

**Jackson (LA 1208-3) @ Horseshoe Roundabout**  
**Distribution Line Relocation for State Project No. H.002672**  
**Bid #2244**  
**Addendum #4**

1. Bidders should discard the original issue bidding documents dated February 2019 in their entirety and replace them with the enclosed revised bidding package dated May 2019.
2. The Excel format of the Schedule of Values is included for each Bidder's convenience. The City makes no warranty as to the correctness of any formula contained therein. It is the responsibility of each Bidder to verify the arithmetic correctness of their bid prior to submission.



**JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT**  
**Distribution Line Relocation**  
**State Project No. H.002672**

CONSTRUCTION  
CONTRACT AND SPECIFICATIONS

**City of Alexandria**  
Alexandria Utility System  
Alexandria, Louisiana  
Bid #2244

Prepared By:

**BHA, Inc.**  
Consulting Engineers  
Baton Rouge, Louisiana  
BHA Job No.: 2019H15A

Original Issue: February, 2019  
Revised: May 2019

## **TABLE OF CONTENTS**

- A. SCOPE OF WORK
- B. SUPPLEMENTAL CONDITIONS
- C. AGREEMENT BETWEEN OWNER AND CONTRACTOR
- D. BID SHEETS, BID BOND, PERFORMANCE BOND, PAYMENT BOND
- E. CONSTRUCTION SPECIFICATIONS
- F. GENERAL REQUIREMENTS
- G. DETAIL DRAWINGS
- H. VICINITY MAP
- I. HOST EMPLOYER FACT SHEET
- J. PLAN-PROFILE DRAWING (Under Separate Cover)
- K. STAKING SHEETS (Under Separate Cover)
- L. STANDARD GENERAL PROVISIONS (Under Separate Cover)
- M. FINAL STEEL POLE DESIGN AND DRAWINGS (Under Separate Cover)
- N. GEOTECHNICAL INVESTIGATION (Under Separate Cover)

**SECTION A**  
**SCOPE OF WORK**

## A. SCOPE OF WORK

The City of Alexandria, hereinafter referred to as the OWNER, proposes to relocate approximately 0.25 miles of overhead 12.5kV/7.2kV 3-phase electric distribution lines. This project is referred to as "Jackson (LA 1208-3) @ Horseshoe Roundabout - Distribution Line Relocation" and is located at the intersection of Jackson Street and Horseshoe Drive in Alexandria, Louisiana. The line is being relocated to accommodate State Project H.0002672 - Jackson (LA 1208-3) @ Horseshoe Roundabout. A vicinity map showing the project location is located inside this bid book.

This project consists of both standard wood pole construction, and self-supporting steel poles on concrete foundations. There are 4 steel poles requiring cylindrical reinforced concrete foundations, all other poles will be standard wood pole construction with guys and anchors. The project includes the relocation of two 3-phase 477 AAC circuits, one overhead neutral and one ADSS fiber optic cable. The project also includes the installation of 3-phase group operated switches and the relocation of all taps, services, transformers and existing equipment to the new line. The relocation of the ADSS fiber optic cable includes splicing the cable as part of this contract and is indicated by the unit, FO-SPLICE. Once the new line is constructed and energized, the existing line will be completely retired. Other minor installations and retirements shall also be constructed as specified in the staking sheets.

The Contractor's responsibility in this project include the furnishing of all labor, equipment, tools, expertise, supervision, contractor material, and the performance of all operations necessary for the complete installation of all components resulting in a "Complete Working System," regardless of omission or errors in the plans and specifications. If omissions or errors are discovered, the Contractor is to ask for a decision before submitting a bid, failing to do so, the Contractor must abide by the decision of the Engineer, should the necessity for a decision arise after signing the Contract. All work shall be performed in accordance with the plans, specifications, staking sheets, and other associated data presented herein. All major material items routinely stocked and issued by the Owner will be Owner-Furnished. All Owner furnished materials except the steel poles are in stock and available; the steel poles are expected to be delivered to the Owner's warehouse on or about June 10, 2019.

A "Complete Working System" is defined as a system meeting all of the following conditions:

- Equipment is installed in accordance with all federal, state, local regulations and the Owner's standards.
- Equipment is installed properly and functioning in the manner in which it was intended.
- All existing connections with other parts of the owner's system must be reconnected in the same electrical configuration in which they were disconnected, unless specified otherwise.
- The retirement of equipment includes the retirement of all existing equipment attached to or supported by that equipment, unless specified otherwise.
- Similarly, the Changeout in Place of equipment includes the retirement and installation of all existing equipment attached to or supported by that equipment, unless specified otherwise.

**SECTION B**  
**SUPPLEMENTAL CONDITIONS**

## **B. SUPPLEMENTAL CONDITIONS**

### **1. COLLATERAL WORK**

The Owner reserves the right to have such agent or agents as it may elect enter upon the property or location upon which the work herein contemplated is being constructed for the purpose of constructing or installing such collateral works as the Owner may desire. Such collateral work will be constructed or installed with as little hindrance or interference as possible with the Contractor. The Contractor shall work in harmony with other Contractors employed by the Owner and any difference of opinion between Contractors shall be arbitrated by the Engineer.

### **2. INSPECTION AND RIGHT TO ACCESS**

The Owner contemplates and the Contractor hereby agrees to a thorough and minute inspection by the Engineer, or by any of his agents, of all work and material furnished under this Contract. The Contractor shall at all times furnish to the Engineer, or to any of his agents, access to the work and to the premises used by the Contractor, and shall provide every reasonable facility for the purpose of inspection, even to the extent of temporarily discontinuing portions of the work, or of uncovering or taking down portions of finished work. When finished work is taken down for the purpose of inspection, the Contractor shall stand all of the expense incident thereto in the event said work is found to be defective. The Owner shall pay the cost incident thereto in the event work so exposed is found to be in accordance with the Specifications. In the latter case, the Owner shall, at Contract prices, pay for reconstruction of the work, which shall include labor, material, incidental expense and reasonable rental expense for transportation and/or heavy equipment, except that no percentage for Contractor's fee shall be added to actual direct cost of material, labor and incidental expense. If the Contractor shall fail to replace any defective work or materials, after reasonable notice, the Engineer may cause such defective work or materials to be replaced by others and the expense thereof shall be deducted from the amount to be paid the Contractor.

### **3. RECEIVING AND HANDLING OWNER-FURNISHED MATERIAL**

All work of unloading, hauling, handling, storage, caring for, reloading, and rehauling of all Owner-furnished materials as required to transport all such items from the point of delivery to the place of installation shall be performed by the Contractor. The costs are to be included in the various unit prices where each material is used. Responsibility for Owner-furnished material shall be vested in the Contractor when such material has been received by him at the delivery point or turned over to him by the Owner. The Contractor shall report to the Engineer, in writing, within 24 hours after receipt, any shortage in, or damage to, materials. The Contractor shall maintain accurate records of all Owner-furnished materials on hand and of the disposition and use of such materials. **The Contractor will be charged at the replacement cost of any materials lost, stolen or damaged beyond repair after his receipt of the same.** The Contractor shall return all unused materials to the Owner to a storage yard directed by the Engineer.

### **4. TO DEFINE TERMS AND EXPLAIN PLANS**

The various parts of the Contract are intended to be complimentary to each other, but should any discrepancy appear, or any misunderstanding arise as to the import of anything contained therein, the explanation of the Engineer shall be final and binding. The correction of any errors or omissions of the Drawings and Specifications may be made by the Engineer, when such correction is necessary to bring out clearly the intention which is indicated by a reasonable interpretation of the Drawings and

Specifications as a whole.

The Engineer may, from time to time, prepare for his own use, estimates of quantities or bills of materials required for the work. Copies of such estimates or bills of materials which may be given the Contractor for his convenience, or any lists, weights or quantities or materials or structures which may appear on the Drawings shall not be considered as finally correct, sufficiently complete, or accurately covering any portion of all of the work to be done under this Contract. Such bills or estimates will be carefully assembled and prepared, but their accuracy is not guaranteed. They may or may not be accurate as to any particular detail, and are given only as the best information available at the time of the issue of the information. It is mutually understood that any such lists or estimates are furnished the Contractor for his convenience only and not as lists or estimates of work to be done, many necessary items of work being omitted.

**5. RIGHT TO TEMPORARILY SUSPEND WORK BY THE OWNER**

During the course of construction the Owner shall have the right to suspend work subject to the provisions of Sections 9.7 and 10.3 of the attached Standard General Provisions. The Contractor shall have no right to assert a claim for damages, delays, or stand-by charges except as provided in Section 10.3.



**SECTION C**  
**AGREEMENT BETWEEN AND CONTRACTOR**

## AGREEMENT BETWEEN OWNER AND CONTRACTOR

This AGREEMENT is dated as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year 2019, by and between the CITY OF ALEXANDRIA (herein called OWNER)

and \_\_\_\_\_ (herein called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### Article 1. WORK

CONTRACTOR shall complete all WORK as specified in the Contract Documents. The WORK is generally described as follows:

JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT  
Distribution Line Relocation State Project No. H.002672

Work shall include installing all poles, crossarms, conductors, transformers, and other necessary materials to provide pole line extensions, upgrades, or additions throughout the City of Alexandria.

### Article 2. CONTRACT TIME

The WORK will be substantially completed within seventy (70) Working Days from the date when the Contract Time commences to run as provided in Paragraph 3.9 of the City of Alexandria's Standard General Provisions.

### Article 3. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the WORK on a LUMP SUM basis in accordance with the Contract Documents.

### Article 4. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Section 12 of the City of Alexandria's Standard General Provisions. Applications for Payment will be processed by ENGINEER as provided in the City of Alexandria's Standard General Provisions.

4.1 Progress Payments: OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, or on about the thirtieth (30) day following receipt by the OWNER. Applications for progress payments less than \$5,000.00 shall be accumulated until the next payment period or until final payment.

4.1.1 Progress payments will be based upon estimated quantities of completed unit price items or upon estimated percentages of completion of the scheduled lump sum values of labor and materials incorporated into the work on the last day of each month or their mutually agreed regular monthly date ending the progress payment period. Each progress payment shall be reduced by an amount equal to the value of the OWNER furnished materials incorporated in the WORK as of the date of the calculation of each progress payment.

4.2 Retainage: Retainage shall be withheld and payments will be made by the OWNER in the payment amount of ninety (90%) percent of the approved payment applications on a Contract amount of less than five hundred thousand dollars (\$500,000) and in the payment amount of ninety-five (95%) percent of the approved payment applications on a Contract amount of five hundred thousand

dollars (\$500,000) or more.

4.3 Final Acceptance and Final Payment: Upon the final completion of all WORK and upon completion of the lists of items to be completed or corrected which accompanied the Certificate of Substantial Completion, the Contractor may request a final inspection and may make a final application for payment as provided by Section 12 of the City of Alexandria's Standard General Provisions, upon the OWNER'S certificate of final acceptance.

4.3.1 Final acceptance of the WORK, based upon the certificate of final acceptance, shall be by resolution of the OWNER.

4.3.2 The resolution of final acceptance is then filed by the OWNER with the Recorder of Mortgage of the Parish. This begins the not-less-than forty five (45) day lien period as prescribed for public works by Louisiana Revised Statutes 38:2248.

4.3.3 At the expiration of the lien period it is the CONTRACTOR'S responsibility to obtain a certificate from the Recorder of Mortgages of the Parish that the Contract is clear of any liens or privileges, and said certificate shall be presented to the OWNER, along with final estimate for payment and release of retainage, less any such sums as may be lawfully withheld under Contract of processing with the OWNER.

## Article 5. CONTRACTOR'S REPRESENTATION

In order to induce the OWNER to enter into this Agreement, CONTRACTOR makes the following representations.

5.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, WORK, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the WORK.

5.2 CONTRACTOR has reviewed and noted all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site. No additional examinations, investigations, explorations, tests, reports studies or similar information or data in respect of said Underground Facilities are or will be required by Contractor in order to perform and furnish the WORK at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of the General Conditions, except careful construction practices diligently carried out in conscious effort to search out, locate and protect all probable existing Underground Facilities within reasonable proximity of the proposed work.

5.3 CONTRACTOR has given the OWNER'S Representative written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and written resolution thereof by OWNER is acceptable to CONTRACTOR.

5.4 Any records of subsurface condition, water records or other observations which may have been made with reasonable care and accuracy, may be made available to the Contractor for his information, but there is not expressed or implied guarantee as to the accuracy of the records nor any interpretation of them. The Contractor states that he recognizes this and that he has formed his own opinion of the character of the ground and has put his own interpretation on records.

5.5 The Contractor further states that the Contract Prices are based on his own knowledge and judgment of the conditions and hazards involved and not upon any representation of the Owner or the Engineer. The Owner assumes no responsibility for any understandings or representations made by any of its representatives during or prior to execution of the Contract, unless such understandings or representations are expressly stated in the Contract and the Contract expressly provides that the

responsibility therefore is assumed by the Owner.

#### Article 6. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR concerning the WORK consists of the following:

- 6.1 This Agreement,
- 6.2 Scope of Work,
- 6.3 Supplemental Conditions,
- 6.4 Bid Sheets, Schedule of Values, Bid Bond, Performance Bond, and Payment Bond,
- 6.5 Construction Specifications,
- 6.6 General Requirements,
- 6.7 Detail Drawings,
- 6.8 Host Employer Fact Sheet,
- 6.9 Vicinity Map,
- 6.10 Plan-Profile Drawing,
- 6.11 Staking Sheets,
- 6.12 Standard General Provisions,
- 6.13 Final Steel Pole Design and Drawings,
- 6.14 Geotechnical Investigation,
- 6.15 All Addenda as Issued,
- 6.16 Notice of Award,
- 6.17 Notice to Proceed.

There are no Contract Documents other than those listed above in this Article 6.

#### Article 7. INSURANCE

7.1 Contractor shall furnish, attached to the Bid Form, a current copy of his Certificate of Insurance indicating limits of General Liability, Automobile Liability and Worker's Compensation in force at the time of the bidding. Evidence of reliable insurance to fully indemnify against long-term liabilities shall be part of the evaluation criteria for award of this bid. Certificate of Insurance shall have a General Liability Aggregate of Four Million (\$4,000,000) Dollars and a per person/per occurrence of Two Million (\$2,000,000) Dollars. Automobile Liability will have a Combined Single Limit of Two Million (2,000,000). Also on the Certificate, the City shall be named as an "additional insured" and a waiver of subrogation in favor of the City of Alexandria. On the Certificate of Insurance under Worker's Compensation, it shall state that "This is a standard Worker's Compensation Policy", with statutory limits. Cancellation of any Certificate of Insurance should require sixty (60) days notice to the City of Alexandria, but under no

circumstances less than thirty (30) days notice. Also, the following wording must be removed before acceptance of the Certificate: "Endeavor to" or "But failure to mail such notice shall impose no obligation of liability of any kind upon the company, its agents or representatives." Certificate holder shall be the City of Alexandria, P.O. Box 71, Alexandria, LA 71309-0071, Attention: Purchasing Manager.

7.2 The Contractor shall not cause any insurance policy to be canceled or permit it to lapse, and all insurance policies shall include a clause to the effect that the insurance policy or certificate shall not be subject to cancellation or to a reduction in the required limits of liability or amounts of insurance until notice has been mailed to the Owner stating the date when such cancellation or reduction shall be effective, which date shall not be less than ten (10) days after such notice.

#### Article 8. INDEMNIFICATION

In consideration of the sums payable by the Owner hereunder, the Contractor agrees to indemnify, hold harmless, and defend said Owner, and any person, firm or corporation who wholly or partially bears the costs of operations hereunder, and any and all vessels, craft, agents, directors, officers, employees, or servants of the Owner or of such persons, firms or corporations who wholly or partially bear the cost of operations hereunder, against any and all claims, demands or suits (including, but not limited to, claims, demands, or suits for bodily injury, illness, disease, death, or loss of services, property or wages filed or asserted by the Contractor's employees, representatives, agents or any third parties whatsoever) which may be brought against the Owner or against other persons, firms or corporations who wholly or partially bear the cost of operations hereunder, whether one or more, or at which the Owner or such other parties, whether one or more, or in which any such agents, directors, officer, employees, or servants of the Owner or of such other parties who may be named party defendant or parties defendant, as the case may be, by any person, firm or corporation, or the legal representative or successor of such a person, firm or organization, arising out of either directly or indirectly of or incident to the work being performed under this contract, irrespective of whether such suits are based on the relationship of master and servant, third party or otherwise and even though occasioned, brought about, or caused in whole or part by the negligence, alleged negligence, strict liability or alleged strict liability of the

#### Article 9. MISCELLANEOUS

9.1 Terms used in this Agreement which are defined in Section 1 of the City of Alexandria's Standard General Provisions will have the meanings indicated in the City of Alexandria's Standard General Provisions.

9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the General Documents.

9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in quadruplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and one counterpart recorded with the Parish Clerk of Court.

This Agreement will be effective on \_\_\_\_\_, 2019.

CONTRACTOR: \_\_\_\_\_

BY: \_\_\_\_\_

Address for giving notices:

ATTEST: \_\_\_\_\_

ATTEST: \_\_\_\_\_

OWNER: CITY OF ALEXANDRIA, LOUISIANA

BY: \_\_\_\_\_  
Jeffrey W. Hall, Mayor

ATTEST: \_\_\_\_\_

ATTEST: \_\_\_\_\_

NOTE: If Contractor is a corporation, a certified copy of a corporate resolution of the Board of Directors of the Corporation authorizing an officer of the Corporation to execute the Agreement contained within this document on behalf of the Corporation must be attached.

**AFFIDAVIT OF BIDDER**

STATE OF LOUISIANA

PARISH OF \_\_\_\_\_

BEFORE ME, the undersigned Notary Public, duly commissioned and qualified in and for the Parish and State aforesaid, personally came and appeared: \_\_\_\_\_ as an authorized agent of the BIDDER who, after being duly sworn, did declare and state:

Appearer's company is registered and participates in a status verification system to verify that all employees in the state of Louisiana are legal citizens of the United States or are legal aliens.

Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

Appearer shall require all subcontractors to submit to appearer a sworn affidavit verifying compliance with La. R.S. 38:2212.10 (C) (1) and (C) (2).

Appearer has the authority and personal knowledge requisite to testify to the matters stated herein.

\_\_\_\_\_  
**NAME OF BIDDER**

\_\_\_\_\_  
**AUTHORIZED SIGNATORY OF BIDDER**

\_\_\_\_\_  
**TITLE OF AUTHORIZED SIGNATORY OF BIDDER**

\_\_\_\_\_  
**SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER**

SWORN TO AND SUBSCRIBED before me, Notary Public, in \_\_\_ CITY , \_\_\_ STATE \_\_\_, on this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
NOTARY PUBLIC (Notary ID/Bar Roll No. \_\_\_\_\_)  
Printed Name: \_\_\_\_\_  
My commission expires \_\_\_\_\_.

**SECTION D**

**BID SHEETS  
BID BOND  
PERFORMANCE BOND  
PAYMENT BOND**



**BID BOND  
FOR**

**JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT  
Distribution Line Relocation - State Project No. H.002672**

Date: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ of \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto the \_\_\_\_\_ (Obligee), in the full and just sum of five (5%) percent of the total amount of this bid, including all alternates, lawful money of the United States, for payment of which sum, well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Surety represents that it is listed on the current U. S. Department of the Treasury Financial Management Service list of approved bonding companies as approved for an amount equal to or greater that the amount for which it obligates itself in this instrument or that it is a Louisiana domiciled insurance company with at least an A - rating in the latest printing of the A. M. Best's Key Rating Guide. If surety qualifies by virtue of its Best's listing, the Bond amount may not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide.

Surety further represents that it is licensed to do business in the State of Louisiana and that this Bond is signed by surety's agent or attorney-in-fact. This Bid Bond is accompanied by appropriate power of attorney.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas said Principal is herewith submitting its proposal to the Obligee on a Contract for:

JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT  
Distribution Line Relocation - State Project No. H.002672

NOW, THEREFORE, if the said Contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the Contract in writing and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract with surety acceptable to the Obligee, then this obligation shall be void; otherwise this obligation shall become due and payable.

\_\_\_\_\_  
PRINCIPAL (BIDDER)

\_\_\_\_\_  
SURETY

BY: \_\_\_\_\_  
AUTHORIZED OFFICER-OWNER-PARTNER

BY: \_\_\_\_\_  
AGENT OR ATTORNEY-IN-FACT(SEAL)

**PERFORMANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS that \_\_\_\_\_

\_\_\_\_\_  
(Insert the name and address or legal title of the Contractor)

hereinafter called PRINCIPAL, and \_\_\_\_\_

\_\_\_\_\_  
(Insert the legal title of SURETY)

hereinafter called SURETY, are held bound unto the City of Alexandria, P.O. Box 71 Alexandria, Louisiana, hereinafter called OWNER, in the total aggregate penal sum of

\_\_\_\_\_  
DOLLARS (\$ \_\_\_\_\_ ), for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain CONTRACT with the OWNER, date the \_\_\_\_\_ Day of \_\_\_\_\_, 2019 a copy of which is attached and made part hereof for the construction of:

JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT  
Distribution Line Relocation - State Project No. H.002672

NOW THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms conditions and agreements of said CONTRACT during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the one (1) year guaranty period and if the PRINCIPAL shall satisfy all claims and demands incurred under such CONTRACT, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, further, that the said SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the WORK to be performed there under, or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED, further, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the CONTRACT not increasing the CONTRACT PRICE more than ten (10%) percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT BOND, and whether referring to this BOND , the CONTRACT DOCUMENTS shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, further, that final settlement between the OWNER and the PRINCIPAL shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The OWNER is the only beneficiary hereunder.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ Day of \_\_\_\_\_ , 2019.

(SEAL)

\_\_\_\_\_  
(PRINCIPAL)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

(SEAL)

\_\_\_\_\_  
SURETY

BY: \_\_\_\_\_

\_\_\_\_\_  
(Witness to Surety)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTE: Date of BOND shall not be prior to date of CONTRACT. If CONTRACTOR is partnership, all partners shall execute BOND.

**PAYMENT BOND**

KNOW ALL PERSONS BY THESE PRESENTS that \_\_\_\_\_

\_\_\_\_\_  
(Insert the name and address or legal title of the CONTRACTOR)

hereinafter call PRINCIPAL, and \_\_\_\_\_

\_\_\_\_\_  
(Insert the legal title of SURETY)

hereinafter called SURETY, are held bound unto the City of Alexandria, Post Office Box 71309-0071, Alexandria, Louisiana, hereinafter called OWNER, and unto all persons, firms and corporations who or which may furnish labor, or who furnish materials to perform as described under the CONTRACT and to their successors and assigns in the total aggregate penal sum of: \_\_\_\_\_ DOLLARS

(\$ \_\_\_\_\_), in lawful money of the United States, for the payment of which sum will and truly be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain CONTRACT with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2019 a copy of which is attached hereto and made a part hereof for the construction of

JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT  
Distribution Line Relocation - State Project No. H.002672

NOW THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such CONTRACT, and any authorized extensions or modifications thereof, including all amounts due for materials, lubricants, oil, gasoline, diesel, coal, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and for labor cost incurred in such WORK including that by a SUB- CONTRACTOR, and to any mechanic or materialman lienholder, whether it acquires its lien by operation of State or Federal Law; then this obligation shall be void, otherwise, to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the SUBCONTRACTORS, and persons, firms, corporations having a direct CONTRACT and the PRINCIPAL OR ITS SUBCONTRACTORS.

PROVIDED, further, that the SURETY for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect this obligation on the BOND, and it does hereby waive notice of any such change, extensions of time, alteration or addition to the terms of this CONTRACT or to the WORK or to the

SPECIFICATIONS.

PROVIDED, further, that no suit or action shall be commenced hereunder by any claimant: (a) unless claimant, other than one having a direct CONTRACT with the PRINCIPAL, shall have given written notice to any two (2) of the following:

The PRINCIPAL, the OWNER, or the SURETY above named, within ninety (90) days after such claimant did or performed the last of the WORK or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the WORK or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction or business, or served in any manner which legal process may be served in the state in which the aforesaid project is located; save that such service need not be made by a public officer; (b) after PRINCIPAL ceased work on said CONTRACT, it being understood, however, that if any limitation embodied in the BOND is prohibited by any law controlling the construction, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, further, that it is expressly agreed that this BOND shall be deemed automatically and immediately, without formal and separate amendments hereto, upon amendment to the CONTRACT not increasing the CONTRACT PRICE more than ten (10%) percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The "Amendment", wherever used in this BOND and whether referring to this BOND, the CONTRACT or the Loan DOCUMENTS shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, further, that no final settlement between the OWNER and PRINCIPAL shall abridge the right of any beneficiary hereunder, whose claim may be satisfied.

WITNESS WHEREOF, this instrument is executed in THREE (3) counterparts, each of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 2019.

(SEAL)

\_\_\_\_\_  
(PRINCIPAL)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

(SEAL)

\_\_\_\_\_  
SURETY

BY: \_\_\_\_\_

\_\_\_\_\_  
(Witness to Surety)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTE: Date of BOND shall not be prior to date of CONTRACT. If CONTRACTOR is partnership, all partners shall execute BOND.

## **BIDDING INSTRUCTIONS**

The Bid Form and Schedule of Values included on the following pages shall be completely filled out by the Contractor. The Contractor shall fill in the cost of Contractor Labor and, if applicable, the cost of Contractor-Furnished Material shall be included in the column labeled Contractor's Materials. The Contractor shall include the cost of Owner-furnished materials with his labor & material price for each unit and fill in this combined amount of Labor, Contractor's Materials and Owner's Materials under the "Unit Total" on the Schedule of Values. No charges except actual material cost shall appear in the material column. Any other charges, including material handling, shall be included in labor prices and not material prices. The amount included for Owner-furnished material will be deducted from the extended price on each unit before payment is made to the Contractor on completed construction units.

The Contractor shall submit unit prices for each and every construction unit. Should a price for any unit not appear by reason of omission, deletion or alteration the bid will be considered as non-responsive and incomplete.

The Owner-furnished materials will be issued to the Contractor on consignment. Materials are to be received by the Contractor from the Owner's supply according to a procedure agreed upon by the Contractor and the Owner. All unused materials will be returned to the Owner's warehouse under a similar procedure. Unused material not returned to the Owner's warehouse will be charged to the Contractor. Cost of lost or damaged Owner-furnished material shall be borne by the Contractor and the Owner shall be reimbursed at the Owner's Material price shown in the Schedule of Values.

Invoicing by the Contractor shall be on a per unit basis and in the same format as the Schedule of Values for work actually performed and materials actually installed. The invoice prices shall indicate the dollar value of the material that was Owner-furnished and the dollar value that was Contractor-furnished. Total compensation to the Contractor shall not exceed the total extended unit cost as represented on bid sheets, less the Owner-furnished items.

In the event of an arithmetic error between the unit prices and quantities and the extended prices, the unit prices will govern. The extended price will be corrected and the total bid amount will be revised to reflect these corrected extended amounts.

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: City of Alexandria  
915 Third Street  
Alexandria, LA 71301  
Attn: City Clerk

BID FOR: JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT  
Distribution Line Relocation  
State Project No. H.002672

The undersigned bidder hereby declares and represents that she/he: a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: BHA, Inc. Consulting Engineers and dated: Original Issue - February 2019, Revised – May 2019.

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA**: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) \_\_\_\_\_.

**TOTAL BASE BID:** For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" \* but not alternates) the sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**ALTERNATES:** For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

**Alternate No. 1** (*Owner to provide description of alternate and state whether add or deduct*) for the lump sum of:  
N/A \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**Alternate No. 2** (*Owner to provide description of alternate and state whether add or deduct*) for the lump sum of:  
N/A \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**Alternate No. 3** (*Owner to provide description of alternate and state whether add or deduct*) for the lump sum of:  
N/A \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

NAME OF BIDDER: \_\_\_\_\_

ADDRESS OF BIDDER: \_\_\_\_\_  
\_\_\_\_\_

LOUISIANA CONTRACTOR'S LICENSE NUMBER: \_\_\_\_\_

NAME OF AUTHORIZED SIGNATORY OF BIDDER: \_\_\_\_\_

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: \_\_\_\_\_

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER \*\*: \_\_\_\_\_

DATE: \_\_\_\_\_

**THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:**

\* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

\*\* A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA R.S. 38:2218(A) attached to and made a part of this bid.



**CITY OF ALEXANDRIA  
 JACKSON @ HORSESHOE ROUNDABOUT  
 DISTRIBUTION LINE RELOCATION**

REV. 1 - 5/8/19

**SCHEDULE OF VALUES**

Unit	Quantity	Labor	Contractor's Materials	Owner's Material	Unit Total	Extended
<b>Installed</b>						
2ALTPLX	155			0.40	-	-
4/0ACSR	1275			0.90	-	-
477AAC	6057			1.27	-	-
ADSS-144	481			1.00	-	-
35-5	2			120.00	-	-
40-ENG	1			4,601.00	-	-
50-ENG	2			6,730.00	-	-
55-1	3			422.00	-	-
55-2	1			275.00	-	-
60-1	2			560.00	-	-
60-ENG	1			21,802.00	-	-
A7	1			175.00	-	-
A7-FG	1			275.00	-	-
C2AL	1			438.72	-	-
CS2L	1			445.00	-	-
C8-1L-FG	1			1,280.00	-	-
CS7L	1			675.00	-	-
CS7L-FG	2			875.00	-	-
CS8L	3			997.42	-	-
CS8L-FG	1			1,197.00	-	-
DC-CS7	4			1,281.12	-	-
DC-CS8-FG	2			1,780.00	-	-
E1-3	1			80.00	-	-
E1-3S	5			100.00	-	-
E1-5	1			100.00	-	-
E1-5S	12			120.00	-	-
E2-2S	2			100.00	-	-
FO1-144	1			25.00	-	-
FO6-144	5			75.00	-	-
FO-SPLICE	2			1,500.00	-	-
FND-52"X36'	1				-	-
FND-48"X31'	1				-	-
FND-42"X31'	2				-	-
FP-3	19			218.22	-	-
FP-EXT	19			54.22	-	-
G1B72-120-25	2			606.00	-	-
G1B72-120-75	3			1,250.00	-	-
G1B72-120-100	1			1,650.00	-	-
G11	3			45.00	-	-
G34	1			150.00	-	-
J1	9			20.00	-	-
J8L	1			20.00	-	-
K2-1/0	3			10.00	-	-
K2-2	8			10.00	-	-
K3-1/0	2			10.00	-	-
K3-4/0	2			20.00	-	-
M2-1-SP	4			38.14	-	-
M2-1	6			38.14	-	-
M2-15	3			150.00	-	-
M3-15	3			557.85	-	-

**CITY OF ALEXANDRIA  
 JACKSON @ HORSESHOE ROUNDABOUT  
 DISTRIBUTION LINE RELOCATION**

REV. 1 - 5/8/19

**SCHEDULE OF VALUES**

Unit	Quantity	Labor	Contractor's Materials	Owner's Material	Unit Total	Extended
M26-2	2			75.58	-	-
M26-3	1			125.00	-	-
M5-5	22			50.00	-	-
M5-8L	3			50.00	-	-
METER	1			200.00	-	-
SPOILS DISPOSAL	1				-	-
TOP POLE	4				-	-
ALLOWANCE	1	22,500.00			22,500.00	22,500.00
<b>Subtotal Installed</b>		<b>\$22,500.00</b>		<b>\$92,391.82</b>		<b>\$22,500.00</b>

**Retired**

2ALTPLX	75				-	-
30-5	2				-	-
4/0ACSR	1273				-	-
40-5	1				-	-
45-3	6				-	-
477ACSR	4899				-	-
4ACSR	398				-	-
50-2	3				-	-
A9-1	1				-	-
B7	2				-	-
C1AL	3				-	-
C7	1				-	-
C7-1L	1				-	-
C7L	1				-	-
C8-1L	1				-	-
C8L	1				-	-
C9	1				-	-
DC-CS1	1				-	-
DC-CS8	1				-	-
DC-CS8-2	1				-	-
E1-2	2				-	-
E1-3	1				-	-
E1-3S	2				-	-
E1-5S	2				-	-
E2-2S	4				-	-
FP-1	1				-	-
FP-3	6				-	-
FP-EXT	5				-	-
G11	3				-	-
G34	1				-	-
G1B72-120-25	2				-	-
G1B72-120-75	3				-	-
G1B72-120-100	1				-	-
J1	15				-	-
K1	6				-	-
K2-1/0	3				-	-
K2-2	7				-	-

**CITY OF ALEXANDRIA  
 JACKSON @ HORSESHOE ROUNDABOUT  
 DISTRIBUTION LINE RELOCATION**

REV. 1 - 5/8/19

**SCHEDULE OF VALUES**

Unit	Quantity	Labor	Contractor's Materials	Owner's Material	Unit Total	Extended
K3-1/0	1				-	-
K3-4/0	2				-	-
M26-2	3				-	-
M26-3	1				-	-
M3-1	1				-	-
M3-15	3				-	-
M3-5A	3				-	-
M5-5	3				-	-
M5-6B	1				-	-
METER	1				-	-
XA8	1				-	-
ADSS	647				-	-
FO1-144	4				-	-
FO6-144	1				-	-
FO-SPLICE	1				-	-
<b>Subtotal Retired</b>						

**Relocate**

D7.2DH	16				-	-
DRS6H	5				-	-
DRS8H	9				-	-
DRS9H	2				-	-
<b>Subtotal Relocated</b>						

**BID SUMMARY**

	Labor	Contractor's Materials	Owner's Material	Project Total
Installed	\$22,500.00		\$92,391.82	\$22,500.00
Retired				
Relocated				
<b>Totals</b>	<b>\$22,500.00</b>		<b>\$92,391.82</b>	<b>\$22,500.00</b>

**SECTION E**  
**CONSTRUCTION SPECIFICATIONS**

## **CONSTRUCTION SPECIFICATIONS**

### **GENERAL REQUIREMENTS**

The Contractor shall properly install all material, devices, equipment, equipment supports, controls, appurtenances, etc., mentioned in these specifications, shown on plans, or as required to make complete and satisfactory installation in working order whether shown or not.

Before submitting bids or during construction, the Contractor must ask for a decision from the Engineer on any portion of the plans and specifications that may conflict, contain errors or omissions, or are not clearly understandable. Failing to do so, he must abide by the decision of the Engineer should the necessity for a decision arise after signing of the Contract. The intent of this is to prevent incorrect or unnecessary installations of units due to errors or omissions in the Plans and Specifications.

The Contractor shall furnish two complete sets of prints on which any changes in the work caused by unforeseen difficulties shall be shown. These drawings must be turned over to the Engineer prior to final acceptance of the work. In the event unforeseen obstructions or conflicts occur in the work, the Contractor shall confer with the Engineer and obtain his written consent before undertaking any deviations from the plans.

Whenever manufacturer or trade names are mentioned or specified, it shall be understood that equal products which meet the Engineer's approval may be used unless specifically stated otherwise.

The Contractor shall verify all measurements and shall be responsible for the correctness of the same before ordering any materials or doing any work. No extra charge or compensation will be allowed on account of any differences between the actual measurements and those indicated on the drawings. Any difference which might be discovered by the Contractor shall be submitted to the Engineer for consideration before proceeding with the work.

### **SCOPE OF WORK**

This section covers certain specifications that are required in the construction of this project. These specifications, together with the staking sheets and those detail drawings contained herein, cover the complete retirement and installation of a distribution line. Deviations from the staking sheets and Specifications for Construction will not be permitted except upon the written permission of the Engineer given with the approval of the Owner.

The following is a list and brief description of the major items of work to be completed by this Contractor:

1. Install concrete foundations for self-supporting steel poles, and allow 28 days for curing before applying loads.

2. Receive, check, load, unload, transport, sort, handle, and store all poles and materials required for the construction of this line.
3. Install and backfill all wood poles to the proper embedment depth. Install all steel poles onto their foundations, after receiving a test report showing the minimum compressive strength is met.
4. Install all required multi-helix anchors and guying.
5. Install all conductors, insulators and static wire. The Contractor shall assemble and install all pole top assemblies as specified. The Contractor shall also string and sag all conductor and static wire and make all splices and jumpers as required.
6. Terminate the new distribution conductors at each end where existing lines are located.
7. The Contractor shall transport all surplus materials to the Owner's warehouse facilities in Alexandria, Louisiana, offload and neatly stack all items at the direction of the Owner.

#### **OWNER-FURNISHED MATERIALS**

The major material for this project will be Owner-furnished. The materials to be furnished are shown on the drawings and are specified herein. Any items not furnished by the Owner but required during construction shall be furnished and installed by the Contractor. Contractor furnished material will include limestone, concrete, rebar cages and other necessary material for foundation installation and pole backfilling. Any materials furnished by the Contractor shall be subject to the approval of the Engineer. The Contractor is responsible for all material issued to him until it is installed and the construction accepted by the Owner. The value of any material lost, stolen, or damaged will be charged to the Contractor.

The Contractor shall take delivery of all materials ordered by the Owner for installation on the line. The Contractor shall inventory all materials and forward a written report to the Owner and to the Engineer detailing any further material items which are needed for construction before commencing work.

Upon completion of construction, the Contractor shall list and inventory all surplus materials which were not required during construction and forward a written report to the Owner and the Engineer. The Contractor shall transport all of the surplus materials to the Owner's warehouse. The Contractor shall also transport all empty wire reels to the Owner's warehouse. The Contractor shall neatly stack all items at the direction of the Owner.

All material handling including loading, off-loading and transportation shall be the responsibility and the cost of the Contractor.

#### **DRAWINGS**

The Drawings and Specifications collectively indicate the material and equipment

required, and includes schedules of material, cable and other items not readily ascertained from the drawings only. Such schedules show the quantities, sizes, types and other pertinent information. Method of installation and construction details are indicated clearly.

### **DESCRIPTION OF CONSTRUCTION UNITS**

Each Construction Unit represents a complete installation of the designated portion of a complete distribution line as indicated on the drawings and as specified herein. Each Construction Unit represents all labor and material to completely install and test in satisfactory operation, except where specifically stated otherwise. Each Construction Unit shall be deemed to include any minor part associated with it which is necessary for the complete installation of Construction Unit. Installation of the Construction Units shall include all necessary handling, assembling and testing, and any and all other work necessary to complete the project in accordance with the Specifications. Items of material in each Construction Unit shall be of designated size, rating, type, voltage, or other specification in accordance with the drawings. The Construction Units enumerated in the Schedule of Values represent all labor and materials necessary to deliver the complete working system contemplated in the Scope of Work.

### **RETIREMENTS AND RETURNED MATERIALS**

The existing structures, conductor, guys and anchors, and associated facilities as indicated on the staking sheets are to be reinstalled on the new line. All screw anchors and extensions are to be unscrewed and retired. All retired wood poles and pole tops which are not reinstalled on the new line are to be returned to the Owner. All other unused material is to be returned to the Owner. All returned material is to be separated and organized into material groups – insulators, anchors, wire, hardware, etc. and delivered to the Owner’s warehouse to be further sorted, segregated, counted, stacked, stored or given some other final disposition as directed by the Owner’s warehouse supervisor. All conductor returned must either be returned on Contractor-furnished reels or returned coiled and banded.

The distribution retirement units as indicated on the staking sheets are included in the bid sheets. These units are more detailed and include all minor retirements. However, there are **no other** distribution retirement units. The price for all retirements must be included in the units included in the bid sheets.

### **WOOD POLES**

All poles for this project shall be Owner-furnished. The minimum depth for setting wood poles shall be as follows:

Length of Pole(Feet)	Setting in Soil(Feet)
20	4.0
25	5.0
30	5.5

35	6.0
40	6.0
45	6.5
50	7.0
55	7.5
60	8.0

On sloping ground, the depth of the hole shall be measured from the low side of the hole. Poles shall be set in alignment and plumb. Poles which have been in storage for more than 1 year from the date of treatment shall be ground line treated when installed.

Poles shall be set so that alternate crossarm gains face in opposite directions, except at terminals and dead ends where the gains of the last two (2) poles shall be on the side facing the terminal or dead end. On unusually long spans, the poles shall be set so that the crossarm is located on the side of the pole away from the long span. Where pole top insulator brackets or pole top pins are used, they shall be located on the opposite side of the pole from the gain.

All poles set and backfilled with native backfill shall be pneumatically or hydraulically tamped. Tamping shall be accomplished with a heavy duty tamper, Thor Model 6T, or equal, complete with 2" x 5-1/2" pole tamping butt. Backfill shall be continuously tamped as the hole is filled. All holes shall be completely pumped free of water before tamping. Sufficient dirt and tamping shall be compacted to an elevation of 12" above existing grade and properly sloped away from the pole for drainage. The Owner reserves the right to issue a hydrophobic, two-part polyurethane, expanding foam ("pole foam") for pole backfill in lieu of native soil. In the event pole foam is issued for use, the Contractor shall install same without additional compensation.

Existing poles to be retired shall be pulled and spoil from the new pole holes shall be used as backfill for the new and old holes. If insufficient spoil from the new pole hole exists to backfill both new and old holes, additional dirt shall be brought in for this. This additional backfill shall be supplied by the Contractor. The price for any additional backfill is to be included in the price for the pole retirement. No additional compensation will be made for extra backfill needed.

**STEEL POLES**

The steel poles are galvanized, tapered, folded plate structures. The Contractor shall assemble the poles. The poles will be shipped in multiple sections. The Contractor shall assemble and erect the poles in accordance with the manufacturer's erection drawings, the plan drawings, and detail drawings enclosed herein.

Pole sections shall be joined by drawing the sections together. The pole sections will not be shoved together by bulldozer. The sections shall be drawn to the limits indicated on the poles and drawings to provide the specified amount of overlap in the pole splice. If the sections cannot be drawn together to the limits specified, the structure shall not be set. The Contractor shall notify the Engineer immediately in the event pole sections cannot be drawn together as specified.

The Contractor shall follow all steel pole manufacturer's requirements and recommendations for steel pole assembly and installation. The Contractor shall obtain and use



the steel pole manufacturer's recommended equipment for steel pole assembly and installation. The pole sections shall not be subjected to any stresses in excess of their design limitations during assembly, transport, or erection. Assembly shall be performed in a workmanlike manner. Care shall be taken to prevent damage to galvanizing. Damage to galvanizing shall be noted in writing in the Contractor's weekly status report. The damages shall be repaired using Contractor-furnished ZRC Galvilite paint. The interior surfaces of assembled pole shall be free of dirt, mud and any other foreign materials. The assembled pole shall be set plumb and square within a tolerance of 1 in 500, or as directed by the Engineer. Some of the engineered poles are pre-cambered. Insure the pre-camber is in the proper direction based on the conductor tensions. All steel angle structures and deadend structures shall utilize concrete foundations. The limestone, concrete, rebar cage and forms will be Contractor-furnished. The anchor bolts will be Owner-furnished with the steel poles. The Contractor will remove all spoil from all excavations and remove it from the project site. The spoil is not to be spread on-site. Furthermore, the Contractor shall dispose of all spoils excavated from the site of Pole #3 as a special waste. Disposal at a landfill authorized to handle this type of waste shall be in accordance with all applicable Louisiana Department of Environmental Quality rules and regulations. The Contractor shall maintain a complete set of records to fully document the "cradle to grave" disposal of the spoils.

### **CONCRETE FOUNDATIONS**

Each self-supporting steel pole will utilize a cylindrical shaft, concrete foundation. Details of each type are included in the Details section. Each will include a rebar cage. Install a 1" schedule 40 PVC pipe in the foundation as indicated on the foundation detail. This pipe will be used to route a #4 AWG ground wire from the pole to the ground rod.

All excavated material shall be removed from the site and disposed of by the Contractor. If drilling slurry is used, it shall all be collected and disposed of in accordance with all applicable Louisiana Department of Environmental Quality rules and regulations. No drilling slurry or any other drilling or excavating byproduct shall be allowed to run out on the ground.

Sufficient highly visible effective barricades and visible markers shall be installed to warn the public of and protect the public from the hazards associated with excavated areas. All such barriers and visible markers shall be of a nature and shall be constructed and installed in a manner acceptable to the Engineer and to governmental agencies and authorities with jurisdiction over such matters. The bottom of augured areas shall be smooth and free of coarse aggregate and loose dirt.

### **Excavation**

All excavations shall be made to proper depth and correct line with sufficient allowance for correct forming, shoring, and inspection of foundation work. Pouring of concrete against earth side walls is not permitted.

If the bottom of the excavation is made mucky or unstable due to the Contractor's operations or carelessness, the excavation shall be deepened to undisturbed soil just before concreting operations, and the thickness of concrete shall be increased accordingly without additional compensation to the Contractor.

Bottoms shall be level and free of loose material. If excavations are carried below the level called for in the Plans, foundations must be poured at this level, on undisturbed soil, without additional compensation to the Contractor.

The Contractor shall provide, operate and maintain all necessary pumps, discharge lines, well points, etc., in sufficient number and capacity to keep all excavation, bases, pits, tanks, etc., free from seepage, sanding or running water at all times throughout the period of construction.

The Contractor shall assume all responsibility for security of the excavation required, for example: employing bracing, lining or other accepted means necessary to accomplish same.

### **Concrete**

This section of work includes the furnishing of all labor, materials, equipment, etc., and the performing of all work incidental to forming, reinforcing, concrete mixing, placing and finishing as required for reinforced concrete foundations.

General: Where the ASTM Designation is given in the specifications, it shall apply to the current specifications and supplements at the time of receipt of bids. All reinforced concrete work shall conform to the applicable sections of the "Building Code Requirements for Reinforced Concrete" of the American Concrete Institute unless otherwise noted.

Admixtures: Pozzoloth 100-N or 100-R as manufactured by Master Builders, Cleveland, Ohio, or approved equal, in the amount of 3 fluid ounces per 94 pound sack of cement shall be used in all concrete except footings or as directed by the Engineer.

Ready Mixed Concrete: Ready mixed concrete shall be mixed and delivered in accordance with the requirements set forth in the "Specifications for Ready Mixed Concrete" (ASTM Designation C-94), except discharge shall be completed within one (1) hour after introduction of mixing water to cement and aggregates. Fly Ash is not acceptable in the mixed concrete.

Transporting: Concrete shall be transported from the mixer to the place of final deposit in carts, buggies, wheelbarrows, or other approved conveyances which shall be maintained in first class condition, and shall be cleaned at frequent intervals while in use. If chutes are used, the slopes shall be properly inclined to prevent the separation of water and materials.

Depositing: The depositing of concrete shall be suspended during inclement weather conditions if so ordered by the Engineer. Before the placing of any concrete, the Contractor shall properly condition all excavated areas, and the forms shall be free of water, slush, and other foreign matter. Concrete in footings shall be placed independently of other superimposed work, unless monolithic construction is indicated on the drawings. Concrete shall be placed in a manner that will prevent segregation.

**Concrete shall be deposited in the excavation such that it does not contact the earth side walls or rebar or any other reinforcing material.** Placing of concrete shall be continuous. There will be no "cold" joints except where rebar extends at least three feet into both sides of the joint. Reinforcing steel through joints shall be as shown on the plans.

Special drawings shall carefully detail and provide placing details for all special construction joint reinforcing at the time of submittal of reinforcing shop drawings for portions of the work requiring special joint reinforcing. Special construction joint reinforcing shall be provided in the basic contract price and extra pay will not be allowed for it.

Curing: Reinforced concrete, wherever practical, shall be cured by covering with cotton mats, or such other method as approved by the Engineer and/or Owner that will provide for water curing. **The use of curing compounds is prohibited.** Surfaces of exposed concrete to which reference is not specifically made shall be kept wetted for a period of not less than seven days after pouring.

Protection for Cold or Heat: All concrete shall be placed and cured in accordance with "Recommended Practice for Cold Weather Concreting" (ACI 306-66), and "Recommended Practice for Hot Weather Concreting" (ACI 605-59).

Forms: Forms are required for the circular shaping of the tops of the foundations.

Defects: The Contractor will be held responsible for and will be required to correct any and all defects in the work which may be due to improper construction of forms.

Ties: Forms shall be secured with metal ties.

Removal of Forms: No form work or shoring shall be removed without the approval of the Engineer and/or Owner. The removal of forms shall be carried out in such a manner as to insure the complete safety of the work and the prevention of defects. Unless limited by consideration of dead loading, forms or shores supporting the underside of the concrete for slabs, beams, etc., shall not be removed until the concrete so supported has acquired 70 percent of its design strength. Shores for support of slabs, beams, etc., subject to loading in addition to that of dead weight, shall not be removed within 24 hours after the concrete of same shall have acquired 90 percent of the design strength, notwithstanding the above limitations which are herein established as minimum for the removal of forms and shores, etc., and the Engineer's sanction or approval with respect to same. It is to be distinctly understood that any failure, damage, or defects arising from removal of forms or shores shall be the responsibility of the Contractor.

Concrete Reinforcement: All structural concrete work unless otherwise noted shall be reinforced and, if through oversight, the drawings do not indicate the reinforcement which would ordinarily be required in good practice, the matter shall be brought to the attention of the Engineer for decision and any required reinforcement shall be provided and installed without additional cost to the Owner.

Detailing: Unless otherwise indicated, wire fabric used and reinforcement shall be lapped at least 12 inches at all edges. Reinforcement bars shall be fabricated to shape in shop. Bends shall be made around pin of six bar diameters minimum, except that bars 5/8 inches round and smaller may be bent around pin of four bar diameters minimum. Bars shall be bent cold.

Splicing of reinforcement, where required, shall be made at points of minimum stress, subject to approval of the Engineer and in accordance with the requirements of this specification. Reinforcement for the anchorage of connection work, if not continuous, and the reinforcement

for temperature and for purpose not specifically indicated, shall lap 24 inches in diameter at all splices.

Accessories: Reinforcement, if required, shall be accurately placed in position and shall be tied with No. 16 gauge black annealed wire at all joints and crosses. Reinforcement shall be firmly secured against displacement and shall not exceed the recommendations of the ACI Building Code. Small precast concrete blocks or chairs with sand plates shall be used to the support of the bottom of the reinforcing bars. The Contractor shall furnish and install approved type metal bar spacers and supports for the securing of the rebar.

Reinforcing steel for members in which the concrete is deposited against the ground shall have not less than three (3") inches of concrete between it and the ground contact surface.

Cleaning: Metal reinforcement, at the time the concrete is placed, shall be free from rust, scale, or other coatings that will destroy or reduce the bond.

Testing Services: An established independent testing laboratory approved by the Engineer shall be employed and paid by the Contractor. The testing laboratory shall provide the following services:

- 1 Design of the concrete mix.
- 2 Prepare concrete test cylinders at the direction of the Engineer.
- 3 Compression tests of concrete cylinders for design mixtures and compression tests of specimen cylinders taken from concrete used in construction as the work progresses.

During the progress of the work, tests shall be made in accordance with the procedure set forth in ASTM Serial Designation C-31 and C-39, as and when considered necessary by the Engineer. **Four specimens shall be taken from each truck during pouring.** Compression tests shall be conducted on the specimens at 7 days, 14 days and 28 days. The concrete must attain the required strength by the 28 day test.

Report of all inspections and tests with complete statements of the results obtained shall be promptly furnished to the Engineer and the Contractor. It is to be understood and agreed that the services of this laboratory inspections shall, in no event, relieve the Contractor of his responsibility and obligations under the terms of the specifications.

**Should any concrete fail to meet the strength requirements of this specification, all construction in which defective concrete has been incorporated and/or is affected by said defective concrete shall be removed and replaced at the Contractor's expense.**

The Engineer shall be the final authority determining whether or not the concrete meets the requirements of this specification.

Finishing: Concrete shall not be placed in excess of that which can be completely finished during the daylight hours. Engineer's approval must be obtained for any night finishing necessary. All exposed surfaces of concrete work, both interior and exterior, shall be properly patched and all fins, burrs, unusually heavy form marks, nail heads, etc., removed by rubbing with stones. Exterior exposed concrete shall be rubbed to smooth finish, uniform in color.

Patching: Immediately after stripping forms, surfaces of all concrete shall be examined and any honeycombing, defective joints, voids, tieholes, etc., shall be patched before the concrete is thoroughly dry. However, no attempt shall be made to correct or fill any honeycomb spots or any other defects until they have been examined by the Engineer and his approval obtained as to the method of correction to be employed.

## **ANCHOR BOLTS**

The final settings of all anchor bolts after concrete has set shall meet the following tolerances:

Bolt projection plus 1/4", minus 0  
Bolt location (without sleeves): plus or minus 1/8"  
Bolt location (with sleeves): plus or minus 3/16"  
All bolts shall be plumb.

## **INSULATORS AND HARDWARE**

All pole top units shall utilize either polymer suspension type insulators or tie top pin-type insulators. The Contractor shall closely examine pole top unit assembly drawings to correctly match furnished hardware with specified hardware shown on the detail drawings contained herein. The Contractor shall exercise care to insure all nuts, locknuts, and all other keys are in place and all nuts are properly torqued. Bolt exposure shall be restricted to two inches maximum. A locknut shall be installed with each nut, eyenut or other fastener on all bolts or threaded hardware such as insulator pins and studs, upset bolts, double arming bolts, etc.

## **STRINGING OF CONDUCTORS**

All conductor will be Owner-furnished. The Contractor shall furnish all labor required for the installation of required conductor. The Contractor shall include in the price for wire installation any charges associated with tying-in, cutting or splicing of the conductor. Any Contractor furnished equipment which, in the Engineer's opinion is not satisfactory for the job to be done, shall not be used by the Contractor. The Contractor is solely responsible for any damages or injury whatsoever to any part of the distribution facilities, materials, personnel, right-of-way, or adjoining property that may be caused before, during or after his operations by his supplies or equipment, regardless of any prior Engineer's approval for the use of said supplies or equipment. The data required pertaining to tension equipment following the Conductor Assembly Units shall be approved by the Engineer before any stringing operations are started.

The Contractor shall use reels as close to the same length as possible at each stringing site. The conductor shall be strung by the controlled-tension method. The Contractor shall also have at his disposal a qualified field advisor from the conductor supplier to assist in selecting equipment and procedures. The method of controlled-tension stringing proposed by the Contractor and the equipment to be used are subject to review by the Engineer who shall have the right to reject or to request modifications if, in his opinion, the desired results could not be attained using the Contractor's proposed method or equipment. Such action by the Engineer does not relieve the Contractor of full responsibility for producing a complete, acceptable

transmission line. Any procedure used during the stringing operations which will scratch, groove, kink, mar, twist, or otherwise damage the conductor, including removal and re-installation of armor rods, will not be permitted. If the conductors are damaged in the Contractor's operations, he shall repair or replace the damaged sections at no expense to the Owner and shall be liable for the cost of the conductor so damaged. Sections of the conductor damaged by the application of gripping attachments shall be removed before the conductors are sagged in place.

Stringing blocks shall be suspended from each insulator support. The stringing blocks shall have sheaves of an approved design with frames so designed. Neoprene lined stringing blocks shall be used for stringing all conductors. They shall be inspected before each use to insure perfect working condition. The stringing blocks shall be of appropriate size for the conductors being installed.

In pulling out the conductor, the reels shall be firmly mounted on portable stands, mounted if possible on mobile units, and secured against possible displacement. The reels shall be equipped with a suitable braking device to maintain tension on the conductor. The braking device shall not be allowed to cause a tension great enough to result in the conductor burping down into itself. There should be no more tension on the reel than it takes to keep the reel from turning when equipment is stopped. Particular care shall be taken at all times to prevent damage to the conductor being removed. The pulling crew must not allow their equipment to damage the conductor. In pulling across railroads, highways, and electrical and communications crossing, the cable must be fully protected from passing traffic and other damage.

The conductors shall be pulled directly onto the tensioner and into the stringing blocks without touching the ground or water, except in small sections where splices are made, in which case, the conductor shall be cleaned with fine emery cloth. Should the Contractor choose to string more than one phase simultaneously, each shall have a minimum of 25 feet difference in lead passing through the stringing blocks. When directed by the Engineer, minor nicks or other damage shall be cleaned and smoothed by rubbing with very fine emery cloth. Where damages are more severe on the phase conductor, an appropriately sized Owner approved conductor splice shall be installed if up to five strands are severed. Otherwise, an Owner approved repair sleeve will be installed. If strands are severed in the overhead neutral or more severe damage is encountered on the phase conductor (including core damage), the damaged section shall be removed and a compression line splice installed. In all cases the Engineer's recommendations shall be followed. No more than two (2) repair splices will be permitted in any one conductor in a span. In a span where a conductor has a compression splice, only one repair splice will be permitted. If the Contractor is found to be in violation of this section, he will be held responsible for the additional cost incurred for the cleaning of the conductor with a fine emery cloth. This additional cost will include the cost of a qualified person selected by the owner to supervise such cleaning. The cost of all splices required by damaged conductor shall be borne by the Contractor.

The maximum pulling tension shall not exceed 90% of the 167°F initial sag tensions as shown on the sag charts to be furnished by the Engineer. The cable pullers, tensioners, pulling lines, and stringing blocks shall have an adequate margin just "over" this tension. The conductor reels, tensioners, and pulling machines shall be located preferably as near the

midspan as possible, but in no case shall the slope of the conductor between the machine and the stringing block at the first tower be steeper than three horizontal to one vertical.

The conductor shall hang in the stringing block for no more than 48 hours prior to sagging. Each wire in the new section shall be sagged to initial sag in accordance with the initial stringing table furnished by the Engineer and the temperature as read on a certified etched glass thermometer. Sag checks shall be made with pole levels (transit) or a stop watch using the return wave method. The temperature at which the conductor is sagged in and the spans in which sags are measured shall be recorded and the information given to the Engineer. The Engineer may be present and supervise all conductor sagging operations.

The sags shall be checked in each sagging section by selecting spans near each section quarter point and one in the center. The total time which the cable is allowed to remain in the stringing block before being clipped in shall not exceed 96 hours unless written approval is obtained from the Engineer. The Contractor shall provide at least one sagger to measure the correct sag for pulls up to 5 spans, 2 saggings for 6 to 10 spans and 3 saggings for 11 spans or more. The sags shall be checked for several spans in each sagging section by selecting one near each section quarter point and one in the center. The total number of spans to be checked shall be not less than 2 in a 4-span section, 3 for a section up to a mile, and in proportion for a longer section. After being sagged, the conductor shall hang in the stringing blocks for at least 2 hours before being clipped in. The sag of all exceptionally long spans in the sagging section shall be checked and at sharp vertical angles, spans shall be checked on both spans adjacent to the angle spans and the conductors shall be checked on the sheave for equality of tension on both sides.

A tolerance of plus 3" and minus 0" of table value will be permitted, provided that all conductors in the same span assume the same sag and the necessary ground clearances are obtained; provided further that the conductor tensions between successive sagging operations is equalized so that the suspension insulator assemblies will assume the vertical position when the conductor is clipped in.

At all suspension or strain structures, the conductor shall be attached to the insulator assemblies by suspension clamp or bolted quadrant dead ends, respectively, as shown on the Drawings, and all nuts and compression fittings shall be adequately tightened to the recommendation of the manufacturer.

The Contractor shall provide and erect suitable temporary structures to facilitate stringing ground wires and conductors over communications, power, and signal circuits; highways and rivers; or other obstructions requiring temporary protective structures. The structures shall insure safety to the public, the workmen, and the object or facility being crossed. Any damage done by the Contractor to power, communication, and signal circuits shall be the Contractor's responsibility and may be settled and paid by the Owner and charged to the Contractor. All such temporary structures shall be completely removed by the Contractor and the locations left in the original condition.

Installation of this conductor shall be supervised by the Engineer. Every facility, including transportation, shall be given to the supervisor for thorough inspection. Every detail of the installation of the conductor and all work shall be done in accordance with his instructions.

The Engineer shall have full authority to accept or reject any part of the installation of the conductor.

No automatic splices are to be used in any conductor or guy wire. All conductor splices must be of the compression type. In no case shall the conductor be spliced or have repair sleeves closer than fifty feet to any structure. Splices and/or repair sleeves shall not pass through sag blocks. Where it is necessary to pass splices or to repair sleeves from one side of a structure to the other, they shall be lifted past the sag block by means of the hoist and plate hook used for "clipping in" without contacting the sag block.

Any time a compression splice or connector is used, it will be filled with a suitable, manufacturer-approved, corrosion inhibiting compound. If the splice or connector is not supplied with this compound by the manufacturer, then it shall be provided by the Contractor.

There shall be no splices in conductors or overhead ground wires in crossing spans or adjacent spans for crossing over railroads, interstate highways, or transmission lines of 33,000 volts or higher. Also, there shall be no splices in the crossing span (only) for crossing over other State or Federal Highways or telephone trunk lines.

All compression splices shall be made using dies specified for the conductor and shall be made in accordance with the manufacturer's recommendations. Compression dies shall be frequently inspected and any broken or defective dies thrown out and replaced with new ones. Before applying the compression connector or splice, it is important that it be thoroughly cleaned of all dirt and grease. Conductor splicing shall be done with the wire ends clean of foreign matter and the splice installed to lay straight.

When turning corners, changing from tangent to horizontal structures, etc., care shall be taken to maintain proper phase relationships. All phasing and conductor terminations will be completed by the Contractor as instructed by the Owner's Engineer.

The wire tension at deadend slack spans shall be adjusted such that the deadend bells are pulled up and do not touch each other.

The jumpers at all double-deadends will be the same size and made of the same material as the phase and neutral conductors. Jumpers and other leads connected to line conductors shall have sufficient slack to allow free movement of the conductors. Where slack is not shown on the construction drawings, it will be provided by at least two (2) bends in a vertical plane, or one (1) in a horizontal plane, or the equivalent. In areas where Aeolian vibration occurs, special measures to minimize the effects of jumper breaks shall be used as specified.

All leads on equipment such as transformers, reclosers, etc., shall be a minimum of #6 copper conductivity. Where aluminum jumpers are used, a connection to an unplated bronze terminal shall be made by splicing a short stub of copper to the aluminum jumper using a compression connector suitable for the bimetallic connection.

All equipment connections to primary distribution lines shall be made using a stirrup with a hot line clamp. When installing transformers or reclosers, the stirrup and hot line clamp shall



be part of the unit. Connectors and hot-line clamps suitable for the purpose shall be installed as shown on the guide drawings. On all hot-line clamp installations, the clamp and jumper shall be installed so that they are permanently bonded to the load side of the line, allowing the jumper to be de-energized when the clamp is disconnected.

## **ANCHOR AND GUYS**

The Contractor shall install Owner-furnished anchors and guying, including guy markers; there shall be no separate pay item for the installation of guy markers. Anchors shall be power installed, multiple helix, screw-type manufactured by an Engineer-approved manufacturer. The guy wire will be 3/8" Extra High Strength Steel. The Contractor shall furnish all labor and equipment necessary to install the anchor and guy assemblies in accordance with the detail drawings and specifications contained herein. All guys shall be bonded to the pole. A #4 S.D. Cu. jumper wire will be used for this. Non-approved type grips will not be used for pulling guys.

The anchor driving equipment shall be equipped with auger drive capable of delivering sufficient torque to the anchor rods for complete installation as specified. All anchors shall be installed using the anchor manufacturer-approved torque indicator, or equal, with the anchor manufacturer-approved shear pin torque indicator. The anchors shall be installed in accordance with the manufacturer's operating instructions.

When using a shear pin indicator, the following installation requirements are to be adhered to. The torque indicator shall be loaded with the correct number of shear pins for the torque value desired. The anchor shall be installed until pins shear. The torque indicator shall be reloaded with the original number of shear pins plus two additional pins. The anchor shall then be driven at least two additional feet into the ground and until the anchor rod will be the correct distance above grade. The torque unit shall then be reloaded with the original number of shear pins. Should the pins then shear upon driving, the anchor is installed to the minimum torque value required. Should the pins not shear, driving shall continue with additional extensions until the proper anchor depth and minimum required torque value is obtained. The top helix of the multi-helix section shall not be less than five feet vertically below grade. The Engineer shall be notified in the event that the 5' depth cannot be attained. Anchors and rods shall be installed in line with the guy strain.

The Contractor shall install all anchor rod extensions. The quantity of extensions listed for Construction Unit FP-EXT, are approximate. The actual quantity of extensions installed may be fewer or greater than this quantity. The Contractor shall maintain a record of the quantity of extension by length per structure. The Contractor shall be paid only for the actual quantity installed.

All guys shall be installed on a one-to-one lead except where anchor locations are staked to indicate otherwise. Guys shall be deadended in accordance with the details enclosed herein. Guys shall be installed before phase conductors and the static conductor are strung. One guy guard shall be installed in each guy. Guy guards are Owner-furnished. Guy guards shall be full round, yellow, 8' in length. The labor price to install guy guards shall be included in the guying assembly units.

In retiring anchors, the anchor and all extensions shall be unscrewed out of the ground. The Contractor is to keep accurate records of the quantity of anchor extensions retired. The quantity in the Retire bid sheets is an estimate only. The Contractor will be paid for the quantity of extensions actually retired.

### **POLE NUMBERING**

If required by the Owner, each pole will also have a pole band near the ground indicating the distribution pole number. On poles visible from points of access (highway crossing, along a highway, etc.), pole numbers shall be installed such that they are visible from that point of access.

### **HAZARDOUS OBSTRUCTIONS**

Responsibility for accurately locating obstructions such as, but not limited to, underground gas lines, water lines, sewer lines, underground communication lines and underground oil lines, etc., lies solely with the Contractor. The location of all facilities known to the Owner are indicated on the plan/profile drawings. These and others are to be verified by whatever means are necessary by the Contractor. Before disturbing any earth, the contractor shall notify the LA One Call system and allow sufficient time for each impacted utility owner to locate buried facilities within the limits of construction.

### **POLE GROUNDS**

Pole grounding shall be either by a ground rod or butt wrap as indicated on the staking sheets. Pole groundwire shall be No. 4 copper (soft drawn) and shall be continuous between the pole and the ground rod; splices in the groundwire are not permitted.

Ground rods shall be driven their full length in undisturbed earth in accordance with the construction drawings; ground rods shall be placed at least 12" from the pole butt in line with the neutral conductor. The top of the ground rod shall be at least 12 inches below the surface of the earth. The ground wire shall be attached to the rod with a clamp and shall be secured to the pole with staples. The staples on the ground wire shall be spaced 2 feet apart, except for a distance of 8 feet above the ground and 8 feet down from the top of the pole where they shall be 6 inches apart.

When there are two or more neutral deadends on a pole, all deadends will be bonded together. Each neutral shall be bonded individually to the pole ground. The equipment ground, neutral wires, and surge-protection equipment shall be interconnected and attached to a common ground wire.

All equipment shall have at least two (2) connections from the frame, case or tank to the multi-grounded neutral conductor.

### **INSULATED GUY LINKS**

Where guy wires extend over or through energized phase conductors an insulated guy link shall be installed. The insulators shall be installed in the guy such that if the guy wire were to break at ground level, the insulator would be at or below the energized phase. The links **WILL NOT** be installed at the pole unless specifically indicated. That portion of the guy above the link will be bonded to the pole ground.

## **FINAL CLEAN-UP**

The Contractor shall limit the movement of his crews and equipment so as to minimize damage to crops, orchards or other property, and shall endeavor to avoid marring the land. Ruts and scars shall be obliterated, damage to ditches, dikes, levees, terraces, bridges, culverts, roads, and other features of the land marred by the Contractor's operations shall be corrected and land restored as nearly as practicable to its original condition before final acceptance of the work. The Contractor is limited to movement within the existing right-of-way width with the exception of required anchor installations.

These clean-up requirements are applicable to not only the line right-of-way, but also apply to the Owner's storage area, if an area is provided by the Owner, and to ingress and egress routes to work areas. Final clean-up shall be completed within one week of receipt of the Final Inspection Report.

## **SCHEDULING AND STATUS REPORTS**

The Contractor shall furnish to the Engineer and the Owner a milestone chart (construction schedule) no less than one (1) day before the Pre-Construction Conference is scheduled. This chart shall list projected starting and completion dates for all major milestones including, but not limited to, the following construction events:

1. Mobilization
2. Concrete Foundation Installation
3. Wood Pole Spotting
4. Wood Pole Framing and Erection
5. Steel Pole Spotting
6. Steel Pole Framing and Erection
7. Guy and Anchor Installation
8. Conductor Installation
9. Sagging Operations
10. Line Terminations and Connection
11. Switching
12. Initial Energizing of the New Line
13. Interruption and Relocation of the Existing ADSS Fiber Cable
14. Retirement of the Old Line
15. Final Cleaning Up
16. Demobilization

The Contractor shall also furnish to the Engineer and the Owner weekly status reports

listing the work scheduled during the present reporting period and the work scheduled for the next period. The report shall list the percentage of work completed during the reporting period for each construction unit. The report shall also include the number of days worked and the number of days not worked, along with an explanation as to why work was not done on that particular day.

The Owner and the Engineer shall use the status reports and field reports to compare actual construction to the milestone schedule submitted by the Contractor. The Owner and the Engineer require that all work be completed within the time allotted for construction. The time and manner of construction and completion thereof shall be administered under Article 2 of the Agreement Between Owner and Contractor and Section 3.9 of the Standard General Provisions.

**EXTENSION OF CONTRACT TIME**

The Contractor understands and agrees the Contract Time shall not be extended for days lost to inclement weather unless the number of days lost to inclement weather exceeds the amount specified by month in the chart below.

<u>Month</u>	<u># of Days</u>	<u>Month</u>	<u># of Days</u>
January	10	July	6
February	9	August	5
March	8	September	4
April	7	October	3
May	5	November	7
June	6	December	7

**INSPECTIONS**

The Contractor shall provide personnel and transportation at the disposal of the Owner and/or Engineer for all inspections and the final inspection. Inspections will be performed continually during all phases of construction.

**TRAFFIC CONTROL**

The Contractor recognizes and acknowledges the project site includes two highly traveled, City-owned streets and two highly traveled, LA DOTD controlled highways. Contractor shall at all times during the course of construction maintain the flow of traffic and otherwise protect the traveling public. Temporary traffic control compliant with the Manual of Uniform Traffic Control Devices, Part 6 shall be erected and maintained throughout the course of construction. Daily road closures during off-peak times, 8:45 a.m. to 2:45 p.m., will be allowed if approved by the agency having control of the closed road or highway. In the event a road or highway is closed, the Contractor shall erect temporary signage to clearly delineate for the traveling public an alternate travel route.

**PIPELINE CROSSINGS**

In the event pipelines are to be crossed by this distribution line route, the Contractor is to

install suitable mats over each pipeline crossing in order to protect the pipeline while transporting materials and equipment over it. Mats are Contractor-furnished. There will be no additional payment for installation and removal of mats.

**SECTION F**  
**CITY OF ALEXANDRIA**  
**PURCHASING POLICIES AND PROCEDURES**

## **GENERAL REQUIREMENTS**

### **JACKSON (LA 1208-3) @ HORSESHOE ROUNDABOUT Distribution Line Relocation State Project No. H.002672**

#### **PURCHASING DEPARTMENT POLICIES & PROCEDURES**

1. Pursuant to LA R.S 38:2212.1. C.(1)(2), any manufacturer's preference in this proposal is descriptive, but non-restrictive, and is used only to indicate minimum requirement for type, grade and quality unless otherwise specified.
2. Pursuant to LA R.S. 38:2212 B.(1), the provisions and requirement of this bid shall not be considered as informalities and shall not be waived by the City of Alexandria. Therefore, conditions and specifications on this bid form shall be strictly enforced and any and all alterations, deviations, and non-compliance to said conditions and specifications, either on the bid form or by separate attachment, shall be grounds for immediate disqualification.
3. Preference shall be given to bidders quoting F.O.B. Destination (the City of Alexandria using department), FREIGHT PREPAID, unless otherwise requested.
4. Each bidder shall submit his proposal on the proposal form furnished by the City of Alexandria Purchasing Department. The complete bid package must be returned as issued by the City with all pages intact and all specification response columns filled in. Incomplete columns or missing pages, to include addendum pages, shall result in the vendor's entire bid package being rejected.
5. Literature, brochures, and other related paperwork attached to the bid should be identified with the name of the bidder and bid item number.
6. In case of a mathematical discrepancy between unit price and extensions, the unit price shall prevail.
7. Pursuant to LA R.S. 38:2212 F., the bid specifications may contemplate a fixed escalation or de-escalation in accordance with the United States Bureau of Labor Statistic's Consumer Price Index or the Producer Price Index. Bids based on specifications which are subject to a recognized escalation index shall be legal and valid for any item of a public work, at the discretion of the City.
8. Pursuant to LA R.S. 38:2212.1. F., any public procurement unit may participate in a cooperative purchasing agreement with the City of Alexandria to acquire quantities of the above listed items under a contract with the City of Alexandria for items awarded by public bid, pursuant to the cooperative purchasing provisions of Part VII of Chapter 17 of Subtitle III of Title 39 of the Louisiana Revised Statutes of 1950, R.S. 39:1701 et seq.
9. The City of Alexandria reserves the right to award by item or by total bid, unless otherwise specified in the bid specifications. (Price(s) should be itemized.)
10. All erasures or corrections on the bid form must be initialed and the City of Alexandria may rely on the apparent authority represented by the initials.
11. The City of Alexandria reserves the right to reject for cause any and all bids or parts of bids, or accept bids most beneficial to the City.

12. Any bid submitted which contains additions, conditional or alternate bids, or irregularities which may make the proposal incomplete, indefinite, or ambiguous as to its meaning, thus requiring clarification after the specified date and time of bid opening shall be rejected.
13. Bids shall be opened publicly in the City Council Chambers or Council Committee Room.
14. Cash discounts may be accepted, but SHALL NOT be considered in making award.
15. Regarding a bid for purchase of materials, supplies or services, not to include construction of any public works, a written notice of acceptance mailed or otherwise furnished to the successful bidder shall result in a binding contract without further action by either party.
16. When any bid is accepted for the construction or doing of any public works, a written contract shall be executed by and between the City of Alexandria and the Contractor. No contract shall be binding upon the City until it has been executed by the City and delivered to the successful bidder. Should the bidder to whom the contract is awarded fail to execute the contract, the award shall then be made to the next lowest responsible bidder, or re-advertised for public bid, said decision to be in the sole judgment of the City of Alexandria. This action may result in the loss of bidding privileges for a period of one (1) year.
17. The City of Alexandria shall schedule for payment the invoices for articles or services purchased under this bid within thirty (30) days after due and proper delivery accompanied by invoice.
18. The City of Alexandria is exempt from all sales taxes. A sales tax exempt form shall be furnished by the City of Alexandria Purchasing Department, if requested.
19. Bidder(s) awarded item(s) by the City of Alexandria shall be responsible for supplying all products at the awarded price(s). Failure may result in the City's cancellation of the remaining items awarded.
20. Regarding Service Contracts and Procurement Contracts, the terms of the contract shall be binding upon any and all parties involved until goods and supplies are delivered, services have been rendered, and/or work has been completed and accepted by the Mayor on behalf of the City of Alexandria and all payments required to be made to the Contractor have been made. However, a contract may be terminated under any and all of the following conditions:
  - (a) By mutual agreement and consent of either party upon thirty (30) days written notice to the other party;
  - (b) By the Mayor, on behalf of the City of Alexandria, as a consequence of the failure of the Contractor to comply with the terms and conditions of the contract or the progress or quality of work to be performed in a satisfactory manner, proper allowance being made for circumstances beyond the control of the Contractor; or
  - (c) By satisfactory completion of all services and obligations described in the contract. If the contract is terminated for any of the terms and conditions authorized in subparagraph (b) above, Contractor shall be formally notified in writing by the City of Alexandria Purchasing Department by means of certified mail informing him of cancellation of the contract, giving specific reasons for said cancellation. Contractor shall have the right to appeal to the City Council within ten (10) days from the date that said notification is placed in the U.S. Mail.



Contractor's appeal shall be accomplished by means of a letter addressed to the City Council and delivered to the City Clerk, stating that an appeal to the decision of cancellation is desired. The City Council shall thereafter hold a hearing on the appeal, giving all parties the opportunity to present any and all evidence concerning the decision of cancellation. After hearing the appeal, the city Council may, by a majority vote, sustain, modify, or reverse the findings for said decision and shall provide, if requested by Contractor, a written determination of its findings.

21. Contractors submitting bids for Public Works construction projects in excess of \$1.00 must show his Contractor's License Number on the front of the bid envelope, except for certain projects for which a Contractor's License Number is not required by the State Contractor's Licensing Board. Failure to comply with this directive shall result in automatic bid rejection, furthermore, any Contractor who submits a bid for a type of construction for which he is not properly licensed shall be acting in violation of LA R.S. 37:2163, and shall be subject to all provisions for violation and penalties thereof. Contractors who are owned by, and are submitting a bid as a subsidiary of a parent company, whose name is listed in the State of Louisiana's Roster of Licensed Contractors, may do so by including a letter of proof of ownership from the parent company with the submitted bid package. The letter must be signed as per LA R.S. 38:2212 B.(5)(a)(b)(c) (see Item #22 below).

22. All bids submitted via USPS (registered or certified), overnight courier or hand delivered, shall be signed by hand and in ink by an authorized company representative per LA R.S. 38:2212 B.(5)(a)(b)(c), which states:

(c)(i) Evidence of agency, corporate, or partnership authority shall be required for submission of a bid to the division of administration or the State of Louisiana. The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable if any of the following conditions are met:

(aa) The signature on the bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership or partnership in commendam listed in the most current partnership records on file with the Secretary of State.

(bb) The signature on the bid is that of an authorized representative of the corporation, partnership, or other legal entity and the bid is accompanied by a corporate resolution, certification as to the corporate principle, or other documents indicating authority which are acceptable to the public entity.

(cc) The corporation, partnership, or other legal entity has filed in the appropriate records of the Secretary of State in which the public entity is located, an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

23. In-State preferences shall not apply to procurements involving federal funds.

24. Pursuant to LA R.S. 38:2212 O.(2)(a)(b), any modifications of plans and specifications will be made through an addendum. No addendum shall be issued within seventy-two (72) hours of the bid opening, excluding weekends and legal holidays, without the extension of the bid opening date. An extension of at least seven (7) but no more than thirty (30) working days is required but, re-advertising is not required. The addendum shall be transmitted by any one of

the following methods: (1) facsimile transmission; (2) e-mail; (3) by hand; or (4) posted on the City of Alexandria's website ([www.cityofalexandria.com](http://www.cityofalexandria.com)) and posted on Central Bidding's website ([www.centralauctionhouse.com](http://www.centralauctionhouse.com)) if applicable.

25. All Federal Transit Administration (FTA) funded procurements, including operating assistance funding contracts, are to follow the *Master Agreement*, to include all applicable federal clauses.

a. Any bidder that is found listed on the Federal Government's *System for Award Management* (SAM) website, at [www.sam.gov/portal/sam](http://www.sam.gov/portal/sam), under the advanced search feature for *Excluded Parties List System* (EPLS), shall automatically be rejected for the award of this bid, by Category and/or in its entirety. This applies to any portion of the bid that is a procurement funded by FTA.

26. Under the City's *AFEAT* (*Alexandria Fairness, Equality, Accessibility, and Teamwork Program*), participation by minority and/or disadvantaged business enterprise firms is encouraged. Inquiries about the *AFEAT* Program should be directed to the Division of Finance. As a part of its RFP response, each Bidder ***shall*** submit documentation of its bona fide effort to secure subcontractors that meet the City's *AFEAT* goals. Each bidder ***shall*** also submit proof of engagement of any subcontractor selected because of its solicitations. The Bidder's bona fide efforts and engagement(s) are a consideration in bid review and rating.

## ***Alexandria Fairness, Equality, Accessibility and Teamwork Program (AFEAT)***

Dear Vendor:

Under the City's *AFEAT (Alexandria Fairness, Equality, Accessibility, and Teamwork Program)*, participation by minority and/or disadvantaged business enterprise firms is encouraged. The AFEAT Program should be inquired about through the Division of Finance. The goals for qualifying disadvantaged, minority and female owned business in the use of professional service agreements with prime contractors will help effectuate the goals of increasing: the competitive viability of small business, minority, and women business enterprise by providing contract, technical, educational, and management assistance; business ownership by small business persons, minority persons, and women (including professional service opportunities); and the procurement by the City of professional services, articles, equipment, supplies, and materials from business concerns owned by small business concerns, minority persons, and women.

Prime contractors offering subcontracting should take specific action to ensure that a bona fide effort is made to achieve maximum results towards meeting the established goals. Primes shall document efforts and shall implement steps at least as extensive as the following in a good faith effort to reach or exceed the established goals:

- A. Establish and maintain a current list of minority and female owned businesses in Alexandria, in Rapides Parish, and in the State of Louisiana.*
- B. Document and maintain a record of all solicitations of offers for subcontracts from minority or female construction contractor and suppliers in Alexandria, in Rapides Parish, and in the State of Louisiana.*
- C. Secure listing of minority and women owned businesses from the City of Alexandria Purchasing Department, the Central Louisiana Business Incubator, and the State of Louisiana Department of Minority Affairs.*
- D. Participate in associations which assist in promoting minority and women owned businesses such as the Central Louisiana Business League, the Central Louisiana Business Incubator, and the Entrepreneurial League System.*
- E. Designate a responsible official to monitor all activity made in the effort to achieve or exceed the established goals; record contacts made, subcontracts entered into with dollar amounts, and other relevant information.*

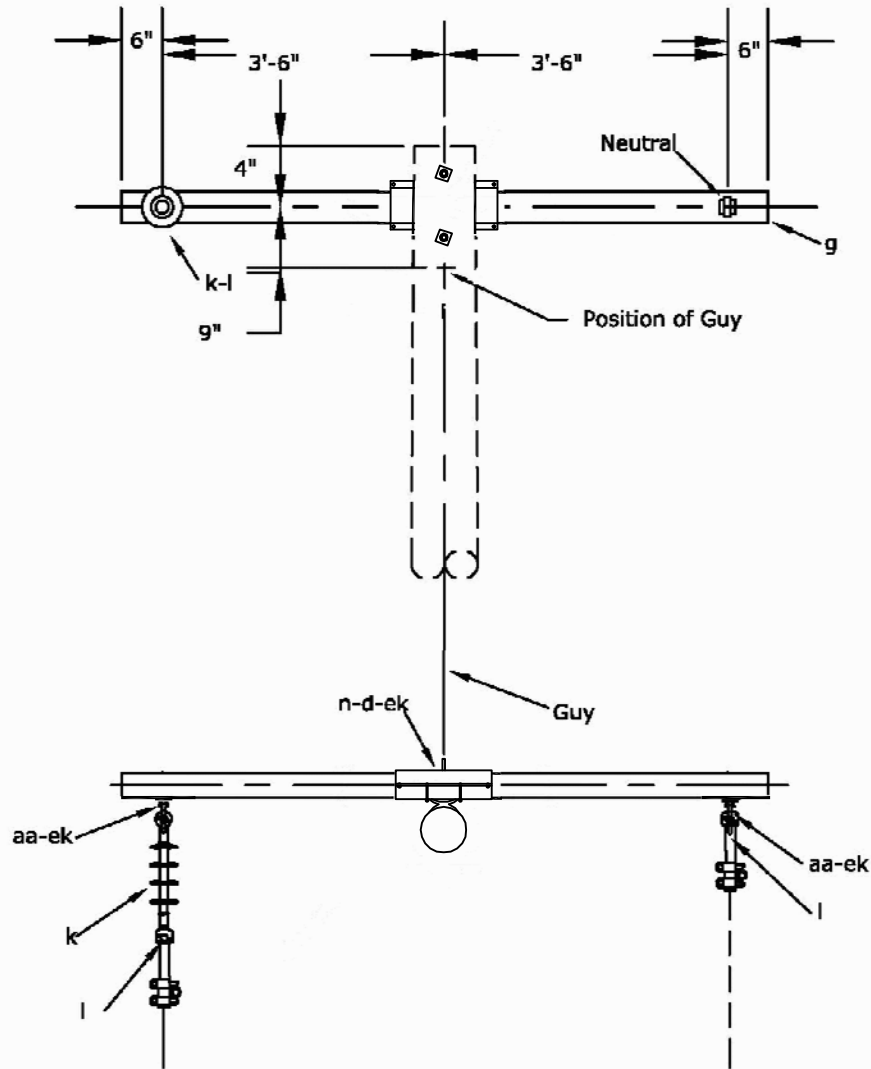
For more information on AFEAT and the City of Alexandria's Diversity in Action Initiative, and to explore a local and statewide directory of minority businesses, please visit [www.diversityinaction.org](http://www.diversityinaction.org) .

Should you have any questions or comments, please do not hesitate to contact our Finance Department at 318-449-5091 or our Purchasing Department at 318-441-6180.

Sincerely,

City of Alexandria

**SECTION G**  
**DETAIL DRAWINGS**

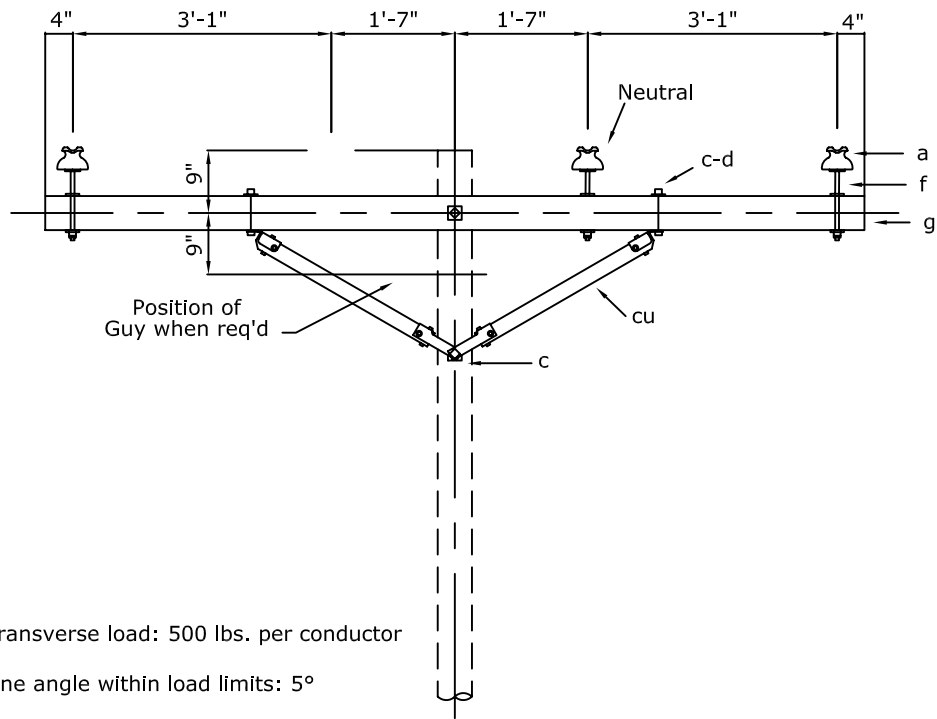
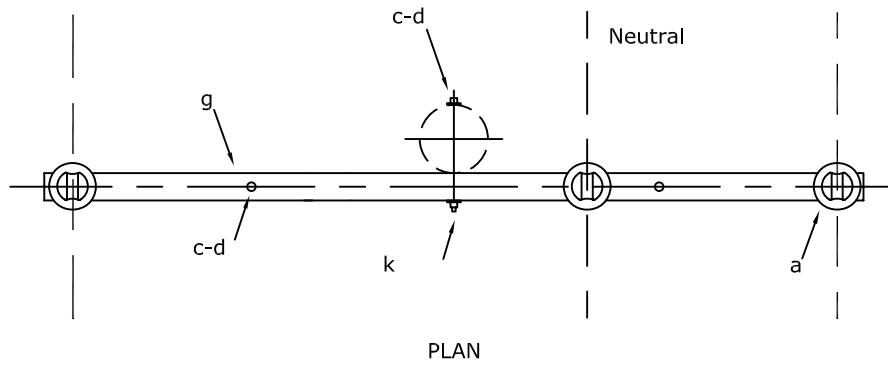


PLAN

MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
d	2857402322	4	Washer, 2-1/4" Square With 13/16" Hole.
g	2857802041	1	Crossarm Fiberglass Deadend Arm, Braceless.
k	2857402300	1	Insulator, Suspension, Polymer
l	2857402140	2	Clamp, Deadend
ek		2	Locknut, 3/4".
		2	Bolt, Machine, 3/4" x Required Length.

<p><b>City of Alexandria</b> <i>Electric Distribution</i></p>	<p>12.5/7.2KV SINGLE PHASE CROSSARM DEADEND STRUCTURE</p>	DATE: 04-10-07
		<p>STANDARD NUMBER A7-FG</p>

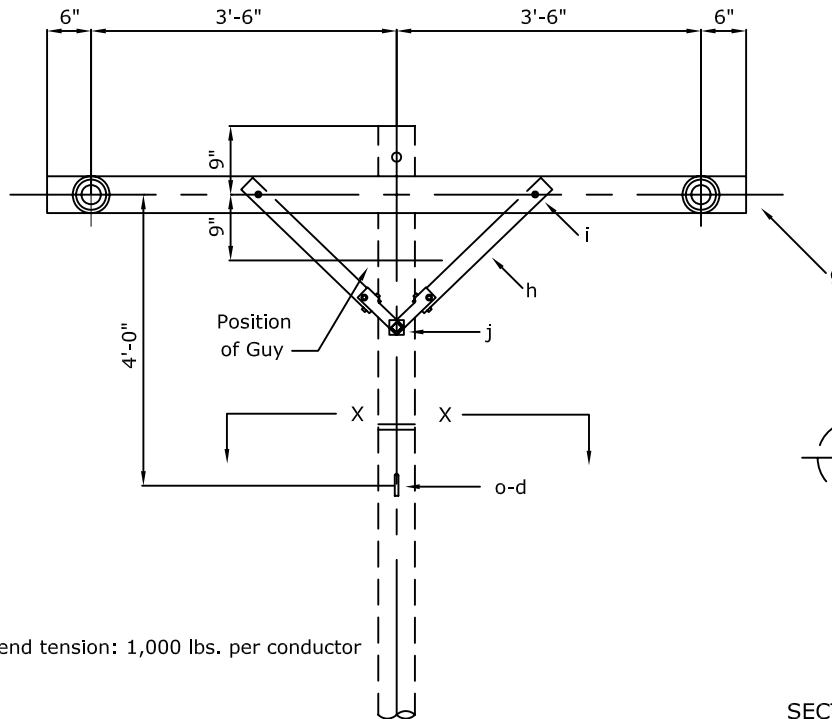
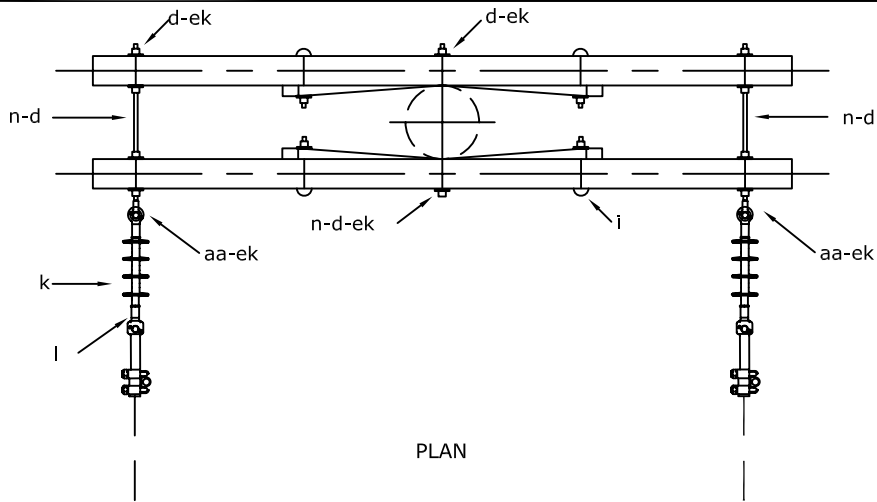


- NOTES:
- 1- Maximum transverse load: 500 lbs. per conductor
  - 2- Maximum line angle within load limits: 5°

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
a	2857402299	4	Insulator, Pin Type
c	2857402008	2	Bolt, Machine, 1/2" x Required Length
c	28574020XM	2	Bolt, Machine, 5/8" x Required Length
d	2857402321	2	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	3	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	4	Steel Crossarm Pin
g	2857802042	1	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
ah	2801602124	25	Tie Wire, #4 Al (Feet)
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	5	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>12.5/7.2kV CROSSARM TANGENT STRUCTURE SINGLE LINE ARM - NEUTRAL ON ARM</p>	<p>DATE: 04-10-07</p>
		<p>STANDARD NUMBER</p> <p><b>B9-1</b></p>

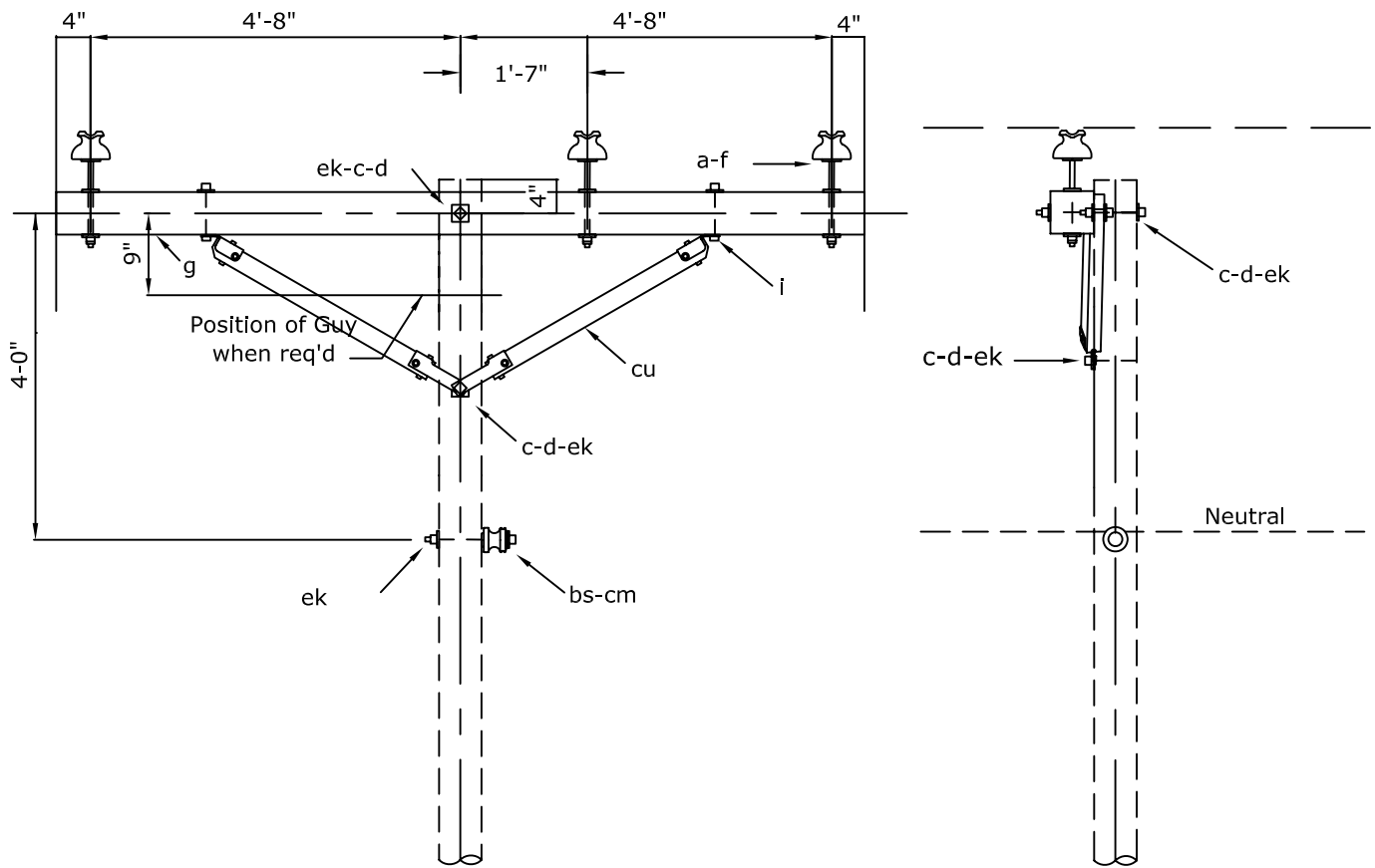


NOTES:  
 1- Maximum deadend tension: 1,000 lbs. per conductor

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
d	2857402322	11	Washer, 2 1/4" Square With 13/16" Hole
g	2857802041	2	Crossarm, 3 3/4" x 4 3/4" x 8', Wood
h	2857802044	4	Brace, 28", Wood
i	2857402021	4	Carriage Bolt, 3/8" x 4 1/2"
j	2857402320	2	Lag Screw, 1/2" x 4"
k	2857402300	2	Insulator, Suspension, Polymer
l	2857402140	3	Clamp, Deadend
n	28574020XD	3	Bolt, Double Arming, 5/8" x Required Length
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
aa	2857402310	3	Nut, Oval Eye, 5/8"
ek	285740XXXX	11	Locknut, 5/8"

City of Alexandria  Electric Distribution	12.5/7.2kV CROSSARM SINGLE DEADEND SMALL CONDUCTORS	DATE: 04-10-07
		STANDARD NUMBER  <b>B7</b>



**NOTES:**

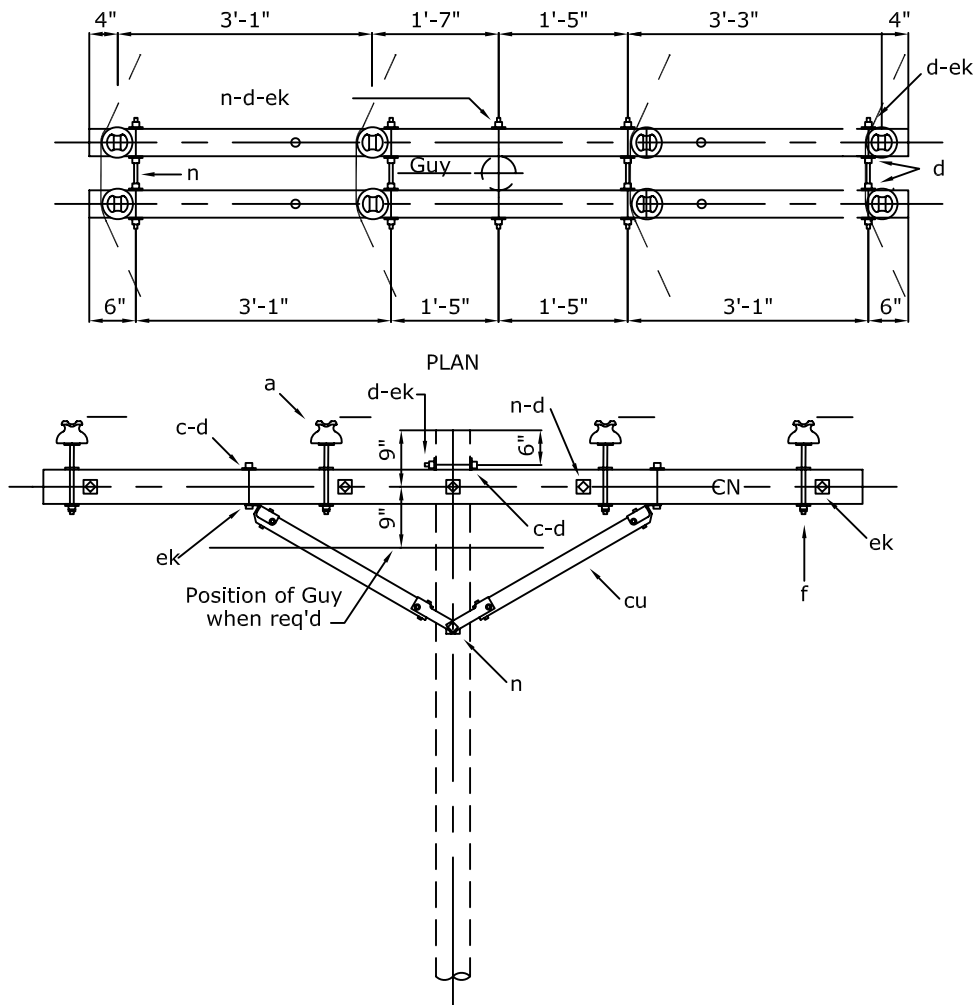
- 1- Install on poles with conductor larger than 1/0 (ACSR or Str. Cu.).
- 2- Maximum line angle within load limits: 5°.

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
a	2857402299	3	Insulator, Pin Type
c	2857402008	2	Bolt, Machine, 1/2" x Required Length
c	28574020XM	2	Bolt, Machine, 5/8" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	8	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	3	Steel Crossarm Pin
g	2857802042	1	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
ah	2801602124	25	Tie Wire, #4 Al (Feet)
bs	28574020XU	1	Bolt, Single Upset, 5/8" x Required Length
cm	2857402304	1	Insulator, Spool
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	6	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>12.5/7.2kV CROSSARM TANGENT STRUCTURE SINGLE LINE ARM - LARGE CONDUCTORS</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p><b>C1AL</b></p>





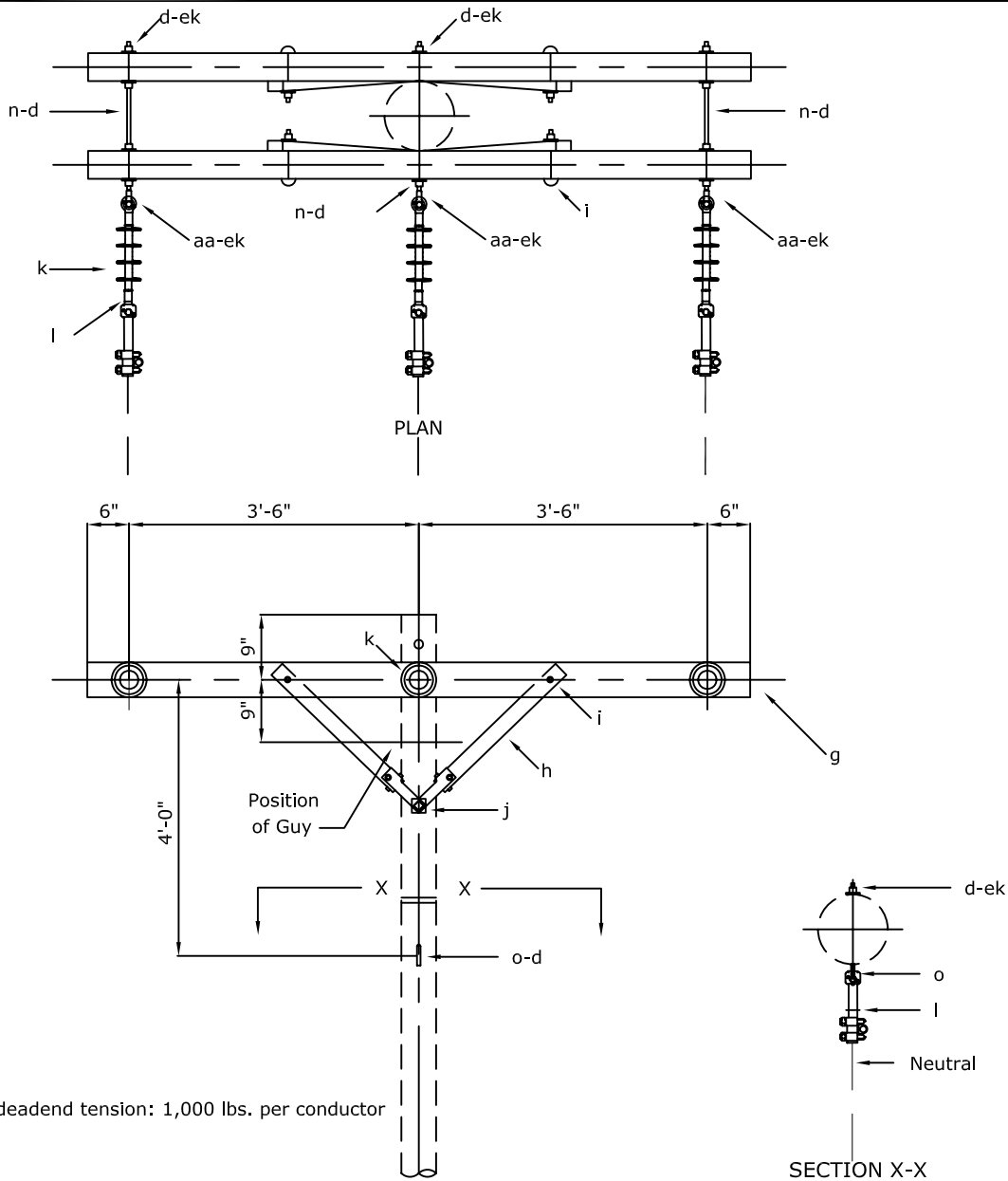
**NOTES:**

- 1- Side groove of insulator must always be larger than the overall diameter of conductor.
- 2- Center phase wire or neutral wire may be located on the opposite side of the pole where necessary to avoid crossing of wires in midspan.
- 3- Install on poles with conductor larger than 1/0 (ACSR or Str. Cu.).
- 4- If transverse load exceeds 1,000 lbs per pin, use vertical construction.

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
a	2857402299	8	Insulator, Pin Type
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	12	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	8	Steel Crossarm Pin
g	2857802042	2	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
n	28574020XD	5	Bolt, Double Arming, 5/8" x Required Length
ah	2801602124	40	Tie Wire, #4 Al (Feet)
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	23	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>12.5/7.2kV CROSSARM SMALL ANGLE STRUCTURE DOUBLE LINE ARM - SMALL OR LARGE CONDUCTORS NEUTRAL ON ARM</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p><b>C2-1</b></p>



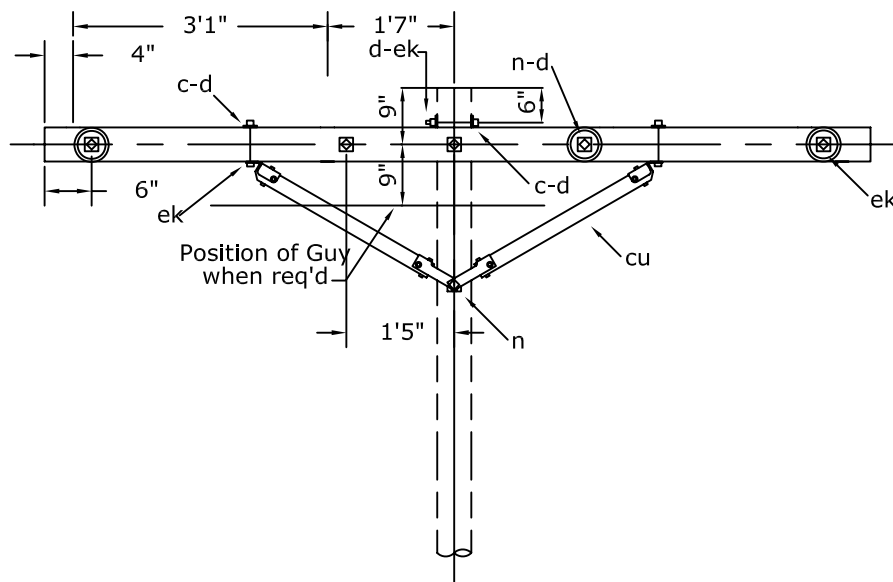
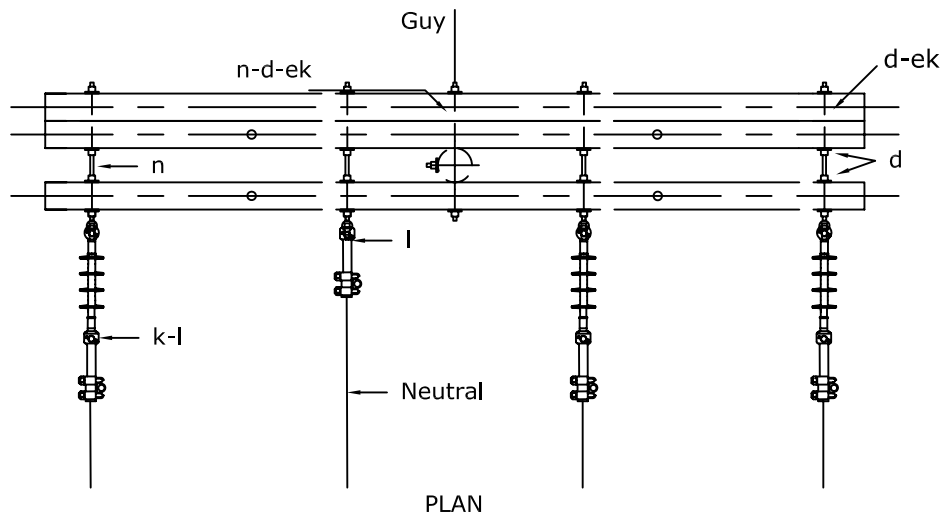
**NOTES:**

1- Maximum deadend tension: 1,000 lbs. per conductor

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
d	2857402322	11	Washer, 2 1/4" Square With 13/16" Hole
g	2857802041	2	Crossarm, 3 3/4" x 4 3/4" x 8', Wood
h	2857802044	4	Brace, 28" (Wood or Steel)
i	2857402021	4	Carriage Bolt, 3/8" x 4 1/2"
j	2857402320	2	Lag Screw, 1/2" x 4"
k	2857402300	3	Insulator, Suspension, Polymer
l	2857402140	4	Clamp, Deadend
n	28574020XD	3	Bolt, Double Arming, 5/8" x Required Length
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
aa	2857402310	3	Nut, Oval Eye, 5/8"
ek	285740XXXX	11	Locknut, 5/8"

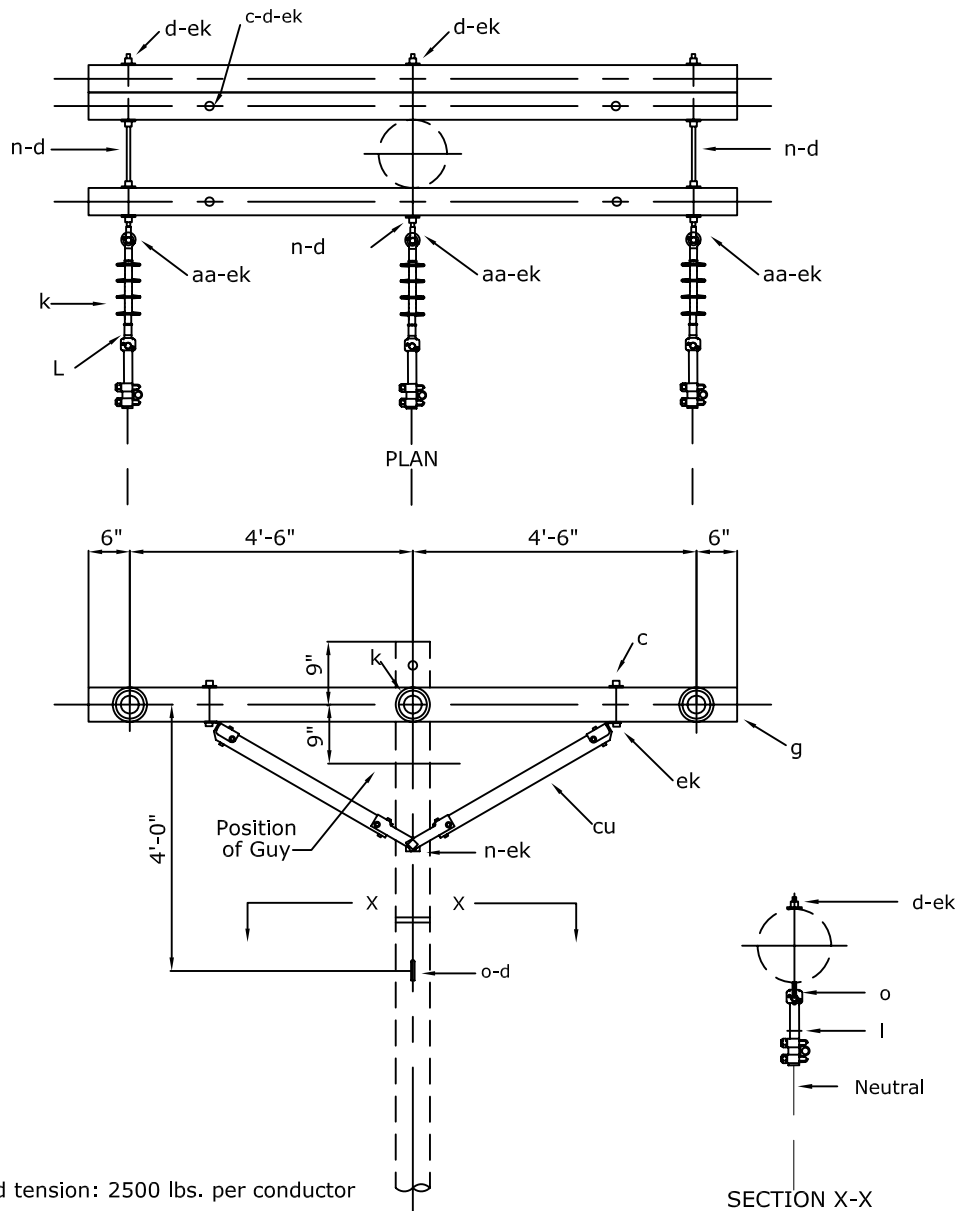
<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>12.5/7.2kV CROSSARM SINGLE DEADEND SMALL CONDUCTORS</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p><b>C7</b></p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	11	Washer, 2 1/4" Square With 13/16" Hole
g	2857802042	3	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	3	Insulator, Suspension, Polymer
l	2857402142	4	Clamp, Deadend, Large
n	28574020XD	6	Bolt, Double Arming, 5/8" x Required Length
aa	2857402310	4	Nut, Oval Eye, 5/8"
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	14	Locknut, 5/8"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV CROSSARM SINGLE DEADEND LARGE CONDUCTORS - NEUTRAL ON ARM</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p>C7-1L</p>

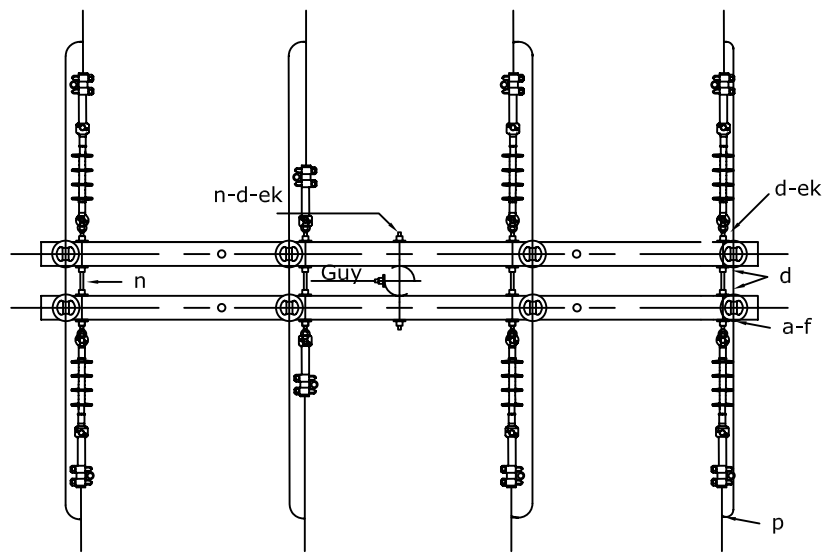


- NOTES:
- 1- Maximum deadend tension: 2500 lbs. per conductor
  - 2- Install on poles with conductor larger than 1/0 (ACSR or Str. Cu.).

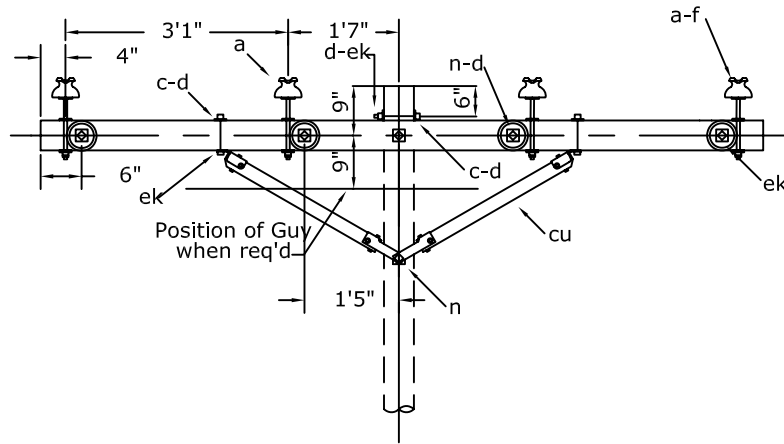
**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	11	Washer, 2 1/4" Square With 13/16" Hole
g	2857802042	3	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	3	Insulator, Suspension, Polymer
l	2857402142	4	Clamp, Deadend, Large
n	28574020XD	4	Bolt, Double Arming, 5/8" x Required Length
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
aa	2857402310	3	Nut, Oval Eye, 5/8"
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	12	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>12.5/7.2kV CROSSARM SINGLE DEADEND LARGE CONDUCTORS</p>	<p>DATE: 04-11-07</p>
		<p>STANDARD NUMBER</p> <p><b>C7L</b></p>



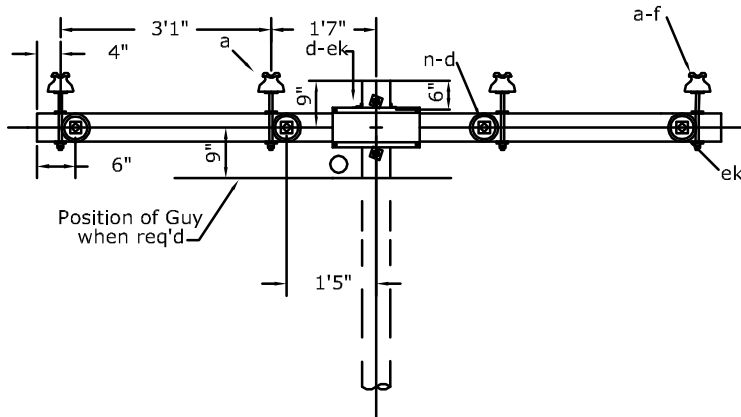
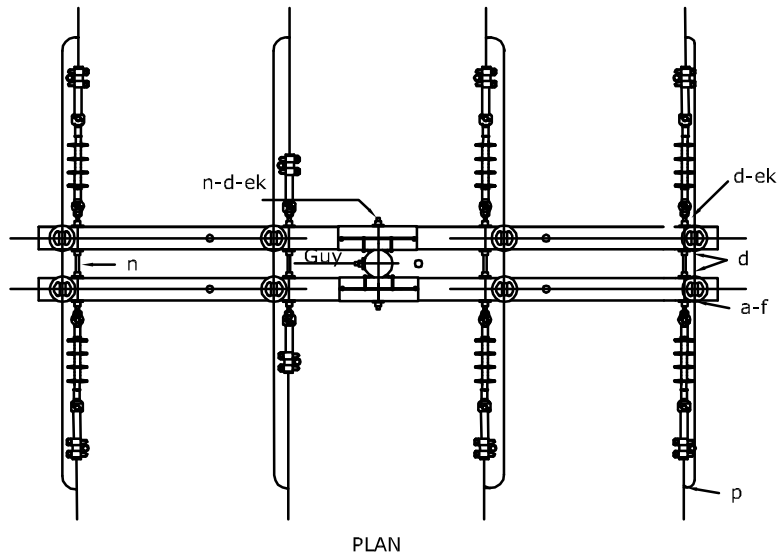
PLAN



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	8	Insulator, Pin Type
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	18	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	8	Steel Crossarm Pin
g	2857802042	2	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	6	Insulator, Suspension, Polymer
l	2857402142	8	Clamp, Deadend, Large
n	28574020XD	6	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	8	Connector, Sized As Required
aa	2857402310	8	Nut, Oval Eye, 5/8"
ah	2801602124	40	Tie Wire, #4 Al (Feet)
av	NA	4	Jumper, Sized As Required
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	22	Locknut, 5/8"

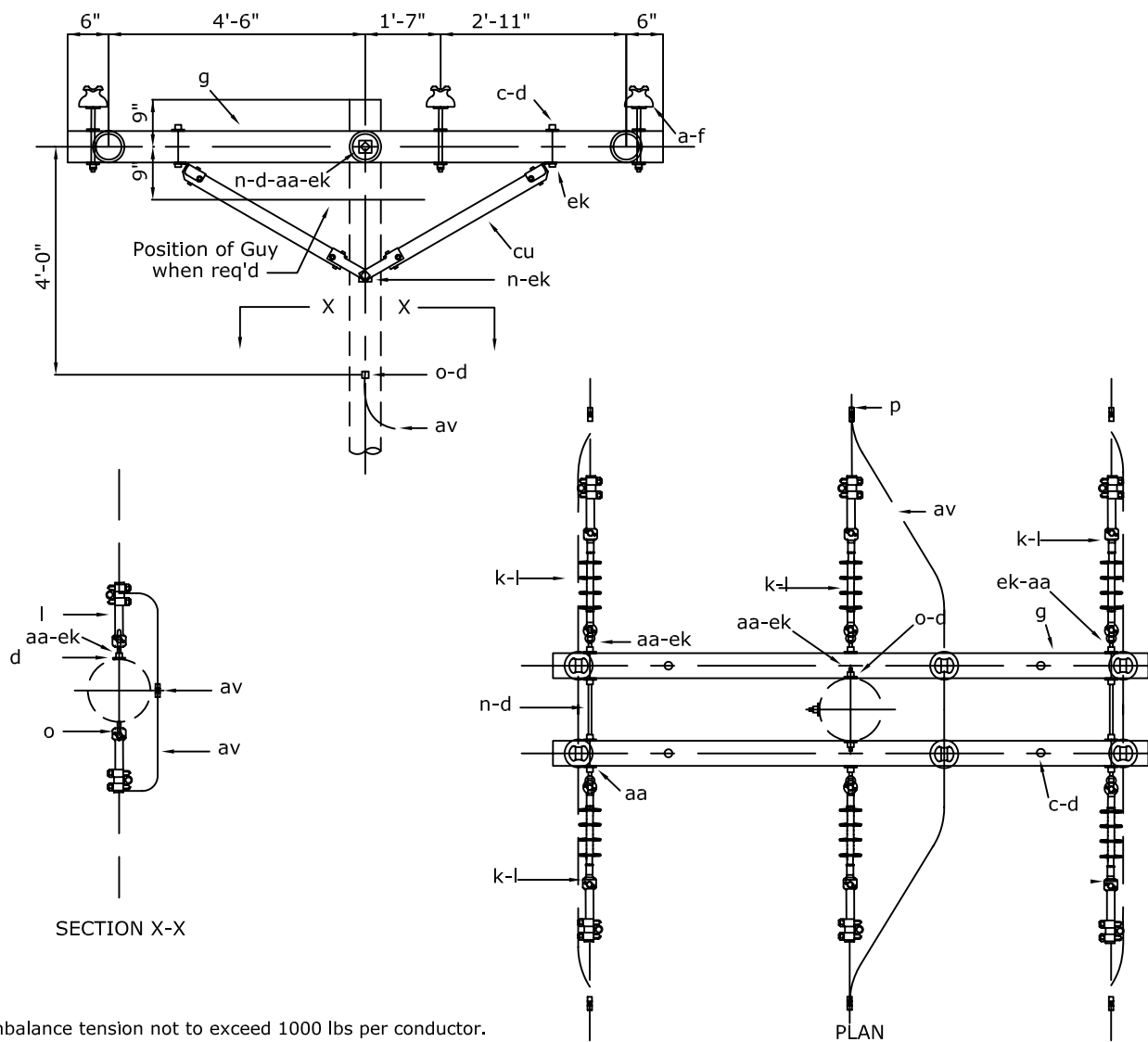
<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV CROSSARM DOUBLE DEADEND NEUTRAL ON ARM - LARGE CONDUCTORS</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p>C8-1L</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	8	Insulator, Pin Type
c	2857402008	2	Bolt, Double Arming 3/4" x Required Length
d	2857402322	4	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	8	Steel Crossarm Pin
g	2857802042	2	Crossarm, Fiberglass Deadend Arm, 10', Braceless, 4 Position.
k	2857402300	6	Insulator, Suspension, Polymer
l	2857402142	8	Clamp, Deadend, Large
n	28574020XD	4	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	8	Connector, Sized As Required
aa	2857402310	8	Nut, Oval Eye, 5/8"
ah	2801602124	40	Tie Wire, #4 Al (Feet)
av	NA	4	Jumper, Sized As Required
ek	285740XXXX	22	Locknut, 5/8"
ek	285740XXXX	2	Locknut, 3/4"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV CROSSARM DOUBLE DEADEND NEUTRAL ON ARM - LARGE CONDUCTORS</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p>C8-1L-FG</p>



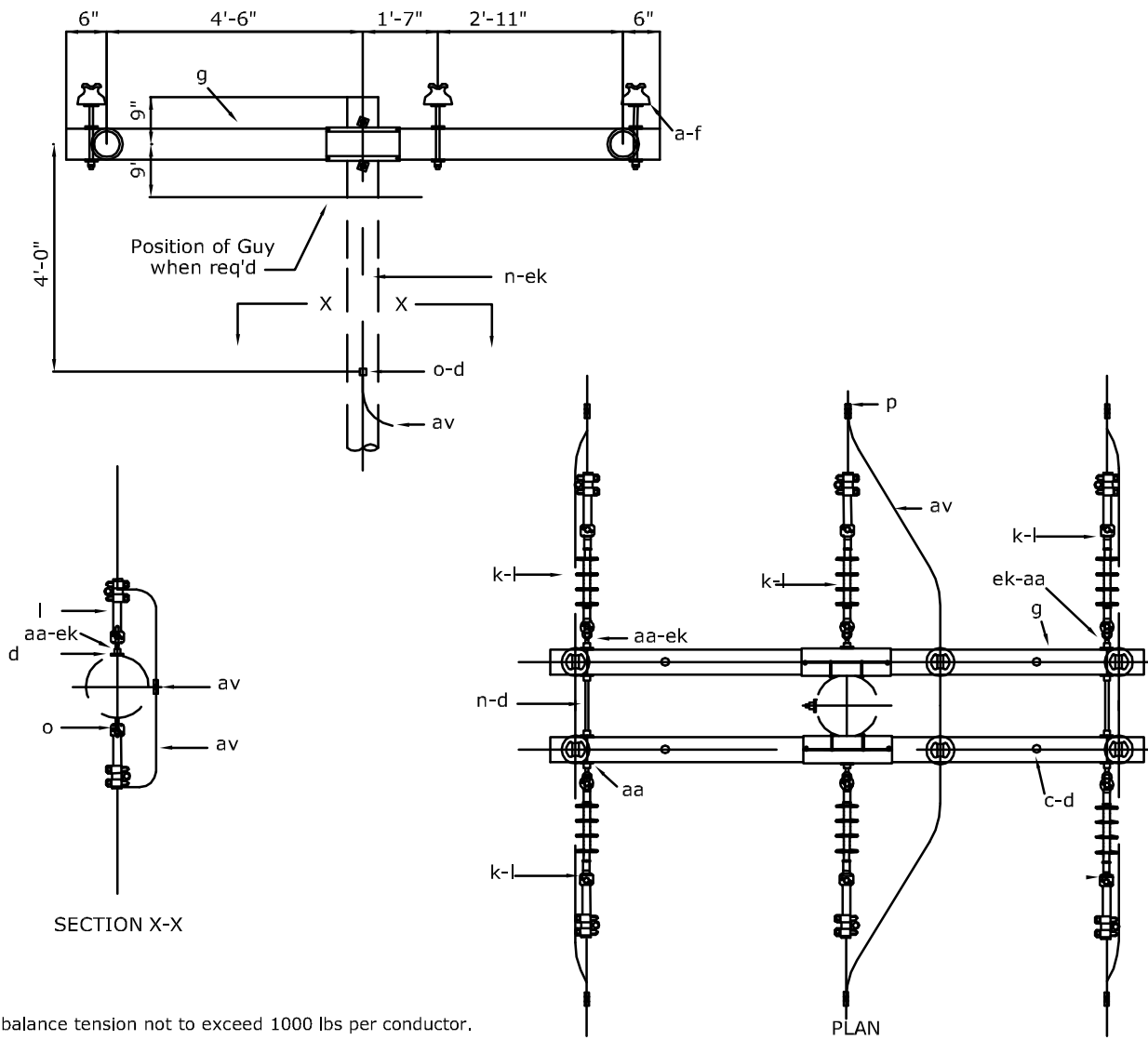
**NOTES:**

- 1- Maximum unbalance tension not to exceed 1000 lbs per conductor.
- 2- Install on poles with conductor larger than 1/0 (ACSR or Str. Cu.).

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
a	2857402299	6	Insulator, Pin Type
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	16	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	6	Steel Crossarm Pin
g	2857802042	2	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	6	Insulator, Suspension, Polymer
l	2857402142	8	Clamp, Deadend, Large
n	28574020XD	6	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	8	Connector, Sized As Required
aa	2857402310	4	Nut, Oval Eye, 5/8"
ah	2801602124	30	Tie Wire, #4 Al (Feet)
av	NA	4	Jumper, Sized As Required
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	19	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p><b>12.5/7.2kV CROSSARM DOUBLE DEADEND LARGE CONDUCTORS</b></p>	<p>DATE: 04-11-07</p> <p>STANDARD NUMBER</p> <p><b>C8L</b></p>
--	---	--



NOTES:

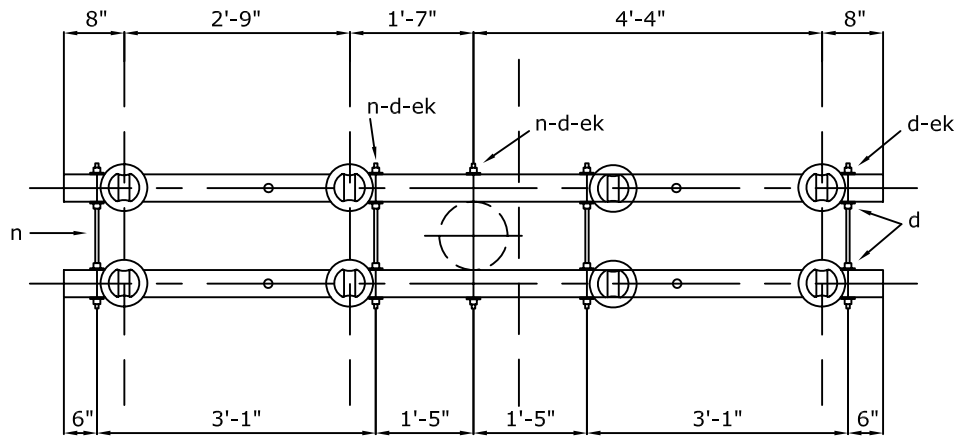
- 1- Maximum unbalance tension not to exceed 1000 lbs per conductor.
- 2- Install on poles with conductor larger than 1/0 (ACSR or Str. Cu.).

MATERIAL LIST

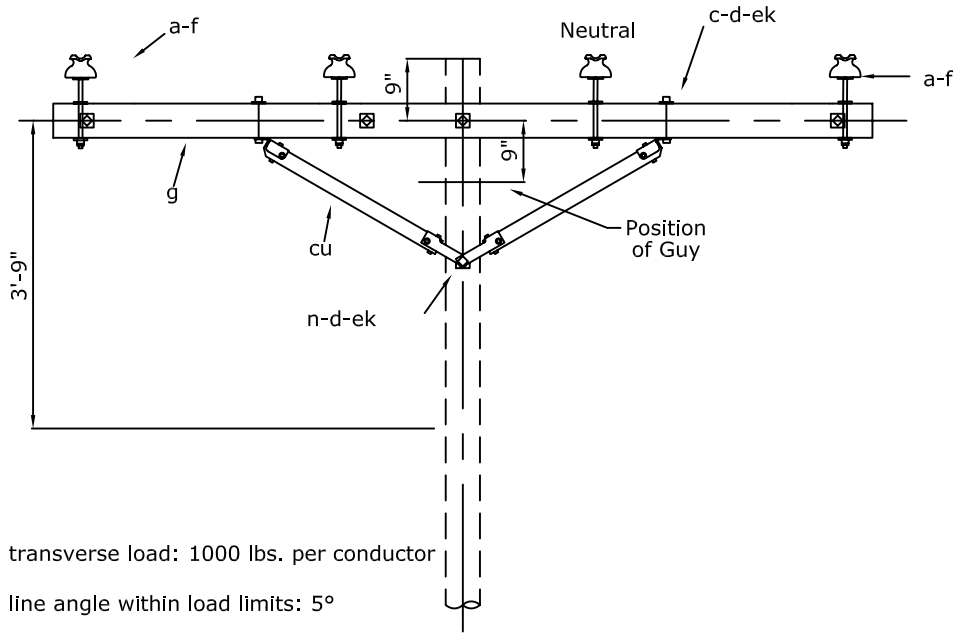
Item	COA Commodity Code	Qty.	Description
a	2857402299	6	Insulator, Pin Type
d	2857402322	10	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	6	Steel Crossarm Pin
g	2857802042	2	Crossarm, 10', Fiberglass Deadend Arm, Braceless, 2 Position.
k	2857402300	6	Insulator, Suspension, Polymer
l	2857402142	8	Clamp, Deadend, Large
n	28574020XD	6	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	8	Connector, Sized As Required
aa	2857402310	6	Nut, Oval Eye, 5/8"
ah	2801602124	30	Tie Wire, #4 Al (Feet)
av	NA	4	Jumper, Sized As Required
ek	285740XXXX	8	Locknut, 5/8"
		2	Locknuts, 3/4".
		19	Bolt, Double Arming 3/4" x Required Length.

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV CROSSARM DOUBLE DEADEND LARGE CONDUCTORS</p>	<p>DATE: 04-11-07</p>
		<p>STANDARD NUMBER  C8L-FG</p>





PLAN



NOTES:

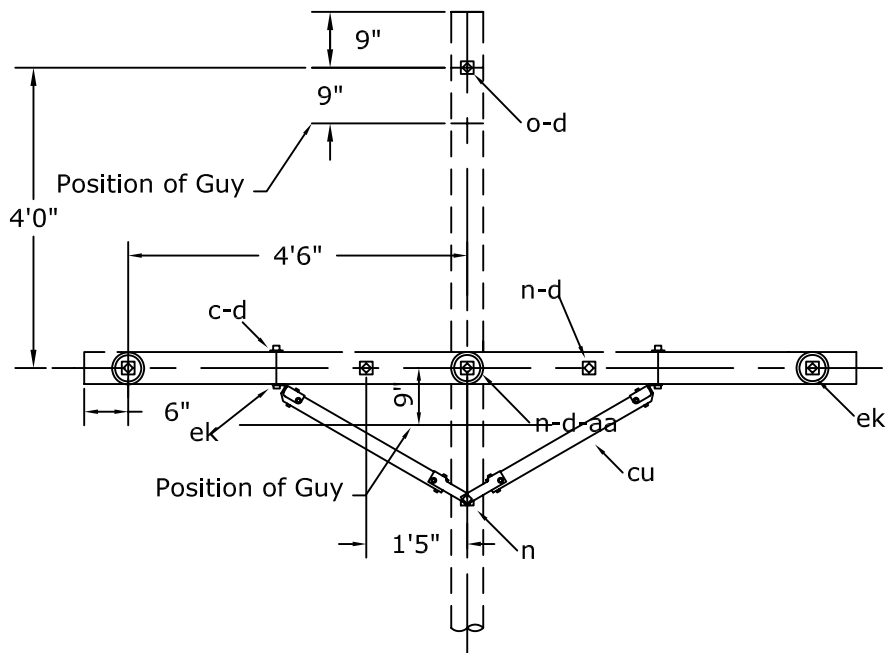
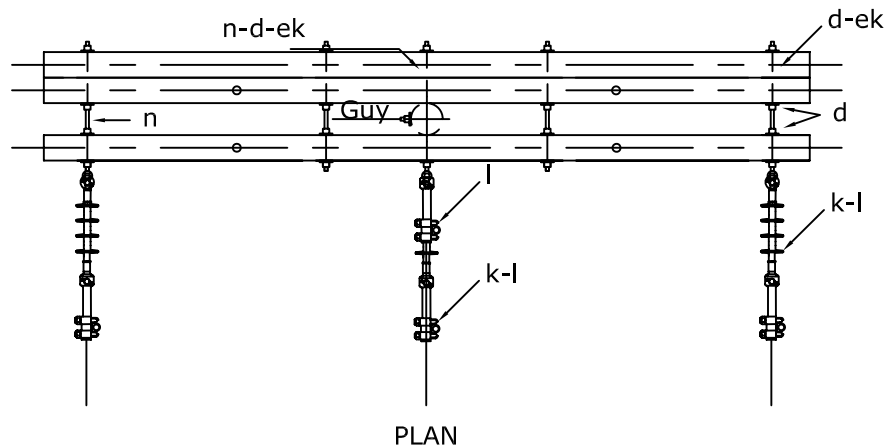
1- Maximum transverse load: 1000 lbs. per conductor

2- Maximum line angle within load limits: 5°

MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	8	Insulator, Pin Type
c	28574020XX	4	Bolt, Machine, 1/2" x Required Length
c	28574020XX	2	Bolt, Machine, 5/8" x Required Length
d	285740232X	4	Washer, 1 3/8" Round With 9/16" Hole
d	285740232X	19	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	8	Steel Crossarm Pin
g	2857802042	2	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
n	28574020XX	5	Bolt, Double Arming, 5/8" x Required Length
ah	2801602124	40	Tie Wire, #4 Al (Feet)
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	25	Locknut, 5/8"

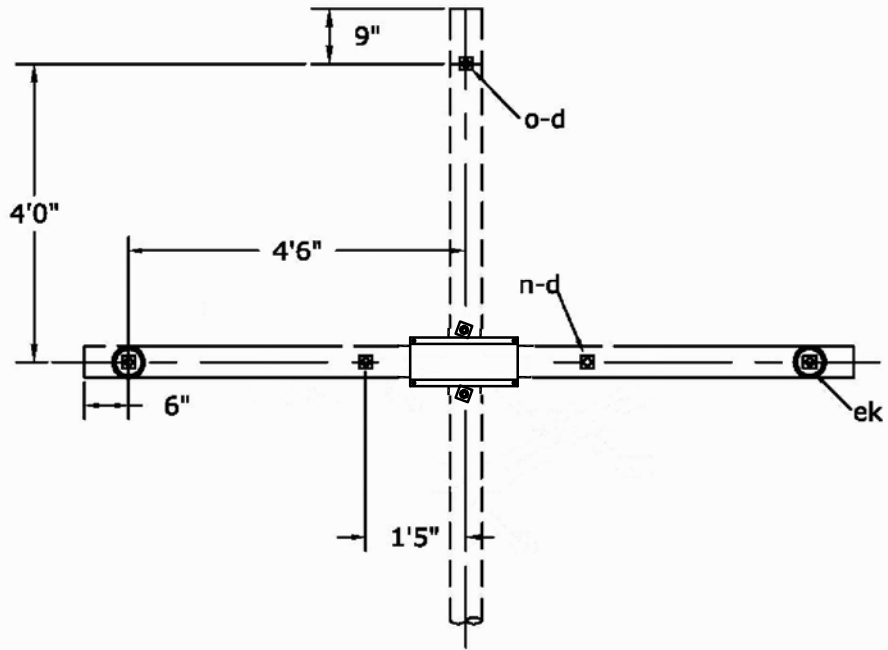
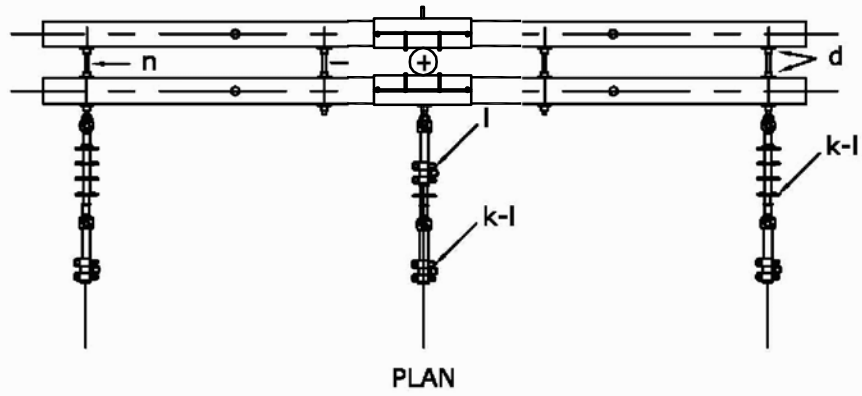
<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV CROSSARM TANGENT STRUCTURE DOUBLE LINE ARM - NEUTRAL ON ARM</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p>C9</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	11	Washer, 2 1/4" Square With 13/16" Hole
g	2857802042	3	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	3	Insulator, Suspension, Polymer
l	2857402142	4	Clamp, Deadend, Large
n	28574020XD	5	Bolt, Double Arming, 5/8" x Required Length
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
aa	2857402310	4	Nut, Oval Eye, 5/8"
cu	2857802043	4	Brace, 60" Span (Wood)
ek	285740XXXX	18	Locknut, 5/8"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV SHIELDED CROSSARM SINGLE DEADEND LARGE CONDUCTORS</p>	DATE: 04-16-07
		<p>STANDARD NUMBER</p> <p>CS7L</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	6	Insulator, Pin Type
d	2857402322	10	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	6	Steel Crossarm Pin
g	2857802042	2	Crossarm, 10', Fiberglass Deadend Arm, Braceless, 2 Position.
k	2857402300	3	Insulator, Suspension, Polymer
l	2857402142	4	Clamp, Deadend, Large
n	28574020XD	6	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	8	Connector, Sized As Required
aa	2857402310	6	Nut, Oval Eye, 5/8"
ah	2801602124	30	Tie Wire, #4 Al (Feet)
av	NA	4	Jumper, Sized As Required
ek	285740XXXX	8	Locknut, 5/8"
		2	Locknuts, 3/4".
		19	Bolt, Double Arming 3/4" x Required Length.

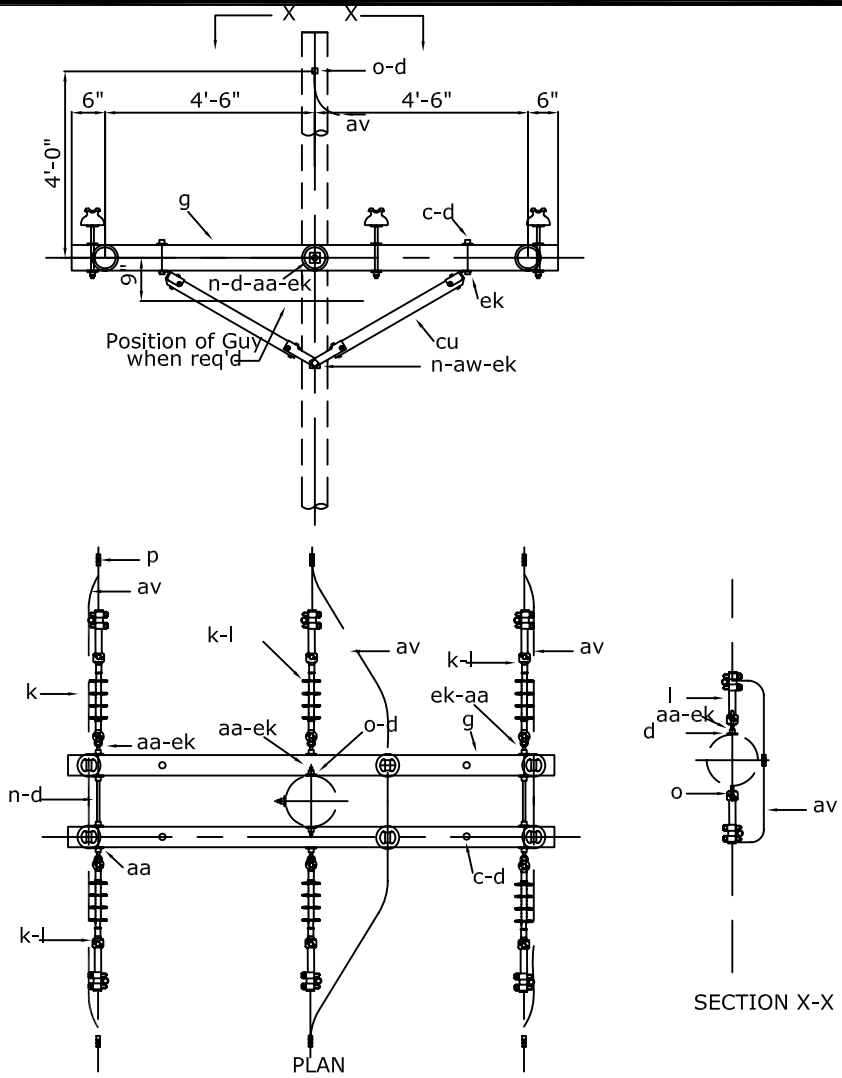
**City of Alexandria**  
*Electric Distribution*

**12.5/7.2KV SHIELDED CROSSARM SINGLE DEADEND  
LARGE CONDUCTORS**

DATE: 04-16-07  
STANDARD NUMBER  
**CS7L-FG**

**NOTES:**

- 1- Maximum unbalance tension not to exceed 1000 lbs per conductor.
- 2- Install on poles with conductor larger than 1/0 (ACSR or Str. Cu.).

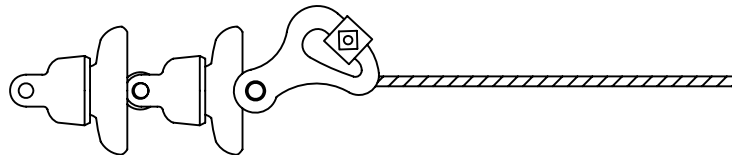


**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
a	2857402299	6	Insulator, Pin Type
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	16	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	6	Steel Crossarm Pin
g	2857802042	2	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	6	Insulator, Suspension, Polymer
l	2857402142	8	Clamp, Deadend, Large
n	28574020XD	6	Bolt, Double Arming, 5/8" x Required Length
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
p	28574022XX	8	Connector, Sized As Required
aa	2857402310	4	Nut, Oval Eye, 5/8"
ah	2801602124	30	Tie Wire, #4 Al (Feet)
av	NA	4	Jumper, Sized As Required
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	19	Locknut, 5/8"

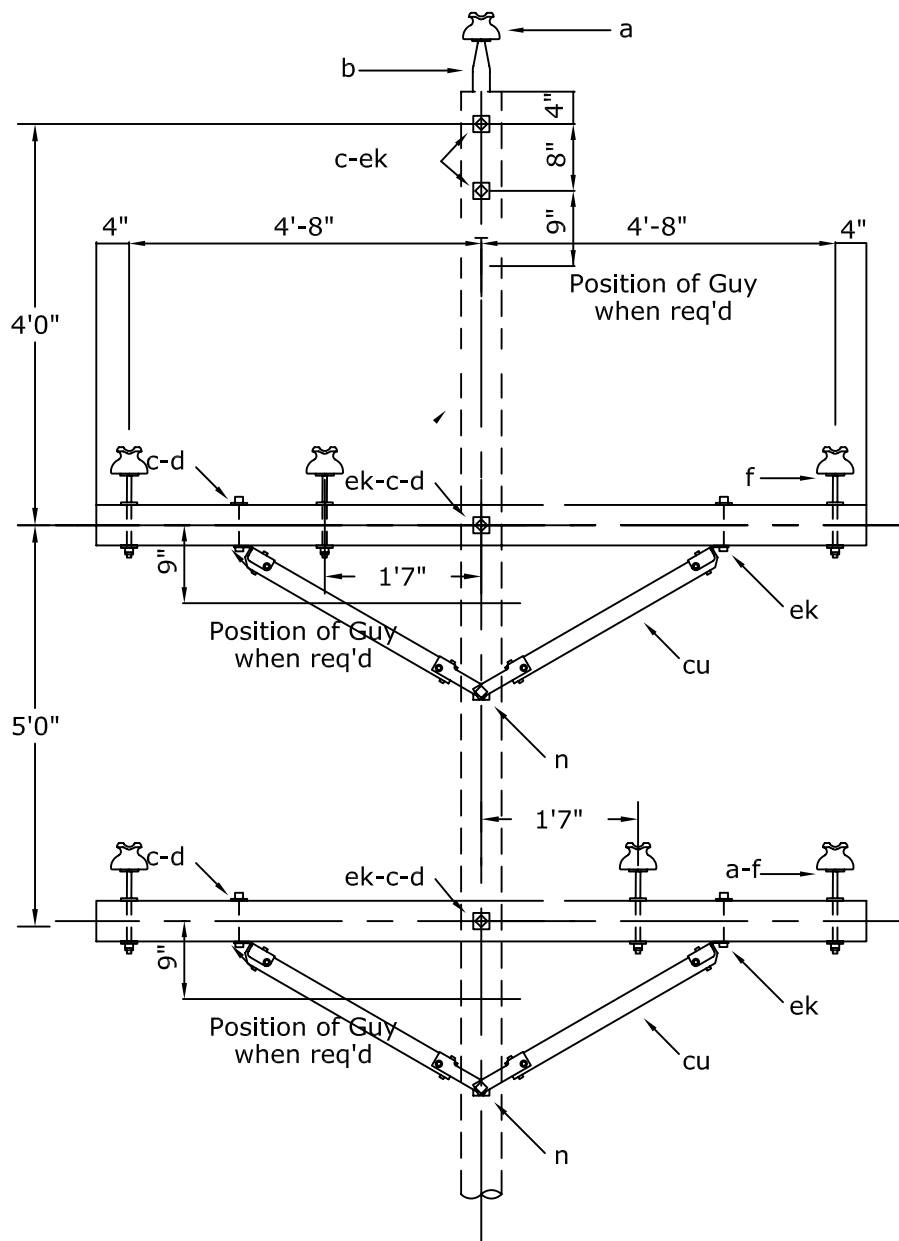
<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>12.5/7.2kV SHIELDED CROSSARM DOUBLE DEADEND LARGE CONDUCTORS</p>	<p>DATE: 04-16-07</p>
		<p>STANDARD NUMBER</p> <p><b>CS8L</b></p>

# LABOR ONLY UNIT



NOTE: Unit includes all cost of relocating existing conductor attachment. Does not include extending existing jumpers or installing temporary jumpers. Specify necessary jumper relocations with DRJMPR unit.

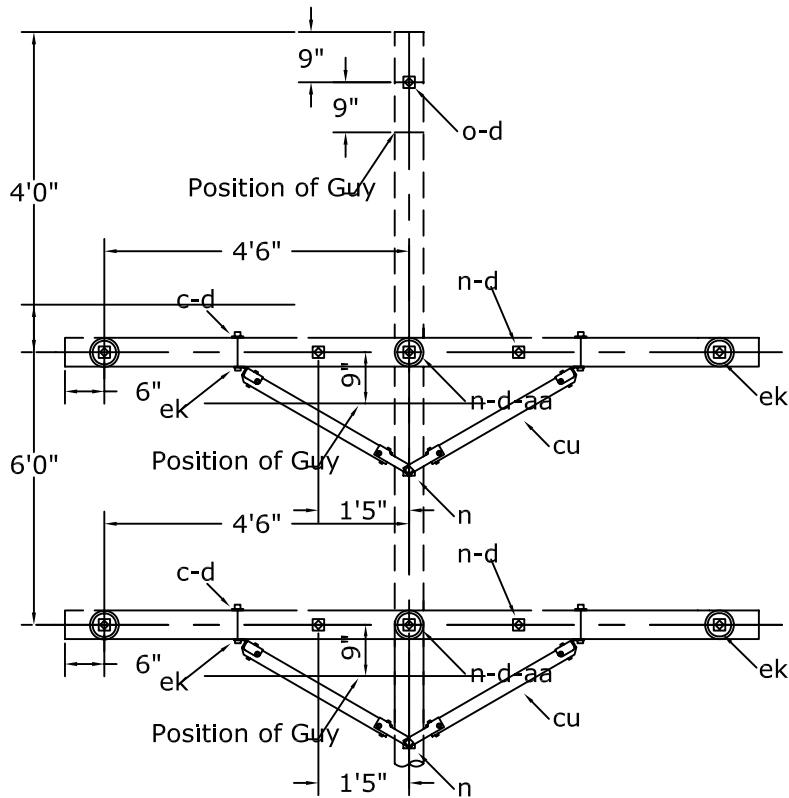
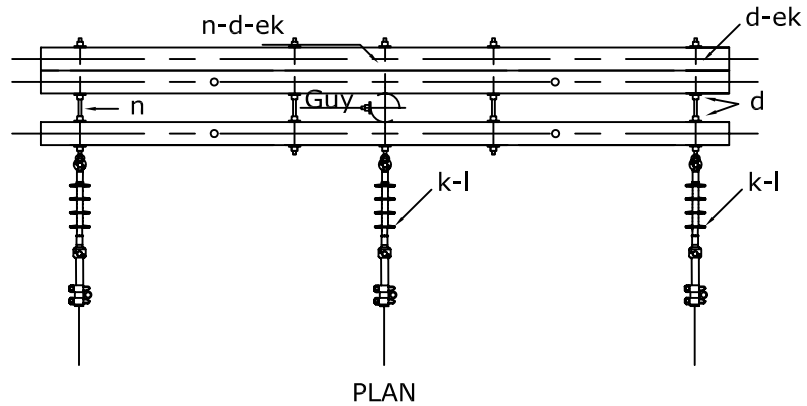
<p><i>City of Alexandria</i> <i>Electric Distribution</i></p>	<p>RELOCATE OR SPREAD ENERGIZED CONDUCTOR DEADEND - 2.4 OR 7.2kV</p>	<p>DATE: 12-21-04</p> <p>STANDARD NUMBER</p> <p>D2.4DH D7.2DH</p>
---	--	---



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	7	Insulator, Pin Type
b	2857402314	1	Pin, Pole Top, 20"
c	2857402008	4	Bolt, Machine, 1/2" x Required Length
c	28574020XM	4	Bolt, Machine, 5/8" x Required Length
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	14	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	6	Steel Crossarm Pin
g	2857802042	2	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
ah	2801602124	50	Tie Wire, #4 Al (Feet)
cu	2857802043	4	Brace, 60" Span (Wood)
ek	285740XXXX	12	Locknut, 5/8"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV SHIELDED DOUBLE CIRCUIT CROSSARM TANGENT STRUCTURE</p>	DATE: 04-17-07
		<p>STANDARD NUMBER</p> <p>DC-CS1</p>



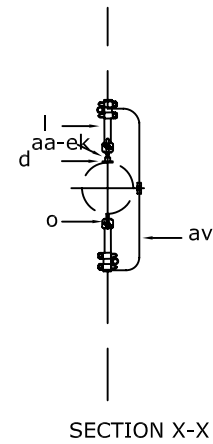
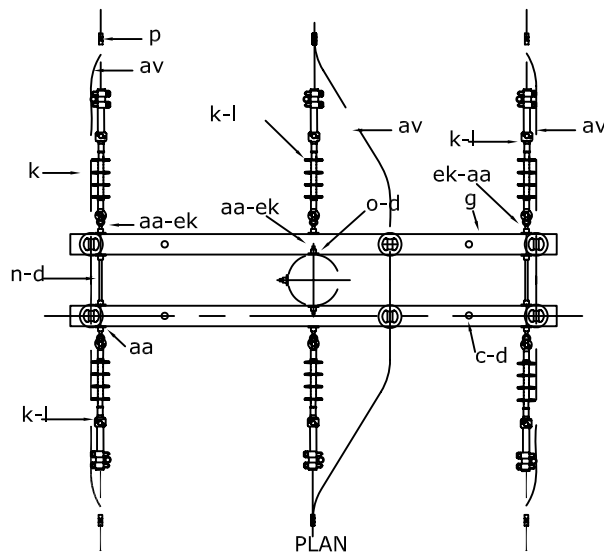
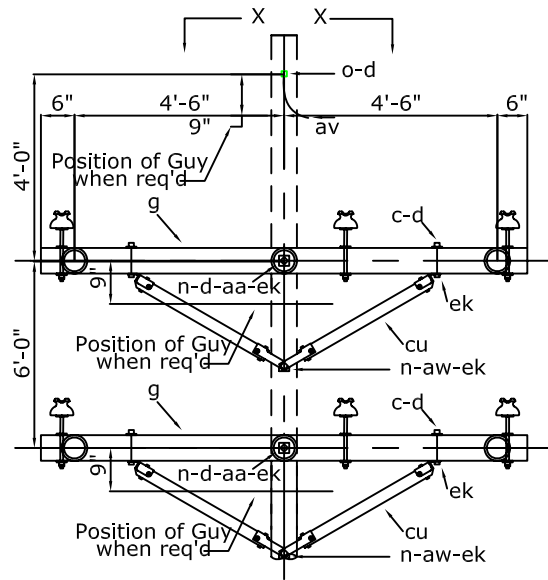
MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
c	2857402008	8	Bolt, Machine, 1/2" x Required Length
d	2857402321	8	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	22	Washer, 2 1/4" Square With 13/16" Hole
g	2857802042	6	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	6	Insulator, Suspension, Polymer
l	2857402142	8	Clamp, Deadend, Large
n	28574020XD	8	Bolt, Double Arming, 5/8" x Required Length
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
aa	2857402310	6	Nut, Oval Eye, 5/8"
cu	2857802043	8	Brace, 60" Span (Wood)
ek	285740XXXX	19	Locknut, 5/8"

City of  
Alexandria  
  
Electric Distribution

12.5/7.2kV SHIELDED DOUBLE CIRCUIT  
CROSSARM SINGLE DEADEND - LARGE CONDUCTORS

DATE: 04-17-07  
STANDARD NUMBER  
DC-CS7

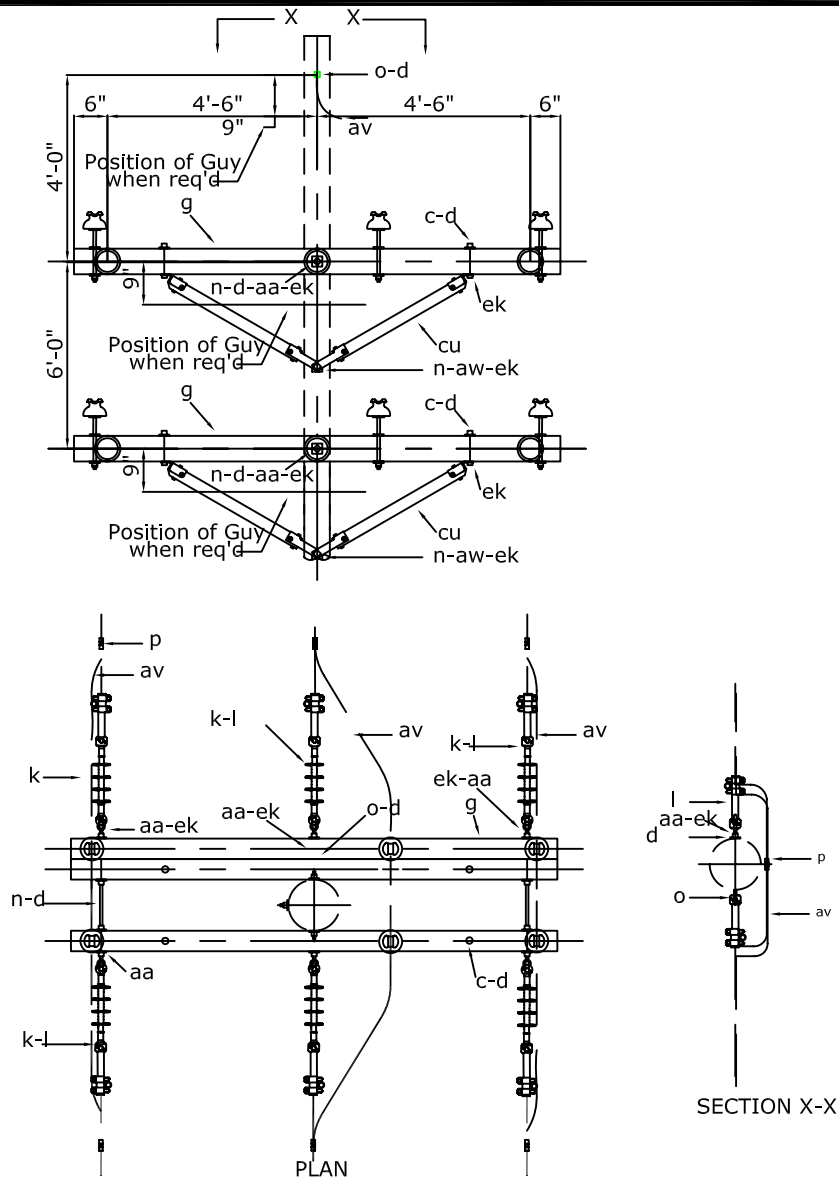


MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	12	Insulator, Pin Type
c	2857402008	8	Bolt, Machine, 1/2" x Required Length
d	2857402321	8	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	32	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	12	Steel Crossarm Pin
g	2857802042	4	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	12	Insulator, Suspension, Polymer
l	2857402142	16	Clamp, Deadend, Large
n	28574020XD	12	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	16	Connector, Sized As Required
aa	2857402310	8	Nut, Oval Eye, 5/8"
ah	2801602124	60	Tie Wire, #4 Al (Feet)
av	NA	7	Jumper, Sized As Required
cu	2857802043	4	Brace, 60" Span (Wood)
ek	285740XXXX	32	Locknut, 5/8"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV SHIELDED DOUBLE CIRCUIT CROSSARM DOUBLE DEADEND</p>	DATE: 04-17-07
		<p>STANDARD NUMBER</p> <p>DC-CS8</p>





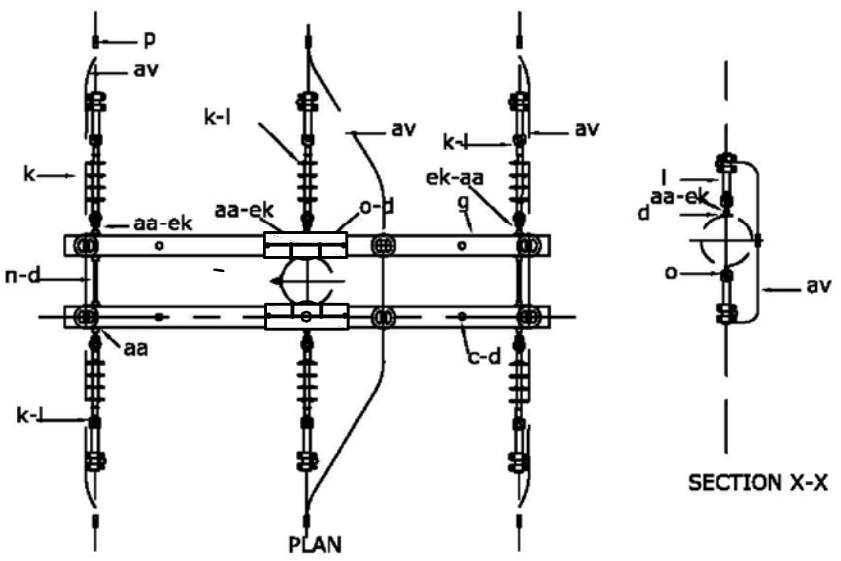
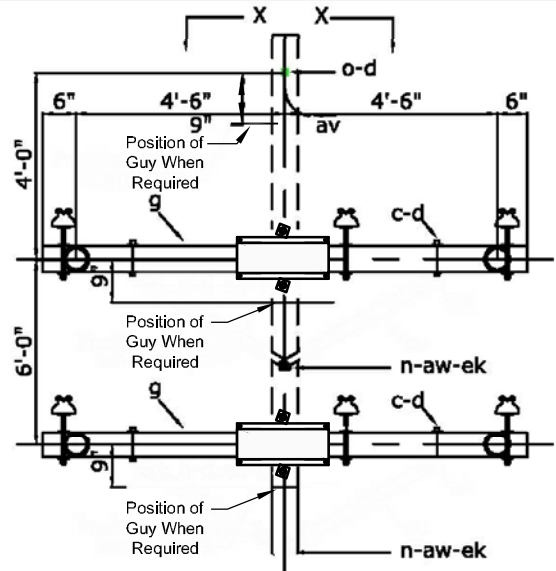
MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	12	Insulator, Pin Type
c	2857402008	8	Bolt, Machine, 1/2" x Required Length
d	2857402321	8	Washer, 1 3/8" Round With 9/16" Hole
d	2857402322	32	Washer, 2 1/4" Square With 13/16" Hole
f	2857802046	12	Steel Crossarm Pin
g	2857802042	6	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
k	2857402300	12	Insulator, Suspension, Polymer
l	2857402142	16	Clamp, Deadend, Large
n	28574020XD	12	Bolt, Double Arming, 5/8" x Required Length
p	28574022XX	16	Connector, Sized As Required
aa	2857402310	8	Nut, Oval Eye, 5/8"
ah	2801602124	60	Tie Wire, #4 Al (Feet)
av	NA	7	Jumper, Sized As Required
cu	2857802043	4	Brace, 60" Span (Wood)
ek	285740XXXX	32	Locknut, 5/8"

City of  
Alexandria  
  
Electric Distribution

12.5/7.2kV SHIELDED DOUBLE CIRCUIT  
CROSSARM DOUBLE DEADEND - UNBALANCED LOADS

DATE: 04-17-07  
STANDARD NUMBER  
DC-CS8-2



MATERIAL LIST

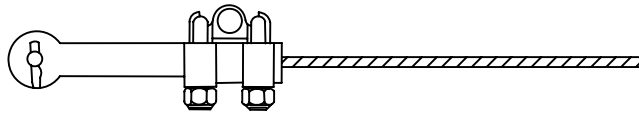
Item	COA Commodity Code	Qty.	Description
a	2857402299	12	Insulator Pin Type.
d	2857402322	12	Washer, 2-1/4" Square With 13/16" Hole.
f	2857402046	12	Steel Crossarm Pin.
g		4	Crossarm, Fiberglass Deadend Arm, Braceless, 2 Position.
k	2857402300	12	Insulator, Suspension, Polymer.
l	2857402142	16	Clamp, Deadend, Large.
n	28574020XD	4	Bolt, Double Arming, 5/8" x Required Length.
p	28574022XX	16	Connector, Sized As Required.
aa	2857402310	8	Nut, Oval Eye, 5/8".
ah	2801602124	60	Tie Wire, #4 AL (Feet).
av	NA	7	Jumper, Sized As Required.
ek	285740XXXX	32	Locknut, 5/8".

**City of Alexandria**  
*Electric Distribution*

**12.5/7.2kV SHIELDED DOUBLE CIRCUIT  
CROSSARM DOUBLE DEADEND**

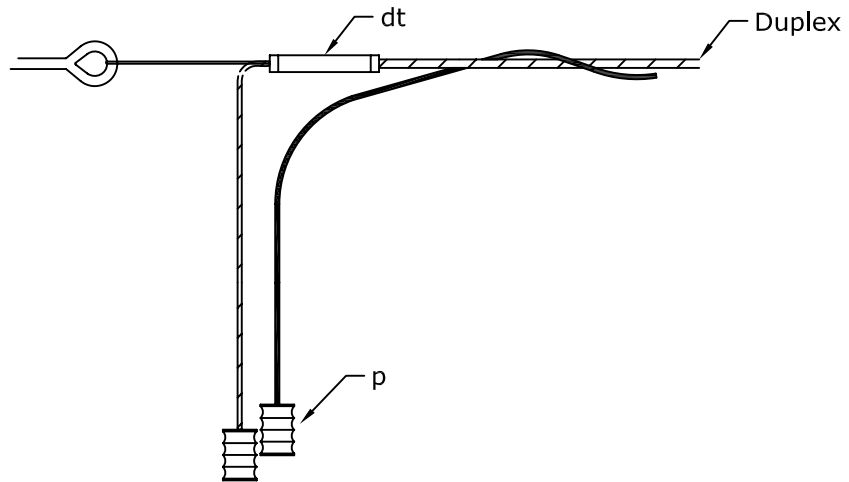
DATE: 04-17-07  
STANDARD NUMBER  
**DC-CS8-FG**

# LABOR ONLY UNIT

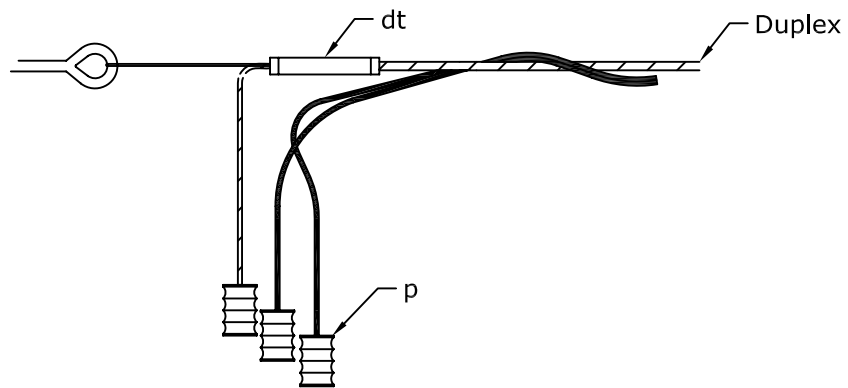


<p><i>City of Alexandria</i> <i>Electric Distribution</i></p>	<p>RELOCATE OR SPREAD NEUTRAL OR SHIELD WIRE DEADEND</p>	<p>DATE: 12-21-04 STANDARD NUMBER DRS6H</p>
---	--	---

# LABOR ONLY UNIT



# LABOR ONLY UNIT



City of  
Alexandria

Electric Distribution

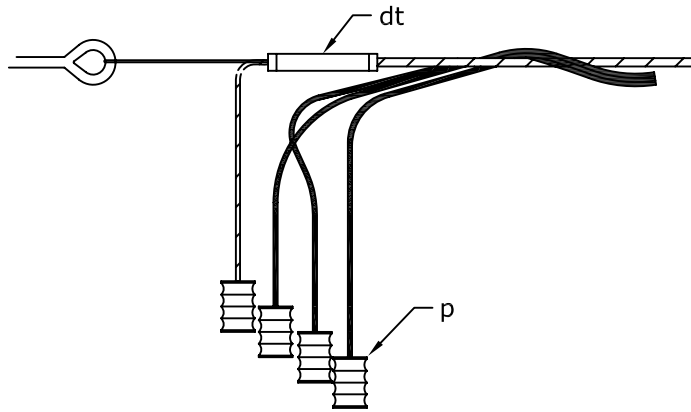
RELOCATE EXISTING DUPLEX OR TRIPLEX SERVICE

DATE: 12-21-04

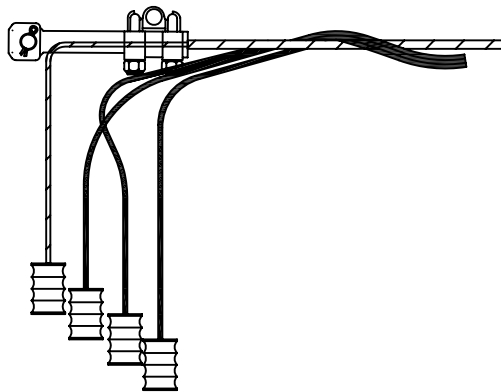
STANDARD  
NUMBER

DRS8H

# LABOR ONLY UNIT



# LABOR ONLY UNIT



City of  
Alexandria

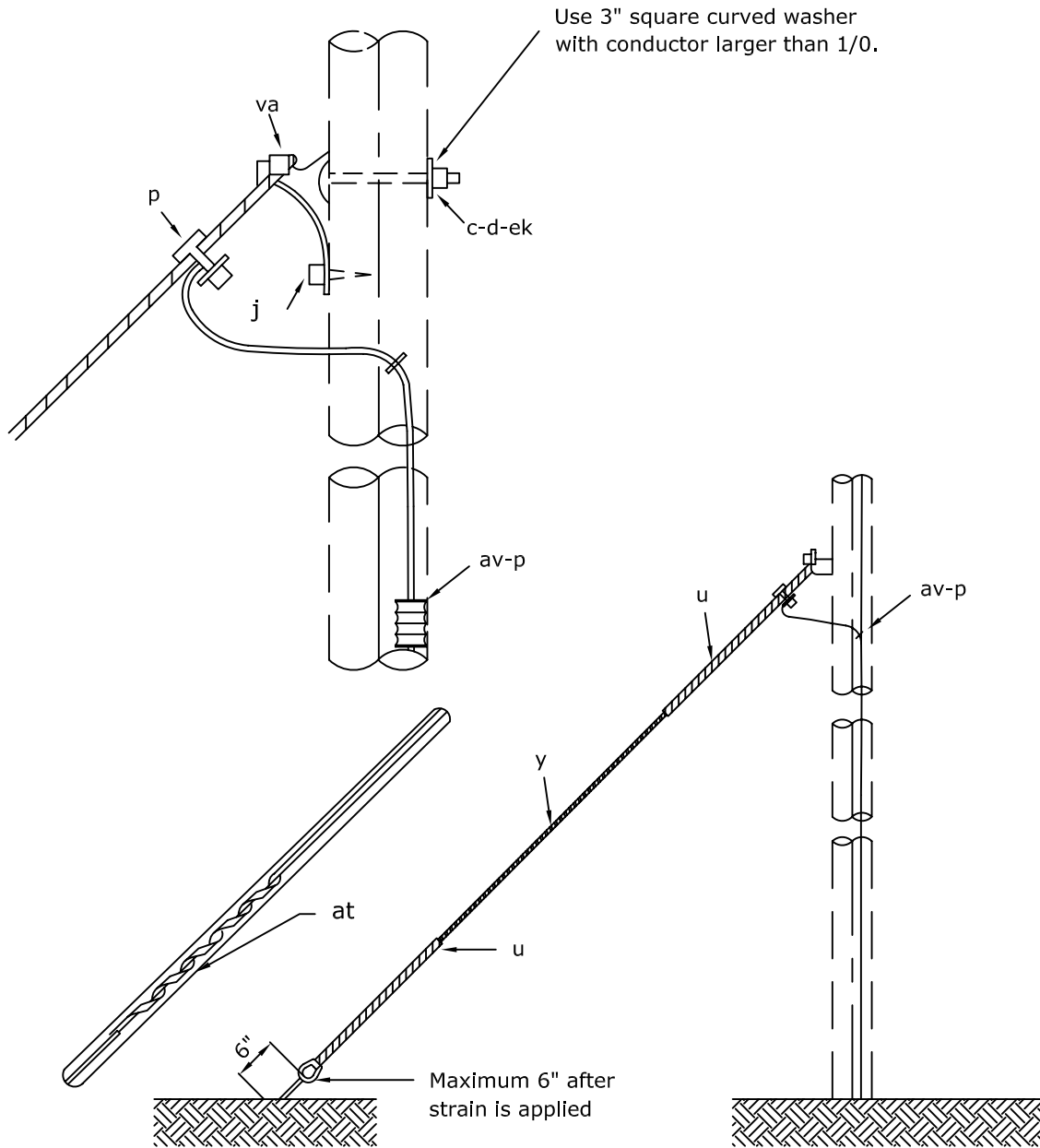
Electric Distribution

RELOCATE EXISTING QUADRAPLEX SERVICE

DATE: 12-21-04

STANDARD  
NUMBER

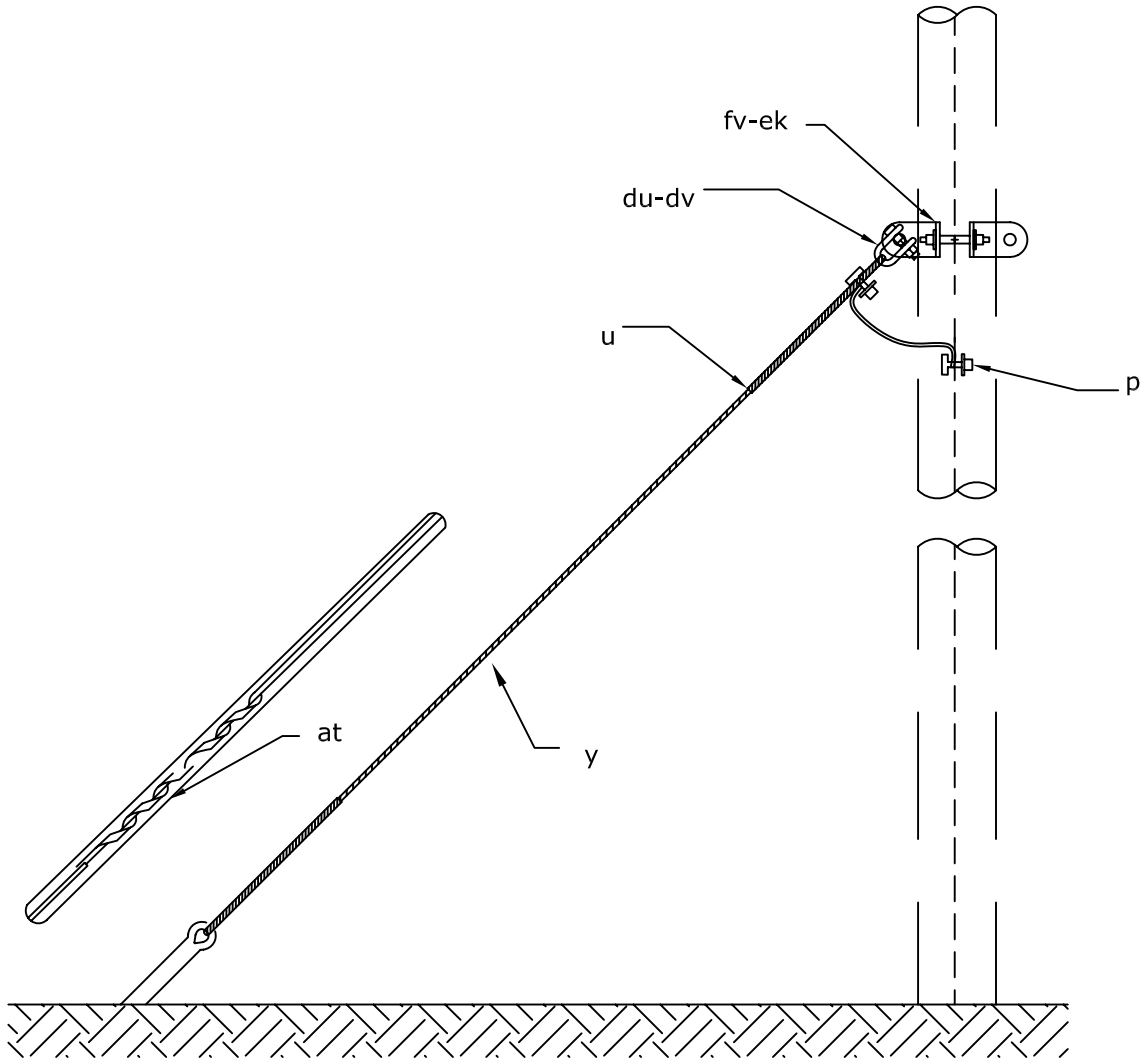
DRS9H



**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402322	1	Washer, 2 1/4" or 3" Square With 13/16" Hole
j	2857402320	1	Lag Screw, 1/2" x 4"
p	28574022XX	2	Connector, Compression, Sized as Required
u	2857402213	2	Deadend for Galvanized Steel Strand, 3/8"
y	2804002116	60	Galvanized Steel Strand, 3/8" EHS
at	2859902328	1	Guy Guard, 8', Yellow
av	NA	1	Jumper, #6 Cu
ek	285740XXXX	1	Locknut, 5/8"
va	2857402471	1	Guy Attachment

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>SINGLE DOWN GUY THROUGH BOLT TYPE</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p><b>E1-2</b></p>

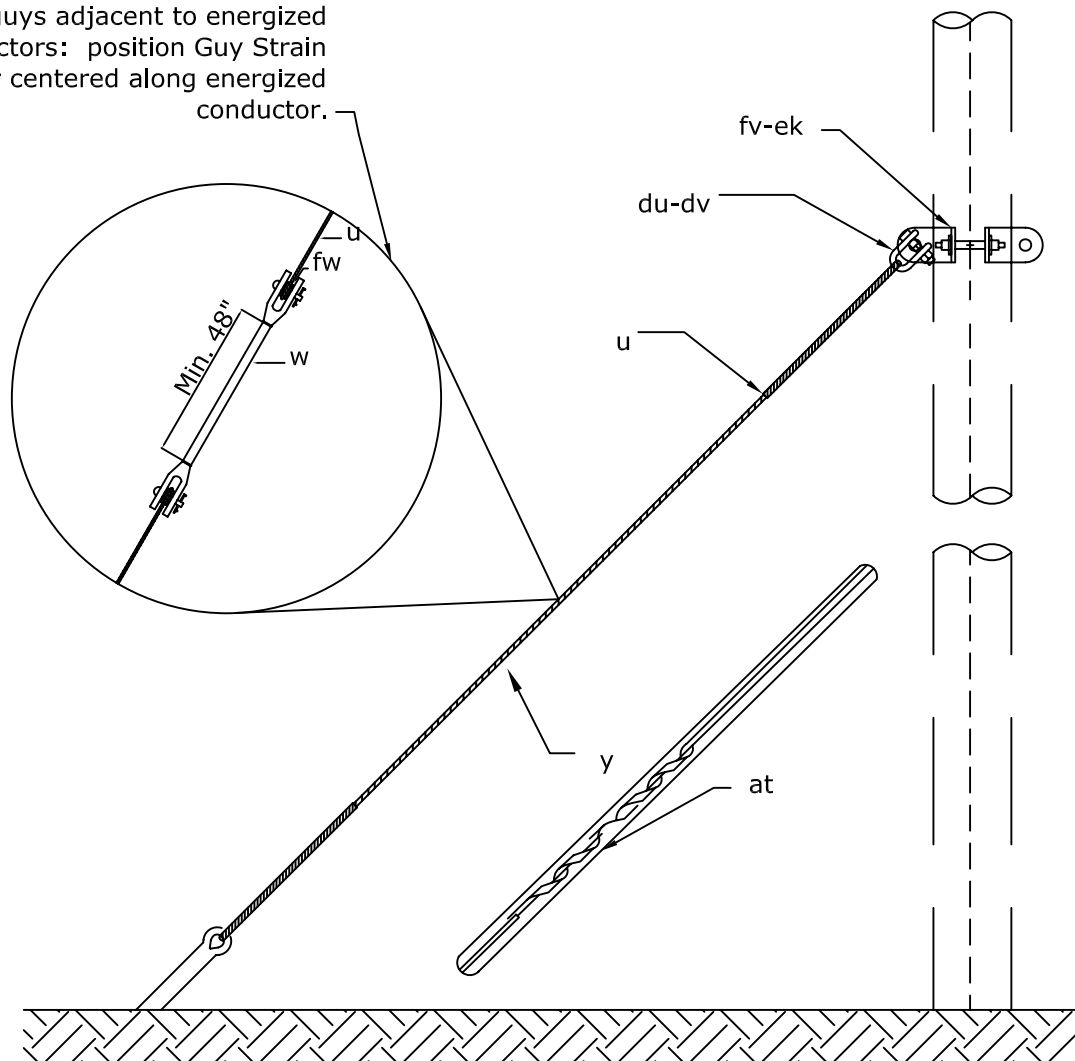


MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	SO-TH-PB	2	Connector, Bolted, Sized As Required
u	SO-TH-U	2	Deadend for Galvanized Steel Strand, 1/2"
y	SO-TH-Y	75	Galvanized Steel Strand, 3/8" EHS
at	2859902328	1	Guy Guard, 8', Yellow
av	NA	1	Bonding Jumper, #4 Cu
du	SO-TH-DU	2	Connecting Link, 1/4" x 3" x 9 1/2" With 15/16" and 1 1/4" Chamfered Holes
dv	2857802525	1	Clevis, Thimble
ek	SO-TH-EK78	8	Locknut, 7/8"
fv	SO-TH-FV	1	Pole Band, 1/4" x 4" Steel, 4-Way 90° With 7/8" Bolts and Studs

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>SINGLE DOWN GUY POLE BAND TYPE</p>	DATE: 04-19-07
		<p>STANDARD NUMBER</p> <p>E1-3</p>

For guys adjacent to energized conductors: position Guy Strain Insulator centered along energized conductor.



### MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
u	SO-TH-U	4	Deadend for Galvanized Steel Strand, 1/2"
y	SO-TH-Y	75	Galvanized Steel Strand, 3/8" EHS
at	2859902328	1	Guy Guard, 8', Yellow
w	SO-TH-W	1	Guy Strain Insulator, 54", 30,000# Rating
du	SO-TH-DU	2	Connecting Link, 1/4" x 3" x 9 1/2" With 15/16" and 1 1/4" Chamfered Holes
dv	2857802525	1	Clevis, Thimble
ek	SO-TH-EK78	8	Locknut, 7/8"
fv	SO-TH-FV	1	Pole Band, 1/4" x 4" Steel, 4-Way 90° With 7/8" Bolts and Studs

City of  
Alexandria

Electric Distribution

INSULATED SINGLE DOWN GUY  
POLE BAND TYPE

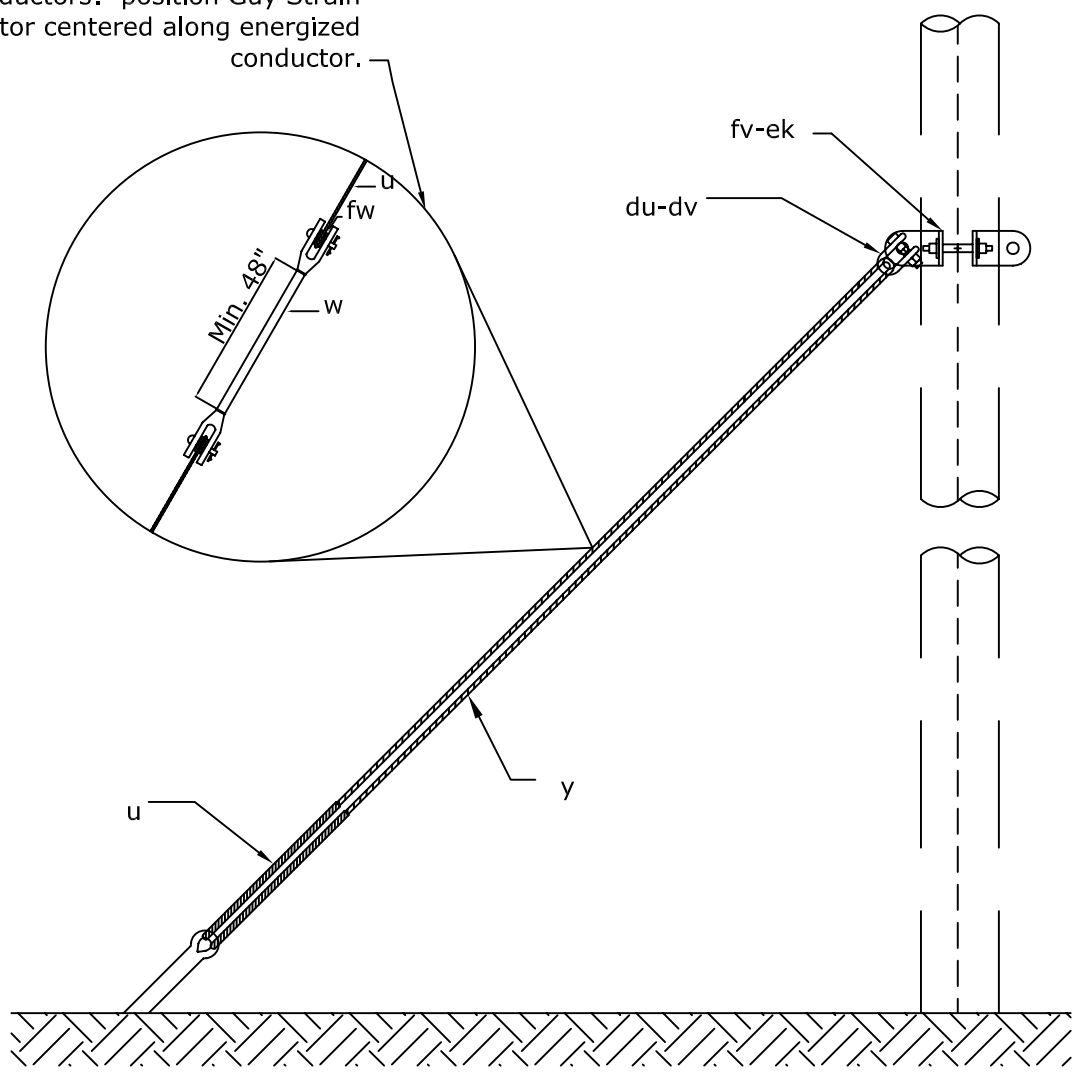
DATE: 04-19-07

STANDARD  
NUMBER

E1-3S



For guys adjacent to energized conductors: position Guy Strain Insulator centered along energized conductor.

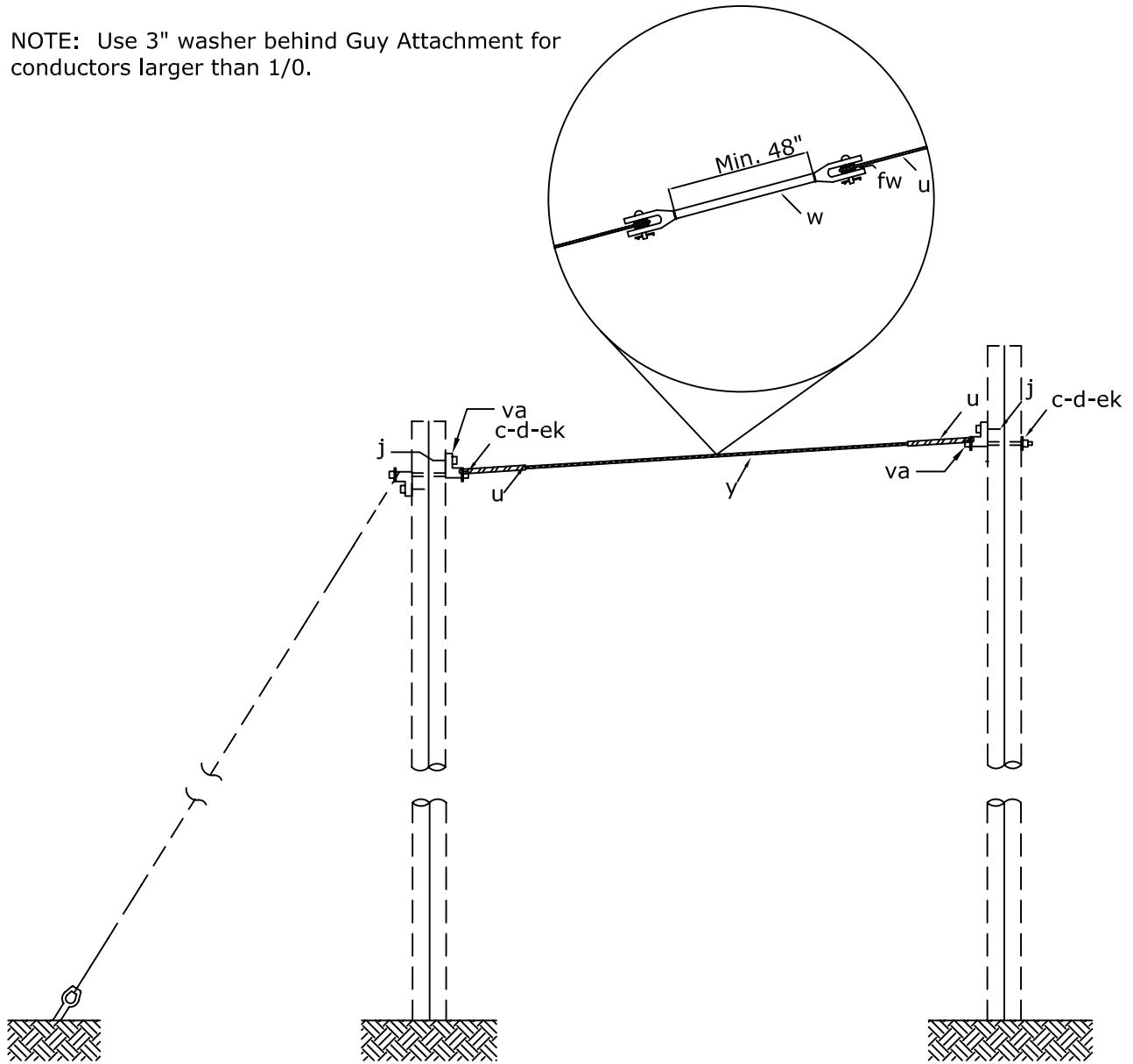


MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
u	SO-TH-U	6	Deadend for Galvanized Steel Strand, 1/2"
y	SO-TH-Y	150	Galvanized Steel Strand, 3/8" EHS
at	2859902328	1	Guy Guard, 8', Yellow
w	SO-TH-W	2	Guy Strain Insulator, 54", 30,000# Rating
du	SO-TH-DU	2	Connecting Link, 1/4" x 3" x 9 1/2" With 15/16" and 1 1/4" Chamfered Holes
dv	2857802525	1	Clevis, Thimble
ek	SO-TH-EK78	8	Locknut, 7/8"
fv	SO-TH-FV	1	Pole Band, 1/4" x 4" Steel, 4-Way 90° With 7/8" Bolts and Studs

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>INSULATED DOUBLE DOWN GUY POLE BAND TYPE</p>	DATE: 04-19-07
		<p>STANDARD NUMBER</p> <p>E1-5S</p>

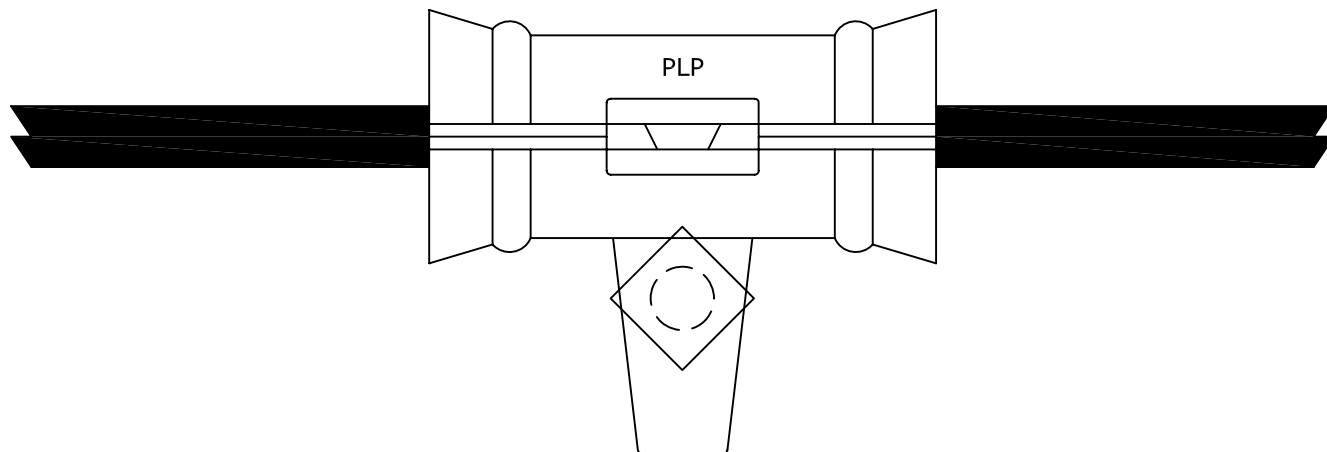
NOTE: Use 3" washer behind Guy Attachment for conductors larger than 1/0.



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
c	28574020XM	2	Bolt, Machine, 5/8" x Required Length
d	2857402322	2	Washer, 2 1/4" or 3" Square With 13/16" Hole
j	2857402320	2	Lag Screw, 1/2" x 4"
va	2857402471	2	Guy Attachment (For Guy Strain Insulator, If Required)
u	2857402213	4	Deadend for Galvanized Steel Strand, 3/8"
w	2857402492	1	Guy Strain Insulator, 54"
y	2804002116	70	Galvanized Steel Strand, 3/8" EHS
ek	285740XXXX	2	Locknut, 5/8"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>INSULATED SINGLE OVERHEAD GUY THROUGH BOLT TYPE</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>E2-2S</p>



**NOTES:**

1. Maintain minimum bending radius of cable at all times.
2. For use on tangents or angles of 20° or less.

**FO1-72 MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole
ek	285740XXXX	1	Locknut, 5/8"
fot	2857402534	1	Tangent Support, ADSS, 2-72 Fibers

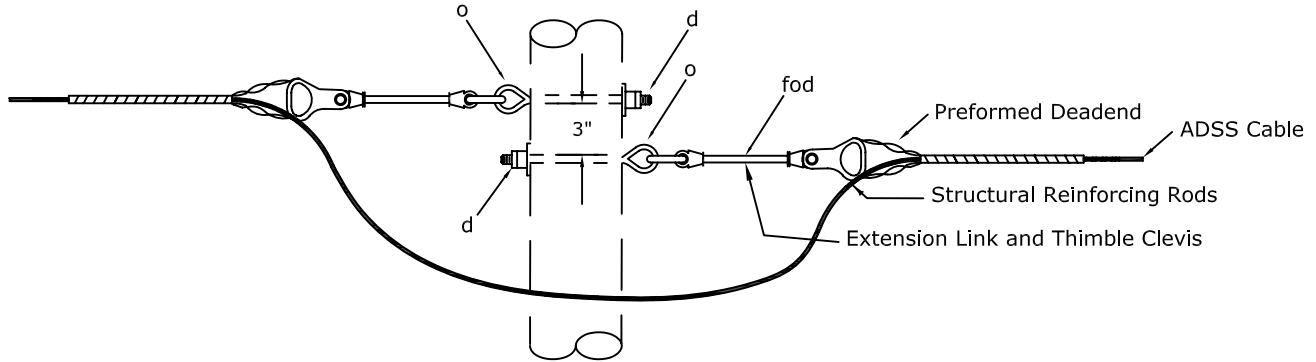
**FO1-96 MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole
ek	285740XXXX	1	Locknut, 5/8"
fot	2857402535	1	Tangent Support, ADSS, 73-96 Fibers

**FO1-144 MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole
ek	285740XXXX	1	Locknut, 5/8"
fot	2857402536	1	Tangent Support, ADSS, 97-144 Fibers

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>ADSS FIBER OPTIC CABLE TANGENT SUPPORT ASSEMBLY</p>	DATE: 12-14-07
		<p>STANDARD NUMBER</p> <p>FO1-72</p> <p>FO1-96</p> <p>FO1-144</p>



**NOTES:**

1. For in-line double-deadends, both deadend assemblies may be attached to the same eye bolt. Make second attachment using 5/8" eye nut.
2. Maintain minimum bending radius of cable at all times.
3. Structural reinforcing rods should extend through preformed deadend past the thimble clevis.
4. Ensure cable is sufficiently clear of the pole to prevent abrasion.
5. Refer to project staking sheets for amount of slack, if any, to be stored at double-deadend locations.

**FO6-72 MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
d	2857402322	2	Washer, 2 1/4" Square With 13/16" Hole
o	28574020XE	2	Bolt, Oval Eye, 5/8" x Required Length
ek	285740XXXX	2	Locknut, 5/8"
fod	2857402537	2	Dead-End, ADSS, Limited Tension, 2-72 Fibers

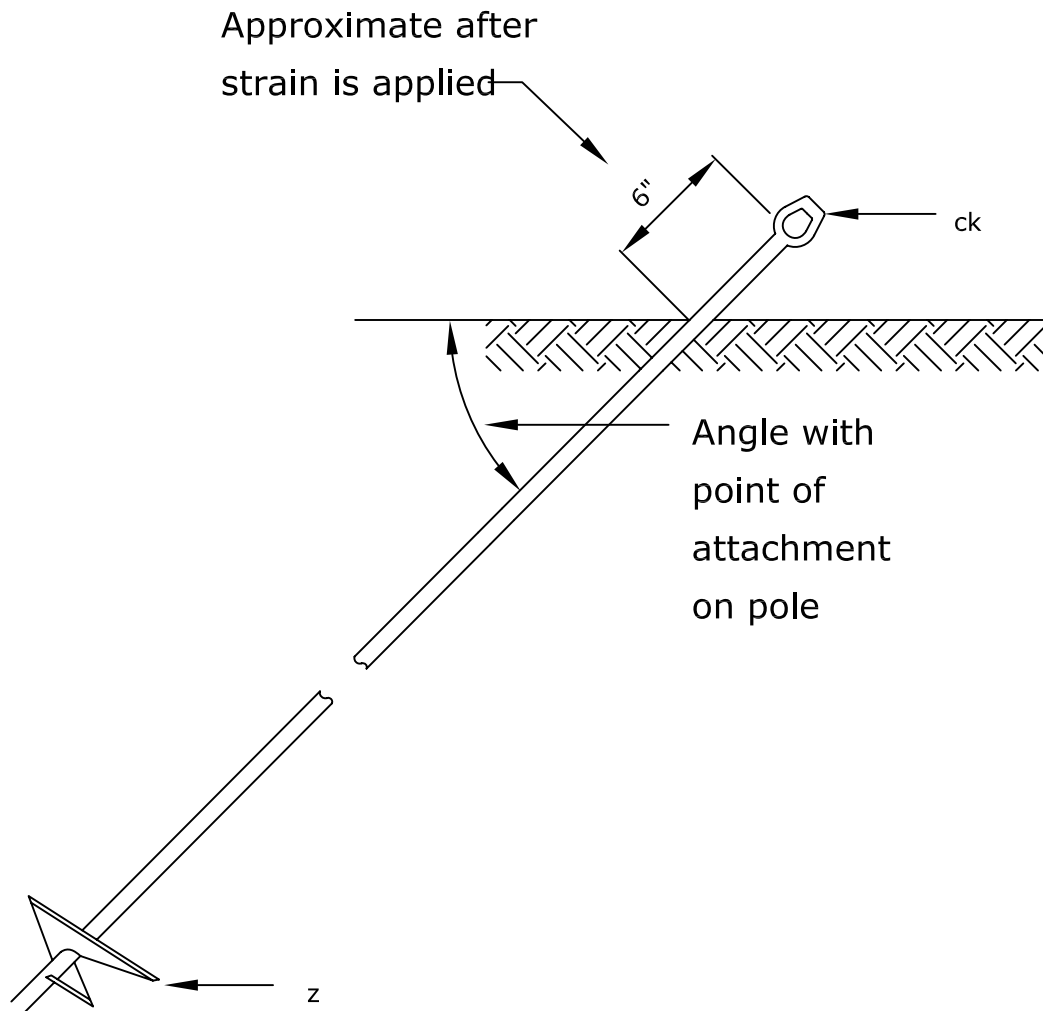
**FO6-96 MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
d	2857402322	2	Washer, 2 1/4" Square With 13/16" Hole
o	28574020XE	2	Bolt, Oval Eye, 5/8" x Required Length
ek	285740XXXX	2	Locknut, 5/8"
fod	2857402538	2	Dead-End, ADSS, Limited Tension, 73-96 Fibers

**FO6-144 MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
d	2857402322	2	Washer, 2 1/4" Square With 13/16" Hole
o	28574020XE	2	Bolt, Oval Eye, 5/8" x Required Length
ek	285740XXXX	2	Locknut, 5/8"
fod	2857402539	2	Dead-End, ADSS, Limited Tension, 97-144 Fibers

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>ADSS FIBER OPTIC CABLE LIMITED TENSION DOUBLE-DEADEND ASSEMBLY</p>	DATE: 12-14-07
		<p>STANDARD NUMBER</p> <p>FO6-72</p> <p>FO6-96</p> <p>FO6-144</p>

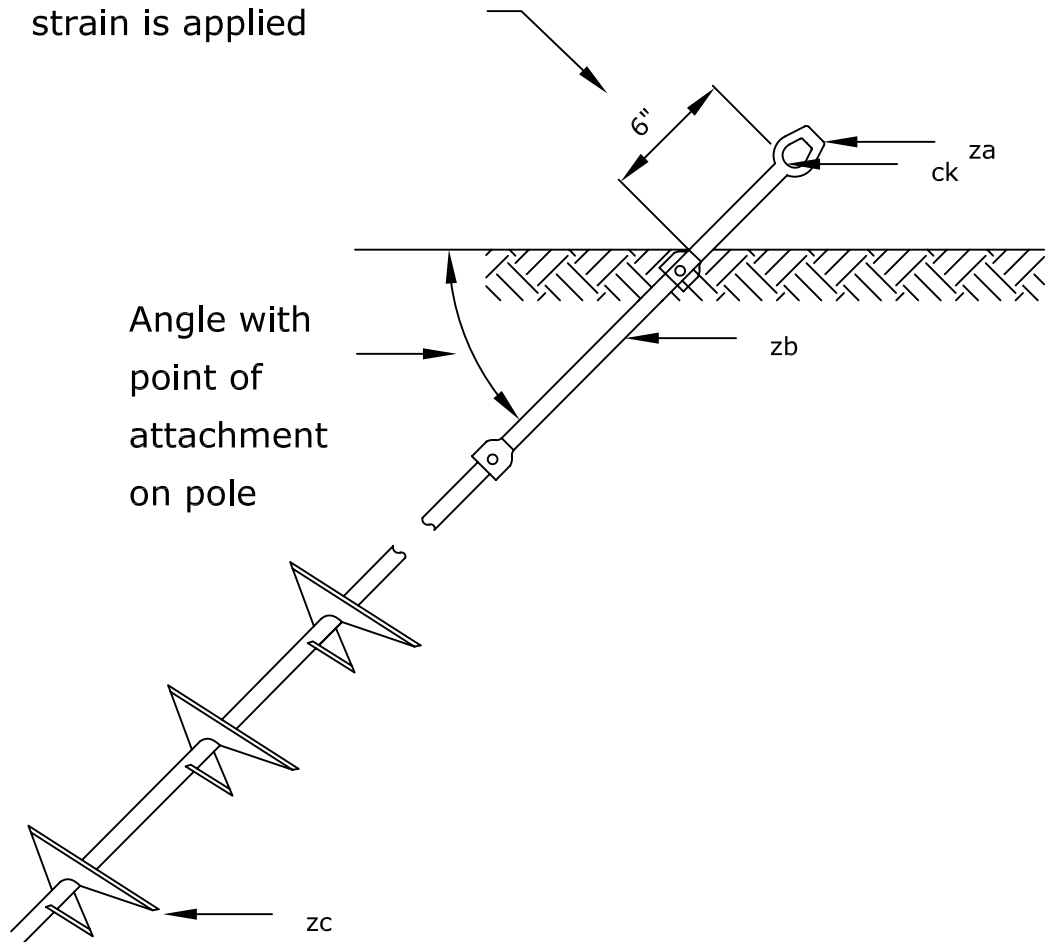


MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
z	2807502297	1	Anchor, PISA, 8" Helix
ck	2851002503	1	Clamp, Anchor Rod Bonding

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>POWER INSTALLED ANCHOR 8" SINGLE HELIX</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>FP-1</p>

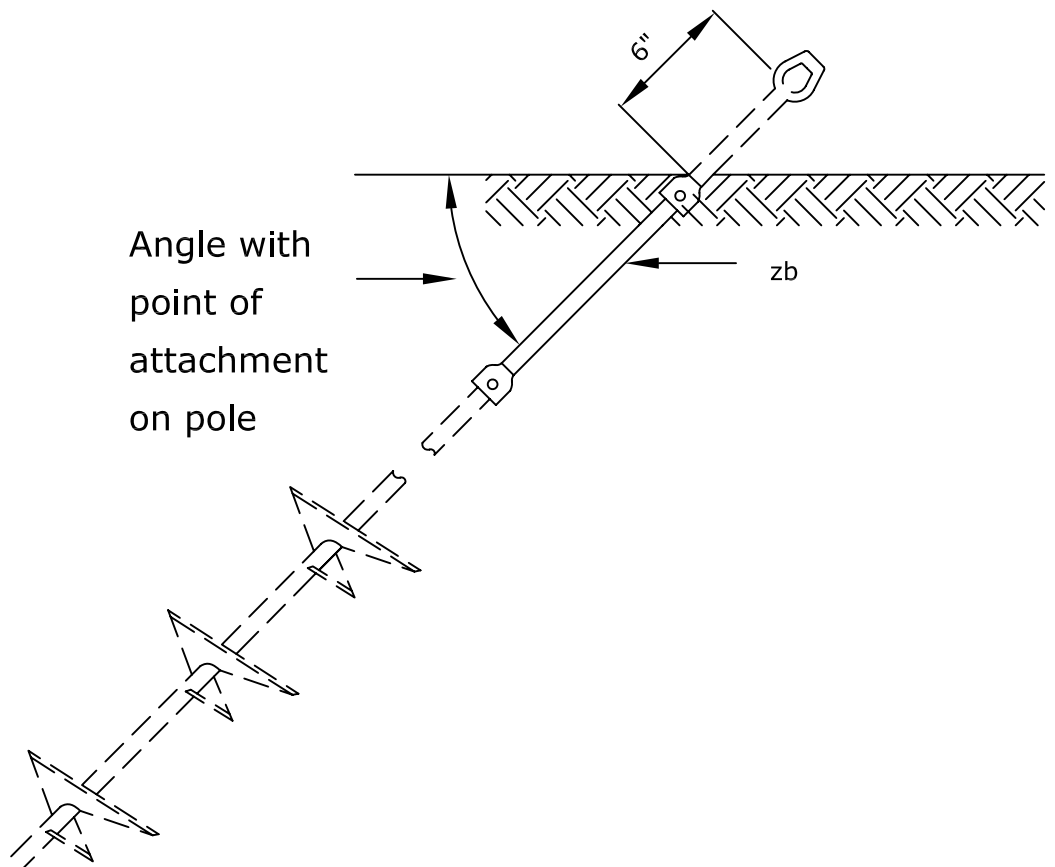
Approximate after strain is applied



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
za	2807502324	1	Anchor, Guy Adapter, 1.5" Shaft
zb	2807502325	1	Anchor, Extension 1.5" x 5'
zc	2807502323	1	Anchor, Triple Helix, 1.5" Shaft
ck	2851002503	1	Clamp, Anchor Rod Bonding

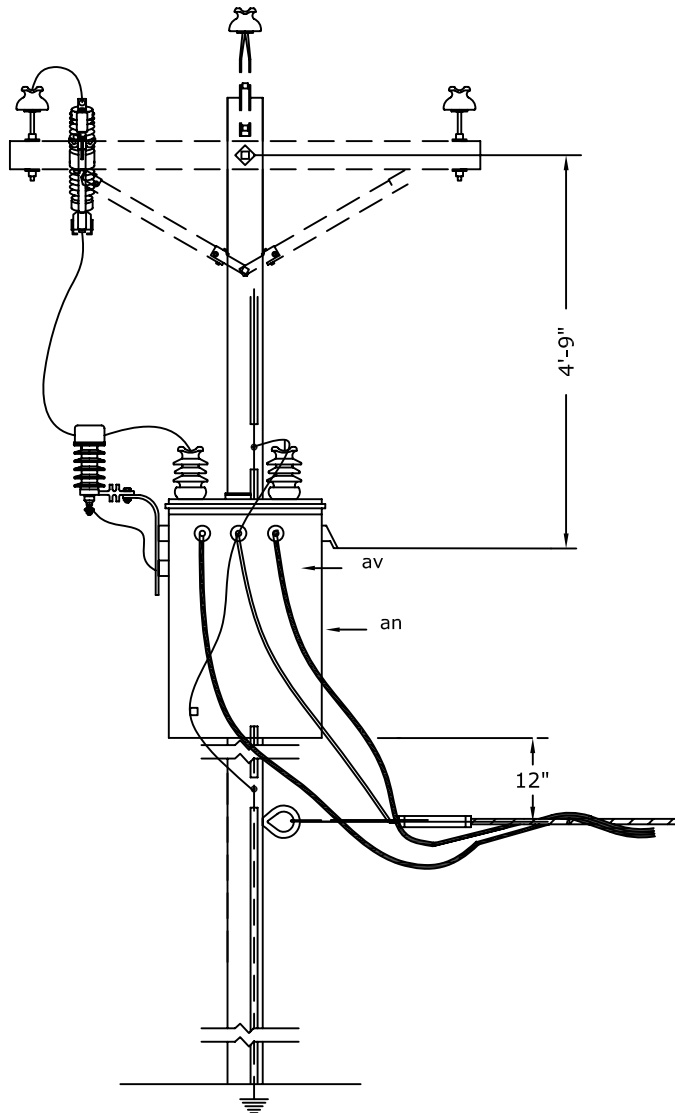
<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>TRIPLE HELIX ANCHOR WITH 5' EXTENSION AND GUY ADAPTER</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>FP-3</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
zb	2807502325	1	Anchor, Extension 1.5" x 5'

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>ANCHOR ROD EXTENSION 1.5" X 5'</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>FP-EXT</p>



**NOTES:**

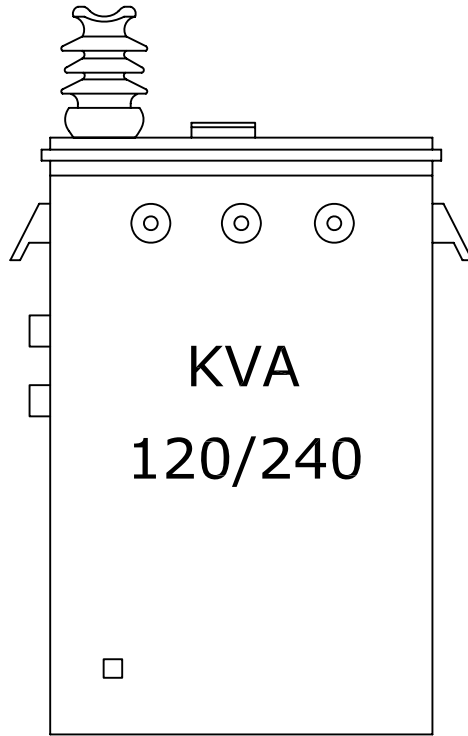
- 1- Connect transformer neutral to system ground.
- 2- Install M-AG assembly on all installed or relocated transformers.

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	2	Bolt, Machine, 1/2" x Required Length
d	2857402322	2	Washer, 2 1/4" Square With 13/16" Hole
p	28574022XX	4	Connector, Compression or Bolted, Sized as Required
ae	2850302004	1	Lightning Arrester, Distribution Class, 10kV (Tank Mounted)
af	2852820010	1	Cutout, 15kV Single Shot with Mounting Bracket
ap	2851002131	1	Clamp, Hot Line
av	2801602118	10	Jumper, #6 Solid Copper
av	2801602475	6	Jumper, #6 Solid Copper, 5kV Coated
ek	285740XXXX	2	Locknut, 5/8"
wg	2859902329	1	Wildlife Guard, 5.5"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>SINGLE PHASE TRANSFORMER 120/240V SERVICE</p>	DATE: 04-19-07
		<p>STANDARD NUMBER</p> <p><b>G11</b></p>



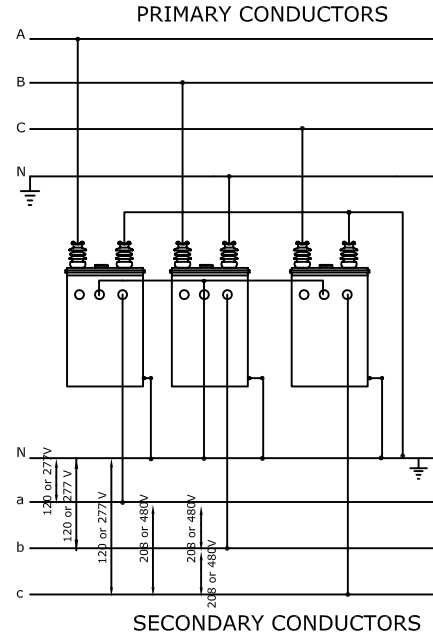
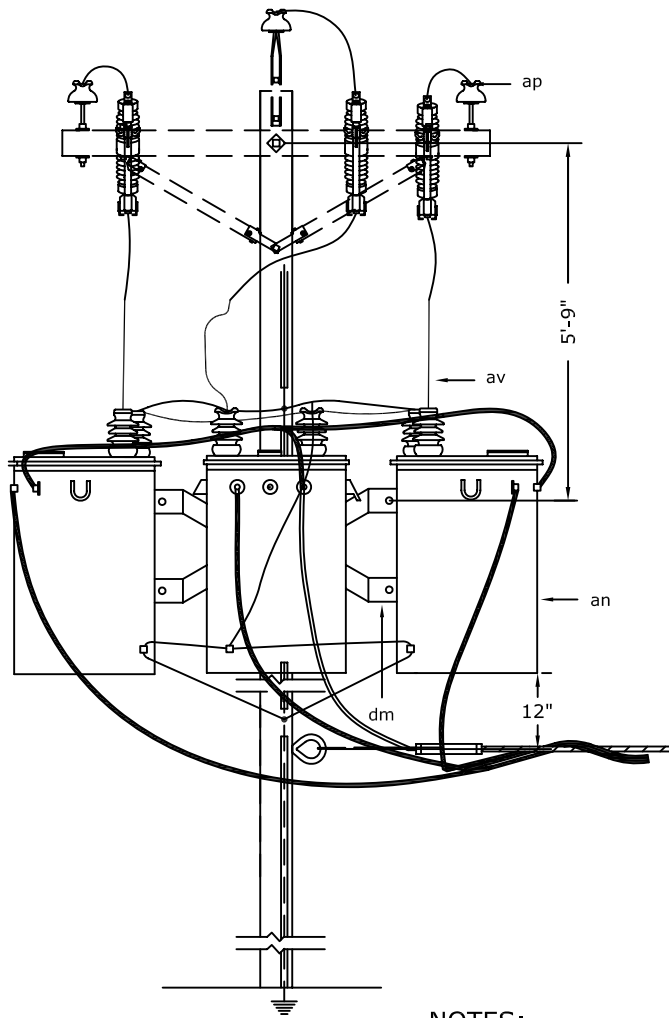


NOTE: All secondary leads shall be THHN or THW insulated.

**MATERIAL LIST**

Transformer Information		Material Commodity Codes			
Unit Name	Transformer	Tank Ground #2851002136	1/0 Cu Sec. Leads #2801602500	4/0 Cu Sec. Leads #2802402121	500 Cu Sec. Leads #2802402122
G1B72-120-5	G1B721205	1	12 Feet		
G1B72-120-10	G1B7212010	1	12 Feet		
G1B72-120-15	G1B7212015	1	12 Feet		
G1B72-120-25	G1B7212025	1	12 Feet		
G1B72-120-37	G1B7212037	1		12 Feet	
G1B72-120-50	G1B7212050	1		15 Feet	
G1B72-120-75	G1B7212075	1		15 Feet	
G1B72-120-100	G1B72120100	1			18 Feet
G1B72-120-167	G1B72120167	1			18 Feet

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>TRANSFORMER, ONE BUSHING, 7200V PRIMARY 120/240V SECONDARY</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p>G1B72-120-KVA</p>



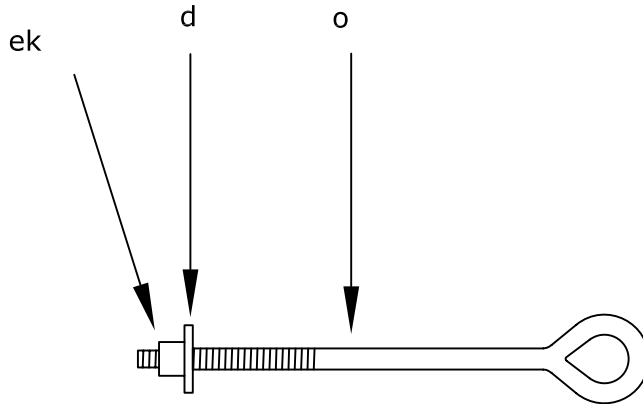
**NOTES:**

- 1- Connect transformer neutral to system ground.
- 2- Refer to connection details for transformer wiring schematics.
- 3- Install M-AG assembly on all installed or relocated transformers.
- 4- All lightning arresters shall be mounted on the transformer tank.

**MATERIAL LIST**

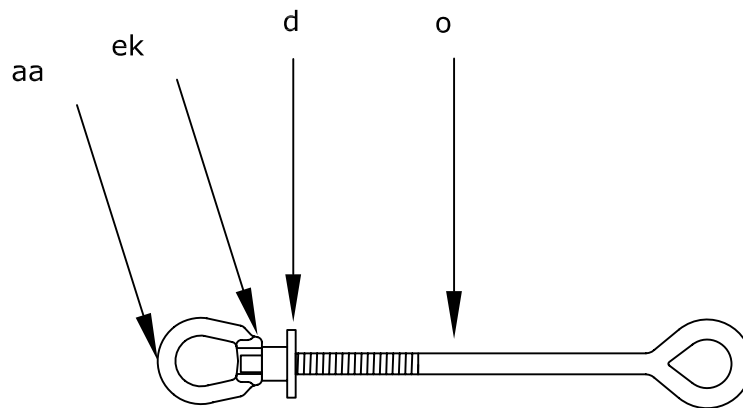
Item	COA Commodity Code	Qty.	Description
c	28574020XM	2	Bolt, Machine, 1/2" x Required Length
d	2857402322	2	Washer, 2 1/4" Square With 13/16" Hole
p	28574022XX	5	Connector, Compression or Bolted, Sized as Required
ae	2850302004	3	Lightning Arrester, Distribution Class, 10kV (Tank Mounted)
af	2852820010	3	Cutout, 15kV Single Shot with Mounting Bracket
ap	2851002131	3	Clamp, Hot Line
av	2801602118	30	Jumper, #6 Solid Copper
av	2801602475	18	Jumper, #6 Solid Copper, 5kV Coated
dm	2857402309	1	Bracket, Transformer Cluster Mount, Large
ek	285740XXXX	3	Locknut, 5/8"
wg	2859902329	3	Wildlife Guard, 5.5"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>THREE PHASE TRANSFORMER BANK (LARGE)</p> <p>120/208V OR 277/480V WYE SERVICE</p>	DATE: 04-19-07
		<p>STANDARD NUMBER</p> <p><b>G34</b></p>



**J1 - MATERIAL LIST**

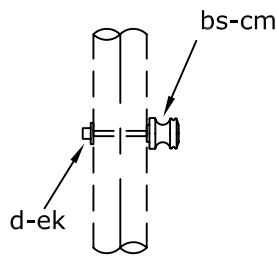
Item	COA Commodity Code	Qty.	Description
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
ek	285740XXXX	1	Locknut, 5/8"



**J2 - MATERIAL LIST**

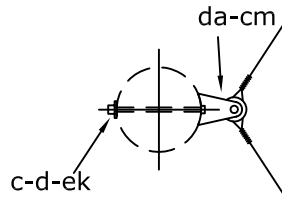
Item	COA Commodity Code	Qty.	Description
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole, As Required
o	28574020XE	1	Bolt, Oval Eye, 5/8" x Required Length
aa	2857402310	1	Nut, Oval Eye, 5/8"
ek	285740XXXX	1	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>MISCELLANEOUS SECONDARY ASSEMBLIES</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>J1</p> <p>J2</p>



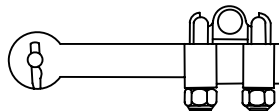
**J5 - MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole, As Required
ah	2801602124	5	Tie Wire, #4 Al (Feet)
bs	28574020XU	1	Bolt, Single Upset, 5/8" x Required Length
cm	2857402304	1	Insulator, Spool
ek	285740XXXX	1	Locknut, 5/8"



**J6 - MATERIAL LIST**

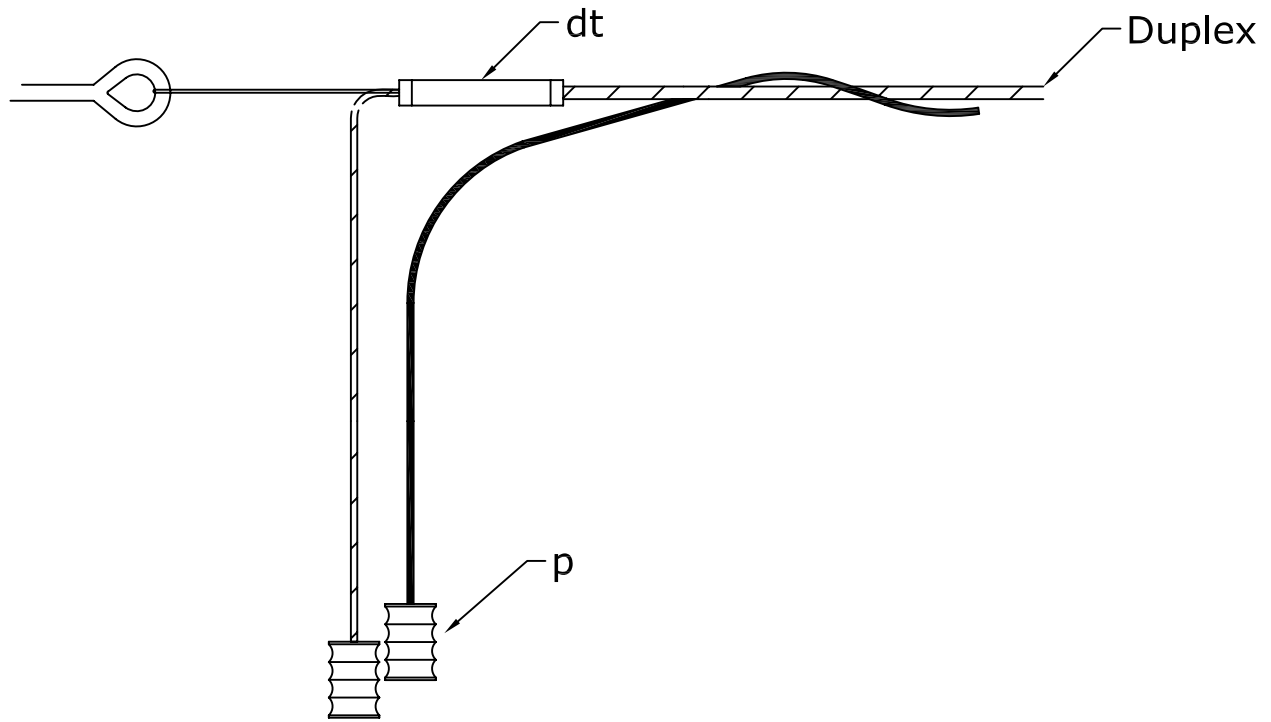
Item	COA Commodity Code	Qty.	Description
c	28574020XM	1	Bolt, Machine, 5/8" x Required Length
d	2857402322	1	Washer, 2 1/4" Square With 13/16" Hole, As Required
ah	2801602124	6	Tie Wire, #4 Al (Feet)
cm	2857402304	1	Insulator, Spool
da	2857402307	1	Bracket, Rigid Clevis
ek	285740XXXX	1	Locknut, 5/8"



**J8 & J8L MATERIAL LIST**

Item	COA Commodity Code	Description	J8	J8L
l	2857402140	Clamp, Deadend, Small	1	
l	2857402142	Clamp, Deadend, Large		1

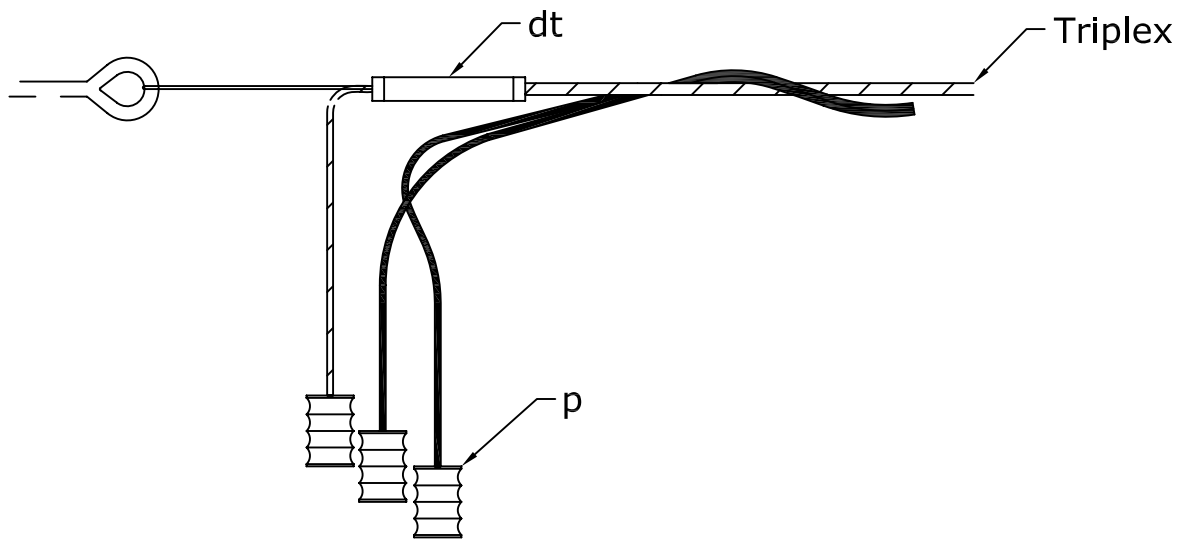
<b>City of Alexandria</b>  <i>Electric Distribution</i>	<b>MISCELLANEOUS SECONDARY ASSEMBLIES</b>	DATE: 04-20-07
		STANDARD NUMBER J5 J6 J8, J8L



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	2857402237	2	Connector, Compression, YHO-150
dt	2851002129	1	Service Deadend, Wedge Type, Small

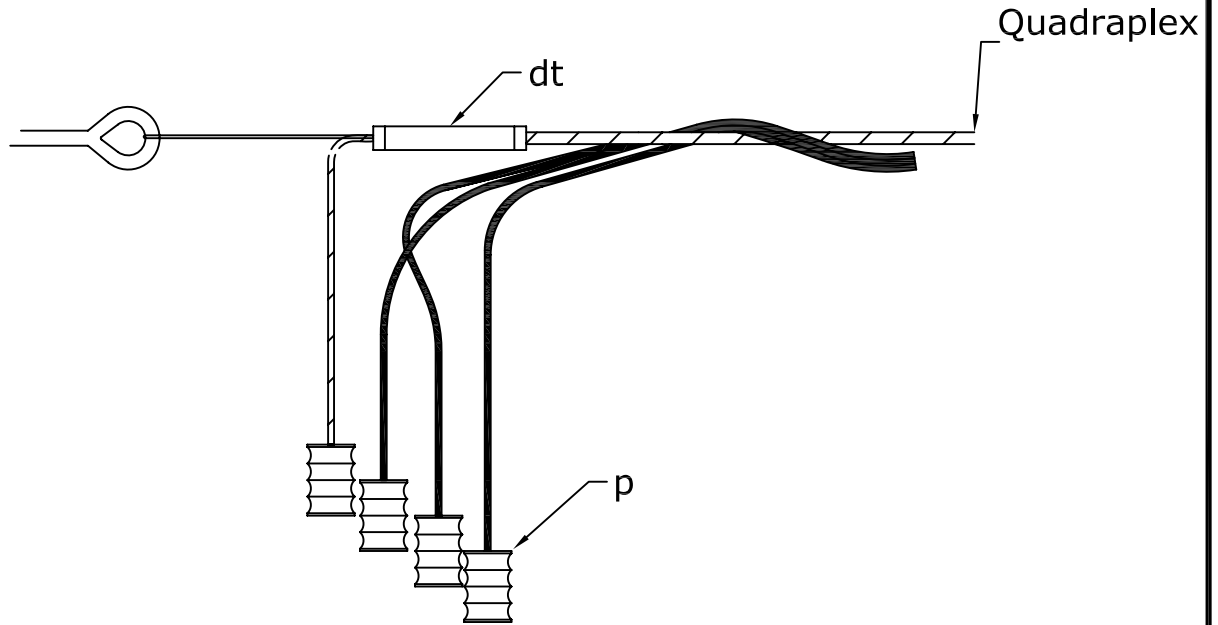
<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>DUPLEX SERVICE DEADEND</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>K1</p>



MATERIAL LIST

Item	COA Commodity Code	Description	K2-2	K2-1/0	K2-4/0	K2-336
l	2857402142	Clamp, Deadend, Large				1
p	2857402237	Connector, Compression, YH0-150	3			
p	2857402234	Connector, Compression, YHD-300		3		
p	2857402232	Connector, Compression, YHD-400			3	
p	2857402231	Connector, Compression, YHN-450				3
dt	2851002129	Service Deadend, Wedge Type, Small	1			
dt	2851002130	Service Deadend, Wedge Type, Large		1	1	

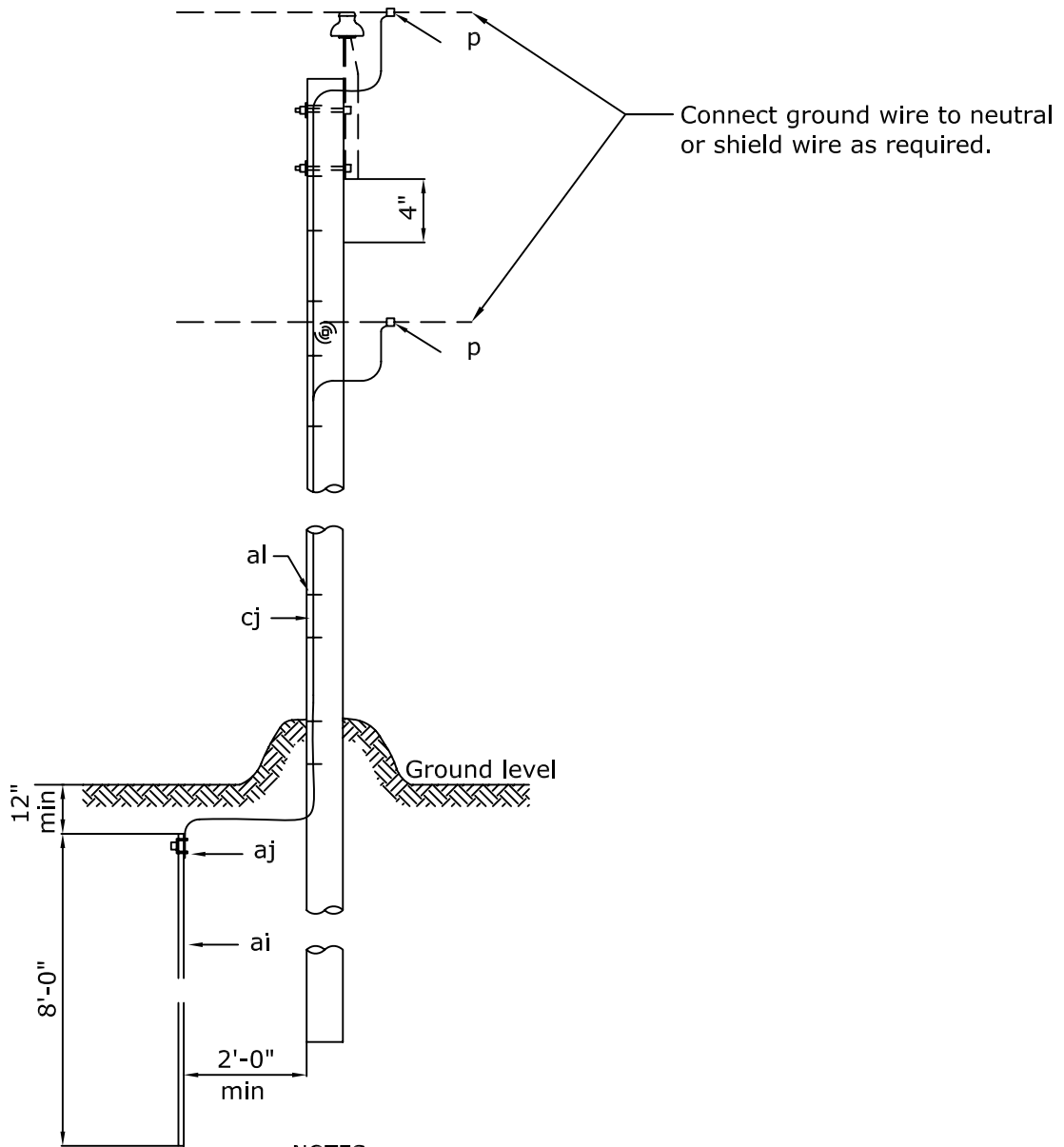
<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>TRIPLEX SERVICE DEADEND</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>K2</p>



MATERIAL LIST

Item	COA Commodity Code	Description	K3-2	K3-1/0	K3-4/0	K3-336
l	2857402142	Clamp, Deadend, Large				1
p	2857402237	Connector, Compression, YH0-150	4			
p	2857402234	Connector, Compression, YHD-300		4		
p	2857402232	Connector, Compression, YHD-400			4	
p	2857402231	Connector, Compression, YHN-450				4
dt	2851002129	Service Deadend, Wedge Type, Small	1			
dt	2851002130	Service Deadend, Wedge Type, Large		1	1	

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>QUADRAPLEX SERVICE DEADEND</p>	DATE: 04-18-07
		<p>STANDARD NUMBER</p> <p>K3</p>



NOTES:

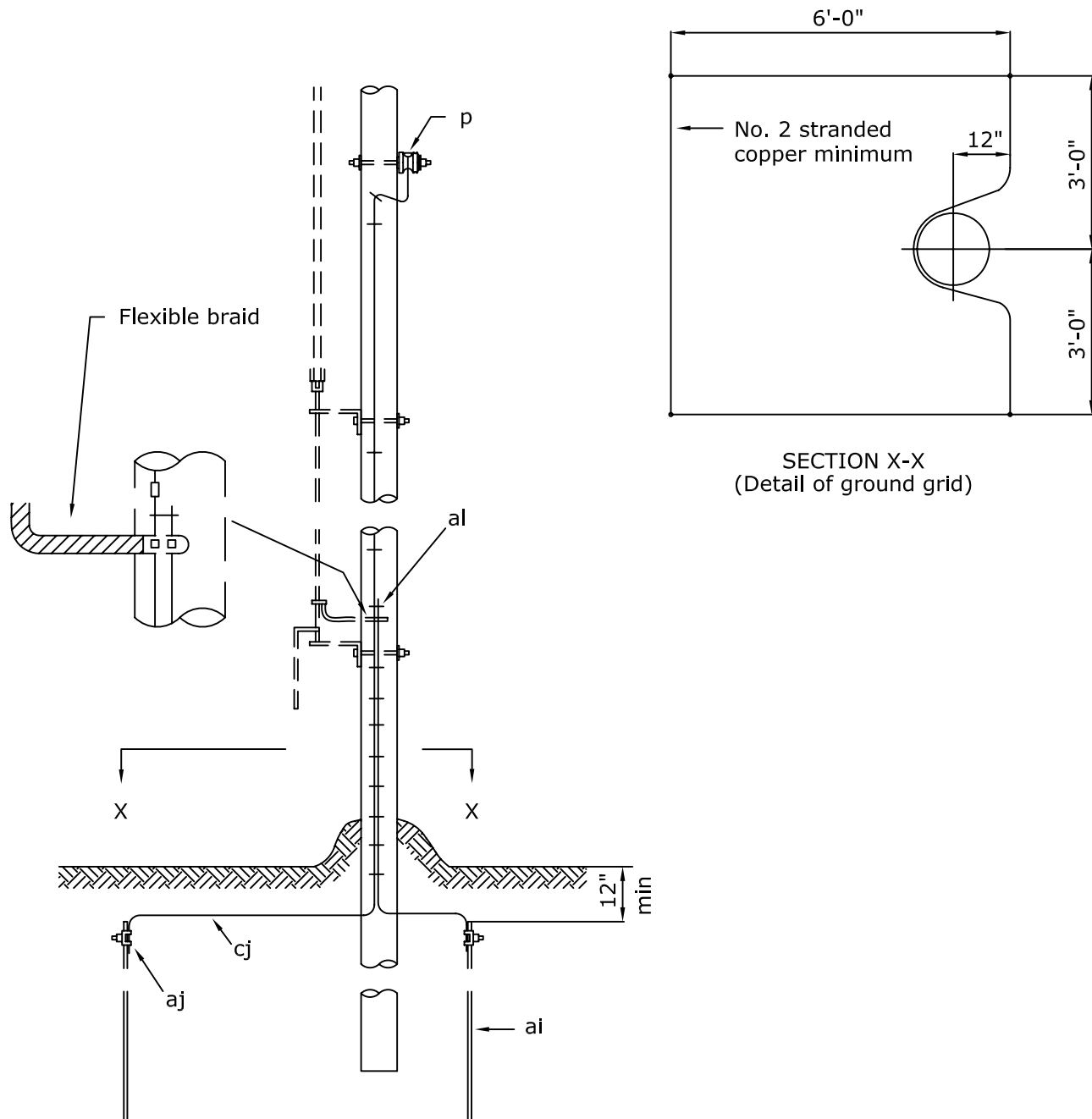
- 1- Ground wire to be located on same side as neutral conductor and in quadrant opposite climbing space or pole top pin.
- 2- Staples on ground wire shall be 2'-0" apart. Except for a distance of 8'-0" above ground and 8'-0" from top of pole, where they shall be 6" apart.
- 3- Ground wire to clear all hardware by 2" minimum, and shall be stapled to maintain this position.

MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	28574022XX	1	Connector, Sized As Required
ai	2854002319	1	Ground Rod, 5/8" x 8', Copperweld
aj	2854002133	1	Clamp, Ground Rod
al	2857402330	1	Staples, Ground Wire (per pound)
cj	2801602118	60	Ground Wire, #6 Soft Drawn Copper (or equal)

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>GROUNDING ASSEMBLY GROUND ROD TYPE</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M2-1</p>

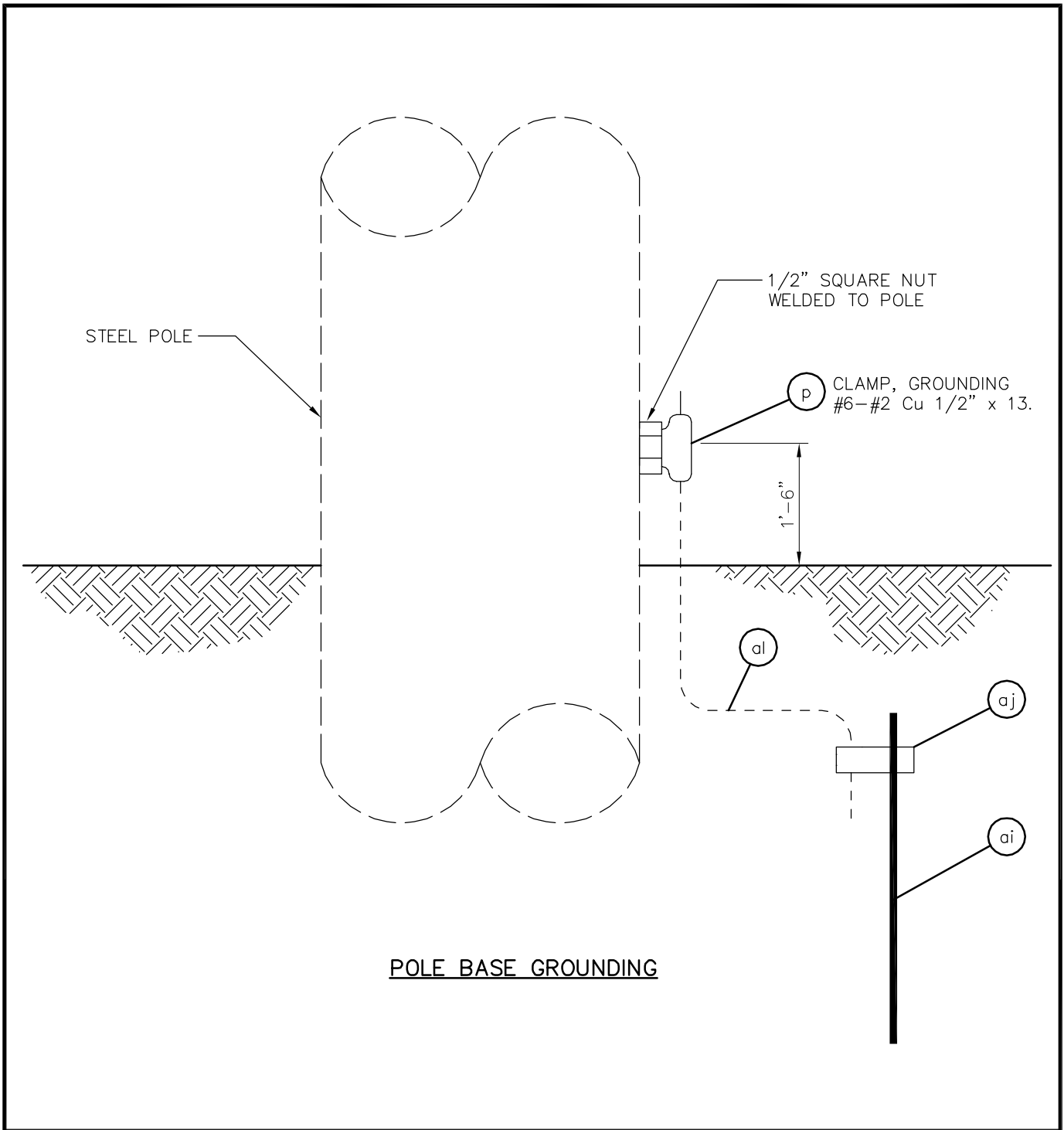




MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	28574022XX	2	Connector, Sized As Required
ai	2854002319	4	Ground Rod, 5/8" x 8', Copperweld
aj	2854002133	4	Clamp, Ground Rod
al	2857402330	1	Staples, Ground Wire (per pound)
cj	2801602119	90	Ground Wire, #2 Stranded Bare Copper

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>GROUNDING ASSEMBLY SECTIONALIZING AIR BREAK SWITCH</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M2-15</p>

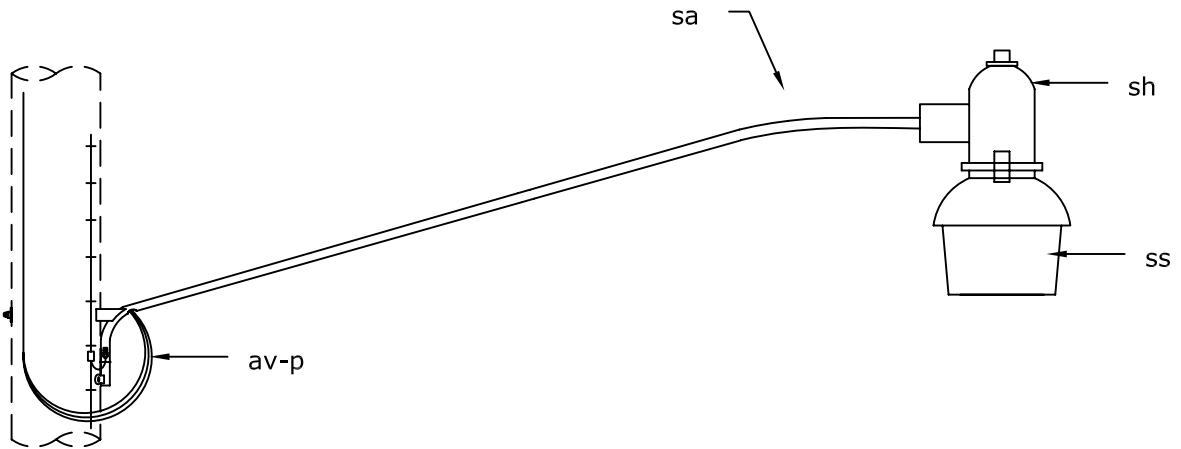


POLE BASE GROUNDING

**MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
p	28574022XX	1	Connector.. Sized As Required.
ai	2854002319	1	Ground Rod.. 5/8" x 8'.. Copperweld.
aj	2854002133	1	Clamp.. Ground Rod
al	2801602118	60	Ground Wire.. #6 Soft Drawn Copper (or equal).

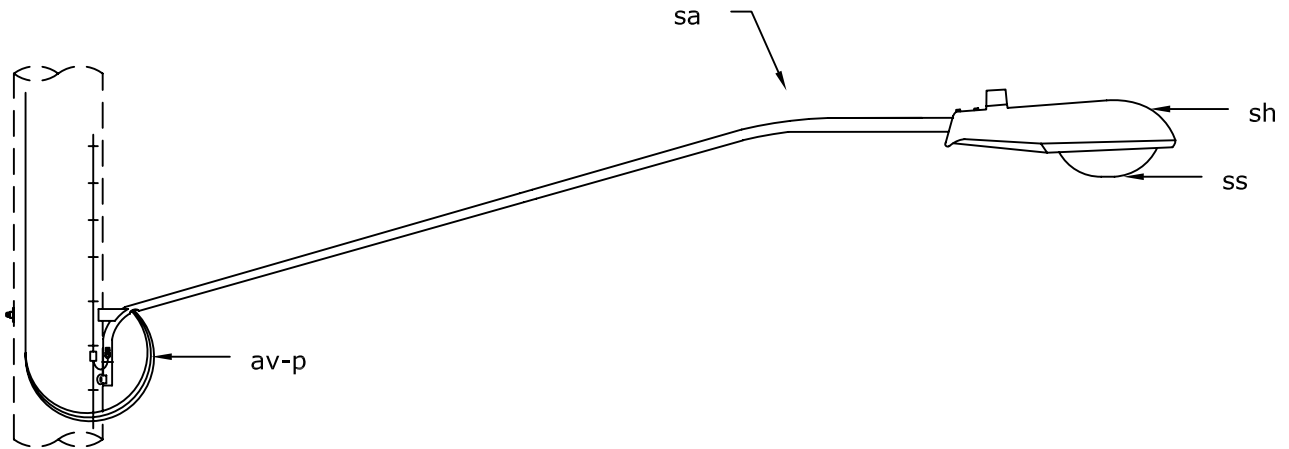
<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>12.5/7.2kV CROSSARM DOUBLE DEADEND LARGE CONDUCTORS</p>	DATE: 04-11-07
		<p>STANDARD NUMBER</p> <p>M2-1-SP</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	28574022XX	2	Connector, Sized As Required
av	2802402115	12	Jumper, #12 THHN, Black
av	2802402117	12	Jumper, #12 THHN, White
sa	2857602051	1	Street Light Arm, 6'
sh	2857602047	1	Street Light Head, 100W HPS
ss	2857602048	1	Shade, Acrylic
-	2855002370	1	Lamp, 100W High Pressure Sodium
-	2852702052	1	Photo Cell

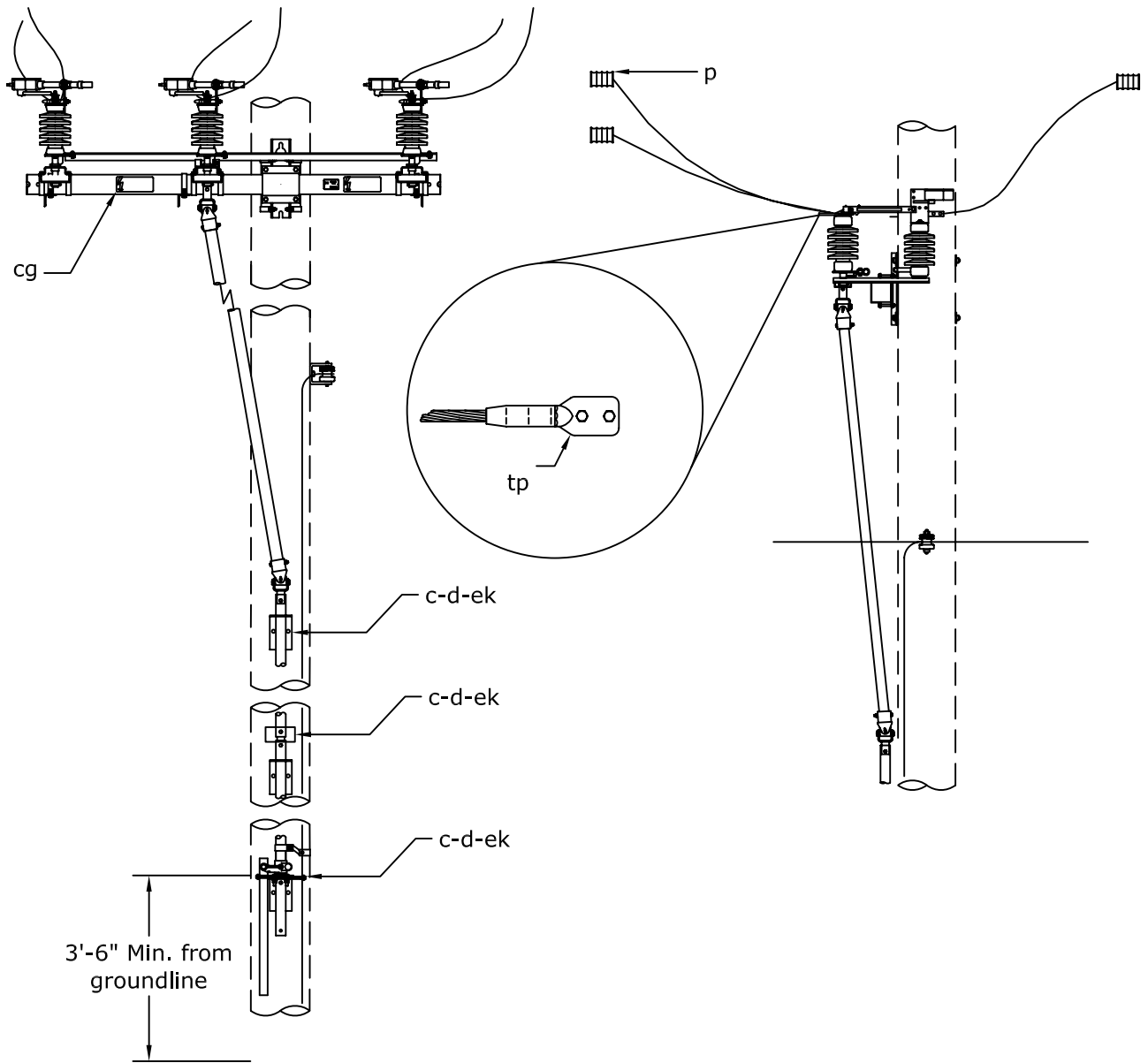
<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>NEIGHBORHOOD LIGHT 100W HIGH PRESSURE SODIUM</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M26-2</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	28574022XX	2	Connector, Sized As Required
av	2802402115	12	Jumper, #12 THHN, Black
av	2802402117	12	Jumper, #12 THHN, White
sa	2857602051	1	Street Light Arm, 6'
sh	2857602047	1	Street Light Head, 250W HPS
ss	2857602048	1	Shade, Acrylic
-	2855002465	1	Lamp, 250W High Pressure Sodium
-	2852702052	1	Photo Cell

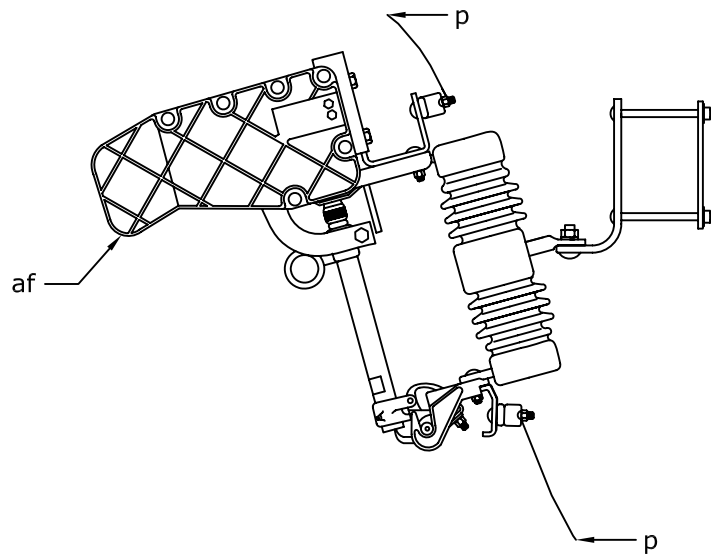
<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>STREET LIGHT</p> <p>250W HIGH PRESSURE SODIUM</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M26-3</p>



MATERIAL LIST

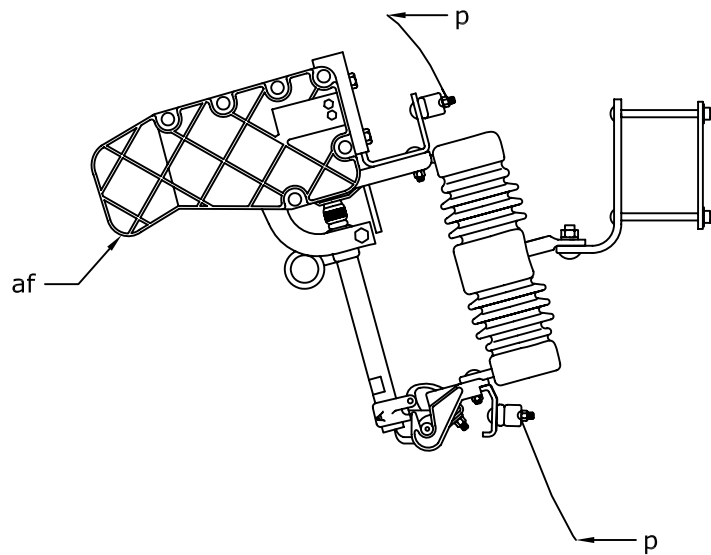
Item	COA Commodity Code	Qty.	Description
c	28574020XX	6	Bolt, Machine, 5/8" x Required Length
d	2857402322	6	Washer, 2 1/4" Square With 13/16" Hole
p	2857402239	6	Connector, YHN-525
av	NA	6	Jumper, Sized As Required
cg	2857802333	1	Switch, Gang Operated Air Break With Insulated Handle Spacer
ek	285740XXXX	5	Locknut, 5/8"
tp	2857402248	6	Compression Terminal Pad, 477 AAC

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>SECTIONALIZING AIR BREAK SWITCH</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M3-15</p>



MATERIAL LIST

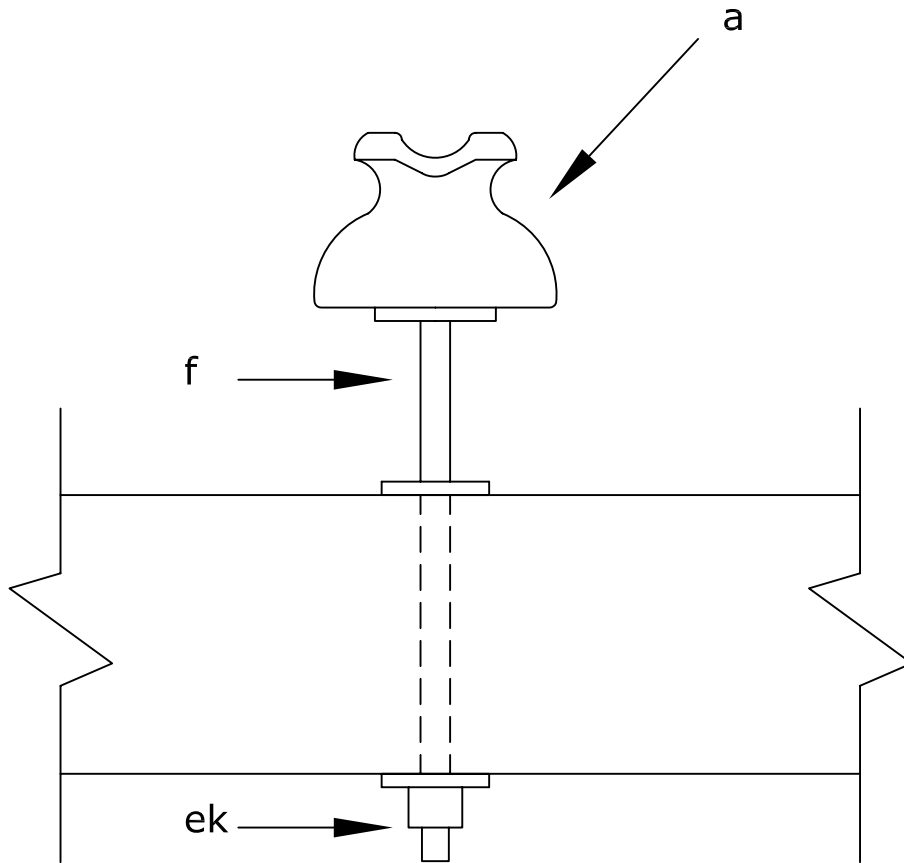
Item	COA Commodity Code	Qty.	Description
p	28574022XX	2	Connector, Sized As Required (if required)
af	2852820002	1	Cutout, 15kV 100A Loadbreak, with Mounting Bracket



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
p	28574022XX	2	Connector, Sized As Required (If Required)
af	2852820003	1	Cutout, 15kV 200A Loadbreak, with Mounting Bracket

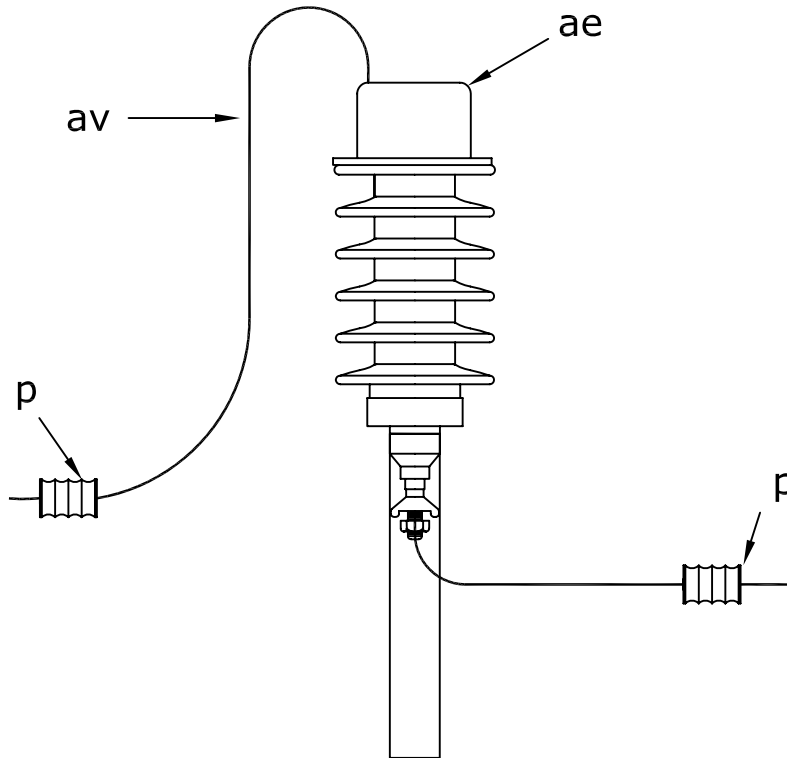
<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>100A LOADBREAK CUTOUT</p> <p>200A LOADBREAK CUTOUT</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M3-5A</p> <p>M3-5B</p>



MATERIAL LIST

Item	COA Commodity Code	Qty.	Description
a	2857402299	1	Insulator, Pin Type
f	2857802046	1	Steel Crossarm Pin
ek	285740XXXX	1	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p>INSULATOR ASSEMBLIES</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p>M5-5</p>

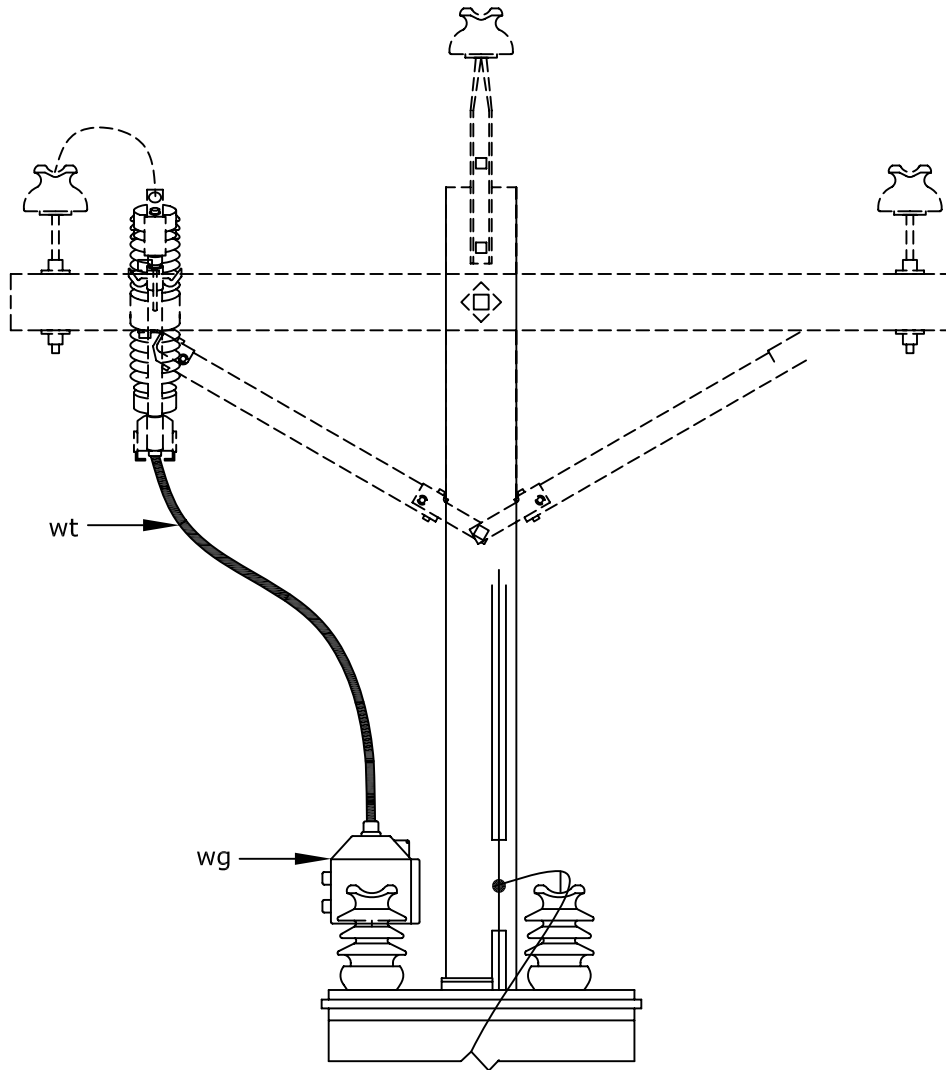


MATERIAL LIST

Item	COA Commodity Code	Description	M5-6A	M5-6B
p	28574022XX	Connector, Compression or Bolted, Sized as Required	2	2
ae	2850302005	Lightning Arrester, Distribution Class, 3kV (With Bracket)	1	
ae	2850302004	Lightning Arrester, Distribution Class, 10kV (With Bracket)		1
av	2801602118	Jumper, #6 Solid Copper	8	8

<i>City of Alexandria</i>  <i>Electric Distribution</i>	LIGHTNING ARRESTERS	DATE: 04-20-07
		STANDARD NUMBER  M5-6A M5-6B



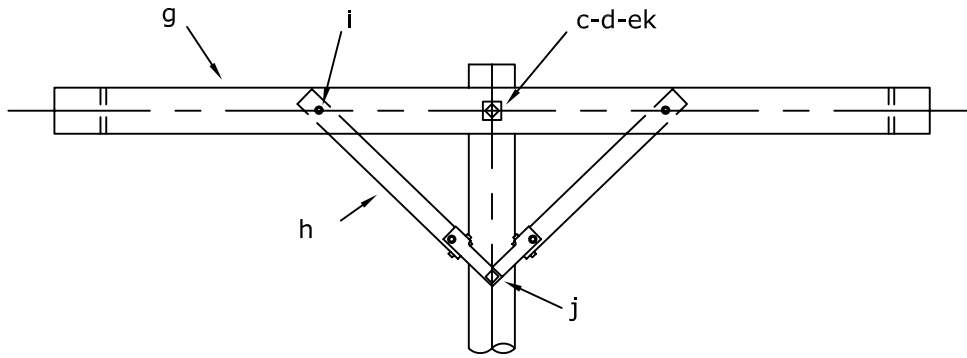


NOTE: Install wildlife guard over connector and first skirt of transformer bushing.  
Do not install guard lower than first bushing!

MATERIAL LIST

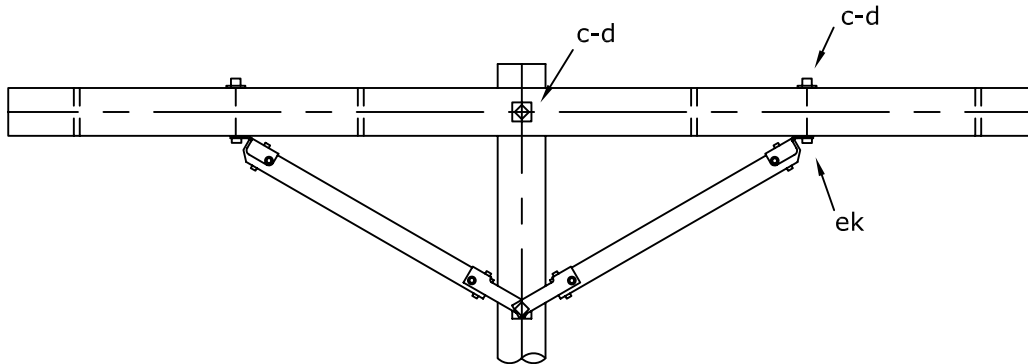
Item	COA Commodity Code	Qty.	Description
av	2801602475	6	Jumper, #6 Solid Copper, 5kV Coated
wg	2859902329	1	Wildlife Guard, 5.5"

<p>City of Alexandria</p> <p>Electric Distribution</p>	<p>WILDLIFE PROTECTION ASSEMBLY</p>	DATE: 04-19-07
		<p>STANDARD NUMBER</p> <p>M-AG</p>



**XA8 - MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	2	Bolt, Machine, 5/8" x Required Length
d	2857402322	2	Washer, 2 1/4" Square With 13/16" Hole
g	2857802041	1	Crossarm, 3 3/4" x 4 3/4" x 8', Wood
h	2857802044	2	Brace, 28", Wood
i	2857402021	2	Carriage Bolt, 3/8" x 4 1/2"
j	2857402320	1	Lag Screw, 1/2" x 4"
ek	285740XXXX	1	Locknut, 5/8"

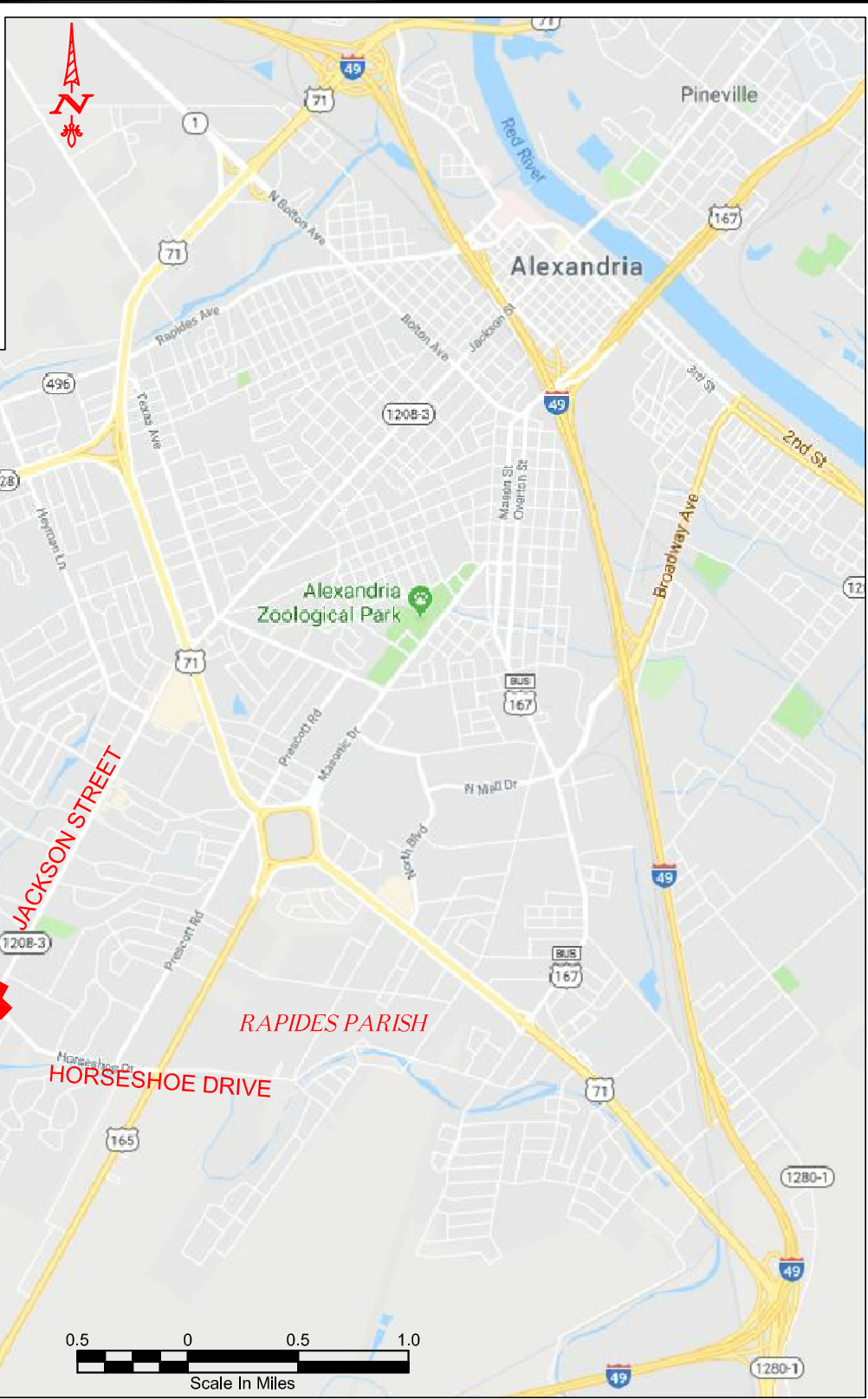


**XA10 - MATERIAL LIST**

Item	COA Commodity Code	Qty.	Description
c	28574020XM	4	Bolt, Machine, 5/8" x Required Length
d	2857402322	4	Washer, 2 1/4" Square With 13/16" Hole
d	2857402321	4	Washer, 1 3/8" Round With 9/16" Hole
g	2857802042	1	Crossarm, 3 3/4" x 4 3/4" x 10', Wood
cu	2857802043	2	Brace, 60" Span (Wood)
ek	285740XXXX	2	Locknut, 5/8"

<p><i>City of Alexandria</i></p> <p><i>Electric Distribution</i></p>	<p><b>CROSSARM ASSEMBLIES</b></p> <p>SINGLE ARM, 8' OR 10'</p>	DATE: 04-20-07
		<p>STANDARD NUMBER</p> <p><b>XA8</b></p> <p><b>XA10</b></p>

**SECTION H**  
**VICINITY MAP**



VICINITY MAP  
 Jackson (LA 1208-3) @ Horseshoe Roundabout  
 Distribution Line Relocation  
 for  
 The City of Alexandria  
 Alexandria Utility System

**BHA, INC.**  
 BATON ROUGE, LOUISIANA

SCALE : NOTED	DATE : 2/20/2019	PROJECT NO. : 2019H15A
DRAWN : DLM	APPROVED : WBS	DRAWING NO. : VMAP
		REV. : 0

**SECTION I**  
**HOST EMPLOYER FACT SHEET**

This Fact Sheet is provided in accordance with the requirements for transferring information between host employers and contract employers contained in 29 C.F.R. 1926.950 et seq. and the corresponding provisions of 1910.269. Please contact Bobby Clifton at (318) 473-1301 if you have any questions about this information.

### **System Voltages**

- Primary - 7.2/12.5
- Secondary – Ranges from 120V up to 480V typical, limited locations with 2400/4160V

### **Maximum switching-transient Voltage**

- 61.1 kV (phase to ground)
- 93.9 kV (phase to phase)

### **Protective Grounds**

- Contractor is responsible for sizing, providing, and applying their own grounds.

### **Clearances**

- All clearances and de-energized lines and equipment shall be scheduled through CITY OF ALEXANDRIA System Control Center.

### **Available Fault Current**

- 7,228 amps for 12.5 kV facilities served from the Twin Bridges Substation.

### **Minimum Approach Distances**

- Primary Voltage (assumes 25kV) – 35 inches per 1910.269 Table R-3
- 300 to 600 Volts - 13 inches
- Less than 300 volts - Avoid contact

### **Location of Circuits**

- Circuit information is included on CITY OF ALEXANDRIA Staking Sheets as well as CITY OF ALEXANDRIA maps.
- Contact CITY OF ALEXANDRIA System Control Center for reclosing device location for one shot setting prior to beginning work.

### **Outages**

- Any accidental or unscheduled outage shall be reported immediately to CITY OF ALEXANDRIA System Control Center.
- All accidental outages shall be investigated, and a written report submitted to the CITY OF ALEXANDRIA Utility Division offices within 24 hours of the outage.

### **Arc Flash Protection:**

- CITY OF ALEXANDRIA's Arc Flash Hazard Assessment is available for review upon the contractor's request.
- Clothing systems shall be rated for a minimum of 4 calories.
- Employees performing work on energized three phase meter enclosures must wear a 20 calorie face shield.
- When working on meter enclosures energized at greater than 250 volts, employees must wear a 20 calorie clothing system in addition to the face shield.
- When operating 200 amp separable connectors (elbows, elbow arresters, etc.) or fuse holders in pad mounted switchgear, a hot stick must be utilized as needed to remain a minimum distance of 27 inches from energized components.

### **One Shots**

- A one shot must be set on the first reclosing device on the source side of the facilities where work is being performed on energized lines or equipment.
- All requests for one shots shall be scheduled through the CITY OF ALEXANDRIA System Control Center.

### **Substation Bus Work**

- No work on an energized substation bus may be performed without an evaluation of risk and prior approval of the Director of Utilities and the Project Engineer.
- Personal Protective Equipment (PPE), and/or engineering controls necessary to safely perform the work based on the hazard level at the substation will be selected by the Contractor. Contractor shall document the rational basis used in selecting the PPE and/or engineering controls employed.

### **Operation of Devices**

- CITY OF ALEXANDRIA System Control Center will direct the operation of any device for opening or closing under load.
- At that time, CITY OF ALEXANDRIA will verify the device is rated for the directed operation.

### **Overhead Structures**

- Structures on CITY OF ALEXANDRIA's system are designed to NESC loading including strength to withstand stresses imposed by work.
- However, the contract employee must inspect the structure for deterioration to determine if it is safe to climb and/or work.

### **Enclosed Spaces**

- CITY OF ALEXANDRIA owns vaults and manholes that contain energized primary cables.
- Contractors must contact the CITY OF ALEXANDRIA Electric Distribution Department to obtain site specific safety characteristics before entering any vault or manhole.

### **Contractor Responsibility**

- The contractor shall comply with all applicable federal, state, and local laws, rules, and regulations
- The contract employer shall ensure that each of its employees is instructed in the hazardous conditions relevant to the employee's work that the contract employer is aware of as a result of information communicated to the contract employer by CITY OF ALEXANDRIA.
- Before work begins, the contract employer shall advise CITY OF ALEXANDRIA of any unique hazardous conditions presented by the contract employer's work
- The contract employer shall advise CITY OF ALEXANDRIA of any unanticipated hazardous conditions found during the contract employer's work that CITY OF ALEXANDRIA did not mention. The contract employer shall provide this information to CITY OF ALEXANDRIA within two (2) working days after discovering the hazardous condition.
- The contractor shall comply with any other applicable responsibilities included in an existing contract with CITY OF ALEXANDRIA.



**SECTION J**

**Plan-Profile Drawings**

(Under Separate Cover)

**SECTION K**

**Staking Sheets**

(Under Separate Cover)

**SECTION L**

**Standard General Provisions**

(Under Separate Cover)

**SECTION M**

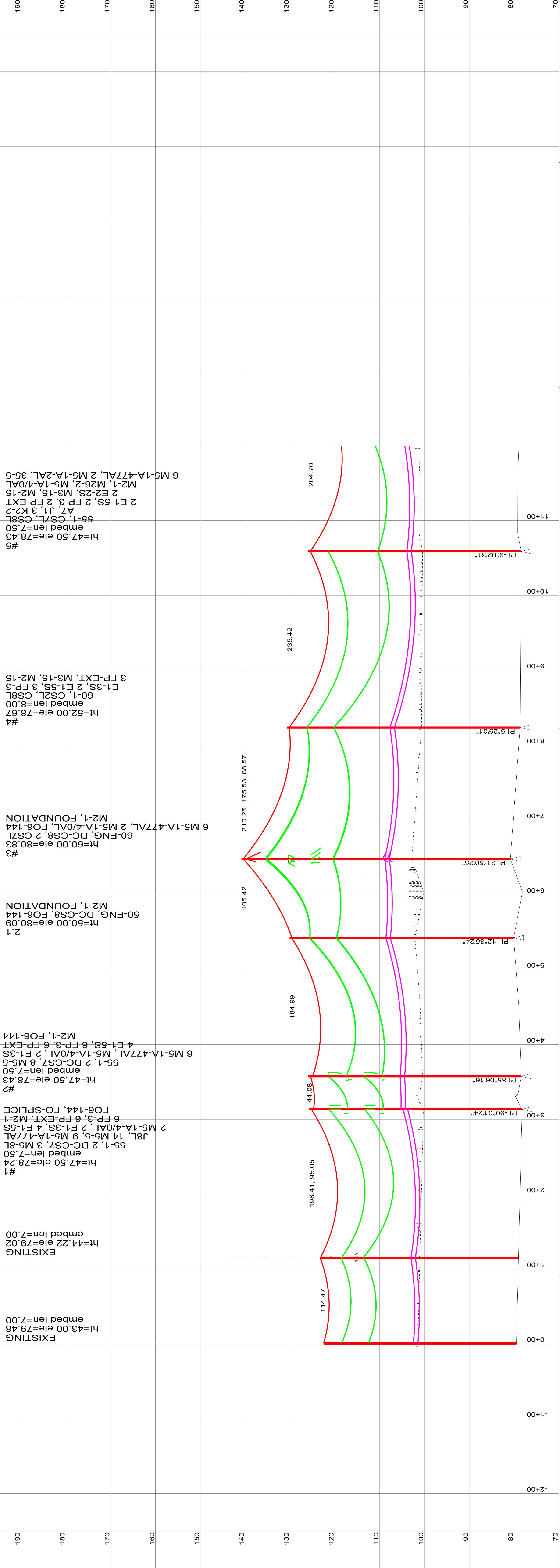
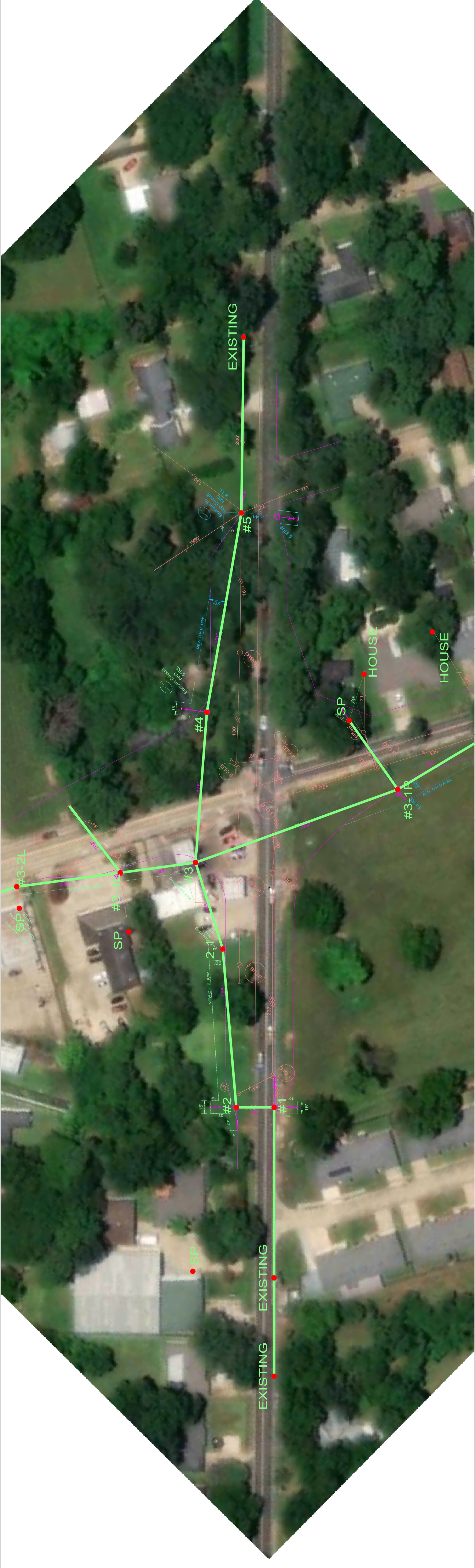
**Final Steel Pole Design and Drawings**

(Under Separate Cover)

**SECTION N**

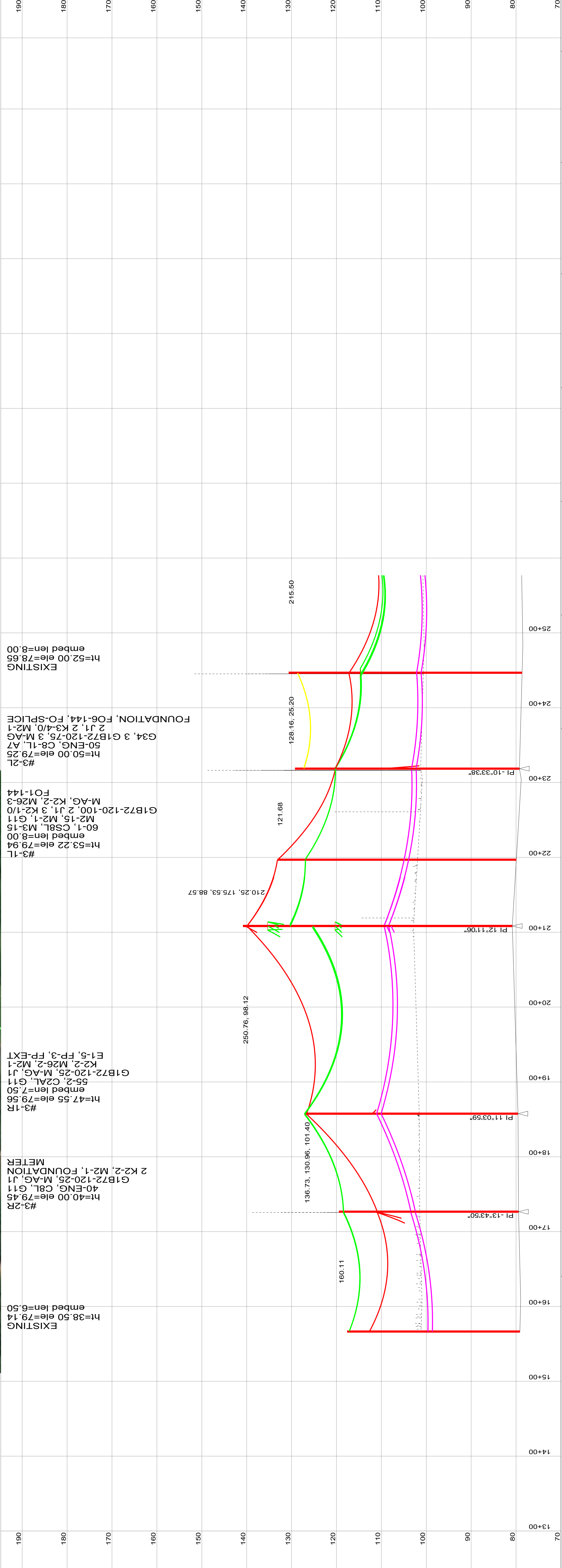
**Geotechnical Investigation**

(Under Separate Cover)



STATION	ELEVATION (ft)	DESCRIPTION
0+00	EXISTING	ht=43.00 ele=79.48 embed len=7.00
1+00	EXISTING	ht=44.22 ele=79.02 embed len=7.00
2+00	198.41, 95.05	
3+00	44.08	ht=47.50 ele=78.24 embed len=7.50 55-1, 2 DC-CST, 3 M5-8L J8L, 14 M5-5, 9 M5-1A-477AL 2 M5-1A-4/OAL, 2 E1-3S, 4 E1-5S 6 FP-3, 6 FP-EXT, M2-1 FO6-144, FO-SPLICE
4+00	184.99	ht=47.50 ele=78.43 embed len=7.50 55-1, 2 DC-CST, 8 M5-5 6 M5-1A-477AL, M5-1A-4/OAL, 2 E1-3S 4 E1-5S, 6 FP-3, 6 FP-EXT M2-1, FO6-144
5+00	105.42	ht=50.00 ele=80.09 50-ENG, DC-C88, FO6-144 M2-1, FOUNDATION
6+00	210.25, 175.53, 88.57	ht=60.00 ele=80.83 60-ENG, DC-C88, 2 CSTL 6 M5-1A-477AL, 2 M5-1A-4/OAL, FO6-144 M2-1, FOUNDATION
7+00	235.42	
8+00	204.70	ht=52.00 ele=78.67 60-1, CS2L, CS8L E1-3S, 2 E1-5S, 3 FP-3 3 FP-EXT, M3-15, M2-15
9+00		
10+00		ht=47.50 ele=78.43 embed len=7.50 55-1, CS7L, CS8L A7, J1, 3 K2-2 2 E1-5S, 2 FP-3, 2 FP-EXT 2 E2-2S, M3-15, M2-15 M2-1, M26-2, M5-1A-4/OAL 6 M5-1A-477AL, 2 M5-1A-2AL, 3S-5
11+00		

<p><b>BHA, INC.</b> BATON ROUGE, LOUISIANA</p>	<p><b>JACKSON(LA 1208-3) @ HORSESHOE ROUNDABOUT ELECTRIC DISTRIBUTION RELOCATION</b></p>				<p>SCALE : 60.0 ft. Horiz. Scale 10.0 ft. Vert. Scale</p>	DATE :	5/8/2019	DRAWN :	DLM	APPROVED :	WBS	JOB NO.:	2019H15A	DRAWING NO.:	SHEET 1 OF 2	REV. :	3
	<p>CITY OF ALEXANDRIA</p>																



EXISTING  
ht=52.00 ele=78.65  
embed len=8.00

FOUNDATION, FO6-144, FO-SPLICE  
G34, 3 G1B72-120-75, 3 M-AG  
2 J1, 2 K3-4/0, M2-1  
ht=50.00 ele=79.25

#3-2L  
ht=53.22 ele=79.94  
embed len=8.00  
60-1, CS8L, M3-15  
M2-15, M2-1, G11  
G1B72-120-100, 2 J1, 3 K2-1/0  
M-AG, K2-2, M26-3  
FO1-144

#3-1R  
ht=47.55 ele=79.56  
embed len=7.50  
55-2, C2AL, G11  
G1B72-120-25, M-AG, J1  
K2-2, M26-2, M2-1  
E1-5, FP-3, FP-EXT

#3-2R  
ht=40.00 ele=79.45  
40-ENG, C8L, G11  
G1B72-120-25, M-AG, J1  
2 K2-2, M2-1, FOUNDATION  
METER

EXISTING  
ht=38.50 ele=79.14  
embed len=6.50

**Jackson (LA-1208-3) @ Horseshoe Roundabout**  
*Distribution Line Relocation*  
for  
*State Project No.:: H.002672*

**PROJECT STAKING SHEETS**



**City of Alexandria**  
**915 Third Street**  
**Post Office Box 71**  
**Alexandria, Louisiana 71309**

PREPARED BY:

**BHA, Inc.**  
Consulting Engineers  
Baton Rouge, Louisiana  
February, 2019



**AUS** Alexandria Utility System  
Better Service. Better Value!

CONSUMER **JACKSON @ HORSESHOE ROUNDABOUT**  
POLE # BEGIN \_\_\_\_\_ ENDING \_\_\_\_\_

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

EST. BEGIN DATE \_\_\_\_\_ JOB NO. **2019H15A**

POLE NO.	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY		SECONDARY		SERVICE		PRIMARY UNIT	TRANS. UNIT	SEC. UNIT	SERV. UNIT	RW CLEAR	GROUND M-2	GUYS	ANCH. UNIT	MISCELLANEOUS UNITS	REMARKS
				SPAN	NO. COND. TYPE PRIMARY	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN										
STR #1 OLD	50-2	H R	H R	35	6 477AAC	4/0ACSR				DC-CS1	G11	J1	K2-2				M26-2 FO1-144		
SERVICE POLE (STR #1 OLD)	30-5	H R	H R									J1	K2-2						
STR #2 OLD	50-2	H R	H R	237	6 477AAC	4/0ACSR				DC-CS8-2					E1-3 2 E1-3S	3 FP-EXT 3 FP-3	FO1-144 237 ADSS		
STR #3 OLD	50-2	H R	H R	88	6 477AAC	4/0ACSR				DC-CS8 C9 A7		2 J1	2 K1		M2-15		M3-15 FO6-144 88 ADSS		
STR #4 OLD	45-3	H R	H R	49	3 477AAC	4/0ACSR		49		C7L C7		J1	K1		M2-15	E1-5S FP-EXTM26-3 FP-3	M3-15 3 M5-5		

WORK DESCRIPTION \_\_\_\_\_ BUILT BY NO. \_\_\_\_\_ COMPLETION DATE \_\_\_\_\_ BRANCH \_\_\_\_\_ WORK ORDER NO. \_\_\_\_\_

WORK PLAN \_\_\_\_\_

SURVEY BY **MF, JJ** DATE **09/15/15**

CHECKED BY \_\_\_\_\_ DATE / /

PARISH \_\_\_\_\_ WARD \_\_\_\_\_

TAX DISTRICTS \_\_\_\_\_

MAPS SECTION \_\_\_\_\_

SUBSTATION NO. \_\_\_\_\_ FEEDER \_\_\_\_\_

SHEET NO. **1** OF **7** SHEETS  
Revision: **1 - 05/08/19** 05/08/19 @ 16:47



**AUS** Alexandria Utility System  
Better Service. Better Value!

CONSUMER **JACKSON @ HORSESHOE ROUNDABOUT**  
POLE # BEGIN \_\_\_\_\_ ENDING \_\_\_\_\_

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

EST. BEGIN DATE \_\_\_\_\_ JOB NO. **2019H15A**

POLE NO.	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY			SECONDARY			SERVICE			TRANS. UNIT	SEC. UNIT	SERV. UNIT	RW CLEAR	GROUND M-2	GUYS	ANCH. UNIT	MISCELLANEOUS UNITS	REMARKS
				SPAN	NO. COND. TYPE PRIMARY	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN	NO. COND. TYPE	NO. COND. TYPE										
(STR #4 OLD & #3 OLD)																					
STR #5 OLD	45-3	H	R	63	3 477AAC	4/0ACSR												2 E2-2S			
		H	R	48	3 477AAC	4/0ACSR												E1-2			
		C	R															FP-1			
STUB POLE 1	40-5	C	R															2 E2-2S			
STUB POLE 2	40-5	C	R															E1-5S	FP-3		
		C	R															FP-EXT			
(STR #5 OLD)																					
STR #6 OLD	45-3	H	R	130	3 477AAC	4/0ACSR															
STR #5	45-3	H	R	161	3 477AAC	4/0ACSR															
		H	R																M26-2		

WORK DESCRIPTION \_\_\_\_\_ BUILT BY NO. \_\_\_\_\_ COMPLETION DATE \_\_\_\_\_ BRANCH \_\_\_\_\_ WORK ORDER NO. \_\_\_\_\_

WORK PLAN \_\_\_\_\_

SURVEY BY **MF, JJ** DATE **09/15/15**

CHECKED BY \_\_\_\_\_ DATE / /

PARISH \_\_\_\_\_ WARD \_\_\_\_\_

TAX DISTRICTS \_\_\_\_\_

MAPS SECTION \_\_\_\_\_

SUBSTATION NO. \_\_\_\_\_ FEEDER \_\_\_\_\_

SHEET NO. **2** OF **7** SHEETS  
Revision: **1 - 05/08/19** 05/08/19 @ 16:47



**AUS** Alexandria Utility System  
Better Service. Better Value!

CONSUMER **JACKSON @ HORSESHOE ROUNDABOUT**  
POLE # BEGIN \_\_\_\_\_ ENDING \_\_\_\_\_

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

EST. BEGIN DATE \_\_\_\_\_ JOB NO. **2019H15A**

POLE NO.	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY		SECONDARY		SERVICE		PRIMARY UNIT	TRANS. UNIT	SEC. UNIT	SERV. UNIT	RW CLEAR	GROUND M-2	GUYS	ANCH. UNIT	MISCELLANEOUS UNITS	REMARKS
				NO. COND. TYPE PRIMARY	SPAN	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN										
(STR #3 OLD)																			
STR #7 OLD	55-2	H	R	3	199	477AAC		4/0ACSR		C8-1L	G11	3 J1	K2-1/0		M2-15		M3-15		
		H	R		199	4ACSR		4ACSR		A9-1	G1B72-120-75						FO1-144	199 ADSS	
STR# 3-2L	55-C	H	R	3	123	477AAC		4/0ACSR		C9	G34	2 J1	K3-4/0				FO1-144	123 ADSS	
		H	R							A9-1	G1B72-120-75								
(STR #3 OLD)																			
STR #8 OLD	45-3	H	R	3	120	477AAC		4/0ACSR		C8-1L	G11	J1	K3-1/0		E1-2		M5-6B	M3-1	M26-2
		H	R								G1B72-120-25						M3-5A	XA8	
		C	R													FP-3			
SERVICE POLE	30-5	H	R				42	2ALTPLX				2 J1	K2-2						

WORK DESCRIPTION **RETIRE** BUILT BY NO. \_\_\_\_\_ COMPLETION DATE \_\_\_\_\_ BRANCH \_\_\_\_\_ WORK ORDER NO. \_\_\_\_\_

WORK PLAN \_\_\_\_\_

SURVEY BY **MF,JJ** DATE **09/15/15**

CHECKED BY \_\_\_\_\_ DATE / /

PARISH \_\_\_\_\_ WARD \_\_\_\_\_

TAX DISTRICTS \_\_\_\_\_

MAPS SECTION \_\_\_\_\_

SUBSTATION NO. \_\_\_\_\_ FEEDER \_\_\_\_\_



**ALEXANDRIA UTILITY SYSTEM**  
**CONSUMER JACKSON @ HORSESHOE ROUNDABOUT**  
**POLE # BEGIN ENDING**

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

**JOB NO. 2019H15A**

**EST. BEGIN DATE**

POLE NO.	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY		SECONDARY		SERVICE		TRANS. UNIT	SEC. UNIT	SERV. UNIT	R/W CLEAR	GROUND M-2	GUYS	MISCELLANEOUS UNITS	REMARKS
				SPAN	NO. COND. TYPE PRIMARY	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN								
(STR #9 OLD)																	
STR #3-2R	45-3	H	R	143	3 477AAC	4/0ACSR			C1AL	G11	J1	2 K2-2			METER		

WORK DESCRIPTION RETIRE BUILT BY NO.                      COMPLETION DATE                      BRANCH                      WORK ORDER NO.                     

WORK PLAN                      SURVEY BY MF,JJ DATE 09/15/15

CHECKED BY                      DATE     /    /    

PARISH                      WARD                     

TAX DISTRICTS                     

MAPS SECTION                     

SUBSTATION NO.                      FEEDER                     

SHEET NO. 4 OF 7 SHEETS  
**Revision: 1 - 05/08/19** 05/08/19 @ 16:47





**AUS** Alexandria Utility System  
Better Service. Better Value!

CONSUMER **JACKSON @ HORSESHOE ROUNDABOUT**  
POLE # BEGIN \_\_\_\_\_ ENDING \_\_\_\_\_

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

EST. BEGIN DATE \_\_\_\_\_ JOB NO. **2019H15A**

POLE NO.	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY			SECONDARY			SERVICE		TRANS. UNIT	SEC. UNIT	SERV. UNIT	RW CLEAR	GROUND M-2	GUYS	ANCH. UNIT	MISCELLANEOUS UNITS	REMARKS
				SPAN	NO. COND. TYPE PRIMARY	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN	NO. COND. TYPE	NO. COND. TYPE									
STR #1	55-1	H	I	E) 477AAC	E) 4/0ACSR						2 DC-CS7				M2-1	4 E1-5S 2 E1-3S	3 M5-8L 9 M5-1A-477AL	14 M5-5 2 M5-1A-4/0AL		
STR #2	55-1	C	I	6 477AAC	4/0ACSR						2 DC-CS7				M2-1	4 E1-5S 2 E1-3S	8 M5-5 6 M5-1A-4/0AL 6 FP-EXT 6 D7.2DH	6 M5-1A-477AL FO-144 FO-SPLICE		
STR #2.1	50-ENG	C	I	6 477AAC	4/0ACSR						DC-CS8-FG				M2-1-SP		FND-48X31	FO6-144	181 ADSS	
STR #3	60-ENG	C	I	6 477AAC	4/0ACSR						DC-CS8-FG 2 CS7L-FG				M2-1-SP		FND-52X36 6 M5-1A-477AL	FO6-144 M5-1A-4/0AL	106 ADSS	
STR #4	60-1	C	I	6 477AAC	4/0ACSR						CS2L CS8L				M2-1 M2-15	2 E1-5S E1-3S	3 M3-15 3 FP-EXT			

WORK DESCRIPTION **INSTALL** BUILT BY NO. \_\_\_\_\_ COMPLETION DATE \_\_\_\_\_ BRANCH \_\_\_\_\_ WORK ORDER NO. \_\_\_\_\_

WORK PLAN \_\_\_\_\_ SURVEY BY **MF, JJ** DATE **09/15/15**

CHECKED BY \_\_\_\_\_ DATE / /

PARISH \_\_\_\_\_ WARD \_\_\_\_\_

TAX DISTRICTS \_\_\_\_\_

MAPS SECTION \_\_\_\_\_

SUBSTATION NO. \_\_\_\_\_ FEEDER \_\_\_\_\_



**AUS** Alexandria Utility System  
Better Service. Better Value!

CONSUMER **JACKSON @ HORSESHOE ROUNDABOUT**  
POLE # BEGIN \_\_\_\_\_ ENDING \_\_\_\_\_

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

EST. BEGIN DATE \_\_\_\_\_ JOB NO. **2019H15A**

POLE NO.	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY		SECONDARY		SERVICE		TRANS. UNIT	SEC. UNIT	SERV. UNIT	RW CLEAR	GROUND M-2	GUYS	ANCH. UNIT	MISCELLANEOUS UNITS	REMARKS
				NO. COND. TYPE PRIMARY	SPAN	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN									
(STR #4)																		
STR #5	55-1	H	I	I	6 477AAC	236		4/0ACSR		CS7L	J1	3 K2-2		M2-1	2 E2-2S	M3-15	M5-1A-4/0AL	6 M5-1A-477AL
		H	I	I						CS8L				M2-15		M26-2		
		H	I	I						A7						2 M5-1A-2AL		
		H	L	L												4 D7.2DH	2 DRS6H	3 DRS8H
		C	I	I												2 FP-EXT		
STUB POLE	35-5	C	I	I												2 FP-EXT		
(STR #3)																		
STR #3-1L	60-1	H	I	I	3 477AAC	92		4/0ACSR		CS8L	G11	3 K2-1/0		M2-1		M3-15	M5-1A-4/0AL	3 M5-1A-477AL
		H	I	I							G1B72-120-100			M2-15		M26-3	FO1-144	92 ADSS
		H	L	L												3 DRS8H		
STR #3-2L	50-ENG	H	I	I	3 477AAC	60		4/0ACSR		C8-1L-FG	G34	2 K3-4/0		M2-1-SP		FND-42X31	FO6-144	60 ADSS
		H	I	I						A7-FG	G1B72-120-75					4 D7.2DH	2 DRS6H	2 DRS9H
		H	L	L														

WORK DESCRIPTION **INSTALL** BUILT BY NO. \_\_\_\_\_ COMPLETION DATE \_\_\_\_\_ BRANCH \_\_\_\_\_ WORK ORDER NO. \_\_\_\_\_

WORK PLAN \_\_\_\_\_

SURVEY BY **MF, JJ** DATE **09/15/15**

CHECKED BY \_\_\_\_\_ DATE / /

PARISH \_\_\_\_\_ WARD \_\_\_\_\_

TAX DISTRICTS \_\_\_\_\_

MAPS SECTION \_\_\_\_\_

SUBSTATION NO. \_\_\_\_\_ FEEDER \_\_\_\_\_



**AUS** Alexandria Utility System  
Better Service. Better Value!

CONSUMER **JACKSON @ HORSESHOE ROUNDABOUT**  
POLE # BEGIN \_\_\_\_\_ ENDING \_\_\_\_\_

**STAKING SHEET**

**ISSUED FOR CONSTRUCTION**

EST. BEGIN DATE \_\_\_\_\_ JOB NO. **2019H15A**

POLE NO. (STR #3)	POLE HT. & CLASS	HOT OR CLD	I R L	PRIMARY		SECONDARY		SERVICE		TRANS. UNIT	SEC. UNIT	SERV. UNIT	RW CLEAR	GROUND M-2	GUYS	ANCH. UNIT	MISCELLANEOUS UNITS	REMARKS
				NO. COND. TYPE PRIMARY	SPAN	NO. COND. TYPE NEUTRAL	SPAN	NO. COND. TYPE	SPAN									
STR #3-1R	55-2	H	I	3 477AAC	249	4/0ACSR				G11	J1	K2-2		M2-1	E1-5	FP-3 M26-2 FP-EXT		
SERVICE POLE	35-5	H	I				110	2ALTPLX			2 J1	2 K2-2						
METER		H	I				45	2ALTPLX										
(STR #3-1R)																		
STR #3-2R	40-ENG	H	I	3 477AAC	130	4/0ACSR				G11	J1	K2-2		M2-1-SP		FND-42X31 METER 3 D7.2DH DRS6H 2 DRS8H		

WORK DESCRIPTION **INSTALL** BUILT BY NO. \_\_\_\_\_ COMPLETION DATE \_\_\_\_\_ BRANCH \_\_\_\_\_ WORK ORDER NO. \_\_\_\_\_

WORK PLAN \_\_\_\_\_ SURVEY BY **MF,JJ** DATE **09/15/15**

CHECKED BY \_\_\_\_\_ DATE / /

PARISH \_\_\_\_\_ WARD \_\_\_\_\_

TAX DISTRICTS \_\_\_\_\_

MAPS SECTION \_\_\_\_\_

SUBSTATION NO. \_\_\_\_\_ FEEDER \_\_\_\_\_

# JOB SUMMARY

**ISSUED FOR  
CONSTRUCTION**

Project : JACKSON @ HORSESHOE ROUNDABOUT

Reporting Sheets 1 Thru 7

Page No. 1 of 3

Work Order : \_\_\_\_\_

Job Number : 2019H15A

Run Date: 05/08/19 @ 16:46

UNIT	DESCRIPTION	INSTALLED			RETIRED			RELOCATED				
		HOT	COLD	TOTAL	HOT	COLD	TOTAL	HOT	COLD	TOTAL		
<b>POLES</b>												
30-5	POLE 30' CLASS 5					2					2	
35-5	POLE 35' CLASS 5	1	1	2								
40-5	POLE 40' CLASS 5						2				2	
40-ENG	40' ENGINEERED STEEL POLE	1		1								
45-3	POLE 45' CLASS 3					6					6	
50-2	POLE 50' CLASS 2					3					3	
50-ENG	50' ENGINEERED STEEL POLE	1	1	2								
55-1	POLE 55' CLASS 1	2	1	3								
55-2	POLE 55' CLASS 2	1		1		1					1	
55-C	55' CONCRETE POLE					1					1	
60-1	POLE 60' CLASS 1	1	1	2								
60-ENG	60' ENGINEERED STEEL POLE		1	1								
<b>CONDUCTOR</b>												
2AL TPLX	D2AL TPLX	155		155		42					42	
4/0ACSR	CONDUCTOR,4/0ALUMINUM (ACSR)	809	466	1,275		1,396					1,396	
477AAC	477 ALL ALUMINUM (COSMOS)	3,261	2,796	6,057		5,268					5,268	
4ACSR	CONDUCTOR,4ALUM (ACSR)					398					398	
ADSS	ADSS FIBER OPTIC CABLE	152	329	481		647					647	
<b>SECONDARY &amp; SERVICES</b>												
J8L	SEC. ASSEMBLY, CLAMP, DEADEND, LG	1		1								
K1	DUPLEX SERVICE DEADEND					6					6	
K2-1/0	1/0 TRIPLEX SERVICE DEADEND	3		3		3					3	
K2-2	2AL TRIPLEX SERVICE DEADEND	8		8		7					7	
K3-1/0	1/0AL QUAD SERVICE DEADEND					1					1	
K3-4/0	4/0 QUAD. SERVICE DEADEND	2		2		2					2	
<b>PRIMARY UNITS</b>												
A7	7.2KV 1PH DOUBLE ARM DEADEND	1		1		1					1	
A7-FG	7.2KV 1PH DBL FG XARM DEADEND	1		1								
A9-1	7.2KV 1PH SINGLE ARM					2					2	
B7	7.2KV VPH DBL ARM DEADEND					1					1	
C1AL	TANGENT, LG COND, NEUT ON POLE					3					3	

# JOB SUMMARY

**ISSUED FOR  
CONSTRUCTION**

Project : JACKSON @ HORSESHOE ROUNDABOUT

Reporting Sheets 1 Thru 7

Page No. 2 of 3

Work Order :

Job Number : 2019H15A

Run Date: 05/08/19 @ 16:46

UNIT	DESCRIPTION	INSTALLED		RETIRED		RELOCATED				
		HOT	COLD	TOTAL	HOT	COLD	TOTAL	HOT	COLD	TOTAL
C2AL C7	7.2KV,XARM,SMALL ANG,LG COND 7.2KV 3PH DBL ARM DEADEND	1		1						
C7L	3-XARMS,SINGLE DEADEND,LG COND									2
C8-1L	DBL DE,NEUT ON X-ARMS,LG COND									1
C8-1L-FG	DBL DE,NEUT ON FG-XARM LG COND	1		1						2
C8L	X-ARM DBL DE,LARGE CONDUCTOR									1
C8L-FG	FG X-ARM DBL DE, LG CONDUCTOR	1		1						2
C9	7.2KV KV 3 PH DBL ARM									2
CS2L	7.2KV,SHIELD,XARM,SM ANGLE, LC									1
CS7L	7.2KV,SHIELD,SGL DE,LG COND	1		1						
CS7L-FG	7.2KV,SHEILD,SGL DE LG COND.									2
CS8L	7.2KV,SHIELD,DBL DE,LG COND	2		3						1
DC-CS1	7.2KV,DBL CKT,XARM,TANG STR.									1
DC-CS7	DBL CKT,SGL DE,LG COND,SHIELD	2		4						
DC-CS8	DBL CKT,XARM,DBL DE,SHIELDED									1
DC-CS8-2	DBL CKT,DBL DE,3-XARMS,UNBAL									1
DC-CS8-FG	DBL.CKT,FG XARM DBL DE SHLD.									2
<b>TRANSFORMERS</b>										
G11	1-PHASE XFMR ON 3-PHASE POLE	3		3						4
G1B72-120-100	TRANS, 7200V X 120/240 100 KVA	1		1						
G1B72-120-25	TRANS, 7200V X 120/240 25 KVA	2		2						3
G1B72-120-75	TRANS, 7200V X 120/240 75 KVA	3		3						4
G34	3-PHASE XFMR BANK CLUSTER MNT.	1		1						1
<b>GUYS &amp; ANCHORS</b>										
E1-2	SINGLE DOWN GUY 3/8" THRU BOLT									2
E1-3	SGL DOWN GUY W/P BAND 3/8"EHS									1
E1-3S	INSUL,SGL DOWN GUY,W/POLE BAND	2		5						2
E1-5	DBL DOWN GUY W/P BAND 3/8" EHS	1		1						1
E1-5S	INSUL,DBL DOWN GUY,W/POLE BAND	4		12						2
E2-2S	INSUL,SGL O/H GUY,THROUGH BOLT	2		2						4
FP-1	8' SINGLE HELIX ANCHOR									1
FP-3	TRIPLE HELIX ANCHOR,W/5' EXT	1		19						6
FP-EXT	ANCHOR ROD EXTENSION,1.5"X 5'	1		19						5

# JOB SUMMARY

**ISSUED FOR  
CONSTRUCTION**

Project : JACKSON @ HORSESHOE ROUNDABOUT

Reporting Sheets 1 Thru 7

Page No. 3 of 3

Work Order : \_\_\_\_\_

Job Number : 2019H15A

Run Date: 05/08/19 @ 16:46

UNIT	DESCRIPTION	INSTALLED			RETIRED			RELOCATED		
		HOT	COLD	TOTAL	HOT	COLD	TOTAL	HOT	COLD	TOTAL
<b>MISCELLANEOUS</b>										
D7.2DH	DEADEND PHASE RELOCATE 7200V									17
DRS6H	NEUTRAL RELOCATE DEADEND HOT									6
DRS8H	TPLX/DUP CABLE REL D E HOT									8
DRS9H	QUAD CABLE REL D E HOT									2
FND-42X31	CONC.REINF. POLE FND 42" X 31'	2		2						
FND-48X31	CONC.REINF. POLE FND 48" X 31'		1	1						
FND-52X36	CONC.REINF. POLE FND 52" X 36'		1	1						
FO-SPLICE	ADSS SPLICE	1	1	2						
FO1-144	FIBER OPTIC TANGENT 97-144 CT	1		1	4		4			4
FO6-144	FIBER OPTIC DBL DE 97-144 CT	1	4	5	1		1			1
J1	SEC. ASSEMBLY,EYEBOLT	9		9	15		15			15
M2-1	GROUNDING ASSEMBLY GRD ROD TYP	4	2	6						
M2-1-SP	STEEL POLE GROUNDING ASSMBLY.	2	2	4						
M2-15	GRD ASSEM PLATFORM TYPE	2	1	3	3		3			3
M26-2	NEIGHBORHOOD LIGHT,100W HPS	2		2	3		3			3
M26-3	STREET LIGHT,250W HPS	1		1	1		1			1
M3-1	FUSED CUTOUT W/MOUNT BRKT									
M3-15	7.6KV AIR BREAK SWITCH GANG OP	2	1	3	1		1			1
M3-5A	100A,LOADBREAK CUTOUT				3		3			3
M5-1A-2AL	#2 ALUMINUM JUMPER	2		2						
M5-1A-4/0AL	4/0 ALUMINUM JUMPER	4	3	7						
M5-1A-477AL	477 ALUMINUM JUMPER	18	12	30						
M5-5	X-ARM PIN ASSEM 7.6 ON ALUM	14	8	22	3		3			3
M5-6B	LIGHTNING ARRESTOR,W/BRKT				1		1			1
M5-8L	DEADEND INSUL ASSEMBLY,LG COND	3		3						
METER	METER 120/240V	1		1	1		1			1
XA8	8' XARM ASSEMBLY, WITH BRACES				1		1			1

# TABLE OF CONTENTS

## DIVISION 1

### General Provisions

	Pages
Section 1: DEFINITION OF TERMS	GP 1 thru 6
Section 2: BID REQUIREMENTS AND CONDITIONS	
2.1 Advertisement for Bids	GP 2-1
2.2 Contents of Bid Forms	GP 2-1
2.3 Interpretation of Estimates	GP 2-1
2.4 Examination of Drawings, Specifications, Special Provisions and Site of Work	GP 2-2
2.5 Preparation of Bids	GP 2-2
2.6 Rejection of Bids	GP 2-2
2.7 Bid Guaranty	GP 2-2
2.8 Delivery of Bids	GP 2-2
2.9 Withdrawal of Bids	GP 2-3
2.10 Opening of Bids	GP 2-3
2.11 Disqualification of Bidders	GP 2-3
2.12 Competency of Bidders	GP 2-3
2.13 Joint Bids	GP 2-3
2.14 Interpretations and Addenda	GP 2-3
2.15 Substitute Material or Products-Prior Approvals	GP 2-4
Section 3: AWARD AND EXECUTION OF CONTRACT	
3.1 Consideration of BIDS	GP 3-1
3.2 Award of AGREEMENT	GP 3-1
3.3 Return of BID BONDS	GP 3-1
3.4 Execution of AGREEMENT	GP 3-1
3.5 Performance, Payment and Other BONDS	GP 3-1
3.6 Personnel Employment	GP 3-2
3.7 Copies of CONTRACT DOCUMENTS	GP 3-2
3.8 Failure to Execute AGREEMENT	GP 3-2
3.9 Commencement of Contract Time; NOTICE TO PROCEED	GP 3-2
3.10 Preconstruction Conference	GP 3-3
3.11 Before Starting Construction	GP 3-3
3.12 Starting the WORK	GP 3-3
3.13 Preliminary Schedules	GP 3-3

#### Section 4: CONTRACT DOCUMENTS, INTENT, AMENDING, REUSE

4.1	Intent	GP 4-1
4.2	Reference to Standards, Resolving Discrepancies	GP 4-1
4.3	Amending CONTRACT DOCUMENTS	GP 4-2
4.4	Notice to SURETY	GP 4-2
4.5	Supplementing CONTRACT DOCUMENTS	GP 4-3
4.6	Reuse of DOCUMENTS	GP 4-4
4.7	SPECIAL PROVISIONS	GP 4-4

#### Section 5: LANDS: RIGHTS-OF-WAY, PHYSICAL CONDITIONS, SUBSURFACE CONDITIONS

5.1	Lands and Rights-of-way	GP 5-1
5.2	Subsurface and Physical Conditions	GP 5-1
5.3	Limited Reliance on Technical Data	GP 5-1
5.4	Physical Conditions - Underground Facilities	GP 5-2
5.5	Construction Stakes	GP 5-2
5.6	Engineer's Level	GP 5-3
5.7	ASBESTOS, PCB's, Petroleum, Hazardous Waste or Radioactive Material	GP 5-3
5.8	Indemnity and Hold Harmless	GP 5-3

#### Section 6: INSURANCE, PARTIAL UTILIZATION, PRESERVATION AND RESTORATION

6.1	Insurance	GP 6-1
6.2	Types of Insurance	GP 6-1
6.3	Builder's Risk	GP 6-2
6.4	Partial Utilization	GP 6-3
6.5	Preservations and Restoration of Property, Trees, Monuments	GP 6-3

#### Section 7: CONTRACTOR'S RESPONSIBILITIES AND PROSECUTION OF THE WORK

7.1	Supervision	GP 7-1
7.2	Subletting or Assignment	GP 7-1
7.3	Character of Workmen and Equipment	GP 7-2
7.4	Source of Supply - Quality of Materials	GP 7-2
7.5	Materials Furnished by CONTRACTOR	GP 7-2
7.6	Storage of Materials	GP 7-3
7.7	Defective Material	GP 7-3
7.8	SAMPLES and Tests	GP 7-3
7.9	Substitutes or "Equal Items"	GP 7-4
7.10	Subcontractors, Suppliers and Others	GP 7-5
7.11	Permits and Licenses	GP 7-5



7.12	Laws and Regulations	GP 7-5
7.13	Taxes	GP 7-6
7.14	Use of Premises	GP 7-6
7.15	Sanitary Provisions	GP 7-6
7.16	Record Documents	GP 7-7
7.17	Safety and Protection	GP 7-7
7.18	Traffic Safety Precautions	GP 7-7
7.19	SHOP DRAWINGS and SAMPLES	GP 7-8
7.20	Indemnification	GP 7-9
7.21	Cooperation with Public Utilities	GP 7-10
7.22	CONTRACTORS General Warranty and Guarantee	GP 7-10

## Section 8: ARCHITECT/ENGINEER'S STATUS DURING CONSTRUCTION

8.1	CITY'S Representative	GP 8-1
8.2	Visits to SITE	GP 8-1
8.3	PROJECT REPRESENTATIVE	GP 8-2
8.4	Clarifications & Interpretations	GP 8-3
8.5	Authorized Variations In WORK	GP 8-3
8.6	Rejecting DEFECTIVE WORK	GP 8-3
8.7	Determinations for Unit Price	GP 8-4
8.8	Decisions on Disputes	GP 8-4
8.9	Impartiality	GP 8-4
8.10	Limitations on ARCHITECT/ENGINEER'S Authority and Responsibilities	GP 8-5

## Section 9: CITY'S RESPONSIBILITY

9.1	Method of Communications	GP 9-1
9.2	Termination of ARCHITECT/ENGINEER	GP 9-1
9.3	Processing Payments	GP 9-1
9.4	Lands, Rights-of-way, Easements	GP 9-1
9.5	CHANGE ORDERS	GP 9-1
9.6	Samples and Tests	GP 9-1
9.7	Stop WORK, Suspend WORK, Terminate Services	GP 9-1
9.8	Prosecution of the WORK	GP 9-2

## Section 10: CHANGE IN CONTRACT TIME

10.1	Change in CONTRACT TIME	GP 10-1
10.2	Delays	GP 10-1
10.3	Temporary Suspension of WORK	GP 10-1
10.4	Extension of CONTRACT TIME	GP 10-2
10.5	Failure to Complete WORK on Time	GP 10-2

## Section 11: CHANGES IN CONTRACT PRICE

11.1 CONTRACT PRICE	GP 11-1
11.2 Changes in CONTRACT PRICE	GP 11-1
11.3 Value of WORK	GP 11-1
11.4 Increased or Decreased Quantities	GP 11-3

## Section 12: PAYMENTS AND COMPLETION

12.1 Progress Payments	GP 12-1
12.2 Scope of Payments	GP 12-1
12.3 Final Cleaning Up	GP 12-2
12.4 Final Inspection	GP 12-2
12.5 Acceptance and Final Payment	GP 12-3
12.6 Waiver of Claims	GP 12-3
12.7 CONTRACTOR'S Guarantee	GP 12-3

## Section 13: TERMINATION AND DEFAULT

13.1 Termination	GP 13-1
13.2 CONTRACTOR May Terminate	GP 13-2
13.3 Default of CONTRACT	GP 13-2
13.4 Termination of CONTRACTOR'S Responsibility	GP 13-3

## DIVISION 1

### General Provisions

#### Section 1

#### Definition of Terms

1.1	STATE	1.26	EFFECTIVE DATE OF AGREEMENT
1.2	PARISH	1.27	FIELD ORDER
1.3	CITY	1.28	HAZARDOUS WASTE
1.4	COUNCIL	1.29	LAWS AND REGULATIONS
1.5	MAYOR	1.30	LABORATORY
1.6	DIRECTOR OF PUBLIC WORKS	1.31	LIENS
1.7	ARCHITECT/ENGINEER	1.32	NOTICE OF AWARD
1.8	ADDENDA	1.33	NOTICE TO PROCEED
1.9	AGREEMENT	1.34	PARTIAL UTILIZATION
1.10	APPLICATION FOR PAYMENT	1.35	PLANS
1.11	ASBESTOS	1.36	PROJECT
1.12	BID	1.37	PROJECT REPRESENTATIVE
1.13	BIDDER	1.38	SAMPLES
1.14	BIDDING DOCUMENTS	1.39	SHOP DRAWINGS
1.15	BIDDING REQUIREMENT	1.40	SPECIAL PROVISIONS
1.16	BONDS	1.41	SPECIFICATIONS
1.17	CERTIFICATE OF ACCEPTANCE	1.42	SUBCONTRACTOR
1.18	CHANGE ORDER	1.43	SUPPLIER
1.19	CONTRACT DOCUMENTS	1.44	UNDERGROUND FACILITIES
1.20	CONTRACT PRICE	1.45	UNIT PRICE WORK
1.21	CONTRACT TIME	1.46	WORK
1.22	CONTRACTOR	1.47	WORKING DAY
1.23	CONTROLLING ITEMS OF WORK	1.48	WRITTEN AMENDMENT
1.24	DEFECTIVE	1.49	DEFINITION OF ALPHABETICAL
1.25	DRAWINGS TERMS	1.50	OR EQUAL

Wherever used in these SPECIFICATIONS or CONTRACT DOCUMENTS, the following terms shall have the meaning indicated and shall be applicable to both the singular and plural thereof.

- 1.1 STATE: State of Louisiana.
- 1.2 PARISH: The Parish of Rapides.
- 1.3 CITY: The City of Alexandria, Louisiana, domiciled in Rapides Parish and governed by a Mayor-Council form of government represented by the MAYOR.

- 1.4 COUNCIL: The elected COUNCIL and governing body of CITY.
- 1.5 MAYOR: The MAYOR of the CITY.
- 1.6 DIRECTOR OF PUBLIC WORKS: The DIRECTOR OF PUBLIC WORKS of the CITY or his authorized representative.
- 1.7 ARCHITECT/ENGINEER: The person, firm, or corporation named as such in the AGREEMENT.
- 1.8 ADDENDA: Written or graphic instruments issued prior to the BID opening that modify or interpret the CONTRACT DOCUMENTS, PLANS, and SPECIFICATIONS, by additions, deletions, clarifications or corrections.
- 1.9 AGREEMENT: The written Contract between the CITY and the CONTRACTOR concerning the work to be performed; other CONTRACT DOCUMENTS are attached to the AGREEMENT and made a part thereof as provided therein.
- 1.10 APPLICATION FOR PAYMENT: The form approved by the CITY to be used by the CONTRACTOR in requesting progress or final payments. The application may require supporting documentation as required in the CONTRACT DOCUMENTS or additionally by the CITY.
- 1.11 ASBESTOS: Any material that contains more than one percent ASBESTOS and is friable or is releasing ASBESTOS fibers into the air above current action levels established by the United State Occupational Safety and Health Administration.
- 1.12 BID: The written offer of the BIDDER to perform the contemplated WORK and furnish the necessary materials on the prescribed form, properly signed in accordance with Louisiana law.
- 1.13 BIDDER: Any individual, firm or corporation submitting a BID for the WORK contemplated, acting directly or through a duly authorized representative.
- 1.14 BIDDING DOCUMENTS: The Advertisement or Invitation to BID, Instruction(s) to BIDDERS, the BID form(s), and the proposed CONTRACT DOCUMENTS including ADDENDA or acknowledgment of ADDENDA issued prior to receipt of BID.
- 1.15 BIDDING REQUIREMENTS: The Advertisement or Invitation to BID, Instruction(s) to BIDDERS and the BID form(s), and applicable Louisiana law.
- 1.16 BONDS: BID, Performance and Payment BONDS and other instruments of security, furnished by the CONTRACTOR and the CONTRACTOR'S SURETY, in accordance with the BIDDING REQUIREMENTS and CONTRACT DOCUMENTS.

- 1.17 **CERTIFICATE OF ACCEPTANCE:** Document recommended by ARCHITECT/ENGINEER, executed by MAYOR at the direction of CITY COUNCIL indicating that all WORK has been completed in accordance with the CONTRACT DOCUMENTS.
- 1.18 **CHANGE ORDER:** A document recommended by the ARCHITECT/ENGINEER on an approved form signed by the CONTRACTOR and CITY and authorizing an addition, deletion or revision in the WORK or an adjustment in the CONTRACT PRICE or the CONTRACT TIME issued on or after the effective date of the AGREEMENT.
- 1.19 **CONTRACT DOCUMENTS:** The AGREEMENT, ADDENDA, CONTRACTOR'S BID, NOTICE OF AWARD, NOTICE TO PROCEED, the BONDS, these General Provisions, the SPECIAL PROVISIONS, the SPECIFICATIONS and PLANS, WRITTEN AMENDMENTS, CHANGE ORDERS, FIELD ORDERS and the ARCHITECT/ENGINEER'S written interpretations and clarifications issued on or after the EFFECTIVE DATE OF THE AGREEMENT.
- 1.20 **CONTRACT PRICE:** The total moneys payable by the CITY to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.21 **CONTRACT TIME:** The number of WORKING DAYS allowed for the completion of the CONTRACT, including authorized time extensions.
- 1.22 **CONTRACTOR:** The individual, firm or corporation who enters into an AGREEMENT awarded him by the CITY. The CONTRACTOR may act directly or through a lawfully authorized agent or employee.
- 1.23 **CONTROLLING ITEMS OF WORK:** Items of construction that should be in progress at the time, as essential to the orderly completion of the WORK within the time limit specified, in accordance with the CONTRACTOR's approved progress schedule.
- 1.24 **DEFECTIVE:** An item of work that is unsatisfactory, faulty or deficient in that it does not conform to the CONTRACT DOCUMENTS, or does not meet the requirement of any inspection, reference standard, test or required approvals.
- 1.25 **DRAWINGS:** Individual sheets of the Construction PLANS which contain graphic information concerning the Proposed WORK which have been prepared or approved by ARCHITECT/ENGINEER and are referred to in the CONTRACT DOCUMENTS. Shop drawings are not drawings as defined herein.
- 1.26 **EFFECTIVE DATE OF THE AGREEMENT:** The date indicated in the AGREEMENT on which it becomes effective, but if no such date is indicated, it means the date on which the AGREEMENT is signed by the Mayor.

- 1.27 **FIELD ORDER:** A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ARCHITECT/ENGINEER to the CONTRACTOR during construction.
- 1.28 **HAZARDOUS WASTE:** The term HAZARDOUS WASTE shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 1.29 **LAWS AND REGULATIONS:** Any and all applicable laws, rules, regulations, ordinances, codes and orders of governmental bodies, agencies, authorities and courts having jurisdiction.
- 1.30 **LABORATORY:** The testing laboratories employed by the CITY to make required tests.
- 1.31 **LIENS:** Liens, charges, security interests or encumbrances upon real property or personal property.
- 1.32 **NOTICE OF AWARD:** A written notice given by the CITY or ARCHITECT/ENGINEER to the apparent successful BIDDER. The notice may enumerate conditions precedent to the award which require compliance activity from the apparent low BIDDER, such as, submission of BONDS, construction scheduling, etc. Where no formal written notice is provided, the AGREEMENT shall constitute NOTICE OF AWARD.
- 1.33 **NOTICE TO PROCEED:** A written notice from the CITY or ARCHITECT/ENGINEER notifying the CONTRACTOR to begin the prosecution of the WORK.
- 1.34 **PARTIAL UTILIZATION:** Use by the CITY of a part of the WORK for the purpose for which it is intended, prior to completion of all of the WORK.
- 1.35 **PLANS:** The set of DRAWINGS, consisting of profiles, typical cross sections, general cross sections, working DRAWINGS and supplemental DRAWINGS, or exact reproductions thereof, which show the location, character, dimension and details of WORK to be done and which are to be considered as part of the CONTRACT, supplementary to the SPECIFICATIONS.
- 1.36 **PROJECT:** The total of the WORK to be provided as specified by the CONTRACT DOCUMENTS.
- 1.37 **PROJECT REPRESENTATIVE:** The authorized representative of the ARCHITECT/ENGINEER or CITY who may be assigned to the site or any part thereof.

- 1.38 **SAMPLES:** Physical examples of material, equipment, or workmanship that are representative of some portion of the work and which establish the standard by which such portion of the WORK will be judged.
- 1.39 **SHOP DRAWINGS:** All drawings, diagrams, illustration, schedules, and other data or information which are submitted by the CONTRACTOR to illustrate some portion of the WORK.
- 1.40 **SPECIAL PROVISIONS:** The specific clauses or provisions setting forth conditions or requirements, peculiar to the PROJECT under consideration and covering WORK or materials involved in the proposal but not thoroughly or satisfactorily stipulated or set forth by the General Provisions.
- 1.41 **SPECIFICATIONS:** Those portions of the CONTRACT DOCUMENTS consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the WORK.
- 1.42 **SUBCONTRACTOR:** Any individual, firm, partnership, or corporation who contracts with the CONTRACTOR to perform any part of the PROJECT covered by the CONTRACT.
- 1.43 **SUPPLIER:** A manufacturer, fabricator, supplier, distributor, material man or vendor having a direct contract with the CONTRACTOR or with any SUBCONTRACTOR to furnish materials or equipment to be incorporated into the WORK.
- 1.44 **UNDERGROUND FACILITIES:** All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments along with any encasements containing such facilities which have been installed underground to furnish: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.
- 1.45 **UNIT PRICE WORK:** Work to be paid on the basis of unit prices.
- 1.46 **WORK:** All labor, materials, equipment and/or services required to be incorporated into the construction necessary to produce the PROJECT specified by the CONTRACT DOCUMENTS.
- 1.47 **WORKING DAY:** A calendar day, with exceptions stated herein, on which weather and other conditions not under control of CONTRACTOR will permit construction operations to proceed for at least five (5) continuous hours of the day with a normal working force engaged in performing the CONTROLLING ITEMS OF WORK.

No WORKING DAYS will be charged for the following days:

1. Saturdays and Sundays.
2. CITY recognized holidays:
  - a. New Year's Day
  - b. Martin Luther King's birthday
  - c. Good Friday
  - d. Fourth of July
  - e. Labor Day
  - f. Veterans' Day
  - g. Thanksgiving Day
  - h. Friday following Thanksgiving Day
  - i. Christmas Day
  - j. Any other holiday declared by the CITY COUNCIL
3. Days on which delays, attributable solely to the CITY or other governmental agencies prevent CONTRACTOR from proceeding with the CONTROLLING ITEMS OF WORK at time of delay.
4. Days on which delays are attributable to the direct effect of strikes, riots or civil commotions.

1.48 WRITTEN AMENDMENT: A WRITTEN AMENDMENT of the CONTRACT DOCUMENTS, signed by the CITY and CONTRACTOR on or after the EFFECTIVE DATE of the AGREEMENT and normally dealing with the non-ARCHITECT/ENGINEERING or non-technical rather than strictly construction-related aspects of the CONTRACT DOCUMENTS.

1.49 DEFINITION OF ALPHABETICAL TERMS:

- A.A.S.H.T. O.: American Association of State Highway Transportation Officials
- A.S.T.M. : American Society for Testing Materials
- A.S.A. : American Standards Association
- A.W.W.A. : American Water Works Association
- A.W.P.A. : American Wood Preservers Association
- LA DOTD : Louisiana Department of Transportation and Development
- C.O.A. : City of Alexandria
- M.U.T.C.D. : Manual on Uniform Traffic Control Devices, latest edition

1.50 OR EQUAL: Whenever in these CONTRACT DOCUMENTS a particular brand, make of material, device or equipment is specified, followed by the words "or EQUAL", such brand, make of material, device, or equipment should be regarded merely as establishing a standard or quality. If two or more brands, makes of material, devices, or equipment are shown or specified, each should be regarded as the EQUAL of the other. Any other brand, make of material, device, or equipment, which, in the opinion of the ARCHITECT/ENGINEER, is the recognized EQUAL of that specified, considering quality, workmanship, and economy of operation, and is suitable for the purpose intended, may be accepted by the ARCHITECT/ENGINEER as a substitute, provided that all materials and



workmanship shall in every respect be in accordance with what, in the opinion of the ARCHITECT/ENGINEER, is the best modern practice.

# DIVISION 1

## General Provisions

### Section 2

#### Instructions to Bidders

- |     |  |      |   |
|-----|--|------|---|
| 2.1 | Advertisement for BIDS   | 2.8  | Delivery of BIDS                                      |
| 2.2 | Contents of BID Forms  | 2.9  | Withdrawal of BIDS                                    |
| 2.3 | Interpretation of Estimates  | 2.10 | Opening of BIDS                                       |
| 2.4 | Examination of DRAWINGS,<br>SPECIFICATIONS, SPECIAL<br>PROVISIONS and Site of WORK | 2.11 | Disqualification of<br>BIDDERS                        |
| 2.5 | Preparation of BIDS  | 2.12 | Competency of BIDDERS                                 |
| 2.6 | Rejection of BIDS  | 2.13 | Joint BIDS  |
| 2.7 | BID Guaranty   | 2.14 | Interpretations and ADDENDA                           |
|     |  | 2.15 | Substitute Materials or<br>Products - Prior Approvals |

- 2.1 **ADVERTISEMENT FOR BIDS:** In conformity with STATE Law, the CITY will publish a "Notice to CONTRACTORS" requesting BIDS for the WORK. The advertisement for BIDS will contain a description of the WORK; a statement of the place where BIDS will be received and the time for opening same; and Instructions to BIDDERS as how to access DRAWINGS, SPECIFICATIONS and proposals.
- 2.2 **CONTENTS OF BID FORMS:** BIDDERS will be furnished with Bid forms, in duplicate, which will state the locations and description of the contemplated construction and will show the preliminary estimate of the various quantities and kinds of work to be performed, or materials to be furnished, with a schedule of items for which unit prices are asked. The PLANS and SPECIFICATIONS, in force at the time of receipt of BIDS, and the SPECIAL PROVISIONS and other CONTRACT DOCUMENTS will be considered a part of the BID whether attached or not. The BID shall be submitted to the Office of the City Clerk and one copy shall be retained by the BIDDER.
- 2.3 **INTERPRETATION OF ESTIMATES:** The quantities listed in the BID form are to be considered as approximate and are to be used only for the comparison of BIDS. Payment to the CONTRACTOR will be made only for the actual quantities of WORK performed and materials furnished in accordance with the AGREEMENT, and if, upon completion of the construction, the actual quantities shall show either an increase or decrease from the quantities given in the approximate estimate, the unit prices mentioned in the BID will prevail, except as otherwise herein provided.

- 2.4 EXAMINATION OF DRAWINGS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK: The BIDDER is required to examine carefully the site of the proposed PROJECT, BID FORMS, DRAWINGS, SPECIFICATIONS, SPECIAL PROVISIONS, AGREEMENT and BOND forms, for the WORK contemplated and it will be assumed that the CONTRACTOR has investigated and satisfied himself as to the conditions to be encountered as to the character, quality and quantities of WORK to be performed and materials to be furnished, as to the requirements of these SPECIFICATIONS, SPECIAL PROVISIONS and AGREEMENT. BIDDERS are assumed to have made themselves familiar with all Federal and STATE Laws, Local Laws, ordinances and regulations which in any manner shall affect the work or its prosecution. The filing of a BID shall be presumptive evidence that the BIDDER has complied with these requirements.
- 2.5 PREPARATION OF BID: Unless otherwise specified, only BIDS submitted on the forms furnished by the ARCHITECT/ENGINEER will be considered. Except in the case of alternate items, the BIDDER must correctly fill in the spaces for each and every item, (written in ink, both in words and numerals), the unit prices for which he proposes to do the WORK contemplated or to furnish materials. Should the BIDDER fail to correctly submit a unit price for each item as prescribed above, his BID will be classed as irregular.
- 2.6 REJECTION OF BIDS: BIDS may be rejected in the case of any omission, alterations of forms, additions, or conditions not called for, unauthorized alternate BIDS, incomplete BIDS, erasures, or irregularities of any kind. BIDS received, conditioning their consideration or rejection upon BIDS for other work submitted by the same BIDDER may be classed as irregular, unless the SPECIAL PROVISIONS specifically invite or permit conditional or combination BIDS. BIDS not accompanied by a BID guaranty, or if the BID is not signed by the BIDDER, the BID shall be rejected.
- 2.7 BID GUARANTY: Each BID must be accompanied by a BID guaranty equal to five percent (5%) of the total amount of the highest combination for which a BID is submitted. Only Certified Checks or BID BONDS will be accepted as the BIDDER's guaranty with his proposal; any deviation from this requirement will be considered cause for rejection of the BID. The Certified Check shall be issued by a State or National Bank in good standing and shall be made payable to the CITY for not less than the amount specified above. Cashier's Checks or currency will not be accepted as a substitute for Certified Checks or BID BONDS. If Cashier's Check, uncertified check or currency is enclosed with the BID, the BID will be considered informal and the Cashier's Check, uncertified check or currency and all other enclosures, will be returned to the BIDDER without having been read.
- 2.8 DELIVERY OF BIDS: Each BID shall be submitted together with the BID guaranty, in a sealed envelope addressed to the City of Alexandria, Alexandria City Hall, 915 Third Street, Alexandria, Louisiana 71301. Each sealed envelope

containing a BID must be plainly marked on the outside with the "Name of the PROJECT being bid" and the envelope shall bear on the outside the BIDDER's name, address and License Number. If forwarded by mail, the sealed envelope, containing the BID, must be enclosed in another envelope addressed to the CITY at the address provided above. BIDS shall be received up to the time stated in the Advertisement for bids and must be delivered to the CITY COUNCIL Meeting Chambers at the designated place before the expiration of the time stipulated in the Advertisement for bids. BIDS received after the stipulated time will be returned to the BIDDER, unopened.

- 2.9 WITHDRAWAL OF BIDS: A BIDDER may withdraw his BID up to the time set for opening BIDS. The withdrawal of a BID shall not prejudice the right of a BIDDER to file a new BID.
- 2.10 OPENING OF BIDS: BIDS will be opened and read publicly at the time and place indicated in the Advertisement for bids. BIDDERS or their authorized agents are invited to be present.
- 2.11 DISQUALIFICATION OF BIDDERS: If more than one BID is submitted by an individual, a firm or partnership, a corporation or association, under the same or different names, all BIDS so submitted shall be rejected. The BID will be rejected if there is any reason for believing that collusion exists among the BIDDERS and all participants in such collusion, will not be considered in future BIDS for the same WORK. No CONTRACT will be awarded except to responsible BIDDERS capable of performing the class of WORK contemplated, and having sufficient equipment, financial resources and experience to properly perform the WORK.
- 2.12 COMPETENCY OF BIDDERS: BIDDERS must be capable of performing the various items of WORK bid upon. The low BIDDER may be required to submit the following information to the CITY COUNCIL if requested:
  - (a) A statement of his experience in similar work.
  - (b) A financial statement as of the date of the end of the last full quarter immediately preceding the date of opening of BIDS.
  - (c) A certification that he has not failed to carry out any previous CONTRACTS with the CITY.
  - (d) A list of the principal items of equipment and machinery which he proposes to use on the WORK, giving the make, model, capacity, size, age and general condition of all such equipment and machinery.
  - (e) A list giving the names and years of experience of the key personnel he expects to assign to the WORK.
  - (f) A certification that no liens are outstanding on any other contracts.
- 2.13 JOINT BIDS: When two or more persons, firms, or corporations tender a joint BID, each of said persons, firms, or corporations shall have complied with the requirements for prequalification when required in the SPECIAL PROVISIONS

before a BID will be issued to them. Joint BIDS shall be fully executed by all interested parties by and for each of the persons, firms, or corporations interested in said joint BID, by the individual or officers authorized to enter into CONTRACTS for such firms or corporations. In the event of award of a Joint BID, each person, firm, or corporation shall assume the full obligation under the CONTRACT and Performance BOND.

2.14 INTERPRETATIONS AND ADDENDA All questions about the meaning or intent of the CONTRACT DOCUMENTS are to be directed to the ARCHITECT/ENGINEER. Interpretations or clarifications considered necessary by ARCHITECT/ENGINEER and response to such questions will be issued by ADDENDA mailed or delivered to all parties recorded by ARCHITECT/ENGINEER as having received the BIDDING DOCUMENTS. Questions received less than ten (10) days prior to the date for opening of BIDS may not be answered. Only questions answered by formal written ADDENDA will be binding. Oral and other interpretations or clarifications will be without legal affect.

2.14.1 ADDENDA: May also be issued to modify the BIDDING DOCUMENTS as deemed advisable by CITY and ARCHITECT/ENGINEER.

2.15 SUBSTITUTE MATERIALS OR PRODUCTS - PRIOR APPROVALS: In unusual cases where a closed specification has been justified for prior acceptance by the CITY in conformance with Louisiana Revised Statues RS 38:2291 and 38:2292, the naming of that product in the DRAWINGS and SPECIFICATIONS will be followed by wording indicating that no SUBSTITUTION is permitted.

2.15.1 OTHERWISE where the DRAWINGS and SPECIFICATIONS identify a product by a specific brand, make, manufacture, or definite specification, it is to establish the required quality standard for the product regarding style, type, character, materials of construction, function, accessories, dimensions, appearance and durability. Products which are determined to be equivalent by the ARCHITECT/ENGINEER will be acceptable. Products which are specified by specific brand, make or manufacturers name may also be specified by its applicable model or catalog number or other product designation.

2.15.2 SELECTED MATERIALS AND EQUIPMENT: Several alternatives suppliers or manufacturers have been identified. If the BIDDER desires to obtain approval of materials or equipment from other alternative suppliers or manufacturers to those identified in the SPECIFICATIONS, a written request for a SUBSTITUTION shall be submitted to the ARCHITECT/ENGINEER at least fifteen (15) days prior to the BID opening date. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed

substitution is upon the BIDDER. The ARCHITECT/ENGINEER'S decision of approval or disapproval of a proposed substitution shall be final. If ARCHITECT/ENGINEER approves any proposed substitution, such approval will be set forth in an ADDENDA issued to all prospective BIDDERS. BIDDERS shall not rely upon approvals made in any other manner.

2.15.3 AFTER RECEIPT OF BIDS: The CONTRACT, if awarded, will be on the basis of material and product described in the DRAWINGS or specified in the SPECIFICATIONS without consideration of possible substitute of or "EQUAL" items except as specified in 2.15.2 above.

DIVISION 1

General Provisions

Section 3

Award and Execution of Contract

- 1.1 STATE
- 1.2 PARISH
- 1.3 CITY
- 1.4 COUNCIL
- 1.26 EFFECTIVE DATE OF AGREEMENT
- 1.27 FIELD ORDER
- 1.28 HAZARDOUS WASTE
- 1.29 LAWS AND REGULATIONS

- 3.1 Consideration of BIDS
- 3.2 Award of AGREEMENT
- 3.3 Return of BID BONDS
- 3.4 Execution of AGREEMENT
- 3.5 Performance, Payment and Other BONDS
- 3.6 Personnel Employment
- 3.13 Preliminary Schedules
- 3.7 Copies of CONTRACT DOCUMENTS
- 3.8 Failure to Execute Contracts
- 3.9 Commencement of CONTRACT TIME; NOTICE TO PROCEED
- 3.10 Preconstruction Conference
- 3.11 Starting the WORK
- 3.12 Before Starting Construction

3.1 CONSIDERATION OF BIDS: After the BIDS are opened and publicly read, the BID prices will be checked and tabulated as soon as possible. Comparison of acceptable BIDS will be based on the corrected summation of the extensions for each item at the unit prices BID. Prior to announcement of an award of the AGREEMENT, the CITY reserves the right to reject any or all BIDS in accordance with Louisiana Law.

3.2 AWARD OF AGREEMENT: The award of the AGREEMENT, if it be awarded, will be made to the lowest responsible BIDDER whose BID shall comply with all requirements necessary to render it formal. The award, if made, will be within thirty (30) days after the opening of the BIDS. The successful BIDDER will be notified, by letter mailed to the address shown on the BID, that the BID has been accepted and that he has been awarded the AGREEMENT.

3.3 RETURN OF BID BONDS: All BID BONDS will be returned to the unsuccessful BIDDER(s) after the execution of the AGREEMENT with the lowest responsible BIDDER. Should the BIDDER to whom the work be awarded fail to enter into an AGREEMENT within the allotted time or fail to provide a Payment and Performance BOND, the amount of the BID BOND submitted by him will ipso facto, be forfeited to the CITY. Should no award be made within thirty (30) days, all BIDS will be rejected and all guaranties returned, unless the successful BIDDER agrees to a longer delay.

- 3.4 EXECUTION OF AGREEMENT: The successful BIDDER shall be required to execute the AGREEMENT, CONTRACTOR's Affidavit, furnish Performance and Payment BONDS satisfactory to the CITY, along with his Certificate of Insurance, within ten (10) days after receipt of the NOTICE OF AWARD.
- 3.5 PERFORMANCE, PAYMENT AND OTHER BONDS: CONTRACTOR shall furnish Performance and Payment BONDS, each in an amount at least equal to the CONTRACT PRICE as security for the faithful performance and payment of all CONTRACTOR's obligations under the CONTRACT DOCUMENTS. These BONDS shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the CONTRACT DOCUMENTS. CONTRACTOR shall also furnish such other BONDS as are required by the SPECIAL PROVISIONS. All BONDS shall be on the forms prescribed by the CONTRACT DOCUMENTS except as provided otherwise by Laws or Regulations, and shall be executed by such SURETIES as are named in the current list of "Companies Holding Certificates of Authority as Acceptable SURETIES on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department and registered to do business in the STATE. All BONDS signed by an agent must be accompanied by a certified copy of such agent's authority to act. All BONDS shall be furnished on CITY forms.
- 3.5.1 FAILURE OF SURETY: If the SURETY on any BOND furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the STATE, CONTRACTOR shall within ten days thereafter substitute another BOND and SURETY, both of which must be acceptable to CITY.
- 3.6 PERSONNEL EMPLOYMENT: As a condition of awarding the CONTRACT, the successful BIDDER for Public Works Projects, administered by or paid for in whole or in part by public funds of the City of Alexandria shall comply with LSA R.S. 38:2225.1, which requires that no less than 80% of the total work force required to complete the PROJECT be residents of the State of Louisiana.
- 3.7 COPIES OF CONTRACT DOCUMENTS: The CITY shall furnish to CONTRACTOR up to three (3) copies (unless otherwise specified in the SPECIAL PROVISIONS) of the CONTRACT DOCUMENTS as are reasonably necessary for the execution of the WORK. Additional copies will be furnished, upon request, at the cost of reproduction.
- 3.8 FAILURE TO EXECUTE AGREEMENT: In the event of failure or refusal on the part of the BIDDER to whom the award is made to execute the AGREEMENT and furnish satisfactory BONDS within ten (10) days after receipt of the NOTICE OF AWARD the amount of the BID BOND accompanying his BID shall be forfeited to the CITY. The CITY, within ten (10) days of receipt of an acceptable



AGREEMENT, Performance BOND, Payment BOND, CONTRACTOR's Affidavit, and Certificate of Insurance, executed by the party to whom the CONTRACT was awarded, will sign the AGREEMENT and return to such party an executed duplicate of the AGREEMENT. Should the CITY not execute the AGREEMENT within such period, the BIDDER may by written notice withdraw the signed AGREEMENT. Such notice of withdrawal shall be effective upon receipt of the notice by the CITY.

- 3.9 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED: The CONTRACT TIME will commence to run on the thirtieth day after the EFFECTIVE DATE OF THE AGREEMENT, or, if the NOTICE TO PROCEED is given, on the day indicated in the NOTICE TO PROCEED. A NOTICE TO PROCEED may be given at any time within thirty days after the EFFECTIVE DATE OF THE AGREEMENT. Should there be any reason why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the CITY and CONTRACTOR.
- 3.10 PRECONSTRUCTION CONFERENCE: Prior to beginning construction, a preconstruction conference will be held between the CONTRACTOR and the ARCHITECT/ENGINEER to reach agreements relating to responsibilities and procedures of each interested party to see that the PROJECT is built according to the approved PLANS and SPECIFICATIONS and the conditions under which disbursements for construction cost are authorized and will be paid. This meeting will be prearranged by the ARCHITECT/ENGINEER.
- 3.11 BEFORE STARTING CONSTRUCTION: Before undertaking each part of the WORK, CONTRACTOR shall carefully study and compare the CONTRACT DOCUMENTS and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ARCHITECT/ENGINEER any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ARCHITECT/ENGINEER before proceeding with any work affected thereby; however, CONTRACTOR shall not be liable to CITY or ARCHITECT/ENGINEER for failure to report any conflict, error, ambiguity or discrepancy in the CONTRACT DOCUMENTS, unless CONTRACTOR knew or reasonably should have known thereof.
- 3.12 STARTING THE WORK: CONTRACTOR shall start to perform the WORK on the date when the CONTRACT TIME commences to run, but no work shall be done at the site prior to the issuance of a NOTICE TO PROCEED.
- 3.13 PRELIMINARY SCHEDULES: Within ten (10) days after the receipt of the NOTICE OF AWARD (unless otherwise specified in the SPECIAL PROVISIONS), CONTRACTOR shall submit to ARCHITECT/ENGINEER along with the executed AGREEMENT, the following for review:

- A. A preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various CONTROLLING ITEMS OF WORK;
- B. A preliminary schedule of SHOP DRAWING and SAMPLE submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;
- C. A preliminary schedule of values for lump sum items which will include quantities and prices of items aggregating the CONTRACT PRICE and will subdivide the WORK into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of work;
- D. Before any work at the site is started, CONTRACTOR shall deliver with copies to each additional insured identified in the SPECIAL PROVISIONS, Certificates of Insurance (and other evidence of insurance) which CONTRACTOR is required to purchase and maintain.

# DIVISION 1

## General Provisions

### Section 4

#### Contract Documents, Intent, Amending, Reuse

- |     |   |     |                                  |
|-----|---|-----|----------------------------------|
| 4.1 | Intent  | 4.5 | Supplementing CONTRACT DOCUMENTS |
| 4.2 | Reference to Standards, Resolving Discrepancies | 4.6 | Reuse of Documents               |
| 4.3 | Amending CONTRACT DOCUMENTS                     | 4.7 | SPECIAL PROVISIONS               |
| 4.4 | Notice to SURETY                                |     |                                  |

4.1 INTENT: The CONTRACT DOCUMENTS comprise the entire AGREEMENT between the CITY and the CONTRACTOR concerning the WORK. The intent of the CONTRACT DOCUMENTS is to prescribe a complete WORK or improvement which the CONTRACTOR shall undertake to do in full compliance with the DRAWINGS and SPECIFICATIONS and in conformity with the General and SPECIAL PROVISIONS and the terms and conditions of the CONTRACT. The CONTRACTOR shall do all work including such incidental work as may be reasonably implied as being necessary to complete the WORK in a satisfactory and acceptable manner. He shall furnish, unless otherwise provided for in the AGREEMENT, all materials, supplies, equipment, tools, labor and incidentals necessary to prosecute and complete the WORK. Any work, materials or equipment that may reasonably be inferred from the CONTRACT DOCUMENTS or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifications and interpretations of the CONTRACT DOCUMENTS shall be issued by ARCHITECT/ENGINEER.

4.1.1 ORDER OF PRECEDENCE: Should a conflict exist between the requirements of the Advertisement for BIDS, BID Proposal Form, Instruction to BIDDERS, SPECIAL PROVISIONS, Supplemental GENERAL PROVISIONS, PLANS or Technical SPECIFICATIONS, the former shall take precedence.

4.2 REFERENCE TO STANDARDS, RESOLVING DISCREPANCIES: Reference to standards, SPECIFICATIONS, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, SPECIFICATION, manual, code or Laws or Regulations in effect at the time of opening of BIDS except as may be otherwise specifically stated in the CONTRACT DOCUMENTS. If during the performance of the WORK,

CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the CONTRACT DOCUMENTS or between the CONTRACT DOCUMENTS and any provision of any such Law or Regulation applicable to the performance of the work or of any such standard, SPECIFICATION, manual or code or of any instruction to any SUPPLIER, CONTRACTOR shall report it to ARCHITECT/ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the work affected thereby until a FIELD CHANGE, amendment, or supplement to the CONTRACT DOCUMENTS has been issued. The provisions of the CONTRACT DOCUMENTS shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the CONTRACT DOCUMENTS and:

- 4.2.1 The provisions of any such standard, SPECIFICATION, manual, code or instruction (whether or not specifically incorporated by reference in the CONTRACT DOCUMENTS); or 4.2.2 The Provision of any such Laws or Regulations applicable to the performance of the WORK (unless such an interpretation of the provisions of the CONTRACT DOCUMENTS would result in violation of such Law or Regulation). No provision of any such standard, SPECIFICATION, manual, code or instruction shall be effective to change the duties and responsibilities of the CITY, CONTRACTOR, ARCHITECT/ENGINEER, or any of their SUBCONTRACTORS, consultants, agents or employees from those set forth in the CONTRACT DOCUMENTS.
- 4.3 AMENDING CONTRACT DOCUMENTS: The CONTRACT DOCUMENTS may be amended to provide for additions, deletions and revisions in the WORK or to modify the terms and conditions by formal WRITTEN AMENDMENT or by CHANGE ORDER.
  - 4.3.1 WRITTEN AMENDMENTS (sometimes called supplemental agreements) authorize additions, deletions or revisions in the WORK and shall be used as the method to amend the AGREEMENTS when the addition, deletion or revision of quantities of pay items in the AGREEMENT exceed twenty-five percent (25%) of the total amount of the AGREEMENT.
  - 4.3.2 CHANGE ORDERS: Changes in the WORK through additions, deletions or revisions or changes which modify the WORK shall be authorized by CHANGE ORDER. The CITY and the CONTRACTOR shall execute appropriate CHANGE ORDERS recommended by the ARCHITECT/ENGINEER covering the following changes in the AGREEMENT.
    - 4.3.2.1 Changes in the WORK which are ordered by the CITY.
    - 4.3.2.2 Changes required for acceptance of DEFECTIVE WORK.
    - 4.3.2.3 Changes required for correction of DEFECTIVE WORK.
    - 4.3.2.4 Changes in the CONTRACT PRICE.
    - 4.3.2.5 Changes in the CONTRACT TIME.

- 4.4 NOTICE TO SURETY: If notice of any change affecting the general scope of the WORK or the CONTRACT DOCUMENTS is required by the provisions of the BOND to be given to SURETY, the giving of such notice shall be the CONTRACTOR's responsibility.
- 4.5 SUPPLEMENTING CONTRACT DOCUMENTS: The requirements of the CONTRACT DOCUMENTS may be supplemented and minor variations and deviations in the WORK, may be authorized by FIELD ORDERS, ARCHITECT/ENGINEER's approval of SHOP DRAWINGS or SAMPLES and by the ARCHITECT/ENGINEER's written interpretation or clarifications.
- 4.5.1 FIELD ORDER: The ARCHITECT/ENGINEER may issue a FIELD ORDER which authorizes minor variations in the WORK from the requirements of the CONTRACT DOCUMENTS and which does not involve an adjustment to the CONTRACT PRICE or the CONTRACT TIME. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ARCHITECT/ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles the CONTRACTOR to a change in CONTRACT PRICE or TIME, or both, in which event the CONTRACTOR shall give the ARCHITECT/ENGINEER written notice thereof within seven (7) days after the receipt of the order to change. Within thirty (30) days after providing written notice to the ARCHITECT/ENGINEER, the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME.
- 4.5.2 ARCHITECT/ENGINEER Approval of SHOP DRAWINGS: The ARCHITECT/ENGINEER will review and approve SHOP DRAWINGS and SAMPLES in accordance with the schedule defined in the SPECIFICATIONS, SPECIAL PROVISIONS or WORK scheduling requirements of the CONTRACT DOCUMENTS. ARCHITECT/ENGINEER's review and approval will be only to determine if the items in the submittal will conform to and be compatible with the design concept of the completed PROJECT. ARCHITECT/ENGINEER's review and approval will not extend to means, methods, techniques, sequence or procedure of construction or to safety precautions or programs incident thereto. The review and approval of a separate item will not constitute approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ARCHITECT/ENGINEER, and shall return the required number of corrected copies of SHOP DRAWINGS and submit as required new SAMPLES for review and approval. ARCHITECT/ENGINEER's review and approval of SHOP DRAWINGS or SAMPLES shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the CONTRACT DOCUMENTS unless CONTRACTOR has in writing called ARCHITECT/ENGINEER's attention to each such variation at the time of submission and ARCHITECT/ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the SHOP DRAWING or SAMPLE approval.

- 4.5.3 Where a SHOP DRAWING or SAMPLE is required by the CONTRACT DOCUMENTS or the schedule of SHOP DRAWINGS and SAMPLE submissions accepted by ARCHITECT/ENGINEER as required by the CONTRACT DOCUMENTS, any related work performed prior to ARCHITECT/ENGINEERS review and approval of the pertinent submittal will be at the sole expense and the responsibility of the CONTRACTOR.
- 4.5.4 Clarifications and Interpretations: ARCHITECT/ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the CONTRACT DOCUMENTS (in the form of DRAWINGS or otherwise) as ARCHITECT/ENGINEER may determine necessary, which shall be consistent with the intent of the CONTRACT DOCUMENTS. Such written clarifications and interpretations will be binding on the CITY and CONTRACTOR. If the CITY or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the CONTRACT PRICE or the CONTRACT TIME and the parties are unable to agree to the amount or extent thereof, if any, the CITY or CONTRACTOR may make a written claim as provided in Sections 11 and 12 of these general conditions.
- 4.6 REUSE OF DOCUMENTS: CONTRACTOR, and any SUBCONTRACTOR or SUPPLIER or other person or organization performing or furnishing any of the WORK under a direct or indirect CONTRACT with the CITY (i) shall not have or acquire any title to or ownership rights in any of the PLANS, SPECIFICATIONS or other documents (or copies of any thereof) prepared by or bearing the seal of ARCHITECT/ENGINEER, and (ii) shall not reuse any of such PLANS, SPECIFICATIONS, other documents or copies on extensions of the PROJECT or any other PROJECT without written consent of the CITY and the ARCHITECT/ENGINEER.
- 4.7 SPECIAL PROVISIONS: Construction Procedures or conditions that have not been anticipated in these General Provisions will be covered by SPECIAL PROVISIONS that will be considered a part of the AGREEMENT.

DIVISION 1

General Provision

Section 5

Lands: Rights-of-way, Physical Conditions, Subsurface Conditions

- |     |  |     |   |
|-----|--|-----|---|
| 5.1 | Lands and Rights-of-way                      | 5.5 | Construction Stakes   |
| 5.2 | Subsurface and Physical Conditions           | 5.6 | Architect/Engineer's Level  |
| 5.3 | Limited Reliance on Technical Data           | 5.7 | ASBESTOS, PCB's, Petroleum, HAZARDOUS WASTE or Radioactive Material |
| 5.4 | Physical Conditions - Underground Facilities | 5.8 | Indemnity and Hold Harmless   |

5.1 LAND AND RIGHTS-OF-WAY: Prior to the issuance of the NOTICE TO PROCEED, the CITY shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed. The CITY shall provide to the CONTRACTOR information that delineates and describes the lands owned and rights-of-way required and shall identify any encumbrances or restrictions related to use of the land. The CONTRACTOR shall provide at his own expense and without liability to the CITY any additional land and access thereto that the CONTRACTOR may desire for construction facilities or for storage of materials.

5.2 SUBSURFACE AND PHYSICAL CONDITIONS: The SPECIAL PROVISIONS may include data, reports and DRAWINGS that contain point of test or measurement of Subsurface and Physical Conditions.

5.2.1 Subsurface Conditions: Those reports of explorations and tests of Subsurface Conditions at or contiguous to the site that have been utilized by ARCHITECT/ENGINEER in preparing the CONTRACT DOCUMENTS.

5.2.2 Physical Conditions: Those DRAWINGS of Physical Conditions in or relating to existing surface or subsurface structures at or contiguous to the site that have been utilized by ARCHITECT/ENGINEER in preparing the CONTRACT DOCUMENTS.

5.3 LIMITED RELIANCE ON TECHNICAL DATA: The CONTRACTOR may rely upon the general accuracy of the Technical Data contained in reports and DRAWINGS of Subsurface Conditions and Physical Conditions but such reports and DRAWINGS are not CONTRACT DOCUMENTS. The CONTRACTOR shall adjudge the Technical Data as Technical Data and may not rely upon said data for the purpose of making claims against the CITY or ARCHITECT/ENGINEER

with respect to the completeness of the reports and/or DRAWINGS as such might affect the means, methods, techniques, sequence or procedures of construction. If the CONTRACTOR believes that any Subsurface or Physical Condition exists or that is uncovered is of such a nature that the Technical Data is inaccurate, differs materially from that shown in the CONTRACT DOCUMENTS or is of an unusual nature differing from conditions normally encountered, and will require a change in the CONTRACT DOCUMENTS; the CONTRACTOR will promptly notify the ARCHITECT/ENGINEER in writing of such conditions. CONTRACTOR will not further disturb such conditions or perform any WORK until receipt of a written order. The ARCHITECT/ENGINEER will promptly review the pertinent conditions, determine if additional testing may be required or if CHANGE ORDERS reflecting CONTRACT TIME and CONTRACT PRICE should be recommended to the DIRECTOR OF PUBLIC WORKS. If the CITY and the CONTRACTOR are unable to agree on entitlement regarding CONTRACT PRICE or CONTRACT TIME, the CONTRACTOR may reserve the option to make a claim in accordance with Sections 11 and 12 of these General Provisions.

- 5.4 PHYSICAL CONDITIONS - UNDERGROUND FACILITIES: Various PROJECTS may involve Underground Facilities not in the ownership of the CITY. Where information and data provided by others is incomplete or inaccurate, the ARCHITECT/ENGINEER and the CITY shall not be held liable for damage to the facility during the course of construction. It shall be the responsibility of the CONTRACTOR to accurately locate and coordinate the WORK around these facilities with the owner of such Underground Facilities.
- 5.4.1 Underground Facilities - Not Shown: If an Underground Facility is uncovered or revealed which is not shown or indicated by the CONTRACT DOCUMENTS, CONTRACTOR will promptly notify the ARCHITECT/ENGINEER. If the owner of the Underground Facility is known or can be identified, the CONTRACTOR will notify said owner and document the consequences of the existence of the facilities as they may affect the WORK. If the ARCHITECT/ENGINEER concludes that a change in the CONTRACT DOCUMENTS is needed, ARCHITECT/ENGINEER shall recommend said change to the CITY as set forth in these General Provisions.
- 5.5 CONSTRUCTION STAKES: The ARCHITECT/ENGINEER will furnish and set the necessary construction stakes on original layouts, marking the general locations, alignments, elevations, and grade of the work. The CONTRACTOR, however, will be required to check all leading dimensions and clearances measured from such stakes and thereafter become responsible for the alignment, elevations, and dimensions of all parts of the work and their mutual agreement. The CONTRACTOR shall furnish, at his own expense, all batter boards, templates, and other material for marking, referencing, and maintaining points, lines and grades and shall furnish the ARCHITECT/ENGINEER with such incidental labor as he may require in establishing points, lines, and grades necessary to the prosecution of the WORK. The CONTRACTOR shall be held responsible for the



preservation of all takes, transit points, bench marks, hubs and guard stakes. If, in the opinion of the ARCHITECT/ENGINEER, any of the original construction stakes or markers have been carelessly or willfully destroyed or disturbed by the CONTRACTOR, the cost of replacing them shall be deducted from any money due the CONTRACTOR.

- 5.6 ENGINEER'S LEVEL: The CONTRACTOR shall have an ENGINEER's Level in working condition and acceptable to the ARCHITECT/ENGINEER on the PROJECT at all times for his use and the use of the PROJECT REPRESENTATIVE in checking forms and stakes that appear to be disturbed and in transferring grades.
- 5.7 ASBESTOS, PCB'S, PETROLEUM, HAZARDOUS WASTE, HAZARDOUS MATERIAL OR RADIOACTIVE MATERIAL: The CITY shall be responsible for any ASBESTOS, PCB's, Petroleum, HAZARDOUS WASTE, HAZARDOUS MATERIAL or Radioactive Material uncovered or revealed at the site which was not shown or indicated in DRAWINGS or SPECIFICATIONS or identified in the CONTRACT DOCUMENTS to be within the scope of WORK and which may present a substantial danger to persons or property in connection with WORK at the site. The CITY will not be responsible for any such material brought to the site by CONTRACTOR, SUBCONTRACTOR, SUPPLIER or anyone else for whom the CONTRACTOR is responsible. In the event of such incident, the CONTRACTOR will promptly notify the ARCHITECT/ENGINEER. CONTRACTOR will not be required to work at the site until it has been rendered safe. CONTRACTOR may be entitled to changes in the CONTRACT DOCUMENTS due to WORK stoppage. If the CITY and CONTRACTOR are unable to agree on CONTRACT PRICE or CONTRACT TIME due to the stoppage, either may make a claim as provided in these General Provisions. The CITY further reserves the right to redirect the CONTRACTOR to other work within the PROJECT and within the scope of the CONTRACT DOCUMENTS, if available and reasonable with minor mobilization reimbursement.
- 5.8 INDEMNITY AND HOLD HARMLESS: To the fullest extent permitted by laws and regulations the CITY shall indemnify and hold harmless CONTRACTOR, SUBCONTRACTORS, ARCHITECT/ENGINEER, ARCHITECT/ENGINEER CONSULTANTS, and the Officers, Directors, Employees, Agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property (other than WORK itself) including the loss of use resulting therefrom and (ii) nothing in this paragraph 5.8 shall obligate CITY to indemnify any person or entity from and against the consequences of that persons or entities on negligence.

# DIVISION 1

## General Provisions

### Section 6

#### Insurance, Partial Utilization, Preservation and Restoration

- 6.1 Insurance
- 6.2 Types of Insurance
- 6.3 Builder's Risk
- 6.4 Partial Utilization
- 6.5 Preservations and Restoration of Property, Trees, Monuments

6.1 INSURANCE: All Insurance required by the these GENERAL PROVISIONS are to be purchased by the CONTRACTOR shall be obtained from Insurance companies that are licensed or authorized in the STATE. The Insurance Carriers shall have a current A.M. Best Guide rating of A-V or better, unless otherwise authorized by the CITY in writing. This shall include "Self Insured Retention" Plans. CONTRACTOR shall deliver to the CITY with copies of each additional insured identified in the SPECIAL PROVISIONS, Certificates of Insurance which are required by these and the SPECIAL PROVISIONS.

6.2 TYPES OF INSURANCE: The CONTRACTOR, shall purchase and maintain such liability and other insurance as is appropriate for the WORK being performed and furnished, as well as provide protection from claims set forth below which may arise out of, or result from, CONTRACTORS performance and furnishing of the WORK and CONTRACTORS other obligations under the CONTRACT DOCUMENTS, whether it is to be performed or furnished by CONTRACTOR, any sub-contractor or supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the WORK, or by anyone for whose acts any of them may be liable:

6.2.1 Claims under Workers Compensation, disability benefits and other similar employee benefit acts;

6.2.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTORS EMPLOYEES;

6.2.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTORS EMPLOYEES;

6.2.4 Claims for damages insured by customary personal injury liability coverage which are sustained (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR or (ii) by any other person for any other reason;

6.2.5 Claims for damages, other than to the WORK itself, because of injury to or destruction of tangible property where ever located, including loss of use resulting therefrom;

6.2.6 Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 6.2 to be purchased and maintained shall:

6.2.7 With respect to insurance required by paragraphs 6.2.3 through 6.2.5 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability.)

CITY, ARCHITECT/ENGINEER, and any other persons or entities identified in the special provisions, all of whom shall be listed as additional insureds, and include coverage for the respective officers and employees of all such additional insureds;

6.2.8 Include the specific coverages and be written for not less than the limits of liability provided in the special provisions, or required by laws or regulations, which ever is greater;

6.2.9 Include completed operations insurance;

6.2.10 Contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to CITY and CONTRACTOR and to each other additional insured identified in the special provisions to whom a certificate of insurance has been issued.

6.2.11 Remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing DEFECTIVE work;

6.2.12 With respect to completed operations insurance, and any insurance coverage written on a claims made basis, remain in effect for at least 2 years after final payment.

6.3 BUILDER'S RISK: Builder's Risk Insurance is not required; however, if this Insurance is not secured, the CONTRACTOR cannot request payment per invoice cost for materials stored on the PROJECT site. The CONTRACTOR may secure broad form "All Risk" type Builder's Risk Insurance for the WORK to be performed which is insurable under this type of coverage. The policy shall cover not less than the losses due to fire, explosion, theft, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the CITY. The materials and equipment for those work items which are not insurable once installed (e.g., facilities to be installed beneath the ground surface) must be insured for all named perils during

the CONTRACT TIME, and until the WORK is accepted by the CITY, regardless of the intended service of these items, and whether installed or not.

- 6.4 PARTIAL UTILIZATION - PROPERTY INSURANCE: If the CITY finds it necessary to occupy or use a portion or portions of the WORK prior to COMPLETION of all the WORK, such use or occupancy may be accomplished provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.
- 6.5 PRESERVATION AND RESTORATION OF PROPERTY, TREES, MONUMENTS: The CONTRACTOR shall be responsible for the preservation of all public and private property, trees and monuments, along and adjacent to the PROJECT and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precaution necessary to prevent damage to pipes, conduits, and other underground structures and shall protect carefully from disturbance or damage all land monuments, CITY, STATE and United States benchmarks, Geodetic and Geological Survey Monuments and property markers until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed. Any utility lines injured by the CONTRACTOR shall be repaired at once at his own expense in accordance with requirements of the General Provisions. The CONTRACTOR shall not injure or destroy trees or shrubs nor remove or cut them without proper authority. The CONTRACTOR shall be responsible for any damage done to public or private property by or on account of any act of omission, neglect, or misconduct in the execution of the WORK, or on account of DEFECTIVE WORK or material. He shall restore at his own expense such property to a condition similar or equal to that existing before such damage was done, by repairing, rebuilding or otherwise restoring same, or he shall make good such damage or injury in an acceptable manner. In case of failure on the part of a CONTRACTOR to restore such property or make good such damages or injury, the ARCHITECT/ENGINEER may, after forty- eight (48) hours written notice, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost therefor will be deducted from any monies due or which may become due the CONTRACTOR under this AGREEMENT. In case no money is due or to become due, his SURETY shall be held responsible until such time as all suits, claims or damages shall have been settled and suitable evidence to that effect furnished the ARCHITECT/ENGINEER.

DIVISION 1

General Provisions

Section 7

Contractor's Responsibilities and Prosecution of the Work

- |      |   |      |  |
|------|---|------|--|
| 7.1  | Supervision                             | 7.11 | Permits and Licenses                       |
| 7.2  | Subletting or Assignment                | 7.12 | LAWS and REGULATIONS                       |
| 7.3  | Character of Workmen and Equipment      | 7.13 | Taxes                                      |
| 7.4  | Source of Supply – Quality of Materials | 7.14 | Use of Premises                            |
| 7.5  | Materials Furnished by CONTRACTOR       | 7.15 | Sanitary Provisions                        |
| 7.6  | Storage of Materials                    | 7.16 | Record Documents                           |
| 7.7  | Defective Material                      | 7.17 | Safety and Protection                      |
| 7.8  | Samples and Tests                       | 7.18 | Traffic Safety Precautions                 |
| 7.9  | Substitutes and "OR EQUAL Items"        | 7.19 | SHOP DRAWINGS and SAMPLES                  |
| 7.10 | SUBCONTRACTORS, SUPPLIERS and Others    | 7.20 | Indemnification                            |
|      |   | 7.21 | Cooperation with Public Utilities          |
|      |   | 7.22 | CONTRACTORS General Warranty and Guarantee |

7.1 SUPERVISION: CONTRACTOR shall supervise, inspect and direct the WORK competently and efficiently devoting such attention and applying such skills and expertise as may be necessary to perform the WORK in accordance with the CONTRACT DOCUMENTS. CONTRACTOR shall be solely responsible for the means, methods, techniques, consequences and procedures of construction. CONTRACTOR shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which has been expressly required in the CONTRACT DOCUMENTS. CONTRACTOR shall be responsible to see that the completed WORK complies with the CONTRACT DOCUMENTS. CONTRACTOR shall keep on the PROJECT, at all times, during its progress a competent resident superintendent, who shall not be replaced without written notice to the CITY and the ARCHITECT/ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

7.2 SUBLETTING OR ASSIGNMENT: The CONTRACTOR shall not assign, sell, transfer or otherwise dispose of the AGREEMENT, or any portion thereof, or his rights, title or interest therein, without previous written approval of the CITY. The CONTRACTOR will not be permitted to sublet any portion of the AGREEMENT

except for the delivery of materials, without the written approval of the ARCHITECT/ENGINEER.

- 7.2.1 The purchase of sand, gravel, crushed stones, crushed slag, batched concrete aggregates, ready mixed concrete and/or materials produced at and furnished from established and recognized commercial plants, together with the delivery of such materials to the site of the WORK by means of vehicles owned or operated by such plants or by recognized commercial hauling companies, shall not be considered as subcontracting under these provisions.
- 7.2.2 No Subcontract will in any case relieve the CONTRACTOR of his responsibility under the AGREEMENT and BOND.
- 7.3 CHARACTER OF WORKMEN AND EQUIPMENT: The CONTRACTOR shall, at all times, employ sufficient labor and equipment for prosecuting the several classes of WORK to full completion in the manner and time specified. Failure by the CONTRACTOR to provide adequate equipment or labor may result in the annulment of the AGREEMENT.
  - 7.3.1 All workmen must have sufficient skill and experience to perform properly the WORK assigned them. All workmen engaged on special WORK or skilled WORK, such as bituminous courses or mixtures, concrete base courses, pavements or structures, or in any trade, shall have sufficient experience in such WORK to properly and satisfactorily perform it and operate the equipment involved and shall make due and proper effort to execute the WORK in the manner prescribed in these SPECIFICATIONS.
  - 7.3.2 All machinery and equipment owned or controlled by the CONTRACTOR, which is proposed to be employed by him on the WORK, shall be of sufficient size to meet the requirements of the WORK and shall be such as to produce a satisfactory quality of WORK.
- 7.4 SOURCE OF SUPPLY AND QUALITY OF MATERIALS: The source of supply of each of the materials shall be approved by the ARCHITECT/ENGINEER before the delivery is started. Representative preliminary SAMPLES of the character and quantity shall be submitted by the CONTRACTOR or produced for examination and testing in accordance with the methods referred to under tests of SAMPLES of materials. Only materials tested and found to conform to the requirements of the SPECIFICATIONS and approved by the ARCHITECT/ENGINEER shall be used in the WORK. All materials proposed to be used may be inspected or tested at any time during their preparation and use. If after trial, it is found that sources of supply that have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the CONTRACTOR shall furnish approved materials from other approved sources. No material which, after approval, has in any way become unfit for use shall be used in the WORK. Stored material, even though approved before being stored, shall be inspected prior to

use in the WORK and shall meet the requirements of the SPECIFICATIONS at the time of its use.

- 7.5 MATERIALS FURNISHED BY THE CONTRACTOR: Unless otherwise specifically stated in the CONTRACT, all materials needed in the WORK will be furnished by the CONTRACTOR. The CONTRACTOR will assume full responsibility in ordering materials of the quantity specified and required in the CONTRACT DOCUMENTS. The CONTRACTOR will assume full responsibility for the payment of all materials ordered by him in accordance with the CONTRACT, and this shall include the payment of all freight and demurrage charges incurred in the shipment. The CONTRACTOR will be responsible for the proper storage and handling of the material to insure the required quality before and during incorporation into the WORK.
- 7.6 STORAGE OF MATERIALS: Materials shall be stored so as to insure the preservation of their quality and fitness for the WORK, and in a manner that leaves the material accessible to inspection. With the approval of the ARCHITECT/ENGINEER, material may be stored on the right-of-way provided such storage does not interfere with the prosecution of the WORK or with public travel.
- 7.7 DEFECTIVE MATERIALS: All materials not conforming to the requirements of these SPECIFICATIONS shall be considered as DEFECTIVE and all such materials whether in place or not, shall be rejected and shall be removed immediately from the site of the WORK unless otherwise permitted in writing by the ARCHITECT/ENGINEER. Upon failure on the part of the CONTRACTOR to comply forthwith with any order by the ARCHITECT/ENGINEER made under the provisions of this article, the ARCHITECT/ENGINEER shall have the authority to remove and replace DEFECTIVE material and to deduct the cost of removal and replacement from any monies due or to become due the CONTRACTOR.
- 7.8 SAMPLES AND TESTS: The CONTRACTOR shall give sufficient notification of the placing of orders for materials to permit testing; shall afford such facilities as the ARCHITECT/ENGINEER may require for collecting and forwarding SAMPLES; shall not make use of or incorporate in the WORK the materials represented by the SAMPLES until the tests have been made and the materials found to be in accordance with the requirements of the SPECIFICATIONS; and shall furnish, without charge, all the SAMPLES required.
- 7.8.1 When required by the ARCHITECT/ENGINEER, representative preliminary SAMPLES of the character and quantity prescribed shall be submitted by the CONTRACTOR or produced for examination and shall be tested in accordance with the methods referred to herein. The acceptance of a preliminary SAMPLE shall not be construed as acceptance of materials from the same source delivered later. Only the materials actually delivered for the WORK will be considered and

their acceptance or rejection will be based solely on the results of the tests prescribed in the SPECIFICATIONS.

- 7.8.2 For the verification of weights or proportions and character of materials, and determinations of temperatures used in the preparation of the materials and mixtures, the ARCHITECT/ENGINEER shall have access at all times to all parts of any plants connected with the WORK. The CONTRACTOR shall facilitate and assist the verification of all scales, measures and other devices that he operates.
- 7.8.3 Unless otherwise specifically provided, all sampling and testing and laboratory methods required under this CONTRACT shall be in accordance with the latest revision of the standard Specifications of the American Society for Testing Materials, as amended to date of CONTRACT, and, when not covered therein, shall be sampled and tested in accordance with the Standard Specifications for Highway Materials and Methods of Sampling and Testing of the American Association of State Highway Officials, with subsequent revisions to date of CONTRACT. All tests not covered by the above shall be performed as specified by the ARCHITECT/ENGINEER.
- 7.9 SUBSTITUTES AND "OR EQUAL ITEMS": Whenever materials or equipment are specified or described in the CONTRACT DOCUMENTS by using the name of a proprietary item or the name of a particular SUPPLIER, the naming of the item is intended to establish the type, function and quality required. Unless the name, if followed by words indicating that no substitution is permitted, materials or equipment of other SUPPLIER may be accepted by ARCHITECT/ENGINEER if sufficient information is submitted by CONTRACTOR to allow ARCHITECT/ENGINEER to determine that the material or equipment proposed is equivalent or EQUAL to that named. The procedure for review by ARCHITECT/ENGINEER will include the following as supplemented in the General Provisions. Requests for review of substitute items of material and equipment, CONTRACTOR shall make written application to ARCHITECT/ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the CONTRACTOR's achievement of SUBSTANTIAL COMPLETION on time, whether or not acceptance of the substitute for use in the WORK will require a change in any of the CONTRACT DOCUMENTS (or in the provisions of any other direct CONTRACT with CITY for WORK on the PROJECT) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the WORK is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified and the service will be indicated. The application will also contain an itemized estimate of costs that will result directly or indirectly from acceptance of such substitute, including costs for redesign and claims of other contractors affected by the resulting change, all of which shall be considered by ARCHITECT/ENGINEER in evaluating the proposed substitute.



ARCHITECT/ENGINEER may require CONTRACTOR to furnish at CONTRACTOR's expense additional data about the proposed substitute.

- 7.9.1 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the CONTRACT DOCUMENTS, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ARCHITECT/ENGINEER if CONTRACTOR submits sufficient information to allow ARCHITECT/ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the CONTRACT DOCUMENTS.
- 7.9.2 ARCHITECT/ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. ARCHITECT/ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ARCHITECT/ENGINEER's prior written acceptance that will be evidenced by either a CHANGE ORDER or an approved SHOP DRAWING. The CITY may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other Surety with respect to any substitute. ARCHITECT/ENGINEER will record the time required by ARCHITECT/ENGINEER in evaluating substitutions proposed by CONTRACTOR and in making changes in the CONTRACT DOCUMENTS occasioned thereby. CONTRACTOR shall reimburse the CITY for the charges of ARCHITECT/ENGINEER for evaluating each proposed substitute.
- 7.10 SUBCONTRACTORS, SUPPLIERS AND OTHERS: CONTRACTOR shall not employ any SUBCONTRACTOR, SUPPLIER or other person against whom the ARCHITECT/ENGINEER or the CITY may have a reasonable objection. CONTRACTOR shall not be required to employ any SUBCONTRACTOR, SUPPLIER or other person against whom the CONTRACTOR has a reasonable objection.
- 7.10.1 CONTRACTOR shall be fully responsible to CITY and ARCHITECT/ENGINEER for all acts and omissions of the SUBCONTRACTORS, SUPPLIERS and other persons and organizations performing or furnishing any of the work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTORS on acts and omissions. Nothing in the CONTRACT DOCUMENTS shall create for the benefit of any such SUBCONTRACTOR, SUPPLIER, or other person or organization in any contractual relationship between CITY or ARCHITECT/ENGINEER and any such SUBCONTRACTOR, SUPPLIER or other person or organization, nor shall it create any obligation on the part of the CITY or ARCHITECT/ENGINEER to pay or to see to the payment of any monies due any such SUBCONTRACTOR, SUPPLIER or other person or organization except as may otherwise be required by laws and regulations.
- 7.10.2 CONTRACTOR shall be solely responsible for scheduling and coordinating the work of SUBCONTRACTORS, SUPPLIERS and other persons and organizations

performing or furnishing any of the work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all SUBCONTRACTORS, SUPPLIER and other such persons or organizations performing or furnishing any of the work to communicate with ARCHITECT/ENGINEER through CONTRACTOR.

7.11 PERMITS AND LICENSES: The CONTRACTOR shall procure all permits and licenses, pay all charges and fees and give all notices incident to the lawful prosecution of the WORK.

7.12 LAWS AND REGULATIONS: The CONTRACTOR is presumed to have made himself familiar with, and at all time shall observe and comply with all Federal, STATE and Local laws and bylaws, ordinances and regulations in any manner affecting the conduct of the WORK, and shall indemnify and save harmless the CITY and its representatives against any claim or liability arising from or based on the violation of any such law, bylaw, ordinance or regulation, whether by himself or by his employees or SUBCONTRACTORS.

7.12.1 CONTRACTOR shall give all notices and comply with all laws and regulations applicable to furnishing and performance of the WORK. Except for otherwise expressly required by applicable laws and regulations, neither CITY nor ARCHITECT/ENGINEER shall be responsible for monitoring CONTRACTORS compliance with any laws or regulations.

7.12.2 If CONTRACTOR performs any work knowing or having reason to know that it is contrary to laws or regulations, CONTRACTOR shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom; however, it shall not be CONTRACTORS primary responsibility to make certain that the specifications and drawings are in accordance with laws and regulations, but this shall not relieve CONTRACTOR of CONTRACTORS obligations under the CONTRACT DOCUMENTS.

7.13 TAXES: CONTRACTOR shall pay all sales, consumer, use or other similar taxes required to be paid by the CONTRACTOR under LAWS AND REGULATIONS.

7.14 USE OF PREMISES: The CONTRACTOR shall, at all times, conduct his WORK in such a manner and in such sequence as will insure the least practicable interference with traffic. He shall not open up WORK to the prejudice of WORK already started and this feature of the prosecution shall be governed by the order of the ARCHITECT/ENGINEER.

7.14.1 The CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the contract documents and other land and areas permitted by laws and regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment

or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the WORK. Should any claim be made by any such owner or occupant because of the performance of the WORK, CONTRACTOR shall promptly settle with each other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR shall, to the fullest extent permitted by laws and regulations, indemnify and hold harmless CITY, ARCHITECT/ENGINEER, ARCHITECT/ENGINEERS' CONSULTANT and anyone directly or indirectly employed by any of them from and against all claims, cause, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by such owner or occupant against CITY, ARCHITECT/ENGINEER, or any other party indemnify here-under to the extent caused by or based upon CONTRACTORS performance of the work.

- 7.14.2 During the progress of the WORK, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the WORK. At the completion of the WORK, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premise as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by CITY at completion of the WORK. CONTRACTOR shall restore to original condition all property not designated for alteration by the CONTRACT DOCUMENTS.
- 7.14.3 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the WORK or adjacent property to stresses or pressures that will endanger it.
- 7.15 SANITARY PROVISIONS: The CONTRACTOR shall observe all rules and regulations of the STATE Board of Health, or any bodies having jurisdiction, and of all local health officials and must take such precautions as are necessary to avoid unhealthful conditions.
- 7.16 RECORD DOCUMENTS: CONTRACTOR shall maintain in a safe place at the site one record copy of all DRAWINGS, SPECIFICATIONS, ADDENDA, WRITTEN AMENDMENTS, CHANGE ORDERS, FIELD ORDERS and written interpretations and clarifications in good order annotated to reflect changes during construction. These records along with approved SAMPLES and SHOP DRAWINGS will be available to the ARCHITECT/ENGINEER for reference. Upon completion of the WORK, these record documents, SAMPLES and SHOP DRAWINGS will be delivered to ARCHITECT/ENGINEER for CITY.
- 7.17 SAFETY AND PROTECTION: CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. CONTRACTOR shall take all necessary precautions for the

safety of, and provide the necessary protection to prevent damage, entry or loss to:

- 7.17.1 All persons on the WORK site or who may be affected by the WORK;
- 7.17.2 All the WORK and material and equipment to be incorporated therein, whether in storage on or off the site; and
- 7.17.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, road ways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction. CONTRACTOR shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the WORK may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss of any property referred to in this paragraph caused directly or indirectly, in all or in part by CONTRACTOR, any SUBCONTRACTOR, SUPPLIER, or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the work of anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR "except damage or loss attributable to the fault of DRAWINGS or SPECIFICATIONS or to the acts or omissions of CITY, or ARCHITECT/ENGINEER, or anyone employed by them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any SUBCONTRACTOR, SUPPLIER or any person or organization directly or indirectly employed by any of them". CONTRACTORS duties and responsibilities for safety and for protection of the work shall continue until such time as all the work is completed and ARCHITECT/ENGINEER is issued a notice to CITY and CONTRACTOR in accordance with the contract documents that the WORK is acceptable.
- 7.18 TRAFFIC SAFETY PRECAUTIONS: The CONTRACTOR shall at all times so conduct his WORK as to insure the least practicable obstruction to traffic. The convenience of the general public, the residents along and adjacent to the PROJECT, and the protection of persons and property are of prime importance and shall be adequately provided for by the CONTRACTOR. Fire hydrants on or adjacent to the PROJECT shall be kept accessible to the Fire Department at all times and no material or obstructions shall be placed within ten feet of any such hydrant. Materials stored upon the street shall be placed so as to cause no unnecessary obstruction to the traveling public. When a street under CONTRACT is already open to the traveling public, the CONTRACTOR shall maintain the existing road, the subgrade and the new pavement in such condition that the public can travel over same safely. In dry weather, he shall be responsible for

wetting the roadway at frequent intervals to settle the dust. The CONTRACTOR shall cooperate with the ARCHITECT/ENGINEER in the regulation of traffic.

7.18.1 Satisfactory provisions for local traffic must be made by the CONTRACTOR at all times during construction, seeking at all times to inconvenience the public as little as possible.

7.18.2 The CONTRACTOR will not be allowed to obstruct private driveways or approaches, or to dig up or occupy the streets with materials more than is absolutely necessary for the prosecution of the WORK. Barricades shall be erected and maintained as provided in Section 7.17.3.

7.18.3 The CONTRACTOR shall provide, erect and maintain all necessary barricades, danger signals, signs, sufficient number of watchmen and take all necessary precautions for the protection of the WORK and workmen and the safety of the public. All traffic and pedestrian warning signs, devices and procedures shall be in accordance with the "Manual on Uniform Traffic Control Devices, (MUTCD), for Streets and Highway". The CONTRACTOR will be held responsible for all damage to the PROJECT due to failure of the signs and/or barricades to properly protect the WORK from traffic, pedestrians, animals and from all other sources and whenever evidence of any such traffic is found damaging the unaccepted WORK, the ARCHITECT/ENGINEER will order that WORK be immediately removed and replaced by the CONTRACTOR without cost to the CITY. The CONTRACTOR's responsibility for the maintenance of barricades, signs and lights shall not cease until the PROJECT shall have been completed and accepted. The CONTRACTOR shall notify the chief of the Fire and Police Departments whenever a section of street is closed to traffic and again when it is opened to public travel.

7.19 SHOP DRAWINGS AND SAMPLES: CONTRACTOR shall submit four (4) copies of SHOP DRAWINGS to ARCHITECT/ENGINEER for review and approval in accordance with the accepted schedule of SHOP DRAWINGS and SAMPLES. All submittals will be identified as ARCHITECT/ENGINEER may require. The data shown on the SHOP DRAWINGS will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show ARCHITECT/ENGINEER the materials and equipment CONTRACTOR proposes to provide and to enable ARCHITECT/ENGINEER to review the information for the purposes intended.

7.19.1 CONTRACTOR shall also submit SAMPLES to ARCHITECT/ENGINEER for review and approval in accordance with said accepted schedule of SHOP DRAWINGS and SAMPLE submittals. Each SAMPLE will be identified clearly as to material, SUPPLIER, pertinent data such as catalog numbers and the use for which intended and otherwise as ARCHITECT/ENGINEER may require to enable ARCHITECT/ENGINEER to review the submittal for the limited purposes

intended. The numbers of each SAMPLE to be submitted will be as specified in the SPECIFICATIONS.

7.19.2 Submittal Procedures: Before submitting each SHOP DRAWING or SAMPLE, CONTRACTOR shall have determined and verified:

7.19.2.1 All field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto,

7.19.2.2 All materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the WORK, and

7.19.2.3 All information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

7.19.3 CONTRACTOR shall also have reviewed and coordinated each SHOP DRAWING or SAMPLE with other SHOP DRAWINGS and SAMPLES and with the requirements of the WORK, the CONTRACT DOCUMENTS, and in accordance with Section 4.5.2 of these general provisions.

7.19.3.1 Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the CONTRACT DOCUMENTS with respect to CONTRACTOR's review and approval of that submittal.

7.19.3.2 At the time of each submission, CONTRACTOR shall give ARCHITECT/ENGINEER specific written notice of such variations, if any, that the SHOP DRAWINGS or SAMPLE submitted may have from the requirements of the CONTRACT DOCUMENTS, such notice to be written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each SHOP DRAWING and SAMPLE submitted to ARCHITECT/ENGINEER for review and approval of each such variation.

7.20 INDEMNIFICATION: To the fullest extent permitted by LAWS AND REGULATIONS, CONTRACTOR shall indemnify and hold harmless the CITY, ARCHITECT/ENGINEER, and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of Architect/Engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the WORK, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the WORK itself), including the

loss of use resulting therefrom, and (ii) is caused in whole or in part by any negligent act or omission of CONTRACTOR, or SUBCONTRACTOR, any SUPPLIER, any person or organization directly or indirectly employed by any of them to perform or furnish any of the WORK or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by LAWS AND REGULATIONS regardless of the negligence of any such person or entity.

7.20.1 In any and all claims against CITY or ARCHITECT/ENGINEER or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any SUBCONTRACTOR, any SUPPLIER, any person or organization directly or indirectly employed by any of them to perform or furnish any of the WORK, or anyone for whose acts any of them may be liable, the indemnification obligation under Section 7.20 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such SUBCONTRACTOR, SUPPLIER, or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

7.21 COOPERATION WITH PUBLIC UTILITIES: It shall be the CONTRACTOR's responsibility to notify all public utilities or other parties interested to make all necessary adjustments of public utility fixtures and appurtenances within or adjacent to the limits of construction. Unless otherwise specified, these adjustments are to be made by the CITY. The location of utilities on the plan is incomplete and general and the CITY will not be responsible for any delay or extra cost due to errors in location, omission or unforeseen utilities.

7.21.1 The CONTRACTOR will be responsible for any damage done by him to any telephone, telegraph, power pole or lines, fire hydrant, gas, water, storm water or sanitary sewer line and service line, conduit and other accessories and appurtenances of a similar nature that are fixed or controlled by the CITY, a public utility company or a corporation. He shall perform and carry on his WORK in such a manner as not to interfere with or damage fixtures mentioned herein, or as shown on the DRAWINGS, or discovered during construction, which are to be left within the limits of the PROJECT. The CITY will not be responsible for any delay or damage incurred by the CONTRACTOR due to working around or joining his WORK to fixtures left in place.

7.21.2 The CITY will not be responsible for any delays or inconveniences to the CONTRACTOR in carrying on his WORK in the above mentioned manner and/or while the public utilities companies or the CITY are making necessary adjustments of their fixtures or appurtenances. Any additional cost incurred shall be at the expense of the CONTRACTOR and shall be considered as completely

covered by the UNIT PRICES for the various pay items provided for in the proposal and AGREEMENT.

7.21.3 The CONTRACTOR shall contact the Water Department before using any water from any fire hydrants. A deposit must be paid and a hydrant meter obtained. Damage to fire hydrants due to improper use by the CONTRACTOR shall be paid for by the CONTRACTOR.

7.22 CONTRACTORS GENERAL WARRANTY AND GUARANTEE: CONTRACTOR warrants and guarantees to owner, and ARCHITECT/ENGINEER that all WORK will be in accordance with the CONTRACT DOCUMENTS and will not be defective. CONTRACTORS warranty and guarantee here-under excludes defects or damage caused by (i) abuse, modification or improper maintenance or operations by persons other than CONTRACTOR, SUBCONTRACTOR or SUPPLIERS; or (ii) normal wear and tear under normal usage.

7.22.1 CONTRACTORS obligation to perform and complete the WORK in accordance with the CONTRACT DOCUMENTS shall be absolute. None of the following will constitute an acceptance of WORK that is not in accordance with the CONTRACT DOCUMENTS or a release of CONTRACTORS obligation to perform the work in accordance with the CONTRACT DOCUMENTS:

7.22.1.1 Observations by ARCHITECT/ENGINEER;

7.22.1.2 Recommendation of any progress or final payment by ARCHITECT/ENGINEER;

7.22.1.3 Issuance of a certificate of completion or any payment by CITY to CONTRACTOR under the CONTRACT DOCUMENTS;

7.22.1.4 Use or occupancy of the WORK or any part thereof by CITY;

7.22.1.5 Any acceptance by CITY of any failure to do so;

7.22.1.6 Any review and approval of a SHOP DRAWING or SAMPLE submittal or the issuance of a notice of acceptability by ARCHITECT/ENGINEER;

7.22.1.7 Any inspection, test or approval by other; or

7.22.1.8 Any correction of defective WORK by CITY.



DIVISION 1

General Provisions

Section 8

ARCHITECT/ENGINEER'S Status During Construction

- |     |                                     |      |  |
|-----|-------------------------------------|------|--|
| 1.1 | STATE                               | 1.26 | EFFECTIVE DATE OF AGREEMENT  |
| 1.2 | PARISH                              | 1.27 | FIELD ORDER  |
| 1.3 | CITY                                | 1.28 | HAZARDOUS WASTE  |
| 1.4 | COUNCIL                             | 1.29 | LAWS AND REGULATIONS   |
| 8.1 | CITY'S Representative               | 8.6  | Rejecting DEFECTIVE WORK   |
| 8.2 | Visits to SITE                      | 8.7  | Determinations for Unit Price  |
| 8.3 | PROJECT REPRESENTATIVE              | 8.8  | Decisions on Disputes  |
| 8.4 | Clarifications &<br>Interpretations | 8.9  | Impartiality   |
| 8.5 | Authorized Variations in WORK       | 8.10 | Limitations on<br>ARCHITECT/ENGINEER'S<br>Authority and Responsibilities |

8.1 CITY'S REPRESENTATIVE: ARCHITECT/ENGINEER will be CITY'S representative during the construction period. The duties and responsibilities and the limitations of authority of ARCHITECT/ENGINEER as CITY'S representative during construction are set forth in the CONTRACT DOCUMENTS and shall not be extended without written consent of CITY and ARCHITECT/ENGINEER.

8.2 VISITS TO SITE: ARCHITECT/ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ARCHITECT/ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR'S executed work. Based on information obtained during such visits and observations, ARCHITECT/ENGINEER will endeavor for the benefit of CITY to determine, in general, if the WORK is proceeding in accordance with CONTRACT DOCUMENTS. ARCHITECT/ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality of quantity of the WORK. ARCHITECT/ENGINEER'S efforts will be directed toward providing for CITY at a greater degree of confidence that the completed WORK will conform generally to CONTRACT DOCUMENTS. On the basis of such visits and on-site observations, ARCHITECT/ENGINEER will keep CITY informed of the progress of the WORK and will endeavor to guard CITY against DEFECTIVE WORK. ARCHITECT/ENGINEER'S visits and on-site observations are subject to all the limitations on ARCHITECT/ENGINEER'S authority and responsibility set forth in paragraph. And particularly, without limitation, during or as a result of

ARCHITECT/ENGINEER'S on-site visits or observations of CONTRACTORS work, ARCHITECT/ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTORS means, methods, techniques, sequences, or procedures of construction, of the safety precautions and programs incidental thereto, or for any failure of CONTRACTOR to comply with laws and regulations applicable to the furnishing or performance of the work.

- 8.3 PROJECT REPRESENTATIVE: If CITY and ARCHITECT/ENGINEER agree, ARCHITECT/ENGINEER will furnish a resident project representative to assist ARCHITECT/ENGINEER in providing more continuous observation of the WORK. The responsibilities and authorities and limitations thereon of any such resident project representative and assistance will be provided in this Section 8 and in SPECIAL PROVISIONS. If CITY designates another representative or agent to represent CITY at the site, who is not ARCHITECT/ENGINEER'S CONSULTANT, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the SPECIAL PROVISIONS.
- 8.3.1 PROJECT REPRESENTATIVE shall be authorized to inspect all WORK done and all materials furnished. Such inspection may extend to all or any parts of the WORK and to the preparation or manufacture of the materials to be used. A PROJECT REPRESENTATIVE shall be stationed on the construction SITE to report to the ARCHITECT/ENGINEER as to the progress of the WORK and the manner in which it is being performed; also to report whenever it appears that the material furnished and the WORK performed by the CONTRACTOR fails to fulfill the requirements of the CONTRACT, and to call to the attention of the CONTRACTOR any such failure or other infringement, but such inspection shall not relieve the CONTRACTOR from any obligations to perform all the WORK in accordance with the requirements of the CONTRACT DOCUMENTS. In case of any dispute arising between the CONTRACTOR and the PROJECT REPRESENTATIVE as to materials furnished or the manner of performing the WORK, the PROJECT REPRESENTATIVE shall have the authority to reject the material or suspend the WORK until the question at issue can be referred to the ARCHITECT/ENGINEER. The PROJECT REPRESENTATIVE shall not, however, be authorized to revoke, alter, enlarge, relax or release any requirements of the DOCUMENTS, nor to approve or accept any portion of the WORK, nor to issue instructions contrary to the DRAWINGS and SPECIFICATIONS. He shall in no case act as foreman or perform other duties for the CONTRACTOR, nor interfere with the management of the WORK. Any advice that the PROJECT REPRESENTATIVE may give the CONTRACTOR shall in no way be construed as binding on the ARCHITECT/ENGINEER or the CITY in any way, or as releasing the CONTRACTOR from the fulfillment of the terms of the AGREEMENT.
- 8.3.2 INSPECTION: The ARCHITECT/ENGINEER and PROJECT REPRESENTATIVE shall have free access at all times to all parts of the WORK, and to materials intended for use in the WORK. The CONTRACTOR shall furnish the

ARCHITECT/ENGINEER with every reasonable facility for ascertaining whether or not the WORK performed is in accordance with the requirements and intent of the CONTRACT DOCUMENT. The WORK will be inspected as it progresses, but failure to reject or condemn DEFECTIVE WORK or materials at the time it is done will in no way prevent its rejection whenever it is discovered. If the ARCHITECT/ENGINEER requests, the CONTRACTOR shall at any time before the acceptance of WORK, remove or uncover such portions of the finished WORK as may be directed. After examination, the CONTRACTOR shall restore said portions of the finished WORK to the standard required by the SPECIFICATIONS. Should the WORK thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed, shall be paid for as Extra Work, but should the WORK so exposed or examined prove unacceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed shall be at the CONTRACTOR's expense.

- 8.3.3 The CONTRACTOR shall notify the ARCHITECT/ENGINEER at least forty-eight (48) hours in advance of his intention to begin construction to assure the presence of a PROJECT REPRESENTATIVE on the SITE.
- 8.4 CLARIFICATIONS AND INTERPRETATIONS: ARCHITECT/ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the CONTRACT DOCUMENTS (in the form of DRAWINGS or otherwise) as ARCHITECT/ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the CONTRACT DOCUMENTS. Such written clarifications and interpretations will be binding on CITY and CONTRACTOR. If CITY or CONTRACTOR believes that a written clarification or interpretation justifies and adjustment in the CONTRACT PRICE or the CONTRACT TIME and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11.
- 8.5 AUTHORIZED VARIATIONS IN WORK: ARCHITECT/ENGINEER may authorize minor variations in the WORK from the requirements of the CONTRACT DOCUMENTS which do not involve an adjustment in the CONTRACT PRICE or the CONTRACT TIME and are compatible with the design concept of the completed PROJECT as a functioning whole as indicated by the CONTRACT DOCUMENTS. These may be accomplished by a field order and will be binding on CITY and also on CONTRACTOR who shall perform the WORK involved. If CITY or CONTRACTOR believes that a FIELD ORDER justifies an adjustment in the CONTRACT PRICE or the CONTRACT TIME and the parties are unable to agree on the amount or extent thereof, CITY or CONTRACTOR may make a written claim therefor as provided in Article 11.
- 8.6 REJECTING DEFECTIVE WORK: ARCHITECT/ENGINEER will have authority

to disapprove or reject WORK which ARCHITECT/ENGINEER believes to be DEFECTIVE, or that ARCHITECT/ENGINEER believes will not produce a completed PROJECT that conforms to the CONTRACT DOCUMENTS or that will prejudice the integrity of the design concept of the completed PROJECT as a functioning whole as indicated by the CONTRACT DOCUMENTS.

ARCHITECT/ENGINEER will also have authority to require special inspection or testing of the WORK as provided in these general provisions whether or not the WORK is fabricated, installed, or completed.

- 8.7 DETERMINATIONS FOR UNIT PRICES: ARCHITECT/ENGINEER will determine the actual quantities and classifications of unit price WORK performed by CONTRACTOR. ARCHITECT/ENGINEER will review with CONTRACTOR the ARCHITECT/ENGINEER'S preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an application for payment or otherwise). ARCHITECT/ENGINEER'S written decision thereon will be final and binding upon CITY and CONTRACTOR, unless, within ten days after the date of any such decision, either CITY or CONTRACTOR delivers to the other and to ARCHITECT/ENGINEER written notice of intention to appeal from ARCHITECT/ENGINEER'S decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to ARCHITECT/ENGINEER'S decision, unless otherwise agreed in writing by CITY and CONTRACTOR. Such appeal will not be subject to the procedures of paragraph 8.8.
- 8.8 DECISIONS ON DISPUTES: ARCHITECT/ENGINEER will be the initial interpreter of the requirements of the CONTRACT DOCUMENTS and judge of the acceptability of the WORK thereunder. Claims, disputes and other matters relating to the acceptability of the WORK or the interpretations of the requirements of the CONTRACT DOCUMENTS pertaining to the performance and furnishing of the WORK and claims under Article 11 in respect of changes in the CONTRACT PRICE or CONTRACT TIMES will be referred initially to ARCHITECT/ENGINEER in writing with a request for formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant to ARCHITECT/ENGINEER and the other party to the AGREEMENT promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ARCHITECT/ENGINEER and the other party within sixty days after the start of such occurrence or event unless ARCHITECT/ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to ARCHITECT/ENGINEER and the claimant within thirty days of the last submittal (unless ARCHITECT/ENGINEER allow an additional time). ARCHITECT/ENGINEER will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. ARCHITECT/ENGINEER'S written decision on such claim, dispute or

other matter will be final and binding upon CITY and CONTRACTOR unless a written notice of intention to appeal from ARCHITECT/ENGINEER'S written decision is delivered by CITY or CONTRACTOR to the other and to ARCHITECT/ENGINEER within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect of such claim, dispute or other matter in accordance with applicable laws and regulations within sixty days of the date of such decision, unless otherwise agreed in writing by CITY and CONTRACTOR.

- 8.9 IMPARTIALITY: When functioning as interpreter and judge under paragraphs 8.7 and 8.8, ARCHITECT/ENGINEER will not show partiality to CITY or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ARCHITECT/ENGINEER pursuant to paragraphs 8.7 and 8.8 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by CITY or CONTRACTOR of such rights or remedies as either may otherwise have under the CONTRACT DOCUMENTS or by laws or regulations in respect of any such claim, dispute or other matter.
- 8.10 LIMITATIONS ON ARCHITECT/ENGINEER'S AUTHORITY AND RESPONSIBILITIES: Neither ARCHITECT/ENGINEER'S authority or responsibility under this Section 8 or under any other provision of the CONTRACT DOCUMENTS nor any decision made by ARCHITECT/ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by ARCHITECT/ENGINEER shall create, impose or give rise to any duty owed by ARCHITECT/ENGINEER to CONTRACTOR, any SUBCONTRACTOR, any SUPPLIER, any other person or organization, or to any surety for or employee or agent of any of them.
- 8.10.1 ARCHITECT/ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incidental thereto, or for any failure of CONTRACTOR to comply with law and regulations applicable to the furnishing or performance of the WORK. ARCHITECT/ENGINEER will not be responsible for CONTRACTOR'S failure to perform or furnish the WORK in accordance with the CONTRACT DOCUMENTS.
- 8.10.2 ARCHITECT/ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any SUBCONTRACTOR, and SUPPLIER, or of any other person or organization performing or furnishing any of the WORK.
- 8.10.3 ARCHITECT/ENGINEER'S review of the final application for payment and accompanying documentation and all maintenance and operating instructions,

schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by these CONTRACT DOCUMENTS will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with the CONTRACT DOCUMENTS.

8.10.4 The limitations upon authority and responsibility set forth in this Section 8 shall also apply to ARCHITECT/ENGINEER'S, Resident Project Representative, assistants and professional consultants.

DIVISION 1

General Provisions

Section 9

City's Responsibility

- |     |                                   |     |   |
|-----|-----------------------------------|-----|---|
| 9.1 | Method of Communications          | 9.5 | CHANGE ORDERS                               |
| 9.2 | Termination of ARCHITECT/ENGINEER | 9.6 | SAMPLES and Tests                           |
| 9.3 | Processing Payments               | 9.7 | Stop WORK, Suspend WORK, Terminate Services |
| 9.4 | Lands, Rights-of-way, Easements   | 9.8 | Prosecution of the WORK                     |

- 9.1 METHOD OF COMMUNICATIONS: Except as otherwise provided in these General Provisions, the CITY shall issue all communications to the CONTRACTOR through the ARCHITECT/ENGINEER.
- 9.2 TERMINATION OF ARCHITECT/ENGINEER: In the case of termination of the employment of the ARCHITECT/ENGINEER, the CITY shall appoint an ARCHITECT/ENGINEER against whom CONTRACTOR makes no reasonable objection, whose status under the CONTRACT DOCUMENTS shall be that of the former ARCHITECT/ENGINEER.
- 9.3 PROCESSING PAYMENTS: The CITY shall make payments to the CONTRACTOR in accordance with Section 12.1 and 12.1.1.
- 9.4 LANDS, RIGHTS-OF-WAY, EASEMENTS: The CITY shall make available to the CONTRACTOR such lands and rights-of-way or easements, as specified in Section 5.1 and exploratory reports set forth in Section 5.2. In addition, the CITY, through the ARCHITECT/ENGINEER, will provide reference points and construction stakes as provided in Section 5.5.
- 9.5 CHANGE ORDERS: When the ARCHITECT/ENGINEER and the CONTRACTOR agree that a CHANGE ORDER is required due to changes in CONTRACT PRICE or CONTRACT TIME, the ARCHITECT/ENGINEER shall process such documents as may be required to process the CHANGE ORDER promptly as provided in Section 4.3 of these General Provisions.
- 9.6 SAMPLES AND TESTS: The CITY'S responsibility in respect to certain Tests and SAMPLES is set forth in Section 7.8 of these General Provisions.
- 9.7 STOP WORK, SUSPEND WORK, TERMINATE SERVICES: The CITY reserves the right to Stop WORK, Suspend WORK or Terminate Services under certain circumstances as provided by these General Provisions.

9.8 PROSECUTION OF THE WORK: The CITY shall not supervise, direct, control nor have authority over the CONTRACTOR's means, method, techniques, sequences or procedures of construction.



# DIVISION 1

## General Provisions

### Section 10

#### Change in Contract Time

- |                                    |                                       |
|------------------------------------|---------------------------------------|
| 10.1 Change in CONTRACT TIME       | 10.4 Extension of CONTRACT TIME       |
| 10.2 Delays                        | 10.5 Failure to Complete WORK on Time |
| 10.3 Temporary Supervision of WORK |                                       |

10.1 CHANGE IN CONTRACT TIME: The CONTRACT TIME may be changed only by CHANGE ORDER or WRITTEN AMENDMENT within the guidelines of the CITY COUNCIL Policy. Any claim for an adjustment of CONTRACT TIME shall be based on a written notice by the CONTRACTOR to the ARCHITECT/ENGINEER not later than thirty (30) days after the occurrence of the event giving rise to the claim. Written justification of the extent of the claim shall be delivered to the ARCHITECT/ENGINEER within sixty (60) days of such occurrence. All claims for adjustments to CONTRACT TIME shall be determined in accordance with Sections 1.51, 3.11, 4.2, 4.4, 4.8, 8.1, 9.5, 9.7 and 11.4.

10.2 DELAYS: Where the CONTRACTOR is prevented from completing any part of the WORK within the CONTRACT TIME due to delay beyond the control of the CONTRACTOR, the CONTRACT TIME will be extended in an amount equal to the time lost due to such delay. Delays beyond the control of the CONTRACTOR shall include, but not be limited to, acts or neglect by the CITY, acts or neglect of utility owners, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a SUBCONTRACTOR or SUPPLIER shall be deemed to be delays within the control of the CONTRACTOR.

10.3 TEMPORARY SUSPENSION OF WORK: The ARCHITECT/ENGINEER shall have the authority to suspend the WORK wholly or in part. The order to suspend the WORK for periods exceeding one (1) day shall be in writing and shall include the specific reasons for suspension.

10.3.1 If the WORK is suspended by the ARCHITECT/ENGINEER because of the failure or refusal of the CONTRACTOR to comply with the order of the ARCHITECT/ENGINEER or with the DRAWINGS and SPECIFICATIONS, the time elapsed during such suspension shall remain charged against the CONTRACTOR.

10.3.2 When the WORK is suspended, the CONTRACTOR shall store all material in such manner that they will not obstruct or impede the traveling public

unnecessarily nor become damaged in any way and he shall take every precaution to prevent damage or deterioration of the WORK performed. The WORK shall be resumed when conditions are favorable and methods are corrected as ordered or approved in writing by the ARCHITECT/ENGINEER. Liquidated damages shall not accrue during the period in which WORK is suspended unless suspension is due to the failure of the CONTRACTOR to perform any of the provisions of the CONTRACT.

10.3.3 If the WORK is suspended by the CITY in order to remove or replace unknown subsurface hazards or utilities or to correct funding deficiencies caused by said conditions, the time elapsed during such suspension shall not be charged against the CONTRACTOR. In addition, the CONTRACTOR may claim partial remobilization cost if the suspension exceeds five (5) working days as defined elsewhere in these General Provisions.

10.4 EXTENSION OF CONTRACT TIME: The date of beginning and the time of completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on the date specified in the NOTICE TO PROCEED.

10.4.1 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the CITY, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

10.4.2 In the event there is an overrun in the contractual amount, the CONTRACT TIME shall automatically be extended by a period proportional to the positive difference in dollars obtained by subtracting the CONTRACT amount from the total amount of the final estimate.

10.5 FAILURE TO COMPLETE WORK ON TIME: Should the CONTRACTOR fail to complete the WORK within the CONTRACT TIME or extension of time granted by the CITY, the CONTRACTOR will pay to the CITY the amount for liquidated damages as specified in the BID for each WORKING DAY that the CONTRACTOR shall be delinquent after the time stipulated in the CONTRACT DOCUMENTS.

10.5.1 An amount of \$240.00 per WORKING DAY, for each day after the expiration of the CONTRACT TIME or extended CONTRACT TIME, will be deducted as liquidated damages from any money due the CONTRACTOR under this CONTRACT. The CONTRACTOR and his SURETY shall be liable for any liquidated damages in excess of the amount due the CONTRACTOR. Liquidated damages will be deducted from the CONTRACTOR's partial estimate when CONTRACT TIME expires and funds deducted may only be paid to the

CONTRACTOR for liquidated damages upon approval of additional WORKING DAYS to his CONTRACT TIME and payment made for only those additional WORKING DAYS approved.

10.5.2 Permitting the CONTRACTOR to continue and finish the WORK or any part of it after the time affixed for its completion, or after the date to which the time of completion may have been extended, shall in no way be considered as a waiver on the part of the CITY of any of its rights under this AGREEMENT.

# DIVISION 1

## General Provisions

### Section 11

#### Changes in Contract Price

- |                                |  |
|--------------------------------|--|
| 11.1 CONTRACT PRICE            | 11.3 Value of WORK                     |
| 11.2 Changes in CONTRACT Price | 11.4 Increased or Decreased Quantities |

11.1 CONTRACT PRICE: The CONTRACT PRICE constitutes the total compensation (subject to authorized adjustments) payable to the CONTRACTOR for performing the WORK. All duties, responsibilities and obligations assigned to or undertaken by the CONTRACTOR shall be at the CONTRACTOR's expense without change in the CONTRACT PRICE.

11.2 CHANGES IN CONTRACT PRICE: The CONTRACT PRICE may be changed only by a CHANGE ORDER or by a WRITTEN AMENDMENT. Any claim for an adjustment in the CONTRACT PRICE shall be based on written notice delivered by the CONTRACTOR to the ARCHITECT/ENGINEER promptly (but in no event later than thirty (30) days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty (60) days after the start of such occurrence or event (unless ARCHITECT/ENGINEER allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the CONTRACT PRICE shall be determined by ARCHITECT/ENGINEER but final approval shall not be formally constituted until final action of approval by the CITY COUNCIL.

11.3 VALUE OF WORK: The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- Method (A) - By agreed unit prices; or
- Method (B) - By agreed lump sum; or
- Method (C) - If neither Method (A) nor Method (B) can be agreed upon before the Extra WORK is commenced, then the CONTRACTOR shall be paid the "Actual Field Cost" of the WORK plus twenty percent (20%).

11.3.1 When the CITY requires the CONTRACTOR to do such work on a force account basis, the CONTRACTOR will be compensated as follows:

- (a) **LABOR:** For labor and working foremen in direct charge of operations, the CONTRACTOR shall receive the wage rates agreed upon in writing before beginning WORK for each hour that said labor and foremen are engaged in such WORK. The CONTRACTOR shall receive the actual costs paid to, or in behalf of, workmen for subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the WORK, but limited to a maximum daily rate for subsistence and travel allowances, which maximum will be agreed upon prior to incurring such charges. An amount equal to twenty percent (20%) of the sum of the above items will also be paid the CONTRACTOR.
- (b) **BOND, INSURANCE AND TAX:** For property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and social security taxes on force account work, the CONTRACTOR shall receive the actual cost thereof, to which six percent (6%) will be added. The CONTRACTOR shall furnish satisfactory evidence of the rates paid for such BOND, insurance and tax.
- (c) **MATERIALS:** For materials accepted by the ARCHITECT/ENGINEER and used, the CONTRACTOR shall receive the actual cost of such materials delivered on the WORK including transportation charges paid by him (exclusive of machinery rentals), to which fifteen percent (15%) will be added.
- (d) **EQUIPMENT:** For machinery or special equipment (other than small tools) including fuel, lubricants and transportation costs, the use of which has been authorized by the ARCHITECT/ENGINEER, the CONTRACTOR shall receive the rental rates agreed upon in writing before such WORK is begun for the actual time such equipment is in operation on the WORK.
- (e) **MISCELLANEOUS:** No additional allowance will be made for General Superintendence, the use of small tools or other costs for which no specific allowance is herein provided.
- (f) **COMPENSATION:** The PROJECT REPRESENTATIVE and the ARCHITECT/ENGINEER shall compare records of the cost of WORK done as ordered on a force account basis. Such comparison shall be made daily if required by the ARCHITECT/ENGINEER. Should any work be performed by an approved SUBCONTRACTOR, the CONTRACTOR will be paid the actual and reasonable cost of such subcontracted work computed as outlined above, plus an additional allowance of ten percent (10%) for materials cost and for direct labor cost to cover the CONTRACTOR's profit, superintendent, administration, insurance and overhead.

(g) STATEMENTS: No payment will be made for WORK performed on a force account basis until the CONTRACTOR has furnished the ARCHITECT/ENGINEER with duplicate itemized statements of the cost of such force account work detailed as follows:

- (1) Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman.
- (2) Designations, dates, daily hours, total hours, rental rate and extension for each unit of machinery and equipment.
- (3) Quantities of materials, prices and extensions.
- (4) Transportation of materials.
- (5) Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and social security tax.

Statements shall be accompanied and supported by invoices for all materials used and all transportation charges. If materials used on force account work are not purchased for such work but are taken from the CONTRACTOR's stock, in lieu of invoices, the CONTRACTOR shall furnish an itemized list of such materials showing that the quantity claimed was actually used, and that the price and transportation costs claimed represent the actual cost to the CONTRACTOR. All invoices submitted shall be accompanied by the CONTRACTOR's notarized statement that payment in full has been made for the materials.

11.4 INCREASED OR DECREASED QUANTITIES: When alterations in DRAWINGS or quantities of WORK not requiring SUPPLEMENTAL AGREEMENTS, as hereinabove provided, are ordered and performed and when such alterations result in increase or decrease of the quantity of WORK performed, the CONTRACTOR shall accept payment in full at the CONTRACT Unit Price for the actual quantities of WORK done and no allowance will be made for anticipated profits. Increased or decreased quantities of WORK involving CONTRACT PRICE changes, as set forth in Sections 8 and 11 of the General Provisions shall be paid for as stipulated in such agreements.

## DIVISION 1

### General Provisions

#### Section 12

##### Payments and Completion

- |                        |                                   |
|------------------------|-----------------------------------|
| 12.1 Progress Payments | 12.5 Acceptance and Final Payment |
| 12.2 Scope of Payments | 12.6 Waiver of Claims             |
| 12.3 Final Cleaning Up | 12.7 CONTRACTOR'S Guarantee       |
| 12.4 Final Inspection  |                                   |

12.1 PROGRESS PAYMENTS: On or before the last day of each month, the CONTRACTOR shall prepare and submit to the ARCHITECT/ENGINEER for approval or modification, a monthly statement or estimate showing as completely as practical the total value of the WORK done by the CONTRACTOR up to the last day of the month; said estimate shall also include the value of all stockpiled materials delivered on the SITE and accepted by the ARCHITECT/ENGINEER.

12.1.1 The CITY shall then pay the CONTRACTOR within thirty (30) days the total amount of the approved estimate, less retainage as required per LA Revised Statutes 38:2248, and further less all previous payments and further sums that may be retained by the CITY under the terms of the CONTRACT.

12.2 SCOPE OF PAYMENTS: The CONTRACTOR shall receive and accept the compensation provided for in the CONTRACT as full payment for furnishing all materials, labor, tools and equipment and for performing all WORK contemplated and embraced under the CONTRACT in a complete and acceptable manner in accordance with the CONTRACT, for all loss or damage arising out of the nature of the WORK as herein specified, or from any unforeseen difficulties or obstructions which may arise or be encountered during the prosecution of the WORK and for all risks of every description connected with the prosecution of the WORK until final acceptance by the ARCHITECT/ENGINEER. The payment of any Progress Payment or the acceptance of any portion of the WORK as provided in the CONTRACT shall in no way affect the obligation of the CONTRACTOR, who, at his own cost and expense, shall repair, correct, renew or replace any defects or imperfections in the construction, strength, or quality of materials used in or about the construction of the WORK under the CONTRACT and this payment shall in no way affect his responsibility for all damages due or attributable to such defects or imperfections which may be discovered before the final acceptance of the whole WORK and the ARCHITECT/ENGINEER shall be the judge of such defects or imperfections. No monies under the CONTRACT shall become due, if the ARCHITECT/ENGINEER so elects, until the CONTRACTOR has satisfied the ARCHITECT/ENGINEER that he has fully

settled for materials, equipment and other services in or upon the WORK and labor done in connection therewith.

- 12.2.1 All WORK indicated on the DRAWINGS as necessary to the completion of the improvement shall be performed by the CONTRACTOR, unless otherwise provided. All fences, buildings, bridges and structures of any character not necessary to the construction of the PROJECT or other encumbrances upon or within the limits of the construction, where indicated on the DRAWINGS to be removed, unless otherwise provided, shall be removed by the CONTRACTOR and disposed of as directed. All unsightly material removed shall be disposed of in such a manner that meets the approval of the ARCHITECT/ENGINEER. This WORK will be paid for as specifically provided for in the various pay items appearing in the proposal and CONTRACT but should no specific provisions be made for the payment of this WORK, it will be considered subsidiary WORK and as such shall be included by the CONTRACTOR in the BID prices for pay items appearing in the proposal and CONTRACT.
- 12.3 FINAL CLEANING UP: Upon completion of the WORK and before acceptance and final payment is made, the CONTRACTOR shall clean and remove from the roadway, neutral ground and adjacent property all surplus and discarded materials, weeds, bushes, rubbish, forms and temporary structures. He shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the WORK, and shall leave the site of the WORK in a neat and presentable condition throughout.
- 12.3.1 Upon completion, and unless otherwise instructed, structures, all superfluous material, cofferdams, construction buildings and other temporary structures and debris resulting from construction shall be removed. False work timbers and piles shall be removed to the ground level. Upon completion of WORK in connection with drainage structures, the CONTRACTOR will be required to remove all debris, such as drifts, weeds, dirt, scraps of building material, or any other obstruction whether old or new.
- 12.3.2 All drainage culverts within the limits of the PROJECT shall be cleaned and flushed whether it is new culverts installed in the PROJECT or culverts found in place and/or designated by the ARCHITECT/ENGINEER to remain.
- 12.3.3 All materials shall be disposed of as directed by the ARCHITECT/ENGINEER and stream channels, structures and roadway shall be left in a neat and presentable condition. Obstructions to the end of drainage structures shall be removed unless the CONTRACTOR is otherwise directed by the ARCHITECT/ENGINEER.
- 12.3.4 No special payment will be made for this work; its cost being included in the prices paid for the construction work.



- 12.4 FINAL INSPECTION: Whenever the WORK provided for and contemplated by the CONTRACT shall have been satisfactorily completed and the final cleaning up performed, the CONTRACTOR shall notify the ARCHITECT/ENGINEER, requesting Final Inspection.
- 12.5 ACCEPTANCE AND FINAL PAYMENT: Within ten (10) days after the CONTRACTOR has given notice to the ARCHITECT/ENGINEER that the WORK has been completed, the ARCHITECT/ENGINEER and the PROJECT REPRESENTATIVE shall inspect the WORK and within said time, if the WORK is found to be completed in accordance with the CONTRACT DOCUMENTS, the ARCHITECT/ENGINEER shall provide to the CITY a CERTIFICATE OF ACCEPTANCE. Upon completion of all WORK, and upon certification by the CITY that the WORK has been accepted, the CITY will record the CERTIFICATE OF ACCEPTANCE of the WORK in the office of the Clerk of Court of Rapides Parish, Louisiana. If, upon or after the expiration of forty-five (45) days after the recordation of acceptance, the CONTRACTOR submits to the CITY a Certificate from the Clerk of Court of the Parish of Rapides to the effect that there are no claims or liens recorded against the CONTRACT or the CONTRACTOR, then Final Payment of all amounts due the CONTRACTOR shall be made by the CITY. Final Payment will be made within thirty (30) days of receipt of the Clear Lien Certificate from the CONTRACTOR through the ARCHITECT/ENGINEER. Neither the CERTIFICATE OF ACCEPTANCE nor the Final Payment, nor any provision in the CONTRACT DOCUMENTS shall relieve the CONTRACTOR of the obligations for fulfillment of any warranty that may be required in these General Provisions, the SPECIAL PROVISIONS or the SPECIFICATIONS.
- 12.6 WAIVER OF CLAIMS: The acceptance by the CONTRACTOR of Final Payment shall be and shall operate as a release to the CITY of all claims and all liability to the CONTRACTOR, other than claims in stated amount as may be specifically accepted by the CONTRACTOR, for all things done or furnished in connection with this WORK and for every act and neglect of the CITY and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or its SURETIES from any obligations under the CONTRACT DOCUMENTS or the Performance and Payment BONDS.
- 12.7 CONTRACTOR'S GUARANTEE: The CONTRACTOR shall guarantee all materials and equipment furnished and WORK for a period of one (1) year from the date of recordation of the CERTIFICATE OF ACCEPTANCE. The CONTRACTOR warrants that the completed WORK is free from all defects due to faulty materials and workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of the damage of other parts of the system resulting from such defects. The CITY will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the CITY may do so

and charge the CONTRACTOR the cost thereby incurred. The Performance BOND shall remain in full force and effect through the guaranty period.

## DIVISION 1

### General Provisions

#### Section 13

##### Termination and Default

- |                               |   |
|-------------------------------|---|
| 13.1 Termination              | 13.3 Default of CONTRACT                        |
| 13.2 CONTRACTOR May Terminate | 13.4 Termination of CONTRACTOR'S Responsibility |

13.1 TERMINATION: The CITY may elect to terminate an AGREEMENT with a CONTRACTOR when the CONTRACTOR persistently fails to perform the WORK in accordance with the CONTRACT DOCUMENTS. Such failure shall include, but not be limited to failure to supply sufficient skilled workers or suitable material or equipment or failure to adhere to progress schedules; failure to obey LAWS AND REGULATIONS; failure to regard the authority of the ARCHITECT/ENGINEER; or failure to comply in a substantial way with the provisions of the CONTRACT DOCUMENTS.

13.1.1 The CITY may, after giving CONTRACTOR and the SURETY, seven (7) days' written notice and to the extent permitted by LAWS AND REGULATIONS, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site and take possession of the WORK and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the Site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the WORK all materials and equipment stored at the Site or for which the CITY has paid CONTRACTOR but which are stored elsewhere, and finish the WORK as the CITY may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds all claims, costs, losses and damages sustained by the CITY arising out of or resulting from completing the WORK such excess will be paid to CONTRACTOR. If such claims, costs, losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to the CITY. Such claims, costs, losses and damages incurred by the CITY will be reviewed by ARCHITECT/ENGINEER as to their reasonableness and when so approved by ARCHITECT/ENGINEER incorporated in a CHANGE ORDER, provided that when exercising any rights or remedies under this paragraph the CITY shall not be required to obtain the lowest price for the WORK performed.

13.1.2 Where CONTRACTOR's services have been so terminated by the CITY, the termination will not affect any rights or remedies of the CITY against CONTRACTOR then existing or which may thereafter accrue. Any retention or

payment of monies due CONTRACTOR by the CITY will not release CONTRACTOR from liability.

- 13.1.3 Upon seven (7) days' written notice to CONTRACTOR the CITY may, without cause and without prejudice to any other right or remedy of the CITY, elect to terminate the AGREEMENT. In such case, CONTRACTOR shall be paid (without duplication of any items):
  - 13.1.3.1 For completed and acceptable WORK executed in accordance with the CONTRACT DOCUMENTS prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such WORK;
  - 13.1.3.2 For expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the CONTRACT DOCUMENTS in connection with uncompleted WORK, plus fair and reasonable sums for overhead and profit on such expenses;
  - 13.1.3.3 For all claims, costs, losses and damages incurred in settlement of terminated contracts with SUBCONTRACTORS, SUPPLIERS and others; and
  - 13.1.3.4 For reasonable expenses directly attributable to termination.
- 13.1.4 CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.
- 13.2 CONTRACTOR MAY TERMINATE: If, through no act or fault of CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the CITY or under an order of court or other public authority, or ARCHITECT/ENGINEER fails to act on any Application for Payment within thirty (30) days after it is submitted or the CITY fails for thirty (30) days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven (7) days' written notice to the CITY and provided the CITY or ARCHITECT/ENGINEER do not remedy such suspension or failure within that time, terminate the AGREEMENT and recover from the CITY payment on the same terms as provided in Section 13.1.3.1, 13.1.3.2, 13.1.3.3, 13.1.3.4 and 13.1.4.
- 13.3 DEFAULT OF CONTRACT: If the CONTRACTOR fails to begin WORK within the time specified or if the construction or WORK to be done under this CONTRACT shall be abandoned, or if this CONTRACT, or any part thereof, shall be sublet without the previous written consent of the ARCHITECT/ENGINEER, or if the CONTRACT shall be assigned by the CONTRACTOR otherwise than as specified, or if at any time the ARCHITECT/ENGINEER shall be of the opinion that the WORK or any part thereof is unnecessarily or unreasonably delayed or that the CONTRACTOR has violated any provisions of this CONTRACT; or if the CONTRACTOR shall discontinue the prosecution of the WORK without authority; or shall become insolvent or be declared bankrupt, or shall commit any act of

bankruptcy, or insolvency, the ARCHITECT/ENGINEER may give notice in writing to the CONTRACTOR and his SURETY of such delay, neglect or default, specifying the same. If the CONTRACTOR within a period of ten (10) days after such notice shall not proceed in accordance therewith, then the CITY shall upon written certificate from the ARCHITECT/ENGINEER of the fact of such delay, neglect or default of the CONTRACTOR'S failure to comply with such notice, have full power and authority, without violating the CONTRACT, to take the prosecution of the WORK out of the hands of the CONTRACTOR and to appropriate or use any and all materials and equipment on the ground as may be suitable and acceptable and enter into an AGREEMENT for the completion of the CONTRACT according to the terms and provisions thereof or use such other methods as in his opinion may be required for the completion for the CONTRACT in an acceptable manner.

13.3.1 All costs and charges that may be incurred under this article or any damages that should be borne by the CONTRACTOR, shall be withheld or deducted from any monies then due or to become due the CONTRACTOR, under this CONTRACT or any part thereof; and in such accounting the CITY shall not be held to obtain the lowest cost of the WORK for completing the CONTRACT or any part thereof, but all sums actually paid therefor shall be charged to the CONTRACTOR. In case the costs and charges incurred are less than the sum that would have been payable under the CONTRACT, if the same had been completed by the CONTRACTOR, the CONTRACTOR or his SURETY shall be entitled to receive the difference and in case such costs and charges exceed the said sum, the CONTRACTOR or his SURETY shall pay the amount of excess to the CITY for the completion of the WORK.

13.4 TERMINATION OF CONTRACTOR'S RESPONSIBILITY: The CONTRACT will be considered complete when all WORK has been satisfactorily completed, the Final Inspection made, the WORK accepted by the ARCHITECT/ENGINEER and the CITY. The CONTRACTOR will then be released from further obligation except as set forth in his CONTRACT DOCUMENTS.

# CITY OF ALEXANDRIA

## HORSESHOE ROUNDABOUT

Job No. 36978

Release - B


### Meyer Utility Structures

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

# MEYER

## UTILITY STRUCTURES

ANCHOR BOLT DRAWING INDEX				
RELEASE	QTY	DESCRIPTION	POLE NO	ANCHOR BOLT DRAWING
A	1	60'-0" 21° RT/TAP POLE 3 DC-CS8, CS7	3	36978-REV300AA
	1	40'-0" 13° RT POLE 3-2R C8L	3-2R	36978-REV32RAA
	1	50'-0" 13° LT POLE 2.1 DC-CS8	2.1	36978-STR021AA
	1	50'-0" 12° LT POLE 3-2L VC8-1L, VA7	3-2L	36978-STR32LAA

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	21° RT / TAP POLE 3 DC-CS8, CS7	60'-0"	N/A	3	36978-REV300AT	36978-3001	NONE	-
	1	13° RT POLE 3-2R C8L	40'-0"	N/A	3-2R	36978-REV32RAT	36978-3002	NONE	-
	1	13° LT POLE 2.1 DC-CS8	50'-0"	N/A	2.1	36978-STR021AT	36978-3003	NONE	-
	1	12° LT POLE 3-2L VC8-1L, VA7	50'-0"	N/A	3-2L	36978-STR32LAT	36978-3004	NONE	-
	1	STEP BOLTS 78320=66	0"	N/A	-	36978-EXCESSBT	-	NONE	-

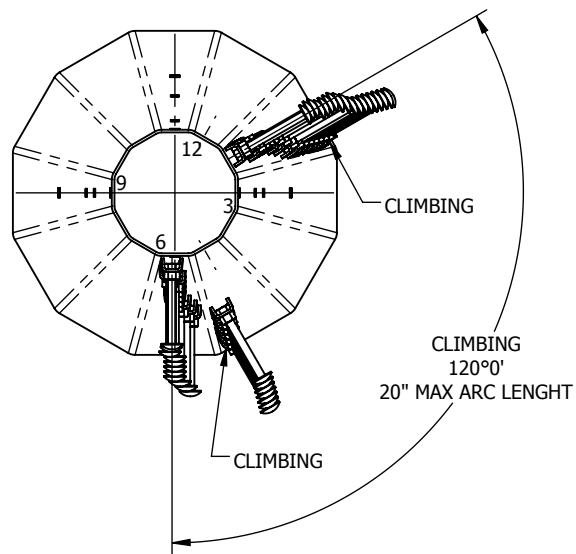
SSG DRAWING INDEX	
STANDARD DRAWINGS	DRAWING NO
GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION	SSG001
GALVANIZED POLE LIFTING REQUIREMENTS	SSG002
CLIMBING DEVICES	SSG008

B	UPDATED EXCESS FASTENERS	KS/03-13-19
A	INITIAL RELEASE	TK/02-12-19
REV	DESCRIPTION	DRFT/DATE
PROJECT: HORSESHOE ROUNDABOUT		
CUSTOMER: CITY OF ALEXANDRIA		
CUSTOMER P.O. NO: P1116179		
JOB NO: 36978		
DRAWN/DATE: JKR 02/07/2019		
CHECKED/DATE: DF 03/02/2019		
ENGINEER: STEPHEN ADAMS		
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
DRAWING INDEX		
SHEET 1 OF 1	<b>36978-INDEX</b>	REV. <b>B</b>





PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	36978-3001	1	SHAFT ASSEMBLY, 60'-0" LONG	POLE 060.00 012.3 031.5 036		4570.00	4570.00	
2	R3PD0140	1	POLE CAP, 3/16" THK X 14" DIA		036-ASTM A36	8.17	8.17	
3	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
4	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
5	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
6	78320	36	STEP BOLT, 3/4" DIA. X 7 1/2" W/(2) NUTS		ASTM A-394 TYPE 3	10.00	360.00	
TOTAL STRUCTURE FINISHED WEIGHT							4940.00	



**CLIMBING ORIENTATION**

**CLIMBING:**  
 PROVIDE STEP CLIPS  
 FROM TOP OF POLE TO APPROX. 8'-0" ABOVE GROUND LINE  
 SPACED AT 1'-6" APART ALTERNATIVELY.

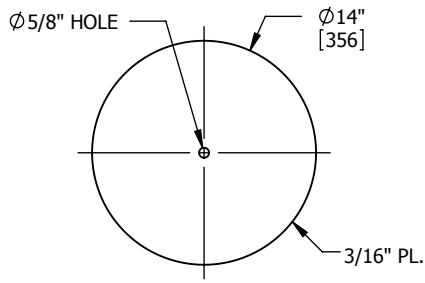
**NOTES:**

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

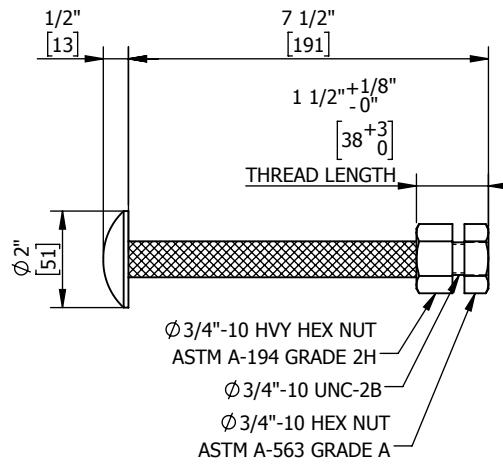
**NOTAS:**

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
60'-0" 21° RT / TAP POLE 3 DC-CS8, CS7 POLE NO: 3		
SHEET 2 OF 3	<b>36978-REV300AT</b>	REV. <b>A</b>



**R3PD0140**  
 0.19 X 14.00 X 14.00  
 036-ASTM A36  
 8.17 LBS



**78320**  
 STEP BOLT, GALVANIZED  
 ASTM A-394 TYPE 1  
 1.76 LBS

NOTES:

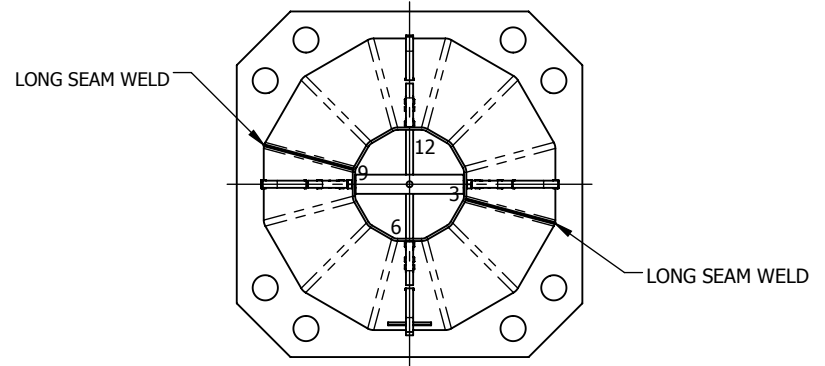
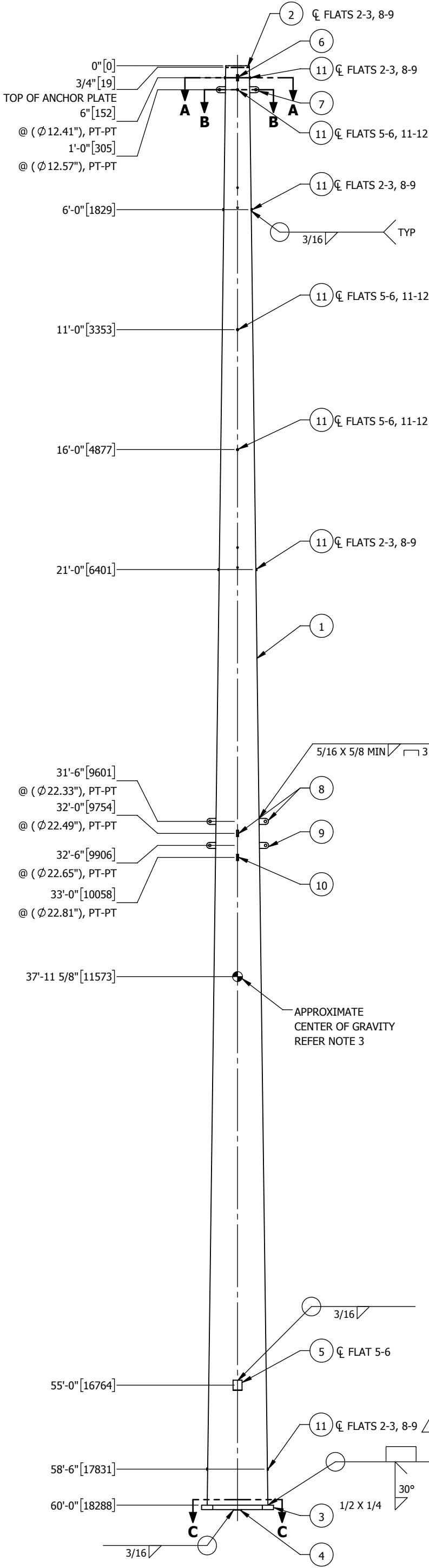
1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.
4. MARK ALL SHIPLOOSE ITEMS WITH PART NUMBER.

NOTAS:

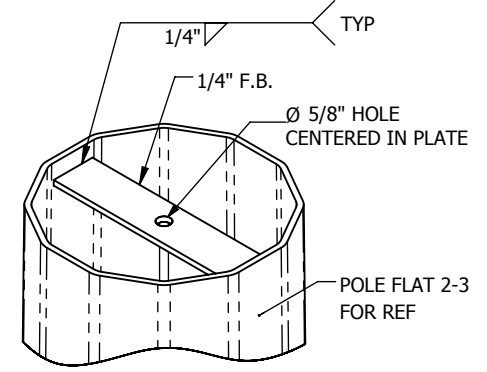
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.
4. MARQUE TODOS LOS ARTÍCULOS SUELTOS A ENVÍAR, CON NÚMERO DE PARTE.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
60'-0" 21° RT / TAP POLE ASSEMBLY SHIP LOOSE PARTS DETAIL		
SHEET 3 OF 3	<b>36978-REV300AT</b>	REV. <b>A</b>

SHAFT INFORMATION								
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT.
36978-4001	065-ASTM A572 Gr65	60'-0" [18288]	1/4"	12 1/4" [311]	31 7/16" [799]	11 27/32" [301]	30 3/8" [772]	0.32000



PLAN VIEW



POLE CAP ANCHOR DETAIL

HOLE INFORMATION			
EL.	LOCATION FROM TOP	HOLE DIA	ORIENTATION
1	5'-1" [1549]	13/16"	11-12, 5-6
2	5'-11" [1803]	13/16"	11-12, 5-6
3	10'-1" [3073]	13/16"	2-3, 8-9
4	10'-11" [3327]	13/16"	2-3, 8-9
5	15'-1" [4597]	13/16"	2-3, 8-9
6	15'-11" [4851]	13/16"	2-3, 8-9
7	20'-1" [6121]	13/16"	11-12, 5-6
8	20'-11" [6375]	13/16"	11-12, 5-6

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

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. WELD "CG" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
4. HOT DIP GALVANIZED PER A-123.
5. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. SOLDAR "CG" AL CENTRO DE GRAVEDAD APROXIMADO. (EN CUALQUIER CARA - SOLO PARA EL USO DEL FABRICANTE).
4. GALVANIZADO POR INMERSION EN CALIENTE SEGÚN ASTM A-123.
5. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

B	SS NUT FLATS CORRECTED	KS/04-04-19
A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE

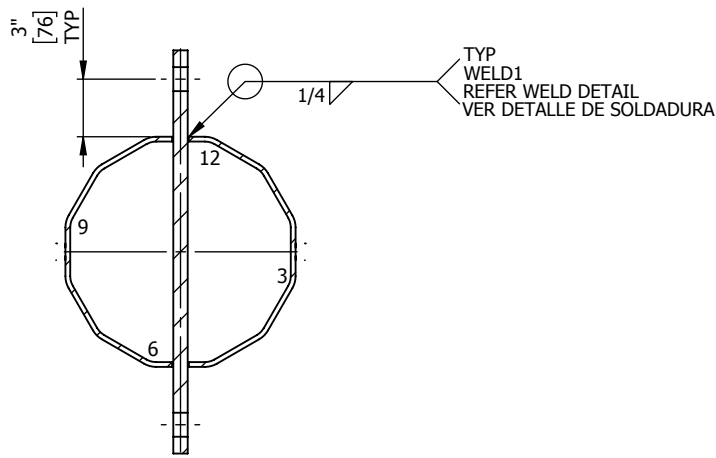
PROJECT:	HORSESHOE ROUNDABOUT
CUSTOMER:	CITY OF ALEXANDRIA
CUSTOMER P.O. NO.:	P1116179
JOB NO.:	36978
DRAWN/DATE:	KS 02/13/2019
CHECKED/DATE:	DF 03/02/2019
ENGINEER:	STEPHEN ADAMS

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

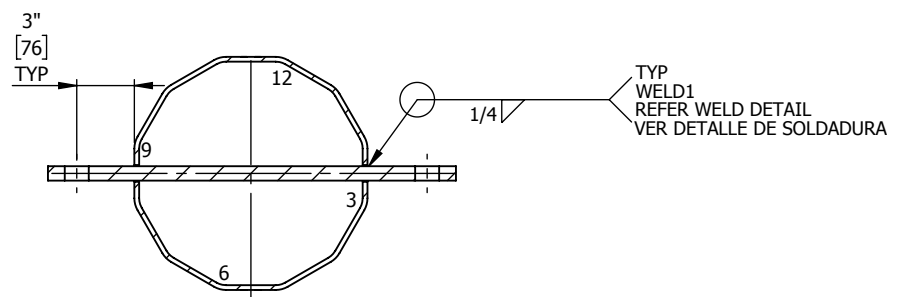
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 60'-0" LONG  
POLE

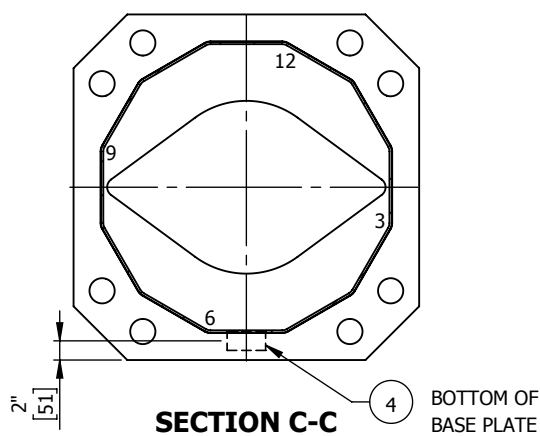
PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	36978-4001	1	TOWER PLATE TUBE	(2) 0.25 X 18.63 X 720.00 X 48.44	065-ASTM A572 Gr65	3471.23	3471.23	
2	PCA112	1	ANCHOR PLATE	0.25 X 2.00 X 11.25	099-ASTM A36	1.57	1.57	
3	36978-4002	1	BASE PLATE	2.25 X 36.00 X 36.00	451-ASTM A572 Gr50	553.79	553.79	
4	78433	1	ID TAG, A-36	70568, 0.25 X 2.00	036 ASTM A-36	0.57	0.57	
5	36978-1401	1	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	1.6	0.20	
6	36978-302	1	THROUGH VANG	0.75 X 3.00 X 21.00	065-ASTM A572 Gr65	12.47	12.47	
7	36978-303	1	THROUGH VANG	0.75 X 3.00 X 21.25	065-ASTM A572 Gr65	12.63	12.63	
8	36978-304	2	THROUGH VANG	0.75 X 3.00 X 30.75	065-ASTM A572 Gr65	18.69	37.38	
9	36978-305	1	THROUGH VANG	0.75 X 3.00 X 31.00	065-ASTM A572 Gr65	18.85	18.85	
10	36978-306	1	THROUGH VANG	0.75 X 3.00 X 31.25	065-ASTM A572 Gr65	19.01	19.01	
11	73515	14	SS NUT, 1/2" DIA.	-	ASTM A-194 GRADE 8	0.07	0.84	
12	78086	36	1/4" STEPLUG W/ 13/16" HOLE	-	ASTM A-588	0.37	13.32	
TOTAL MODEL WEIGHT							4141.86	
TOTAL UNFINISHED WEIGHT							4150.00	
TOTAL FINISHED WEIGHT							4570.00	



**SECTION A-A**  
**LOC. @**  
**6", 32'-0", 33'-0"**



**SECTION B-B**  
**LOC. @**  
**1'-0", 31'-6", 32'-6"**



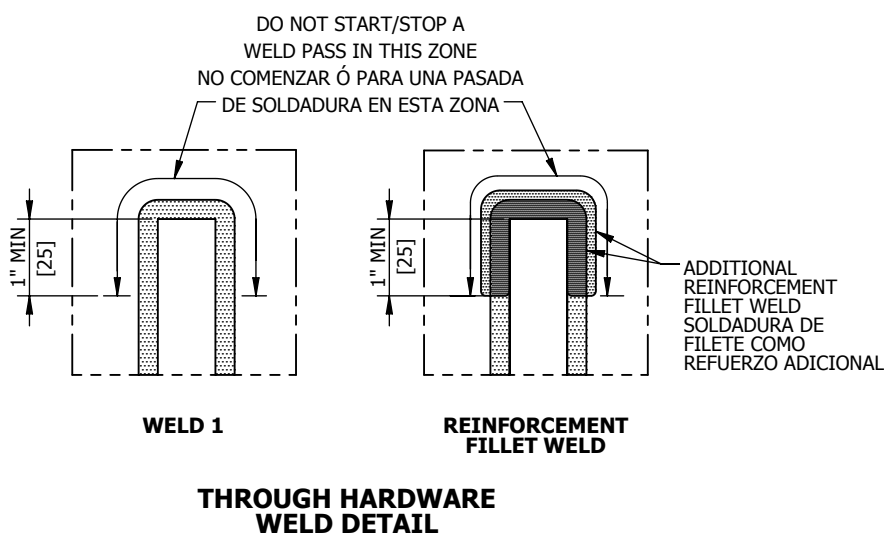
**SECTION C-C**

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.



**THROUGH HARDWARE WELD DETAIL**

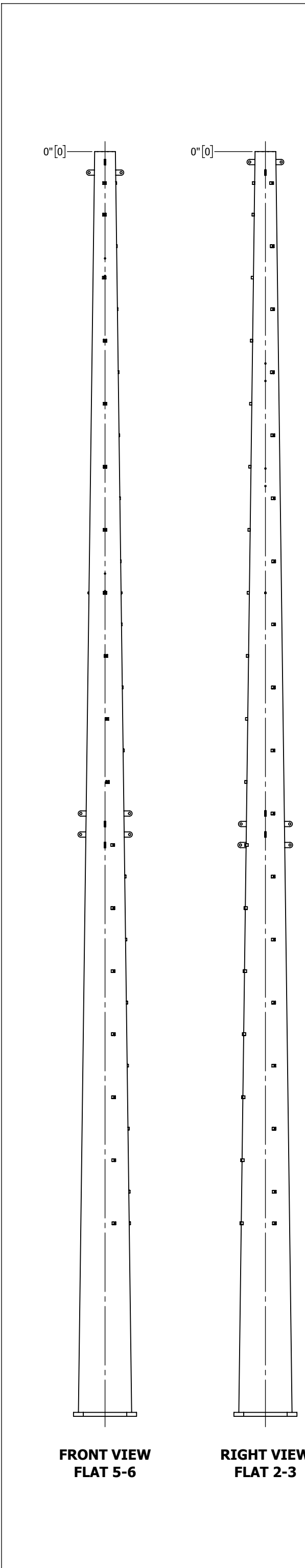
B	SS NUT FLATS CORRECTED	KS/04-04-19
A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE

PROJECT:	HORSESHOE ROUNDABOUT
CUSTOMER:	CITY OF ALEXANDRIA
CUSTOMER P.O. NO:	P1116179
JOB NO:	36978
DRAWN/DATE:	KS 02/13/2019
CHECKED/DATE:	DF 03/02/2019
ENGINEER:	STEPHEN ADAMS

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 60'-0" LONG  
 POLE



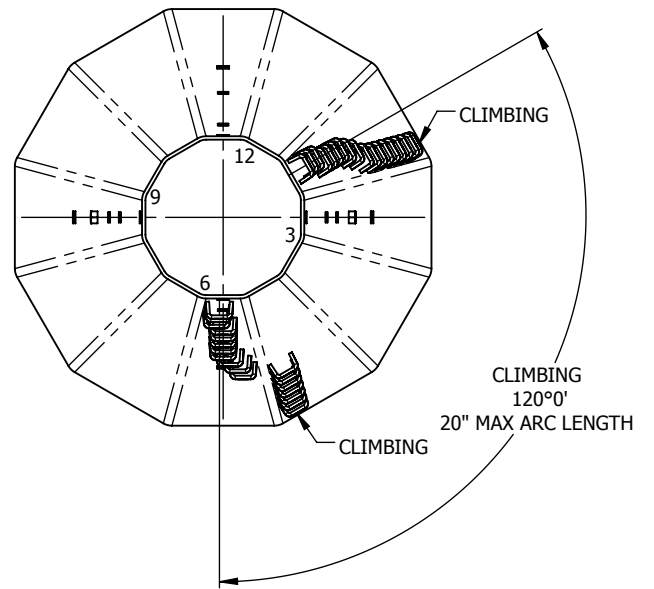
**FRONT VIEW  
FLAT 5-6**

**RIGHT VIEW  
FLAT 2-3**

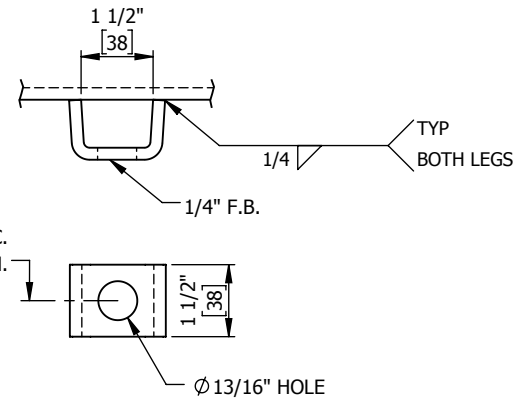
CLIMBING/WORKING HARDWARE INFORMATION														
EL.	LOCATION FROM TOP*	PART NO.	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	1'-6" [457]	78086		1				1						
2	3'-0" [914]	78086						1						
3	4'-6" [1372]	78086		1										
4	6'-0" [1829]	78086						1						
5	7'-6" [2286]	78086		1										
6	9'-0" [2743]	78086						1						
7	10'-6" [3200]	78086		1										
8	12'-0" [3658]	78086						1						
9	13'-6" [4115]	78086		1										
10	15'-0" [4572]	78086						1						
11	16'-6" [5029]	78086		1										
12	18'-0" [5486]	78086						1						
13	19'-6" [5944]	78086		1										
14	21'-0" [6401]	78086						1						
15	22'-6" [6858]	78086		1										
16	24'-0" [7315]	78086						1						
17	25'-6" [7772]	78086		1										
18	27'-0" [8230]	78086						1						
19	28'-6" [8687]	78086		1										
20	30'-0" [9144]	78086						1						
21	31'-6" [9601]	78086		1										
22	33'-0" [10058]	78086					1							
23	34'-6" [10516]	78086		1										
24	36'-0" [10973]	78086					1							
25	37'-6" [11430]	78086		1										
26	39'-0" [11887]	78086					1							
27	40'-6" [12344]	78086		1										
28	42'-0" [12802]	78086					1							
29	43'-6" [13259]	78086		1										
30	45'-0" [13716]	78086					1							
31	46'-6" [14173]	78086		1										
32	48'-0" [14630]	78086					1							
33	49'-6" [15088]	78086		1										
34	51'-0" [15545]	78086		1			1							

\* LOCATION DIMENSION FOR REFERENCE ONLY

NUMBER IN THE FLAT COLUMNS REPRESENT HARDWARE QTY



**CLIMBING ORIENTATION**



**NOTES:**

- 1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
- 2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

**NOTAS:**

- 1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
- 2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.

<b>B</b>	<b>SS NUT FLATS CORRECTED</b>	<b>KS/04-04-19</b>
<b>A</b>	INITIAL RELEASE	KS/02-14-19
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>

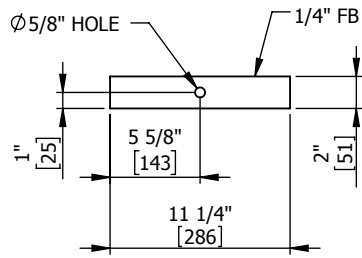
PROJECT:	HORSESHOE ROUNDABOUT
CUSTOMER:	CITY OF ALEXANDRIA
CUSTOMER P.O. NO:	P1116179
JOB NO:	36978
DRAWN/DATE:	KS 02/13/2019
CHECKED/DATE:	DF 03/02/2019
ENGINEER:	STEPHEN ADAMS

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

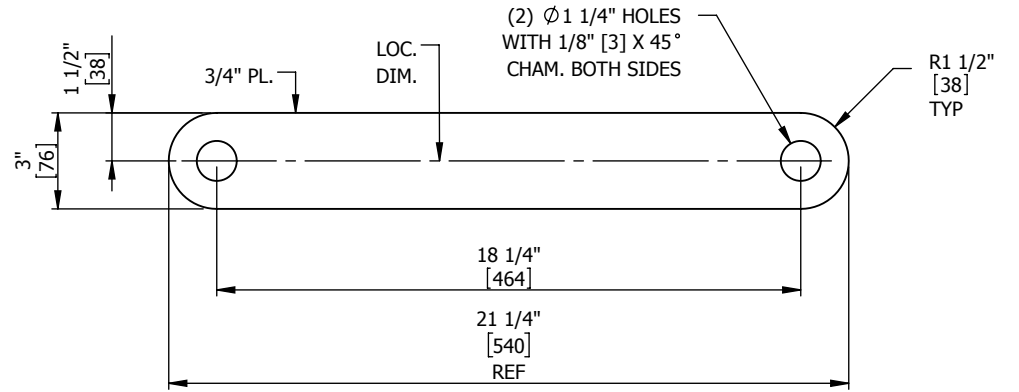
**MEYER**  
**UTILITY STRUCTURES**

SHAFT ASSEMBLY, 60'-0" LONG  
POLE  
CLIMBING DETAIL

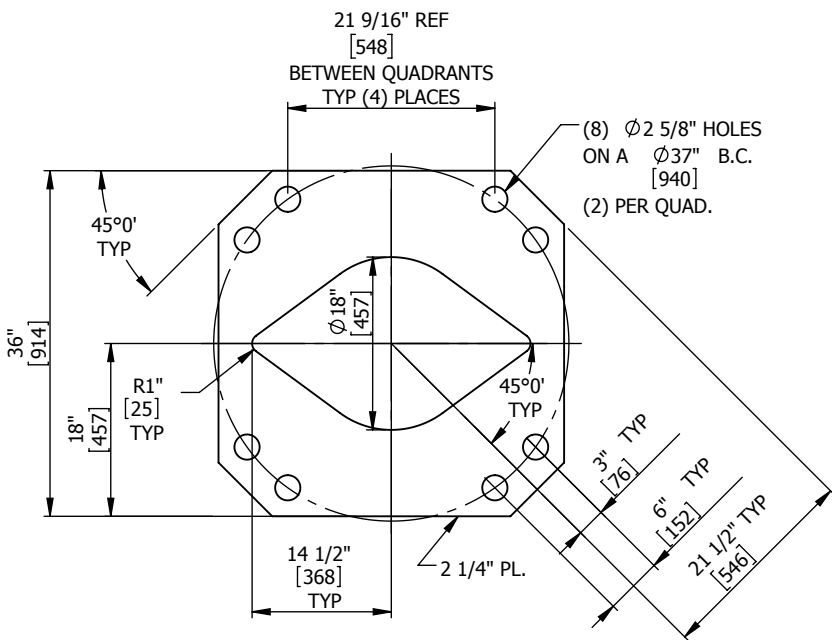
SHEET 3 OF 4      **36978-3001**      REV. **B**



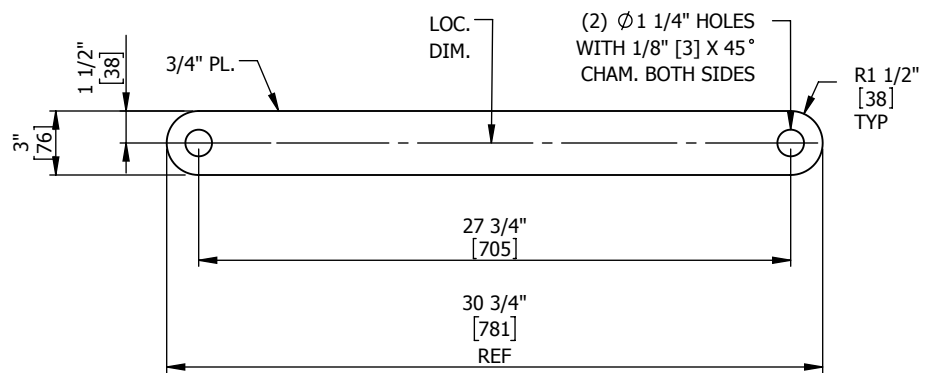
**PCA112**  
0.25 X 2.00 X 11.25  
099-ASTM A36  
1.57 LBS



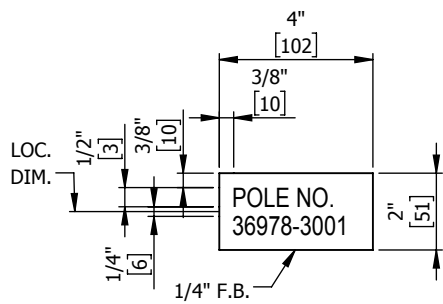
**36978-303**  
0.75 X 3.00 X 21.25  
065-ASTM A572 Gr65  
12.63 LBS



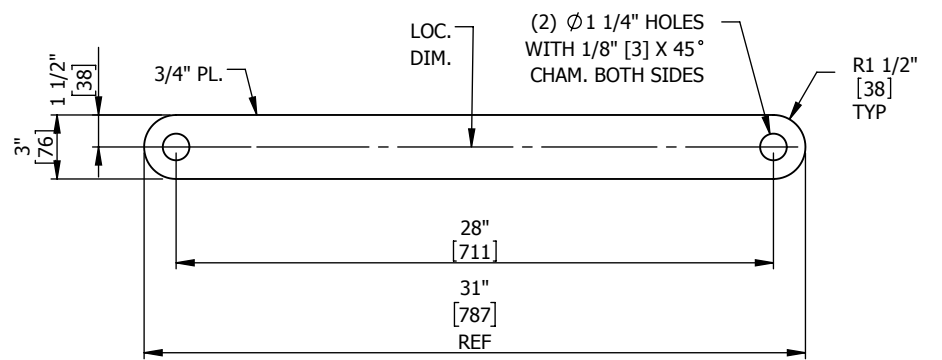
**36978-4002**  
2.25 X 36.00 X 36.00  
451-ASTM A572 Gr50  
553.79 LBS



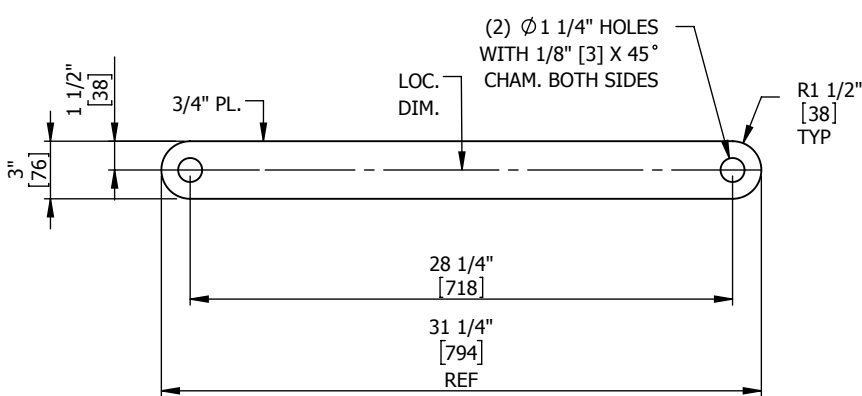
**36978-304**  
0.75 X 3.00 X 30.75  
065-ASTM A572 Gr65  
18.69 LBS



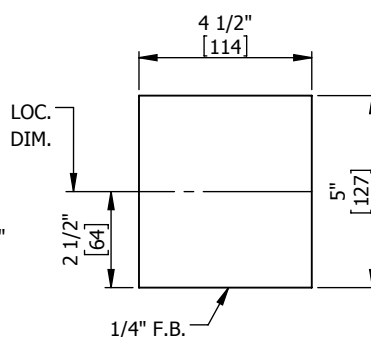
**78433**  
70568, 0.25 X 2.00  
036 ASTM A-36  
0.57 LBS



**36978-305**  
0.75 X 3.00 X 31.00  
065-ASTM A572 Gr65  
18.85 LBS



**36978-306**  
0.75 X 3.00 X 31.25  
065-ASTM A572 Gr65  
19.01 LBS



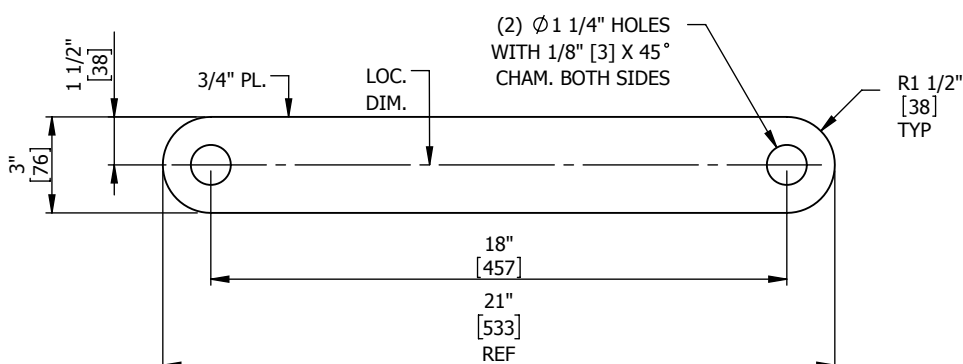
**36978-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
1.6 LBS

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. REFER INDIVIDUAL ERECTION DRAWINGS FOR THE INFORMATION NEEDED ON NAME PLATE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. PARA LA INFORMACION REQUERIDA EN PLACAS DE IDENTIFICACION, VER DIBUJOS INDIVIDUALES DE MONTAJE.



**36978-302**  
0.75 X 3.00 X 21.00  
065-ASTM A572 Gr65  
12.47 LBS

B	SS NUT FLATS CORRECTED	KS/04-04-19
A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE

PROJECT:	HORSESHOE ROUNDABOUT
CUSTOMER:	CITY OF ALEXANDRIA
CUSTOMER P.O. NO.:	P1116179
JOB NO.:	36978
DRAWN/DATE:	KS 02/13/2019
CHECKED/DATE:	DF 03/02/2019
ENGINEER:	STEPHEN ADAMS

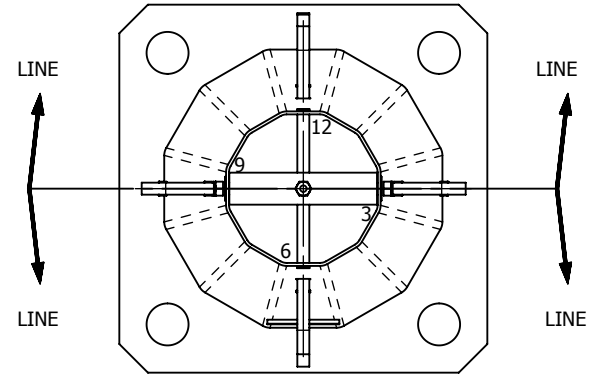
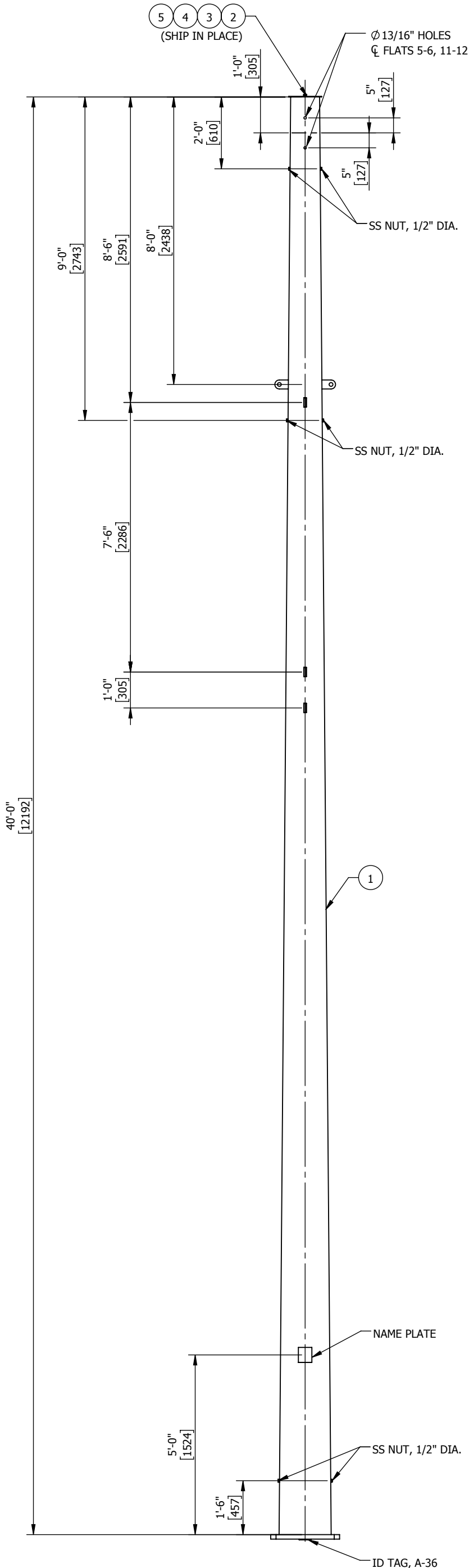
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

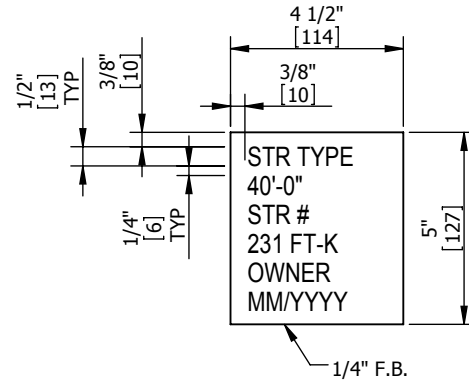
SHAFT ASSEMBLY, 60'-0" LONG  
POLE  
PARTS DETAIL

SHEET 4 OF 4	<b>36978-3001</b>	REV. <b>B</b>
--------------	-------------------	---------------

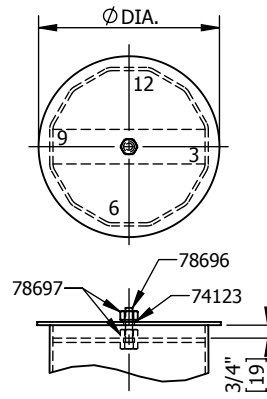
STRUCTURE INFORMATION					
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT.
36978-REV32RAT	3-2R	40'-0" [12192]	10" [254]	18" [457]	0.20000



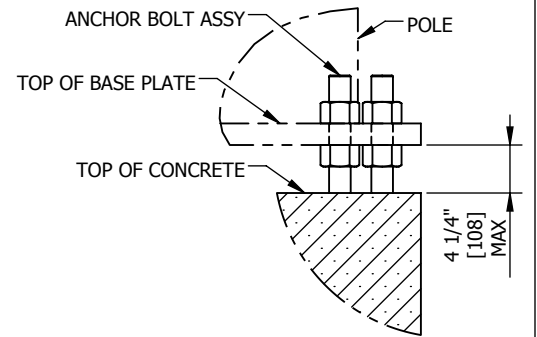
**PLAN VIEW**  
POLE CAP REMOVED FOR CLARITY



**NAME PLATE**  
**36978-1401**



**POLE CAP DETAIL**



**FIELD ASSEMBLY DETAIL**

**NOTES:**

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. ALL THE DIMENSIONS ARE FOR REFERENCE ONLY.
3. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.
5. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

**NOTAS:**

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. TODAS LAS DIMENSIONES SON SOLO DE REFERENCIA.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.
5. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

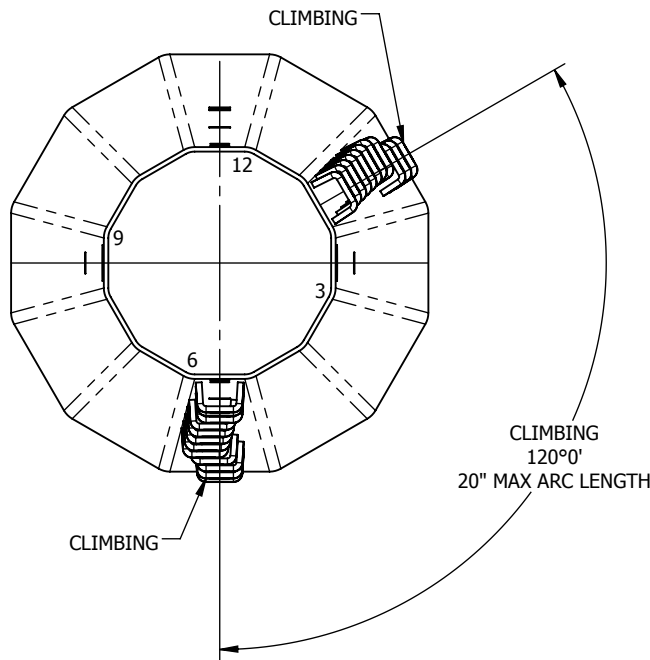
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
**UTILITY STRUCTURES**

40'-0" 13° RT  
POLE3-2R C8L  
POLE NO: 3-2R

SHEET 1 OF 3	<b>36978-REV32RAT</b>	REV. <b>A</b>
--------------	-----------------------	---------------

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	36978-3002	1	SHAFT ASSEMBLY, 40'-0" LONG	POLE 040.00 010.0 018.0 023		1480.00	1480.00	
2	R3PD0110	1	POLE CAP, 3/16" THK X 11" DIA		036-ASTM A36	5.04	5.04	
3	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
4	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
5	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
TOTAL STRUCTURE FINISHED WEIGHT							1490.00	



**CLIMBING ORIENTATION**

**CLIMBING:**  
 PROVIDE STEP CLIPS  
 FROM TOP OF POLE TO APPROX. 8'-0" ABOVE GROUND LINE  
 SPACED AT 1'-6" APART ALTERNATIVELY.

NOTES:

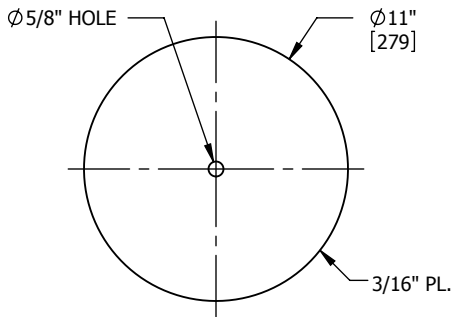
1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
40'-0" 13° RT POLE3-2R C8L POLE NO: 3-2R		
SHEET 2 OF 3	<b>36978-REV32RAT</b>	REV. <b>A</b>





**R3PD0110**  
 0.19 X 11.00 X 11.00  
 036-ASTM A36  
 5.04 LBS

NOTES:

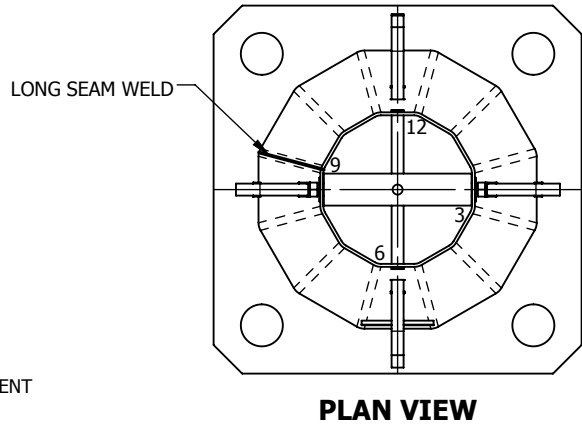
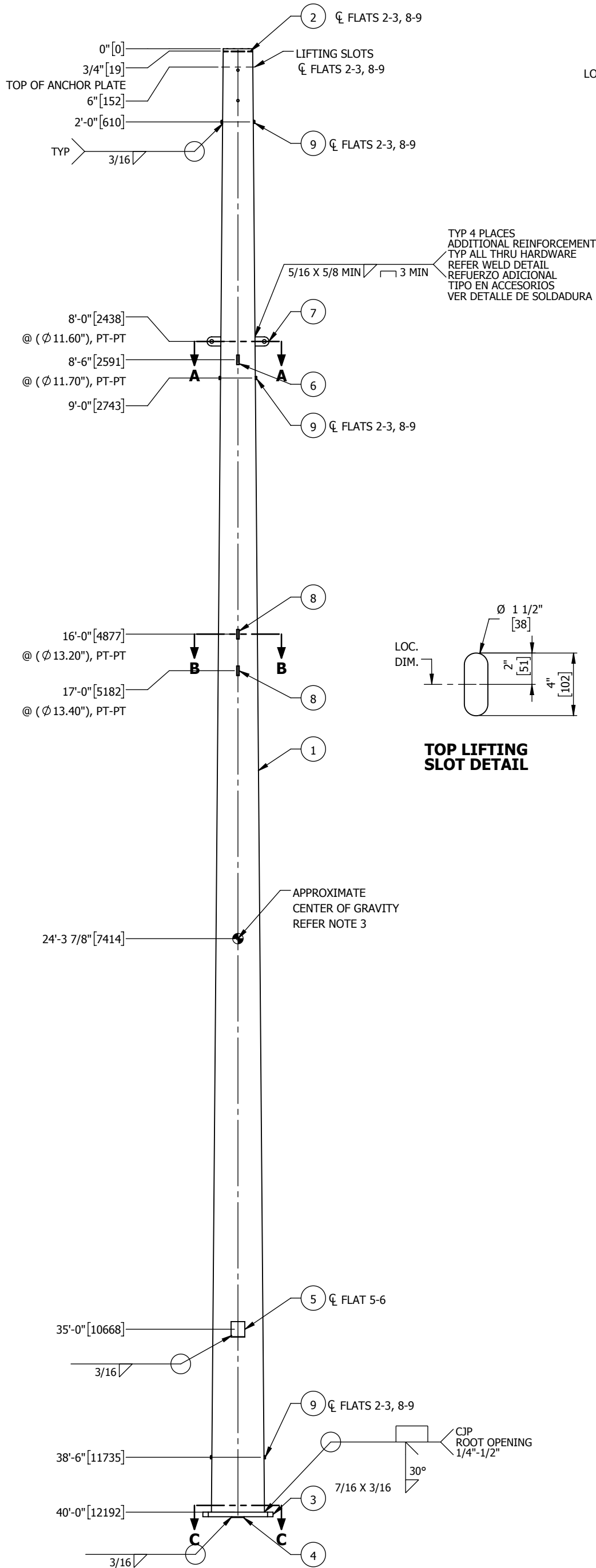
1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.
4. MARK ALL SHIPLOOSE ITEMS WITH PART NUMBER.

NOTAS:

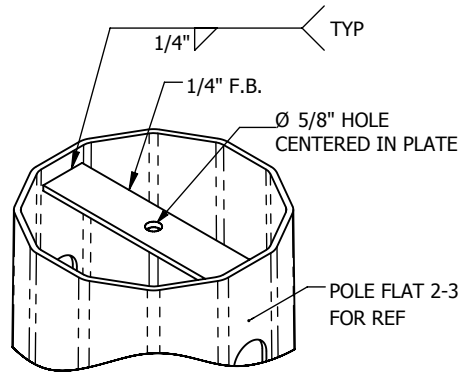
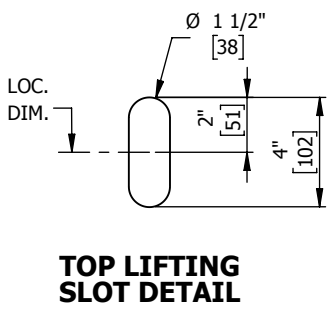
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVIAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.
4. MARQUE TODOS LOS ARTICULOS SUELTOS A ENVIAR, CON NÚMERO DE PARTE.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
<p>40'-0" 13° RT                  POLE ASSEMBLY SHIP LOOSE                  PARTS DETAIL</p>		
SHEET 3 OF 3	<b>36978-REV32RAT</b>	REV. <b>A</b>

SHAFT INFORMATION								
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT.
36978-4003	065-ASTM A572 Gr65	40'-0" [12192]	3/16"	10" [254]	18" [457]	9 21/32" [245]	17 3/8" [442]	0.20000



HOLE INFORMATION			
EL.	LOCATION FROM TOP	HOLE DIA	ORIENTATION
1	7" [178]	13/16"	5-6, 11-12
2	1'-5" [432]	13/16"	5-6, 11-12

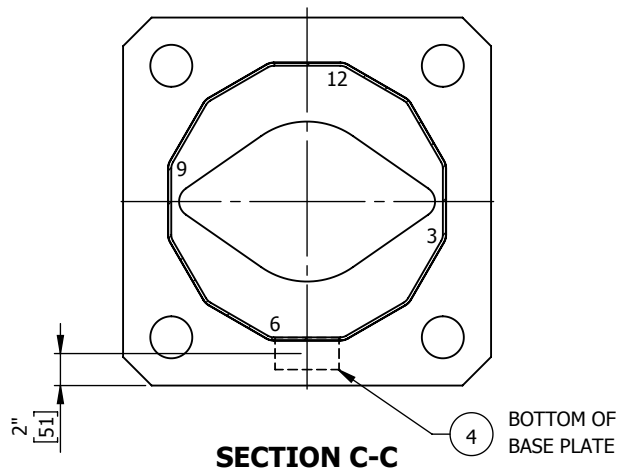
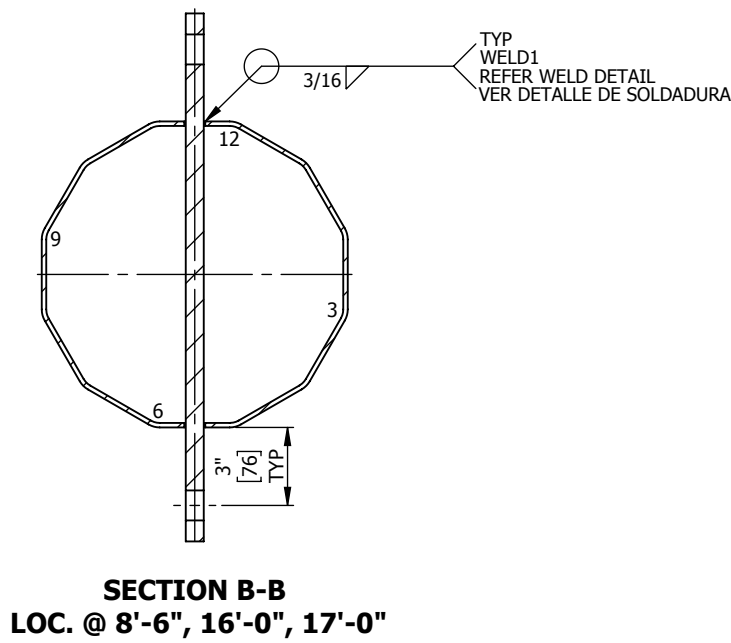
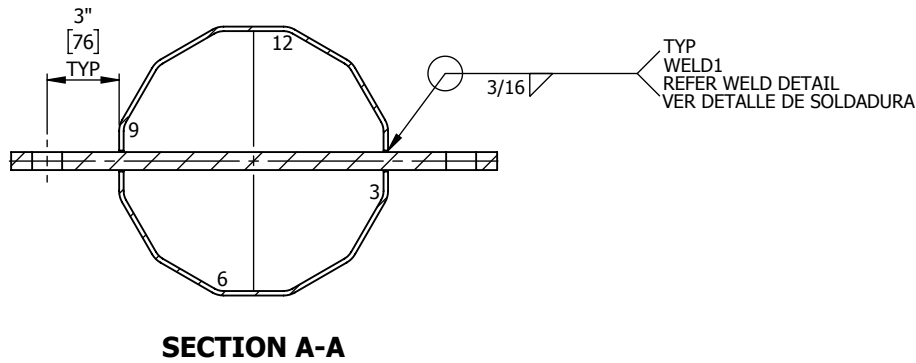


- NOTES:
1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
  2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
  3. WELD "CG" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
  4. HOT DIP GALVANIZED PER A-123.
  5. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

- NOTAS:
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
  2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
  3. SOLDAR "CG" AL CENTRO DE GARAVEDAD APROXIMADO. (EN CUALQUIER CARA - SOLO PARA EL USO DEL FABRICANTE).
  4. GALVANIZADO POR INMERSION EN CALIENTE SEGÚN ASTM A-123.
  5. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.		
<b>MEYER</b> UTILITY STRUCTURES		
SHAFT ASSEMBLY, 40'-0" LONG POLE		
SHEET 1 OF 4	<b>36978-3002</b>	REV. <b>A</b>

PARTS AND ASSEMBLIES LIST							
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.
1	36978-4003	1	TOWER PLATE TUBE	0.19 X 30.56 X 480.00 X 55.44	065-ASTM A572 Gr65	1110.28	1110.28
2	PCA092	1	ANCHOR PLATE	0.25 X 2.00 X 9.25	099-ASTM A36	1.29	1.29
3	36978-4004	1	BASE PLATE	1.50 X 23.00 X 23.00	451-ASTM A572 Gr50	170.01	170.01
4	78433	1	ID TAG, A-36	70568, 0.25 X 2.00	036 ASTM A-36	0.57	0.57
5	36978-1401	1	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	1.6	0.20
6	36978-307	1	THROUGH VANG	0.75 X 3.00 X 20.50	065-ASTM A572 Gr65	12.15	12.15
7	36978-308	1	THROUGH VANG	0.75 X 3.00 X 20.25	065-ASTM A572 Gr65	11.99	11.99
8	36978-309	2	THROUGH VANG	0.75 X 3.00 X 22.00	065-ASTM A572 Gr65	13.1	26.20
9	73515	6	SS NUT, 1/2" DIA.	-	ASTM A-194 GRADE 8	0.07	0.42
10	78086	23	1/4" STEPLUG W/ 13/16" HOLE	-	ASTM A-588	0.37	8.51
						TOTAL MODEL WEIGHT	1341.62
						TOTAL UNFINISHED WEIGHT	1350.00
						TOTAL FINISHED WEIGHT	1480.00

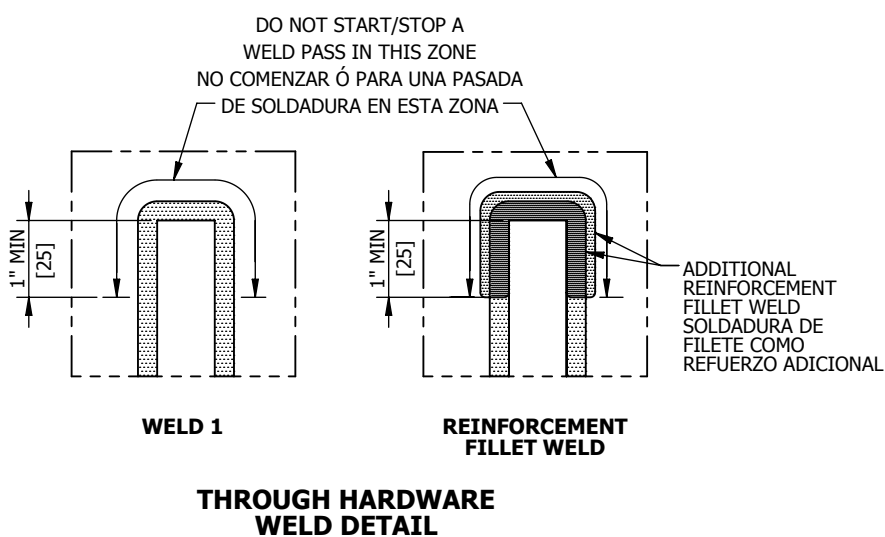


NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.



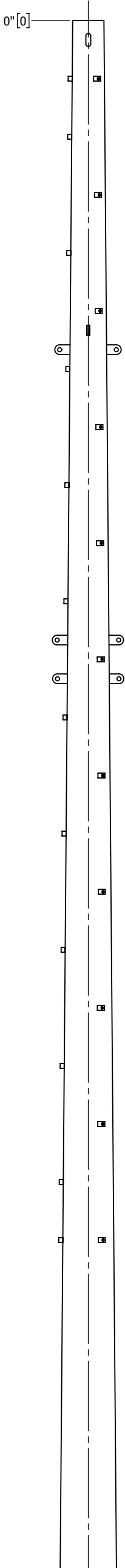
A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY 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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 40'-0" LONG POLE		
SHEET 2 OF 4	<b>36978-3002</b>	REV. <b>A</b>

CLIMBING/WORKING HARDWARE INFORMATION

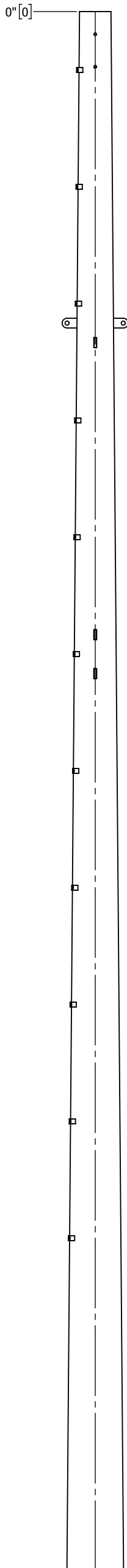
EL.	LOCATION FROM TOP*	PART NO.	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	1'-6" [457]	78086		1				1						
2	3'-0" [914]	78086						1						
3	4'-6" [1372]	78086		1										
4	6'-0" [1829]	78086						1						
5	7'-6" [2286]	78086		1										
6	9'-0" [2743]	78086						1						
7	10'-6" [3200]	78086		1										
8	12'-0" [3658]	78086						1						
9	13'-6" [4115]	78086		1										
10	15'-0" [4572]	78086						1						
11	16'-6" [5029]	78086		1										
12	18'-0" [5486]	78086						1						
13	19'-6" [5944]	78086		1										
14	21'-0" [6401]	78086						1						
15	22'-6" [6858]	78086		1										
16	24'-0" [7315]	78086						1						
17	25'-6" [7772]	78086		1										
18	27'-0" [8230]	78086						1						
19	28'-6" [8687]	78086		1										
20	30'-0" [9144]	78086						1						
21	31'-6" [9601]	78086		1				1						

\* LOCATION DIMENSION FOR REFERENCE ONLY

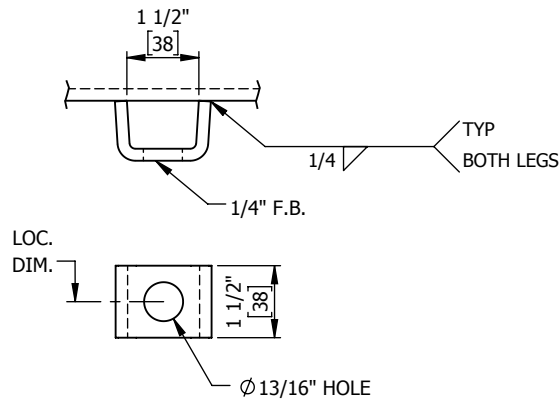
NUMBER IN THE FLAT COLUMNS REPRESENT HARDWARE QTY



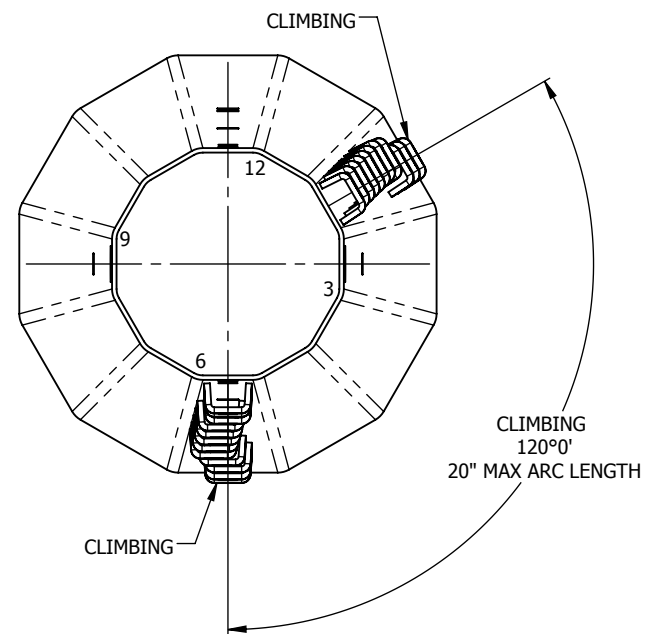
RIGHT VIEW  
FLAT 2-3



BACK VIEW  
FLAT 11-12



**78086**  
STEP LUG  
ASTM A-588  
0.37 LBS



CLIMBING ORIENTATION

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

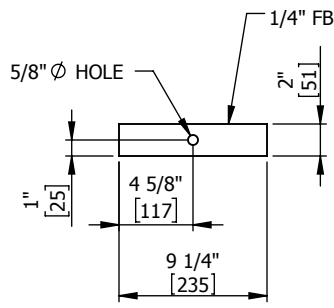
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

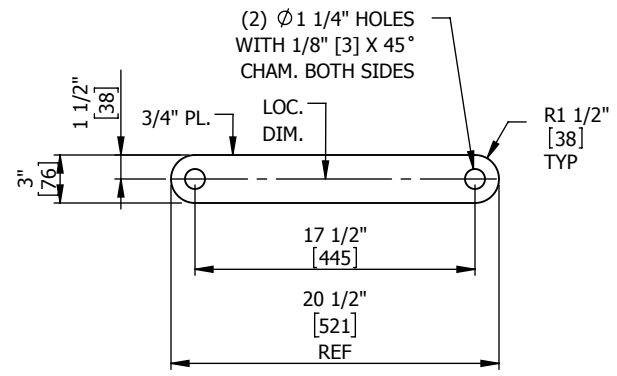
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

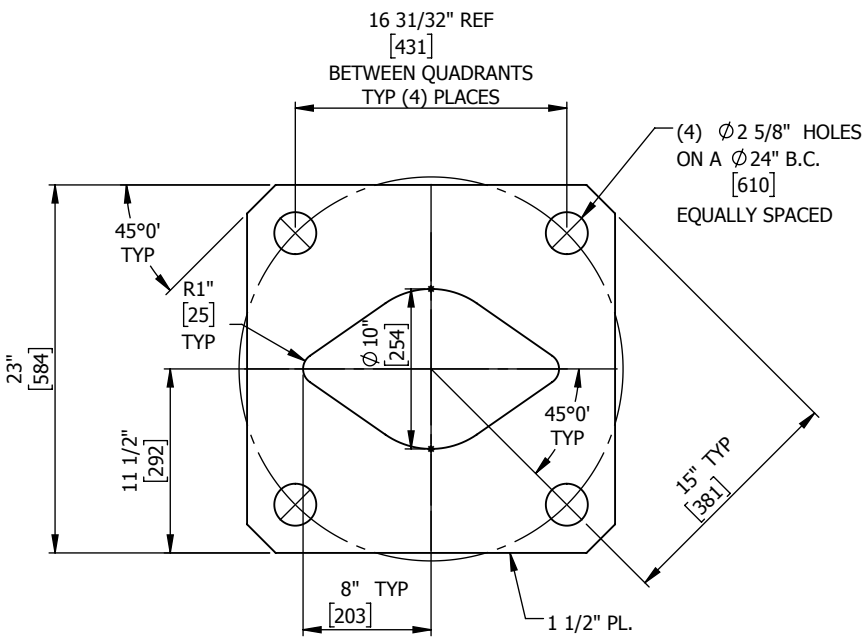
SHAFT ASSEMBLY, 40'-0" LONG  
POLE  
CLIMBING DETAIL



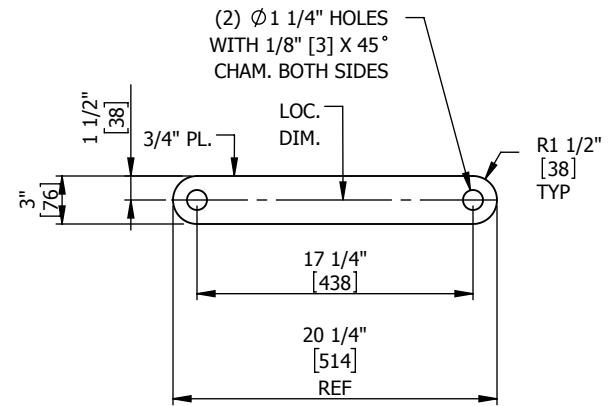
**PCA092**  
0.25 X 2.00 X 9.25  
099-ASTM A36  
1.29 LBS



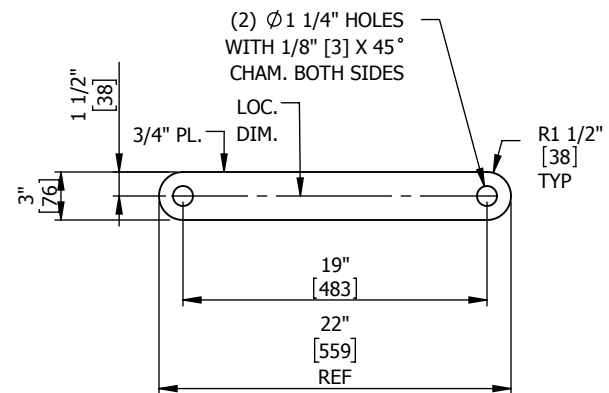
**36978-307**  
0.75 X 3.00 X 20.50  
065-ASTM A572 Gr65  
12.15 LBS



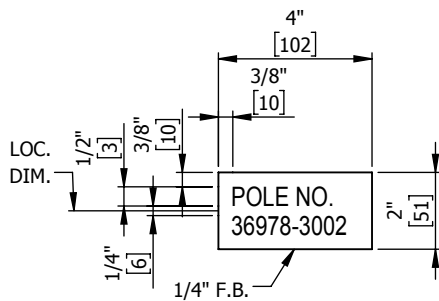
**36978-4004**  
1.50 X 23.00 X 23.00  
451-ASTM A572 Gr50  
170.01 LBS



**36978-308**  
0.75 X 3.00 X 20.25  
065-ASTM A572 Gr65  
11.99 LBS



**36978-309**  
0.75 X 3.00 X 22.00  
065-ASTM A572 Gr65  
13.1 LBS



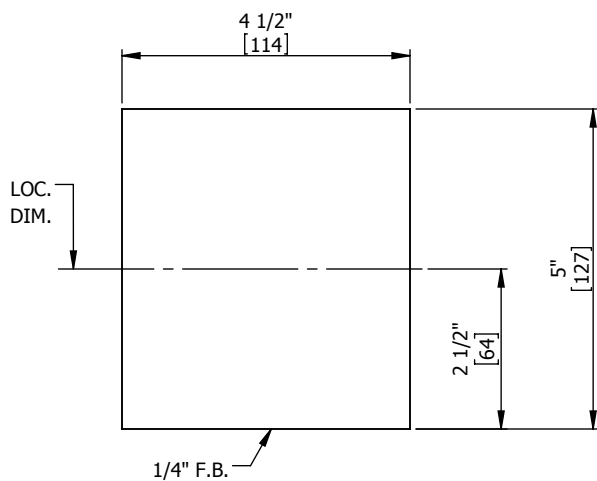
**78433**  
70568, 0.25 X 2.00  
036 ASTM A-36  
0.57 LBS

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. REFER INDIVIDUAL ERECTION DRAWINGS FOR THE INFORMATION NEEDED ON NAME PLATE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. PARA LA INFORMACION REQUERIDA EN PLACAS DE IDENTIFICACION, VER DIBUJOS INDIVIDUALES DE MONTAJE.



**36978-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
1.6 LBS

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

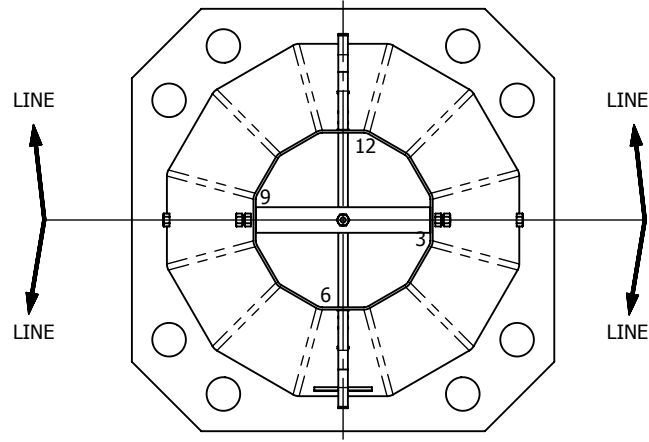
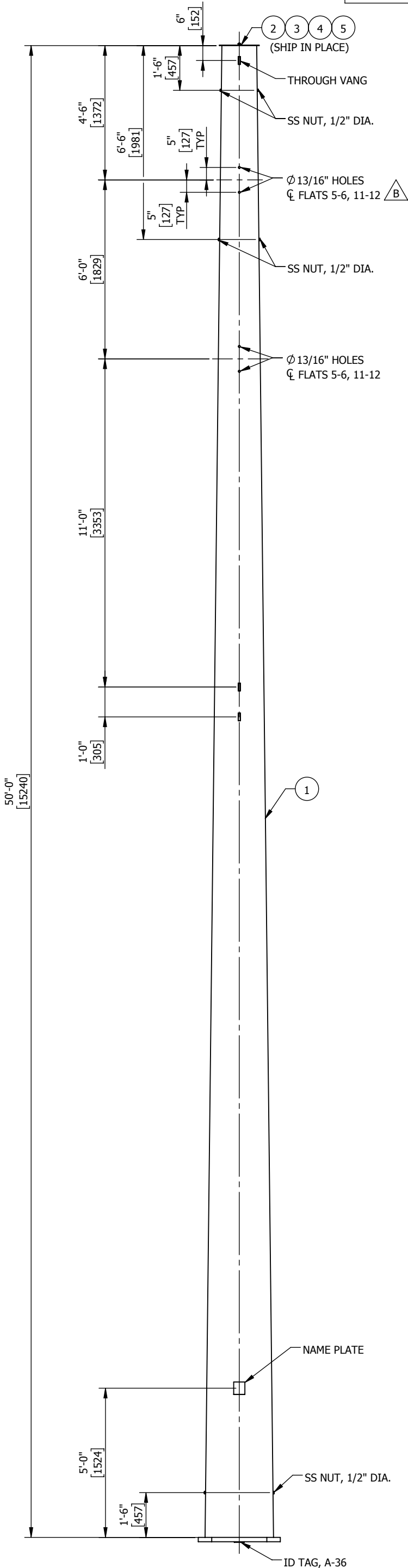
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 40'-0" LONG  
POLE  
PARTS DETAIL

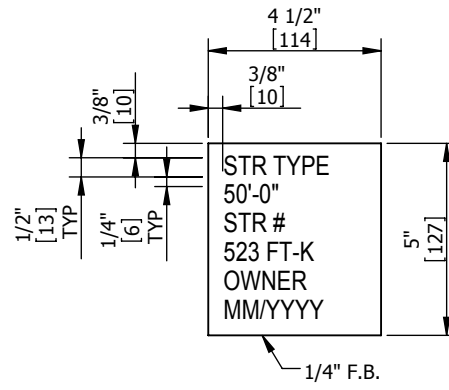
SHEET 4 OF 4	<b>36978-3002</b>	REV. <b>A</b>
--------------	-------------------	---------------

STRUCTURE INFORMATION					
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT.
36978-STR021AT	2.1	50'-0" [15240]	14 1/2" [368]	28 1/2" [724]	0.28000

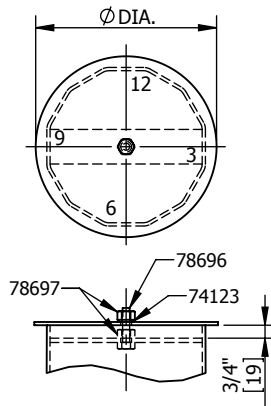


**PLAN VIEW**

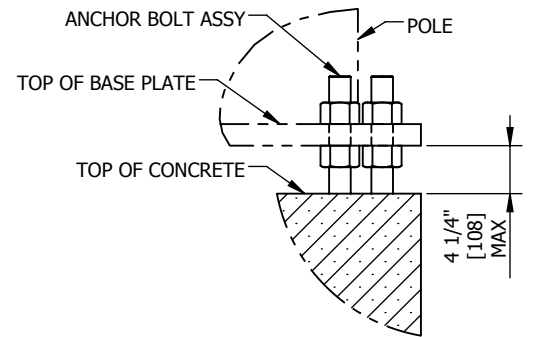
POLE CAP REMOVED FOR CLARITY



**NAME PLATE  
36978-1401**



**POLE CAP DETAIL**



**FIELD ASSEMBLY DETAIL**

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. ALL THE DIMENSIONS ARE FOR REFERENCE ONLY.
3. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.
5. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. TODAS LAS DIMENSIONES SON SOLO DE REFERENCIA.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.
5. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.

B	HOLES FLATS CORRECTED	KS/04-04-19
A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE

PROJECT:	HORSESHOE ROUNDABOUT
CUSTOMER:	CITY OF ALEXANDRIA
CUSTOMER P.O. NO:	P1116179
JOB NO:	36978
DRAWN/DATE:	KS 02/13/2019
CHECKED/DATE:	DF 03/02/2019
ENGINEER:	STEPHEN ADAMS

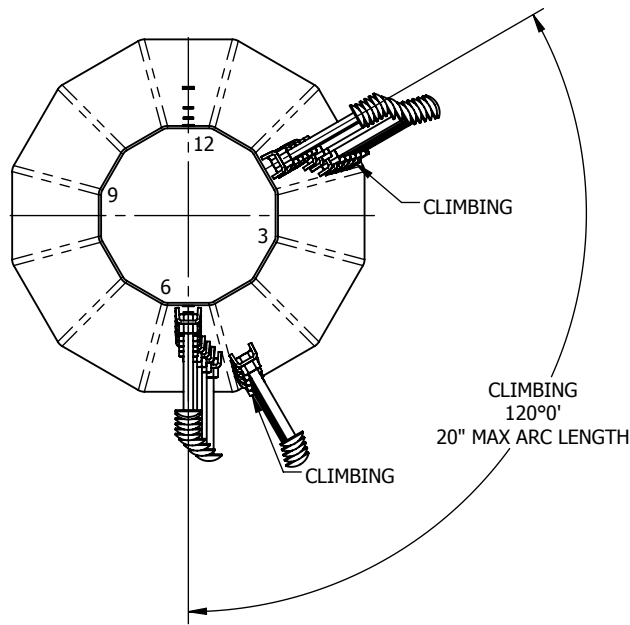
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

50'-0" 13° LT  
POLE 2.1 DC-CS8  
POLE NO: 2.1

SHEET 1 OF 3	<b>36978-STR021AT</b>	REV. <b>B</b>
--------------	-----------------------	---------------

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	36978-3003	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE 050.00 014.5 028.5 033		2820.00	2820.00	
2	R3PD0160	1	POLE CAP, 3/16" THK X 16" DIA		036-ASTM A36	10.67	10.67	
3	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
4	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
5	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
6	78320	30	STEP BOLT, 3/4" DIA. X 7 1/2" W/(2) NUTS		ASTM A-394 TYPE 3	10.00	50.40	
TOTAL STRUCTURE FINISHED WEIGHT								2890.00



**CLIMBING ORIENTATION**

CLIMBING:  
 PROVIDE STEP CLIPS  
 FROM TOP OF POLE TO APPROX. 8'-0" ABOVE GROUND LINE  
 SPACED AT 1'-6" APART ALTERNATIVELY.

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA

<b>B</b>	<b>HOLES FLATS CORRECTED</b>	<b>KS/04-04-19</b>
<b>A</b>	INITIAL RELEASE	KS/02-14-19
<b>REV</b>	<b>DESCRIPTION</b>	<b>DRFT/DATE</b>

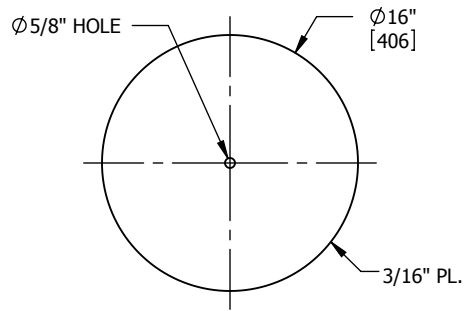
PROJECT:	HORSESHOE ROUNDABOUT
CUSTOMER:	CITY OF ALEXANDRIA
CUSTOMER P.O. NO:	P1116179
JOB NO:	36978
DRAWN/DATE:	KS 02/13/2019
CHECKED/DATE:	DF 03/02/2019
ENGINEER:	STEPHEN ADAMS

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

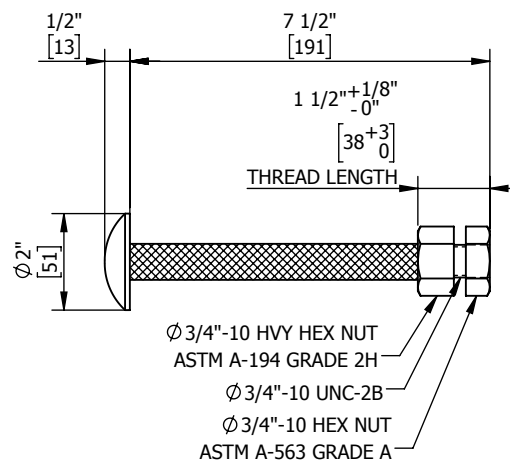
**MEYER**  
**UTILITY STRUCTURES**

50'-0" 13° LT  
 POLE 2.1 DC-CS8  
 POLE NO: 2.1

SHEET 2 OF 3	<b>36978-STR021AT</b>	REV. <b>B</b>
--------------	-----------------------	---------------



**R3PD0160**  
 0.19 X 16.00 X 16.00  
 036-ASTM A36  
 10.67 LBS



**78320**  
 STEP BOLT, GALVANIZED  
 ASTM A-394 TYPE 1  
 1.76 LBS

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.
4. MARK ALL SHIPLOOSE ITEMS WITH PART NUMBER.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.
4. MARQUE TODOS LOS ARTÍCULOS SUELTOS A ENVÍAR, CON NÚMERO DE PARTE.

B	HOLES FLATS CORRECTED	KS/04-04-19
A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
PROJECT: HORSESHOE ROUNDABOUT		
CUSTOMER: CITY OF ALEXANDRIA		
CUSTOMER P.O. NO: P1116179		
JOB NO: 36978		
DRAWN/DATE: KS 02/13/2019		
CHECKED/DATE: DF 03/02/2019		
ENGINEER: STEPHEN ADAMS		

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

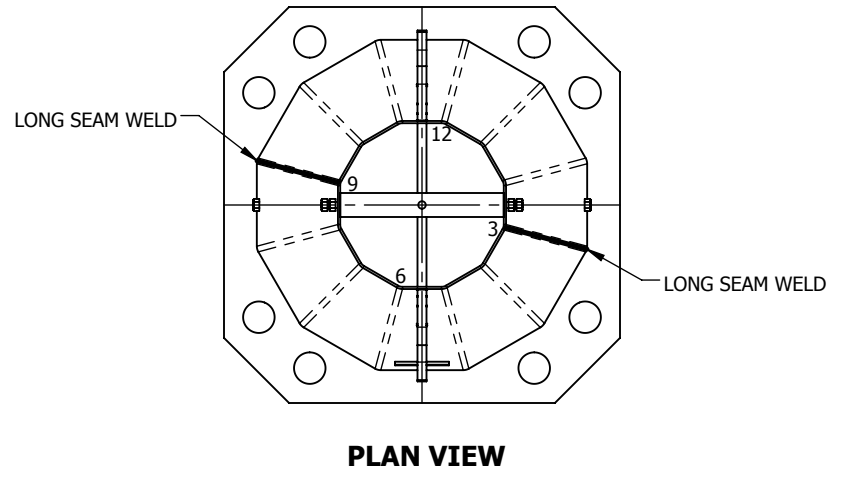
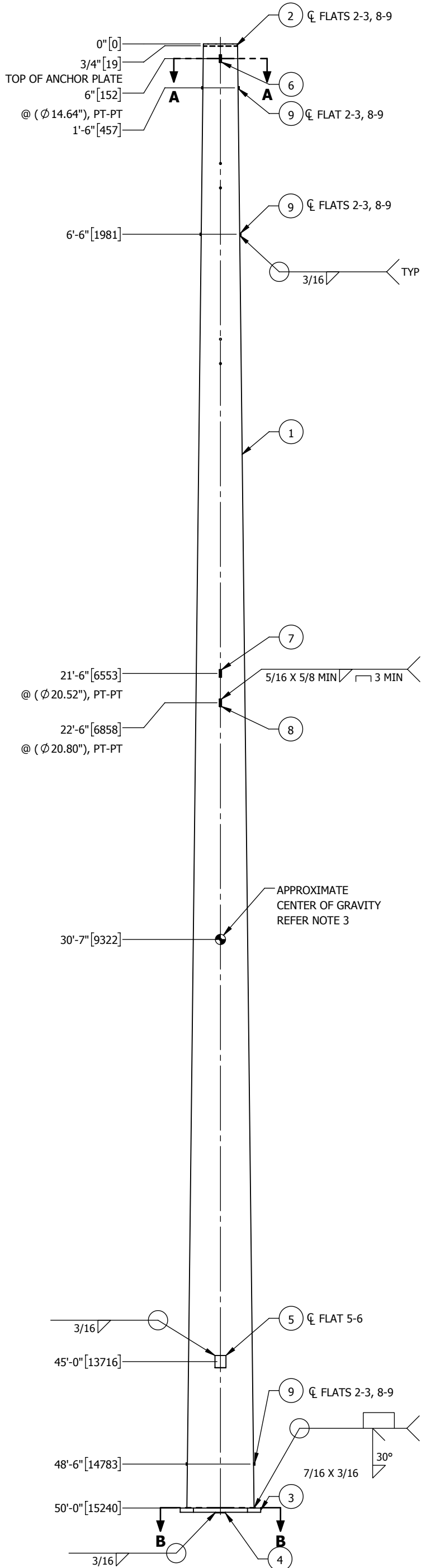
**MEYER**  
 UTILITY STRUCTURES

50'-0" 13° LT  
 POLE ASSEMBLY SHIP LOOSE  
 PARTS DETAIL

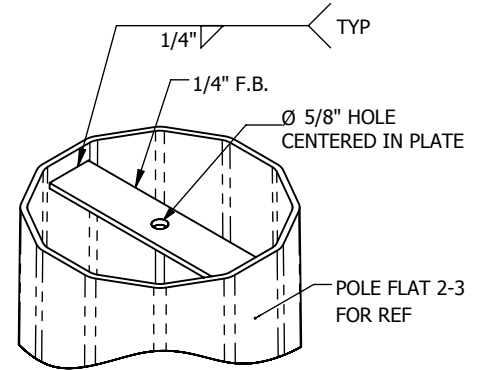
SHEET 3 OF 3	<b>36978-STR021AT</b>	REV. <b>B</b>
--------------	-----------------------	---------------



SHAFT INFORMATION								
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT.
36978-4005	065-ASTM A572 Gr65	50'-0" [15240]	3/16"	14 1/2" [368]	28 1/2" [724]	14" [356]	27 17/32" [699]	0.28000



HOLE INFORMATION			
EL.	LOCATION FROM TOP	HOLE DIA	ORIENTATION
1	4'-1" [1245]	13/16"	11-12, 5-6
2	4'-11" [1499]	13/16"	11-12, 5-6
3	10'-1" [3073]	13/16"	11-12, 5-6
4	10'-11" [3327]	13/16"	11-12, 5-6



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

**NOTES:**

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. WELD "CG" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
4. HOT DIP GALVANIZED PER A-123.
5. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

**NOTAS:**

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. SOLDAR "CG" AL CENTRO DE GRAVEDAD APROXIMADO. (EN CUALQUIER CARA - SOLO PARA EL USO DEL FABRICANTE).
4. GALVANIZADO POR INMERSION EN CALIENTE SEGÚN ASTM A-123.
5. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

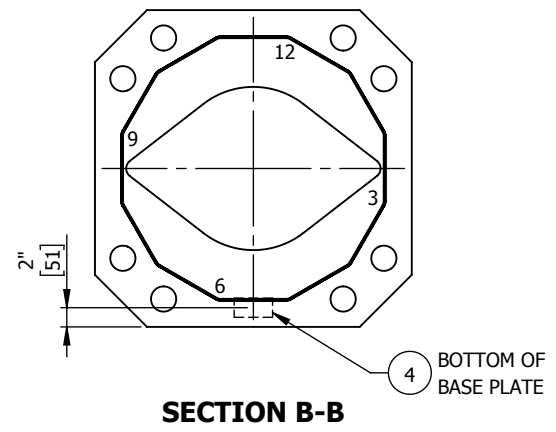
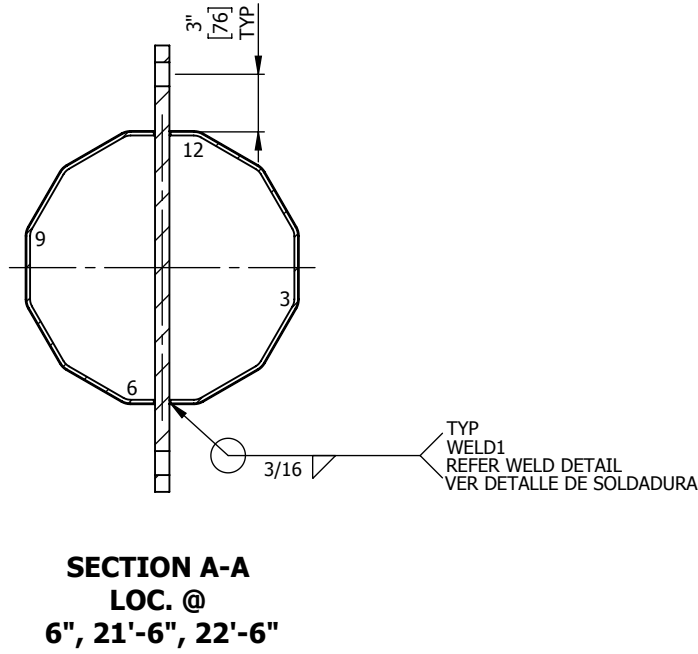
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
POLE

SHEET 1 OF 4	<b>36978-3003</b>	REV. <b>A</b>
--------------	-------------------	---------------

PARTS AND ASSEMBLIES LIST							
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.
1	36978-4005	1	TOWER PLATE TUBE	(2) 0.19 X 22.25 X 600.00 X 44.00	065-ASTM A572 Gr65	2137.61	2137.61
2	PCA135	1	ANCHOR PLATE	0.25 X 2.00 X 13.63	099-ASTM A36	1.91	1.91
3	36978-4006	1	BASE PLATE	1.75 X 33.00 X 33.00	451-ASTM A572 Gr50	350.25	350.25
4	78433	1	ID TAG, A-36	70568, 0.25 X 2.00	036 ASTM A-36	0.57	0.57
5	36978-1401	1	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	1.6	0.20
6	36978-310	1	THROUGH VANG	0.75 X 3.00 X 23.25	065-ASTM A572 Gr65	13.9	13.90
7	36978-311	1	THROUGH VANG	0.75 X 3.00 X 29.00	065-ASTM A572 Gr65	17.57	17.57
8	36978-312	1	THROUGH VANG	0.75 X 3.00 X 29.25	065-ASTM A572 Gr65	17.73	17.73
9	73515	6	SS NUT, 1/2" DIA.	-	ASTM A-194 GRADE 8	0.07	0.42
10	78086	30	1/4" STEPLUG W/ 13/16" HOLE	-	ASTM A-588	0.37	11.10
						TOTAL MODEL WEIGHT	2551.26
						TOTAL UNFINISHED WEIGHT	2560.00
						TOTAL FINISHED WEIGHT	2820.00

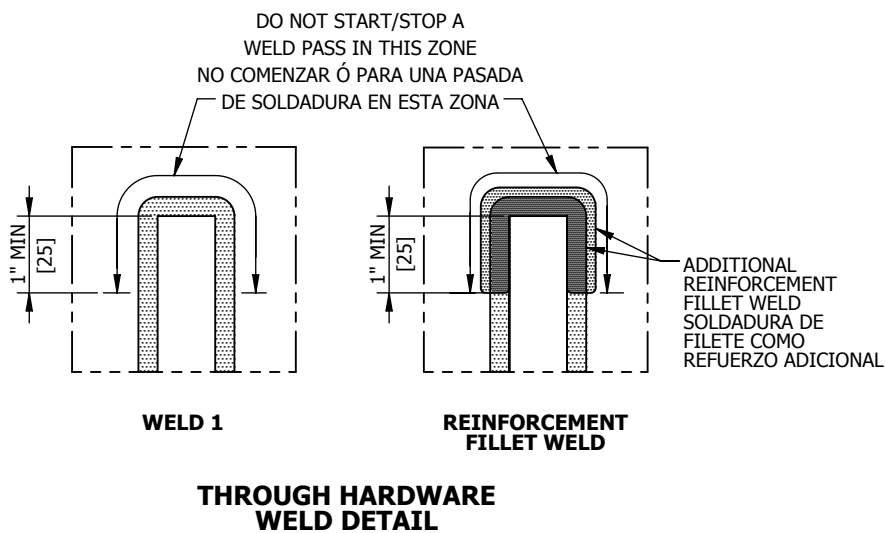


NOTES:

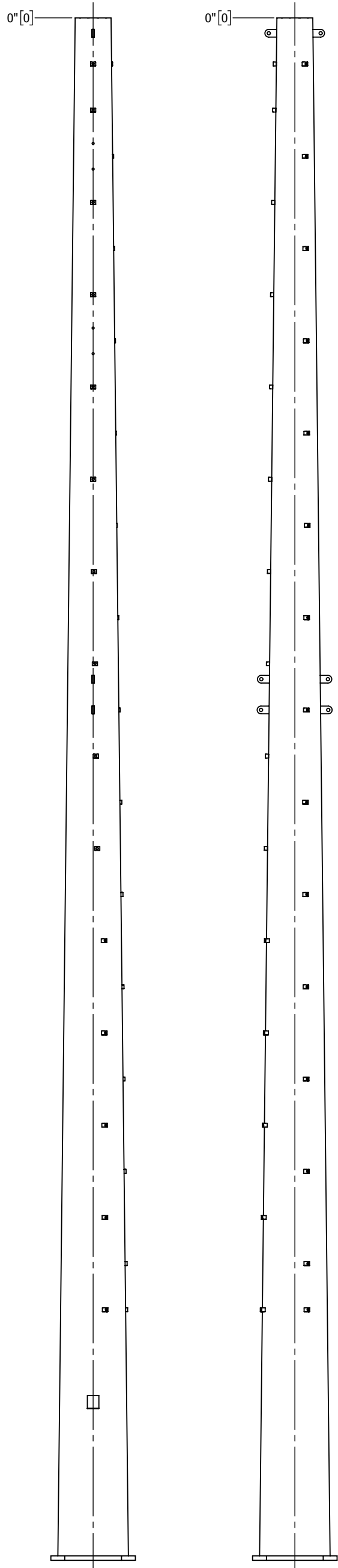
1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.



A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG POLE		
SHEET 2 OF 4	<b>36978-3003</b>	REV. <b>A</b>



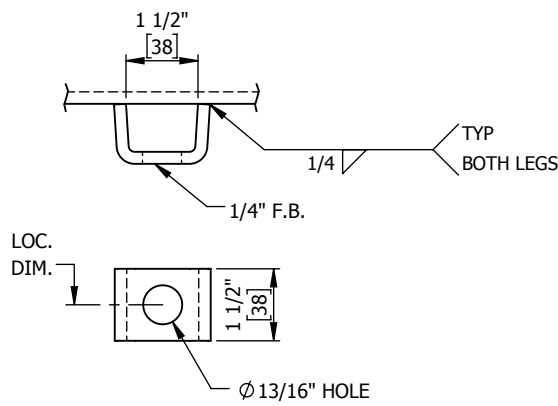
**FRONT VIEW  
FLAT 5-6**

**RIGHT VIEW  
FLAT 2-3**

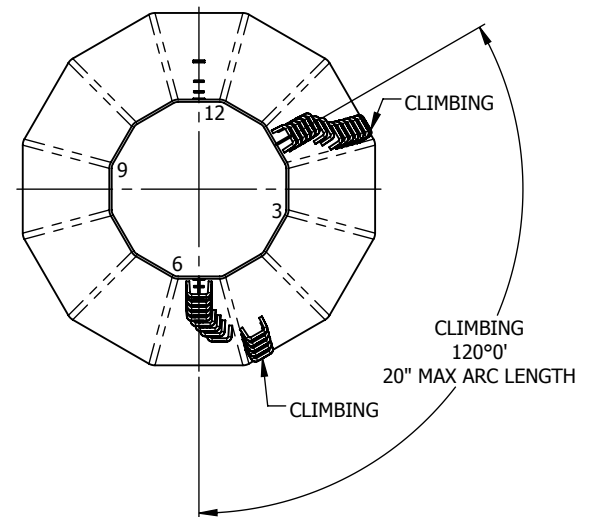
CLIMBING/WORKING HARDWARE INFORMATION														
EL.	LOCATION FROM TOP*	PART NO.	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	1'-6" [457]	78086		1				1						
2	3'-0" [914]	78086						1						
3	4'-6" [1372]	78086		1										
4	6'-0" [1829]	78086						1						
5	7'-6" [2286]	78086		1										
6	9'-0" [2743]	78086						1						
7	10'-6" [3200]	78086		1										
8	12'-0" [3658]	78086						1						
9	13'-6" [4115]	78086		1										
10	15'-0" [4572]	78086						1						
11	16'-6" [5029]	78086		1										
12	18'-0" [5486]	78086						1						
13	19'-6" [5944]	78086		1										
14	21'-0" [6401]	78086						1						
15	22'-6" [6858]	78086		1										
16	24'-0" [7315]	78086						1						
17	25'-6" [7772]	78086		1										
18	27'-0" [8230]	78086						1						
19	28'-6" [8687]	78086		1										
20	30'-0" [9144]	78086					1							
21	31'-6" [9601]	78086		1										
22	33'-0" [10058]	78086					1							
23	34'-6" [10516]	78086		1										
24	36'-0" [10973]	78086					1							
25	37'-6" [11430]	78086		1										
26	39'-0" [11887]	78086					1							
27	40'-6" [12344]	78086		1										
28	42'-0" [12802]	78086		1			1							

\* LOCATION DIMENSION FOR REFERENCE ONLY

NUMBER IN THE FLAT COLUMNS REPRESENT HARDWARE QTY



**78086**  
STEP LUG  
ASTM A-588  
0.37 LBS



**CLIMBING ORIENTATION**

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

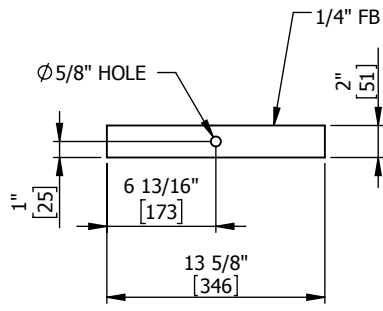
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.

A	INITIAL RELEASE	RS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

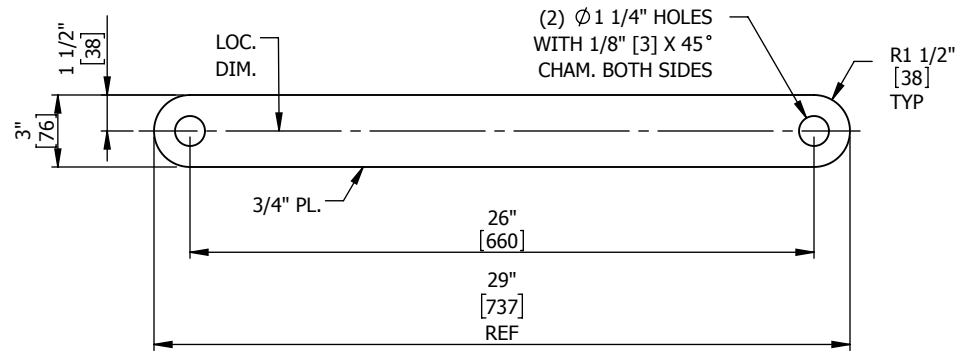
**MEYER**  
UTILITY STRUCTURES

SHAFT ASSEMBLY, 50'-0" LONG  
POLE  
CLIMBING DETAIL



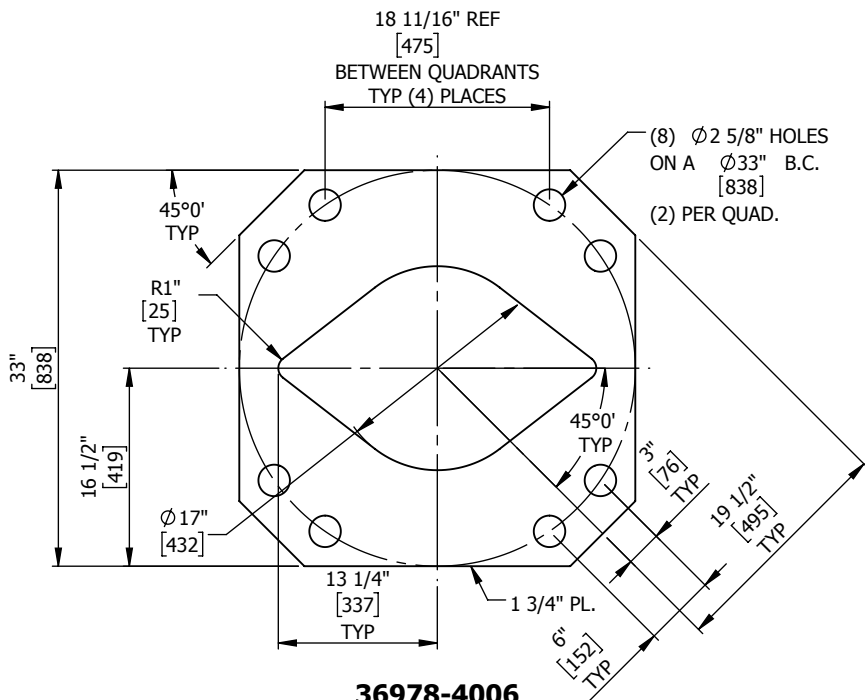
**PCA135**

0.25 X 2.00 X 13.63  
099-ASTM A36  
1.91 LBS



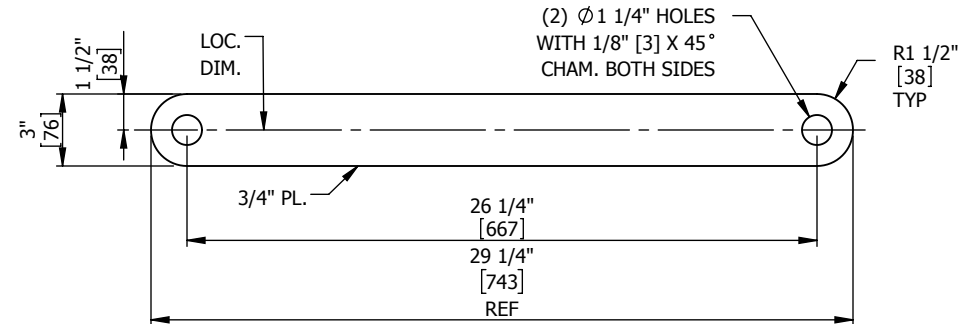
**36978-311**

0.75 X 3.00 X 29.00  
065-ASTM A572 Gr65  
17.57 LBS



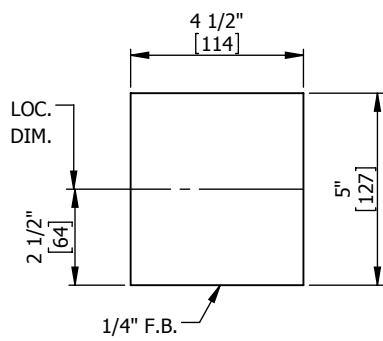
**36978-4006**

1.75 X 33.00 X 33.00  
451-ASTM A572 Gr50  
350.25 LBS



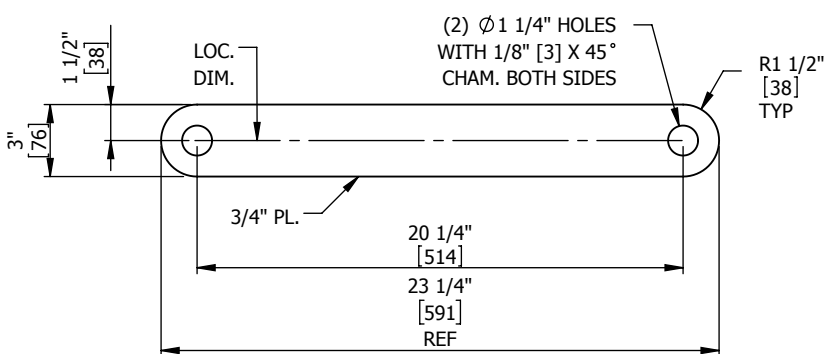
**36978-312**

0.75 X 3.00 X 29.25  
065-ASTM A572 Gr65  
17.73 LBS



**36978-1401**

79278, 0.25 X 4.50  
036-ASTM A36  
1.6 LBS



**36978-310**

0.75 X 3.00 X 23.25  
065-ASTM A572 Gr65  
13.9 LBS

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. REFER INDIVIDUAL ERECTION DRAWINGS FOR THE INFORMATION NEEDED ON NAME PLATE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. PARA LA INFORMACION REQUERIDA EN PLACAS DE IDENTIFICACION, VER DIBUJOS INDIVIDUALES DE MONTAJE.

A	INITIAL RELEASE	KS/02-14-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

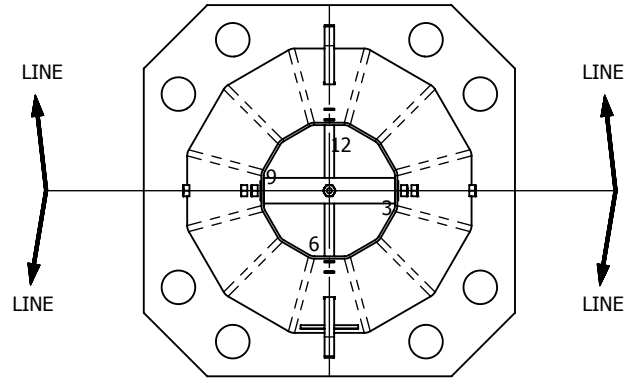
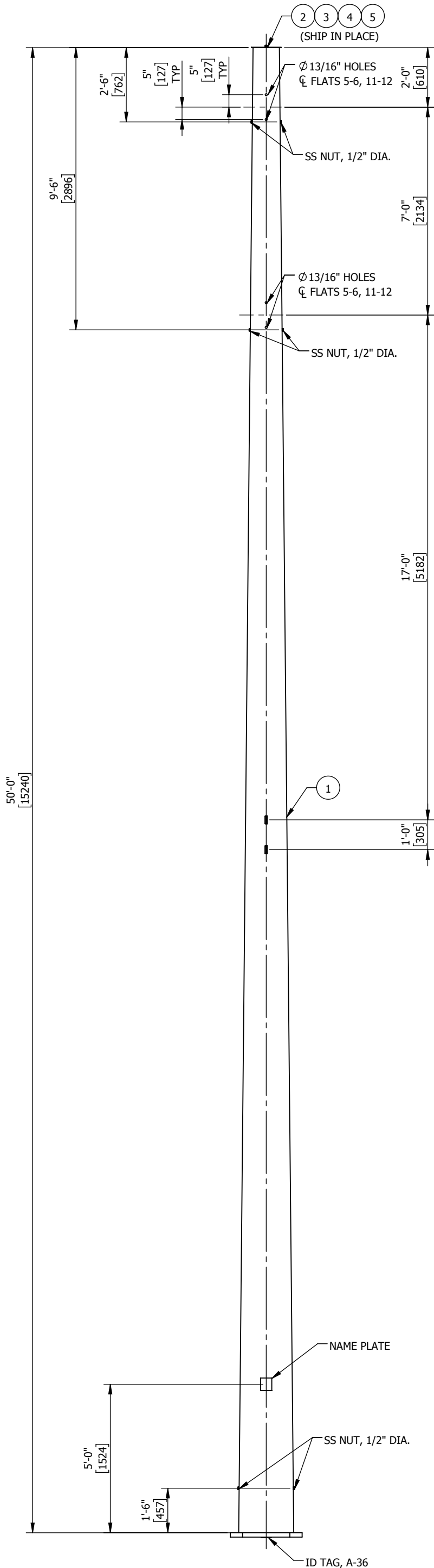
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

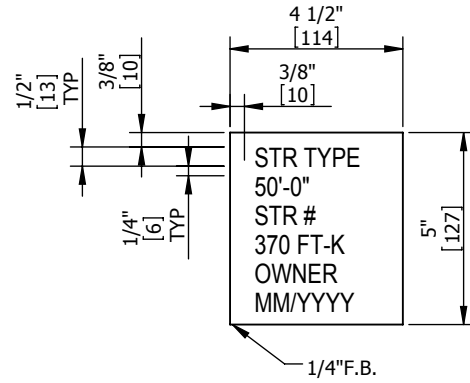
SHAFT ASSEMBLY, 50'-0" LONG  
POLE  
PARTS DETAIL

SHEET 4 OF 4	<b>36978-3003</b>	REV. <b>A</b>
--------------	-------------------	---------------

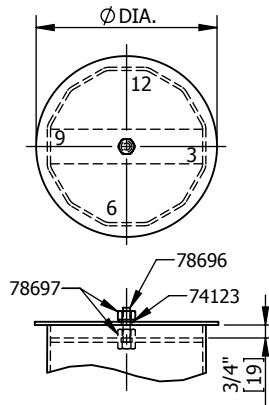
STRUCTURE INFORMATION					
BILLABLE	POLE NO	HGT. ABOVE GRND. LINE	TOP DIA. (PT-PT)	GRND. LINE DIA. (PT-PT)	TAPER IN./FT.
36978-STR32LAT	3-2L	50'-0" [15240]	11" [279]	23" [584]	0.24000



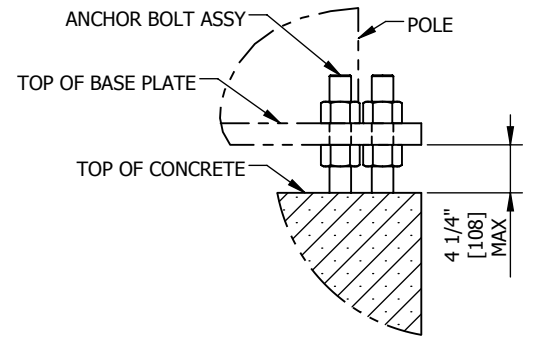
**PLAN VIEW**  
**POLE CAP NOT SHOWN FOR CLARITY**



**NAME PLATE**  
**36978-1401**



**POLE CAP DETAIL**



**FIELD ASSEMBLY DETAIL**

**NOTES:**

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. ALL THE DIMENSIONS ARE FOR REFERENCE ONLY.
3. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
4. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.
5. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

**NOTAS:**

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. TODAS LAS DIMENSIONES SON SOLO DE REFERENCIA.
3. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
4. COLOCAR TAPÓNES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.
5. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.

A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

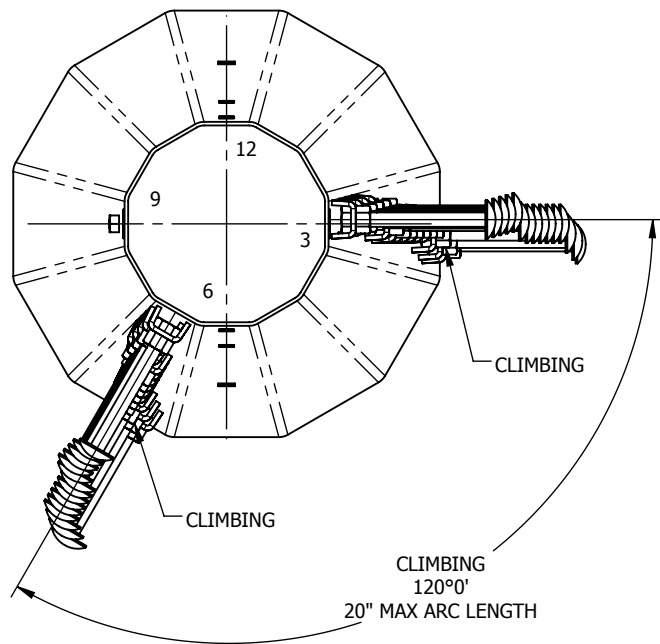
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
**UTILITY STRUCTURES**

50'-0" 12° LT  
POLE 3-2L VC8-1L, VA7  
POLE NO: 3-2L

SHEET 1 OF 3	<b>36978-STR32LAT</b>	REV. <b>A</b>
--------------	-----------------------	---------------

PARTS AND ASSEMBLIES LIST								
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	ADDITIONAL DESCRIPTION	MATERIAL GRADE	WT. EACH	EXTD. WT.	
1	36978-3004	1	SHAFT ASSEMBLY, 50'-0" LONG	POLE 050.00 011.0 023.0 029		2220.00	2220.00	
2	R3PD0120	1	POLE CAP, 3/16" THK X 12" DIA		036-ASTM A36	6.00	6.00	
3	78696	1	BOLT, 1/2" DIA. x 2"		ASTM A-307 GALV	0.15	0.15	
4	78697	2	NUT, 1/2" DIA.		ASTM A-563 GRADE A	0.08	0.16	
5	74123	1	LOCK WASHER, 1/2" DIA. GALV		ANSI B18.21.1	0.02	0.02	
6	78320	30	STEP BOLT, 3/4" DIA. X 7 1/2" W/(2) NUTS		ASTM A-394 TYPE 3	10.00	50.40	
TOTAL STRUCTURE FINISHED WEIGHT							2280.00	



**CLIMBING ORIENTATION**

CLIMBING:  
 PROVIDE STEP CLIPS  
 FROM TOP OF POLE TO APPROX. 8'-0" ABOVE GROUND LINE  
 SPACED AT 1'-6" APART ALTERNATIVELY.

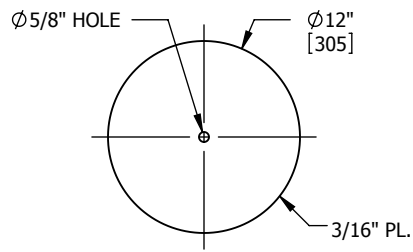
NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.

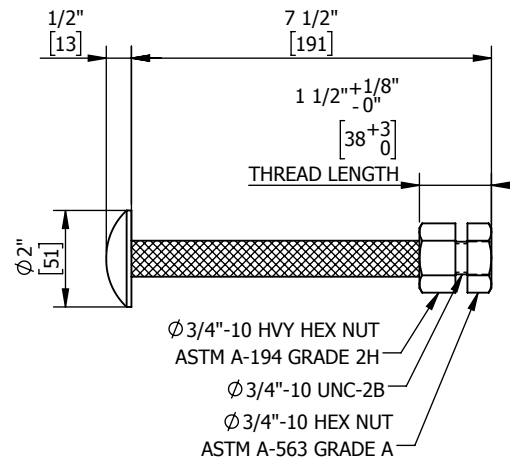
NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA

A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
50'-0" 12° LT POLE 3-2L VC8-1L, VA7 POLE NO: 3-2L		
SHEET 2 OF 3	<b>36978-STR32LAT</b>	REV. <b>A</b>



**R3PD0120**  
 0.19 X 12.00 X 12.00  
 036-ASTM A36  
 6 LBS



Ø3/4"-10 HVY HEX NUT  
 ASTM A-194 GRADE 2H  
 Ø3/4"-10 UNC-2B  
 Ø3/4"-10 HEX NUT  
 ASTM A-563 GRADE A

**78320**  
 STEP BOLT, GALVANIZED  
 ASTM A-394 TYPE 1  
 1.76 LBS

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. SHIP LOOSE HARDWARE ITEMS AND FASTENERS TO BE PACKAGED PER STRUCTURE.
4. MARK ALL SHIPLOOSE ITEMS WITH PART NUMBER.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. ENVÍAR ARTICULOS, TORNILLERIA Y SUJETADORES SUELTOS EMPACADOS POR ESTRUCTURA.
4. MARQUE TODOS LOS ARTÍCULOS SUELTOS A ENVÍAR, CON NÚMERO DE PARTE.

A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

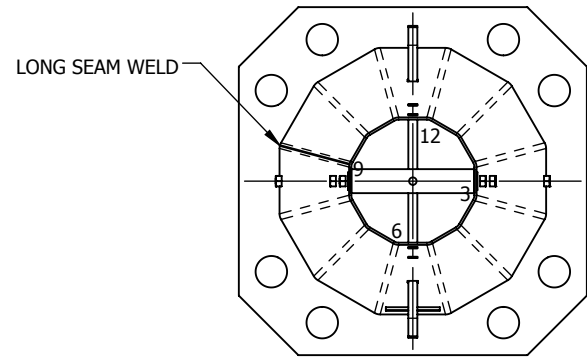
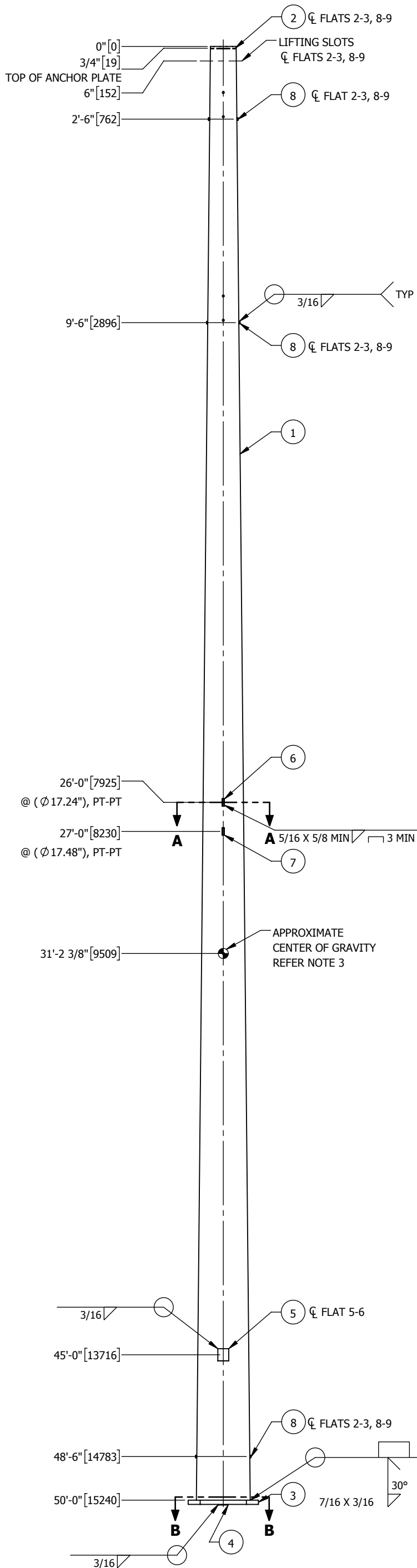
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
 UTILITY STRUCTURES

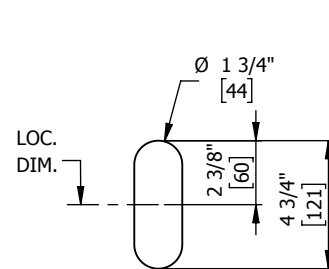
50'-0" 12° LT  
 POLE ASSEMBLY SHIP LOOSE  
 PARTS DETAIL

SHEET 3 OF 3	<b>36978-STR32LAT</b>	REV. <b>A</b>
--------------	-----------------------	---------------

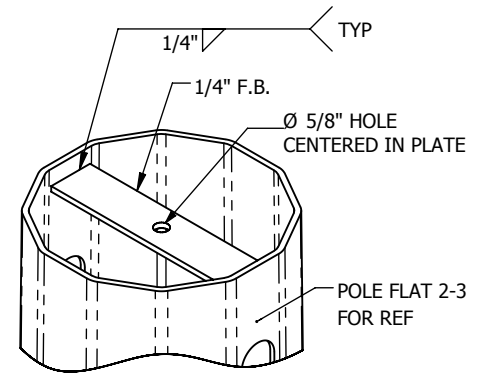
SHAFT INFORMATION								
TUBE NO.	MATERIAL	LENGTH	THICKNESS	TOP DIA (PT-PT)	BOTTOM DIA (PT-PT)	TOP DIA (FL-FL)	BOTTOM DIA (FL-FL)	TAPER IN./FT.
36978-4007	065-ASTM A572 Gr65	50'-0" [15240]	3/16"	11" [279]	23" [584]	10 5/8" [270]	22 7/32" [564]	0.24000



PLAN VIEW



LIFTING SLOT  
DETAIL



POLE CAP ANCHOR  
DETAIL

HOLE INFORMATION			
EL.	LOCATION FROM TOP	HOLE DIA	ORIENTATION
1	1'-7" [483]	13/16"	11-12, 5-6
2	2'-5" [737]	13/16"	11-12, 5-6
3	8'-7" [2616]	13/16"	11-12, 5-6
4	9'-5" [2870]	13/16"	11-12, 5-6

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. WELD "CG" AT APPROXIMATE CENTER OF GRAVITY. (ON ANY FLAT - ONLY FOR FABRICATOR USE).
4. HOT DIP GALVANIZED PER A-123.
5. PROVIDE PLASTIC PLUGS IN ALL THE TAPPED HOLES AND NUTS WELDED TO STRUCTURE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. SOLDAR "CG" AL CENTRO DE GRAVEDAD APROXIMADO. (EN CUALQUIER CARA - SOLO PARA EL USO DEL FABRICANTE).
4. GALVANIZADO POR INMERSION EN CALIENTE SEGÚN ASTM A-123.
5. COLOCAR TAPONES DE PLÁSTICO EN TODOS LOS AGUJEROS ROSCADOS Y TUERCAS SOLDADAS A LA ESTRUCTURA.

A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

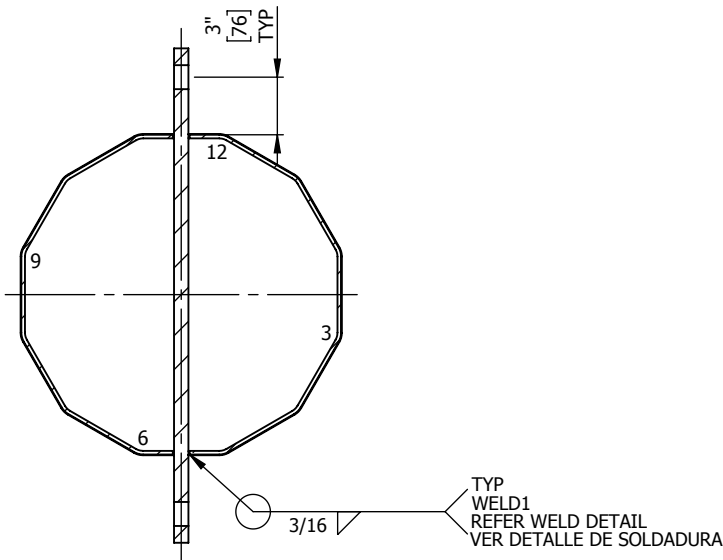
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

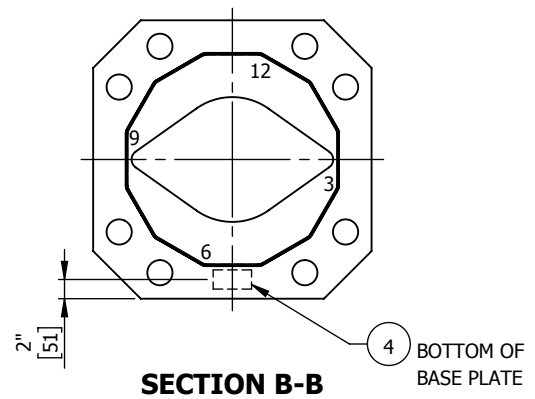
SHAFT ASSEMBLY, 50'-0" LONG  
POLE



PARTS AND ASSEMBLIES LIST							
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION	MATERIAL DIMENSION	MATERIAL GRADE	WT. EACH	EXTD. WT.
1	36978-4007	1	TOWER PLATE TUBE	0.19 X 33.69 X 600.00 X 70.94	065-ASTM A572 Gr65	1675	1675.00
2	PCA102	1	ANCHOR PLATE	0.25 X 2.00 X 10.25	099-ASTM A36	1.43	1.43
3	36978-4008	1	BASE PLATE	1.75 X 29.00 X 29.00	451-ASTM A572 Gr50	286.95	286.95
4	78433	1	ID TAG, A-36	70568, 0.25 X 2.00	036 ASTM A-36	0.57	0.57
5	36978-1401	1	NAME PLATE	79278, 0.25 X 4.50	036-ASTM A36	1.6	0.20
6	36978-313	1	THROUGH VANG	0.75 X 3.00 X 25.75	065-ASTM A572 Gr65	15.5	15.50
7	36978-314	1	THROUGH VANG	0.75 X 3.00 X 26.00	065-ASTM A572 Gr65	15.66	15.66
8	73515	6	SS NUT, 1/2" DIA.	-	ASTM A-194 GRADE 8	0.07	0.42
9	78086	30	1/4" STEPLUG W/ 13/16" HOLE	-	ASTM A-588	0.37	11.10
TOTAL MODEL WEIGHT							2006.83
TOTAL UNFINISHED WEIGHT							2020.00
TOTAL FINISHED WEIGHT							2220.00



**SECTION A-A  
LOC. @  
26'-0", 27'-0"**



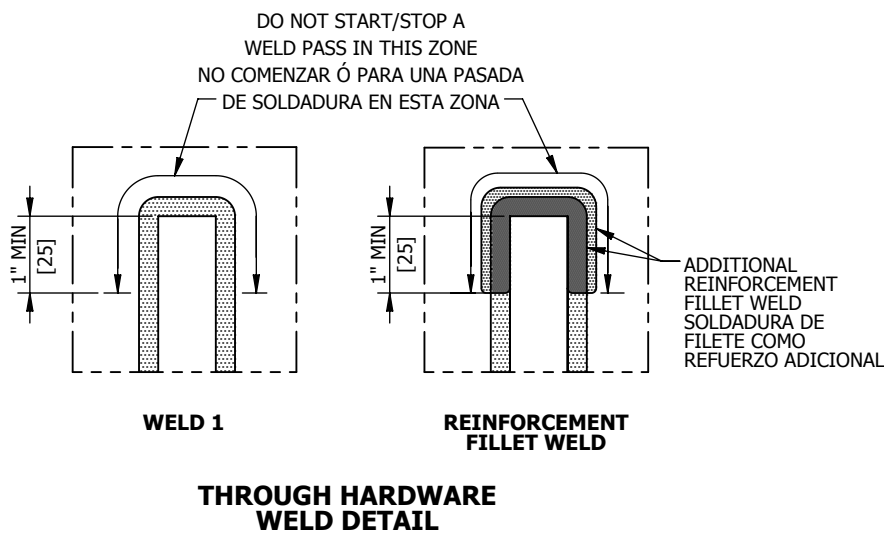
**SECTION B-B**

NOTES:

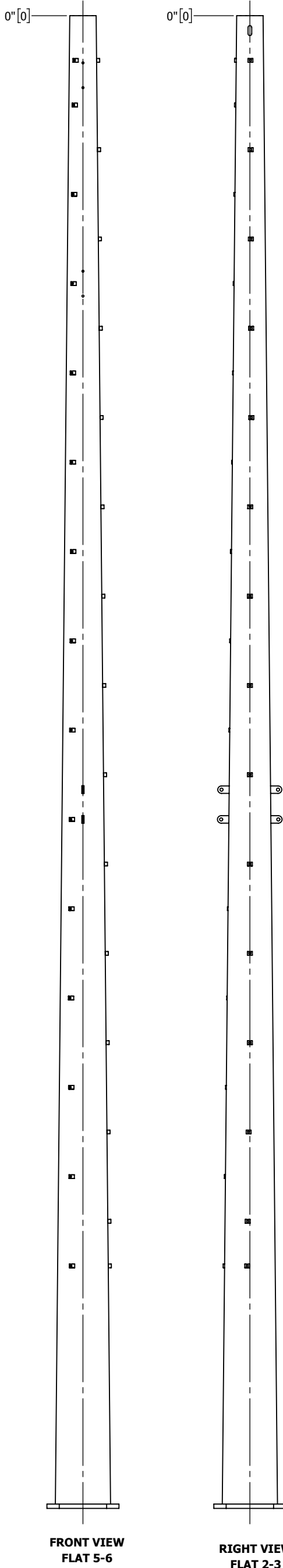
1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.



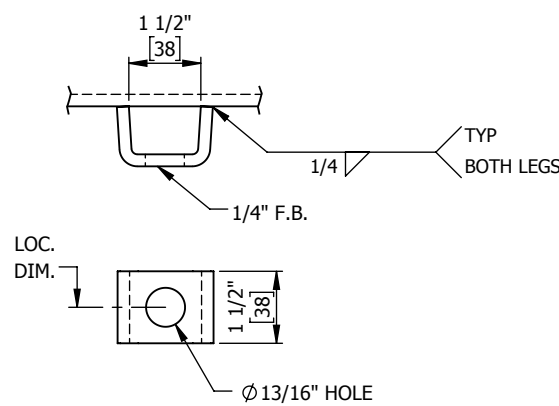
A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	
<small>THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY 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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.</small>		
<h1>MEYER</h1> <h2>UTILITY STRUCTURES</h2>		
SHAFT ASSEMBLY, 50'-0" LONG POLE		
SHEET 2 OF 4	<b>36978-3004</b>	REV. <b>A</b>



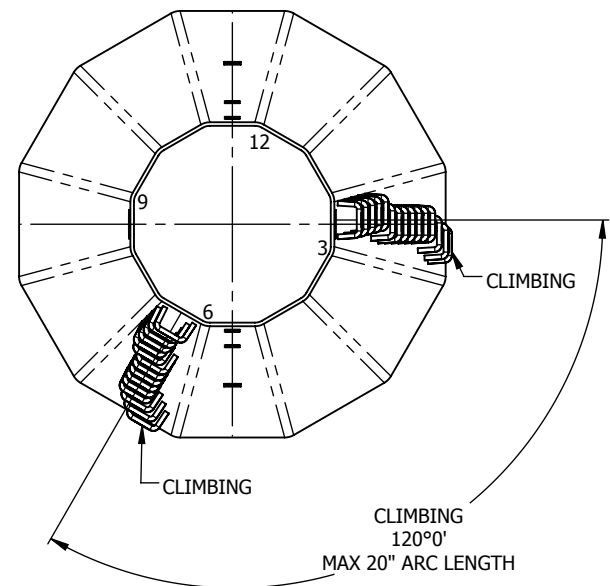
CLIMBING/WORKING HARDWARE INFORMATION														
EL.	LOCATION FROM TOP*	PART NO.	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	1'-6" [457]	78086			1				1					
2	3'-0" [914]	78086							1					
3	4'-6" [1372]	78086			1									
4	6'-0" [1829]	78086							1					
5	7'-6" [2286]	78086			1									
6	9'-0" [2743]	78086							1					
7	10'-6" [3200]	78086			1									
8	12'-0" [3658]	78086							1					
9	13'-6" [4115]	78086			1									
10	15'-0" [4572]	78086							1					
11	16'-6" [5029]	78086			1									
12	18'-0" [5486]	78086							1					
13	19'-6" [5944]	78086			1									
14	21'-0" [6401]	78086							1					
15	22'-6" [6858]	78086			1									
16	24'-0" [7315]	78086							1					
17	25'-6" [7772]	78086			1									
18	27'-0" [8230]	78086							1					
19	28'-6" [8687]	78086			1									
20	30'-0" [9144]	78086							1					
21	31'-6" [9601]	78086			1									
22	33'-0" [10058]	78086							1					
23	34'-6" [10516]	78086			1									
24	36'-0" [10973]	78086							1					
25	37'-6" [11430]	78086			1									
26	39'-0" [11887]	78086							1					
27	40'-6" [12344]	78086			1									
28	42'-0" [12802]	78086			1				1					

\* LOCATION DIMENSION FOR REFERENCE ONLY

NUMBER IN THE FLAT COLUMNS REPRESENT HARDWARE QTY



**78086**  
STEP LUG  
ASTM A-588  
0.37 LBS



**CLIMBING ORIENTATION**

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.

NOTAS:

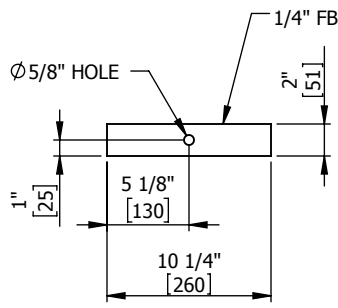
1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.

A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

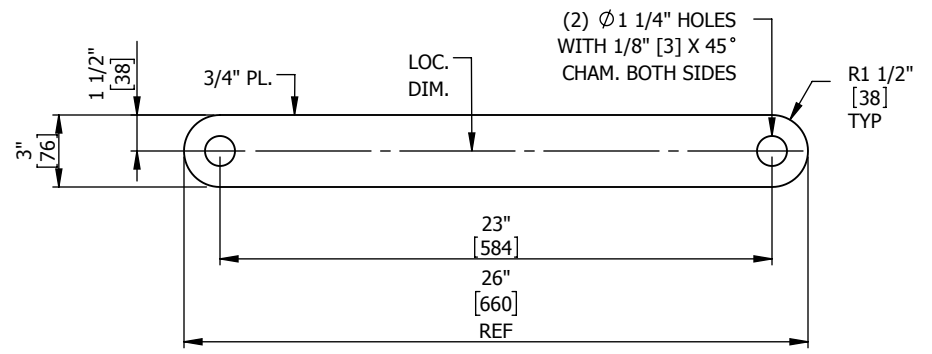
THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEYER UTILITY STRUCTURES LLC. THE DRAWING IS PROPERTY OF MEYER UTILITY STRUCTURES LLC AND LOANED FOR ENGINEERING REVIEW ONLY. THE DRAWING MAY NOT BE COPIED OR USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN CONSENT OF MEYER UTILITY STRUCTURES, LLC AND SHALL BE RETURNED ALONG WITH COPIES UPON DEMAND. COPYRIGHTS 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

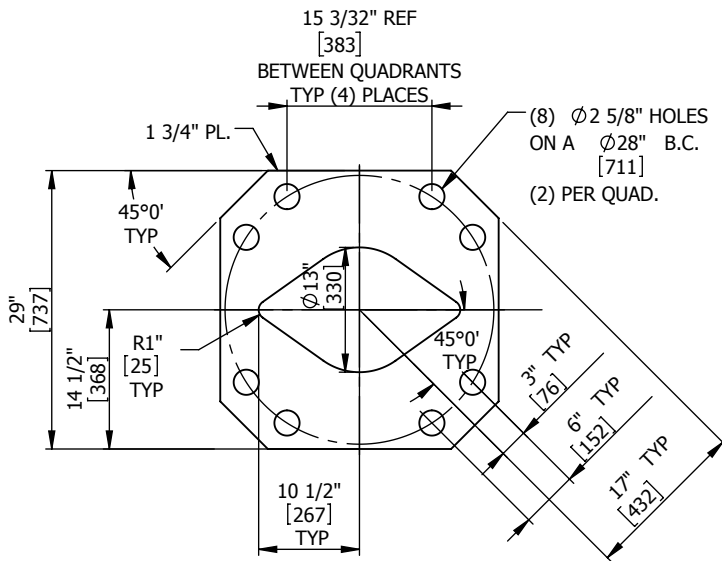
SHAFT ASSEMBLY, 50'-0" LONG  
POLE  
CLIMBING DETAIL



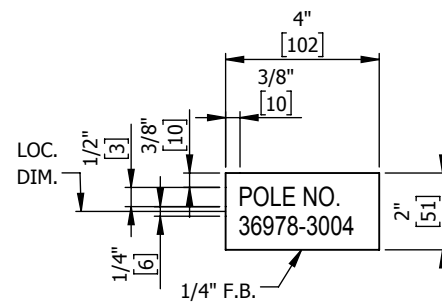
**PCA102**  
0.25 X 2.00 X 10.25  
099-ASTM A36  
1.43 LBS



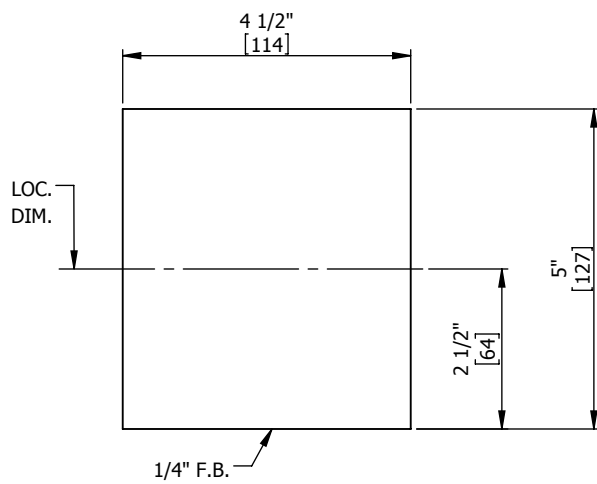
**36978-314**  
0.75 X 3.00 X 26.00  
065-ASTM A572 Gr65  
15.66 LBS



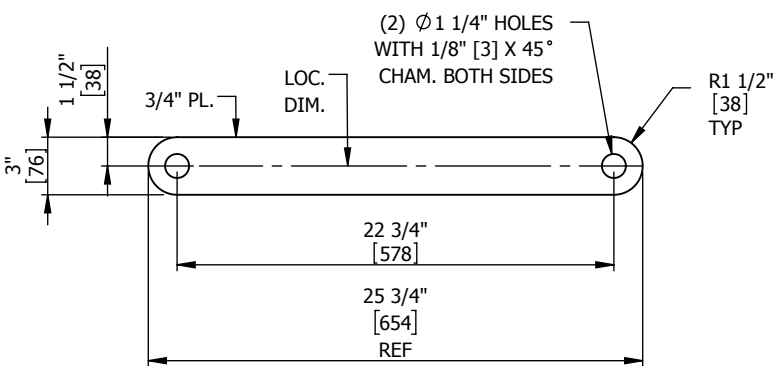
**36978-4008**  
1.75 X 29.00 X 29.00  
451-ASTM A572 Gr50  
286.95 LBS



**78433**  
70568, 0.25 X 2.00  
036 ASTM A-36  
0.57 LBS



**36978-1401**  
79278, 0.25 X 4.50  
036-ASTM A36  
1.6 LBS



**36978-313**  
0.75 X 3.00 X 25.75  
065-ASTM A572 Gr65  
15.5 LBS

NOTES:

1. ALL THE DIMENSIONS SHOWN IN [XX] ARE IN mm.
2. UNLESS OTHERWISE NOTED REFER AMUS-EN-P-018 FOR TOLERANCES.
3. REFER INDIVIDUAL ERECTION DRAWINGS FOR THE INFORMATION NEEDED ON NAME PLATE.

NOTAS:

1. TODAS LAS DIMENSIONES MOSTRADAS EN [XX] SON EN mm.
2. A MENOS QUE SE INDIQUE LO CONTRARIO CONSULTAR AMUS-EN-P-018 PARA TOLERANCIAS.
3. PARA LA INFORMACION REQUERIDA EN PLACAS DE IDENTIFICACION, VER DIBUJOS INDIVIDUALES DE MONTAJE.

A	INITIAL RELEASE	KS/02-18-19
REV	DESCRIPTION	DRFT/DATE
	PROJECT: HORSESHOE ROUNDABOUT	
	CUSTOMER: CITY OF ALEXANDRIA	
	CUSTOMER P.O. NO: P1116179	
	JOB NO: 36978	
	DRAWN/DATE: KS 02/13/2019	
	CHECKED/DATE: DF 03/02/2019	
	ENGINEER: STEPHEN ADAMS	

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

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

SHEET 4 OF 4	<b>36978-3004</b>	REV. <b>A</b>
--------------	-------------------	---------------

**GENERAL MANUFACTURING INFORMATION**

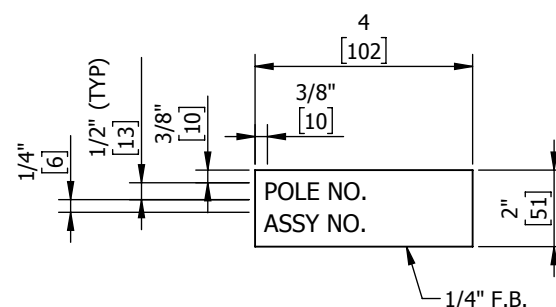
FOR GALVANIZED, PAINTED, AND PAINT-OVER GALVANIZED POLES:

1A. STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 1 1/4"	65 KSI	A-572 MODIFIED
PLATE > 1 1/4"	50, 60 KSI	A-572 MOD., A-633 MOD., A-871, OR A-633 GRADE E
BOLTS ≤ 5/8"	92 KSI	A-449
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A-354 GRADE B.C. MOD.
BOLTS > 2 1/2"	99 KSI	A-354 GRADE B.C. MOD.
QUICK PIN	92 KSI	AISI 4140/4340 MODIFIED
NUTS ≤ 5/8"	---	A-563 GRADE C
NUTS ≥ 3/4"	---	A-563 GRADE DH
NUTS (ANCHOR BOLTS)	---	A-563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A-563 GRADE C3
ANCHOR BOLTS	75 KSI	A-615 GRADE 75 (MOD.)
STEEL SHAPES	36 KSI	A-36
PIPE	36 KSI	A-36, A-53 GRADE B, A-106 GRADE B, OR A-501
STAINLESS STEEL SHAPES	30 KSI	TYPE 304
BOLTS 1/2" DIA. (REM. COVER PL'S)	---	A-307
NON-STRUCTURAL	36 KSI	A-36

FOR WEATHERING AND PAINT-OVER-WEATHERING POLES:

1B. STEEL SPECIFICATIONS	MIN. YIELD	ASTM SPEC
PLATE ≤ 3/4"	65 KSI	A-871
PLATE > 3/4"	50, 60 KSI	A-871
BOLTS < 5/8"	92 KSI	A-449
BOLTS 5/8"	92 KSI	A-325 TYPE 3
BOLTS ≥ 3/4" ≤ 2 1/2"	109 KSI	A-354 GRADE B.C. MOD.
BOLTS > 2 1/2"	99 KSI	A-354 GRADE B.C. MOD.
QUICK PIN	92 KSI	AISI 4140/4340 MODIFIED
NUTS < 5/8"	---	A-563 GRADE C
NUTS ≥ 5/8"	---	A-563 GRADE C3
NUTS (ANCHOR BOLTS)	---	A-563 GRADE DH
NUTS (SLIPJOINT JACKING NUTS)	---	A-563 GRADE C3
ANCHOR BOLTS	75 KSI	A-615 GRADE 75 (MOD.)
STEEL SHAPES	50 KSI	A-588 OR EQUIVALENT
PIPE	46 KSI	A-588 OR EQUIVALENT
STAINLESS STEEL SHAPES	30 KSI	TYPE 304
NON-STRUCTURAL	50 KSI	A-588

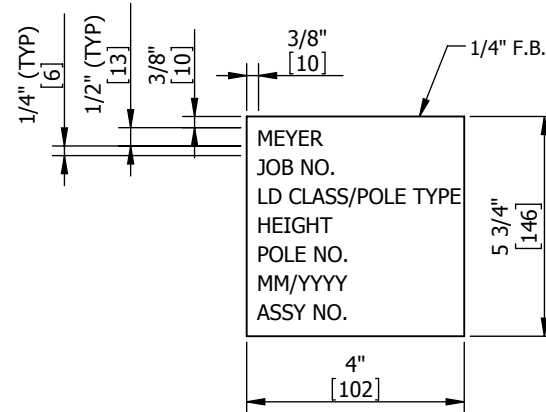
**EXAMPLE ID TAG:**



- 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). ROLLED RING BASE PLATES MEET MECHANICAL AND CHEMICAL PROPERTIES OF A871 OR A633, GRADE E.
- PROVIDE PLASTIC PLUGS IN ALL TAPPED HOLES AND NUTS WELDED TO STRUCTURE.
- TO FACILITATE MANUFACTURING, LIKE STRUCTURE TYPES WITH SIMILAR LINE DEFLECTION ANGLES ARE SOMETIMES GROUPED USING A COMMON LINE ANGLE FOR HARDWARE ATTACHMENT ORIENTATION.
- ARM LENGTHS, WHEN APPLICABLE, ARE FROM FACE OF ARM BRACKET TO END OF ARM SHAFT. HOLE QUANTITIES FOR ARM CONNECTIONS ARE "PER SIDE" UNLESS OTHERWISE NOTED.
- SHOP TO MAINTAIN A 4 1/2" MINIMUM CLEARANCE FROM THE CENTERLINE OF ANY HOLES THROUGH THE POLE TO THE EDGE OF THE NEAREST WELDED PART IN ORDER TO PROVIDE ADEQUATE CLEARANCE FOR CUSTOMER MOUNTED ATTACHMENTS. EXCEPTION: FOR STANDARD LD ARMS WITH Ø1 1/8" HOLES, SHOP TO MAINTAIN 7" OF CLEARANCE.
- FINAL WEIGHTS ON ERECTION DRAWINGS ARE ROUNDED UP TO THE NEXT 10 LBS.
- FINISHED WEIGHTS ON ERECTION DRAWINGS ARE ESTIMATED. FINISHED WEIGHTS WILL VARY BASED ON THE THICKNESS OF GALVANIZING AND TOTAL SURFACE AREA OF SHAFT ASSEMBLIES.
- LONGSEAM ORIENTATION:
  - 12-SIDED SHAPES WITH SINGLE LONGSEAM ON POINT 9, AND DOUBLE LONGSEAM ON POINTS 3 AND 9. (EXCEPTION: 12-SIDED ARMS TO HAVE LONGSEAM ON POINT 6)
  - 8-SIDED SHAPES WITH SINGLE LONGSEAM ON POINT 4, AND DOUBLE LONGSEAM ON POINTS 4 AND 8.
  - 16-SIDED SHAPES WITH SINGLE LONGSEAM ON POINT 12, AND DOUBLE LONGSEAM ON POINTS 4 AND 12.
  - 4-SIDED SHAPES WITH SINGLE LONGSEAM ON POINT 4.

TYPICAL LONGSEAM ORIENTATION SHALL BE AS STATED ABOVE. ADJUSTMENTS TO THIS ORIENTATION MAY BE MADE SUCH THAT THE LONGSEAM DOES NOT INTERFERE WITH HARDWARE OR THE WELDING OF HARDWARE.

**EXAMPLE NAME PLATE:**



- UNLESS EXCEPTIONS ARE NOTED ON THE DRAWING, MARK THE STRUCTURES WITH THE FOLLOWING INFORMATION:

NOTE: ALL POLES REQUIRE A NAME PLATE. IF INDIVIDUAL NAME PLATES ARE NOT PROVIDED ON THE ERECTION DRAWINGS, SEE THE NAME PLATE DETAIL ON THIS SHEET.

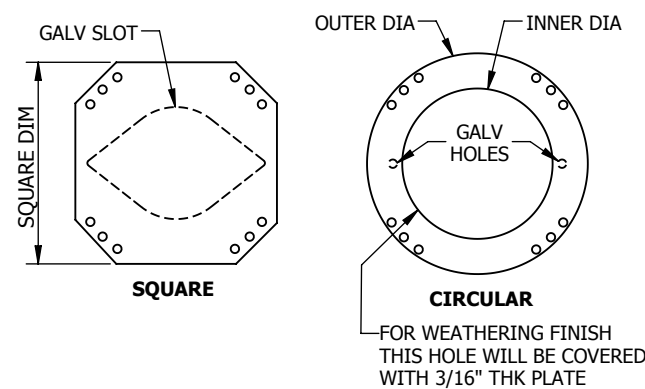
\*A. MARK POLES ON FACE 5-6, AT 5'-0" ABOVE GROUNDLINE OR BASE PLATE WITH MANUFACTURER NAME, JOB NO., LD CLASS\*, HEIGHT, POLE NO., MM/YYYY, ASSY NO. WITH 1/2" HIGH STAMPED LETTERS.

\* FOR LD POLES BELONGING TO P0122 AND P0123 ONLY, THE LD CLASS SHOULD BE PRECEDED BY "M" i.e., "MLD-1" INSTEAD OF "LD-1".  
NOTE: ERECTION DRAWINGS TO SHOW ACTUAL EXAMPLE.

- MARK STRUCTURE NUMBER AND ASSEMBLY NUMBER ON FACE 5-6, A MIN OF 18" ABOVE EACH SLIP JOINT OR 18" ABOVE THE TOP OF THE FLANGE PLATE ON A 2" FLAT BAR WITH 1/2" HIGH STAMPED LETTERS.
- MARK STRUCTURE NUMBER AND ARM ASSEMBLY LETTER ON INSIDE OF ARM BRACKET ON A 2" FLAT BAR WITH 1/2" HIGH STAMPED LETTERS.
- MARK CROSSARMS WITH STRUCTURE NUMBER AND ASSEMBLY NUMBER ON A 2" FLAT BAR WITH 1/2" HIGH STAMPED LETTERS.
- MARK SHIPLOOSE ITEMS WITH STRUCTURE NUMBER AND PIECE MARK OR ASSEMBLY NUMBER ON A 2" FLAT BAR WITH 1/2" HIGH STAMPED LETTERS.
- MARK CROSSBRACING WITH STRUCTURE NUMBER AND ASSEMBLY NUMBER ON A 2" FLAT BAR WITH 1/2" HIGH STAMPED LETTERS.
- WELD CENTER OF GRAVITY OF ALL ASSEMBLIES, 20'-0" OR LONGER, WITH "CG" ON ANY FLAT. CUSTOMER NOTE: MARK IS FOR FABRICATOR'S REFERENCE ONLY.
- CUSTOMER NOTE: INDIVIDUAL MARK IS FOR FABRICATOR TRACKING ONLY.

\*FACE 5-6 PERTAINS TO POLY-ROUND AND POLY-12 POLES.  
USE FACE 3-4 FOR OCTAGONAL POLES AND FACE 7-8 FOR POLY-16 POLES.

- MATERIAL AVAILABILITY MAY IMPACT THE GEOMETRIC SHAPE OF THE BASE PLATES PROVIDED, HOWEVER, DESIGN CALCULATIONS ARE MET OR EXCEEDED. POSSIBLE SHAPES ARE SHOWN FOR REFERENCE.



Y	REVISED CONNECTION MATCH MARK BLOCKS	RB/02-18-19
T	REVISED NAME PLATE / ID TAG / WELD BEAD MATCH MARK REQUIREMENTS	RB/02-06-19
S	ADDED 12-SIDED ARM LONGSEAM ORIENTATION, UPDATED COMPANY NAME	WR/12-19-18
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:		

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION

**ASSEMBLY AND ERECTION INFORMATION**

1. CUSTOMER SHALL VERIFY THE FIT OF THEIR EQUIPMENT (INSULATORS, GUY WIRES, ETC.) TO ATTACHMENT PROVIDED.
2. 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.
3. BOLT AND NUT TIGHTENING INFORMATION:  
THE NUTS ON ALL CONNECTION BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:
  - A. AS A MINIMUM, ALL NUTS SHALL BE INSTALLED TO THE "SNUG TIGHT" CONDITION AS DEFINED BY THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.
  - B. ALL FLANGE PLATE AND ALL ARM CONNECTIONS WITH BOLT LENGTHS LESS THAN 8" SHALL BE INSTALLED USING THE "TURN-OF-NUT" METHOD AS PRESCRIBED BY THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" IN THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.  
FOR USE WITH ASTM A-354 BC OR A-325 BOLTS

BOLT DIA.	BOLT LENGTH		
	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"

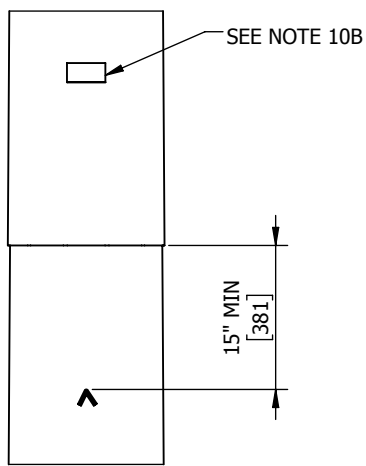
- C. BOLT INSTALLATION AND TIGHTENING SHALL BE PERFORMED IN A SEQUENCE TO PROVIDE EVEN TENSIONING AND CLOSING OF GAPS. THIS MAY BE ACCOMPLISHED BY TIGHTENING A PAIR OF BOLTS ON OPPOSITE SIDES OF A CONNECTION FOLLOWED BY SIMILAR PAIRS AROUND THE JOINT UNTIL GAPS BETWEEN THE PLATES ARE CLOSED AND BOLTS ARE PROPERLY TENSIONED. THE ERECTOR IS RESPONSIBLE FOR DETERMINING THE REQUIRED SEQUENCE.
- D. TO VERIFY THAT BOLTS ARE PROPERLY TENSIONED, THE ERECTOR SHALL "MATCH MARK" THE BOLTS AND NUTS BEFORE APPLYING THE FINAL TURN AFTER THE SNUG TIGHT CONDITION IS ACHIEVED.
- E. NUTS FOR 2 1/4" DIAMETER ANCHOR BOLTS (ASTM A-615, GRADE 75) SHOULD BE TURNED 1/6 TURN BEYOND SNUG TIGHT.
- F. LONG ARM CONNECTION BOLTS (L>8") SHALL NOT BE TENSIONED BEYOND A SNUG TIGHT CONDITION.
- G. CROSSBRACE U-BOLT NUTS SHOULD BE TORQUED PER THE FOLLOWING:

U-BOLT DIA.	3" WIDE U-BOLT PLATE THK.	NUT TORQUE (LUBRICATED)
5/8"	3/8"	75 FT-LBS
5/8"	1/2"	100 FT-LBS
3/4"	3/4"	150 FT-LBS
7/8"	1"	200 FT-LBS
1"	1 1/4"	250 FT-LBS

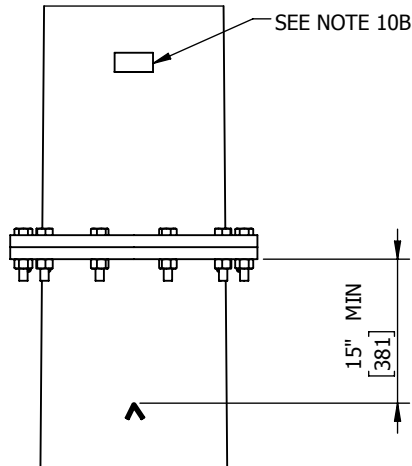
4. FOR FIELD ASSEMBLY OF MULTI-SECTION POLES, STRUCTURE NUMBERS ON ADJACENT SECTIONS MUST BE ALIGNED. THE CENTER OF THE ID TAG ABOVE THE SLIP JOINT/FLANGE CONNECTION WILL BE ALIGNED WITH AN INVERTED V (MATCH MARK) WELDED ON THE ADJACENT FACE A MIN OF 15" BELOW THE SLIP JOINT OR 15" BELOW THE BOTTOM OF THE FLANGE.
5. FOR SLIP JOINTED POLES, SEE SHEETS SSG004 AND SSG005.

**STORAGE REQUIREMENT - HORIZONTAL STORAGE**

1. STORAGE METHOD FOR STRUCTURES THAT ARE COATED WITH PAINT, OR OTHER PROTECTIVE OR BELOW GRADE COATINGS.
2. ALL STRUCTURES INCLUDING WEATHERING STEEL POLES SHOULD BE RAISED OFF OF THE GROUND AND KEPT FREE FROM AREAS WITH MOISTURE PRESENT.
3. STRUCTURES LYING HORIZONTALLY FOR EXTENDED PERIODS OF TIME SHOULD BE TARPED OR PROTECTED BY OTHER MEANS TO SHIELD THE COATINGS FROM THE ELEMENTS OF THE ENVIRONMENT.
4. COMPLIANCE WITH THIS STORAGE METHOD WILL FURTHER ASSURE THE BELOW GRADE COATINGS WARRANTY REMAINS IN EFFECT.



**EXAMPLE:  
SLIP JOINT MATCH MARK**



**EXAMPLE:  
FLANGE CONNECTION  
MATCH MARK**

REV	DESCRIPTION	DRFT/DATE
Y	REVISED CONNECTION MATCH MARK BLOCKS	RB/02-18-19
T	REVISED NAME PLATE / ID TAG / WELD BEAD MATCH MARK REQUIREMENTS	RB/02-06-19
S	ADDED 12-SIDED ARM LONGSEAM ORIENTATION, UPDATED COMPANY NAME	WR/12-19-18

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

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
**UTILITY STRUCTURES**

GENERAL NOTES, ASSEMBLY  
AND ERECTION INFORMATION

**INFORMACION GENERAL DE FABRICACION**

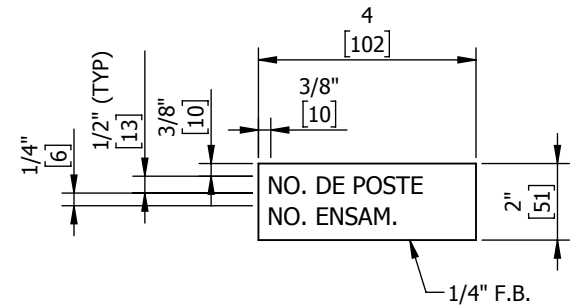
PARA POSTES GALVANIZADOS, PINTADOS Y PINTADOS SOBRE GALVANIZADO

1A. ESPECIFICACIONES DEL ACERO	MIN. ESF. DE CEDENCIA	ESPECIFICACION ASTM
PLACA ≤ 1 1/4"	65 KSI	A-572 MODIFIED
PLACA > 1 1/4"	50, 60 KSI	A-572 MOD., A-633 MOD., A-871, OR A-633 GR. E
TORNILLOS ≤ 5/8"	92 KSI	A-449
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A-354 GRADE B.C. MOD.
TORNILLOS > 2 1/2"	99 KSI	A-354 GRADE B.C. MOD.
QUICK PIN	92 KSI	AISI 4140/4340 MODIFIED
TUERCAS ≤ 5/8"	---	A-563 GRADE C
TUERCAS ≥ 3/4"	---	A-563 GRADE DH
TUERCAS (ANCLAS)	---	A-563 GRADE DH
TUERCAS (TUERCAS DE TRASLAPE)	---	A-563 GRADE C3
ANCLAS	75 KSI	A-615 GRADE 75 (MOD.)
PERFILES DE ACERO	36 KSI	A-36
TUBO	36 KSI	A-36, A-53 GRADE B, A-106 GRADE B, OR A-501
PIEZAS DE ACERO INOX.	30 KSI	TYPE 304
TORNILLOS 1/2" DIA. (PARA TAPAS)	---	A-307
NO-ESTRUCTURALES	36 KSI	A-36

PARA POSTES DE ACERO RESISTENTE AL AMBIENTE Y PINTADOS SOBRE ACERO RESISTENTE AL AMBIENTE:

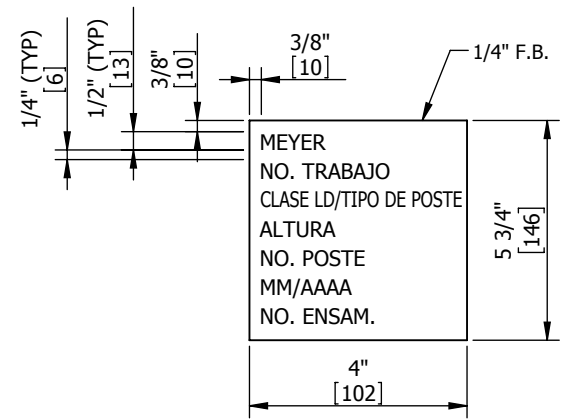
1B. ESPECIFICACIONES DEL ACERO	MIN. ESF. DE CEDENCIA	ESPECIFICACION ASTM
PLACA ≤ 3/4"	65 KSI	A-871
PLACA > 3/4"	50, 60 KSI	A-871
TORNILLOS < 5/8"	92 KSI	A-449
TORNILLOS 5/8"	92 KSI	A-325 TYPE 3
TORNILLOS ≥ 3/4" ≤ 2 1/2"	109 KSI	A-354 GRADE B.C. MOD.
TORNILLOS > 2 1/2"	99 KSI	A-354 GRADE B.C. MOD.
QUICK PIN	92 KSI	AISI 4140/4340 MODIFIED
TUERCAS < 5/8"	---	A-563 GRADE C
TUERCAS ≥ 5/8"	---	A-563 GRADE C3
TUERCAS (ANCLAS)	---	A-563 GRADE DH
TUERCAS (TUERCAS DE TRASLAPE)	---	A-563 GRADE C3
ANCLAS	75 KSI	A-615 GRADE 75 (MOD.)
PERFILES DE ACERO	50 KSI	A-588 OR EQUIVALENT
TUBO	46 KSI	A-588 OR EQUIVALENT
PIEZAS DE ACERO INOX.	30 KSI	TYPE 304
NO-ESTRUCTURAL	50 KSI	A-588

**EJEMPLO DE ID TAG:**



- TODAS LAS PLACAS TENDRAN UNA 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), LAS PLACAS BASE DE ANILLOS ROLADAS CUMPLEN LAS PROPIEDADES MECANICAS Y QUIMICAS DE A871 O A633 GR.E.
- PROVEER TAPONES PLASTICOS EN TODAS LAS PERFORACIONES CONICAS Y TUERCAS SOLDADAS A LA ESTRUCTURA.
- PARA FACILITAR LA FABRICACION DE ESTRUCTURA TIPO CON LINEA DE ANGULO DE DEFLEXION SIMILAR, ALGUNAS VECES SON AGRUPADOS USANDO UNA LINEA COMUN DE ANGULO PARA LA ORIENTACION DE LOS ACCESORIOS.
- LONGITUD DE BRAZO, CUANDO APLICA, SON MEDIDOS DE LA CARA DEL BRACKET AL EXTREMO DEL SHAFT DEL BRAZO. LA CANTIDAD DE PERFORACIONES EN LAS CONEXIONES DE BRAZOS SON "POR LADO" A MENOS QUE SE INDIQUE OTRA COSA.
- MANTENER UN ESPACIO MÍNIMO DE 4 1/2" DESDE LA LÍNEA CENTRAL DE CUALQUIER AGUJERO A TRAVÉS DEL POSTE AL BORDE DE LA PARTE SOLDADA MÁS CERCANA PARA PROPORCIONAR EL ESPACIO ADECUADO PARA LOS ACCESORIOS MONTADOS POR EL CLIENTE. EXCEPCIÓN: PARA BRAZOS LD ESTÁNDAR CON AGUJEROS DE Ø1 1/8 ", MANTENER 7" DE ESPACIO.
- LOS PESOS FINALES EN LOS DIBUJOS DE MONTAJE SE REDONDEAN HACIA ARRIBA A LAS PROXIMAS 10 LBS.
- LOS PESOS DEL ACABADO EN LOS DIBUJOS DE MONTAJE SON ESTIMADOS, LOS PESOS DEL ACABADO VARIARAN BASADOS EN LOS ESPESORES DE GALVANIZADO Y LA SUPERFICIE TOTAL DE LOS ENSAMBLES DE LAS SECCIONES.
- ORIENTACION DE LA JUNTA LONGITUDINAL:
  - SECCION DE 12 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 9 Y CON DOBLE JUNTA LONGITUDINAL EN LOS VERTICES 3 Y 9. (EXCEPCIÓN: BRAZOS DE 12 LADOS DEBERÁ TENER UN JUNTA LONGIRUDONAL EN EL VERTICE 6)
  - SECCION DE 8 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 4 Y CON DOBLE JUNTA LONGITUDINAL EN LOS VERTICES 4 Y 8.
  - SECCION DE 16 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 12 Y CON DOBLE JUNTA LONGITUDINAL EN LOS VERTICES 4 Y 12.
  - SECCION DE 4 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 4.

**EJEMPLO DE PLACA ID:**



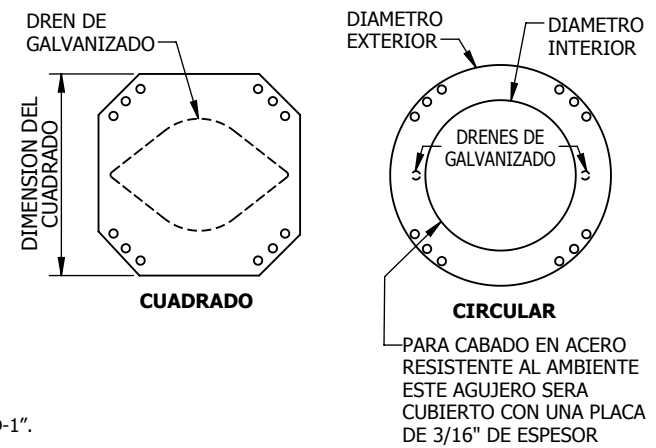
- SECCION DE 12 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 9 Y CON DOBLE JUNTA LONGITUDINAL EN LOS VERTICES 3 Y 9. (EXCEPCIÓN: BRAZOS DE 12 LADOS DEBERÁ TENER UN JUNTA LONGIRUDONAL EN EL VERTICE 6)
- SECCION DE 8 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 4 Y CON DOBLE JUNTA LONGITUDINAL EN LOS VERTICES 4 Y 8.
- SECCION DE 16 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 12 Y CON DOBLE JUNTA LONGITUDINAL EN LOS VERTICES 4 Y 12.
- SECCION DE 4 LADOS CON UNA JUNTA LONGITUDINAL EN EL VERTICE 4.

LA ORIENTACION TIPICA DE LA JUNTA LONGITUDINAL DEBERA SER COMO SE INDICA ARRIBA, AJUTES A ESTA ORIENTACION PUEDEN SER HECHOS DE MANERA QUE LA JUNTA LONGITUDINAL NO INTERFIERA CON LOS ACCESORIOS O LA SOLDADURA DE LOS ACCESORIOS.

10. A MENOS QUE SE INDIQUEN EXEPCIONES EN LOS DIBUJOS, MARCAR LA ESTRUCTURA CON LA SIGUIENTE INFORMACION:

NOTA: TODOS LOS POSTES REQUIEREN UNA PLACA ID SI LAS PLACAS ID INDIVIDUALES NO SON PROPORCIONADAS EN LOS DIBUJOS DE MONTAJE VER EL DETALLE DE LA PLACA ID EN ESTA HOJA.

- MARCAR LOS POSTES EN LAS CARAS 5-6, A 1524mm. ARRIBA DE LA LINEA DE TIERRA O PLACA BASE CON EL NOMBRE DEL FABRICANTE, NO. TRABAJO, CLASE DE LD\*, ALTURA, NO. POSTE, MM/AAAA, ENSAM. NO ESTAMPADO CON LETRAS DE 1/2" DE ALTO.
  - \* PARA LOS PERIENCIENTAS A P0122 Y P0123 UNICAMENTE, LA CLASE LD DEBERA SER PRECEDIDA POR "M" ej., "MLD-1" EN LUGAR DE "LD-1".
  - NOTA: LA INFORMACION ESPECIFICA SE MUESTRA EN LOS DIBUJOS DE MONTAJE.
- MARCAR ESTRUCTURA Y EMSAMBLATE NO. EN LA CARA 5-6, CON UN MINIMO DE 18"(457mm) SOBRE CADA TRASLAPE O 18"(457mm) SOBRA LAPARTE SUPERIOROR DE LA BRIDA ESTAMPADO EN UNA PLACA DE 2"(51mm) CON LETRAS DE 1/2"(13mm) DE ALTO.
- MARCAR NO. DE ESTRUCTURA Y LETRA DEL ENSAMBLE DEL BRAZO EN LA PARTE INTERNA DEL BRACKET EN UNA PLACA DE 51mm. DE ANCHO, ESTAMPADO CON LETRAS DE 1/2" DE ALTO.
- MARCAR LOS CROSSARMS CON NO. DE ESTRUCTURA Y NO. DE ENSAMBLE EN UNA PLACA DE 2"(51mm). DE ANCHO ESTAMPADO CON LETRAS DE 1/2" DE ALTO.
- MARCAR LOS ARTÍCULOS QUE SE ENVIARAN SUELTOS CON NO. DE ESTRUCTURA Y MARCA DE PIEZA O NO. DE ENSAMBLE EN UNA PLACA DE 2"(51mm). DE ANCHO ESTAMPADO CON LETRAS DE 1/2"(13mm) DE ALTO.
- MARCAR EL CROSSBRACING CON EL NO. DE ESTRUCTURA Y EL NO. DE ENSAMBLE EN UNA PLACA DE 2"(51mm). DE ANCHO ESTAMPADO CON LETRAS DE 1/2" DE ALTO.
- SOLDAR CENTRO DE GRAVEDAD DE TODOS LOS ENSAMBLES DE 5'-0"(6096mm). O MAYORES, CON "CG" EN CUALQUIER CARA. NOTA PARA EL CLIENTE: LA MARCA ES SOLO PARA REFERENCIA DEL FABRICANTE.
- NOTA PARA EL CLIENTE: LA MARCA INDIVIDUAL ES SOLO PARA EL RASTREO DEL FABRICANTE.
  - \* LA CARA 5-6 SE REFIERE A LAS SECCIONES REDONDAS Y SECCIONES DE 12 LADOS. USE LA CARA 3-4 PARA SECCIONES OCTAGONALES Y LA CARA 7-8 PARA SECCIONES DE 16 LADOS.



Y	REVISED CONNECTION MATCH MARK BLOCKS	RB/02-18-19
T	REVISED NAME PLATE / ID TAG / WELD BEAD MATCH MARK REQUIREMENTS	RB/02-06-19
S	ADDED 12-SIDED ARM LONGSEAM ORIENTATION, UPDATED COMPANY NAME	WR/12-19-18
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:	

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

GENERAL NOTES, ASSEMBLY AND ERECTION INFORMATION

**INFORMACION DE ENSAMBLE Y MONTAJE**

1. EL CLIENTE DEBERA VERIFICAR EL AJUSTE DE SU EQUIPO (AISALDORES, CABLES DE RETENCION, ETC.) A LA CONEXION PROPORCIONADA..
2. TODOS LOS BRAZOS DE LA ESTRUCTURA DEBEN SER ASEGURADOS AL MOMEMTO 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.
3. INFORMACION DE APRIETE DE TORNILLOS Y TUERCAS:  
LAS TUERCAS EN TODOS LOS TORNILLOS DE CONECCION DEBEN SER INSTALADAS DE ACUERDO A LO SIGUIENTE:
  - A. COMO MINIMO, TODAS LAS TUERCAS DEBEN SER APRETADAS DE ACUERDO A LAS CONDICIONES DE APRIETE DE LA ULTIMA EDICION DE EL AISC "STEEL CONSTRUCTION MANUAL".
  - B. TODAS LAS BRIDAS Y CONEXIONES CON LONGITUD DE TORNILLO MENOR A 8" DEBERAN SER INSTALADOS USANDO EL METODO DE "GIRO- DE-TUERCA" COMO SE PRESCRIBE POR LA "ESPECIFICACION PARA JUNTAS ESTRUCTURALES USANDO TORNILLOS DE ALTA RESISTENCIA" EN LA ULTIMA EDICION DEL AISC "STEEL CONSTRUCTION MANUAL." PARA USARSE CON TORNILLOS ASTM A-354 BC O A325

LONGITUD DEL TORNILLO

DIAM. DEL TORNILLO	1/3 DE GIRO DE LA TUERCA	1/2 GIRO DE LA TUERCA	2/3 DE GIRO DE LA TUERCA
1"	0"-4"	4"-8"	8"-12"
1 1/2"	0"-6"	6"-12"	12"-18"

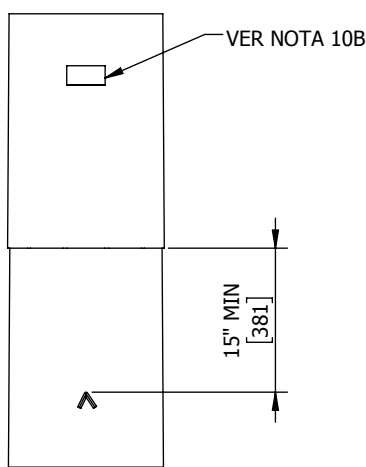
- C. LA INSTALACION Y APRIETE DE TORNILLOS DEBERA SER DESEMPEÑADA EN UNA SECUENCIA PARA PROPORCIONAR TENSIONADO PAREJO Y CIERRE DE ABERTURAS. ESTO PUEDE REALIZARSE APRETANDO UN PAR DE TORNILLOS EN LOS LADOS OPUESTOS DE LA CONEXIÓN SEGUIDA DE PARES SIMILARES ALREDEDOR DE LA UNION HASTA QUE LAS ABERTURAS ENTRE LAS PLACAS ESTEN CERRADAS Y LOS TORNILLOS ESTEN ADECUADAMENTE TENSIONADOS. EL ARMADOR ES RESPONSIBLE DE DETERMINAR LA SECUENCIA REQUERIDA.
- D. PARA VERIFICAR QUE LOS TORNILLOS ESTEN APROPIADAMENTE TENSIONADOS, EL ARMADOR DEBERA MARCAR LOS TORNILLOS Y TUERCAS ANTES DE APLICAR EL GIRO FINAL DESPUES DE ALCANZAR LA CONDICION DE APRIETE.
- E. LAS TUERCAS PARA LAS ANCLAS DE 2 1/4" DE DIAMETRO (ASTM A-615, GRADO 75) DEBERAN SER GIRADAS 1/6 MAS ALLA DEL APRIETE.
- F. LOS TORNILLOS DE CONEXIÓN PARA BRAZOS LARGOS (L>8") NO DEBERAN SER TENSIONADOS MAS ALLA DE LA CONDICION DE APRIETE.
- G. LAS TUERCAS DE LOS "U BOLTS" DEBERAN SER TORQUEADAS DE ACUERDO A LO SIGUIENTE:

U-BOLT DIAM.	PLACA DE U-BOLT DE 3" DE ESP	TORQUE DE TUERCA (LUBRICADA)
5/8"	3/8"	75 FT-LBS
5/8"	1/2"	100 FT-LBS
3/4"	3/4"	150 FT-LBS
7/8"	1"	200 FT-LBS
1"	1 1/4"	250 FT-LBS

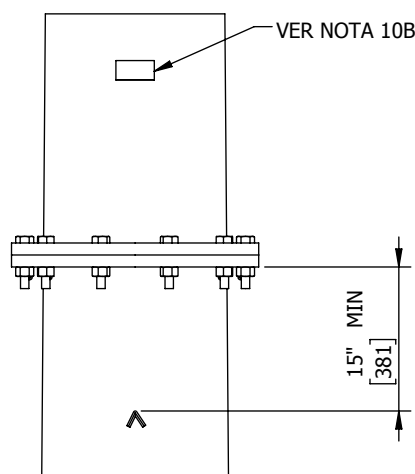
4. PARA ENSAMBLE EN CAMPO DE POSTES MULTI-SECCION, LOS NUMEROS DE ESTRUCTURA EN SECCIONES ADYACENTES DEBERAN SER ALINEADOS.
5. PARA POSTES DE JUNTAS TRANSLAPADAS, VER SSG004 Y SSG005.

**REQUERIMIENTO DE ALMACENAJE - ALMACENAJE HORIZONTAL**

1. METODO DE ALMACENAJE PARA ESTRUCTURAS QUE SON RECUBIERTAS CON PINTURA, U OTRA PROTECCION O RECUBRIMIENTOS DE BAJO GRADO.
2. TODAS LAS ESTRUCTURAS INCLUYENDO POSTES DE ACERO RESISTENTE AL AMBIENTE DEBRAN SER LEVANTADOS DEL SUELO Y MANTENIDOS EN AREAS LIBRES DE HUMEDAD.
3. ESTRUCTURAS TENDIDAS HORIZONTALMENTE POR LARGOS PERIODOS DE TIEMPO DEBRAN SER CUBIERTAS O PROTEGIDAS POR OTROS MEDIOS PARA PROTEGER LOS RECUBRIMIENTOS DE LOS ELEMENTOS DEL AMBIENTE.
4. CUMPLIR CON ESTE METODO DE ALMACENAJE ASEGURARA QUE LA GARANTIA DEL RECUBRIMIENTO SE MANTENGA EN EFECTO.



**EJEMPLO:  
TRANSLAPE MARCA  
DE COINCIDENCIA**



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

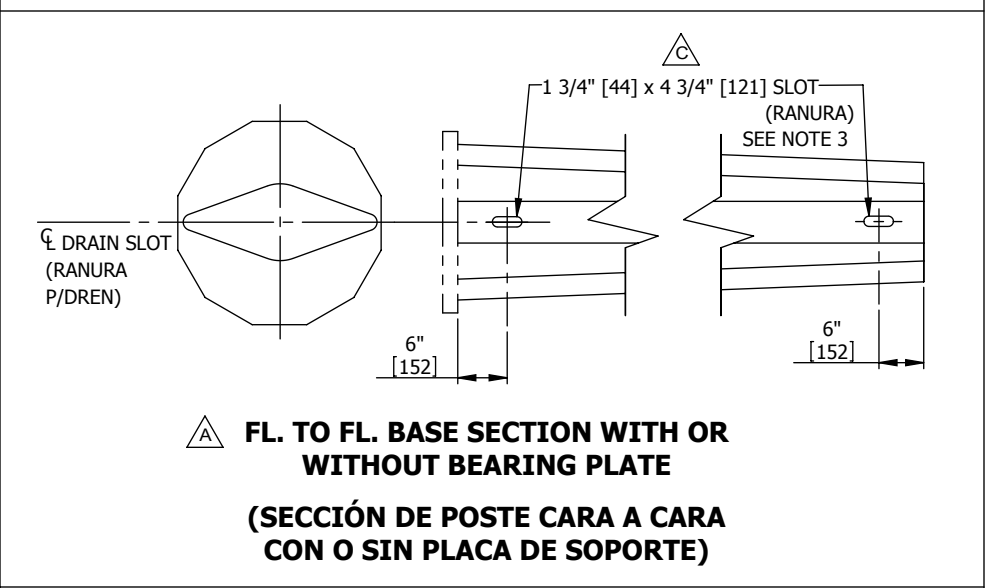
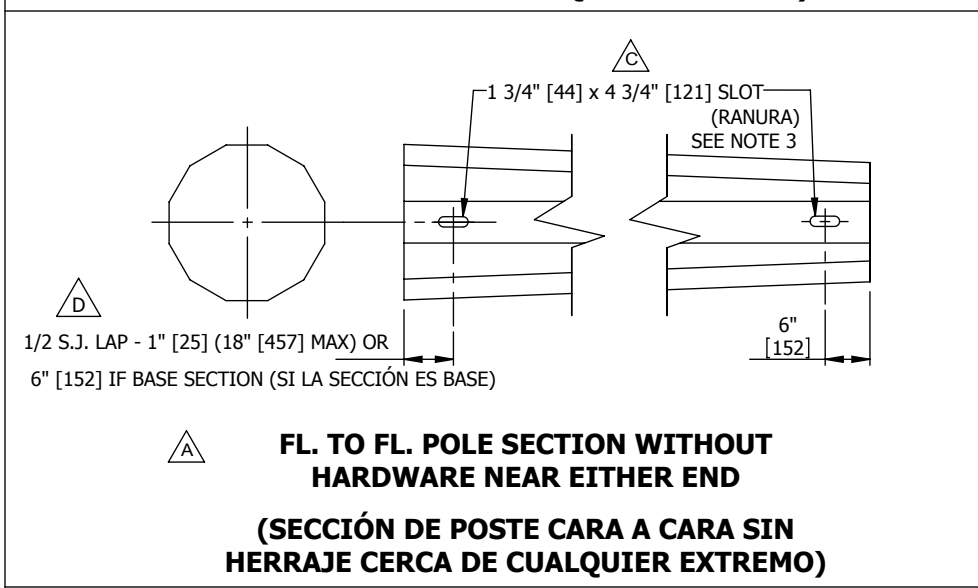
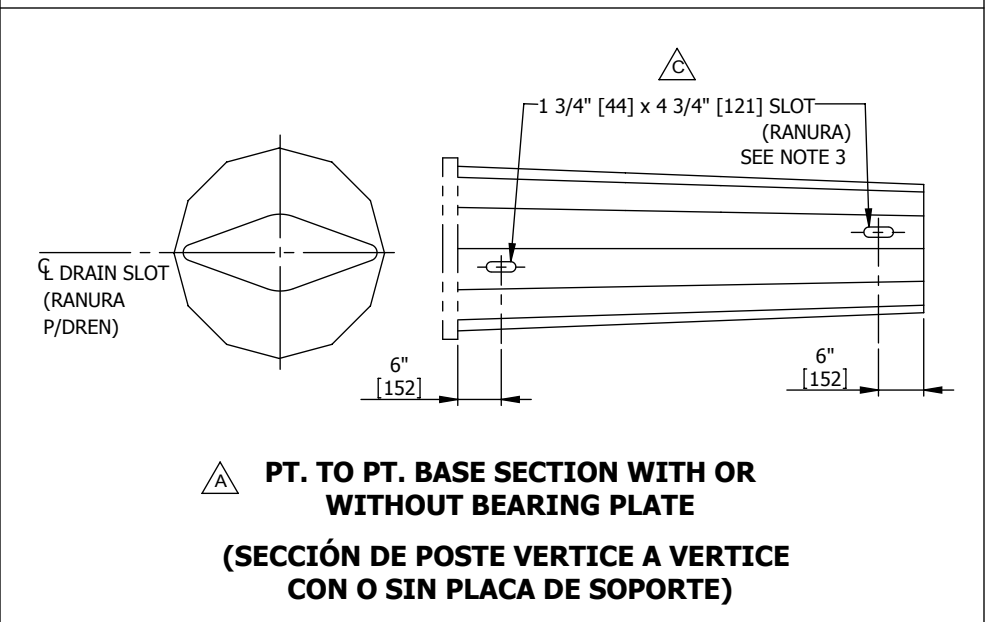
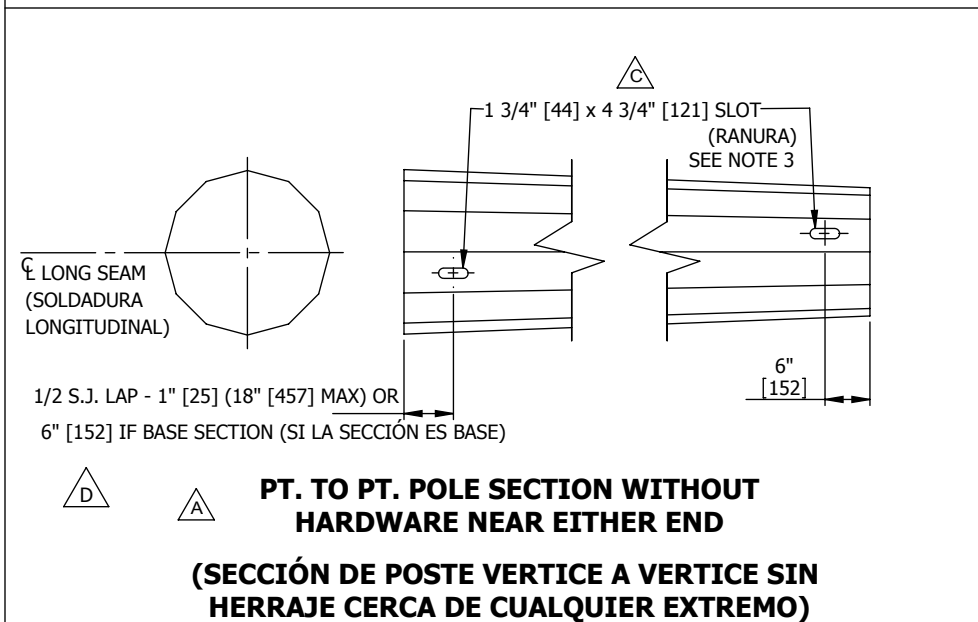
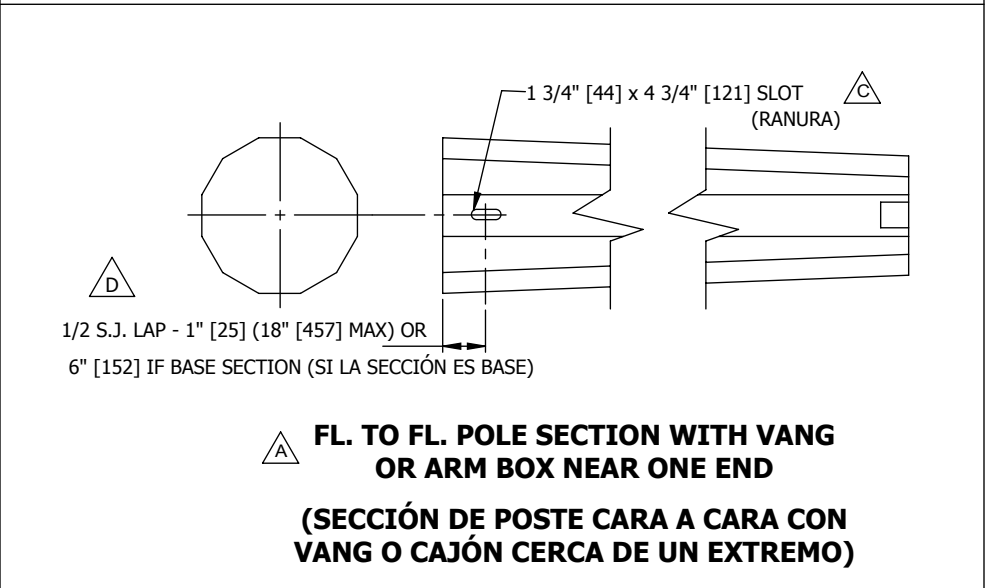
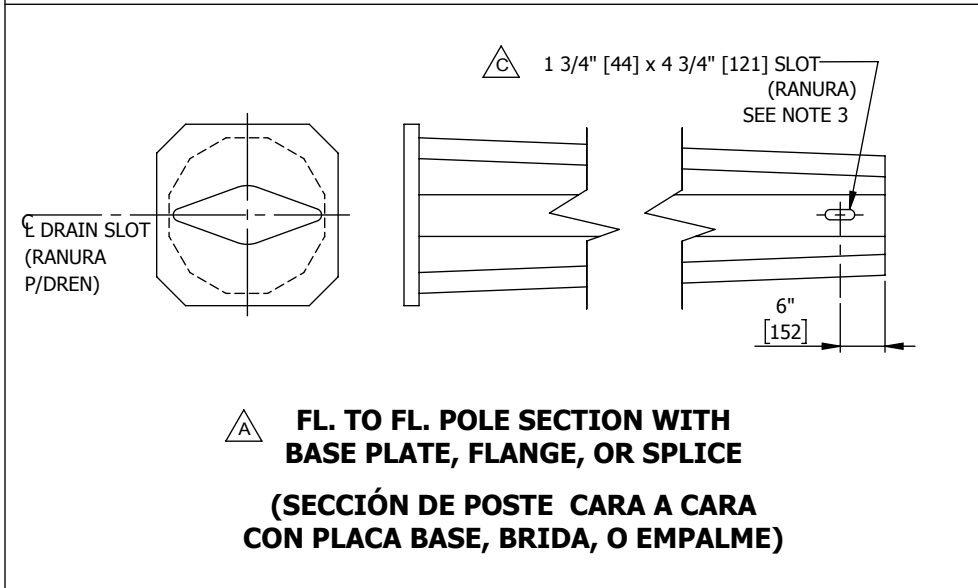
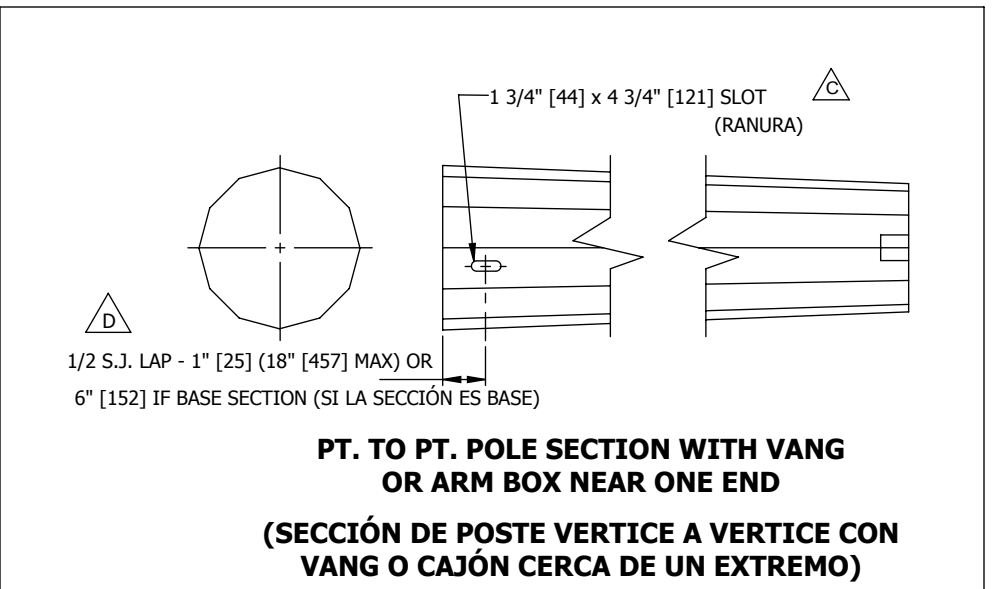
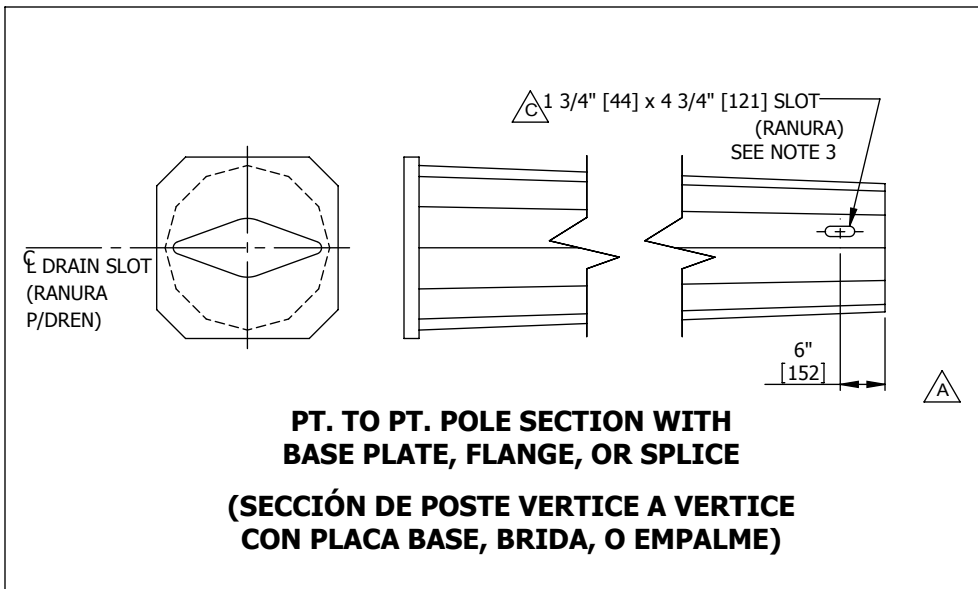
REV	DESCRIPTION	DRFT/DATE
Y	REVISED CONNECTION MATCH MARK BLOCKS	RB/02-18-19
T	REVISED NAME PLATE / ID TAG / WELD BEAD MATCH MARK REQUIREMENTS	RB/02-06-19
S	ADDED 12-SIDED ARM LONGSEAM ORIENTATION, UPDATED COMPANY NAME	WR/12-19-18

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

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

**MEYER**  
UTILITY STRUCTURES

GENERAL NOTES, ASSEMBLY  
AND ERECTION INFORMATION



NOTES:

1. LIFTING SLOT MAY ALSO BE USED TO AIDE IN ERECTION OF POLE.
2. LIFTING SLOTS ARE TO BE LOCATED ON BOTH SIDES OF POLE, 180° APART.
3. FOR POLE TOP DIAMETERS ≤11", LIFTING SLOT NEAR POLE TOP TO BE 1 1/2" [38] x 4" [102].

NOTAS:

1. LA RANURA DE IZAJE TAMBIÉN PUEDE UTILIZARSE PARA AYUDAR EN EL ENSAMBLE DEL POSTE.
2. LAS RANURAS DE IZAJE DEBEN UBICARSE EN AMBOS LADOS DEL POSTE, SEPARADOS 180°.
3. PARA DIAMETROS EN LA PUNTA DEL POSTE ≤11", LAS RANURAS DE IZAJE CERCANAS A LA PUNTA DEL POSTE SERAN DE 1 1/2" [38] x 4" [102].

E	UPDATE COMPANY NAME	WR/12-19-18
D	REVISE LIFTING SLOT LOCATION	WR/10-18-18
C	REV. SLOT SIZE, ADDED NOTE 4, SPANISH & METRIC	ST/11-29-17
REV	DESCRIPTION	DRFT/DATE

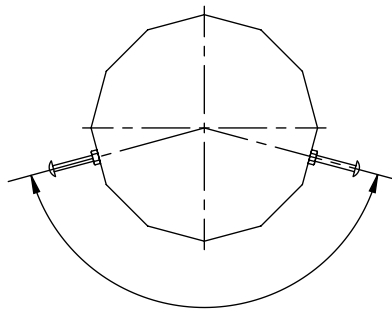
PROJECT:		
CUSTOMER:	Meyer Utility Structures	
CUSTOMER P.O. NO:		
JOB NO:	----	
DRAWN/DATE:	JRB	05/23/1994
CHECKED/DATE:	-	-
ENGINEER:		

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 2018 MEYER UTILITY STRUCTURES LLC, ALL RIGHTS RESERVED.

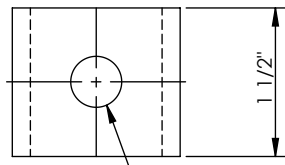
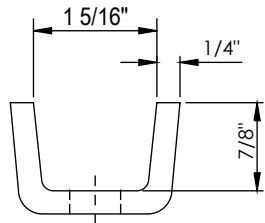
**MEYER**  
UTILITY STRUCTURES

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

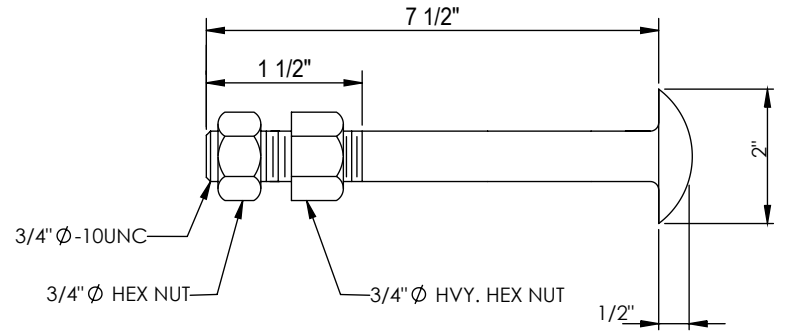




150° OR  
20" MAX. ARC

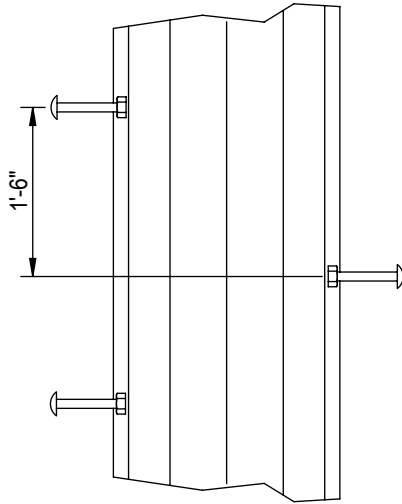


**STEP LUG**  
M.I.D. #78086 - ALL POLES

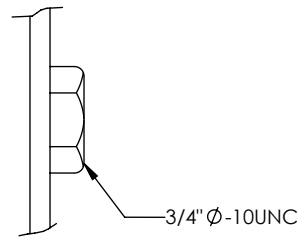


**STANDARD STEP BOLT**

M.I.D. #78320 - GALVANIZED AND PAINTED POLES  
M.I.D. #75031 - WEATHERING POLES

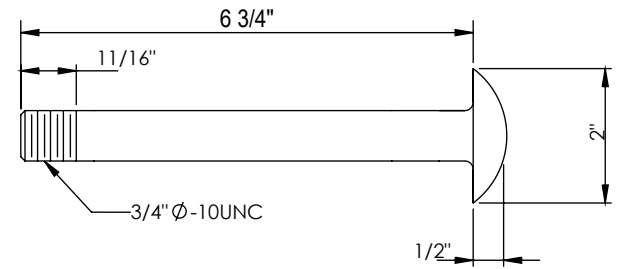


**TYPICAL STEP ORIENTATION**



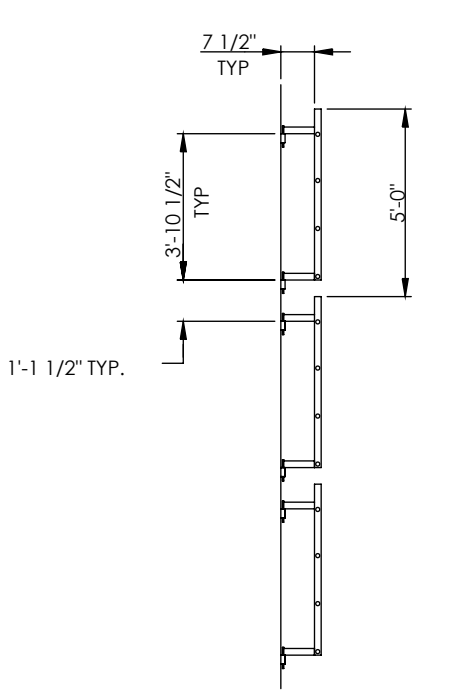
**STEPBOLT MOUNTING NUT**

M.I.D. #74137 - GALVANIZED AND PAINTED POLES  
M.I.D. #70677 - WEATHERING POLES

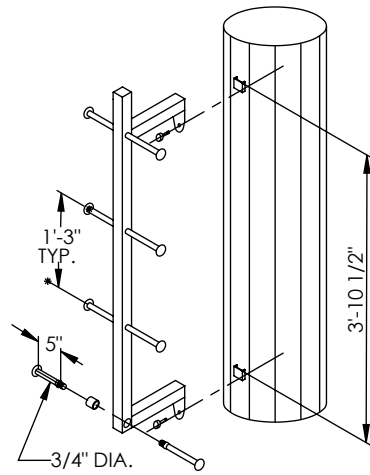


**SCREW TYPE STEPBOLT**

M.I.D. #70859 - GALVANIZED AND PAINTED POLES  
M.I.D. #70860 - WEATHERING POLES

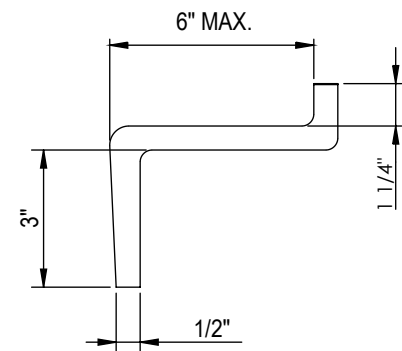


**TYPICAL LADDER SPACING**



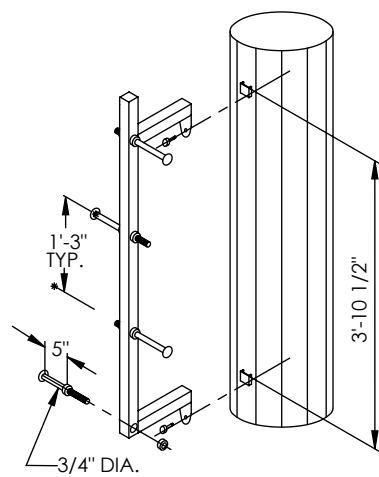
**WORKING LADDER**

M.I.D. #52540 - GALVANIZED AND PAINTED POLES



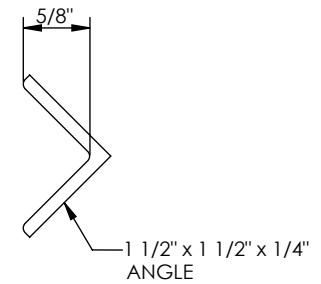
**REMOVABLE STEPBOLTS**

M.I.D. #71356 - GALVANIZED



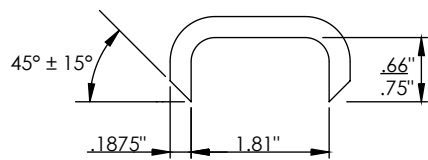
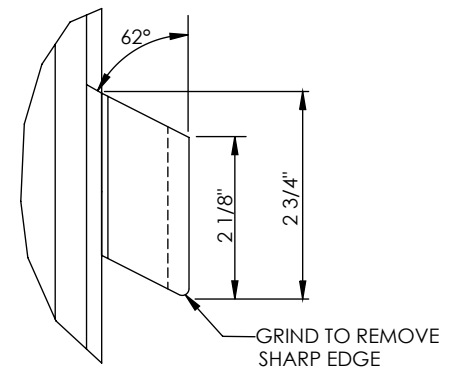
**CLIMBING LADDER**

M.I.D. #50921 - GALVANIZED AND PAINTED POLES



**REMOVABLE STEP LUG**

M.I.D. #52567 (ALL POLES)



**LADDER CLIP DETAIL**

M.I.D. #76266 (ALL POLES)

C	UPDATED COMPANY NAME	WR/12-21-18	CUSTOMER:
B	REVISE STEP LUG# FROM 79086 TO 78086	RW/8-1-12	CUSTOMER P.O. NO.:
A	RELEASED IN DBWORKS	NB/3-27-08	JOB NO.:
2	REVISED STANDARD STEP BOLT NUTS	JRB/7-1-97	DRAWN/DATE DH 1-30-95
1	REVISED FOR FINAL ISSUE	JRB/5-10-96	CHECKED/DATE:
REV.	DESCRIPTION	DRFT/DATE	ENGINEER:

**MEYER**  
UTILITY STRUCTURES

CLIMBING DEVICES

SHEET 1 OF 1

SSG008



**Geotechnical Testing Laboratory, Inc.**  
Engineering and Construction Materials Testing Services

January 3, 2019

**BHA, Inc.**  
9342 Lindale Avenue  
Baton Rouge, Louisiana 70815

Attention: Mr. Donovan Mapes

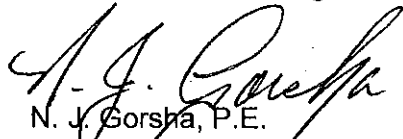
**RE: Geotechnical Investigation Services  
Electric Relocation  
Jackson Street @ Horseshoe Drive Roundabout  
Alexandria, Rapides Parish, Louisiana  
Report No. 12-18-193**

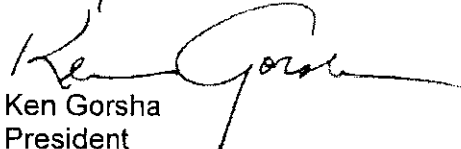
Dear Mr. Mapes:

**Geotechnical Testing Laboratory, Inc.** is pleased to submit this report of subsurface exploration for the above referenced project. Included in the report are the results of the exploration and recommendations concerning the design and construction of the foundations as well as general site development.

We appreciate the opportunity to have provided you with our geotechnical engineering services. If you have any questions concerning this report, or if we may be of further service, please contact our office.

Respectfully submitted,  
**Geotechnical Testing Laboratory, Inc.**

  
N. J. Gorsha, P.E.  
Louisiana Registration No. 20082

  
Ken Gorsha  
President



NJG/krq

Geotechnical Investigation Services  
**Electric Relocation**  
**Jackson Street @ Horseshoe Drive Roundabout**  
Alexandria, Rapides Parish, Louisiana  
Report No. 12-18-193

Prepared For:

**BHA, Inc.**  
9342 Lindale Avenue  
Baton Rouge, Louisiana 70815

Prepared By:

**Geotechnical Testing Laboratory, Inc.**  
226 Parkwood Drive  
Alexandria, Louisiana 71301

©January 2019

**TABLE OF CONTENTS**

**Introduction:**..... **1**  
    Project Authorization:..... 1  
    Project Description:..... 1

**Site Conditions:** ..... **2**  
    Subsurface Stratigraphy: ..... 2  
    Groundwater Conditions: ..... 2

**Foundation Recommendations:** ..... **3**  
    Foundation Subgrade Preparation: ..... 3  
    Drilled Shafts:..... 3  
    Drilled Shaft Considerations: ..... 3  
    Seismicity:..... 4  
    Safety Considerations:..... 4  
    Drainage: ..... 4  
    Weather Considerations: ..... 4  
    Groundwater Control:..... 5  
    Geotechnical Risk: ..... 5

**Limitations:**..... **5**

**APPENDICES**

- Appendix A – Field and Laboratory Procedures
- Appendix B – Plan of Borings
- Appendix C – Boring Logs and Soil Classification Chart

Geotechnical Investigation Services  
**Electric Relocation**  
**Jackson Street @ Horseshoe Drive Roundabout**  
 Alexandria, Rapides Parish, Louisiana  
 Report No. 12-18-193

**Introduction:**

This report transmits the findings of a geotechnical investigation performed for the above-referenced project. The purpose of this investigation was to define and evaluate the general subsurface conditions in the immediate vicinity of several relocated electrical poles. Specifically, the study was planned to determine the following:

- Subsurface stratigraphy within the limits of our exploratory borings.
- Classification, strength, and compressibility characteristics of the foundation strata.
- Suitable foundation systems and the estimated lateral displacements from the applied loads.

The purpose of this report is to provide the structural engineer and other design team professionals with recommendations for the design and construction of the proposed project. This report should not be used by the contractor in lieu of project plans and specifications.

**Project Authorization:**

Formal authorization to perform the work was provided by Mr. W. Brook Samuel, Vice-President of Engineering with BHA, Inc. (Client), by accepting our written proposal dated October 26, 2018. Written authorization to proceed was provided on October 29, 2018. Field procedures were conducted on December 18 and 19, 2018, and was delayed due to utility locates and accessibility. To accomplish the intended purposes, a three-phase study program was conducted which included:

- a field investigation consisting of four exploratory test borings with samples obtained at selected intervals;
- a lab testing program designed to evaluate the expansive and strength characteristics of the subsurface soils; and,
- an engineering analysis of the field and laboratory test data for foundation design recommendations.

No additional analysis was requested. A brief description of the field and laboratory test procedures are provided in the Appendix.

**Project Description:**

We understand the project will consist of installing several steel self-supporting poles for overhead power lines, each supported by a deep foundation system. The following structures were investigated for this study, with groundline reactions furnished by BHA, Inc.:

<b>Boring Number</b>	<b>Structure I.D.</b>	<b>Total Overturning Moment (ft-k)</b>	<b>Total Shear (kips)</b>	<b>Axial Load (kips)</b>
B-1	3-2R	241.79	7.16	2.53
B-2	3	915.22	22.61	17.18
B-3	3-1L	690.97	16.94	3.35
B-4	3-2L	366.66	10.35	5.93

We assume existing grades will remain essentially unchanged. If any grade changes are anticipated, these should be discussed with our geotechnical engineer prior to finalizing design.

If any of this information should change significantly or be in error, it should be brought to our attention so that we may review recommendations made in this report.

**Site Conditions:**

The project site is located at north and south of the intersection of Jackson Street, Lodi Road, Twin Bridges Road, and Horseshoe Drive in Alexandria, Rapides Parish, Louisiana. Based upon elevation data obtained from Google Earth, the site contains elevation differences of less than two (2) feet. At the time of drilling, the site was void of vegetation and contained crushed stone surfacing. The rig experienced no difficulty accessing the borings.

**Subsurface Stratigraphy:**

The subsurface conditions at the proposed relocated areas were explored by drilling a total of four (4) borings to a depth of approximately 40 feet. The borings were located in the field by the drilling crew as shown on the Plan of Borings included in the Appendix of this report.

The stratification of the soils encountered during field drilling operations is presented on the boring logs in the Appendix. The stratification of the subsurface materials shown on the boring logs represents the subsurface conditions encountered at the actual boring locations and variations may occur across the site. The lines of demarcation represent the approximate boundary between the soil types, but the actual transition may be gradual. The following subsurface descriptions are of a generalized nature to highlight the major stratification features. The boring logs should be reviewed for more detailed information.

In order of increasing depth, the borings generally encountered the following soil strata beneath the surface: silty sand (SM), slightly clayey silt (CL-ML), lean clay (CL), fat clay (CH), slightly clayey sandy silt (CL-ML)s and silty sand (SM) to sandy silt (ML)s.

**Groundwater Conditions:**

Seepage was observed at a depth of 13 feet during advancement of the test borings. Groundwater was measured at depths of nine (9) to 11 feet below existing ground surface upon completion of the borings. These levels are not expected to impact shallow excavations during construction, but the subsurface water regime is always subject to change with variations in climatic conditions and will likely coincide seasonal fluctuations. Future construction activities may also alter the surface and/or subsurface drainage patterns of this site. Therefore, groundwater conditions should be explored at the start of construction by others due to short-term observations by our field crew.

Perched water may be briefly encountered in low quantities during earthwork and is typically due to storage of recent rainfall or by a barrier to capillary evaporation. Where perched water is encountered the contractor should expect to excavate gravity drainage ditches to divert it away from the construction area. The depth of the ditches should be at least two (2) to three (3) feet deeper than the lowest exterior footing elevation. Additionally, soft, wet and pumpable soils can be expected below perched water tables. In structural areas, these should be removed to firm ground and replaced with select fill soils compacted to project specifications as defined later in this report.

**Foundation Recommendations:**

Based on the size and type of structure, as well as the findings from this investigation, it is our opinion that the proposed poles may be supported on a single drilled shaft founded at a depth which would provide sufficient resistance to axial, lateral and moment loads. Our recommendations for this type of foundation are summarized herein.

**Foundation Subgrade Preparation:**

To prepare for foundation construction, we recommend that all topsoil, vegetation, roots, and any soft soils in the construction area be stripped from the site and properly disposed. Utilities, if present, should be located and rerouted as necessary.

**Drilled Shafts:**

Loads for the poles may be resisted by drilled, straight-sided, cast-in-place concrete shafts. The presence of loose sands precludes the use of underreamed shafts on this project. The shafts should be founded at a minimum depth of 35 feet and should not extend below a depth of 40 feet below the existing ground surface. Groundwater will be encountered in the drilled shafts, and it is prudent for contract documents to include options to install the shafts using casing or the slurry method.

Based on having an estimated pole base diameter of 24 to 42 inches, the diameters of the drilled shafts for our analysis vary from 36 inches to 54 inches. If desired, lateral capacities for shafts with diameters other than those shown below can be provided in a supplemental report.

Considering the loading criteria provided by the Client, the overturning moment will be the main factor in determining the shaft dimensions. We have modeled the site conditions in L-Pile and have performed a lateral analysis on various diameter shafts founded at a depth of 35 feet and carrying the estimated loads presented earlier in this report. The analysis assumed that the steel reinforcement will be not less than one (1) percent of the total cross-sectional area of the shaft. The analysis was performed to determine the shaft diameters and depths that would result in estimated shaft head lateral displacements of ½ and one (1) inch. The following table summarizes the results of our analysis.

<u>Structure I.D.</u>	<u>Diameter of Shaft (inches)</u>	<u>Depth of Shaft (feet)</u>	<u>Estimated Lateral Deflection (inches)</u>
3-2R	36	35	½
	36	30	1.0
3	48	35	½
	54	35	1.0
3-1L	54	30	½
	48	30	1.0
3-3L	42	30	½
	36	25	1.0

**Drilled Shaft Considerations:**

Due to the presence of a shallow groundwater table with a hydrostatic head, consideration should be given to installing the drilled shaft using a slurry method which maintains a constant slurry level equal to or slightly above the hydrostatic water level. If the shafts can be sealed from water intrusion using casing, the slurry option may be eliminated.

It is recommended that the design and construction of drilled shaft should generally follow methods outlined in the manual titled Drilled Shafts: Construction Procedures and Design Methods (Publication No: FHWA-IF-99-025, August 1999).

We emphasize that close engineering supervision is essential during installation of the drilled shaft foundation in order to assure that construction is performed in accordance with the plans and specifications. Also, to insure proper construction of the drilled shaft at this site, close coordination between the drilling and concreting operations is considered to be of great importance. Detailed inspection of drilled shaft construction should be made to verify that the shaft is vertical and founded in the proper bearing stratum and to verify that all loose materials have been removed prior to concrete placement.

**Seismicity:**

Based on Section 1613 of the IBC-2012, a Site Class of E has been estimated for this site due to the lack of subsurface information to a depth of 100 feet. According to the USGS website for Seismic Hazard Design Parameters, the project site has a mapped 0.2 second spectral response acceleration ( $S_s$ ) of 0.109 g. The project also has a mapped 1.0 second spectral response acceleration ( $S_1$ ) of 0.062. The design spectral response accelerations,  $S_{DS}$  and  $S_{DI}$ , were determined to be 0.182 g and 0.144 g, respectively. Based on Tables 1613.3.5(1) and 1613.3.5(2), the site has an assigned Seismic Design Category of C for structures classified as Risk Categories I, II, and III. For structures classified as Risk Category IV, site has an assigned Seismic Design Category of D.

The presence of very loose sands below the water table results in a high potential for liquefaction to occur.

**Safety Considerations:**

Prior to the commencement of construction, the owner and the contractor should make themselves aware of and become familiar with applicable local, state, and federal safety regulations, including the current Occupational Safety and Health Association (OSHA) Excavation and Trench Safety Standards. Construction site safety generally is the sole responsibility of the contractor, who shall also be solely responsible for the means, methods, and sequencing of construction operations. We are providing this information solely as a service to our client. Under no circumstances should the information provided herein be construed that GTL is assuming responsibility for construction site safety of the contractor's activities. Such responsibility is not being implied and should not be inferred.

**Drainage:**

Water should not be allowed to collect near the foundations either during or after construction. Undercut or excavated areas should be sloped toward a sump area to facilitate removal of any collected groundwater or surface runoff. Proper drainage should be provided by sloping the ground surface away from the towers.

**Weather Considerations:**

The soils encountered in the surficial zone at this site are expected to be relatively sensitive to disturbances caused by construction traffic when wet. The contractor should be aware of the importance of proper maintenance of surface drainage.

If construction is performed during wet conditions, work platforms can be created for earthwork by mixing fly ash, hydrated lime, cement, or combinations of these additives. Quick lime may also be used in areas where dusting is of concern, if proper worker safety considerations are



observed. Pumping subgrades are possible at the site and it is recommended that bid documents incorporate this possibility into the bid schedule.

**Groundwater Control:**

Due to potential variations in groundwater levels, difficulty during excavation and construction of the proposed foundation is possible. Shallow groundwater was encountered at this site, and it is reasonable to anticipate that groundwater conditions may vary as noted previously. It is suggested that contract documents address the need for maintaining controls to preclude water from draining into excavations. Some dewatering through shaping of work areas to shed water, and construction of temporary ditches with sumps and pumping may be necessary to remove the loose soils and allow placement of imported select fill in a dry manner. Excavated soils intended for re-use as select fill may require special methods in order to dry the soil to a suitable moisture content prior to re-placing the soil as select fill.

**Geotechnical Risk:**

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. The analytical tools which geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free and, more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as planned. The engineering recommendations presented in the preceding sections constitutes GTL's professional estimate of those measures that are necessary for the proposed structure to perform according to the proposed design based on the information generated and referenced during this evaluation, and GTL's experience in working with these conditions.

**Limitations:**

The exploration and analysis of the conditions reported herein are considered sufficient in detail and scope to form a reasonable basis for the foundation design. The recommendations submitted are based on the available soil information and preliminary design details furnished for the proposed project. Any revision of the plans for the proposed facility from those enumerated in this report should be brought to our attention so that we may determine if changes in the foundation recommendations are required. If deviations from the noted subsurface conditions are encountered during construction, GTL should be retained to determine if changes in foundation recommendations are required. If GTL is not retained to perform these functions, we will not be responsible for the performance of the structure.

The findings, recommendations, specifications, or professional advice contained herein have been made after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics, and engineering geology. No other warranties are implied or expressed.

The scope of services did not include any environmental assessment for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site. Any statements in this report or on the boring logs regarding odors, colors, or unusual or suspicious items or conditions are strictly for the information of the client. Prior to purchase or development of this site, an environmental assessment is advisable.

The scope of services did not include a geologic investigation to address any faults, large scale subsidence, or other macro geologic features not specifically addressed in this report or the agreement between GTL and the client.

This report has been prepared for the exclusive use of our client for the specific application to the referenced project. GTL cannot be responsible for interpretations, opinions, or recommendations made by others based on the data contained in this report.

This report was prepared for design purposes only and may not be sufficient for purposes of preparing an accurate bid for construction. Contractors reviewing this report are advised that the discussions and recommendations contained herein were provided exclusively to and for use by the project owner.

**END OF REPORT TEXT**

SEE FOLLOWING APPENDIX w/BORING LOGS & TEST RESULTS

**APPENDIX A**

**FIELD AND LABORATORY PROCEDURES**

Field and Laboratory Procedures  
**Electric Relocation**  
**Jackson Street @ Horseshoe Drive Round-About**  
Alexandria, Rapides Parish, Louisiana  
Report Number 12-18-193

**I. Field Operations:**

Subsurface conditions were evaluated by advancing four (4) intermittent sample borings on December 18<sup>th</sup> and 19<sup>th</sup>, 2018 within the project area. Boring locations were selected and staked in the field by representatives of the Client. An illustration of the approximate boring locations with respect to the areas investigated is provided on the Plan of Borings in the Appendix of this report. Descriptive terms and symbols used on the logs are in accordance with the Unified Soil Classification System.

Access to the substrata at all borings B-2 and B-3 were obtained using a diamond-studded core barrel to remove the concrete. A track-mounted all-terrain rotary drill rig was used to make the test borings. Each boring was advanced in the dry using flight auger drilling techniques. Intermittent undisturbed samples were obtained in the following manner.

Standard penetration tests were performed in accordance with ASTM D-1586 procedures. This test is conducted by recording the number of blows required for a 140-pound hammer falling 30 inches to drive a split-spoon sampler eighteen inches into the substrata. Depths at which split-spoon samples were taken are indicated by two crossed lines in the "Samples" column on the Log of Boring. The number of blows required to drive the sampler for each 6-inch increment were recorded. The penetration resistance is the number of blows required to drive the split-spoon sampler the final 12-inches of penetration. Information related to the penetration resistance is presented under the "Field Data" heading of the Log of Boring as the Standard Penetration (Blows/Foot). These samples were visually examined, logged, and packaged for transport to our laboratory.

The presence of ground water was monitored during drilling operations. Initial water seepage readings are provided under "Groundwater Information" in the right hand column of the Log of Boring. Upon boring completion, water levels were allowed to rise and stabilize for several minutes prior to final water readings. These readings are found under "Groundwater Information". Soil sloughing from the walls of the boring are also recorded here as depth of cave-in.

**II. Laboratory Studies:**

Upon return to the laboratory, all samples were visually examined and representative samples were selected for testing. Tests were performed on selected samples recovered from the test borings to verify classification and to determine pertinent engineering properties of the substrata. Individual test and ASTM designations are provided below:

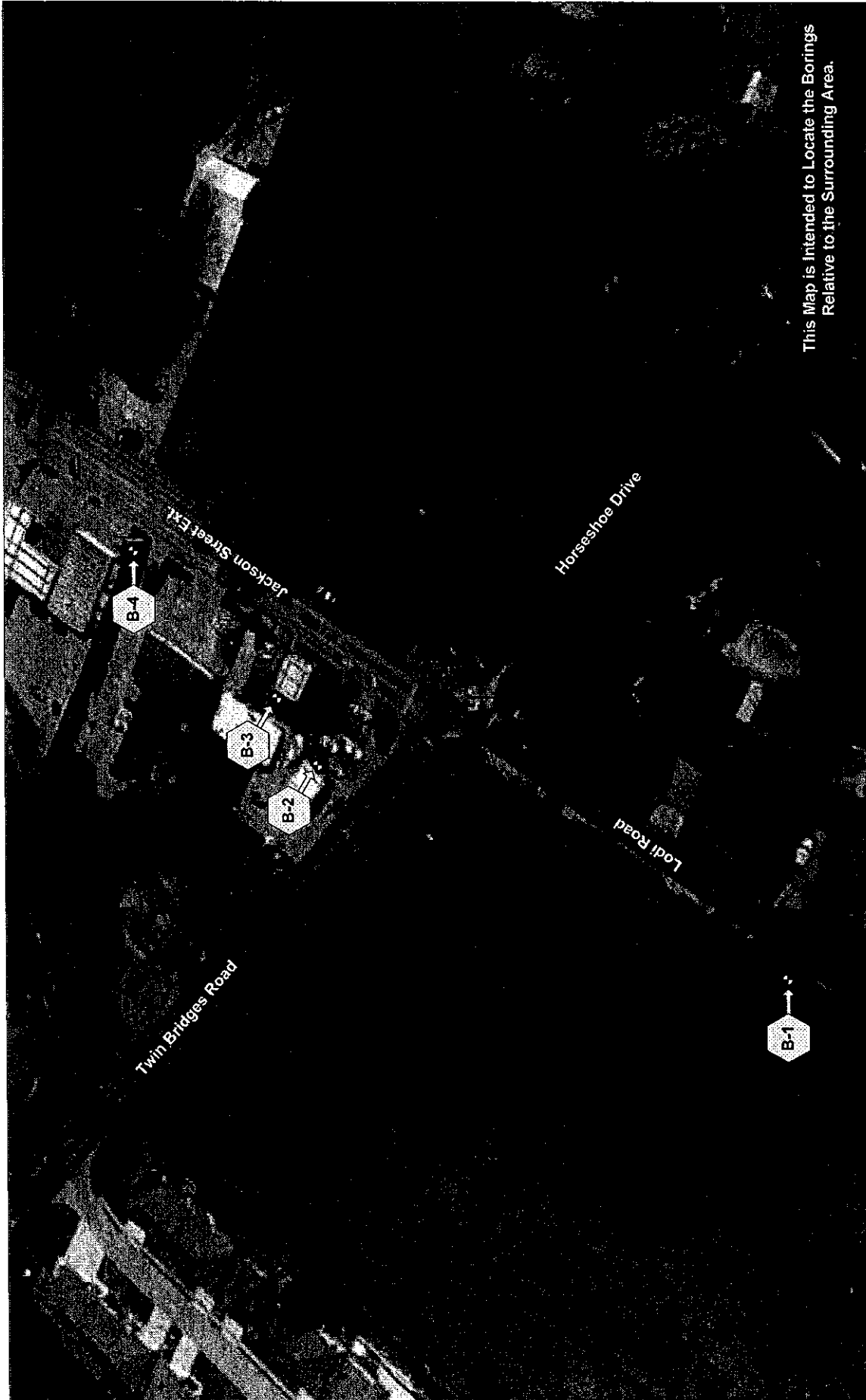
Test	ASTM Designations
Atterberg Limits	ASTM D4318
Moisture Content	ASTM D2216
Percent Minus #200	ASTM D1140

Results for soil classifications are located on the Log of Boring in their respective columns under "Laboratory Data."

Samples obtained during our field studies and not consumed by laboratory testing procedures will be retained free of charge for a period of 30 days. Arrangements for storage beyond that period of time must be made in writing to ***Geotechnical Testing Laboratory, Inc.***

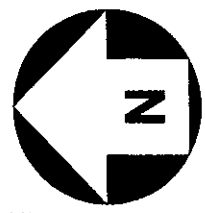
**APPENDIX B**

**PLAN OF BORINGS**



This Map is Intended to Locate the Borings  
Relative to the Surrounding Area.

# Plan of Borings



PROJECT

Electric Relocation, Jackson Street @ Horseshoe Drive Round-About, Alexandria, Rapides Parish, Louisiana

SCALE

Not to Scale

DATE

12/18/18

FILENAME

12-18-193

**BHA, Inc.**

**APPENDIX C**

**BORING LOGS AND SOIL CLASSIFICATION CHART**



# LOG OF BORING B-1

SHEET 1 of 1



**Geotechnical Testing Laboratory, Inc.**  
 226 Parkwood Drive  
 Alexandria, LA 71301  
 Telephone: (318) 443-7429

CLIENT: **BHA, Inc.**  
 PROJECT: **Electric Relocation**  
 LOCATION: **Alexandria, Rapides Parish, Louisiana**  
 FILE NO.: **12-18-193**  
 DRILL DATE: **12/18/18**

FIELD DATA				LABORATORY DATA						DRILLING METHOD(S): Diedrich D-50, 4.5" I.D. Hollow Stem Auger	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS			MINUS NO. 200 SIEVE (%)	DRY DENSITY (lbs./Cu.Ft.)	COMPRESSIVE STRENGTH (lb./Sq. Ft.)	DRILLER: <b>R. Leggett</b> CHECKED BY: <b>K. Gorsha</b>
					LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)				
				24							GROUNDWATER INFORMATION: Water Seepage Noted @ 13.0 Feet Water Level @ 10 Feet Upon Completion Boring Walls Collapsed @ 13.0 Feet
				28	27	21	6	98			SURFACE ELEVATION: <b>Not Determined</b>
				30							<b>DESCRIPTION OF STRATUM</b>
				32	43	22	21	98			Yellowish Brown Silty SAND (SM) over Very Loose Yellowish Brown, Slightly Clayey, SILT (CL-ML) <span style="float: right;">2.5'</span>
	5	N = 3		30							Soft Yellowish Brown LEAN CLAY (CL) <span style="float: right;">6.0'</span>
				30							Soft Yellowish Brown & Gray FAT CLAY (CH)
	10	P = 0.75		26	61	24	37	98	91	1123	- firm @ 9.0 feet <span style="float: right;">12.0'</span>
				28							Very Soft Yellowish Brown & Gray LEAN CLAY (CL) <span style="float: right;">17.0'</span>
	15	N = 2		28							
				29	NP	NP	NP	29			Very Loose Yellowish Brown Silty SAND (SM)
	20	N = 2		25							
	25	N = 2		28							- loose below 29.0 feet
	30	N = 7		28	NP	NP	NP	26			
	35	N = 3		24							
	40	N = 5									Boring Terminated @ 40.0 Feet <span style="float: right;">40.0'</span>

GTL LOG - LOG A GNNL01.GDT - 12/23/18 05:31 - H:\GINT PROJECTS\2018 JOBS\12-18-193.GPJ

N - STANDARD PENETRATION TEST RESISTANCE  
 P - POCKET PENETROMETER RESISTANCE

NOTES:  
 Boring Drilled @ Pole # 3-2R  
 See Plan of Borings for Location  
 Stratification and Groundwater Depths Are Not Exact

# LOG OF BORING B-2



**Geotechnical Testing Laboratory, Inc.**  
 226 Parkwood Drive  
 Alexandria, LA 71301  
 Telephone: (318) 443-7429

CLIENT: BHA, Inc.  
 PROJECT: Electric Relocation  
 LOCATION: Alexandria, Rapides Parish, Louisiana  
 FILE NO.: 12-18-193  
 DRILL DATE: 12/18/18

FIELD DATA				LABORATORY DATA					DRILLING METHOD(S): Diedrich D-50, 4.5" I.D. Hollow Stem Auger			
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS			MINUS NO. 200 SIEVE (%)	DRY DENSITY (Lbs./Cu.Ft.)	COMPRESSIVE STRENGTH (Lb./Sq. Ft.)		
					LL	PL	PI					
	0											
	5	N = 19 N = 17 N = 4		20 22 27								
											±5.75" of Portland Cement Concrete over Very Stiff Yellowish Brown LEAN CLAY (CL)	
											- firm @ 4.0 feet	
											5.0'	
			P = 1.00 P = 1.75		39 25	70	26	44	98	80	1894	Firm Yellowish Brown FAT CLAY (CH)
												- stiff @ 8.0 feet
												9.0'
		10	N = 6		25	31	20	11	95			Firm Yellowish Brown LEAN CLAY (CL)
												13.0'
	15	N = 2		29							Very Loose Yellowish Brown, Slightly Clayey, Sandy SILT (CL-ML)s	
	20	N = 2		28	26	19	7	62				
	25	N = 2		28								
	30	N = 2		28							Very Loose Yellowish Brown Silty SAND (SM)	
	35	N = 2		28	NP	NP	NP	38				
	40	N = 7		29							- loose @ 39.0 feet	
											40.0'	
											Boring Terminated @ 40.0 Feet	

**NOTES:**  
 Boring Drilled @ Pole # 3  
 See Plan of Borings for Location  
 Stratification and Groundwater Depths Are Not Exact

GTL\_LOG - LOG A\_GNNL01.GDT - 12/23/18 05:31 - H:\GINT PROJECTS\2018 JOBS\12-18-193.GPJ

N - STANDARD PENETRATION TEST RESISTANCE  
 P - POCKET PENETROMETER RESISTANCE

# LOG OF BORING B-3



**Geotechnical Testing Laboratory, Inc.**  
 226 Parkwood Drive  
 Alexandria, LA 71301  
 Telephone: (318) 443-7429

CLIENT: BHA, Inc.  
 PROJECT: Electric Relocation  
 LOCATION: Alexandria, Rapides Parish, Louisiana  
 FILE NO.: 12-18-193  
 DRILL DATE: 12/19/18

FIELD DATA				LABORATORY DATA						DRILLING METHOD(S): Diedrich D-50, 4.5" I.D. Hollow Stem Auger		
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS			MINUS NO. 200 SIEVE (%)	DRY DENSITY (Lbs./Cu.Ft.)	COMPRESSIVE STRENGTH (Lb./Sq. Ft.)	DRILLER: R. Leggett	CHECKED BY: K. Gorsha
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				GROUNDWATER INFORMATION: Water Seepage Noted @ 13.0 Feet Water Level @ 10.0 Feet Upon Completion Boring Walls Collapsed @ 20.0 Feet	
					LL	PL	PI				SURFACE ELEVATION: Not Determined	
DESCRIPTION OF STRATUM												
			N = 14	22							±5.75" of Portland Cement Concrete over Medium Dense Yellowish Brown Silty SAND (SM)	3.5'
			N = 12	28	NP	NP	NP	39				
	5		N = 4	35							Firm Yellowish Brown FAT CLAY (CH)	
			P = 0.75	34	59	23	36	97	81	1216		
			P = 1.75	25					95	2793	- stiff, yellowish brown & gray @ 8.0 feet	
	10		N = 6	26							- firm @ 9.5 feet	12.0'
											Loose Yellowish Brown Silty SAND (SM) to Sandy SILT (ML)s	
	15		N = 3	30	NP	NP	NP	51				
	20		N = 1	26							- very loose @ 19.0 feet	
	25		N = 4	27							- loose below 24.0 feet	
	30		N = 5	28	NP	NP	NP	52				
	35		N = 4	27								
	40		N = 6	28								40.0'
Boring Terminated @ 40.0 Feet												

GTL LOG - LOG A GNNI01.GDT - 12/23/18 05:32 - H:\GINT PROJECTS\2018 JOBS\12-18-193.GPJ

N - STANDARD PENETRATION TEST RESISTANCE  
 P - POCKET PENETROMETER RESISTANCE

NOTES:  
 Boring Drilled @ Pole # 3-1L  
 See Plan of Borings for Location  
 Stratification and Groundwater Depths Are Not Exact

# LOG OF BORING B-4



**Geotechnical Testing Laboratory, Inc.**  
 226 Parkwood Drive  
 Alexandria, LA 71301  
 Telephone: (318) 443-7429

CLIENT: BHA, Inc.  
 PROJECT: Electric Relocation  
 LOCATION: Alexandria, Rapides Parish, Louisiana  
 FILE NO.: 12-18-193  
 DRILL DATE: 12/19/18



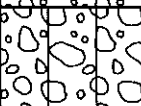
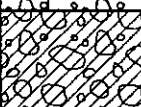
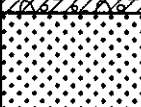
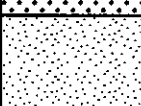
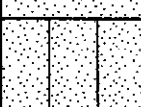
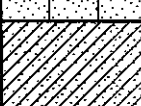





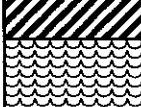
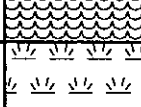
FIELD DATA				LABORATORY DATA						DRILLING METHOD(S): Diedrich D-50, 4.5" I.D. Hollow Stem Auger	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS			MINUS NO. 200 SIEVE (%)	DRY DENSITY (Lbs./Cu.Ft.)	COMPRESSIVE STRENGTH (Lb./Sq. Ft.)	DRILLER: R. Leggett CHECKED BY: K. Gorsha
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
					LL	PL	PI				
											GROUNDWATER INFORMATION: Water Seepage Noted @ 13.0 Feet Water Level @ 9.0 Feet Upon Completion Boring Walls Collapsed @ 11.0 Feet
											SURFACE ELEVATION: Not Determined
											<b>DESCRIPTION OF STRATUM</b>
											Loose Yellowish Brown Sandy SILT (ML)s - w/clayey silt (CL-ML) traces below 2.0 feet <span style="float: right;">3.5'</span>
	5	N = 8 N = 9 N = 5 P = 1.00 N = 6 N = 4		25 31 37 43 39 29	NP NP NP 70 NP NP	NP NP NP 26 NP NP	NP NP NP 44 NP NP	58 58 58 99 58 29		77 1450	Firm Yellowish Brown FAT CLAY (CH) - yellowish brown & gray below 6.0 feet <span style="float: right;">12.0'</span>
	10										Very Loose Yellowish Brown Sandy SILT (ML)s
	15	N = 2		31	NP	NP	NP	69			
	20	N = 1		29							
	25	N = 3		28	NP	NP	NP	56			- loose @ 24.0 feet
	30	N = 1		29							- very loose @ 29.0 feet <span style="float: right;">32.0'</span>
	35	N = 3		27	NP	NP	NP	50			Loose Yellowish Brown Silty SAND (SM) to Sandy SILT (ML)s
	40	N = 3		30							<span style="float: right;">40.0'</span> Boring Terminated @ 40.0 Feet

GTL LOG - LOS A.GNLL01.GDT - 12/23/18 05:32 - HIGINT PROJECTS\2018 JOBS\12-18-193.GPJ

N - STANDARD PENETRATION TEST RESISTANCE  
 P - POCKET PENETROMETER RESISTANCE

NOTES:  
 Boring Drilled @ Pole # 3-3L  
 See Plan of Borings for Location  
 Stratification and Groundwater Depths Are Not Exact

# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p><b>COARSE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p><b>GRAVEL AND GRAVELLY SOILS</b></p> <p>(LITTLE OR NO FINES)</p>	CLEAN GRAVELS		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		(LITTLE OR NO FINES)		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		(APPRECIABLE AMOUNT OF FINES)		<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<p><b>SAND AND SANDY SOILS</b></p> <p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
			(LITTLE OR NO FINES)		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		<p><b>SANDS WITH FINES</b></p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES	
				<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES	
			<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT LESS THAN 50</p>		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT GREATER THAN 50</p>		<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY			
		<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS			
		<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY			
<p><b>HIGHLY ORGANIC SOILS</b></p>		<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS			
		<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS			

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS