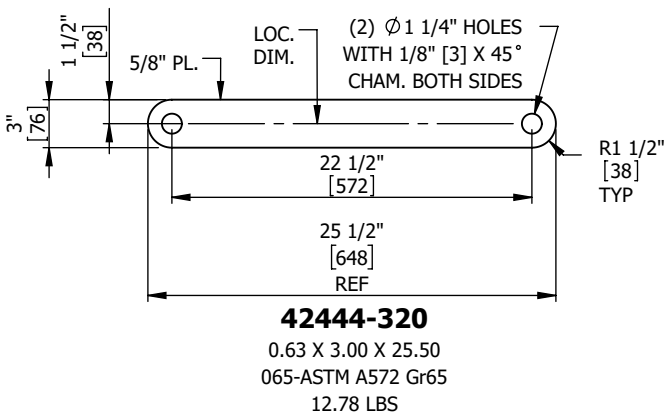
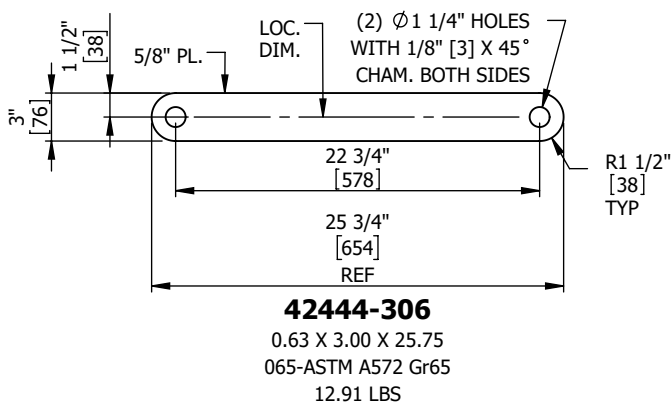
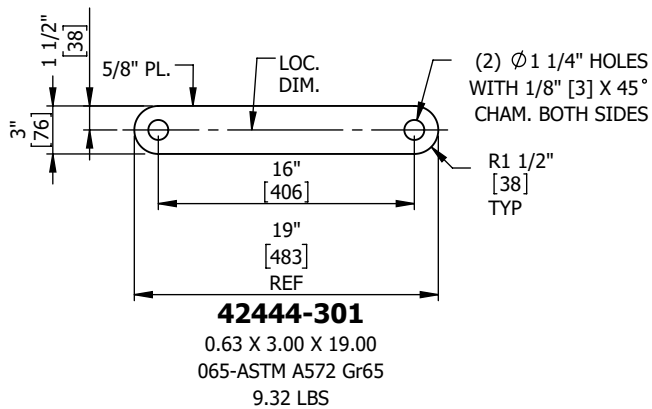
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	42444-306	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
7	42444-320	1	THROUGH VANG	0.63 X 3.00 X 25.50	065-ASTM A572 Gr65	12.78	12.78	
8	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
TOTAL MODEL WEIGHT							1977.26	
TOTAL UNFINISHED WEIGHT							1980.00	
TOTAL FINISHED WEIGHT							2110.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	5	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	8	78412	1
4	27'-8 1/8" [8436]	APPROX. CENTER OF GRAVITY WELD													-	1	
5	36'-0" [10973]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	7	42444-320	1
6	37'-0" [11278]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	6	42444-306	1
7	37'-6" [11430]						1							SS GROUND PAD 2-HOLE	8	78412	1
8	47'-3" [14402]					1						1		JACKING NUT, 1" DIA.	3	74547	2
9	47'-3" [14402]	BOTTOM SLIP JOINT LENGTH 33"													-	1	
10	48'-6" [14783]						1							ID TAG, A-36	4	78413	1
11	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	49'-9" [15164]					1							1	JACKING NUT, 1" DIA.	3	74547	2
13	50'-0" [15240]	TOWER PLATE TUBE												1	42444-4028	1	

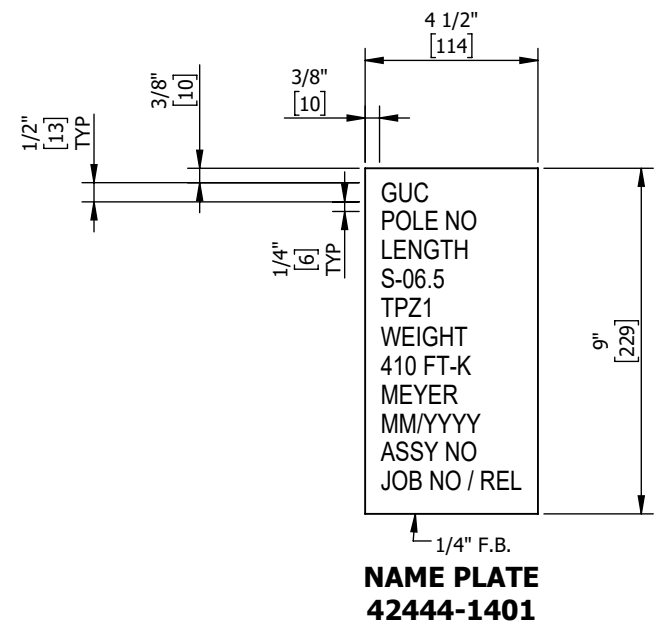
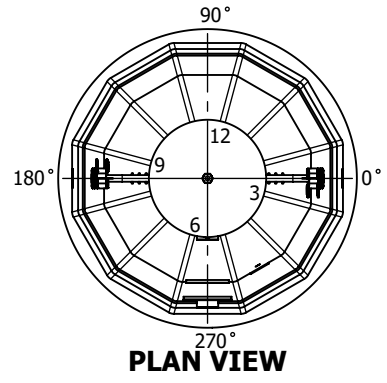
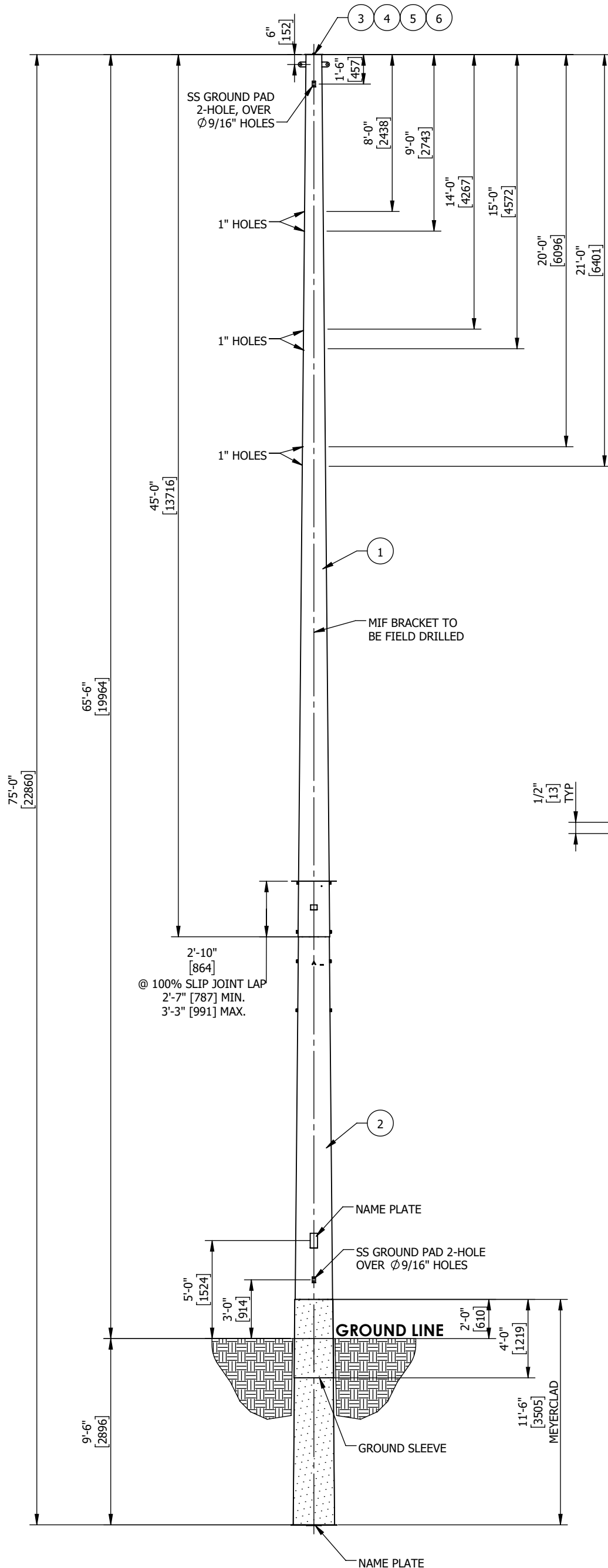
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	DISTRIBUTION ARM
10	30'-0" [9144]						1					1		3/4"	DISTRIBUTION ARM
11	37'-5 1/8" [11408]						1							9/16"	HOLE UNDER GRND PAD
12	37'-6 7/8" [11452]						1							9/16"	HOLE UNDER GRND PAD
13	47'-6" [14478]						1							1/2"	SJ INSPECTION



A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/24/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3025</b>	REV. <b>A</b>



STRUCTURE INFORMATION								
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0675S3AT	12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7	65'-6" [19964]	10" [254]	24 5/32" [614]	0.22400	9 21/32" [245]	23 11/32" [593]	0.21637



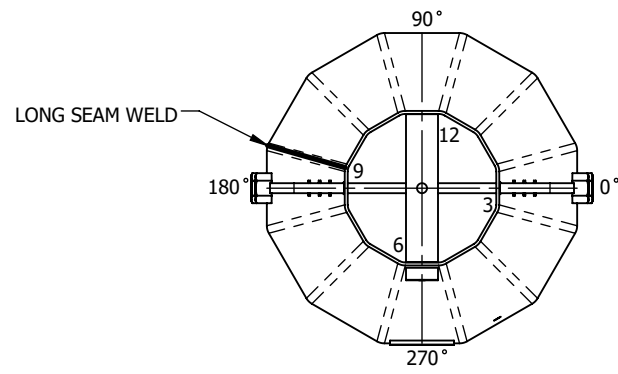
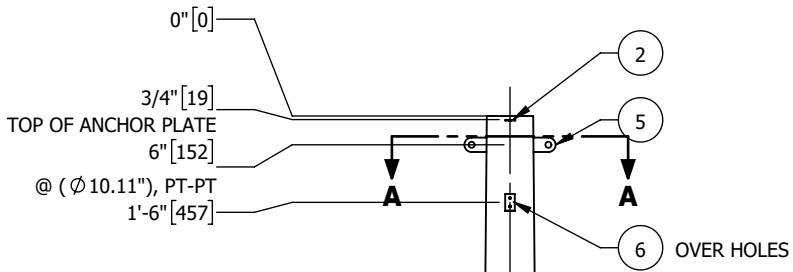
A	INITIAL RELEASE	THO/05-20-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/20/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
75'-0" 115KV 3 PHASE TANGENT TPZ1 S-06.5 POLE NO: 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7		
SHEET 1 OF 2	<b>42444-0675S3AT</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3016	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 020.1 000		1440.00	1440.00		
2	42444-3017	1	SHAFT ASSEMBLY, 32'-10" LONG	POLE-BASE 032.83 018.9 026.3 000		1830.00	1830.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								3280.00	

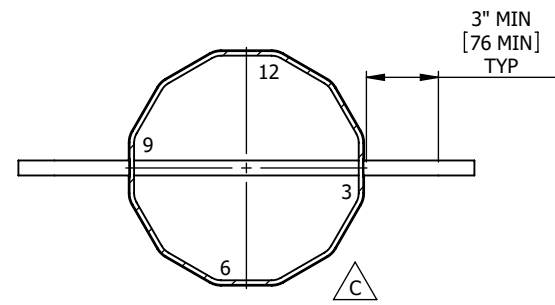
<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/05-20-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/20/2022	
CHECKED/DATE:	LM	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>75'-0" 115KV 3 PHASE TANGENT TPZ1 S-06.5</b>		
<b>POLE NO: 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7</b>		
SHEET 2 OF 2	<b>42444-0675S3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

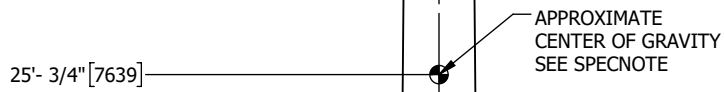
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4025	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	20 3/32" [510]	0.22400	9 21/32" [245]	19 13/32" [493]	0.21637



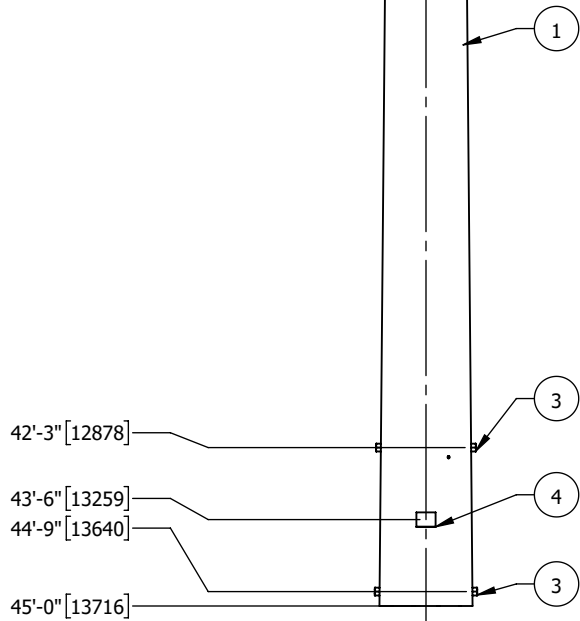
PLAN VIEW



SECTION A-A



APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	19.45" [494]	60 1/4" [1530]
	BOTTOM	20.08" [510]	62 3/16" [1580]

REV	DESCRIPTION	DRFT/DATE
C	UNDO PREVIOUS VANG REVISION..	THO/06-21-22
B	ROTATE SW VANG	THO/06-13-22
A	INITIAL RELEASE	THO/05-20-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	CT 05/20/2022
CHECKED/DATE:	LM
ENGINEER:	MELVIN PORTILLO

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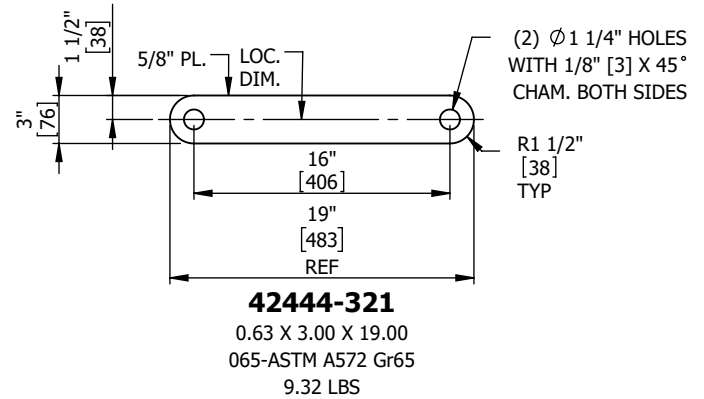
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4025	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 61.88	065-ASTM A572 Gr65	1335.22	1335.22	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-321	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1349.81	
TOTAL UNFINISHED WEIGHT							1360.00	
TOTAL FINISHED WEIGHT							1440.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG	5	42444-321	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	25'-3/4" [7639]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	42'-2" [12852]	BOTTOM SLIP JOINT LENGTH 34"												-	1		
6	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	3	74547	2
7	43'-6" [13259]						1							ID TAG, A-36	4	78413	1
8	43'-8" [13310]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	3	74547	2
10	45'-0" [13716]	TOWER PLATE TUBE											1	42444-4025	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	42'-5" [12929]						1							1/2"	SJ INSPECTION



REV	DESCRIPTION	DRFT/DATE
C	UNDO PREVIOUS VANG REVISION..	THO/06-21-22
B	ROTATE SW VANG	THO/06-13-22
A	INITIAL RELEASE	THO/05-20-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO:	81212
JOB NO:	42444
DRAWN/DATE:	CT 05/20/2022
CHECKED/DATE:	LM
ENGINEER:	MELVIN PORTILLO

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# MEYER

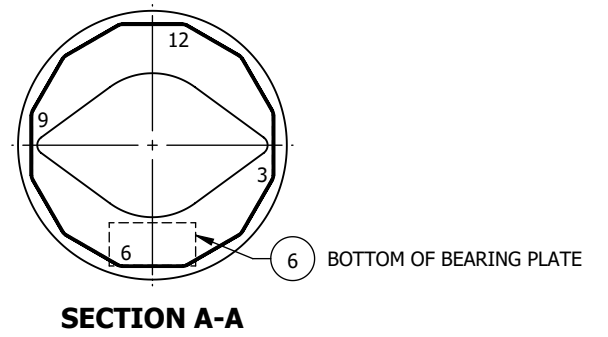
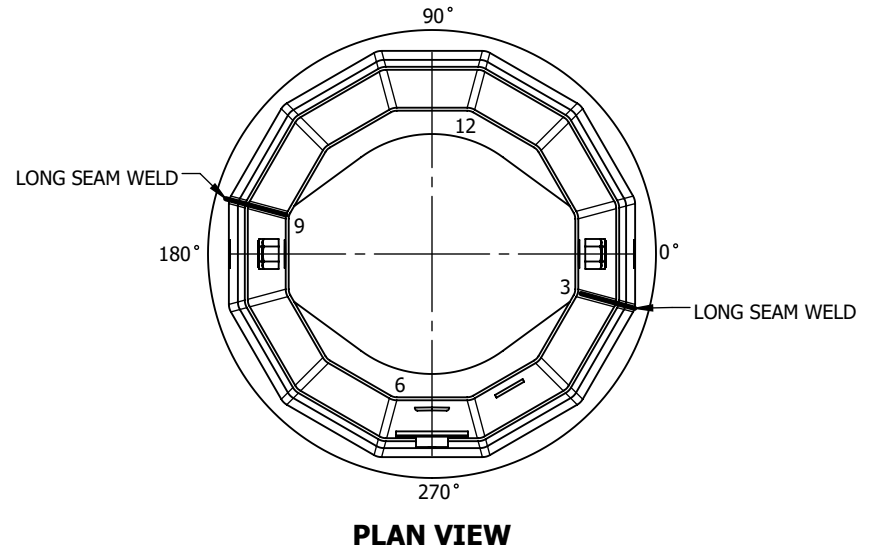
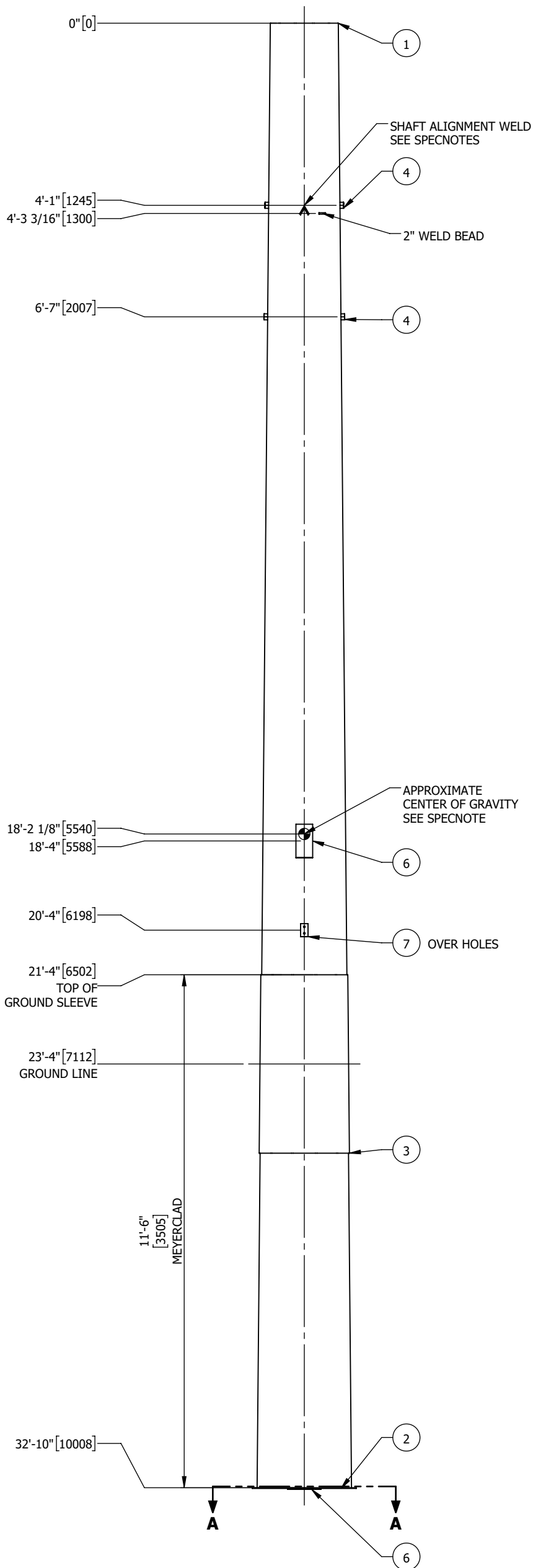
## UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

SHEET 2 OF 2	<b>42444-3016</b>	REV. <b>C</b>
--------------	-------------------	---------------

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4026	065-ASTM A572 Gr65	32'-10" [10008]	3/16"	18 15/16" [481]	26 9/32" [668]	0.22400	18 9/32" [464]	25 13/32" [645]	0.21637
42444-4027	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	24 7/32" [615]	25 1/8" [638]	0.22400	23 13/32" [594]	24 1/4" [616]	0.21637



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	18.93" [481]	58 11/16" [1491]
	BOTTOM	19.57" [497]	60 11/16" [1541]

A	INITIAL RELEASE	THO/05-20-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/20/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	

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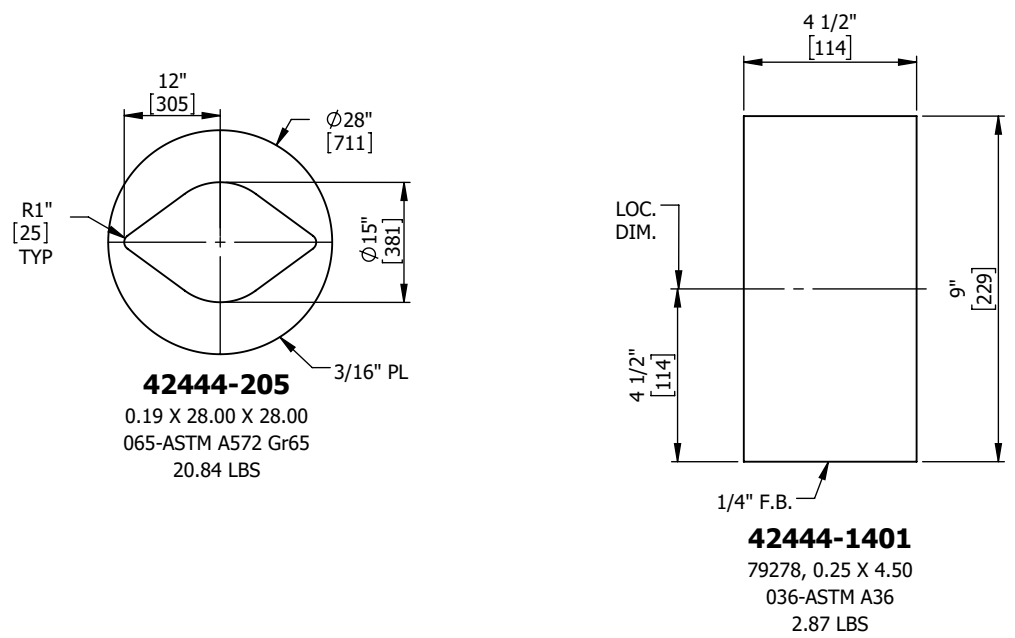
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 32'-10" LONG  
PBAS

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4026	1	TOWER PLATE TUBE	(2) 0.19 X 29.13 X 394.00 X 40.56	065-ASTM A572 Gr65	1487.52	1487.52	
2	42444-205	1	BEARING PLATE, 3/16" THK X 28" DIA	0.19 X 28.00 X 28.00	065-ASTM A572 Gr65	20.84	20.84	
3	42444-4027	1	GROUND SLEEVE	(2) 0.19 X 37.38 X 48.00 X 38.75	065-ASTM A572 Gr65	193.71	193.71	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	MCLADBR	-	MEYER CLAD - BROWN			0	-	
6	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	7.02	
7	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT								1712.22
TOTAL UNFINISHED WEIGHT								1720.00
TOTAL FINISHED WEIGHT								1830.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-10" [864]													TOP SLIP JOINT LENGTH 34"		-	1
3	4'-1" [1245]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	4'-1" [1245]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-3" [1295]						1							2" WELD BEAD		-	1
6	6'-7" [2007]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	18'-2 1/8" [5540]													APPROX. CENTER OF GRAVITY WELD		-	1
8	18'-4" [5588]						1							NAME PLATE	6	42444-1401	1
9	20'-4" [6198]						1							SS GROUND PAD 2-HOLE	7	78412	1
10	21'-4" [6502]													TOP OF GROUND SLEEVE	3	42444-4027	1
11	23'-4" [7112]													GROUND LINE		-	-
12	32'-4" [9855]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	32'-10" [10008]													TOWER PLATE TUBE	1	42444-4026	1
14	32'-10" [10008]													BEARING PLATE, 3/16" THK X 28" DIA / SECTION A-A	2	42444-205	1
15	32'-10 3/16" [10012]													NAME PLATE / SECTION A-A	6	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	20'-3 1/8" [6175]						1							9/16"	HOLE UNDER GRND PAD
2	20'-4 7/8" [6220]						1							9/16"	HOLE UNDER GRND PAD



A	INITIAL RELEASE	THO/05-20-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/20/2022	
	CHECKED/DATE: LM	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 32'-10" LONG PBAS		
SHEET 2 OF 2	<b>42444-3017</b>	REV. <b>A</b>

\*\*\*THOMASC-6/13/2022--11:28:39 AM\*\*\*

# GREENVILLE UTILITIES COMMISSION

## 22-23 TRANSMISSION REPLACEMENTS

# 42444C

### POLE DRAWING INDEX

RELEASE	QTY	STRUCTURE TYPE	STRUCTURE LENGTH	EMBEDMENT LENGTH	POLE NO	ERECTION DRAWING	POLE LAYOUT DRAWING	ARM LAYOUT DRAWING	CAMBER AMOUNT
C	6	115KV 3-PHASE TAN Z-FRAME STR S-05.7 TPZ1	70'-0"	9'-0"	16.1, 16.2, 16.3, 16.4, 16.5, 16.6	42444-0570S3AT	42444-3014, 42444-3015	NONE	-
	1	115KV 3-PHASE TAN Z-FRAME STR S-07.4 TPZD1.DC6.2	85'-0"	10'-6"	16.7	42444-0785S3ET	42444-3041, 42444-3042	NONE	-
	6	115KV 3-PHASE TAN Z-FRAME STR S-07.4 TPZD1.DC1	80'-0"	10'-0"	16.8, 16.9, 16.10, 16.11, 16.12, 16.13	42444-0780S3BT	42444-3039, 42444-3040	NONE	-
	1	115KV 3-PHASE TAN Z-FRAME DEADEND S-06.5 TSV6	75'-0"	9'-6"	16.14	42444-0675S3BT	42444-3035, 42444-3036	NONE	-
	1	115KV 3-PHASE TAN Z-FRAME STR S-03.5 TPZ1	65'-0"	8'-6"	16.15	42444-0265S3BT	42444-3033, 42444-3034	NONE	-
	1	115KV 3-PHASE LARGE ANGLE Z-FRAME STR S-03.5 TSV4	60'-0"	8'-0"	16.16	42444-0260F3AT	42444-3037, 42444-3038	NONE	-
	3	ZINC PAINT TOUCH UP KIT (1 GAL. PER 5 POLES)	-	-	-	42444-MSZINCCT	-	NONE	-

### SSG DRAWING INDEX

STANDARD DRAWINGS	DRAWING NO
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION	SSG001
GALVANIZED POLE LIFTING REQUIREMENTS	SSG002
JACKING NUT LOCATIONS	SSG004
JACKING INSTRUCTIONS	SSG005
WELDING DETAILS	SSG007

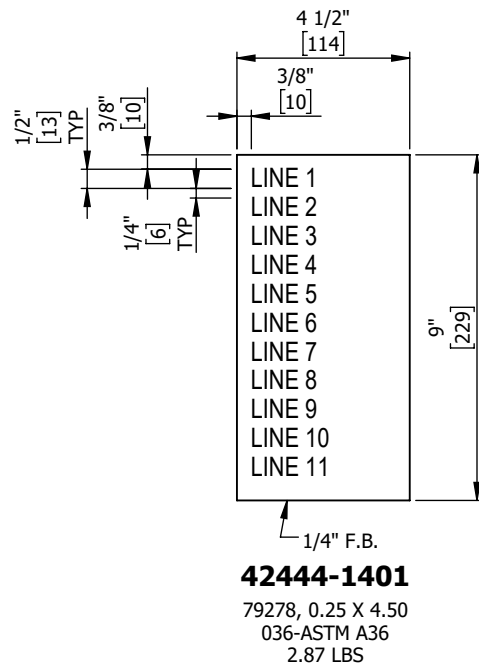
### Meyer Utility Structures

**6750 Lenox Center Court, Suite 400  
 Memphis, TN 38115  
 Phone: (901) 566-6500  
 Engr. Fax: (901) 566-6650**

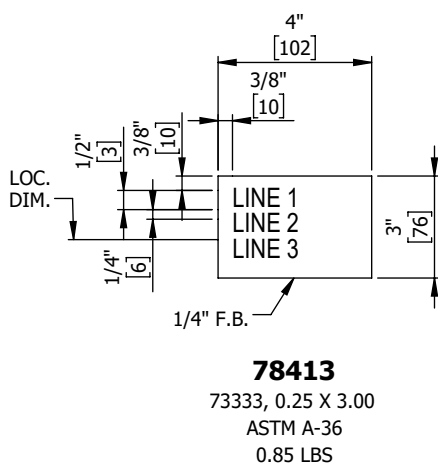
### CENTRAL/EAST VALUE STREAM

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE C		
SHEET 1 OF 2	<b>42444-INDEX_C</b>	REV. <b>A</b>

42444-1401	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11
1	GUC	16.1	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
2	GUC	16.1	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
3	GUC	16.2	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
4	GUC	16.2	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
5	GUC	16.3	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
6	GUC	16.3	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
7	GUC	16.4	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
8	GUC	16.4	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
9	GUC	16.5	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
10	GUC	16.5	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
11	GUC	16.6	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
12	GUC	16.6	70 FT-0 IN	S-05.7	42444-0570S3AT	2810 #	332 FT-K	MEYER	MM/YYYY	42444-3015	42444C
13	GUC	16.7	85 FT-0 IN	S-07.4	42444-0785S3ET	4690 #	533 FT-K	MEYER	MM/YYYY	42444-3042	42444C
14	GUC	16.7	85 FT-0 IN	S-07.4	42444-0785S3ET	4690 #	533 FT-K	MEYER	MM/YYYY	42444-3042	42444C
15	GUC	16.8	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
16	GUC	16.8	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
17	GUC	16.9	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
18	GUC	16.9	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
19	GUC	16.10	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
20	GUC	16.10	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
21	GUC	16.11	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
22	GUC	16.11	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
23	GUC	16.12	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
24	GUC	16.12	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
25	GUC	16.13	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
26	GUC	16.13	80 FT-0 IN	S-07.4	42444-0780S3BT	4330 #	501 FT-K	MEYER	MM/YYYY	42444-3040	42444C
27	GUC	16.14	75 FT-0 IN	S-06.5	42444-0675S3BT	3310 #	410 FT-K	MEYER	MM/YYYY	42444-3036	42444C
28	GUC	16.14	75 FT-0 IN	S-06.5	42444-0675S3BT	3310 #	410 FT-K	MEYER	MM/YYYY	42444-3036	42444C
29	GUC	16.15	65 FT-0 IN	S-03.5	42444-0265S3BT	2090 #	190 FT-K	MEYER	MM/YYYY	42444-3034	42444C
30	GUC	16.15	65 FT-0 IN	S-03.5	42444-0265S3BT	2090 #	190 FT-K	MEYER	MM/YYYY	42444-3034	42444C
31	GUC	16.16	60 FT-0 IN	S-03.5	42444-0260F3AT	2160 #	174 FT-K	MEYER	MM/YYYY	42444-3038	42444C
32	GUC	16.16	60 FT-0 IN	S-03.5	42444-0260F3AT	2160 #	174 FT-K	MEYER	MM/YYYY	42444-3038	42444C



78413	LINE 1	LINE 2	LINE 3
1	16.1	42444-3014	42444C
2	16.2	42444-3014	42444C
3	16.3	42444-3014	42444C
4	16.4	42444-3014	42444C
5	16.5	42444-3014	42444C
6	16.6	42444-3014	42444C
7	16.7	42444-3041	42444C
8	16.8	42444-3039	42444C
9	16.9	42444-3039	42444C
10	16.10	42444-3039	42444C
11	16.11	42444-3039	42444C
12	16.12	42444-3039	42444C
13	16.13	42444-3039	42444C
14	16.14	42444-3035	42444C
15	16.15	42444-3033	42444C
16	16.16	42444-3037	42444C



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE C		
SHEET 2 OF 2	<b>42444-INDEX_C</b>	REV. <b>A</b>



SPECIAL NOTES:

STANDARD NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. UNLESS OTHERWISE NOTED REFER SSG007 FOR WELDING DETAILS.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

SHAFT/ARM NOTES:

1. MARK "+" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
2. HOT DIP GALVANIZED PER ASTM A-123.
3. NO PRE-GALV BLAST REQUIRED; BRUSH BLAST PER ASTM D6386 AND SSPC-SP16 PRIOR TO APPLICATION OF MEYERCLAD OVER GALV.
4. COAT WITH MEYERCLAD PNT 218A AND 218B 20 MILS MINIMUM DFT 25 MILS AVERAGE DFT.

MIDDLE/BOTTOM SHAFT NOTES:

1. WELD A 2" INVERTED V (MATCH MARK) ON  $\phi$  OF FLAT TO ALIGN WITH THE  $\phi$  OF THE NAMEPLATE/ID TAG ON THE ABOVE SHAFT ASSEMBLY.

NOTAS:

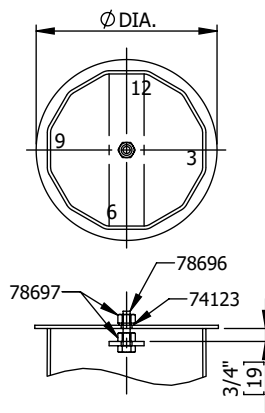
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO AMUS-EN-P-018 PARA TOLERANCIAS.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO SSG007 PARA DETALLE DE SOLDADURA.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

SHAFT/ARM NOTES:

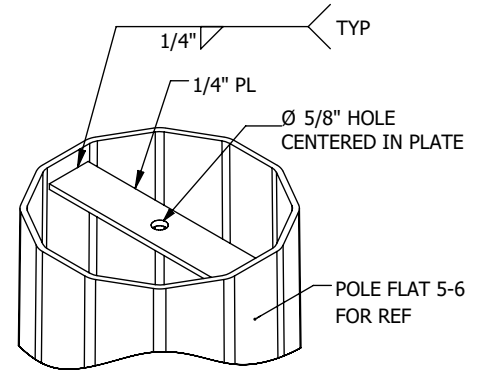
1. MARCAR "+" AL CENTRO DE GARAVEDAD APROXIMADO. (EN CUALQUIER PISO - SOLO PARA EL USO DEL FABRICANTE).
2. GALVANIZADO POR INMERSION EN CALIENTE DE ACUERDO A ASTM A-123.
3. NO SE REQUIERE BLASTEADO PREVIO A GALVANIZAR; PULIR CON EPILLO ABRASIVO POR ASTM D6386 Y SSPC-SP16 ANTES DE LA APLICACIÓN DE MEYERCLAD SOBRE EL GALVANIZADO.
4. RECUBRIR CON MEYERCLAD PNT 218A Y 218B MÍNIMO 20 MILS. PROMEDIO MÍNIMO 25 MILS.

MIDDLE/BOTTOM SHAFT NOTAS:

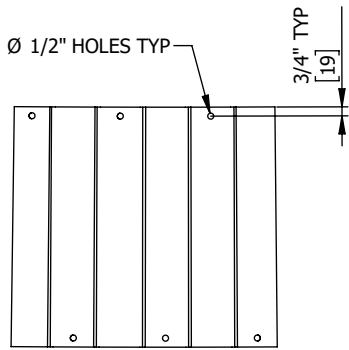
1. SOLDAR UNA V INVERTIDA ( MARCA DE COINCIDENCIA) DE 2" ( 50.8 MM) EN EL  $\phi$  DEL PLANO PARA ALINEAR CON EL  $\phi$  DE LA PLACA DE IDENTIFICACION/PLACA ID EN EL ENSAMBLAJE SUPERIOR ANTERIOR.



POLE CAP DETAIL

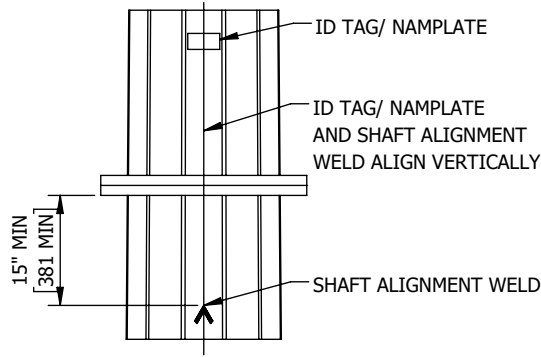


POLE CAP ANCHOR DETAIL

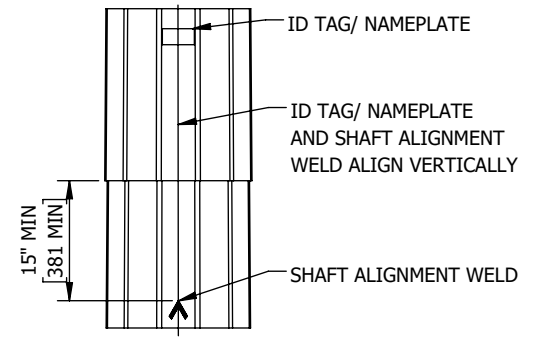


GALVANIZED GROUND SLEEVE VENT HOLES

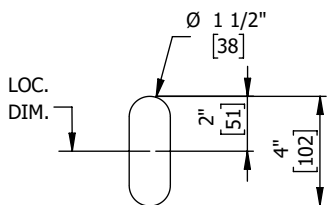
1 PER FLAT, LOCATE ON THE  $\phi$  OF THE FLAT, ALTERNATING SIDES



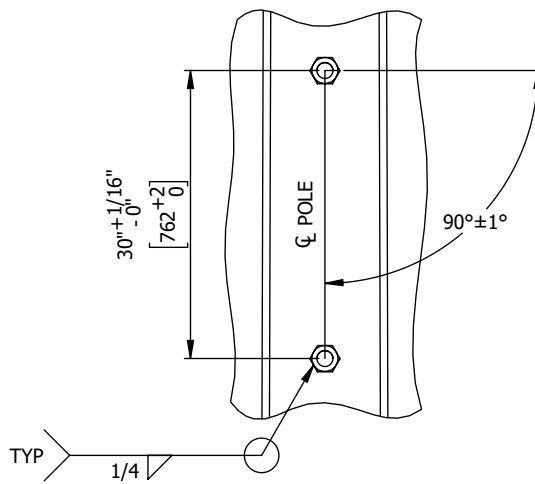
FLANGE ASSEMBLY ALIGNMENT



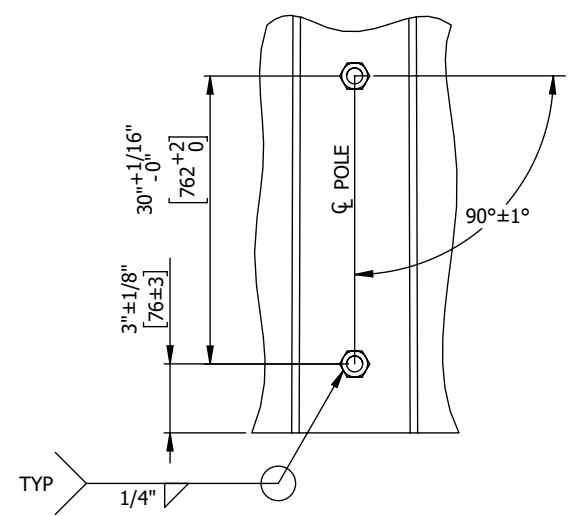
SLIP JOINT ASSEMBLY ALIGNMENT



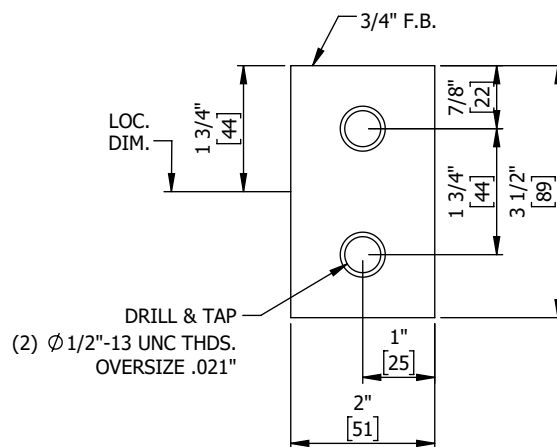
TOP LIFTING SLOT DETAIL



TOP JACKING NUT DETAIL 74547



BOTTOM JACKING NUT DETAIL 74547



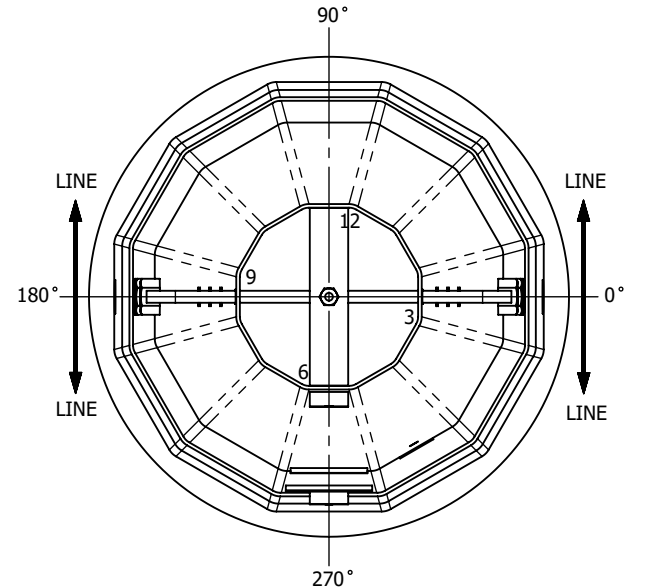
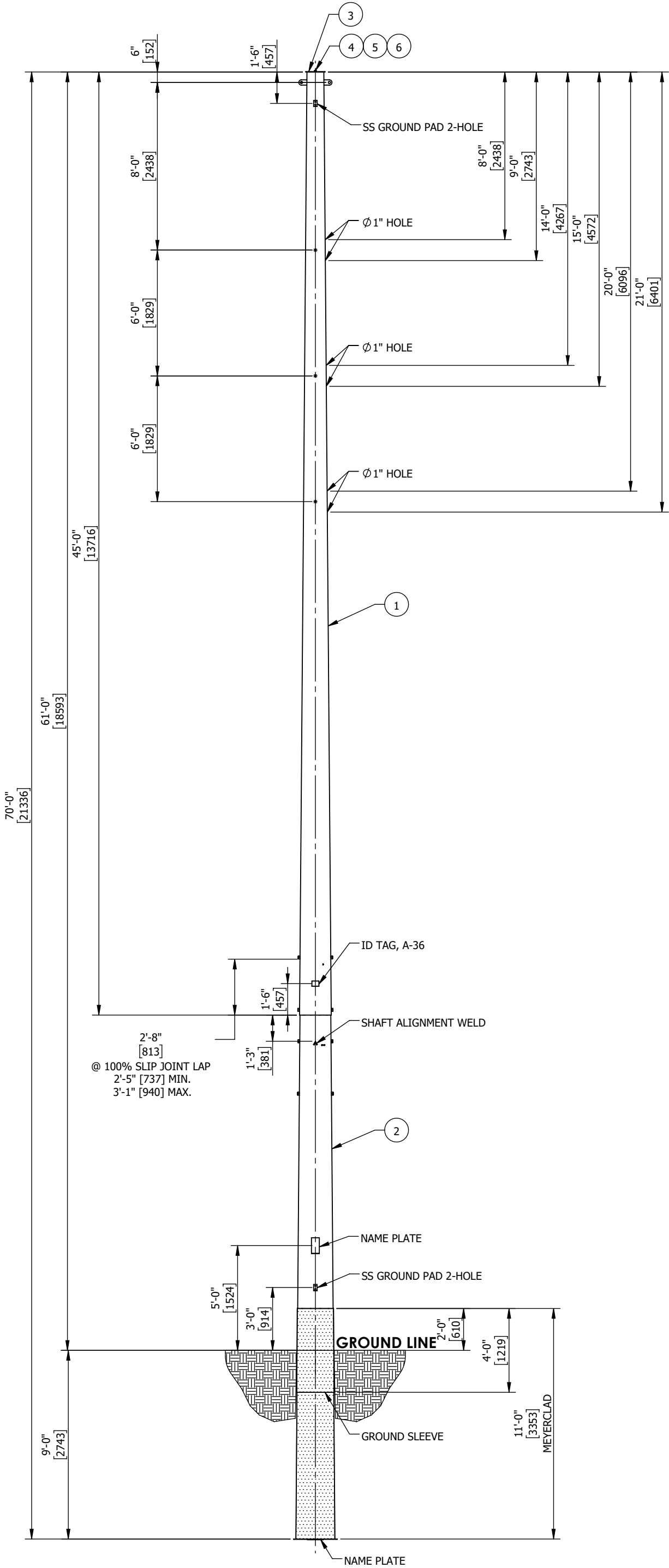
78412

78430, 0.75 X 2.00  
STAINLESS STEEL TYPE 304  
1.41 LBS

A	INITIAL RELEASE	THO/05-31-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/31/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SPECIAL NOTE		
SHEET 1 OF 1	<b>42444-SPECNOTE</b>	REV. <b>A</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0570S3AT	16.1, 16.2, 16.3, 16.4, 16.5, 16.6	61'-0" [18593]	10" [254]	21 13/32" [544]	0.19530	9 21/32" [245]	20 21/32" [525]	0.18865

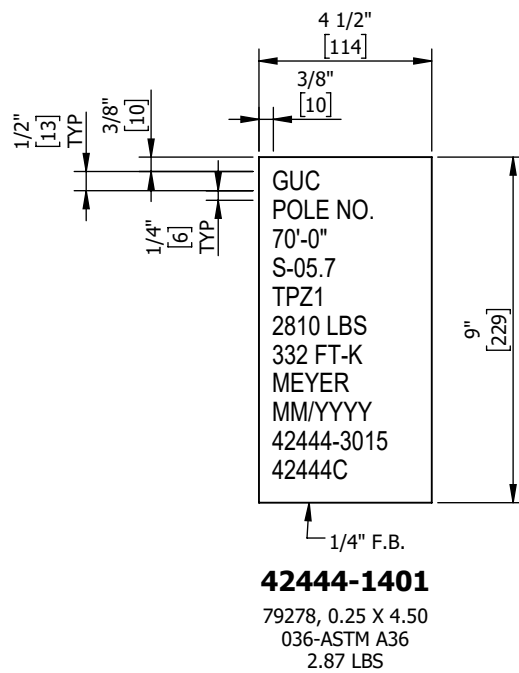


**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY

2'-8" [813]  
@ 100% SLIP JOINT LAP  
2'-5" [737] MIN.  
3'-1" [940] MAX.

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
70'-0" 115KV 3-PHASE TAN Z-FRAME STR S-05.7 TPZ1 POLE NO: 16.1, 16.2, 16.3, 16.4, 16.5, 16.6		
SHEET 1 OF 2	<b>42444-0570S3AT</b>	REV. <b>A</b>

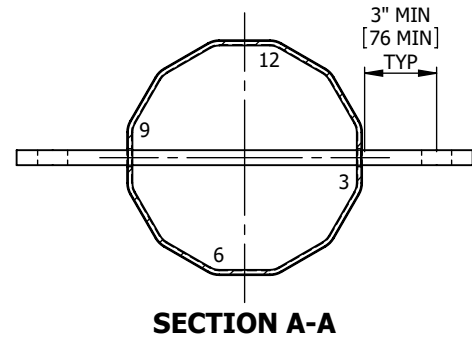
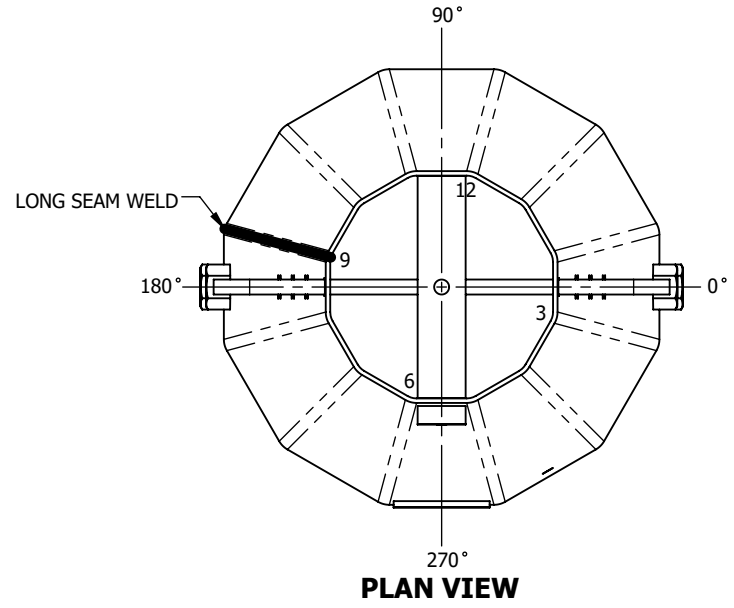
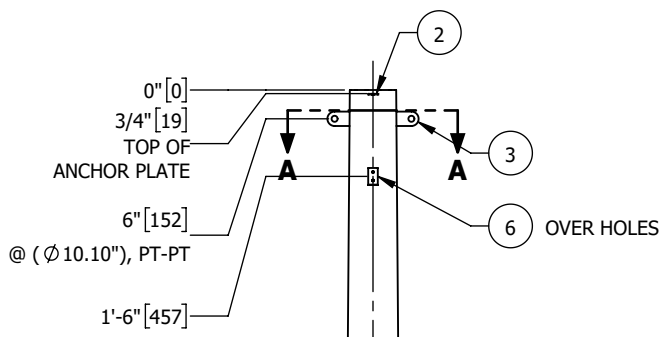
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3014	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 018.8 000		1380.00	1380.00		
2	42444-3015	1	SHAFT ASSEMBLY, 27'-8" LONG	POLE-BASE 027.67 017.8 023.2 000		1420.00	1420.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
							TOTAL STRUCTURE FINISHED WEIGHT		2810.00



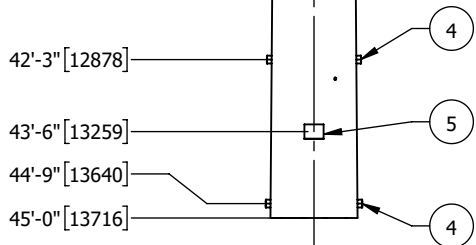
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
70'-0" 115KV 3-PHASE TAN Z-FRAME STR S-05.7 TPZ1 POLE NO: 16.1, 16.2, 16.3, 16.4, 16.5, 16.6		
SHEET 2 OF 2	<b>42444-0570S3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4022	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	18 25/32" [477]	0.19530	9 21/32" [245]	18 5/32" [461]	0.18865



24'-10" [7569] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-8" [813]	TOP	18.27" [464]	56 9/16" [1437]
	BOTTOM	18.79" [477]	58 3/16" [1478]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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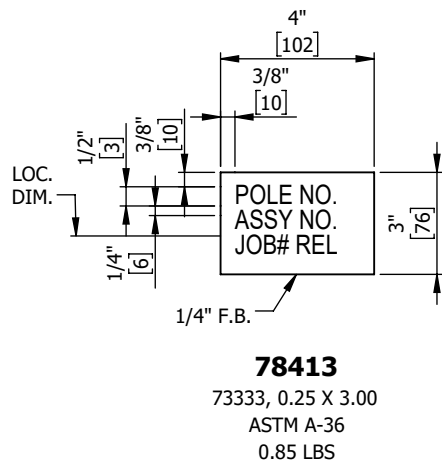
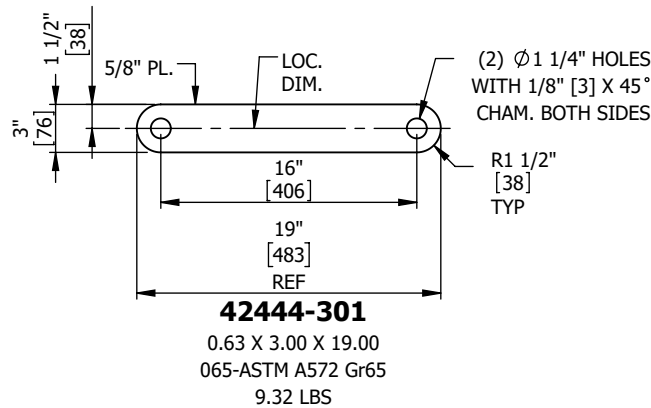
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4022	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 57.88	065-ASTM A572 Gr65	1277.79	1277.79	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1292.38	
TOTAL UNFINISHED WEIGHT							1300.00	
TOTAL FINISHED WEIGHT							1380.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	3	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	24'-10" [7569]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	4	74547	2
6	42'-4" [12903]	BOTTOM SLIP JOINT LENGTH 32"												-	1		
7	43'-6" [13259]						1							ID TAG, A-36	5	78413	1
8	43'-9" [13335]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	4	74547	2
10	45'-0" [13716]	TOWER PLATE TUBE											1	42444-4022	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	42'-7" [12979]						1							1/2"	SJ INSPECTION



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

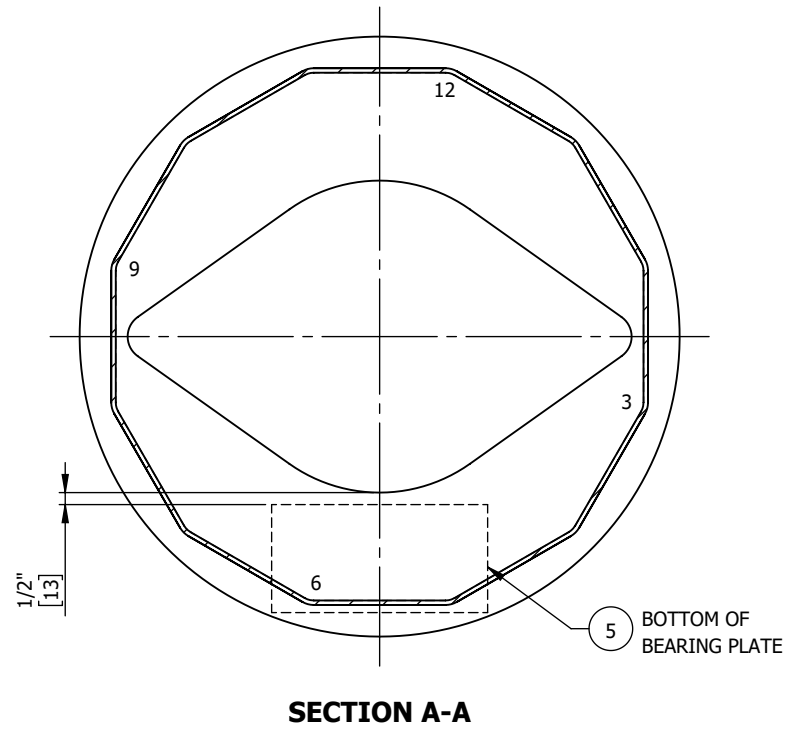
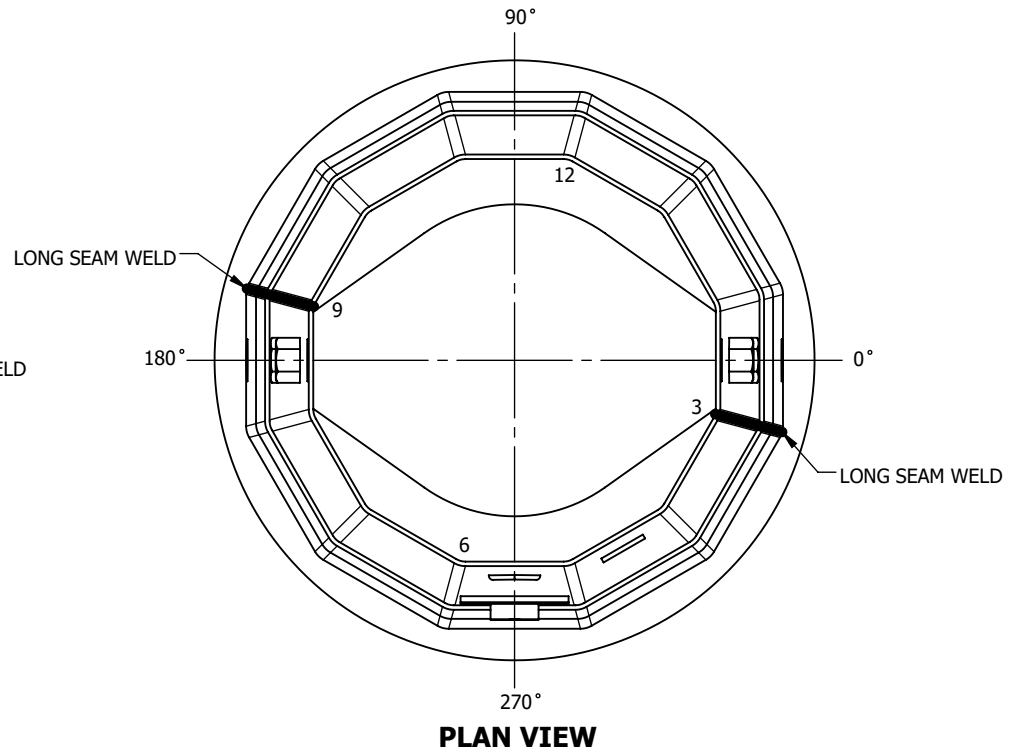
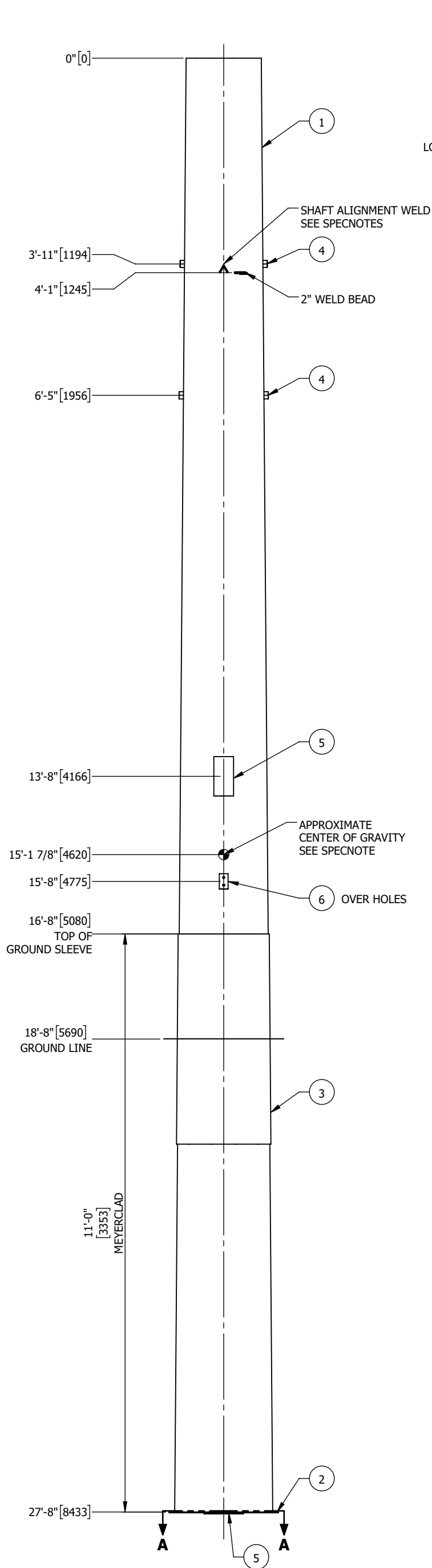
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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4023	065-ASTM A572 Gr65	27'-8" [8433]	3/16"	17 3/4" [451]	23 5/32" [588]	0.19530	17 5/32" [436]	22 3/8" [568]	0.18865
42444-4024	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	21 17/32" [547]	22 5/16" [567]	0.19530	20 25/32" [528]	21 17/32" [547]	0.18865



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-8" [813]	TOP	17.75" [451]	55 1/16" [1399]
	BOTTOM	18.28" [464]	56 11/16" [1440]

B	REVISE MEYERCLAD	THO/06-14-22
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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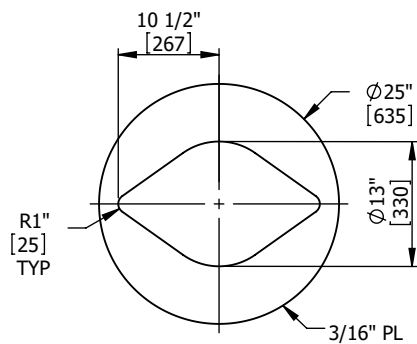
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 27'-8" LONG  
PBAS

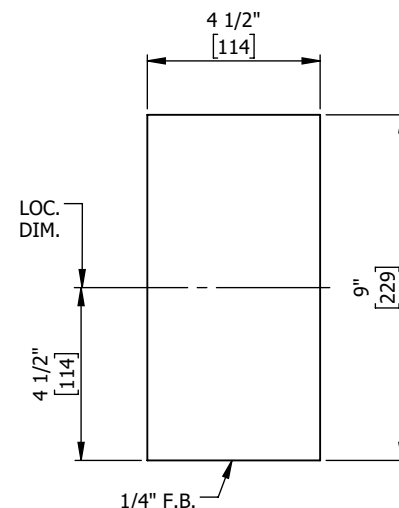
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4023	1	TOWER PLATE TUBE	(2) 0.19 X 27.31 X 332.00 X 35.69	065-ASTM A572 Gr65	1129.86	1129.86	
2	42444-206	1	BEARING PLATE, 3/16" THK X 25" DIA	0.19 X 25.00 X 25.00	065-ASTM A572 Gr65	17.05	17.05	
3	42444-4024	1	GROUND SLEEVE	(2) 0.19 X 33.19 X 48.00 X 34.38	065-ASTM A572 Gr65	171.84	171.84	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							1327.62	
TOTAL UNFINISHED WEIGHT							1330.00	
TOTAL FINISHED WEIGHT							1420.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-8" [813]													TOP SLIP JOINT LENGTH 32"		-	1
3	3'-11" [1194]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	3'-11" [1194]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-1" [1245]						1							2" WELD BEAD		-	1
6	6'-5" [1956]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	13'-8" [4166]						1							NAME PLATE	5	42444-1401	1
8	15'-1 7/8" [4620]													APPROX. CENTER OF GRAVITY WELD		-	1
9	15'-8" [4775]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	16'-8" [5080]													TOP OF GROUND SLEEVE	3	42444-4024	1
11	18'-8" [5690]													GROUND LINE		-	-
12	27'-2" [8280]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	27'-8" [8433]													TOWER PLATE TUBE	1	42444-4023	1
14	27'-8" [8433]													BEARING PLATE, 3/16" THK X 25" DIA / SECTION A-A	2	42444-206	1
15	27'-8 3/16" [8438]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	15'-7 1/8" [4753]						1							9/16"	HOLE UNDER GRND PAD
2	15'-8 7/8" [4797]						1							9/16"	HOLE UNDER GRND PAD



**42444-206**  
0.19 X 25.00 X 25.00  
065-ASTM A572 Gr65  
17.05 LBS

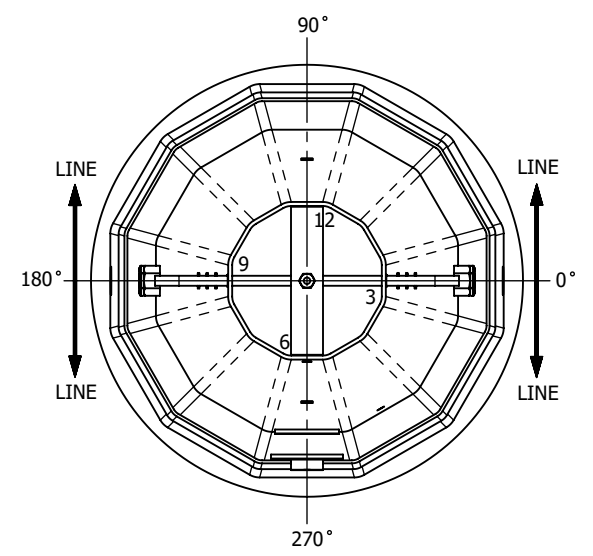
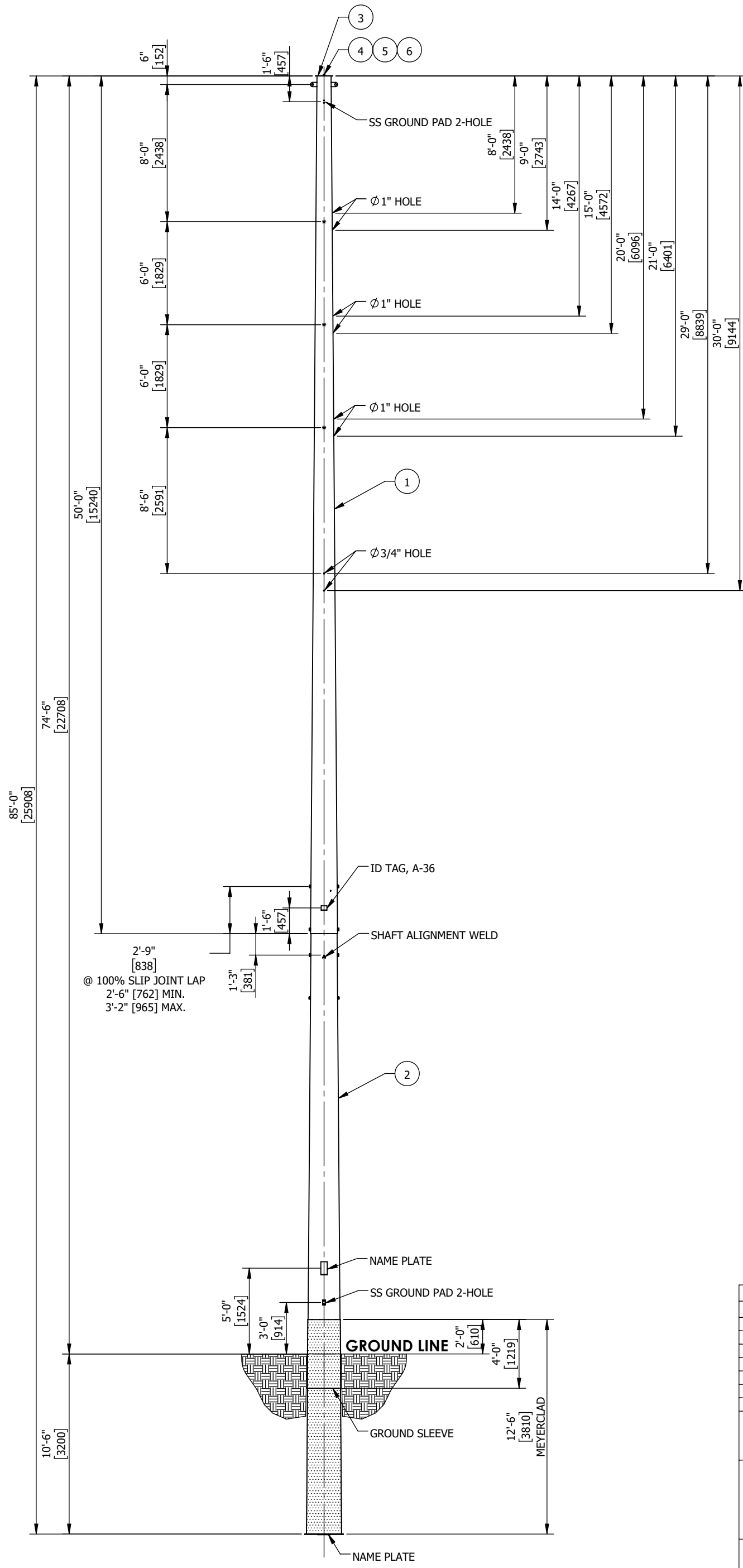


**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

REV	DESCRIPTION	DRFT/DATE
B	REVISE MEYERCLAD	THO/06-14-22
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
PROJECT: 22-23 TRANSMISSION REPLACEMENTS		
CUSTOMER: GREENVILLE UTILITIES COMMISSION		
CUSTOMER P.O. NO: 81212		
JOB NO: 42444		
DRAWN/DATE: DJ 06/02/2022		
CHECKED/DATE: TW 06/09/2022		
ENGINEER: MELVIN PORTILLO		
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 27'-8" LONG PBAS		
SHEET 2 OF 2		<b>42444-3015</b> REV. <b>B</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0785S3ET	16.7	74'-6" [22708]	10 3/16" [259]	23 1/2" [597]	0.18700	9 27/32" [250]	22 11/16" [576]	0.18063

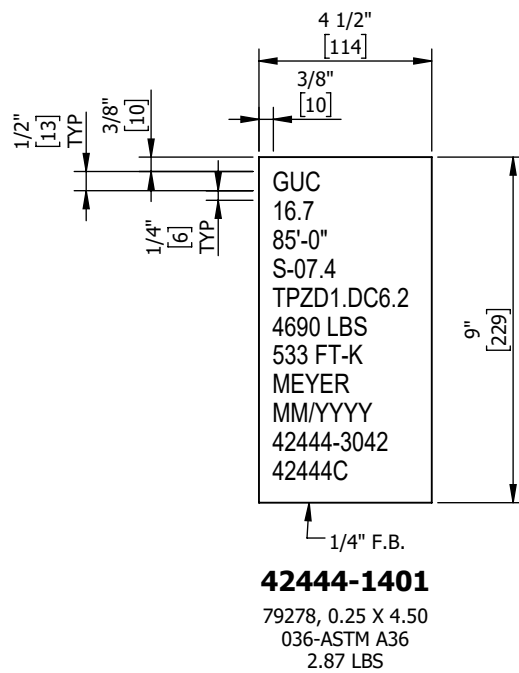


© 100% SLIP JOINT LAP  
 2'-6" [762] MIN.  
 3'-2" [965] MAX.

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3-PHASE TAN Z-FRAME STR S-07.4 TPZD1.DC6.2 POLE NO: 16.7		
SHEET 1 OF 2	<b>42444-0785S3ET</b>	REV. <b>A</b>



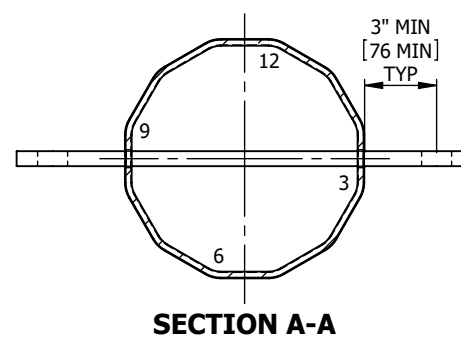
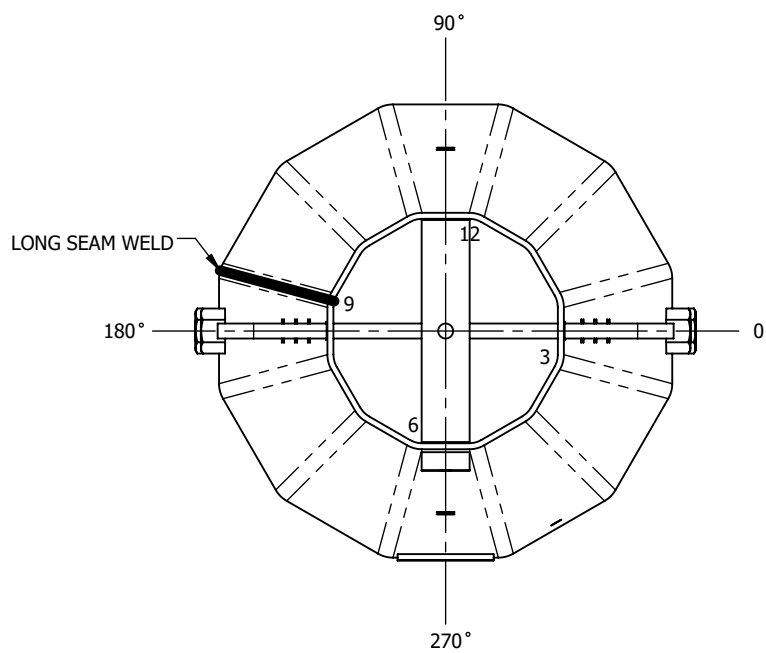
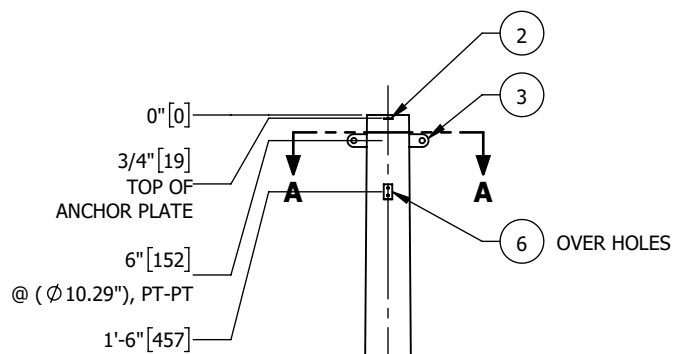
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3041	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2080.00	2080.00		
2	42444-3042	1	SHAFT ASSEMBLY, 37'-9" LONG	POLE-BASE 037.75 018.4 025.5 000		2600.00	2600.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT							4690.00		



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3-PHASE TAN Z-FRAME STR S-07.4 TPZD1.DC6.2 POLE NO: 16.7		
SHEET 2 OF 2	<b>42444-0785S3ET</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



27'-8 1/8" [8436] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE

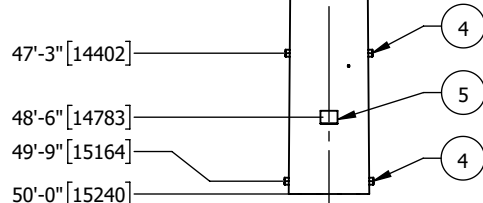
FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

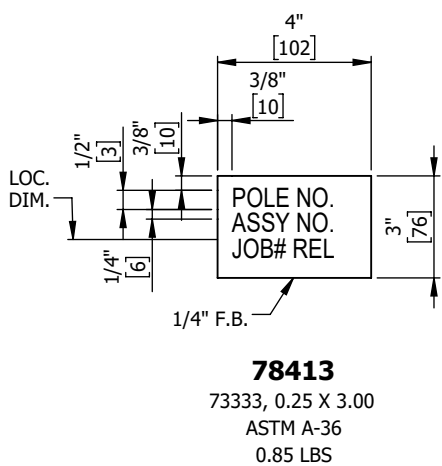
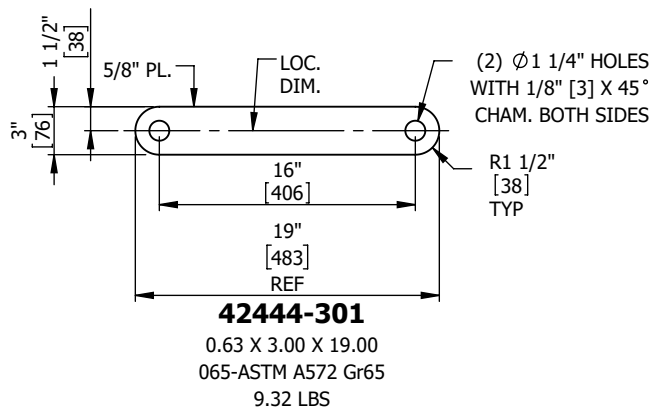
SHAFT ASSEMBLY, 50'-0" LONG  
PTOP



PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1950.16	
TOTAL UNFINISHED WEIGHT							1960.00	
TOTAL FINISHED WEIGHT							2080.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	3	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	27'-8 1/8" [8436]	APPROX. CENTER OF GRAVITY WELD													-		1
5	47'-3" [14402]			1						1				JACKING NUT, 1" DIA.	4	74547	2
6	47'-3" [14402]	BOTTOM SLIP JOINT LENGTH 33"													-		1
7	48'-6" [14783]						1							ID TAG, A-36	5	78413	1
8	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	49'-9" [15164]			1						1				JACKING NUT, 1" DIA.	4	74547	2
10	50'-0" [15240]	TOWER PLATE TUBE												1	42444-4028	1	

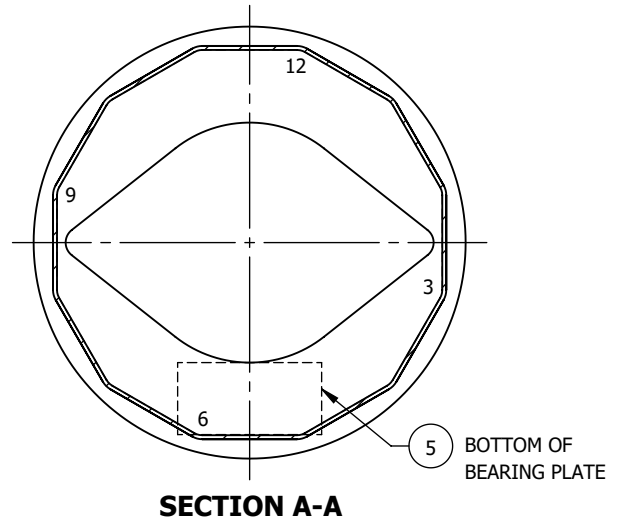
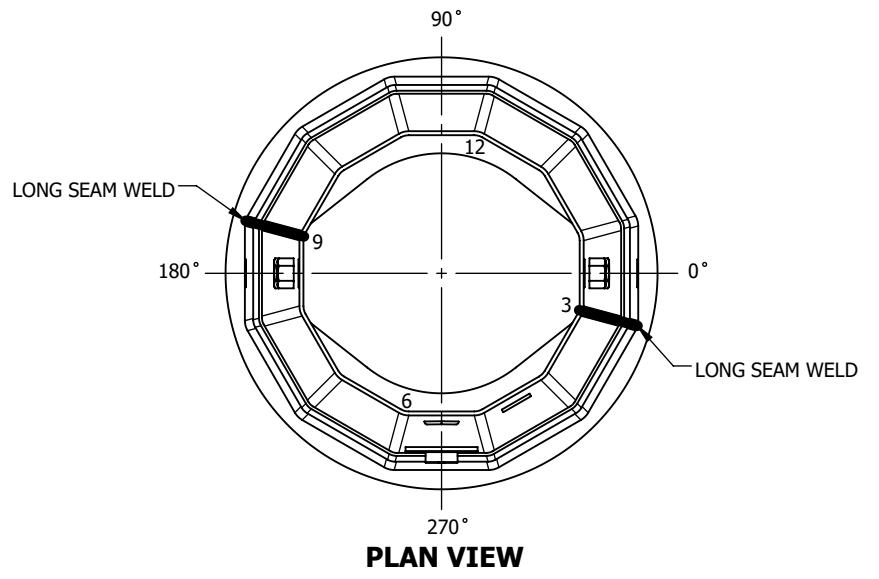
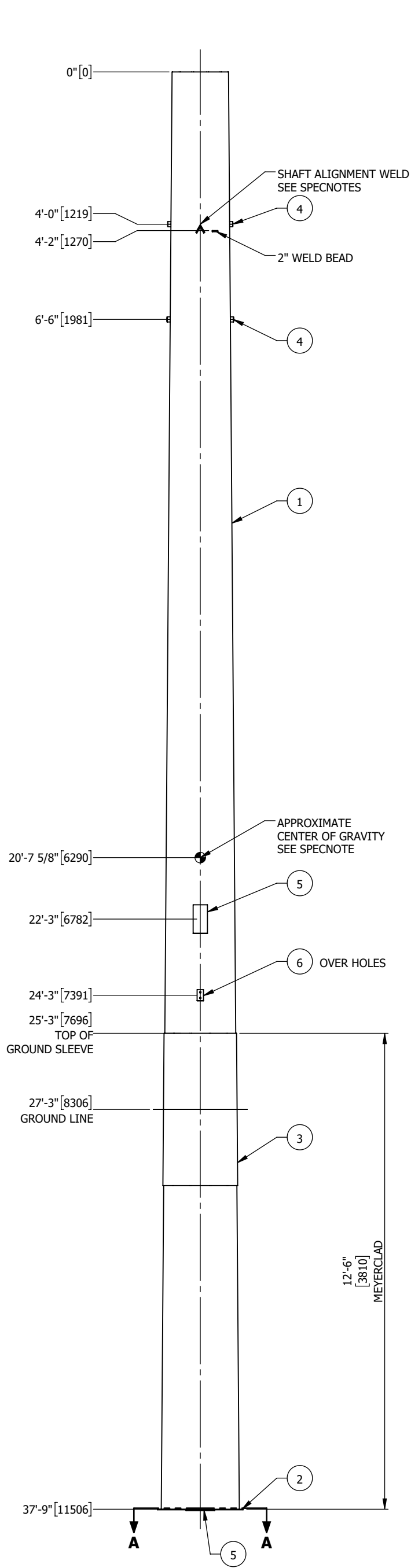
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	DISTRIBUTION ARM
10	30'-0" [9144]						1					1		3/4"	DISTRIBUTION ARM
11	47'-6" [14478]					1								1/2"	SJ INSPECTION



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3041</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4029	065-ASTM A572 Gr65	37'-9" [11506]	1/4"	18 13/32" [467]	25 7/16" [646]	0.18700	17 25/32" [451]	24 19/32" [624]	0.18063
42444-4030	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	23 5/8" [600]	24 3/8" [619]	0.18700	22 13/16" [580]	23 17/32" [598]	0.18063



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	18.39" [467]	57" [1448]
	BOTTOM	18.91" [480]	58 9/16" [1487]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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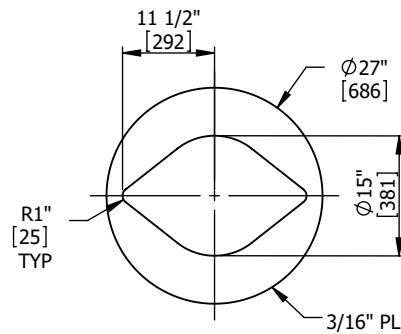
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 37'-9" LONG  
PBAS

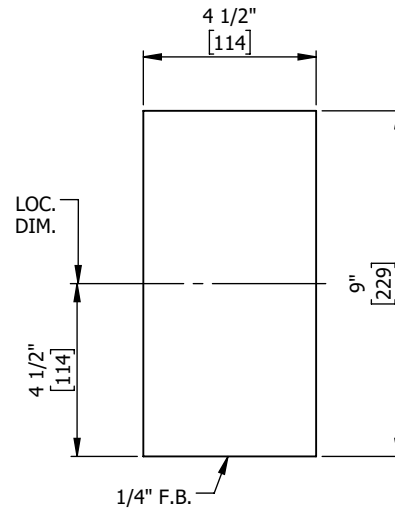
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4029	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 453.00 X 39.13	065-ASTM A572 Gr65	2216.12	2216.12	
2	42444-204	1	BEARING PLATE, 3/16" THK X 27" DIA	0.19 X 27.00 X 27.00	065-ASTM A572 Gr65	18.9	18.90	
3	42444-4030	1	GROUND SLEEVE	(2) 0.19 X 36.44 X 48.00 X 37.56	065-ASTM A572 Gr65	188.4	188.40	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2432.29	
TOTAL UNFINISHED WEIGHT							2440.00	
TOTAL FINISHED WEIGHT							2600.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	4'-0" [1219]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	4'-0" [1219]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-2" [1270]						1							2" WELD BEAD		-	1
6	6'-6" [1981]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	20'-7 5/8" [6290]													APPROX. CENTER OF GRAVITY WELD		-	1
8	22'-3" [6782]						1							NAME PLATE	5	42444-1401	1
9	24'-3" [7391]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	25'-3" [7696]													TOP OF GROUND SLEEVE	3	42444-4030	1
11	27'-3" [8306]													GROUND LINE		-	-
12	37'-3" [11354]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	37'-9" [11506]													TOWER PLATE TUBE	1	42444-4029	1
14	37'-9" [11506]													BEARING PLATE, 3/16" THK X 27" DIA / SECTION A-A	2	42444-204	1
15	37'-9 3/16" [11511]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	24'-2 1/8" [7369]						1							9/16"	HOLE UNDER GRND PAD
2	24'-3 7/8" [7414]						1							9/16"	HOLE UNDER GRND PAD



**42444-204**  
0.19 X 27.00 X 27.00  
065-ASTM A572 Gr65  
18.9 LBS

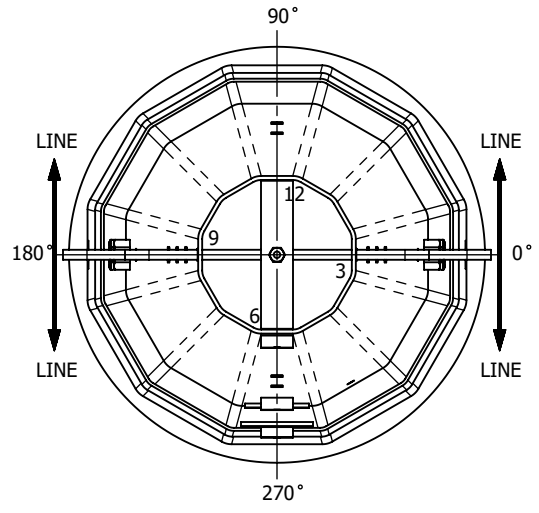
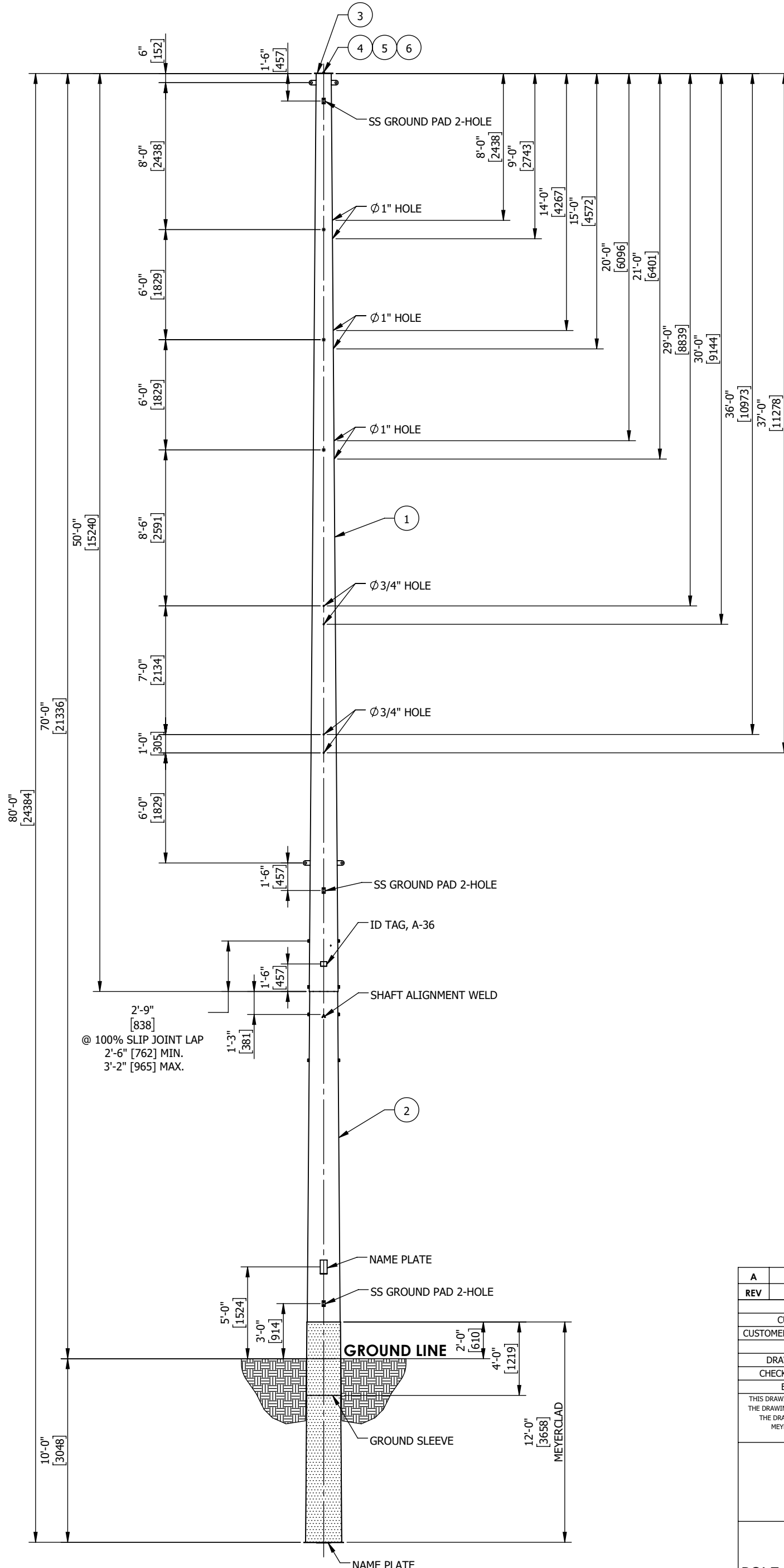


**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	DJ 06/02/2022	
CHECKED/DATE:	TW 06/09/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 37'-9" LONG PBAS		
SHEET 2 OF 2	<b>42444-3042</b>	REV. <b>A</b>

STRUCTURE INFORMATION

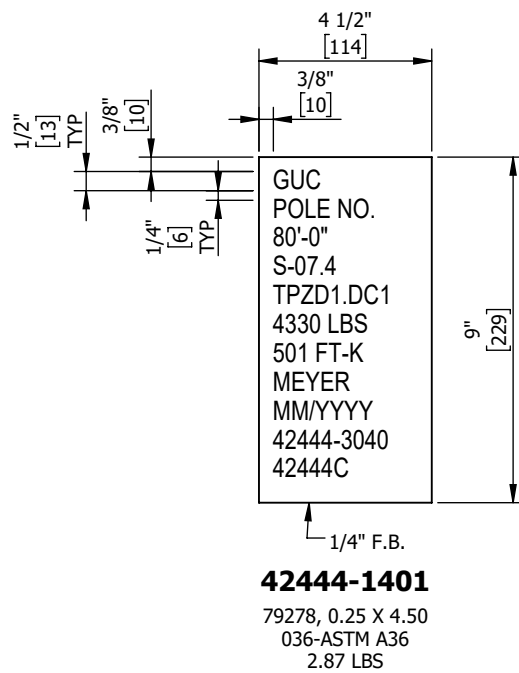
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0780S3BT	16.8, 16.9, 16.10, 16.11, 16.12, 16.13	70'-0" [21336]	10 3/16" [259]	22 21/32" [575]	0.18700	9 27/32" [250]	21 7/8" [556]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
80'-0" 115KV 3-PHASE TAN Z-FRAME STR S-07.4 TPZD1.DC1 POLE NO: 16.8, 16.9, 16.10, 16.11, 16.12, 16.13		
SHEET 1 OF 2	<b>42444-0780S3BT</b>	REV. <b>A</b>

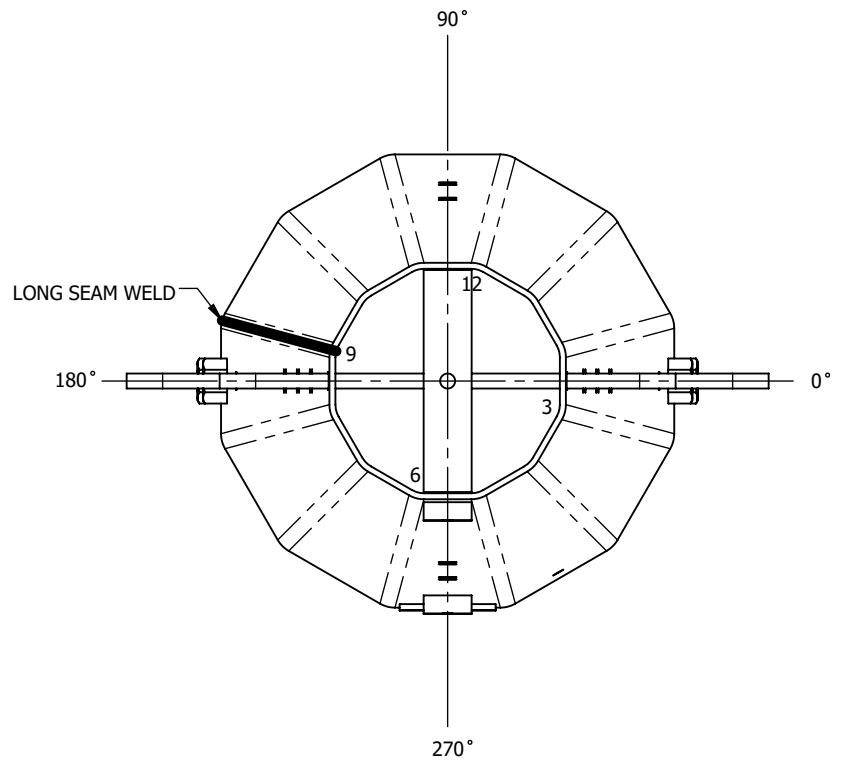
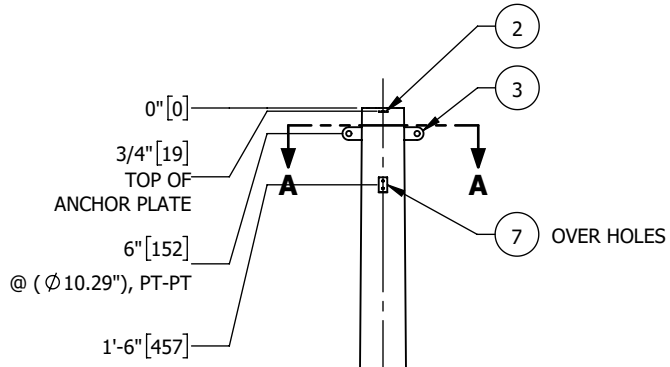
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3039	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2100.00	2100.00		
2	42444-3040	1	SHAFT ASSEMBLY, 32'-9" LONG	POLE-BASE 032.75 018.4 024.5 000		2220.00	2220.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								4330.00	



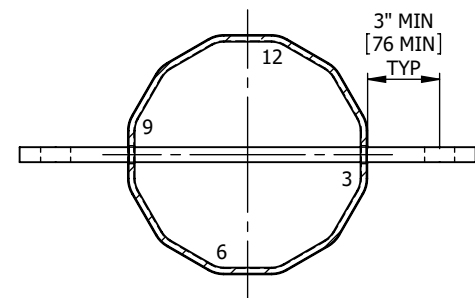
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
80'-0" 115KV 3-PHASE TAN Z-FRAME STR S-07.4 TPZD1.DC1 POLE NO: 16.8, 16.9, 16.10, 16.11, 16.12, 16.13		
SHEET 2 OF 2	<b>42444-0780S3BT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063

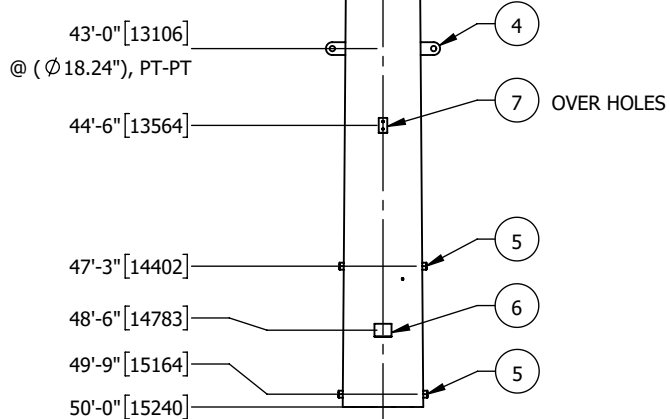


**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**

27'-8 1/8" [8436] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

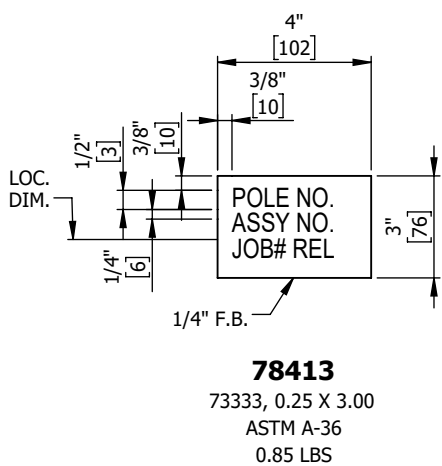
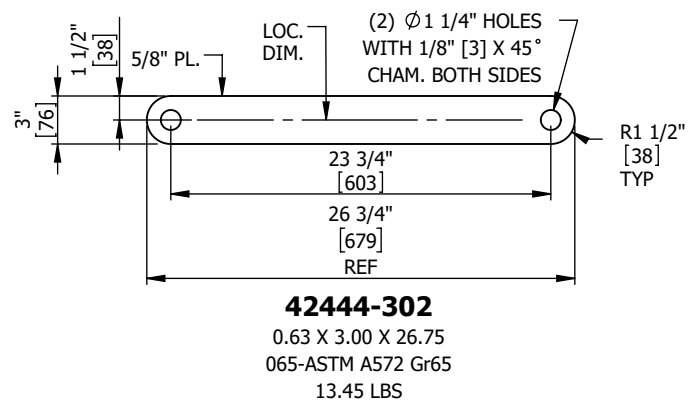
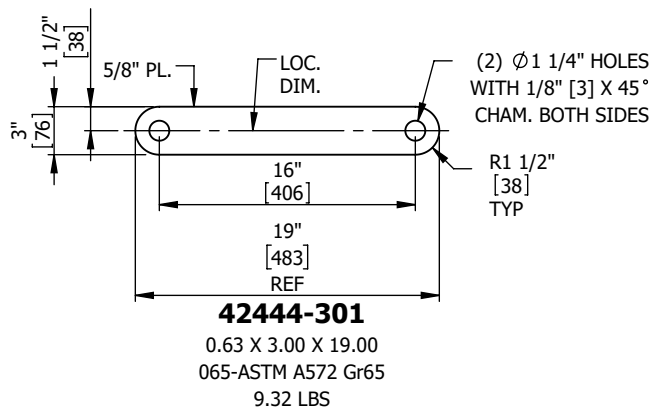
SHAFT ASSEMBLY, 50'-0" LONG  
PTOP



PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
4	42444-302	1	THROUGH VANG	0.63 X 3.00 X 26.75	065-ASTM A572 Gr65	13.45	13.45	
5	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
6	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
7	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
TOTAL MODEL WEIGHT							1965.02	
TOTAL UNFINISHED WEIGHT							1970.00	
TOTAL FINISHED WEIGHT							2100.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	3	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	7	78412	1
4	27'-8 1/8" [8436]	0 DEG ON FLAT 2-3												APPROX. CENTER OF GRAVITY WELD		-	1
5	43'-0" [13106]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	4	42444-302	1
6	44'-6" [13564]						1							SS GROUND PAD 2-HOLE	7	78412	1
7	47'-3" [14402]			1						1				JACKING NUT, 1" DIA.	5	74547	2
8	47'-3" [14402]	0 DEG ON FLAT 2-3												BOTTOM SLIP JOINT LENGTH 33"		-	1
9	48'-6" [14783]						1							ID TAG, A-36	6	78413	1
10	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
11	49'-9" [15164]			1						1				JACKING NUT, 1" DIA.	5	74547	2
12	50'-0" [15240]	0 DEG ON FLAT 2-3												TOWER PLATE TUBE	1	42444-4028	1

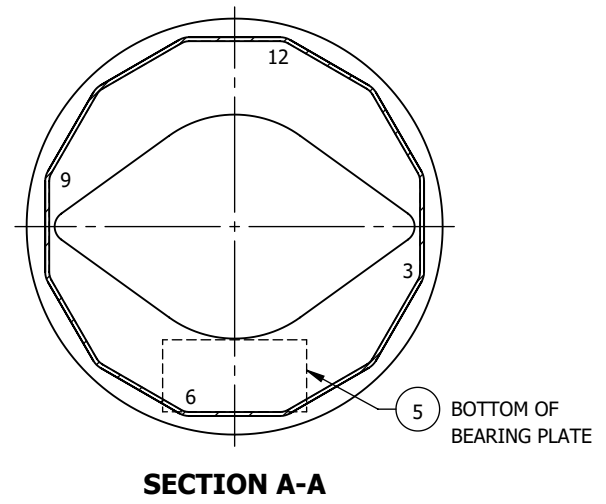
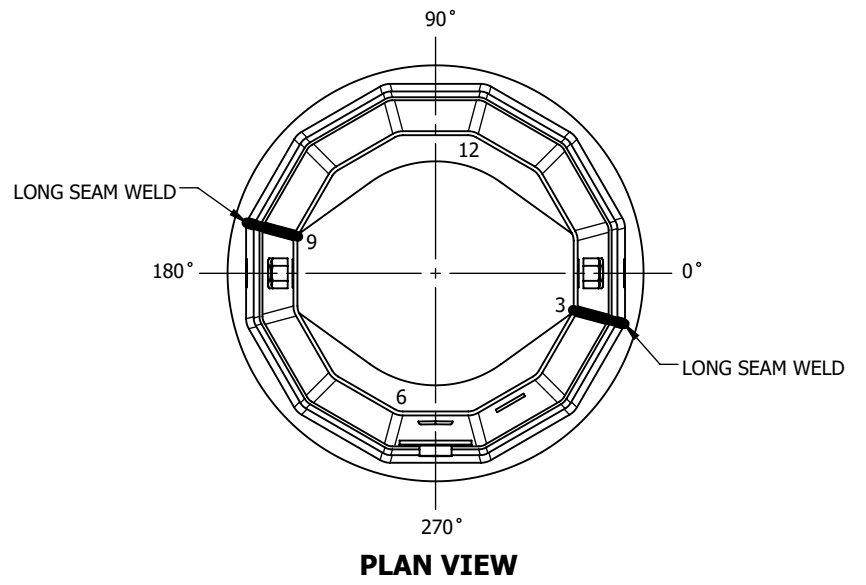
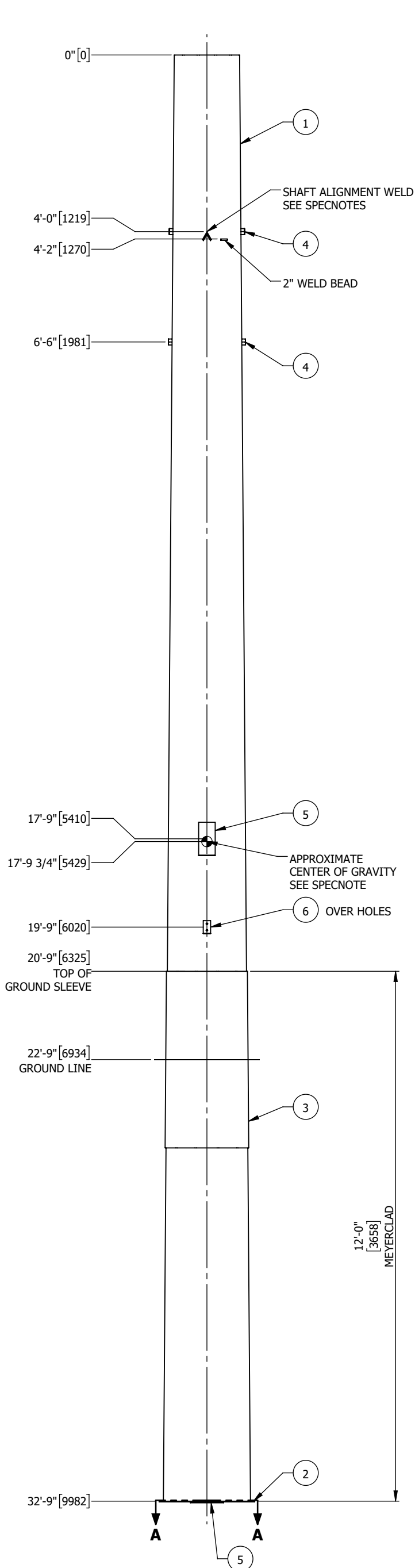
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	DISTRIBUTION ARM
10	30'-0" [9144]						1					1		3/4"	DISTRIBUTION ARM
11	36'-0" [10973]						1					1		3/4"	DISTRIBUTION ARM
12	37'-0" [11278]						1					1		3/4"	DISTRIBUTION ARM
13	44'-5 1/8" [13541]						1							9/16"	HOLE UNDER GRND PAD
14	44'-6 7/8" [13586]						1							9/16"	HOLE UNDER GRND PAD
15	47'-6" [14478]					1								1/2"	SJ INSPECTION



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3039</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4034	065-ASTM A572 Gr65	32'-9" [9982]	1/4"	18 13/32" [467]	24 17/32" [623]	0.18700	17 25/32" [451]	23 11/16" [602]	0.18063
42444-4035	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	22 25/32" [579]	23 17/32" [598]	0.18700	22" [559]	22 23/32" [577]	0.18063



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	18.39" [467]	57" [1448]
	BOTTOM	18.91" [480]	58 9/16" [1487]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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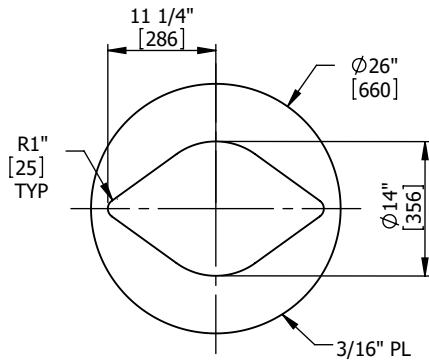
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 32'-9" LONG  
PBAS

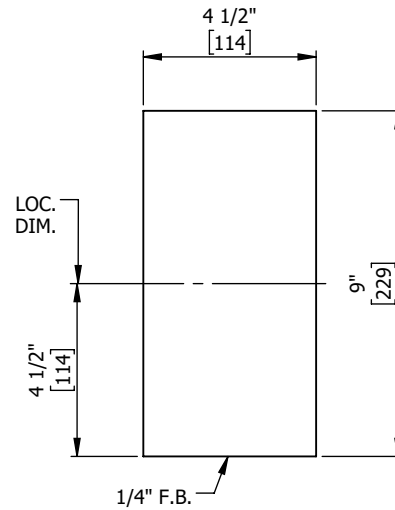
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4034	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 393.00 X 37.69	065-ASTM A572 Gr65	1866.87	1866.87	
2	42444-202	1	BEARING PLATE, 3/16" THK X 26" DIA	0.19 X 26.00 X 26.00	065-ASTM A572 Gr65	17.8	17.80	
3	42444-4035	1	GROUND SLEEVE	(2) 0.19 X 35.13 X 48.00 X 36.31	065-ASTM A572 Gr65	181.73	181.73	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2075.27	
TOTAL UNFINISHED WEIGHT							2080.00	
TOTAL FINISHED WEIGHT							2220.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	4'-0" [1219]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	4'-0" [1219]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-2" [1270]						1							2" WELD BEAD		-	1
6	6'-6" [1981]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	17'-9" [5410]						1							NAME PLATE	5	42444-1401	1
8	17'-9 3/4" [5429]													APPROX. CENTER OF GRAVITY WELD		-	1
9	19'-9" [6020]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	20'-9" [6325]													TOP OF GROUND SLEEVE	3	42444-4035	1
11	22'-9" [6934]													GROUND LINE		-	-
12	32'-3" [9830]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	32'-9" [9982]													TOWER PLATE TUBE	1	42444-4034	1
14	32'-9" [9982]													BEARING PLATE, 3/16" THK X 26" DIA / SECTION A-A	2	42444-202	1
15	32'-9 7/16" [9993]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	19'-8 1/8" [5998]						1							9/16"	HOLE UNDER GRND PAD
2	19'-9 7/8" [6042]						1							9/16"	HOLE UNDER GRND PAD



**42444-202**  
0.19 X 26.00 X 26.00  
065-ASTM A572 Gr65  
17.8 LBS

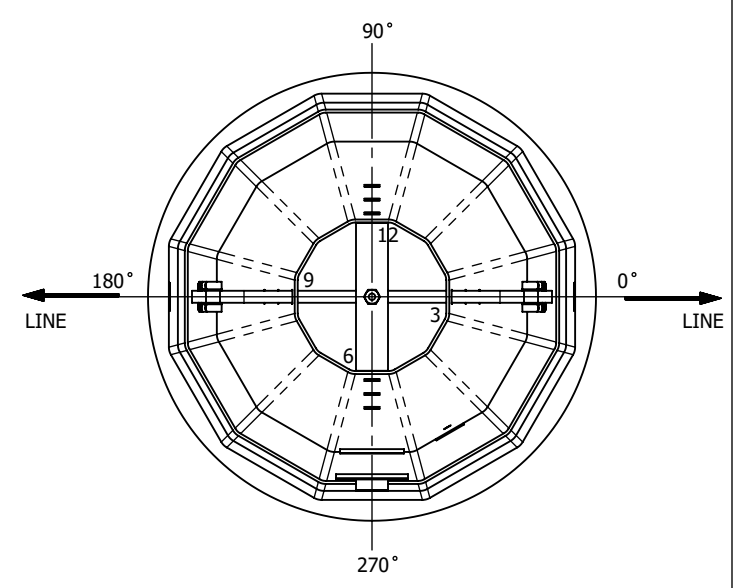
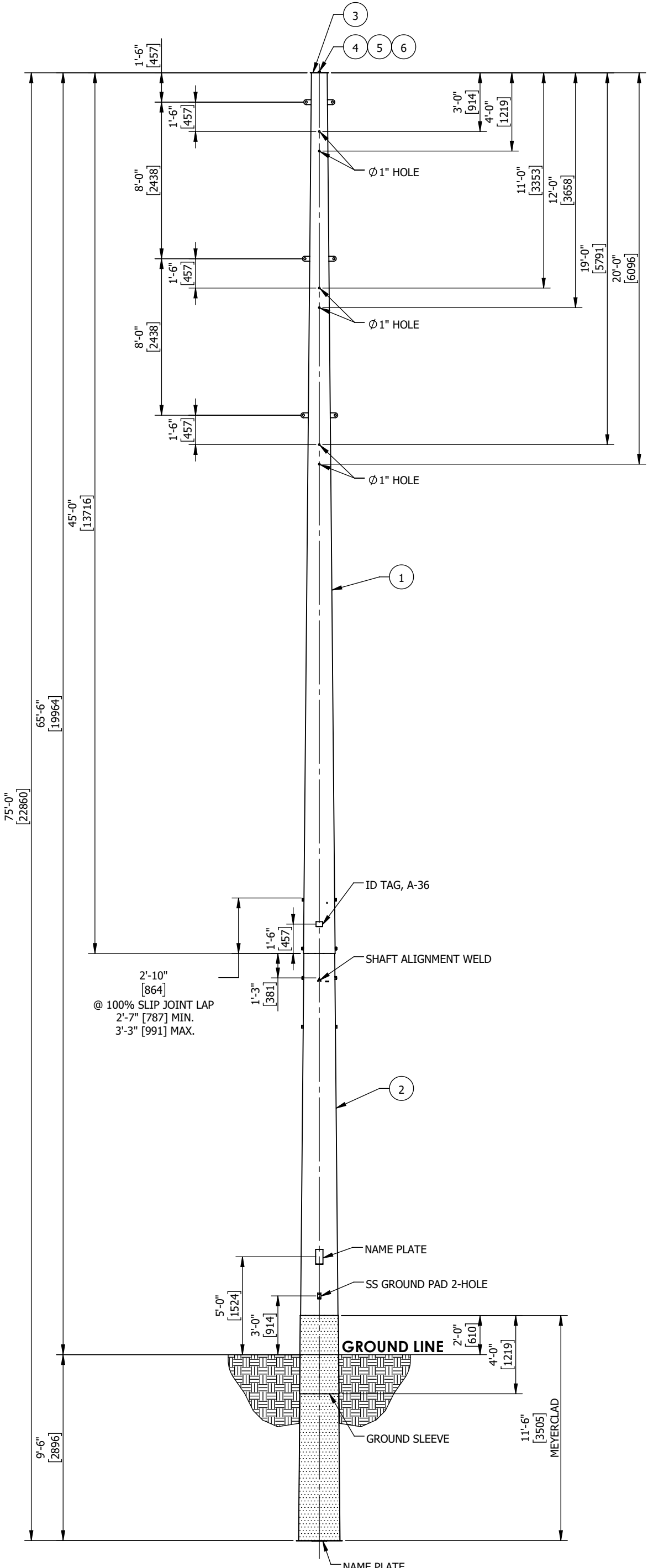


**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 32'-9" LONG PBAS		
SHEET 2 OF 2	<b>42444-3040</b>	REV. <b>A</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0675S3BT	16.14	65'-6" [19964]	10" [254]	24 5/32" [614]	0.22400	9 21/32" [245]	23 11/32" [593]	0.21637

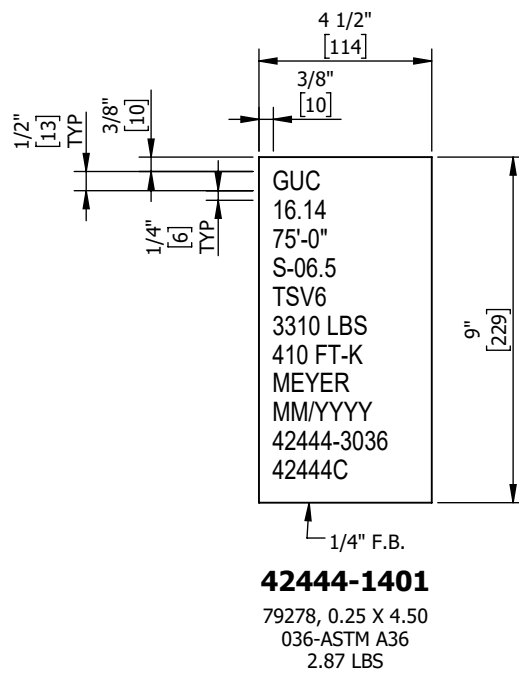


**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY

2'-10" [864]  
@ 100% SLIP JOINT LAP  
2'-7" [787] MIN.  
3'-3" [991] MAX.

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
75'-0" 115KV 3-PHASE TAN Z-FRAME DEADEND S-06.5 TSV6 POLE NO: 16.14		
SHEET 1 OF 2	<b>42444-0675S3BT</b>	REV. <b>A</b>

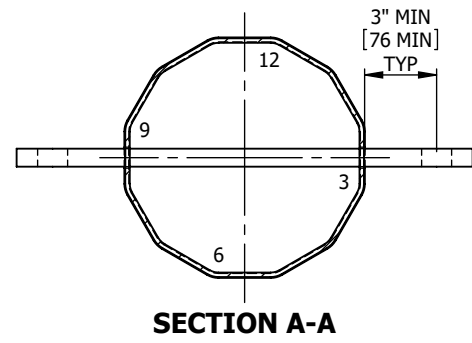
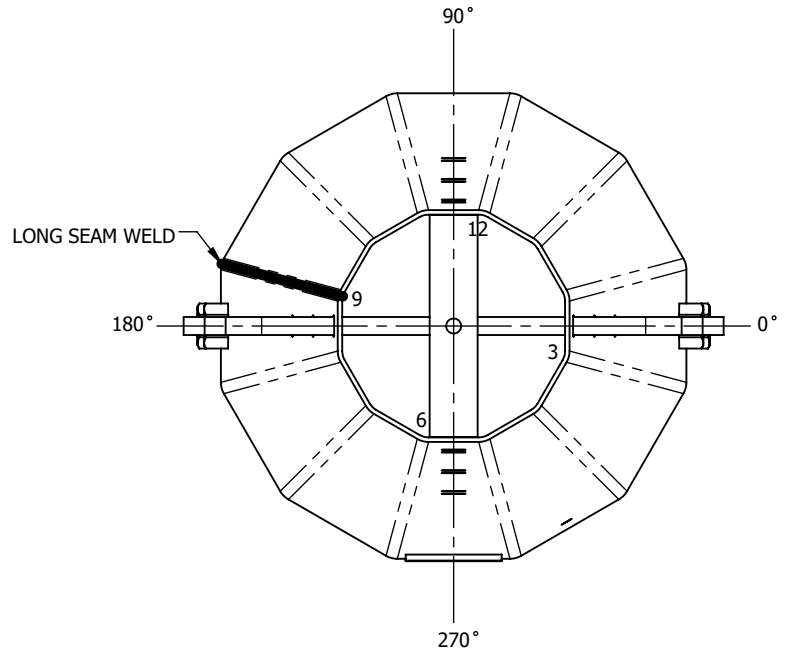
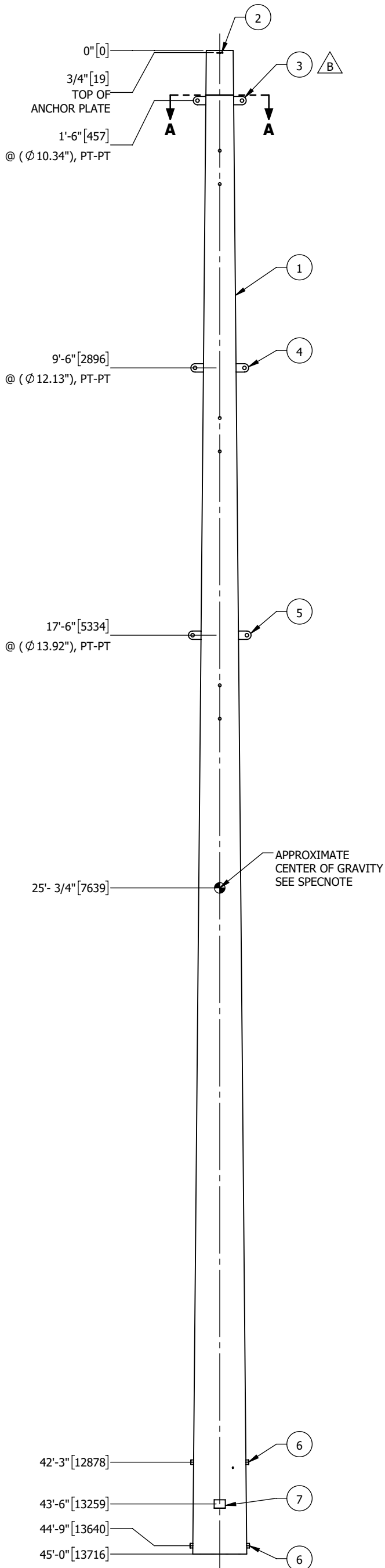
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-3035	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 020.1 000		1470.00	1470.00	
2	42444-3036	1	SHAFT ASSEMBLY, 32'-10" LONG	POLE-BASE 032.83 018.9 026.3 000		1830.00	1830.00	
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04	
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
TOTAL STRUCTURE FINISHED WEIGHT							3310.00	



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
75'-0" 115KV 3-PHASE TAN Z-FRAME DEADEND S-06.5 TSV6 POLE NO: 16.14		
SHEET 2 OF 2	<b>42444-0675S3BT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4025	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	20 3/32" [510]	0.22400	9 21/32" [245]	19 13/32" [493]	0.21637



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	19.45" [494]	60 1/4" [1530]
	BOTTOM	20.08" [510]	62 3/16" [1580]

B	UPDATED VANG	JAC/06-15-22
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST

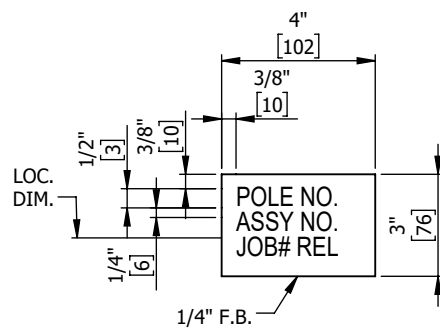
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4025	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 61.88	065-ASTM A572 Gr65	1335.22	1335.22	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-338	1	THROUGH VANG	0.75 X 3.00 X 19.00	065-ASTM A572 Gr65	11.19	11.19	
4	42444-329	1	THROUGH VANG	0.75 X 3.00 X 20.75	065-ASTM A572 Gr65	12.31	12.31	
5	42444-310	1	THROUGH VANG	0.75 X 3.00 X 22.50	065-ASTM A572 Gr65	13.42	13.42	
6	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
7	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT								1376.00
TOTAL UNFINISHED WEIGHT								1380.00
TOTAL FINISHED WEIGHT								1470.00

HARDWARE LOCATION AND ORIENTATION

EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	1'-6" [457]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	3	42444-338	1
3	9'-6" [2896]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	4	42444-329	1
4	17'-6" [5334]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	5	42444-310	1
5	25'-3/4" [7639]													APPROX. CENTER OF GRAVITY WELD		-	1
6	42'-2" [12852]													BOTTOM SLIP JOINT LENGTH 34"		-	1
7	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	6	74547	2
8	43'-6" [13259]					1								ID TAG, A-36	7	78413	1
9	43'-8" [13310]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
10	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	6	74547	2
11	45'-0" [13716]													TOWER PLATE TUBE	1	42444-4025	1

HOLE INFORMATION

EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	3'-0" [914]						1						1	1"	POST INSULATOR
2	4'-0" [1219]						1						1	1"	POST INSULATOR
3	11'-0" [3353]						1						1	1"	POST INSULATOR
4	12'-0" [3658]						1						1	1"	POST INSULATOR
5	19'-0" [5791]						1						1	1"	POST INSULATOR
6	20'-0" [6096]						1						1	1"	POST INSULATOR
7	42'-5" [12929]					1								1/2"	SJ INSPECTION



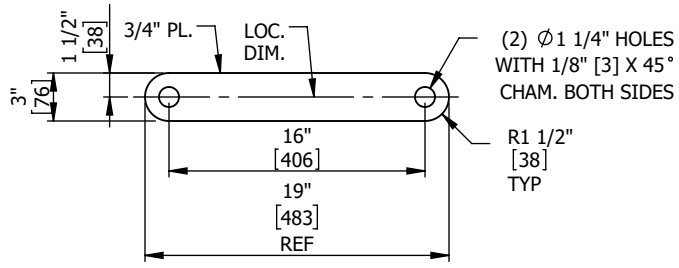
**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

<b>B</b>	<b>UPDATED VANG</b>	<b>JAC/06-15-22</b>
<b>A</b>	INITIAL RELEASE	JAC/06-02-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	DJ	06/02/2022
CHECKED/DATE:	TW	06/09/2022
ENGINEER:	MELVIN PORTILLO	

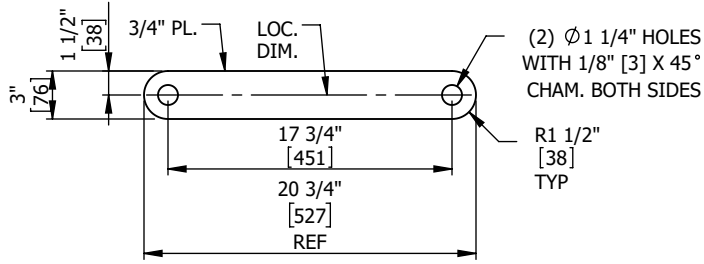
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UTILITY STRUCTURES

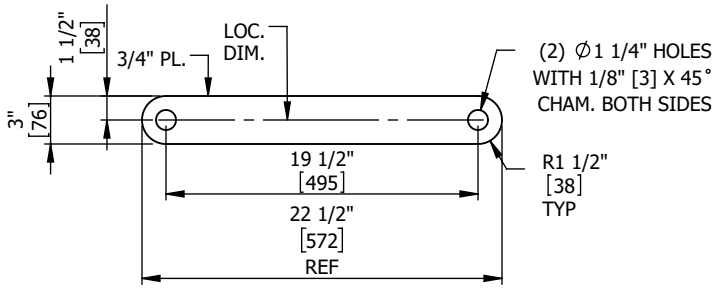
SHAFT ASSEMBLY, 45'-0" LONG  
PTOP



**42444-338**  
 0.75 X 3.00 X 19.00  
 065-ASTM A572 Gr65  
 11.19 LBS



**42444-329**  
 0.75 X 3.00 X 20.75  
 065-ASTM A572 Gr65  
 12.31 LBS



**42444-310**  
 0.75 X 3.00 X 22.50  
 065-ASTM A572 Gr65  
 13.42 LBS

<b>B</b>	<b>UPDATED VANG</b>	<b>JAC/06-15-22</b>
<b>A</b>	INITIAL RELEASE	JAC/06-02-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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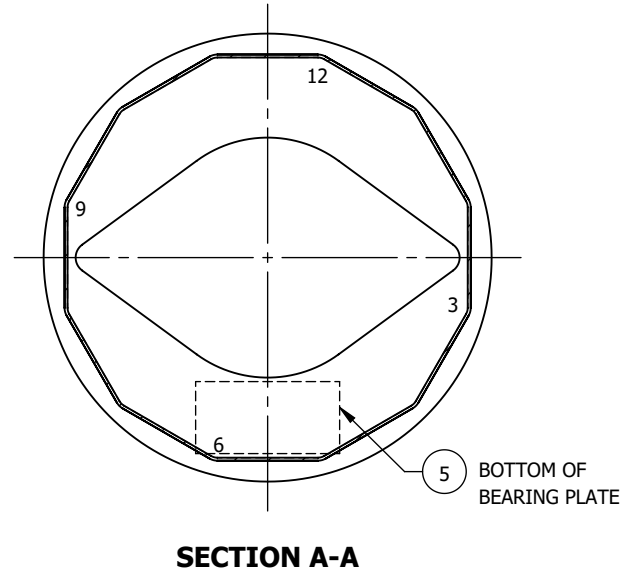
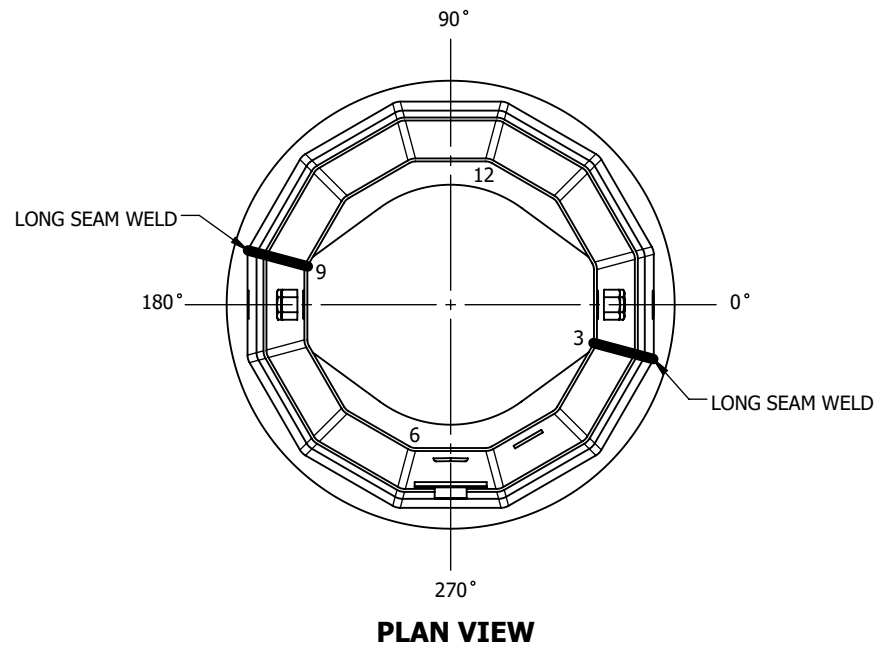
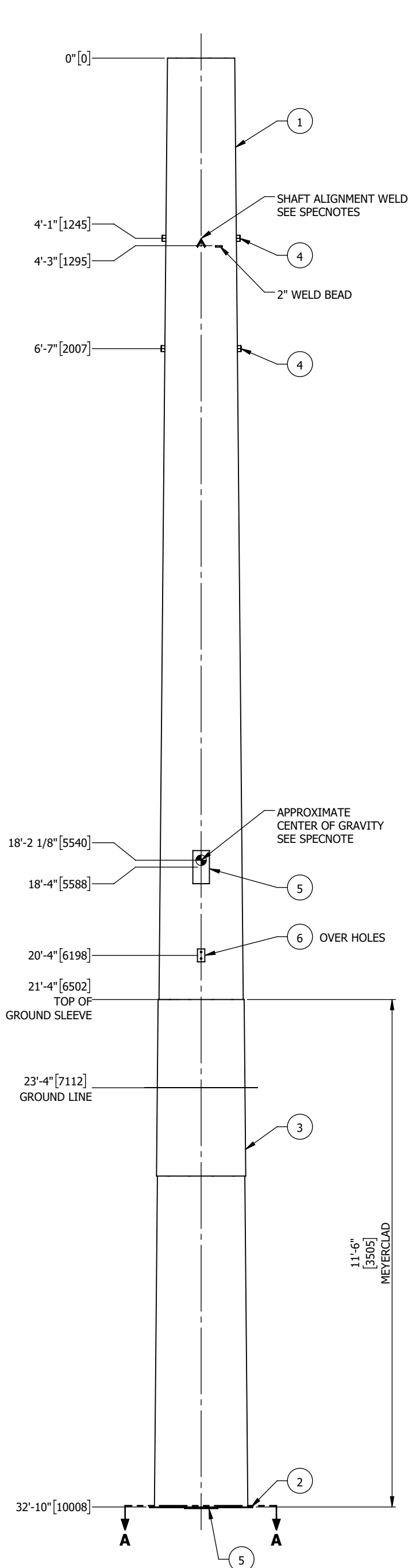
**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 45'-0" LONG  
 PTOP  
 PARTS DETAIL



SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4026	065-ASTM A572 Gr65	32'-10" [10008]	3/16"	18 15/16" [481]	26 9/32" [668]	0.22400	18 9/32" [464]	25 13/32" [645]	0.21637
42444-4027	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	24 7/32" [615]	25 1/8" [638]	0.22400	23 13/32" [594]	24 1/4" [616]	0.21637



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	18.93" [481]	58 11/16" [1491]
	BOTTOM	19.57" [497]	60 11/16" [1541]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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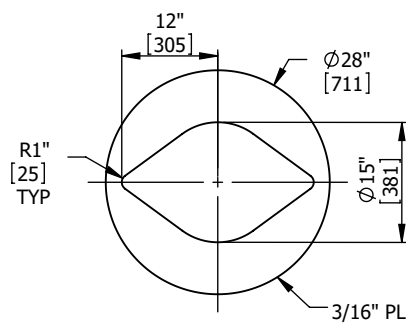
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 32'-10" LONG  
PBAS

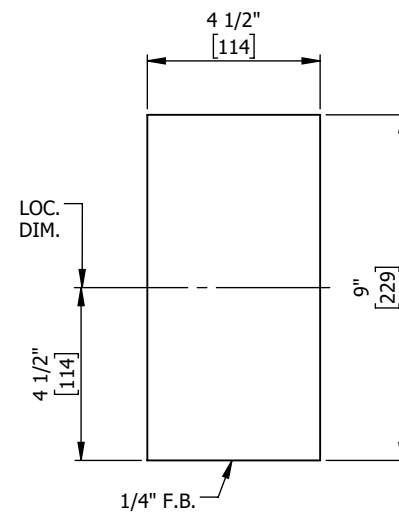
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4026	1	TOWER PLATE TUBE	(2) 0.19 X 29.13 X 394.00 X 40.56	065-ASTM A572 Gr65	1487.52	1487.52	
2	42444-205	1	BEARING PLATE, 3/16" THK X 28" DIA	0.19 X 28.00 X 28.00	065-ASTM A572 Gr65	20.84	20.84	
3	42444-4027	1	GROUND SLEEVE	(2) 0.19 X 37.38 X 48.00 X 38.75	065-ASTM A572 Gr65	193.71	193.71	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT								1710.94
TOTAL UNFINISHED WEIGHT								1720.00
TOTAL FINISHED WEIGHT								1830.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-10" [864]													TOP SLIP JOINT LENGTH 34"		-	1
3	4'-1" [1245]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	4'-1" [1245]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-3" [1295]						1							2" WELD BEAD		-	1
6	6'-7" [2007]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	18'-2 1/8" [5540]													APPROX. CENTER OF GRAVITY WELD		-	1
8	18'-4" [5588]						1							NAME PLATE	5	42444-1401	1
9	20'-4" [6198]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	21'-4" [6502]													TOP OF GROUND SLEEVE	3	42444-4027	1
11	23'-4" [7112]													GROUND LINE		-	-
12	32'-4" [9855]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	32'-10" [10008]													TOWER PLATE TUBE	1	42444-4026	1
14	32'-10" [10008]													BEARING PLATE, 3/16" THK X 28" DIA / SECTION A-A	2	42444-205	1
15	32'-10 3/16" [10012]													NAME PLATE	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	20'-3 1/8" [6175]						1							9/16"	HOLE UNDER GRND PAD
2	20'-4 7/8" [6220]						1							9/16"	HOLE UNDER GRND PAD



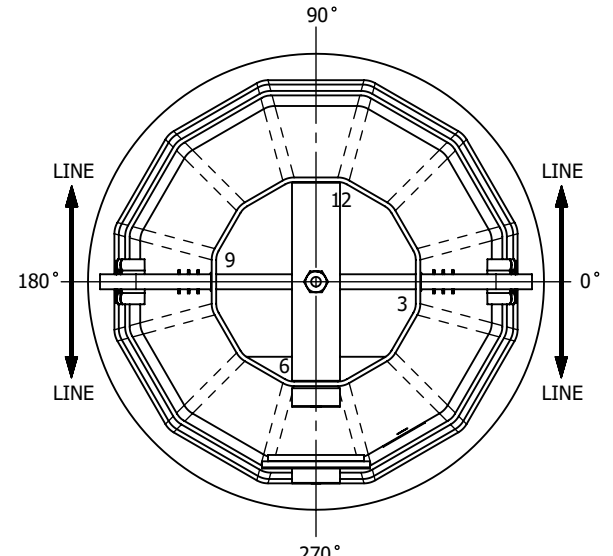
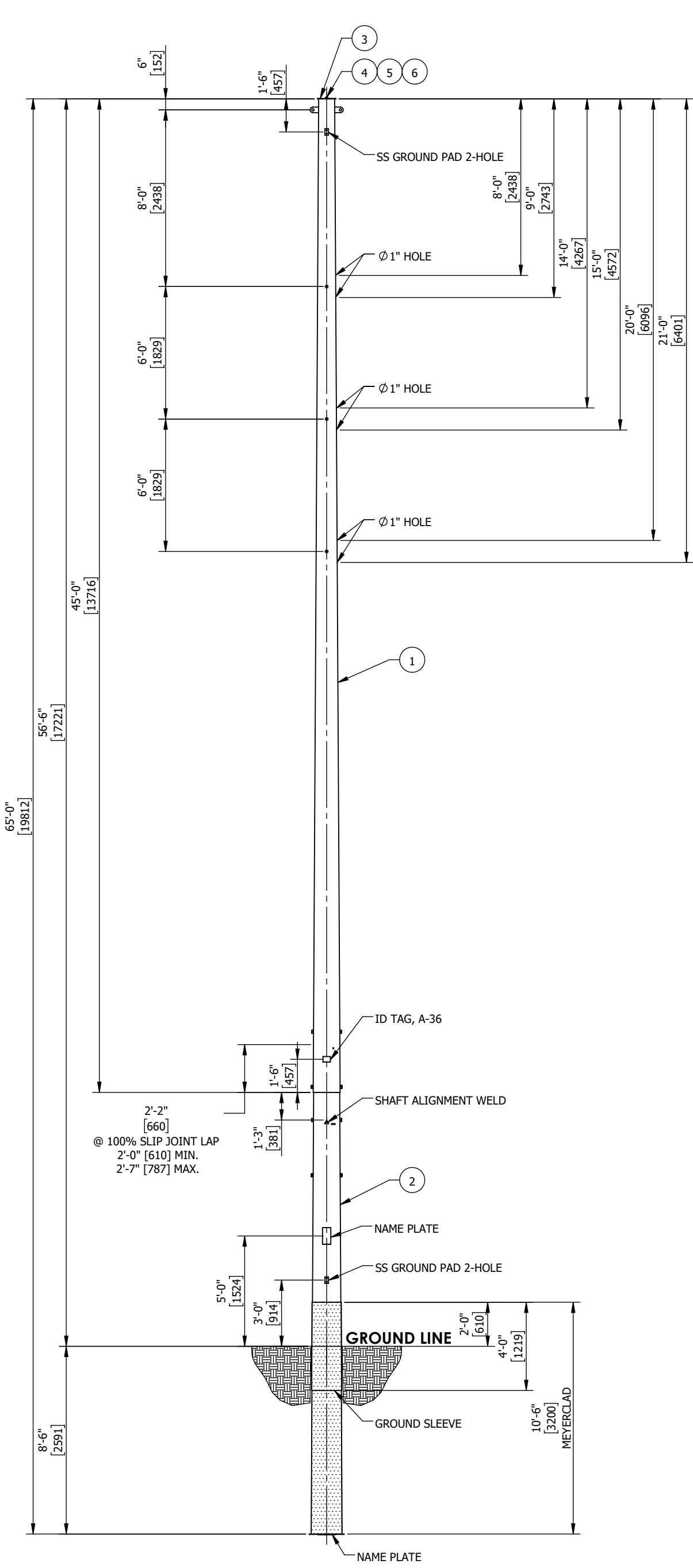
**42444-205**  
0.19 X 28.00 X 28.00  
065-ASTM A572 Gr65  
20.84 LBS



**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 32'-10" LONG PBAS		
SHEET 2 OF 2	<b>42444-3036</b>	REV. <b>A</b>

STRUCTURE INFORMATION								
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0265S3BT	16.15	56'-6" [17221]	9" [229]	16 7/32" [412]	0.13700	8 11/16" [221]	15 11/16" [398]	0.13233



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY

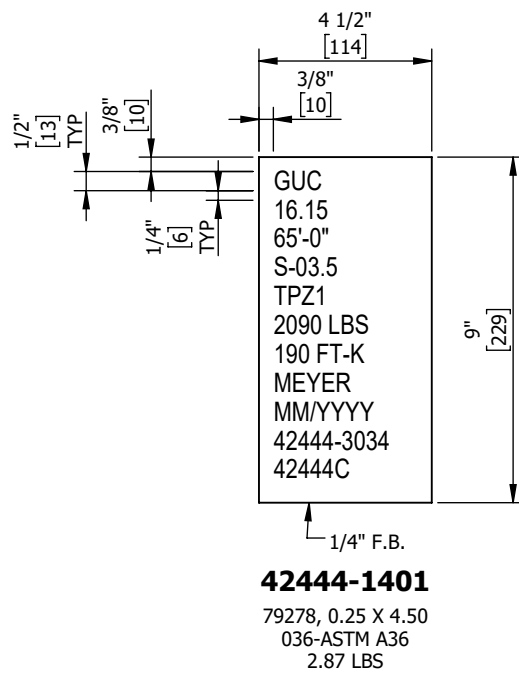
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
**UTILITY STRUCTURES**

65'-0" 115KV 3-PHASE TAN  
Z-FRAME STR S-03.5 TPZ1  
POLE NO: 16.15

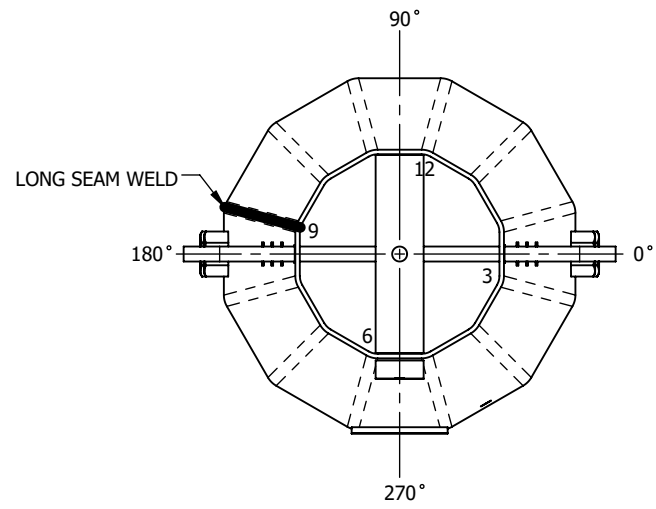
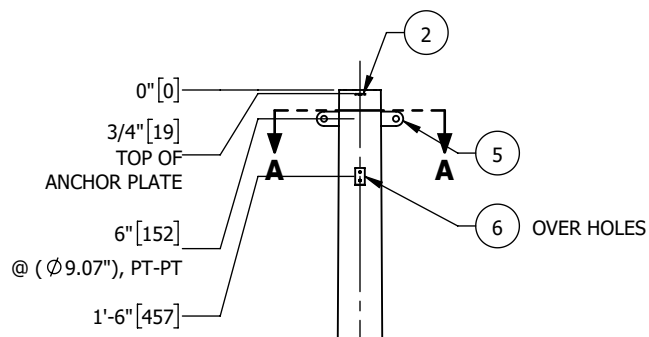
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3033	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 009.0 015.2 000		1170.00	1170.00		
2	42444-3034	1	SHAFT ASSEMBLY, 22'-2" LONG	POLE-BASE 022.17 014.4 017.4 000		910.00	910.00		
3	R3PD0100	1	POLE CAP, 3/16" THK X 10" DIA		036-ASTM A36	4.16	4.16		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT							2090.00		



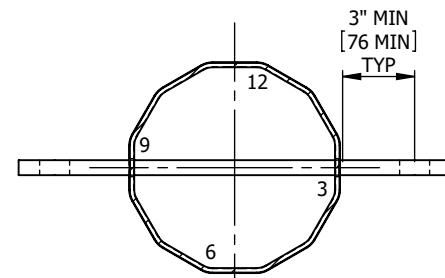
A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
65'-0" 115KV 3-PHASE TAN Z-FRAME STR S-03.5 TPZ1 POLE NO: 16.15		
SHEET 2 OF 2	<b>42444-0265S3BT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4019	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	9" [229]	15 5/32" [385]	0.13700	8 11/16" [221]	14 21/32" [372]	0.13233

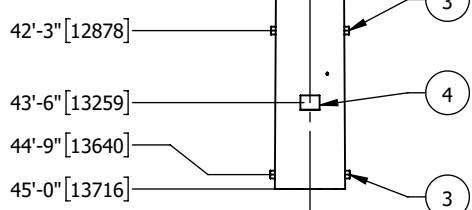


**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**

23'-8 1/8" [7217] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.87" [378]	46" [1168]
	BOTTOM	15.16" [385]	46 15/16" [1192]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
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	ENGINEER: MELVIN PORTILLO	

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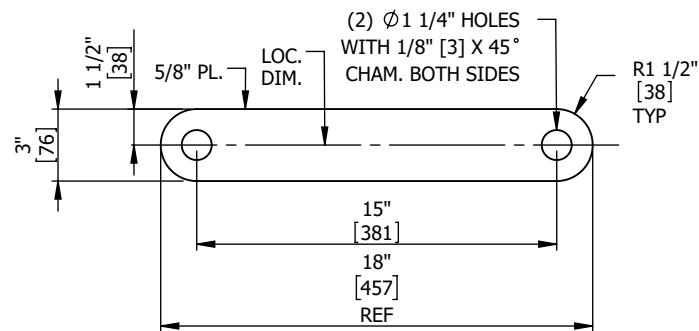
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

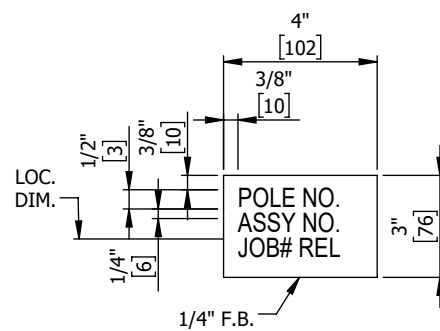
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4019	1	TOWER PLATE TUBE	0.19 X 27.44 X 540.00 X 46.63	065-ASTM A572 Gr65	1076.79	1076.79	
2	PCA082	1	ANCHOR PLATE	0.25 X 2.00 X 8.25	099-ASTM A36	1.15	1.15	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-322	1	THROUGH VANG	0.63 X 3.00 X 18.00	065-ASTM A572 Gr65	8.79	8.79	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1090.71	
TOTAL UNFINISHED WEIGHT							1100.00	
TOTAL FINISHED WEIGHT							1170.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA082	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	5	42444-322	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	23'-8 1/8" [7217]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	3	74547	2
6	42'-10" [13056]	BOTTOM SLIP JOINT LENGTH 26"												-	1		
7	43'-6" [13259]						1							ID TAG, A-36	4	78413	1
8	44'-0" [13411]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	3	74547	2
10	45'-0" [13716]	TOWER PLATE TUBE											1	42444-4019	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	43'-0" [13106]					1								1/2"	SJ INSPECTION



**42444-322**  
0.63 X 3.00 X 18.00  
065-ASTM A572 Gr65  
8.79 LBS



**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

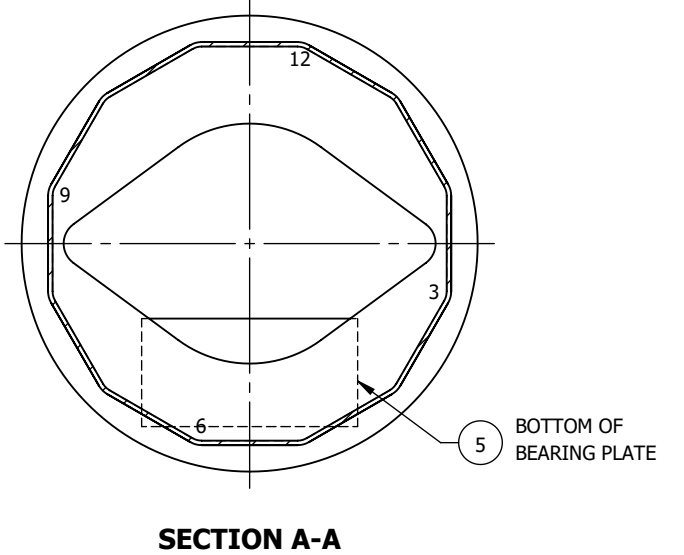
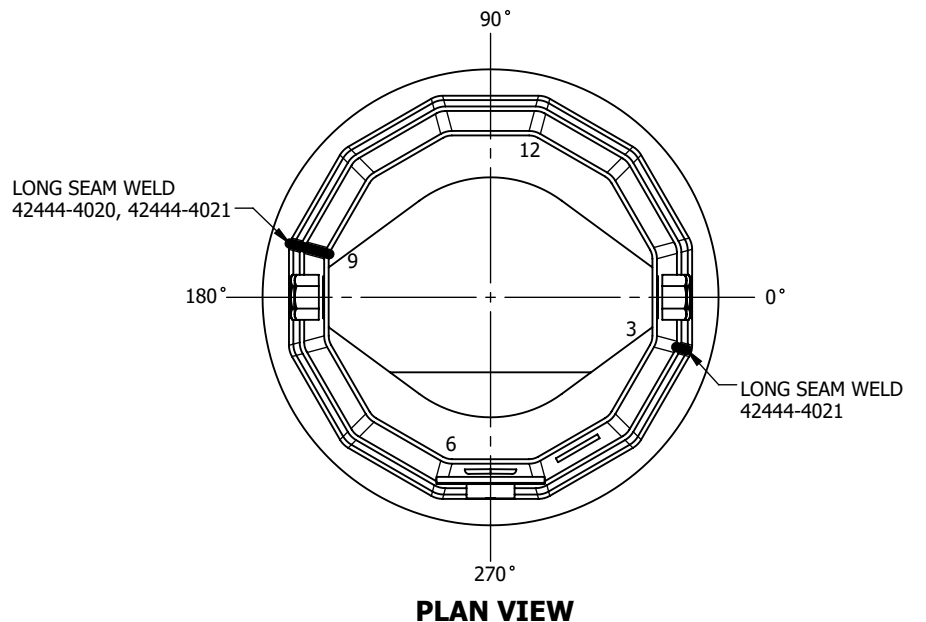
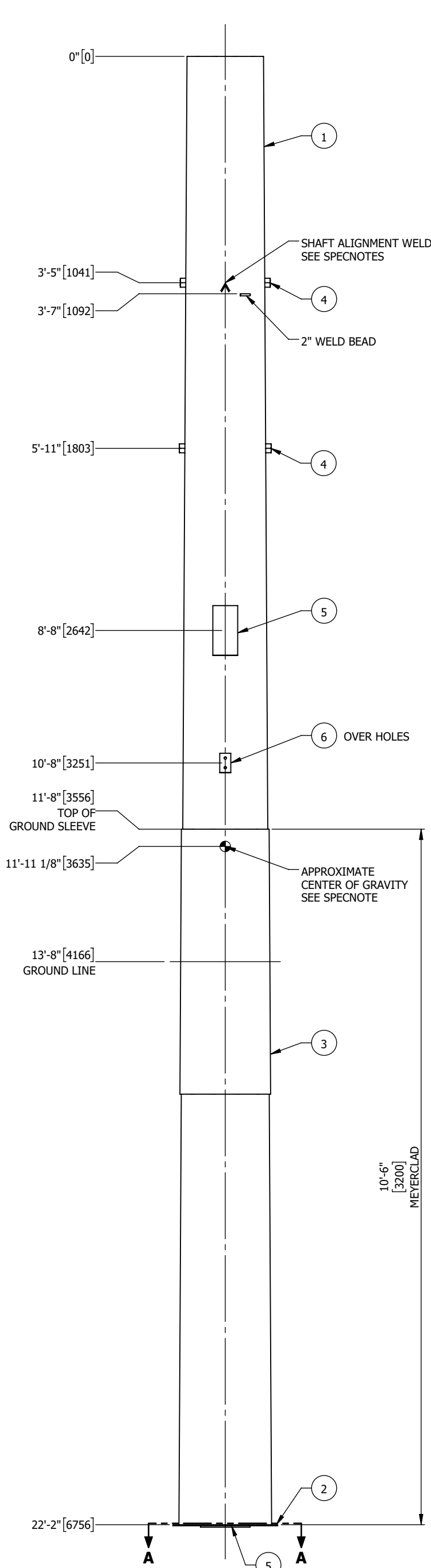
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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4020	065-ASTM A572 Gr65	22'-2" [6756]	3/16"	14 11/32" [365]	17 13/32" [442]	0.13700	13 7/8" [352]	16 13/16" [427]	0.13233
42444-4021	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	16 15/32" [418]	17" [432]	0.13700	15 29/32" [404]	16 7/16" [417]	0.13233



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.36" [365]	44 1/2" [1130]
	BOTTOM	14.65" [372]	45 3/8" [1153]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

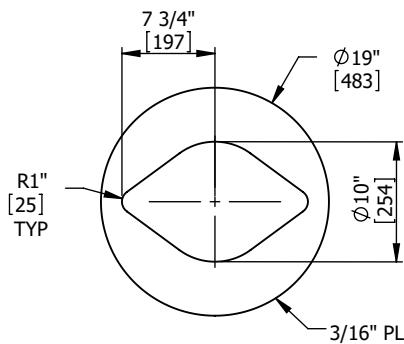
SHAFT ASSEMBLY, 22'-2" LONG  
PBAS

SHEET 1 OF 2      **42444-3034**      REV. **A**

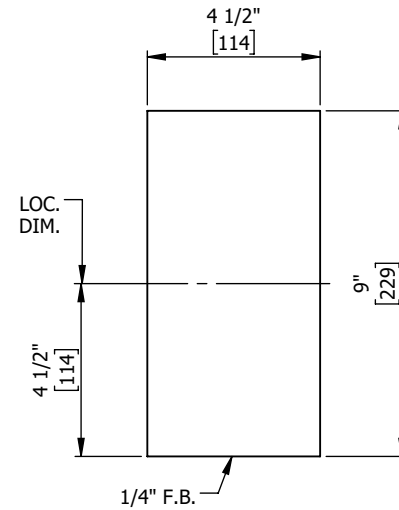
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4020	1	TOWER PLATE TUBE	0.19 X 44.13 X 266.00 X 53.50	065-ASTM A572 Gr65	700.15	700.15	
2	42444-201	1	BEARING PLATE, 3/16" THK X 19" DIA	0.19 X 19.00 X 19.00	065-ASTM A572 Gr65	9.82	9.82	
3	42444-4021	1	GROUND SLEEVE	(2) 0.19 X 25.31 X 48.00 X 26.19	065-ASTM A572 Gr65	130.84	130.84	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT								849.68
TOTAL UNFINISHED WEIGHT								860.00
TOTAL FINISHED WEIGHT								910.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-2" [660]													TOP SLIP JOINT LENGTH 26"		-	1
3	3'-5" [1041]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	3'-5" [1041]						1							SHAFT ALIGNMENT WELD		-	1
5	3'-7" [1092]						1							2" WELD BEAD		-	1
6	5'-11" [1803]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	8'-8" [2642]						1							NAME PLATE	5	42444-1401	1
8	10'-8" [3251]						1							SS GROUND PAD 2-HOLE	6	78412	1
9	11'-8" [3556]													TOP OF GROUND SLEEVE	3	42444-4021	1
10	11'-11 1/8" [3635]													APPROX. CENTER OF GRAVITY WELD		-	1
11	13'-8" [4166]													GROUND LINE		-	-
12	21'-8" [6604]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	22'-2" [6756]													TOWER PLATE TUBE	1	42444-4020	1
14	22'-2" [6756]													BEARING PLATE, 3/16" THK X 19" DIA / SECTION A-A	2	42444-201	1
15	22'-2 3/16" [6761]													NAME PLATE	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	10'-7 1/8" [3229]						1							9/16"	HOLE UNDER GRND PAD
2	10'-8 7/8" [3273]						1							9/16"	HOLE UNDER GRND PAD



**42444-201**  
0.19 X 19.00 X 19.00  
065-ASTM A572 Gr65  
9.82 LBS



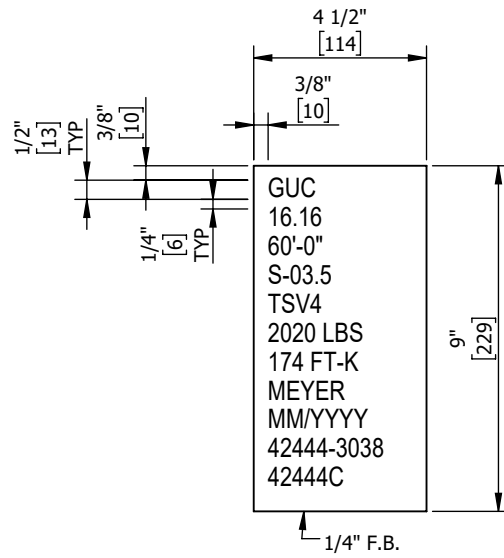
**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 22'-2" LONG PBAS		
SHEET 2 OF 2	<b>42444-3034</b>	REV. <b>A</b>





PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-3037	1	SHAFT ASSEMBLY, 35'-0" LONG	POLE-TOP 035.00 009.0 013.8 020		1060.00	983.60	
2	42444-3038	1	SHAFT ASSEMBLY, 25'-0" LONG	POLE-BASE 025.00 013.8 017.2 000		1011.86	1011.86	
3	R3PD0100	1	POLE CAP, 3/16" THK X 10" DIA		036-ASTM A36	4.16	4.16	
4	78250	8	BOLT, 1" DIA. x 5 1/4"		ASTM A-354 GRADE BC GALV	1.52	12.16	
5	74071	8	ANCO LOCKNUT, 1" DIA.		ASTM A-563 GRADE DH	0.41	3.28	
6	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
7	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
8	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
TOTAL STRUCTURE FINISHED WEIGHT							2020.00	



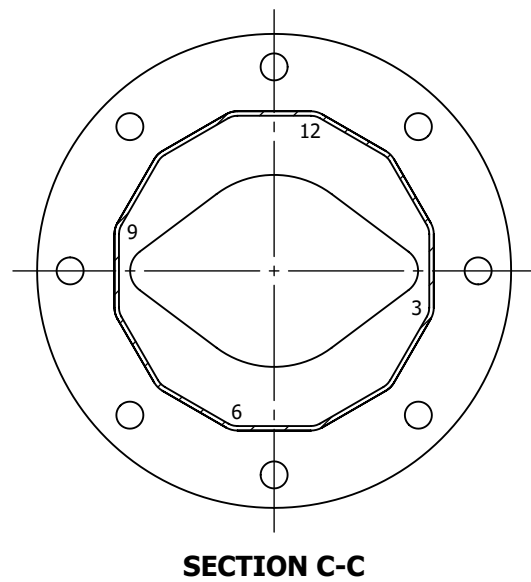
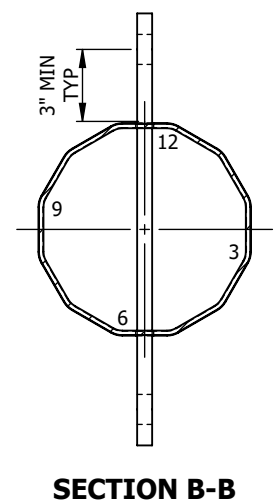
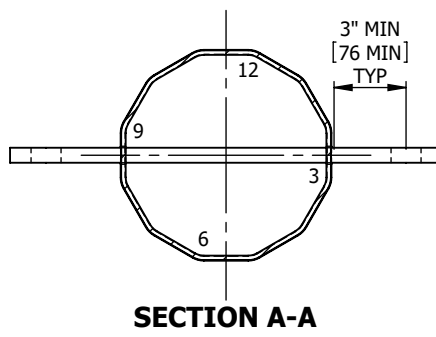
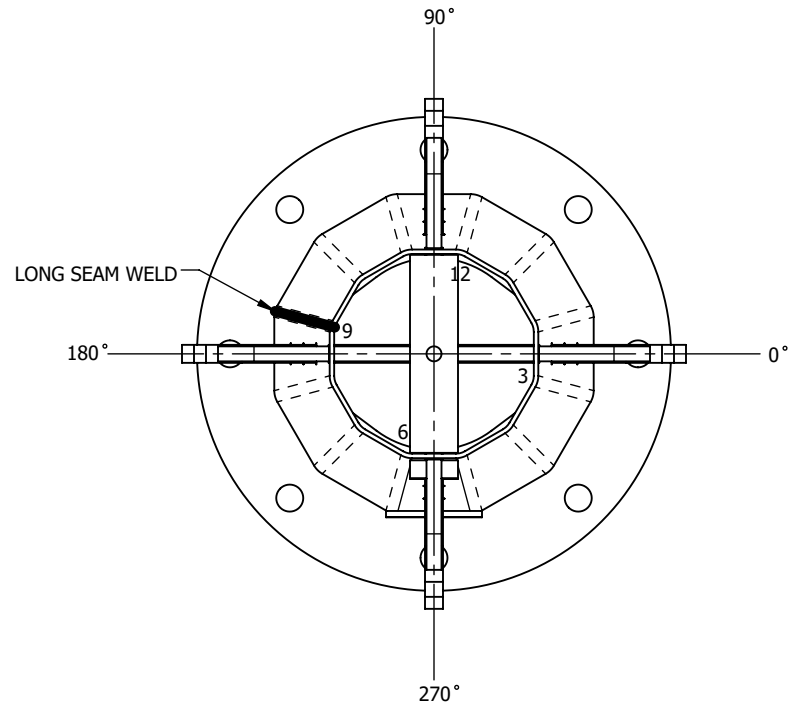
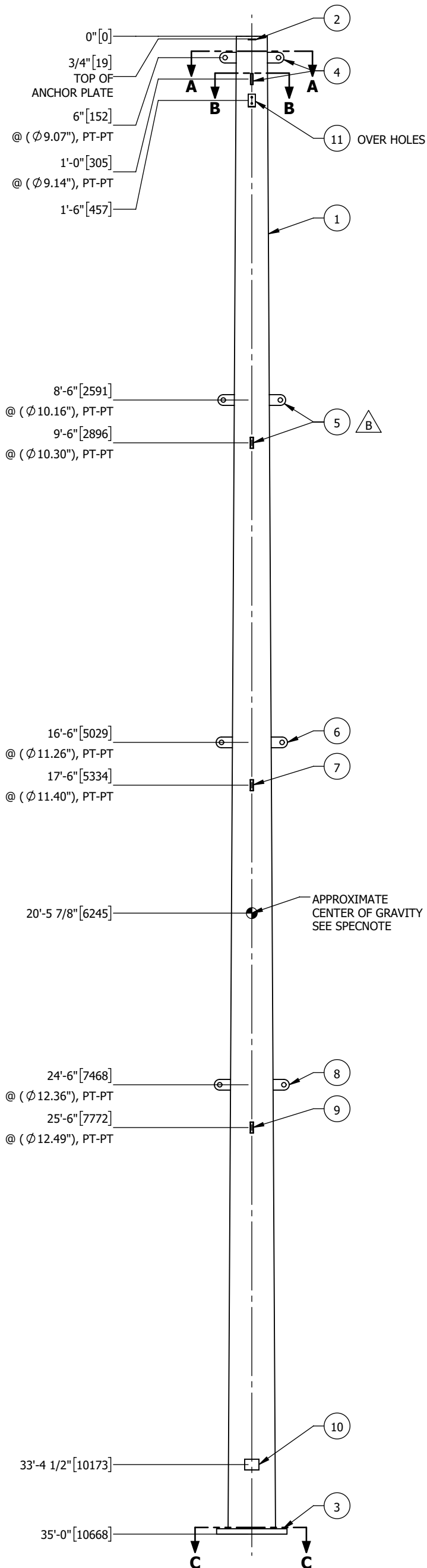
**42444-1401**

79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	JAC/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>60'-0" 115KV 3-PHASE LARGE ANGLE Z-FRAME STR S-03.5 TSV4 POLE NO: 16.16</p>		
SHEET 2 OF 2	<b>42444-0260F3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4040	065-ASTM A572 Gr65	34'-10 1/2" [10630]	3/16"	9" [229]	13 25/32" [350]	0.13700	8 11/16" [221]	13 5/16" [338]	0.13233



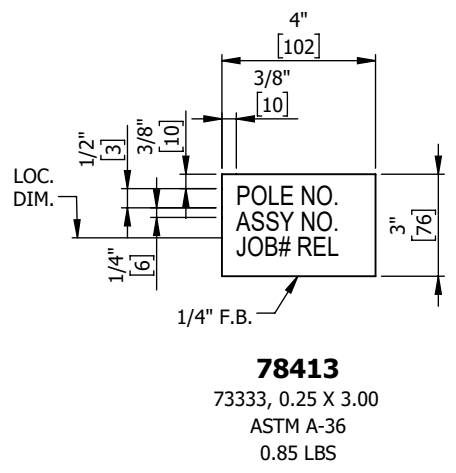
REV	DESCRIPTION	DRFT/DATE
B	UPDATED VANG	JAC/06-15-22
A	INITIAL RELEASE	JAC/06-01-22
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	DJ	05/25/2022
CHECKED/DATE:	TW	06/09/2022
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 35'-0" LONG PTOP		
SHEET 1 OF 3	<b>42444-3037</b>	REV. <b>B</b>

\*\*\*JAC/SOD-6/16/2022-7:19:49 AM\*\*\*

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4040	1	TOWER PLATE TUBE	0.19 X 27.44 X 418.50 X 42.31	065-ASTM A572 Gr65	790.95	790.95	
2	PCA082	1	ANCHOR PLATE	0.25 X 2.00 X 8.25	099-ASTM A36	1.15	1.15	
3	42444-4042	1	FLANGE PLATE	1.50 X 19.75 X 19.75	451-ASTM A572 Gr50	100.36	100.36	
4	42444-322	2	THROUGH VANG	0.63 X 3.00 X 18.00	065-ASTM A572 Gr65	8.79	17.58	
5	42444-338	2	THROUGH VANG	0.75 X 3.00 X 19.00	065-ASTM A572 Gr65	11.19	22.38	
6	42444-330	1	THROUGH VANG	0.75 X 3.00 X 20.00	065-ASTM A572 Gr65	11.83	11.83	
7	42444-331	1	THROUGH VANG	0.75 X 3.00 X 20.25	065-ASTM A572 Gr65	11.99	11.99	
8	42444-309	1	THROUGH VANG	0.75 X 3.00 X 21.00	065-ASTM A572 Gr65	12.47	12.47	
9	42444-332	1	THROUGH VANG	0.75 X 3.00 X 21.25	065-ASTM A572 Gr65	12.63	12.63	
10	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
11	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							983.60	
TOTAL UNFINISHED WEIGHT							990.00	
TOTAL FINISHED WEIGHT							1060.00	

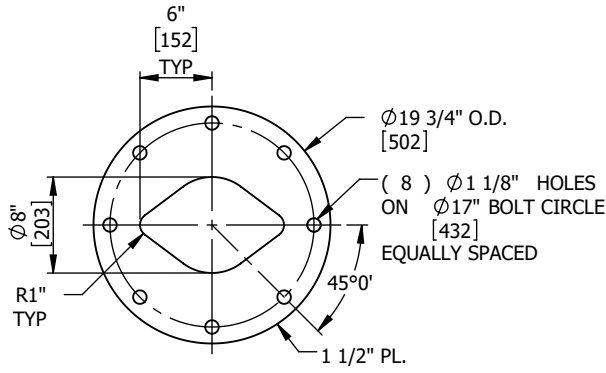
HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA082	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	4	42444-322	1	
3	1'-0" [305]	90 DEG ON FLAT 11-12											THROUGH VANG / SECTION B-B	4	42444-322	1	
4	1'-6" [457]						1							SS GROUND PAD 2-HOLE	11	78412	1
5	8'-6" [2591]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	5	42444-338	1	
6	9'-6" [2896]	90 DEG ON FLAT 11-12											THROUGH VANG / SECTION B-B	5	42444-338	1	
7	16'-6" [5029]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	6	42444-330	1	
8	17'-6" [5334]	90 DEG ON FLAT 11-12											THROUGH VANG / SECTION B-B	7	42444-331	1	
9	20'-5 7/8" [6245]	APPROX. CENTER OF GRAVITY WELD											-	-	1		
10	24'-6" [7468]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	8	42444-309	1	
11	25'-6" [7772]	90 DEG ON FLAT 11-12											THROUGH VANG / SECTION B-B	9	42444-332	1	
12	33'-4 1/2" [10173]						1							ID TAG, A-36	10	78413	1
13	34'-10 1/2" [10630]	TOWER PLATE TUBE											1	42444-4040	1		
14	35'-0" [10668]	FLANGE PLATE / SECTION C-C											3	42444-4042	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD



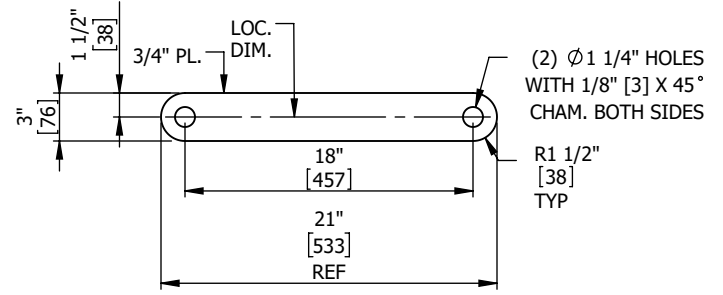
<b>B</b>	<b>UPDATED VANG</b>	<b>JAC/06-15-22</b>
<b>A</b>	INITIAL RELEASE	JAC/06-01-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	DJ 05/25/2022	
CHECKED/DATE:	TW 06/09/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 35'-0" LONG PTOP		
SHEET 2 OF 3	<b>42444-3037</b>	REV. <b>B</b>

\*\*\*JACKSOD-6/16/2022--7:19:49 AM\*\*\*



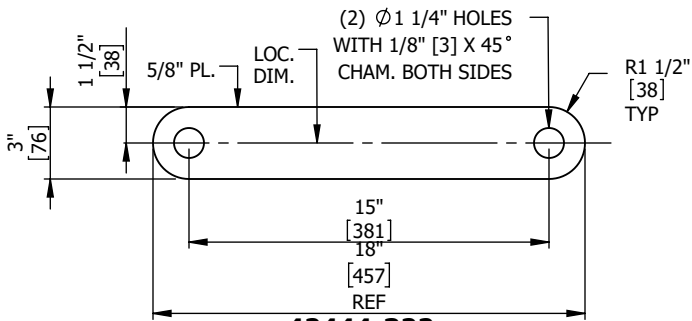
**42444-4042**

1.50 X 19.75 X 19.75  
 451-ASTM A572 Gr50  
 100.36 LBS



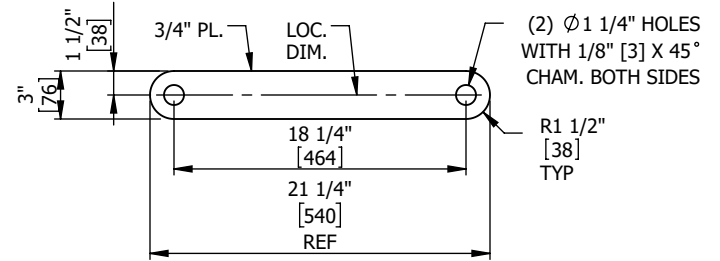
**42444-309**

0.75 X 3.00 X 21.00  
 065-ASTM A572 Gr65  
 12.47 LBS



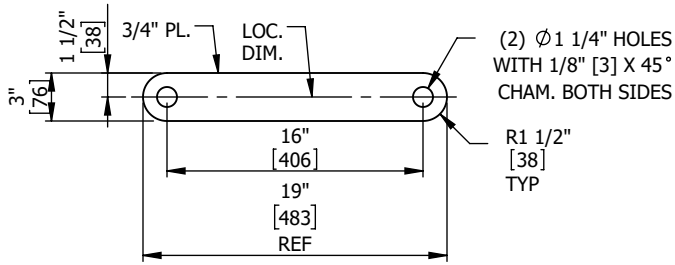
**42444-322**

0.63 X 3.00 X 18.00  
 065-ASTM A572 Gr65  
 8.79 LBS



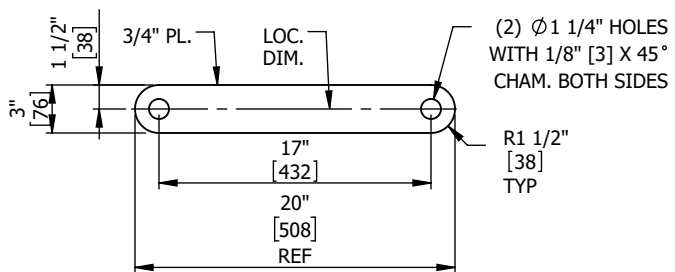
**42444-332**

0.75 X 3.00 X 21.25  
 065-ASTM A572 Gr65  
 12.63 LBS



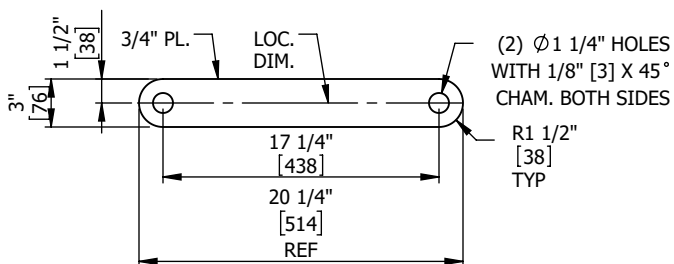
**42444-338**

**B** 0.75 X 3.00 X 19.00  
 065-ASTM A572 Gr65  
 11.19 LBS



**42444-330**

0.75 X 3.00 X 20.00  
 065-ASTM A572 Gr65  
 11.83 LBS



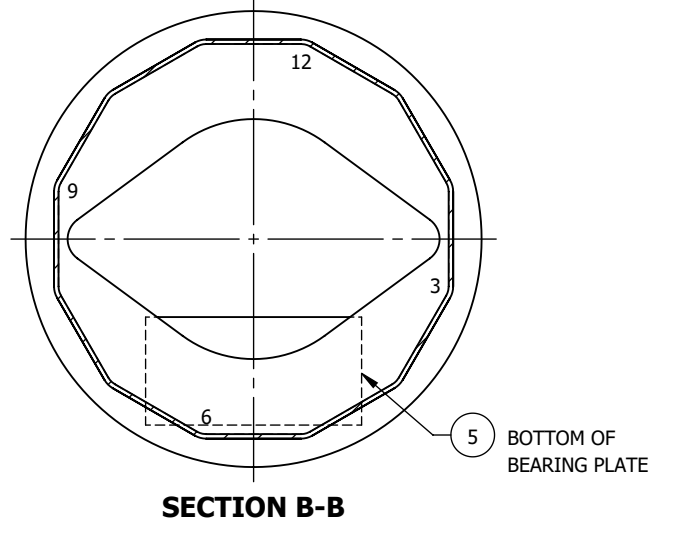
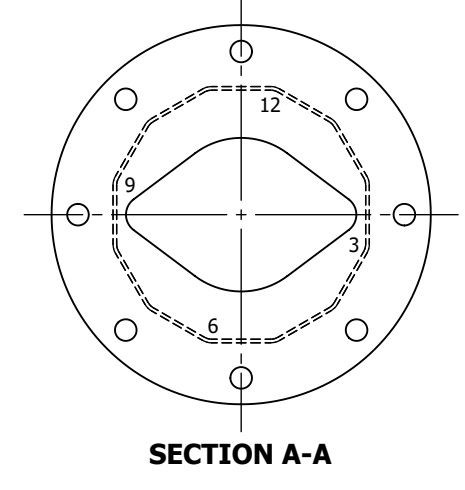
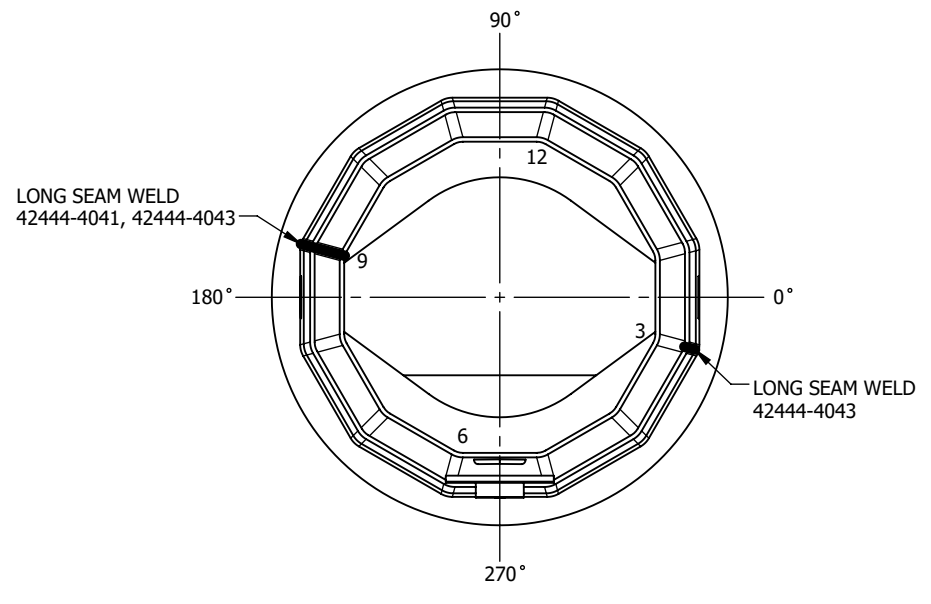
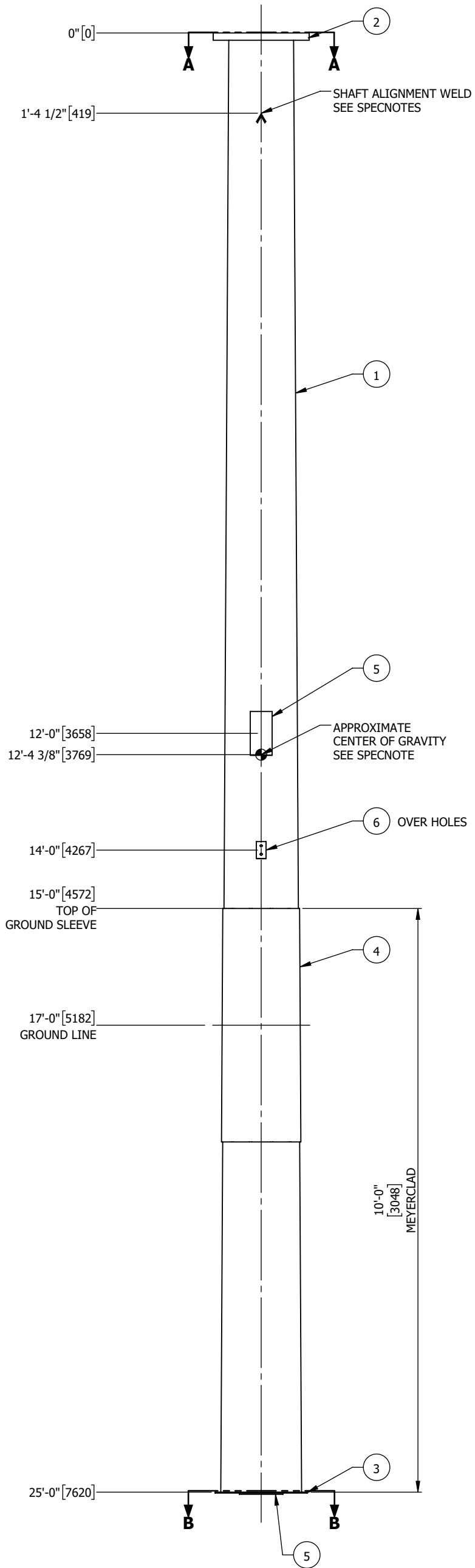
**42444-331**

0.75 X 3.00 X 20.25  
 065-ASTM A572 Gr65  
 11.99 LBS

<b>B</b>	<b>UPDATED VANG</b>	<b>JAC/06-15-22</b>
<b>A</b>	INITIAL RELEASE	JAC/06-01-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 35'-0" LONG PTOP PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3037</b>	REV. <b>B</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4041	065-ASTM A572 Gr65	24'-10 1/2" [7582]	3/16"	13 13/16" [351]	17 7/32" [437]	0.13700	13 11/32" [339]	16 5/8" [422]	0.13233
42444-4043	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	16 3/8" [416]	16 29/32" [430]	0.13700	15 13/16" [401]	16 11/32" [415]	0.13233



A	INITIAL RELEASE	JAC/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

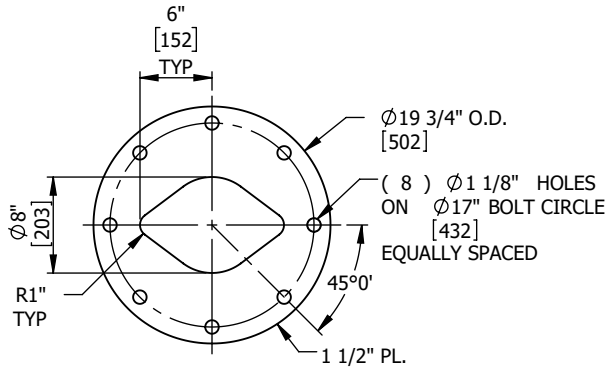
SHAFT ASSEMBLY, 25'-0" LONG  
PBAS

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4041	1	TOWER PLATE TUBE	0.19 X 42.44 X 298.50 X 53.00	065-ASTM A572 Gr65	346.17	763.17	
2	42444-4042	1	FLANGE PLATE	1.50 X 19.75 X 19.75	451-ASTM A572 Gr50	100.36	100.36	
3	42444-201	1	BEARING PLATE, 3/16" THK X 19" DIA	0.19 X 19.00 X 19.00	065-ASTM A572 Gr65	9.82	9.82	
4	42444-4043	1	GROUND SLEEVE	(2) 0.19 X 25.13 X 48.00 X 26.00	065-ASTM A572 Gr65	130.02	130.02	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	7.02	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT								1011.80
TOTAL UNFINISHED WEIGHT								1020.00
TOTAL FINISHED WEIGHT								1080.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	1 1/2" [38]													FLANGE PLATE / SECTION A-A	2	42444-4042	1
2	1'-4 1/2" [419]						1							SHAFT ALIGNMENT WELD		-	1
3	12'-0" [3658]						1							NAME PLATE	5	42444-1401	1
4	12'-4 3/8" [3769]													APPROX. CENTER OF GRAVITY WELD		-	1
5	14'-0" [4267]						1							SS GROUND PAD 2-HOLE	6	78412	1
6	15'-0" [4572]													TOP OF GROUND SLEEVE	4	42444-4043	1
7	17'-0" [5182]													GROUND LINE		-	-
8	24'-6" [7468]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	25'-0" [7620]													TOWER PLATE TUBE	1	42444-4041	1
10	25'-0" [7620]													BEARING PLATE, 3/16" THK X 19" DIA / SECTION B-B	3	42444-201	1
11	25'-3/16" [7625]													NAME PLATE	5	42444-1401	1

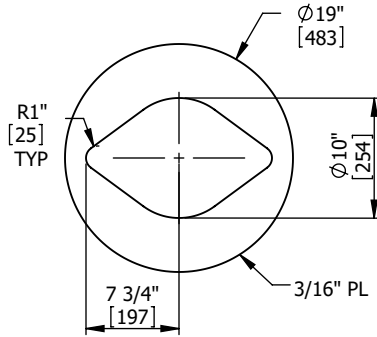
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	13'-11 1/8" [4245]						1							9/16"	HOLE UNDER GRND PAD
2	14'-7/8" [4289]						1							9/16"	HOLE UNDER GRND PAD

A	INITIAL RELEASE	JAC/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 25'-0" LONG PBAS		
SHEET 2 OF 3	<b>42444-3038</b>	REV. <b>A</b>



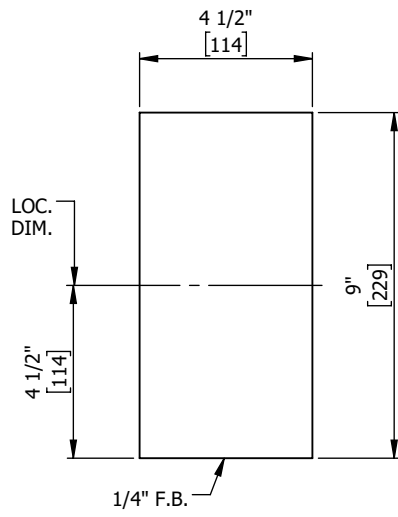
**42444-4042**

1.50 X 19.75 X 19.75  
451-ASTM A572 Gr50  
100.36 LBS



**42444-201**

0.19 X 19.00 X 19.00  
065-ASTM A572 Gr65  
9.82 LBS



**42444-1401**

79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	JAC/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 05/25/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 25'-0" LONG PBAS PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3038</b>	REV. <b>A</b>



**GENERAL INFORMATION ON MANUFACTURING, MATERIALS, AND ASSEMBLY**

**MATERIALS:**

**1A: FOR GALVANIZED STRUCTURES:**

STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 1 1/4"	65 KSI	A572 MODIFIED TO LIMIT SILICON CONTENT TO 0.06%
PLATE > 1 1/4"	50, 60 KSI	A572
BOLTS ≤ 5/8"	92 KSI	A449*
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADE BC*
BOLTS > 2 1/2"	99 KSI	A354 GRADE BC*
QUICK PIN	92 KSI	AISI 4140/4340 (EQUIVALENT TO F3125 / A325 MATERIAL)
NUTS ≤ 5/8"	---	A563 GRADE C
NUTS ≥ 3/4"	---	A563 GRADE DH
NUTS (ANCHOR BOLTS)	---	A563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A563 GRADE C3
ANCHOR BOLTS	75 KSI	A615 GRADE 75
STEEL SHAPES	36 KSI	A36 or A572 or EQUIVALENT
PIPE	36, 50 KSI	A36, A53 GRADE B, A106 GRADE B, OR A501
STAINLESS STEEL SHAPES	30 KSI	
NON-STRUCTURAL MISC.	36 KSI	

**1B: FOR WEATHERING STEEL STRUCTURES:**

STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 3/4"	65 KSI	A871
BOLTS 1/2" DIA.	---	A307
PLATE > 3/4"	50, 60 KSI	A871, A588
BOLTS < 5/8"	92 KSI	A449*
BOLTS 5/8"	92 KSI	F3125, A325 TYPE 3
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADE BC MODIFIED TO PROVIDE WEATHERING PROPERTIES*
BOLTS > 2 1/2"	99 KSI	A354 GRADE BC MODIFIED TO PROVIDE WEATHERING PROPERTIES*
QUICK PIN	92 KSI	AISI 4140/4340 (EQUIVALENT TO F3125 / A325 MATERIAL)
NUTS < 5/8"	---	A563 GRADE C3
NUTS ≥ 5/8"	---	A563 GRADE C3
NUTS (ANCHOR BOLTS)	---	A563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A563 GRADE C3
ANCHOR BOLTS	75 KSI	A615 GRADE 75
STEEL SHAPES	50 KSI	A588 OR EQUIVALENT
PIPE	50 KSI	A847 OR EQUIVALENT
STAINLESS STEEL SHAPES	30 KSI	TYPE 304
NON-STRUCTURAL MISC	50 KSI	A588

\*BASED ON STRUCTURE AND CONNECTION DESIGN, F3125 BOLTS MAY BE SUBSTITUTED FOR A354 OR A449

**1C: FORGED RINGS (HOT ROLLED RINGS):** ASTM A1090

2. CHARPY IMPACT TEST REQUIREMENTS: MATERIAL FOR TUBE SHAFT, BASE PLATES, FLANGE PLATES, ARM BRACKET AND STRUCTURAL BRACKETS TESTED TO 15 FT-LBS AT -20 DEGREES F.

3. ALL PLATES TO HAVE A CHARPY V-NOTCH IMPACT VALUE OF 15 FT-LBS MINIMUM AT -20°F PER HEAT LOT TEST (UNLESS OTHERWISE NOTED).

**5. ASSEMBLY:**

A. FINAL WEIGHTS ON ERECTION DRAWINGS ARE ROUNDED UP TO THE NEXT 10 LBS.

B. FINISHED WEIGHTS ON ERECTION DRAWINGS ARE ESTIMATED. FINISHED WEIGHTS WILL VARY BASED ON THE THICKNESS OF GALVANIZING AND TOTAL SURFACE AREA OF SHAFT ASSEMBLIES.

C. CUSTOMER SHALL VERIFY THE FIT OF THEIR EQUIPMENT (INSULATORS, GUY WIRES, ETC.) TO ATTACHMENTS PROVIDED.

D. ALL STRUCTURE ARMS SHALL BE DAMPED AT ERECTION TIME. DAMPING MAY BE ACCOMPLISHED BY STRINGING, HANGING INSULATORS OR WEIGHTS, OR TYING ARMS OFF TO THE STRUCTURE AT ATTACHMENT POINTS.

**6. BOLT AND NUT TIGHTENING INFORMATION:**

THE NUTS ON ALL CONNECTION BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

A. ARM CONNECTIONS ARE DESIGNED TO ACCOMMODATE MEYER STANDARD MANUFACTURING TOLERANCES WHICH MAY RESULT IN GAPS BETWEEN THE BRACKET AND THE THROUGH VANGS. BOLT INSTALLATION AND TIGHTENING SHALL BE PERFORMED IN A SEQUENCE TO PROVIDE DISTRIBUTION OF THESE GAPS SO THAT A GAP DOESN'T EXCEED 1/4" ON EITHER SIDE OF THE BRACKET. THIS MAY BE ACCOMPLISHED BY TIGHTENING A PAIR OF BOLTS ON OPPOSITE SIDES OF A CONNECTION FOLLOWED BY SIMILAR PAIRS. THE ERECTOR IS RESPONSIBLE FOR DETERMINING THE REQUIRED SEQUENCE.

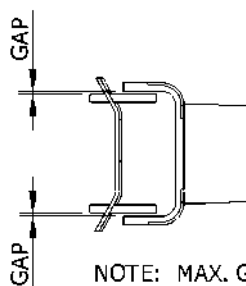
B. THE NUTS SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION, WITH THE EXCEPTION THAT THE PLIES DO NOT NEED TO BE BROUGHT INTO FIRM CONTACT. TO VERIFY THAT BOLTS ARE TENSIONED, THE ERECTOR SHALL "MATCH MARK" THE BOLTS AND NUTS BEFORE APPLYING THE FINAL TURN BASED ON THE DIAMETER AND LENGTH OF THE BOLT AS NOTED BELOW:

**FINAL TURN REQUIREMENTS**

**BOLT LENGTH**

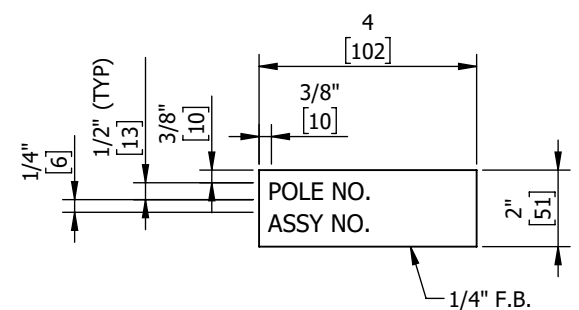
BOLT DIA.	1/3 NUT TURN	1/2 NUT TURN	2/3 NUT TURN
1"	0"-4"	4"-8"	8"-12"
1 1/2"	0"-6"	6"-12"	12"-18"

C. GAPS PRESENT AFTER THIS BOLT TIGHTENING PROCESS ARE ACCEPTABLE AS LONG AS THEY DO NOT EXCEED 1/4". ARM TO POLE CONNECTIONS ARE DESIGNED AND FABRICATED TO ACCOMMODATE A MAXIMUM 1/4" GAP BETWEEN EACH BRACKET AND THROUGH VANG.

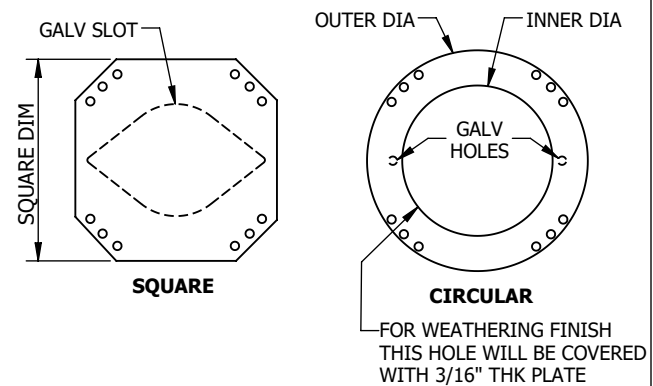
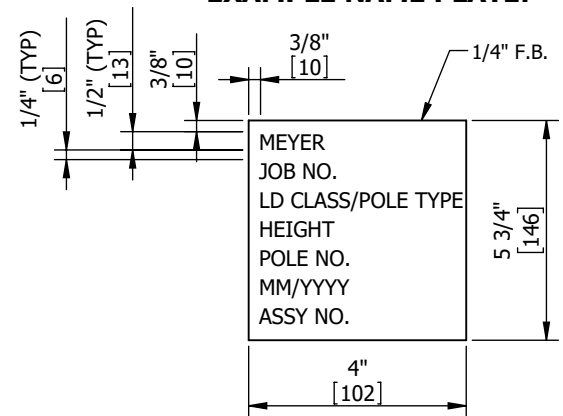


NOTE: MAX. GAP = 1/4"

**EXAMPLE ID TAG:**



**EXAMPLE NAME PLATE:**



REV	DESCRIPTION	DRFT/DATE
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19

PROJECT:	
CUSTOMER:	Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	----
DRAWN/DATE:	JRB 05/23/1994
CHECKED/DATE:	ST 01/31/2018
ENGINEER:	

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**MEYER**  
UTILITY STRUCTURES

GENERAL NOTES, ASSEMBLY  
AND ERECTION INFORMATION

D. NUTS FOR 2 1/4" DIAMETER ANCHOR BOLTS (ASTM A-615, GRADE 75) SHOULD BE TURNED 1/6 TURN AFTER APPLYING THE FORCE AS DESCRIBED IN AISC FOR THE SNUG TIGHT CONDITION.

E. LONG ARM CONNECTION BOLTS (L>8") SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION BUT DO NOT NEED TO BE FULLY TENSIONED BEYOND THE SNUG TIGHT CONDITION. GAPS PRESENT AFTER THIS BOLT TIGHTENING PROCESS ARE ACCEPTABLE AS LONG AS THEY DO NOT EXCEED 1/4". ARM TO POLE CONNECTIONS ARE DESIGNED AND FABRICATED TO ACCOMMODATE A MAXIMUM 1/4" GAP BETWEEN EACH BRACKET AND VANG

F. CROSSBRACE U-BOLT NUTS SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION BRINGING THE CROSS BRACES IN CONTACT WITH EACH OTHER. CARE SHALL BE TAKEN NOT TO OVER TIGHTEN THE U-BOLT AND DAMAGE THE CROSS BRACE.

7. FOR SLIP JOINTED POLES, SEE SHEETS SSG004 AND SSG005 FOR ASSEMBLY AND JACKING INFORMATION. MEYER APPROVED JACKS SHALL BE USED TO ASSEMBLE SLIP JOINTS.

8. STORAGE REQUIREMENT - HORIZONTAL STORAGE

A. STORAGE METHOD FOR STRUCTURES THAT ARE COATED WITH PAINT, OR OTHER PROTECTIVE OR BELOW GRADE COATINGS.

B. ALL STRUCTURES INCLUDING WEATHERING STEEL POLES SHALL BE RAISED OFF OF THE GROUND AND KEPT FREE FROM AREAS WITH MOISTURE PRESENT.

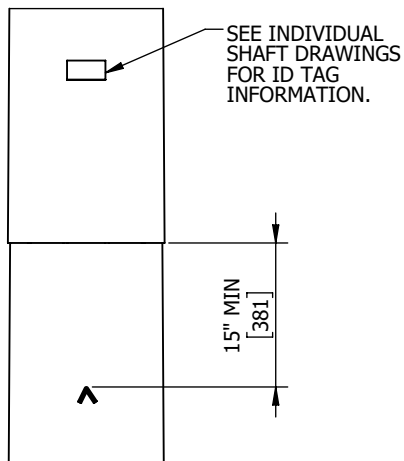
C. STRUCTURES LYING HORIZONTALLY FOR EXTENDED PERIODS OF TIME SHALL BE TARPED OR PROTECTED BY OTHER MEANS TO SHIELD THE COATINGS FROM THE ELEMENTS OF THE ENVIRONMENT.

9. LIFTING/HANDLING

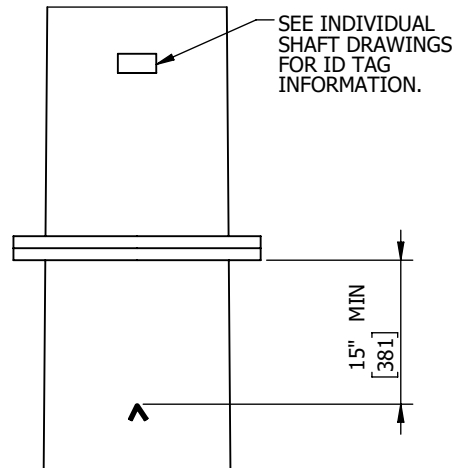
A. LIFTING, LOADING, UNLOADING AND HANDLING TO BE PERFORMED IN A SAFE MANNER WITH EQUIPMENT CAPABLE OF SAFELY LIFTING AND HANDLING THE MEMBERS AND SECTIONS.

B. WHEN LIFTING DEVICES, VANGS, SLOTS ARE PROVIDED ON A MEMBER OR SECTION, PAIRS OF DEVICES, VANGS, SLOTS SHALL BE USED TO LIFT OR HANDLING ANY MEMBER OR SECTION.

C. UNLESS NOTED OTHERWISE ON DRAWINGS, THE LIFTING DEVICES ARE TO BE USED TO LIFT OR HANDLE EACH SECTION OF THE STRUCTURE AND NOT LIFT THE FULLY ASSEMBLED STRUCTURE.



**EXAMPLE:  
SLIP JOINT MATCH MARK**



**EXAMPLE:  
FLANGE CONNECTION  
MATCH MARK**

REV	DESCRIPTION	DRFT/DATE														
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20														
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20														
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19														
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PROJECT:																
CUSTOMER:	Meyer Utility Structures															
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ENGINEER:																
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<p><b>MEYER</b> UTILITY STRUCTURES</p>																
<p>GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION</p>																
SHEET 2 OF 4		SSG001														
		REV. AD														

**INFORMACION GENERAL DE MANUFACTURA MATERIALES Y ENSAMBLE**

MATERIALES:

1A: PARA ESTRUCTURAS GALVANIZADAS:

ESPECIFICACIONES DEL ACERO	CEDENCIA MIN.	ESPEC. ASTM
PLACA ≤ 1 1/4"	65 KSI	A572 MODIFICADO AL LIMITE DE CONTENIDO DE SILICON A 0.06%
PLACA > 1 1/4"	50, 60 KSI	A572
TORNILLOS ≤ 5/8"	92 KSI	A449*
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADO BC*
TORNILLOS > 2 1/2"	99 KSI	A354 GRADO BC*
PERNO	92 KSI	AISI 4140/4340 (EQUIVALENTE A MATERIAL F3125 / A325)
TUERCAS ≤ 5/8"	---	A563 GRADO C
TUERCAS ≥ 3/4"	---	A563 GRADO DH
TUERCAS (PERNOS DE ANCLAJE)	---	A563 GRADO DH
TUERCAS (P/GATEO EN JUN.TRASLAPADAS)	---	A563 GRADO C3
PERNOS DE ANCLAJE	75 KSI	A615 GRADO 75
PERFILES DE ACERO	36 KSI	A36 Ó A572 Ó EQUIVALENTE
TUBO	36, 50 KSI	A36, A53 GRADO B, A106 GRADO B, Ó A501
PERFILES DE ACERO INOXIDABLE	30 KSI	
MISELANEOS NO ESTRUCTURALES.	36 KSI	

1B: PARA ESTRUCTURAS DE ACERO RESISTENTE AL AMBIENTE:

ESPECIFICACIONES DEL ACERO	CEDENCIA MIN.	ESPEC. ASTM
PLATA ≤ 3/4"	65 KSI	A871
TORNILLOS 1/2" DIA.	---	A307
PLATA > 3/4"	50, 60 KSI	A871, A588
TORNILLOS < 5/8"	92 KSI	A449*
TORNILLOS 5/8"	92 KSI	F3125, A325 TIPO 3
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADO BC MODIFICADO P/PROVEER PROPIEDADES DE RESISTENCIA AL AMBIENTE*
TORNILLOS > 2 1/2"	99 KSI	A354 GRADO BC MODIFICADO P/PROVEER PROPIEDADES DE RESISTENCIA AL AMBIENTE*
PERNO	92 KSI	AISI 4140/4340 (EQUIVALENTE A F3125 / A325 MATERIAL)
TUERCAS < 5/8"	---	A563 GRADO C3
TUERCAS ≥ 5/8"	---	A563 GRADO C3
TUERCAS (PERNOS DE ANCLAJE)	---	A563 GRADO DH
TUERCAS (P/GATEO EN JUN. TRASLAPADAS)	---	A563 GRADO C3
PERNOS DE ANCLAJE	75 KSI	A615 GRADO 75
PERFILES DE ACERO	50 KSI	A588 Ó EQUIVALENTE
TUBO	50 KSI	A847 Ó EQUIVALENTE
PERFILES DE ACERO INOXIDABLE	30 KSI	TIPO 304
MISELANEOS NO ESTRUCTURALES	50 KSI	A588

\*BASADO EN DISEÑO DE ESTRUCTURAS Y CONEXIONES, TORNILLOS F3125 PODRIAN SER SUSTITUIDOS POR A354 O A449

1C: ANILLOS FORJADOS (ANILLOS ROLADOS EN CALIENTE): ASTM A1090

- REQUERIMIENTOS PARA PRUEBA DE IMPACTO CHARPY: PROBAR A 15 FT-LBS A LOS -20 GRADOS FARENHEITH EL MATERIAL PARA FUSTES, PLACAS BASE, PLACAS DE BRIDA, BRACKETS DE BRAZOS Y BRACKETS ESTRUCTURALES.
- TODAS LAS PLACAS TENDRAN UN VALOR DE IMPACTO CHARPY V-NOTCH DE 15 FT-LBS. MINIMO A -20°F POR PRUEBA DE LOTE DE COLADA (A MENOS QUE SE INDIQUE OTRA COSA)

5. ENSAMBLE:

- LOS PESOS FINALES EN DIBUJOS DE MONTAJE SE REDONDEAN HACIA ARRIBA A LAS PROXIMAS 10 LBS.
- LOS PESOS FINALES EN DIBUJOS DE MONTAJE SON ESTIMADOS. LOS PESOS TERMINADOS PODRIAN VARIARAN BASADOS EN EL ESPESOR DEL GALVANIZADO Y EL TOTAL DEL AREA DE LA SUPERFICIE DE LOS ENSAMBLES DE LAS SECCIONES.
- EL CLIENTE DEBERA VERIFICAR EL AJUSTE DE SU EQUIPO (AISLADORES, CABLES DE RETENCION, ETC.) A LA CONEXION PROPORCIONADA.
- TODOS LOS BRAZOS DE LA ESTRUCTURA DEBEN SER ASEGURADOS AL MOMENTO DEL MONTAJE. EL ASEGURAMIENTO PUEDE SER COMPLEMENTADO SUJETANDOLOS CON CUERDAS, COLGANDO AISLADORES O CONTRAPESOS O FIJANDO LOS BRAZOS A LA ESTRUCTURA EN LOS PUNTOS DE SUJECION.

6. INFORMACION DE APRIETE DE TORNILLOS Y TUERCAS:

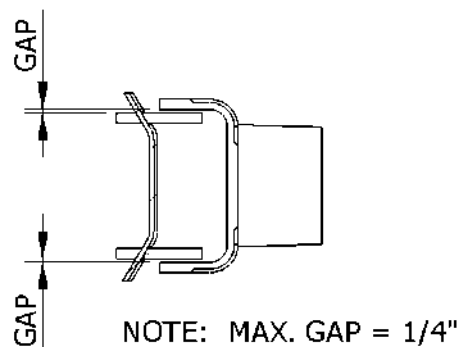
LAS TUERCAS EN TODOS LOS TORNILLOS DE CONEXION DEBEN SER INSTALADAS DE ACUERDO A LO SIGUIENTE:

- LAS CONEXIONES DE BRAZOS SON DISEÑADAS PARA CUMPLIR LAS TOLERANCIAS ESTANDAR DE MANUFACTURA DE MEYER LO CUAL QUIZA RESULTEN SEPARACIONES ENTRE BRACKETS Y LOS VANGS. LA INSTALACION Y APRETADO DE TORNILLO DEBE SER REALIZADO EN UNA SECUENCIA PARA PROVEER UNA DISTRIBUCION DE ESTAS SEPARACIONES TANTO QUE LA SEPARACION NO EXCEDA 1/4" EN CUALQUIER LADO DEL BRACKET. ESTO SE PUEDE LOGRAR POR EL APRIETE DE UN PAR DE TORNILLOS EN LADOS OPUESTOS DE UNA CONEXIÓN SEGUIDA POR PAREJAS SIMILARES. EL INSTALADOR ES RESPONSABLE DE DETERMINAR LA SECUENCIA REQUERIDA.
- LAS TUERCAS DEBEN SER APRETADAS CON UNA FUERZA COMO ES DESCRITA POR EL AISC PARA LA CONDICION DE AJUSTE APRETADO, CON LA EXCEPCION QUE LAS CAPAS NO NECESIAN ESTAR EN CONTACTO FIRME. PARA VERIFICAR QUE LOS TORNILLOS ESTAN TENSIONADOS, EL INSTALADOR DEBERA "MARCAR" LOS TORNILLOS Y TUERCAS ANTES DE APLICAR EL GIRO FINAL BASADO EN EL DIAMETRO Y LONGITUD DEL TORNILLO COMO SE MENCIONA ABAJO:

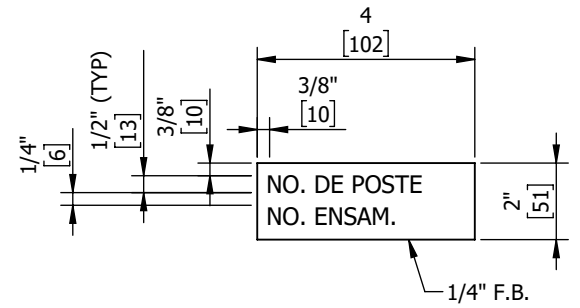
REQUERIMIENTOS DEL GIRO FINAL

LONGITUD DEL TORNILLO	GIRAR 1/3 DE TUERCA			GIRAR 1/2 TUERCA			GIRAR 2/3 DE TUERCA		
DIA. DEL TORNILLO.	GIRAR 1/3 DE TUERCA			GIRAR 1/2 TUERCA			GIRAR 2/3 DE TUERCA		
1"	0"-4"			4"-8"			8"-12"		
1 1/2"	0"-6"			6"-12"			12"-18"		

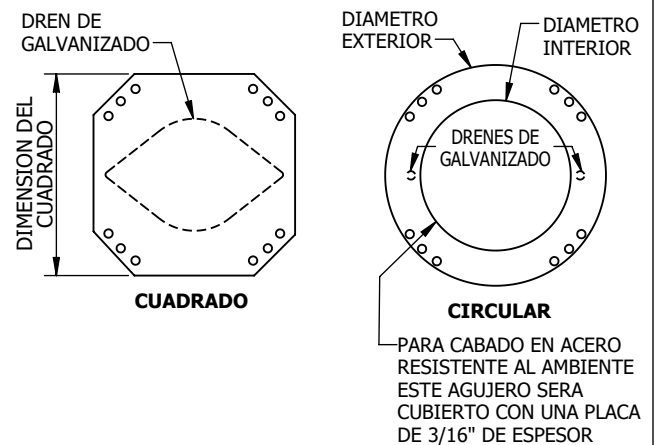
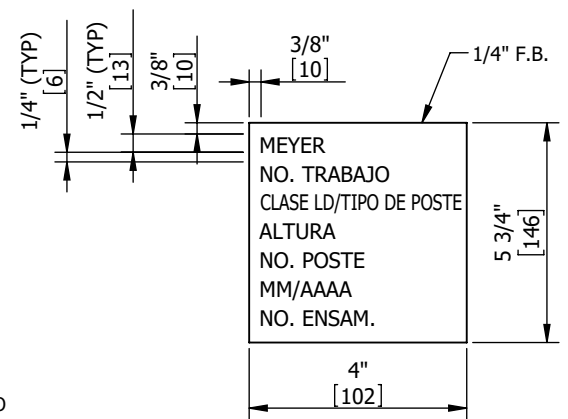
- LAS SEPARACIONES PRESENTES DESPUES DE ESTE PROCESO DE APRIETE DE TORNILLOS ES ACEPTABLE, SIEMPRE QUE NO EXCEDA DE 1/4". LAS CONECCIONES DE BRAZO A POSTE SON DISEÑADAS Y FABRICADAS PARA EN EL ACOMODO TENER UNA SEPARACION MAX. DE 1/4" ENTRE CADA BRACKET Y VANG.



**EJEMPLO DE ID TAG:**



**EJEMPLO DE PLACA ID:**



AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19
REV	DESCRIPTION	DRFT/DATE
PROJECT:		
CUSTOMER: Meyer Utility Structures		
CUSTOMER P.O. NO:		
JOB NO: ----		
DRAWN/DATE: JRB 05/23/1994		
CHECKED/DATE: ST 01/31/2018		
ENGINEER:		
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<b>MEYER</b>		
<b>UTILITY STRUCTURES</b>		
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION		
SHEET 3 OF 4	<b>SSG001</b>	REV. <b>AD</b>

D. LAS TUERCAS DE 2 1/4" DE DIAMETRO PARA PERNOS DE ANCLAJE (ASTM A-615, GR.75) DEBERAN SER GIRADAS 1/6 DE GIRO DESPUES DE APLICADA LA FUERZA DESCRITA EN AISC PARA UNA CONDICION DE AJUSTE APRETADO.

E. CONECCION DE BRAZO CON TORNILLOS LARGOS (L>8") DEBERAN SER APRETADOS CON UNA FUERZA COMO SE DESCRIBE POR EL AISC PERO NO NECESITA ESTAR TOTALMENTE TENSIONADO MAS ALLA DE LA CONDICION DE AJUSTE APRETADO. LAS SEPARACIONES PRESENTES DESPUES DE ESTE PROCESO DE APRIETE DE TORNILLOS ES ACEPTABLE, SIMPRE QUE NO SE EXCEDA DE 1/4". LAS CONECCIONES DE BRAZO A POSTE SON DISEÑADAS Y FABRICADAS PARA EN EL ACOMODO TENER UNA SEPARACION MAX. DE 1/4" ENTRE CADA BRACKET Y VANG.

F. LAS TUERCAS DE PERNOS EN U EN REFUERZO CRUZADO SE DEBEN APRETAR CON LA FUERZA QUE DESCRIBA AISC PARA QUE SE ENCUENTREN EN LA CONDICION DE AJUSTE APRETADO QUE TRAIGAN LOS REFUERZOS CRUZADOS EN CONTACTO UNO CON OTRO. SE DEBERA TENER CUIDADO DE NO SOBREPRETAR EL PERNO EN U Y DAÑAR EL REFUERZO CRUZADO

7. PARA POSTES DE JUNTAS TRASLAPADAS, VER HOJAS SSG004 Y SSG005 PARA INFORMACION DE ENSAMBLE Y GATEO. LOS GATOS APROBADOS POR MEYER DEBERAN SER USADOS PARA EL ENSAMBLE DE JUNTAS TRASLAPADAS

8. REQUERIMIENTO DE ALMACENAJE - ALMACENAJE HORIZONTAL

A. METODO DE ALMACENAJE PARA ESTRUCTURAS QUE SON RECUBIERTAS CON PINTURA, U OTRA PROTECCION O RECUBRIMIENTOS DE BAJO GRADO.

B. TODAS LAS ESTRUCTURAS INCLUYENDO POSTES DE ACERO RESISTENTE AL AMBIENTE DEBRAN SER LEVANTADOS DEL SUELO Y MANTENIDOS EN AREAS LIBRES DE HUMEDAD.

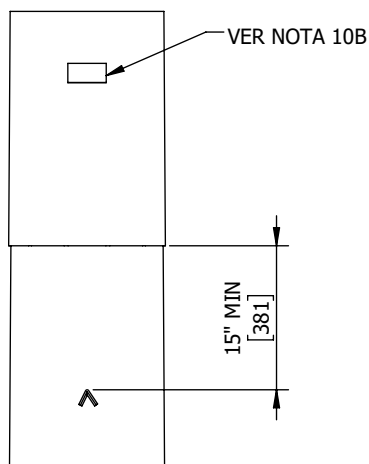
C. ESTRUCTURAS TENDIDAS HORIZONTALMENTE POR LARGOS PERIODOS DE TIEMPO DEBRAN SER CUBIERTAS POR CUALQUIER MEDIO PARA PROTEGER LOS RECUBRIMIENTOS DE LOS ELEMENTOS DEL AMBIENTE.

9. IZAJE/MANEJO

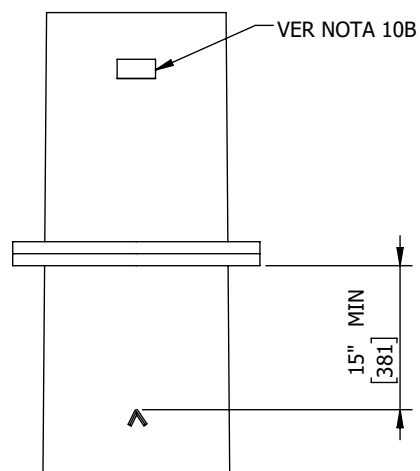
A. IZAJE, CARGADO, DESCARGADO Y MANEJO DEBERA SER DESEMPEÑADO DE MANERA SEGURA CON EQUIPO CAPAZ DE IZAR Y MANIPULAR CON SEGURIDAD MIEMBROS Y SECCIONES

B. CUANDO DISPOSITIVOS DE IZAJE, VANGS, RANURAS SON PROVEIDOS EN UN MIEMBRO O SECCION, PARES DE DISPOSITIVOS, VANGS, RANURAS SE DEBEN USAR PARA IZAR O MANIPULAR CUALQUIER MIEMBRO O SECCION.

C. A MENOS QUE SE INDIQUE OTRA COSA EN LOS DIBUJOS, LOS DISPOSITIVOS DE IZAJE DEBERAN SER USADOS PARA IZAR O MANEJAR CADA SECCION DE LA ESTRUCTURA Y NO IZAR LA ESTRUCTURA COMPLETAMENTE ENSAMBLADA.

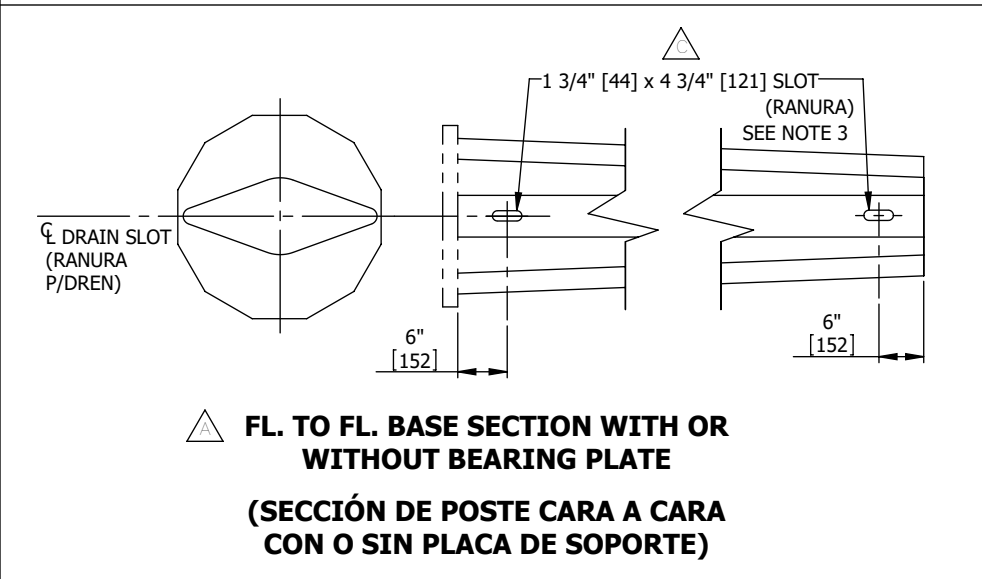
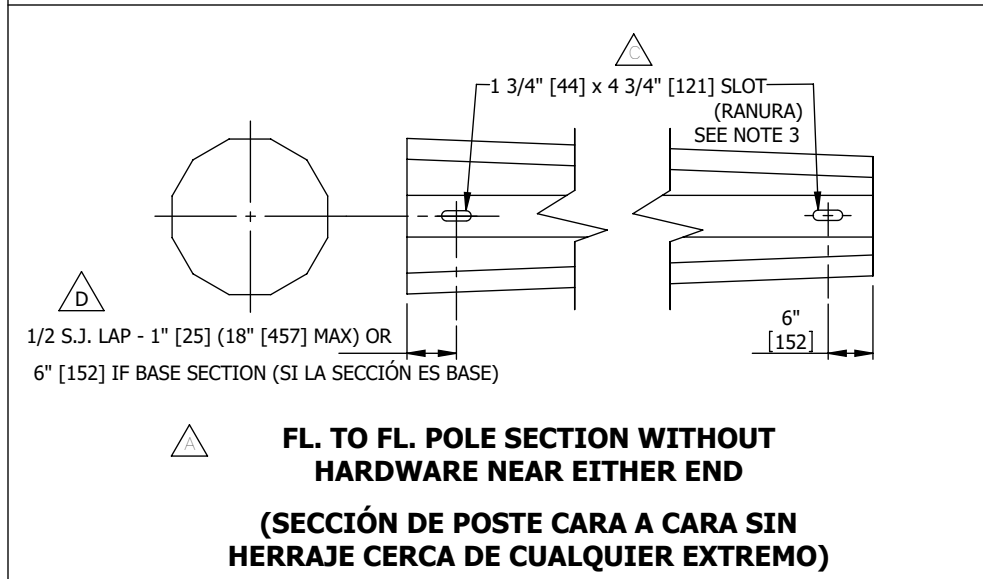
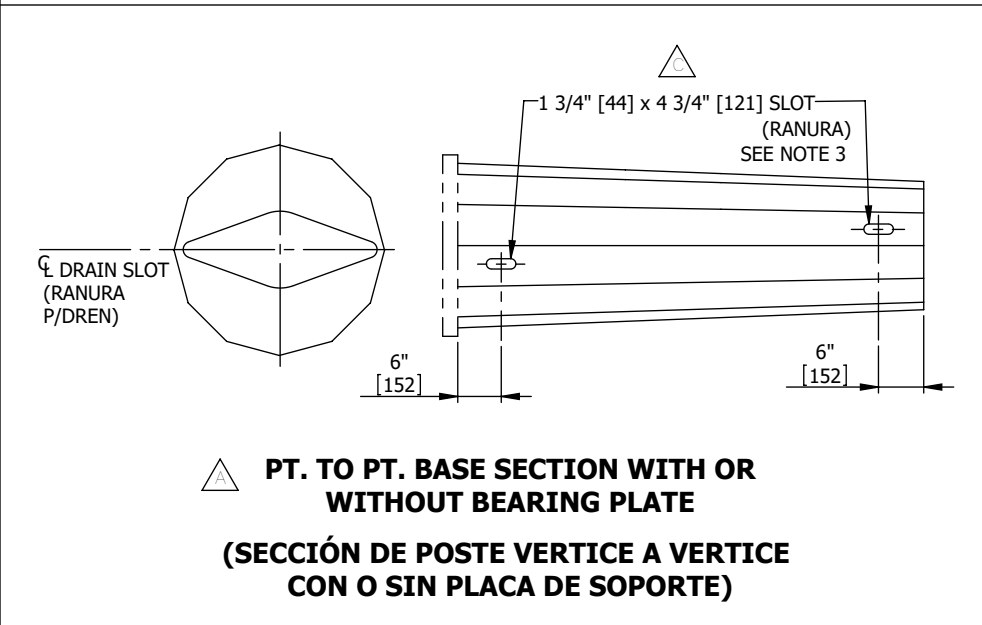
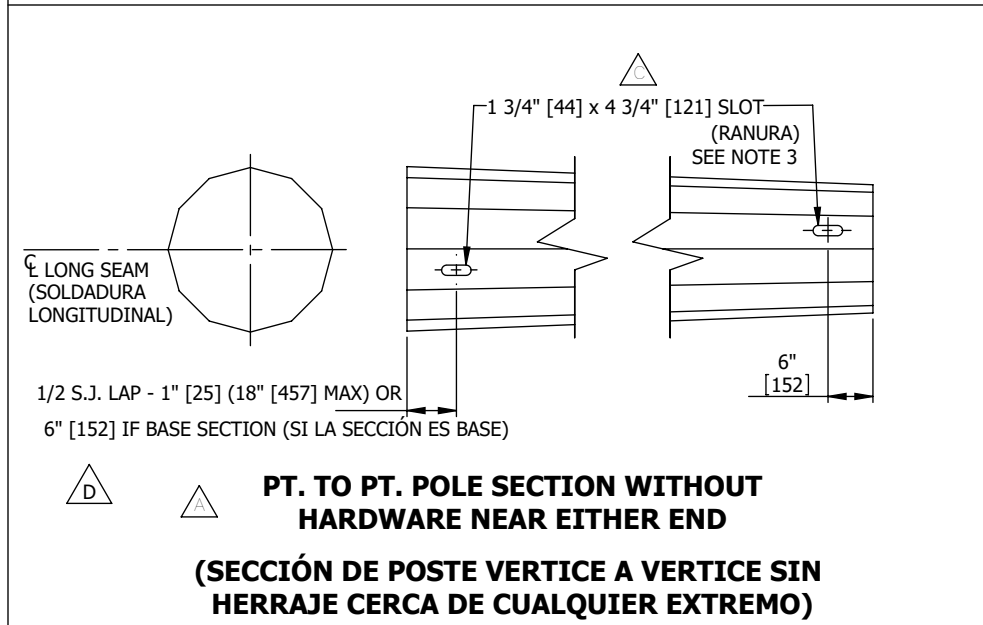
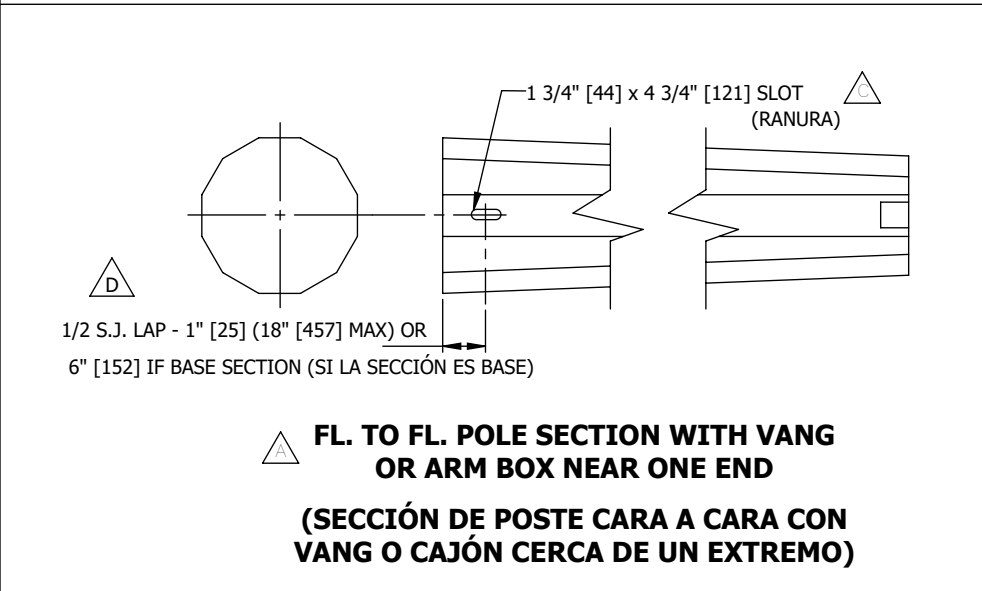
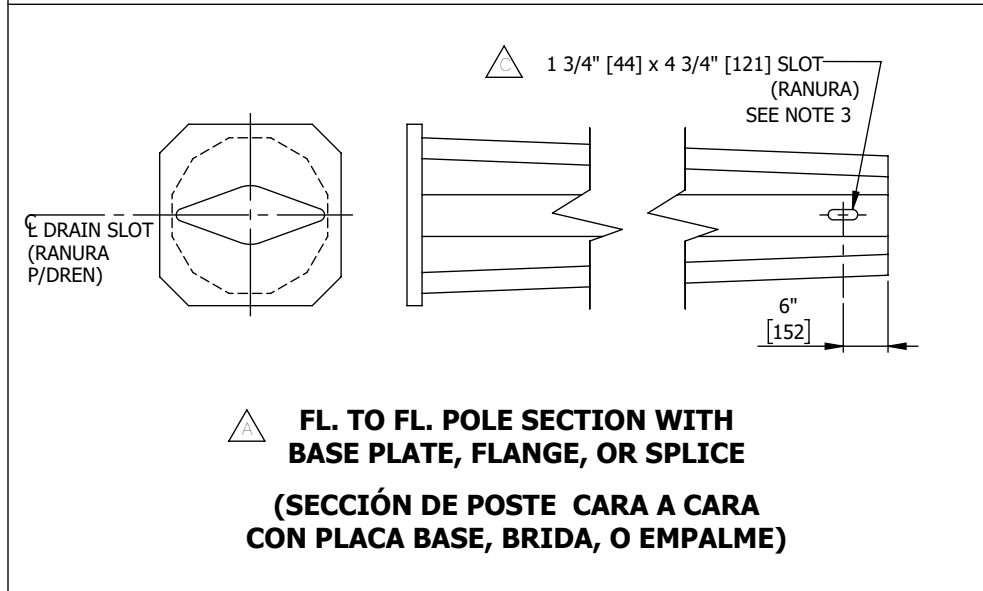
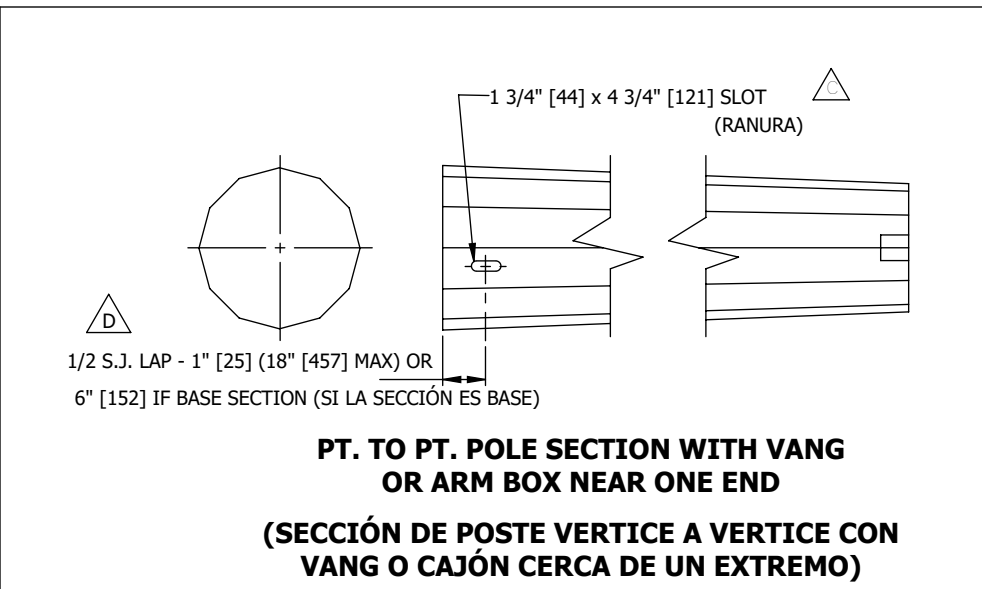
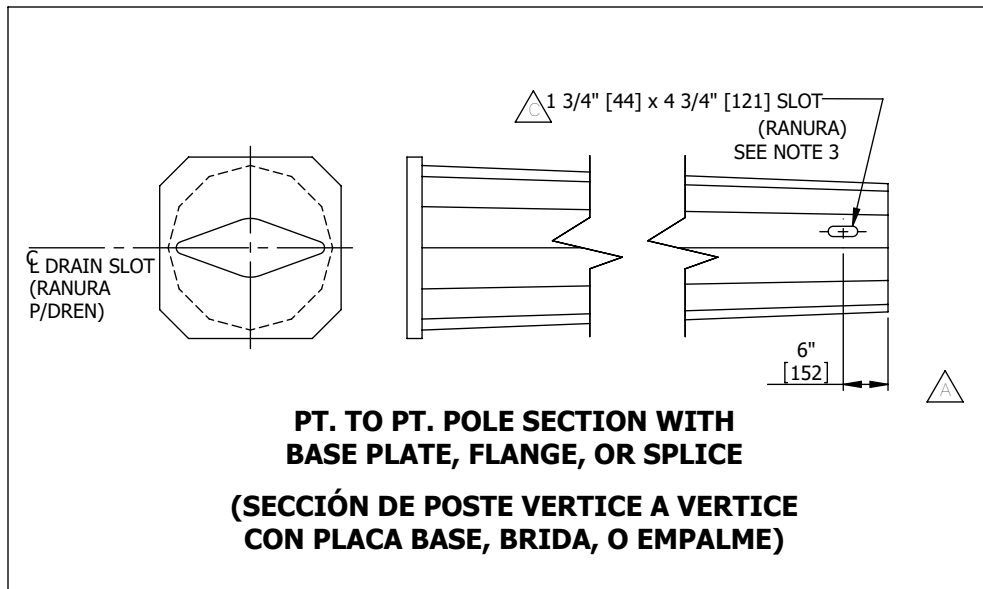


**EJEMPLO:  
TRANSLAPE MARCA  
DE COINCIDENCIA**



**EJEMPLO:  
CONEXION CON BRIDA  
MARCA DE COINCIDENCIA**

REV	DESCRIPTION	DRFT/DATE																					
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20																					
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20																					
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19																					
<table border="1"> <tr> <td>PROJECT:</td> <td colspan="2"></td> </tr> <tr> <td>CUSTOMER:</td> <td colspan="2">Meyer Utility Structures</td> </tr> <tr> <td>CUSTOMER P.O. NO:</td> <td colspan="2"></td> </tr> <tr> <td>JOB NO:</td> <td colspan="2">----</td> </tr> <tr> <td>DRAWN/DATE:</td> <td>JRB</td> <td>05/23/1994</td> </tr> <tr> <td>CHECKED/DATE:</td> <td>ST</td> <td>01/31/2018</td> </tr> <tr> <td>ENGINEER:</td> <td colspan="2"></td> </tr> </table>			PROJECT:			CUSTOMER:	Meyer Utility Structures		CUSTOMER P.O. NO:			JOB NO:	----		DRAWN/DATE:	JRB	05/23/1994	CHECKED/DATE:	ST	01/31/2018	ENGINEER:		
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ENGINEER:																							
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>																							
<p>GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION</p>																							
SHEET 4 OF 4		<b>SSG001</b> <small>REV.</small> <b>AD</b>																					



NOTES:

- LIFTING SLOT MAY ALSO BE USED TO AIDE IN ERECTION OF POLE.
- LIFTING SLOTS ARE TO BE LOCATED ON BOTH SIDES OF POLE, 180° APART.
- FOR POLE TOP DIAMETERS ≤11", LIFTING SLOT NEAR POLE TOP TO BE 1 1/2" [38] x 4" [102].
- LIFTING SLOTS AT THE TOP AND BOTTOM OF A SECTION MUST BE WITHIN 1 FLAT OF EACH OTHER. THE LIFTING SLOT AT THE LOWEST ELEVATION ON THE BASE SECTION MUST ALIGN WITH THE GALV SLOT DRAINAGE ON THE BEARING PLATE.

NOTAS:

- LAS RANURAS DE IZAJE TAMBIEN SE PUEDE UTILIZAR PARA AYUDAR EN EL MONTAJE DEL POSTE.
- LAS RANURAS DE IZAJE DEBEN SER LOCALIZADAS EN AMBOS LADOS DEL POSTE, SEPARADAS 180°.
- PARA DIAMETROS DE SECCIONES SUPERIORES DE POSTE < 11", LAS RANURAS DE IZAJE CERCA DE LA PUNTA SERAN DE 1 1/2" [38] x 4" [102].
- LAS RANURAS DE IZAJE EN LA PARTE SUPERIOR E INFERIOR DE UNA SECCION DEBERAN ESTAR DENTRO DE UN MISMO PLANO. LA RANURA DE IZAJE EN LA ELEVACION MAS BAJA DE LA SECCION BASE DEBERA ESTAR ALINEADA CON LA RANURA DE DRENAJE PARA EL GALVANIZADO DE LA PLACA DE SOPORTE.

F	ADDED NOTE 4.	RB/01-14-22
E	UPDATE COMPANY NAME	WR/12-19-18
D	REVISE LIFTING SLOT LOCATION	WR/10-18-18
REV	DESCRIPTION	DRFT/DATE

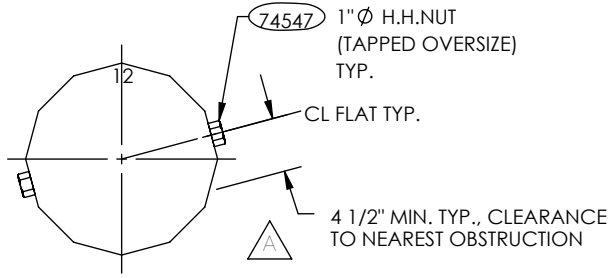
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CUSTOMER:	Meyer Utility Structures	
CUSTOMER P.O. NO.:		
JOB NO.:	----	
DRAWN/DATE:	JRB	05/23/1994
CHECKED/DATE:	-	-
ENGINEER:		

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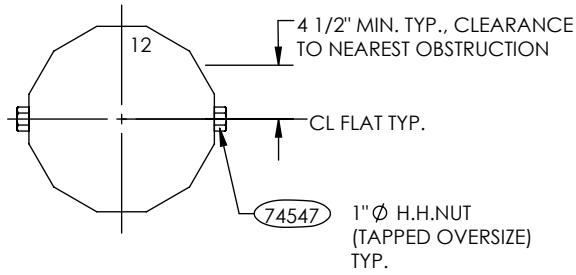
**MEYER**  
UTILITY STRUCTURES

GALVANIZED POLE  
LIFTING REQUIREMENTS  
(REQUERIMIENTOS DE IZAJE PARA POSTES GALVANIZADOS)

**ONLY MEYER JACKS ARE RECOMMENDED FOR USE ON MEYER POLES. FOR MEYER JACKING INSTRUCTIONS REFER TO SSG005**



STANDARD LOCATION (POINT-POINT)



STANDARD LOCATION (FLAT-FLAT)

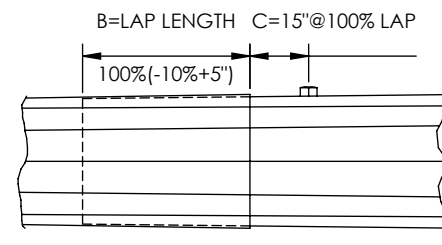
**JACKING NUT ORIENTATION**  
NUTS MUST BE OPPOSITE EACH OTHER.

NOTES:

1. ALL NUTS MUST BE ORIENTED SO THAT TWO FLATS ARE PERPENDICULAR TO THE POLES LONG AXIS.
2. JACKING NUT JIG MUST BE USED TO MOUNT NUTS.
3. IF THERE ARE 2 SETS OF JACKING NUTS (8 NUTS TOTAL) THEN 2 SLIP JOINT JACKS (ONE COMPLETE TMUS UNIT) MUST BE USED TO JACK THE POLE TOGETHER. SECTIONS WHICH CONTAIN 4 SETS OF JACKING NUTS (16 NUTS TOTAL) THEN 4 SLIP JOINT JACKS (TWO COMPLETE MUS UNITS) MUST BE USED TO JACK THE POLE TOGETHER.
4. SLIP JOINT JACK MUST BE SEATED FLUSH AGAINST THE TOWER WALL (SEE DETAIL 5/SSG005). **WARNING:** DO NOT ATTACH SLIP JOINT JACKS TO THE TOP OF THE JACKING NUTS AS THIS MAY CAUSE THE JACKING NUT TO FAIL PREMATURELY.
5. THE SLIPJOINT SHALL BE TIGHT WITHOUT MISALIGNMENT BETWEEN THE MATING POLE SECTIONS. THERE SHALL BE NO GAPS EXCEEDING 1/4". ANY GAPS SHALL BE LIMITED TO 2 FLATS OR LESS.
6. AT 100% SLIPJOINT LAP, THE DISTANCE BETWEEN THE BOTTOM OF THE FEMALE JOINT AND THE CENTER OF THE TOP JACKING NUT ON THE MALE SECTION WILL BE 15". (SEE DETAIL BELOW)  
LAP TOLERANCES ARE -10% , + 5".

EXAMPLE: 100% LAP = 5'-6" (66")

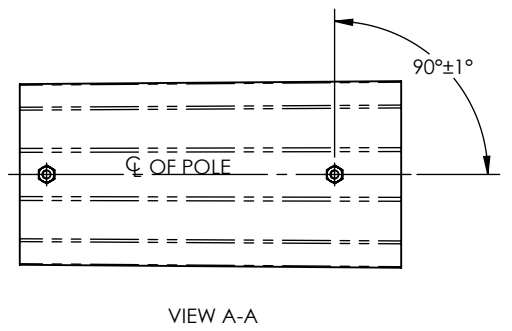
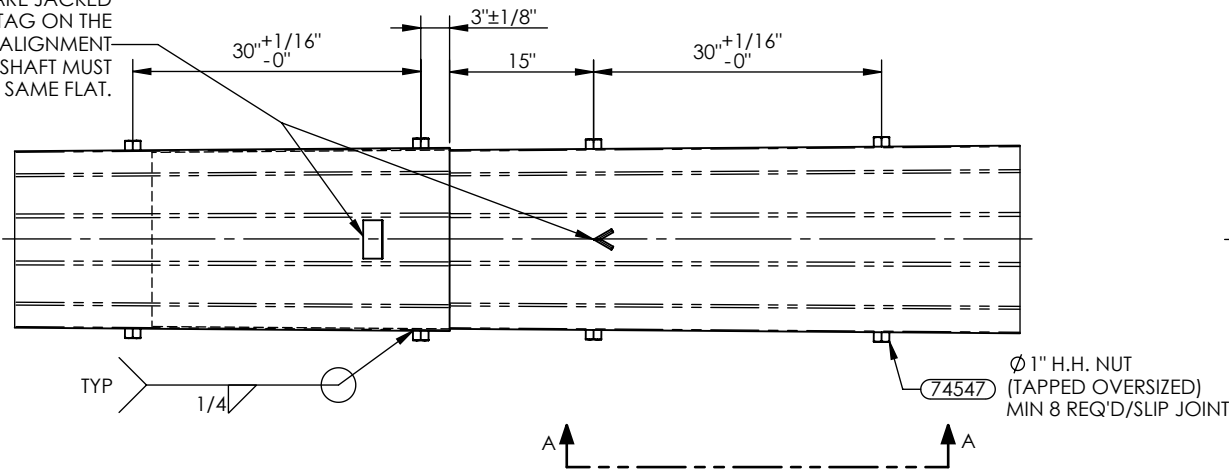
TO BE WITHIN TOLERANCE, THE SLIPJOINT LAP "B", MUST BE BETWEEN 59.4" (66"-6.6") AND 71" (66"+5"). THUS, THE DISTANCE BETWEEN THE BOTTOM OF THE FEMALE JOINT AND THE CENTER OF THE TOP JACKING NUT ON THE MALE SECTION "C" MUST BE BETWEEN 21.6" (15"+6.6") AND 10" (15"-5").



EXAMPLE:	100% LAP	MIN.LAP(-10%)	MAX.LAP(+5")
B =	66"	59.4"	71"
C =	15"	21.6"	10"

7. IT IS RECOMMENDED THAT THE CONTRACTOR KEEP RECORDS THAT DOCUMENT THE NUMBER OF JACKS USED, THE AMOUNT OF TOTAL FORCE APPLIED, AND THE DIMENSION OF THE LAP AFTER JACKING.

WHEN SECTIONS ARE JACKED TOGETHER THE ID TAG ON THE FEMALE SHAFT & ALIGNMENT WELD ON THE MALE SHAFT MUST BE INLINE ON THE SAME FLAT.



**JACKING NUT LOCATIONS**

REV	DESCRIPTION	DRFT/DATE
J	REVISED VIEW TO SHOW ID TAG & ALIGNMENT WELD	RB/03-08-21
H	UPDATED COMPANY NAME	WR/12-20-18
G	REVISED TOLERANCE	DT/10-13-17

PROJECT:	
CUSTOMER:	Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	
DRAWN/DATE	JRB 05/23/1994
CHECKED/DATE:	- -
ENGINEER:	

# MEYER

## UTILITY STRUCTURES

### JACKING NUT LOCATIONS

SHEET 1 OF 1	<b>SSG004</b>
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**THIS INFORMATION APPLIES ONLY TO MEYER JACKS FOR USE ON MEYER POLES. ONLY MEYER JACKS ARE RECOMMENDED FOR USE ON MEYER POLES**

**1. CLEAN JOINT** (REMOVE ANY FOREIGN MATERIAL). **MEASURE AND MARK** THE MAXIMUM AND MINIMUM SLIP JOINT LAP ON THE MALE SECTION AS SHOWN ABOVE  
 EXAMPLE:  
 POLE DRAWINGS SHOW THEORETICAL SLIP LAP (100%) TO BE 5'-6" OR 66"  
 THE MINIMUM LAP IS  $0.9 \times 66" = 59.5"$  AND THE MAXIMUM LAP IS  $66" + 5" = 71"$ .  
 EXAMPLE: (INTERCHANGEABLE SECTIONS)  
 POLE DRAWINGS SHOW THE THEORETICAL SLIP JOINT LAP (100%) TO BE 5'-6" OR 66"  
 THE MINIMUM LAP IS  $0.9 \times 66" = 59.5"$  AND THE MAXIMUM LAP IS  $66" + 10" = 76"$

**CHECK SLIP JOINT LAP ONLY AFTER JOINT IS FULLY SEATED.** (SEE NOTE 6)

**2. ALIGN POLE NUMBERS** AND ASSEMBLE JOINT AS FAR AS POSSIBLE WITHOUT USING JACK.  
 NOTE: **DO NOT LUBRICATE JOINT**

**3. ATTACH MEYER JACK FRAMES** TO SHAFT AS SHOWN ABOVE USING (8) 1" DIAMETER HEX HEAD BOLTS TORQUED BETWEEN 50 AND 100 FOOT POUNDS.  
 MEYER JACK FRAMES NEED TO BE SEATED FLAT ON THE TOWER WALLS AND AGAINST THE FLAT OF THE JACKING NUT BEFORE JACKING THE POLE SECTIONS TOGETHER.

**4. ASSEMBLE RAM** TO RATCHET USING FULL 2 1/2" OF THREADS IN COUPLER. (RATCHET EXTENSIONS USED ONLY ON VERY LONG JOINTS).

**5. ATTACH RAMS TO MEYER JACK FRAMES** AS SHOWN ABOVE USING 5/8" x 6 1/2" LONG PINS. BEFORE APPLYING FULL JACKING FORCE **MAKE CERTAIN THAT BOTH RATCHETS BARS ARE FIRMLY SEATED** IN THE BOTTOM OF THEIR SLOTS. PARTIALLY SEATED RATCHETS CAN RESULT IN UNEVEN FORCES WHICH MAY BEND OR BREAK THE BARS RENDERING THE JACK USELESS. **STAND CLEAR** AS FULL PRESSURE IS APPLIED.

**6. ATTACH HYDRAULICS** AS SHOWN ABOVE. JACK **SECTIONS TOGETHER** UNTIL THEY STOP (USING THE FULL JACKING FORCE OF 60 TONS, **30 TONS PER JACK, WHICH IS ACHIEVED BY SETTING THE PRESSURE TO 8310 psi.**)  
**JACK TOGETHER WITH VALVES SET TO APPLY EQUAL PRESSURE, ONLY** USE UNEQUAL VALVE SETTINGS FOR JACKING ALIGNMENT PURPOSES.  
 THE SLIP JOINT SHOULD BE TIGHT WITHOUT ANY MAJOR GAPS OR MISALIGNMENT BETWEEN THE MATING POLE SECTIONS.  
 NOW **CHECK** TO SEE THAT THE ACTUAL SLIP JOINT LAP FALLS WITHIN THE LIMITS SPECIFIED IN STEP ONE.

**USAGE FOR ERECTION**

**USAGE FOR JACKING APART**

**7. DO NOT ATTEMPT TO ERECT** THE ASSEMBLED POLE BY ATTACHING TO ANY FEMALE SECTION **WITHOUT FIRST SECURING LOWER JOINTS** BY POSITIVE MECHANICAL MEANS. TWO SETS OF "KEEPERS" ARE FURNISHED WITH JACK FOR THIS PURPOSE AS SHOWN ABOVE. AFTER ERECTION THE KEEPERS SHOULD BE REMOVED

**NOTE:** THESE KEEPERS ARE **NOT** TO BE USED FOR APPLICATION OF JACKING FORCE.

**8. TO JACK APART, REMOVE THE RAM FRAME** (CONTAINING RAM) FROM POLE **ROTATE 180° AND REINSTALL.** INSERT PUSH LINK BETWEEN RAM AND RATCHET FRAME ACTIVATE HYDRAULICS AS SHOWN ABOVE.

**NOTE:** SECURE PUSH LINKS TO THE POLE WITH A CIRCUMFERENTIAL CHAIN AND LOAD BINDER OR WITH A CABLE HOIST.

**FOR ADDITIONAL INFORMATION**

**9. ALL JACKING UNITS CHECK** MUST BE CHECKED TO VERIFY THAT ALL PARTS ARE PRESENT BEFORE AND AFTER EACH USAGE. DRAIN ALL GASOLINE FROM THE ENERPAC UNIT FOR STORAGE.

**RETURN RENTAL UNITS TO:**  
 MEYER UTILITY STRUCTURES

**10. FOR ADDITIONAL INFORMATION OR ASSEMBLY ISSUES** CONTACT YOUR REGIONAL MEYER MDM, A LOCAL SALES AGENT, OR CALL:  
 MEYER UTILITY STRUCTURES, LLC.  
 STEEL STRUCTURES GROUP  
 1-901-566-6500

J	UPDATED COMPANY NAME	WR/12-21-18
H	ADDED JACKING PRESSURE NOTE	WR/9-28-18
G	REVISED WORKING OF STEP NO. 6	DT/3-24-15
F	REPLACED T&B WITH TRIN/MEYER	KB/12-29-14
E	REVISED NOTES 7, 8 & 9	DT/2-13-14
D	REVISED PAGE LAYOUT & CLARIFIED NOTES	KB/12-27-13
C	UPDATED NOTES 1 AND 3	RW/07-31-12
B	ADDED PRESSURE GAUGE NOTE	BN/12-02-11
A	UPDATED NOTES	MDF/8-29-02
1	REVISED FOR FINAL ISSUE	JRB/5-10-96
REV.	DESCRIPTION	DRFT/DATE

PROJECT:	CUSTOMER: Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	
DRAWN/DATE	KB 12/27/2013
CHECKED/DATE:	- -
ENGINEER:	-

**MEYER**  
 UTILITY STRUCTURES

JACKING INSTRUCTIONS

SHEET 1 OF 1      **SSG005**

MEYER UTILITY STRUCTURES STANDARD WELDS	
DESCRIPTION	SHEET NO.
<b>STANDARD WELD INDEX</b>	1
<b>FILLET WELDS - FW1 - FW6</b> - GENERAL NOTES, NAME PLATES/ID TAGS, GROUND PADS/TAB, CLIMBING PAD, NON-STRUCTURAL POLE CAP, BEARING PLATE, BP CUTOUT COVER PLATE, SEALER PLATE, STRUCTURAL POLE CAP, ARM END PLATE, POLE CAP ANCHOR, JACKING NUT.	2
<b>FILLET WELDS - FW7 - FW14</b> - NUT TO POLE FACE, NUT TO ARM SHANK, LD ARM - BRKT & END PLATE TO ARM SHANK, BAIL STEP & STEP LUG (NO BEVEL), HAND GRAB, CHAIN DAMPER, SS HAND GRAB, SADDLE BRKT, T-VANG, SLIDE OVER VANG	3
<b>LONG SEAMS &amp; CJP -LS1 &amp; LS2, CP1 - CP3</b> -SQ. TUBE LS, 8, 12, 16 SIDED LS, FEMALE SJ LS, CJP TUBE TO ARM BRKT, BASE PLATE, FLANGE PLATE, DIAPHRAM PLATE, CIRCUMFERENTIAL WELD, BASE PLATE, FLANGE PLATE, DIAPHRAM PLATE, CIRCUMFERENTIAL WELD, 3-PC MT CHANNEL	4
<b>POLE HARDWARE - HH1 &amp; HH2, MB1 - MB4, GS1</b> - HAND HOLE, HAND HOLE TO TUBE, U-SHAPED VERT. BRKT ON ANGLE, U-SHAPED VERT. BRKT ON FLAT, U-SHAPED HORZ. BRKT, 2-PC BRKT, GRD SLEEVE W/O BASE PLATE	5
<b>VANG &amp; DBLR, THRU PIPES, X BRACE - VD1, PS1 &amp; PS2, CB1</b> - VANG & DOUBLER, THRU PIPE W/ DOUBLER, THRU PIPE TO TUBE, X BRACE THRU VANG	6
<b>ARM MOUNTING - G1 - G3, HG1, WR1</b> - THROUGH PLATE GUSSETS, S & C TYPE THRU PLATE, GUSSETS, MOUNT CHANNEL GUSSET, ROUND ROD TO MT CHANNEL, SINGLE PC WRAP	7
<b>ARM MOUNTING - WB1, AB1, AB2, AB3</b> - WRAP ARM BOX, STD ARM BOX -2 FL W/SEALER, STD ARM BOX - 2 FL W/O SEALER, STD ARM BOX - SINGLE FLAT	8
<b>DROP BRACKETS - DB1 &amp; DB2</b> - SMALL, MEDIUM & LARGE DROP BRACKETS	9
<b>THROUGH VANGS</b> - TOWER PLATE < 3/8", TOWER PLATE ≥ 3/8"	10
<b>THROUGH PLATES</b> - TOWER PLATE < 3/8", TOWER PLATE ≥ 3/8"	11
<b>NOTES</b> - THROUGH VANGS & PLATES WELDING NOTES	12

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

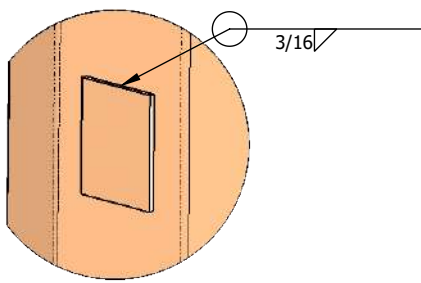
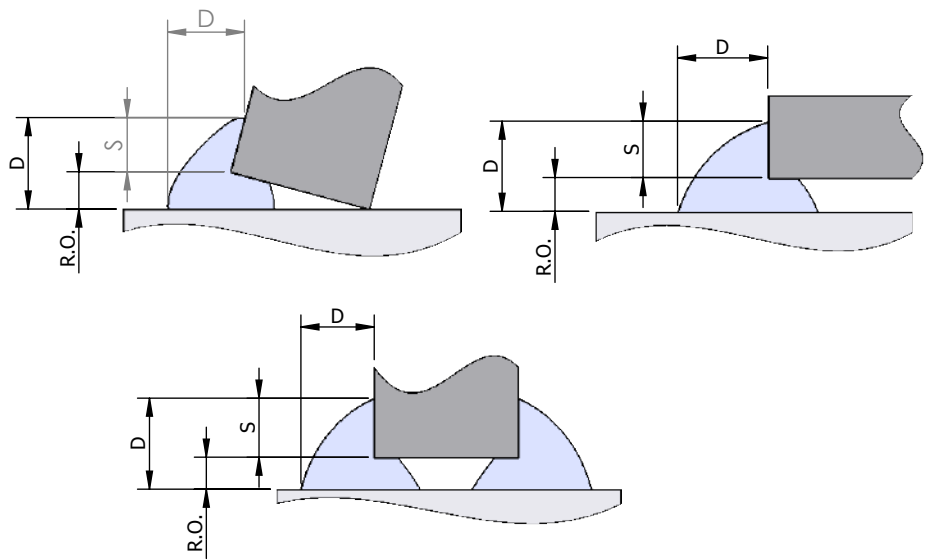


# FILLET WELDS

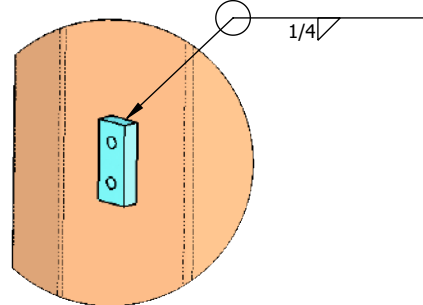
**FW1**

**GENERAL NOTES**

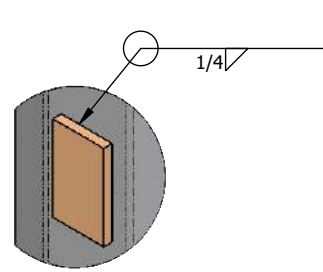
1. WELDING PROCEDURES USED FOR PRIMARY JOINTS SHALL BE QUALIFIED IN ACCORDANCE WITH THE AWS D1.1 LATEST EDITION. (AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE)
2. WHEN ROOT OPENING IS > 1/16" FOR FILLET WELDED JOINTS, THE DEPOSITED FILLET WELD SIZE "D" SHALL BE THE SPECIFIED SIZE "S" PLUS THE ROOT OPENING WIDTH.
3. SPECIAL WELD SHOWN ON PART DETAILS TAKES PRECEDENCE OVER STANDARD WELDS ON THESE SHEETS.
4. ALL NON- STRUCTURAL WELDS NOT SPECIFIED SHALL BE 3/16" MIN. FILLET WELDS. (NAME PLATES, SEALER PLATES)
5. CODE LETTERS:  
 T = THICKNESS OF THINNEST PLATE (UNLESS NOTED)  
 R.O. = ROOT OPENING  
 PJP = PARTIAL JOINT PENETRATION  
 CJP = COMPLETE JOINT PENETRATION  
 D = DEPOSITED FILLET SIZE  
 S = SPECIFIED SIZE



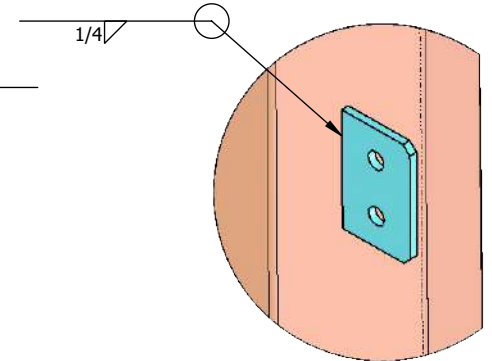
**NAME PLATES AND ID TAGS**



**GROUND PADS**

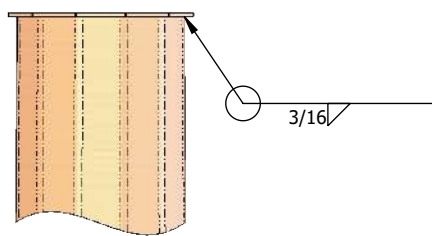


**CLIMBING PAD**



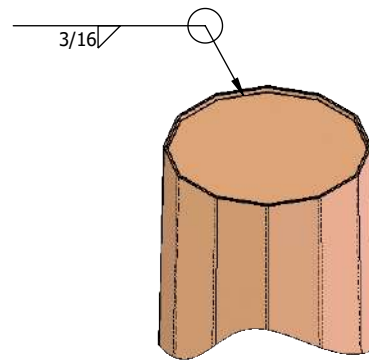
**GROUNDING TAB**

**FW2**



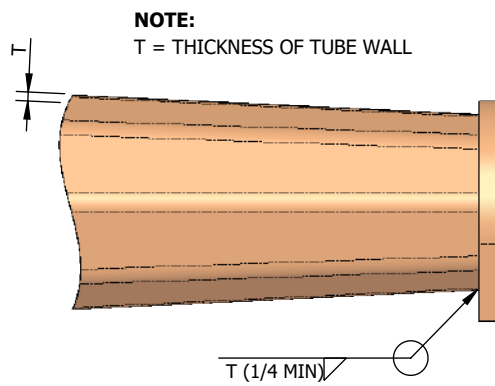
**NON-STRUCTURAL POLE CAPS, BEARING PLATES TO TUBE, & BASEPLATE WEIGHT REDUCTION CUTOUT COVER PLATE**

**FW3**



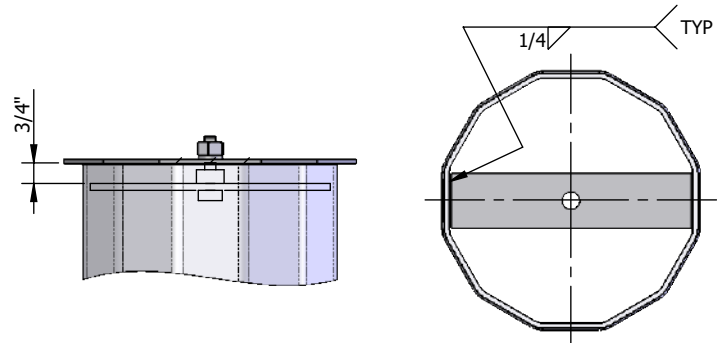
**SEALER PLATES TO TUBE**

**FW4**



**STRUCTURAL POLE CAP AND ARM ENDPLATE TO TUBE**

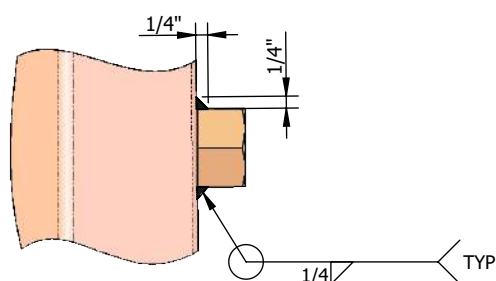
**FW5**



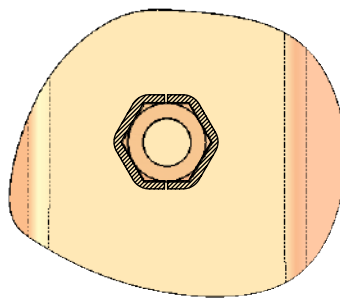
**POLE CAP ANCHOR PLATE**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

**FW6**



**JACKING NUT**



**JACKING NUT DETAIL  
WELDING START & STOP ON NUT FLATS**

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

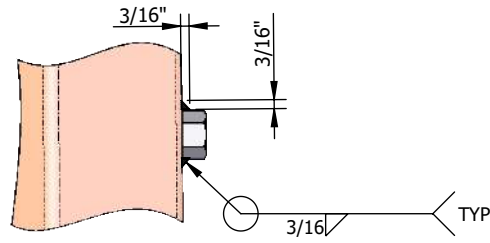
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STANDARD WELDING DETAILS

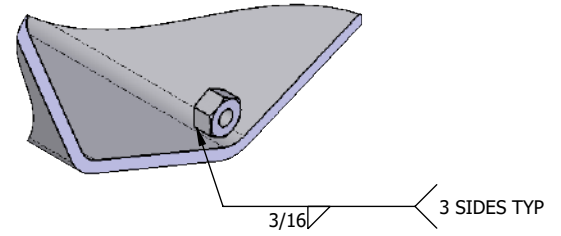
**FILLET WELDS**  
(CONTINUED)

**FW7**



**NUT TO POLE FACE**

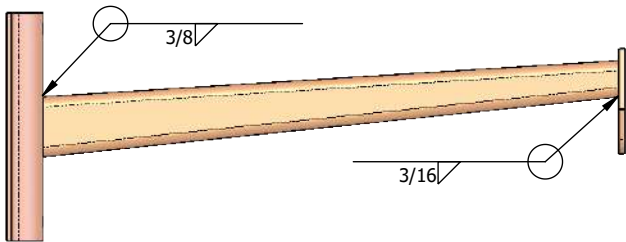
**FW8**



**NUT TO ARM SHANK**

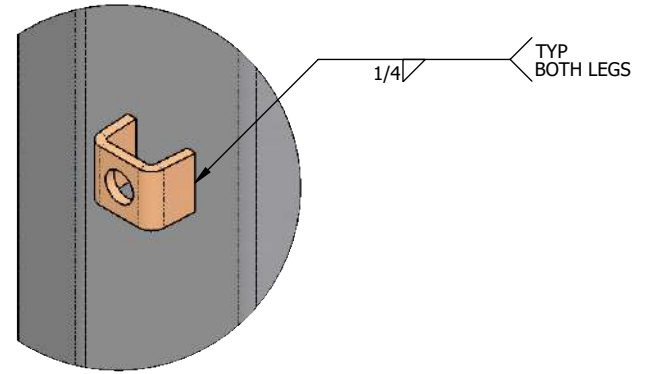
**NOTE:**  
PREPARE ARM END TO FIT CURVATURE OF  
LD ARM BRACKET "A" AS NEEDED

**FW9**



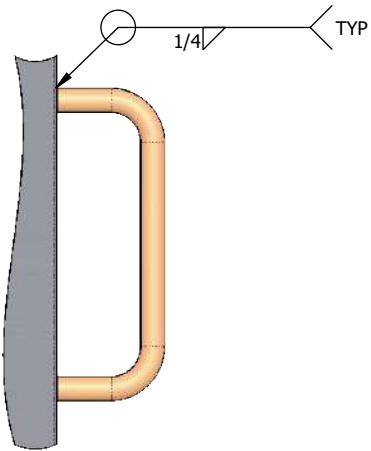
**LD ARM - BRACKET TO ARM SHANK,  
END PLATE TO ARM SHANK**

**FW10**



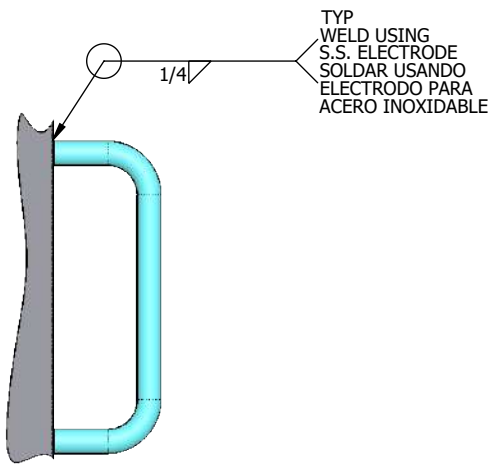
**BAIL STEP CLIP & STEP LUG  
(WITH NO BEVEL)**

**FW11**



**BENT ROD (WEATH/GALV)  
HAND GRAB, TOWEL RACK  
CHAIN DAMPER**

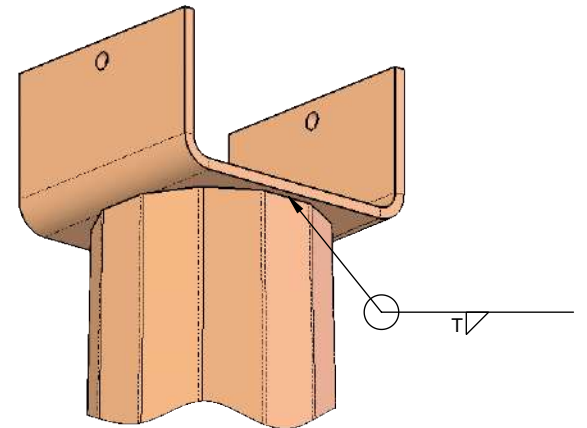
**FW11S**



**BENT ROD (STAINLESS)  
HAND GRAB  
GROUND LOOP**

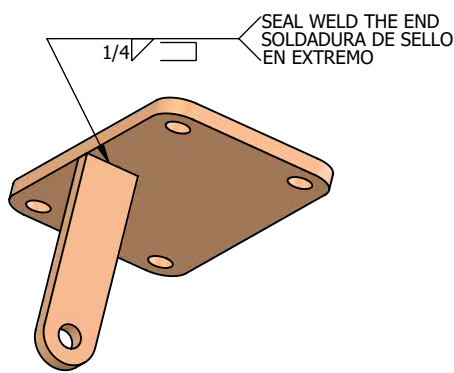
**FW12**

**NOTE:**  
T=THICKNESS OF TUBE WALL



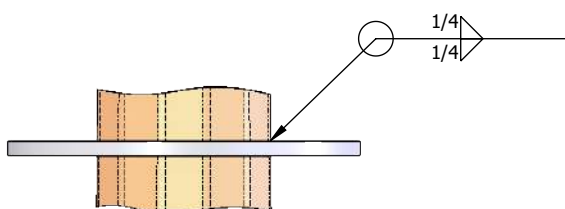
**SADDLE BRACKET**

**FW13**



**T-VANG AT ARM END**

**FW14**



**SLIDE OVER VANG**

REV	DESCRIPTION	DRFT/DATE
Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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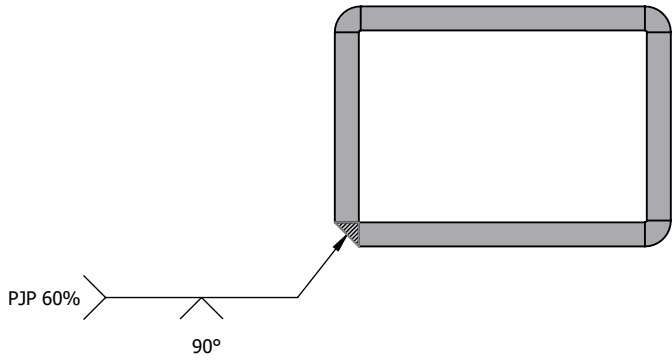
**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

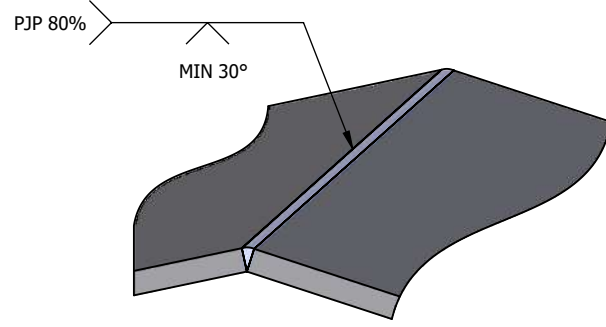
**LONGSEAM NOTES**

1. CJP ABOVE AND BELOW CIRCUMFERENCE WELDS AND HANDHOLES 6" FOR PLATE < 1/2" AND 12" FOR PLATE >= 1/2".
2. CJP IN FEMALE S.J. LAP + 6".
3. USE INSIDE REINFORCING WELDS ON ALL ENDS OF OPEN TUBES.  
FOR DIAMETERS < 6" USE 3" LONG REINFORCING WELDS  
FOR DIAMETERS > 6" AND < 24" USE 6" LONG REINFORCING WELDS  
FOR DIAMETERS > 24" USE 12" LONG REINFORCING WELDS

**LS1**



**SQUARE TUBE LONG SEAM**

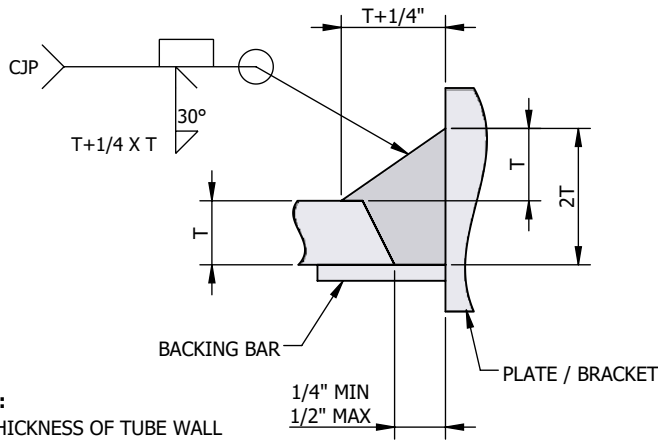


**8, 12 AND 16 SIDED TUBE LONG SEAMS**

**APPLICATION:**

- FOR TUBE TO ARM BRACKET OR CROSS ARM BRACKET
- FOR TUBE TO DIAPHRAGM PLATE (MITERS ONLY)
- FOR TUBE TO BASE PLATE OR FLANGE PLATE

**CP1**



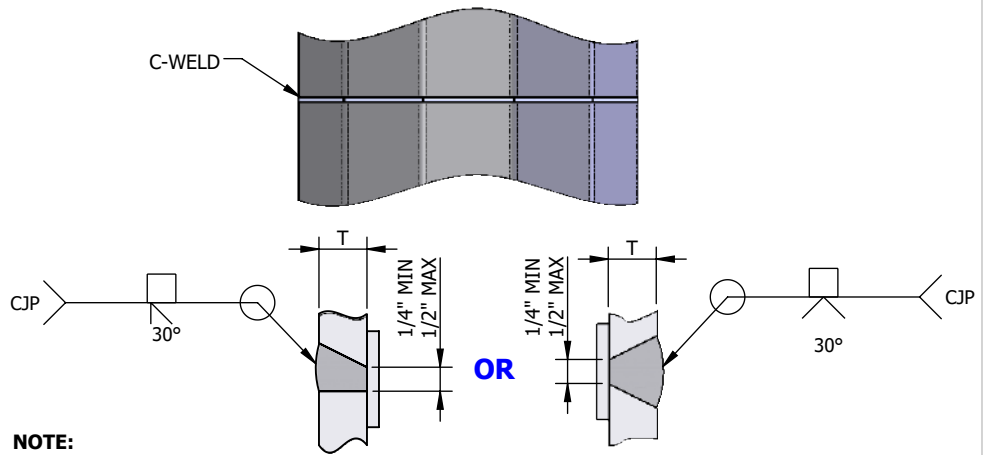
**NOTE:**  
T = THICKNESS OF TUBE WALL

**TUBE TO ARM BRACKET, BASE PLATE, FLANGE PLATE AND DIAPHRAGM PLATE**

**NOTES FOR CIRCUMFERENTIAL WELDS**

1. NO TACK WELDS OR WELD START/STOPS ON A BEND RADIUS OR LONG SEAM.
2. ALL TACK WELDS OR WELD START/STOPS SHALL BE ON FLATS.
3. STAGGER WELD START/STOPS AT LEAST ONE (1) INCH ON MULTI-PASS WELDS.
4. BEND LINE REINFORCEMENT WELDS SHALL NOT BE MADE.

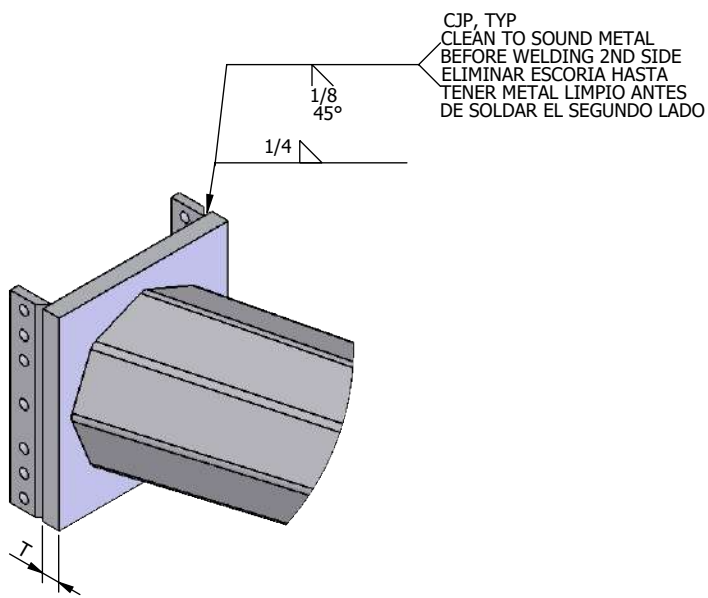
**CP2**



**NOTE:**  
T = THICKNESS OF TUBE WALL

**CIRCUMFERENTIAL WELD**

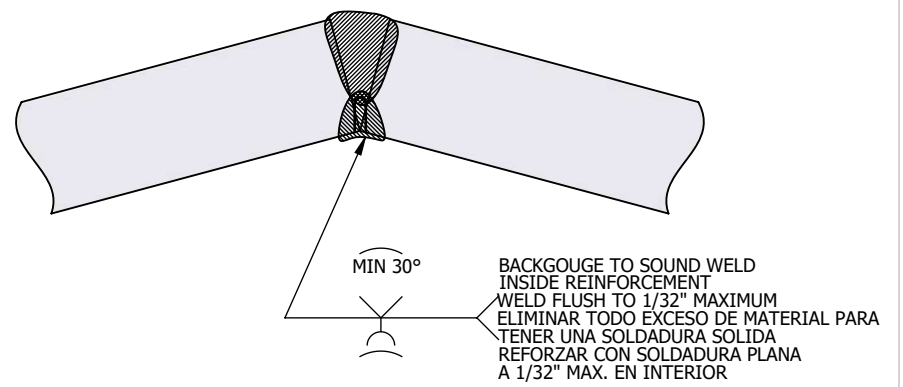
**CP3**



**3-PIECE MOUNT CHANNEL**

MFG TOLERANCES:  
ANGLE: +10°, -5°

**LS2**



**LONG SEAM AT THE FEMALE SLIP JOINT**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

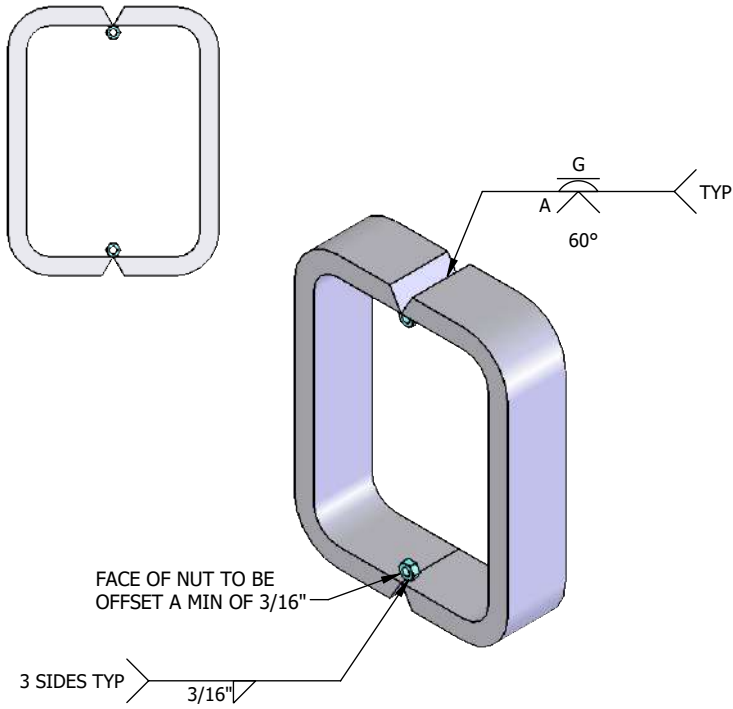
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**MEYER**  
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STANDARD WELDING DETAILS

**NOTE:**  
A = THICKNESS OF HAND HOLE

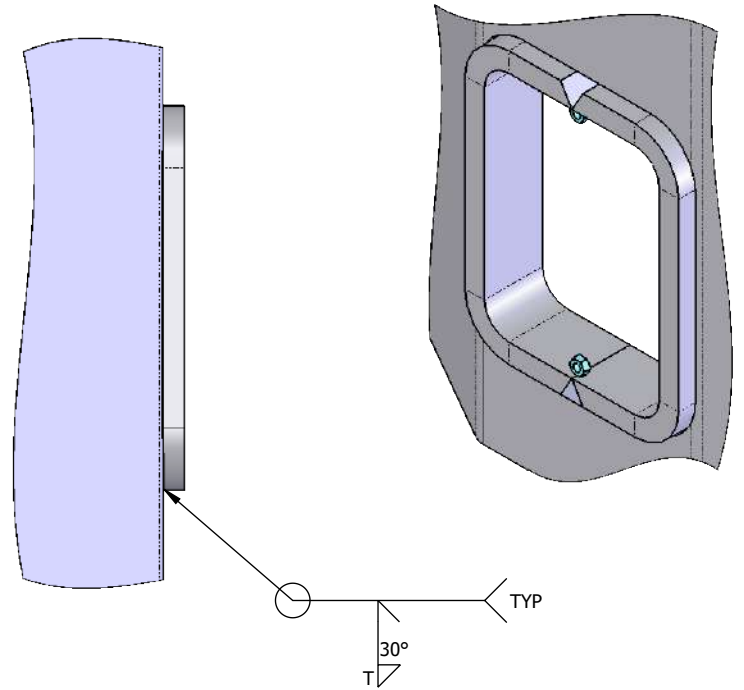
### HH1



**HAND HOLE**

**NOTE:**  
T = THICKNESS OF TUBE WALL

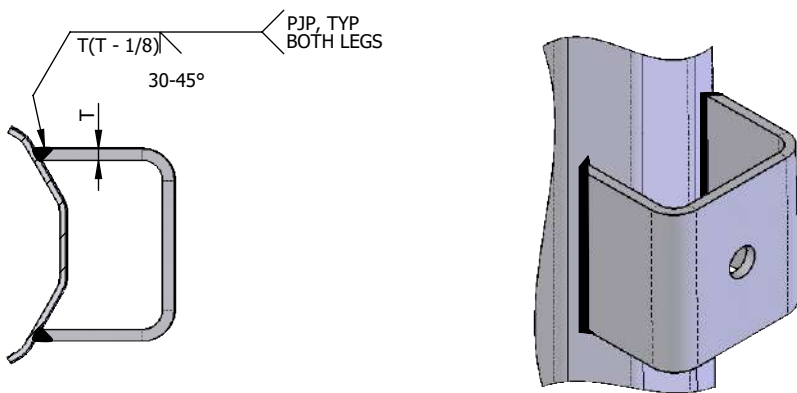
### HH2



**HAND HOLE TO TUBE**

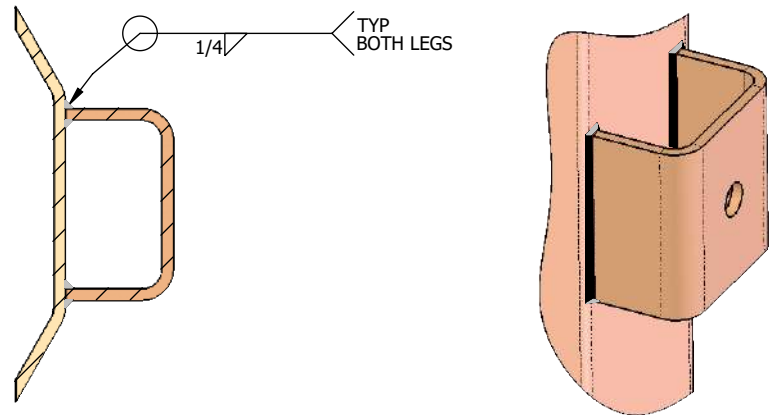
**NOTE:**  
OPTIONAL SEAL WELD MAY BE WRAPPED TO ACCESSIBLE PORTION OF INSIDE BRACKET.  
T = THICKNESS OF BRACKET PLATE

### MB1



**U-SHAPED VERTICAL BRACKET ON ANGLED FACE OF POLE**

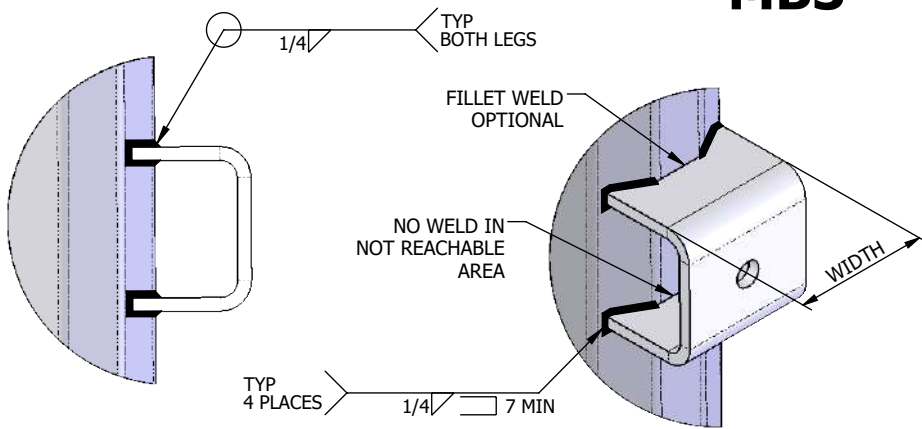
### MB2



**U-SHAPED VERTICAL BRACKET ON FLAT FACE OF POLE**

FOR SHORT BRACKETS: WIDTH ≤ 6"

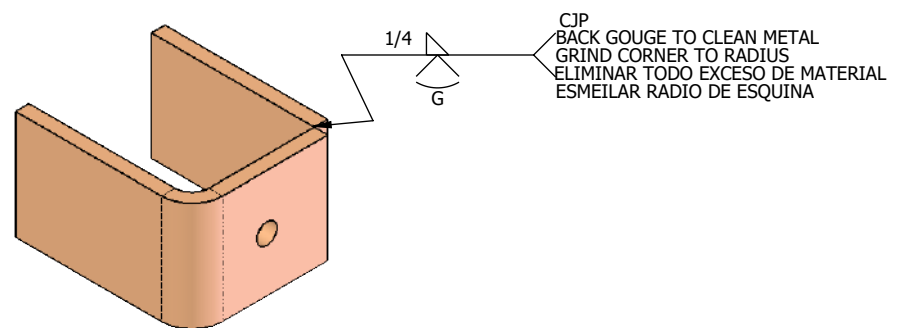
### MB3



**U-SHAPED HORIZONTAL BRACKET**

FOR WIDE BRACKETS: WIDTH > 6"

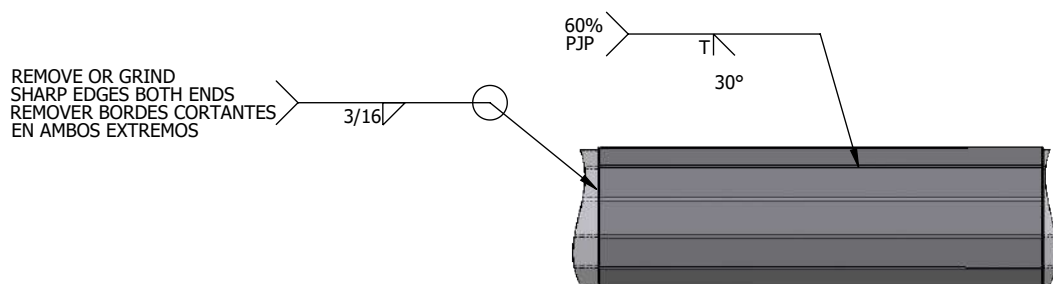
### MB4



**2-PIECE BRACKET**

**NOTE:**  
T=THICKNESS OF GROUND SLEEVE

### GS1



**GROUND SLEEVE WITHOUT BASE PLATE**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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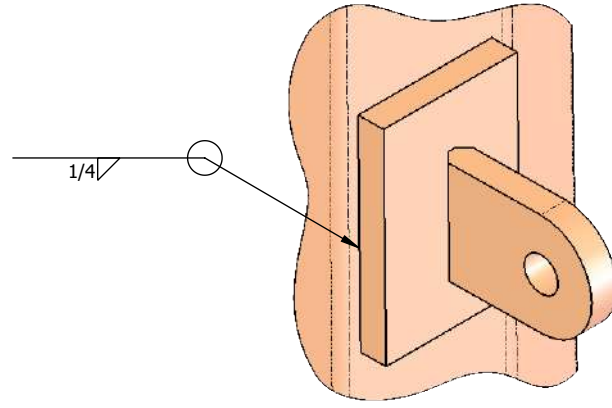
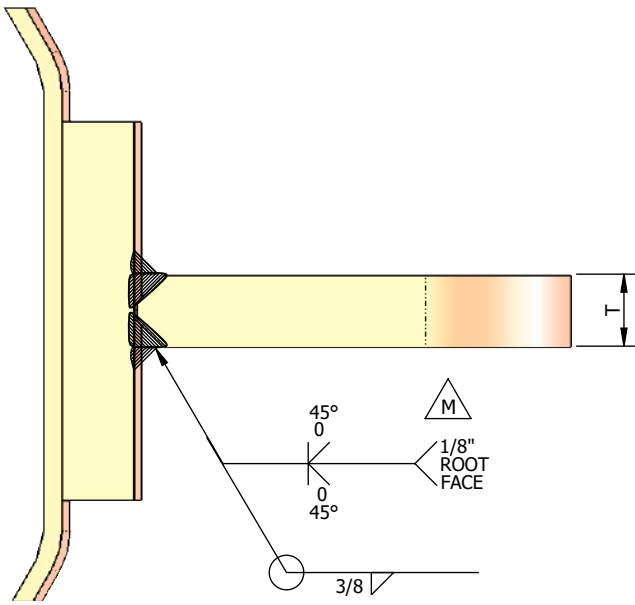
**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

**VD1**

**NOTES:**

1. T = THICKNESS OF VANG.
2. FIT UP TOLERANCE FOR VANG BEVEL, +10° -5°.
3. ROOT FACE FIT UP TOLERANCE, ±1/16".
4. ROOT OPENING FIT UP TOLERANCE = 1/8" MAX.

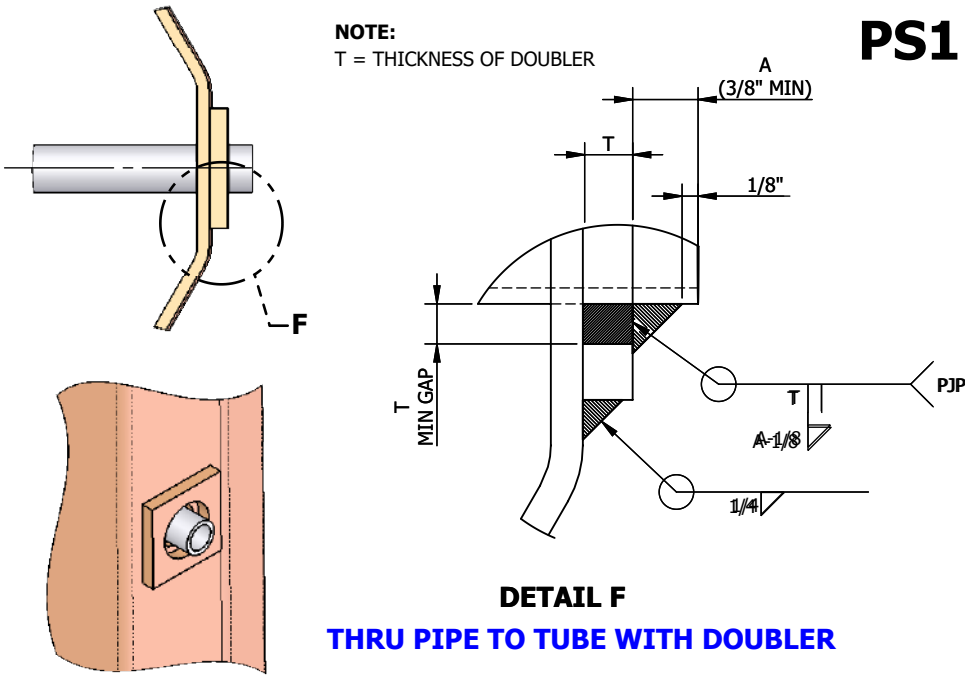


**VANG TO PLATE AND DOUBLER TO TUBE**

**NOTE:**

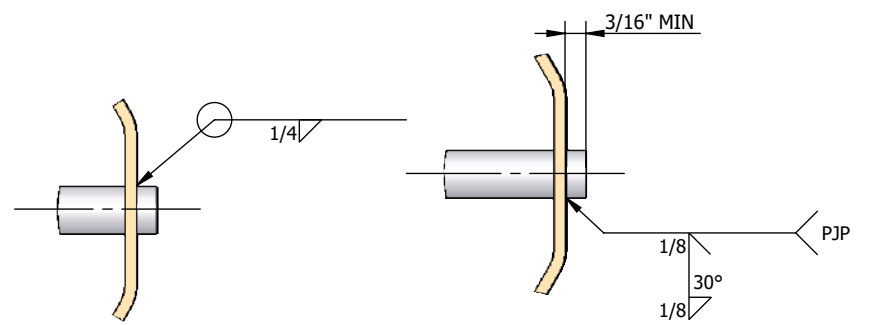
T = THICKNESS OF DOUBLER

**PS1**



**THRU PIPE TO TUBE WITH DOUBLER**

**PS2**



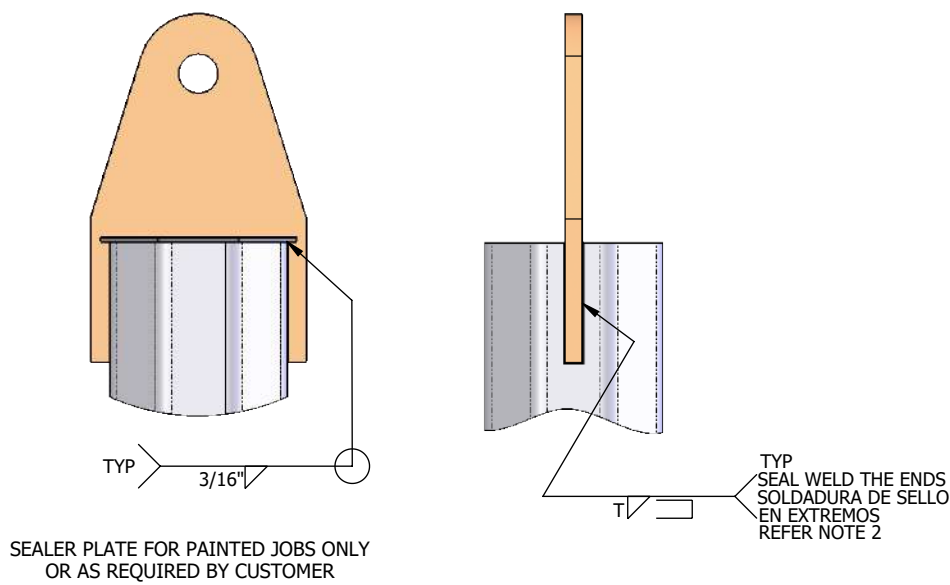
**THRU PIPE TO TUBE**

**"GRIND FLUSH" THRU PIPE TO TUBE IF CUSTOMER REQUESTS "GRIND FLUSH" AND TOWER PLATE > 1/4" THICK (NOT ABLE TO "GRIND FLUSH" FOR TOWER PLATE TUBE THICKNESS ≤ 1/4")**

**NOTE:**

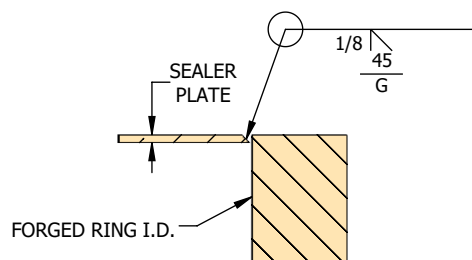
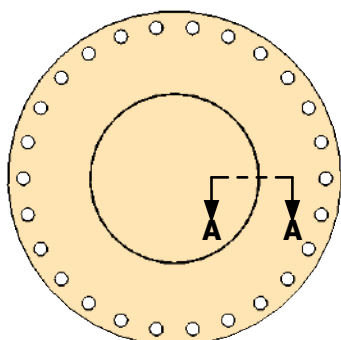
1. T = TUBE WALL THICKNESS.
2. IF ACCESSIBLE, WRAP WELD TO INSIDE OF TUBE AND WELD ACCESSIBLE LENGTH.

**CB1**



**CROSS BRACING THROUGH VANG**

**SP1**



**SECTION A-A**

NOTE: SEALER PLATE SHOULD BE FLUSH, BUT IS ACCEPTABLE TO HAVE 1/8" RECESS FROM THE FORGED RING - FLANGE.

**FORGED RING - FLANGE TO SEALER PLATE (WEATHERING ONLY)**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

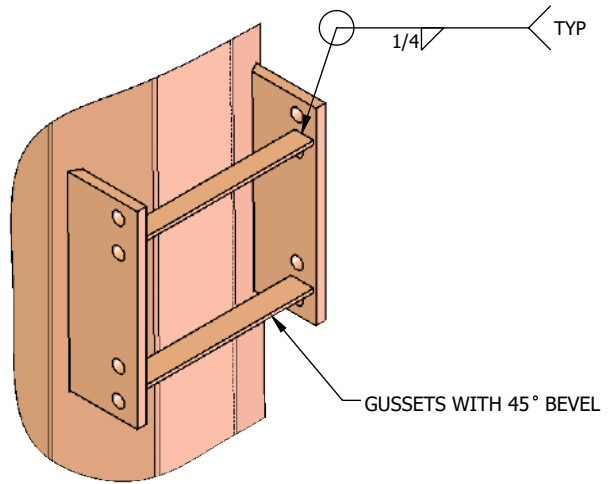
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STANDARD WELDING DETAILS



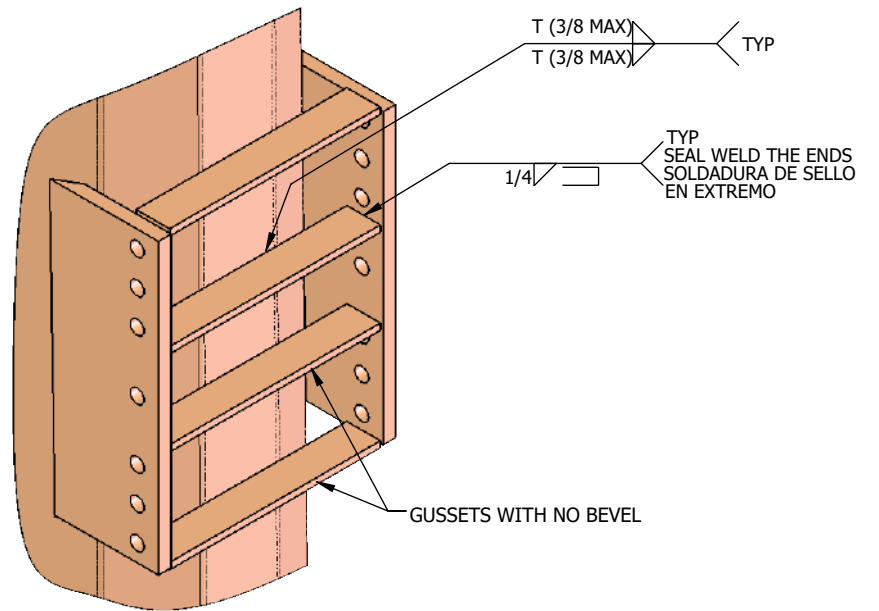
**G1**



**THROUGH PLATE GUSSETS**

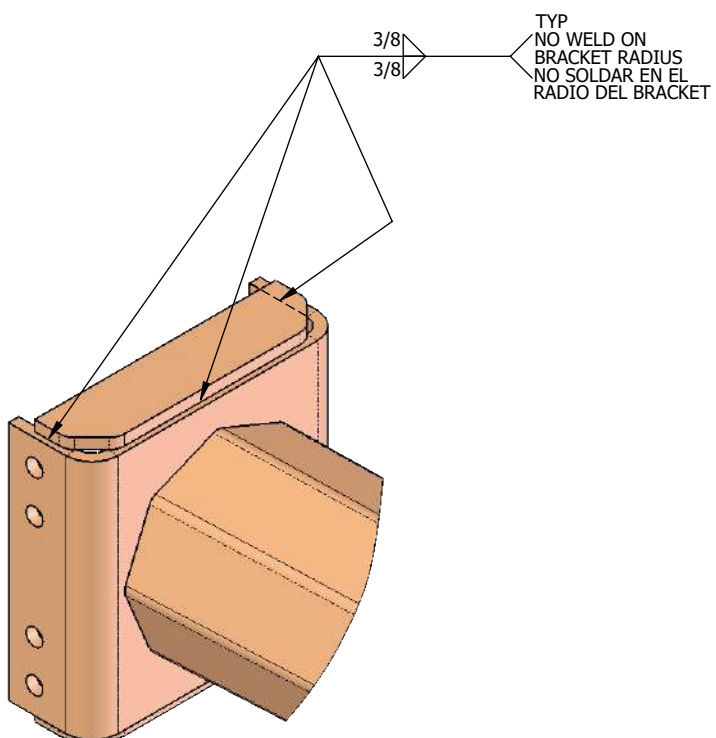
**G2**

**NOTE:**  
T = THICKNESS OF TUBE WALL



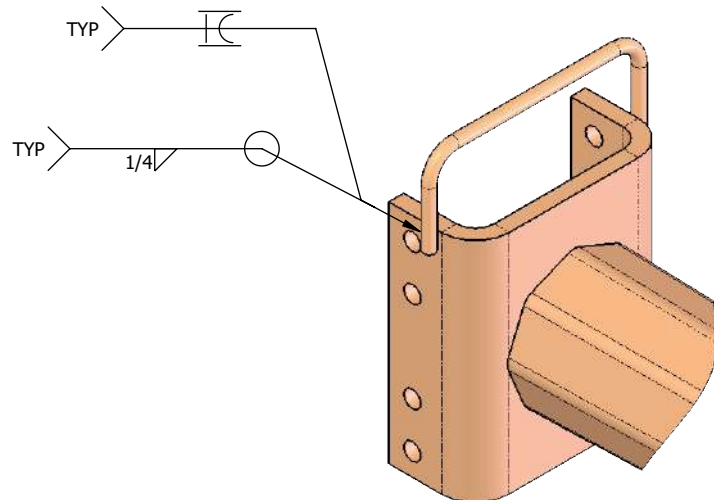
**S & C TYPE THROUGH PLATE GUSSETS (WELDED TO POLE FACE)**

**G3**



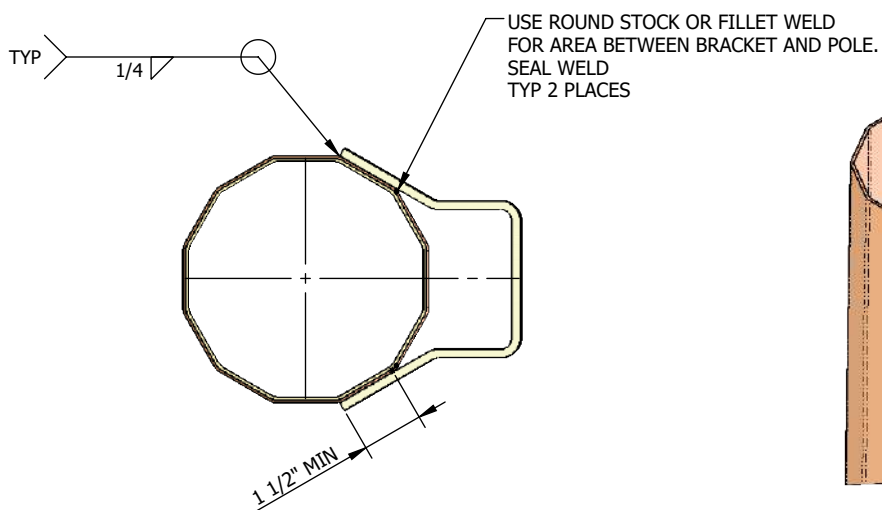
**MOUNT CHANNEL WITH GUSSETS**

**HG1**

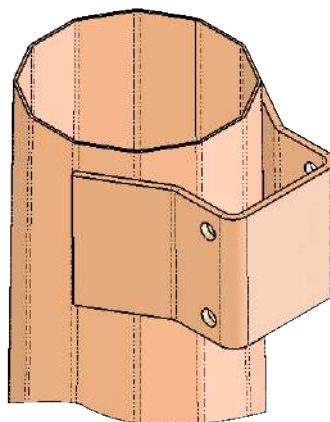


**ROUND ROD TO PLATE**

**WR1**



**SINGLE PIECE WRAP**



Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

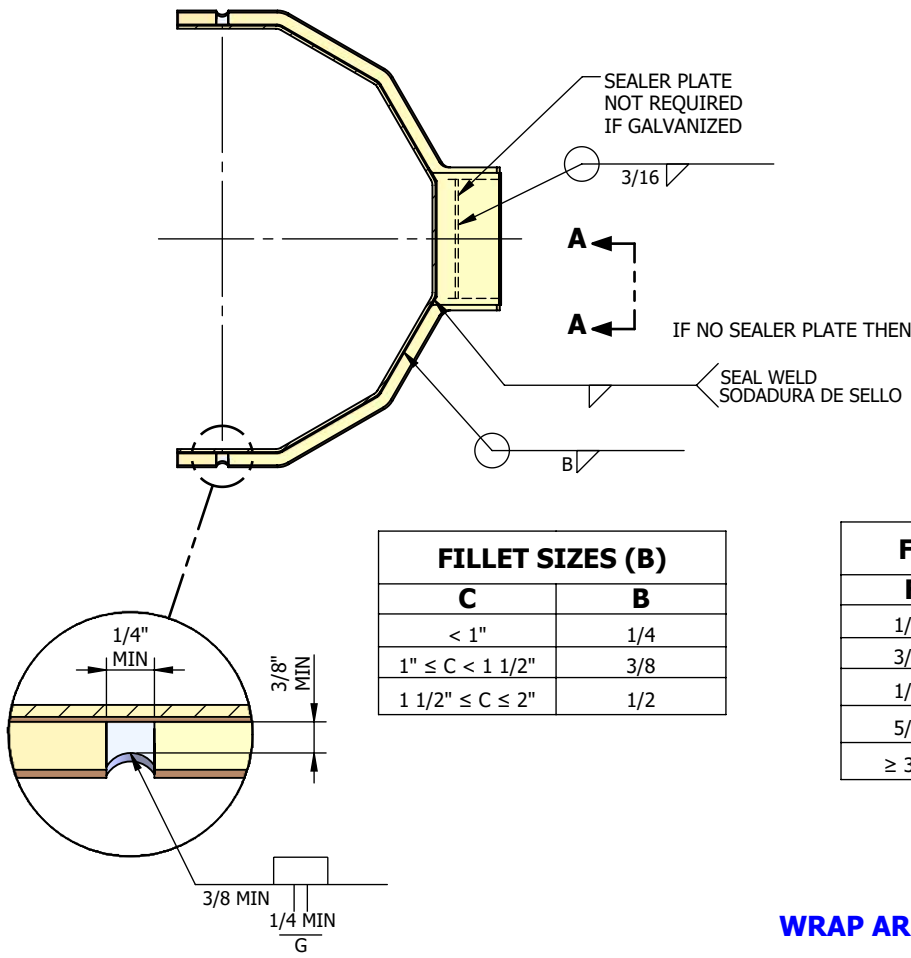
PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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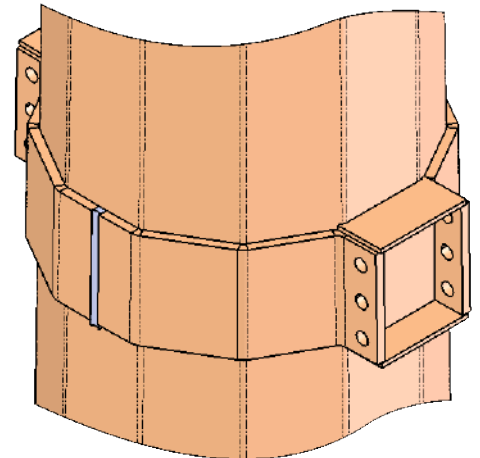
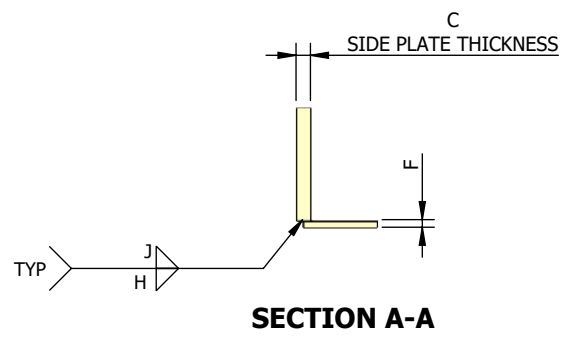
STANDARD WELDING DETAILS

**WB1**



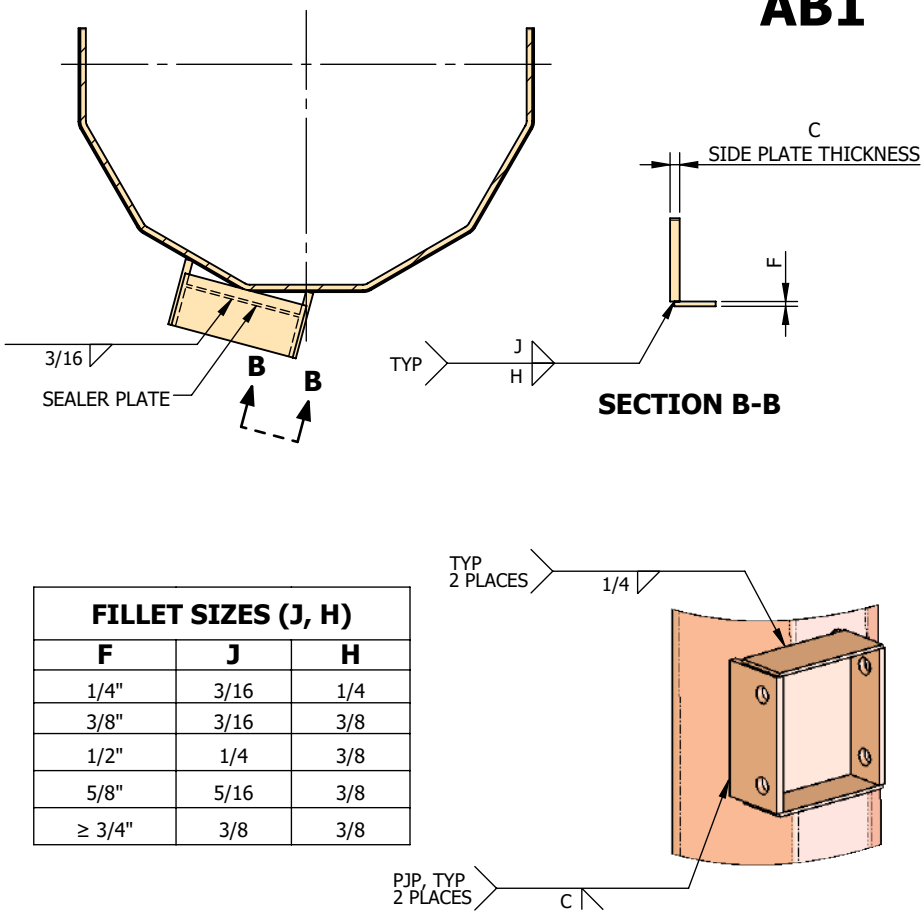
FILLET SIZES (B)	
C	B
< 1"	1/4
1" ≤ C < 1 1/2"	3/8
1 1/2" ≤ C ≤ 2"	1/2

FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8



**WRAP ARM BOX**

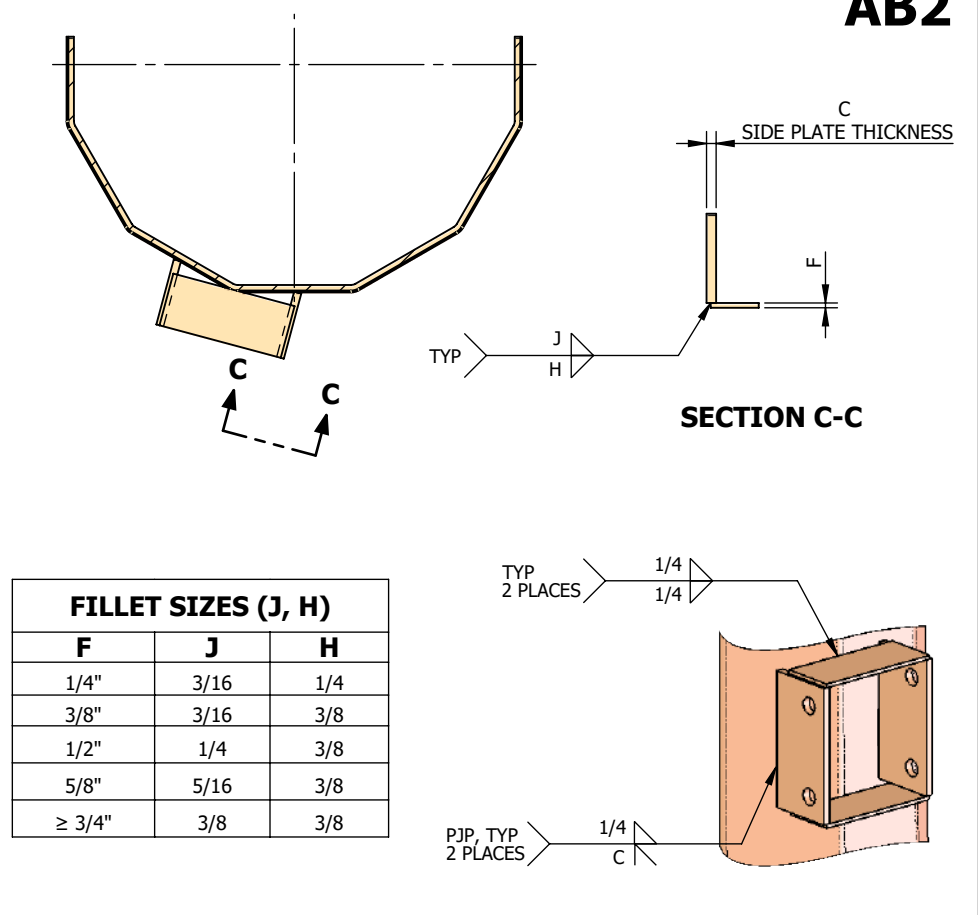
**AB1**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - 2 FLATS W/ SEALER PLATE**

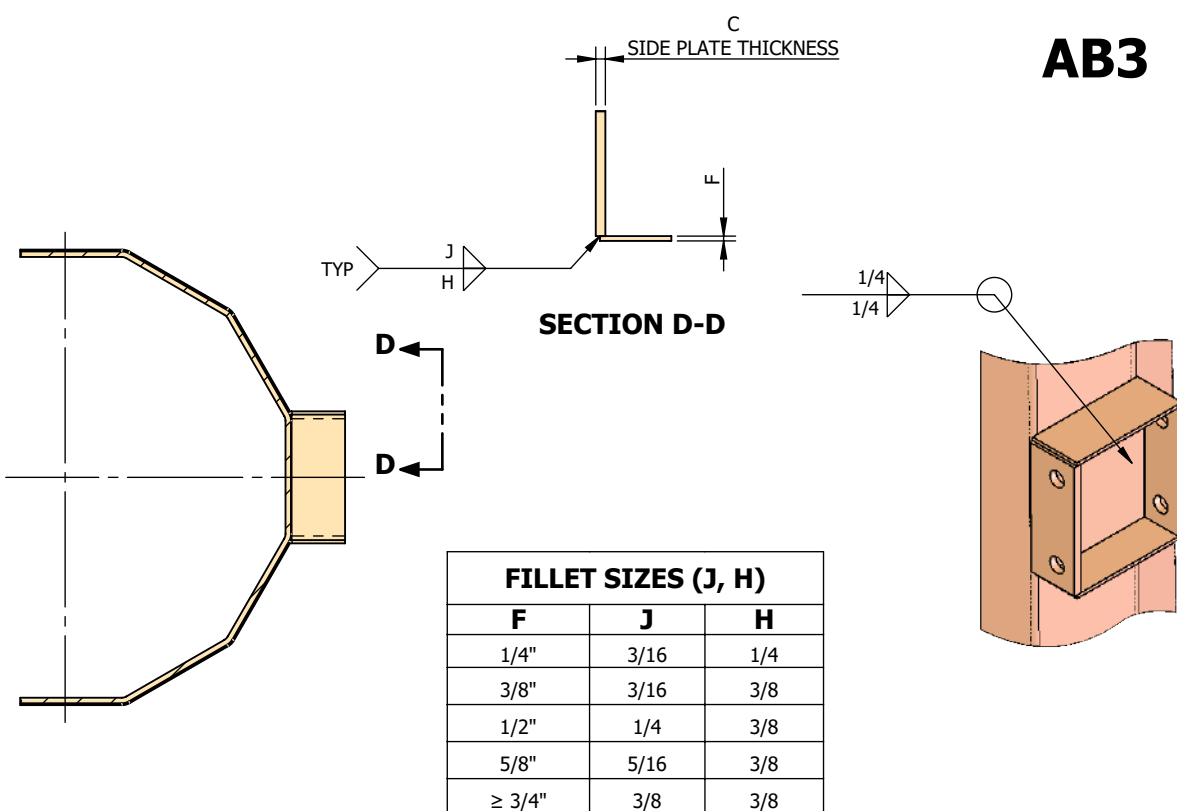
**AB2**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - 2 FLATS W/O SEALER PLATE**

**AB3**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - SINGLE FLAT**

S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
R	REVISED CP3 BACKSIDE WELD TO 1/2"	RB/11-08-21
P	REVISED BACKSIDE WELD DEFINITION ON 3 PC MT CHANNEL (PJP)	RB/10-01-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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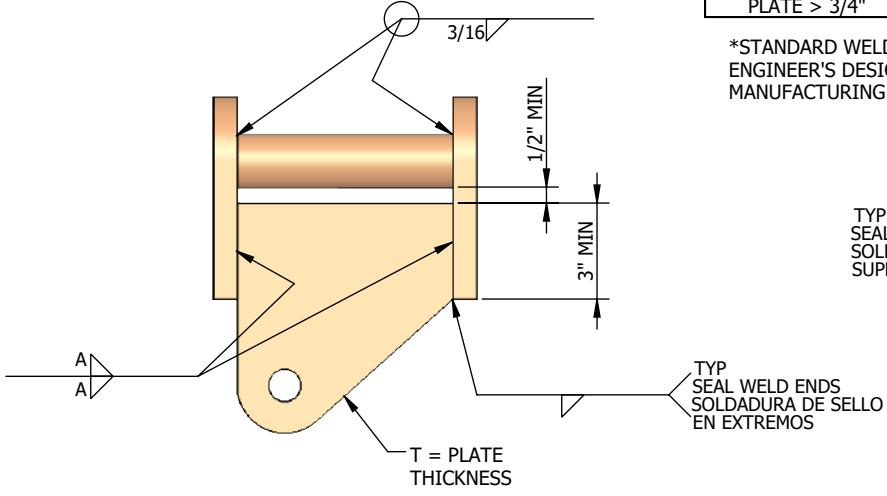
**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

**NOTE:**  
DROP BRACKET CUTOUT PER PRINTS.

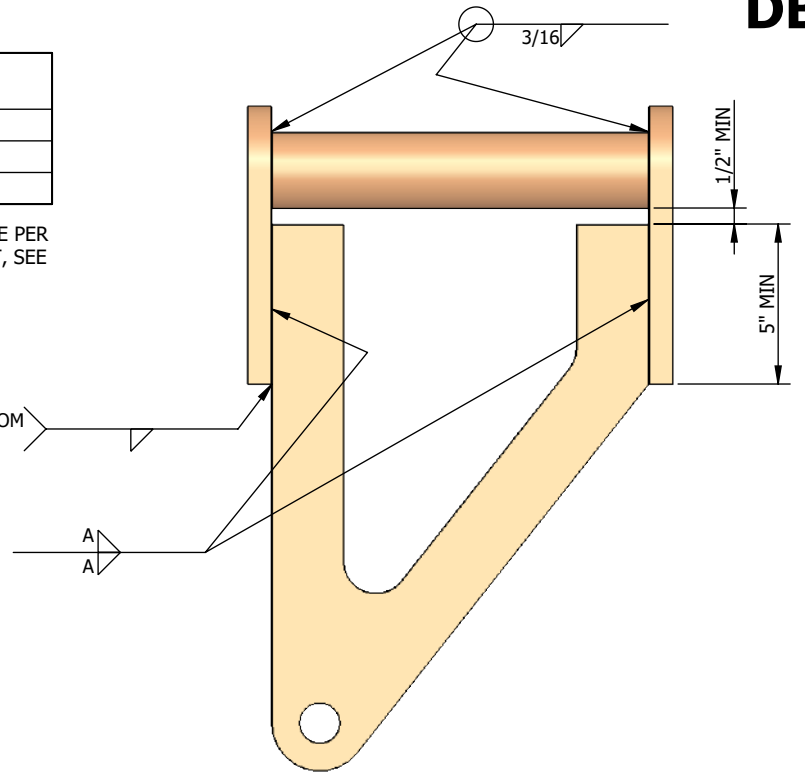
FILLET SIZES	
T	A*
PLATE ≤ 3/4"	1/4"
PLATE > 3/4"	5/16"

\*STANDARD WELDS COULD INCREASE PER ENGINEER'S DESIGN. IN THIS EVENT, SEE MANUFACTURING DRAWING.



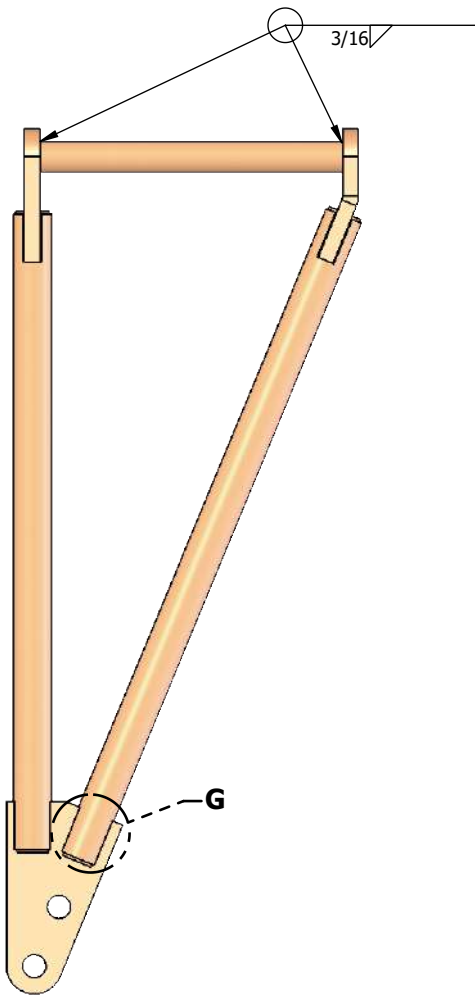
**6" THRU 11"**

**DROP BRACKETS**

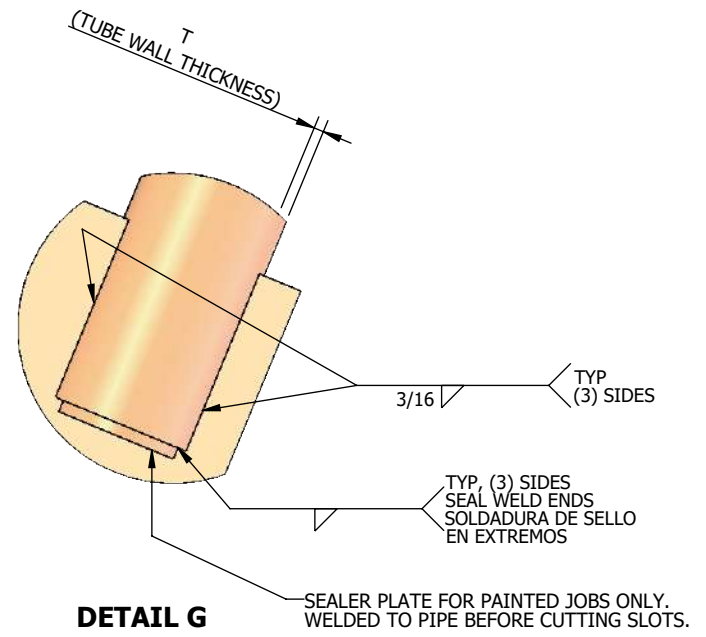


**12" THRU 21"**

**DB1**



**DROP BRACKETS - 37" THRU 60"**



**DB2**

REV	DESCRIPTION	DRFT/DATE
Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
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ENGINEER:	MEYER

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STANDARD WELDING DETAILS

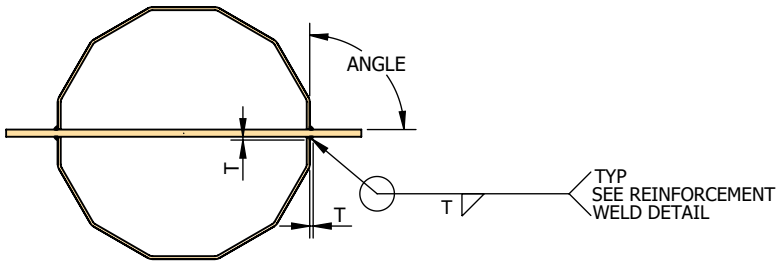


### THROUGH VANG WELDS

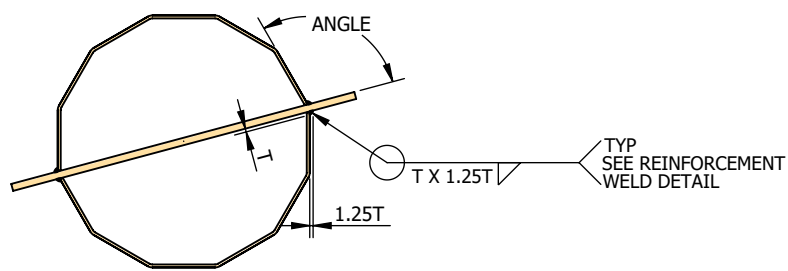
T=POLE WALL THICKNESS

T	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 1/4"
T/2	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	1/2	9/16	9/16	5/8	5/8
1.25T	1/4	5/16	7/16	1/2	9/16	5/8	3/4	13/16	7/8	15/16	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 9/16

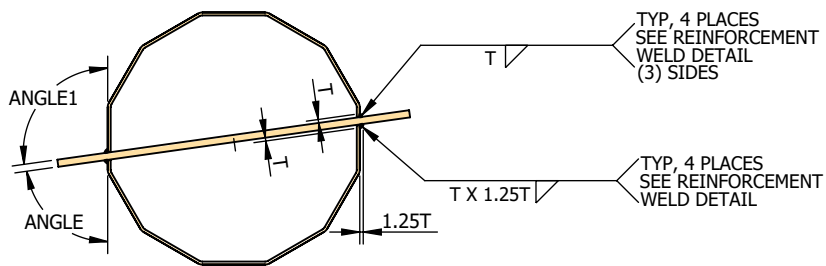
#### TOWER PLATE LESS THAN 3/8" THK



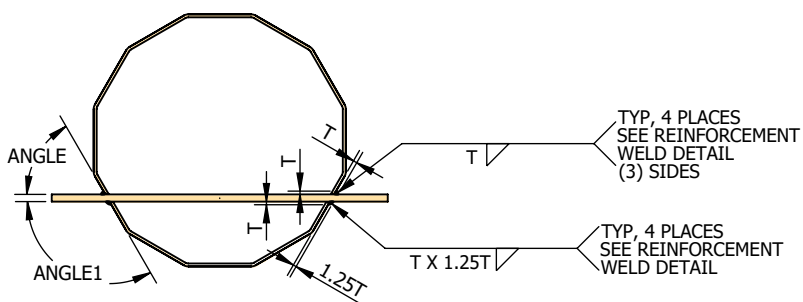
ANGLE = 90°



ANGLE > 90°

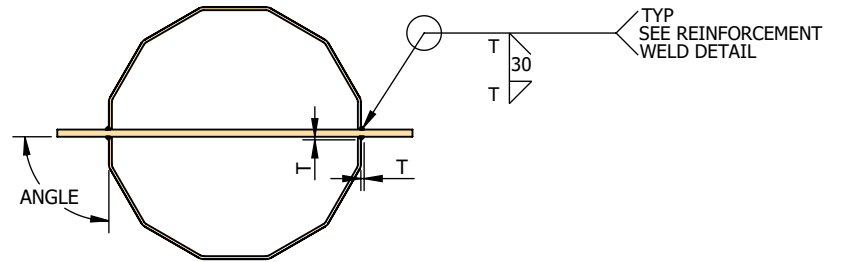


ANGLE > 60°  
ANGLE1 > 90°

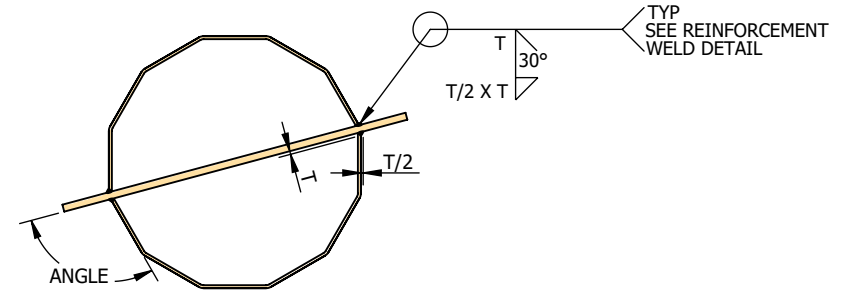


ANGLE = 60°  
ANGLE1 = 120°

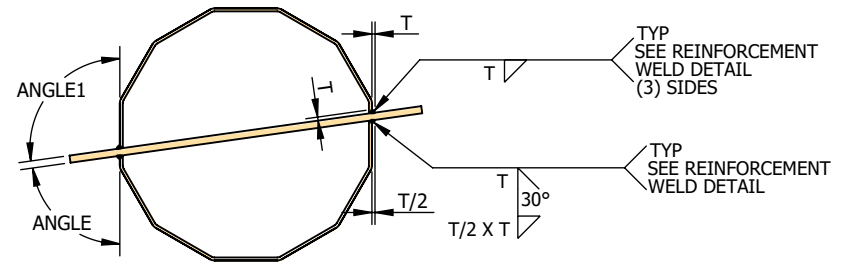
#### TOWER PLATE GREATER THAN/EQUAL TO 3/8" THK



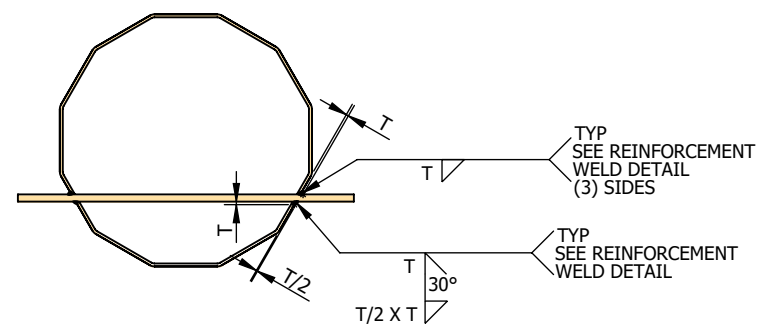
ANGLE = 90°



ANGLE > 90°



ANGLE > 60°  
ANGLE1 > 90°



ANGLE = 60°  
ANGLE1 = 120°

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
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ENGINEER:	MEYER

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UTILITY STRUCTURES

STANDARD WELDING DETAILS

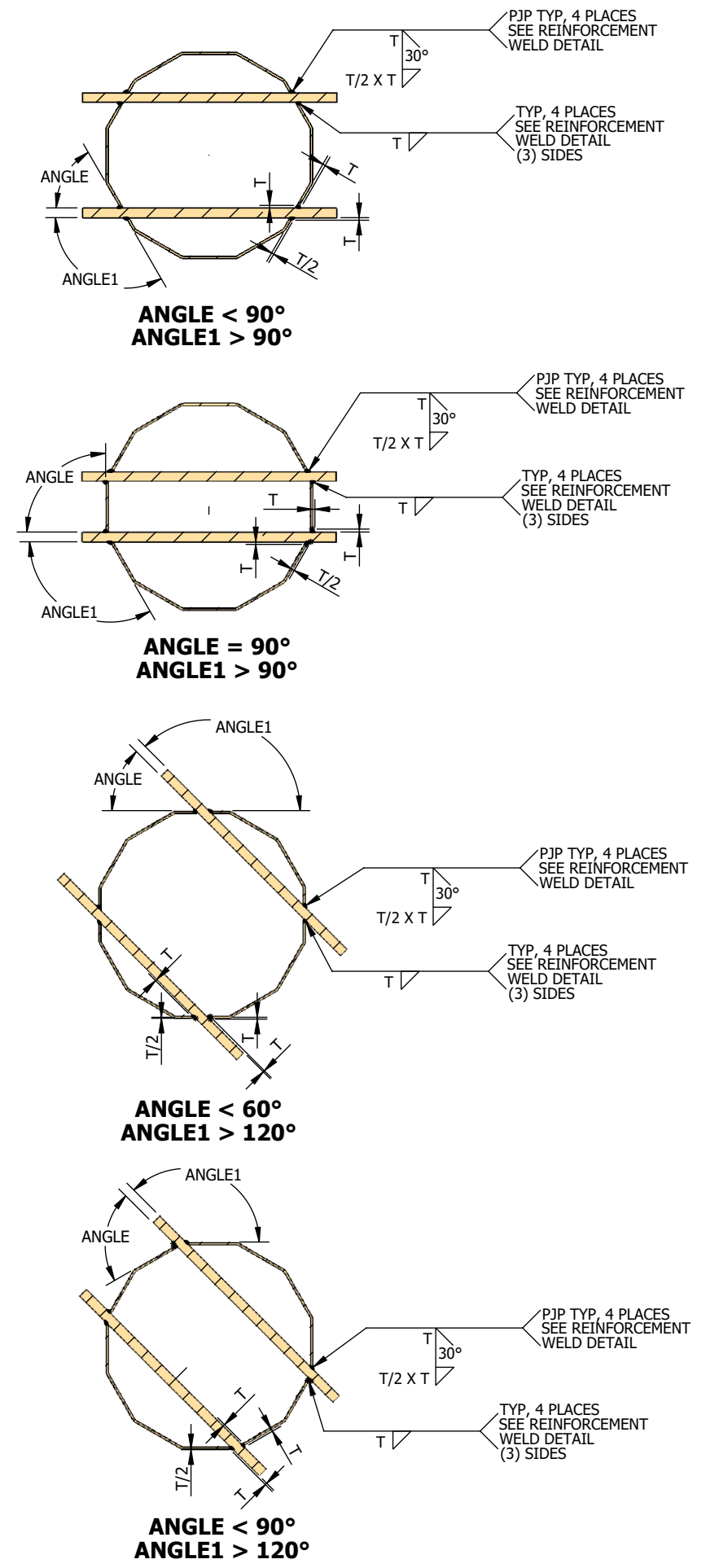
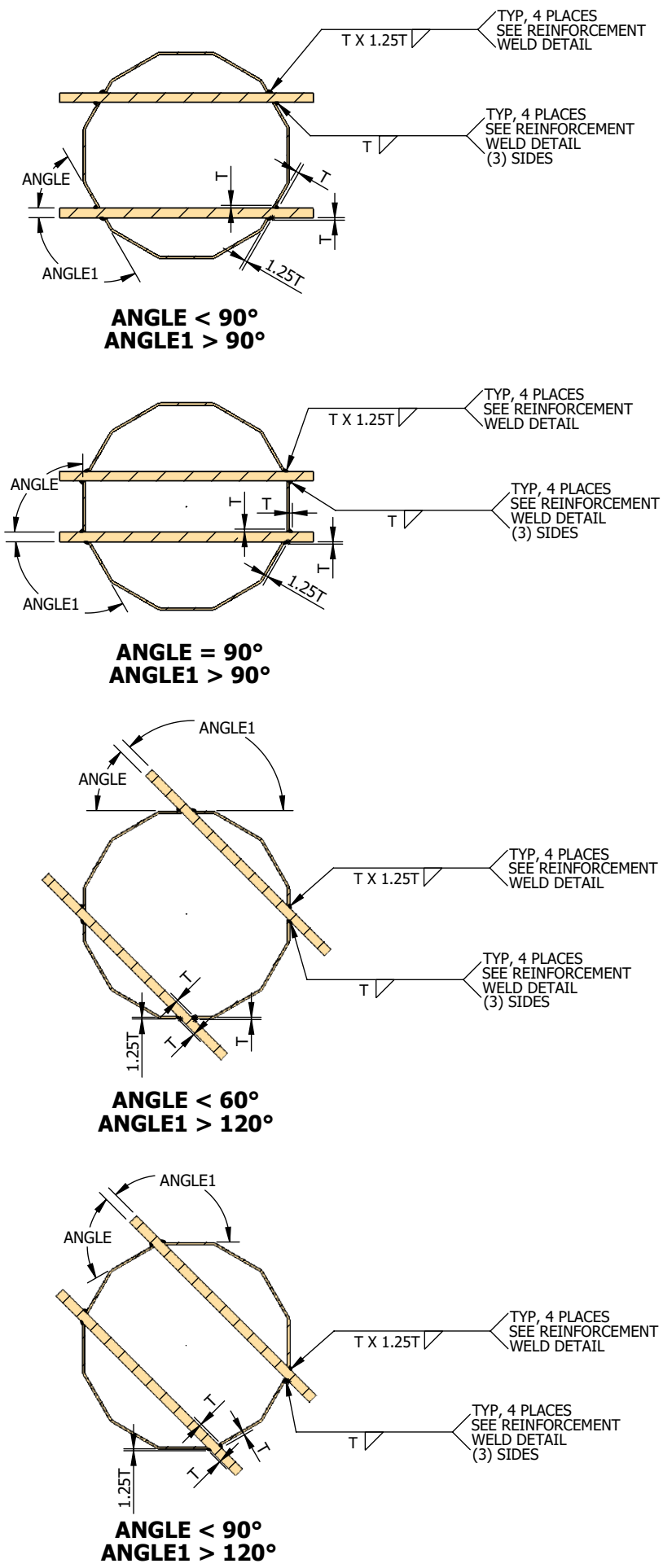
### THROUGH PLATES WELDS FOR ARM MOUNTING

T=POLE WALL THICKNESS

T	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 1/4"
T/2	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	1/2	9/16	9/16	5/8	5/8
1.25T	1/4	5/16	7/16	1/2	9/16	5/8	3/4	13/16	7/8	15/16	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 9/16

#### TOWER PLATE LESS THAN 3/8" THK

#### TOWER PLATE EQUAL TO OR GREATER THAN 3/8" THK



Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
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ENGINEER:	MEYER

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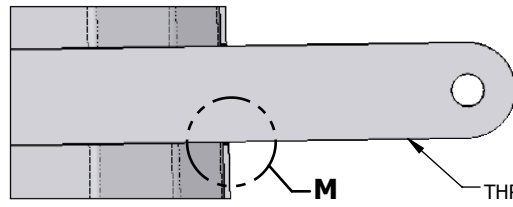
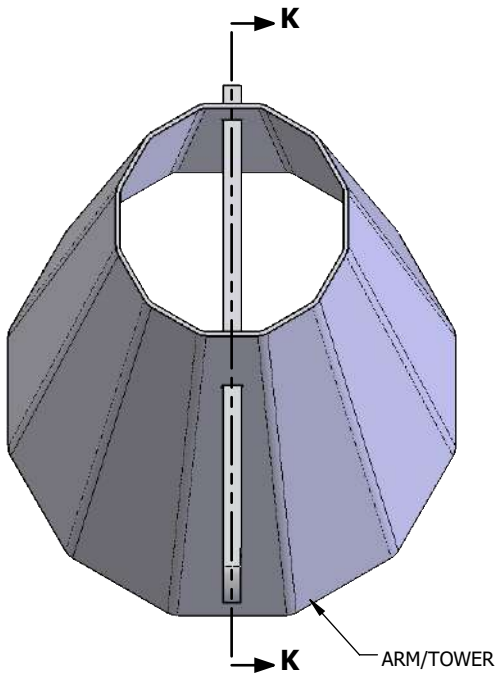
UTILITY STRUCTURES

STANDARD WELDING DETAILS

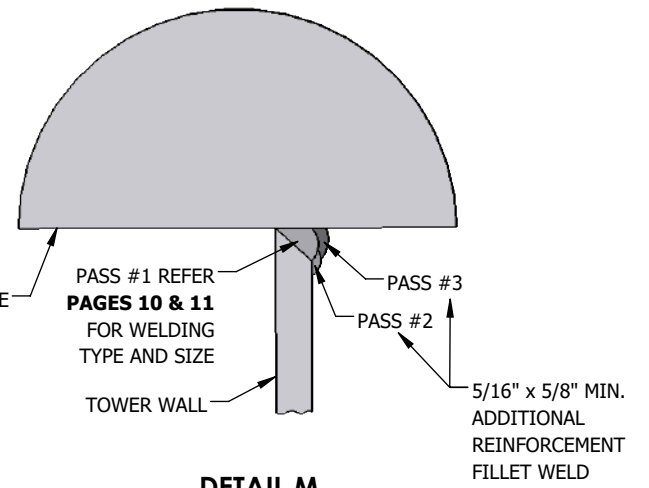
**NOTE:**

1. ALL WELD PASSES MUST STOP/START ON THE SIDES OF THE VANG/PLATE ONLY AND AWAY FROM THE 1" MINIMUM ZONE.
2. AN OPTIONAL FULL PASS IS ACCEPTABLE FOR PASS 3.
3. APPLICABLE FOR ALL MULT-SIDED STRUCTURES AND ARMS.
4. ALL WELD JOINTS ARE PJP. ADD GAP DIMENSION TO FILLET WELD DIMENSION.  
EXAMPLE: A 1/8" GAP WOULD REQUIRE A 7/16" x 3/4" MIN. FILLET.
5. IF ACCESSIBLE, WRAP WELD TO INSIDE OF ARM AND WELD ACCESSIBLE LENGTH.

**VERTICAL THRU PLATES AND VANGS (CONTINUED)**

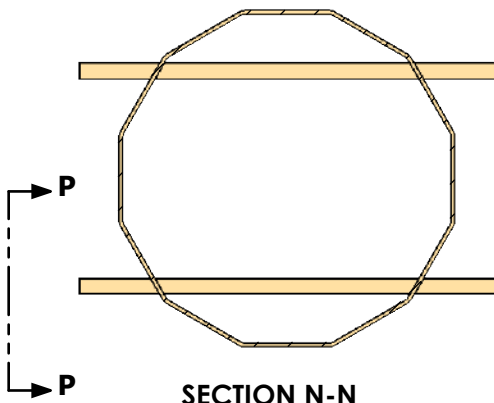


**SECTION K-K**

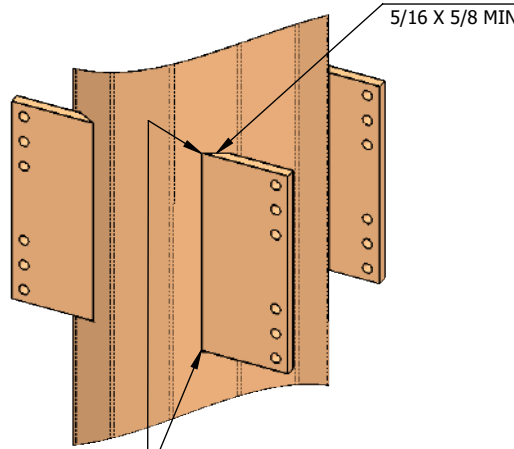


**DETAIL M**

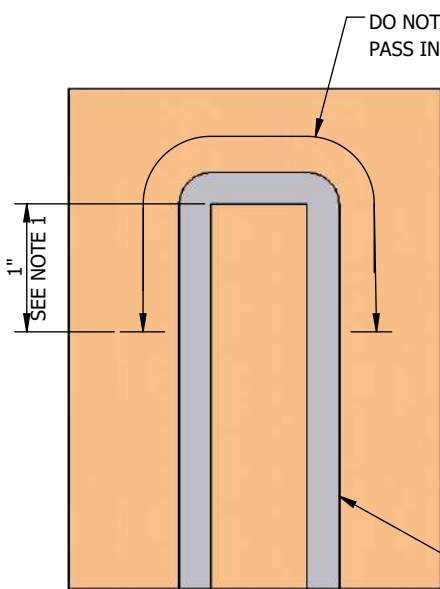
TYP 4 PLACES  
ADDITIONAL REINFORCEMENT  
TYP ALL THRU HARDWARE  
REFER WELD DETAIL  
REFUERZO ADICIONAL  
TIPO EN ACCESORIOS  
VER DETALLE DE SOLDADURA



**SECTION N-N**

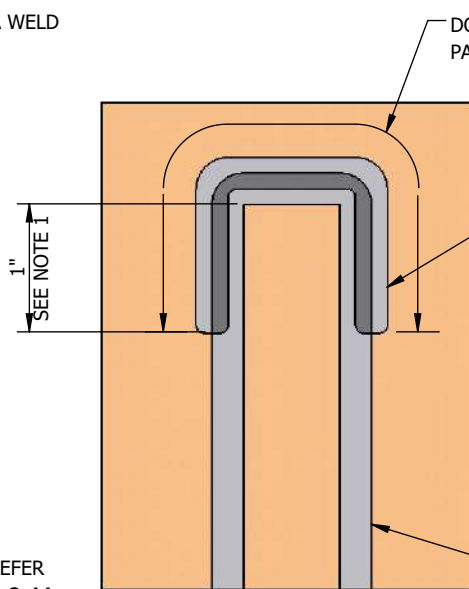


IF GAP BETWEEN TOWER WALL  
AND THRU VANG/PLATE > 3/16"  
ADD BACKING BAR



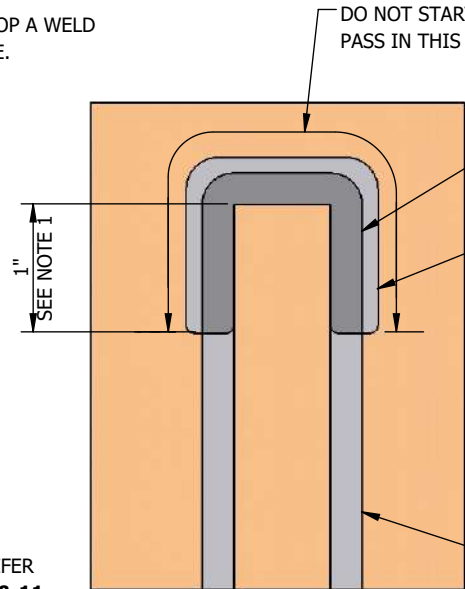
**VIEW P-P  
FIRST PASS  
WELD1**

PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



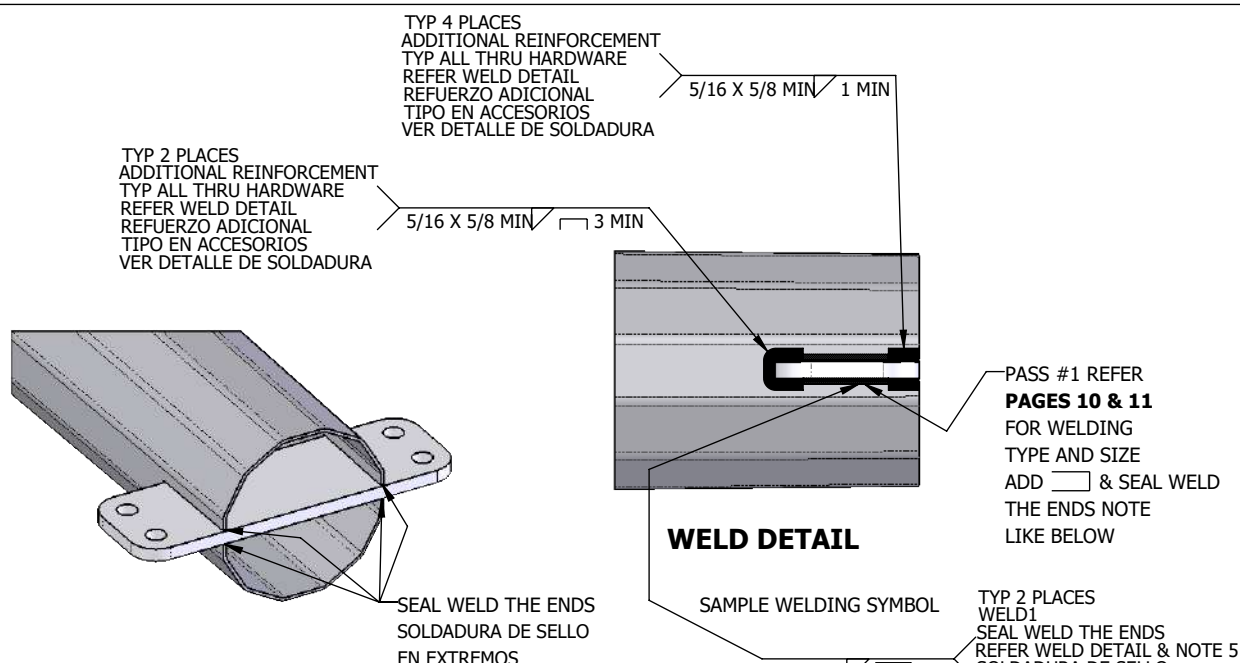
**VIEW P-P  
SECOND PASS**

PASS #2 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



**VIEW P-P  
THIRD PASS  
WELD DETAIL**

PASS #3 (SEE NOTE 2)  
PASS #2  
5/16" x 5/8" MIN.  
ADDITIONAL  
REINFORCEMENT  
FILLET WELD  
PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



**ARM THROUGH VANGS FLUSH WITH ARM END**

**WELD DETAIL**

**SAMPLE WELDING SYMBOL**

PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE  
ADD [ ] & SEAL WELD  
THE ENDS NOTE  
LIKE BELOW  
TYP 2 PLACES  
WELD1  
SEAL WELD THE ENDS  
REFER WELD DETAIL & NOTE 5  
SOLDADURA DE SELLO  
EN EXTREMOS  
VER DETALLE DE SOLDADURA  
& NOTA 5

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

# GREENVILLE UTILITIES COMMISSION

## 22-23 TRANSMISSION REPLACEMENTS

# 42444D

**POLE DRAWING INDEX**

RELEASE	QTY	STRUCTURE TYPE	STRUCTURE LENGTH	EMBEDMENT LENGTH	POLE NO	ERECTION DRAWING	POLE LAYOUT DRAWING	ARM LAYOUT DRAWING	CAMBER AMOUNT
D	1	115KV 3 PHASE TANGENT POST TPZD1.C5.2	85'-0"	10'-6"	17.1	42444-0785S3FT	42444-3051, 42444-3019	NONE	-
	3	115KV 3 PHASE TANGENT POST TPZD1.C1	80'-0"	10'-0"	17.2, 17.3, 17.5	42444-0780S3CT	42444-3030, 42444-3022	NONE	-
	1	115KV 3 PHASE TANGENT POST TPZD1.V6	80'-0"	10'-0"	17.4	42444-0780S3DT	42444-3050, 42444-3022	NONE	-
	23	115KV 3 PHASE TANGENT POST TPZD1.C1	75'-0"	9'-6"	17.6, 17.28 THRU 17.33, 17.35 THRU 17.50	42444-0675S3CT	42444-3047, 42444-3017	NONE	-
	6	ZINC PAINT TOUCH UP KIT (1 GAL. PER 5 POLES)	-	N/A	-	42444-MSZINCDT	-	NONE	-

**SSG DRAWING INDEX**

STANDARD DRAWINGS	DRAWING NO
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION	SSG001
GALVANIZED POLE LIFTING REQUIREMENTS	SSG002
JACKING NUT LOCATIONS	SSG004
WELDING DETAILS	SSG007

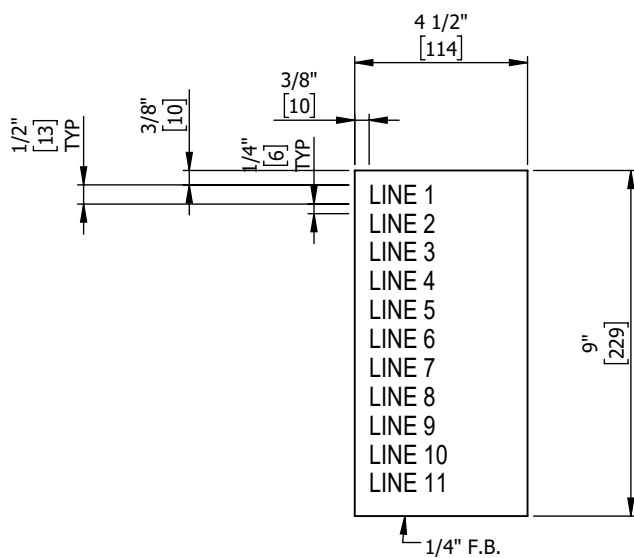
**Meyer Utility Structures**

**6750 Lenox Center Court, Suite 400  
 Memphis, TN 38115  
 Phone: (901) 566-6500  
 Engr. Fax: (901) 566-6650**

**CENTRAL/EAST VALUE STREAM**

A	INITIAL RELEASE	HIG/06-10-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/10/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE D		
SHEET 1 OF 3	<b>42444-INDEX_D</b>	REV. <b>A</b>

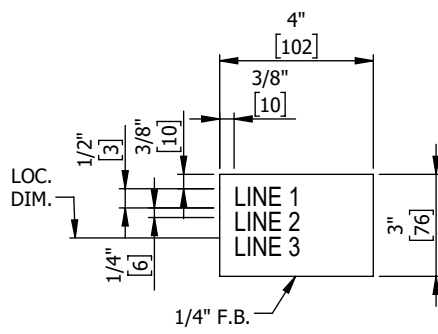
42444-1401	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11
1	GUC	17.1	85 FT-0 IN	S-07.4	TPZD1.C5.2	4690 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444D
2	GUC	17.1	85 FT-0 IN	S-07.4	TPZD1.C5.2	4690 LBS	533 FT-K	MEYER	MM/YYYY	42444-3019	42444D
3	GUC	17.2	80 FT-0 IN	S-07.4	TPZD1.C1	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
4	GUC	17.2	80 FT-0 IN	S-07.4	TPZD1.C1	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
5	GUC	17.3	80 FT-0 IN	S-07.4	TPZD1.C1	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
6	GUC	17.3	80 FT-0 IN	S-07.4	TPZD1.C1	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
7	GUC	17.5	80 FT-0 IN	S-07.4	TPZD1.C1	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
8	GUC	17.5	80 FT-0 IN	S-07.4	TPZD1.C1	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
9	GUC	17.4	80 FT-0 IN	S-07.4	TPZD1.V6	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
10	GUC	17.4	80 FT-0 IN	S-07.4	TPZD1.V6	4420 LBS	501 FT-K	MEYER	MM/YYYY	42444-3022	42444D
11	GUC	17.6	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
12	GUC	17.6	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
13	GUC	17.28	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
14	GUC	17.28	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
15	GUC	17.29	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
16	GUC	17.29	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
17	GUC	17.30	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
18	GUC	17.30	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
19	GUC	17.31	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
20	GUC	17.31	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
21	GUC	17.32	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
22	GUC	17.32	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
23	GUC	17.33	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
24	GUC	17.33	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
25	GUC	17.35	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
26	GUC	17.35	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
27	GUC	17.36	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
28	GUC	17.36	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
29	GUC	17.37	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
30	GUC	17.37	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
31	GUC	17.38	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
32	GUC	17.38	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
33	GUC	17.39	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
34	GUC	17.39	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
35	GUC	17.40	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
36	GUC	17.40	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
37	GUC	17.41	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
38	GUC	17.41	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
39	GUC	17.42	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
40	GUC	17.42	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
41	GUC	17.43	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
42	GUC	17.43	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
43	GUC	17.44	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
44	GUC	17.44	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
45	GUC	17.45	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
46	GUC	17.45	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
47	GUC	17.46	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
48	GUC	17.46	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
49	GUC	17.47	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
50	GUC	17.47	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
51	GUC	17.48	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
52	GUC	17.48	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
53	GUC	17.49	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
54	GUC	17.49	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
55	GUC	17.50	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D
56	GUC	17.50	75 FT-0 IN	S-06.5	TPZD1.C1	3310 LBS	410 FT-K	MEYER	MM/YYYY	42444-3017	42444D



**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	HIG/06-10-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/10/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE D PARTS DETAIL		
SHEET 2 OF 3	<b>42444-INDEX_D</b>	REV. <b>A</b>

78413	LINE 1	LINE 2	LINE 3
1	17.1	42444-3051	42444D
2	17.2	42444-3030	42444D
3	17.3	42444-3030	42444D
4	17.5	42444-3030	42444D
5	17.4	42444-3050	42444D
6	17.6	42444-3047	42444D
7	17.28	42444-3047	42444D
8	17.29	42444-3047	42444D
9	17.30	42444-3047	42444D
10	17.31	42444-3047	42444D
11	17.32	42444-3047	42444D
12	17.33	42444-3047	42444D
13	17.35	42444-3047	42444D
14	17.36	42444-3047	42444D
15	17.37	42444-3047	42444D
16	17.38	42444-3047	42444D
17	17.39	42444-3047	42444D
18	17.40	42444-3047	42444D
19	17.41	42444-3047	42444D
20	17.42	42444-3047	42444D
21	17.43	42444-3047	42444D
22	17.44	42444-3047	42444D
23	17.45	42444-3047	42444D
24	17.46	42444-3047	42444D
25	17.47	42444-3047	42444D
26	17.48	42444-3047	42444D
27	17.49	42444-3047	42444D
28	17.50	42444-3047	42444D



**78413**

73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

A	INITIAL RELEASE	HIG/06-10-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/10/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE D PARTS DETAIL		
SHEET 3 OF 3	<b>42444-INDEX_D</b>	REV. <b>A</b>

\*\*\*HIGGINJ-6/28/2022--7:56:28 AM\*\*\*

SPECIAL NOTES:

STANDARD NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. UNLESS OTHERWISE NOTED REFER SSG007 FOR WELDING DETAILS.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

SHAFT/ARM NOTES:

1. MARK "+" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
2. HOT DIP GALVANIZED PER ASTM A-123.
3. NO PRE-GALV BLAST REQUIRED; BRUSH BLAST PER ASTM D6386 AND SSPC-SP16 PRIOR TO APPLICATION OF MEYERCLAD OVER GALV.
4. COAT WITH MEYERCLAD PNT 218A AND 218B 20 MILS MINIMUM DFT 25 MILS AVERAGE DFT.

MIDDLE/BOTTOM SHAFT NOTES:

1. WELD A 2" INVERTED V (MATCH MARK) ON  $\phi$  OF FLAT TO ALIGN WITH THE  $\phi$  OF THE NAMEPLATE/ID TAG ON THE ABOVE SHAFT ASSEMBLY.

NOTAS:

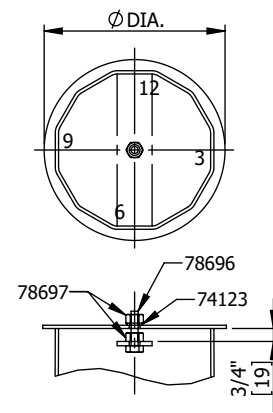
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO AMUS-EN-P-018 PARA TOLERANCIAS.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO SSG007 PARA DETALLE DE SOLDADURA.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

SHAFT/ARM NOTES:

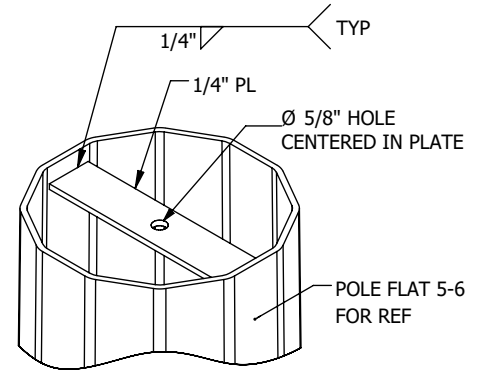
1. MARCAR "+" AL CENTRO DE GARAVEDAD APROXIMADO. (EN CUALQUIER PISO - SOLO PARA EL USO DEL FABRICANTE).
2. GALVANIZADO POR INMERSION EN CALIENTE DE ACUERDO A ASTM A-123.
3. NO SE REQUIERE BLASTEADO PREVIO A GALVANIZAR; PULIR CON EPILLO ABRASIVO POR ASTM D6386 Y SSPC-SP16 ANTES DE LA APLICACIÓN DE MEYERCLAD SOBRE EL GALVANIZADO.
4. RECUBRIR CON MEYERCLAD PNT 218A Y 218B MINIMO 20 MILS. PROMEDIO MINIMO 25 MILS.

MIDDLE/BOTTOM SHAFT NOTAS:

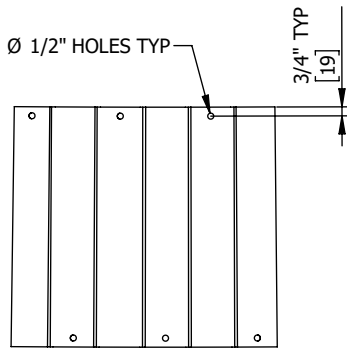
1. SOLDAR UNA V INVERTIDA ( MARCA DE COINCIDENCIA) DE 2" ( 50.8 MM) EN EL  $\phi$  DEL PLANO PARA ALINEAR CON EL  $\phi$  DE LA PLACA DE IDENTIFICACION/PLACA ID EN EL ENSAMBLAJE SUPERIOR ANTERIOR.



POLE CAP DETAIL

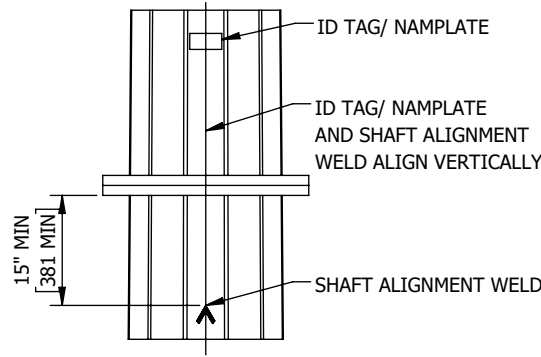


POLE CAP ANCHOR DETAIL

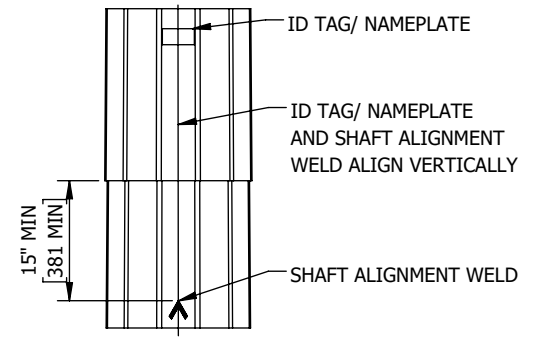


GALVANIZED GROUND SLEEVE VENT HOLES

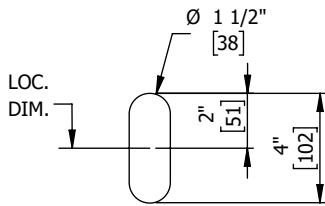
1 PER FLAT, LOCATE ON THE  $\phi$  OF THE FLAT, ALTERNATING SIDES



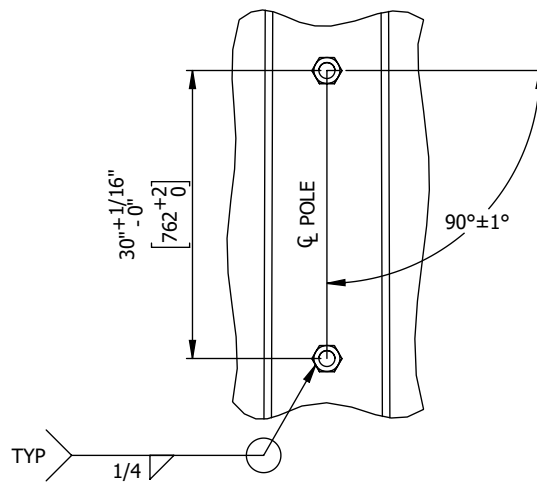
FLANGE ASSEMBLY ALIGNMENT



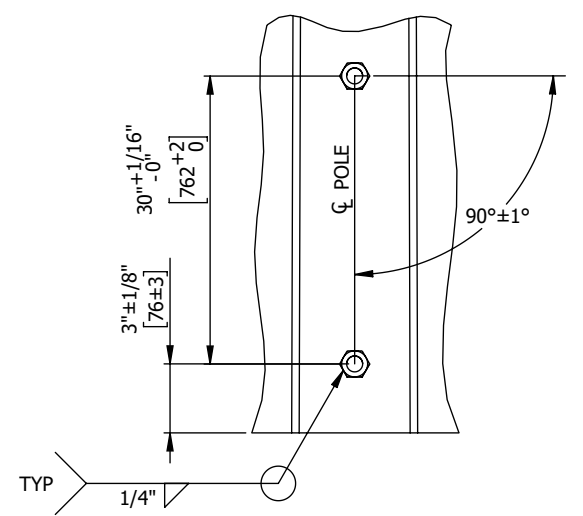
SLIP JOINT ASSEMBLY ALIGNMENT



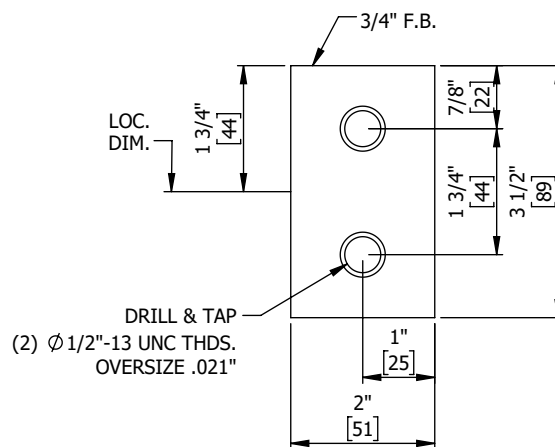
TOP LIFTING SLOT DETAIL



TOP JACKING NUT DETAIL 74547



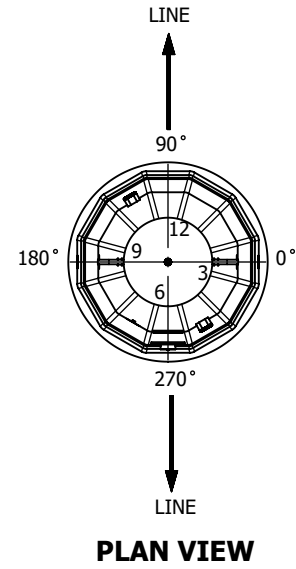
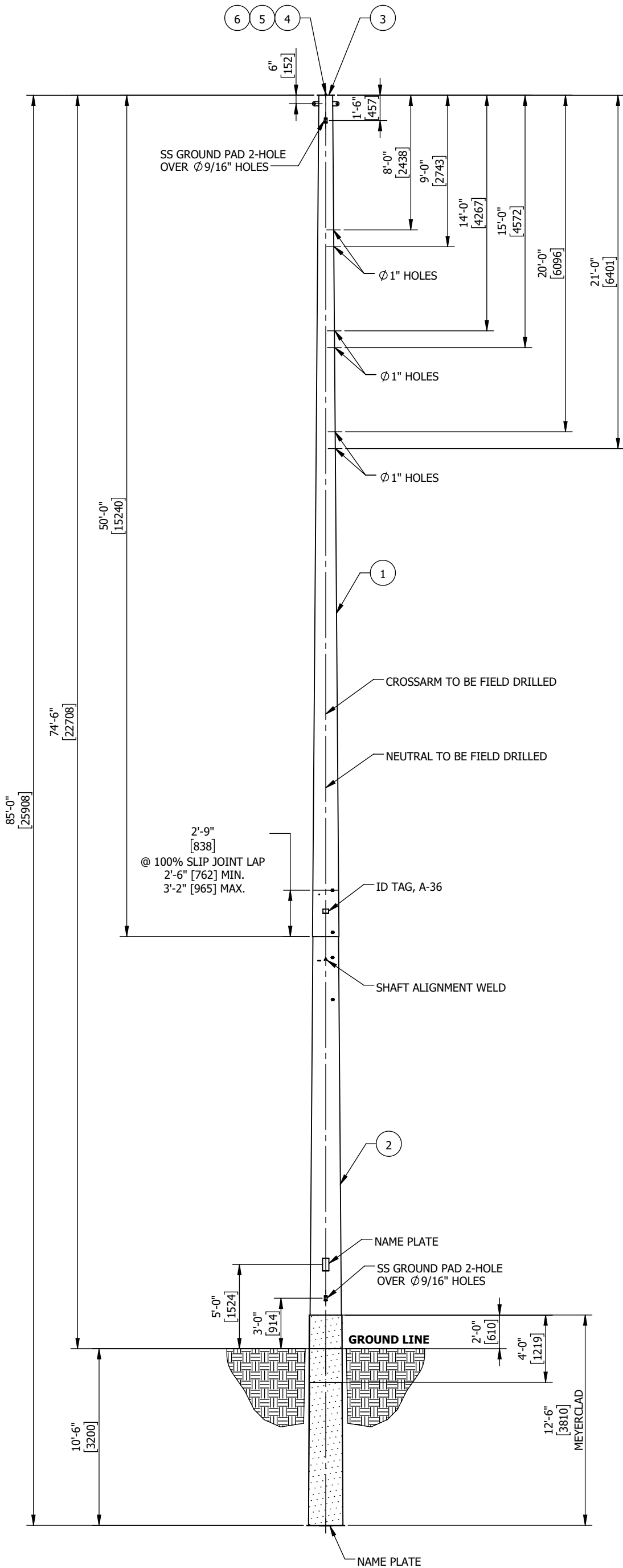
BOTTOM JACKING NUT DETAIL 74547



78412  
78430, 0.75 X 2.00  
STAINLESS STEEL TYPE 304  
1.41 LBS

A	INITIAL RELEASE	THO/05-31-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/31/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.		
<b>MEYER</b> UTILITY STRUCTURES		
SPECIAL NOTE		
SHEET 1 OF 1	42444-SPECNOTE	REV. <b>A</b>

STRUCTURE INFORMATION								
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0785S3FT	17.1	74'-6" [22708]	10 3/16" [259]	23 1/2" [597]	0.18700	9 27/32" [250]	22 11/16" [576]	0.18063

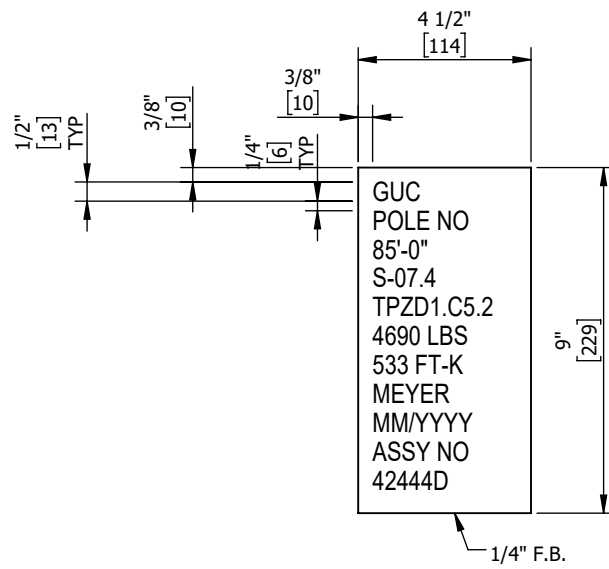


A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3 PHASE TANGENT POST TPZD1.C5.2 POLE NO: 17.1		
SHEET 1 OF 2	<b>42444-0785S3FT</b>	REV. <b>A</b>



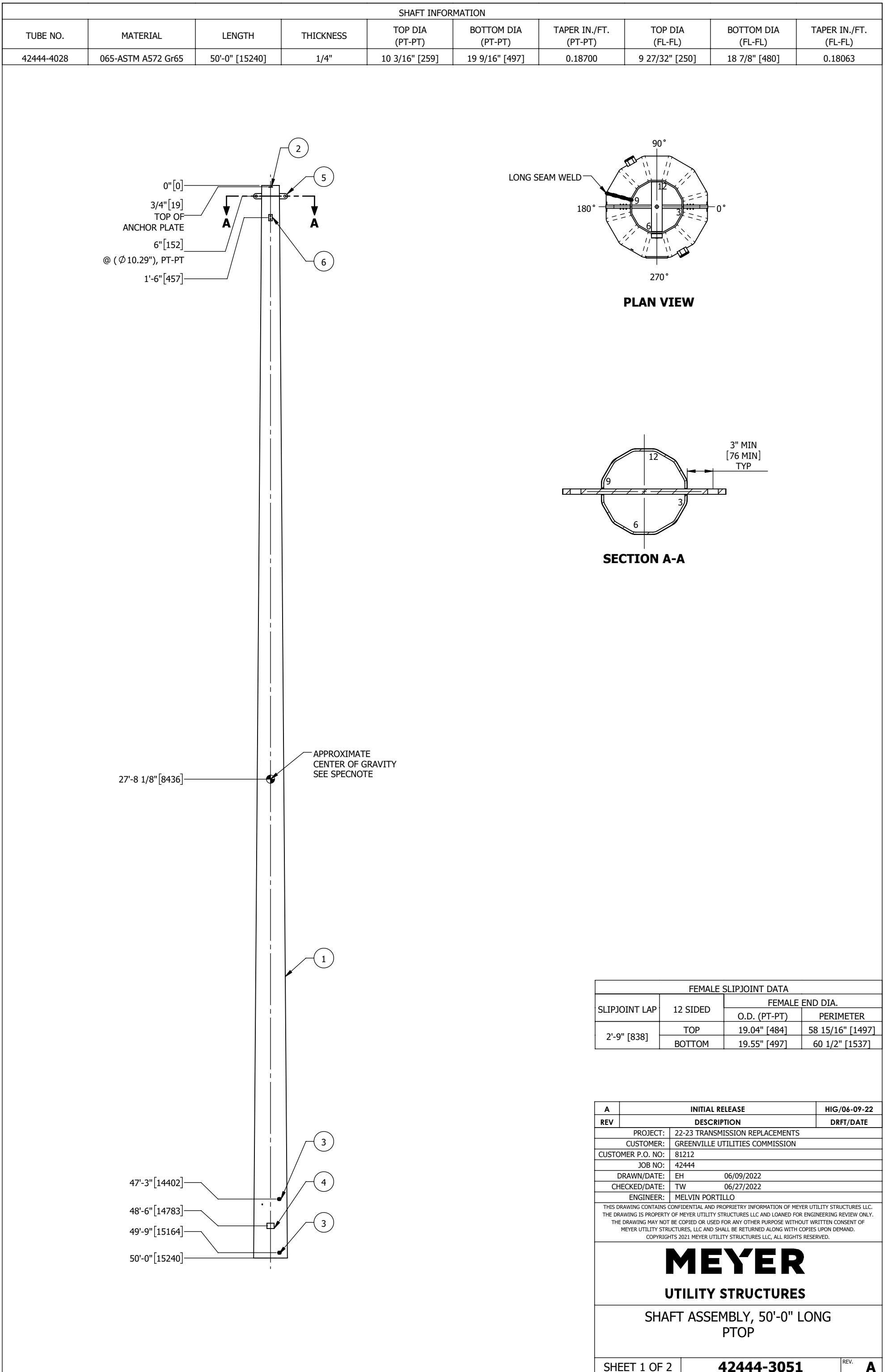
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3051	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2080.00	2080.00		
2	42444-3019	1	SHAFT ASSEMBLY, 37'-9" LONG	POLE-BASE 037.75 018.4 025.5 000		2600.00	2600.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>							<b>4690.00</b>		

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING



**NAME PLATE  
42444-1401**

A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
85'-0" 115KV 3 PHASE TANGENT POST TPZD1.C5.2 POLE NO: 17.1		
SHEET 2 OF 2	<b>42444-0785S3FT</b>	REV. <b>A</b>



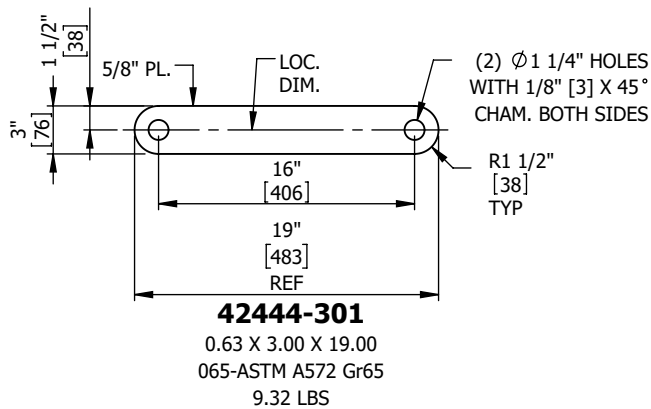
\*\*\*HIGGINU-6/28/2022-7:56:53 AM\*\*\*

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1950.16	
TOTAL UNFINISHED WEIGHT							1960.00	
TOTAL FINISHED WEIGHT							2080.00	

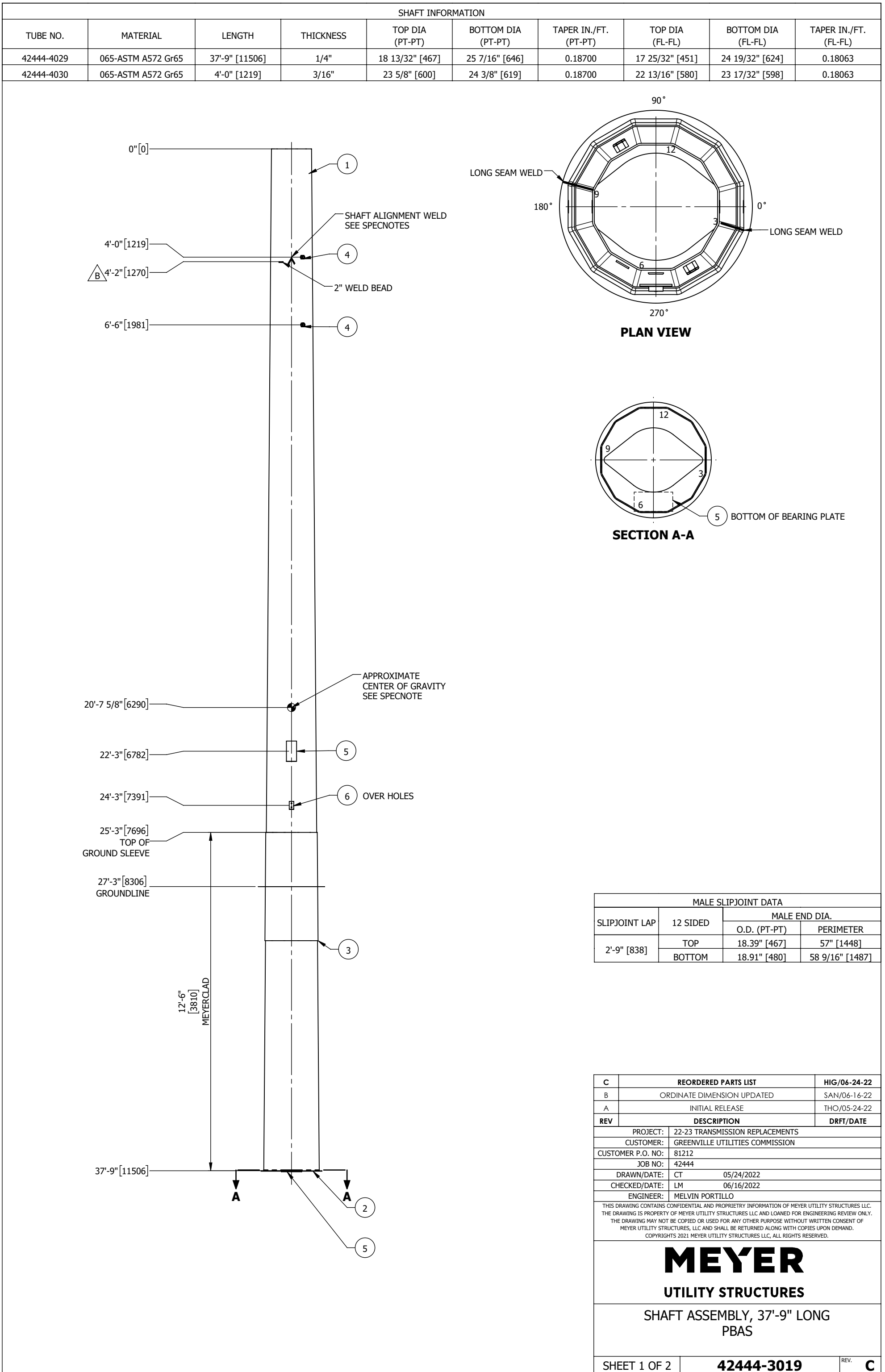
WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]													0 DEG ON FLAT 2-3			
2	6" [152]													THROUGH VANG / SECTION A-A	5	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	27'-8 1/8" [8436]													APPROX. CENTER OF GRAVITY WELD		-	1
5	47'-3" [14402]						1						1	JACKING NUT, 1" DIA.	3	74547	2
6	47'-3" [14402]													BOTTOM SLIP JOINT LENGTH 33"		-	1
7	48'-6" [14783]						1							ID TAG, A-36	4	78413	1
8	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	49'-9" [15164]						1						1	JACKING NUT, 1" DIA.	3	74547	2
10	50'-0" [15240]													TOWER PLATE TUBE	1	42444-4028	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	47'-6" [14478]								1					1/2"	SJ INSPECTION HOLE



A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2		<b>42444-3051</b>
		REV. <b>A</b>



SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4029	065-ASTM A572 Gr65	37'-9" [11506]	1/4"	18 13/32" [467]	25 7/16" [646]	0.18700	17 25/32" [451]	24 19/32" [624]	0.18063
42444-4030	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	23 5/8" [600]	24 3/8" [619]	0.18700	22 13/16" [580]	23 17/32" [598]	0.18063

MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	18.39" [467]	57" [1448]
	BOTTOM	18.91" [480]	58 9/16" [1487]

C	REORDERED PARTS LIST	HIG/06-24-22
B	ORDINATE DIMENSION UPDATED	SAN/06-16-22
A	INITIAL RELEASE	THO/05-24-22
REV	DESCRIPTION	DRFT/DATE

PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	CT	05/24/2022
CHECKED/DATE:	LM	06/16/2022
ENGINEER:	MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 37'-9" LONG  
PBAS

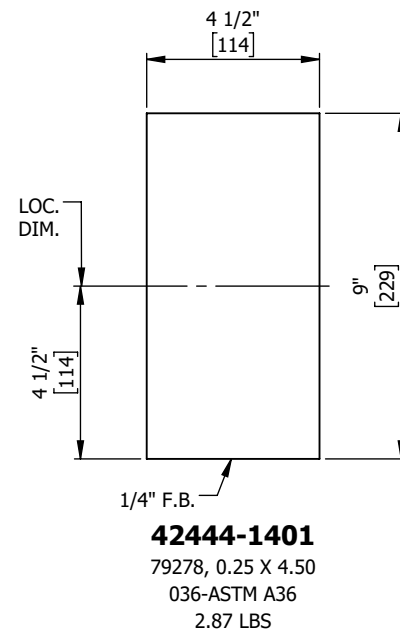
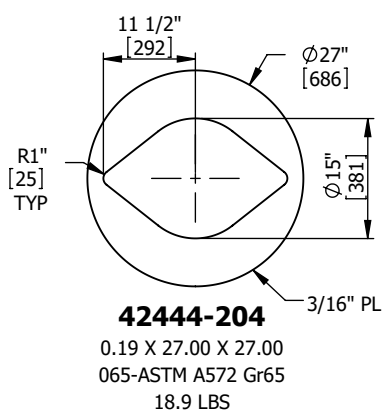
SHEET 1 OF 2	<b>42444-3019</b>	REV. <b>C</b>
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PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4029	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 453.00 X 39.13	065-ASTM A572 Gr65	2216.12	2216.12	
2	42444-204	1	BEARING PLATE, 3/16" THK X 27" DIA	0.19 X 27.00 X 27.00	065-ASTM A572 Gr65	18.9	18.90	
3	42444-4030	1	GROUND SLEEVE	(2) 0.19 X 36.44 X 48.00 X 37.56	065-ASTM A572 Gr65	188.4	188.40	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADBR	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2432.29	
TOTAL UNFINISHED WEIGHT							2440.00	
TOTAL FINISHED WEIGHT							2600.00	

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	4'-0" [1219]					1						1		JACKING NUT, 1" DIA.	4	74547	2
4	4'-0" [1219]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-2" [1270]							1						2" WELD BEAD		-	1
6	6'-6" [1981]					1						1		JACKING NUT, 1" DIA.	4	74547	2
7	20'-7 5/8" [6290]													APPROX. CENTER OF GRAVITY WELD		-	1
8	22'-3" [6782]						1							NAME PLATE	5	42444-1401	1
9	24'-3" [7391]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	25'-3" [7696]													TOP OF GROUND SLEEVE	3	42444-4030	1
11	27'-3" [8306]													GROUND LINE		-	-
12	37'-3" [11354]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	37'-9" [11506]													TOWER PLATE TUBE	1	42444-4029	1
14	37'-9" [11506]													BEARING PLATE, 3/16" THK X 27" DIA / SECTION A-A	2	42444-204	1
15	37'-9 3/16" [11511]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	24'-2 1/8" [7369]						1							9/16"	HOLE UNDER GRND PAD
2	24'-3 7/8" [7414]						1							9/16"	HOLE UNDER GRND PAD



REV	DESCRIPTION	DRFT/DATE
C	REORDERED PARTS LIST	HIG/06-24-22
B	ORDINATE DIMENSION UPDATED	SAN/06-16-22
A	INITIAL RELEASE	THO/05-24-22

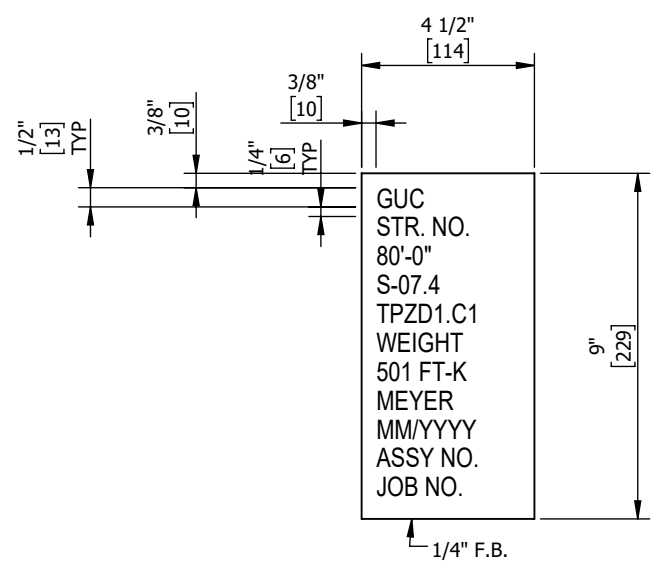
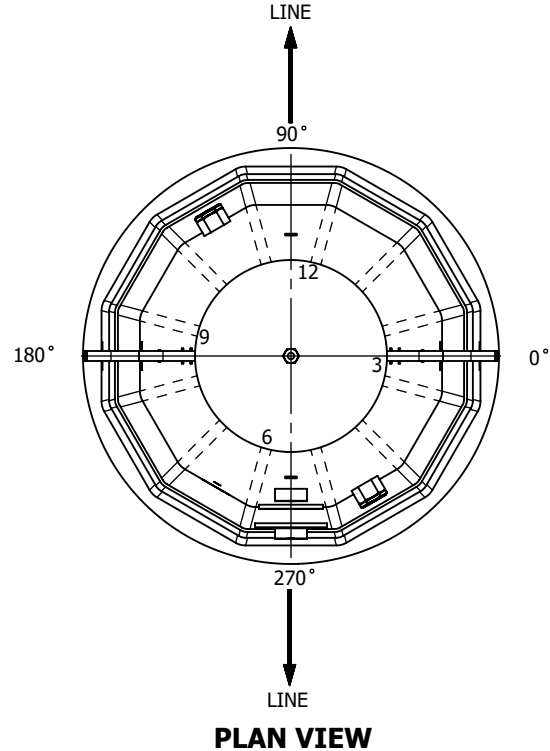
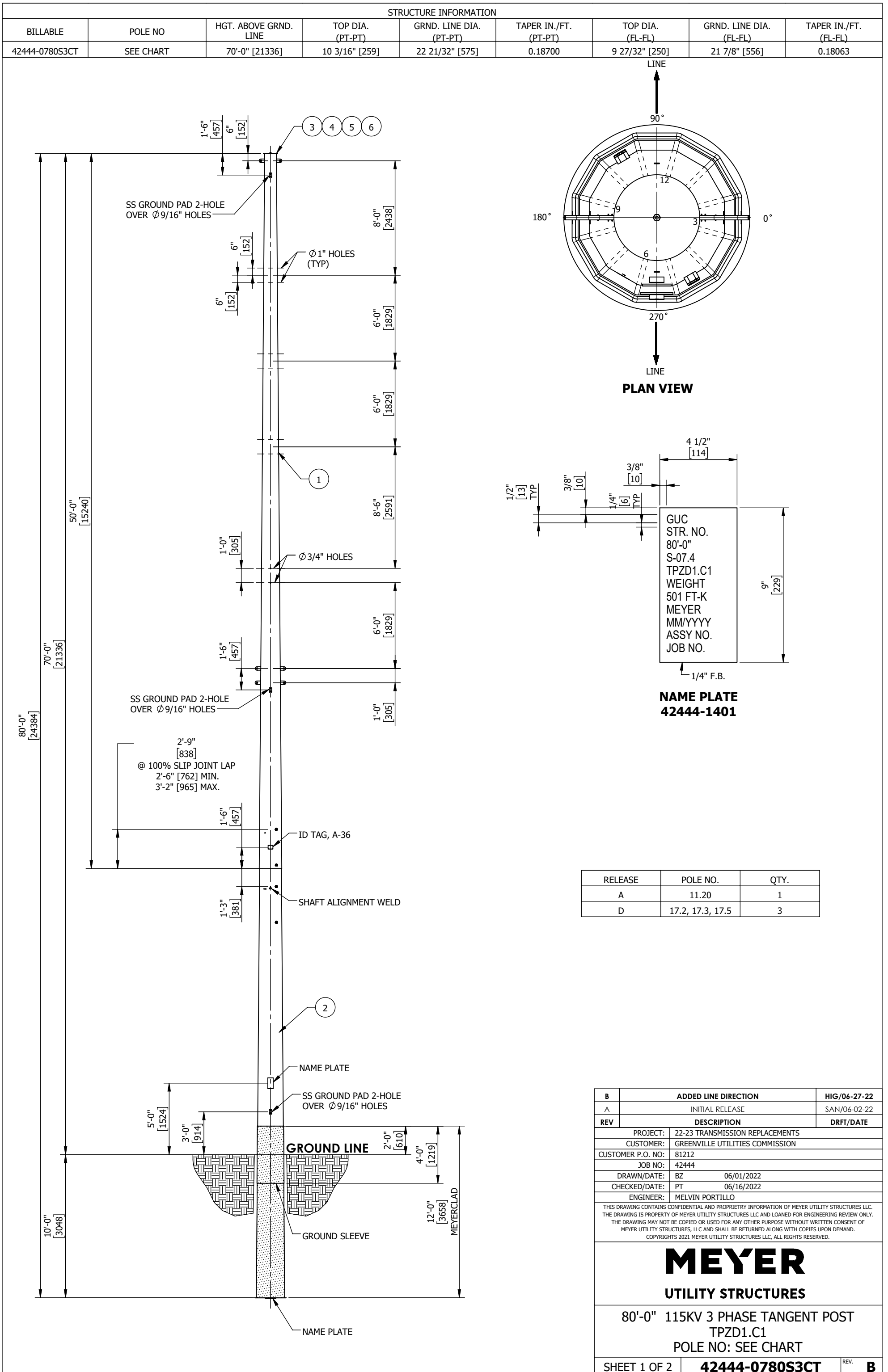
PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO.:	81212
JOB NO.:	42444
DRAWN/DATE:	CT 05/24/2022
CHECKED/DATE:	LM 06/16/2022
ENGINEER:	MELVIN PORTILLO

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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 37'-9" LONG  
PBAS

SHEET 2 OF 2	<b>42444-3019</b>	REV. <b>C</b>
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RELEASE	POLE NO.	QTY.
A	11.20	1
D	17.2, 17.3, 17.5	3

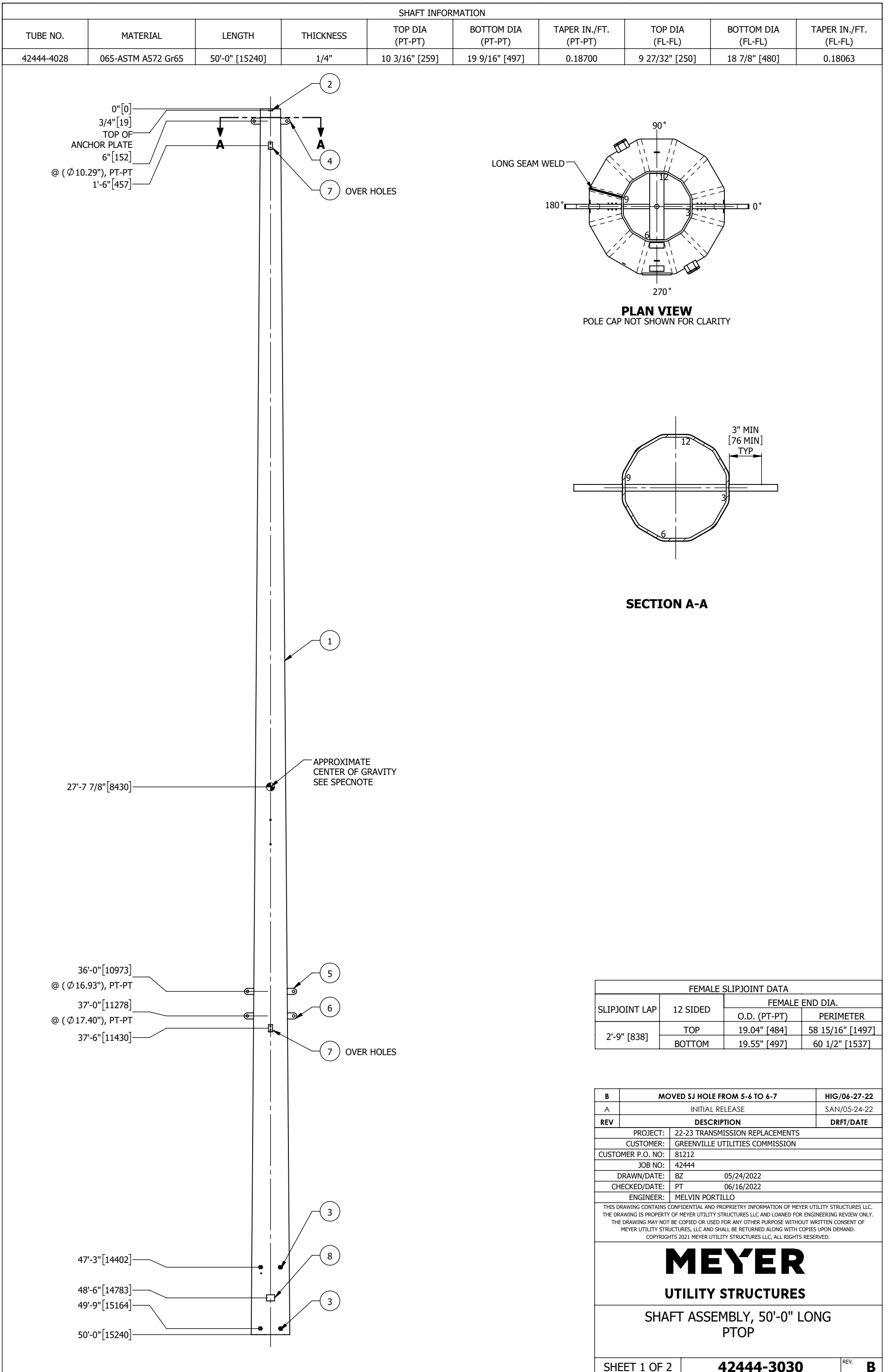
B	ADDED LINE DIRECTION	HIG/06-27-22
A	INITIAL RELEASE	SAN/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
80'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 POLE NO: SEE CHART		
SHEET 1 OF 2	42444-0780S3CT	REV. B

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-3030	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2110.00	2110.00	
2	42444-3022	1	SHAFT ASSEMBLY, 32'-9" LONG	POLE-BASE 032.75 018.4 024.5 000		2220.00	2220.00	
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00	
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>							<b>4340.00</b>	

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

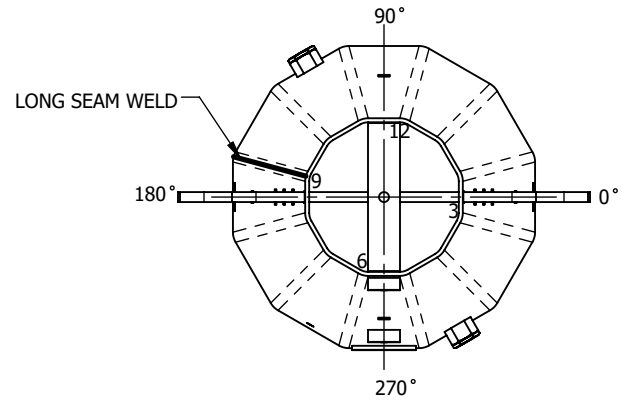
<b>B</b>	<b>ADDED LINE DIRECTION</b>	<b>HIG/06-27-22</b>
<b>A</b>	INITIAL RELEASE	SAN/06-02-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
80'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 POLE NO: SEE CHART		
SHEET 2 OF 2	<b>42444-0780S3CT</b>	REV. <b>B</b>

\*\*\*HIGGINU-6/28/2022--7:57:08 AM\*\*\*

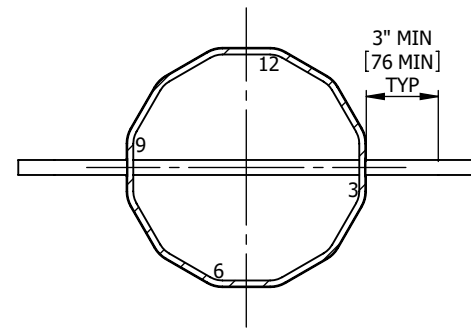


SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



**PLAN VIEW**  
POLE CAP NOT SHOWN FOR CLARITY



**SECTION A-A**

FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

<b>B</b>	<b>MOVED SJ HOLE FROM 5-6 TO 6-7</b>	<b>HIG/06-27-22</b>
<b>A</b>	INITIAL RELEASE	SAN/05-24-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/24/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

SHEET 1 OF 2	<b>42444-3030</b>	REV. <b>B</b>
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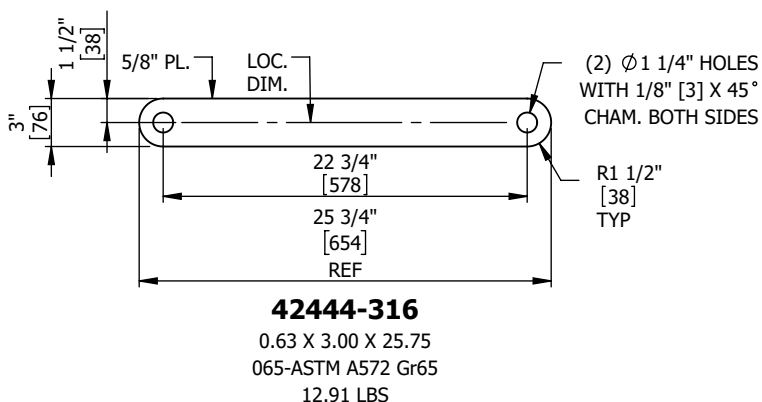
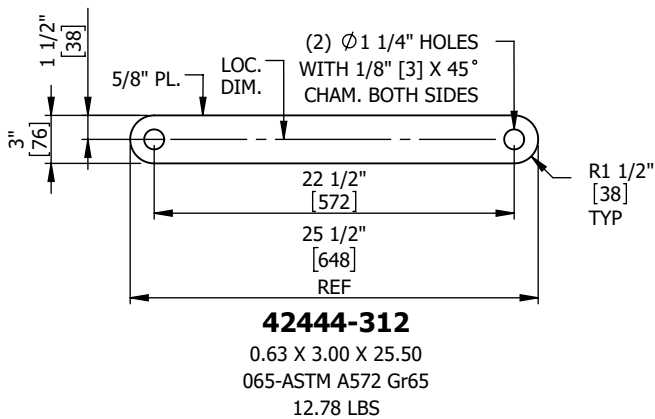
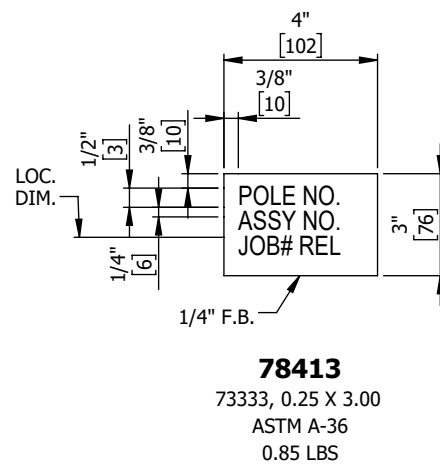
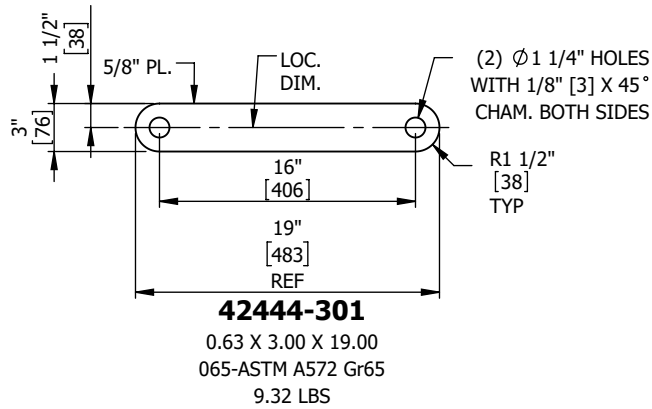


PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
5	42444-312	1	THROUGH VANG	0.63 X 3.00 X 25.50	065-ASTM A572 Gr65	12.78	12.78	
6	42444-316	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
7	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
8	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1977.26	
TOTAL UNFINISHED WEIGHT							1980.00	
TOTAL FINISHED WEIGHT							2110.00	

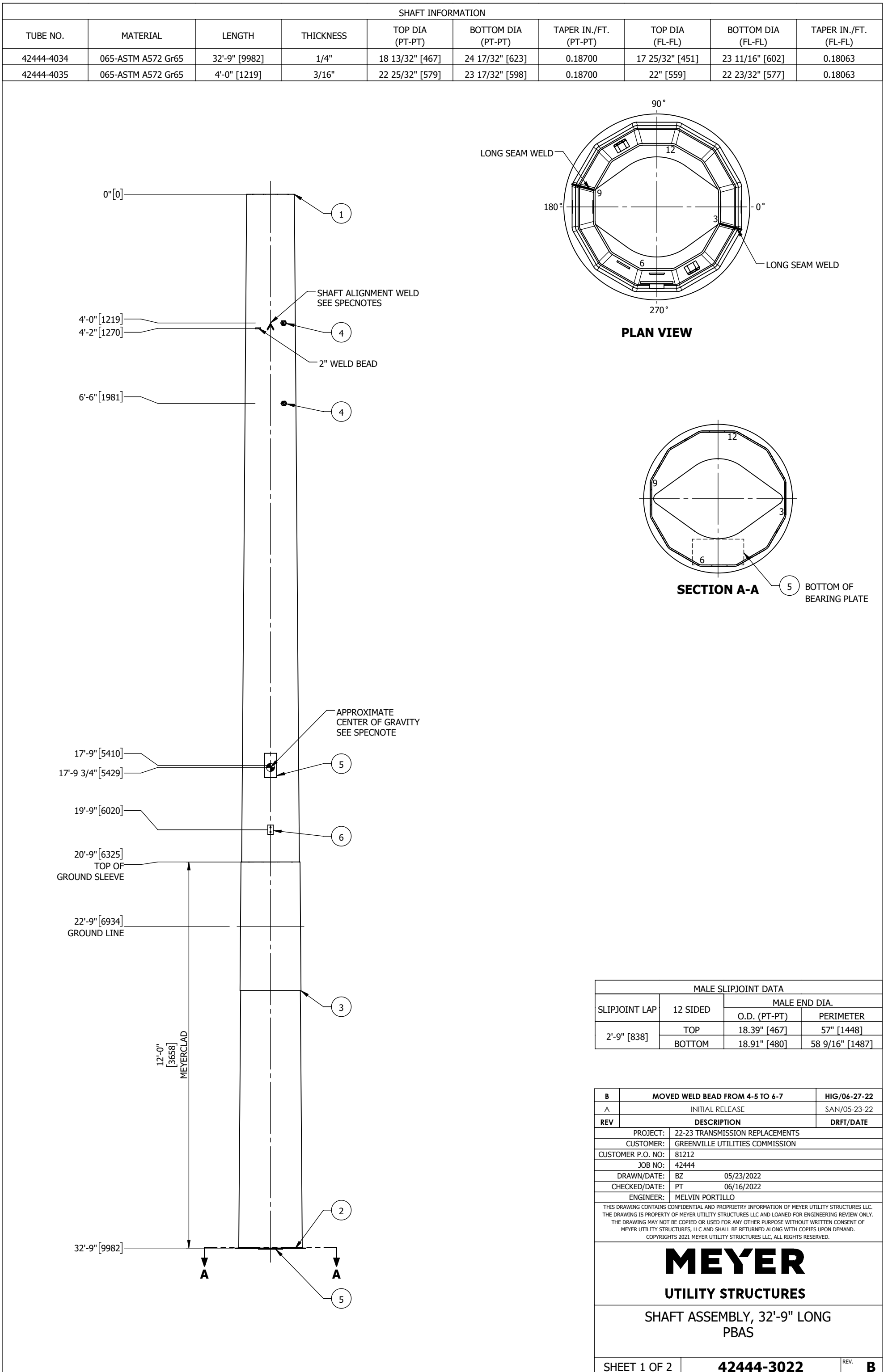
WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]			0 DEG ON FLAT 2-3										THROUGH VANG / SECTION A-A	4	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	7	78412	1
4	27'-7 7/8" [8430]													APPROX. CENTER OF GRAVITY WELD		-	1
5	36'-0" [10973]			0 DEG ON FLAT 2-3										THROUGH VANG / SECTION A-A	5	42444-312	1
6	37'-0" [11278]			0 DEG ON FLAT 2-3										THROUGH VANG / SECTION A-A	6	42444-316	1
7	37'-6" [11430]						1							SS GROUND PAD 2-HOLE	7	78412	1
8	47'-3" [14402]					1						1		JACKING NUT, 1" DIA.	3	74547	2
9	47'-3" [14402]													BOTTOM SLIP JOINT LENGTH 33"		-	1
10	48'-6" [14783]						1							ID TAG, A-36	8	78413	1
11	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	49'-9" [15164]					1						1		JACKING NUT, 1" DIA.	3	74547	2
13	50'-0" [15240]													TOWER PLATE TUBE	1	42444-4028	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	POST INSULATOR
10	30'-0" [9144]						1					1		3/4"	POST INSULATOR
11	37'-5 1/8" [11408]						1							9/16"	HOLE UNDER GRND PAD
12	37'-6 7/8" [11452]						1							9/16"	HOLE UNDER GRND PAD
13	47'-6" [14478]							1						1/2"	SJ INSPECTION HOLE



B	MOVED SJ HOLE FROM 5-6 TO 6-7	HIG/06-27-22
A	INITIAL RELEASE	SAN/05-24-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 05/24/2022	
	CHECKED/DATE: PT 06/16/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b>		
UTILITY STRUCTURES		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3030</b>	REV. <b>B</b>

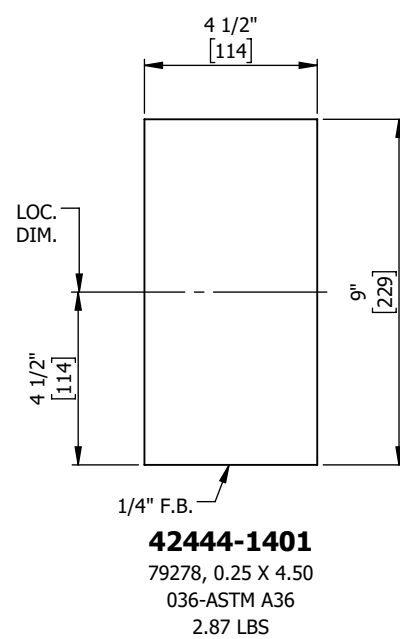
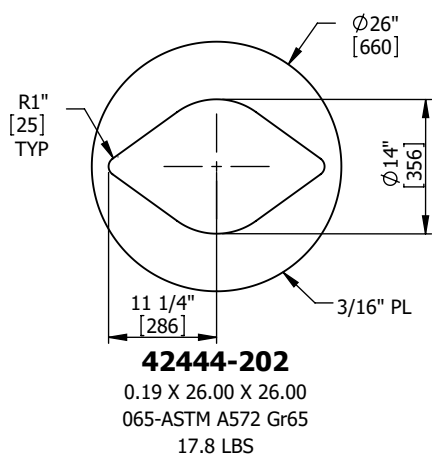


PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4034	1	TOWER PLATE TUBE	(2) 0.25 X 28.13 X 393.00 X 37.69	065-ASTM A572 Gr65	1866.87	1866.87	
2	42444-202	1	BEARING PLATE, 3/16" THK X 26" DIA	0.19 X 26.00 X 26.00	065-ASTM A572 Gr65	17.8	17.80	
3	42444-4035	1	GROUND SLEEVE	(2) 0.19 X 35.13 X 48.00 X 36.31	065-ASTM A572 Gr65	181.73	181.73	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT							2075.27	
TOTAL UNFINISHED WEIGHT							2080.00	
TOTAL FINISHED WEIGHT							2220.00	

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

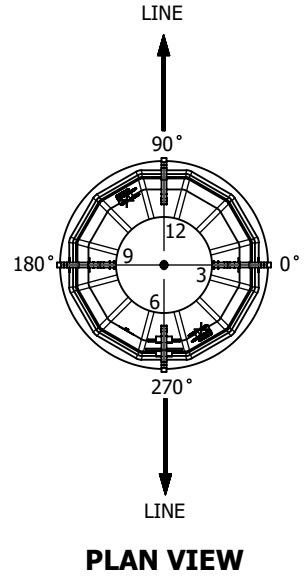
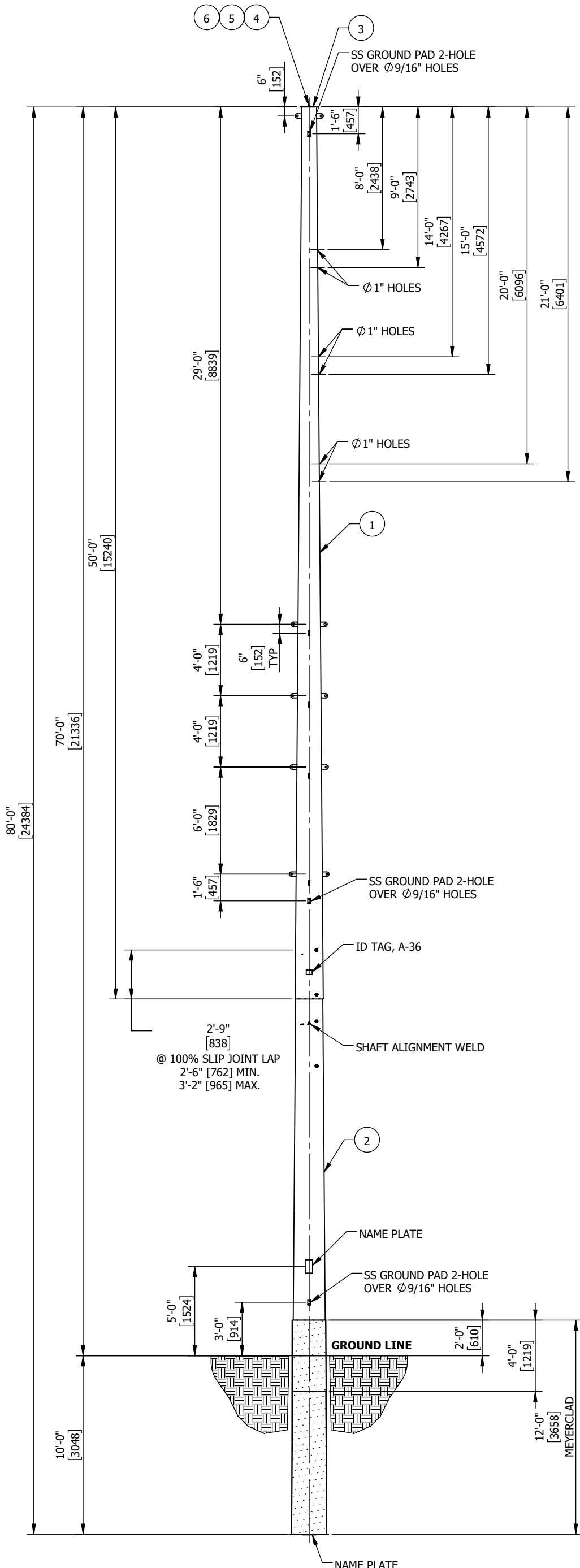
HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-9" [838]													TOP SLIP JOINT LENGTH 33"		-	1
3	4'-0" [1219]					1						1		JACKING NUT, 1" DIA.	4	74547	2
4	4'-0" [1219]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-2" [1270]							1						2" WELD BEAD		-	1
6	6'-6" [1981]					1						1		JACKING NUT, 1" DIA.	4	74547	2
7	17'-9" [5410]						1							NAME PLATE	5	42444-1401	1
8	17'-9 3/4" [5429]													APPROX. CENTER OF GRAVITY WELD		-	1
9	19'-9" [6020]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	20'-9" [6325]													TOP OF GROUND SLEEVE	3	42444-4035	1
11	22'-9" [6934]													GROUND LINE		-	-
12	32'-3" [9830]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	32'-9" [9982]													TOWER PLATE TUBE	1	42444-4034	1
14	32'-9" [9982]													BEARING PLATE, 3/16" THK X 26" DIA / SECTION A-A	2	42444-202	1
15	32'-9 7/16" [9993]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	19'-8 1/8" [5998]						1							9/16"	HOLE UNDER GRND PAD
2	19'-9 7/8" [6042]						1							9/16"	HOLE UNDER GRND PAD



B	MOVED WELD BEAD FROM 4-5 TO 6-7	HIG/06-27-22
A	INITIAL RELEASE	SAN/05-23-22
REV	DESCRIPTION	DRFT/DATE
PROJECT: 22-23 TRANSMISSION REPLACEMENTS		
CUSTOMER: GREENVILLE UTILITIES COMMISSION		
CUSTOMER P.O. NO: 81212		
JOB NO: 42444		
DRAWN/DATE: BZ 05/23/2022		
CHECKED/DATE: PT 06/16/2022		
ENGINEER: MELVIN PORTILLO		
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<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 32'-9" LONG PBAS		
SHEET 2 OF 2	<b>42444-3022</b>	REV. <b>B</b>

STRUCTURE INFORMATION								
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0780S3DT	17.4	70'-0" [21336]	10 3/16" [259]	22 21/32" [575]	0.18700	9 27/32" [250]	21 7/8" [556]	0.18063

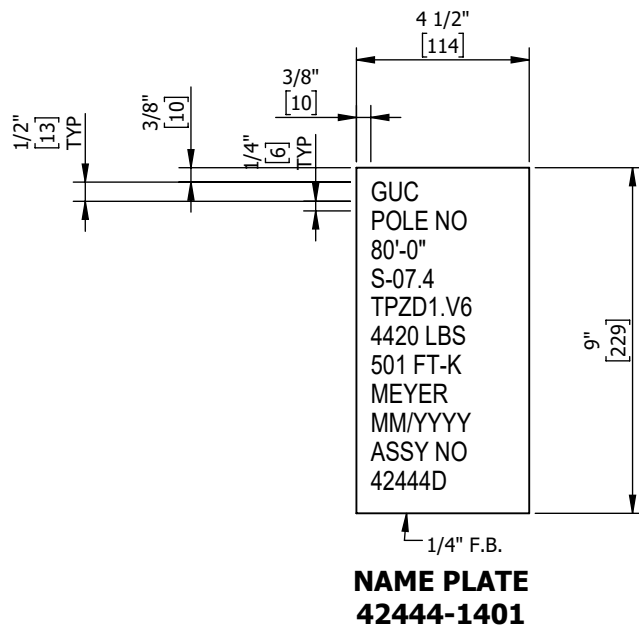


A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
80'-0" 115KV 3 PHASE TANGENT POST TPZD1.V6 POLE NO: 17.4		
SHEET 1 OF 2	<b>42444-0780S3DT</b>	REV. <b>A</b>

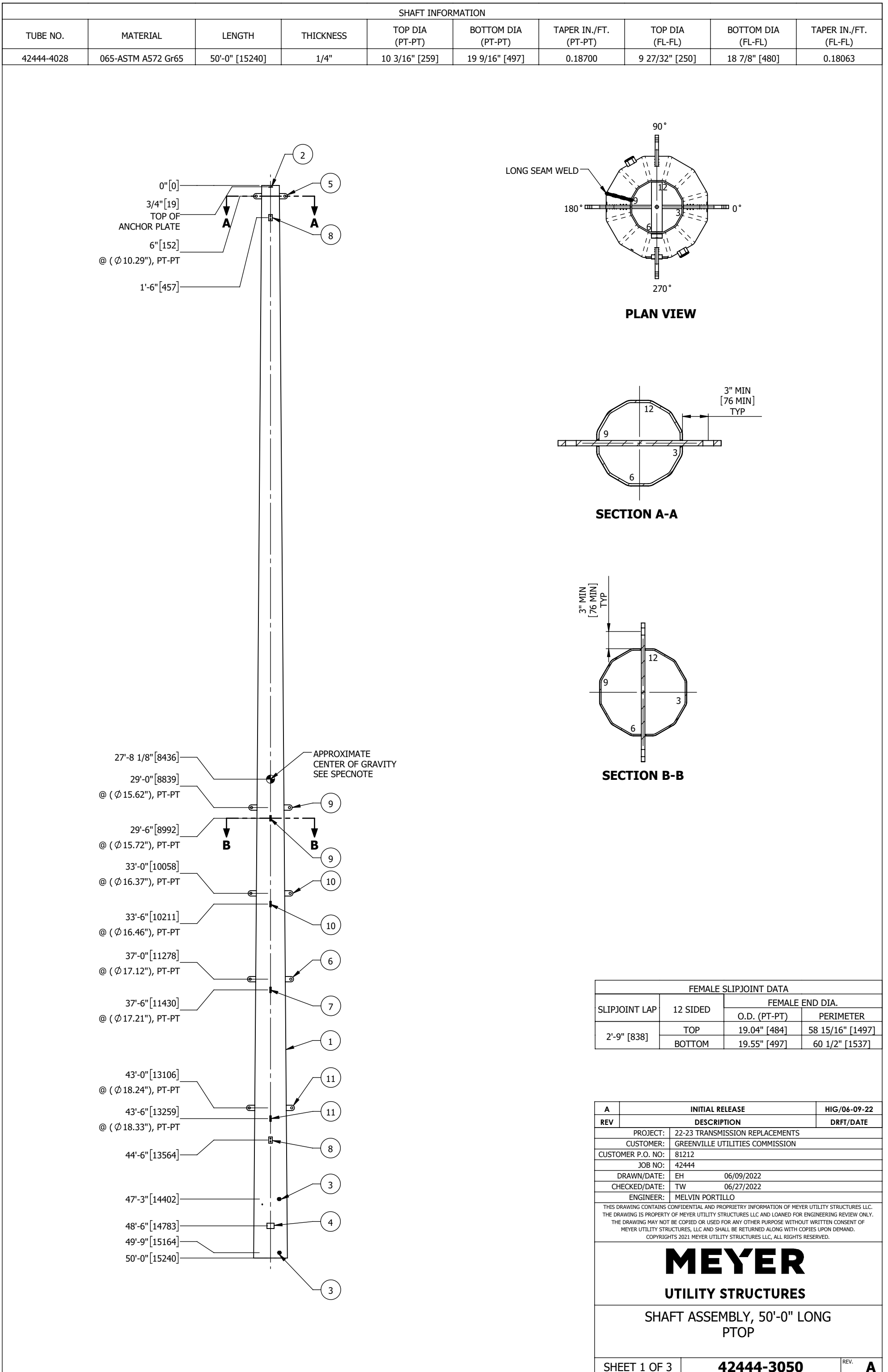
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PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3050	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 000		2190.00	2190.00		
2	42444-3022	1	SHAFT ASSEMBLY, 32'-9" LONG	POLE-BASE 032.75 018.4 024.5 000		2220.00	2220.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
							<b>TOTAL STRUCTURE FINISHED WEIGHT</b>		<b>4420.00</b>

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

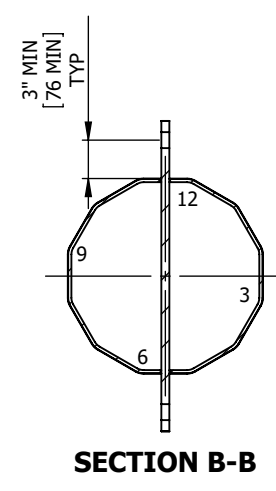
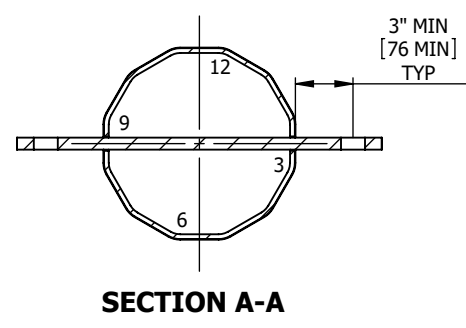
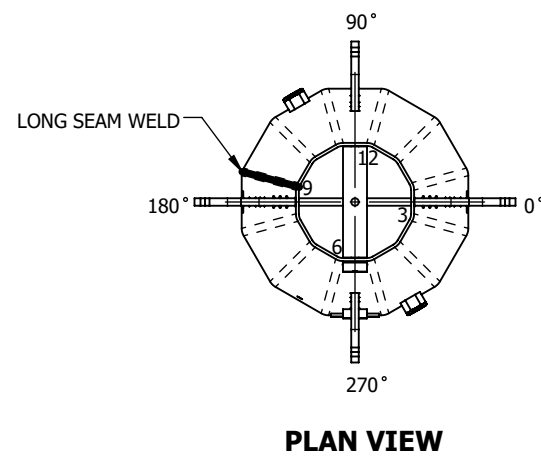


A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
80'-0" 115KV 3 PHASE TANGENT POST TPZD1.V6 POLE NO: 17.4		
SHEET 2 OF 2	<b>42444-0780S3DT</b>	REV. <b>A</b>



SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4028	065-ASTM A572 Gr65	50'-0" [15240]	1/4"	10 3/16" [259]	19 9/16" [497]	0.18700	9 27/32" [250]	18 7/8" [480]	0.18063



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-9" [838]	TOP	19.04" [484]	58 15/16" [1497]
	BOTTOM	19.55" [497]	60 1/2" [1537]

A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
PTOP

SHEET 1 OF 3      **42444-3050**      REV. **A**

\*\*\*HIGGINU-6/28/2022--7:57:47 AM\*\*\*

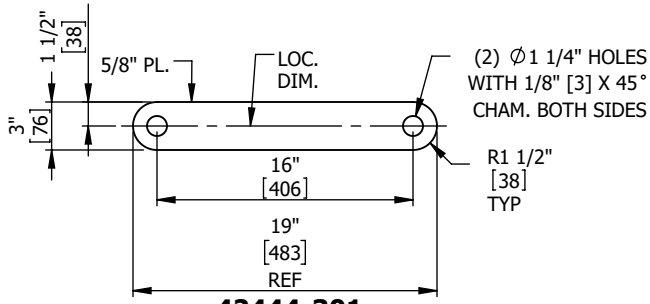
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4028	1	TOWER PLATE TUBE	0.25 X 30.88 X 600.00 X 59.94	065-ASTM A572 Gr65	1935.57	1935.57	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	42444-306	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
7	42444-316	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
8	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
9	42444-336	2	THROUGH VANG	0.63 X 3.00 X 24.25	065-ASTM A572 Gr65	12.12	24.24	
10	42444-337	2	THROUGH VANG	0.63 X 3.00 X 25.00	065-ASTM A572 Gr65	12.51	25.02	
11	42444-302	2	THROUGH VANG	0.63 X 3.00 X 26.75	065-ASTM A572 Gr65	13.45	26.90	
TOTAL MODEL WEIGHT							2053.55	
TOTAL UNFINISHED WEIGHT							2060.00	
TOTAL FINISHED WEIGHT							2190.00	

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]													0 DEG ON FLAT 2-3 THROUGH VANG / SECTION A-A	5	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	8	78412	1
4	27'-8 1/8" [8436]													APPROX. CENTER OF GRAVITY WELD		-	1
5	29'-0" [8839]													0 DEG ON FLAT 2-3 THROUGH VANG / SECTION A-A	9	42444-336	1
6	29'-6" [8992]													90 DEG ON FLAT 11-12 THROUGH VANG / SECTION B-B	9	42444-336	1
7	33'-0" [10058]													0 DEG ON FLAT 2-3 THROUGH VANG / SECTION A-A	10	42444-337	1
8	33'-6" [10211]													90 DEG ON FLAT 11-12 THROUGH VANG / SECTION B-B	10	42444-337	1
9	37'-0" [11278]													0 DEG ON FLAT 2-3 THROUGH VANG / SECTION A-A	6	42444-306	1
10	37'-6" [11430]													90 DEG ON FLAT 11-12 THROUGH VANG / SECTION B-B	7	42444-316	1
11	43'-0" [13106]													0 DEG ON FLAT 2-3 THROUGH VANG / SECTION A-A	11	42444-302	1
12	43'-6" [13259]													90 DEG ON FLAT 11-12 THROUGH VANG / SECTION B-B	11	42444-302	1
13	44'-6" [13564]						1							SS GROUND PAD 2-HOLE	8	78412	1
14	47'-3" [14402]					1						1		JACKING NUT, 1" DIA.	3	74547	2
15	47'-3" [14402]													BOTTOM SLIP JOINT LENGTH 33"		-	1
16	48'-6" [14783]						1							ID TAG, A-36	4	78413	1
17	48'-8 1/2" [14846]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
18	49'-9" [15164]					1						1		JACKING NUT, 1" DIA.	3	74547	2
19	50'-0" [15240]													TOWER PLATE TUBE	1	42444-4028	1

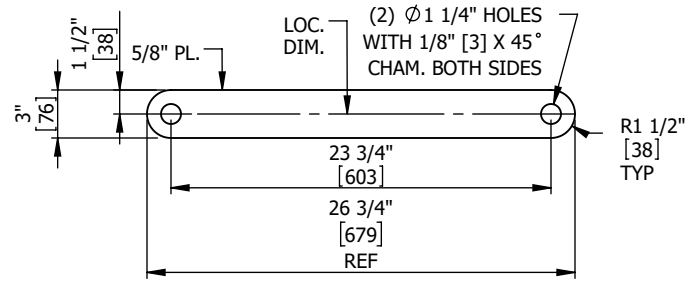
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	44'-5 1/8" [13541]						1							9/16"	HOLE UNDER GRND PAD
10	44'-6 7/8" [13586]						1							9/16"	HOLE UNDER GRND PAD
11	47'-6" [14478]									1				1/2"	SJ INSPECTION HOLE

A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 3		<b>42444-3050</b>
		REV. <b>A</b>



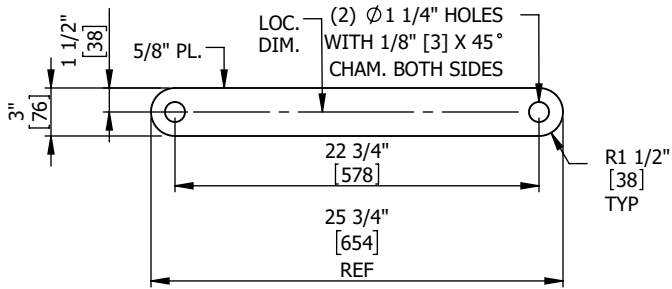
**42444-301**

0.63 X 3.00 X 19.00  
065-ASTM A572 Gr65  
9.32 LBS



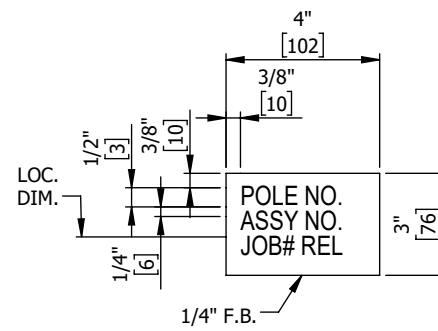
**42444-302**

0.63 X 3.00 X 26.75  
065-ASTM A572 Gr65  
13.45 LBS



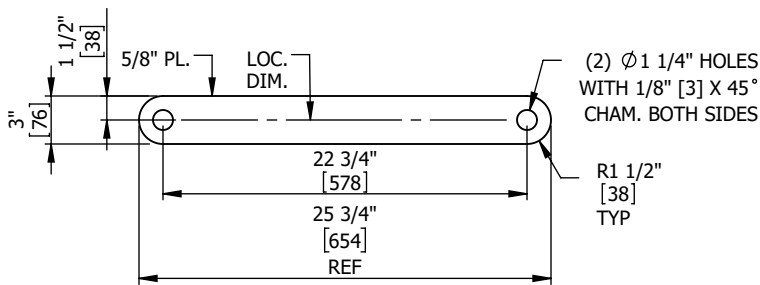
**42444-306**

0.63 X 3.00 X 25.75  
065-ASTM A572 Gr65  
12.91 LBS



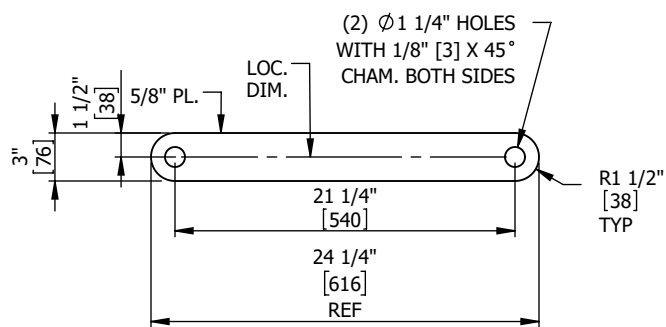
**78413**

73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS



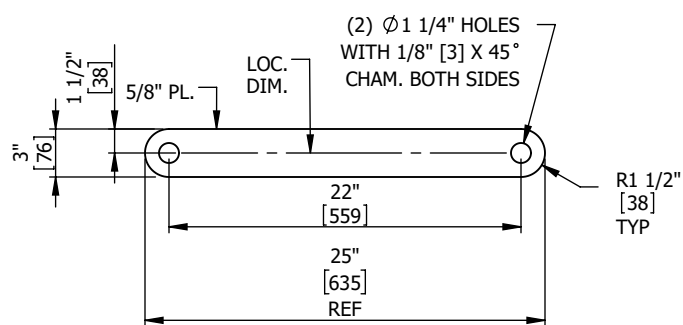
**42444-316**

0.63 X 3.00 X 25.75  
065-ASTM A572 Gr65  
12.91 LBS



**42444-336**

0.63 X 3.00 X 24.25  
065-ASTM A572 Gr65  
12.12 LBS

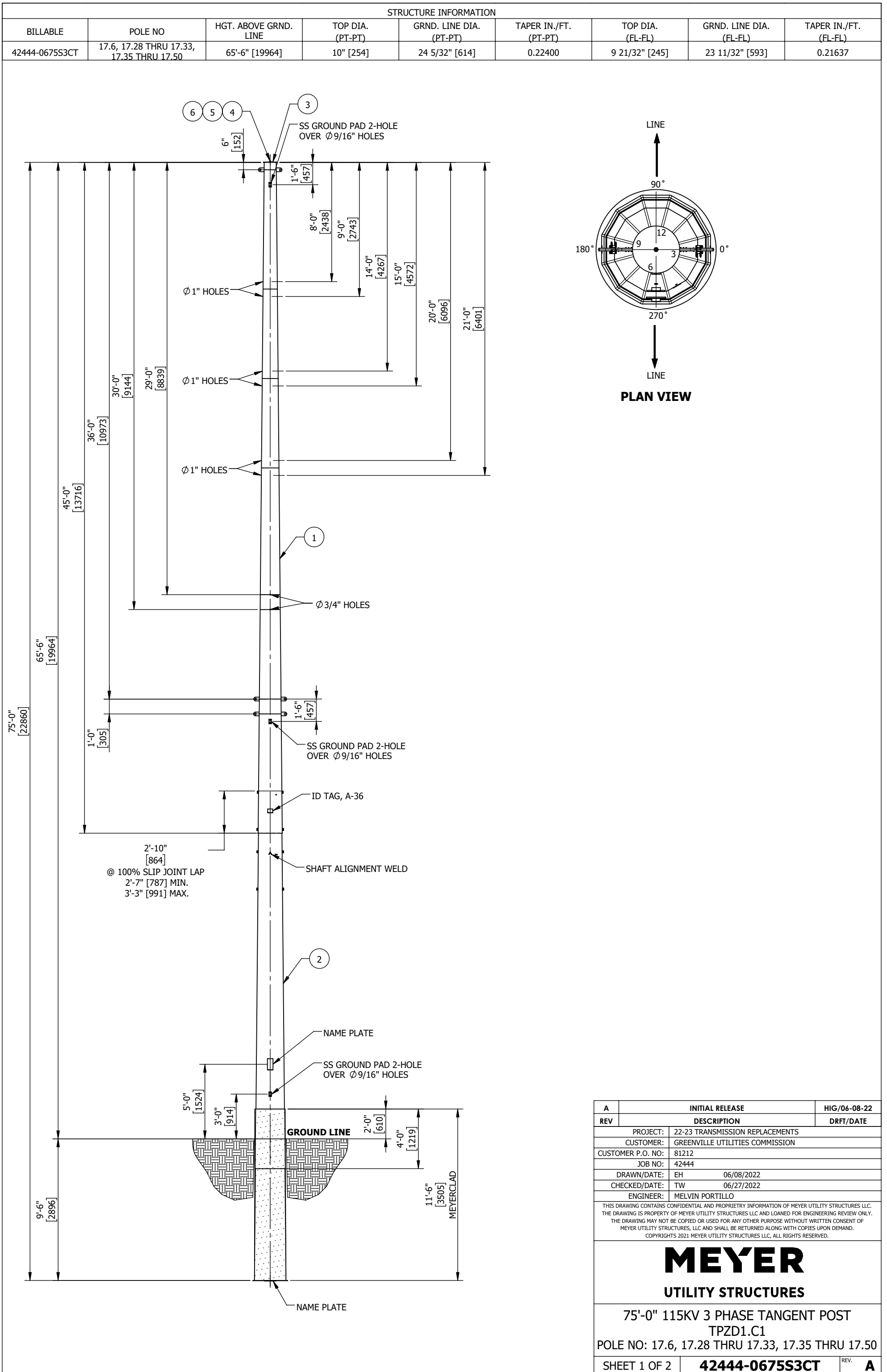


**42444-337**

0.63 X 3.00 X 25.00  
065-ASTM A572 Gr65  
12.51 LBS

A	INITIAL RELEASE	HIG/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/09/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3050</b>	REV. <b>A</b>





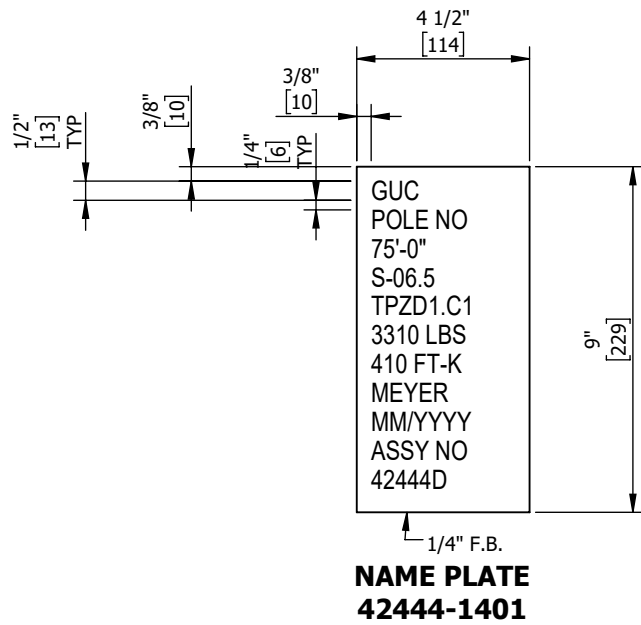
STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0675S3CT	17.6, 17.28 THRU 17.33, 17.35 THRU 17.50	65'-6" [19964]	10" [254]	24 5/32" [614]	0.22400	9 21/32" [245]	23 11/32" [593]	0.21637

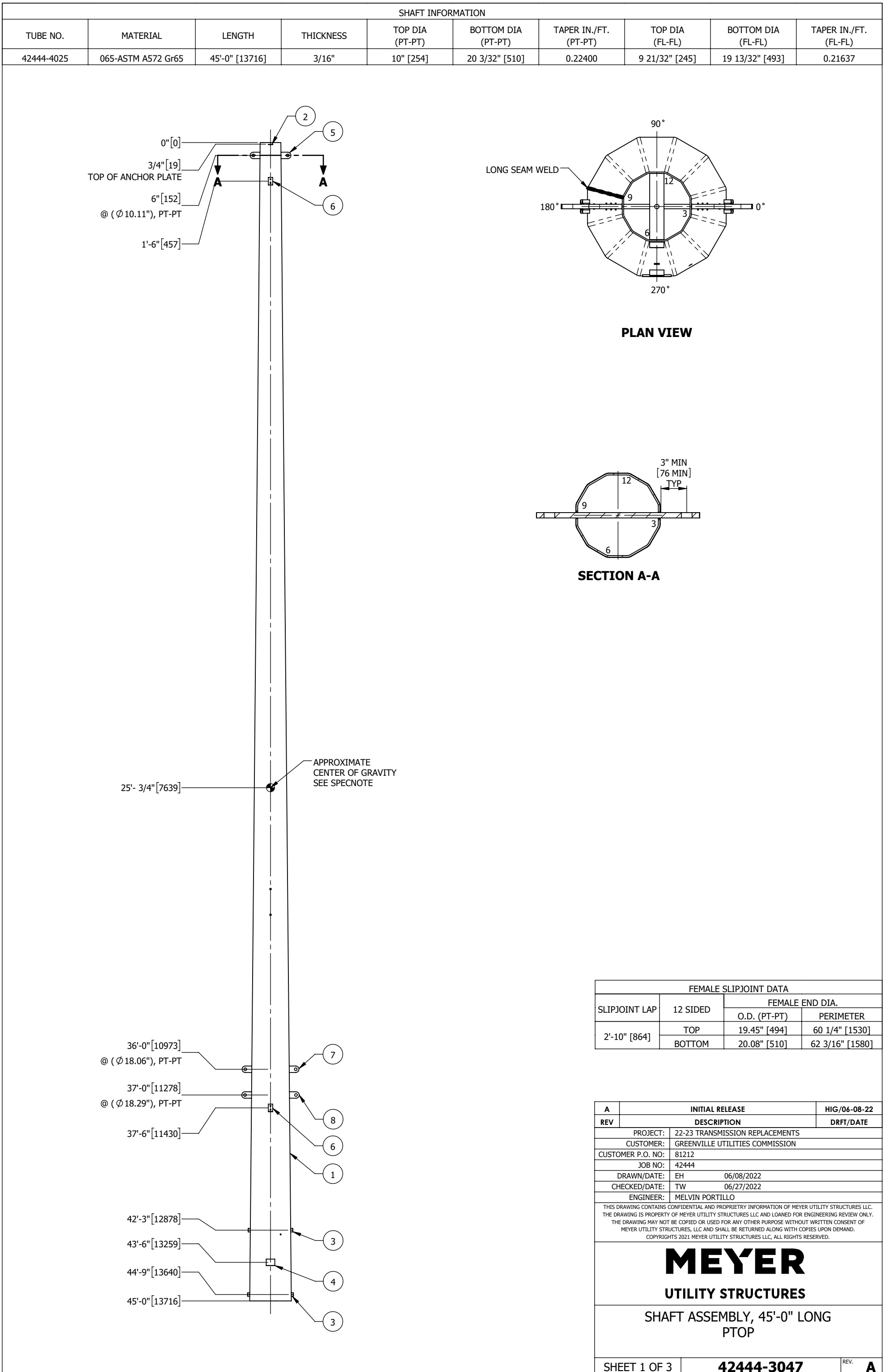
A	INITIAL RELEASE	HIG/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/08/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
75'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 POLE NO: 17.6, 17.28 THRU 17.33, 17.35 THRU 17.50		
SHEET 1 OF 2	<b>42444-0675S3CT</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3047	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 020.1 000		1470.00	1470.00		
2	42444-3017	1	SHAFT ASSEMBLY, 32'-10" LONG	POLE-BASE 032.83 018.9 026.3 000		1830.00	1830.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
							<b>TOTAL STRUCTURE FINISHED WEIGHT</b>		<b>3310.00</b>

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

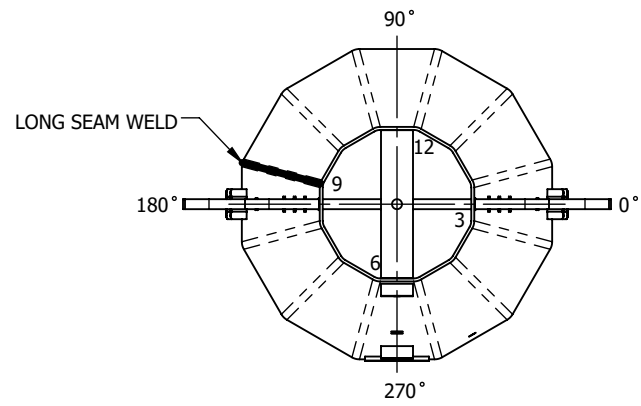


A	INITIAL RELEASE	HIG/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/08/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
75'-0" 115KV 3 PHASE TANGENT POST TPZD1.C1 POLE NO: 17.6, 17.28-17.33, 17.35-17.50		
SHEET 2 OF 2	<b>42444-0675S3CT</b>	REV. <b>A</b>

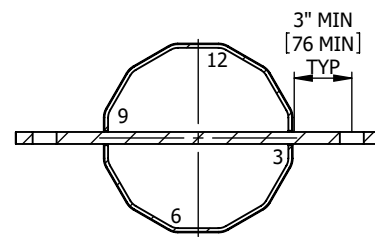


SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4025	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	20 3/32" [510]	0.22400	9 21/32" [245]	19 13/32" [493]	0.21637



PLAN VIEW



SECTION A-A

FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	19.45" [494]	60 1/4" [1530]
	BOTTOM	20.08" [510]	62 3/16" [1580]

A	INITIAL RELEASE	HIG/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/08/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

SHEET 1 OF 3	42444-3047	REV. <b>A</b>
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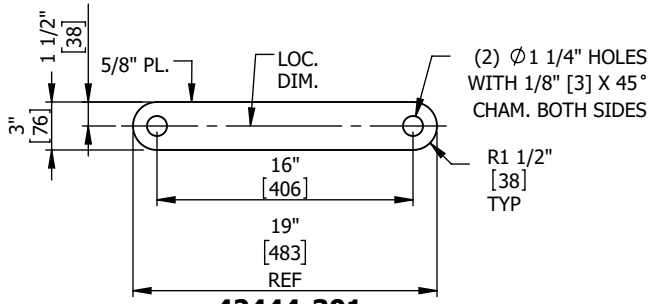
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4025	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 61.88	065-ASTM A572 Gr65	1335.22	1335.22	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
7	42444-317	1	THROUGH VANG	0.63 X 3.00 X 26.50	065-ASTM A572 Gr65	13.31	13.31	
8	42444-302	1	THROUGH VANG	0.63 X 3.00 X 26.75	065-ASTM A572 Gr65	13.45	13.45	
TOTAL MODEL WEIGHT							1377.98	
TOTAL UNFINISHED WEIGHT							1380.00	
TOTAL FINISHED WEIGHT							1470.00	

WEIGHTS SHOWN ARE APPROXIMATE, FINAL WEIGHTS WILL BE PROVIDED AFTER FINAL DETAILING

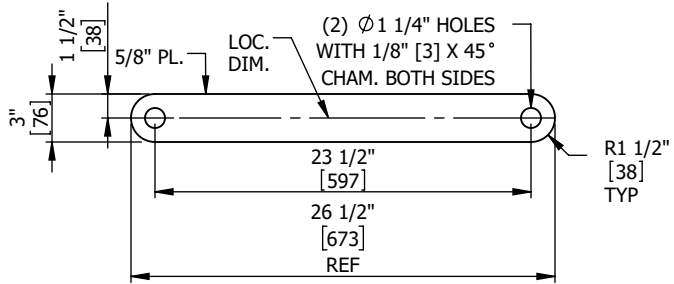
HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	5	42444-321	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	25'-3/4" [7639]	APPROX. CENTER OF GRAVITY WELD													-	1	
5	36'-0" [10973]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	7	42444-317	1
6	37'-0" [11278]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	8	42444-302	1
7	37'-6" [11430]						1							SS GROUND PAD 2-HOLE	6	78412	1
8	42'-2" [12852]	BOTTOM SLIP JOINT LENGTH 34"													-	1	
9	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	3	74547	2
10	43'-6" [13259]						1							ID TAG, A-36	4	78413	1
11	43'-8" [13310]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	3	74547	2
13	45'-0" [13716]	TOWER PLATE TUBE												1	42444-4025	1	

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1							3/4"	MOUNTING HOLE
10	30'-0" [9144]						1							3/4"	MOUNTING HOLE
11	37'-5 1/8" [11408]						1							9/16"	HOLE UNDER GRND PAD
12	37'-6 7/8" [11452]						1							9/16"	HOLE UNDER GRND PAD
13	42'-5" [12929]					1								1/2"	SJ INSPECTION HOLE

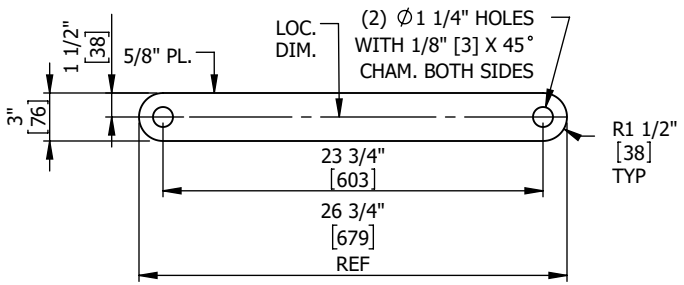
<b>A</b>	<b>INITIAL RELEASE</b>	<b>HIG/06-08-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	EH 06/08/2022	
CHECKED/DATE:	TW 06/27/2022	
ENGINEER:	MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP		
SHEET 2 OF 3	<b>42444-3047</b>	REV. <b>A</b>



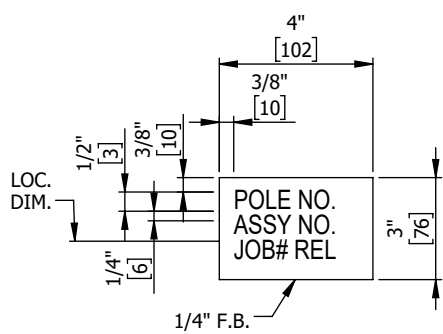
**42444-301**  
0.63 X 3.00 X 19.00  
065-ASTM A572 Gr65  
9.32 LBS



**42444-317**  
0.63 X 3.00 X 26.50  
065-ASTM A572 Gr65  
13.31 LBS

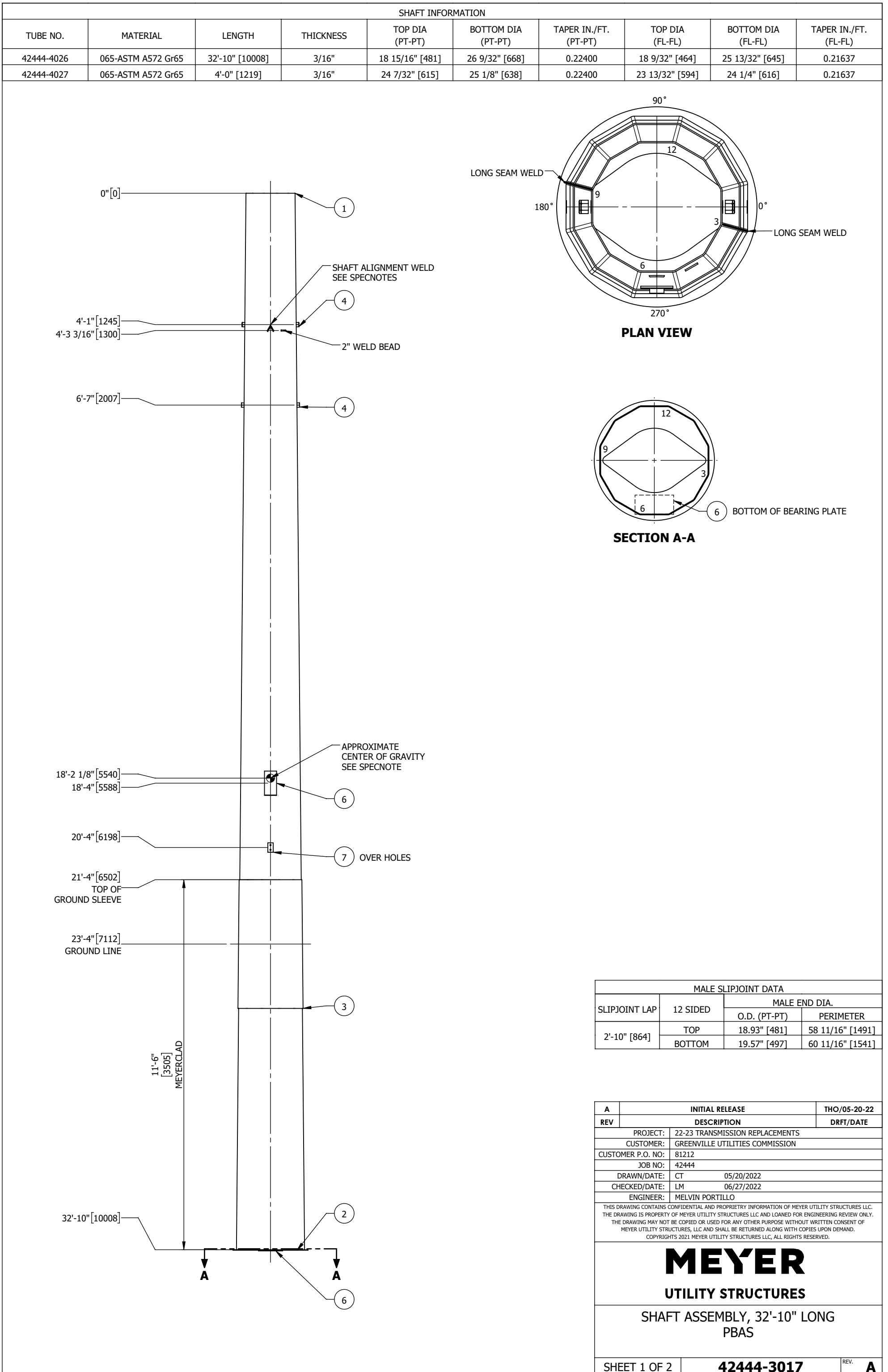


**42444-302**  
0.63 X 3.00 X 26.75  
065-ASTM A572 Gr65  
13.45 LBS



**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

A	INITIAL RELEASE	HIG/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: EH 06/08/2022	
	CHECKED/DATE: TW 06/27/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3047</b>	REV. <b>A</b>



SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4026	065-ASTM A572 Gr65	32'-10" [10008]	3/16"	18 15/16" [481]	26 9/32" [668]	0.22400	18 9/32" [464]	25 13/32" [645]	0.21637
42444-4027	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	24 7/32" [615]	25 1/8" [638]	0.22400	23 13/32" [594]	24 1/4" [616]	0.21637

MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-10" [864]	TOP	18.93" [481]	58 11/16" [1491]
	BOTTOM	19.57" [497]	60 11/16" [1541]

A	INITIAL RELEASE	THO/05-20-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/20/2022	
	CHECKED/DATE: LM 06/27/2022	
	ENGINEER: MELVIN PORTILLO	

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UTILITY STRUCTURES

SHAFT ASSEMBLY, 32'-10" LONG  
PBAS

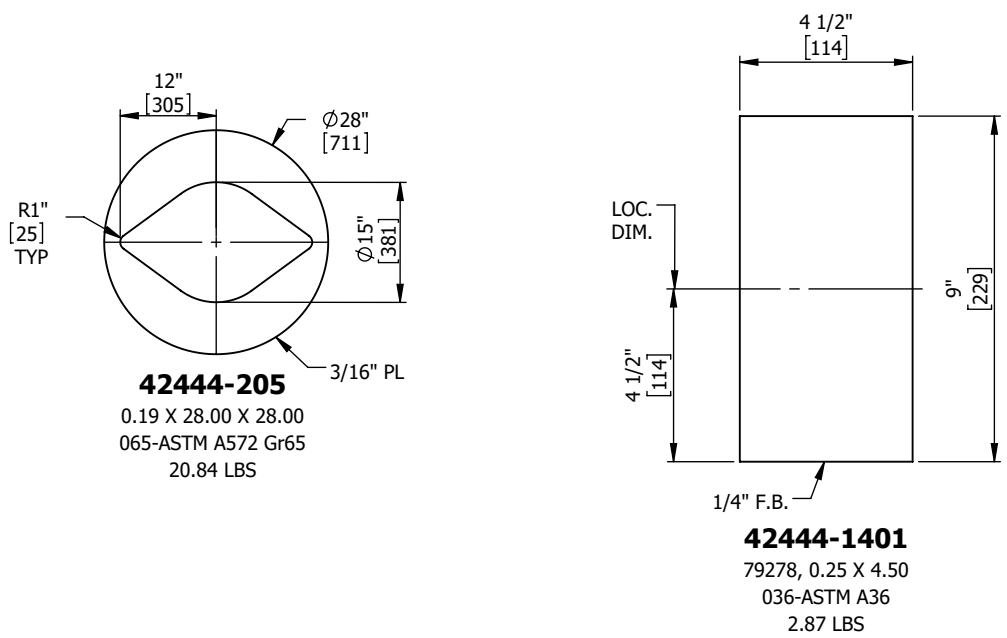
SHEET 1 OF 2	<b>42444-3017</b>	REV. <b>A</b>
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\*\*\*HIGGINU-6/28/2022--7:58:19 AM\*\*\*

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4026	1	TOWER PLATE TUBE	(2) 0.19 X 29.13 X 394.00 X 40.56	065-ASTM A572 Gr65	1487.52	1487.52	
2	42444-205	1	BEARING PLATE, 3/16" THK X 28" DIA	0.19 X 28.00 X 28.00	065-ASTM A572 Gr65	20.84	20.84	
3	42444-4027	1	GROUND SLEEVE	(2) 0.19 X 37.38 X 48.00 X 38.75	065-ASTM A572 Gr65	193.71	193.71	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	MCLADBR	-	MEYER CLAD - BROWN			0	-	
6	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	7.02	
7	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1712.22	
TOTAL UNFINISHED WEIGHT							1720.00	
TOTAL FINISHED WEIGHT							1830.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-10" [864]													TOP SLIP JOINT LENGTH 34"		-	1
3	4'-1" [1245]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	4'-1" [1245]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-3" [1295]						1							2" WELD BEAD		-	1
6	6'-7" [2007]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	18'-2 1/8" [5540]													APPROX. CENTER OF GRAVITY WELD		-	1
8	18'-4" [5588]						1							NAME PLATE	6	42444-1401	1
9	20'-4" [6198]						1							SS GROUND PAD 2-HOLE	7	78412	1
10	21'-4" [6502]													TOP OF GROUND SLEEVE	3	42444-4027	1
11	23'-4" [7112]													GROUND LINE		-	-
12	32'-4" [9855]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	32'-10" [10008]													TOWER PLATE TUBE	1	42444-4026	1
14	32'-10" [10008]													BEARING PLATE, 3/16" THK X 28" DIA / SECTION A-A	2	42444-205	1
15	32'-10 3/16" [10012]													NAME PLATE / SECTION A-A	6	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	20'-3 1/8" [6175]						1							9/16"	HOLE UNDER GRND PAD
2	20'-4 7/8" [6220]						1							9/16"	HOLE UNDER GRND PAD



A	INITIAL RELEASE	THO/05-20-22
REV	DESCRIPTION	DRFT/DATE
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/20/2022	
CHECKED/DATE:	LM 06/27/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 32'-10" LONG PBAS		
SHEET 2 OF 2	<b>42444-3017</b>	REV. <b>A</b>

**GENERAL INFORMATION ON MANUFACTURING, MATERIALS, AND ASSEMBLY**

**MATERIALS:**

**1A: FOR GALVANIZED STRUCTURES:**

STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 1 1/4"	65 KSI	A572 MODIFIED TO LIMIT SILICON CONTENT TO 0.06%
PLATE > 1 1/4"	50, 60 KSI	A572
BOLTS ≤ 5/8"	92 KSI	A449*
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADE BC*
BOLTS > 2 1/2"	99 KSI	A354 GRADE BC*
QUICK PIN	92 KSI	AISI 4140/4340 (EQUIVALENT TO F3125 / A325 MATERIAL)
NUTS ≤ 5/8"	---	A563 GRADE C
NUTS ≥ 3/4"	---	A563 GRADE DH
NUTS (ANCHOR BOLTS)	---	A563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A563 GRADE C3
ANCHOR BOLTS	75 KSI	A615 GRADE 75
STEEL SHAPES	36 KSI	A36 or A572 or EQUIVALENT
PIPE	36, 50 KSI	A36, A53 GRADE B, A106 GRADE B, OR A501
STAINLESS STEEL SHAPES	30 KSI	
NON-STRUCTURAL MISC.	36 KSI	

**1B: FOR WEATHERING STEEL STRUCTURES:**

STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 3/4"	65 KSI	A871
BOLTS 1/2" DIA.	---	A307
PLATE > 3/4"	50, 60 KSI	A871, A588
BOLTS < 5/8"	92 KSI	A449*
BOLTS 5/8"	92 KSI	F3125, A325 TYPE 3
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADE BC MODIFIED TO PROVIDE WEATHERING PROPERTIES*
BOLTS > 2 1/2"	99 KSI	A354 GRADE BC MODIFIED TO PROVIDE WEATHERING PROPERTIES*
QUICK PIN	92 KSI	AISI 4140/4340 (EQUIVALENT TO F3125 / A325 MATERIAL)
NUTS < 5/8"	---	A563 GRADE C3
NUTS ≥ 5/8"	---	A563 GRADE C3
NUTS (ANCHOR BOLTS)	---	A563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A563 GRADE C3
ANCHOR BOLTS	75 KSI	A615 GRADE 75
STEEL SHAPES	50 KSI	A588 OR EQUIVALENT
PIPE	50 KSI	A847 OR EQUIVALENT
STAINLESS STEEL SHAPES	30 KSI	TYPE 304
NON-STRUCTURAL MISC	50 KSI	A588

\*BASED ON STRUCTURE AND CONNECTION DESIGN, F3125 BOLTS MAY BE SUBSTITUTED FOR A354 OR A449

**1C: FORGED RINGS (HOT ROLLED RINGS):** ASTM A1090

2. CHARPY IMPACT TEST REQUIREMENTS: MATERIAL FOR TUBE SHAFT, BASE PLATES, FLANGE PLATES, ARM BRACKET AND STRUCTURAL BRACKETS TESTED TO 15 FT-LBS AT -20 DEGREES F.

3. ALL PLATES TO HAVE A CHARPY V-NOTCH IMPACT VALUE OF 15 FT-LBS MINIMUM AT -20°F PER HEAT LOT TEST (UNLESS OTHERWISE NOTED).

**5. ASSEMBLY:**

A. FINAL WEIGHTS ON ERECTION DRAWINGS ARE ROUNDED UP TO THE NEXT 10 LBS.

B. FINISHED WEIGHTS ON ERECTION DRAWINGS ARE ESTIMATED. FINISHED WEIGHTS WILL VARY BASED ON THE THICKNESS OF GALVANIZING AND TOTAL SURFACE AREA OF SHAFT ASSEMBLIES.

C. CUSTOMER SHALL VERIFY THE FIT OF THEIR EQUIPMENT (INSULATORS, GUY WIRES, ETC.) TO ATTACHMENTS PROVIDED.

D. ALL STRUCTURE ARMS SHALL BE DAMPED AT ERECTION TIME. DAMPING MAY BE ACCOMPLISHED BY STRINGING, HANGING INSULATORS OR WEIGHTS, OR TYING ARMS OFF TO THE STRUCTURE AT ATTACHMENT POINTS.

**6. BOLT AND NUT TIGHTENING INFORMATION:**

THE NUTS ON ALL CONNECTION BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

A. ARM CONNECTIONS ARE DESIGNED TO ACCOMMODATE MEYER STANDARD MANUFACTURING TOLERANCES WHICH MAY RESULT IN GAPS BETWEEN THE BRACKET AND THE THROUGH VANGS. BOLT INSTALLATION AND TIGHTENING SHALL BE PERFORMED IN A SEQUENCE TO PROVIDE DISTRIBUTION OF THESE GAPS SO THAT A GAP DOESN'T EXCEED 1/4" ON EITHER SIDE OF THE BRACKET. THIS MAY BE ACCOMPLISHED BY TIGHTENING A PAIR OF BOLTS ON OPPOSITE SIDES OF A CONNECTION FOLLOWED BY SIMILAR PAIRS. THE ERECTOR IS RESPONSIBLE FOR DETERMINING THE REQUIRED SEQUENCE.

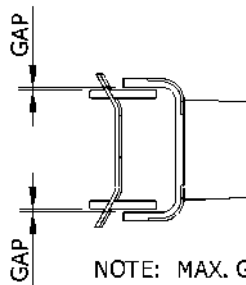
B. THE NUTS SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION, WITH THE EXCEPTION THAT THE PLIES DO NOT NEED TO BE BROUGHT INTO FIRM CONTACT. TO VERIFY THAT BOLTS ARE TENSIONED, THE ERECTOR SHALL "MATCH MARK" THE BOLTS AND NUTS BEFORE APPLYING THE FINAL TURN BASED ON THE DIAMETER AND LENGTH OF THE BOLT AS NOTED BELOW:

**FINAL TURN REQUIREMENTS**

**BOLT LENGTH**

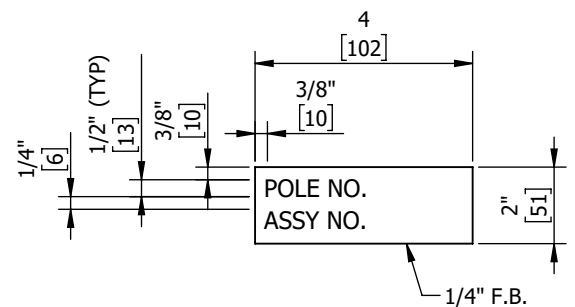
BOLT DIA.	1/3 NUT TURN	1/2 NUT TURN	2/3 NUT TURN
1"	0"-4"	4"-8"	8"-12"
1 1/2"	0"-6"	6"-12"	12"-18"

C. GAPS PRESENT AFTER THIS BOLT TIGHTENING PROCESS ARE ACCEPTABLE AS LONG AS THEY DO NOT EXCEED 1/4". ARM TO POLE CONNECTIONS ARE DESIGNED AND FABRICATED TO ACCOMMODATE A MAXIMUM 1/4" GAP BETWEEN EACH BRACKET AND THROUGH VANG.

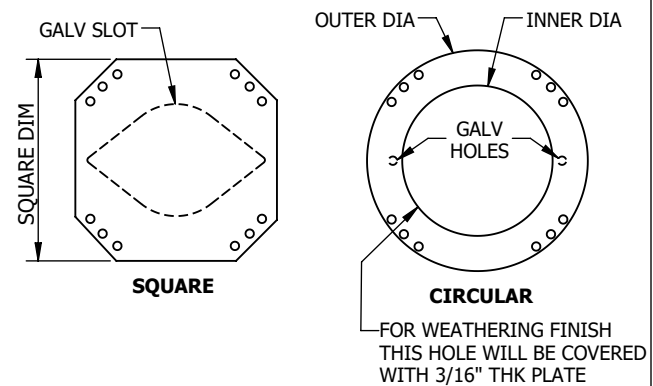
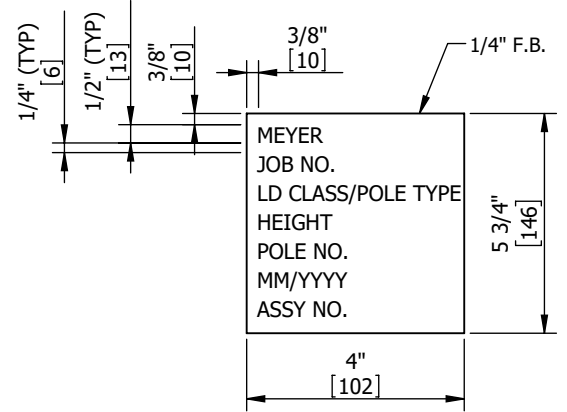


NOTE: MAX. GAP = 1/4"

**EXAMPLE ID TAG:**



**EXAMPLE NAME PLATE:**



REV	DESCRIPTION	DRFT/DATE
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19

PROJECT:	
CUSTOMER:	Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	----
DRAWN/DATE:	JRB 05/23/1994
CHECKED/DATE:	ST 01/31/2018
ENGINEER:	

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**MEYER**  
UTILITY STRUCTURES

GENERAL NOTES, ASSEMBLY  
AND ERECTION INFORMATION



D. NUTS FOR 2 1/4" DIAMETER ANCHOR BOLTS (ASTM A-615, GRADE 75) SHOULD BE TURNED 1/6 TURN AFTER APPLYING THE FORCE AS DESCRIBED IN AISC FOR THE SNUG TIGHT CONDITION.

E. LONG ARM CONNECTION BOLTS (L>8") SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION BUT DO NOT NEED TO BE FULLY TENSIONED BEYOND THE SNUG TIGHT CONDITION. GAPS PRESENT AFTER THIS BOLT TIGHTENING PROCESS ARE ACCEPTABLE AS LONG AS THEY DO NOT EXCEED 1/4". ARM TO POLE CONNECTIONS ARE DESIGNED AND FABRICATED TO ACCOMMODATE A MAXIMUM 1/4" GAP BETWEEN EACH BRACKET AND VANG

F. CROSSBRACE U-BOLT NUTS SHALL BE TIGHTENED WITH A FORCE AS DESCRIBED BY AISC FOR THE SNUG TIGHT CONDITION BRINGING THE CROSS BRACES IN CONTACT WITH EACH OTHER. CARE SHALL BE TAKEN NOT TO OVER TIGHTEN THE U-BOLT AND DAMAGE THE CROSS BRACE.

7. FOR SLIP JOINTED POLES, SEE SHEETS SSG004 AND SSG005 FOR ASSEMBLY AND JACKING INFORMATION. MEYER APPROVED JACKS SHALL BE USED TO ASSEMBLE SLIP JOINTS.

8. STORAGE REQUIREMENT - HORIZONTAL STORAGE

A. STORAGE METHOD FOR STRUCTURES THAT ARE COATED WITH PAINT, OR OTHER PROTECTIVE OR BELOW GRADE COATINGS.

B. ALL STRUCTURES INCLUDING WEATHERING STEEL POLES SHALL BE RAISED OFF OF THE GROUND AND KEPT FREE FROM AREAS WITH MOISTURE PRESENT.

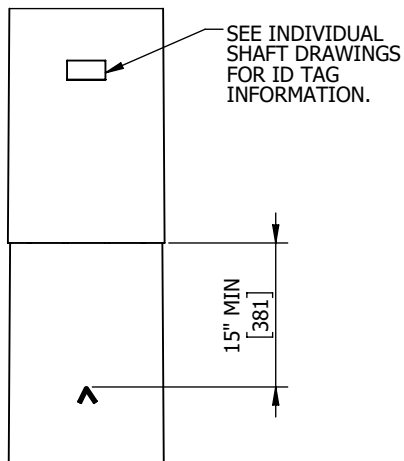
C. STRUCTURES LYING HORIZONTALLY FOR EXTENDED PERIODS OF TIME SHALL BE TARPED OR PROTECTED BY OTHER MEANS TO SHIELD THE COATINGS FROM THE ELEMENTS OF THE ENVIRONMENT.

9. LIFTING/HANDLING

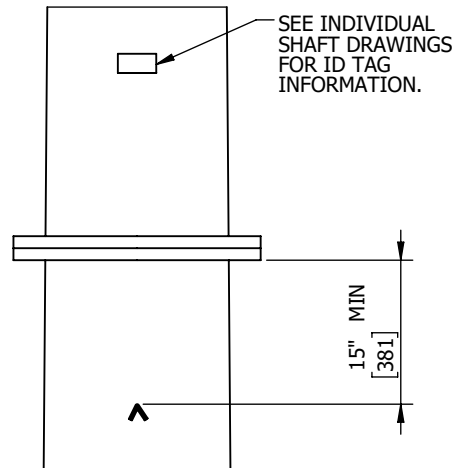
A. LIFTING, LOADING, UNLOADING AND HANDLING TO BE PERFORMED IN A SAFE MANNER WITH EQUIPMENT CAPABLE OF SAFELY LIFTING AND HANDLING THE MEMBERS AND SECTIONS.

B. WHEN LIFTING DEVICES, VANGS, SLOTS ARE PROVIDED ON A MEMBER OR SECTION, PAIRS OF DEVICES, VANGS, SLOTS SHALL BE USED TO LIFT OR HANDLING ANY MEMBER OR SECTION.

C. UNLESS NOTED OTHERWISE ON DRAWINGS, THE LIFTING DEVICES ARE TO BE USED TO LIFT OR HANDLE EACH SECTION OF THE STRUCTURE AND NOT LIFT THE FULLY ASSEMBLED STRUCTURE.



**EXAMPLE:  
SLIP JOINT MATCH MARK**



**EXAMPLE:  
FLANGE CONNECTION  
MATCH MARK**

REV	DESCRIPTION	DRFT/DATE														
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20														
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20														
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19														
<table border="1"> <tr> <td>PROJECT:</td> <td></td> </tr> <tr> <td>CUSTOMER:</td> <td>Meyer Utility Structures</td> </tr> <tr> <td>CUSTOMER P.O. NO:</td> <td></td> </tr> <tr> <td>JOB NO:</td> <td>----</td> </tr> <tr> <td>DRAWN/DATE:</td> <td>JRB 05/23/1994</td> </tr> <tr> <td>CHECKED/DATE:</td> <td>ST 01/31/2018</td> </tr> <tr> <td>ENGINEER:</td> <td></td> </tr> </table>			PROJECT:		CUSTOMER:	Meyer Utility Structures	CUSTOMER P.O. NO:		JOB NO:	----	DRAWN/DATE:	JRB 05/23/1994	CHECKED/DATE:	ST 01/31/2018	ENGINEER:	
PROJECT:																
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>																
<p>GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION</p>																
SHEET 2 OF 4		<b>SSG001</b> <span style="float: right;">REV. <b>AD</b></span>														

**INFORMACION GENERAL DE MANUFACTURA MATERIALES Y ENSAMBLE**

MATERIALES:

1A: PARA ESTRUCTURAS GALVANIZADAS:

ESPECIFICACIONES DEL ACERO	CEDENCIA MIN.	ESPEC. ASTM
PLACA ≤ 1 1/4"	65 KSI	A572 MODIFICADO AL LIMITE DE CONTENIDO DE SILICON A 0.06%
PLACA > 1 1/4"	50, 60 KSI	A572
TORNILLOS ≤ 5/8"	92 KSI	A449*
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADO BC*
TORNILLOS > 2 1/2"	99 KSI	A354 GRADO BC*
PERNO	92 KSI	AISI 4140/4340 (EQUIVALENTE A MATERIAL F3125 / A325)
TUERCAS ≤ 5/8"	---	A563 GRADO C
TUERCAS ≥ 3/4"	---	A563 GRADO DH
TUERCAS (PERNOS DE ANCLAJE)	---	A563 GRADO DH
TUERCAS (P/GATEO EN JUN.TRASLAPADAS)	---	A563 GRADO C3
PERNOS DE ANCLAJE	75 KSI	A615 GRADO 75
PERFILES DE ACERO	36 KSI	A36 Ó A572 Ó EQUIVALENTE
TUBO	36, 50 KSI	A36, A53 GRADO B, A106 GRADO B, Ó A501
PERFILES DE ACERO INOXIDABLE	30 KSI	
MISELANEOS NO ESTRUCTURALES.	36 KSI	

1B: PARA ESTRUCTURAS DE ACERO RESISTENTE AL AMBIENTE:

ESPECIFICACIONES DEL ACERO	CEDENCIA MIN.	ESPEC. ASTM
PLATA ≤ 3/4"	65 KSI	A871
TORNILLOS 1/2" DIA.	---	A307
PLATA > 3/4"	50, 60 KSI	A871, A588
TORNILLOS < 5/8"	92 KSI	A449*
TORNILLOS 5/8"	92 KSI	F3125, A325 TIPO 3
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A354 GRADO BC MODIFICADO P/PROVEER PROPIEDADES DE RESISTENCIA AL AMBIENTE*
TORNILLOS > 2 1/2"	99 KSI	A354 GRADO BC MODIFICADO P/PROVEER PROPIEDADES DE RESISTENCIA AL AMBIENTE*
PERNO	92 KSI	AISI 4140/4340 (EQUIVALENTE A F3125 / A325 MATERIAL)
TUERCAS < 5/8"	---	A563 GRADO C3
TUERCAS ≥ 5/8"	---	A563 GRADO C3
TUERCAS (PERNOS DE ANCLAJE)	---	A563 GRADO DH
TUERCAS (P/GATEO EN JUN. TRASLAPADAS)	---	A563 GRADO C3
PERNOS DE ANCLAJE	75 KSI	A615 GRADO 75
PERFILES DE ACERO	50 KSI	A588 Ó EQUIVALENTE
TUBO	50 KSI	A847 Ó EQUIVALENTE
PERFILES DE ACERO INOXIDABLE	30 KSI	TIPO 304
MISELANEOS NO ESTRUCTURALES	50 KSI	A588

\*BASADO EN DISEÑO DE ESTRUCTURAS Y CONEXIONES, TORNILLOS F3125 PODRIAN SER SUSTITUIDOS POR A354 O A449

1C: ANILLOS FORJADOS (ANILLOS ROLADOS EN CALIENTE): ASTM A1090

- REQUERIMIENTOS PARA PRUEBA DE IMPACTO CHARPY: PROBAR A 15 FT-LBS A LOS -20 GRADOS FARENHEITH EL MATERIAL PARA FUSTES, PLACAS BASE, PLACAS DE BRIDA, BRACKETS DE BRAZOS Y BRACKETS ESTRUCTURALES.
- TODAS LAS PLACAS TENDRAN UN VALOR DE IMPACTO CHARPY V-NOTCH DE 15 FT-LBS. MINIMO A -20°F POR PRUEBA DE LOTE DE COLADA (A MENOS QUE SE INDIQUE OTRA COSA)

5. ENSAMBLE:

- LOS PESOS FINALES EN DIBUJOS DE MONTAJE SE REDONDEAN HACIA ARRIBA A LAS PROXIMAS 10 LBS.
- LOS PESOS FINALES EN DIBUJOS DE MONTAJE SON ESTIMADOS. LOS PESOS TERMINADOS PODRIAN VARIARAN BASADOS EN EL ESPESOR DEL GALVANIZADO Y EL TOTAL DEL AREA DE LA SUPERFICIE DE LOS ENSAMBLES DE LAS SECCIONES.
- EL CLIENTE DEBERA VERIFICAR EL AJUSTE DE SU EQUIPO (AISLADORES, CABLES DE RETENCION, ETC.) A LA CONEXION PROPORCIONADA.
- TODOS LOS BRAZOS DE LA ESTRUCTURA DEBEN SER ASEGURADOS AL MOMENTO DEL MONTAJE. EL ASEGURAMIENTO PUEDE SER COMPLEMENTADO SUJETANDOLOS CON CUERDAS, COLGANDO AISLADORES O CONTRAPESOS O FIJANDO LOS BRAZOS A LA ESTRUCTURA EN LOS PUNTOS DE SUJECION.

6. INFORMACION DE APRIETE DE TORNILLOS Y TUERCAS:

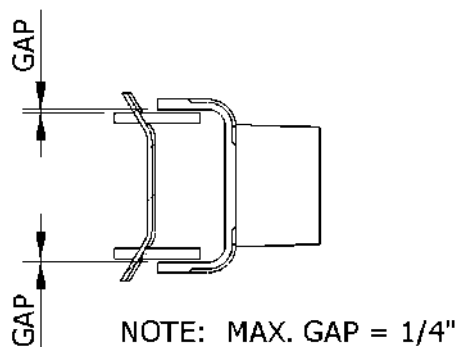
LAS TUERCAS EN TODOS LOS TORNILLOS DE CONEXION DEBEN SER INSTALADAS DE ACUERDO A LO SIGUIENTE:

- LAS CONEXIONES DE BRAZOS SON DISEÑADAS PARA CUMPLIR LAS TOLERANCIAS ESTANDAR DE MANUFACTURA DE MEYER LO CUAL QUIZA RESULTEN SEPARACIONES ENTRE BRACKETS Y LOS VANGS. LA INSTALACION Y APRETADO DE TORNILLO DEBE SER REALIZADO EN UNA SECUENCIA PARA PROVEER UNA DISTRIBUCION DE ESTAS SEPARACIONES TANTO QUE LA SEPARACION NO EXCEDA 1/4" EN CUALQUIER LADO DEL BRACKET. ESTO SE PUEDE LOGRAR POR EL APRIETE DE UN PAR DE TORNILLOS EN LADOS OPUESTOS DE UNA CONEXIÓN SEGUIDA POR PAREJAS SIMILARES. EL INSTALADOR ES RESPONSABLE DE DETERMINAR LA SECUENCIA REQUERIDA.
- LAS TUERCAS DEBEN SER APRETADAS CON UNA FUERZA COMO ES DESCRITA POR EL AISC PARA LA CONDICION DE AJUSTE APRETADO, CON LA EXCEPCION QUE LAS CAPAS NO NECESIAN ESTAR EN CONTACTO FIRME. PARA VERIFICAR QUE LOS TORNILLOS ESTAN TENSIONADOS, EL INSTALADOR DEBERA "MARCAR" LOS TORNILLOS Y TUERCAS ANTES DE APLICAR EL GIRO FINAL BASADO EN EL DIAMETRO Y LONGITUD DEL TORNILLO COMO SE MENCIONA ABAJO:

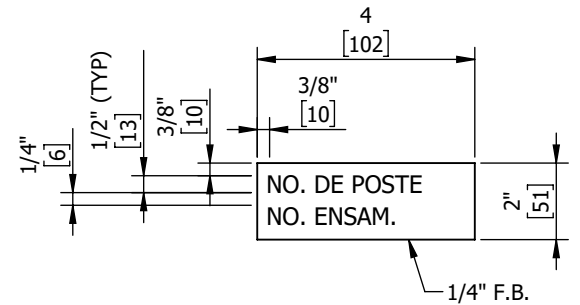
REQUERIMIENTOS DEL GIRO FINAL

LONGITUD DEL TORNILLO	GIRAR 1/3 DE TUERCA			GIRAR 1/2 TUERCA			GIRAR 2/3 DE TUERCA		
DIA. DEL TORNILLO.	GIRAR 1/3 DE TUERCA			GIRAR 1/2 TUERCA			GIRAR 2/3 DE TUERCA		
1"	0"-4"			4"-8"			8"-12"		
1 1/2"	0"-6"			6"-12"			12"-18"		

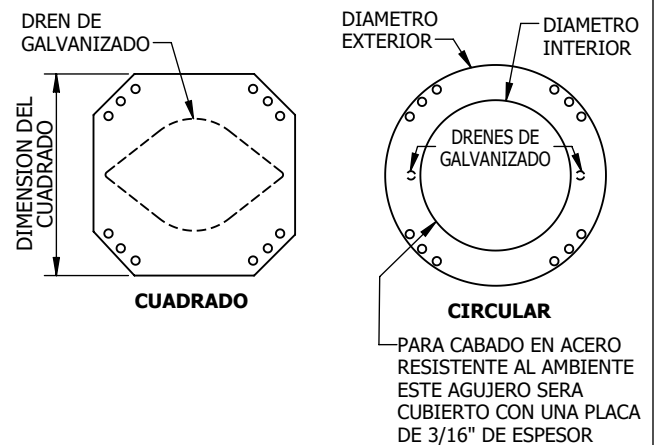
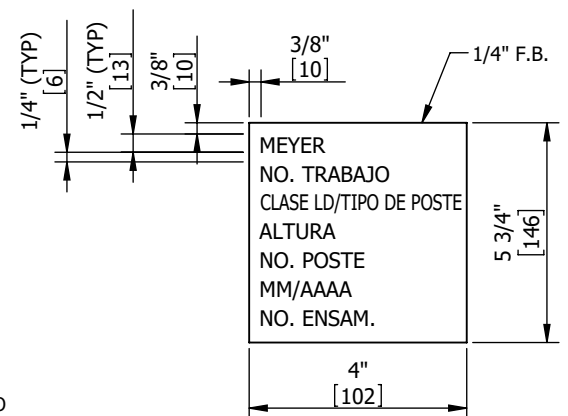
- LAS SEPARACIONES PRESENTES DESPUES DE ESTE PROCESO DE APRIETE DE TORNILLOS ES ACEPTABLE, SIEMPRE QUE NO EXCEDA DE 1/4". LAS CONECCIONES DE BRAZO A POSTE SON DISEÑADAS Y FABRICADAS PARA EN EL ACOMODO TENER UNA SEPARACION MAX. DE 1/4" ENTRE CADA BRACKET Y VANG.



**EJEMPLO DE ID TAG:**



**EJEMPLO DE PLACA ID:**



AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19
REV	DESCRIPTION	DRFT/DATE
PROJECT:		
CUSTOMER: Meyer Utility Structures		
CUSTOMER P.O. NO:		
JOB NO: ----		
DRAWN/DATE: JRB 05/23/1994		
CHECKED/DATE: ST 01/31/2018		
ENGINEER:		
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<b>MEYER</b>		
<b>UTILITY STRUCTURES</b>		
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION		
SHEET 3 OF 4	<b>SSG001</b>	REV. <b>AD</b>

D. LAS TUERCAS DE 2 1/4" DE DIAMETRO PARA PERNOS DE ANCLAJE (ASTM A-615, GR.75) DEBERAN SER GIRADAS 1/6 DE GIRO DESPUES DE APLICADA LA FUERZA DESCRITA EN AISC PARA UNA CONDICION DE AJUSTE APRETADO.

E. CONECCION DE BRAZO CON TORNILLOS LARGOS (L>8") DEBERAN SER APRETADOS CON UNA FUERZA COMO SE DESCRIBE POR EL AISC PERO NO NECESITA ESTAR TOTALMENTE TENSIONADO MAS ALLA DE LA CONDICION DE AJUSTE APRETADO. LAS SEPARACIONES PRESENTES DESPUES DE ESTE PROCESO DE APRIETE DE TORNILLOS ES ACEPTABLE, SIMPRE QUE NO SE EXCEDA DE 1/4". LAS CONECCIONES DE BRAZO A POSTE SON DISEÑADAS Y FABRICADAS PARA EN EL ACOMODO TENER UNA SEPARACION MAX. DE 1/4" ENTRE CADA BRACKET Y VANG.

F. LAS TUERCAS DE PERNOS EN U EN REFUERZO CRUZADO SE DEBEN APRETAR CON LA FUERZA QUE DESCRIBA AISC PARA QUE SE ENCUENTREN EN LA CONDICION DE AJUSTE APRETADO QUE TRAIGAN LOS REFUERZOS CRUZADOS EN CONTACTO UNO CON OTRO. SE DEBERA TENER CUIDADO DE NO SOBREPRETAR EL PERNO EN U Y DAÑAR EL REFUERZO CRUZADO

7. PARA POSTES DE JUNTAS TRASLAPADAS, VER HOJAS SSG004 Y SSG005 PARA INFORMACION DE ENSAMBLE Y GATEO. LOS GATOS APROBADOS POR MEYER DEBERAN SER USADOS PARA EL ENSAMBLE DE JUNTAS TRASLAPADAS

8. REQUERIMIENTO DE ALMACENAJE - ALMACENAJE HORIZONTAL

A. METODO DE ALMACENAJE PARA ESTRUCTURAS QUE SON RECUBIERTAS CON PINTURA, U OTRA PROTECCION O RECUBRIMIENTOS DE BAJO GRADO.

B. TODAS LAS ESTRUCTURAS INCLUYENDO POSTES DE ACERO RESISTENTE AL AMBIENTE DEBRAN SER LEVANTADOS DEL SUELO Y MANTENIDOS EN AREAS LIBRES DE HUMEDAD.

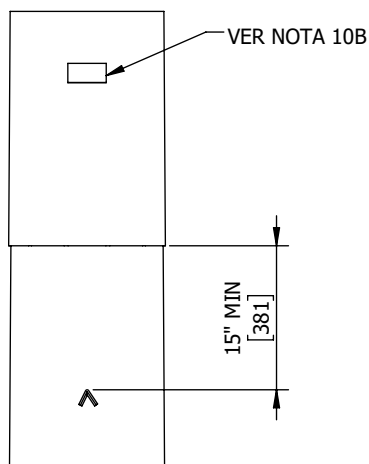
C. ESTRUCTURAS TENDIDAS HORIZONTALMENTE POR LARGOS PERIODOS DE TIEMPO DEBRAN SER CUBIERTAS POR CUALQUIER MEDIO PARA PROTEGER LOS RECUBRIMIENTOS DE LOS ELEMENTOS DEL AMBIENTE.

9. IZAJE/MANEJO

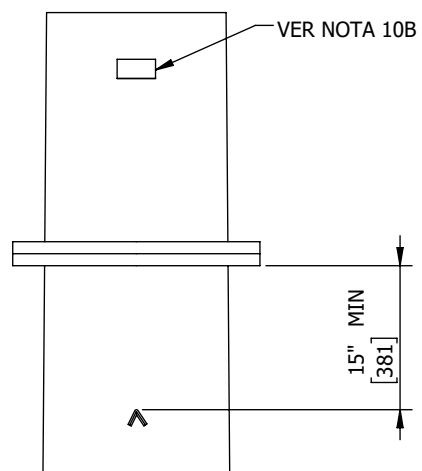
A. IZAJE, CARGADO, DESCARGADO Y MANEJO DEBERA SER DESEMPEÑADO DE MANERA SEGURA CON EQUIPO CAPAZ DE IZAR Y MANIPULAR CON SEGURIDAD MIEMBROS Y SECCIONES

B. CUANDO DISPOSITIVOS DE IZAJE, VANGS, RANURAS SON PROVEIDOS EN UN MIEMBRO O SECCION, PARES DE DISPOSITIVOS, VANGS, RANURAS SE DEBEN USAR PARA IZAR O MANIPULAR CUALQUIER MIEMBRO O SECCION.

C. A MENOS QUE SE INDIQUE OTRA COSA EN LOS DIBUJOS, LOS DISPOSITIVOS DE IZAJE DEBERAN SER USADOS PARA IZAR O MANEJAR CADA SECCION DE LA ESTRUCTURA Y NO IZAR LA ESTRUCTURA COMPLETAMENTE ENSAMBLADA.

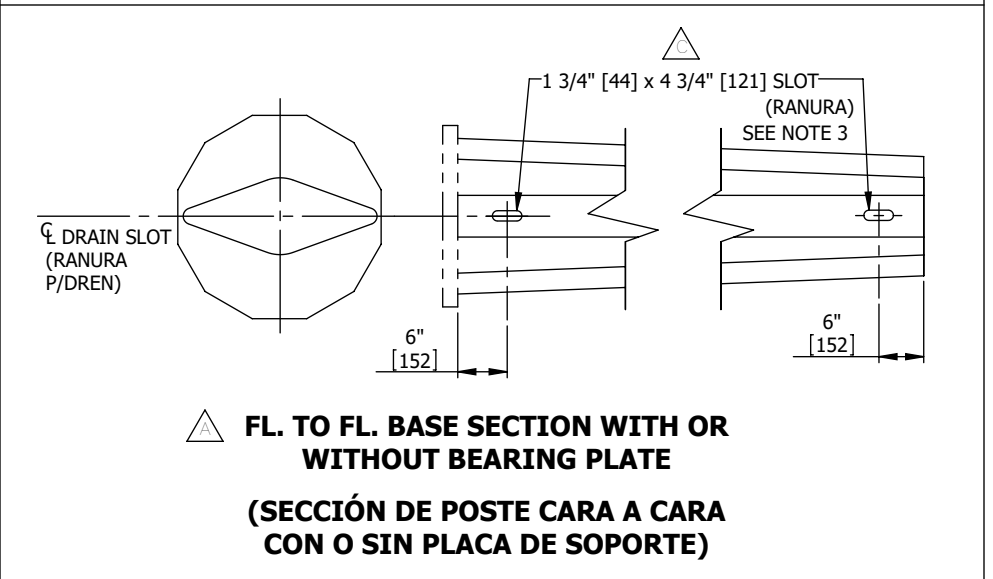
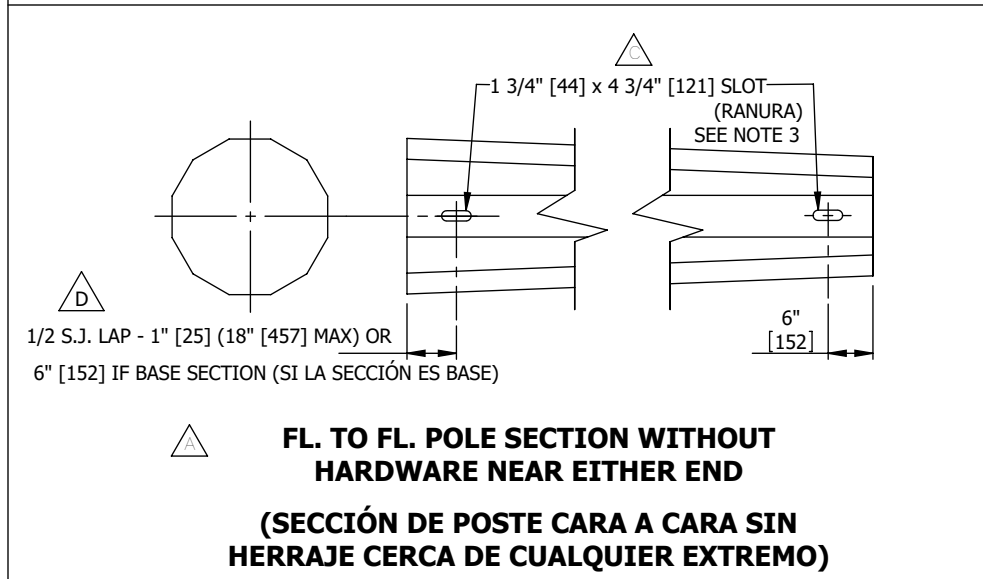
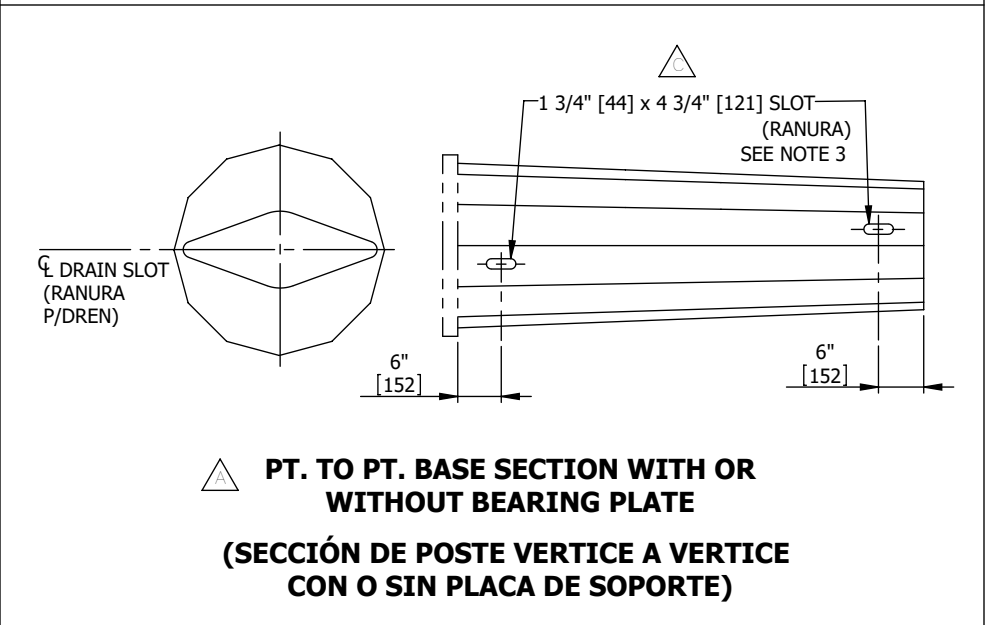
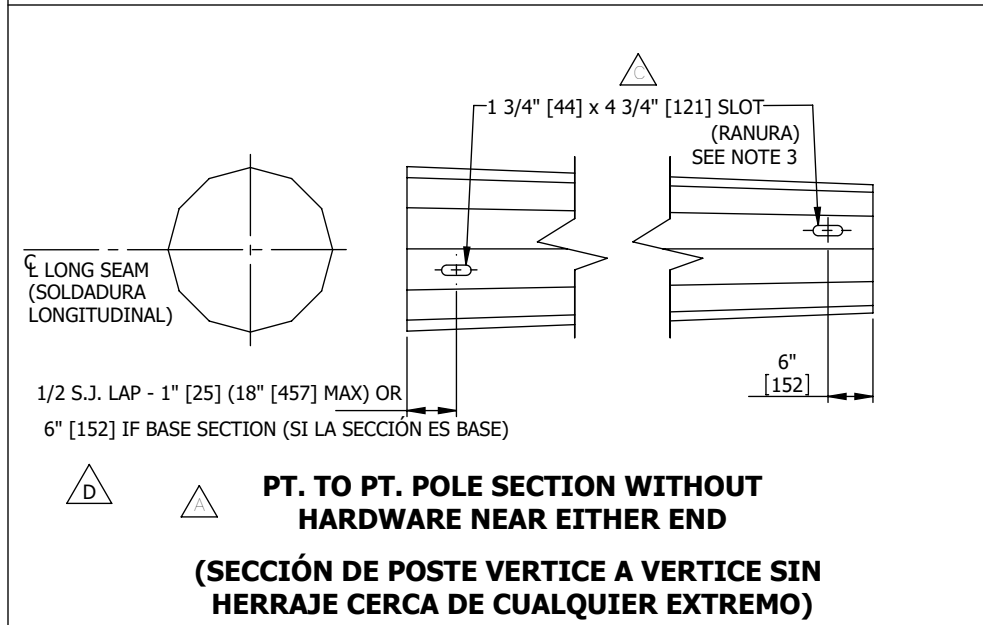
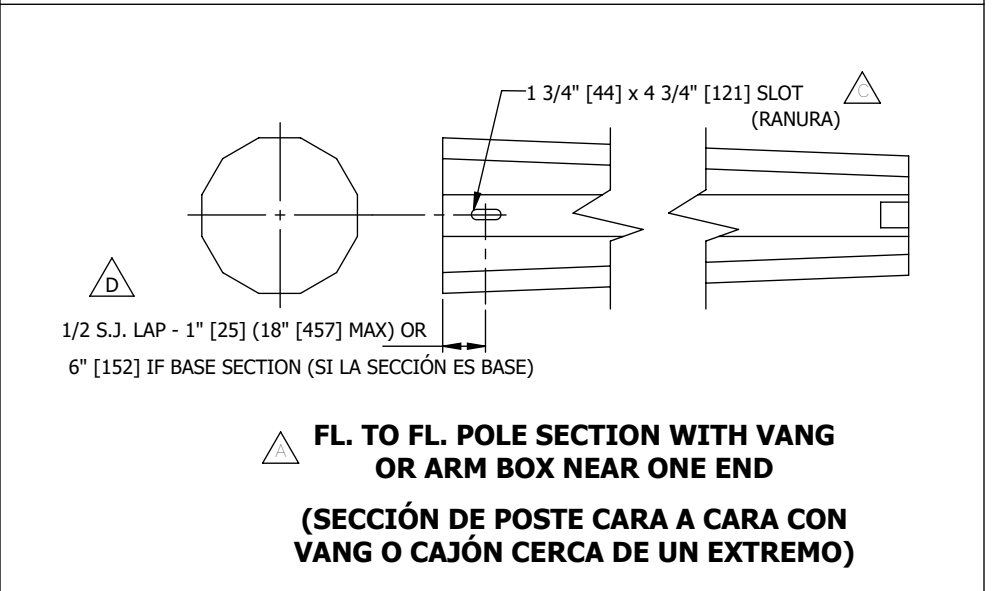
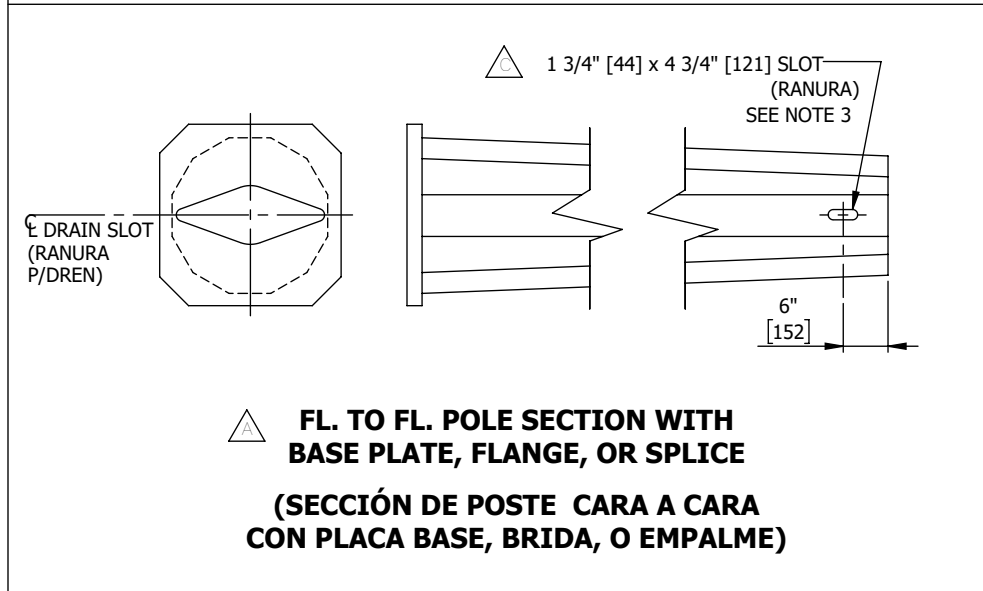
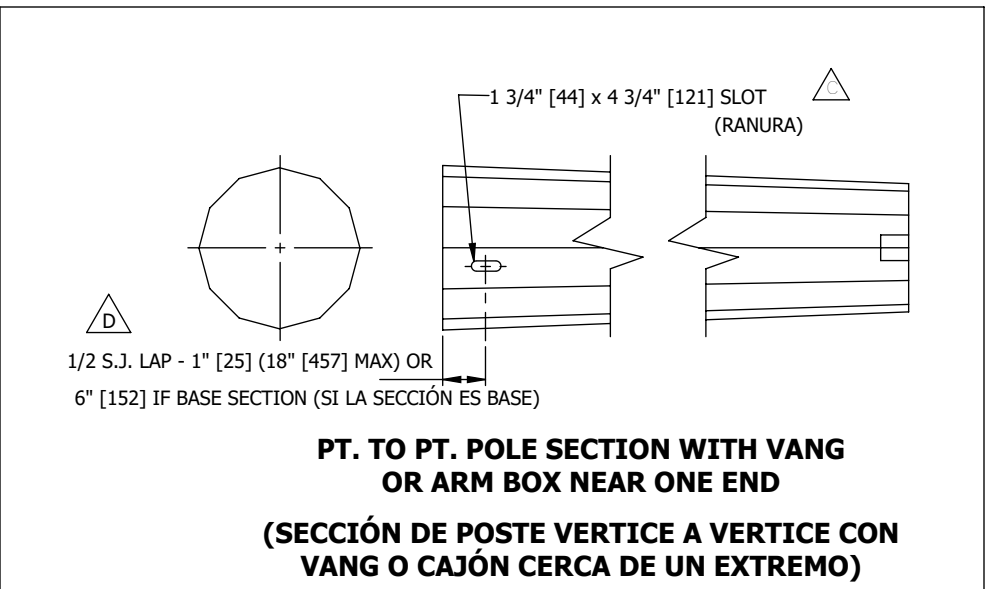
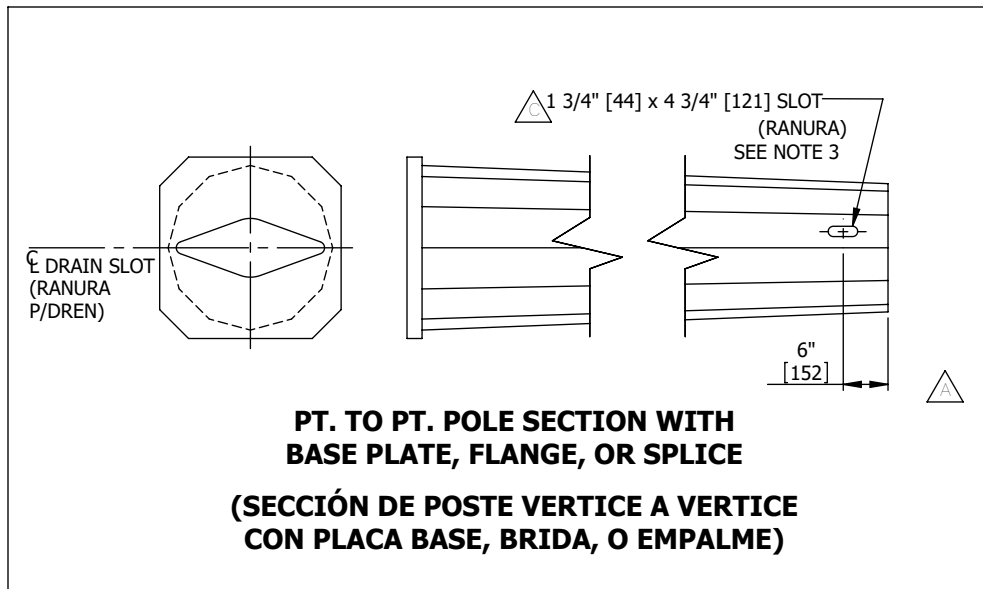


**EJEMPLO:  
TRANSLAPE MARCA  
DE COINCIDENCIA**



**EJEMPLO:  
CONEXION CON BRIDA  
MARCA DE COINCIDENCIA**

REV	DESCRIPTION	DRFT/DATE																					
AD	REVISED ID TAG REQ'S & NOTES	RB/12-11-20																					
AC	REVISED PLATE > 3/4" TO INCLUDE A-588	RB/02-05-20																					
AB	UPDATED LONGSEAM ORIENTATION FOR 4-SIDED SHAPES. UPDATED ID TAG LOCATIONS ON ARMS	WR/10-10-19																					
<table border="1"> <tr> <td>PROJECT:</td> <td colspan="2"></td> </tr> <tr> <td>CUSTOMER:</td> <td colspan="2">Meyer Utility Structures</td> </tr> <tr> <td>CUSTOMER P.O. NO:</td> <td colspan="2"></td> </tr> <tr> <td>JOB NO:</td> <td colspan="2">----</td> </tr> <tr> <td>DRAWN/DATE:</td> <td>JRB</td> <td>05/23/1994</td> </tr> <tr> <td>CHECKED/DATE:</td> <td>ST</td> <td>01/31/2018</td> </tr> <tr> <td>ENGINEER:</td> <td colspan="2"></td> </tr> </table>			PROJECT:			CUSTOMER:	Meyer Utility Structures		CUSTOMER P.O. NO:			JOB NO:	----		DRAWN/DATE:	JRB	05/23/1994	CHECKED/DATE:	ST	01/31/2018	ENGINEER:		
PROJECT:																							
CUSTOMER:	Meyer Utility Structures																						
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ENGINEER:																							
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<p><b>MEYER</b> UTILITY STRUCTURES</p>																							
<p>GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION</p>																							
SHEET 4 OF 4		REV. <b>AD</b>																					



NOTES:

- LIFTING SLOT MAY ALSO BE USED TO AIDE IN ERECTION OF POLE.
- LIFTING SLOTS ARE TO BE LOCATED ON BOTH SIDES OF POLE, 180° APART.
- FOR POLE TOP DIAMETERS ≤11", LIFTING SLOT NEAR POLE TOP TO BE 1 1/2" [38] x 4" [102].
- LIFTING SLOTS AT THE TOP AND BOTTOM OF A SECTION MUST BE WITHIN 1 FLAT OF EACH OTHER. THE LIFTING SLOT AT THE LOWEST ELEVATION ON THE BASE SECTION MUST ALIGN WITH THE GALV SLOT DRAINAGE ON THE BEARING PLATE.

NOTAS:

- LAS RANURAS DE IZAJE TAMBIEN SE PUEDE UTILIZAR PARA AYUDAR EN EL MONTAJE DEL POSTE.
- LAS RANURAS DE IZAJE DEBEN SER LOCALIZADAS EN AMBOS LADOS DEL POSTE, SEPARADAS 180°.
- PARA DIAMETROS DE SECCIONES SUPERIORES DE POSTE < 11", LAS RANURAS DE IZAJE CERCA DE LA PUNTA SERAN DE 1 1/2" [38] x 4" [102].
- LAS RANURAS DE IZAJE EN LA PARTE SUPERIOR E INFERIOR DE UNA SECCION DEBERAN ESTAR DENTRO DE UN MISMO PLANO. LA RANURA DE IZAJE EN LA ELEVACION MAS BAJA DE LA SECCION BASE DEBERA ESTAR ALINEADA CON LA RANURA DE DRENAJE PARA EL GALVANIZADO DE LA PLACA DE SOPORTE.

F	ADDED NOTE 4.	RB/01-14-22
E	UPDATE COMPANY NAME	WR/12-19-18
D	REVISE LIFTING SLOT LOCATION	WR/10-18-18
REV	DESCRIPTION	DRFT/DATE

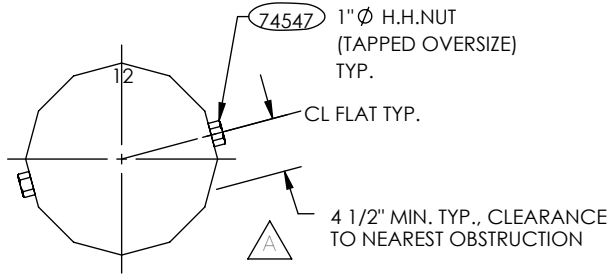
PROJECT:		
CUSTOMER:	Meyer Utility Structures	
CUSTOMER P.O. NO.:		
JOB NO.:	----	
DRAWN/DATE:	JRB	05/23/1994
CHECKED/DATE:	-	-
ENGINEER:		

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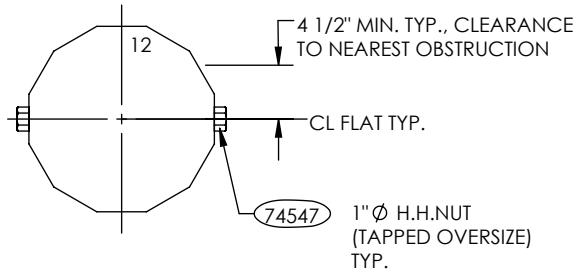
**MEYER**  
UTILITY STRUCTURES

GALVANIZED POLE  
LIFTING REQUIREMENTS  
(REQUERIMIENTOS DE IZAJE PARA POSTES GALVANIZADOS)

**ONLY MEYER JACKS ARE RECOMMENDED FOR USE ON MEYER POLES. FOR MEYER JACKING INSTRUCTIONS REFER TO SSG005**



STANDARD LOCATION (POINT-POINT)



STANDARD LOCATION (FLAT-FLAT)

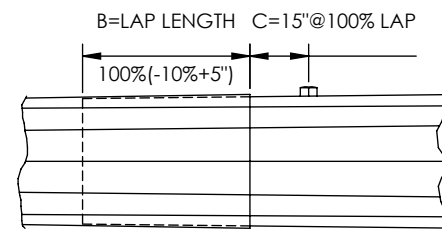
**JACKING NUT ORIENTATION**  
NUTS MUST BE OPPOSITE EACH OTHER.

NOTES:

1. ALL NUTS MUST BE ORIENTED SO THAT TWO FLATS ARE PERPENDICULAR TO THE POLES LONG AXIS.
2. JACKING NUT JIG MUST BE USED TO MOUNT NUTS.
3. IF THERE ARE 2 SETS OF JACKING NUTS (8 NUTS TOTAL) THEN 2 SLIP JOINT JACKS (ONE COMPLETE TMUS UNIT) MUST BE USED TO JACK THE POLE TOGETHER. SECTIONS WHICH CONTAIN 4 SETS OF JACKING NUTS (16 NUTS TOTAL) THEN 4 SLIP JOINT JACKS (TWO COMPLETE MUS UNITS) MUST BE USED TO JACK THE POLE TOGETHER.
4. SLIP JOINT JACK MUST BE SEATED FLUSH AGAINST THE TOWER WALL (SEE DETAIL 5/SSG005). **WARNING:** DO NOT ATTACH SLIP JOINT JACKS TO THE TOP OF THE JACKING NUTS AS THIS MAY CAUSE THE JACKING NUT TO FAIL PREMATURELY.
5. THE SLIPJOINT SHALL BE TIGHT WITHOUT MISALIGNMENT BETWEEN THE MATING POLE SECTIONS. THERE SHALL BE NO GAPS EXCEEDING 1/4". ANY GAPS SHALL BE LIMITED TO 2 FLATS OR LESS.



EXAMPLE: 100% LAP = 5'-6" (66")  
TO BE WITHIN TOLERANCE, THE SLIPJOINT LAP "B", MUST BE BETWEEN 59.4" (66"-6.6") AND 71" (66"+5"). THUS, THE DISTANCE BETWEEN THE BOTTOM OF THE FEMALE JOINT AND THE CENTER OF THE TOP JACKING NUT ON THE MALE SECTION "C" MUST BE BETWEEN 21.6" (15"+6.6") AND 10" (15"-5").

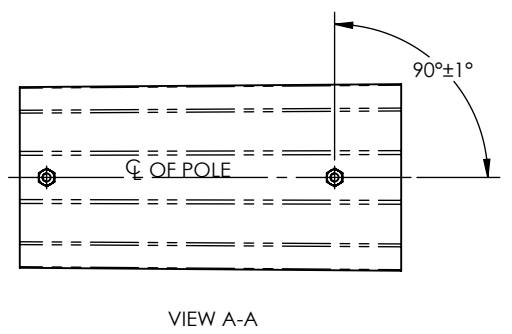
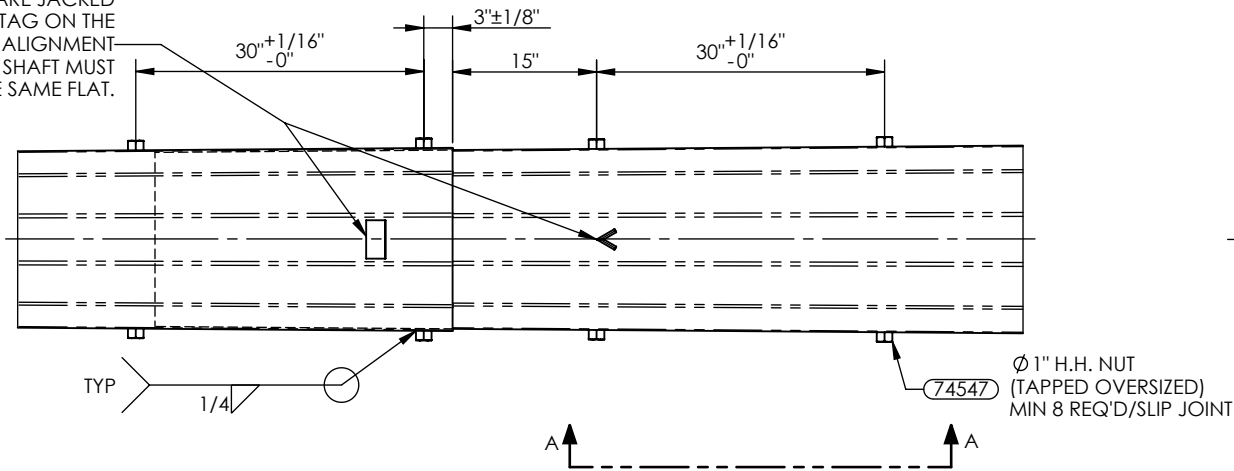


EXAMPLE:	100% LAP	MIN.LAP (-10%)	MAX.LAP (+5")
B =	66"	59.4"	71"
C =	15"	21.6"	10"



7. IT IS RECOMMENDED THAT THE CONTRACTOR KEEP RECORDS THAT DOCUMENT THE NUMBER OF JACKS USED, THE AMOUNT OF TOTAL FORCE APPLIED, AND THE DIMENSION OF THE LAP AFTER JACKING.

WHEN SECTIONS ARE JACKED TOGETHER THE ID TAG ON THE FEMALE SHAFT & ALIGNMENT WELD ON THE MALE SHAFT MUST BE IN LINE ON THE SAME FLAT.



**JACKING NUT LOCATIONS**

REV	DESCRIPTION	DRFT/DATE
J	REVISED VIEW TO SHOW ID TAG & ALIGNMENT WELD	RB/03-08-21
H	UPDATED COMPANY NAME	WR/12-20-18
G	REVISED TOLERANCE	DT/10-13-17

PROJECT:	
CUSTOMER:	Meyer Utility Structures
CUSTOMER P.O. NO.:	
JOB NO.:	
DRAWN/DATE	JRB 05/23/1994
CHECKED/DATE:	- -
ENGINEER:	

**MEYER**  
**UTILITY STRUCTURES**

JACKING NUT  
LOCATIONS

SHEET 1 OF 1      **SSG004**

<b>MEYER UTILITY STRUCTURES STANDARD WELDS</b>	
<b>DESCRIPTION</b>	<b>SHEET NO.</b>
<b>STANDARD WELD INDEX</b>	1
<b>FILLET WELDS - FW1 - FW6</b> - GENERAL NOTES, NAME PLATES/ID TAGS, GROUND PADS/TAB, CLIMBING PAD, NON-STRUCTURAL POLE CAP, BEARING PLATE, BP CUTOUT COVER PLATE, SEALER PLATE, STRUCTURAL POLE CAP, ARM END PLATE, POLE CAP ANCHOR, JACKING NUT.	2
<b>FILLET WELDS - FW7 - FW14</b> - NUT TO POLE FACE, NUT TO ARM SHANK, LD ARM - BRKT & END PLATE TO ARM SHANK, BAIL STEP & STEP LUG (NO BEVEL), HAND GRAB, CHAIN DAMPER, SS HAND GRAB, SADDLE BRKT, T-VANG, SLIDE OVER VANG	3
<b>LONG SEAMS &amp; CJP -LS1 &amp; LS2, CP1 - CP3</b> -SQ. TUBE LS, 8, 12, 16 SIDED LS, FEMALE SJ LS, CJP TUBE TO ARM BRKT, BASE PLATE, FLANGE PLATE, DIAPHRAM PLATE, CIRCUMFERENTIAL WELD, BASE PLATE, FLANGE PLATE, DIAPHRAM PLATE, CIRCUMFERENTIAL WELD, 3-PC MT CHANNEL	4
<b>POLE HARDWARE - HH1 &amp; HH2, MB1 - MB4, GS1</b> - HAND HOLE, HAND HOLE TO TUBE, U-SHAPED VERT. BRKT ON ANGLE, U-SHAPED VERT. BRKT ON FLAT, U-SHAPED HORZ. BRKT, 2-PC BRKT, GRD SLEEVE W/O BASE PLATE	5
<b>VANG &amp; DBLR, THRU PIPES, X BRACE - VD1, PS1 &amp; PS2, CB1</b> - VANG & DOUBLER, THRU PIPE W/ DOUBLER, THRU PIPE TO TUBE, X BRACE THRU VANG	6
<b>ARM MOUNTING - G1 - G3, HG1, WR1</b> - THROUGH PLATE GUSSETS, S & C TYPE THRU PLATE, GUSSETS, MOUNT CHANNEL GUSSET, ROUND ROD TO MT CHANNEL, SINGLE PC WRAP	7
<b>ARM MOUNTING - WB1, AB1, AB2, AB3</b> - WRAP ARM BOX, STD ARM BOX -2 FL W/SEALER, STD ARM BOX - 2 FL W/O SEALER, STD ARM BOX - SINGLE FLAT	8
<b>DROP BRACKETS - DB1 &amp; DB2</b> - SMALL, MEDIUM & LARGE DROP BRACKETS	9
<b>THROUGH VANGS</b> - TOWER PLATE < 3/8", TOWER PLATE ≥ 3/8"	10
<b>THROUGH PLATES</b> - TOWER PLATE < 3/8", TOWER PLATE ≥ 3/8"	11
<b>NOTES</b> - THROUGH VANGS & PLATES WELDING NOTES	12

Y	<b>REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.</b>	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO:	-
JOB NO:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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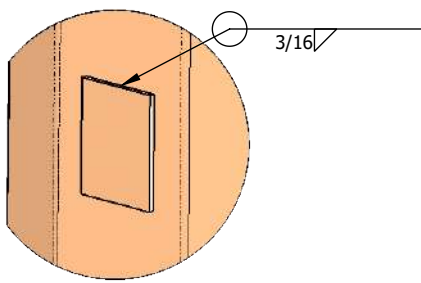
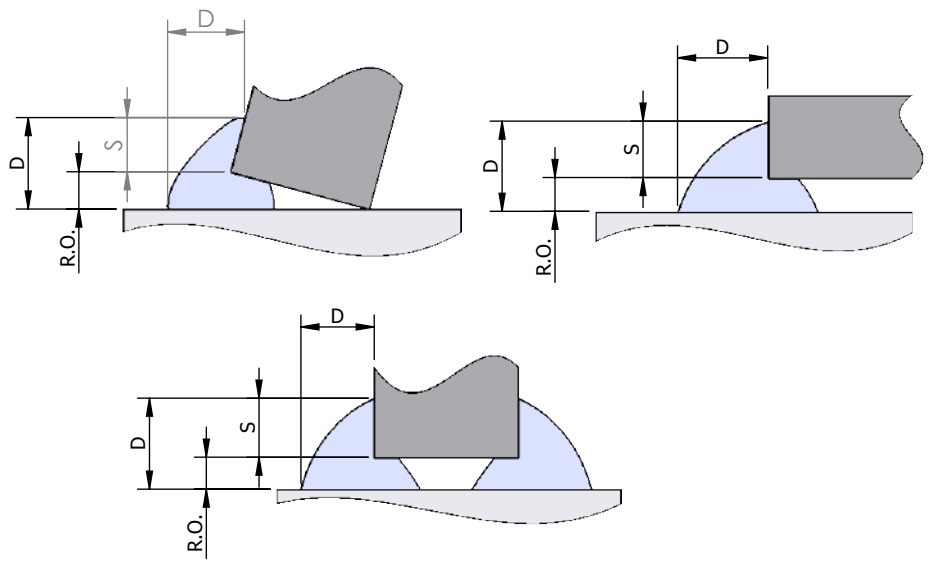
STANDARD WELDING DETAILS

# FILLET WELDS

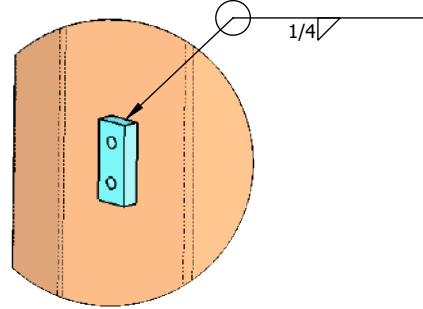
**FW1**

**GENERAL NOTES**

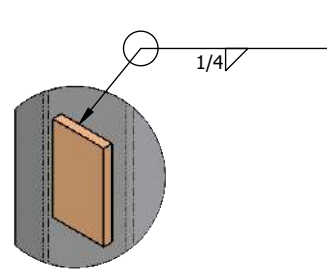
1. WELDING PROCEDURES USED FOR PRIMARY JOINTS SHALL BE QUALIFIED IN ACCORDANCE WITH THE AWS D1.1 LATEST EDITION. (AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE)
2. WHEN ROOT OPENING IS > 1/16" FOR FILLET WELDED JOINTS, THE DEPOSITED FILLET WELD SIZE "D" SHALL BE THE SPECIFIED SIZE "S" PLUS THE ROOT OPENING WIDTH.
3. SPECIAL WELD SHOWN ON PART DETAILS TAKES PRECEDENCE OVER STANDARD WELDS ON THESE SHEETS.
4. ALL NON- STRUCTURAL WELDS NOT SPECIFIED SHALL BE 3/16" MIN. FILLET WELDS. (NAME PLATES, SEALER PLATES)
5. CODE LETTERS:  
 T = THICKNESS OF THINNEST PLATE (UNLESS NOTED)  
 R.O. = ROOT OPENING  
 PJP = PARTIAL JOINT PENETRATION  
 CJP = COMPLETE JOINT PENETRATION  
 D = DEPOSITED FILLET SIZE  
 S = SPECIFIED SIZE



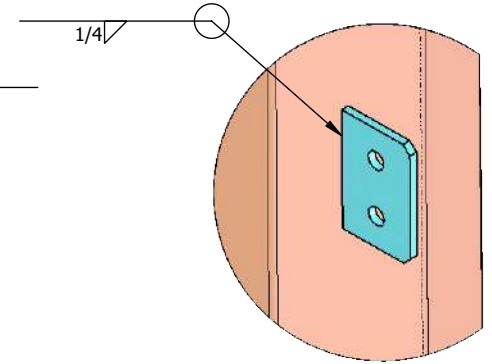
**NAME PLATES AND ID TAGS**



**GROUND PADS**

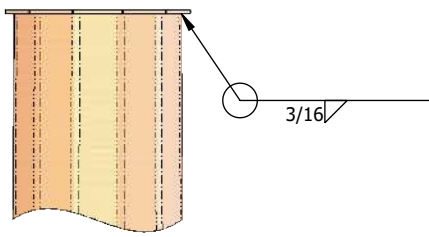


**CLIMBING PAD**



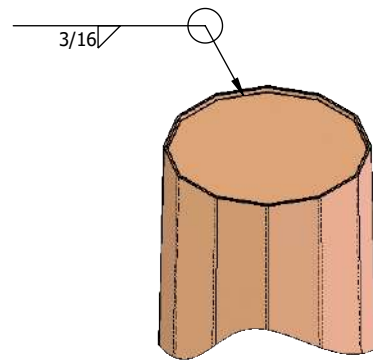
**GROUNDING TAB**

**FW2**



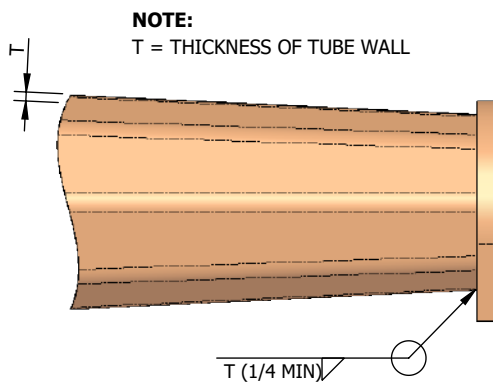
**NON-STRUCTURAL POLE CAPS, BEARING PLATES TO TUBE, & BASEPLATE WEIGHT REDUCTION CUTOUT COVER PLATE**

**FW3**



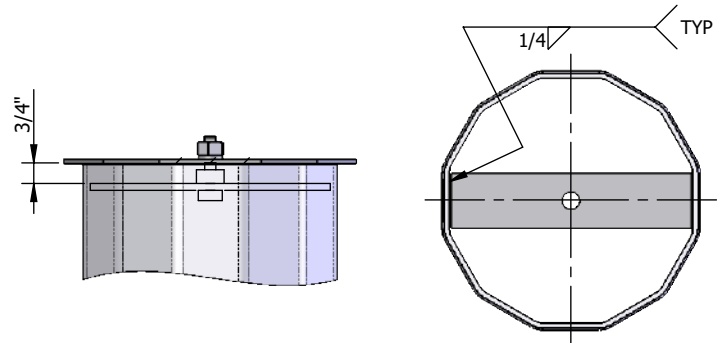
**SEALER PLATES TO TUBE**

**FW4**



**STRUCTURAL POLE CAP AND ARM ENDPLATE TO TUBE**

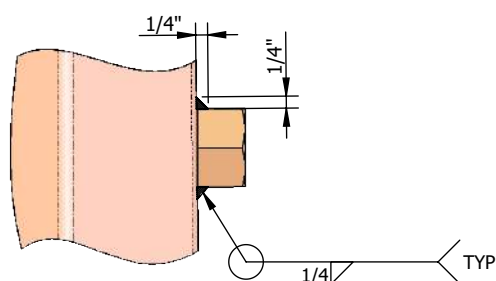
**FW5**



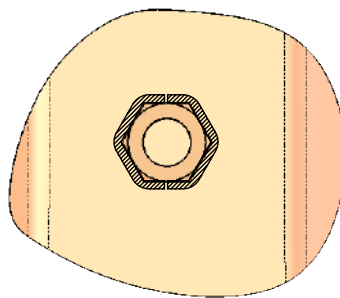
**POLE CAP ANCHOR PLATE**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

**FW6**



**JACKING NUT**



**JACKING NUT DETAIL  
WELDING START & STOP ON NUT FLATS**

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

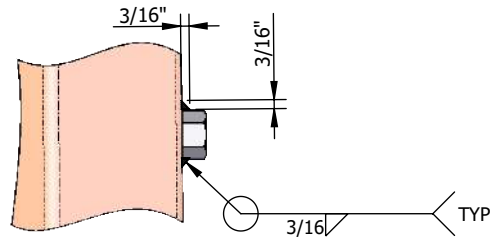
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STANDARD WELDING DETAILS

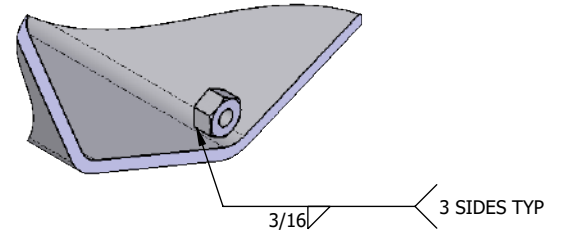
**FILLET WELDS**  
(CONTINUED)

**FW7**



**NUT TO POLE FACE**

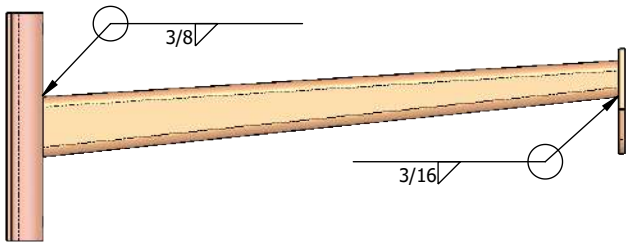
**FW8**



**NUT TO ARM SHANK**

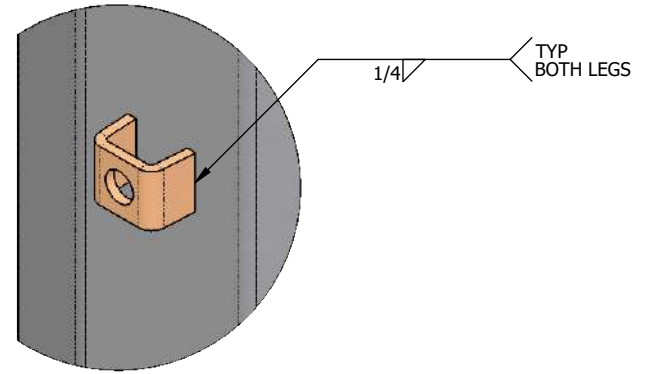
**NOTE:**  
PREPARE ARM END TO FIT CURVATURE OF  
LD ARM BRACKET "A" AS NEEDED

**FW9**



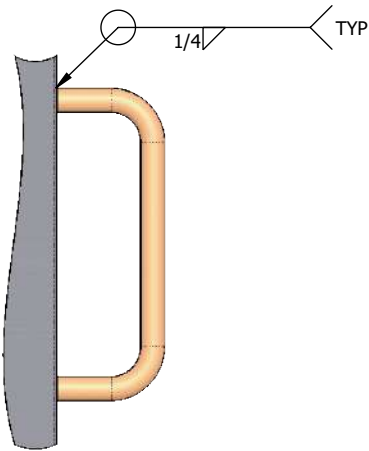
**LD ARM - BRACKET TO ARM SHANK,  
END PLATE TO ARM SHANK**

**FW10**



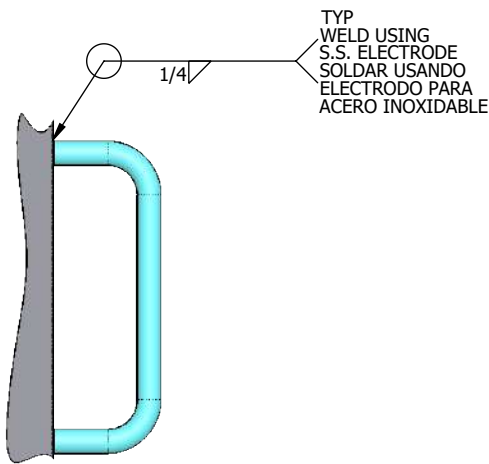
**BAIL STEP CLIP & STEP LUG  
(WITH NO BEVEL)**

**FW11**



**BENT ROD (WEATH/GALV)  
HAND GRAB, TOWEL RACK  
CHAIN DAMPER**

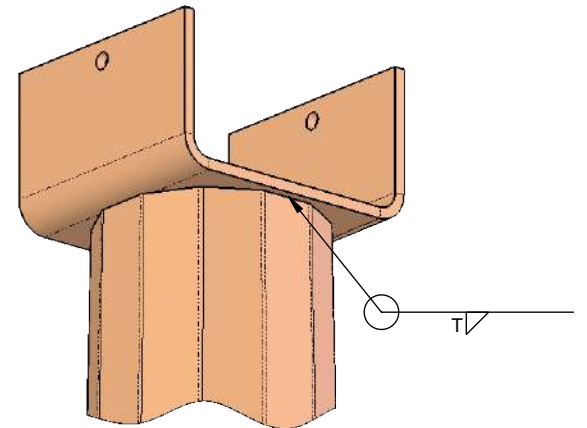
**FW11S**



**BENT ROD (STAINLESS)  
HAND GRAB  
GROUND LOOP**

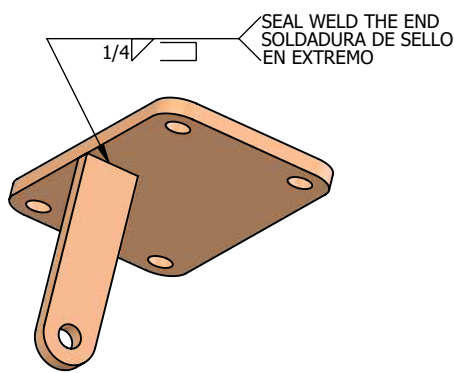
**NOTE:**  
T=THICKNESS OF TUBE WALL

**FW12**



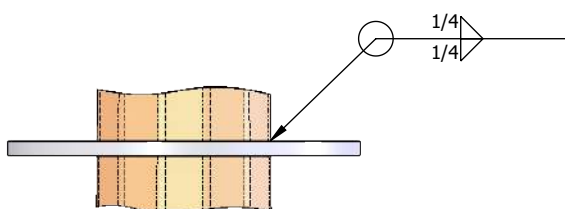
**SADDLE BRACKET**

**FW13**



**T-VANG AT ARM END**

**FW14**



**SLIDE OVER VANG**

REV	DESCRIPTION	DRFT/DATE
Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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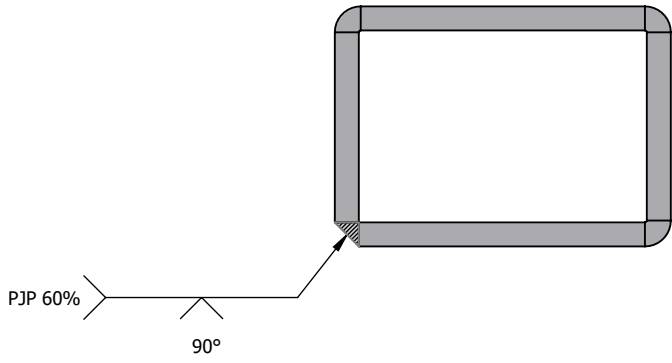
STANDARD WELDING DETAILS



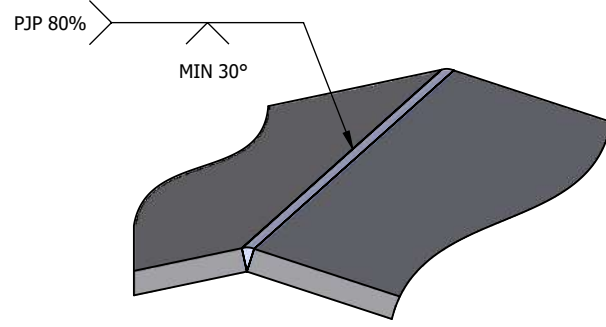
**LONGSEAM NOTES**

1. CJP ABOVE AND BELOW CIRCUMFERENCE WELDS AND HANDHOLES 6" FOR PLATE <1/2" AND 12" FOR PLATE >= 1/2".
2. CJP IN FEMALE S.J. LAP + 6".
3. USE INSIDE REINFORCING WELDS ON ALL ENDS OF OPEN TUBES.  
FOR DIAMETERS < 6" USE 3" LONG REINFORCING WELDS  
FOR DIAMETERS > 6" AND < 24" USE 6" LONG REINFORCING WELDS  
FOR DIAMETERS > 24" USE 12" LONG REINFORCING WELDS

**LS1**



**SQUARE TUBE LONG SEAM**

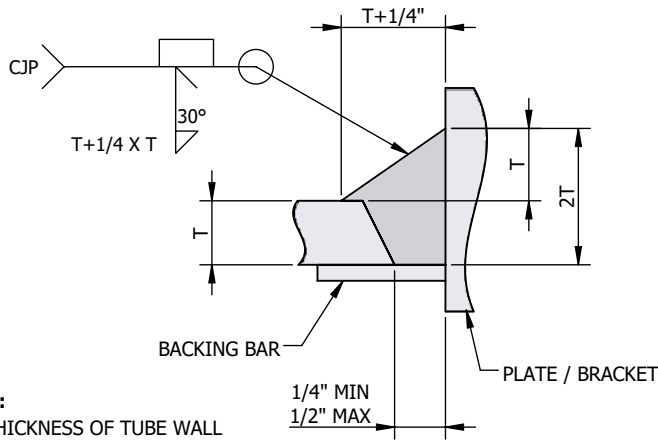


**8, 12 AND 16 SIDED TUBE LONG SEAMS**

**APPLICATION:**

- FOR TUBE TO ARM BRACKET OR CROSS ARM BRACKET
- FOR TUBE TO DIAPHRAGM PLATE (MITERS ONLY)
- FOR TUBE TO BASE PLATE OR FLANGE PLATE

**CP1**



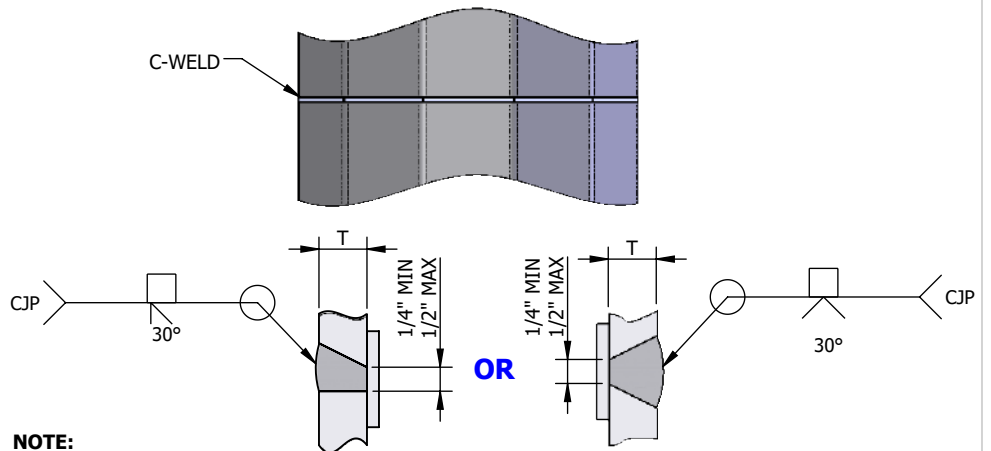
**NOTE:**  
T = THICKNESS OF TUBE WALL

**TUBE TO ARM BRACKET, BASE PLATE, FLANGE PLATE AND DIAPHRAGM PLATE**

**NOTES FOR CIRCUMFERENTIAL WELDS**

1. NO TACK WELDS OR WELD START/STOPS ON A BEND RADIUS OR LONG SEAM.
2. ALL TACK WELDS OR WELD START/STOPS SHALL BE ON FLATS.
3. STAGGER WELD START/STOPS AT LEAST ONE (1) INCH ON MULTI-PASS WELDS.
4. BEND LINE REINFORCEMENT WELDS SHALL NOT BE MADE.

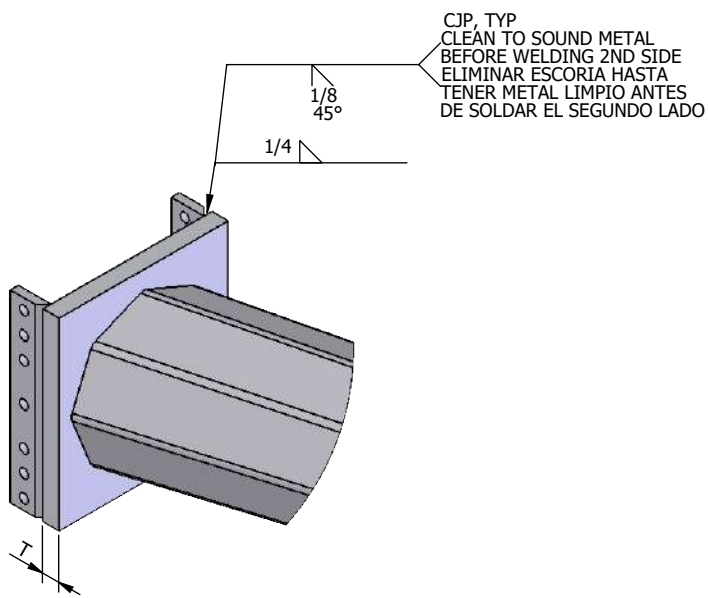
**CP2**



**NOTE:**  
T = THICKNESS OF TUBE WALL

**CIRCUMFERENTIAL WELD**

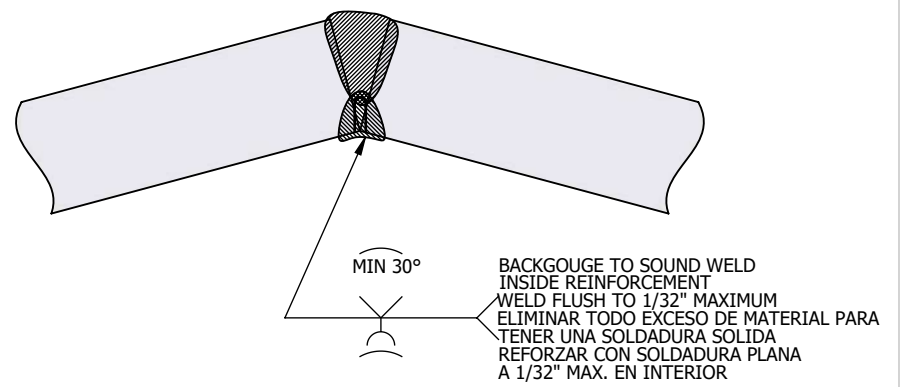
**CP3**



**3-PIECE MOUNT CHANNEL**

MFG TOLERANCES:  
ANGLE: +10°, -5°

**LS2**



**LONG SEAM AT THE FEMALE SLIP JOINT**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

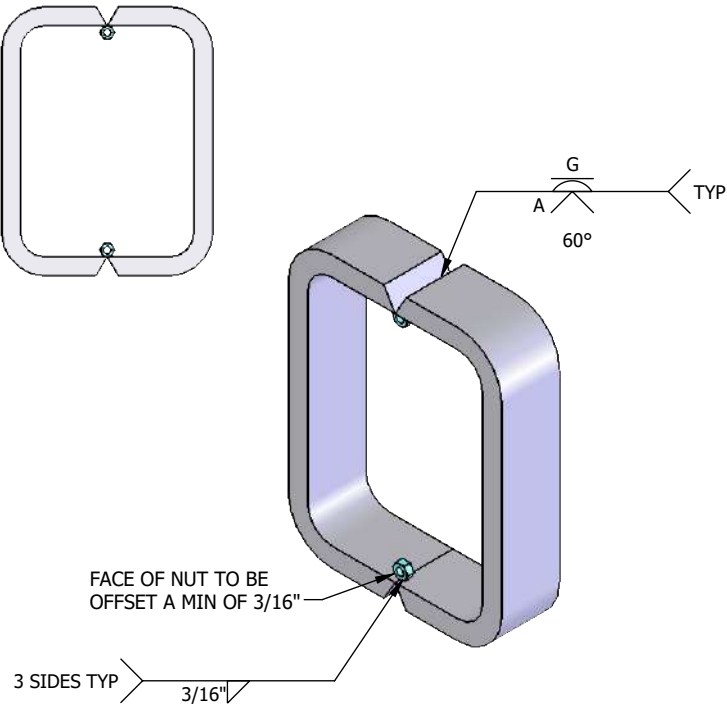
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STANDARD WELDING DETAILS

**NOTE:**  
A = THICKNESS OF HAND HOLE

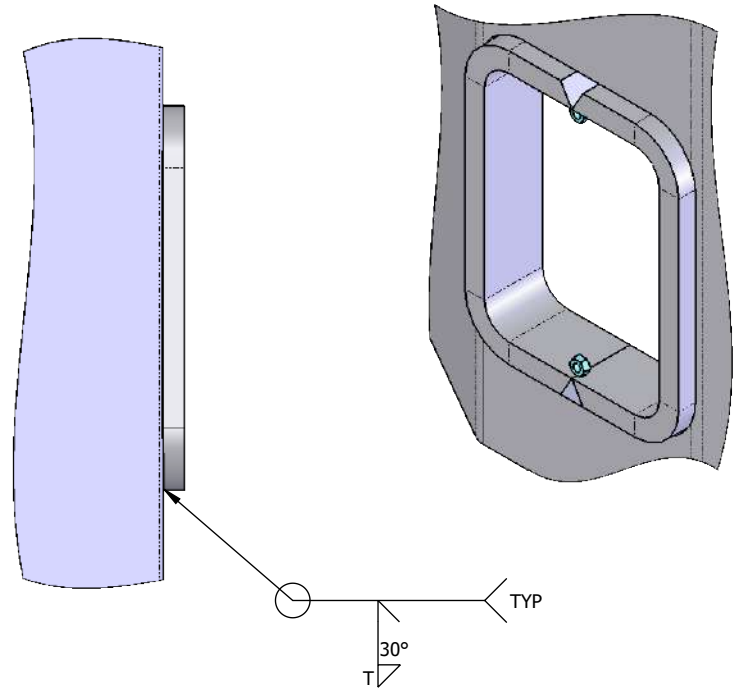
### HH1



**HAND HOLE**

**NOTE:**  
T = THICKNESS OF TUBE WALL

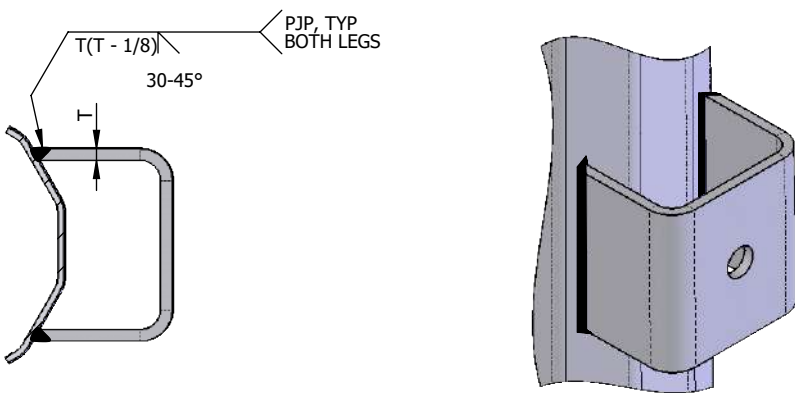
### HH2



**HAND HOLE TO TUBE**

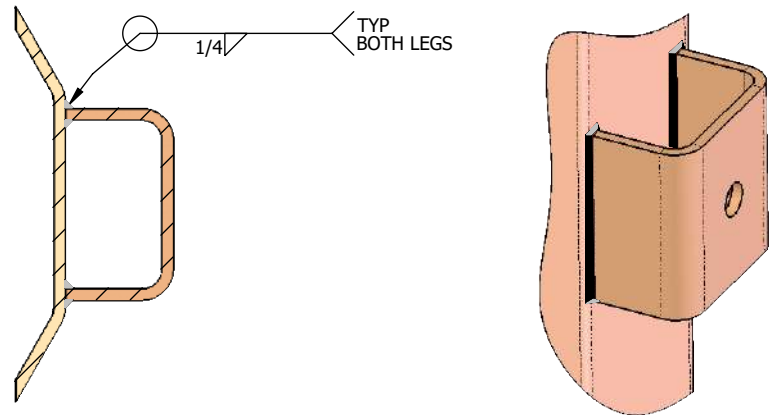
**NOTE:**  
OPTIONAL SEAL WELD MAY BE WRAPPED TO ACCESSIBLE PORTION OF INSIDE BRACKET.  
T = THICKNESS OF BRACKET PLATE

### MB1



**U-SHAPED VERTICAL BRACKET ON ANGLED FACE OF POLE**

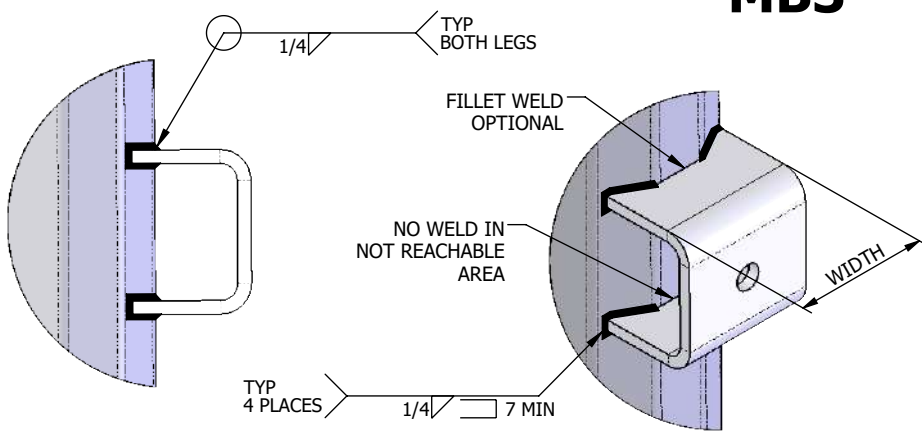
### MB2



**U-SHAPED VERTICAL BRACKET ON FLAT FACE OF POLE**

FOR SHORT BRACKETS: WIDTH ≤ 6"

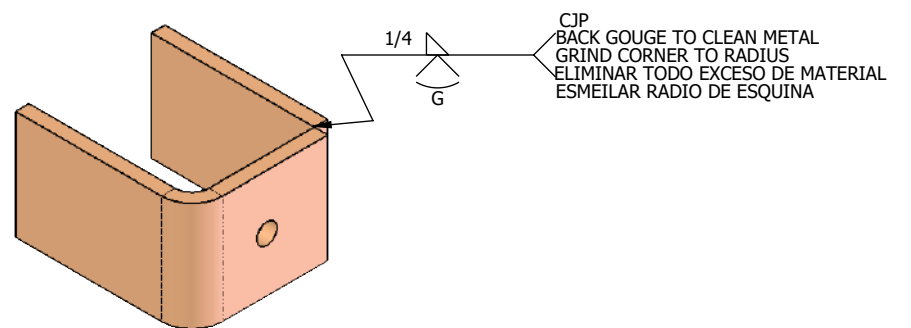
### MB3



**U-SHAPED HORIZONTAL BRACKET**

FOR WIDE BRACKETS: WIDTH > 6"

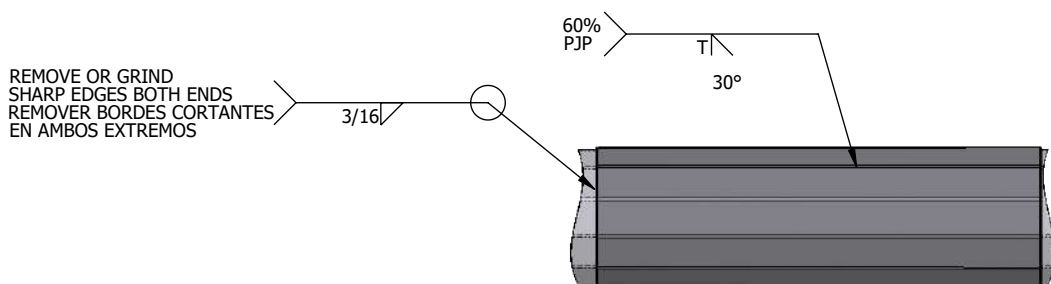
### MB4



**2-PIECE BRACKET**

**NOTE:**  
T=THICKNESS OF GROUND SLEEVE

### GS1



REMOVE OR GRIND SHARP EDGES BOTH ENDS  
REMOVER BORDES CORTANTES EN AMBOS EXTREMOS

**GROUND SLEEVE WITHOUT BASE PLATE**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
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ENGINEER:	MEYER

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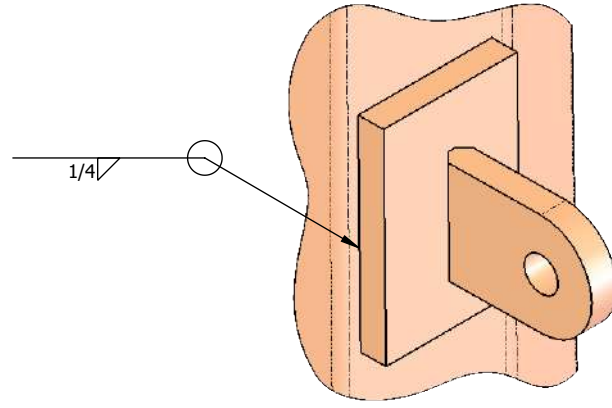
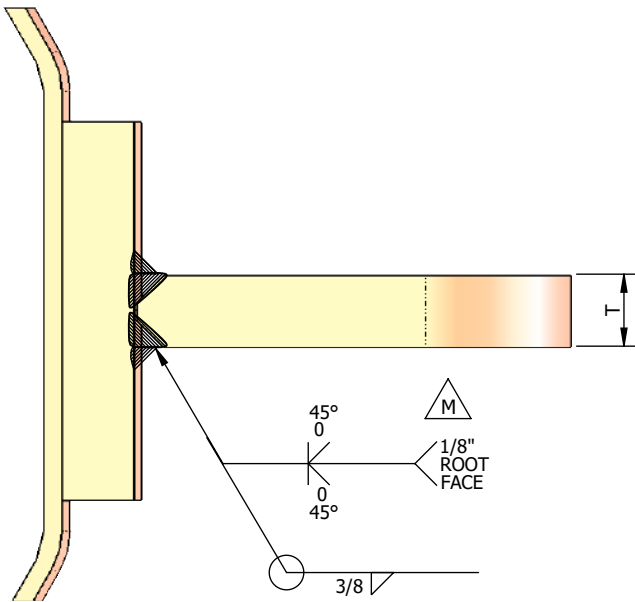
**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

**VD1**

**NOTES:**

1. T = THICKNESS OF VANG.
2. FIT UP TOLERANCE FOR VANG BEVEL, +10° -5°.
3. ROOT FACE FIT UP TOLERANCE, ±1/16".
4. ROOT OPENING FIT UP TOLERANCE = 1/8" MAX.

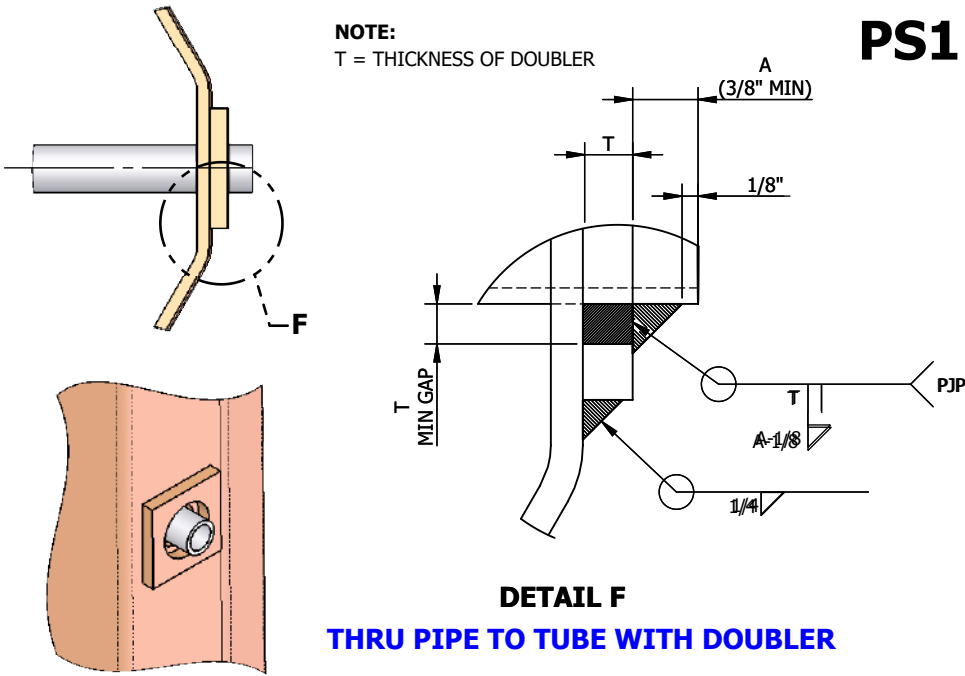


**VANG TO PLATE AND DOUBLER TO TUBE**

**NOTE:**

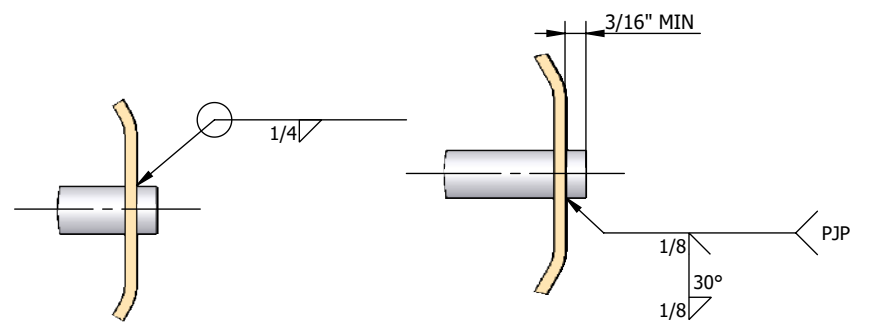
T = THICKNESS OF DOUBLER

**PS1**



**THRU PIPE TO TUBE WITH DOUBLER**

**PS2**



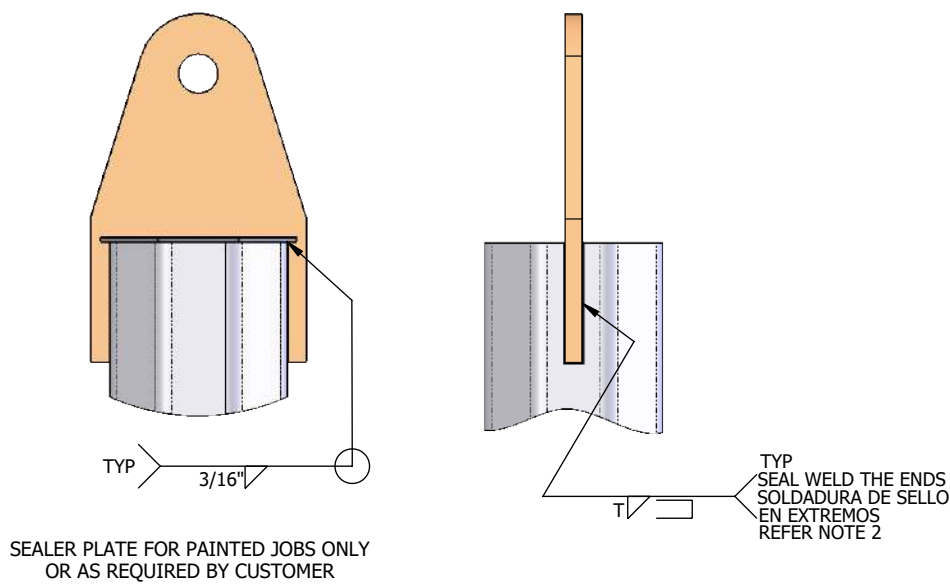
**THRU PIPE TO TUBE**

**"GRIND FLUSH" THRU PIPE TO TUBE IF CUSTOMER REQUESTS "GRIND FLUSH" AND TOWER PLATE > 1/4" THICK (NOT ABLE TO "GRIND FLUSH" FOR TOWER PLATE TUBE THICKNESS ≤ 1/4")**

**NOTE:**

1. T = TUBE WALL THICKNESS.
2. IF ACCESSIBLE, WRAP WELD TO INSIDE OF TUBE AND WELD ACCESSIBLE LENGTH.

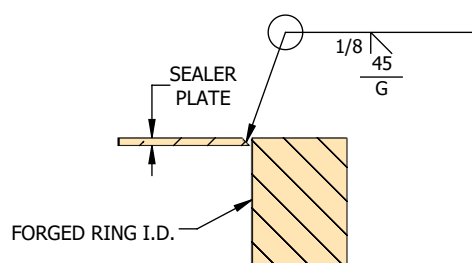
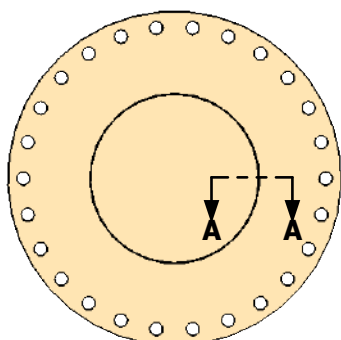
**CB1**



SEALER PLATE FOR PAINTED JOBS ONLY OR AS REQUIRED BY CUSTOMER

**CROSS BRACING THROUGH VANG**

**SP1**



**SECTION A-A**

NOTE: SEALER PLATE SHOULD BE FLUSH, BUT IS ACCEPTABLE TO HAVE 1/8" RECESS FROM THE FORGED RING - FLANGE.

**FORGED RING - FLANGE TO SEALER PLATE (WEATHERING ONLY)**

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

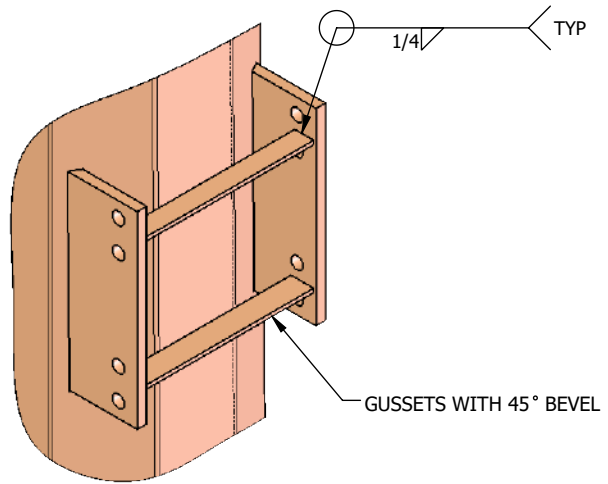
PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
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ENGINEER:	MEYER

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STANDARD WELDING DETAILS

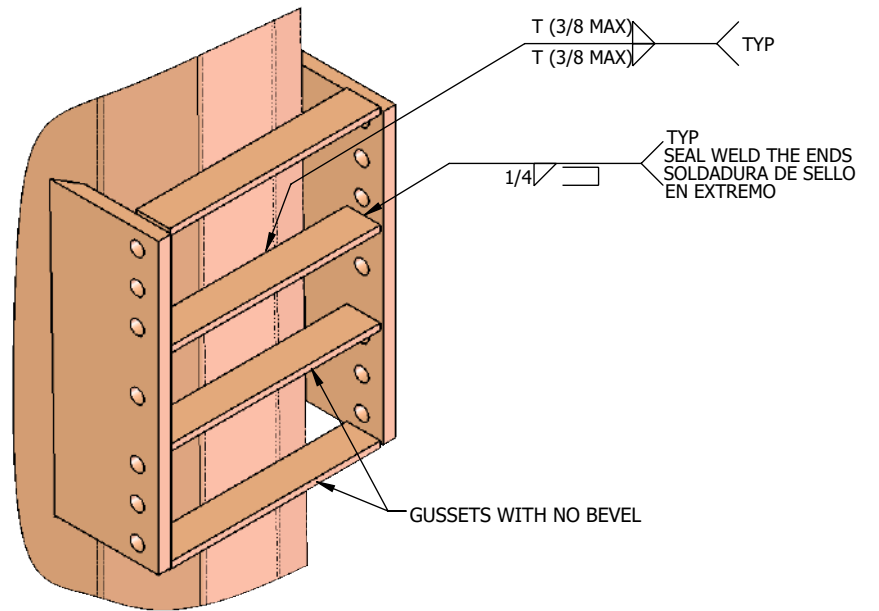
**G1**



**THROUGH PLATE GUSSETS**

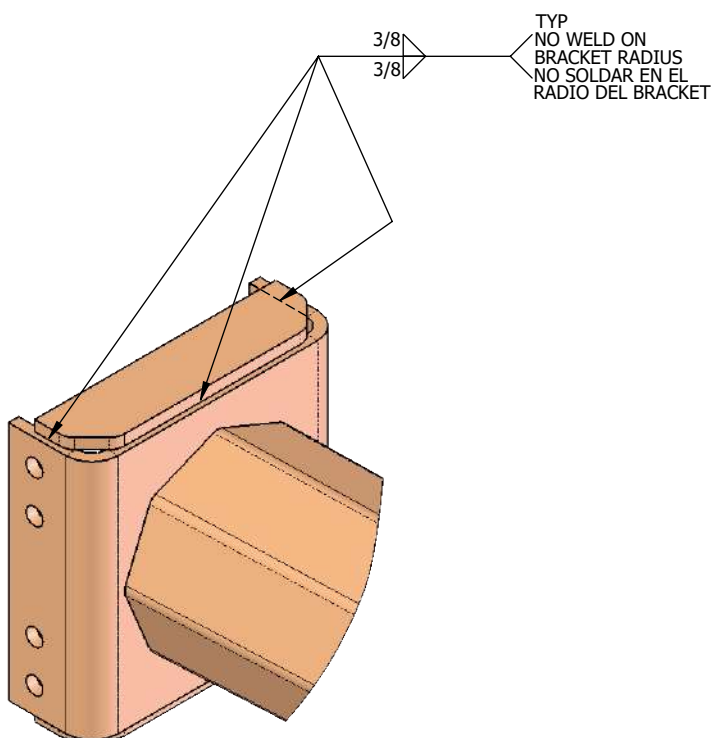
**G2**

**NOTE:**  
T = THICKNESS OF TUBE WALL



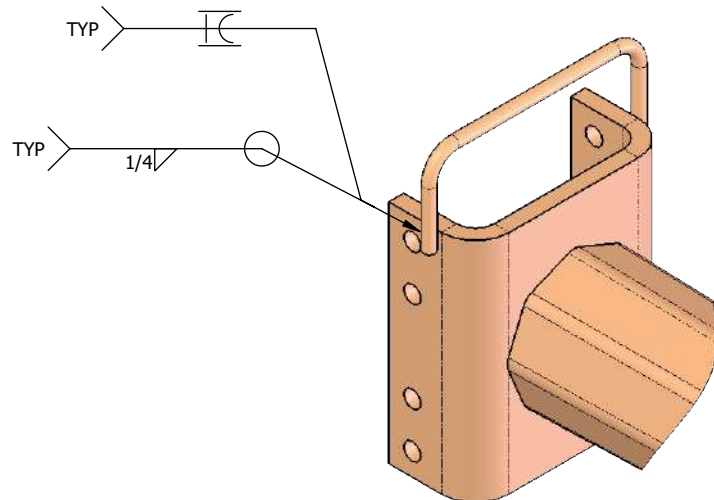
**S & C TYPE THROUGH PLATE GUSSETS (WELDED TO POLE FACE)**

**G3**



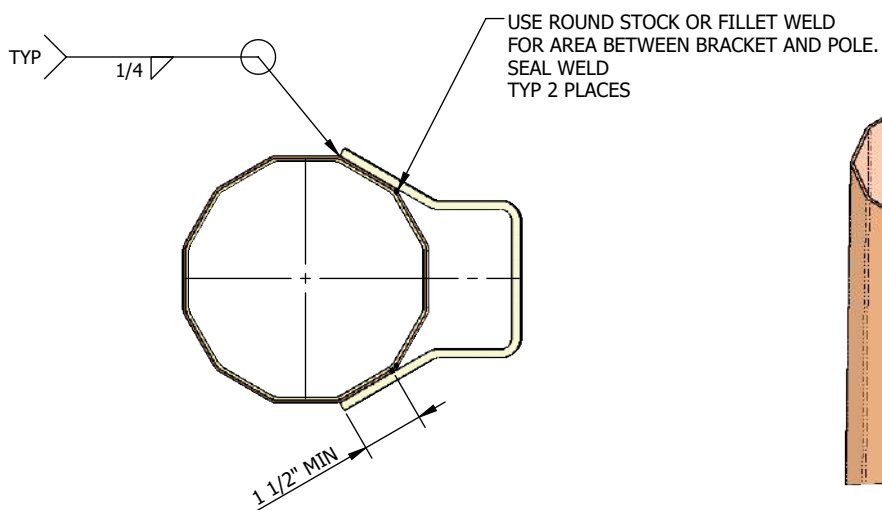
**MOUNT CHANNEL WITH GUSSETS**

**HG1**

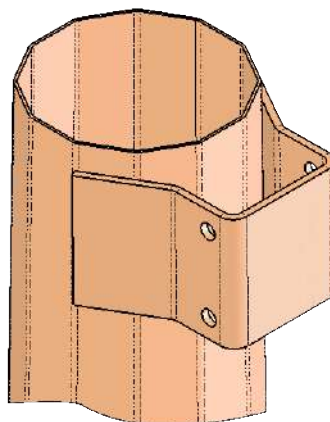


**ROUND ROD TO PLATE**

**WR1**



**SINGLE PIECE WRAP**



Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

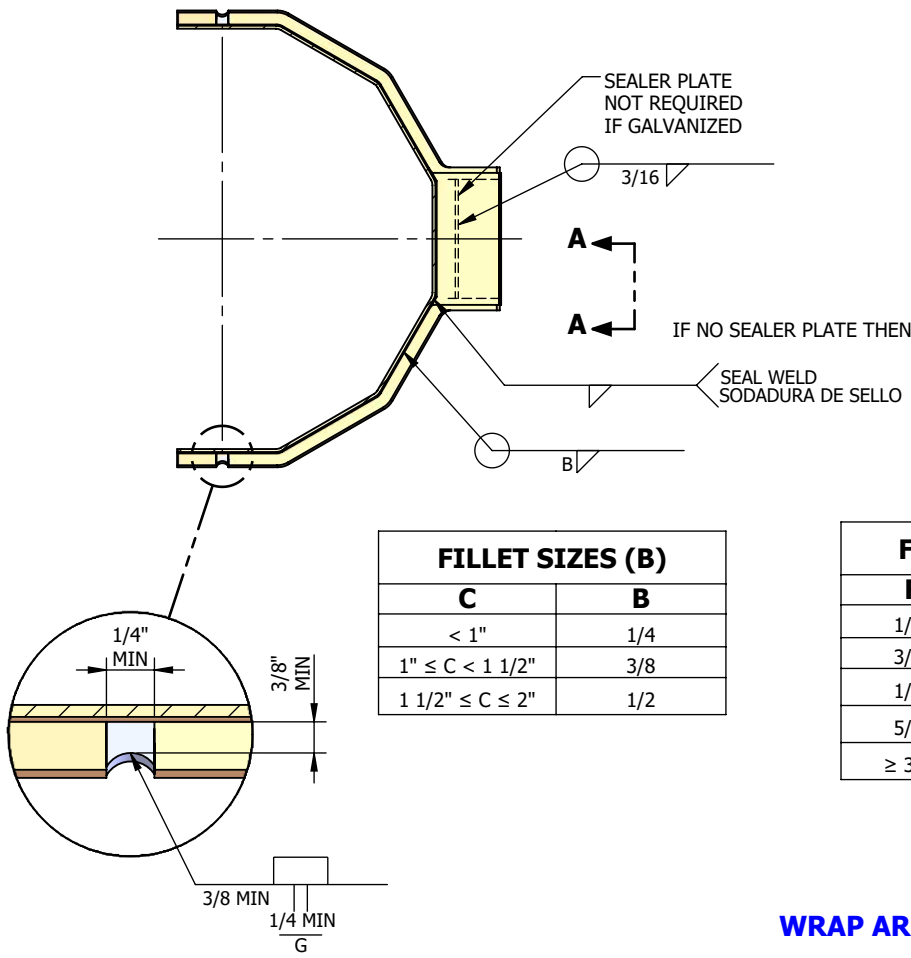
PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
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DRAWN/DATE:	MUS 05/17/2017
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ENGINEER:	MEYER

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UTILITY STRUCTURES

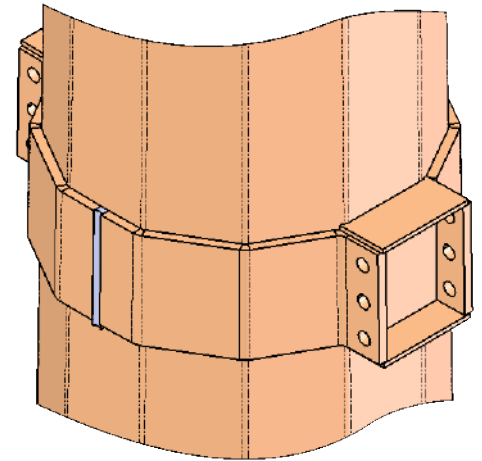
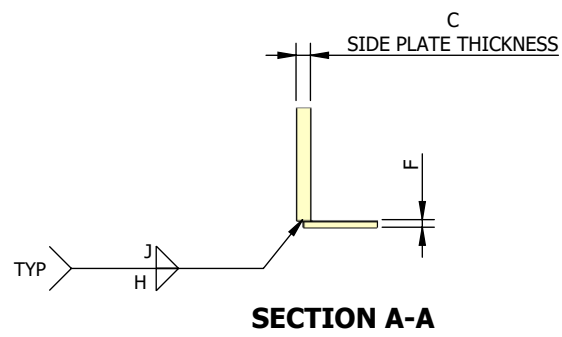
STANDARD WELDING DETAILS

**WB1**



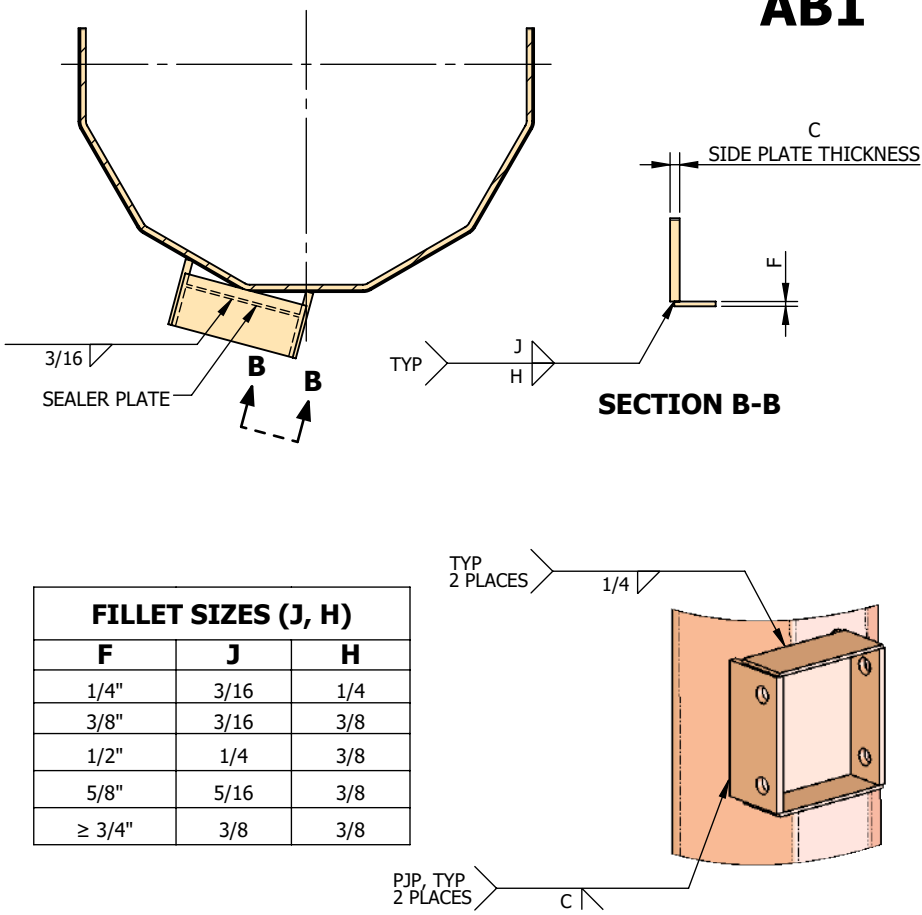
FILLET SIZES (B)	
C	B
< 1"	1/4
1" ≤ C < 1 1/2"	3/8
1 1/2" ≤ C ≤ 2"	1/2

FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8



**WRAP ARM BOX**

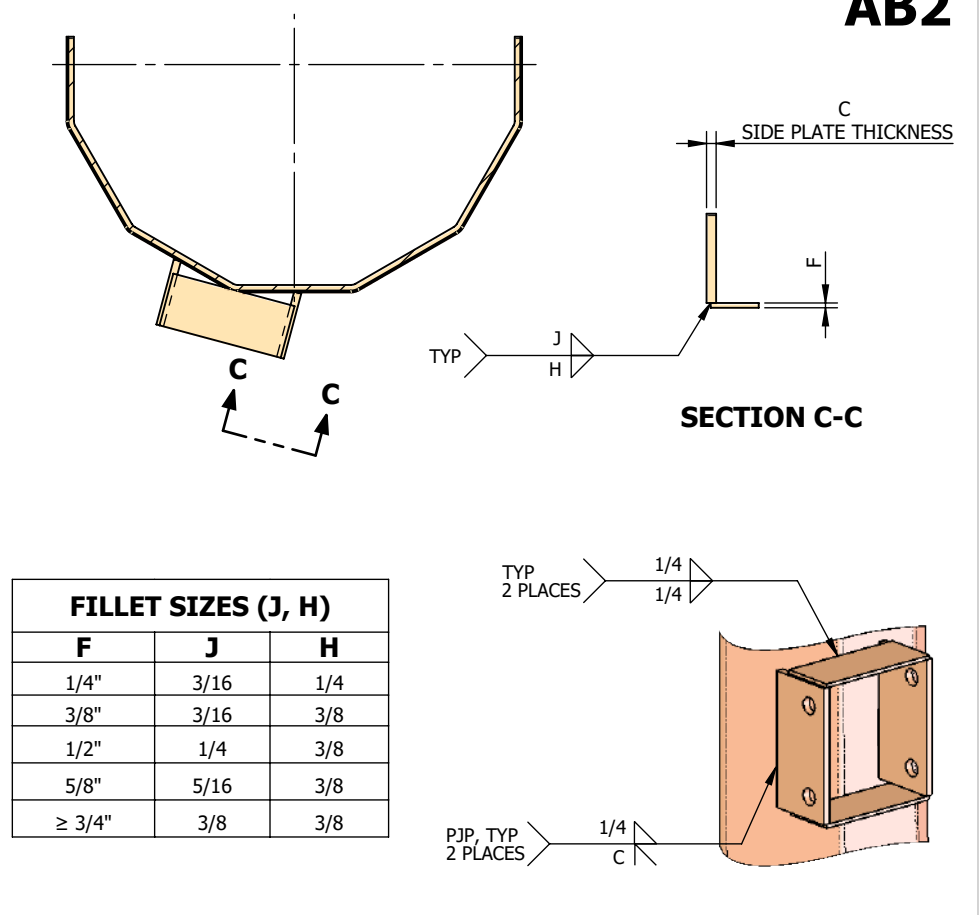
**AB1**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - 2 FLATS W/ SEALER PLATE**

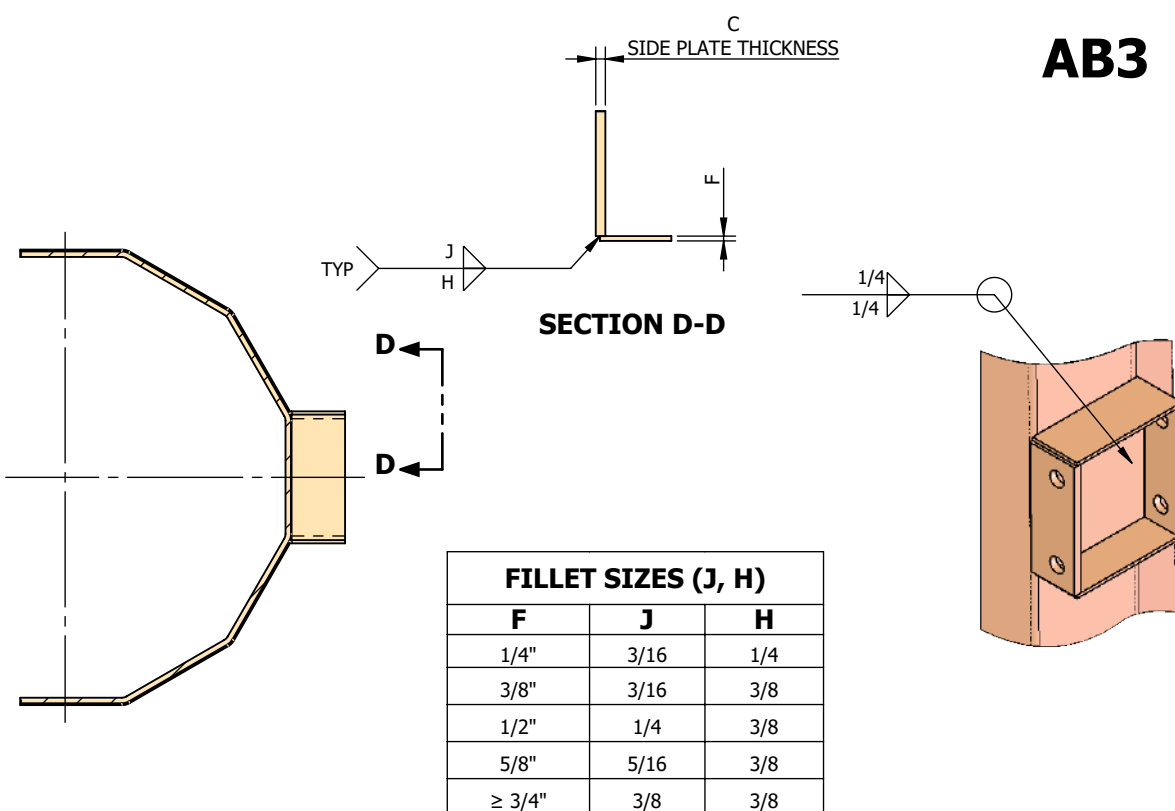
**AB2**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - 2 FLATS W/O SEALER PLATE**

**AB3**



FILLET SIZES (J, H)		
F	J	H
1/4"	3/16	1/4
3/8"	3/16	3/8
1/2"	1/4	3/8
5/8"	5/16	3/8
≥ 3/4"	3/8	3/8

**STANDARD ARM BOX - SINGLE FLAT**

S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
R	REVISED CP3 BACKSIDE WELD TO 1/2"	RB/11-08-21
P	REVISED BACKSIDE WELD DEFINITION ON 3 PC MT CHANNEL (PJP)	RB/10-01-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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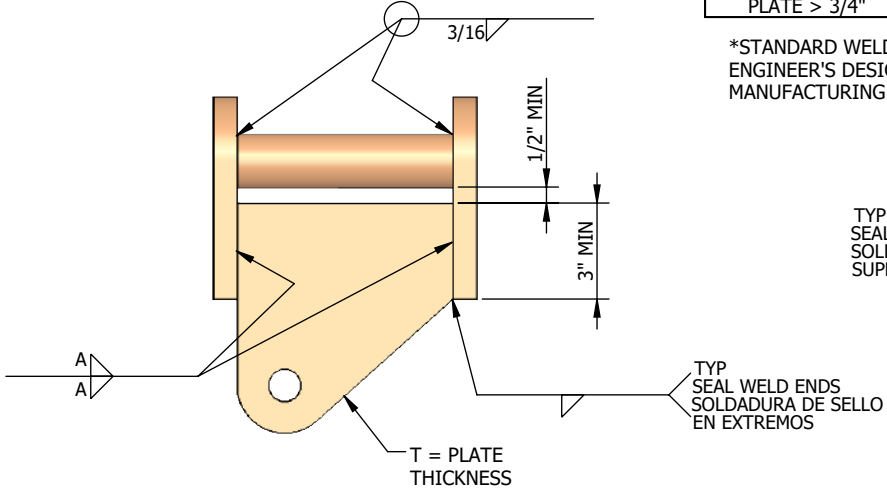
STANDARD WELDING DETAILS



**NOTE:**  
DROP BRACKET CUTOUT PER PRINTS.

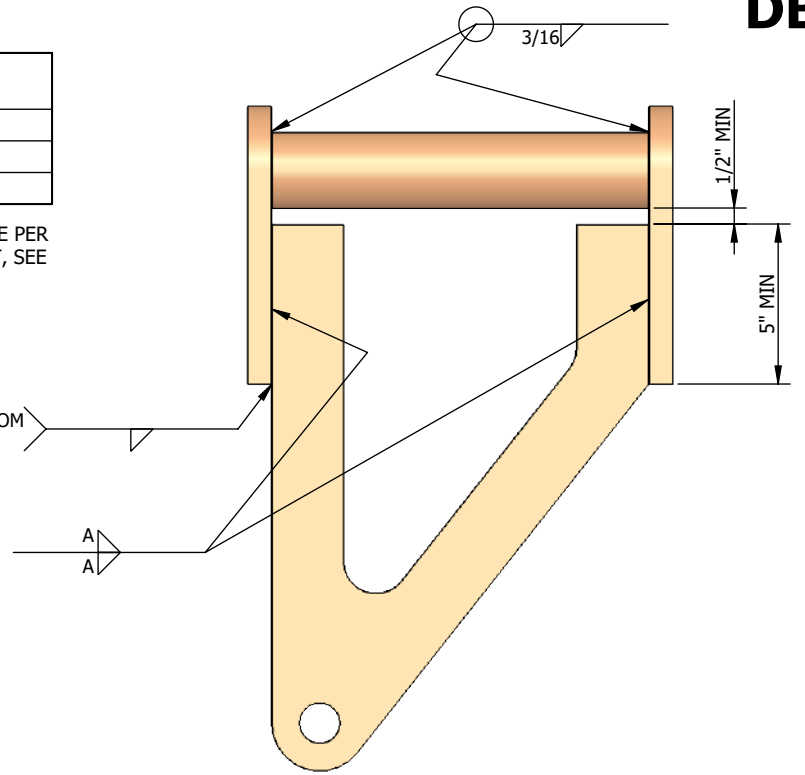
FILLET SIZES	
T	A*
PLATE ≤ 3/4"	1/4"
PLATE > 3/4"	5/16"

\*STANDARD WELDS COULD INCREASE PER ENGINEER'S DESIGN. IN THIS EVENT, SEE MANUFACTURING DRAWING.



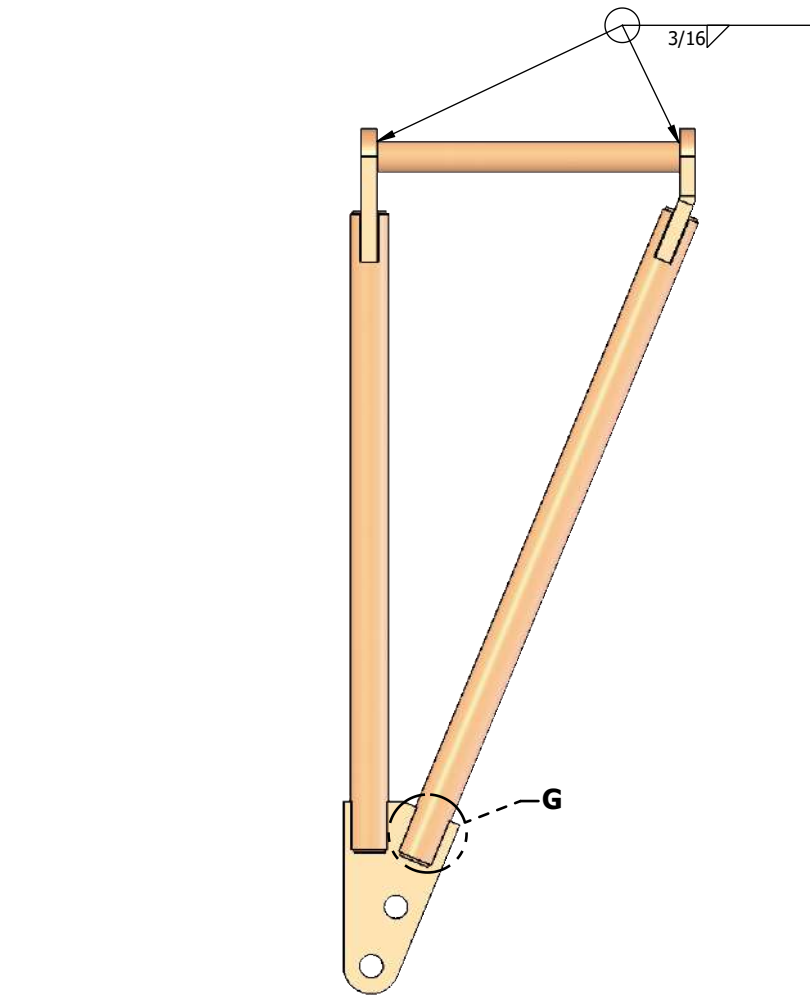
**6" THRU 11"**

**DROP BRACKETS**

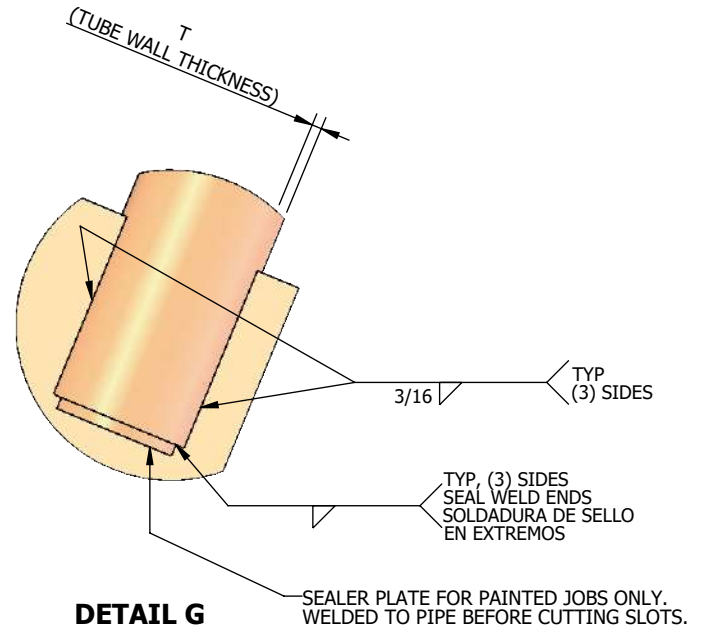


**12" THRU 21"**

**DB1**



**DROP BRACKETS - 37" THRU 60"**



**DB2**

REV	DESCRIPTION	DRFT/DATE
Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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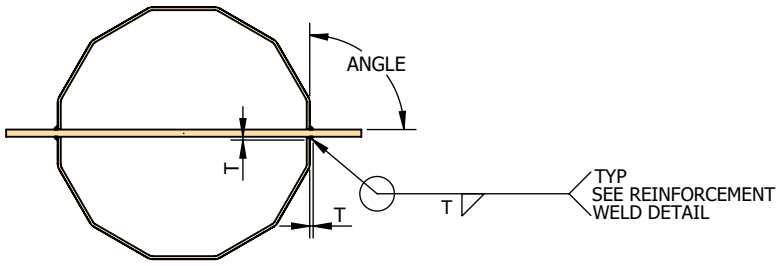
STANDARD WELDING DETAILS

### THROUGH VANG WELDS

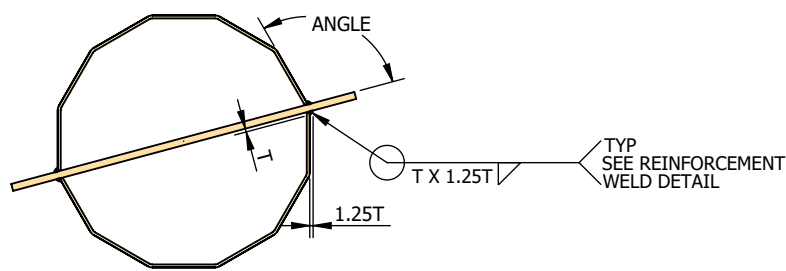
T=POLE WALL THICKNESS

T	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 1/4"
T/2	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	1/2	9/16	9/16	5/8	5/8
1.25T	1/4	5/16	7/16	1/2	9/16	5/8	3/4	13/16	7/8	15/16	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 9/16

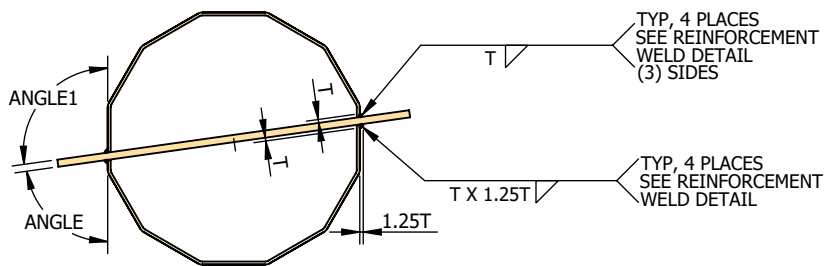
#### TOWER PLATE LESS THAN 3/8" THK



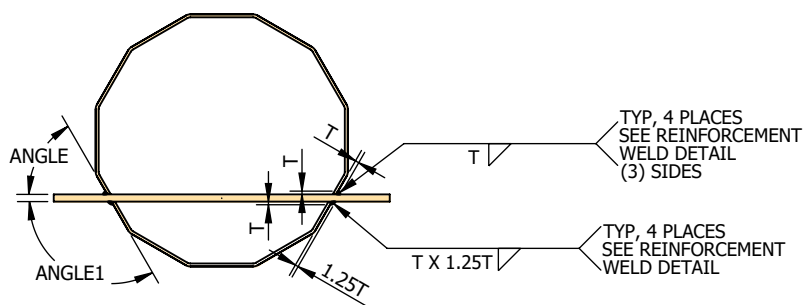
ANGLE = 90°



ANGLE > 90°

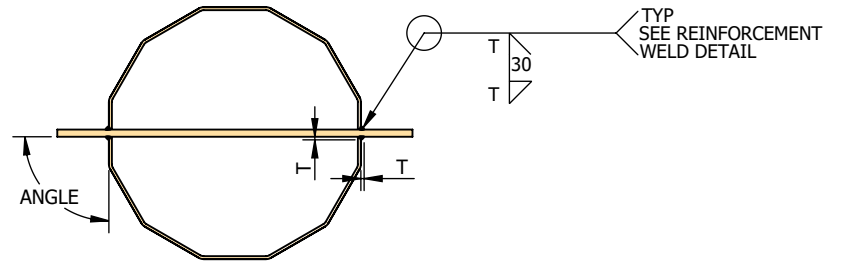


ANGLE > 60°  
ANGLE1 > 90°

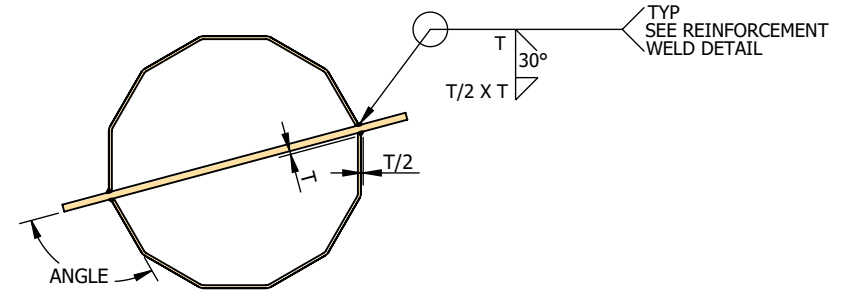


ANGLE = 60°  
ANGLE1 = 120°

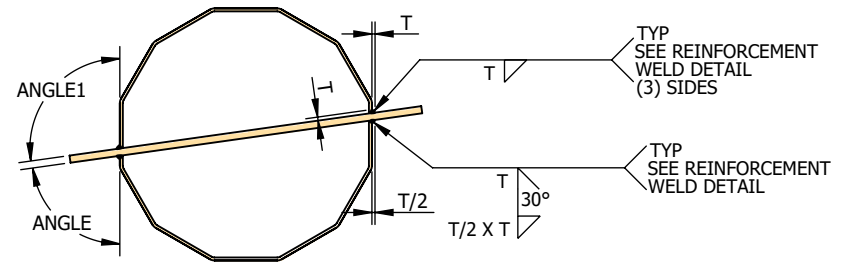
#### TOWER PLATE GREATER THAN/EQUAL TO 3/8" THK



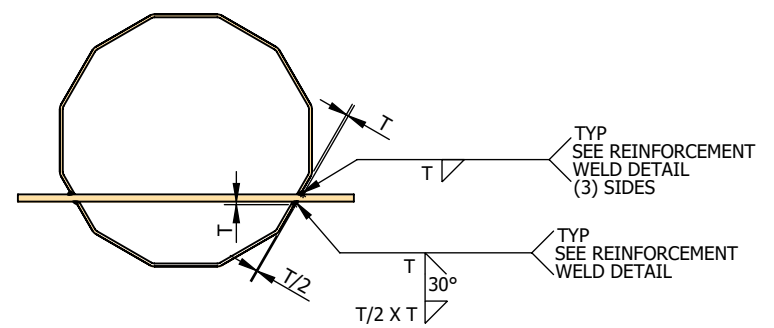
ANGLE = 90°



ANGLE > 90°



ANGLE > 60°  
ANGLE1 > 90°



ANGLE = 60°  
ANGLE1 = 120°

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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STANDARD WELDING DETAILS

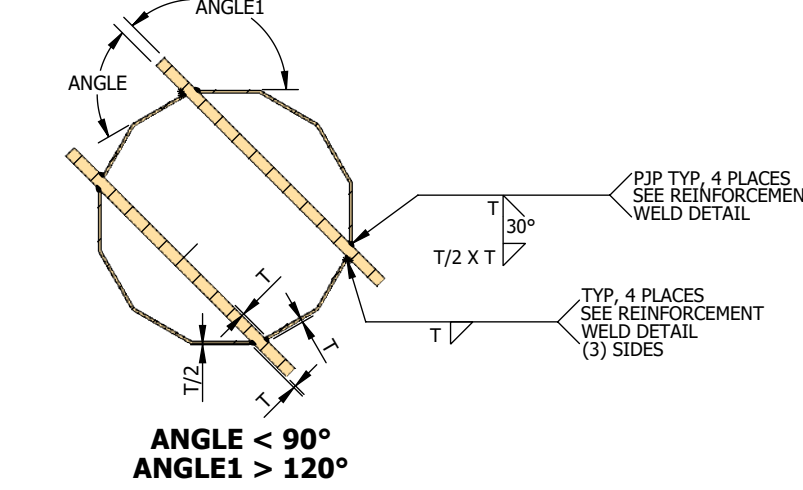
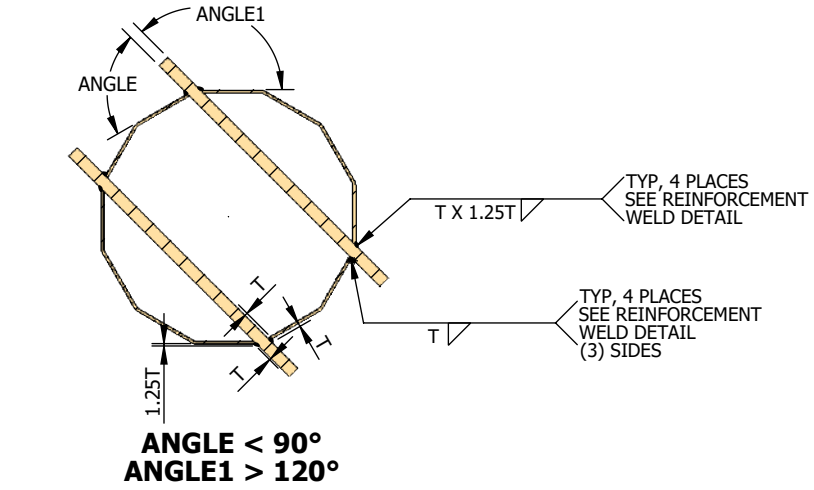
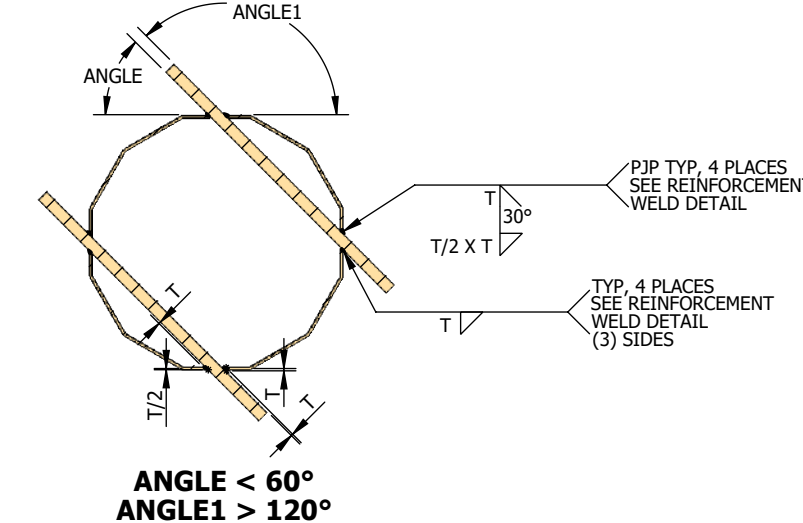
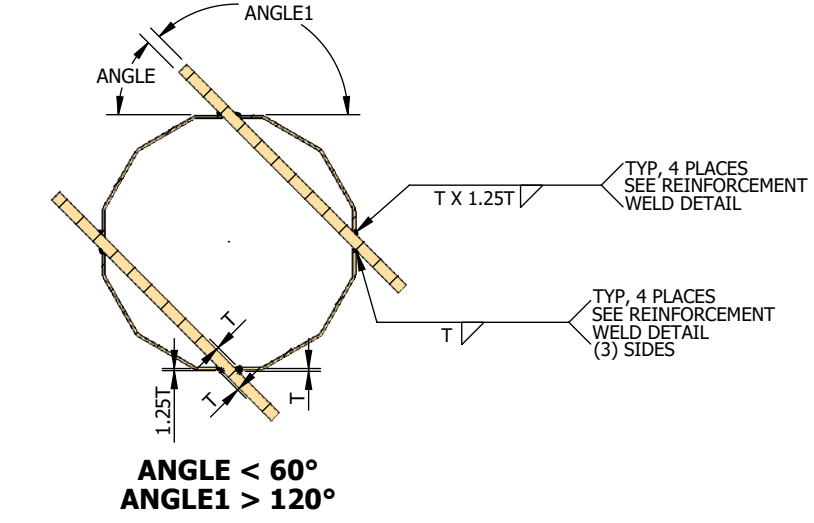
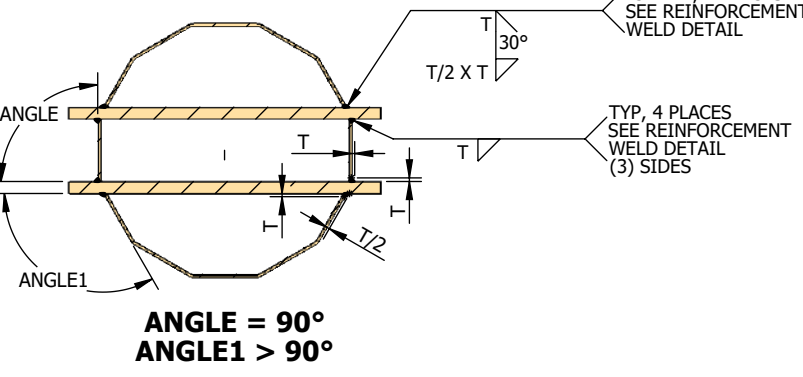
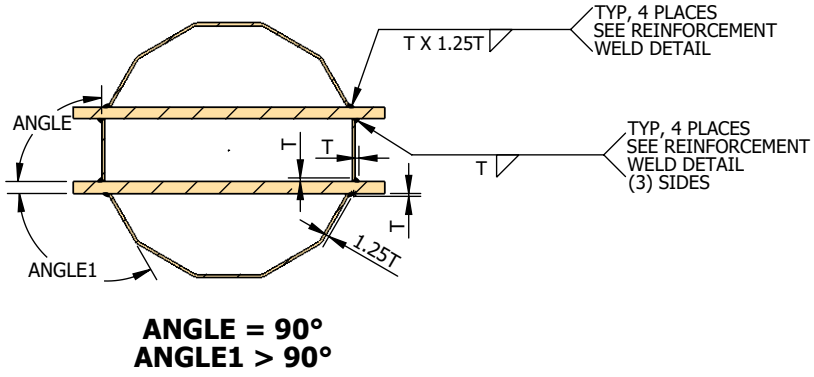
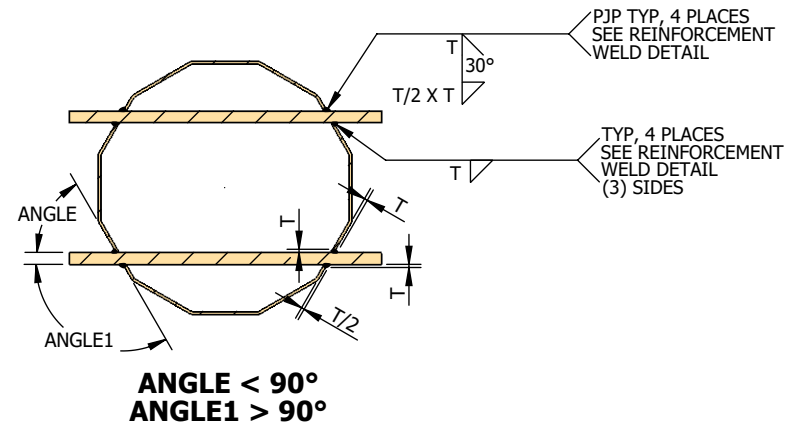
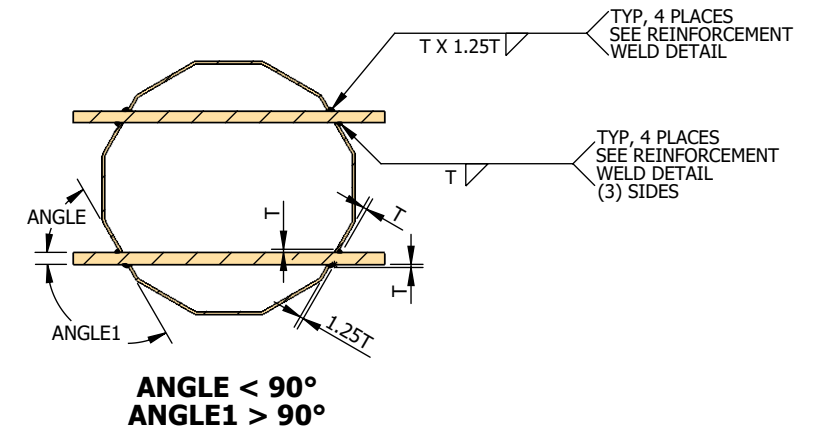
### THROUGH PLATES WELDS FOR ARM MOUNTING

T=POLE WALL THICKNESS

T	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	13/16"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 1/4"
T/2	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16	3/8	3/8	7/16	7/16	1/2	1/2	9/16	9/16	5/8	5/8
1.25T	1/4	5/16	7/16	1/2	9/16	5/8	3/4	13/16	7/8	15/16	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 9/16

#### TOWER PLATE LESS THAN 3/8" THK

#### TOWER PLATE EQUAL TO OR GREATER THAN 3/8" THK



Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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UTILITY STRUCTURES

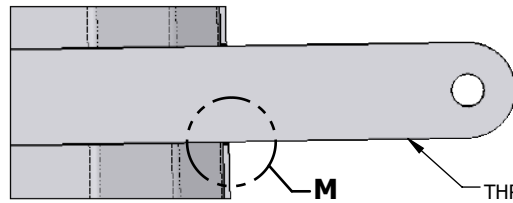
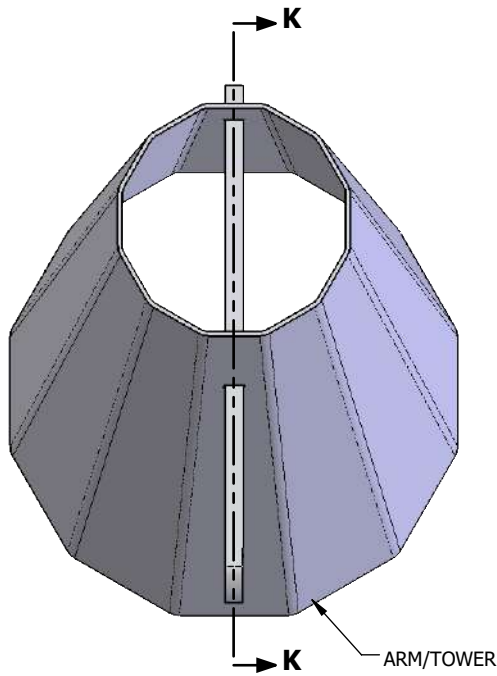
STANDARD WELDING DETAILS



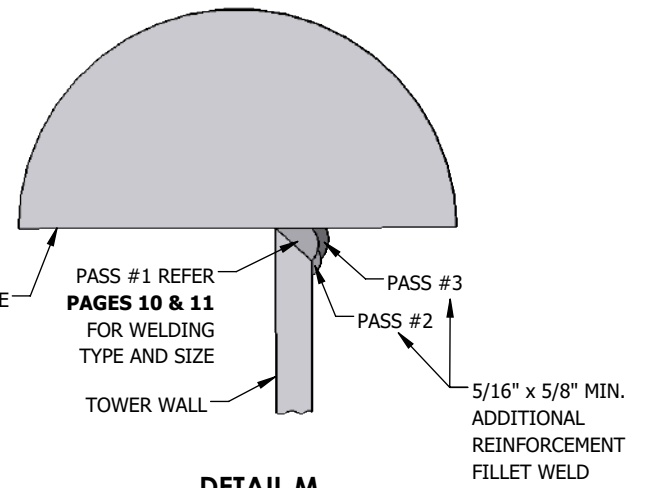
**NOTE:**

1. ALL WELD PASSES MUST STOP/START ON THE SIDES OF THE VANG/PLATE ONLY AND AWAY FROM THE 1" MINIMUM ZONE.
2. AN OPTIONAL FULL PASS IS ACCEPTABLE FOR PASS 3.
3. APPLICABLE FOR ALL MULT-SIDED STRUCTURES AND ARMS.
4. ALL WELD JOINTS ARE PJP. ADD GAP DIMENSION TO FILLET WELD DIMENSION.  
EXAMPLE: A 1/8" GAP WOULD REQUIRE A 7/16" x 3/4" MIN. FILLET.
5. IF ACCESSIBLE, WRAP WELD TO INSIDE OF ARM AND WELD ACCESSIBLE LENGTH.

**VERTICAL THRU PLATES AND VANGS (CONTINUED)**

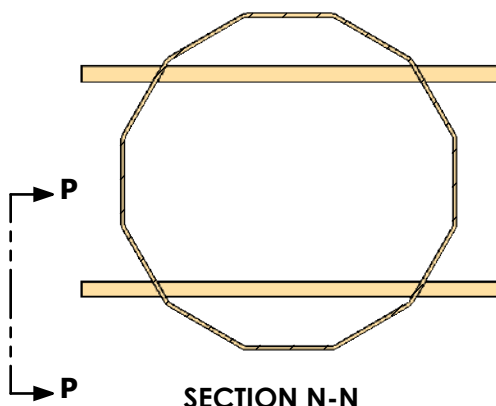


**SECTION K-K**

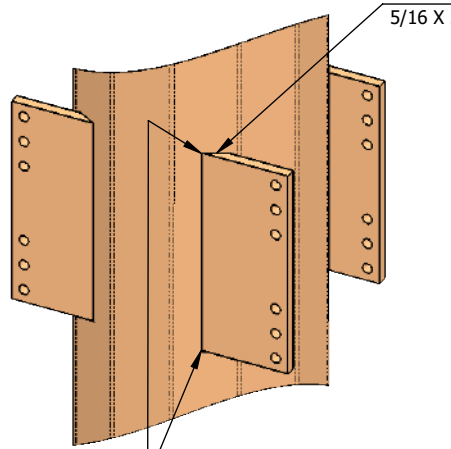


**DETAIL M**

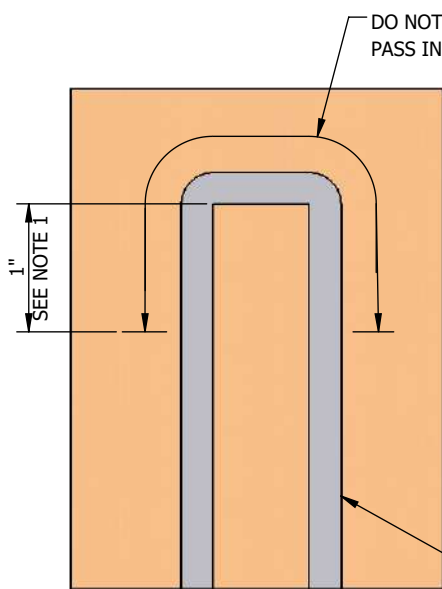
TYP 4 PLACES  
ADDITIONAL REINFORCEMENT  
TYP ALL THRU HARDWARE  
REFER WELD DETAIL  
REFUERZO ADICIONAL  
TIPO EN ACCESORIOS  
VER DETALLE DE SOLDADURA



**SECTION N-N**

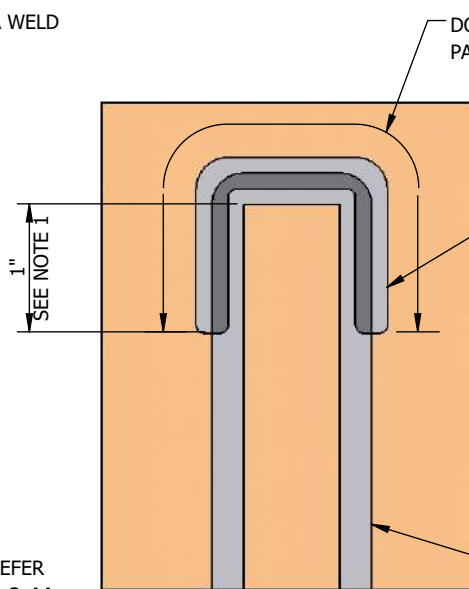


IF GAP BETWEEN TOWER WALL  
AND THRU VANG/PLATE > 3/16"  
ADD BACKING BAR



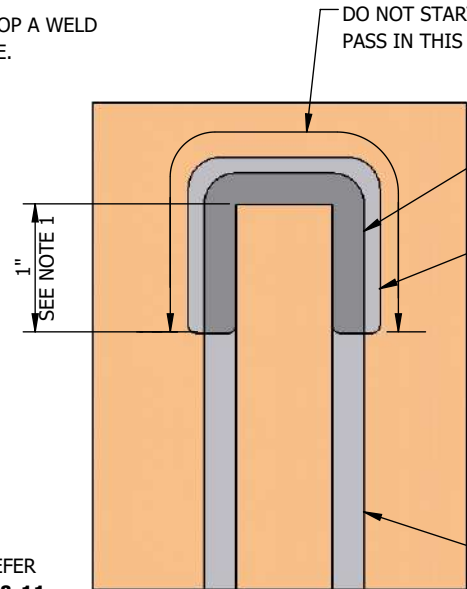
**VIEW P-P  
FIRST PASS  
WELD1**

PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



**VIEW P-P  
SECOND PASS**

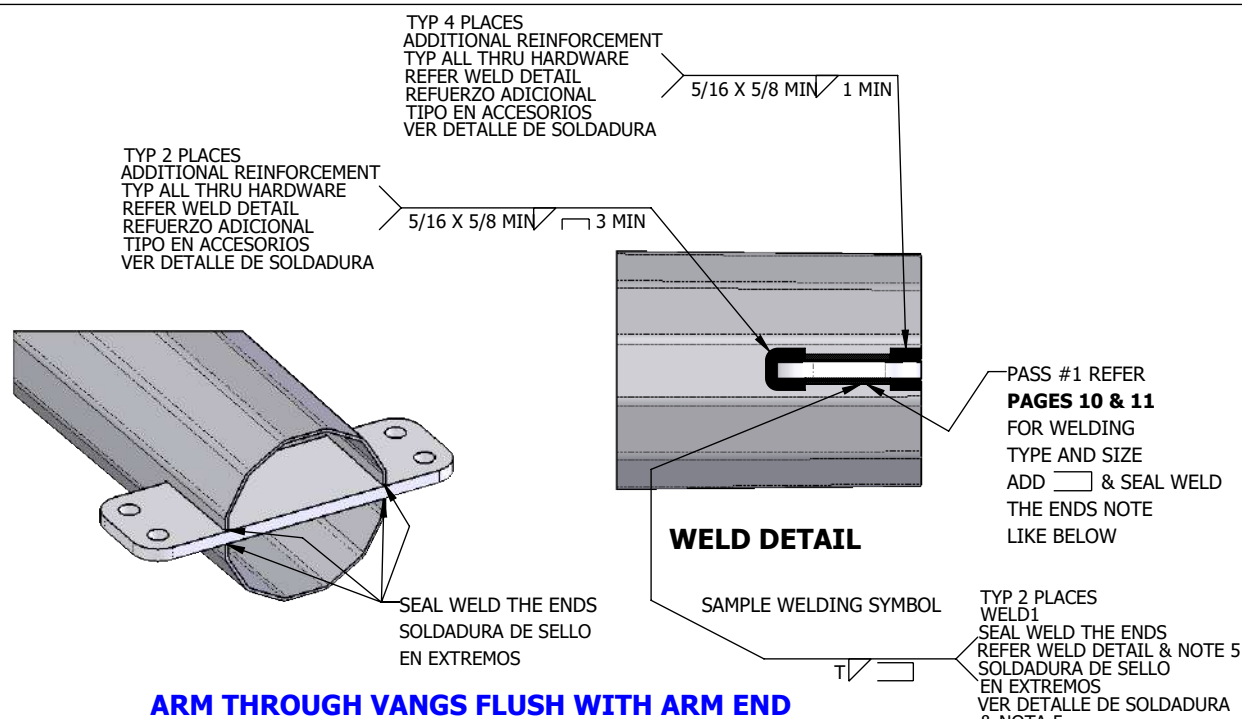
PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE



**VIEW P-P  
THIRD PASS  
WELD DETAIL**

PASS #1 REFER  
PAGES 10 & 11  
FOR WELDING  
TYPE AND SIZE

5/16" x 5/8" MIN.  
ADDITIONAL  
REINFORCEMENT  
FILLET WELD



**ARM THROUGH VANGS FLUSH WITH ARM END**

**WELD DETAIL**

**SAMPLE WELDING SYMBOL**

TYP 2 PLACES  
WELD1  
SEAL WELD THE ENDS  
REFER WELD DETAIL & NOTE 5  
SOLDADURA DE SELLO  
EN EXTREMOS  
VER DETALLE DE SOLDADURA  
& NOTA 5

Y	REMOVE PJP FOR 3 PC BRKTS, ADDED ALTERNATE STANDARD WELD OPTION FOR C-WELDS.	RB/01-28-22
T	ADDED SP1 - SGL PC WRAP, WB1 - WRAP ARM BOX, AB1 - ARM BOX - 2 FL W/ SLR, AB2 - ARM BOX - 2 FL W/O SLR, AB3 - ARM BOX - 1 FL	RB/01-10-22
S	REVISED FW11 & FW11S DISCR. TO BENT ROD, ADDED SP1 FOR FORGED RING - FLANGE TO SEALER PLATE.	RB/12-21-21
REV	DESCRIPTION	DRFT/DATE

PROJECT:	STANDARD WELDING DETAILS
CUSTOMER:	MEYER UTILITY STRUCTURES
CUSTOMER P.O. NO.:	-
JOB NO.:	WELDS
DRAWN/DATE:	MUS 05/17/2017
CHECKED/DATE:	MUS 05/17/2017
ENGINEER:	MEYER

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**MEYER**  
UTILITY STRUCTURES

STANDARD WELDING DETAILS

# GREENVILLE UTILITIES COMMISSION

## 22-23 TRANSMISSION REPLACEMENTS

# 42444E

**POLE DRAWING INDEX**

RELEASE	QTY	STRUCTURE TYPE	STRUCTURE LENGTH	EMBEDMENT LENGTH	POLE NO	ERECTION DRAWING	POLE LAYOUT DRAWING	ARM LAYOUT DRAWING	CAMBER AMOUNT
E	8	115KV 3 PHASE TANGENT TPZD1.C1 S-05.7	70'-0"	9'-0"	17.7, 17.8, 17.9, 17.10, 17.23, 17.24, 17.25, 17.26	42444-0570S3BT	42444-3043, 42444-3015	NONE	-
	1	115KV 3 PHASE TANGENT TPZD1.C5 S-05.7	70'-0"	9'-0"	17.11	42444-0570S3CT	42444-3014, 42444-3015	NONE	-
	10	115KV 3 PHASE TANGENT TPZ1 S-05.7	70'-0"	9'-0"	17.12, 17.13, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19, 17.20, 17.21	42444-0570S3DT	△ 42444-3014, 42444-3015	NONE	-
	1	115KV 3 PHASE TANGENT TPZD1.C4 S-05.7	70'-0"	9'-0"	17.22	42444-0570S3ET	42444-3044, 42444-3015	NONE	-
	1	115KV 3 PHASE TANGENT TPZ1 S-03.5	65'-0"	8'-6"	17.27	42444-0265S3CT	42444-3046, 42444-3013	NONE	-
	1	115KV 3 PHASE SUSPENSION TSV3.C4 S-07.4	80'-0"	10'-0"	17.34	42444-0780F3AT	42444-3048, 42444-3049	NONE	-
	4	ZINC PAINT TOUCH UP KIT (1 GAL. PER 5 POLES)	-	N/A	-	42444-MSZINCET	-	NONE	-

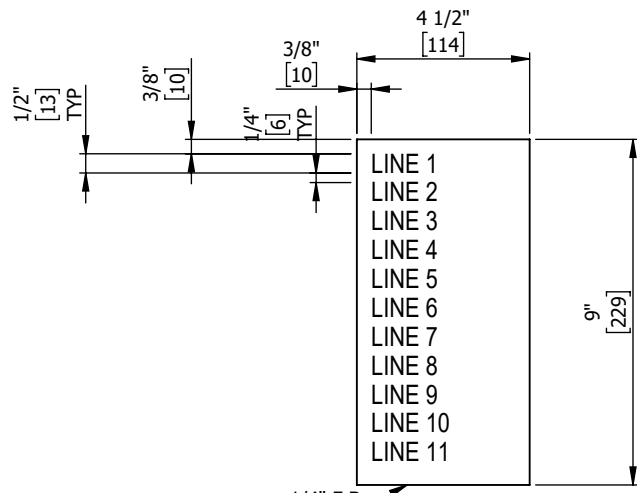
SSG DRAWING INDEX	
STANDARD DRAWINGS	DRAWING NO
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION	SSG001
GALVANIZED POLE LIFTING REQUIREMENTS	SSG002
JACKING NUT LOCATIONS	SSG004
WELDING DETAILS	SSG007

**Meyer Utility Structures**

**6750 Lenox Center Court, Suite 400  
 Memphis, TN 38115  
 Phone: (901) 566-6500  
 Engr. Fax: (901) 566-6650**

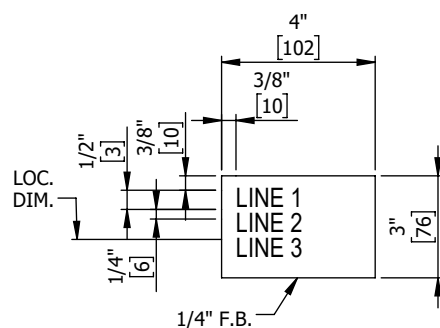
**CENTRAL/EAST VALUE STREAM**

C	UNDO PREVIOUS REVISION..	THO/06-21-22
B	REVISE SHAFT #S	THO/06-20-22
A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/25/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX RELEASE E		
SHEET 1 OF 2	<b>42444-INDEX_E</b>	REV. <b>C</b>



**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

42444-1401	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8	LINE 9	LINE 10	LINE 11
1	GUC	17.7	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
2	GUC	17.7	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
3	GUC	17.8	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
4	GUC	17.8	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
5	GUC	17.9	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
6	GUC	17.9	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
7	GUC	17.10	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
8	GUC	17.10	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
9	GUC	17.23	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
10	GUC	17.23	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
11	GUC	17.24	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
12	GUC	17.24	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
13	GUC	17.25	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
14	GUC	17.25	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
15	GUC	17.26	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
16	GUC	17.26	70 FT-0 IN	S-05.7	TPZD1.C1	2840 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
17	GUC	17.11	70 FT-0 IN	S-05.7	TPZD1.C5	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
18	GUC	17.11	70 FT-0 IN	S-05.7	TPZD1.C5	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
19	GUC	17.12	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
20	GUC	17.12	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
21	GUC	17.13	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
22	GUC	17.13	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
23	GUC	17.14	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
24	GUC	17.14	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
25	GUC	17.15	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
26	GUC	17.15	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
27	GUC	17.16	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
28	GUC	17.16	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
29	GUC	17.17	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
30	GUC	17.17	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
31	GUC	17.18	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
32	GUC	17.18	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
33	GUC	17.19	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
34	GUC	17.19	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
35	GUC	17.20	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
36	GUC	17.20	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
37	GUC	17.21	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
38	GUC	17.21	70 FT-0 IN	S-05.7	TPZ1	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
39	GUC	17.22	70 FT-0 IN	S-05.7	TPZD1.C4	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
40	GUC	17.22	70 FT-0 IN	S-05.7	TPZD1.C4	2810 LBS	332 FT-K	MEYER	MM/YYYY	42444-3015	42444E
41	GUC	17.27	65 FT-0 IN	S-03.5	TPZ1	2090 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444E
42	GUC	17.27	65 FT-0 IN	S-03.5	TPZ1	2090 LBS	190 FT-K	MEYER	MM/YYYY	42444-3013	42444E
43	GUC	17.34	80 FT-0 IN	S-07.4	TSV3.C4	4660 LBS	501 FT-K	MEYER	MM/YYYY	42444-3049	42444E
44	GUC	17.34	80 FT-0 IN	S-07.4	TSV3.C4	4660 LBS	501 FT-K	MEYER	MM/YYYY	42444-3049	42444E



**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

78413	LINE 1	LINE 2	LINE 3
1	17.7	42444-3043	42444E
2	17.8	42444-3043	42444E
3	17.9	42444-3043	42444E
4	17.10	42444-3043	42444E
5	17.23	42444-3043	42444E
6	17.24	42444-3043	42444E
7	17.25	42444-3043	42444E
8	17.26	42444-3043	42444E
9	17.11	42444-3014	42444E
10	17.12	42444-3014	42444E
11	17.13	42444-3014	42444E
12	17.14	42444-3014	42444E
13	17.15	42444-3014	42444E
14	17.16	42444-3014	42444E
15	17.17	42444-3014	42444E
16	17.18	42444-3014	42444E
17	17.19	42444-3014	42444E
18	17.20	42444-3014	42444E
19	17.21	42444-3014	42444E
20	17.22	42444-3044	42444E
21	17.27	42444-3046	42444E
22	17.34	42444-3048	42444E

C	UNDO PREVIOUS REVISION..	THO/06-21-22
B	REVISE SHAFT #S	THO/06-20-22
A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
PROJECT: 22-23 TRANSMISSION REPLACEMENTS		
CUSTOMER: GREENVILLE UTILITIES COMMISSION		
CUSTOMER P.O. NO: 81212		
JOB NO: 42444		
DRAWN/DATE: CT 05/25/2022		
CHECKED/DATE: LM 06/14/2022		
ENGINEER: MELVIN PORTILLO		

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**MEYER**  
UTILITY STRUCTURES

DRAWING INDEX  
RELEASE E  
PARTS DETAIL

SPECIAL NOTES:

STANDARD NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. UNLESS OTHERWISE NOTED REFER SSG007 FOR WELDING DETAILS.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

SHAFT/ARM NOTES:

1. MARK "+" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
2. HOT DIP GALVANIZED PER ASTM A-123.
3. NO PRE-GALV BLAST REQUIRED; BRUSH BLAST PER ASTM D6386 AND SSPC-SP16 PRIOR TO APPLICATION OF MEYERCLAD OVER GALV.
4. COAT WITH MEYERCLAD PNT 218A AND 218B 20 MILS MINIMUM DFT 25 MILS AVERAGE DFT.

MIDDLE/BOTTOM SHAFT NOTES:

1. WELD A 2" INVERTED V (MATCH MARK) ON  $\phi$  OF FLAT TO ALIGN WITH THE  $\phi$  OF THE NAMEPLATE/ID TAG ON THE ABOVE SHAFT ASSEMBLY.

NOTAS:

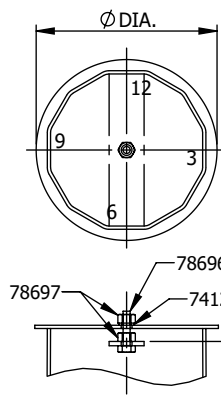
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO AMUS-EN-P-018 PARA TOLERANCIAS.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR DOCUMENTO SSG007 PARA DETALLE DE SOLDADURA.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

SHAFT/ARM NOTES:

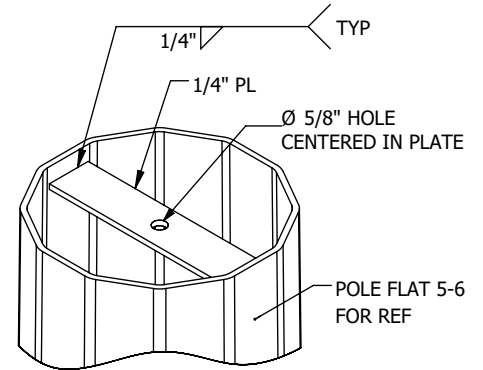
1. MARCAR "+" AL CENTRO DE GARAVEDAD APROXIMADO. (EN CUALQUIER PISO - SOLO PARA EL USO DEL FABRICANTE).
2. GALVANIZADO POR INMERSION EN CALIENTE DE ACUERDO A ASTM A-123.
3. NO SE REQUIERE BLASTEADO PREVIO A GALVANIZAR; PULIR CON EPILLO ABRASIVO POR ASTM D6386 Y SSPC-SP16 ANTES DE LA APLICACIÓN DE MEYERCLAD SOBRE EL GALVANIZADO.
4. RECUBRIR CON MEYERCLAD PNT 218A Y 218B MÍNIMO 20 MILS. PROMEDIO MÍNIMO 25 MILS.

MIDDLE/BOTTOM SHAFT NOTES:

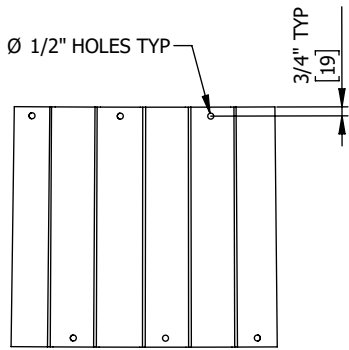
1. SOLDAR UNA V INVERTIDA ( MARCA DE COINCIDENCIA) DE 2" ( 50.8 MM) EN EL  $\phi$  DEL PLANO PARA ALINEAR CON EL  $\phi$  DE LA PLACA DE IDENTIFICACION/PLACA ID EN EL ENSAMBLAJE SUPERIOR ANTERIOR.



POLE CAP DETAIL

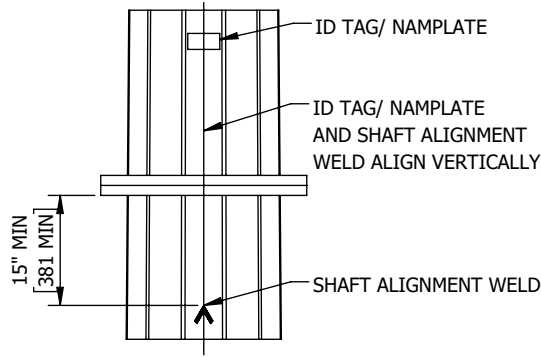


POLE CAP ANCHOR DETAIL

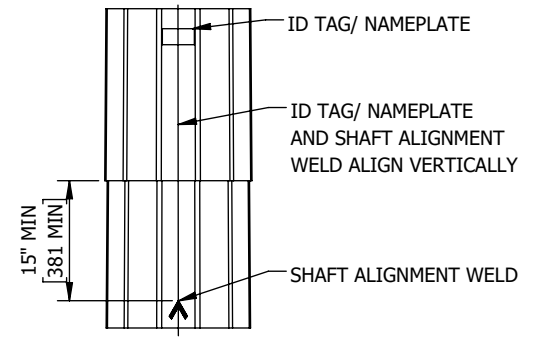


GALVANIZED GROUND SLEEVE VENT HOLES

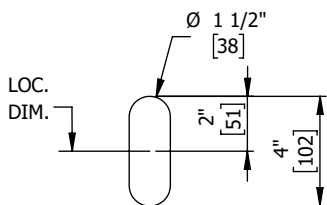
1 PER FLAT, LOCATE ON THE  $\phi$  OF THE FLAT, ALTERNATING SIDES



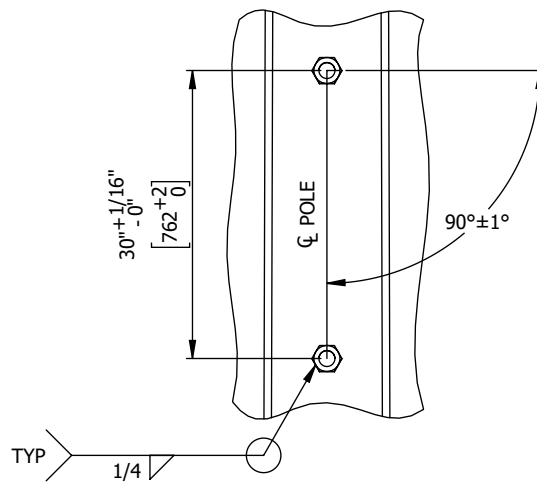
FLANGE ASSEMBLY ALIGNMENT



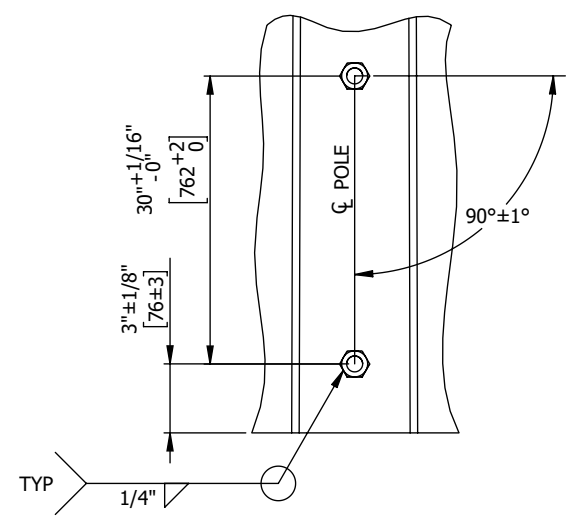
SLIP JOINT ASSEMBLY ALIGNMENT



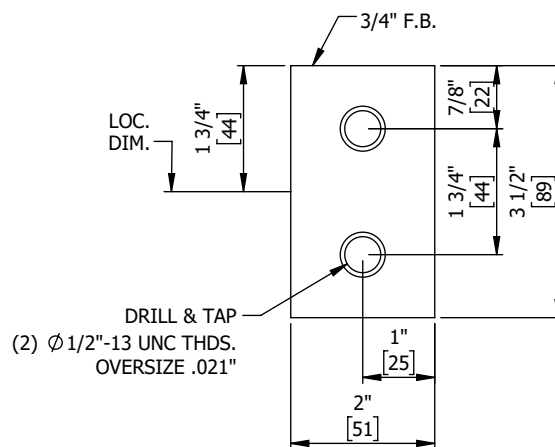
TOP LIFTING SLOT DETAIL



TOP JACKING NUT DETAIL 74547



BOTTOM JACKING NUT DETAIL 74547



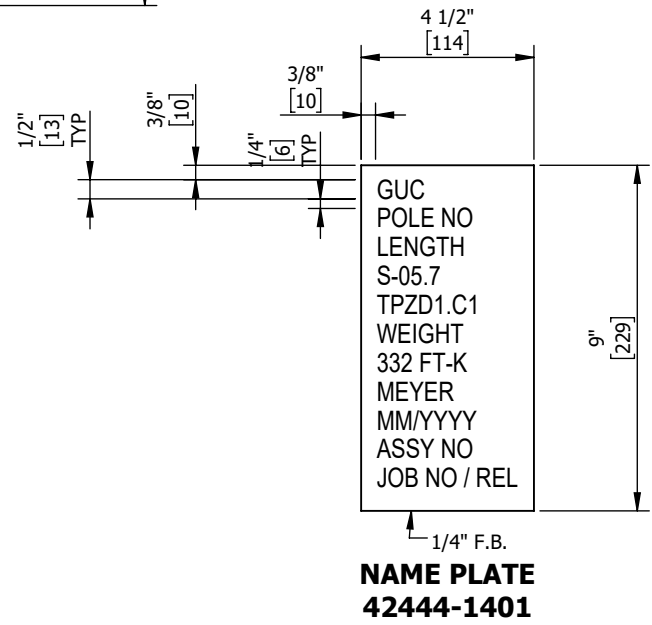
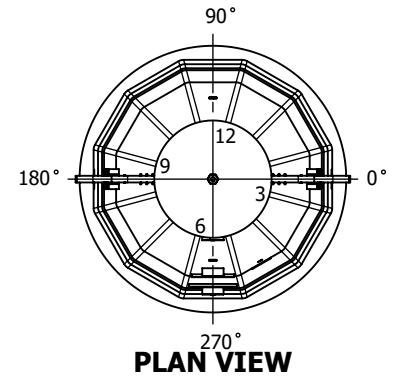
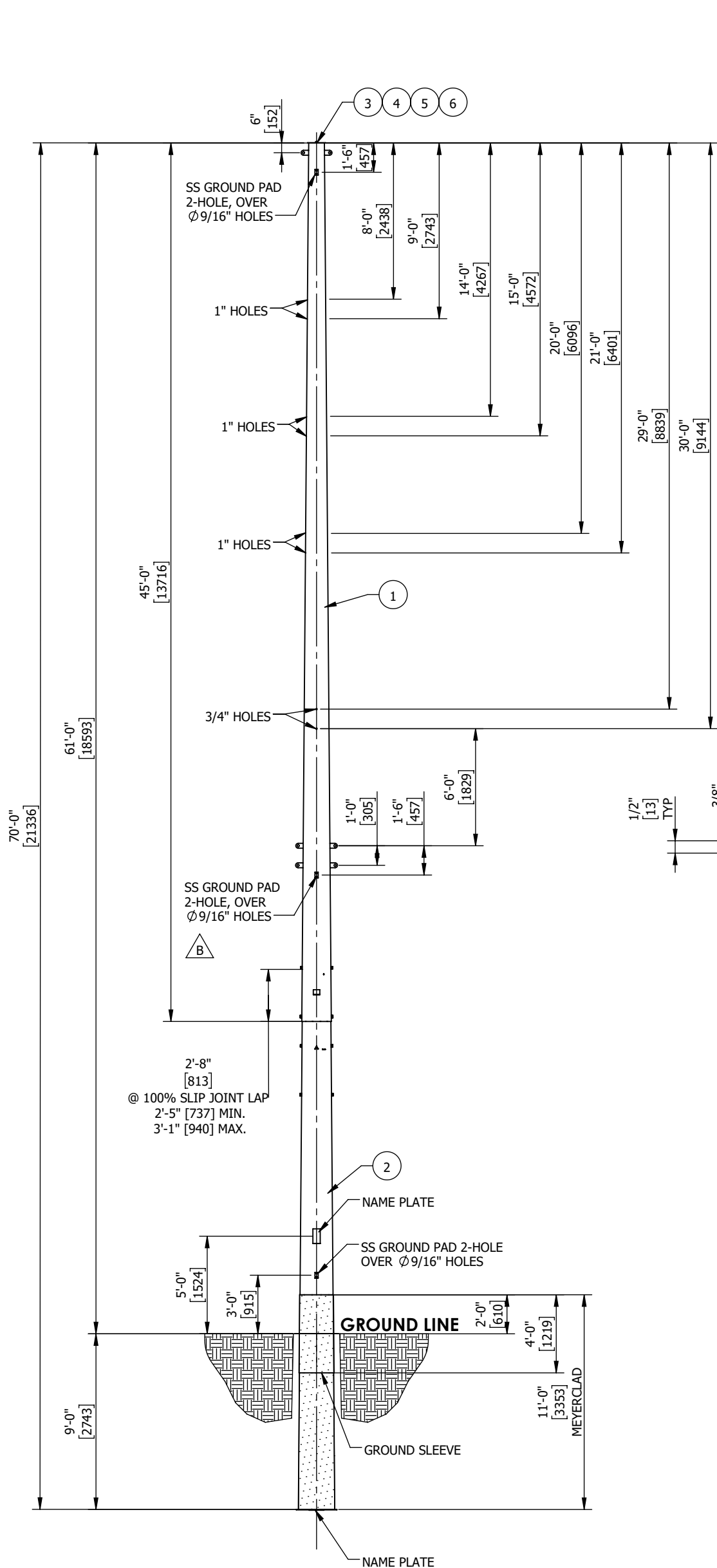
78412

78430, 0.75 X 2.00 STAINLESS STEEL TYPE 304 1.41 LBS

A	INITIAL RELEASE	THO/05-31-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/31/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	
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<b>MEYER</b> UTILITY STRUCTURES		
SPECIAL NOTE		
SHEET 1 OF 1	<b>42444-SPECNOTE</b>	REV. <b>A</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0570S3BT	17.7, 17.8, 17.9, 17.10, 17.23, 17.24, 17.25, 17.26	61'-0" [18593]	10" [254]	21 13/32" [544]	0.19530	9 21/32" [245]	20 21/32" [525]	0.18865



REV	DESCRIPTION	DRFT/DATE
B	ADD GROUND PAD	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO:	81212
JOB NO:	42444
DRAWN/DATE:	CT 06/08/2022
CHECKED/DATE:	LM 06/14/2022
ENGINEER:	MELVIN PORTILLO

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UTILITY STRUCTURES

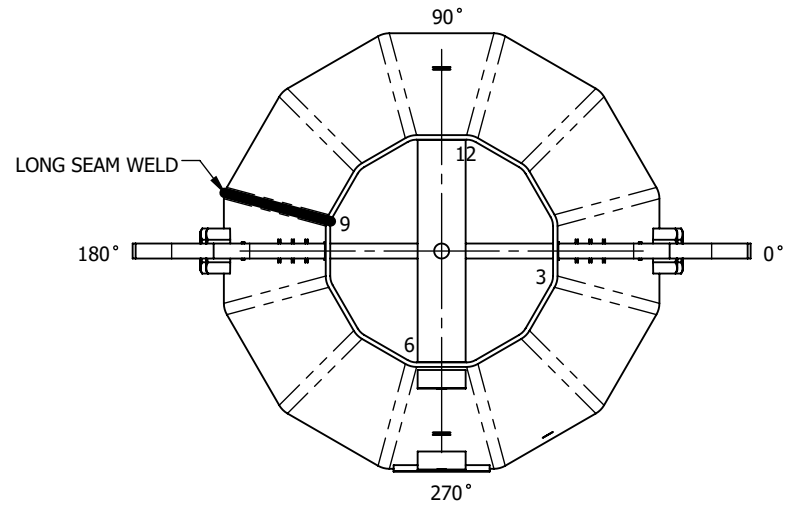
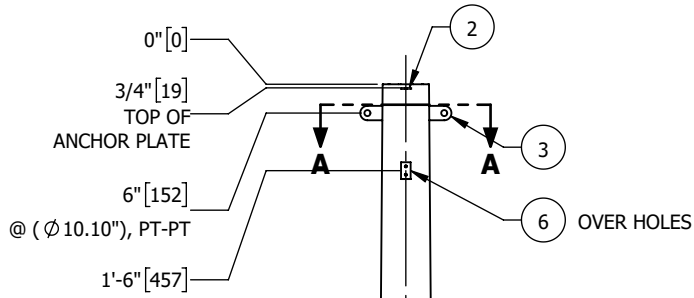
70'-0" 115KV 3 PHASE TANGENT  
TPZD1.C1 S-05.7  
POLE NO : SEE INDEX

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3043	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 018.8 000		1410.00	1410.00		
2	42444-3015	1	SHAFT ASSEMBLY, 27'-8" LONG	POLE-BASE 027.67 017.8 023.2 000		1420.00	1420.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>							<b>2840.00</b>		

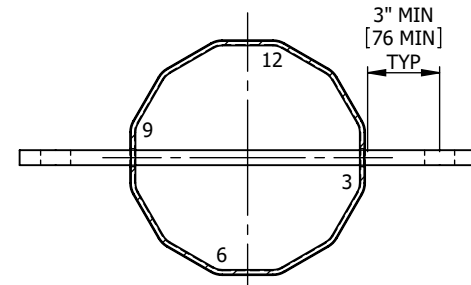
<b>B</b>	<b>ADD GROUNDPAD</b>	<b>THO/06-20-22</b>
<b>A</b>	INITIAL RELEASE	THO/06-08-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>70'-0" 115KV 3 PHASE TANGENT TPZD1.C1 S-05.7 POLE NO : SEE INDEX</b>		
SHEET 2 OF 2	<b>42444-0570S3BT</b>	REV. <b>B</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4022	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	18 25/32" [477]	0.19530	9 21/32" [245]	18 5/32" [461]	0.18865

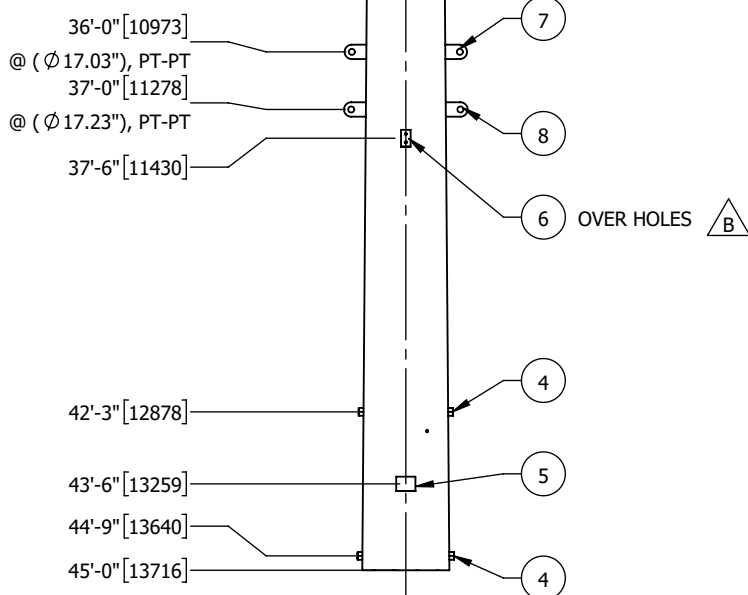


PLAN VIEW



SECTION A-A

24'-10" [7569] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-8" [813]	TOP	18.27" [464]	56 9/16" [1437]
	BOTTOM	18.79" [477]	58 3/16" [1478]

B	ADD GROUND PAD/HOLES	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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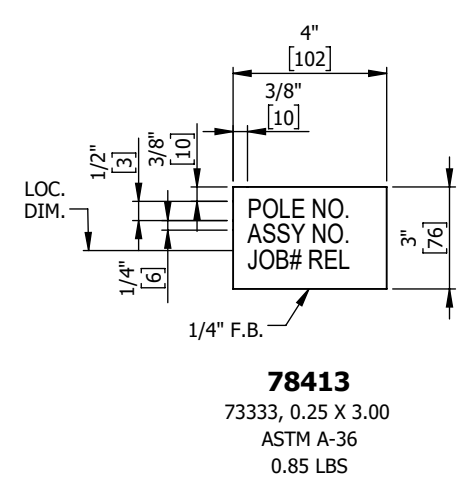
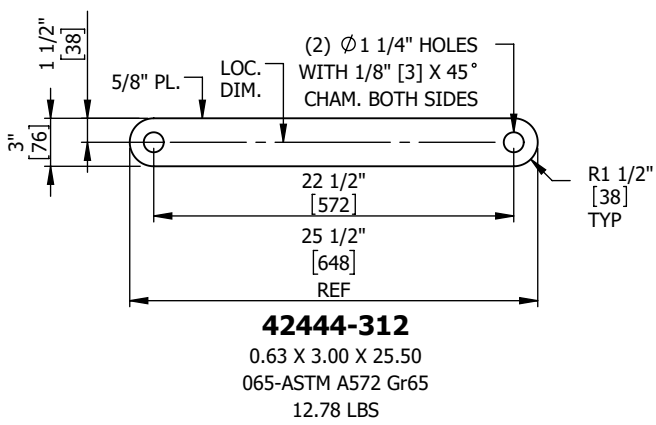
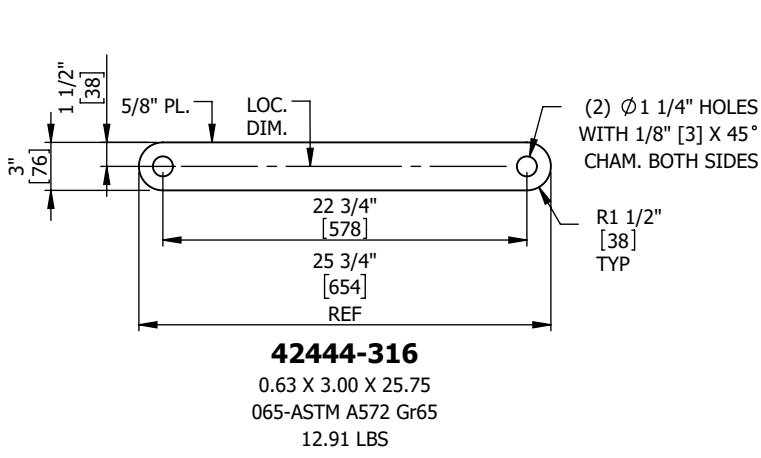
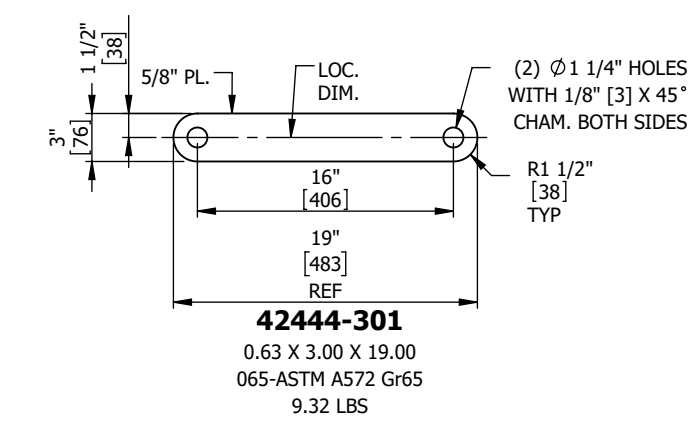
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4022	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 57.88	065-ASTM A572 Gr65	1277.79	1277.79	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
6	78412	2	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	2.82	
7	42444-312	1	THROUGH VANG	0.63 X 3.00 X 25.50	065-ASTM A572 Gr65	12.78	12.78	
8	42444-316	1	THROUGH VANG	0.63 X 3.00 X 25.75	065-ASTM A572 Gr65	12.91	12.91	
TOTAL MODEL WEIGHT								1319.48
TOTAL UNFINISHED WEIGHT								1330.00
TOTAL FINISHED WEIGHT								1410.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]			0 DEG ON FLAT 2-3										THROUGH VANG / SECTION A-A	3	42444-301	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	24'-10" [7569]													APPROX. CENTER OF GRAVITY WELD		-	1
5	36'-0" [10973]			0 DEG ON FLAT 2-3										THROUGH VANG / SECTION A-A	7	42444-312	1
6	37'-0" [11278]			0 DEG ON FLAT 2-3										THROUGH VANG / SECTION A-A	8	42444-316	1
7	37'-6" [11430]						1							SS GROUND PAD 2-HOLE	6	78412	1
8	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	4	74547	2
9	42'-4" [12903]													BOTTOM SLIP JOINT LENGTH 32"		-	1
10	43'-6" [13259]						1							ID TAG, A-36	5	78413	1
11	43'-9" [13335]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
12	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	4	74547	2
13	45'-0" [13716]													TOWER PLATE TUBE	1	42444-4022	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	DISTRIBUTION ARM
10	30'-0" [9144]						1					1		3/4"	DISTRIBUTION ARM
11	37'-5 1/8" [11408]						1							9/16"	HOLE UNDER GRND PAD
12	37'-6 7/8" [11452]						1							9/16"	HOLE UNDER GRND PAD
13	42'-7" [12979]					1								1/2"	SJ INSPECTION

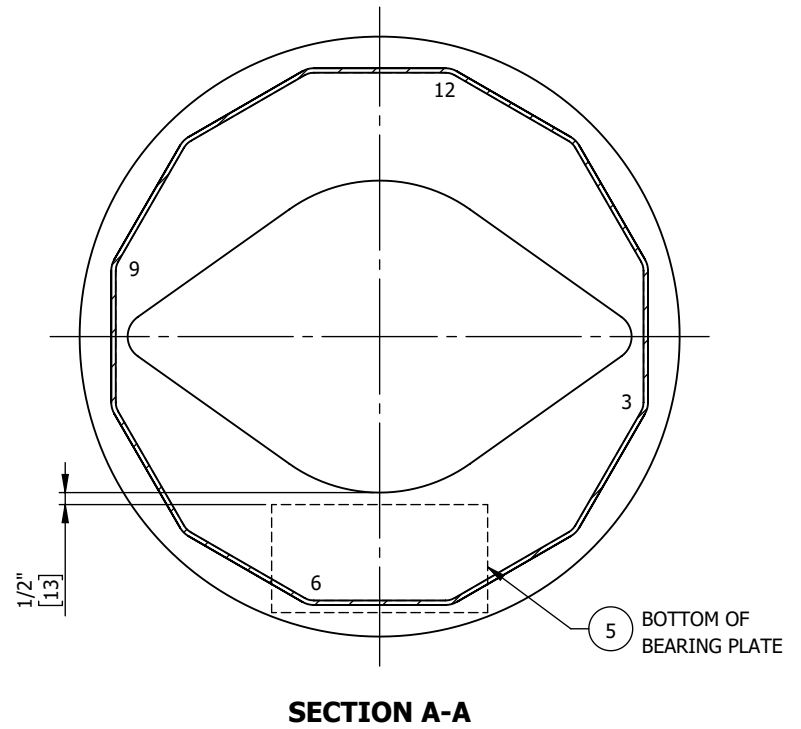
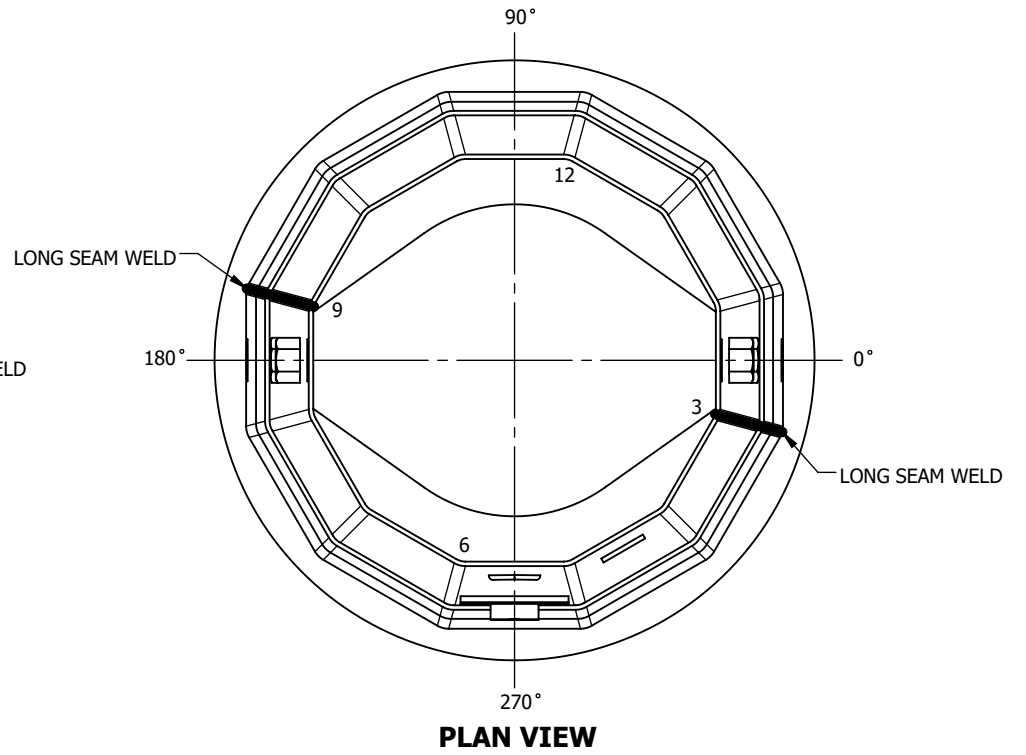
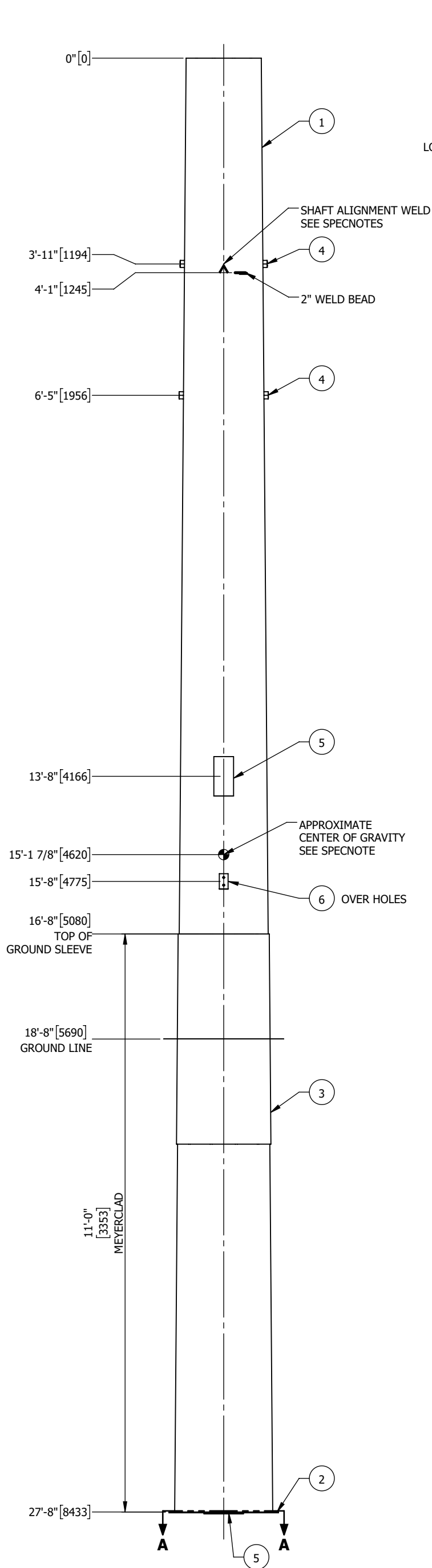


B	ADD GROUND PAD/HOLES	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22
REV	DESCRIPTION	DRFT/DATE
PROJECT: 22-23 TRANSMISSION REPLACEMENTS		
CUSTOMER: GREENVILLE UTILITIES COMMISSION		
CUSTOMER P.O. NO: 81212		
JOB NO: 42444		
DRAWN/DATE: CT 06/08/2022		
CHECKED/DATE: LM 06/14/2022		
ENGINEER: MELVIN PORTILLO		
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<b>MEYER</b>		
<b>UTILITY STRUCTURES</b>		
SHAFT ASSEMBLY, 45'-0" LONG PTOP		
SHEET 2 OF 2	<b>42444-3043</b>	REV. <b>B</b>



SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4023	065-ASTM A572 Gr65	27'-8" [8433]	3/16"	17 3/4" [451]	23 5/32" [588]	0.19530	17 5/32" [436]	22 3/8" [568]	0.18865
42444-4024	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	21 17/32" [547]	22 5/16" [567]	0.19530	20 25/32" [528]	21 17/32" [547]	0.18865



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-8" [813]	TOP	17.75" [451]	55 1/16" [1399]
	BOTTOM	18.28" [464]	56 11/16" [1440]

REV	DESCRIPTION	DRFT/DATE
B	REVISE MEYERCLAD	THO/06-14-22
A	INITIAL RELEASE	JAC/06-02-22

PROJECT: 22-23 TRANSMISSION REPLACEMENTS  
 CUSTOMER: GREENVILLE UTILITIES COMMISSION  
 CUSTOMER P.O. NO: 81212  
 JOB NO: 42444  
 DRAWN/DATE: DJ 06/02/2022  
 CHECKED/DATE: TW 06/09/2022  
 ENGINEER: MELVIN PORTILLO

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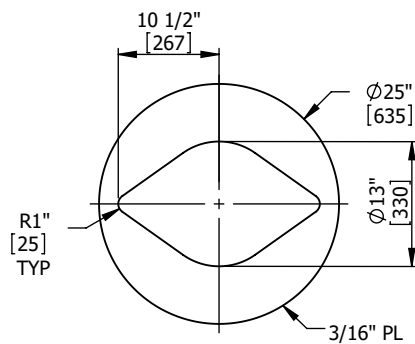
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 27'-8" LONG  
PBAS

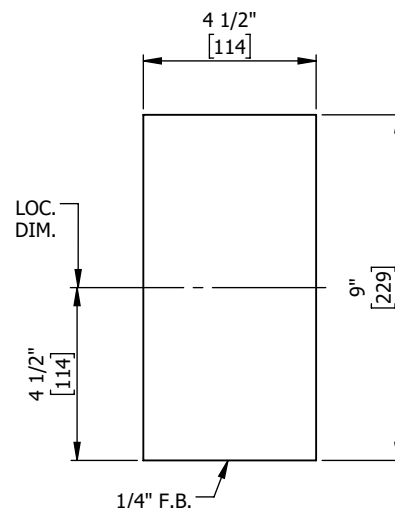
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4023	1	TOWER PLATE TUBE	(2) 0.19 X 27.31 X 332.00 X 35.69	065-ASTM A572 Gr65	1129.86	1129.86	
2	42444-206	1	BEARING PLATE, 3/16" THK X 25" DIA	0.19 X 25.00 X 25.00	065-ASTM A572 Gr65	17.05	17.05	
3	42444-4024	1	GROUND SLEEVE	(2) 0.19 X 33.19 X 48.00 X 34.38	065-ASTM A572 Gr65	171.84	171.84	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT								1327.62
TOTAL UNFINISHED WEIGHT								1330.00
TOTAL FINISHED WEIGHT								1420.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-8" [813]													TOP SLIP JOINT LENGTH 32"		-	1
3	3'-11" [1194]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	3'-11" [1194]						1							SHAFT ALIGNMENT WELD		-	1
5	4'-1" [1245]						1							2" WELD BEAD		-	1
6	6'-5" [1956]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	13'-8" [4166]						1							NAME PLATE	5	42444-1401	1
8	15'-1 7/8" [4620]													APPROX. CENTER OF GRAVITY WELD		-	1
9	15'-8" [4775]						1							SS GROUND PAD 2-HOLE	6	78412	1
10	16'-8" [5080]													TOP OF GROUND SLEEVE	3	42444-4024	1
11	18'-8" [5690]													GROUND LINE		-	-
12	27'-2" [8280]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	27'-8" [8433]													TOWER PLATE TUBE	1	42444-4023	1
14	27'-8" [8433]													BEARING PLATE, 3/16" THK X 25" DIA / SECTION A-A	2	42444-206	1
15	27'-8 3/16" [8438]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	15'-7 1/8" [4753]						1							9/16"	HOLE UNDER GRND PAD
2	15'-8 7/8" [4797]						1							9/16"	HOLE UNDER GRND PAD



**42444-206**  
0.19 X 25.00 X 25.00  
065-ASTM A572 Gr65  
17.05 LBS

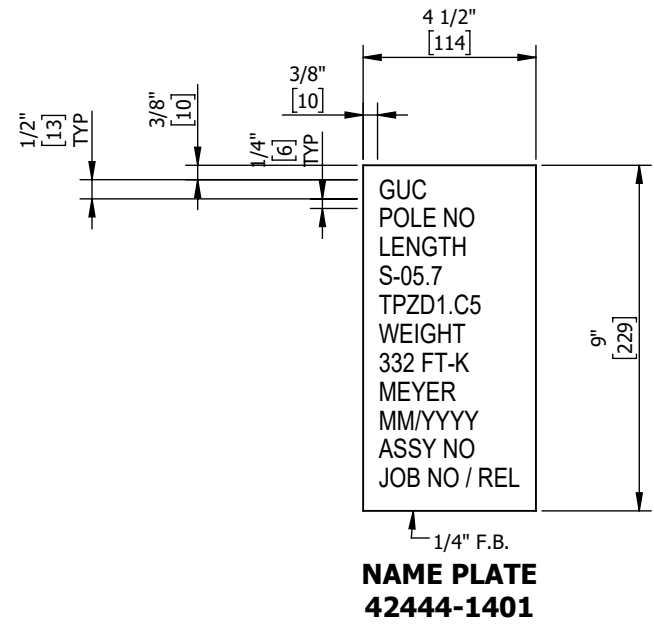
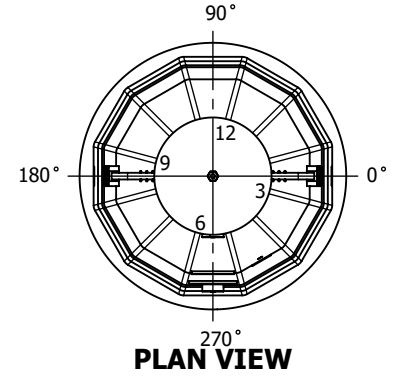
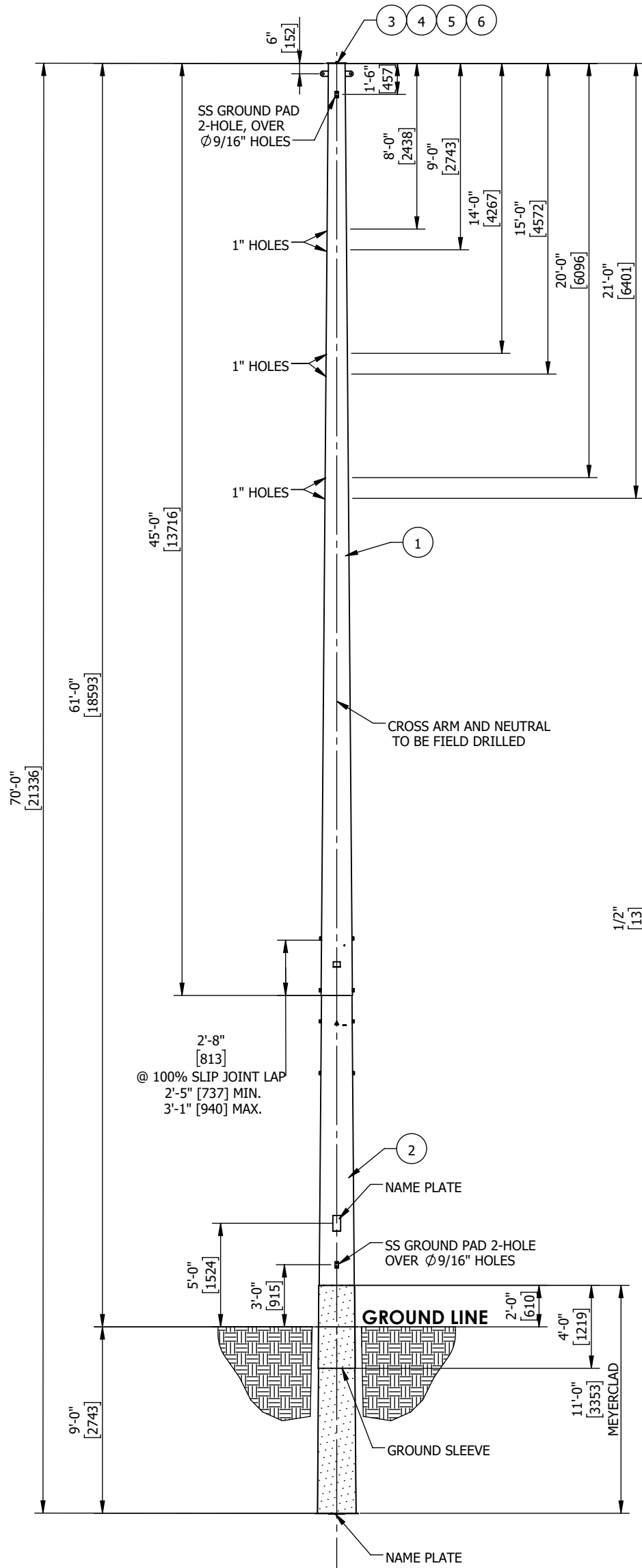


**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

REV	DESCRIPTION	DRFT/DATE
B	REVISE MEYERCLAD	THO/06-14-22
A	INITIAL RELEASE	JAC/06-02-22
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	DJ 06/02/2022	
CHECKED/DATE:	TW 06/09/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 27'-8" LONG PBAS		
SHEET 2 OF 2	<b>42444-3015</b>	REV. <b>B</b>

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0570S3CT	17.11	61'-0" [18593]	10" [254]	21 13/32" [544]	0.19530	9 21/32" [245]	20 21/32" [525]	0.18865



A	INITIAL RELEASE	THO/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
**UTILITY STRUCTURES**

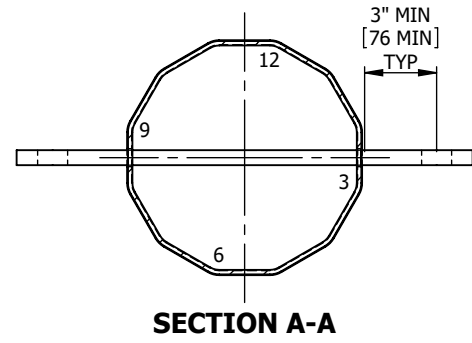
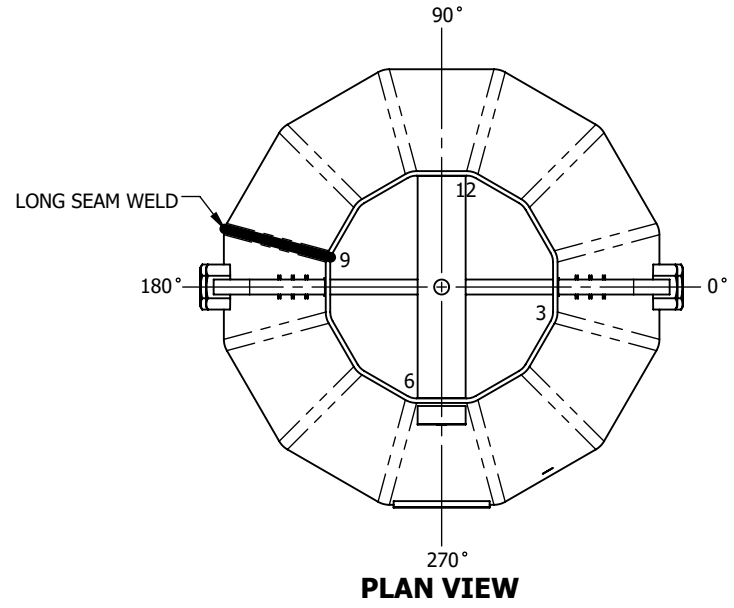
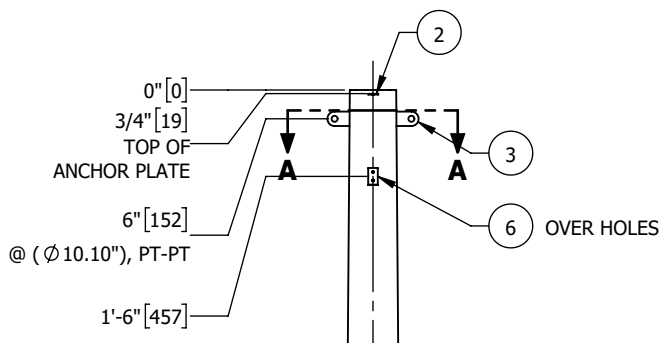
70'-0" 115KV 3 PHASE TANGENT  
 TPZD1.C5 S-05.7  
 POLE NO: 17.11

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3014	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 018.8 000		1380.00	1380.00		
2	42444-3015	1	SHAFT ASSEMBLY, 27'-8" LONG	POLE-BASE 027.67 017.8 023.2 000		1420.00	1420.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								2810.00	

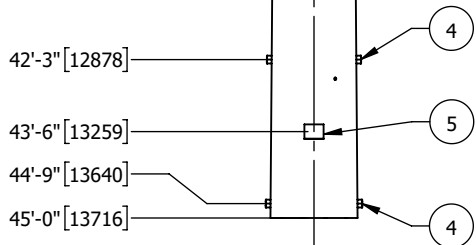
<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/06-08-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 06/08/2022	
CHECKED/DATE:	LM 06/14/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
70'-0" 115KV 3 PHASE TANGENT TPZD1.C5 S-05.7 POLE NO: 17.11		
SHEET 2 OF 2	<b>42444-0570S3CT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4022	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	18 25/32" [477]	0.19530	9 21/32" [245]	18 5/32" [461]	0.18865



24'-10" [7569] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-8" [813]	TOP	18.27" [464]	56 9/16" [1437]
	BOTTOM	18.79" [477]	58 3/16" [1478]

A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

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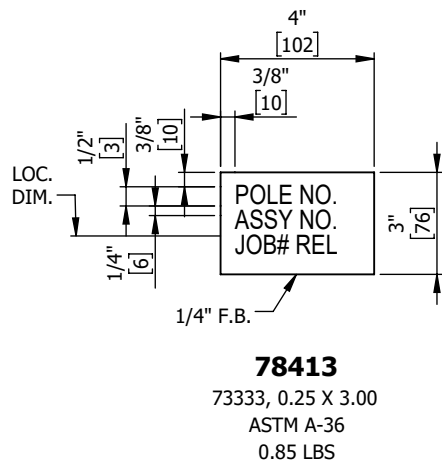
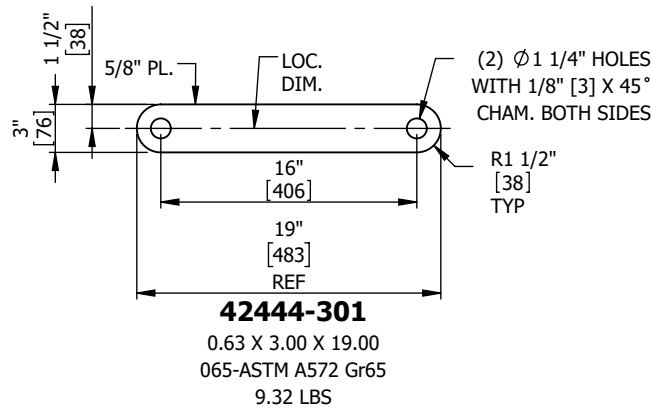
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4022	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 57.88	065-ASTM A572 Gr65	1277.79	1277.79	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1292.38	
TOTAL UNFINISHED WEIGHT							1300.00	
TOTAL FINISHED WEIGHT							1380.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	3	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	24'-10" [7569]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	4	74547	2
6	42'-4" [12903]	BOTTOM SLIP JOINT LENGTH 32"												-	1		
7	43'-6" [13259]						1							ID TAG, A-36	5	78413	1
8	43'-9" [13335]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	4	74547	2
10	45'-0" [13716]	TOWER PLATE TUBE											1	42444-4022	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	42'-7" [12979]						1							1/2"	SJ INSPECTION



A	INITIAL RELEASE	JAC/06-02-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: DJ 06/02/2022	
	CHECKED/DATE: TW 06/09/2022	
	ENGINEER: MELVIN PORTILLO	

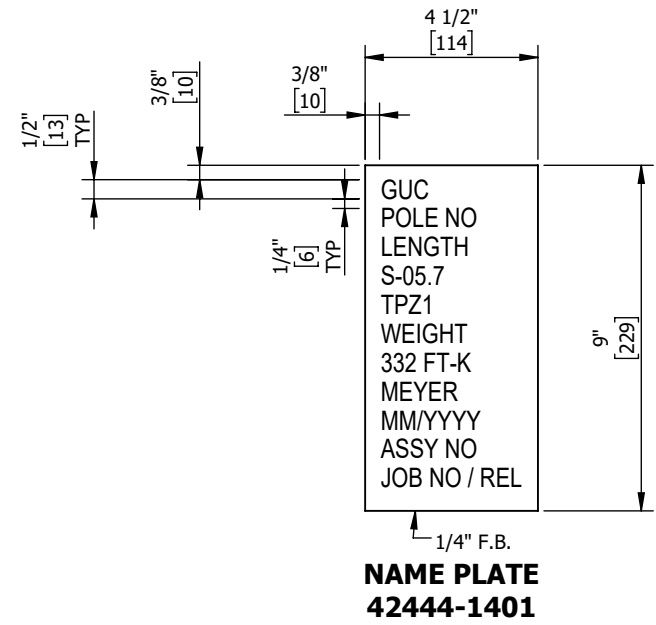
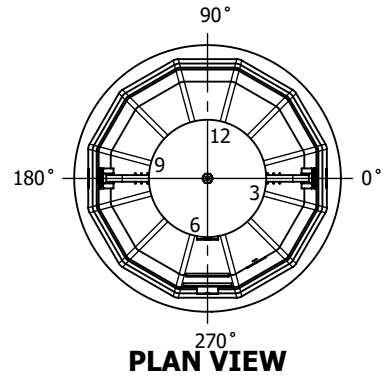
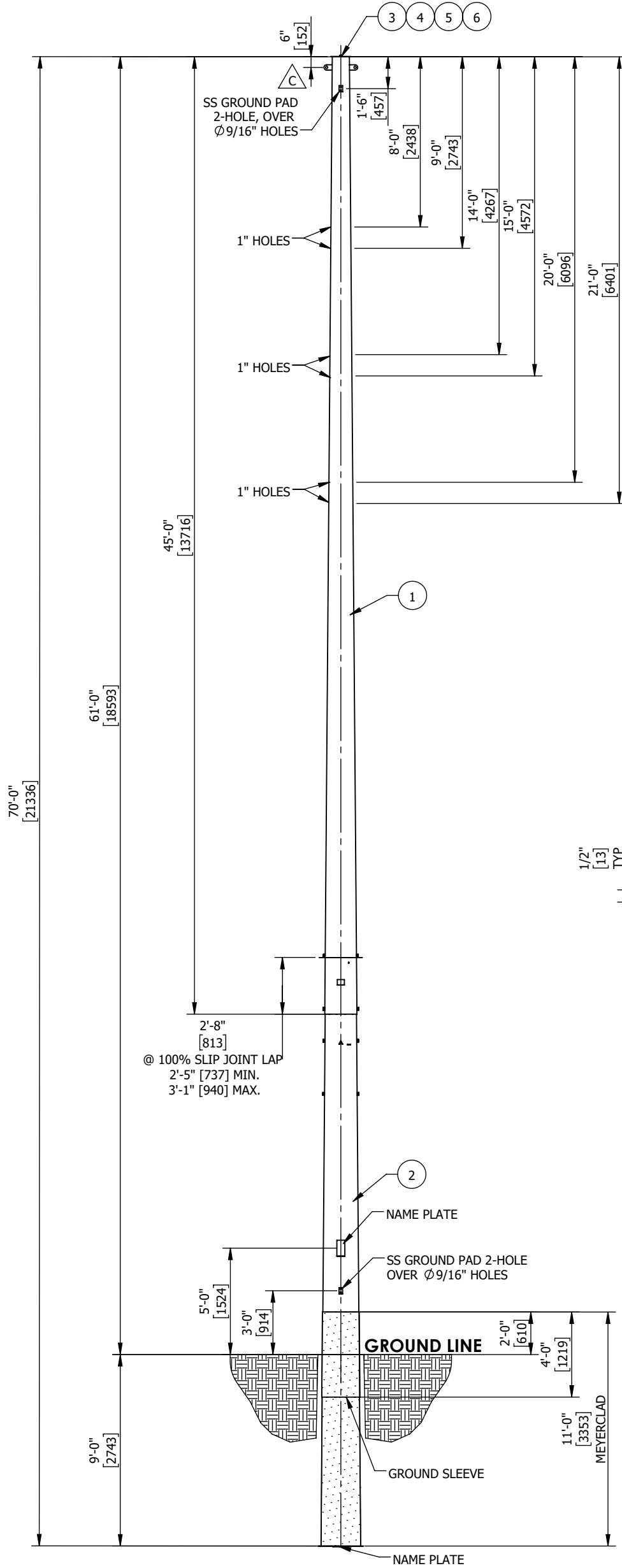
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**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0570S3DT	17.12, 17.13, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19, 17.20, 17.21	61'-0" [18593]	10" [254]	21 13/32" [544]	0.19530	9 21/32" [245]	20 21/32" [525]	0.18865



REV	DESCRIPTION	DRFT/DATE
C	UNDO PREVIOUS SHAFT/VANG REVISION..	THO/06-21-22
B	SWAP TOP SHAFT, ROTATE VANG	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO:	81212
JOB NO:	42444
DRAWN/DATE:	CT 06/08/2022
CHECKED/DATE:	LM 06/14/2022
ENGINEER:	MELVIN PORTILLO

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**MEYER**  
UTILITY STRUCTURES

70'-0" 115KV 3 PHASE TANGENT  
TPZ1 S-05.7  
POLE NO : SEE INDEX

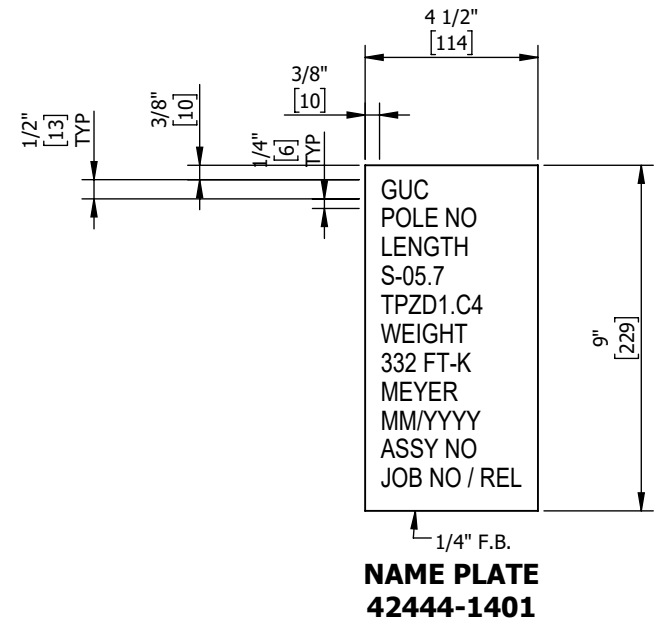
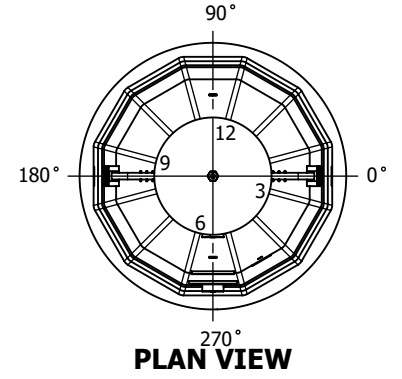
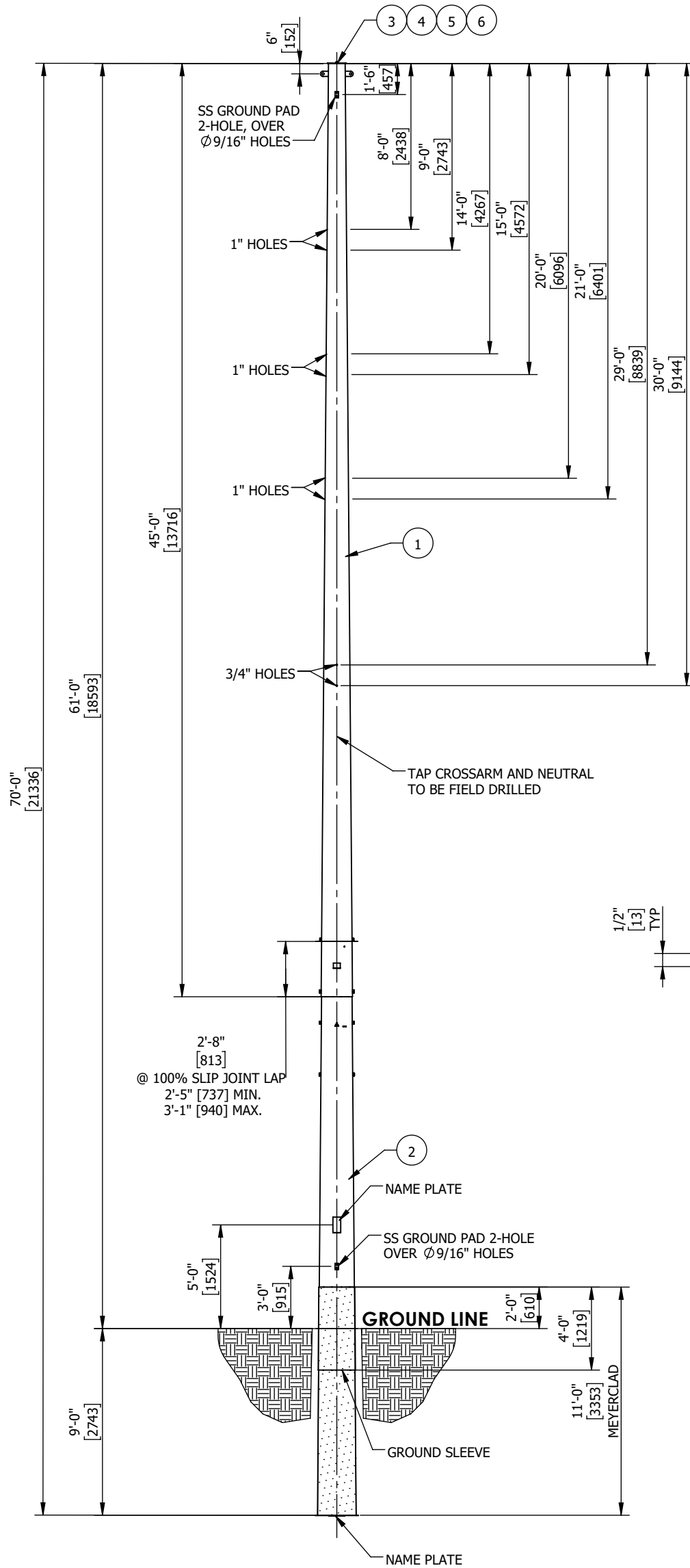
PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3014	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 018.8 000		1380.00	1380.00		
2	42444-3015	1	SHAFT ASSEMBLY, 27'-8" LONG	POLE-BASE 027.67 017.8 023.2 000		1420.00	1420.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>							<b>2810.00</b>		

<b>C</b>	<b>UNDO PREVIOUS SHAFT/VANG REVISION..</b>	<b>THO/06-21-22</b>
<b>B</b>	SWAP TOP SHAFT, ROTATE VANG	THO/06-20-22
<b>A</b>	INITIAL RELEASE	THO/06-08-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>70'-0" 115KV 3 PHASE TANGENT TPZ1 S-05.7 POLE NO : SEE INDEX</b>		
SHEET 2 OF 2	<b>42444-0570S3DT</b>	REV. <b>C</b>



STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0570S3ET	17.22	61'-0" [18593]	10" [254]	21 13/32" [544]	0.19530	9 21/32" [245]	20 21/32" [525]	0.18865



A	INITIAL RELEASE	THO/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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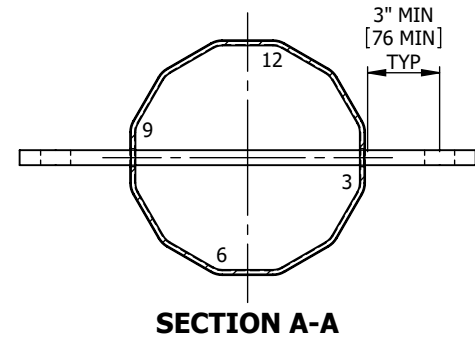
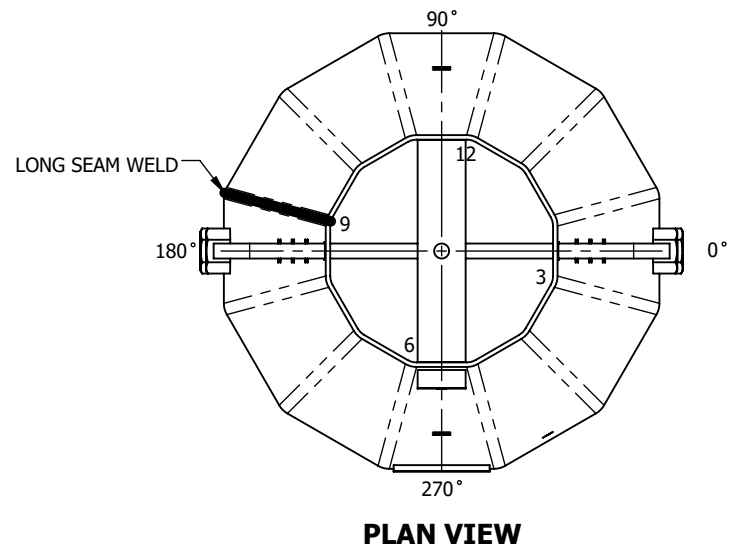
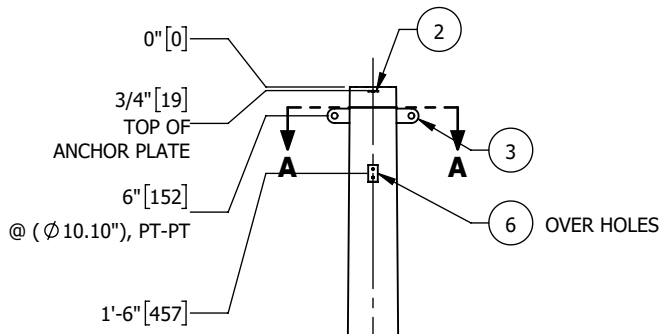
70'-0" 115KV 3 PHASE TANGENT  
TPZD1.C4 S-05.7  
POLE NO: 17.22

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3044	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 010.0 018.8 000		1380.00	1380.00		
2	42444-3015	1	SHAFT ASSEMBLY, 27'-8" LONG	POLE-BASE 027.67 017.8 023.2 000		1420.00	1420.00		
3	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								2810.00	

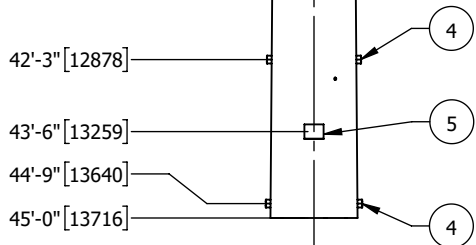
<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/06-08-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 06/08/2022	
CHECKED/DATE:	LM 06/14/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
70'-0" 115KV 3 PHASE TANGENT TPZD1.C4 S-05.7 POLE NO: 17.22		
SHEET 2 OF 2	<b>42444-0570S3ET</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4022	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	10" [254]	18 25/32" [477]	0.19530	9 21/32" [245]	18 5/32" [461]	0.18865



24'-10" [7569] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-8" [813]	TOP	18.27" [464]	56 9/16" [1437]
	BOTTOM	18.79" [477]	58 3/16" [1478]

A	INITIAL RELEASE	THO/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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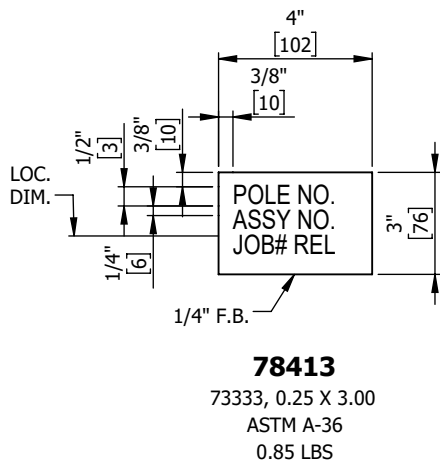
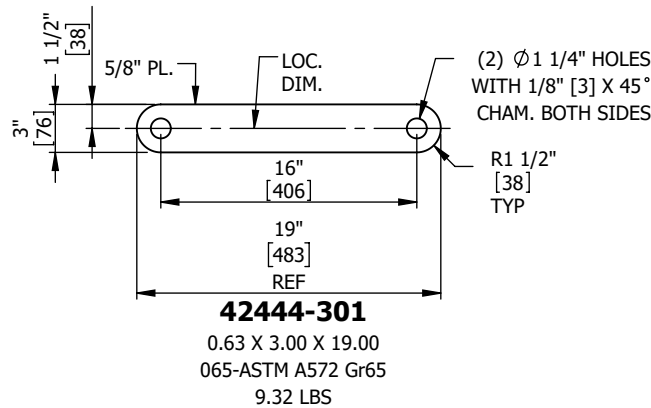
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4022	1	TOWER PLATE TUBE	0.19 X 30.56 X 540.00 X 57.88	065-ASTM A572 Gr65	1277.79	1277.79	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							1292.38	
TOTAL UNFINISHED WEIGHT							1300.00	
TOTAL FINISHED WEIGHT							1380.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	3	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	6	78412	1
4	24'-10" [7569]	APPROX. CENTER OF GRAVITY WELD												-	1		
5	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	4	74547	2
6	42'-4" [12903]	BOTTOM SLIP JOINT LENGTH 32"												-	1		
7	43'-6" [13259]						1							ID TAG, A-36	5	78413	1
8	43'-9" [13335]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	4	74547	2
10	45'-0" [13716]	TOWER PLATE TUBE											1	42444-4022	1		

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	29'-0" [8839]						1					1		3/4"	DISTRIBUTION ARM
10	30'-0" [9144]						1					1		3/4"	DISTRIBUTION ARM
11	42'-7" [12979]					1								1/2"	SJ INSPECTION



A	INITIAL RELEASE	THO/06-08-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

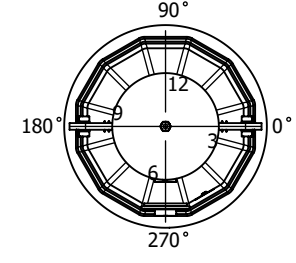
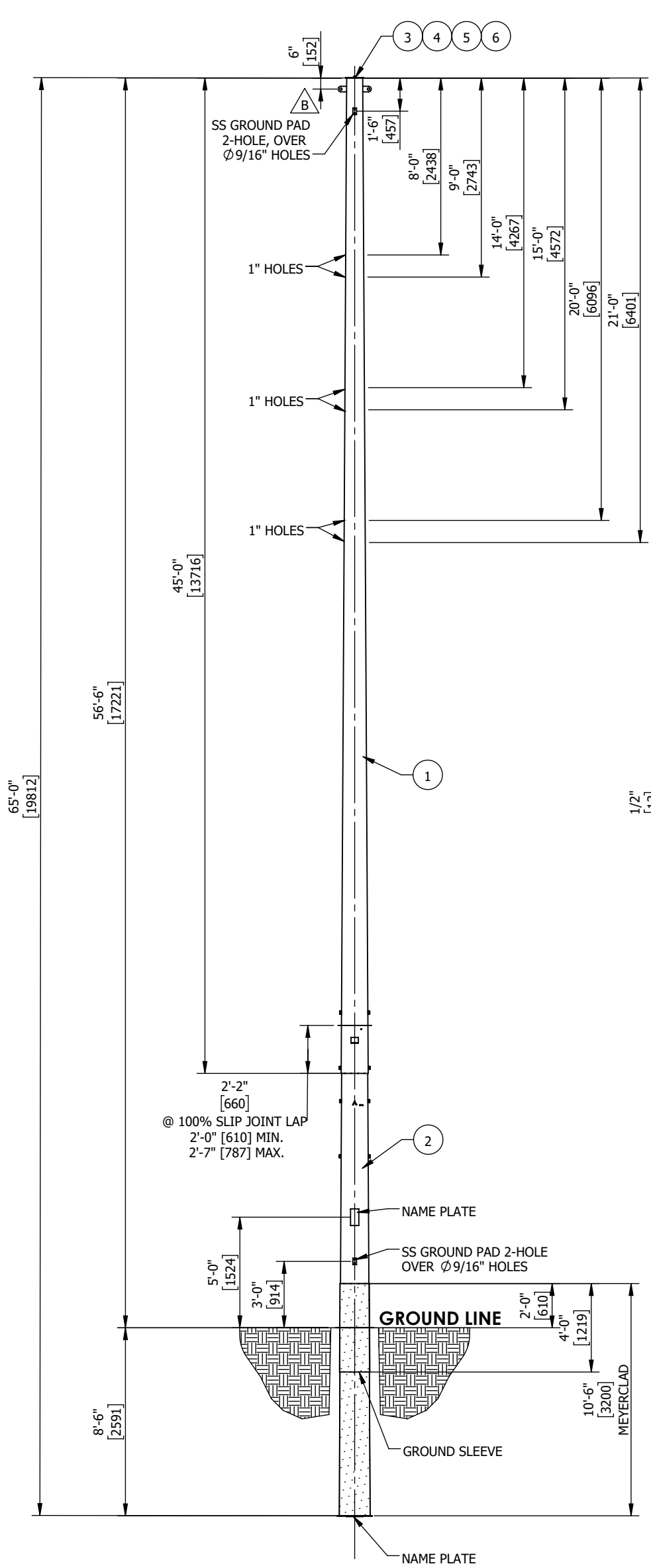
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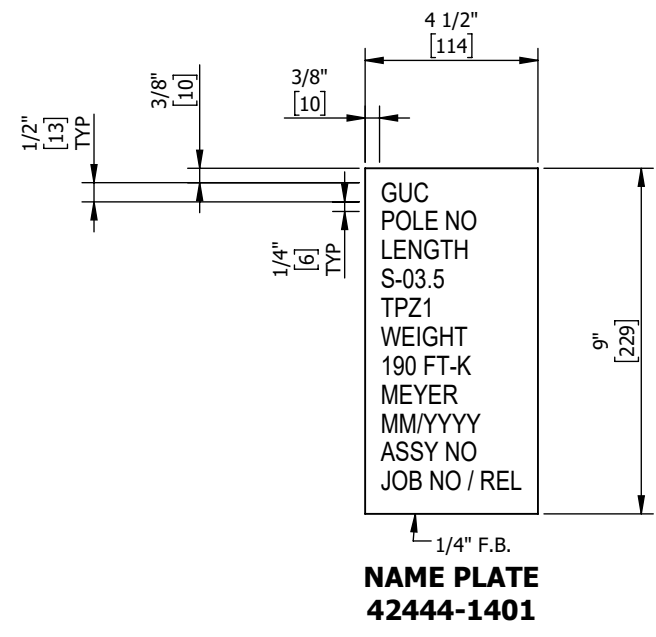
SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0265S3CT	17.27	56'-6" [17221]	9" [229]	16 7/32" [412]	0.13700	8 11/16" [221]	15 11/16" [398]	0.13233



PLAN VIEW



REV	DESCRIPTION	DRFT/DATE
B	ROTATE VANG	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT	06/08/2022
CHECKED/DATE:	LM	06/14/2022
ENGINEER:	MELVIN PORTILLO	

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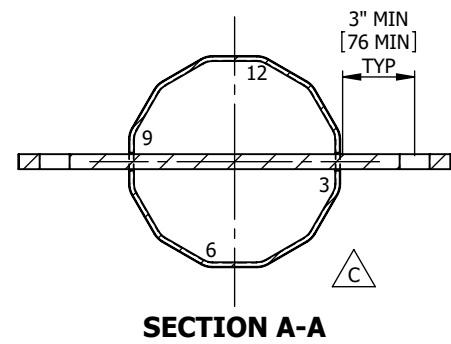
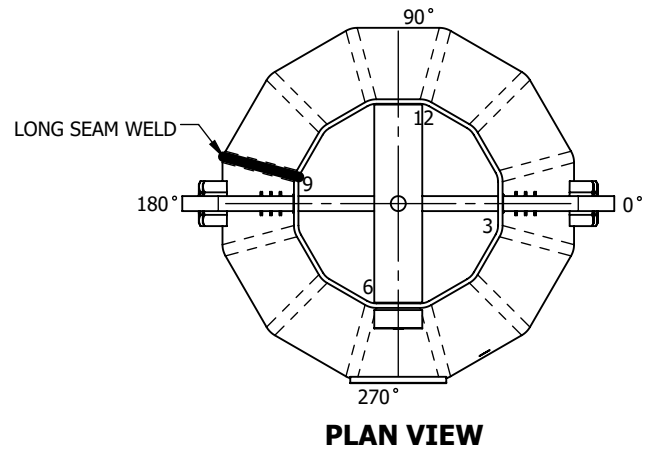
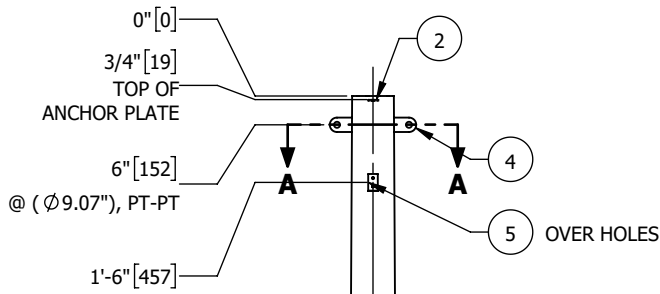
65'-0" 115KV 3 PHASE TANGENT  
TPZ1 S-03.5  
POLE NO: 17.27

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3046	1	SHAFT ASSEMBLY, 45'-0" LONG	POLE-TOP 045.00 009.0 015.2 000		1170.00	1170.00		
2	42444-3013	1	SHAFT ASSEMBLY, 22'-2" LONG	POLE-BASE 022.17 014.4 017.4 000		910.00	910.00		
3	R3PD0100	1	POLE CAP, 3/16" THK X 10" DIA		036-ASTM A36	4.16	4.16		
4	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
5	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
6	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
<b>TOTAL STRUCTURE FINISHED WEIGHT</b>								<b>2090.00</b>	

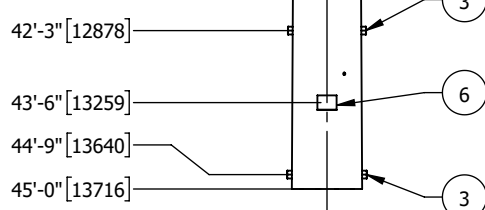
<b>B</b>	<b>ROTATE VANG</b>	<b>THO/06-20-22</b>
<b>A</b>	INITIAL RELEASE	THO/06-08-22
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 06/08/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2021 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>65'-0" 115KV 3 PHASE TANGENT TPZ1 S-03.5 POLE NO: 17.27</b>		
SHEET 2 OF 2	<b>42444-0265S3CT</b>	REV. <b>B</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4019	065-ASTM A572 Gr65	45'-0" [13716]	3/16"	9" [229]	15 5/32" [385]	0.13700	8 11/16" [221]	14 21/32" [372]	0.13233



23'-5 3/4" [7156] APPROXIMATE CENTER OF GRAVITY SEE SPECNOTE



FEMALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	FEMALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.87" [378]	46" [1168]
	BOTTOM	15.16" [385]	46 15/16" [1192]

REV	DESCRIPTION	DRFT/DATE
C	UNDO PREVIOUS VANG REVISION..	THO/06-21-22
B	ROTATE VANG	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22

PROJECT:	22-23 TRANSMISSION REPLACEMENTS
CUSTOMER:	GREENVILLE UTILITIES COMMISSION
CUSTOMER P.O. NO:	81212
JOB NO:	42444
DRAWN/DATE:	CT 06/08/2022
CHECKED/DATE:	LM 06/14/2022
ENGINEER:	MELVIN PORTILLO

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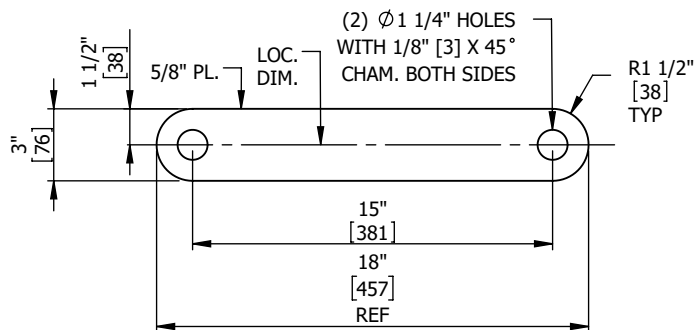
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP

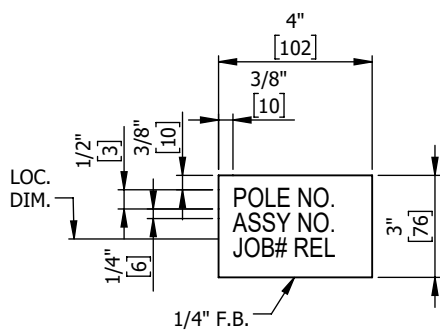
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4019	1	TOWER PLATE TUBE	0.19 X 27.44 X 540.00 X 46.63	065-ASTM A572 Gr65	1076.79	1076.79	
2	PCA082	1	ANCHOR PLATE	0.25 X 2.00 X 8.25	099-ASTM A36	1.15	1.15	
3	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
4	42444-322	1	THROUGH VANG	0.63 X 3.00 X 18.00	065-ASTM A572 Gr65	8.79	8.79	
5	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
6	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
TOTAL MODEL WEIGHT							1090.71	
TOTAL UNFINISHED WEIGHT							1100.00	
TOTAL FINISHED WEIGHT							1170.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA082	1
2	6" [152]	0 DEG ON FLAT 2-3												THROUGH VANG / SECTION A-A	4	42444-322	1
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	5	78412	1
4	23'-5 3/4" [7156]	APPROX. CENTER OF GRAVITY WELD												-	-	1	
5	42'-3" [12878]			1						1				JACKING NUT, 1" DIA.	3	74547	2
6	42'-10" [13056]	BOTTOM SLIP JOINT LENGTH 26"												-	-	1	
7	43'-6" [13259]						1							ID TAG, A-36	6	78413	1
8	44'-0" [13411]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	44'-9" [13640]			1						1				JACKING NUT, 1" DIA.	3	74547	2
10	45'-0" [13716]	TOWER PLATE TUBE												1	42444-4019	1	

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD
3	8'-0" [2438]			1						1				1"	POST INSULATOR
4	9'-0" [2743]			1						1				1"	POST INSULATOR
5	14'-0" [4267]			1						1				1"	POST INSULATOR
6	15'-0" [4572]			1						1				1"	POST INSULATOR
7	20'-0" [6096]			1						1				1"	POST INSULATOR
8	21'-0" [6401]			1						1				1"	POST INSULATOR
9	43'-0" [13106]						1							1/2"	SJ INSPECTION



**42444-322**  
0.63 X 3.00 X 18.00  
065-ASTM A572 Gr65  
8.79 LBS



**78413**  
73333, 0.25 X 3.00  
ASTM A-36  
0.85 LBS

REV	DESCRIPTION	DRFT/DATE
C	UNDO PREVIOUS VANG REVISION..	THO/06-21-22
B	ROTATE VANG	THO/06-20-22
A	INITIAL RELEASE	THO/06-08-22
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO.:	81212	
JOB NO.:	42444	
DRAWN/DATE:	CT	06/08/2022
CHECKED/DATE:	LM	06/14/2022
ENGINEER:	MELVIN PORTILLO	

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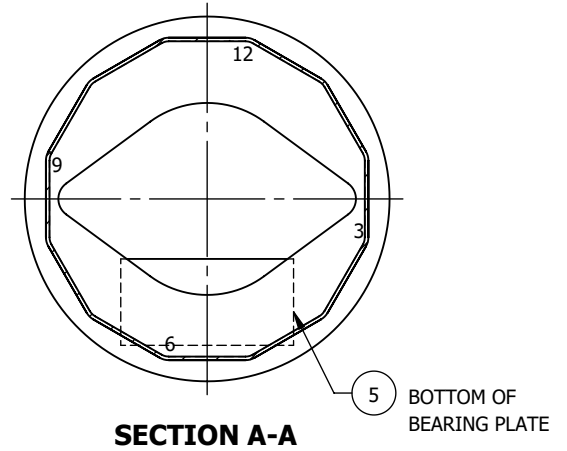
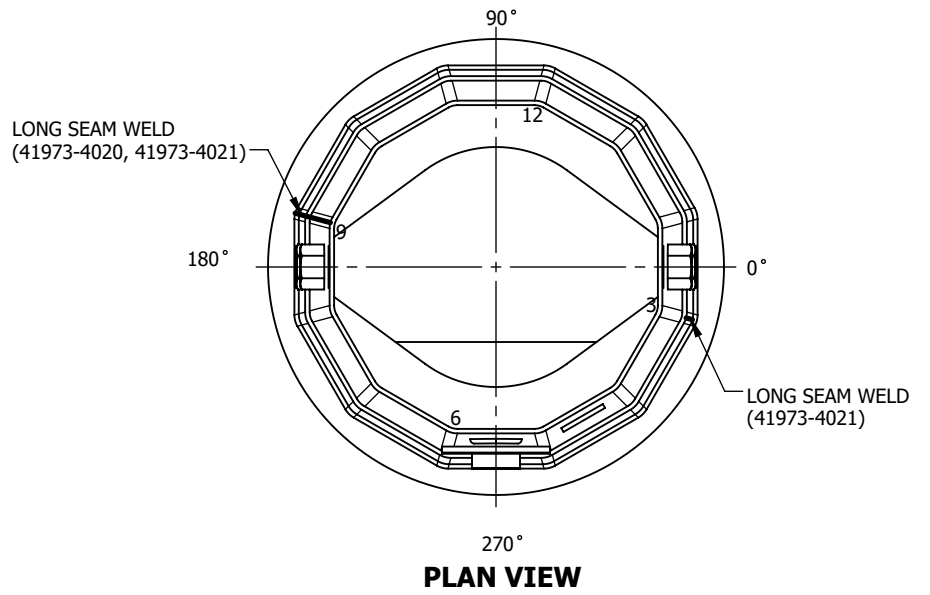
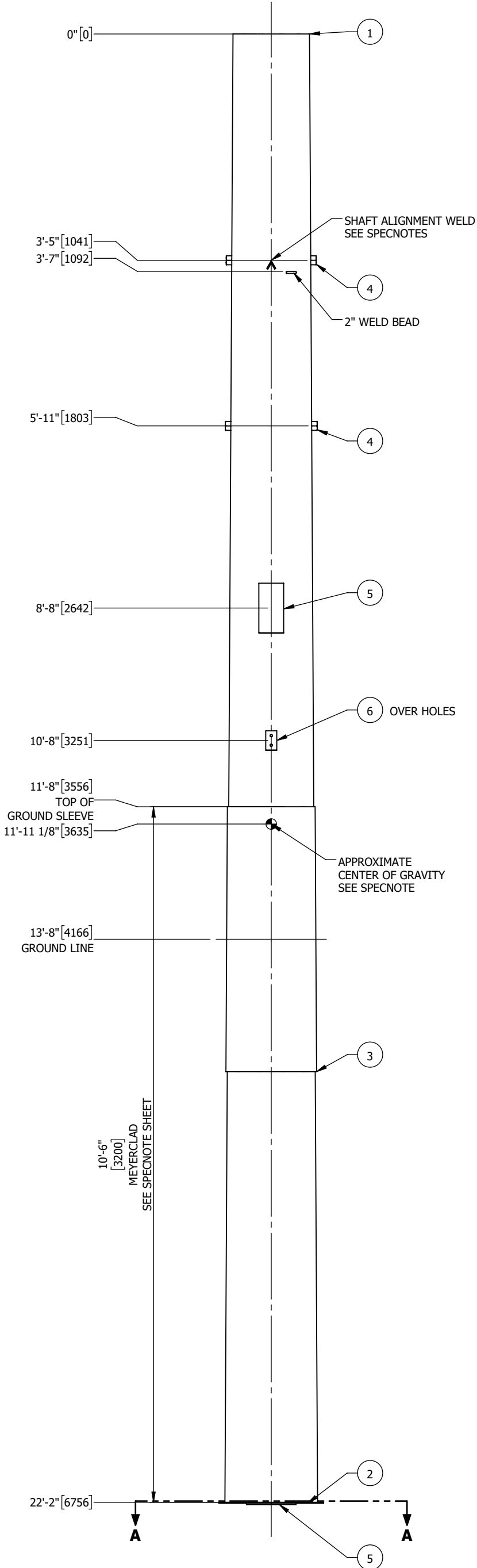
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 45'-0" LONG  
PTOP



SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4020	065-ASTM A572 Gr65	22'-2" [6756]	3/16"	14 11/32" [365]	17 13/32" [442]	0.13700	13 7/8" [352]	16 13/16" [427]	0.13233
42444-4021	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	16 15/32" [418]	17" [432]	0.13700	15 29/32" [404]	16 7/16" [417]	0.13233



MALE SLIPJOINT DATA			
SLIPJOINT LAP	12 SIDED	MALE END DIA.	
		O.D. (PT-PT)	PERIMETER
2'-2" [660]	TOP	14.36" [365]	44 1/2" [1130]
	BOTTOM	14.65" [372]	45 3/8" [1153]

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: BZ 06/01/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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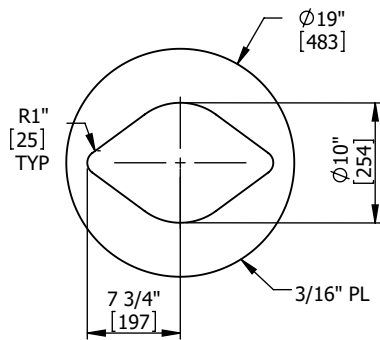
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 22'-2" LONG  
PBAS

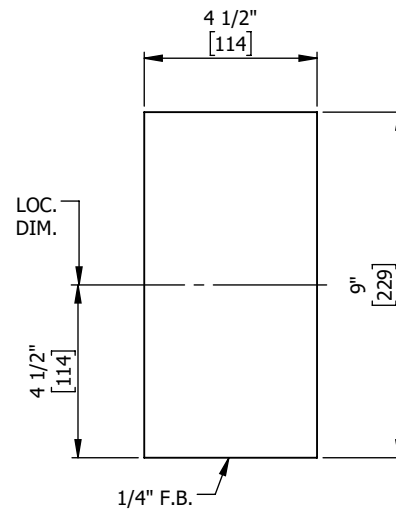
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4020	1	TOWER PLATE TUBE	0.19 X 44.13 X 266.00 X 53.50	065-ASTM A572 Gr65	700.15	700.15	
2	42444-201	1	BEARING PLATE, 3/16" THK X 19" DIA	0.19 X 19.00 X 19.00	065-ASTM A572 Gr65	9.82	9.82	
3	42444-4021	1	GROUND SLEEVE	(2) 0.19 X 25.31 X 48.00 X 26.19	065-ASTM A572 Gr65	130.84	130.84	
4	74547	4	JACKING NUT, 1" DIA.		ASTM A-563 GRADE C3	0.43	1.72	
5	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
6	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
7	MCLADNA	-	MEYER CLAD - BROWN			0	-	
TOTAL MODEL WEIGHT								849.68
TOTAL UNFINISHED WEIGHT								860.00
TOTAL FINISHED WEIGHT								910.00

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	6" [152]			1						1				TOP LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
2	2'-2" [660]													TOP SLIP JOINT LENGTH 26"		-	1
3	3'-5" [1041]			1						1				JACKING NUT, 1" DIA.	4	74547	2
4	3'-5" [1041]						1							SHAFT ALIGNMENT WELD		-	1
5	3'-7" [1092]						1							2" WELD BEAD		-	1
6	5'-11" [1803]			1						1				JACKING NUT, 1" DIA.	4	74547	2
7	8'-8" [2642]						1							NAME PLATE	5	42444-1401	1
8	10'-8" [3251]						1							SS GROUND PAD 2-HOLE	6	78412	1
9	11'-8" [3556]													TOP OF GROUND SLEEVE	3	42444-4021	1
10	11'-11 1/8" [3635]													APPROX. CENTER OF GRAVITY WELD		-	1
11	13'-8" [4166]													GROUND LINE		-	-
12	21'-8" [6604]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
13	22'-2" [6756]													TOWER PLATE TUBE	1	42444-4020	1
14	22'-2" [6756]													BEARING PLATE, 3/16" THK X 19" DIA / SECTION A-A	2	42444-201	1
15	22'-2 7/16" [6768]													NAME PLATE / SECTION A-A	5	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	10'-7 1/8" [3229]						1							9/16"	HOLE UNDER GRND PAD
2	10'-8 7/8" [3273]						1							9/16"	HOLE UNDER GRND PAD



**42444-201**  
0.19 X 19.00 X 19.00  
065-ASTM A572 Gr65  
9.82 LBS



**42444-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
2.87 LBS

A	INITIAL RELEASE	SAN/06-01-22
REV	DESCRIPTION	DRFT/DATE
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	BZ 06/01/2022	
CHECKED/DATE:	LM 06/14/2022	
ENGINEER:	MELVIN PORTILLO	

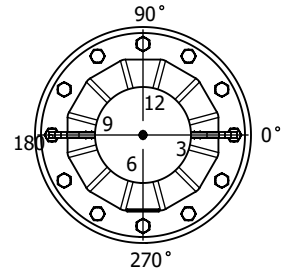
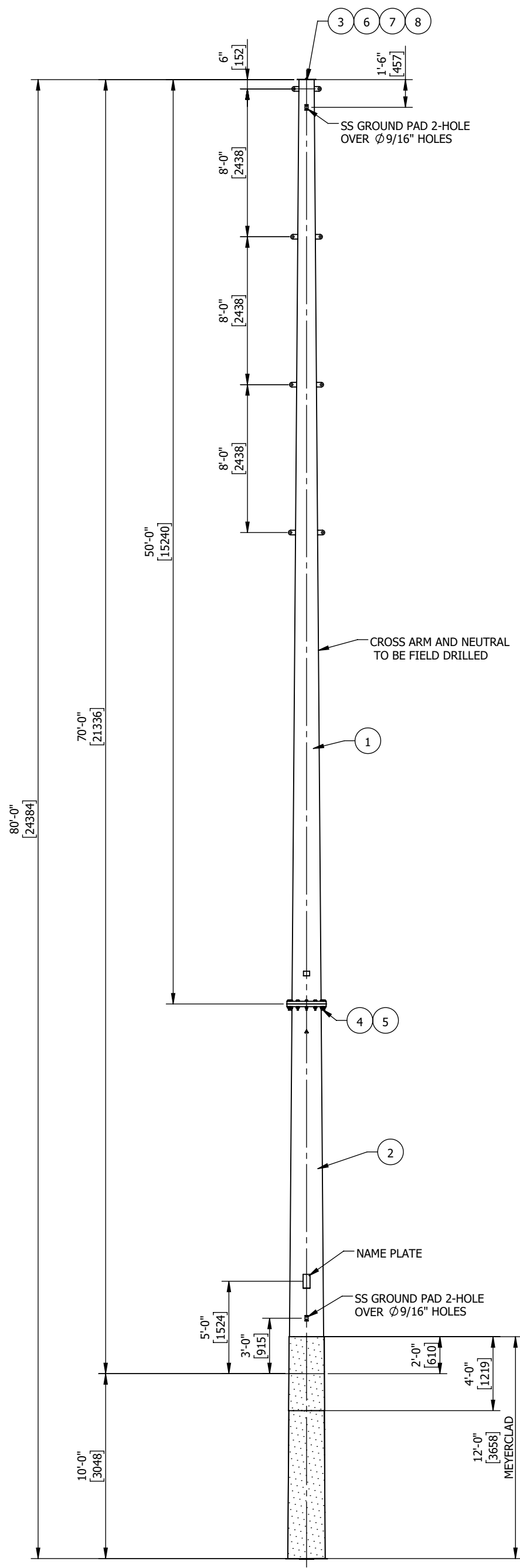
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UTILITY STRUCTURES

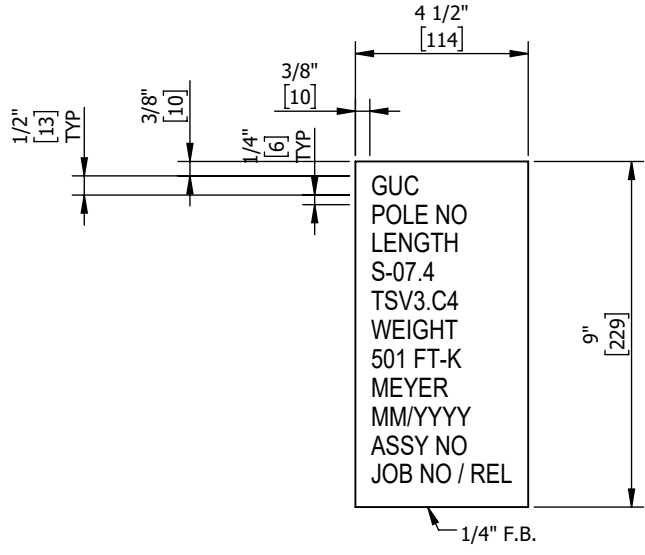
SHAFT ASSEMBLY, 22'-2" LONG  
PBAS

STRUCTURE INFORMATION

BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA. (FL-FL)	GRND. LINE DIA. (FL-FL)	TAPER IN./FT. (FL-FL)
42444-0780F3AT	17.34	70'-0" [21336]	10 3/16" [259]	23 9/32" [591]	0.18700	9 27/32" [250]	22 1/2" [571]	0.18063



PLAN VIEW



GUC  
POLE NO  
LENGTH  
S-07.4  
TSV3.C4  
WEIGHT  
501 FT-K  
MEYER  
MM/YYYY  
ASSY NO  
JOB NO / REL

NAME PLATE  
42444-1401

A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/25/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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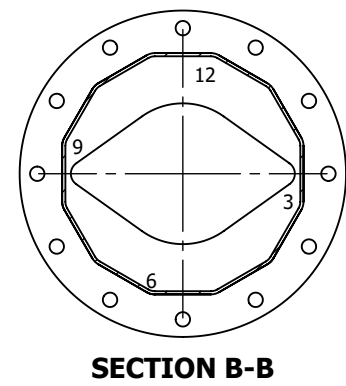
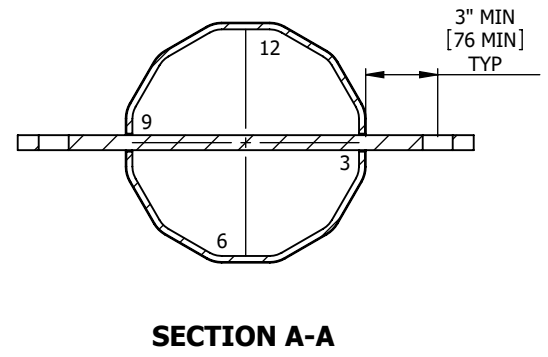
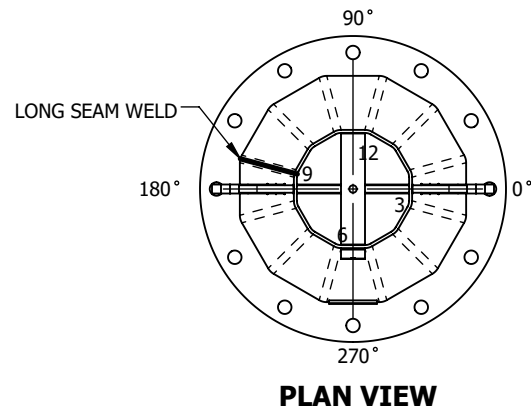
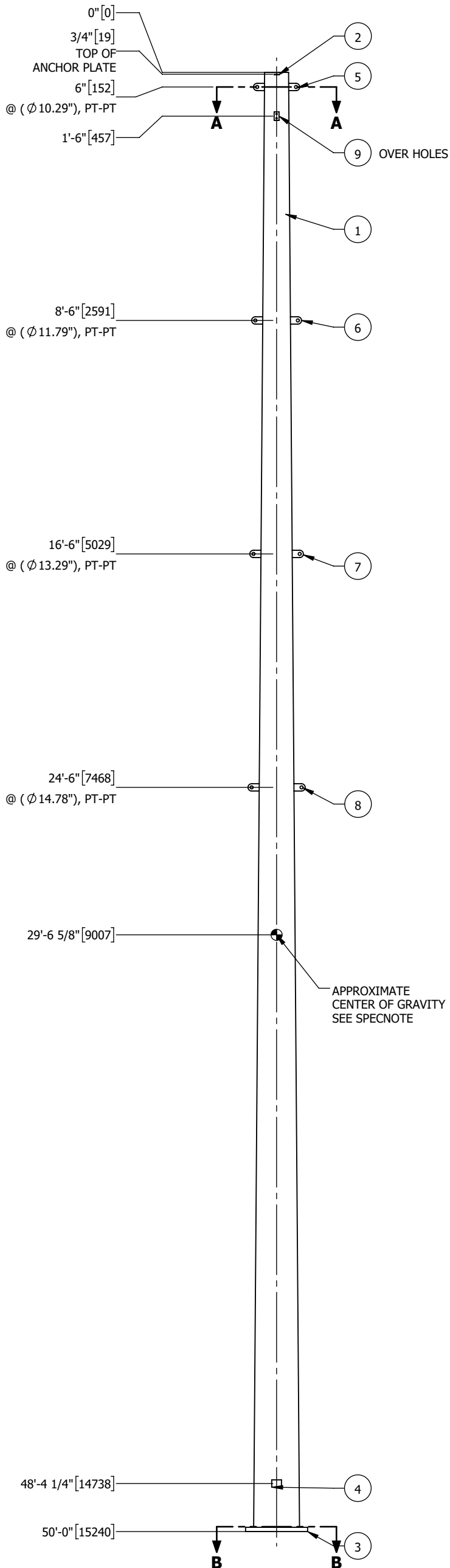
80'-0" 115KV 3 PHASE SUSPENSION  
TSV3.C4 S-07.4  
POLE NO: 17.34

PARTS AND ASSEMBLIES LIST									
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.		
1	42444-3048	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE-TOP 050.00 010.2 019.6 026		2320.00	2320.00		
2	42444-3049	1	SHAFT ASSEMBLY, 30'-0" LONG	POLE-BASE 030.00 019.6 025.2 000		2300.00	2300.00		
3	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00		
4	78252	12	BOLT, 1" DIA. x 5 3/4"		ASTM A-354 GRADE BC GALV	1.60	19.20		
5	74071	12	ANCO LOCKNUT, 1" DIA.		ASTM A-563 GRADE DH	0.41	4.92		
6	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15		
7	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16		
8	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02		
TOTAL STRUCTURE FINISHED WEIGHT								4660.00	

<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/06-09-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/25/2022	
CHECKED/DATE:	LM 06/14/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<b>80'-0" 115KV 3 PHASE SUSPENSION</b> <b>TSV3.C4 S-07.4</b> <b>POLE NO: 17.34</b>		
SHEET 2 OF 2	<b>42444-0780F3AT</b>	REV. <b>A</b>

SHAFT INFORMATION

TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4044	065-ASTM A572 Gr65	49'-10 1/4" [15196]	1/4"	10 3/16" [259]	19 17/32" [496]	0.18700	9 27/32" [250]	18 27/32" [479]	0.18063



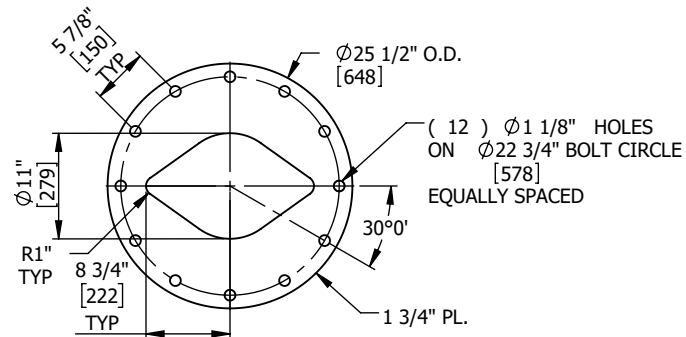
A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/25/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 1 OF 3	<b>42444-3048</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4044	1	TOWER PLATE TUBE	0.25 X 30.88 X 598.25 X 59.88	065-ASTM A572 Gr65	1932.34	1932.34	
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29	
3	42444-4046	1	FLANGE PLATE	1.75 X 25.50 X 25.50	451-ASTM A572 Gr50	187.26	187.26	
4	78413	1	ID TAG, A-36	73333, 0.25 X 3.00	036 ASTM A-36	0.85	0.85	
5	42444-301	1	THROUGH VANG	0.63 X 3.00 X 19.00	065-ASTM A572 Gr65	9.32	9.32	
6	42444-333	1	THROUGH VANG	0.75 X 3.00 X 20.50	065-ASTM A572 Gr65	12.15	12.15	
7	42444-334	1	THROUGH VANG	0.75 X 3.00 X 22.00	065-ASTM A572 Gr65	13.1	13.10	
8	42444-335	1	THROUGH VANG	0.75 X 3.00 X 23.50	065-ASTM A572 Gr65	14.06	14.06	
9	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							2171.78	
TOTAL UNFINISHED WEIGHT							2180.00	
TOTAL FINISHED WEIGHT							2320.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	3/4" [19]						1							ANCHOR PLATE	2	PCA092	1
2	6" [152]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	5	42444-301	1	
3	1'-6" [457]						1							SS GROUND PAD 2-HOLE	9	78412	1
4	8'-6" [2591]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	6	42444-333	1	
5	16'-6" [5029]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	7	42444-334	1	
6	24'-6" [7468]	0 DEG ON FLAT 2-3											THROUGH VANG / SECTION A-A	8	42444-335	1	
7	29'-6 5/8" [9007]												APPROX. CENTER OF GRAVITY WELD		-	1	
8	48'-4 1/4" [14738]						1							ID TAG, A-36	4	78413	1
9	49'-10 1/4" [15196]												TOWER PLATE TUBE	1	42444-4044	1	
10	50'-0" [15240]												FLANGE PLATE / SECTION B-B	3	42444-4046	1	

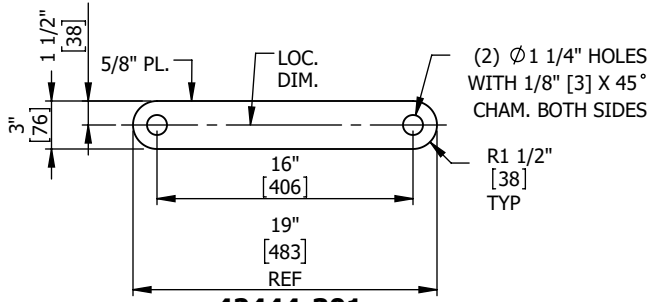
HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	1'-5 1/8" [435]						1							9/16"	HOLE UNDER GRND PAD
2	1'-6 7/8" [479]						1							9/16"	HOLE UNDER GRND PAD

<b>A</b>	<b>INITIAL RELEASE</b>	<b>THO/06-09-22</b>
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>
PROJECT:	22-23 TRANSMISSION REPLACEMENTS	
CUSTOMER:	GREENVILLE UTILITIES COMMISSION	
CUSTOMER P.O. NO:	81212	
JOB NO:	42444	
DRAWN/DATE:	CT 05/25/2022	
CHECKED/DATE:	LM 06/14/2022	
ENGINEER:	MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP		
SHEET 2 OF 3	<b>42444-3048</b>	REV. <b>A</b>



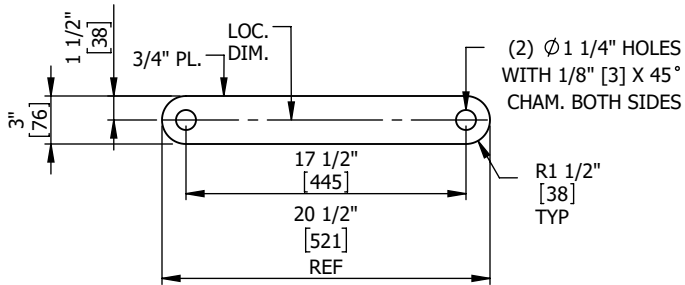
**42444-4046**

1.75 X 25.50 X 25.50  
451-ASTM A572 Gr50  
187.26 LBS



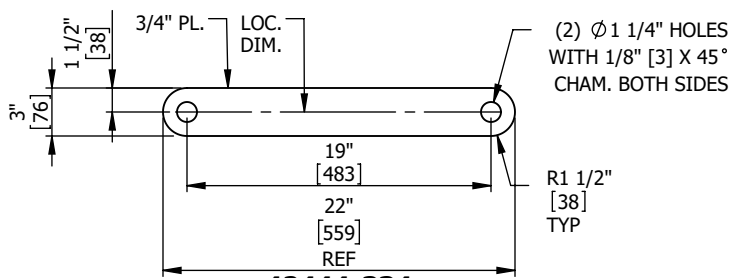
**42444-301**

0.63 X 3.00 X 19.00  
065-ASTM A572 Gr65  
9.32 LBS



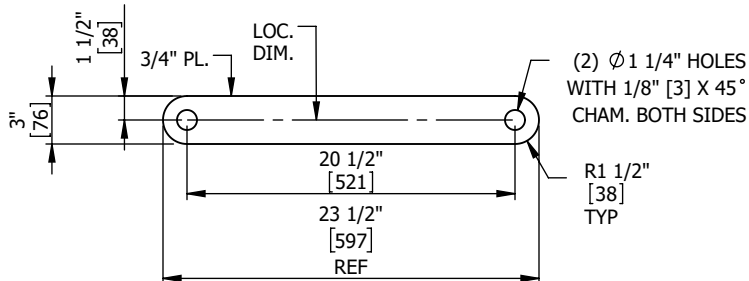
**42444-333**

0.75 X 3.00 X 20.50  
065-ASTM A572 Gr65  
12.15 LBS



**42444-334**

0.75 X 3.00 X 22.00  
065-ASTM A572 Gr65  
13.1 LBS



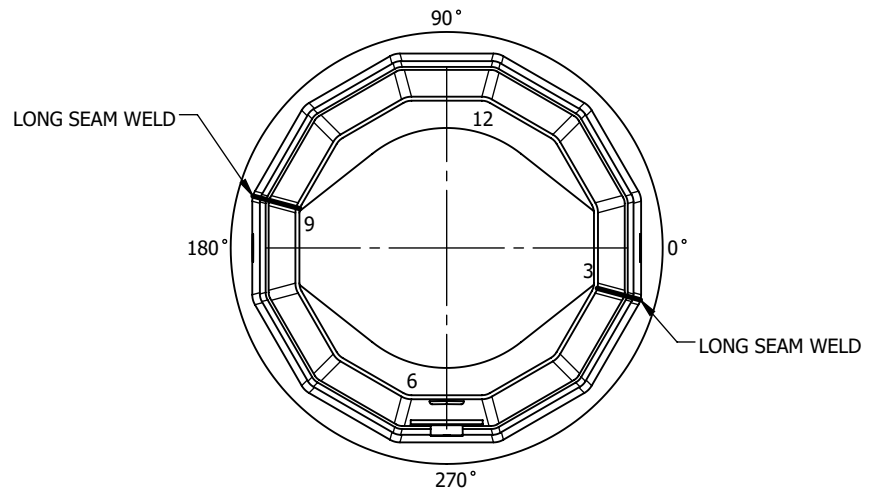
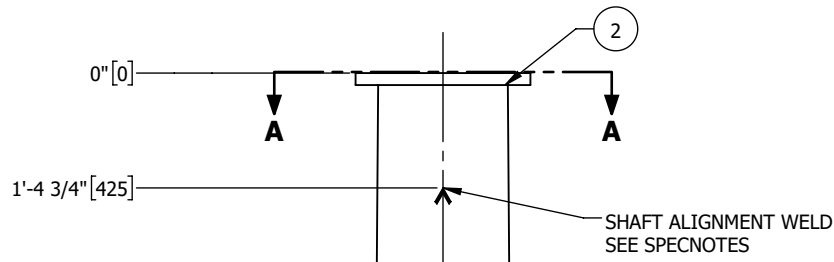
**42444-335**

0.75 X 3.00 X 23.50  
065-ASTM A572 Gr65  
14.06 LBS

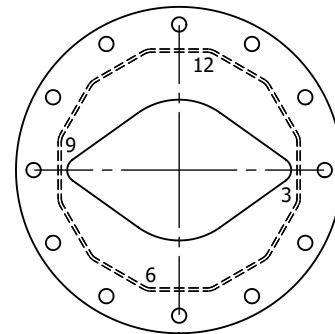
A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/25/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
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<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG PTOP PARTS DETAIL		
SHEET 3 OF 3	<b>42444-3048</b>	REV. <b>A</b>

SHAFT INFORMATION

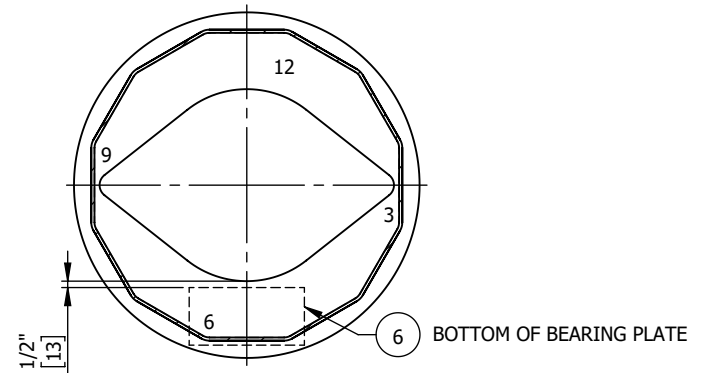
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TAPER IN./FT. (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT. (FL-FL)
42444-4045	065-ASTM A572 Gr65	29'-10 1/4" [9100]	1/4"	19 9/16" [497]	25 5/32" [639]	0.18700	18 29/32" [480]	24 5/16" [617]	0.18063
42444-4047	065-ASTM A572 Gr65	4'-0" [1219]	3/16"	23 7/16" [595]	24 3/16" [614]	0.18700	22 5/8" [575]	23 11/32" [593]	0.18063



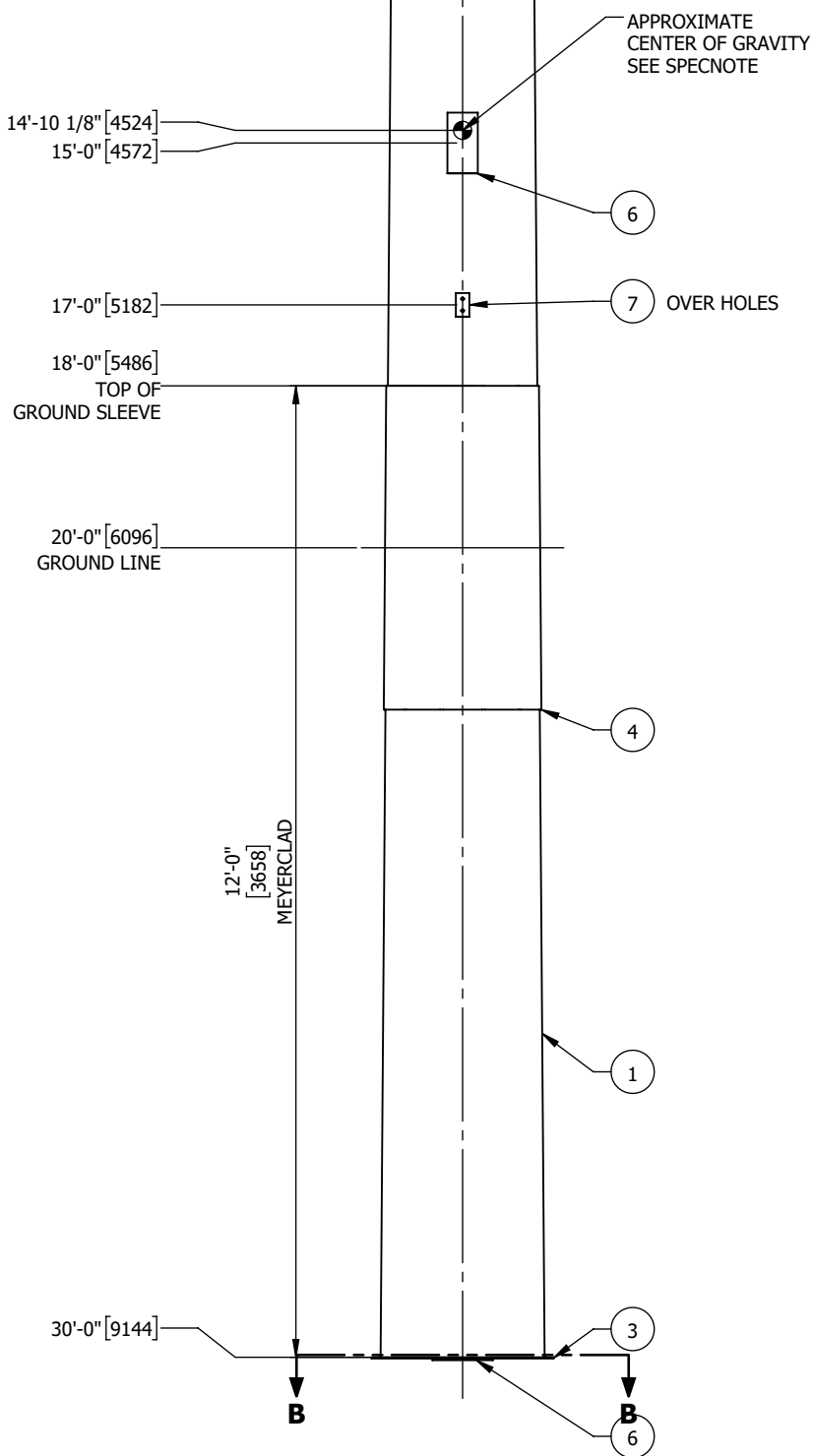
TOP FLANGE PLATE NOT SHOWN FOR CLARITY



SECTION A-A



SECTION B-B



A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/25/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	

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**MEYER**  
UTILITY STRUCTURES

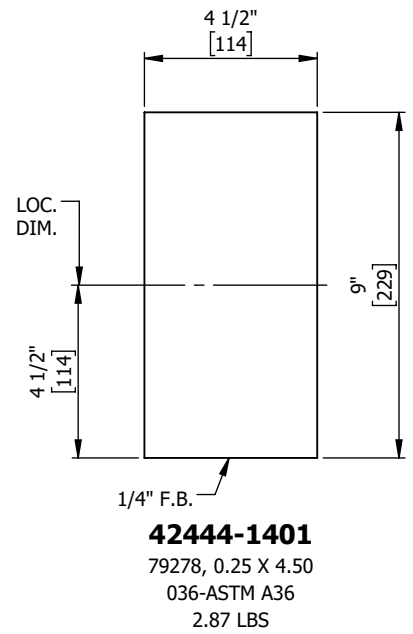
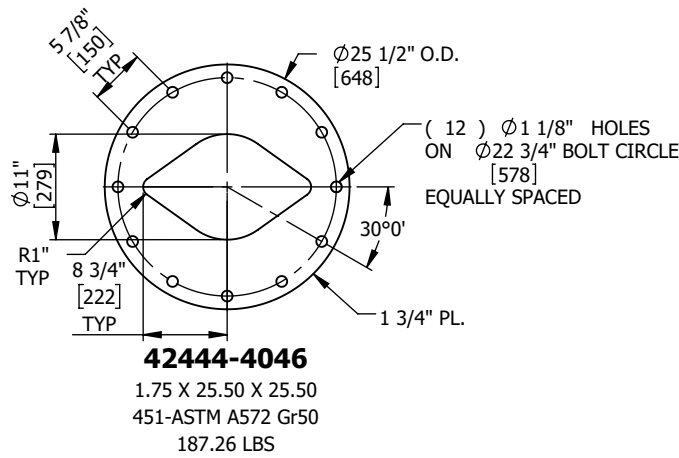
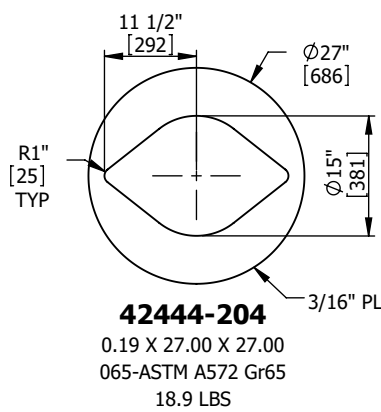
SHAFT ASSEMBLY, 30'-0" LONG  
PBAS



PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	42444-4045	1	TOWER PLATE TUBE	(2) 0.25 X 30.00 X 358.25 X 38.69	065-ASTM A572 Gr65	1756.26	1756.26	
2	42444-4046	1	FLANGE PLATE	1.75 X 25.50 X 25.50	451-ASTM A572 Gr50	187.26	187.26	
3	42444-204	1	BEARING PLATE, 3/16" THK X 27" DIA	0.19 X 27.00 X 27.00	065-ASTM A572 Gr65	18.9	18.90	
4	42444-4047	1	GROUND SLEEVE	(2) 0.19 X 36.13 X 48.00 X 37.31	065-ASTM A572 Gr65	186.82	186.82	
5	MCLADNA	-	MEYER CLAD - BROWN			0	-	
6	42444-1401	2	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	2.87	5.74	
7	78412	1	SS GROUND PAD 2-HOLE	78430, 0.75 X 2.00	STAINLESS STEEL TYPE 304	1.41	1.41	
TOTAL MODEL WEIGHT							2156.39	
TOTAL UNFINISHED WEIGHT							2160.00	
TOTAL FINISHED WEIGHT							2300.00	

HARDWARE LOCATION AND ORIENTATION																	
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	DESCRIPTION / SECTION / COMMENT	ITEM NO	PART NUMBER	QTY
1	1 3/4" [44]													FLANGE PLATE / SECTION A-A	2	42444-4046	1
2	1'-4 3/4" [425]						1							SHAFT ALIGNMENT WELD		-	1
3	14'-10 1/8" [4524]													APPROX. CENTER OF GRAVITY WELD		-	1
4	15'-0" [4572]						1							NAME PLATE	6	42444-1401	1
5	17'-0" [5182]						1							SS GROUND PAD 2-HOLE	7	78412	1
6	18'-0" [5486]													TOP OF GROUND SLEEVE	4	42444-4047	1
7	20'-0" [6096]													GROUND LINE		-	-
8	29'-6" [8992]			1						1				BOTTOM LIFTING SLOT, 1 3/4" DIA X 4 3/4" LONG		SLOT	2
9	30'-0" [9144]													TOWER PLATE TUBE	1	42444-4045	1
10	30'-0" [9144]													BEARING PLATE, 3/16" THK X 27" DIA / SECTION B-B	3	42444-204	1
11	30'-3/16" [9149]													NAME PLATE / SECTION B-B	6	42444-1401	1

HOLE INFORMATION															
EL.	LOCATION FROM TOP	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	HOLE DIA	DESCRIPTION
1	16'-11 1/8" [5159]						1							9/16"	HOLE UNDER GRND PAD
2	17'-7/8" [5204]						1							9/16"	HOLE UNDER GRND PAD

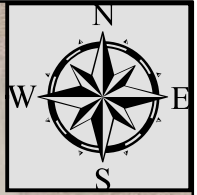


A	INITIAL RELEASE	THO/06-09-22
REV	DESCRIPTION	DRFT/DATE
	PROJECT: 22-23 TRANSMISSION REPLACEMENTS	
	CUSTOMER: GREENVILLE UTILITIES COMMISSION	
	CUSTOMER P.O. NO: 81212	
	JOB NO: 42444	
	DRAWN/DATE: CT 05/25/2022	
	CHECKED/DATE: LM 06/14/2022	
	ENGINEER: MELVIN PORTILLO	
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SHAFT ASSEMBLY, 30'-0" LONG PBAS		
SHEET 2 OF 2	<b>42444-3049</b>	REV. <b>A</b>

## **Appendix G: Vicinity Maps**

# Vicinity Map - Circuit 11

Page 1



**Structure # 1**  
Pole ID 784046

**Structure # 2**  
Pole ID 783734

**Structure # 3**  
Pole ID 783735

**Structure # 4**  
Pole ID 782910

**Structure # 5**  
Pole ID 782909

**Structure # 6**  
Pole ID 782823

**Structure # 7**  
Pole ID 782963

**Structure # 8**  
Pole ID 784279

**Structure # 9**  
Pole ID 782964

**Structure # 10**  
Pole ID 782965

MACGREGOR DOWNS

BERTHA

BS BARBEQUE

US 264  
US 264

NC 11

STANTONSBURG

PARKWAY

RADIO STATION


PEYTON

PARK WEST

GATEWAY  
STANTONSBURG

WEST

## LEGEND

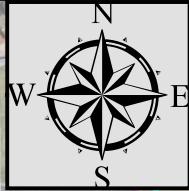
ELECTRIC TRANSMISSION 

ELECTRIC DISTRIBUTION 



# Vicinity Map - Circuit 11

Page 2



**Structure # 10**  
See Page 1

**Structure # 11**  
Pole ID 781699

**Structure # 13**  
Pole ID 782974

**Structure # 12**  
Pole ID 784164

**Structure # 15**  
Pole ID 782978

**Structure # 16**  
Pole ID 782979

**Structure # 14**  
Pole ID 782977

**Structure # 18**  
Pole ID 782982


**Structure # 17**  
Pole ID 782980

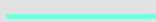
**Structure # 19**  
Pole ID 782984

**Structure # 20**  
DO NOT REPLACE

**Structure # 21**  
Pole ID 782986

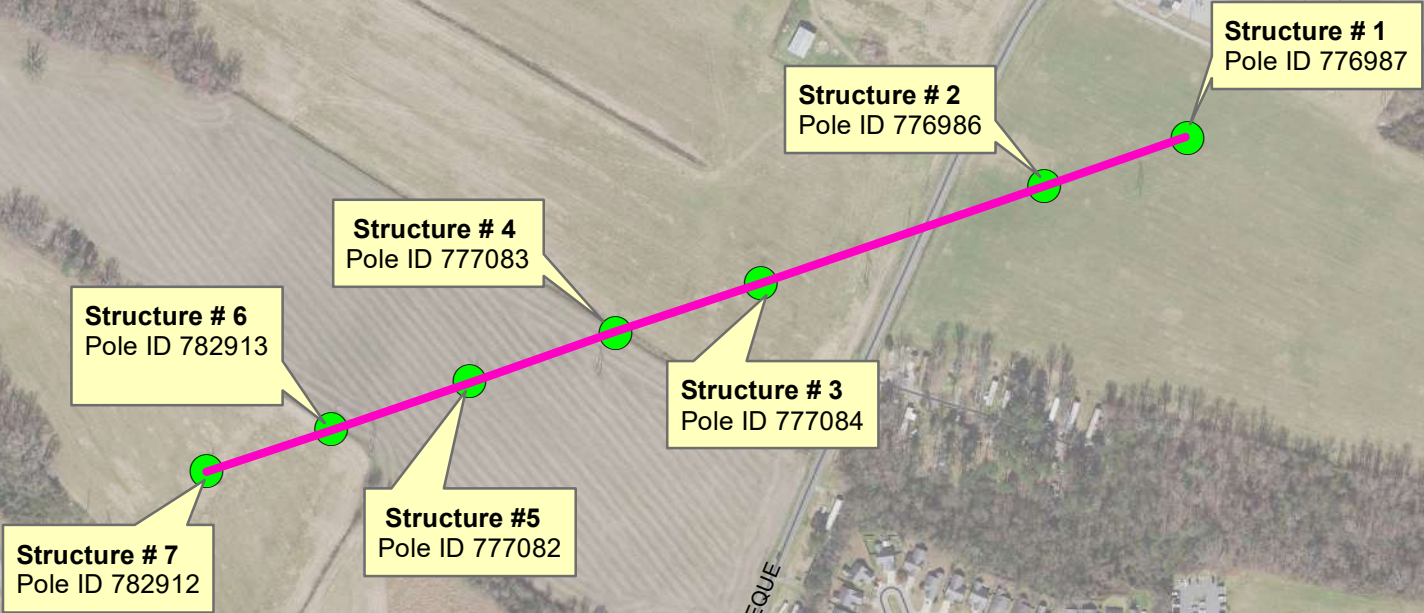
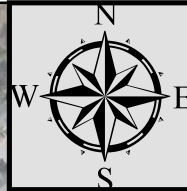
**LEGEND**

ELECTRIC TRANSMISSION 

ELECTRIC DISTRIBUTION 

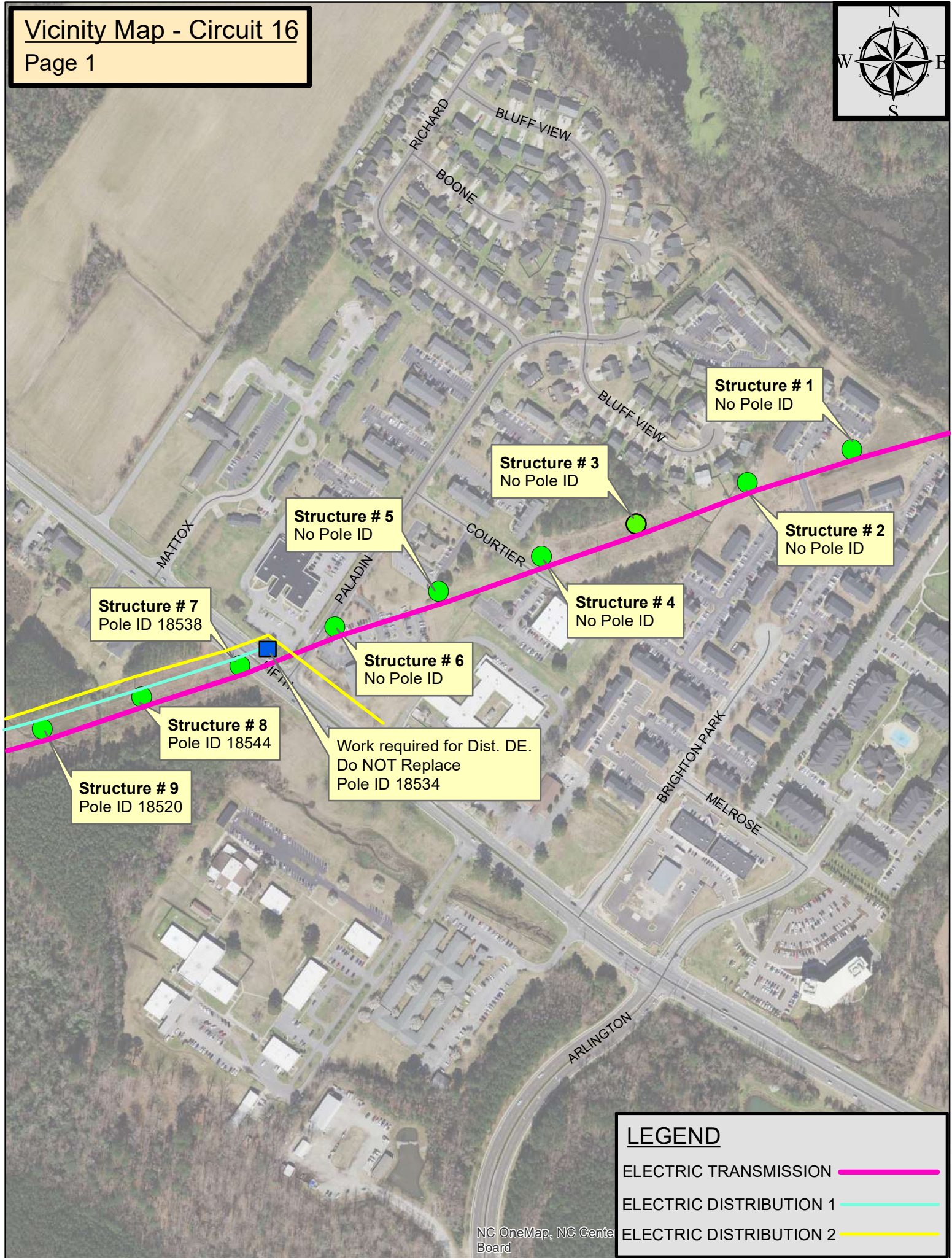


# Vicinity Map - Circuit 12



**LEGEND**  
Electric Transmission 





**Structure # 7**  
Pole ID 18538

**Structure # 8**  
Pole ID 18544

**Structure # 9**  
Pole ID 18520

**Structure # 5**  
No Pole ID

**Structure # 6**  
No Pole ID

Work required for Dist. DE.  
Do NOT Replace  
Pole ID 18534

**Structure # 3**  
No Pole ID

**Structure # 4**  
No Pole ID

**Structure # 1**  
No Pole ID

**Structure # 2**  
No Pole ID

**LEGEND**

- ELECTRIC TRANSMISSION
- ELECTRIC DISTRIBUTION 1
- ELECTRIC DISTRIBUTION 2



# Vicinity Map - Circuit 16

Page 2



Distribution phases will be transferred from existing poles to new transmission poles. See *Table 5a* for Pole IDs.

**Structure # 9**  
See Page 1

**Structure # 16**  
No Pole ID

**Structure # 12**  
Pole ID 17791

**Structure # 10**  
Pole ID 18517

**Structure # 11**  
Pole ID 17788

**Structure # 13**  
Pole ID 17812

**Structure # 15**  
No Pole ID

**Structure # 14**  
No Pole ID

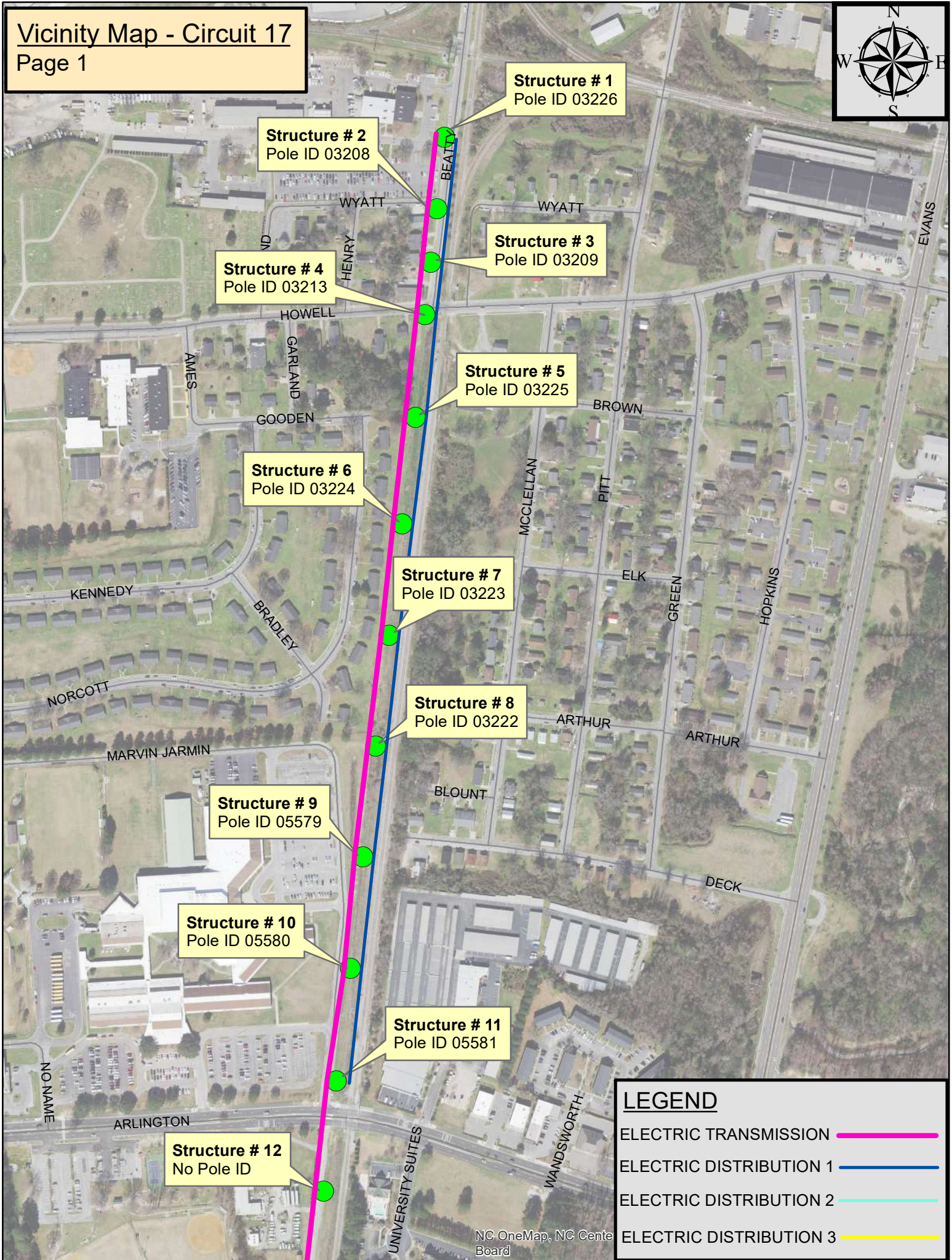
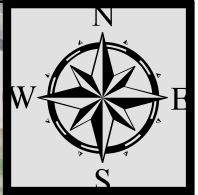
**LEGEND**

- ELECTRIC TRANSMISSION
- ELECTRIC DISTRIBUTION 1
- ELECTRIC DISTRIBUTION 2



# Vicinity Map - Circuit 17

Page 1





# Vicinity Map - Circuit 17

Page 2



**Structure # 12**  
See Page 1

**Structure # 13**  
No Pole ID

**Structure # 14**  
No Pole ID

**Structure # 15**  
No Pole ID

**Structure # 16**  
No Pole ID

**Structure # 17**  
No Pole ID

**Structure # 18**  
No Pole ID

**Structure # 19**  
No Pole ID

**Structure # 20**  
No Pole ID

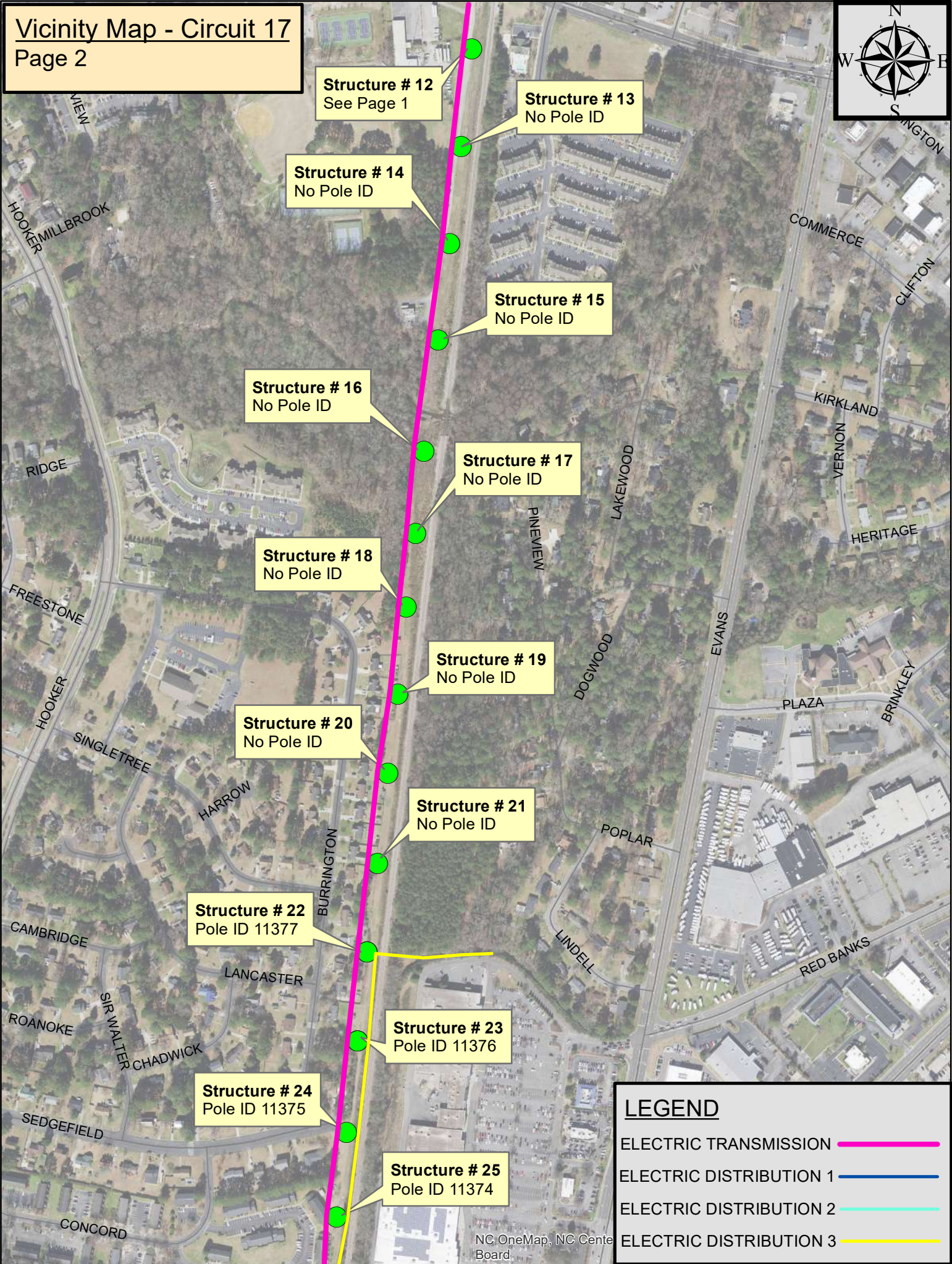
**Structure # 21**  
No Pole ID

**Structure # 22**  
Pole ID 11377

**Structure # 23**  
Pole ID 11376

**Structure # 24**  
Pole ID 11375

**Structure # 25**  
Pole ID 11374



## LEGEND

- ELECTRIC TRANSMISSION
- ELECTRIC DISTRIBUTION 1
- ELECTRIC DISTRIBUTION 2
- ELECTRIC DISTRIBUTION 3



# Vicinity Map - Circuit 17

Page 3



**Structure # 25**  
See Page 2

**Structure # 26**  
Pole ID 11372

**Structure # 27**  
Pole ID 11368

**Structure # 28**  
Pole ID 11729

**Structure # 29**  
Pole ID 11717

**Structure # 30**  
Pole ID 12311

**Structure # 31**  
Pole ID 11669

**Structure # 32**  
Pole ID 11670

**Structure # 33**  
Pole ID 11715

**Structure # 34**  
Pole ID 11713

**Structure # 35**  
Pole ID 11712

**Structure # 36**  
Pole ID 11711

**Structure # 37**  
Pole ID 11710

**Structure # 38**  
Pole ID 11732

**Structure # 39**  
Pole ID 11733

**Structure # 40**  
Pole ID 11734

**Structure # 41**  
Pole ID 11735

**Structure # 42**  
Pole ID 11736

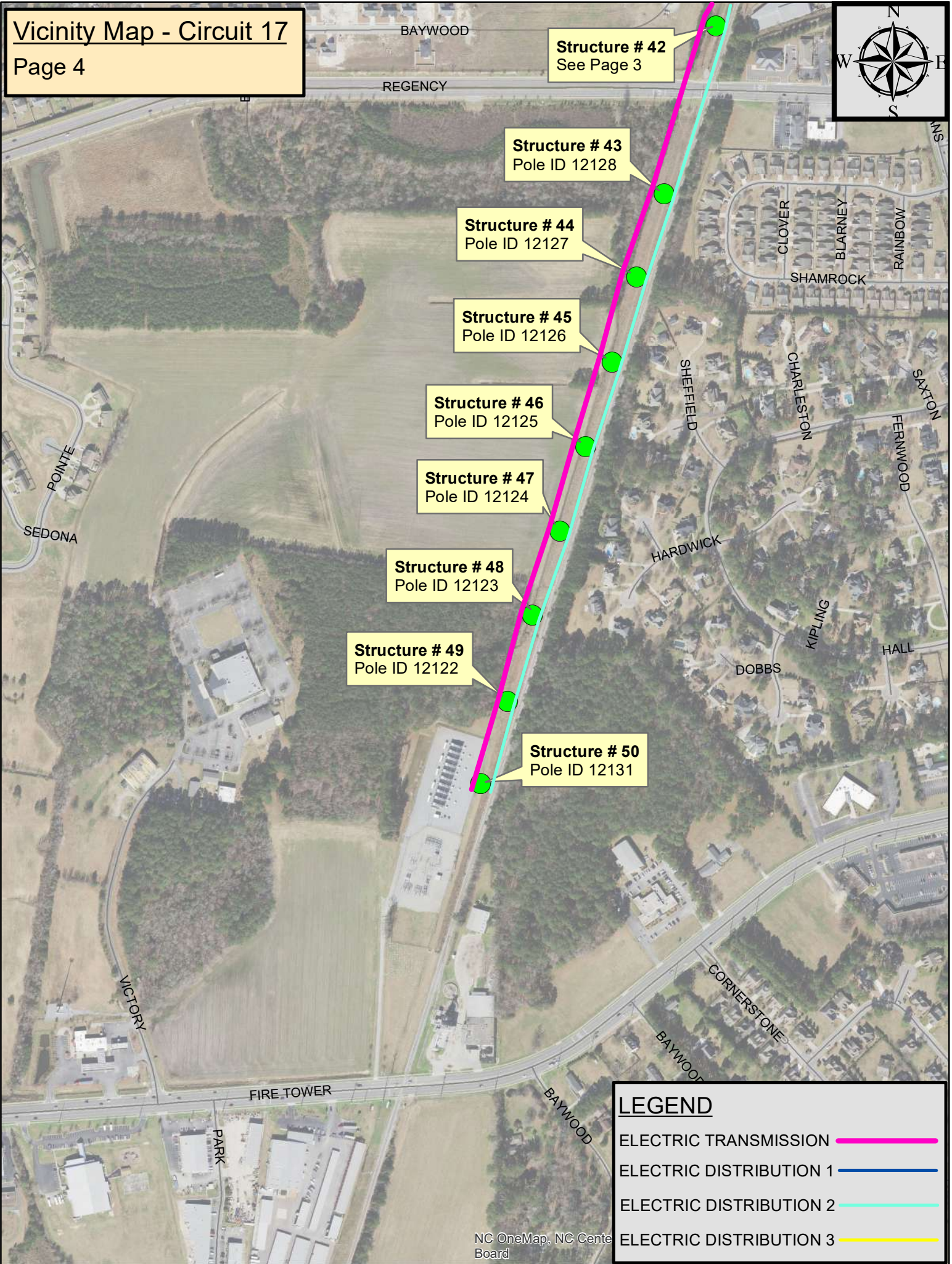
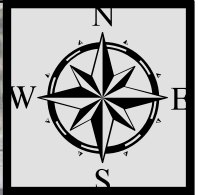
## LEGEND

- ELECTRIC TRANSMISSION
- ELECTRIC DISTRIBUTION 1
- ELECTRIC DISTRIBUTION 2
- ELECTRIC DISTRIBUTION 3



# Vicinity Map - Circuit 17

Page 4



**Structure # 42**  
See Page 3

**Structure # 43**  
Pole ID 12128

**Structure # 44**  
Pole ID 12127

**Structure # 45**  
Pole ID 12126

**Structure # 46**  
Pole ID 12125

**Structure # 47**  
Pole ID 12124

**Structure # 48**  
Pole ID 12123

**Structure # 49**  
Pole ID 12122

**Structure # 50**  
Pole ID 12131

**LEGEND**

- ELECTRIC TRANSMISSION
- ELECTRIC DISTRIBUTION 1
- ELECTRIC DISTRIBUTION 2
- ELECTRIC DISTRIBUTION 3