Request for Quotation

Service and Repair of the Impressed Current Cathodic Protection System at the Commercial Port of Guam, Wharf F-5

Project Location:

This project is located at the Port Authority of Guam along, Wharf F-5. The Rectifier and controls are installed at the Load Center 3 (LC-3).

Project Description:

The Port Authority of Guam is interested in soliciting a Request for Quotation to, **Inspect, Service, Repair and fine-tune the Impressed Current Cathodic Protection System.** Permanent Impressed Current Cathodic Protection system has been provided to prevent the corrosion of the reinforcing steel bars within the concrete structures related to the Wharf F-5. See attached Technical Drawing for guidance.

All related work shall meet the standard compliance of organizations such as the National Association of Corrosion Engineers (NACE), American National Standard Institute (ANSI), American Society for Testing and Materials (ASTM) Underwriter Laboratories (UL), National Electric Code (NEC), National Electric Manufacturers Association (NEMA) and the Occupational Safety and Health Association (OSHA).

General Requirements;

1. PAG Procurement Division to conduct a Request for a Quotation for the above mentioned project and will schedule a onetime mandatory site visit for the contractors;

2. Contractor shall investigate the project site, verify existing conditions and measurements prior to submitting their quotes. Failure to do so shall not be a cause for additional claims against PAG;

3. Interested contractors must possess an electrical C-13 specialty license. **Testing will be performed by a NACE certified Cathodic Protection Level 2.** Port of Guam will provide personnel to assist the Contractor in gaining access to each of the Cathodic Protection components and test locations;

4. PAG will award this project based on the lowest responsible responsive quotes. PAG Purchase Order (P.O.) will be issued by the PAG Procurement Division;

5. Official Notice to Proceed (N.T.P.) will be issued to the contractor upon submittal of the required Transportation Worker Identification Card (TWIC) and attend the mandatory Maritime Security (MARSEC) Level briefing. Contractor to inquire with the Port Police Division on these requirements. No work will commence without possession of valid TWIC cards;

6. Awarded contractor shall submit within 5 days after Notice to Proceed, the insurance coverage on Comprehensive General Liability Policy and Excess Liability Policy of ($1 Million minimum). PAG shall be an additional ensured to the policy and list of personnel and company vehicle for Port Police information;

7. Contractor has Thirty (30) calendar days to complete this project. Liquidated damages shall apply after the period of performance (POP) is exhausted in the amount of Two Hundred Fifty ($250) dollars per day.

8. Contractor shall be responsible for the daily clean-up of the project site. All construction debris shall be disposed to a designated Guam EPA approved dumpsite at no additional cost to PAG;

9. Contractor shall abide by OSHA regulations, provide safety warning signs within the work area. All workers shall wear their proper Personal Protective Equipment (PPE);

10. PAG Engineering and Safety Divisions will conduct daily inspections and/or random checks of the project site;

11. Contractor to submit monthly reports with attached daily work progress reports with four (4) photos per day to PAG Engineering for documentation.

SCOPE OF WORK:

Scope of work shall include however not limited as follows;

1.) Inspect all Cathodic Protection System – Contractor will perform a general visual inspection of the entire system. This will include all the Cathodic Protection components for physical or electrical damage and assessment of condition;

2.) Structure-to-Electrolyte Potential Measurements – Contractor will obtain polarized structure-to-soil potentials of Wharf F-5 Facility. Contractor will obtain the data using a True-rms Digital Multimeter versus a calibrated reference electrode;

3.) Measurement of Anode Current Output – of each ICCP circuit using the available shunt will be measured by using a Fluke Amp Clamp suitable for measuring DC voltage and current. This will determine the amount of CP current being provided by each circuit;

4.) Contractor will repair all damaged Cables if any by using cad weld and proper insulation based on NACE and NEC standards;

5.) Contractor will record all data measured during the survey and testing. Submit all data measured after completion of the project, which will include the following information:

   a. Description of testing procedure used during the site survey;
   b. Tabulation and analysis of all test data;
   c. Conclusions regarding the operational condition of the CP systems and level of cathodic protection in comparison with NACE international Criteria;
   d. Recommendations for future system operation and maintenance;

6.) Attached drawing and information are provided for guidance only. The contractor shall investigate the project site prior to submitting quotations and verify existing conditions & measurements. Failure to do so shall not be cause for additional claims against PAG.

Any work related to the site conditions not reflected on the attached conceptual drawings will be performed at the contractor's expense;

7.) Contractor shall perform tag-out/lock-out;

8.) Contractor to replace missing 2 Each 11" diameter traffic rated hand hole covers;

9.) Coordinate all work with Engineering and Facility Maintenance Electrical Divisions to perform tapping connection, energizing of electrical components prior to testing and commissioning of the ICCP;

10.) Contractor shall abide by OSHA regulations, provide safety warning signs and temporary barriers within work area for the safety of working personnel inside port premises;

11.) Inform Engineering Division 24 hours prior to the Pre-Final and Final inspections;

12.) Contractor to submit invoice and breakdown of charges together with the Purchase Order;

13.) Contractor shall submit a Certificate of Completion with a NACE Certified CP Specialist, including a written warranty for a period of one (1) year for materials and workmanship and release of Liabilities to the Port Authority of Guam Engineering Division including any unpaid invoices on this project.

Prepared by:

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Concurred by:

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Reviewed and Approved by:

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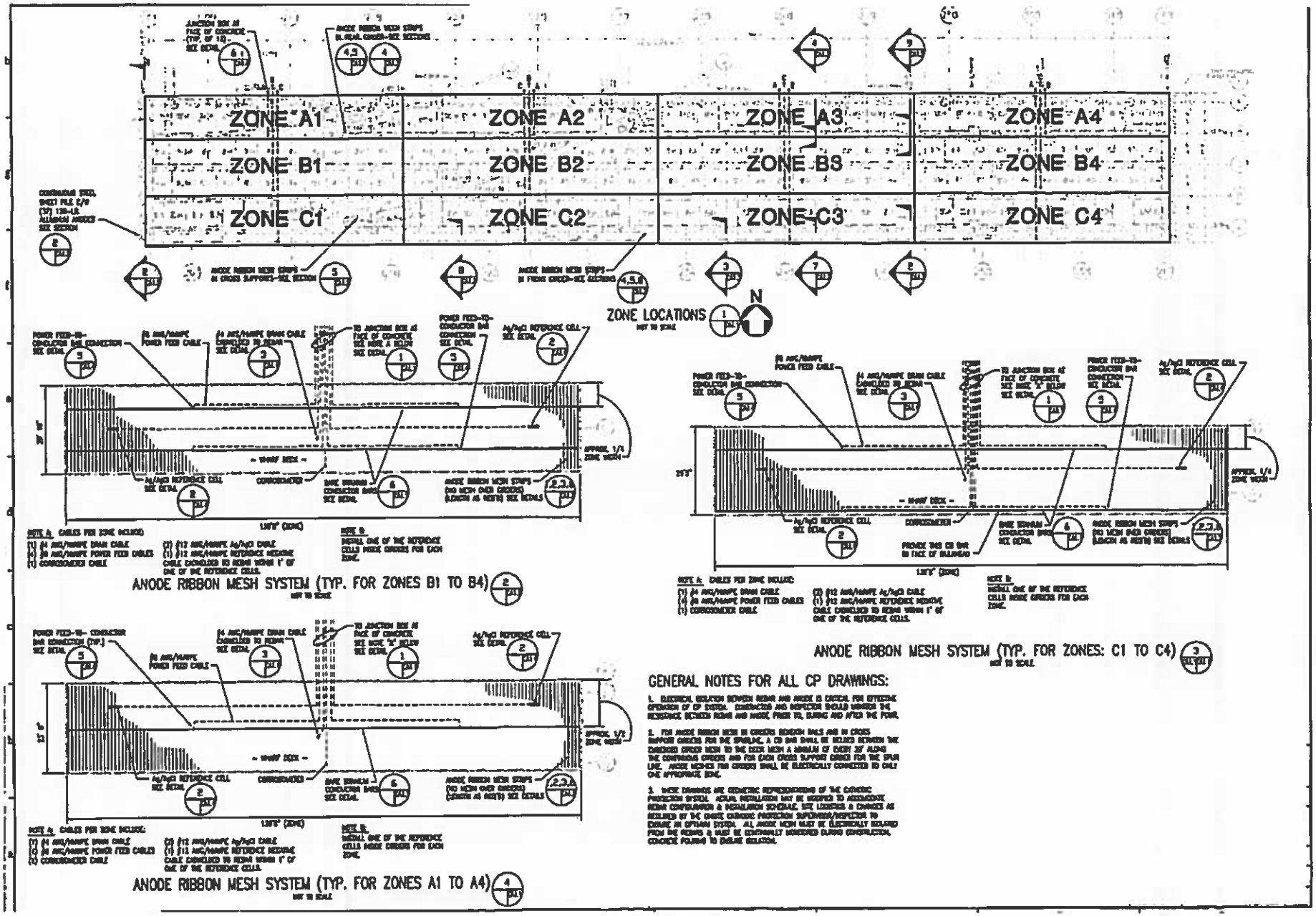
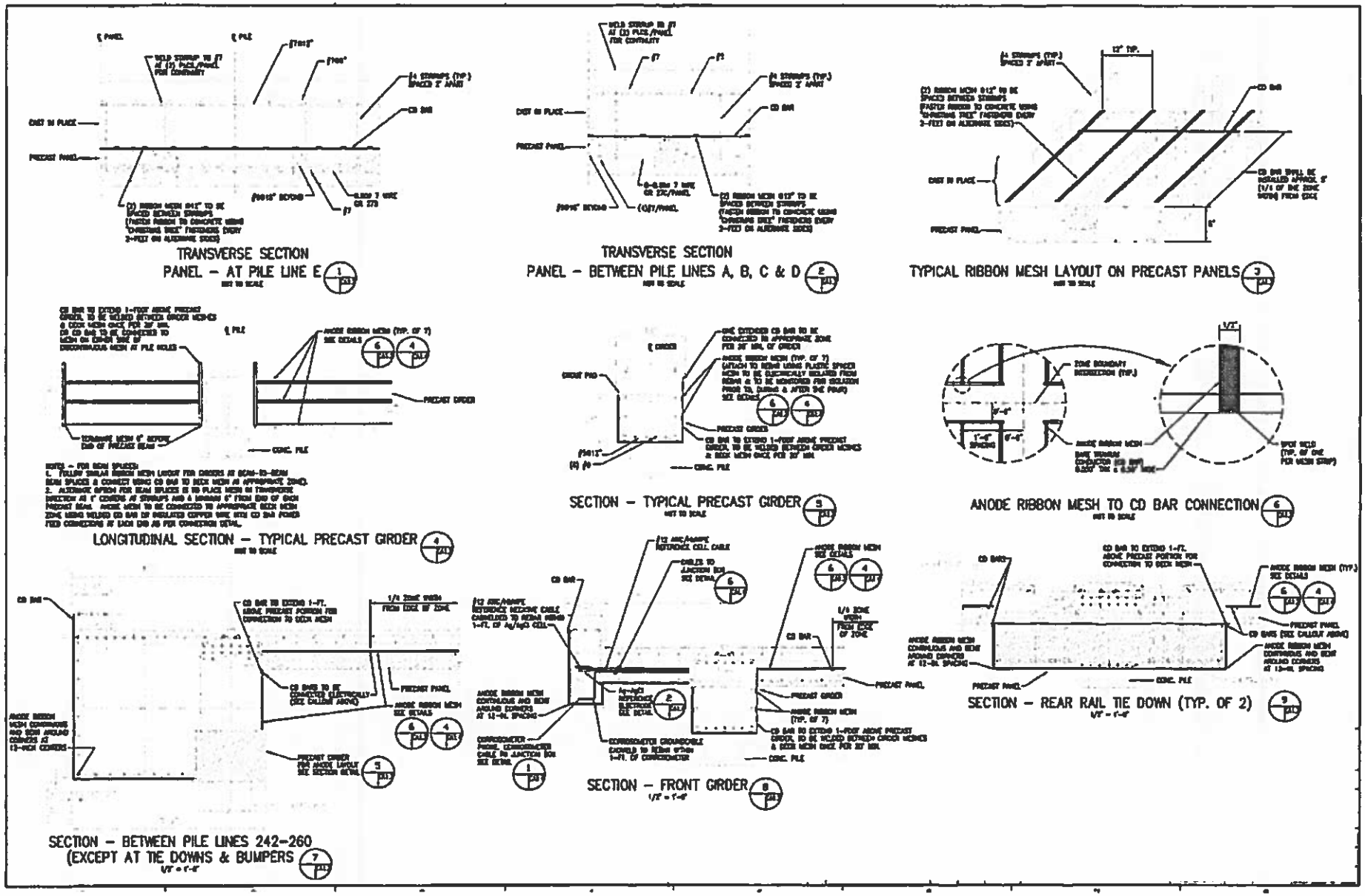
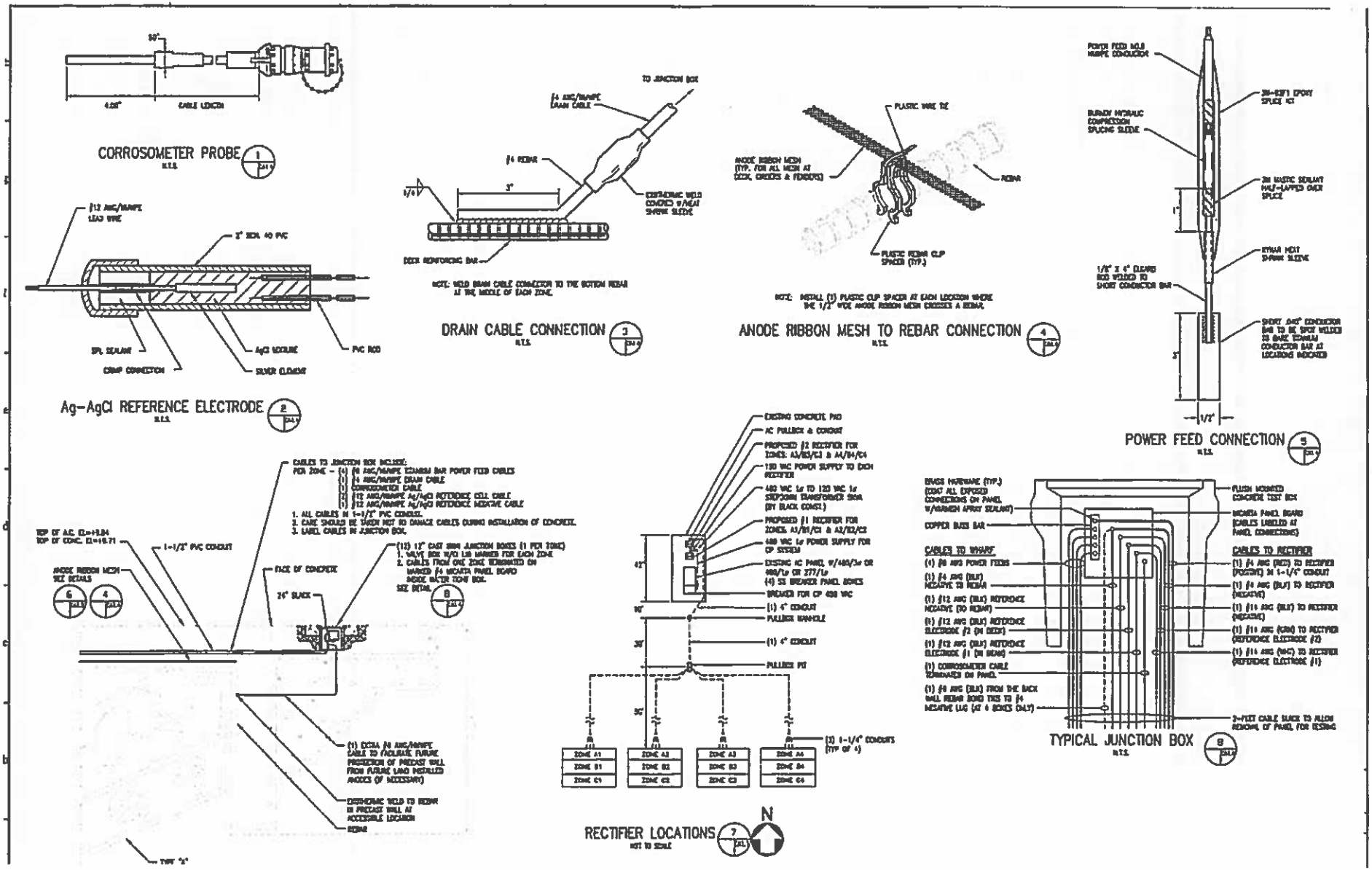
PAG Engineering Manager

PROJECT LOCATION MAP

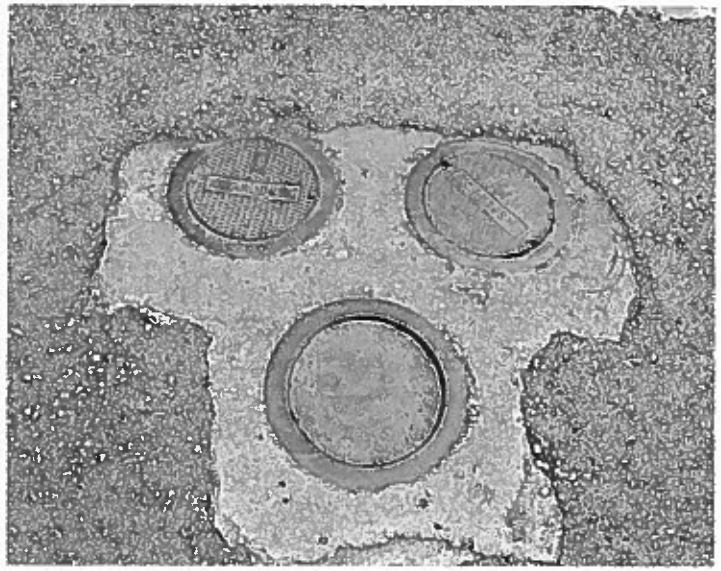
TECHNICAL DRAWING FOR REFERENCE ONLY



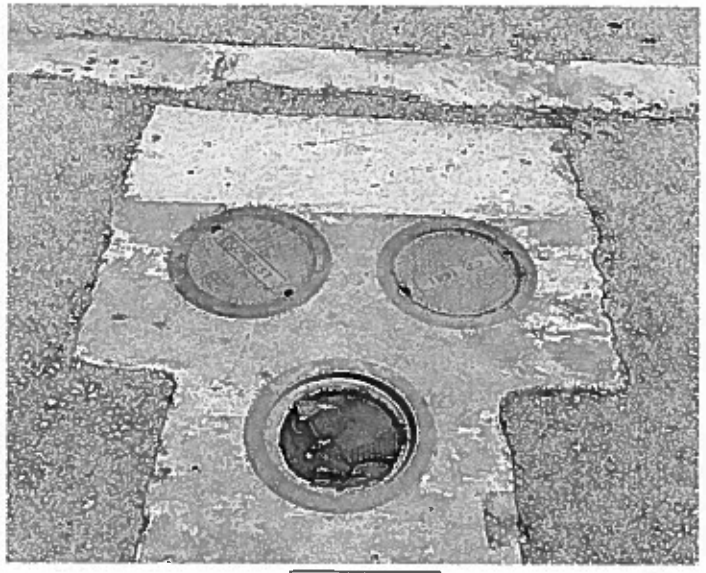

TRANSVERSE SECTION
PANEL – AT PILE LINE E
TRANSVERSE SECTION
PANEL – BETWEEN PILE LINES A, B, C & D
TYPICAL RIBBON MESH LAYOUT ON PRECAST PANELS
LONGITUDINAL SECTION – TYPICAL PRECAST GIRDER
SECTION – TYPICAL PRECAST GIRDER
ANODE RIBBON MESH TO CD BAR CONNECTION
SECTION – BETWEEN PILE LINES 242–260
(EXCEPT AT TIE DOWNS & BUMPERS
SECTION – FRONT GIRDER
SECTION – REAR RAIL TIE DOWN (TYP. OF 2)


CORROSOMETER PROBE
Ag–AgCl REFERENCE ELECTRODE
DRAIN CABLE CONNECTION
ANODE RIBBON MESH TO REBAR CONNECTION
POWER FEED CONNECTION
TYPICAL JUNCTION BOX
RECTIFIER LOCATIONS

ACTUAL PHOTOS OF JUNCTION BOX AT FACE OF CONCRETE LOCATED AT WHARF F-5



ZONE 1



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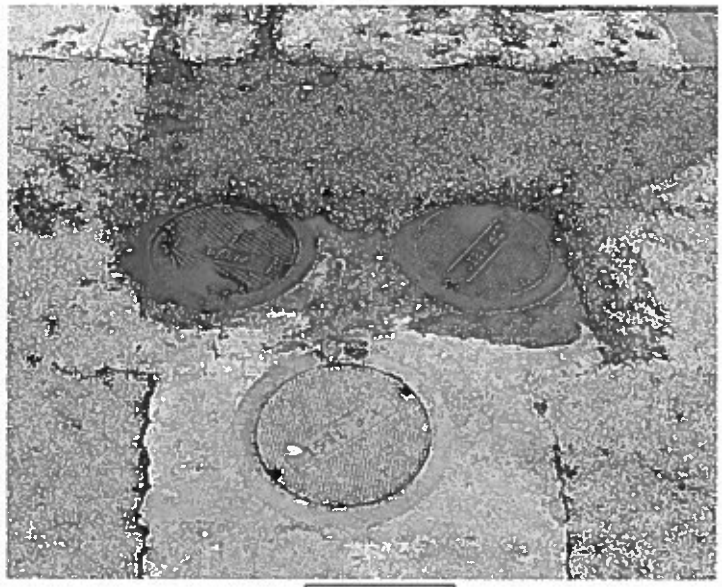

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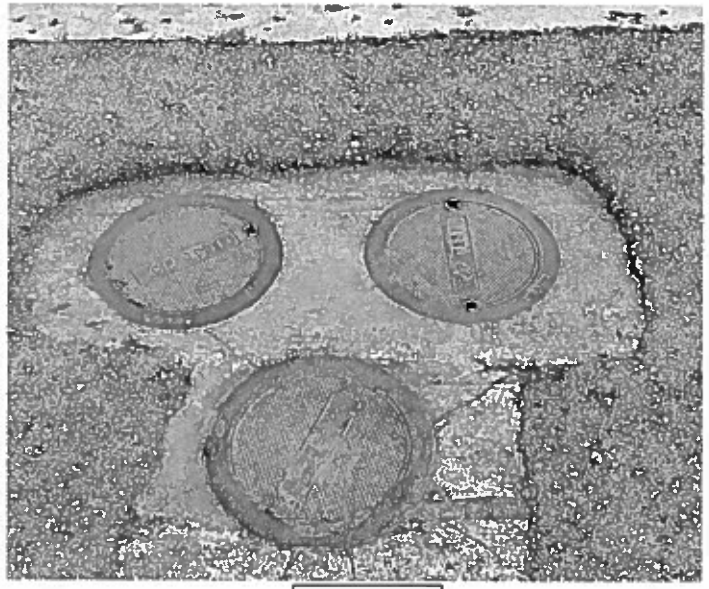

ZONE 4