GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUÅHAN
P.O.BOX 2977 • HAGÅTÑA, GUAM U.S.A. 96932-2977

To All Interested Parties:

The Guam Power Authority, Procurement Office will continue its efforts with improvement towards accountability, transparency, and efficiency to better serve GPA personnel, prospective bidders, and guests, please be advised of the following:

1. Virtual meetings and/or conferences will be coordinated through the GPA Procurement Division.
2. For In-Person meetings and/or conferences:
   a. Please contact our office for scheduled hand delivery of Sealed Bid submission on or before scheduled Opening/Closing date and time with confirmation via:
      Tel: (671) 648-3054/5 and/or (671) 648-3045
      Email: GPA-Interested-Parties@gpagwa.com
   b. Face masks and social distancing may be employed at the option of the individual.

COMPANY NAME: REPRESENTATIVE NAME:

_____ _____
Print / Sign Date

BID NO.: GPA-007-24

RFP NO.: _____

JOSEPH T. DUENAS
Chairman

JOHN M. BENAVENTE, P.E.
General Manager

Telephone Nos. (671) 648-3054/55 or Facsimile (671) 648-3165

Accountability · Impartiality · Competence · **Openness** · Value

INVITATION FOR BID (IFB) NO.: GPA-007-24
DESCRIPTION: CONCRETE POLES, 45 FOOT, CLASS B

SPECIAL REMINDERS TO PROSPECTIVE BIDDERS

Bidders are reminded to read the Sealed Bid Solicitation and Instructions, and General Terms and Conditions attached to the IFB to ascertain that all of the following requirements checked below are submitted in the bid envelope, one (1) original, two (2) copies, at the date and time for bid opening. All sealed proposal submissions must be hand delivered, delivered by mail, or delivered by other courier service to:

ISSUING OFFICE:

Guam Power Authority-Procurement Office
1st. Floor, Room 101
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

(XX) BID GUARANTEE – (15%) May be in the form of;
Reference #11 on the General Terms and Conditions

a. Cashier's Check or Certified Check (NOTE: Cashier's Check or Certified Check Refunds will be ONLY be made out to the name of the Bidder.)
b. Letter of Credit or
c. Surety Bond – Valid only if accompanied by:
   1. Current Certificate of Authority issued by the Insurance Commissioner; or
   2. Power of Attorney issued by the Surety to the Resident General Agent or the following:
      a. Current Sworn Annual Report (Limited Liability Company (LLC) and/or Corporation) or;
      b. Current Renewal of Annual Limited Liability Partnership (LLP); or
   3. Power of Attorney issued by two (2) major officers of the Surety to whomever is signing on their behalf.

( ) STATEMENT OF QUALIFICATION;
( ) SAMPLES;
(XX) BROCHURES/DESCRIPTIVE LITERATURE; (Shall provide detailed literature on items offered)
(XX) OWNERSHIP AND INTEREST DISCLOSURE AFFIDAVIT; *Pursuant to Public Law 36-13*
(XX) NON-COLLUSION AFFIDAVIT; *Pursuant to Public Law 36-13*
(XX) NO GRATUITIES OR KICKBACKS AFFIDAVIT;
(XX) ETHICAL STANDARDS AFFIDAVIT;
(XX) WAGE DETERMINATION AFFIDAVIT;
(XX) RESTRICTIONS AGAINST SEX OFFENDERS AFFIDAVIT;
(XX) CONTINGENT FEES AFFIDAVIT

Note: The above Affidavits must comply with the following requirements:

a. The affidavit must be signed within 60 days of the date the bid is due;
b. Date of signature of the person authorized to sign the bid and the notary date must be the same.
c. First time affidavit must be an original – If copy, indicate Bid Number/Agency where original can be obtained.

(XX) OTHER REQUIREMENTS:
A Guam Business License and/or Contractor's License with proof of Employer Identification Number (EIN) is not required in order to provide a proposal for this engagement, but is a pre-condition for entering into a contract with the Authority.

The reminder must be signed and returned in the bid envelope together with the bid. Failure to comply with the above requirements will mean a disqualification and rejection of the bid.

On this _____ day of _____2023, I,_____, authorized representative of _____ acknowledge receipt of this special reminder to prospective bidders with the above referenced IFB.

_____
Bidder Representative's Signature

INVITATION FOR BID

ISSUING OFFICE:
Guam Power Authority-Procurement Office
1st. Floor, Room 101
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

Attn: JOHN M. BENAVENTE, P.E.
General Manager
c/o JAMIE LYNN C. PANGELINAN
Supply Management Administrator

10/18/2023
for JOHN M. BENAVENTE, P.E. DATE
General Manager

DATE ISSUED: 12/12/2023
12/14/2023

BID INVITATION NO.: GPA-007-24

BID FOR: CONCRETE POLES, 45 FOOT, CLASS B

SPECIFICATION: SEE ATTACHED

DESTINATION: SEE ATTACHED

REQUIRED DELIVERY TIME: 8 WEEKS FOR PRODUCTION AFTER ACCEPTANCE OF PURCHASE ORDER
8 WEEKS AFTER ACCEPTANCE TESTING

INSTRUCTIONS TO BIDDERS:
INDICATE WHETHER: _____ INDIVIDUAL _____ PARTNERSHIP _____ CORPORATION

INCORPORATED IN: _____

This bid shall be submitted in duplicate and sealed to the issuing office above no later than (Time) 10:00 A.M., Date: 12/27/2023 and shall be publicly opened. Bid submitted after the time and date specified above shall be rejected. See attached General Terms and Conditions and Sealed Bid Solicitation for details.

The undersigned offers and agrees to furnish within the time specified, the articles and services at the price stated opposite the respective items listed on the schedule provided, unless otherwise specified by the bidder. In consideration to the expense of the Government in opening, tabulating, and evaluating this and other bids, and other considerations, the undersigned agrees that this bid remain firm and irrevocable within one hundred twenty (120) calendar days from the date opening to supply any or all of the items which prices are quoted.

NAME AND ADDRESS OF BIDDER:

SIGNATURE AND TITLE OF PERSON AUTHORIZED TO SIGN THIS BID:

AWARD: CONTRACT NO.: _____ AMOUNT: _____ DATE: _____

ITEM NO(S). AWARDED: _____

CONTRACTING OFFICER:

JOHN M. BENAVENTE, P.E. DATE
General Manager

NAME AND ADDRESS OF CONTRACTOR:

SIGNATURE AND TITLE OF PERSON

INVITATION FOR BID NO.: GPA-007-24
Requisition No.: 38105

NO.	DESCRIPTION	QTY:	U/I:	UNIT PRICE:	TOTAL PRICE:
1.0	Pole, Concrete, 45 Foot, Class B	150	Each	$_____	$_____

Comply | Non Comply

Comply must be identified below.
All deviations must be identified below.

A. REQUIREMENTS:

A.1 - Each pole shall bear an indented birthmark located 5 feet above the ground hole and in line with the center of gravity mark and ground hole. This birthmark shall include the following:

a. Suppliers Identity Mark	_____	_____
b. Month and Year of Manufacture	_____	_____
c. Pole Height	_____	_____
d. Pole Class	_____	_____
e. Batch or Lot Number Identification	_____	_____
f. Pole Index Number	_____	_____

A.2 - The birthmark shall be 2-inch diameter white porcelain tile by 1/4-inch thick with blue lettering, embedded in the pole and flush with exterior surface. Substitute of stenciling or similar methods of marking for indent birthmark is NOT acceptable and shall be cause for rejection. Suppliers shall obtain approval of their marking methods. _____ _____

A.3 - The supplier shall also provide a mark indicating the longitudinal center of gravity of each pole and lifting mark for erection. The center of gravity mark shall be 3/4-inch diameter red porcelain tile by 1/4-inch thick embedded in the pole and flush with exterior surface. _____ _____

A.4 - Structural calculations and other submitted data as specified in E-035, Revision 2 must be submitted to GPA Engineering Prior to pole fabrication. Bidder shall provide a statement of compliance with GPA-035, Revision 2 in the bid proposal. Bidder must also provide a statement in the bid proposal that all submittals and design calculations sealed by a Professional Engineer shall be provided to and approved by GPA Engineering prior to manufacture of poles. GPA Engineering shall also conduct pole testing prior to acceptance and delivery. _____ _____

A.5 - Final pole acceptance shall be in compliance with the bending and breaking test criteria outlined in GPA SP-135. _____ _____

A.6 - Bidder shall also be responsible for airfare expenses, ground transportation, hotel lodging and meals for two (2) GPA Representatives. _____ _____

As per GPA Specifications No.: E-035, Revision 2
GPA Index No.: SSOP1106

APPROVED EQUAL TO OR BETTER

All deviations shall be identified referencing the Section and Sub-Section(s) from the attached GPA Specification.

NOTE:
Bidders must state either “Comply” or “Not Comply” against each specification on the bid document.

NOTE:
Not withstanding the fact that this contract was written by one (1) party, it will be construed that is was written by two (2) parties.

REMARKS / DEVIATIONS:

_____
_____
_____
_____

DELIVERY REQUIREMENT:
8 Weeks for Production After Acceptance of Purchase Order
8 Weeks After Acceptance Testing

Reasonable delivery extension requests for this specific bid will be duly considered with the supporting manufacturer documentation however, such request are not guaranteed approval due to critical and urgent need of the materials to support the Guam Power Authority's needs.

TO BE COMPLETED BY BIDDER:

MANUFACTURED/BRAND NAME: _____

CAT. NO. / MODEL NO.: _____

PLACE OF ORIGIN: _____

EXPORT ABROAD: _____

TIME OF DELIVERY AFTER APPROVED DRAWINGS
BY GUAM POWER AUTHORITY: _____

Specifications Generated/Reviewed by:

Angelajunee Balajadia 10/11/2023
ANGELA BALAJADIA Date
Inventory Management Officer

Specifications Reviewed by:

Louis C. Camacho P.E. 10/11/2023
LOUIS C. CAMACHO Date
Engineering Supervisor (A)

Specifications Approved by:

Beatrice P Limtiaco Digitally signed by Beatrice P Limtiaco Date: 2023.10.18 17:57:17 +10'00'
BEATRICE P. LIMTIACO Date
Assistant General Manager of Administration

GUAM POWER AUTHORITY
POST OFFICE BOX 2977
HAGATNA, GUAM 96910

TRANSMISSION & DISTIBUTION SPECIFICATION

Specification No. E-035

For

CLASS A (SELF-SUPPORTING) and CLASS B (GUYED) CONCRETE POLES FOR TRANSMISSION AND DISTRIBUTION SYSTEMS

CLASS A and CLASS B CONCRETE POLES
FOR TRANSMISSION AND DISTRIBUTION SYSTEMS
TABLE OF CONTENTS

PRESTRESSED SPUN

CONCRETE POLE SPECIFICATIONS

1.0 SCOPE:

1.1. This specification covers the design, construction and delivery of prestressed spun concrete pole for use on GPA electric transmission and distribution systems.

1.2. Poles are to be used in high humidity, high corrosion salt-air environment subject to severe earthquakes and typhoon winds.

1.2.1 Wind speeds of 155 miles per hour (sustained) and 170 mph (3 second gust)

1.2.2 Earthquake loading per International Building Code – 2009 .

1.3 Poles are to be installed in soil foundations or in concrete foundations.

2.0 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. The latest edition shall always be used.

Substitute standards may be used for those listed below provided they have equal or superior requirements. Such standards must be submitted to GPA for review and approval.

2.1. American Concrete Institute (ACI) Publications:

211.1	Recommended Practice for Selecting Proportions for Normal and Heavyweight Concrete
214	Recommended Practice for Evaluation of Strength Test Results of Concrete
318	Building Code Requirements for Reinforced Concrete

2.2. American Society for Testing and Materials (ASTM) Publications:

A82	Cold-drawn Steel Wire for Concrete Reinforcement
A416	Uncoated Seven-Wire Stress-Relieved Strand for Prestressed Concrete
A421	Uncoated Stress Relieved Steel for Prestressed Concrete
A496	Steel Wire, Deformed for Concrete Reinforcement
A615	Deformed and Plain Billet-Steel Bar for Concrete Reinforcement
A641	Zinc Coated (Galvanized) Carbon Steel Wire (Meteric)
A706	Low Alloy Steel Deformed Bars for Concrete Reinforcement
A996	Axel-Steel Deformed and Plain Bars for Concrete Reinforcement
C33	Concrete Aggregates
C39	Compressive Strength of Cylindrical Concrete Specimen
C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

C143 Test for Slump of Portland Cement Concrete

C150 Portland Cement

C172 Sampling Freshly Mixed Concrete

C260 Air-Entraining Admixtures for Concrete

C289 Testing Potential Alkali-Silica Reactivity of Aggregates

C494 Chemical Admixtures for Concrete

C881 Epoxy-Resin-Base Bonding Systems for Concrete

C1089 Standard Specifications for Spun Cast Prestressed Concrete Poles

2.3. American Welding Society (AWS) Publication:

D1.1 Recommended Procedures for Welding, Reinforcing Steel, Metal Inserts, and Connections in Reinforced Concrete Construction

D1.4 Structural Welding Code - Reinforcing Steel

2.4. Prestressed Concrete Institute (PCI) Publication:

MNL-116 Manual for quality control for plants and production of precast prestressed concrete products

MNL -116 Tendon prestressing to be in accordance with applicable sections of this publication

2.5 American National Standards Institute (ANSI) C2, 2012 National Electric Safety Code (NESC) Part 2 Safety Rules for Overhead Lines

Section 23 Clearances

Section 24 Grades of Construction

Section 25 General Loading Requirements

Section 26 Strength Requirements

2.6 29GAR – Public Works

1301 General

2.7 International Building Code 2009

2.8 Industrial Fasteners Institute (IFI)

Fastener Standards

2.9 American Society of Civil Engineers/Prestressed Concrete Institute (ASCE/PCI) Joint Committee on Concrete Poles:

Guide for the Design of Prestressed Concrete Poles

3.0 DEVIATION AND NON-CONFORMANCE REQUIREMENTS:

3.1. Provisions indicated by asterisks, (e.g. *3.4* below), describe submittals which must be included with the bid proposal. Failure to comply is a basis for rejection of the bid.

3.2. All deviations from this specification including changes in design or materials after bid award must be approved by the GPA and acknowledged by a Purchase Order Amendment issued by GPA. If the deviations are not approved, the unit or units are considered to be non-binding.

3.3. Units received with deviations or non -conformance which are not acknowledged per Section 3.2 are subject to rejection. The Supplier of rejected units is responsible for any corrective action including, but not limited to all materials, labor, and transportation charges necessary to dispose of or to make the units conform to the specification.

3.4. Statement of Compliance - the Supplier shall provide a signed statement in the bid proposal verifying that the products being supplied fully comply with the specifications and drawings. The Supplier shall provide all preliminary design drawings and design calculations required in this specification at the time of the bid, which will be approved by GPA prior to the award of the contract and the manufacture of the poles. Items not in full compliance with the specification and drawings will be identified with a description of the deficiency and any proposed substitutions. Items not in full compliance with the specifications and drawings must be approved by the GPA Engineering Department, as described in Section 3.2. Failure to comply with this requirement will result in the units being rejected.

4.0 SUBMITTALS:

4.1. Shop Drawings: Shop Drawings indicating details of construction shall be submitted to GPA for review prior to fabrication. Refer to Section 5 design calculations to be submitted to GPA Engineering.

Information required include:

a. Birth marks and longitudinal center of gravity mark.
b. Elevation view of each pole type.
c. Section and details to indicate quantities and position of prestressing steel, reinforcing steel, spiral steel, inserts, steel strand lifting loops, through holes, etc.
d. Location and sizes of all openings and holes to be cast in the poles.
e. Storage, transportation and erection support points.
f. Dimensions and finishes.
g. Pole classifications A or B.
h. Shop drawings shall be certified by a Professional Structural Engineer.
i. Pole design calculations shall be certified by a Professional Structural Engineer.

Partial submittals will not be acceptable and will be returned without review. Submittals shall include the manufacturer's name, project specification and paragraph reference, applicable industry and technical society publication references, design calculations, detail and other information to establish contract compliance of each item the Supplier proposes to furnish.

4.2. Certified Laboratory Test Reports: Certified copies of the reports of all tests and equipment required in referenced publications or otherwise specified herein, shall be submitted to GPA. The material testing shall have been performed within one (1) year of submittal of test reports for approval, by an independent laboratory approved by GPA.

Test reports on previously tested material shall be accompanied by notarized certificates from the manufacturer and approved laboratory, certifying that the previously tested materials is of the same type, quality, manufacturer, and make as proposed for use in this project. Certified material test reports in accordance with applicable codes are required for the following:

a. Cement
b. Concrete mix design
c. Reinforcing steel
d. Prestressing steel
e. Materials for curing concrete
f. Concrete admixtures
g. Aggregates
h. Water
i. Certificate of calibration for hydraulic jack
j. Certificate of calibration for dynamometer

4.3. The pole manufacturer must have approved submittals available during site inspection.

5.0 DESIGN:

5.1. Refer to Appendices A1-A, A1-B, A2-A, A2-B, A2-C, and "D" of this specification for specific requirements and detailed information related to design criteria, pole lengths, minimum reinforcement clearance, minimum wall thickness, hole dimensions, insert placements and spacings and maximum pole circumferences.

5.2. Poles shall be designed per the design criteria as specified in Appendix D and shall satisfy the strength requirements indicated in the Appendices (A4-B and A4-C for self-supporting poles and A4-E and A4-F for guyed poles). Submit detailed calculations including sections, elevations and loading conditions for each pole. Nomenclature, symbols and abbreviations used in the calculations shall be fully explained in English. The English System of units shall be used (pounds, feet, etc.). The submittal shall include the stress-strain curve of the prestressing steel strands. As a minimum, stresses for all design conditions shall be checked at ground level, at mid-level and at any point on the pole where a number of prestressed strands change. See Appendix B for calculation of prestress losses.

5.3 Wind loading of 155 mph (sustained), 170 mph (3 second gust) at 33 feet above the ground and earthquake loading per International Building Code - 2009 shall be used in the design.

5.4 Pole designs shall be prepared from the attached configuration drawings and design loads. The pole shall be capable of withstanding all specified loading cases including wind on pole and secondary stresses from foundation deflection and rotation, and from vertical loads acting on lateral pole deflection (P-delta effect). Design of poles for these secondary stresses shall not consider the possible restraining effect of conductors or shield wires. The pole shall withstand the loads without failure and without exceeding any specified deflection limitations.

5.6. Poles shall withstand the loading conditions, including specified load factors. The pole design shall include allowances for loads from handling, transportation, and erection without failure, permanent deformation, or damage to the pole when handled according to the manufacturer's instructions.

5.7. Poles shall be designed by the ultimate strength method as explained in ACI 318. Poles shall be designed so that the ultimate strength of the pole exceeds the required strength calculated from the factored loads applied to the pole including wind on the pole, as specified by GPA. The point of fixity on the pole shall be considered at groundline or other location as specified with the embedment depths shown on the attached drawings.

5.8. Poles shall be designed so that the cracking strength of the pole exceeds the required strength calculated from the service loads applied to the pole, as specified by GPA.

5.9. Poles that are subjected to a permanent unbalanced lateral load (such as unguyed angle or unguyed deadend structures), or any other structures specified by GPA, shall be designed so that the zero tension strength of the pole exceeds the required strength calculated from the service loads applied to the pole, as specified by GPA.

5.10. Poles shall be designed in combination with the appropriate column load applied along the pole axis as a result of the guys, braces, etc. When guys are specified, the ultimate load in the guy shall not exceed 65 percent of the rated breaking strength of the guy for all load cases. For design purposes, guy wire modulus of elasticity shall be specified by GPA. The manufacturer shall advise GPA if the specified guy size is inappropriate prior to submitting a bid.

5.11. Poles shall be designed to withstand a one-point (tilting) pickup during erection. The manufacturer shall include the weight of the pole with all insulators and hardware attached. The poles shall be designed for two-point pickup for horizontal handling. All pickup points shall be clearly shown on the fabrication drawings. All poles shall be designed for the loads generated from handling and erecting without exceeding the cracking moment capacity of the poles.

5.12. The design of each pole shall be performed using the applicable codes and standards listed in Section 2.0 of this specification.

5.13. Pole design and design calculations shall be the responsibility of the manufacturer.

6.0 PRODUCTS:

6.1. Concrete Mix: Design concrete mix in accordance with ACI 211.1 The concrete shall have a minimum 28 day compressive strength of 6,000 pounds per square inch with a maximum aggregate size of ¾ inch and a maximum water-cement ratio of 0.40. Higher strengths and lower water-cement ratios are encouraged and may be necessary to offset steel cover requirements.

6.2. Cement: The cement shall be either Type I or II Portland cement conforming to ASTM C 150. All cement for exposed concrete surfaces shall be of the same manufacturer.

6.3. Water: Water, including free moisture and water in the aggregates, shall be fresh, clean, potable and free from undesirable amounts of oils, acids, alkalis, salts, organic materials, or other deleterious substances.in amounts harmful to concrete and steel.

6.4. Aggregates: ASTM C 33. Obtain all aggregates for exposed concrete surfaces from one source. Aggregates shall be free from any substances which may be deleteriously reactive with the alkalies in the cement. (Three-fourths inch maximum aggregate size unless indicated otherwise).

6.4.1. Fine aggregate shall be a natural sand, consisting of clean, strong, hard, durable uncoated particles conforming to ASTM C33, and all specifications included therein. The aggregate shall be well graded from No. 4 to No. 200 sieve. Deleterious substances shall not comprise more than 5 percent of the sample.

6.4.2. Coarse aggregate shall be clean, tough, crushed stone conforming to ASTM C33, and all specifications included therein. The aggregate shall be well graded from a 3/4 inch to a No. 8 sieve with no more than 5 percent of the sample passing a No. 8 sieve. Deleterious substance content shall not exceed 5 percent of the sample. Resistance to abrasion shall not exceed 40 percent as tested in conformance with ASTM C131. Absorption shall be less than 4 percent or aggregate shall be saturated with water prior to use in concrete.

6.4.3. Aggregate shall be tested in accordance with ASTM C289 to determine an alkali-aggregate reaction. Crushed rock or partially crushed rock shall be the source of the aggregate.

6.5. Admixtures: ASTM C 260 (air entraining); ASTM C 494 (chemical). All admixtures shall have prior approval of GPA, shall be from a single manufacturer, and shall be certified by the manufacturer to be free of chlorides.

6.6 The chemical properties of materials used in the manufacture of the poles shall meet the requirements of the applicable ASTM specification and be such that noticeable pyrite staining or efflorescence due to sulfates and/or chlorides does not occur.

6.7. Concrete mix design requirements listed above can be altered with GPA's approval.

6.8. Reinforcement: Prestressing steel mechanical properties, reinforcing steel and spiral reinforcement shall be in accordance with the applicable ASTM specifications listed in Section 2.0 of this specification.

6.8.1. Reinforcing Bars: ASTM A 615, Grade 60 or approved equal. Welded splices shall be in accordance with AWS D1.4.

6.8.2. Spiral Wire: ASTM A 82, cold-drawn steel or approved equal.

6.8.3. Prestressing Steel: High tensile stress-relieved wire stand. ASTM A 416, Grade 270 or approved equal. The wire shall be free of substances that would prevent bond to the concrete.

7.0 PROVISIONS FOR GROUNDING

Poles shall be supplied with an approved method for grounding.

7.1. Preinstalled grounding provisions shall include the following:

7.1.1. Stranded copper conductor minimum size #2 AWG.

7.1.2. Copper or copper alloy connection block located where ground sleeves are shown in the Appendices (A1-A, A1-B, A2-A, A2-B and A2-C).

7.2. Design

7.2.1. Ground wires shall be continuous run, with no splicing, inside the hollow space of the pole and not embedded in the concrete. The wires shall be welded to the connection

blocks provided or connected (not soldered) so as to prevent disconnection of the wire from the connection block.

7.2.2. Ground sleeves shall be placed in the middle between the 11/16 inch and 13/16 inch holes, unless shown otherwise. Ground sleeves holes shall be 2 inches in diameter. The ground sleeve located at the bottom of the pole is to be placed two feet above the groundline, unless otherwise indicated.

7.2.3 Connection blocks shall be installed at all ground sleeves locations to allow for ease of external connection of copper conductor sizes between #6 AWG to #2 AWG. The connection block shall be rigid designed to prevent from being dislodged from the pole.

7.2.4 A minimum of one longitudinal steel strand shall be bonded electrically to the ground wire at the top and bottom of the pole. Each bond shall be located within the top 2 feet of the pole and at one foot below the groundline. This bonding system shall be noncorrosive and shall be approved by GPA.

8.0 SAMPLING AND TESTING:

8.1. General: Samples and tests are to be made by and at the supplier's expense. The tests shall be performed on calibrated equipment, as required by MNL-116, by an independent commercial testing laboratory or, if approved by GPA, at the precaster's quality control laboratory. Compressive strength tests made prior to tensioning of the prestressing strands may be performed in the precaster's quality control laboratory. Certified test reports shall include all test data and results.

8.2. Concrete Tests: For manufacturers that batch their own concrete, the manufacturer shall take a minimum of 8 concrete test cylinders per representative sample. Samples shall be taken at minimum intervals of one per day, one per 25 cubic yards of concrete batched, and with each change in raw material supplier for batches used to make GPAs' poles. The test cylinders for each day's concrete that is batched shall be tested for compressive strength as follows:

a. Minimum of one for determining release strength;
b. Minimum of one at 7 days;
c. Minimum of one at 14 days; and
d. Minimum of one at 28 days.

8.3. For manufacturers that acquire concrete from outside sources, test cylinders shall be taken from each truck load of concrete and tested in accordance with this specification.

8.4. Test cylinders shall be prepared, then cured in the same curing environment as the pole itself or cured per the applicable ASTM specification.

8. 5. Slump: Determine slump in accordance with ASTM C 143.

8.6. Concrete used on GPAs' poles shall have the quality to meet the design strength and other requirements included in this specification.

8.7. Upon request from GPA, the manufacturer shall provide GPA statistical data on concrete strength quality in accordance to applicable ACI and ASTM specifications. A correlation

factor between rodded cylinders and the spun concrete, substantiated by test data, shall be provided.

9.0 QUALITY CONTROL:

9.1. The Supplier shall have a quality control program to assure compliance with the requirements of this specification. The program shall be documented and a copy provided to GPA at the time of bid submittals.

9.2 Particular attention must be paid to the materials used. It is required that:

9.2.1. The Manufacturer will make the required test cylinders of the concrete used, protect and cure the cylinders in accordance with ACI 318 and perform the compressive tests on these specimens to ensure compliance with the strength requirements for tendon release and final compressive strength of the concrete.

9.2.2 The reinforcement materials shall be clean and made free of oil and scale.

9.3. The Supplier shall ensure that the water used in mixing concrete shall be clean potable and free from harmful amounts of silt, oil, acids, alkalies, salts, and other detrimental substances.

9.4. Notification of defective poles discovered before or after installation believed to be inherent to the manufacturing process or design shall be forwarded to the Supplier. This notice will include documentation of the problem and suggestions for follow-up actions expected by GPA. Supplier's response shall be made in thirty (30) days unless an extension is acknowledge and approved in writing by the GPA Manager of Engineering.

10 FABRICATION:

10.1. TOLERANCES AND PERMISSIBLE VARIATIONS:

10.1.1. CROSS SECTIONAL DIMENSIONS: Cross sectional dimensions shall not deviate from design dimensions by more than ¼-inch. Wall thickness shall not deviate from the design dimension by more than ¼ inch or +20 percent – 10 percent, whichever is greater.

10.1.2. LONGITUDINAL DIMENSIONS: Longitudinal dimensions shall not deviate from the design dimensions by more than 1 inch, or ⅛ inch per 10 feet.

10.1.3. The pole shall have a uniform taper from top to butt.

10.1.4. Deviation of the pole from straightness is allowed in one plane and one direction only. A straight line joining the edge of the pole at the butt and the edge of the pole at the top shall not be further from the surface of the pole at any point by more than the accumulated value of 0.25 inches for each 10 feet of length between the two ends. The detensioning operation shall be performed in a manner to keep the prestressing forces symmetrical.

10.1.5. There shall be a minimum specified wall thickness of 2.5 inches of spun concrete at all points along the pole.

10.1.6. LOCATION OF HARDWARE AND HOLES: The hole locations on the pole as to be placed as indicated in the Appendices and shall not deviate more than 1/16 inch from the nominal design dimensions. The hole spacing shall not deviate more than 1/16 inch from the nominal design dimensions where there is a pattern of holes for material to be bolted on at a later date.

10.1.7. GPA shall have the right to reject any pole in which the performance of a bolted connection may be reduced due to the lack of a clearly preformed or drilled hole.

10.1.8. The hydraulic jack equipment used to tension cables must be calibrated per manufacturer's operation manual. The GPA representative shall:

10.1.8.1. Verify the last time equipment was calibrated. This date should be in accordance with the operation manual.

10.1.8.2. Verify how often (number of poles) the equipment requires calibration.

a. The person or company calibrating the equipment shall be a calibrator certified by the manufacturer. GPA shall obtain a copy of the certification from the supplier or contractor.

10.1.8.3. Verify that the equipment tension setting stress is applicable to the structural design criteria requirements. At release of strands, 4,500-psi minimum stresses shall be maintained otherwise the pole is defective.

10.1.9. The GPA representative shall check the formwork placement and ensure that thesteel mold for the concrete pole is correct for the application. Check the following:

10.1.9.1. Type of pole (Class A or Class B).

10.1.9.2. Pole length measured.

10.1.9.3. Pole diameter measured bottom and top.

10.1.9.4. Complete concrete pole checklist.

10.1.9.5. Sleeve aligned to opposite sleeve and firmly attached to form.

10.1.9.6. Mold is cleaned of debris.

10.2. Placing of Reinforcement:

10.2.1. Steel reinforcement shall be fabricated as shown on the shop drawings and placed in position in the forms within the tolerances specified in ACI 318. Reinforcement shall be adequately secured so as to remain in the proper position during the placement of the concrete.

10.2.2. Reinforcement shall have a minimum of 1.8 inch concrete cover on the exterior, and 0.75 inches on the interior.

10.2.3. Reinforcement shall be free from loose scale.

10.2.4. GPA shall be notified as soon as possible of any poles with less than ¾ inch of spun concrete inside cover within 3 feet of the pole tip. At GPA's sole discretion, GPA may reject the pole or may allow the pole to be repaired by swabbing the interior with an epoxy liner (per ASTM C881 - Type V, Class B or C) and plugging with 3,000 psi concrete to GPA's satisfaction to a distance of 42 inches from the tip. No pole shall be plugged or considered for acceptance by GPA unless assurance is made by the manufacturer that the repaired pole can meet all requirements of this specification.

10.2.5. Spiral reinforcement shall cover the entire pole length. The minimum clear spacing of spiral reinforcement in the top 2 feet and bottom 2 feet of the pole shall be 4/3 of the maximum coarse aggregate or three times the strand diameter, whichever is larger, but not less than one inch. The maximum clear spacing for the remainder of the pole shall not exceed 4 inches.

10.2.6. The longitudinal steel shall not be cut for any reason unless approved by GPA – GPA may reject any pole in which the longitudinal steel is cut. All exposed steel resulting from drilled holes shall be covered with an epoxy paste per ASTM C881 Type III. Areas with moderate or severe spalling shall be cleaned and reformed with an epoxy paste or epoxy concrete per ASTM C881 Type II.10.3. Anchors, Inserts and Hole Formers: All anchors, inserts and hole formers shall be firmly positioned so as not to become displaced during the placing of concrete. They shall not be in contact or attached to the reinforcement. They shall be firmly attached to the forms.

10.2.7. All non-corrosive through-bolts and inserts provided by the manufacturer shall be of a noncorrosive material. Cadmium-plated and aluminum material shall not be used. All inserts shall be constructed of plastic PVC designed and manufactured for the intended purpose and used according to manufacturer's recommendations. If the manufacturer considers lifting devices necessary or desirable, suitable flush inserts may be cast into the pole with removable lifting attachments.

10.2.8. Where the sketches indicate holes for thru-bolts, these shall be made by using plastic held firmly in place and shall be full length of pole diameter for all through holes having internal diameters as required and shown in the Appendices. Unless otherwise noted on the drawings, holes shall be perpendicular to and pass through the centerline of the pole.

10.2.9. The use of porcelain or other ceramic type inserts is not permitted.

10.2.10. Inserts shall not fail before the pole reaches ultimate strength, unless permitted by GPA.

10.2.11. The pole manufacturer shall provide preformed inserts at two locations to allow air circulation within the pole. Inserts shall be 1 inch minimum diameter and shall have a louvered opening. The inserts shall be located within 10 feet of the tip and within 10 feet above the groundline.

10.2.12. Holes may not be drilled through the pole wall, except as specifically necessary to correct errors or omissions and only if approved by GPA.

10.4. Prestressing: Measure the required elongation of the prestressing steel prior to and after transfer of the prestressing force. Verify and record the stress in the steel by measuring and recording the elongation of the steel and the jacking pressure reading on an approved calibrated gage. Provide means for measuring the elongation of the steel to the nearest 0.125 inch. If the difference between any of the results of the measurements and gage reading is more than five percent, correct the cause of the discrepancy prior to construction of additional poles and mark the affected pole for additional testing. Provide the tensioning steel with a uniform prestress prior to being brought to design prestress. Transfer the prestressing force when the concrete has attained 0.80 of the minimum ultimate compressive strength of the pole. Induce the same initial prestress in each unit when several units of prestressing in a pole are stretched simultaneously. A complete record of the stressing of the strands shall be submitted to GPA as part of the Pole Manufacturing Data.

10.4.1. Clear distance between prestressing steel strands shall be either 4/3 times the maximum aggregate size or 3 times the strand diameter, whichever is larger. In the event that this condition is not met at the pole tip, closer spacing would be permitted provided that the placement of concrete can be accomplished satisfactorily, adequate stress transfer can take place, and appropriate provisions are used for maintaining spacing between the prestressing steel strands.

Prestressing steel stress limits shall not exceed:

a. 80 percent of the ultimate strength or 94 percent of the yield strength or the maximum value recommended by the manufacturer of prestressing steels or anchorages for jacking force;

b. 74 percent of the ultimate strength or 82 percent of the yield strength immediately after prestress transfer; and

c. 70 percent of the ultimate strength for post-tensioned steel at anchorages and couplers immediately after anchorage.

10.4.2. Strands shall be properly tensioned, secured and tied to spiral wire. At release of strands, 4,00-psi minimum stresses shall be maintained otherwise the pole is defective.

10.5. Consolidation of Concrete: All concrete shall be centrifugally spun in the forms. For external form vibration, forms must be of a design adequate to prevent distortion or failure.The poles shall be centrifugally spun using prestressed strands, rod, wire or with additional mild strength reinforcement.

10.6. Curing: Curing shall be accomplished in accordance with PCI MNL -116. The casting bed for concrete members cured by steam shall be enclosed completely with a suitable enclosure to minimize moistened heat losses. Curing methods shall be maintained until the specified strength of 4,500-psi minimum stress strength for detensioning has been reached.

10.6.1. Moist Curing: Moist cure for not less than 10 days. Proportionally increase the curing when the ambient air temperature falls below 50 degrees Fahrenheit.

10.6.2. Steam Curing: Include with the shop drawings methods and procedures for steam curing. Moist cure for not less than four hours prior to steam curing. During the application of steam, increase the air temperature at a rate not exceeding 40 degrees Fahrenheit per hour until the air temperature is maintained between 140 and 160

degrees Fahrenheit until the concrete has reached the required strength; air temperature above 160 degrees Fahrenheit will not be permitted. In discontinuing the steam application, decrease the air temperature at a rate not exceeding 40 degrees Fahrenheit per hour until reaching a temperature of 20 degrees Fahrenheit above .the temperature of the air to which the concrete will be exposed. Use a recording type thermometer for measuring temperature within the steam curing chambers.

10.6.3. Accelerated Curing: Other means of accelerated curing, where standard with the manufacturer, shall be subject to the temperature controls specified for steam curing. Moist cure for not less than four hours prior to other means of accelerated curing. Take precautions to prevent the concrete surface from drying out during the curing period.

10.7. Finishing

10.7.1. The surface of the pole shall have a smooth finish with no unsealed cracks. Cracks shall be sealed either by use of an epoxy injection system following the epoxy manufacturer's specifications, or by V-notching the crack on a 1:1 slope to a minimum depth of ¼ inch, then filling the V-notch with an epoxy seal per ASTM C881 Type IV. Covering the crack with an epoxy coating will not be allowed.

10.7.2. Small cavities caused by air bubbles, honeycomb spots, or other small voids, shall be cleaned thoroughly, saturated with water and then carefully pointed with a cement mortar. A small cavity is defined as one not larger than ½ inch in diameter or deeper than ¼ inch.

10.7.3. If any cavities or voids absorb water which indicate the void extends into wall of the pole, then the pole shall be rejected.

10.7.4. The manufacturer shall seal both ends of the pole and protect the steel stands from corrosion. The system used shall be approved by GPA.

10.7.5. The center void at the top end of the pole shall be sealed with a minimum 6 inch thick 1000 psi strength concrete plug and the pole tip capped. The pole tip cap shall be a suitable epoxy-aggregate mortar securely bonded to the pole, or shall be a metal or polymer cap securely held in place with set screws. Sharp edges shall be tooled to form smooth, chamfered corners. The manufacturer shall assure that the capping method will prevent weather intrusion into the pole and prevent pole tip deterioration.

10.7.6. The center void at the bottom end of the pole shall remain unsealed.. The pole manufacturer shall meet the concrete cover requirements at the bottom end of the pole where the concrete plug is omitted. The concrete cover requirements are referenced in this specification. The pole must meet these requirements or the pole will be rejected.

10.7.7. Where application of epoxy-aggregate mortar is specified, the surface of the pole where the mortar is to be applied shall first be coated with the epoxy coating. This coating shall be allowed to cure to a tacky, but not hardened state, before the mortar is applied. After the mortar has been applied and allowed to cure for 24 hours, a top coat of epoxy coating, 5 mil thick, shall be applied over the mortar and the surrounding area of the pole.

11.0 POLE ACCEPTANCE TESTS:

11.1. Prior to acceptance of the poles all required submittals and reports are to be approved and a strength test shall be performed on two poles selected by GPA.

11.2. The strength test method to be used is to place the pole horizontally in a test frame seven feet from the butt of its length held firmly into place. Using a dynamometer, a force equal to the specified ultimate load is applied at a point one foot from the top. Should the test pole fails any of the criteria at the cracking, deflection and breaking test loads, another pole shall be tested. Failure of the second pole will be the cause of rejection of the complete group. See Appendix B for details of the test apparatus.

11.3. During the application of the allowable cracking load there shall be no visible cracking.

11.4. The maximum deflection at the allowable load is to be calculated as L/12.

11.5. The breaking load for the pole is to be taken as the ultimate load/0.90

11.6. The Test Procedure for Testing Concrete Poles is provided in the Appendices. Details of all test procedures contained herein and methods of measuring and recording test loads and deflections shall be specified by the manufacturer and approved by GPA prior to manufacture.

11.7. Manufacturer shall provide Certificate of calibration for hydraulic jack and dynamometer from an ISO/IES 17025:1999 Accredited Laboratory.

11.8. Material procurement for test poles shall be identical to material procurement procedures for regular production run poles.

11.9. The number, location, direction, holding time, sequence, and increments of the test loads along with the number, location, and direction of deflection readings for an individual pole test shall be approved by GPA prior to pole testing.

11.10. The method of attaching the test loads to the pole, applying the test loads, measuring and recording the test loads, and measuring and recording the deflections shall be approved by GPA prior to pole testing.

11.11. A full report listing results shall be submitted to GPA after completion of all testing. Copies of mill test reports shall be included in the load test report. The report shall also include a complete description of the load tests with diagrams and photographs. If required, the manufacturer shall provide GPA with the following testing data:

a. Location of testing;
b. Method of full scale testing: upright or horizontal; and
c. The pole tester shall issue GPA three (3) copies of the Pole Test Report. This report shall include descriptions, tools, and drawings describing the above test.

11.12. Use of any factory tested poles to meet order requirements shall be determined by GPA.

11.13. Manufacturing and testing procedures shall be in compliance with applicable codes and standards listed in Section 2.0 in this specification.

11.14. Upon request, the manufacturer shall furnish GPA with certified test reports for the steel and concrete used.

11.15. The manufacturer shall make adequate tests and inspections to determine that each of the poles furnished is in strict accordance with this specification. At the request of GPA, the manufacturer shall submit a quality assurance report to GPA prior to the shipment of each pole and shall include the following minimum information:

- Fabrication number;
- Minimum and maximum tip wall thicknesses and steel coverages (to inside and outside) measurements shall be made at 3 inches from the tip;
- Minimum and maximum butt wall thicknesses and steel coverages (to inside and outside) measurements shall be made at 3 inches from butt;
- Condition of pole interior and evidence of exposed rings or reinforcement steel;
- Proper hole and insert locations and sizes;
- Evidence of cracking during or after two-point handling.
- Actual manufactured pole weight;
- Report of any repairs made to the pole;
- Date of manufacture and inspection(s); and
- Inspector's seal.

11.16. All material and workmanship shall be subject to inspection, examination, and test for conformance to the requirements of this specification by GPA. The inspection, examination, or testing could be done at any time during material procurement, manufacturing, storage periods, transit, or at the pole destination. Inspection, examinations, and tests may be waived by GPA, but in no case shall this be interpreted as releasing the manufacturer from the manufacturer's responsibilities for delivering poles that meet the requirements of this specification.

11.17. The manufacturer shall furnish certified test reports to GPA, upon request, showing the results of all of the tests required by this specification and applicable reference specifications.

11.18. Tests shall be in accordance with all applicable standard specifications and codes.

11.19. Failure of the manufacturer to comply with these specifications will be sufficient reason for rejection of any or all poles which do not comply with these specifications.

12.0 BIRTHMARK:

12.1. Each pole shall bear indented markings located 5 feet above the ground hole and in line with the center of gravity mark and ground hole. This birthmark shall include the following:

- Supplier's identity mark
- Month and year of manufacture
- Pole height
- Pole class

- Batch or lot number identification
- Pole index number:

SSOP1127 - 55 FT. Class A Pole

SSOP1128 - 55 FT. Class B Pole

SSOP1105 - 45 FT. Class A Pole

SSOP1106 - 45 FT. Class B Pole

SSOP 1103 - 35 FT. Pole

12.2. Supplier shall also provide a mark indicating the longitudinal center of gravity of each pole and a lifting mark for erection.

12.3. Substitution of stencilling or similar method of marking for indented birthmarks is not acceptable and shall be the cause for rejection. Suppliers should obtain GPA approval of their marking method.

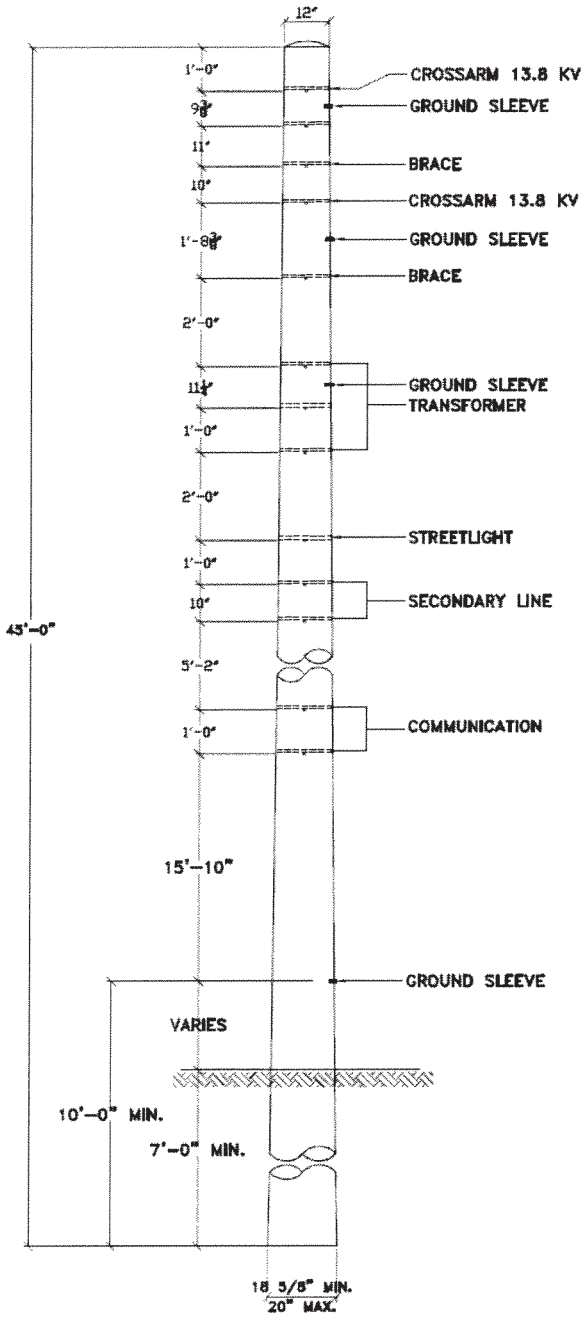
12.4. The birthmark shall be a 2 inches diameter white porcelain tile by ¼ inch thick with blue lettering, embedded in the pole and flush with exterior surface.

12.5. The center of gravity mark shall be a ¾ inch diameter red porcelain tile by ¼ inch thick embedded in the pole and flush with exterior surface.

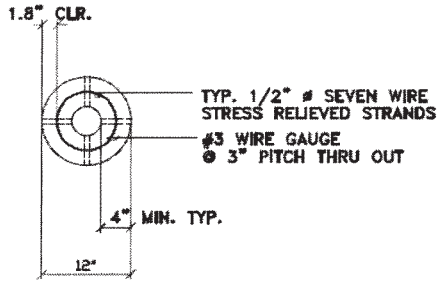
13.0 SHIPPING AND DELIVERY REQUIREMENTS:

The Supplier shall have sufficient instructions for handling, storage, shipping and delivery to prevent against injury or damage to the poles. Poles shall be securely blocked in position to prevent shifting during shipment and delivery.

APPENDIX A1-A 45 FOOT CLASS A CONCRETE POLE (SELF SUPPORTING)



45 FOOT CONCRETE POLE
(CLASS A SELF-SUPPORTING)



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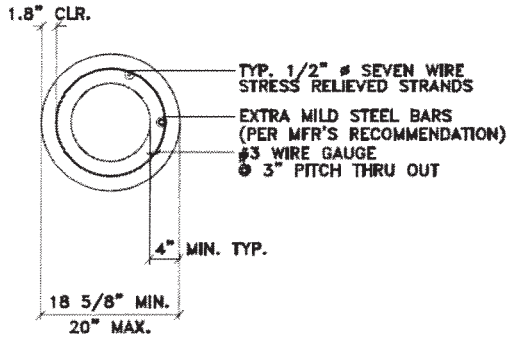
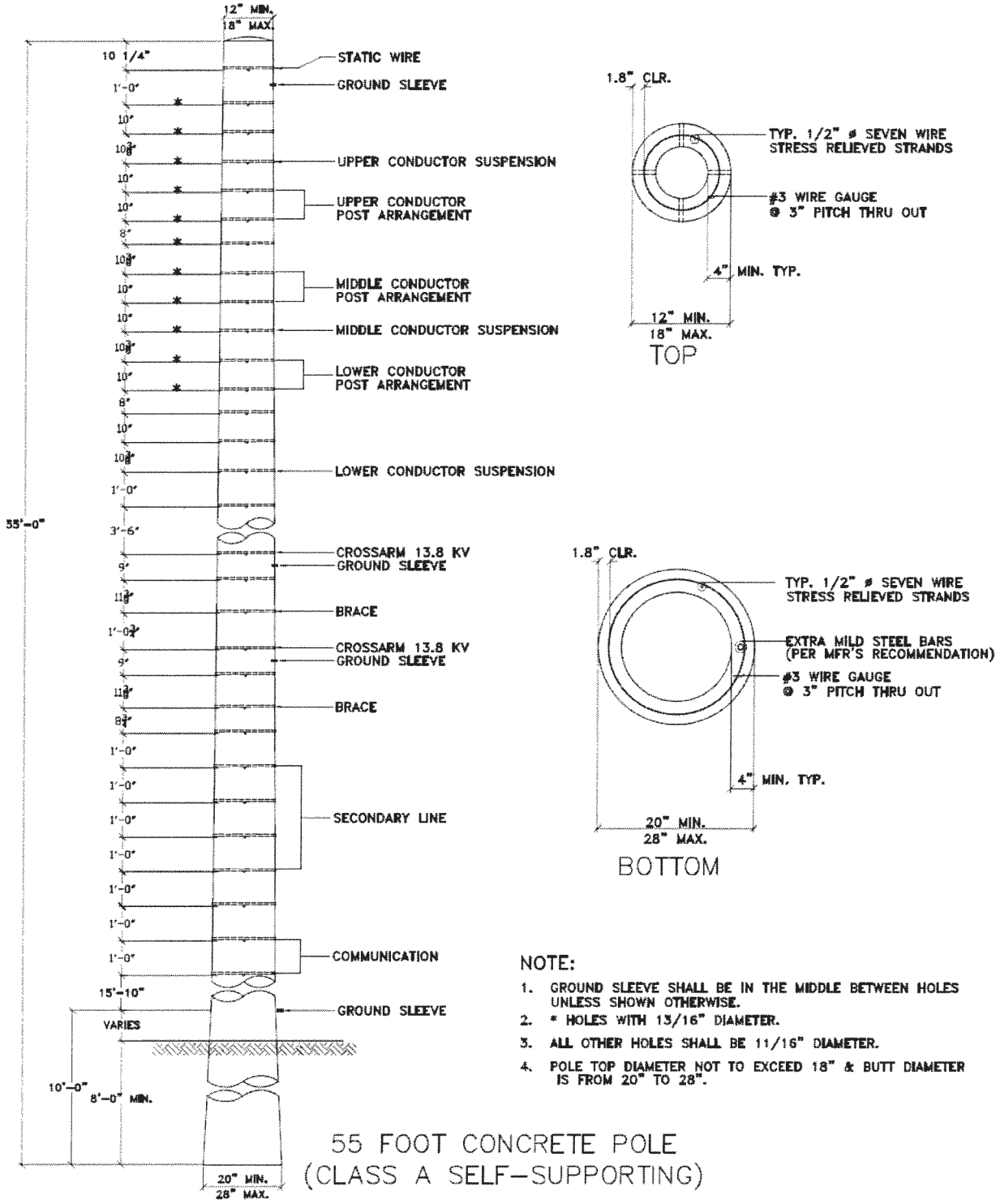


BOTTOM

NOTE:

1. GROUND SLEEVE SHALL BE IN THE MIDDLE BETWEEN HOLES UNLESS SHOWN OTHERWISE.
2. ALL HOLES SHALL BE 11/16" DIAMETER.
3. POLE TOP & BUTT DIAMETERS NOT TO EXCEED 12 & 20 INCHES RESPECTIVELY.

APPENDIX A1-B 55 FOOT CLASS A CONCRETE POLE (SELF SUPPORTING)

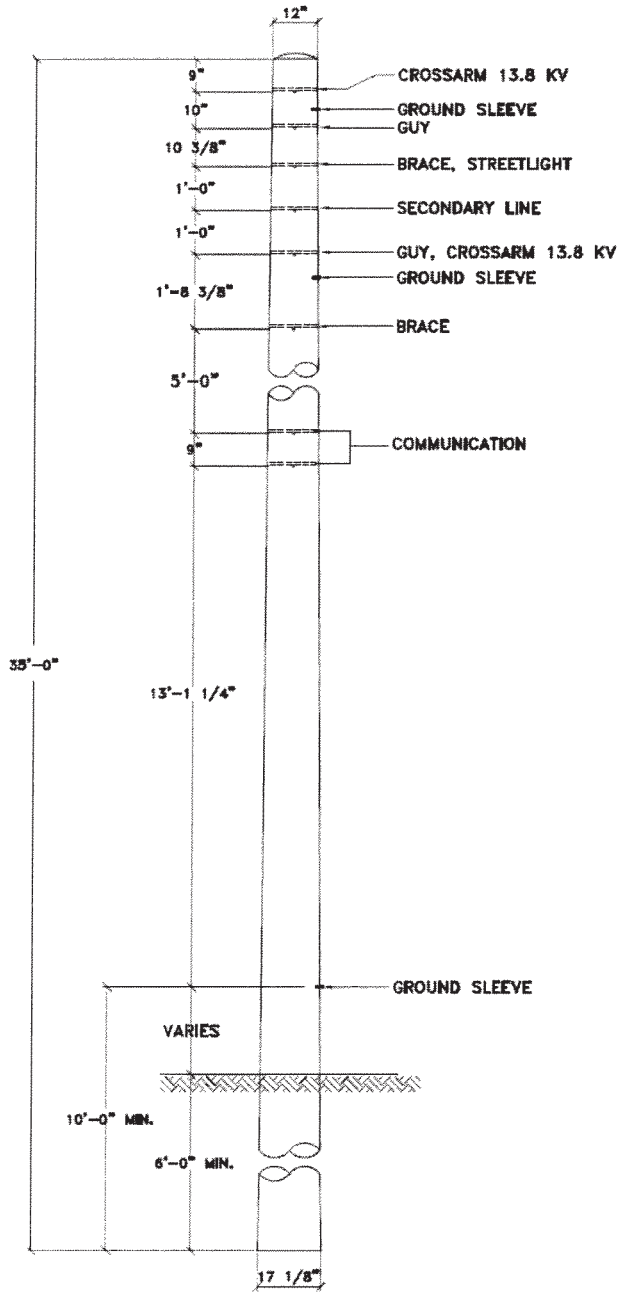


NOTE:

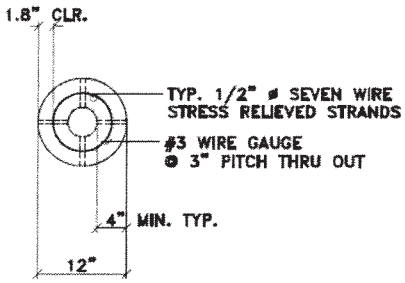
1. GROUND SLEEVE SHALL BE IN THE MIDDLE BETWEEN HOLES UNLESS SHOWN OTHERWISE.
2. * HOLES WITH 13/16" DIAMETER.
3. ALL OTHER HOLES SHALL BE 11/16" DIAMETER.
4. POLE TOP DIAMETER NOT TO EXCEED 18" & BUTT DIAMETER IS FROM 20" TO 28".

55 FOOT CONCRETE POLE
(CLASS A SELF-SUPPORTING)

APPENDIX A2-A 35 FOOT CLASS B CONCRETE POLE (GUYED)



35 FOOT CONCRETE POLE
(CLASS B GUYED)



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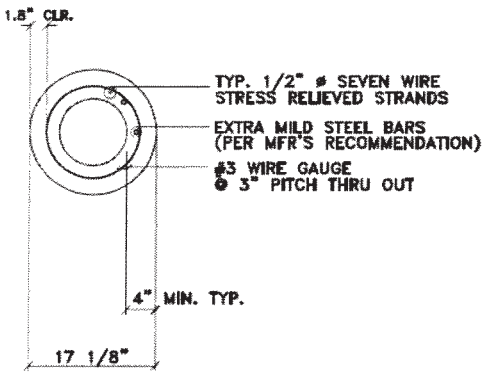
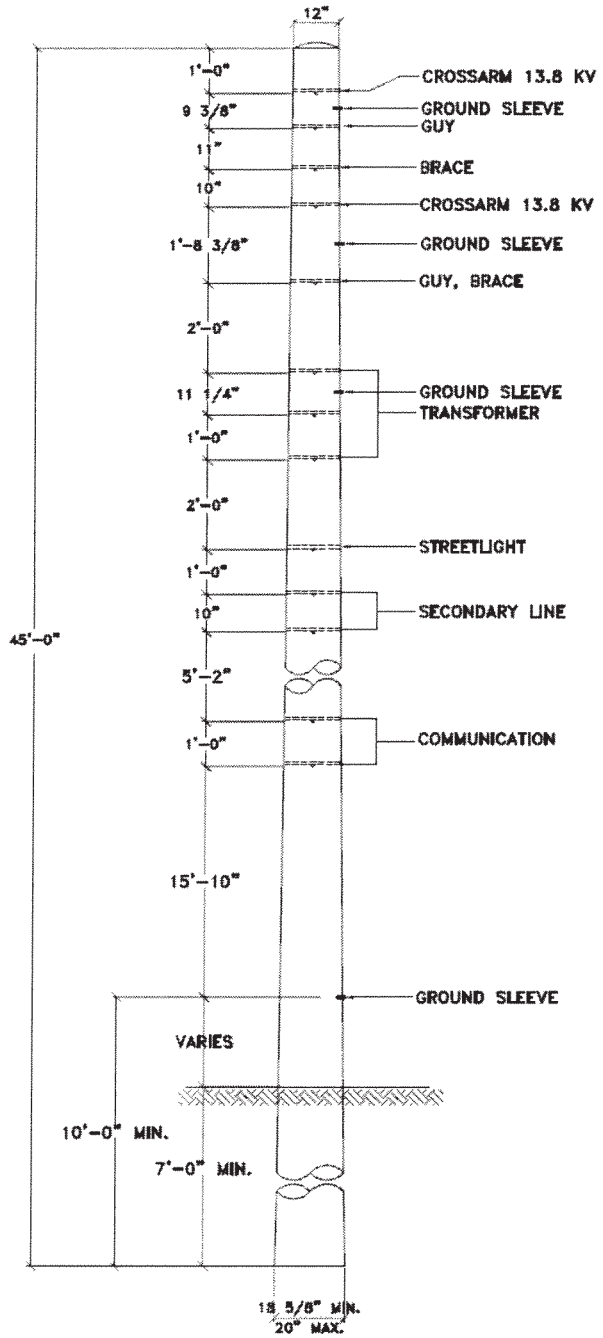


BOTTOM

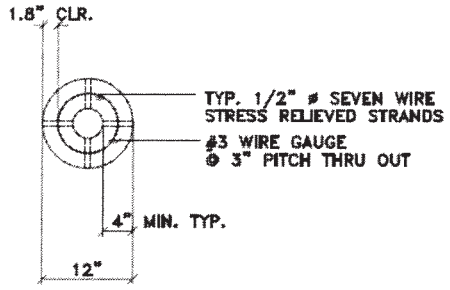
NOTE:

1. GROUND SLEEVE SHALL BE IN THE MIDDLE BETWEEN HOLES UNLESS SHOWN OTHERWISE.
2. ALL HOLES SHALL BE 11/16" DIAMETER.
3. POLE TOP & BUTT DIAMETERS NOT TO EXCEED 12 & 20 INCHES RESPECTIVELY.

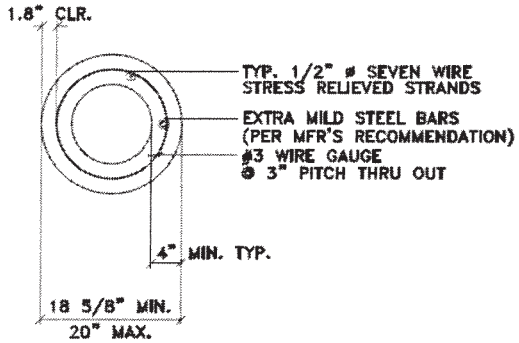
APPENDIX A2-B 45 FOOT CLASS B CONCRETE POLE (GUYED)



45 FOOT CONCRETE POLE
(CLASS B GUYED)



TOP

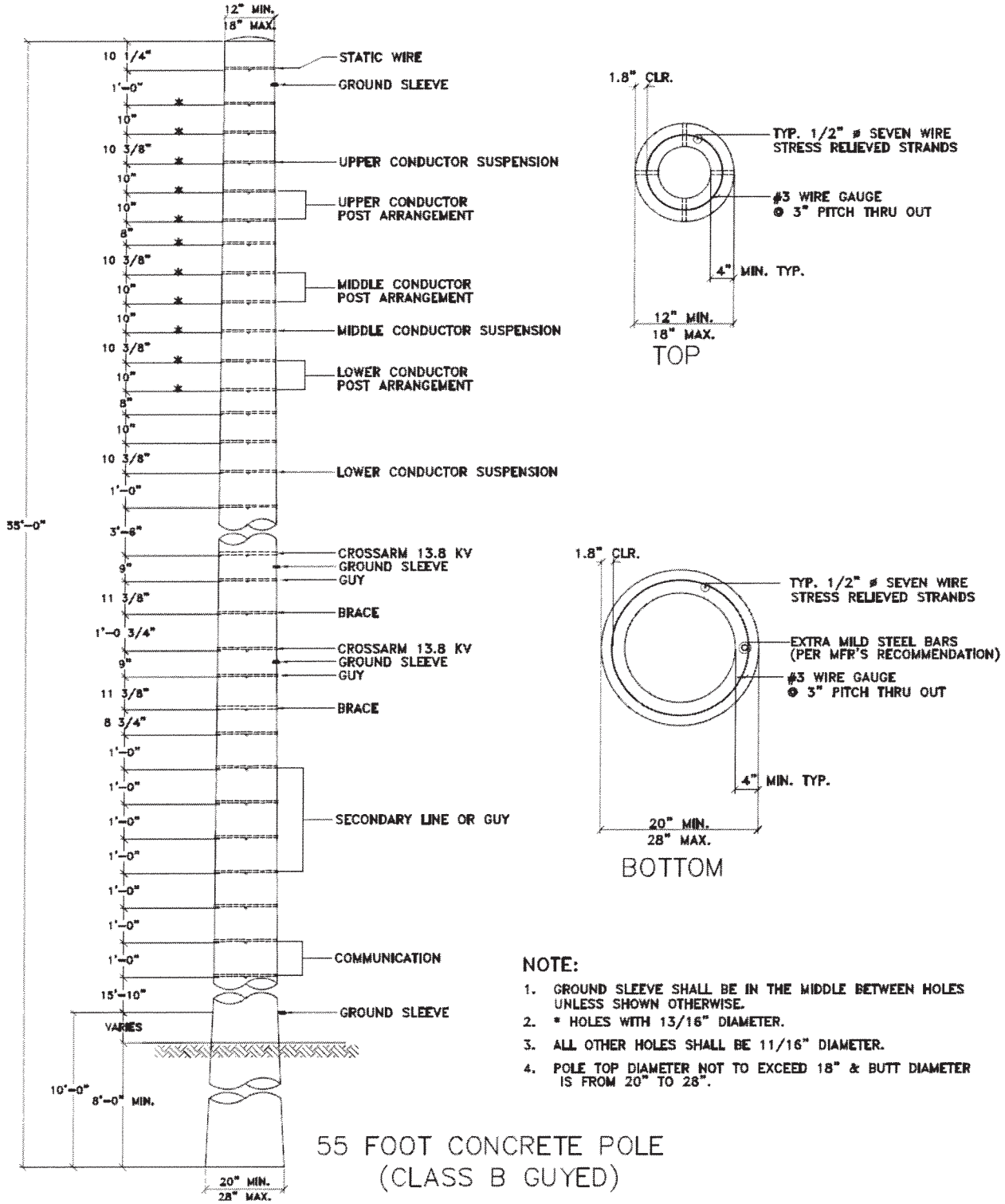


BOTTOM

NOTE:

1. GROUND SLEEVE SHALL BE IN THE MIDDLE BETWEEN HOLES UNLESS SHOWN OTHERWISE.
2. ALL HOLES SHALL BE 11/16" DIAMETER.
3. POLE TOP & BUTT DIAMETERS NOT TO EXCEED 12 & 20 INCHES RESPECTIVELY.

APPENDIX A2-C 55 FOOT CLASS B CONCRETE POLE (GUYED)



NOTE:

1. GROUND SLEEVE SHALL BE IN THE MIDDLE BETWEEN HOLES UNLESS SHOWN OTHERWISE.
2. * HOLES WITH 13/16" DIAMETER.
3. ALL OTHER HOLES SHALL BE 11/16" DIAMETER.
4. POLE TOP DIAMETER NOT TO EXCEED 18" & BUTT DIAMETER IS FROM 20" TO 28".

APPENDIX A3 DESIGN CRITERIA

Permissible stresses in concrete

Stresses in concrete (after allowance for all pre-stress losses) shall not exceed the following:

(a) Extreme fiber stress in compression due to pre-stress plus sustained load.....0.45 f'c psi
Extreme fiber stress in compression due to pre-stress plus total load.....0.60 f'c psi

(b) Extreme fiber stress in tension ..... $7.5\sqrt{(f'c)}$ psi

Permissible stresses in pre-stressing tendons

Tensile stress in pre-stressing tendons shall not exceed the following:

(a) Due to tendon jacking force ..... 0.94 fpy
but not greater than 0.85 fpu or maximum value
recommended by manufacturer of (pre-stressing) tendons.

(b) Immediately after pre-stress transfer ..... 0.82 fpy
but not greater than 0.74 fpu.

Loss of pre-stress

To determine the effective pre-stress (fse) allowance, the following sources of loss of pre-stress shall be considered:

(a) Elastic shortening of concrete
(b) Creep of concrete
(c) Shrinkage of concrete
(d) Relaxation of tendon stress

Computation of losses

The following shall be used for computation of pre-stress losses for pre-tensioned bonded tendons:

Elastic Shortening of Concrete (ES)

$$ES = E_S \frac{fcir}{Eci}$$

Creep of Concrete (CR)

$$CR = 2 \frac{E_S}{Ec} (f_{Cir} - f_{CdS})$$

Shrinkage of Concrete (SH)

$$SH = 8.2 \times 10^{-6} E_S (1 - 0.06\ V/S) (100-RH)$$

Relaxation of Tendon Stress (RE)

$$RE = [K_{re} - J (SH + CR + ES)] C$$

In which the values of K_{re}, J and C are taken from Tables 2 and 3.

TABLE 2- Values of K_{re} and J

Type of Tendon	K_{re}	J
270 Grade stress-relieved strand or wire	20,000	0.150
250 Grade stress-relieved strand or wire	18,500	0.140
240 or 235 Grade stress-relieved wire	17,600	0.130
270 Grade low-relaxation strand	5,000	0.040
250 Grade low-relaxation wire	4,630	0.037
240 or 235 Grade low-relaxation wire	4,400	0.035
145 or 160 Grade stress-relieved bar	6,000	0.050

TABLE 3 Values of C

f_{pi} / f_{pu}	Stress relieved strand or wire	Stress relieved bar or relaxation strand or wire
0.80		1.28
0.79		1.22
0.78		1.16
0.77		1.11
0.76		1.05
0.75	1.45	1.00
0.74	1.36	0.95
0.73	1.27	0.90
0.72	1.18	0.85
0.71	1.09	0.75
0.70	1.00	0.70
0.69	0.94	0.66
0.65	0.89	0.61
0.64	0.68	0.49
0.63	0.63	0.45
0.62	0.58	0.41
0.61	0.53	0.37
0.60	0.49	0.33

Maximum Loss

The total amount of pre-stress loss (psi) due to elastic shortening, creep, shrinkage, and relaxation need not be more than the values given below if the tendon stress immediately after anchoring does not exceed $0.83f_{py}$:

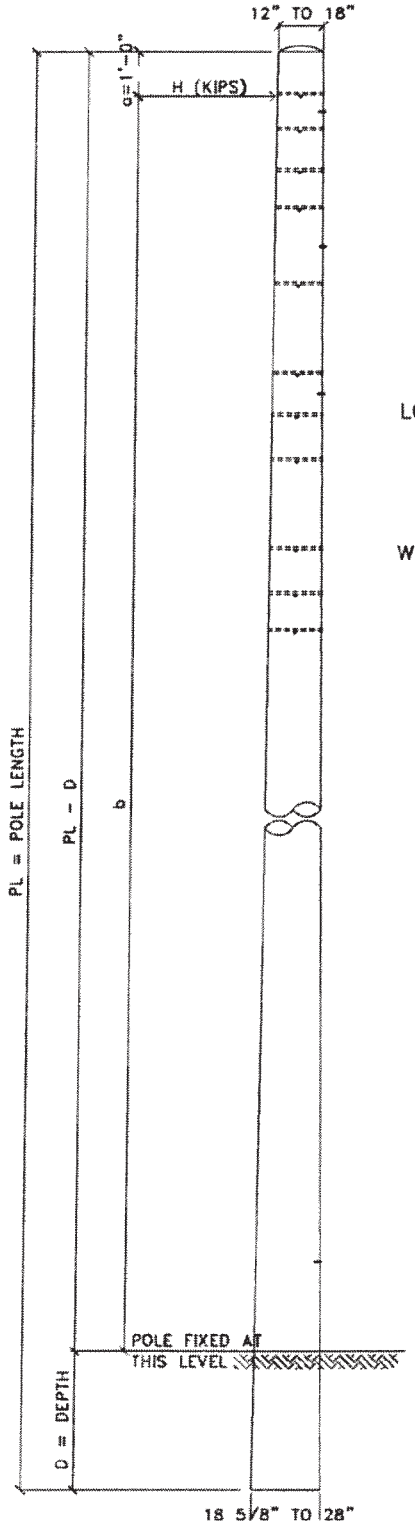
Type of Strand

Stress relieved strand 45,000

Low-relaxation strand 40,000 (for normal concrete)

Refer to Appendix D; Basic Design Criteria, for applicable codes, references, material stresses and loading requirements.

APPENDIX A4-A CLASS A LOADING SET-UP



CLASS "A" POLES
(SELF-SUPPORTING POLES)

LOADING CONDITIONS:

1) 0.75 (1.7 H + 1.7 HL (w))
2) 0.75 (1.7 H + 1.87 HL (s))

WHERE: HL(s) IS HORIZONTAL LOAD DUE TO SEISMIC FORCES. THE SEISMIC LOADING IS DISTRIBUTED ALONG THE POLE ACCORDING TO HL(s) = 0.34 (Weight)

HL(w) IS HORIZONTAL LOAD ON POLE DUE TO A UNIFORM PRESSURE OF 61.5 psf x HEIGHT CORRECTION FACTOR FOR THE POLE, CONDUCTORS AND APPURTENANCES.

MOMENTS DERIVED FROM THE ABOVE LOADING SHALL BE LESS THAN OR EQUAL TO 0.9 x ULTIMATE MOMENT CAPACITY OF THE SECTION BEING ANALYZED:

MOMENT $\leq$ 0.9 x ULTIMATE MOMENT CAPACITY

THE ULTIMATE MOMENT CAPACITY IS TO BE CALCULATED IN ACCORDANCE WITH THE CURRENT EDITION OF ACI 318. CRACKING MOMENT SHALL BE EQUAL TO ONE-HALF OF THE ULTIMATE MOMENT CAPACITY OF THE POLE.

POLE HEIGHT	DEPTH D
45'-0"	7'-0"
55'-0"	8'-0"

APPENDIX A4-B 45 FOOT CLASS A DESIGN DATA

45' CLASS A – SELF-SUPPORTING POLES
MUST SATISFY STRENGTH DESIGN AS FOLLOWS:

HORIZONTAL DEFLECTION ANGLE (Θ)	HORIZONTAL LOADS @ 1' BELOW TOP		MOMENT @ GROUND LEVEL	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (FT-KIPS)	ULTIMATE STRENGTH (FT-KIPS)
5°	5.63	7.18	208.38	265.68
10°	5.79	7.38	214.11	272.99
15°	5.93	7.56	219.51	279.88
20°	6.07	7.74	224.56	286.31
25°	6.19	7.90	229.19	292.22
30°	6.31	8.04	233.38	297.56
35°	6.41	8.17	237.07	302.27
40°	6.49	8.28	240.25	306.31
45°	6.56	8.37	242.86	309.65
50°	6.62	8.44	244.89	312.23
55°	6.66	8.49	246.30	314.03
60°	6.68	8.51	247.07	315.01
65°	6.68	8.52	247.17	315.14
70°	6.67	8.50	246.60	314.42
75°	6.63	8.45	245.34	312.81
80°	6.58	8.39	243.39	310.32
85°	6.51	8.30	240.73	306.93
90°	6.42	8.18	237.37	302.65

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

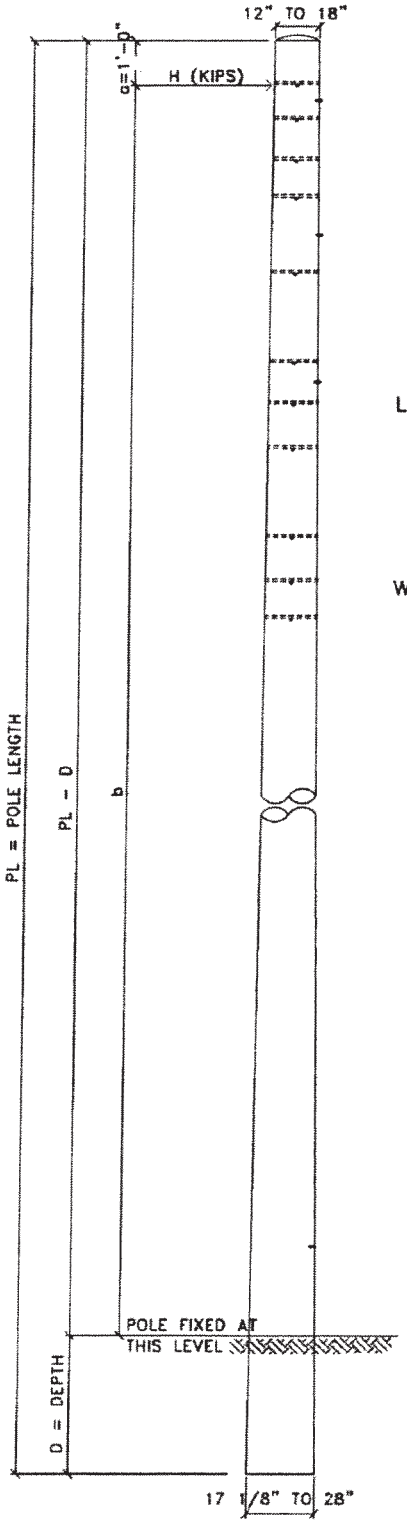
APPENDIX A4-C 55 FOOT CLASS A DESIGN DATA

55' CLASS A – SELF-SUPPORTING POLES
MUST SATISFY STRENGTH DESIGN AS FOLLOWS:

HORIZONTAL DEFLECTION ANGLE (Θ)	HORIZONTAL LOADS @ 1' BELOW TOP		MOMENT @ GROUND LEVEL	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (FT-KIPS)	ULTIMATE STRENGTH (FT-KIPS)
5°	9.79	12.48	450.16	573.95
10°	10.33	13.17	475.09	605.73
15°	10.85	13.83	499.03	636.26
20°	11.34	14.46	521.79	665.28
25°	11.81	15.06	543.19	692.57
30°	12.24	15.61	563.05	717.89
35°	12.64	16.11	581.20	741.04
40°	12.99	16.56	597.49	761.80
45°	13.30	16.96	611.75	779.98
50°	13.56	17.29	623.86	795.42
55°	13.78	17.56	633.69	807.96
60°	13.94	17.77	641.14	817.45
65°	14.05	17.91	646.10	823.78
70°	14.10	17.98	648.50	826.84
75°	14.09	17.97	648.28	826.56
80°	14.03	17.89	645.40	822.89
85°	13.91	17.73	639.82	815.78
90°	13.73	17.51	631.55	805.22

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

APPENDIX A4-D CLASS B LOADING SET-UP



CLASS "B" POLES
(GUYED POLES)

LOADING CONDITIONS:

1) 0.75 (1.7 H + 1.7 HL (w))
2) 0.75 (1.7 H + 1.87 HL (s))

WHERE: HL(w) IS HORIZONTAL LOAD ON POLE DUE TO A UNIFORM PRESSURE OF 61.5 psf x HEIGHT CORRECTION FACTOR FOR POLE, CONDUCTORS AND APPURTENANCES.

HL(s) IS HORIZONTAL LOAD DUE TO SEISMIC FORCES. THE SEISMIC LOADING IS DISTRIBUTED ALONG THE POLE ACCORDING TO HL(s) = 0.34 (Weight)

MOMENTS DERIVED FROM THE ABOVE LOADING SHALL BE LESS THAN OR EQUAL TO 0.9 x ULTIMATE MOMENT CAPACITY OF THE SECTION BEING ANALYZED:

MOMENT $\leq$ 0.9 x ULTIMATE MOMENT CAPACITY

THE ULTIMATE MOMENT CAPACITY IS TO BE CALCULATED IN ACCORDANCE WITH THE CURRENT EDITION OF ACI 318 CRACKING MOMENT SHALL BE EQUAL TO ONE-HALF OF THE ULTIMATE MOMENT CAPACITY OF THE POLE.

POLE HEIGHT	DEPTH D
35'-0"	6'-0"
45'-0"	7'-0"
55'-0"	8'-0"

APPENDIX A4-E 35 FOOT and 45 FOOT CLASS B DESIGN DATA

35' CLASS B – GUYED POLES
MUST SATISFY STRENGTH DESIGN AS FOLLOWS:

HORIZONTAL DEFLECTION ANGLE (Θ)	HORIZONTAL LOADS @ 1' BELOW TOP		MOMENT @ GROUND LEVEL	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (FT-KIPS)	ULTIMATE STRENGTH (FT-KIPS)
5°	4.52	5.76	126.56	161.37
10°	4.51	5.75	126.31	161.04
15°	4.50	5.73	125.88	160.50
20°	4.47	5.70	125.29	159.74
25°	4.45	5.67	124.52	158.77
30°	4.41	5.63	123.59	157.58
35°	4.37	5.58	122.50	156.18
40°	4.33	5.52	121.24	154.58
45°	4.28	5.46	119.82	152.77
50°	4.22	5.38	118.25	150.76
55°	4.16	5.31	116.52	148.56
60°	4.09	5.22	114.63	146.16
65°	4.02	5.13	112.60	143.57
70°	3.94	5.03	110.43	140.80
75°	3.86	4.92	108.12	137.85
80°	3.77	4.81	105.67	134.73
85°	3.68	4.69	103.09	131.44
90°	3.59	4.57	100.38	127.99

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

45' CLASS B – GUYED POLES
MUST SATISFY STRENGTH DESIGN AS FOLLOWS:

HORIZONTAL DEFLECTION ANGLE (Θ)	HORIZONTAL LOADS @ 1' BELOW TOP		MOMENT @ GROUND LEVEL	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (FT-KIPS)	ULTIMATE STRENGTH (FT-KIPS)
5°	5.34	6.80	197.41	251.70
10°	5.33	6.79	197.07	251.26
15°	5.31	6.77	196.50	250.54
20°	5.29	6.75	195.70	249.52
25°	5.26	6.71	194.68	248.22
30°	5.23	6.67	193.43	246.63
35°	5.19	6.62	191.97	244.76
40°	5.14	6.56	190.28	242.61
45°	5.09	6.49	188.38	240.18
50°	5.03	6.42	186.27	237.49
55°	4.97	6.34	183.95	234.54
60°	4.90	6.25	181.43	231.32
65°	4.83	6.16	178.71	227.85
70°	4.75	6.06	175.80	224.14
75°	4.67	5.95	172.70	220.19
80°	4.58	5.84	169.41	216.00
85°	4.49	5.72	165.96	211.60
90°	4.39	5.60	162.33	206.98

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

APPENDIX A4-F 55 FOOT CLASS B DESIGN DATA

55' CLASS B – GUYED POLES
MUST SATISFY STRENGTH DESIGN AS FOLLOWS:

HORIZONTAL DEFLECTION ANGLE (Θ)	HORIZONTAL LOADS @ 1' BELOW TOP		MOMENT @ GROUND LEVEL	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (FT-KIPS)	ULTIMATE STRENGTH (FT-KIPS)
5°	9.14	11.65	420.22	535.78
10°	9.12	11.62	419.33	534.64
15°	9.08	11.58	417.85	532.76
20°	9.04	11.52	415.78	530.11
25°	8.98	11.45	413.12	526.73
30°	8.91	11.36	409.89	522.60
35°	8.83	11.26	406.08	517.75
40°	8.73	11.13	401.70	512.17
45°	8.63	11.00	396.77	505.88
50°	8.51	10.85	391.29	498.89
55°	8.38	10.68	385.27	491.21
60°	8.23	10.50	378.72	482.87
65°	8.08	10.30	371.66	473.86
70°	7.92	10.09	364.10	464.22
75°	7.74	9.87	356.05	453.96
80°	7.56	9.63	347.53	443.10
85°	7.36	9.38	338.55	431.65
90°	7.16	9.12	329.14	419.65

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

APPENDIX A5 SUMMARY OF ABBREVIATIONS ,NOTATIONS AND DEFINITIONS

SUMMARY OF ABBREVIATIONS AND NOTATIONS

CR	=	stress loss due to creep of concrete
E_{ci}	=	modulus of elasticity of concrete at time pre-stress is applied
E_c	=	modulus of elasticity of concrete at time pre-stress is applied
E_S	=	modulus of elasticity of pre-stressing tendons. Usually 28,000 psi
ES	=	stress loss due to elastic shortening of concrete
f_{cds}	=	stress in concrete at center of gravity of tendons due to service loads
f_{cir}	=	net compressive stress in concrete at center of gravity of tendons immediately after the pre-stress has been applied to the concrete
f_{pu}	=	specified tensile strength of pre-stressing tendon, psi
RE	=	stress loss due to relaxation of tendons
RH	=	average ambient relative humidity
SH	=	stress loss due to shrinkage of concrete
V/S	=	volume to surface ratio. Usually taken as gross cross-sectional area of concrete member divided by its perimeter
f'c	=	specified compressive strength of concrete, psi
fpy	=	specified yield strength of pre-stressing tendons, psi
fy	=	specific yield strength of reinforcing bars, psi
E.W.	=	each way
H	=	horizontal load in kips
HL(s)	=	horizontal load in kips due to seismic forces
HL(w)	=	horizontal load in kips due to wind forces
K_{re}	=	coefficient
J	=	coefficient
C	=	coefficient
PL	=	pole length

DEFINITIONS

Admixture - Any material other than water, aggregate, or cement that is used as an ingredient of concrete and added to concrete before or during its mixing to modify its properties.

Appurtenance - Any hardware or structural members that are attached to the concrete pole to make a complete structure.

Bonding, electrical - The electrical interconnecting of conductive parts, designed to maintain a common electrical potential.

Cant hole - A through hole in the pole which is used in rotating the pole about its axis during setting. The hole is typically 1-1/2" in diameter and located approximately 4 feet above the groundline.

Circumferential cracks - Cracks that parallel a cross-section of a concrete pole.

Cracking moment - The moment which is developed in the pole at the time the cracking strength of the pole is experienced.

Cracking strength - The point at which the concrete just begins to separate due to exceeding the tensile strength of the concrete on the tension face of the pole.

Deadend structure - A type of guyed or unguyed structure on which the conductors are connected by strain insulators, with the usual purpose of terminating the conductor tension.

Deleterious substance - Any substance that is not desirable in a mixture, usually causing harm in sufficient quantities.

Dropout, steel cable - The terminating point of any longitudinal steel that is not continuous for the length of the pole.

Efflorescence - The formation of a white film on the surface of the pole, typically caused by the emergence of chlorides during curing.

Embedment - That portion of the pole which is designed to be located in the ground or other supporting medium.

Factored load - See Ultimate Load.

Foundation deflection - The magnitude and direction of displacement of the embedded portion of the pole or supporting foundation which is expected to occur with the response of the soil or supporting medium to the applied loading conditions. It is usually expressed in inches from the plumb position at the groundline or point below the groundline where supporting soil begins.

Foundation rotation - The degree and direction of rotation of the embedded portion of the pole or supporting foundation about the groundline or point of fixity, if specified, which is expected to occur with the response of the soil or supporting medium to the applied loading conditions.

Groundline - The point at which the embedment begins. Groundline is used for transmission line design such as determining ground clearances. Resistance from the supporting soils or other medium begins at or below groundline.

Group of bolt holes - All of the holes in which a single hardware assembly will be attached.

Guyed structure - A structure in which cable supports are used to increase its lateral load resistance.

In-line face - The face of the pole which "faces" an adjacent structure in the line.

Load cycle - The point at which a structure has undergone the range of loadings that are expected to occur over the life of the structure.

Load case - A group of loadings, restraints, (foundation deflections and foundation rotations) which are simultaneously applied to the structure at a particular point in time. Additional structural performance requirements may also be included.

Load factor - A multiplier which is applied to each of the vertical, transverse, and longitudinal structure loadings to obtain an ultimate factored load. The multiplier takes into account the variability of climatic events as well as the importance of the structure.

Longitudinal cracks - Cracks in concrete that parallel to the long axis of the pole.

Longitudinal reinforcement - The reinforcing steel which is installed along the long axis of the pole.

Manufacturer - The company responsible for the fabrication of the poles. The manufacturer makes the poles based on the design drawings developed by the structural designer, which is the engineer responsible for the structural design of the poles and is usually employed by the manufacturer.

Modulus of elasticity - The slope of the stress-strain diagram within the proportional range of an elastic material.

P-delta (P-Δ) moment - The secondary moment created by vertical loads acting on the structure which deflects from its unloaded position.

Pole end squareness – A measure of how perpendicular the finished surface of the pole butt is to the longitudinal axis of the pole.

Point of fixity - The point on the pole at or below groundline where the maximum moment occurs. Location of this point is dependent on the characteristics of soils around the embedded portion of the pole.

Pole failure - The point at which the maximum strength of the pole is realized. Failure usually occurs with crushing of the concrete or permanent deformation.

Pole sweep - The measure of deviation from straightness along the length of the pole.

Post-tensioned steel strand - The longitudinal reinforcement that has been tensioned after the concrete has hardened.

Prestressed concrete - Reinforced concrete in which internal stresses have been introduced to reduce potential tensile stress in concrete resulting from loads.

Pretensioned steel strand - The longitudinal reinforcement that has been tensioned before concrete is placed. Also referred to as prestressed steel strand.

Pyrite staining - A pale brass-yellow colored stain in the concrete caused from the concrete mixture containing an excess amount of iron disulfides.

Reinforcing steel - Any steel for the purpose of reinforcement of the concrete, including longitudinal reinforcement, spiral reinforcement, and deformed reinforcing bars.

Release strength - The minimum concrete strength that is necessary before the pretensioned strands can be released.

Secondary stresses - The additional stresses created by continued application of the loads as the structure displaces or deflects from its unloaded position.

Service load - The loading which is usually synonymous to the NESC district loadings without load factors applied, and sometimes referred to as unfactored district load or working load. The service load may also be a greater ice and/or wind load when compared to the NESC district loads. Any service load, multiplied by the appropriate load factor will give the ultimate load.

Spiral reinforcement - Steel reinforcement, continuously wound in the form of a cylindrical helix, that encloses the longitudinal steel.

Spun concrete pole - A pole which is manufactured by placing prestressed steel strands and spiral reinforcement in a mold, adding fresh concrete and spinning the mold to form the pole.

Structural designer - The engineer(s) responsible for structural design of the poles, usually employed by or is a hired consultant of a company which fabricates concrete pole structures.

Ultimate load - The maximum design load which includes the appropriate load factor specified.

Ultimate moment capacity - The moment which is developed in the pole at the time the ultimate strength of the structure is realized.

Unbalanced lateral load - Any loading of a significant duration and magnitude which is not restrained or offset by guys or cables which generates bending moments along a section of the pole.

Ultimate strength - The maximum strength in the stress-strain diagram. For the pole, this is considered to be the point at which the pole fails, usually with crushing of the concrete.

Unfactored district load - See Service Load.

Unfactored extreme load - The extreme wind, ice, or other extreme loading without considering a load factor.

Unfactored load - A loading in which the load factor has not been applied.

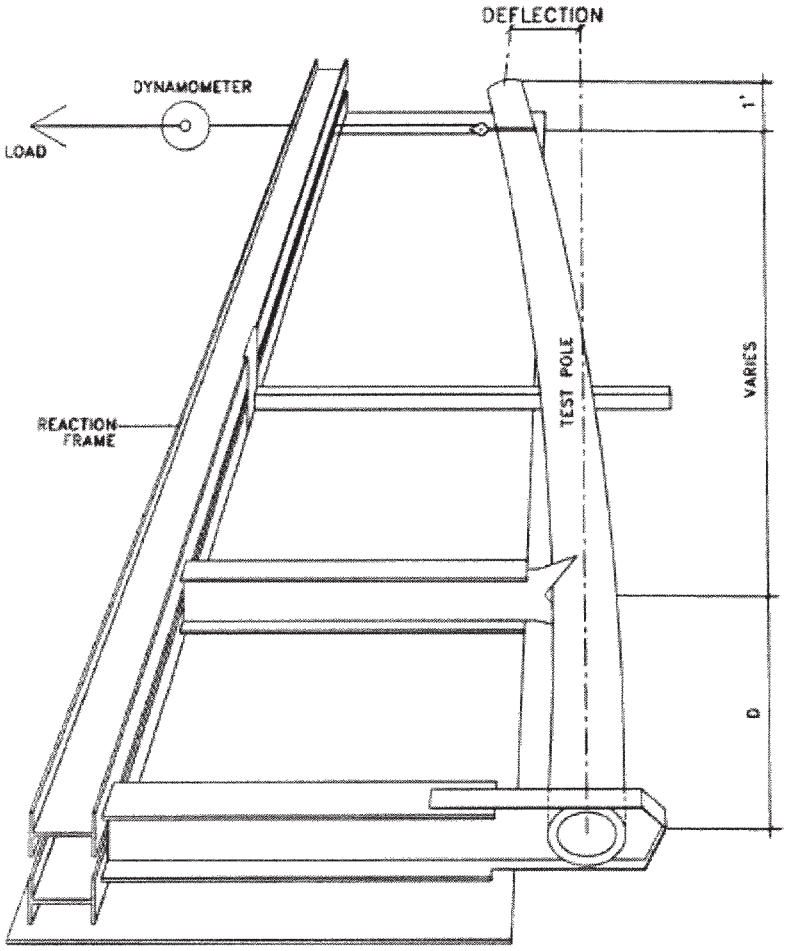
Working load - See Service Load.

Yield strength - The minimum stress at which a material will start to physically deform without further increase in load or which produces a permanent strain. This is known as the elastic limit of the material.

Zero tension strength - The moment at which a crack that was previously created by exceeding the cracking moment strength will open again. Under this condition, an applied moment will not cause any tensile stress in the concrete. It will always be less than the cracking moment strength.

APPENDIX B POLE TEST SET-UP

POLE TEST SETUP



POLE HEIGHT	DEPTH D
35'-0"	6'-0"
45'-0"	7'-0"
55'-0"	8'-0"

APPENDIX B1 CLASS A TEST LOADS

CLASS A – SELF-SUPPORTING POLES

HORIZONTAL DEFLECTION ANGLE (Θ)	45' POLE HORIZONTAL LOADS		55' POLE HORIZONTAL LOADS	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)
5°	5.63	7.18	9.79	12.48
10°	5.79	7.38	10.33	13.17
15°	5.93	7.56	10.85	13.83
20°	6.07	7.74	11.34	14.46
25°	6.19	7.90	11.81	15.06
30°	6.31	8.04	12.24	15.61
35°	6.41	8.17	12.64	16.11
40°	6.49	8.28	12.99	16.56
45°	6.56	8.37	13.30	16.96
50°	6.62	8.44	13.56	17.29
55°	6.66	8.49	13.78	17.56
60°	6.68	8.51	13.94	17.77
65°	6.68	8.52	14.05	17.91
70°	6.67	8.50	14.10	17.98
75°	6.63	8.45	14.09	17.97
80°	6.58	8.39	14.03	17.89
85°	6.51	8.30	13.91	17.73
90°	6.42	8.18	13.73	17.51

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

APPENDIX B2 CLASS B TEST LOADS

CLASS B – GUYED POLES

HORIZONTAL DEFLECTION ANGLE (Θ)	35' POLE HORIZONTAL LOADS		45' POLE HORIZONTAL LOADS		55' POLE HORIZONTAL LOADS	
	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)	WORKING STRESS (KIPS)	ULTIMATE STRENGTH (KIPS)
5°	4.52	5.76	5.34	6.80	9.14	11.65
10°	4.51	5.75	5.33	6.79	9.12	11.62
15°	4.50	5.73	5.31	6.77	9.08	11.58
20°	4.47	5.70	5.29	6.75	9.04	11.52
25°	4.45	5.67	5.26	6.71	8.98	11.45
30°	4.41	5.63	5.23	6.67	8.91	11.36
35°	4.37	5.58	5.19	6.62	8.83	11.26
40°	4.33	5.52	5.14	6.56	8.73	11.13
45°	4.28	5.46	5.09	6.49	8.63	11.00
50°	4.22	5.38	5.03	6.42	8.51	10.85
55°	4.16	5.31	4.97	6.34	8.38	10.68
60°	4.09	5.22	4.90	6.25	8.23	10.50
65°	4.02	5.13	4.83	6.16	8.08	10.30
70°	3.94	5.03	4.75	6.06	7.92	10.09
75°	3.86	4.92	4.67	5.95	7.74	9.87
80°	3.77	4.81	4.58	5.84	7.56	9.63
85°	3.68	4.69	4.49	5.72	7.36	9.38
90°	3.59	4.57	4.39	5.60	7.16	9.12

NOTE: ABOVE VALUES ARE BASED ON 200 FEET POLE SPACING.

APPENDIX C CONCRETE POLE TEST PROCEDURE

TEST PROCEDURE FOR TESTING CONCRETE POLES SUPPLIED TO THE GUAM POWER AUTHORITY

1.0 SELECTION OF TEST SPECIMENS

A GPA representative shall select two poles of each design at random to be tested. If testing is not to be performed immediately after selection, the poles selected shall be suitably marked.

2.0 INSPECTION AND DIMENSION VERIFICATION

2.1. A GPA representative shall measure pole lengths and pole diameters, measure the amount of concrete cover over the steel reinforcement, and count the number of reinforcing rods and wires to ensure compliance with the approved design and Sections 5.0 and 9.0.

2.2. A GPA representative shall check all hole locations and sizes to ensure compliance with the Sections 5.0 and 9.0. Refer to Appendices A1 and A2 of this specification.

3.0 BENDING TEST

3.1. Place the pole in a test support or test frame with the lower end of the pole at a distance "D" held firmly in place as indicated in the pole test set-up. If the test is to be in the horizontal position, provisions shall be made by suitable supports to minimize the bending moment induced by the weight of the pole.

3.2. Set the deflection measurement instruments at the top of the pole. Mark the pole so that the deflection can be measured.

3.3. Using a dynamometer apply the loading gradually to allow observation of the formation of cracks and the measuring of deflection. The load should be applied one foot from the top of the pole. Record the amount of deflection after each load increment is made. Check for cracking, measure the cracks found, and provide a sketch indicating location and size of cracks. Provide a written record of loading, deflection and appearance of first hairline crack.

3.4. When the test load reaches the service test load, release the load after recording the amount of deflection and observing and recording any cracks. After the load is released, record the permanent residual deflection (if any). The accuracy of the measurements shall be within 0.125 inch.

3.5. Repeat Steps 3.3 and 3.4 for 60%, 85% and 100% of ultimate horizontal load checking for visible cracking at service load. Visible sign of cracking at service load level shall be the cause for rejection.

4.0 BREAKING TEST

4.1. After completion of the bending strength test, the pole tested in Section 3.0 above shall be subjected to a breaking load test.

4.2. With the same pole secured in place, apply sufficient loading (use moderate load increments) to break the test pole. Provide suitable load recording equipment to record the maximum load applied prior to breakage.

4.3. The breaking load must equal or exceed the calculated ultimate moment capacity (of the section at D distance from the butt of the pole) divided by the moment arm (pole length – (D+1)):

$$\text{Breaking load} >= \frac{\text{Ultimate Moment Capacity}}{PL - (D + 1)}$$

4.4. Non-attainment of this breaking load criterion shall be the cause for rejection.

5.0 Repeat sections 2.0 and 3.0 for the second pole selected. The second pole, having been subjected to bending loads only, may be used for the breaking test provided it passes the bending tests.

NOTE: Cracking shall be allowed at one half the Ultimate Moment Capacity of the pole.

APPENDIX D BASIC DESIGN CRITERIA

A. Codes And References

1. ACI 318-08 Building Code Requirements For Reinforced Concrete
2. International Building Code - 2009
3. ACI Detailing Manual
4. AISC 9th Edition

B. Materials Stresses

1.	Prestressed Concrete Pole	f'c = 6,000 psi
	At Release of Strand	f'c = 4,500 psi
2.	Prestressing Steel	ASTM A416, Grade 270
3.	Reinforced Concrete (Foundation)	f'c = 3,000 psi
4.	Spiral Wire	ASTM A82
5.	Rebar	ASTM A615, Grade 60

C. Loadings

1.	Wind Load	
	Wind Velocity (sustained)	155 mph
	Wind Velocity (3 second gusts)	170 mph
	Wind Exposure Coefficient	C
	Importance Factor	I = .1.15
2.	Seismic Load	
	Mapped Spectral Response Accelerations	S_s = 1.5
		S_1 = 0.6
	Importance Factor	I = 1.25
	Site Class	Assume D if Geotechnical data is unknown

APPENDIX E CLASS A OR B – 55 FOOT CONCRETE POLE INSPECTION FORM

TEST DATE: _____/_____/_____ TEST LOCATION: _____
City, Country

TYPE OF POLE: _____ POLE MANUFACTURER: _____

DIMENSION CHECK	MEASURED	PER SPEC E-035
Weight of pole:	_____	
Pole height:	_____	55- 0"
Pole top diameter:	_____	12" min – 18" max
Pole butt diameter:	_____	20" min – 28" max
Number of 11/16 inch holes:	_____	20 each
Number of 13/16 inch holes:	_____	11 each
Number of 2 inch ground sleeves:	_____	4 each

HOLE SPACINGS: * denotes 3/16" diameter holes

FROM	TO	MEASURED	E-035	FROM	TO	MEASURED	E-035
TIP	A	_____	10 1/4"	P	Q	_____	3' – 6"
A	*B	_____	1' – 0"	Q	R	_____	9"
*B	*C	_____	10"	R	S	_____	11 3/8"
*C	*D	_____	10 3/8"	S	T	_____	1' – 0 3/4"
*D	*E	_____	10"	T	U	_____	9"
*E	*F	_____	10"	U	V	_____	11 3/8"
*F	*G	_____	8'	V	W	_____	8 3/4"
*G	*H	_____	10 3/8"	W	X	_____	1' – 0"
*H	*I	_____	10"	X	Y	_____	1' – 0"
*I	*J	_____	10"	Y	Z	_____	1' – 0"
*J	*K	_____	10 3/8"	Z	Z1	_____	1' – 0"
*K	*L	_____	10"	Z1	Z2	_____	1' – 0"
*L	M	_____	8"	Z2	Z3	_____	1' – 0"
M	N	_____	10"	Z3	Z4	_____	1' – 0"
N	O	_____	10 3/8"	Z4	Ground Hole	_____	15' – 10"
O	P	_____	1' – 0"				

Material for hole inserts (Section 9.3): _____

Concrete cover over reinforcement: _____ inches (exterior side) & _____ inches (interior side)

Reinforcing type, amount and placement

Conforms with the approved Shop Drawings? [ ] YES [ ] NO

Longitudinal center of gravity provided? [ ] YES [ ] NO

Pole birthmark provided? [ ] YES [ ] NO

CLASS A OR B – 45 FOOT CONCRETE POLE INSPECTION FORM

TEST DATE: _____/_____/_____ TEST LOCATION: _____
City, Country

TYPE OF POLE: _____ POLE MANUFACTURER: _____

DIMENSION CHECK	MEASURED	PER SPEC E-035
Weight of pole:	_____	
Pole height:	_____	45- 0"
Pole top diameter:	_____	12" min
Pole butt diameter:	_____	18 5/8" min – 20" max
Number of 11/16 inch holes:	_____	14 each
Number of 2 inch ground sleeves:	_____	4 each

HOLE SPACINGS:

FROM	TO	MEASURED	E-035
TIP	A	_____	1' – 0"
A	B	_____	9 3/8"
B	C	_____	11"
C	D	_____	10"
D	E	_____	1' – 8 3/8"
E	F	_____	2' – 0"
F	G	_____	11 1/4"
G	H	_____	1' – 0"
H	I	_____	2' – 0"
I	J	_____	1' – 0"
J	K	_____	10"
K	L	_____	5' – 2"
L	M	_____	1' – 0"
M	Ground Hole	_____	16' – 10"

Material for hole inserts (Section 9.3): _____

Concrete cover over reinforcement: _____ inches (exterior side) & _____ inches (interior side)

Reinforcing type, amount and placement
Conforms with the approved Shop Drawings? [ ] YES [ ] NO

Longitudinal center of gravity provided? [ ] YES [ ] NO

Pole birthmark provided? [ ] YES [ ] NO

CLASS A OR B – 35 FOOT CONCRETE POLE INSPECTION FORM

TEST DATE: _____ / _____ / _____ TEST LOCATION: _____

City, Country

TYPE OF POLE: _____ POLE MANUFACTURER: _____

DIMENSION CHECK	MEASURED	PER SPEC E-035
Weight of pole:	_____	
Pole height:	_____	35- 0"
Pole top diameter:	_____	12" min
Pole butt diameter:	_____	17 5/8" min – 20" max
Number of 11/16 inch holes:	_____	9 each
Number of 2 inch ground sleeves:	_____	3 each

HOLE SPACINGS:

FROM	TO	MEASURED	E-035
TIP	A	_____	9"
A	B	_____	10"
B	C	_____	10 3/8"
C	D	_____	1' – 0"
D	E	_____	1' – 0"
E	F	_____	1' – 8 3/8"
F	G	_____	5' – 0"
G	H	_____	9"
H	Ground Hole	_____	15' – 1 1/4"

Material for hole inserts (Section 9.3): _____

Concrete cover over reinforcement: _____ inches (exterior side) & _____ inches (interior side)

Reinforcing type, amount and placement
Conforms with the approved Shop Drawings? [ ] YES [ ] NO

Longitudinal center of gravity provided? [ ] YES [ ] NO

Pole birthmark provided? [ ] YES [ ] NO

CLASS A 55 - FOOT Pole
Concrete Pole Bending Test Form

	55' Pole Horizontal Loads						
	Service Stress (service load level)	Deflection Measured (FEET)		Remarks for Service Stress	Ultimate Strength	Deflection Measured (FEET)	
	Kips	(A)	(B)	(visible cracks)	Kips	(A)	(B)
1st. pull	12.24				15.61 (60%)		
2nd. pull	13.30				16.96 (85%)		
3rd. pull	14.10				17.98 (100%)		

Note: 1. Visible cracking at service load level shall be cause for pole rejection.
2. Do not perform breaking test unless passes bending test.

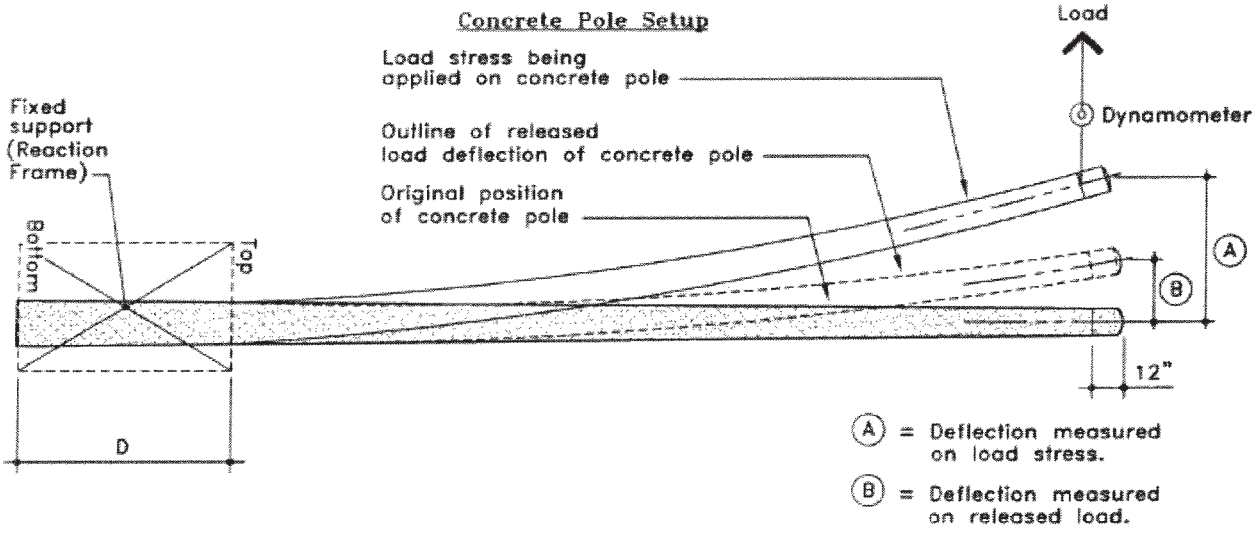
Concrete Pole Breaking Test

Breaking Load Stress $> \frac{\text{Ultimate Moment Capacity}}{PL-(D+1)} =$ _____

Ultimate Moment Capacity = Provide by Structural Engineer in Design Calculation .
*Non-attainment of this breaking load criteria shall be cause for pole rejection.

4th. pull
- Calculated Breaking Load Stress _____ Kips, (A) = _____ .
- Breaking of concrete pole measured @ maximum Stress Load applied/ pull _____ Kips, (A) = _____ .

Concrete Pole Setup



PL (Pole length) = 55'-0" and D (Depth) = 8'-0"

No. of cracks found _____, No. cracks <0.01 inch found _____ and No. cracks >0.01 inch found _____.
Draw in approximate location of cracks and indicate measurement.

CLASS B 55 – FOOT Pole
Concrete Pole Bending Test Form

	55' Pole Horizontal Loads						
	Service Stress (service load level)	Deflection Measured (FEET)		Remarks for Service Stress	Ultimate Strength	Deflection Measured (FEET)	
	Kips	(A)	(B)	(visible cracks)	Kips	(A)	(B)
1st. pull	8.38				10.68 (60%)		
2nd. pull	8.83				11.26 (85%)		
3rd. pull	9.14				11.65 (100%)		

Note: 1. Visible cracking at service load level shall be cause for pole rejection.
2. Do not perform breaking test unless passes bending test.

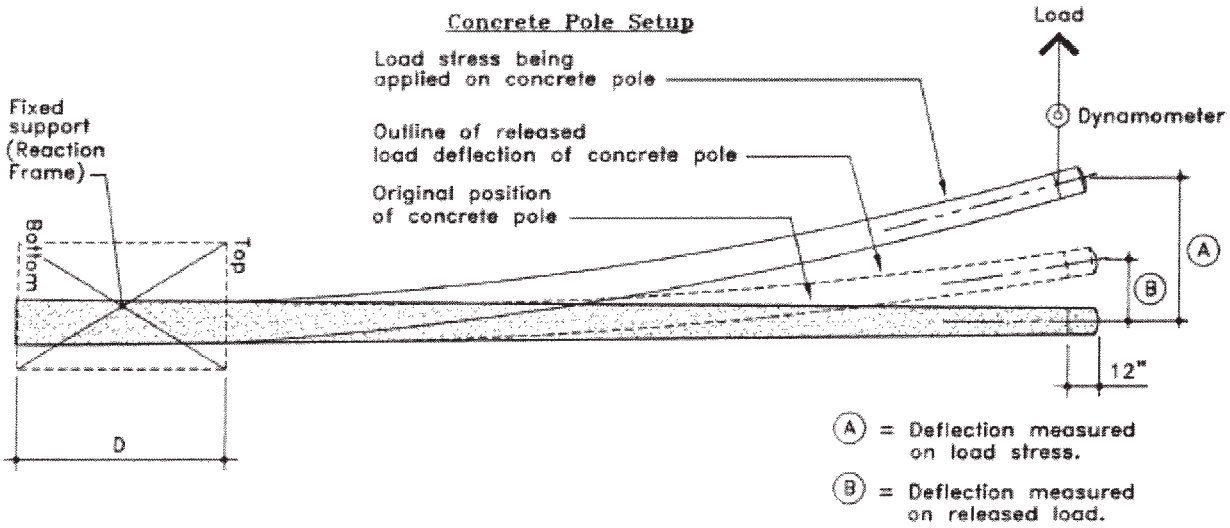
Concrete Pole Breaking Test

Breaking Load Stress $> \frac{\text{Ultimate Moment Capacity}}{PL-(D+1)} = $ _____

Ultimate Moment Capacity = Provide by Structural Engineer in Design Calculation .
*Non-attainment of this breaking load criteria shall be cause for pole rejection.

4th. pull
- Calculated Breaking Load Stress _____ Kips, (A) = _____ .
- Breaking of concrete pole measured @ maximum Stress Load applied/ pull _____ Kips, (A) = _____ .

Concrete Pole Setup



(A) = Deflection measured on load stress.

(B) = Deflection measured on released load.

PL (Pole length) = 55'–0" and D (Depth) = 8'–0"

No. of cracks found _____, No. cracks <0.01 inch found _____ and No. cracks >0.01 inch found _____.
Draw in approximate location of cracks and indicate measurement.

CLASS A 45 – FOOT Pole
Concrete Pole Bending Test Form

	45' Pole Horizontal Loads						
	Service Stress (service load level)	Deflection Measured (FEET)		Remarks for Service Stress	Ultimate Strength	Deflection Measured (FEET)	
	Kips	(A)	(B)	(visible cracks)	Kips	(A)	(B)
1st. pull	6.31				8.04 (60%)		
2nd. pull	6.49				8.24 (85%)		
3rd. pull	6.68				8.52 (100%)		

Note: 1. Visible cracking at service load level shall be cause for pole rejection.
2. Do not perform breaking test unless passes bending test.

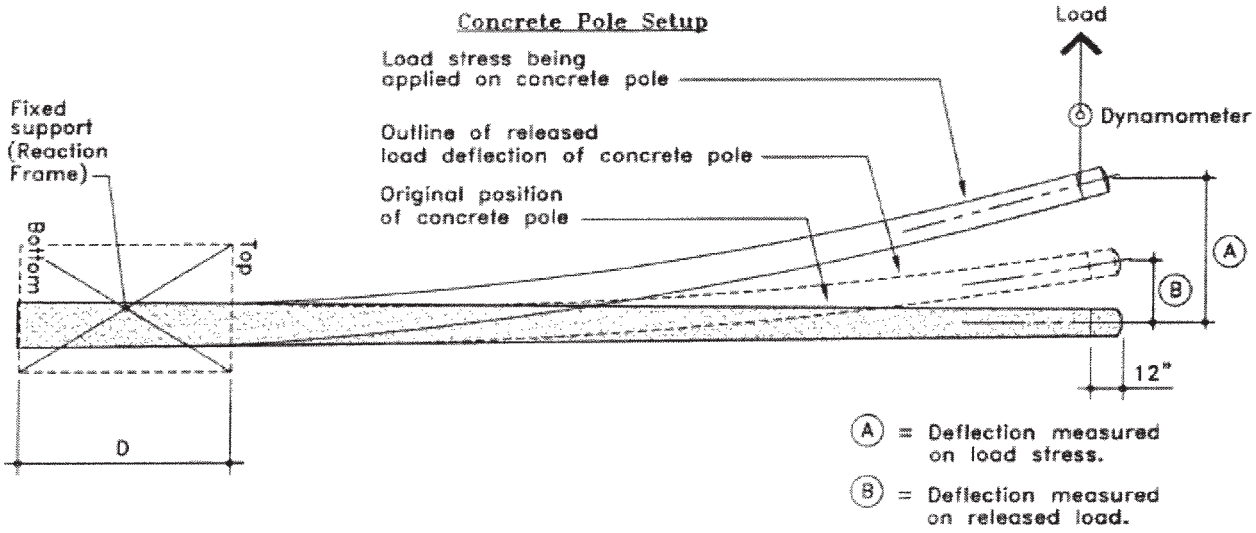
Concrete Pole Breaking Test

Breaking Load Stress > $\frac{\text{Ultimate Moment Capacity}}{\text{PL}-(\text{D}+1)}$ = _____

Ultimate Moment Capacity = Provide by Structural Engineer in Design Calculation .
*Non-attainment of this breaking load criteria shall be cause for pole rejection.

4th. pull
- Calculated Breaking Load Stress _____ Kips, (A) = _____ .
- Breaking of concrete pole measured @ maximum Stress Load applied/ pull _____ Kips, (A) = _____ .

Concrete Pole Setup



(A) = Deflection measured on load stress.

(B) = Deflection measured on released load.

PL (Pole length) = 45'–0" and D (Depth) = 7'–0"

No. of cracks found _____, No. cracks <0.01 inch found _____ and No. cracks >0.01 inch found _____.
Draw in approximate location of cracks and indicate measurement.

CLASS B 45 – FOOT Pole
Concrete Pole Bending Test Form

	45' Pole Horizontal Loads						
	Service Stress (service load level)	Deflection Measured (FEET)		Remarks for Service Stress	Ultimate Strength	Deflection Measured (FEET)	
	Kips	(A)	(B)	(visible cracks)	Kips	(A)	(B)
1st. pull	4.97				6.34 (60%)		
2nd. pull	5.19				6.62 (85%)		
3rd. pull	5.34				6.80 (100%)		

Note: 1. Visible cracking at service load level shall be cause for pole rejection.
2. Do not perform breaking test unless passes bending test.

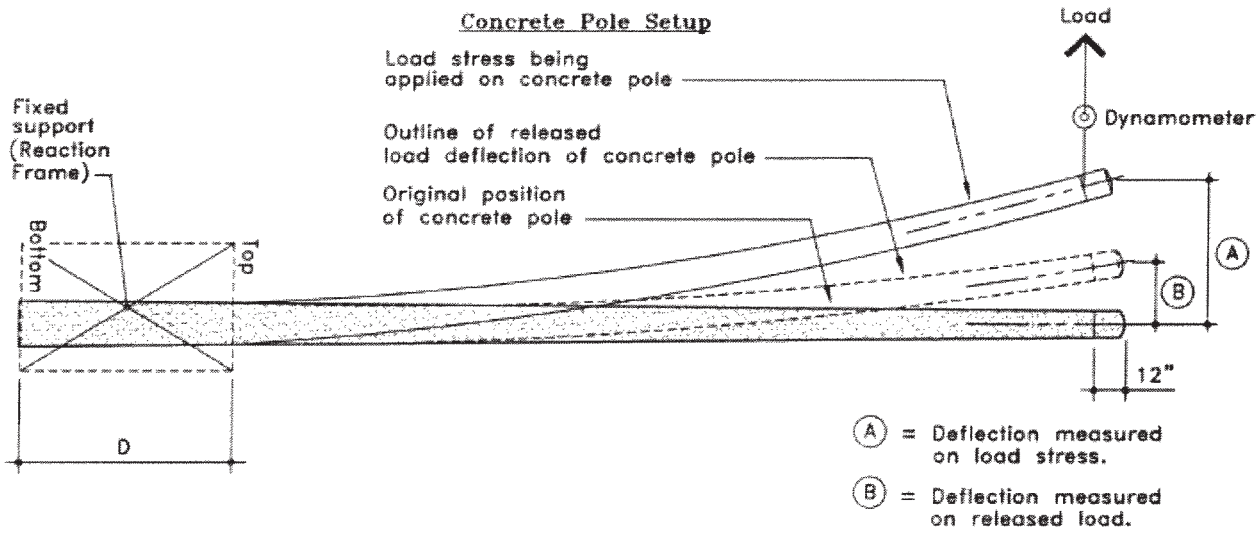
Concrete Pole Breaking Test

Breaking Load Stress $> \frac{\text{Ultimate Moment Capacity}}{PL-(D+1)} = $ _____

Ultimate Moment Capacity = Provide by Structural Engineer in Design Calculation .
*Non-attainment of this breaking load criteria shall be cause for pole rejection.

4th. pull
- Calculated Breaking Load Stress _____ Kips, (A) = _____ .
- Breaking of concrete pole measured @ maximum Stress Load applied/ pull _____ Kips, (A) = _____ .

Concrete Pole Setup



PL (Pole length) = 45'–0" and D (Depth) = 7'–0"

No. of cracks found _____, No. cracks <0.01 inch found _____ and No. cracks >0.01 inch found _____.
Draw in approximate location of cracks and indicate measurement.

CLASS 35 – FOOT Pole
Concrete Pole Bending Test Form

	35' Pole Horizontal Loads						
	Service Stress (service load level)	Deflection Measured (FEET)		Remarks for Service Stress	Ultimate Strength	Deflection Measured (FEET)	
	Kips	(A)	(B)	(visible cracks)	Kips	(A)	(B)
1st. pull	4.16				5.31 (60%)		
2nd. pull	4.37				5.58 (85%)		
3rd. pull	4.52				5.76 (100%)		

Note: 1. Visible cracking at service load level shall be cause for pole rejection.
2. Do not perform breaking test unless passes bending test.

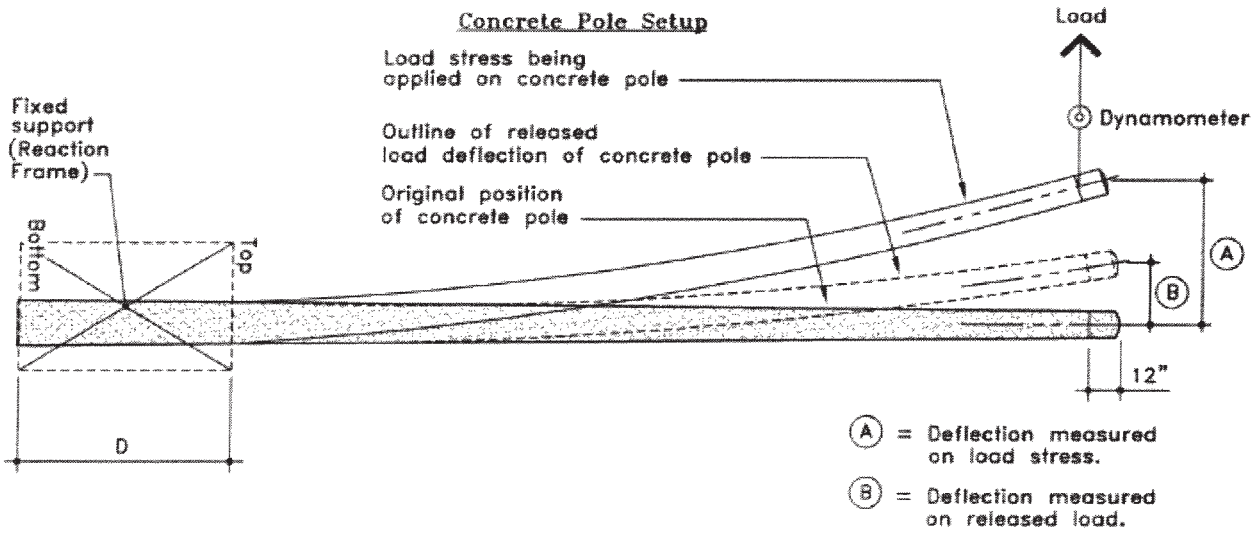
Concrete Pole Breaking Test

Breaking Load Stress > $\frac{\text{Ultimate Moment Capacity}}{PL-(D+1)}$ = _____

Ultimate Moment Capacity = Provide by Structural Engineer in Design Calculation .
*Non-attainment of this breaking load criteria shall be cause for pole rejection.

4th. pull
- Calculated Breaking Load Stress _____ Kips, (A) = _____ .
- Breaking of concrete pole measured @ maximum Stress Load applied/ pull _____ Kips, (A) = _____ .

Concrete Pole Setup



PL (Pole length) = 35'–0" and D (Depth) = 6'–0"

No. of cracks found _____, No. cracks <0.01 inch found _____ and No. cracks >0.01 inch found _____.
Draw in approximate location of cracks and indicate measurement.

APPENDIX F TESTING OF CONCRETE SAMPLE FORM

Number of samples tested: _____

STRENGTH TEST RESULTS

SAMPLE NUMBER	AGE	SIZE	LOADING AT FAILURE	COMPRESSIVE STRENGTH
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____
8	_____	_____	_____	_____
9	_____	_____	_____	_____
10	_____	_____	_____	_____

FOR GUAM POWER AUTHORITY

_____

_____

_____

_____

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUÅHAN
P.O.BOX 2977 • HAGÅTÑA, GUAM U.S.A. 96932-2977

Telephone Nos. (671) 648-3054/55 Fax: 648-3165

Lourdes A. Leon Guerrero
I Maga 'håga

Joshua F. Tenorio
I Sigundo Maga 'låhi

BID BOND

NO.: _____

KNOW ALL MEN BY THESE PRESENTS that _____, as

Principal Hereinafter called the Principal, and (Bonding Company), _____
A duly admitted insurer under the laws of the Territory of Guam, as Surety, hereinafter called the Surety are Held firmly bound unto the Territory of Guam for the sum of _____Dollars ($_____), for Payment of which sum will and truly to be made, the said Principal and the said Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for (identify project by number and brief description)

_____

_____

NOW, THEREFORE, if the Territory of Guam shall accept the bid of the Principal and the Principal shall enter into a Contract with the Territory of Guam in accordance with the terms of such bid, and give such bond or bonds as my be specified in bidding or Contract documents with good and sufficient surety for the faithful performance of such Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Territory of Guam the difference not to exceed the penalty hereof between the amounts specified in said bid and such larger amount for which the Territory of Guam may in good faith contract with another party to perform work covered by said bid or an appropriate liquidated amount as specified in the Invitation for Bids then this obligation shall be null and void, otherwise to remain full force and effect.

Signed and sealed this _____ day of _____ 2023.

_____
(PRINCIPAL) (SEAL)

_____
(WITNESS)

_____
(TITLE)

_____
(MAJOR OFFICER OF SURETY)

_____
(TITLE)

_____
(TITLE)

_____
(RESIDENT GENERAL AGENT)

SEE INSTRUCTIONS FOR SUPPORTING DOCUMENTS REQUIRED.

INSTRUCTION TO PROVIDERS:

NOTICE to all Insurance and Bonding Institutions:

The Bond requires the signatures of the Vendor, two (2) major Officers of the Surety and Resident General Agent, if the Surety is a foreign or alien surety.

When the form is submitted to the Guam Power Authority, it should be accompanied with copies of the following:

1. Current Certificate of Authority to do business on Guam issued by the Department of Revenue and Taxation.

2. Power of Attorney issued by the Surety to the Resident General Agent or the following:
   a. Current Sworn Annual Report (Limited Liability Company (LLC) and/or Corporation) or;
   b. Current Renewal of Annual Limited Liability Partnership (LLP)

   The following reference links below are for reference:

   https://www.govguamdocs.com/revtax/docs/SwornAnnualReport_LLC_0609.pdf
   https://www.govguamdocs.com/revtax/docs/SwornAnnualReport_Corporations.pdf
   https://www.govguamdocs.com/revtax/docs/Renewal_LLP_Registration_r1106.pdf

3. Power of Attorney issued by two (2) major officers of the Surety to whoever is signing on their behalf.

Bonds, submitted as Bid Guarantee, without signatures and supporting documents are invalid and Bids will be rejected.

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUÅHAN
P.O.BOX 2977 • HAGÅTÑA, GUAM U.S.A. 96932-2977

SPECIAL PROVISION
FOR
OWNERSHIP & INTEREST DISCLOSURE AFFIDAVIT

All Bidders/Offerors are required to submit a current affidavit as required below. Failure to do so will mean disqualification and rejection of the Bid/RFP.

5 GCA §5233 (Title 5, Section 5233) states:
Disclosure of Ownership, Financial, and Conflicts of Interest

(a) Purpose. The disclosure required by this Section are intended to reveal information bearing on the responsibility of a bidder, and can be obtained by an inquiry regarding responsibility prior to award.

(b) Definitions.
As used herein, the term "person" shall be interpreted liberally to include the definition found in 1 GCA § 715, and in § 5030(n) of this Chapter, and includes a natural person as well as every entity of whatever form or composition (an "artificial person") recognized under the laws of Guam other than a natural person, who is a prospective contractor under a bid, offer, proposal, or other response to a solicitation, or is a contractor under a contract with the government of Guam, and subject to the provisions of this Chapter.

(c) Public Disclosure of Ownership.
(1) The ownership interests to be disclosed under this Section include the interests of a natural or artificial person who owns all or any part of a prospective contractor, bidder, or offeror, whether as proprietor, a partner, limited or otherwise, a shareholder of any class, in which case the percentage ownership interest test shall be based on each class, a member of an association or company, limited or otherwise, and any person owning a beneficial legal interest in any trust, and any other person having the power to control the performance of the contract or the prospective contractor.
(2) Prior to award, every person who is a prospective contractor, bidder, or offeror of a contract to be acquired under any method of source selection authorized by this Chapter shall submit a Disclosure Statement, executed as an affidavit under oath, disclosing the name of each person who currently or has owned an ownership interest in the prospective contractor, bidder, or offeror greater than ten percent (10%) at any time during the twelve (12) month period immediately preceding the date of the solicitation (the "relevant disclosure period"). If a prospective contractor, bidder, or offeror is an artificial person, the Disclosure Statement shall disclose the name of each person who has owned an ownership interest in such artificial person (a "second tier owner") greater than twenty-five percent (25%) at any time during the relevant disclosure period. If any such second tier owner is also an artificial person, the Disclosure Statement shall disclose the name of each person who has owned an ownership interest in such second tier owner (a "third tier owner") of forty-nine percent (49%) or more during the relevant disclosure period. If the name of no natural person has been identified as an owner, or a second or third tier owner of the prospective contractor, bidder, or offeror, the Disclosure Statement shall identify the name, position, address, and contact information of the natural person having the authority and responsibility for the performance of the prospective contract, and the name of any natural person who has the authority and power to remove and replace the designated responsible person or otherwise control the performance of the prospective contract.

(d) Disclosure of Financial Interest. A prospective contractor shall execute an affidavit disclosing the name of any person who has received or is entitled to receive a commission, gratuity, contingent fee or other compensation to solicit, secure, or assist in obtaining business related to the solicitation by means of a Disclosure Statement, executed as an affidavit under oath, disclosing such interest and shall also contain the amounts of any such commission, gratuity, contingent fee or other compensation.

(e) Disclosure of Conflict of Interest. A prospective contractor shall disclose the name of any person who directly or indirectly participates in any solicitation if such person is also an employee of the government of Guam, or of the government of the United States if federal funds are used in payment of the contract.

(f) Every disclosure of an ownership or financial interest of any person required to be identified by this Section shall name the person required to be disclosed and the street address of their principal place of business. All information disclosed or meant to be disclosed under this Section is public procurement data and shall be kept as part of the public record of each procurement.

(g) Continuing Duty of Disclosure. Notwithstanding any other provision of this Chapter, the duty to disclose the information required under this Section shall be, upon award a continuing duty of a contractor of every contract subject to this Chapter, and all such information shall become part of the procurement record required by § 5249 of this Chapter. Throughout the term of a contract subject to the terms of this Chapter, the contractor shall promptly make any disclosures not made previously and update changes in the identities or other required information, interests, or conflicts of the persons required to be disclosed herein. Failure to comply with this Section shall constitute a material breach of contract."

Section 2. Severability. If any provision of this Act or its application to any person or circumstance is found to be invalid or contrary to law, such invalidity shall not affect other provisions or applications of this Act that can be given effect without the invalid provision or application, and to this end the provisions of this Act are severable.

1. If the affidavit is a copy, indicate the BID/RFP number and where it is filed.

2. Affidavits must be signed within 60 days of the date the bids or proposals are due.

OWNERSHIP & INTEREST DISCLOSURE AFFIDAVIT

TERRITORY OF GUAM)
)
HAGATNA, GUAM)

I, undersigned, _____, being first duly sworn, deposes and says:
(partner or officer of the company, etc.)

1. That the name of each person who owns or has owned an ownership interest in the prospective contractor, bidder, or offeror greater than ten (10%) at any time during the twelve (12) month period immediately preceding the date of this solicitation are as follows:

Name	Street Address (Principal Place of Business)	Percentage of Shares Held
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
	Total percentage of shares:	_____

2. That for any owners listed Section 1 who are artificial persons, the name of each person who owns or has owned an interest in such artificial person (a "second-tier owner") greater than twenty-five percent (25%) at any time during the relevant disclosure period are as follows:

Name	Street Address (Principal Place of Business)	Percentage of Shares Held
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
	Total percentage of shares:	_____

3. That for any owners listed Section 2 who are artificial persons, the name of each person who has owned an ownership interest in such second-tier owner (a "third-tier owner") of forty-nine percent (49%) or more during the relevant disclosure period are as follows:

Name	Street Address (Principal Place of Business)	Percentage of Shares Held
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
	Total percentage of shares:	_____

4. That if no natural person has been identified as an owner in Section 1-3 above, the natural person having the authority and responsibility for the performance of the prospective contract:

Name & Position	Street Address (Principal Place of Business)	Contact Information
_____	_____	_____
_____	_____	_____

The natural person having the authority and power to remove and replace the designated responsible person or otherwise control the performance of the prospective contract:

Name & Position	Street Address (Principal Place of Business)	Contact Information
_____	_____	_____

5. Persons who have received or are entitled a commission, gratuity or other compensation for procuring or assisting in obtaining business related to the Bid/RFP for which this Affidavit is submitted are as follows:

Name	Address	Amount of Commission, Gratuity, or other Compensation
_____	_____	_____
_____	_____	_____

6. Persons who directly or indirectly participated in this solicitation, if government of Guam employees (or government of the United States employees, if federal funds are used in payment of the contract):

Name & Position	Street Address (Principal Place of Business)	Contact Information
_____	_____	_____
_____	_____	_____

Further, affiant sayeth naught.

Date: _____ _____

Signature of individual if bidder/offeror is a sole Proprietorship; Partner, if the bidder/offeror is a Partnership Officer, if the bidder/offeror is a corporation.

Subscribe and sworn to before me this _____ day of _____,

20_____.

Notary Public _____

In and for the Territory of Guam

My Commission expires _____.

NON-COLLUSION AFFIDAVIT

Guam)
)ss:
Hagatna)

I, _____ first being duly sworn, depose and say:
(Name of Declarant)

1. That I am the _____ of _____.
(Title) (Name of Bidding/RFP Company)
2. That in making the foregoing proposal or bid, that such proposal or bid is genuine and not collusive or shame, that said bidder/offeror has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham or to refrain from bidding or submitting a proposal and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid of affiant or any other bidder, or to secure any overhead, project or cost element of said bid price, or of that of any bidder, or to secure any advantage against the GUAM POWER AUTHORITY or any person interested in the proposed contract; and
3. That all statements in said proposal or bid are true.
4. This affidavit is made in compliance with Guam Administrative Rules and Regulations §§3126(b).

_____
(Declarant)

SUBSCRIBED AND SWORN to me before this _____ day of _____, 2023.

)Seal(

_____
Notary Public

NO GRATUITIES OR KICKBACKS AFFIDAVIT

AFFIDAVIT
(Offeror)

TERRITORY OF GUAM)
)
HAGATNA, GUAM)

SS:

_____, being first duly sworn, deposes and says:

As the duly authorized representative of the Offeror, that neither I nor of the Offeror's officers, representatives, agents, subcontractors, or employees has or have offered, given or agreed to give any government of Guam employee or former employee, any payment, gift, kickback, gratuity or offer of employment in connection with Offeror's proposal.

_____

Signature of Individual if Proposer is a Sole Proprietorship;
Partner, if the Proposer is a Partnership;
Officer, if the Proposer is a Corporation

SUBCRIBED AND SWORN to before me this ____day of _____, 2023.

_____
Notary Public
In and for the Territory of Guam
My Commission Expires:

ETHICAL STANDARDS AFFIDAVIT

AFFIDAVIT
(Proposer)

TERRITORY OF GUAM)
) SS:
HAGATNA, GUAM)

_____, being first duly sworn, deposes and says:

That I am (the Sole Proprietor, a Partner or Officer of the Offeror)

That Offeror making the foregoing Proposal, that neither he or nor of the Offeror's officers, representatives, agents, subcontractors, or employees of the Offeror have knowingly influenced any government of Guam employee to breach any of the ethical standards set forth in 5 GCA Chapter 5 Article 11, and promises that neither he nor any officer, representative, agent, subcontractor, or employee of Offeror will knowingly influence any government of Guam employee to breach any ethical standard set for in 5 GCA Chapter 5 Article 11.

_____

Signature of Individual if Proposer is a Sole Proprietorship;
Partner, if the Proposer is a Partnership;
Officer, if the Proposer is a Corporation

SUBCRIBED AND SWORN to before me this ____day of _____, 2023.

_____
Notary Public
In and for the Territory of Guam
My Commission Expires:

DECLARATION RE-COMPLIANCE WITH U.S. DOL WAGE DETERMINATION

Procurement No.: _____

Name of Offeror Company: _____

_____ hereby certifies under penalty of perjury:

(1) That I am _____ (the offeror, a partner of the offeror, an officer of the offeror) making the bid or proposal in the foregoing identified procurement;

(2) That I have read and understand the provisions of 5 GCA § 5801 and § 5802 which read:

§ 5801. Wage Determination Established.

In such cases where the government of Guam enters into contractual arrangements with a sole proprietorship, a partnership or a corporation ('contractor') for the provision of a service to the government of Guam, and in such cases where the contractor employs a person(s) whose purpose, in whole or in part, is the direct delivery of service contracted by the government of Guam, then the contractor shall pay such employee(s) in accordance with the Wage Determination for Guam and the Northern Mariana Islands issued and promulgated by the U.S. Department of Labor for such labor as is employed in the direct delivery of contract deliverables to the government of Guam.

The Wage Determination most recently issued by the U.S. Department of Labor at the time a contract is awarded to a contractor by the government of Guam shall be used to determine wages, which shall be paid to employees pursuant to this Article. Should any contract contain a renewal clause, then at the time of renewal adjustments, there shall be made stipulations contained in that contract for applying the Wage Determination, as required by this Article, so that the Wage Determination promulgated by the U.S. Department of Labor on a date most recent to the renewal date shall apply.

§ 5802. Benefits.

In addition to the Wage Determination detailed in this Article, any contract to which this Article applies shall also contain provisions mandating health and similar benefits for employees covered by this Article, such benefits having a minimum value as detailed in the Wage Determination issued and promulgated by the U.S. Department of Labor, and shall contain provisions guaranteeing a minimum of ten (10) paid holidays per annum per employee.

(3) That the offeror is in full compliance with 5 GCA § 5801 and § 5802, as may be applicable to the procurement referenced herein;

_____

Signature of Individual if Proposer is a Sole Proprietorship;

Partner, if the Proposer is a Partnership;

Officer, if the Proposer is a Corporation

SUBCRIBED AND SWORN to before me this ____day of _____, 2023.

_____

Notary Public
In and for the Territory of Guam
My Commission Expires:

"REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Wage Determination No.: 2015-5693
Revision No.: 18
Date Of Last Revision: 12/27/2022

Daniel W. Simms
Director

Division of
Wage Determinations

Note: Contracts subject to the Service Contract Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026.

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

States: Guam, Northern Marianas, Wake Island

Area: Guam Statewide
Northern Marianas Statewide
Wake Island Statewide

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		14.27***
01012 - Accounting Clerk II		16.02***
01013 - Accounting Clerk III		17.93
01020 - Administrative Assistant		21.43
01035 - Court Reporter		17.40
01041 - Customer Service Representative I		12.66***
01042 - Customer Service Representative II		14.23***
01043 - Customer Service Representative III		15.53***
01051 - Data Entry Operator I		12.15***
01052 - Data Entry Operator II		13.25***
01060 - Dispatcher, Motor Vehicle		17.39
01070 - Document Preparation Clerk		13.85***
01090 - Duplicating Machine Operator		13.85***
01111 - General Clerk I		11.08***
01112 - General Clerk II		12.09***
01113 - General Clerk III		13.57***
01120 - Housing Referral Assistant		19.39
01141 - Messenger Courier		11.37***
01191 - Order Clerk I		12.57***
01192 - Order Clerk II		13.71***
01261 - Personnel Assistant (Employment) I		15.95***
01262 - Personnel Assistant (Employment) II		17.85

01263 - Personnel Assistant (Employment) III	19.89
01270 - Production Control Clerk	22.97
01290 - Rental Clerk	11.10***
01300 - Scheduler, Maintenance	15.55***
01311 - Secretary I	15.55***
01312 - Secretary II	17.40
01313 - Secretary III	19.39
01320 - Service Order Dispatcher	15.40***
01410 - Supply Technician	21.43
01420 - Survey Worker	16.96
01460 - Switchboard Operator/Receptionist	10.78***
01531 - Travel Clerk I	13.01***
01532 - Travel Clerk II	14.12***
01533 - Travel Clerk III	15.09***
01611 - Word Processor I	14.53***
01612 - Word Processor II	16.31
01613 - Word Processor III	18.26
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	17.01
05010 - Automotive Electrician	15.97***
05040 - Automotive Glass Installer	14.94***
05070 - Automotive Worker	14.94***
05110 - Mobile Equipment Servicer	12.82***
05130 - Motor Equipment Metal Mechanic	17.01
05160 - Motor Equipment Metal Worker	14.94***
05190 - Motor Vehicle Mechanic	17.01
05220 - Motor Vehicle Mechanic Helper	11.73***
05250 - Motor Vehicle Upholstery Worker	13.90***
05280 - Motor Vehicle Wrecker	14.94***
05310 - Painter, Automotive	15.97***
05340 - Radiator Repair Specialist	14.94***
05370 - Tire Repairer	12.67***
05400 - Transmission Repair Specialist	17.01
07000 - Food Preparation And Service Occupations	
07010 - Baker	10.89***
07041 - Cook I	14.44***
07042 - Cook II	16.84
07070 - Dishwasher	9.35***
07130 - Food Service Worker	9.69***
07210 - Meat Cutter	12.13***
07260 - Waiter/Waitress	9.45***
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	18.04
09040 - Furniture Handler	10.95***
09080 - Furniture Refinisher	18.04
09090 - Furniture Refinisher Helper	13.27***
09110 - Furniture Repairer, Minor	15.70***
09130 - Upholsterer	18.04
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	9.35***
11060 - Elevator Operator	9.54***
11090 - Gardener	14.28***
11122 - Housekeeping Aide	9.54***
11150 - Janitor	9.54***
11210 - Laborer, Grounds Maintenance	10.79***
11240 - Maid or Houseman	9.39***
11260 - Pruner	9.66***
11270 - Tractor Operator	13.07***
11330 - Trail Maintenance Worker	10.79***
11360 - Window Cleaner	10.66***
12000 - Health Occupations	
12010 - Ambulance Driver	18.23
12011 - Breath Alcohol Technician	18.23
12012 - Certified Occupational Therapist Assistant	25.01
12015 - Certified Physical Therapist Assistant	25.01

12020 - Dental Assistant		17.94
12025 - Dental Hygienist		39.73
12030 - EKG Technician		27.43
12035 - Electroneurodiagnostic Technologist		27.43
12040 - Emergency Medical Technician		18.23
12071 - Licensed Practical Nurse I		16.30
12072 - Licensed Practical Nurse II		18.23
12073 - Licensed Practical Nurse III		20.32
12100 - Medical Assistant		12.26***
12130 - Medical Laboratory Technician		18.82
12160 - Medical Record Clerk		14.97***
12190 - Medical Record Technician		17.77
12195 - Medical Transcriptionist		16.30
12210 - Nuclear Medicine Technologist		40.06
12221 - Nursing Assistant I		12.21***
12222 - Nursing Assistant II		13.73***
12223 - Nursing Assistant III		14.98***
12224 - Nursing Assistant IV		16.82
12235 - Optical Dispenser		18.23
12236 - Optical Technician		16.30
12250 - Pharmacy Technician		15.49***
12280 - Phlebotomist		16.30
12305 - Radiologic Technologist		27.43
12311 - Registered Nurse I		23.18
12312 - Registered Nurse II		28.36
12313 - Registered Nurse II, Specialist		28.36
12314 - Registered Nurse III		34.32
12315 - Registered Nurse III, Anesthetist		34.32
12316 - Registered Nurse IV		41.13
12317 - Scheduler (Drug and Alcohol Testing)		22.58
12320 - Substance Abuse Treatment Counselor		22.58
13000 - Information And Arts Occupations		
13011 - Exhibits Specialist I		21.42
13012 - Exhibits Specialist II		26.53
13013 - Exhibits Specialist III		32.45
13041 - Illustrator I		21.42
13042 - Illustrator II		26.53
13043 - Illustrator III		32.45
13047 - Librarian		29.38
13050 - Library Aide/Clerk		17.05
13054 - Library Information Technology Systems Administrator		26.53
13058 - Library Technician		18.11
13061 - Media Specialist I		19.15
13062 - Media Specialist II		21.42
13063 - Media Specialist III		23.87
13071 - Photographer I		19.15
13072 - Photographer II		21.42
13073 - Photographer III		26.53
13074 - Photographer IV		32.45
13075 - Photographer V		39.27
13090 - Technical Order Library Clerk		21.42
13110 - Video Teleconference Technician		19.15
14000 - Information Technology Occupations		
14041 - Computer Operator I		15.71***
14042 - Computer Operator II		17.22
14043 - Computer Operator III		19.19
14044 - Computer Operator IV		21.33
14045 - Computer Operator V		23.62
14071 - Computer Programmer I	(see 1)	15.73***
14072 - Computer Programmer II	(see 1)	19.50
14073 - Computer Programmer III	(see 1)	23.84
14074 - Computer Programmer IV	(see 1)	
14101 - Computer Systems Analyst I	(see 1)	24.23
14102 - Computer Systems Analyst II	(see 1)	

14103 - Computer Systems Analyst III (see 1)
14150 - Peripheral Equipment Operator 15.71***
14160 - Personal Computer Support Technician 21.33
14170 - System Support Specialist 21.24
15000 - Instructional Occupations
15010 - Aircrew Training Devices Instructor (Non-Rated) 24.23
15020 - Aircrew Training Devices Instructor (Rated) 29.32
15030 - Air Crew Training Devices Instructor (Pilot) 34.91
15050 - Computer Based Training Specialist / Instructor 24.23
15060 - Educational Technologist 27.61
15070 - Flight Instructor (Pilot) 34.91
15080 - Graphic Artist 20.47
15085 - Maintenance Test Pilot, Fixed, Jet/Prop 34.91
15086 - Maintenance Test Pilot, Rotary Wing 34.91
15088 - Non-Maintenance Test/Co-Pilot 34.91
15090 - Technical Instructor 17.67
15095 - Technical Instructor/Course Developer 23.78
15110 - Test Proctor 15.70***
15120 - Tutor 15.70***
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations
16010 - Assembler 10.37***
16030 - Counter Attendant 10.37***
16040 - Dry Cleaner 11.84***
16070 - Finisher, Flatwork, Machine 10.37***
16090 - Presser, Hand 10.37***
16110 - Presser, Machine, Drycleaning 10.37***
16130 - Presser, Machine, Shirts 10.37***
16160 - Presser, Machine, Wearing Apparel, Laundry 10.37***
16190 - Sewing Machine Operator 12.34***
16220 - Tailor 12.83***
16250 - Washer, Machine 10.86***
19000 - Machine Tool Operation And Repair Occupations
19010 - Machine-Tool Operator (Tool Room) 19.46
19040 - Tool And Die Maker 24.46
21000 - Materials Handling And Packing Occupations
21020 - Forklift Operator 13.96***
21030 - Material Coordinator 22.97
21040 - Material Expediter 22.97
21050 - Material Handling Laborer 11.43***
21071 - Order Filler 10.62***
21080 - Production Line Worker (Food Processing) 13.96***
21110 - Shipping Packer 17.12
21130 - Shipping/Receiving Clerk 17.12
21140 - Store Worker I 15.38***
21150 - Stock Clerk 21.62
21210 - Tools And Parts Attendant 13.96***
21410 - Warehouse Specialist 13.96***
23000 - Mechanics And Maintenance And Repair Occupations
23010 - Aerospace Structural Welder 25.04
23019 - Aircraft Logs and Records Technician 19.47
23021 - Aircraft Mechanic I 23.84
23022 - Aircraft Mechanic II 25.04
23023 - Aircraft Mechanic III 26.30
23040 - Aircraft Mechanic Helper 16.58
23050 - Aircraft, Painter 22.39
23060 - Aircraft Servicer 19.47
23070 - Aircraft Survival Flight Equipment Technician 22.39
23080 - Aircraft Worker 21.03
23091 - Aircrew Life Support Equipment (ALSE) Mechanic I 21.03
23092 - Aircrew Life Support Equipment (ALSE) Mechanic II 23.84
23110 - Appliance Mechanic 19.46
23120 - Bicycle Repairer 15.61***
23125 - Cable Splicer 21.55

23130 - Carpenter, Maintenance	17.58
23140 - Carpet Layer	18.20
23160 - Electrician, Maintenance	18.21
23181 - Electronics Technician Maintenance I	18.20
23182 - Electronics Technician Maintenance II	19.46
23183 - Electronics Technician Maintenance III	20.72
23260 - Fabric Worker	16.94
23290 - Fire Alarm System Mechanic	16.77
23310 - Fire Extinguisher Repairer	15.61***
23311 - Fuel Distribution System Mechanic	20.72
23312 - Fuel Distribution System Operator	15.61***
23370 - General Maintenance Worker	13.21***
23380 - Ground Support Equipment Mechanic	23.84
23381 - Ground Support Equipment Servicer	19.47
23382 - Ground Support Equipment Worker	21.03
23391 - Gunsmith I	15.61***
23392 - Gunsmith II	18.20
23393 - Gunsmith III	20.72
23410 - Heating, Ventilation And Air-Conditioning Mechanic	17.88
23411 - Heating, Ventilation And Air Contidioning Mechanic (Research Facility)	19.02
23430 - Heavy Equipment Mechanic	19.50
23440 - Heavy Equipment Operator	17.98
23460 - Instrument Mechanic	20.72
23465 - Laboratory/Shelter Mechanic	19.46
23470 - Laborer	11.43***
23510 - Locksmith	19.46
23530 - Machinery Maintenance Mechanic	23.13
23550 - Machinist, Maintenance	20.72
23580 - Maintenance Trades Helper	10.99***
23591 - Metrology Technician I	20.72
23592 - Metrology Technician II	22.03
23593 - Metrology Technician III	23.33
23640 - Millwright	20.72
23710 - Office Appliance Repairer	19.46
23760 - Painter, Maintenance	15.49***
23790 - Pipefitter, Maintenance	18.39
23810 - Plumber, Maintenance	17.27
23820 - Pneudraulic Systems Mechanic	20.72
23850 - Rigger	20.72
23870 - Scale Mechanic	18.20
23890 - Sheet-Metal Worker, Maintenance	17.77
23910 - Small Engine Mechanic	18.20
23931 - Telecommunications Mechanic I	19.76
23932 - Telecommunications Mechanic II	21.01
23950 - Telephone Lineman	18.75
23960 - Welder, Combination, Maintenance	18.31
23965 - Well Driller	21.13
23970 - Woodcraft Worker	20.71
23980 - Woodworker	15.61***
24000 - Personal Needs Occupations	
24550 - Case Manager	15.01***
24570 - Child Care Attendant	10.09***
24580 - Child Care Center Clerk	13.25***
24610 - Chore Aide	14.06***
24620 - Family Readiness And Support Services Coordinator	15.01***
24630 - Homemaker	16.12***
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	22.79
25040 - Sewage Plant Operator	22.89
25070 - Stationary Engineer	22.79
25190 - Ventilation Equipment Tender	15.72***
25210 - Water Treatment Plant Operator	22.89

27000 - Protective Service Occupations		
27004 - Alarm Monitor		10.90***
27007 - Baggage Inspector		9.63***
27008 - Corrections Officer		13.26***
27010 - Court Security Officer		13.26***
27030 - Detection Dog Handler		10.90***
27040 - Detention Officer		13.26***
27070 - Firefighter		13.26***
27101 - Guard I		9.63***
27102 - Guard II		10.90***
27131 - Police Officer I		13.26***
27132 - Police Officer II		14.74***
28000 - Recreation Occupations		
28041 - Carnival Equipment Operator		13.24***
28042 - Carnival Equipment Repairer		14.46***
28043 - Carnival Worker		9.78***
28210 - Gate Attendant/Gate Tender		13.18***
28310 - Lifeguard		11.01***
28350 - Park Attendant (Aide)		14.74***
28510 - Recreation Aide/Health Facility Attendant		11.84***
28515 - Recreation Specialist		18.26
28630 - Sports Official		11.74***
28690 - Swimming Pool Operator		17.71
29000 - Stevedoring/Longshoremen Occupational Services		
29010 - Blocker And Bracer		26.02
29020 - Hatch Tender		26.02
29030 - Line Handler		26.02
29041 - Stevedore I		24.21
29042 - Stevedore II		27.82
30000 - Technical Occupations		
30010 - Air Traffic Control Specialist, Center (HFO)	(see 2)	41.27
30011 - Air Traffic Control Specialist, Station (HFO)	(see 2)	28.46
30012 - Air Traffic Control Specialist, Terminal (HFO)	(see 2)	31.33
30021 - Archeological Technician I		18.17
30022 - Archeological Technician II		20.33
30023 - Archeological Technician III		25.19
30030 - Cartographic Technician		25.19
30040 - Civil Engineering Technician		25.19
30051 - Cryogenic Technician I		27.89
30052 - Cryogenic Technician II		30.80
30061 - Drafter/CAD Operator I		18.17
30062 - Drafter/CAD Operator II		20.33
30063 - Drafter/CAD Operator III		22.66
30064 - Drafter/CAD Operator IV		27.89
30081 - Engineering Technician I		16.19***
30082 - Engineering Technician II		18.17
30083 - Engineering Technician III		20.33
30084 - Engineering Technician IV		25.19
30085 - Engineering Technician V		30.80
30086 - Engineering Technician VI		37.27
30090 - Environmental Technician		25.19
30095 - Evidence Control Specialist		25.19
30210 - Laboratory Technician		22.66
30221 - Latent Fingerprint Technician I		27.89
30222 - Latent Fingerprint Technician II		30.80
30240 - Mathematical Technician		25.19
30361 - Paralegal/Legal Assistant I		19.54
30362 - Paralegal/Legal Assistant II		24.21
30363 - Paralegal/Legal Assistant III		29.61
30364 - Paralegal/Legal Assistant IV		35.83
30375 - Petroleum Supply Specialist		30.80
30390 - Photo-Optics Technician		24.12
30395 - Radiation Control Technician		30.80
30461 - Technical Writer I		25.19
30462 - Technical Writer II		30.80

30463 - Technical Writer III		37.27
30491 - Unexploded Ordnance (UXO) Technician I		26.22
30492 - Unexploded Ordnance (UXO) Technician II		31.73
30493 - Unexploded Ordnance (UXO) Technician III		38.03
30494 - Unexploded (UXO) Safety Escort		26.22
30495 - Unexploded (UXO) Sweep Personnel		26.22
30501 - Weather Forecaster I		27.89
30502 - Weather Forecaster II		33.93
30620 - Weather Observer, Combined Upper Air Or Surface Programs	(see 2)	22.66
30621 - Weather Observer, Senior	(see 2)	25.19
31000 - Transportation/Mobile Equipment Operation Occupations		
31010 - Airplane Pilot		31.73
31020 - Bus Aide		8.97***
31030 - Bus Driver		11.73***
31043 - Driver Courier		10.26***
31260 - Parking and Lot Attendant		9.91***
31290 - Shuttle Bus Driver		11.65***
31310 - Taxi Driver		11.41***
31361 - Truckdriver, Light		11.21***
31362 - Truckdriver, Medium		12.16***
31363 - Truckdriver, Heavy		16.10***
31364 - Truckdriver, Tractor-Trailer		16.10***
99000 - Miscellaneous Occupations		
99020 - Cabin Safety Specialist		15.47***
99030 - Cashier		9.63***
99050 - Desk Clerk		9.70***
99095 - Embalmer		26.22
99130 - Flight Follower		26.22
99251 - Laboratory Animal Caretaker I		23.62
99252 - Laboratory Animal Caretaker II		25.80
99260 - Marketing Analyst		21.54
99310 - Mortician		26.22
99410 - Pest Controller		14.61***
99510 - Photofinishing Worker		13.78***
99710 - Recycling Laborer		17.32
99711 - Recycling Specialist		23.38
99730 - Refuse Collector		16.40
99810 - Sales Clerk		10.15***
99820 - School Crossing Guard		17.45
99830 - Survey Party Chief		23.79
99831 - Surveying Aide		13.53***
99832 - Surveying Technician		17.58
99840 - Vending Machine Attendant		23.62
99841 - Vending Machine Repairer		30.08
99842 - Vending Machine Repairer Helper		23.62

***Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($16.20 per hour). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to contracts or contract-like instruments entered into with the federal government in connection with seasonal recreational services or seasonal recreational equipment rental for the general public on federal lands.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: $4.80 per hour, up to 40 hours per week, or $192.00 per week or $832.00 per month

HEALTH & WELFARE EO 13706: $4.41 per hour, up to 40 hours per week, or $176.40 per week, or $764.40 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706, Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; and 4 weeks after 3 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of eleven paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Juneteenth National Independence Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) COMPUTER EMPLOYEES: This wage determination does not apply to any individual employed in a bona fide executive, administrative, or professional capacity, as defined in 29 C.F.R. Part 541. (See 41 C.F.R. 6701(3)). Because most Computer Systems Analysts and Computer Programmers who are paid at least $27.63 per hour (or at least $684 per week if paid on a salary or fee basis) likely qualify as exempt computer professionals under 29 U.S.C. 213(a)(1) and 29 U.S.C. 213(a)(17), this wage determination may not include wage rates for all occupations within those job families. In such instances, a conformance will be necessary if there are nonexempt employees in these job families working on the contract.

Job titles vary widely and change quickly in the computer industry, and are not determinative of whether an employee is an exempt computer professional. To be exempt, computer employees who satisfy the compensation requirements must also have a primary duty that consists of:

(1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

Any computer employee who meets the applicable compensation requirements and the above duties test qualifies as an exempt computer professional under both section 13(a)(1) and section 13(a)(17) of the Fair Labor Standards Act. (Field Assistance Bulletin No. 2006-3 (Dec. 14, 2006)). Accordingly, this wage determination will not apply to any exempt computer employee regardless of which of these two exemptions is utilized.

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your

regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

** HAZARDOUS PAY DIFFERENTIAL **

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving re-grading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of ""wash and wear"" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the ""Service Contract Act Directory of Occupations"", Fifth Edition (Revision 1), dated September 2015, unless otherwise indicated.

** REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE, Standard Form 1444 (SF-1444) **

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be paid to all employees performing in the classification from the first day of work on which contract work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or fully determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract. (See 29 CFR 4.6(b)(2)(v)). When multiple wage determinations are included in a contract, a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order the proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the U.S. Department of Labor, Wage and Hour Division, for review (See 29 CFR 4.6(b)(2)(ii)).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour Division's decision to the contractor.

6) Each affected employee shall be furnished by the contractor with a written copy of such determination or it shall be posted as a part of the wage determination (See 29 CFR 4.6(b)(2)(iii)).

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request, the ""Service Contract Act Directory of Occupations"" should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination (See 29 CFR 4.152(c)(1))."

SPECIAL PROVISIONS

Restriction Against Sex Offenders Employed by Service Providers to Government of Guam from Working on Government of Guam Property

GCA 5 §5253 Restriction Against Contractors Employing Convicted Sex Offenders from Working at Government of Guam Venues:

(a) No person convicted of a sex offense under the provisions of Chapter 25 of Title 9 Guam Code Annotated, or an offense as defined in Article 2 of Chapter 28, Title 9 GCA in Guam, or an offense in any jurisdiction which includes, at a minimum, all of the elements of said offenses, or who is listed on the Sex Offender Registry, and who is employed by a business contracted to perform services for an agency or instrumentality of the government of Guam, shall work for his employer on the property of the Government of Guam other than public highway.

(b) All contracts for services to agencies listed herein shall include the following provisions: (1) warranties that no person providing services on behalf of the contractor has been convicted of a sex offense under the provisions of Chapter 25 of Title 9 GCA or an offense as defined in Article 2 of Chapter 28, Title 9 GCA, or an offense in another jurisdiction with, at a minimum, the same elements as such offenses, or who is listed on the Sex Offender Registry; and (2) that if any person providing services on behalf of the contractor is convicted of a sex offense under the provisions of Chapter 25 of Title 9 GCA or an offense as defined in Article 2 of Chapter 28, Title 9 GCA or an offense in another jurisdiction with, at a minimum, the same elements as such offenses, or who is listed on the Sex Offender Registry, that such person will be immediately removed from working at said agency and that the administrator of said agency be informed of such within twenty-four (24) hours of such conviction.

(c) Duties of the General Services Agency or Procurement Administrators. All contracts, bids, or Requests for Proposals shall state all the conditions in § 5253(b).

(d) Any contractor found in violation of § 5253(b), after notice from the contracting authority of such violation, shall, within twenty-four (24) hours, take corrective action and shall report such action to the contracting authority. Failure to take corrective action within the stipulated period may result in the temporary suspension of the contract at the discretion of the contracting authority.

SOURCE: *Added by P.L. 28-024:2 ((Apr. 21, 2005). Amended by P.L. 28-098:2 (Feb. 7, 2006).*

_____
Signature of Bidder Date

Proposer, if an individual;
Partner, if a partnership;
Officer, if a corporation.

Subscribed and sworn before me this _____ day of _____, 2023.

_____
Notary Public

CONTINGENT FEES AFFIDAVIT

CITY OF _____)
) ss.
ISLAND OF GUAM)

_____ [*state name of affiant signing below*] being first duly sworn, deposes and says that:

1. The name of the offering company or individual is [state name of company] _____.

2. As a part of the offering company's bid or proposal, to the best of my knowledge, the offering company has not retained any person or agency on a percentage, commission, or other contingent arrangement to secure this contract. This statement is made pursuant to 2 GAR Division 4 11108(f).

3. As a part of the offering company's bid or proposal, to the best of my knowledge, the offering company has not retained a person to solicit or secure a contract with the government of Guam upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies for the purpose of securing business. This statement is made pursuant to 2 GAR Division 4 11108(h).

4. I make these statements on behalf of myself as a representative of the offeror, and on behalf of the offeror's officers, representatives, agents, subcontractors, and employees.

_____
Signature of one of the following:
Offeror, if the offeror is an individual;
Partner, if the offeror is a partnership;
Officer, if the offeror is a corporation.

Subscribed and sworn to before me

this _____ day of _____, 2023.

_____
NOTARY PUBLIC
My commission expires _____, .

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUÅHAN
P.O.BOX 2977 • HAGÅTÑA, GUAM U.S.A. 96932-2977

Lourdes A. Leon Guerrero
I Maga 'håga

Telephone Nos. (671) 648-3054/55 Fax: 648-3165

Joshua F. Tenorio
I Sigundo Maga 'låhi

LOCAL PROCUREMENT PREFERENCE APPLICATION

Based on the law stipulated below, please place a checkmark or an "X" on the block indicating the item that applies to your business:

5GCA, Chapter 5, Section 5008, "Policy in Favor of Local Procurement" of the Guam Procurement Law states:

All procurement of supplies and services shall be made from among businesses licensed to do business on Guam and that maintains an office or other facility on Guam, whenever a business that is willing to be a contractor is:

( ) (a) A licensed bonafide manufacturing business that adds at least twenty-five percent (25%) of the value of an item, not to include administrative overhead, suing workers who are U.S. Citizens or lawfully admitted permanent residents or nationals of the United States, or persons who are lawfully admitted to the United States to work, based on their former citizenship in the Trust Territory for the Pacific Islands; or

( ) (b) A business that regularly carries an inventory for regular immediate sale of at least fifty percent (50%) of the items of supplies to be procured; or

( ) (c) A business that has a bonafide retail or wholesale business location that regularly carries an inventory on Guam of a value of at least one half of the value of the bid or One Hundred Fifty Thousand Dollars ($150,000.0) whichever is less, of supplies and items of a similar nature to those being sought; or

( ) *(d) A service actually in business, doing a substantial business on Guam, and hiring at least 95% U.S. Citizens, lawfully admitted permanent residents or national of the United States, or persons who lawfully admitted to the United States to work, based on their citizenship in any of the nations previously comprising the Trust Territory of the Pacific Islands.

- Bidders indicating qualification under (d) may be considered QUALIFIED for the Local Procurement Preference only if the Government's requirement is for service. Service is defined Pursuant to 5 GCA Government Operations Subparagraph 5030 entitled DEFINITIONS under Chapter 5 of the Guam Procurement Law.

1. I _____, representative for _____, have read the requirements of the law cited above and do hereby qualify and elect to be given the LOCAL PROCUREMENT PREFERENCE for Bid No.: GPA _____. By filling in this information and placing my signature below, I understand that the Guam Power Authority will review this application and provide me with a determination whether or not the 15% preference will be applied to this bid.

2. I _____, representative for _____, have read the requirements of the law cited above, and do not wish to apply for the Local Procurement Preference for Bid No.: GPA _____.

_____
Bidder Representative Signature

_____
Date

NOTE:
Prospective Bidders not completing this form will automatically be not considered for Local Procurement Preference. Non-completion of this form is not a basis for rejection of the bid or proposal.

GOVERNMENT OF GUAM

GENERAL TERMS AND CONDITIONS

SEALED BID SOLICITATION AND AWARD

Only those Boxes checked below are applicable to this bid.

[X] 1. **AUTHORITY:** This solicitation is issued subject to all the provision of the Guam Procurement Act (5GCA, Chapter 5) And the Guam Procurement Regulations (copies of both are available at the Office of the Complier of laws, Department of Law, copies available for inspection at the Guam Power Authority). It requires all parties involved in the Preparation, negotiation, performance, or administration of contracts to act in good faith.

[X] 2. **GENERAL INTENTION**: Unless otherwise specified, it is the declared and acknowledged intention and meaning of these General Terms and conditions for the bidder to provide the Government of Guam (Government) with specified services or with materials, supplies or equipment completely assembled and ready for use.

[X] 3. **TAXES**: Bidders are cautioned that they are subject to Guam Income Taxes as well as all other taxes on Guam Transactions. Specific information on taxes may be obtained from the Director of Revenue and Taxation.

[X] 4. **LICENSING**: Bidders are cautioned that the Government will not consider for award any offer submitted by a bidder who has not complied with the Guam Licensing Law. Specific information on licenses may be obtained from the Director of Revenue and Taxation.

[X] 5. **LOCAL PROCUREMENT PREFERENCE**: All procurement of supplies and services where possible, will be made from among businesses licensed to do business on Guam in accordance with section 5008 of the Guam Procurement Act (5GCA, Chapter 5) and Section 1-104 of the Guam Procurement Regulations.

[X] 6. **COMPLIANCE WITH SPECIFICATIONS AND OTHER SOLICITATION REQUIREMENTS**: Bidders shall comply with all specifications and other requirements of the Solicitation.

[ ] 7. **"ALL OR NONE" BIDS**: Unless otherwise allowed under this Solicitation. "all or none" bids may be deemed to be non-responsive. If the bid is so limited, the Government may reject part of such proposal and award on the remainder.

NOTE: By checking this item, the Government is requesting all of the bid items to be bided or none at all. **The Government will not award on an itemized basis**. Reference: Section 3-101.06 of the Guam Procurement Regulations.

[X] 8. **INDEPENDENT PRICE DETERMINATION**: The bidder, upon signing the Invitation for Bid, certifies that the prices in his bid were derived at without collusion, and acknowledge that collusion and anti-competitive practices are prohibited by law. Violations will be subject to the provision of Section 5651 of that of the Guam Procurement Act. Other existing civil, criminal or administrative remedies are not impaired and may be in addition to the remedies in Section 5651 of the Government code.

[X] 9. **BIDDER'S PRICE**: The Government will consider not more than two (2) (Basic and Alternate) item prices and the bidder shall explain fully each price if supplies, materials, equipment, and/or specified services offered comply with specifications and the products origin. Where basic or alternate bid meets the minimum required specification, cost and other factors will be considered. Failure to explain this requirement will result in rejection of the bid.

[X] 10. **BID ENVELOPE**: Envelope shall be sealed and marked with the bidder's name, Bid number, time, date and place of Bid Opening.

[X] 11. **BID GUARANTEE REQUIREMENT**: Bidder is required to submit a Bid Guarantee Bond or standby irrevocable Letter of Credit or Certified Check or Cashier's Check in the same bid envelope to be held by the Government pending award. The Bid Guarantee Bond, Letter of Credit, Certified Check or Cashier's Check must be issued by any local surety or banking institution licensed to do business on Guam and made payable to the Guam Power Authority in the amount of fifteen percent (15%) of his highest total bid offer. The Bid Bond must be submitted on Government Standard Form BB-1 (copy enclosed). Personal Checks will not be accepted as Bid Guarantee. If a successful Bidder (contractor) withdraws from the bid or fails to enter into contract within the prescribed time, such Bid guarantee will be forfeited to the Government of Guam. Bids will be disqualified if not accompanied by Bid Bond, Letter of Credit, Certified Check or Cashier's check. Bidder must include in his/her bid, valid copies of a Power of Attorney from the Surety and a Certificate of Authority from the Government of Guam to show proof that the surety company named on the bond instrument is authorized by the Government of Guam and qualified to do business on Guam. For detailed information on bonding matters, contact the Department of Revenue and Taxation. Failure to submit a valid Power of Attorney and Certificate of Authority on the surety is cause for rejection of bid. (GPR Section 3-202.03.3) **Pursuant to Public Law 27-127, all competitive sealed bidding for the procurement of supplies or services exceeding $25,000.00 a 15% Bid Security of the total bid price must accompany the bid package.**

[X] 12. **PERFORMANCE BOND REQUIREMENT:** The Bidder may be required to furnish a Performance Bond on Government Standard Form BB-1 or standby irrevocable Letter of Credit or Certified Check or Cashier's Check payable to the Guam Power Authority issued by any of the local Banks or Bonding Institution in the amount equal to FIFTEEN PERCENT (15%) of the contract prices as security for the faithful performance and proper fulfillment of the contract. In the event that any of the provisions of this contract are violated by the contractor, the Chief Procurement Officer shall serve written notice upon both the contractor and the Surety of its intention to terminate the contract. Unless satisfactory arrangement or correction is made within ten (10) days of such notice the contract shall cease and terminate upon the expiration of the ten (10) days. In the event of any such termination, the Chief Procurement Officer shall immediately serve notice thereof upon the Surety. The Surety shall have the right to take over and perform the contract, provided, however, that if the Surety does not commence performance thereof within

10 days from the date of the mailing of notice of termination, the Government may take over and prosecute the same to complete the contract or force account for the account and at the expense of the contractor, and the contractor and his Surety shall be liable to the Government for any excess cost occasioned the Government thereby (GPR Section 3-202.03.4).

[X] 13. **PERFORMANCE GUARANTEE**: Bidders who are awarded a contract under this solicitation, guarantee that goods will be delivered or required services performed within the time specified. Failure to perform the contract in a satisfactory manner may be cause for suspension or debarment from doing business with the Government and to enforce Section 23 of these General Terms and Conditions. In addition, the Government will hold the Vendor liable and will enforce the requirements as set forth in Section 41 of these General Terms and Conditions.

[X] 14. **SURETY BONDS**: Bid and Performance Bonds coverage must be signed or countersigned in Guam by a foreign or alien surety's resident general agent. The surety must be an Insurance Company, authorized by the government of Guam and qualified to do business in Guam. Bids will be disqualified if the Surety Company does not have a valid Certificate of Authority from the Government of Guam to conduct business in Guam.

[X] 15. **COMPETENCY OF BIDDERS**: Bids will be considered only from the such bidders who, in the opinion of the Government, can show evidence of their ability, experience, equipment, and facilities to render satisfactory service.

[X] 16. **DETERMINATION OF RESPONSIBILITY OF BIDDERS**: The Chief Procurement Officer reserves the right for securing from bidders information to determine whether or not they are responsible and to inspect plant site, place of business; and supplies and services as necessary to determine their responsibility in accordance with Section 15 of these General Terms and Conditions (GPR Section 3-401).

[X] 17. **STANDARD FOR DETERMINATION OF LOWEST RESPONSIBLE BIDDER**: In determining the lowest responsible offer, the Chief Procurement Officer shall be guided by the following:

a) Price of items offered.
b) The ability, capacity, and skill of the Bidder to perform.
c) Whether the Bidder can perform promptly or within the specified time.
d) The quality of performance of the Bidder with regards to awards previously made to him.
e) The previous and existing compliance by the Bidder with laws and regulations relative to procurement.
f) The sufficiency of the financial resources and ability of the Bidder to perform.
g) The ability of the bidder to provide future maintenance and services for the subject of the award.
h) <u>The compliance with all of the conditions to the Solicitation.</u>

[X] 18. **TIE BIDS**: If the bids are for the same unit price or total amount in the whole or in part, the Chief Procurement Officer will determine award based on Section 3.202.15.2, or to reject all such bids (GPR Section 3-202.15.2).

[ ] 19. **BRAND NAMES**: Any reference in the Solicitation to manufacturer's Brand Names and number is due to lack of a satisfactory specification of commodity description. Such preference is intended to be descriptive, but nor restrictive and for the sole purpose of indicating prospective bidders a description of the article or services that will be satisfactory. Bids on comparable items will be considered provided the bidder clearly states in his bid the exact articles he is offering and how it differs from the original specification.

[X] 20. **DESCRIPTIVE LITERATURE**: Descriptive literature(s) as specified in this solicitation must be furnished as a part of the bid and must be received at the date and time set for opening Bids. The literature furnished must clearly identify the item(s) in the Bid. The descriptive literature is required to establish, for the purpose of evaluation and award, details of the product(s) the bidder proposes to furnish including design, materials, components, performance characteristics, methods of manufacture, construction, assembly or other characteristics which are considered appropriate. Rejection of the Bid will be required if the descriptive literature(s) do not show that the product(s) offered conform(s) to the specifications and other requirements of this solicitation. Failure to furnish the descriptive literature(s) by the time specified in the Solicitation will require rejection of the bid.

[ ] 21. **SAMPLES**: Sample(s) of item(s) as specified in this solicitation must be furnished as a part of the bid and must be received at the date and time set for opening Bids. The sample(s) should represent exactly what the bidder proposes to furnish and will be used to determine if the item(s) offered complies with the specifications. Rejection of the Bid will be required if the sample(s) do not show that the product(s) offered conform(s) to the specifications and other requirements of this solicitation. Failure to furnish the sample(s) by the time specified in the Solicitation will require rejection of the Bid.

[X] 22. **LABORATORY TEST**: Successful bidder is required to accompany delivery of his goods with a Laboratory Test Report indicating that the product he is furnishing the Government meets with the specifications. This report is on the bidder's account and must be from a certified Testing Association.

[X] 23. **AWARD, CANCELLATION, & REJECTION**: Award shall be made to the lowest responsible and responsive bidder, whose bid is determined to be the most advantageous to the Government, taking into consideration the evaluation factors set forth in this solicitation. No other factors or criteria shall be used in the evaluation. The right is reserved as the interest of the Government may require to waive any minor irregularity in bid received. The Chief Procurement Officer shall have the authority to award, cancel, or reject bids, in whole or in part for any one or more items if he determines it is in the public interest. Award issued to the lowest responsible bidder within the specified time for acceptance as indicated in the solicitation, results in a bidding contract without further action by either party. In case of an error in the extension of prices, unit price will govern. It is the policy of the Government to award contracts to qualified local bidders. The government reserves the right to increase or decrease the quantity of the items for award and make additional awards for the same type items and the vendor agrees to such modifications and additional awards based on the bid prices for a period of thirty (30) days after original award. No. award shall be made under this solicitation which shall require advance payment or irrevocable letter of credit from the government (GPR Section 3-202.14.1).

[X] 24. **MARKING**: Each outside container shall be marked with the Purchase Order number, item number, brief tem description and quantity. Letter marking shall not be less than 3/4" in height.

[X] 25. **SCHEDULE FOR DELVERY**: Successful bidder shall notify the Guam Power Authority, Dededo Warehouse at (671) 653-2073, Information Technology Division at (671) 648-3060, GPA Transportation Supply at (671) 300-8318 and/or Guam Power Authority Cabras Warehouse at (671) 475-3319 at least twenty-four (24) hours before delivery of any item under this solicitation.

[ ] 26. **BILL OF SALE**: Successful supplier shall render Bills of Sale for each item delivered under this contract. Failure to comply with this requirement will result in rejection of delivery. The Bill of Sale must accompany the items delivered but will not be considered as an invoice for payment. Supplier shall bill the Government in accordance with billing instructions as indicated on the Purchase Order.

[X] 27. **MANUFACTURER'S CERTIFICATE**: Successful bidder is required, upon delivery of any item under this contract, to furnish a certificate from the manufacturer indication that the goods meet the specifications. Failure to comply with this request will result in rejection of delivery payment. Supplier shall bill the Government in accordance with billing instructions as indicated on the Purchase Order.

[X] 28. **INSPECTION**: All supplies, materials, equipment, or services delivered under this contract shall be subject to the inspection and/or test conducted by the Government at destination. If in any case the supplies, materials, equipment, or services are found to be defective in material, workmanship, performance, or otherwise do not conform with the specifications, the Government shall have the right to reject the items or require that they be corrected. The number of days required for correction will be determined by the Government.

[ ] 29. **MOTOR VEHICLE SAFETY REQUIREMENTS**: The Government will only consider Bids on motor vehicles which comply with the requirements of the National Traffic and Motor Vehicle safety Act of 1966 (Public Law 89-563) and Clean Air Act as amended (Public Law 88-206), that are applicable to Guam. Bidders shall state if the equipment offered comply with these aforementioned Federal Laws.

[ ] 30. **SAFETY INSPECTION**: All motor vehicles delivered under this contract must pass the Government of Guam Vehicle Inspection before delivery at destination.

[X] 31. **GUARANTEE**:

a) **Guarantee of Vehicle Type of Equipment**:
The successful bidder shall guarantee vehicular type of equipment offered against defective parts, workmanship, and performance, for a period of not less than one (1) year after date of receipt of equipment. Bidder shall also provide service to the equipment for at least one (1) year. Service to be provided shall include, but will not be limited to tune ups (change of spark plugs, contact points and condensers) and lubrication (change of engine and transmission oil). All parts and labor shall be at the expense of the bidder. All parts found defective and not caused by misuse, negligence or accident within the guarantee period shall be repaired, replaced, or adjusted within six (6) working days after notice from the Government and without cost to the Government. Vehicular type of equipment as used in this context shall include equipment used for transportation as differentiated from tractors, backhoes, etc.

b) **Guarantee of Other Type of Equipment**:
The successful bidder shall guarantee all other types of equipment offered, except those mentioned in 31a, above, against defective parts, workmanship, and performance for a period of not less than three (3) months after date of receipt of equipment. Bidder shall also provide service to the equipment for at least three (3) months. All parts found defective within that period shall be repaired or replaced by the Contractor without cost to the Government. Repairs, adjustments or replacements of defective parts shall be completed by the contractor within six (6) working days after notice from the Government.

c) **Compliance with this Section is a condition of this Bid**.

[X] 32. **REPRESENTATION REGARDING ETHICS IN PUBLIC PROCUREMENT**: The bidder or contractor represents that it has not knowingly influenced and promises that it will not knowingly influence a Government employee to breach any of the ethical standards and represents that it has not violated, is not violating, and promises that it will not violate the prohibition against gratuities and kickbacks set forth on Chapter 11 (Ethics in Public Contracting) of the Guam Procurement Act and in Chapter 11 of the Guam Procurement Regulations.

[X] 33. **REPRESENTATION REGARDING CONTINGENT FEES**: The contractor represents that it has not retained a person to solicit or secure a Government contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies for the purpose of securing business (GPR Section 11-207).

[X] 34. **EQUAL EMPLOYMENT OPPORTUNITY**: Contractors shall not discriminate against any employee or applicant of employment because of race, color, religion, se, or national origin. The contractor will take affirmative action to ensure that employees are treated equally during employment without regards to their race, color, religion, sex, or national origin.

[X] 35. **COMPLIANCE WITH LAWS**: Bidders awarded a contract under this Solicitation shall comply with the applicable standard, provisions, and stipulations of all pertinent Federal and/or local laws, rules, and regulations relative to the performance of this contract and the furnishing of goods.

[ ] 36. **CHANGE ORDER**: Any order issued relative to awards made under this solicitation will be subject to and in accordance with the provisions of Section 6-101-03.1 of the Guam Procurement Regulations.

[ ] 37. **STOP WORK ORDER**: Any stop work order issued relative to awards made under this solicitation will be subject to and in accordance with the provisions of Section 6-101-04.1 of the Guam Procurement Regulations.

[X] 38. **TERMINATION FOR CONVENIENCE**: Any termination order for the convenience of the Government issued relative towards made under this solicitation will be subject to and in accordance with the provisions of Section 6-101.10 of the Government Procurement Regulations.

[X] 39. **TIME FOR COMPLETION**: It is hereby understood and mutually agreed by and between the contractor and the Government that the time for delivery to final destination or the timely performance of certain services is an essential condition of this contract. If the contractor refuses or fails to perform any of the provisions of this contract within the time specified in the Purchase Order (from the date Purchase Order is acknowledged by vendor), then the contractor is in default. Defaults will be treated subject to and in accordance with the provisions of Section 6-101-08 of the Guam Procurement Regulations.

[X] 40. **JUSTIFICATION OF DELAY**: Bidders who are awarded contracts under this Solicitation, guarantee that the goods will be delivered to their destination or required services rendered within the time specified. If the bidder is not able to meet the specified delivery date, he is required to notify the Chief Procurement Officer of such delay. Notification shall be in writing and shall be receive by the Chief Procurement Officer at least twenty-four (24) hours before the specified delivery date. Notification of delay shall include an explanation of the causes and reasons for the delay including statement(s) from supplier or shipping company causing the delay. The Government reserves the right to reject delay justification if, in the opinion of the Chief Procurement Officer, such justification is not adequate.

[X] 41. **PAYMENT TERMS**: NET THIRTY (30) DAYS after receipt of ORIGINAL invoice for goods and/or services rendered.

[X] 42. **LIQUIDATED DAMAGES**: When the contractor is given notice of delay or nonperformance as specified in Paragraph 1 (Default) of the Termination for Default Clause of this contract and fails to cure in the time specified, the contractor shall be liable for damages for delay in the amount of one-fourth of one percent (1%) of outstanding order per calendar day from date set for cure until either the territory reasonable obtains similar supplies or services if the contractor is terminated for default, or until the contractor provides the supplies or services if the contractor is not terminated for default. To the extent that the contractor's delay or nonperformance is excused under Paragraph (4) (Excuse for Nonperformance or Delayed Performance) of the Termination for Default Clause of this contract, liquidated damages shall not be due the territory. The contractor remains liable for damages caused other than by delay (GPR Section 6-101-09.1).

[X] 43. **PHYSICAL LIABILITY**: If it becomes necessary for the Vendor, either as principal, agent or employee, to enter upon the premises or property of the Government of Guam in order to construct, erect, inspect, make delivery or remove property hereunder, the Vendor hereby covenants and agrees to take, use, provide and make all proper, necessary and sufficient precautions, safeguards and protections against the occurrence of any accidents, injuries or damages to any person or property during the progress of the work herein covered, and to be responsible for, and to indemnify and save harmless the Government of Guam from the payment of all sums of money by reason of all or any such accidents, injuries or damages that may occur upon or about such work, and fines, penalties and loss incurred for or by reasons of the violations of any territorial ordinance, regulations, or the laws of Guam or the United States, while the work is in progress. Contractor will carry insurance to indemnify the Government of Guam against any claim for loss, damage or injury to property or persons arising out of the performance of the Contractor or his employees and agents of the services covered by the contract and the use, misuse or failure of any equipment used by the contractor or his employees or agents, and shall provide certificates of such insurance to the Government of Guam when required.

[X] 44. **CONTACT FOR CONTRACT ADMINISTRATION**: If your firm receives a contract as a result of this Solicitation, please designate a person whom we may contact for prompt administration.

Name: _____ Title: _____

Address: _____ Telephone: _____

_____

_____

GOVERNMENT OF GUAM

SEALED BID SOLICITATION INSTRUCTIONS

1. **BID FORMS:** Each bidder shall be provided with two (2) sets of Solicitation forms. Additional copies may be provided upon request. Bidders requesting additional copies of said forms will be charged per page in accordance with Section 6114 of the Government Code of Guam. All payments for this purpose shall be by cash, certified check or money order and shall be made payable to the Guam Power Authority.

2. **PREPARATIONS OF BIDS:**
   a) Bidders are required to examine the drawings, specifications, schedule, and all instructions. Failure to do so will be at bidder's risk.
   b) Each bidder shall furnish the information required by the Solicitation. The bidder shall sign the solicitation and print or type his name on the Schedule. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent are to be accompanied by evidence of this authority unless such evidence has been previously furnished to the issuing office.
   c) Unit price for each unit offered shall be shown and such price shall include packing unless otherwise specified. A total shall be entered in the amount column of the Schedule for each item offered. In case
   of discrepancies between a unit price and extended price, the unit price will be presumed to be correct.
   d) Bids for supplies or services other than those specified will not be considered.
   Time, if stated as a number of days, means calendar days and will include Saturdays, Sundays, and holidays beginning the day after the issuance of a Notice to Proceed. Time stated ending on a Saturday, Sunday or Government of Guam legal holiday will end at the close of the next business day.

3. **EXPLANATION TO BIDDERS:** Any explanation desired by a bidder regarding the meaning or interpretation of the Solicitation, drawings, specifications, etc., must be submitted in writing and with sufficient time allowed for a written reply to reach all bidders before the submission of their bids. Oral explanations or instructions given before the award of the contract will not be binding. Any information given to a prospective bidder concerning a Solicitation will be furnished to all prospective bidders in writing as an amendment to the Solicitation if such information would be prejudicial to uninformed bidders.

4. **ACKNOWLEDGEMENT OF AMENDMENTS TO SOLICITATIONS:** Receipt of an amendment to a Solicitation by a bidder must be acknowledged by signing an acknowledgement of receipt of the amendment.
Such acknowledgement must be received prior to the hour and date specified for receipt of bids.

5. **SUBMISSION OF BIDS:**
   a) Bids and modifications thereof shall be enclosed in sealed envelopes and addressed to the office specified in the Solicitation. The bidder shall show the hour and date specified in the Solicitation for receipt, the Solicitation number, and the name and address of the bidder on the face of the envelope.
   b) Telegraphic bids will not be considered unless authorized by the Solicitation. However, bids may be modified or withdrawn by written or telegraphic notice, provided such notice is received prior to the hour and date specified for receipt (see paragraph 6 of these instructions).
   c) Samples of items, when required, must be submitted within the time specified, unless otherwise specified by the Government, at no expense to the Government. If not destroyed by testing, samples will be returned at bidder's request and expense, unless otherwise specified by the Solicitation.
   d) Samples or descriptive literature should not be submitted unless it is required on this solicitation. Regardless of any attempt by a bidder to condition the bid, unsolicited samples or descriptive literature will not be examined or tested at the bidder's risk, and will not be deemed to vary any of the provisions of this Solicitation.

6. **FAILURE TO SUBMIT BID:** If no bid is to be submitted, do not return the solicitation unless otherwise specified. A letter or postcard shall be sent to the issuing office advising whether future Solicitations for the type of supplies or services covered by this Solicitation are desired.

7. **LATE BID, LATE WITHDRAWALS, AND LATE MODIFICATIONS:**
   a) Definition: Any bid received after the time and date set for receipt of bids is late. Any withdrawal or modification of a bid received after the time and date set for opening of bids at the place designated for opening is late (Guam Procurement Regulations Section 3-202)
   b) Treatment: No late bid, late modification, or late withdrawal will be considered unless received before contract award, and the bid, modification, or withdrawal would have been timely but for the action or inaction of territorial personnel directly serving the procurement activity.

8. **DISCOUNTS:**
   a) Notwithstanding the fact that prompt payment discounts may be offered, such offer will not be considered in evaluating bids for award unless otherwise specified in the Solicitation. However, offered discounts will be taken if payment is made within the discount period, even though not considered in the evaluation of bids.
   b) In connection with any discount offered, time will be computed from date of delivery and acceptance of the supplies to the destination as indicated in the purchase order or contract. Payment is deemed to be made for the purpose of earning the discount on the date of mailing of the Government check.

9. **GOVERNMENT FURNISHED PROPERTY:** No material, labor or facilities will be furnished by the Government unless otherwise provided for in the Solicitation.

10. **SELLERS' INVOICES:** Invoices shall be prepared and submitted in quadruplicate (one copy shall be marked "original") unless otherwise specified. Invoices shall be "certified true and correct" and shall contain the following information: Contract and order number (if any), item numbers, description of supplies or services, sizes, quantities, unit prices, and extended total. Bill of lading number and weight of shipment will be shown for shipments made on Government bills of lading.

11. **RECEIPT, OPENING AND RECORDING OF BIDS:** Bids and modifications shall be publicly opened in the presence of one or more witnesses, at the time, date, and place designated in the Invitation for Bids. The name of each bidder, the bid price, and such other information as is deemed appropriate by the Procurement Officer, shall be read aloud and recorded, or otherwise made available. The names and addresses of required witnesses shall be recorded at the opening. The opened bids shall be available for public inspection except to the extent the bidder designates trade secrets or other proprietary data to be confidential as set forth in accordance with Section 12 below. Material so designated shall accompany the bid and shall be readily separable from the bid in order to facilitate public inspection of the non-confidential portion of the bid. Prices, makes and models or catalogue numbers of the items offered, deliveries, and terms of payment shall be publicly available at the time of bid opening regardless of any designation to the contrary (Guam Procurement Regulations Section 3-202.12.2).

12. **RESTRICTION AGAINST SEX OFFENDERS:**
5 GCA Section 5253, enacted by P.L 28-24 and amended by P.L. 28-98:
The service provider warrants that no person in its employment who has been convicted of a sex offense under the provisions of Chapter 25 of Title 9 of the Guam Code Annotated, or of an offense defined in Article 2 of Chapter 28 of Title 9 of the Guam Code Annotated, or who has been convicted of an offense with the same elements as heretofore defined in any other jurisdiction, or who is listed on the Sex Offender Registry shall provide services on behalf of the service provider while on government of Guam property, with the exception of public highways. If any employee of the service provider is providing services on government property and is convicted subsequent to an award of a contract, then the service provider warrants that it will notify the Government of the conviction within twenty-four (24) hours of the conviction, and will remove immediately such convicted person from providing services on government property. If the service provider is found to be in violation of any of the provisions of this paragraph, then the Government will give notice to the service provider to take corrective action. The service provider shall take corrective action within twenty-four (24) hours of notice from the Government, and the service provider shall notify the Government when action has been taken. If the service provider fails to take corrective steps within twenty-four (24) hours of notice from the Government, then the Government in its sole discretion may suspend temporarily any contract for services until corrective action has been taken.

13. **DISABLED VETERAN OWNED**: P.L. 34-115. 5 Guam Code Annotated §5011 & §5012
§5011. Policy In Favor of Service-Disabled Veteran Owned Businesses. Notwithstanding any provision of law, and *except* for the procurement of professional services, if any entity of the government of Guam or any entity expending governmental funds intends to procure any supply or service, which is offered by a business concern that is at least fifty-one percent (51%) owned by a service-disabled veteran(s), that entity *shall* procure such supply or service from that business concern, if the supply or service is available within the period required by procuring entity and the price for the supply or service *does not* exceed one hundred five percent (105%) of the lowest bidder, and *shall* be in addition to any other procurement benefit the service-disabled veteran owned business may qualify for under Guam Law.
§5012. Qualifications of a Service-Disabled Veteran Owned Business. A business concern is qualified under §5011 of this Chapter if:
(a.) the business concern is licensed to do business on Guam;
(b.) the business concern maintains its headquarters on Guam;
(c.) the business concern is at least fifty-one percent (51%) owned by a service-disabled veteran(s) who served in the active U.S. military service, was discharged or released under honorable conditions and whose disability is service-connected as demonstrated by a DD214, and certified by and award letter from the U.S Department of Veterans Affairs;
(d.) the DD214 and Disability award letter from the U.S Department of Veterans Affairs are submitted to the procuring entity for every service offered; and
(e.) the service-disabled veteran(s) owner of the business concern has filed individual tax returns on Guam for a period of *at least* three (3) consecutive years."

14. **WOMEN-OWNED BUSINESSES**: P.L. 36.26. 5 Guam Code Annotated §5013.
§5013. Policy In Favor of Women-Owned Businesses.
(a.) Notwithstanding any other provision of law, if any entity of the government of Guam or any entity expending governmental funds intends to procure any supply or service which is offered by a business concern that is at least fifty-one percent (51%) owned by women, that entity *shall* procure such supply or service from that business concern, if the supply or service is available within the period required by procuring entity and the price for the supply or service *does not* exceed one hundred five percent (105%) of the lowest bidder, and *shall* be in addition to any other procurement benefit the women-owned business may qualify for under Guam Law. The procuring entity shall determine the lowest price to the entity in the case of more than one (1) women-owned business, or a women-owned business and a service-disabled veteran owned business, who are competing for the same government contract
(b.) Qualifications of a Women-Owned Business. A business concern is qualified under Subsection (a) of the Section if:
(1) the business concern is licensed to business on Guam;
(2) the business concern maintains its headquarters on Guam;

(3) the business concern is at least fifty-one percent (51%) owned by women, who manage day-to-day operations and make long-term decisions;
(4) the business concern is certified as a Women-Owned Small Business (WOSB) or an Economically Disadvantaged Women-Owned Small Business (EDWOSB) by the U.S. Small Business Administration; and
(5) the owner(s) of the business concern has (have) filed individual tax returns on Guam for a period of at least three (3) consecutive years

15. **CONFIDENTIAL DATA:** The Procurement Officer shall examine the bids to determine the validity of any requests for nondisclosure of trade secrets and other proprietary date identified in writing. If the parties do not agree as to the disclosure of data, the Procurement Officer shall inform the bidders in writing what portions of the bid will be disclosed and that, unless the bidders protest under Chapter 9 of the Guam Procurement Act (P.L. 16-124), the bids will be so disclosed. The bids shall be opened to public inspection subject to any continuing prohibition on the disclosure of confidential data (Guam Procurement Regulations Section 3-202.12.3).

16. **MULTI-STEP SEALED BIDDING:**

a. It is defined as two-phase process consisting of a technical first-phase composed of one or more steps in which bidders submit unpriced technical offers to be evaluated by the territory, and a second-phase in which those bidders whose technical offers are determined to be acceptable during the first-step have their priced bids considered. It is designed to obtain the benefits of competitive sealed bidding by award of a contract to t h lowest responsive, responsible bidder, and at the same time obtained the benefits of the competitive sealed proposals procedure through the solicitation of technical offers and the conduct of discussions to evaluate and determine the acceptability of technical offers.

b. In addition to the requirements set forth in the General Terms and Conditions and the Special provisions, the following applies:
   1). only unpriced technical offers are requested in the first phase;
   2). priced bids will be considered only in the second phase and only from bidders whose unpriced technical offers are found acceptable in the first phase;
   3). the criteria to be used in the evaluation at those specified in the Special Provisions and the General Terms and Conditions;
   4). the territory, to the extent the Procurement Officer finds necessary, may conduct oral or written discussion of the unpriced technical offers;
   5). the bidders, may designate those portions of the unpriced technical offers which contain trade secrets or other proprietary data which are to remain confidential; and,
   6). the service being procured shall be furnished generally in accordance with bidder's technical offer as found to be finally acceptable and shall meet the requirements of the Invitation for Bids.

c. **RECEIPT AND HANDLING OF UNPRICED TECHNICAL OFFERS.**
Unpriced technical offers shall not be opened publicly, but shall be opened in front of two or more procurement officials. Such offers shall not be disclosed to unauthorized persons. Bidders may request nondisclosure of trade secrets and other proprietary data identified in writing.

d. **EVALUATION OF UNPRICED TECHNICAL OFFERS.**
The unpriced technical offers submitted by bidders shall be evaluated solely in accordance with the criteria set forth in the Invitation for Bids. The unpriced technical offers shall be categorized as:
   1). acceptable;
   2). potentially acceptable, that is, reasonably susceptible of being made acceptable; or
   3). unacceptable. The Procurement Officer shall record in writing the basis for finding an offer unacceptable and make it part of the procurement file.

The Procurement Officer may initiate Phase Two of the procedure if, in the Procurement Officer's opinion, there are sufficient acceptable unpriced technical offers to assure effective price competition in the second phase without technical discussions. If the Procurement Officer finds such is not the case, the Procurement Officer shall issue an amendment to the Invitation for Bids or engage in technical discussions as set forth in Subsection 3-202.20.5of this Section.

e. Upon the completion of Phase One, the Procurement Officer shall invite each acceptable bidder to submit a price bid. Upon submission of prices, the Procurement Officer shall prepare the final evaluation and reconsideration for the Chief Procurement Officer's approval.