



Purchasing Department
140 Stonewall Avenue West, Ste 204
Fayetteville, GA 30214
Phone: 770-305-5420
www.fayettecountyga.gov

October 17, 2023

Subject: Request for Quotes 2336-A: Lake Kedron Dam Intake Sluice Gate

Gentlemen/Ladies:

Fayette County, Georgia invites you to submit a quote for the above listed solicitation in accordance with the information and specifications contained herein.

A pre-quote conference will be held at 9:00 a.m. on Thursday, October 26, 2023, at 616 Wingspread, Peachtree City, GA 30269. You are invited and encouraged to attend, as this will be an opportunity for you to become familiar with the site and work conditions, and to ask questions.

Address any questions you may have about this request for quotes to Natasha Duggan via email to nduggan@fayettecountyga.gov or fax to (770) 719-5534. **Questions will be accepted until 3:00 p.m., Wednesday, November 1, 2023.**

Quotes will be accepted until 3:00 p.m., Tuesday, November 7, 2023. Please provide your quote and other information via email to Natasha Duggan, Contract Administrator at nduggan@fayettecountyga.gov or fax to (770) 719-5534.

Purchasing Department office hours are Monday through Friday 8:00 a.m. to 5:00 p.m. The office telephone number is (770) 305-5420.

Sincerely,

Ted L. Burgess
Director of Purchasing

GENERAL TERMS AND CONDITIONS

Request for Quotes 2336-A: Lake Kedron Dam Intake Sluice Gate

1. **Definitions:**
 - a. **Responder:** A company or individual who submits a quote in response to this RFQ.
 - b. **Successful Responder:** The Responder that is awarded a contract.
 - c. **Contractor:** The Successful Responder, upon execution of the contract.
 - d. **County:** Fayette County, Georgia.
2. **Quote is Offer to Contract:** Each quote constitutes an offer to become legally bound to a contract with the County, incorporating the Request for Quotes and the Responder's quote. The binding offer includes compliance with all terms, conditions, special conditions, specifications, and requirements stated in the Request for Quotes, except to the extent that a Responder takes written exception to such provisions, and the County agrees to the exceptions. All such terms, conditions, special conditions, specifications, and requirements will form the basis of the contract. The Responder should take care to answer all questions and provide all requested information, and to note any exceptions in the quote submission. Failure to observe any of the instructions or conditions in this Request for Quotes may result in rejection of the quote.
3. **Binding Offer:** To allow sufficient time for a contract to be awarded, each quote shall constitute a firm offer that is binding for ninety (90) days from the received by date to the date of award.
4. **References:** Include with your quote a list of three (3) jobs that your company has done that are of the same or similar nature to the work described in this Request for Quotes, on the form provided. Include all information as requested on the form.
5. **Preparation Costs:** The Responder shall bear all costs associated with preparing the quote.
6. **More Than One Quote:** Do not submit alternate quotes or options, unless requested or authorized by the County in the Request for Quotes. If a Responder submits more than one quote without being requested or authorized to do so, the County may disqualify the quotes from that Responder, at the County's option.
7. **Defects or Irregularities:** The County reserves the right to waive any defect or irregularity in any quote received. In case of a discrepancy between unit prices and extended prices, the unit price will govern unless the facts or other considerations indicate another basis for correction of the discrepancy.
8. **Brand Name:** If items in this Request for Quotes have been identified, described, or referenced by a brand name or trade name description, such identification is intended to be descriptive, but not restrictive and is to indicate the quality and characteristics of products that may be offered. Alternative products may be considered for award if clearly identified in the quote. Items offered must meet required specifications and must be of a quality which will adequately serve the use and purpose for which intended.

9. **Prices Held Firm:** Prices quoted shall be firm for the period of the contract, unless otherwise specified in the quote. All prices for commodities, supplies, equipment, or other products shall be quoted FOB Destination, Fayette County or job site.
10. **Responder Substitutions:** Responders offering substitutions or deviations from specifications stated in the Request for Quotes, shall list such substitutions or deviations on the "Exceptions to Specifications" sheet provided, or on a separate sheet to be submitted with the quote. The absence of such list shall indicate that the Responder has taken no exception to the specifications. The evaluation of quotes and the determination as to equality and acceptability of products or services offered shall be the responsibility of the County.
11. **Non-Collusion:** By responding to this Request for Quotes, the Responder represents that the quote is not made in connection with any competing Responder, supplier, or service provider submitting a separate response to this Request for Quotes and is in all respects fair and without collusion or fraud.
12. **Ethics – Disclosure of Relationships:** Before a proposed contract in excess of \$10,000.00 is recommended for award to the Board of Commissioners or the County Administrator, or before the County renews, extends, or otherwise modifies a contract after it has been awarded, the Contractor must disclose certain relationships with any County Commissioner or County Official, or their spouse, mother, father, grandparent, brother, sister, son or daughter related by blood, adoption, or marriage (including in-laws). A relationship that must be reported exists if any of these individuals is a director, officer, partner, or employee, or has a substantial financial interest in the business, as described in Fayette County Ordinance Chapter 2, Article IV, Division 3 (Code of Ethics).

If such relationship exists between your company and any individual mentioned above, relevant information must be presented in the form of a written letter to the Director of Purchasing. You must include the letter with any bid, proposal, or price quote you submit to the Purchasing Department.

In the event that a Contractor fails to comply with this requirement, the County will take action as appropriate to the situation, which may include actions up to and including rejection of the bid or offer, cancellation of the contract in question, or debarment or suspension from award of a County contract for a period of up to three years.

13. **Evaluation:** Award will be made to the lowest responsive, responsible Responder, taking into consideration payment terms, vendor qualifications and experience, quality, references, any exceptions listed, and/or other factors deemed relevant in making the award. The County may make such investigation as it deems necessary to determine the ability of the Responder to perform, and the Contractor shall furnish to the County all information and data for this purpose as the County may request. The County reserves the right to reject any item, any quote, or all quotes, and to re-solicit for pricing.

14. **Payment Terms and Discounts:** The County's standard payment terms are Net 30. Any deviation from standard payment terms must be specified in the resulting contract, and both parties must agree on such deviation. Cash discounts offered will be a consideration in awarding the quote, but only if they give the County at least 15 days from receipt of invoice to pay. For taking discounts, time will be computed from the date of invoice acceptance by the County, or the date a correct invoice is received, whichever is the later date. Payment is deemed made, for the purpose of earning the discount, on the date of the check.
15. **Trade Secrets – Confidentiality:** If any person or entity submits a bid, proposal, or quote that contains trade secrets, an affidavit shall be included with the bid, proposal, or quote. The affidavit shall declare the specific included information which constitutes trade secrets. Any trade secrets must be either (1) placed in a separate envelope, clearly identified, and marked as such, or (2) at a minimum, marked in the affidavit or an attached document explaining exactly where such information is, and otherwise marked, highlighted, or made plainly visible. See O.C.G.A. § 50-18-72 (A)(34).
16. **Trade Secrets – Internal Use:** In submitting a quote, the Responder agrees that the County may reveal any trade secret materials contained in the quote to all County staff and officials involved in the selection process, and to any outside consultant or other third parties who may assist in the selection process. The Responder agrees to hold harmless the County and each of its officers, employees, and agents from all costs, damages, and expenses incurred in connection with refusing to disclose any material which the Responder has designated as a trade secret.
17. **Contract Execution & Notice to Proceed:** After an award is made, and all required documents are received by the County, and the contract is fully executed with signature of both parties, the County will issue a written Notice to Proceed. The County shall not be liable for payment of any work done or any costs incurred by any Responder prior to the County issuing the Notice to Proceed.
18. **Unavailability of Funds:** This contract will terminate immediately and absolutely at such time as appropriated and otherwise unobligated funds are no longer available to satisfy the obligations of the County under the contract.
19. **Insurance:** The Successful Responder shall procure and maintain the following insurance, to be in effect throughout the term of the contract, in at least the amounts and limits as follows:
- a. **General Liability Insurance:** \$1,000,000 combined single limit per occurrence, including bodily and personal injury, destruction of property, and contractual liability.
 - b. **Automobile Liability Insurance:** \$1,000,000 combined single limit each occurrence, including bodily injury and property damage liability.
 - c. **Worker's Compensation & Employer's Liability Insurance:** Workers Compensation as required by Georgia statute.

Before a contract is executed, the Certificates of Insurance for all required coverage shall be submitted to the County. The certificate shall list an additional insured as follows:

Fayette County, Georgia
140 Stonewall Avenue West
Fayetteville, GA 30214

20. **Unauthorized Performance:** The County will not compensate the Contractor for work performed unless the work is authorized under the contract, as initially executed, or as amended.
21. **Assignment of Contract:** Assignment of any contract resulting from this Request for Quotes will not be authorized, except with express written authorization from the County.
22. **Indemnification:** The Contractor shall indemnify and save the County and all its officers, agents and employees harmless from all suits, actions, or other claims of any character, name and description brought for or on account of any damages, losses, or expenses to the extent caused by or resulting from the negligence, recklessness, or intentionally wrongful conduct of the Contractor or other persons employed or utilized by the Contractor in the performance of the contract. The Contractor shall pay any judgment with cost which may be obtained against the County growing out of such damages, losses, or expenses.
23. **Severability:** The invalidity of one or more of the phrases, sentences, clauses, or sections contained in the contract shall not affect the validity of the remaining portion of the contract. If any provision of the contract is held to be unenforceable, then both parties shall be relieved of all obligations arising under such provision to the extent that the provision is unenforceable. In such case, the contract shall be deemed amended to the extent necessary to make it enforceable while preserving its intent.
24. **Delivery Failures:** If the Contractor fails to deliver contracted goods or services within the time specified in the contract or fails to replace rejected items in a timely manner, the County shall have authority to make open-market purchases of comparable goods or services. The County shall have the right to invoice the Contractor for any excess expenses incurred or deduct such amount from monies owed the Contractor. Such purchases shall be deducted from contracted quantities.
25. **Substitution of Contracted Items:** The Contractor shall be obligated to deliver products awarded in this contract in accordance with terms and conditions specified herein. If a Contractor is unable to deliver the products under the contract, it shall be the Contractor's responsibility to obtain prior approval of the ordering agency to deliver an acceptable substitute at the same price quoted in the Contractor's original bid. In the event any Contractor consistently needs to substitute or refuses to substitute products, the County reserves the right to terminate the contract or invoke the "Delivery Failures" clause stated herein.

26. **Termination for Cause:** The County may terminate the contract for cause by sending written notice to the Contractor of the Contractor's default in the performance of any term of this agreement. Termination shall be without prejudice to any of the County's rights or remedies by law.
27. **Termination for Convenience:** The County may terminate the contract for its convenience at any time with 10 days' written notice to the Contractor. In the event of termination for convenience, the County will pay the Contractor for services performed. The County will compensate partially completed performance based upon a signed statement of completion.
28. **Force Majeure:** Neither party shall be deemed to be in breach of the contract to the extent that performance of its obligations is delayed, restricted, or prevented by reason of any act of God, natural disaster, act of government, or any other act or condition beyond the reasonable control of the party in question.
29. **Governing Law:** This agreement shall be governed in accordance with the laws of the State of Georgia. The parties agree to submit to the jurisdiction in Georgia, and further agree that any cause of action arising under this agreement shall be required to be brought in proper venue in Fayette County, Georgia.

Checklist of Required Documents

*(Be Sure to Return This Checklist and
the Required Documents in the order listed below)*

RFQ #2336-A: Lake Kedron Dam Intake Sluice Gate

Company information – on the form provided _____

Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1) _____

Pricing sheet _____

List of exceptions, if any – on the form provided _____

References – on form provided _____

Copy of International Commercial Diving Certification _____

Addenda, signed, if any are issued _____

COMPANY NAME: _____

COMPANY INFORMATION
RFQ #2336-A: Lake Kedron Dam Intake Sluice Gate

A. COMPANY

Company Name: _____

Physical Address: _____

Mailing Address (if different): _____

Website (if applicable): _____

B. AUTHORIZED REPRESENTATIVE

Signature: _____

Printed or Typed Name: _____

Title: _____

E-mail Address: _____

Phone Number: _____ Fax Number: _____

C. PROJECT CONTACT PERSON

Name: _____

Title: _____

Phone Number: _____

E-mail Address: _____

REFERENCES
RFQ #2336-A: Lake Kedron Dam Intake Sluice Gate

Please list three (3) references for current or recent customers who can verify the quality of service your company provides. Projects of similar size and scope are preferable.

1. Government/Company Name _____

City & State _____

Work or Service Provided _____

Approximate Completion Date _____

Contact Person and Title _____

Phone _____ Email _____

2. Government/Company Name _____

City & State _____

Work or Service Provided _____

Approximate Completion Date _____

Contact Person and Title _____

Phone _____ Email _____

3. Government/Company Name _____

City & State _____

Work or Service Provided _____

Approximate Completion Date _____

Contact Person and Title _____

Phone _____ Email _____

COMPANY NAME: _____

Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)

The undersigned contractor ("Contractor") executes this Affidavit to comply with O.C.G.A § 13-10-91 related any contract to which Contractor is a party that is subject to O.C.G.A. § 13-10-91 and hereby verifies compliance with O.C.G.A. § 13-10-91, attesting as follows:

- a) The Contractor has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program;
- b) The Contractor will continue to use the federal work authorization program throughout the contract period, including any renewal or extension thereof;
- c) The Contractor will notify the public employer in the event the Contractor ceases to utilize the federal work authorization program during the contract period, including renewals or extensions thereof;
- d) The Contractor understands that ceasing to utilize the federal work authorization program constitutes a material breach of Contract;
- e) The Contractor will contract for the performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the Contractor with the information required by O.C.G.A. § 13-10-91(a), (b), and (c);
- f) The Contractor acknowledges and agrees that this Affidavit shall be incorporated into any contract(s) subject to the provisions of O.C.G.A. § 13-10- 91 for the project listed below to which Contractor is a party after the date hereof without further action or consent by Contractor; and
- g) Contractor acknowledges its responsibility to submit copies of any affidavits, drivers' licenses, and identification cards required pursuant to O.C.G.A. § 13-10-91 to the public employer within five business days of receipt.

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

2336-A Lake Kedron Dam Intake Sluice Gate
Name of Project

Fayette County, Georgia
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, _____, 2023 in _____ (city), _____ (state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 2023.

NOTARY PUBLIC

My Commission Expires: _____

SCOPE AND SPECIFICATION
RFQ #2336-A: Lake Kedron Dam Intake Sluice Gate

INTRODUCTION

Fayette County Water System is seeking quotes from qualified diving contractors for the refurbishment of the Lake Kedron Dam intake structure exterior slide/sluice gate and control. Lake Kedron Dam is a Category 1 earthen embankment dam located at 616 Wingspread in Peachtree City, Georgia. Construction of the dam was completed in 1987 for the Fayette County Water System with the primary purpose to serve as a drinking water source. It has a normal pool elevation of 835 feet above sea level. The principal spillway is a 113-feet wide concrete broad-crested weir and downslope chute. The intake structure serves as monitoring station, downstream flow control, and low-level drain for the reservoir.

BACKGROUND

When the reservoir is threatened by a severe flood level or needs significant lowering, the intake structure upper 16" exterior sluice gate is required to release and lower the lake level. During 2022 the existing sluice gate was removed including the operating shaft, control wheel pedestal and other appurtenances. After removal a square plate was installed to cover the opening. A sluice gate now needs to be installed to securely seal the 16-inch square opening along with new operating shaft, shaft support mounts, pedestal, and hand operator. To complete this work, the use of scuba will be required, the steel plate removed, and a new sluice gate installed. Additionally, the internal sluice gate mounted on the inside of the intake structure will require repair to the floor mounted operator.

SCOPE OF WORK

The chosen contractor shall provide any and all permits, materials, equipment, mobilization, de-mobilization, appropriate international commercial diving certifications, and labor as needed to perform repairs and installation. Contractor will follow the provided Stainless Steel Slide Gates and Anchor Systems Specifications (46.26.23 & 05.05.33 – Attachments 1 & 2). Services will include the following:

INTAKE EXTERIOR SLUICE GATE INSTALLATION, includes but is not limited to:

- 1) Remove exterior steel plate covering 16-inch square opening.
- 2) Install stainless steel (SS) sluice gate with use of SS hardware per attached specification.
- 3) Install SS operating valve shaft and shaft support mounts per attached specification.
- 4) Design & install SS exclusion grate surrounding the 16-inch sluice gate, slide, and operating stem. (304SS angle frame and 316SS anchors, 1.5-inch woven SS mesh minimum grate).

- 5) Install SS exclusion grate around 10-inch wall pipe opening. (304SS angle frame and 316SS anchors, 1.5-inch minimum grate woven SS mesh).
- 6) Install operator pedestal and hand wheel operator.
- 7) Ensure proper operation of newly install sluice gate.

INTAKE INTERIOR SLUICE GATE, includes but is not limited to:

- 1) Re-anchor pedestal with adhesive anchors with 6-inch embedment to intake floor.
- 2) Enter confined space of intake riser.
- 3) Ensure existing scaffolding mounts on interior riser walls are not compromised.

ADDITIONAL WORK

Vendor will coordinate with the representative of selected sluice gate manufacturer (Fontaine-Aquanox or approved equal) and ensure manufacturer warranty is provided to FCWS.

Vendor will provide the following submittals for FCWS approval, including:

- Shop drawings with critical field dimensions and relationships to other critical features of Intake Structure.
- Product data as specified in the slide gate specification.
- Manufacturer's standard schematic drawings and diagrams modified to delete information that is not applicable to the work and supplement standard information to provide information specifically applicable to the work.
- Shop drawing for exclusion grate for 16" exterior sluice gate and outside of 10-inch wall pipe opening.

After the initial dive and inspection, contractor shall report to owner any additional work needed not covered in the Scope of Work prior to work being done. Vendor agrees that the Contingency Allowance is for the sole use of Owner to cover unanticipated costs. The Contingency Allowance shall only be used with prior written authorization by the County Administrator in the form of a Change Order.

Vendor agrees to provide minimum 1-year warranty to all work provided.

PRICING SHEET

RFQ #2336-A: Lake Kedron Dam Intake Sluice Gate

Responder agrees to perform all the work described in the Contract documents for the following prices:

Sluice Gate Repairs, per scope of work	\$
Contingency Allowance	\$ 5,000.00
Total Price	\$

NOTES:

1. All applicable charges shall be included in your total quoted amount, including but not limited to materials, equipment, installation, labor, and any other amounts. No additional charges will be allowed after the quote received by date.
2. All warranties shall be included in your total quoted amount.

State Sluice Gate Manufacturer Quoted: _____

State time needed to commence work after Notice to Proceed is issued _____ Days.

State length of time needed to complete project _____ Days.

State, List or Attach the terms of your warranty (1-year minimum): _____

COMPANY'S NAME _____

EXCEPTIONS TO SPECIFICATIONS

RFQ #2336-A: Lake Kedron Dam Intake Sluice Gate

Please list below any exceptions or clarifications to the specifications of this bid. Explain any exceptions in full.

[illegible]

COMPANY NAME: _____

SECTION 43 26 23

STAINLESS STEEL SLIDE GATES

PART 1 - GENERAL1.1 DESCRIPTION

A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install stainless steel slide gates and appurtenances complete and operational.
2. Included are stainless steel slide gates, anchorage systems and appurtenances as specified.
3. Gates shall be upwards opening of the four (4) sides sealing type designed for submergence in water. They shall have flow control capability by allowing only flow through the open area in partial opening situations.
4. Gates will be face mounted to existing submerged weathered concrete wall at location where a sluice gate had been previously installed. Existing anchors were installed 3" from the edge of the opening at 11" center to center, all around. New gate should have extra wide flange to offset new anchors to the outside of the existing anchor locations, which have been cut flush with the face of concrete.
4. Extent of the equipment is shown on the Stainless Steel Slide Gate Schedule located at the end of this Section.

B. Coordination:

1. Review installation procedures under this and other Sections and coordinate the installation of items that must be installed with, or before the stainless steel slide gates Work.

C. Related Sections:

1. Section 05 05 33, Anchor Systems.

1.2 REFERENCES

A. Standards referenced in this Section are listed below:

1. American Society for Testing and Materials, (ASTM).
 - a. ASTM A 276, Specification for Stainless Steel Bars and Shapes.
 - b. ASTM B 584, Specification for Copper Alloy Sand Castings for General Applications
2. American Water Works Association, (AWWA), AWWA C561, Fabricated Stainless Steel Slide Gates.
3. National Electrical Manufacturers' Association, (NEMA).

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Manufacturer shall have a minimum of five years of experience of producing substantially similar equipment and shall be able to show evidence of at least five installations in satisfactory operation for at least five years.
 - 2. Stainless steel slide gates shall be the product of one manufacturer.
- B. Component Supply and Compatibility:
 - 1. Obtain all equipment included in this Section regardless of the component manufacturer from a single stainless steel slide gate manufacturer.
 - 2. The stainless steel slide gate equipment manufacturer to review and approve or to prepare all Shop Drawings and other submittals for all components furnished under this Section.
 - 3. All components shall be specifically designed for the specified service and shall be integrated into the overall assembly by the stainless steel slide gate equipment manufacturer.

1.4 SUBMITTALS

- A. Action Submittals: Submit the following:
 - 1. Shop Drawings:
 - a. Fabrication, assembly and installation diagrams.
 - b. Setting drawings, templates, and directions for the installation of anchor bolts and other anchorages.
 - 2. Product Data:
 - a. Manufacturer's literature, illustrations, specifications and engineering data.
 - b. Deviations from the Contract Documents.
 - c. Lubricant Specification: Furnish a lubricant specification for the type and grade necessary to meet the requirements of the equipment.
- B. Informational Submittals: Submit the following:
 - 1. Support Design Information:
 - a. Submit for record purposes only the weight of each slide gate and expected opening and closing thrust loads on the supporting structure.
 - 2. Shop Test Results:
 - a. Submit results of required shop tests.
 - 3. Field Test Results:
 - a. Submit a written report giving the results of the field tests required.
- C. Closeout Submittals:
 - 1. Operation and Maintenance Manuals:
 - a. Submit complete Installation, Operation and Maintenance Manuals including, test reports, maintenance data and schedules, description of operation and spare parts information.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Packing, Shipping, Handling and Unloading:
 - 1. Handle all stainless steel slide gates and appurtenances properly, in accordance with manufacturer's recommendations. Stainless steel slide gates, which are distorted or otherwise damaged, will not be acceptable. Protect all bolt threads and ends from damage.
- B. Storage and Protection:
 - 1. Store materials to permit easy access for inspection and identification. Keep all material off the ground, using pallets, platforms, or other supports. Protect steel members and packaged materials from corrosion and deterioration.
 - 2. Store all mechanical equipment in covered storage off the ground and prevent condensation.
- C. Acceptance at Site:
 - 1. All boxes, crates and packages shall be inspected by CONTRACTOR upon delivery to the Site. CONTRACTOR shall notify ENGINEER, in writing, if any loss or damage exists to equipment or components. Replace loss and repair damage to new condition in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.1 SERVICE CONDITIONS

- A. General:
 - 1. Design stainless steel slide gates to safely withstand conditions listed in Stainless Steel Slide Gate Schedule, located at the end of the Section.
 - 2. Gates shall conform to all requirements of the latest edition of ANSI/AWWA C561.
 - 3. Stainless steel slide gates shall be substantially watertight with leakage less than 0.5 gpm per foot of seating perimeter at design head.
 - 4. Manual operators shall turn clockwise to close, unless otherwise specified. Operators shall indicate the direction of operation.
 - 5. Bolts, studs, cap screws, and adjusting screws shall be of ample section to withstand the force created by operation of the gate under a full head of water.

2.2 MANUFACTURERS

- A. Manufacturers: Provide equipment of one of the following:
 - 1. Fontaine Aquanox.
 - 2. Or equal.

2.3 FABRICATION

- A. Materials of Construction:
 - 1. Stainless Steel: For frame, slide, and rail, ASTM A 276, Type 316 stainless steel. All metal for stainless steel slide gate parts shall have a minimum

thickness of 1/4-inch. Stresses under design head shall not exceed 25% of the ultimate tensile, compressive, and shear strength and 50% of the yield strength, whichever is less.

2. Bronze Casting: For operating nut, thrust nut and lift nut, ASTM B 584 Alloy 865.
3. All bolts, studs, cap screws and adjusting screws shall be of Type 316 stainless steel.
4. Bolts and nuts shall have hexagon heads.
5. Gasket material and installation shall conform to manufacturer's recommendations.

B. Slide:

1. Fabricate the slide of ASTM A 276, Type 316 stainless steel plate reinforced with structural shapes attached by welding.
2. Provide reinforcing to limit deflection under full head to not more than 1/720 of the span or 1/16 inch, whichever is less.
3. Extend reinforcing ribs into the guides overlapping the seating surface of the guide.
4. Weld stem mounting guides to the slide.

C. Slide Guides:

1. Guides shall be of Type 316 stainless steel incorporating a sandwich type construction using plates and structural angles.
2. Guides shall be designed for maximum rigidity as columns to take the thrust developed during the stainless steel slide gate operation under maximum head.
3. Guides shall extend beneath the opening a sufficient amount to support the slide in the fully open or closed position.

D. Stem:

1. Operating stems shall be of Type 316 stainless steel and designed as specified below.
2. Design stem to transmit in compression at least 2-1/2 times the rated output of the operating mechanism with an 80-pound effort on the crank or handwheel. Determine the critical buckling load using the Euler column formula, using $C = 2$. Where electric motor driven lifts are used, the stem design force shall not be less than 1.25 times the output thrust of the unit in the stalled motor condition.
3. Stems shall have a slenderness ratio (L/R) less than 200.
4. Threaded portion of the stem shall have machined cut threads of the Acme type. Join stems of more than one section by stainless steel couplings threaded and keyed, or bored and pinned to the stems. All threaded and keyed couplings of the same size shall be interchangeable. Couplings shall be designed to be of greater strength than the stems.
5. Connect the stem to the slide by means of a bolted connection.
6. Provide rising stems with an adjustable stop collar on the stem above the floorstand lift nut.

E. Lower Seals:

1. Mount a specially shaped resilient neoprene seal or a poured urethane seal in the invert of the frame to form a flush bottom seal..
 2. Shape of the seal shall produce a seating surface having a minimum width of 3/4-inch, and the seal will extend beyond the seating surface of the frame.
 3. Vertical face of the seal shall be in contact with the seating surface of the guide to provide a proper seal at the corners.
- F. Side and Upper Seals:
1. Side and upper seals shall be fabricated from ultra high molecular weight (UHMW) polyethylene or UHMW polymer. UHMW bearing strips shall be mechanically retained to lock seat in place.
 2. The top seal design shall incorporate a self-cleaning wiping function that prevents debris from building-up above the top seal and causing premature wear of the seats, seals, and gate face.
 3. The UHMW seals shall impinge on the slide by way of a continuous loop cord seal. Seal designs incorporating resilient seals such as "J-bulb" or "P" seals that come in direct contact with the friction surface of the slide will not be considered.
 4. The cord seal shall function as a seal between the frame and the UHMW, and as a spring force to maintain contact between the UHMW and the slide.

2.4 APPURTENANCES

- A. Stem Guides:
1. Stem guides shall be fabricated from Type 316 stainless steel and shall be equipped with UHMW polyethylene or UHMW polymer.
 2. Guides shall be adjustable in two directions and shall be spaced so that stems have a maximum unsupported length of 84-inches.
 3. Anchor bolts for stem guides shall be Type 316 stainless steel.
- B. Anchor Bolts:
1. Provide Type 316 stainless steel anchor bolts as required for stem guides, floorstands, and all equipment or appurtenances, which must be secured to concrete walls or floors. Anchor bolts shall be of ample size and strength for the purpose intended, and shall be furnished by the manufacturer.
- C. Stem Cover:
1. Furnish all stems with a clear polycarbonate or butyrate plastic pipe stem cover. Covers shall be furnished with a cast aluminum adaptor for mounting covers to floor stands. Stem covers shall be designed and furnished with gasketing and breathers to eliminate water intrusion into operators and condensation within the covers.
 2. Engrave the covers with legible markings showing as a minimum the gate position at 1/4 open, 1/2 open, 3/4 open and full open.
 2. The stem cover shall be equipped with a clear mylar position indicating tape. The tape shall be field applied on the stem cover after the gate has been

installed and positioned. As a minimum, the tape shall indicate the gate position at 1/4 open, 1/2 open, 3/4 open and fully open.

D. Manual Operators:

1. Manual operation shall be by handwheel floorstand as shown and specified.
2. Handwheel-operated type shall be without gear reduction. Each shall be provided with a threaded cast manganese bronze lift nut to engage the operating stem.
3. Provide anti-friction bearings to properly support both opening and closing thrusts.
4. Stands shall operate the gates under the specified operating head with not greater than a 40-pound pull on the handwheel.
5. All components shall be totally enclosed in a cast-iron weather-proof housing. Provide positive mechanical seals to exclude moisture and dirt and prevent leakage of lubricant out of the unit.
6. Provide lubricating fittings for all gears and bearings.
7. Stands shall include a cast-iron pedestal designed to position the handwheel approximately 36-inches above the operating floor. An arrow with the word "OPEN" shall be permanently attached or cast on the floorstand indicating the direction of rotation to open the stainless steel slide gate.
8. Removable handwheel shall be fabricated steel designed for rough treatment and minimum weight.
9. Provide adjustable mechanical stops at each end of travel.

- E. Identification: Identify each stainless steel slide gate with a stainless steel nameplate stamped with the approved designation as shown in the Stainless Steel Slide Gate Schedule, located at the end of this Section. Nameplate shall be permanently fastened to the gate at the factory.

2.5 SURFACE PREPARATION AND PAINTING

- A. Clean, prime coat, and finish coat ferrous metal surfaces of equipment in the shop with manufacturer's standard painting system.
- B. Coat machined, polished and non-ferrous surfaces bearing surfaces and similar unpainted surfaces with corrosion prevention compound, which shall be maintained during storage, and until equipment begins operation.

2.6 SOURCE QUALITY CONTROL

A. Shop Tests:

1. Test each stainless steel slide gate fully assembled in the vertical position for proper seating.
2. Fully open and close gate slide in its guide system to ensure that it operates freely.
3. Operate and test floor stands, bench stands and motor operators to ensure proper assembly and operation.

2.7 SLIDE GATE SCHEDULE

- A. The Stainless Steel Slide Gate Schedule is located at the end of this Section. Conform to type, size, operation and other data specified, unless otherwise approved by ENGINEER.
- B. Provide all stainless steel slide gates as shown and listed in the schedule.
- C. The seating and unseating design head as stated in the Stainless Steel Slide Gate Schedule is based on the head measured to the centerline of the gate in its closed position.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install stainless steel slide gate equipment in accordance with manufacturer's instructions and recommendations.
- B. Brace guides and frames during placement of concrete.
- C. Set anchor bolts in accordance with approved Shop Drawings and manufacturer's recommendations.
- D. Provide minimum of 1-inch of non-shrink grout below all floorstands.
- E. Adjust all parts and components as required to provide correct operation.

3.2 START-UP AND FIELD TESTS

- A. After CONTRACTOR and ENGINEER have mutually agreed that the equipment installation is complete and ready for continuous operation, CONTRACTOR and a qualified field service representative of the manufacturer shall conduct a functional field test and a leakage test of each stainless steel slide gate in the presence of ENGINEER to demonstrate that each stainless steel slide gate furnished will function correctly and that maximum permissible leakage is not exceeded.
 - 1. Functional Tests:
 - a. Each stainless steel slide gate with appurtenances shall be field-tested. Tests shall demonstrate to ENGINEER that each part and all parts together function in the manner intended. All necessary testing equipment and manpower shall be provided by CONTRACTOR at their expense. OWNER will furnish all power, and incidental material and labor required for the tests.
 - 2. Leakage Tests:

- a. Maximum permissible leakage shall be in accordance with the requirements of Paragraph 2.1, above. Excess leakage shall be reduced to meet specified requirements by adjusting the gate, or replacement will be required.
3. In the event that the manufacturer is unable to demonstrate to ENGINEER that their equipment meets the requirements of the tests, the deficient equipment will be rejected and CONTRACTOR shall adjust and/or modify and retest the equipment as often as necessary to meet the specified requirements. No separate payments shall be made for adjustments and/or modifications.

3.3 MANUFACTURER'S SERVICES

- A. A factory trained representative shall be provided for installation supervision, start-up and test services and operation and maintenance personnel training services. The representative shall make a minimum of 2 visits, minimum 4 hours on-Site for each visit, to the Site. The first visit shall be for assistance in the installation of equipment. Subsequent visits shall be for checking the completed installation, start-up and training of the system. Manufacturer's representative shall test operate the system in the presence of the ENGINEER and verify that the equipment conforms to the requirements. Representative shall revisit the Site as often as necessary until all trouble is corrected and the installation is entirely satisfactory.
- B. All costs, including travel, lodging, meals and incidentals, for additional visits shall be at no additional cost to the OWNER.

STAINLESS STEEL SLIDE GATE SCHEDULE

Location	Type	Opening Size (W x H)	Frame	Gate Invert Elevation	Floor Mounting Elevation	Design Head (Seating/ Unseating) ¹	Operator
Lake Kedron Outlet Structure	Upward Opening	16" x 16"	Non-self-contained, Surface Mounted, Extra-wide flange	816.00'	845.75'	24.0'/24.0'	Handwheel, Lift and pedestal mounted to bracket

Note 1: Design head measured from invert of gate.

++ END OF SECTION ++

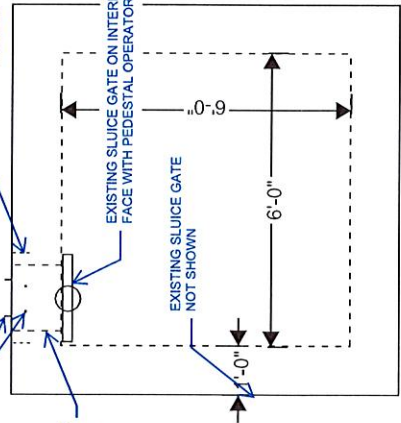
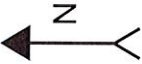
ANCHORS FROM PREVIOUS GATE FRAME, CUT FLUSH WITH CONCRETE, 3" FROM EDGE OF OPENING AT 11" ON CENTERS, ALL AROUND

EXISTING ANCHORS FROM PREVIOUS OPERATOR PEDESTAL

EXISTING 16"x16" CLEAR OPENING

EXISTING SLUICE GATE ON INTERIOR FACE WITH PEDESTAL OPERATOR

EXISTING SLUICE GATE NOT SHOWN

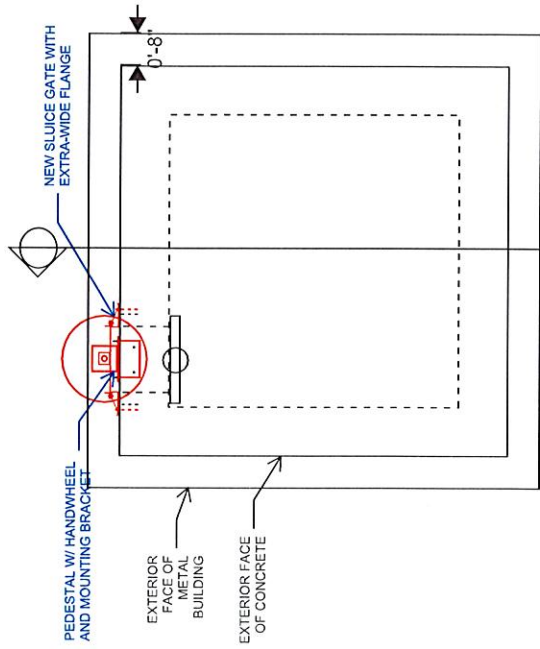


EXISTING CONDITIONS PLAN

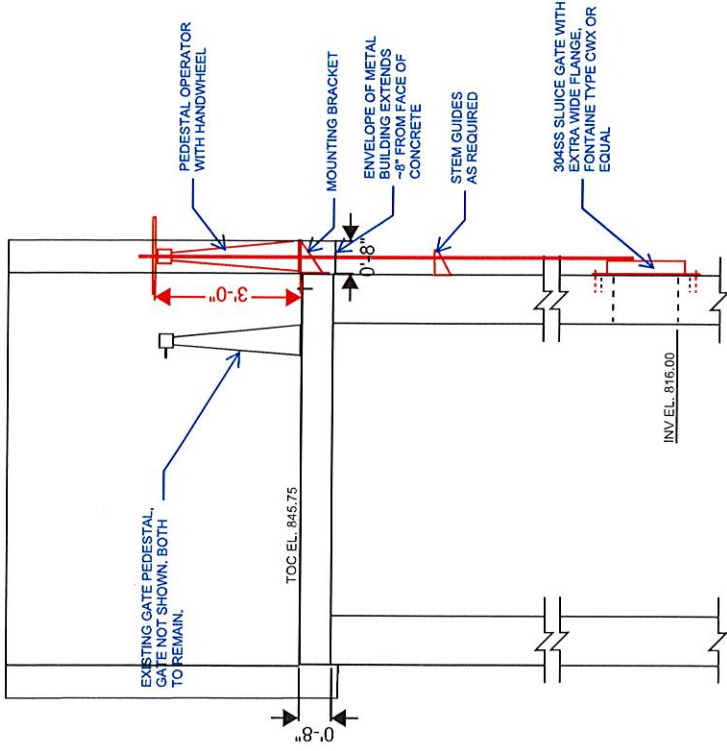


EXAMPLE OF INSTALLED GATE PEDESTAL WITH MOUNTING BRACKET AND HANDWHEEL

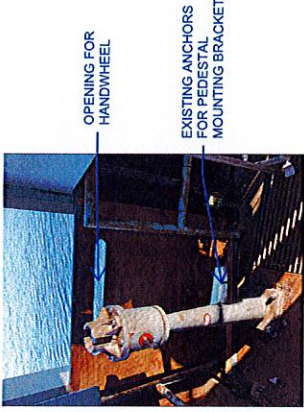
EXISTING GATE OPERATOR ON EAST FACE OF BUILDING



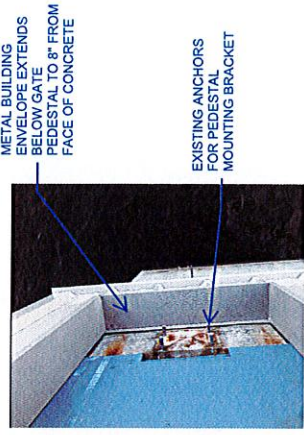
NEW WORK PLAN



SECTION



VIEW OF INTERIOR AT NORTH GATE



VIEW OF EXTERIOR AT NORTH GATE

EXCLUSION GRATE

SECTION 05 05 33**ANCHOR SYSTEMS****PART 1 – GENERAL****1.1 DESCRIPTION****A. Scope:**

1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install anchor systems.
2. This Section includes all anchor systems required for the Work, but not specified under other Sections.

B. Coordination:

1. Review installation procedures under this and other Sections and coordinate installation of items to be installed with or before anchor systems Work.

1.2 REFERENCES**A. Standards referenced in this Section are:**

1. ACI 318, Building Code Requirements for Structural Concrete.
2. ACI 350, Code Requirements for Environmental Engineering Concrete Structures.
3. ASTM A194/A194M, Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
4. ASTM A276, Specification for Stainless Steel Bars and Shapes.
5. ASTM A493, Specification for Stainless Steel Wire and Wire Rods for Cold Heading and Cold Forging.
6. ASTM A563, Specification for Carbon and Alloy Steel Nuts.
7. ASTM A1011/A1011M, Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
8. ASTM B633, Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
9. ASTM C307, Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacing.
10. ASTM C881/C881M, Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
11. ASTM E329, Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
12. ASTM E488, Test Methods for Strength of Anchors in Concrete and Masonry Elements.

13. ASTM F593, Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
14. ASTM F594, Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
15. ICC-ES AC308, Acceptance Criteria for Post-Installed Adhesive Anchors in Concrete Elements.
16. ISO 3506-1, Mechanical Properties of Corrosion-Resistant Stainless Steel Fasteners -- Part 1: Bolts, Screws and Studs.
17. NSF/ANSI 61, Drinking Water System Components – Health Effects.

1.3 QUALITY ASSURANCE

A. Qualifications:

1. Testing Laboratory: Shall comply with ASTM E329 and shall be experienced in tension testing of post-installed anchoring systems.
2. Post-installed Anchor Installer:
 - a. Adhesive Anchors: Installation shall be performed by personnel certified under an applicable certification program. Certification shall include written and performance tests in accordance with the ACI/CRSI Adhesive Anchors Installer Certification Program, or equivalent. Description of equivalent programs shall be submitted for ENGINEER's approval and shall be accepted by the building official having jurisdiction.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:

1. Shop Drawings:
 - a. Listing of all anchor systems products intended for use in the Work including product type, intended location in the Project, and embedded lengths.
2. Product Data:
 - a. Manufacturer's specifications, load tables, dimension diagrams, acceptable base material conditions, acceptable drilling methods, and acceptable bored hole conditions.
 - b. When required by ENGINEER, copies of valid ICC ES reports that presents load-carrying capacities and installation requirements for anchor systems.
3. Samples:
 - a. Representative Samples of anchor systems proposed for use in the Work. Review will be for type and finish only. Compliance with all other requirements is CONTRACTOR's exclusive responsibility.

B. Informational Submittals: Submit the following:

1. Certificates:

- a. For each type of anchor bolt or threaded rod, submit copies of laboratory test reports and other data required to demonstrate compliance with the Contract Documents.
 - 1) Reports shall demonstrate compliance with ductile steel element definition of ACI 350, Appendix D, Section D.1.
- b. Post-installed anchor system manufacturer's certification that installer received training in the proper installation of manufacturer's products required for the Work.
- c. For each adhesive anchor installer, submit ACI/CRSI Adhesive Anchor Installer Certification.
- 2. Manufacturer's Instructions:
 - a. Installation instructions for each anchor system product proposed for use, including bore hole cleaning procedures and adhesive injection, cure and gel timetables, and temperature ranges (storage, installation and in-service).

1.5 DELIVERY, STORAGE AND HANDLING

- A. Storage and Protection:
 - 1. Keep materials dry during delivery and storage.
 - 2. Store adhesive materials within manufacturer's recommended storage temperature range.
 - 3. Protect anchor systems from damage at the Site. Protect products from corrosion and deterioration.

PART 2 – PRODUCTS

2.1 SYSTEM PERFORMANCE

- A. General:
 - 1. At locations where conditions dictate that Work specified in other Sections is to be of corrosion resistant materials, provide associated anchor systems of stainless steel materials, unless other corrosion-resistant anchor system material is specified. Provide anchor systems of stainless steel materials where stainless steel materials are required in the Contract Documents.
 - 2. Stainless steel nuts of same type or as required by anchor manufacturer shall be provided.
 - a. For anchor bolts and adhesive anchors, provide ASTM A194/A194M, Grade 8S (Nitronic 60) stainless steel nuts for stainless steel anchors used for anchoring equipment, gates, and weirs, and other locations, if any, where the attachment will require future removal for operation or maintenance. Provide lock washer or double nuts on each anchorage device provided for equipment, as required by equipment manufacturer.

B. Design Criteria

1. Size, Length, and Load-carrying Capacity: Comply with the Contract Documents. When size, length or load-carrying capacity of anchor system is not otherwise shown or indicated, provide the following:
 - a. Adhesive Anchors: Provide size, length, type, and capacity required to carry design load. Anchor capacity shall be based on the procedures required by the building code in effect at the Site. Where Evaluation Service Reports issued by the ICC Evaluation Service are required in this Section, anchor capacities shall be based on design procedure required in the applicable ICC Evaluation Service Report.
 - 1) General: Determine capacity considering reductions due to installation and inspection procedures, embedment length, strength of base fastening materials, spacing, and edge distance, as indicated in the manufacturer's design guidelines. For capacity determination, concrete shall be assumed to be in the cracked condition, unless calculations demonstrate that the anchor system will be installed in an area that is not expected to crack under any and all conditions of design loading.
 - 2) Concrete Adhesive Anchors: Unless otherwise shown or indicated in the Contract Documents or approved by ENGINEER, provide minimum embedment depth of the greater of the following: required to develop tensile strength of anchor, or a minimum embedment of 10 anchor diameters; and minimum anchor spacing and edge distance of 12 anchor diameters.
2. Delegated Design: When anchor systems are used for supporting materials, equipment, or systems delegated to Contractor, Subcontractor, or Supplier, provide anchor system suitable for loads indicated in delegated design documents and consistent with the design intent expressed in the Contract Documents. Anchor system shall be designed by a professional engineer, retained by Contractor, Subcontractor, or Supplier, registered in the same state as the Site, with proper consideration of concrete strength, spacing and edge distance.
 - a. Design Loads. Comply with the Contract Documents. When design load of supported material, equipment, or system is not otherwise shown or indicated, provide the following:
 - 1) Equipment Anchors: Use design load recommended by equipment manufacturer. When equipment can be filled with fluid, use loads that incorporate equipment load and load imposed by fluid.

C. Application:

1. Concrete Adhesive Anchors:
 - a. Use where adhesive anchors are shown or indicated for installation in concrete.

- b. Suitable for use where subject to vibration.
- c. Suitable for use in exterior locations or locations subject to freezing.
- d. Suitable for use in submerged, intermittently submerged, or buried locations.
- e. Do not use in overhead applications, unless otherwise shown or approved by ENGINEER.
- f. Do not use for pipe hangers, unless otherwise shown or approved by ENGINEER.

2.2 MATERIALS

A. Concrete Adhesive Anchors:

- 1. General:
 - a. Adhesive anchors shall consist of threaded rods anchored into hardened concrete using an adhesive system.
- 2. Products and Manufacturers: Provide one of the following:
 - a. HIT-RE 500-V3 Injection Epoxy Adhesive Anchoring System, by Hilti Fastening Systems, Inc.
 - b. SET-3G High Strength Epoxy Adhesive, by Simpson Strong-Tie Company, Inc.
 - c. Or Engineer approved equal.
- 3. Adhesive:
 - a. Adhesive system shall use two-component adhesive mix.
 - b. Epoxy adhesives shall comply with physical requirements of ASTM C881/C881M, Type IV, Grade 2 and 3, Class A, B, and C, except gel times.
 - c. Adhesives shall have a current evaluation report by ICC Evaluation Service for use in both cracked and uncracked concrete with seismic recognition for SDC A through F as tested and assessed in accordance with ICC-ES AC308 which incorporates the requirements of ACI 355.4-11.
- 4. Anchor:
 - a. Provide continuously threaded, AISI Type 316 stainless steel adhesive anchor rod. Threaded rods shall comply with the concrete adhesive anchor manufacturer's specifications as included in the ICC Service Evaluation Report for the anchor submitted. Nuts shall have specified proof load stresses equal to or greater than the minimum tensile strength of the stainless steel threaded rod used. Provide ASTM A194/A194M, Grade 8S (Nitronic 60) stainless steel nuts where required.
 - b. Stainless steel threaded rod shall comply with ductility requirements of ACI 350 Appendix D or ACI 318 Chapter 17.

- C. Unless approved by ENGINEER, do not use power-actuated fasteners or other types of bolts and fasteners not specified in this Section.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine conditions under which materials will be installed and advise ENGINEER in writing of conditions detrimental to proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Adhesive Anchors– General:
 - 1. Prior to drilling, locate existing reinforcing steel in vicinity of proposed holes. If reinforcing conflicts with proposed hole location, obtain ENGINEER's approval of alternate hole locations to avoid drilling through or damaging existing reinforcing bars.
- B. Adhesive Anchors:
 - 1. Comply with manufacturer's written installation instructions and the following.
 - 2. Drill holes to adhesive system manufacturer's recommended drill bit diameter to the specified depth. Drill holes in hammering and rotation mode with carbide-tipped drill bits that comply with the tolerances of ANSI B212.15. Core-drilled holes are unacceptable.
 - 3. Before setting adhesive anchor, hole shall be made free of dust and debris by method recommended by adhesive anchor system manufacturer. Hole shall be brushed with adhesive system manufacturer-approved brush and blown clean with clean, dry, oil-free compressed air to remove all dust and loose particles. Hole shall be dry as defined by adhesive system manufacturer.
 - 4. Before injecting adhesive, obtain ENGINEER's concurrence that hole is dry and free of oil and other contaminants.
 - 5. Prior to injecting adhesive into the drilled hole, dispense to a location appropriate for such waste, an initial amount of adhesive from the mixing nozzle, until adhesive is uniform color.
 - 6. Inject adhesive into hole through injection system-mixing nozzle and necessary extension tubes, placed to bottom of hole. Discharge end shall be withdrawn as adhesive is placed but kept immersed to prevent formation of air pockets. Fill hole to depth that ensures that excess material is expelled from hole during anchor placement.
 - 7. Twist anchors during insertion into partially filled hole to guarantee full wetting of rod surface with adhesive. Insert rod slowly to avoid developing air pockets.
 - 8. Provide adequate curing in accordance to adhesive system manufacturer's

requirements prior to continuing with adjoining Work that could place load on installed adhesive anchors. Do not begin adjoining Work until adhesive anchors are successfully tested or when allowed by ENGINEER.

9. Limitations:

- a. Core drilled holes shall not be allowed.
- b. At time of anchor installation, concrete shall have compressive strength (f'_c) of not less than 3000 psi.
- c. At time of anchor installation, concrete shall have age of not less than 21 days.
- d. Installation Temperature: Comply with manufacturer's instructions for installation temperature requirements. Provide temporary protection and other measures, such as heated enclosures, necessary to ensure that base material temperature complies with anchor systems manufacturer's requirements during installation and curing of adhesive anchor system.
- e. Oversized Holes: Advise ENGINEER immediately if size of drilled hole is larger than recommended by anchor system manufacturer. Cost of corrective measures, including but not limited to redesign of anchors due to decreased anchor capacities, shall be paid by CONTRACTOR.
- f. Embedment depths shall be based on installation in normal-weight concrete with compressive strength of 3000 psi when embedded in existing concrete, and 4,000 psi when embedded in new concrete.

3.3 CLEANING

- A. After embedding concrete is placed, remove protection and clean bolts and inserts.

3.4 FIELD QUALITY CONTROL

A. Site Tests:

1. OWNER will employ testing agency to perform field quality tensile testing of production adhesive anchors at the Site, unless otherwise specified.
 - a. Testing shall comply with ASTM E488.
 - b. Test at least ten percent of all types of adhesive anchors. If one or more adhesive anchors fail the test, CONTRACTOR shall pay cost of testing, or at ENGINEER's option CONTRACTOR may arrange for testing paid by CONTRACTOR, for all adhesive anchors of same diameter and type installed on the same day as the failed anchor. If anchors installed on the same day as the failed anchor also fail the test, ENGINEER may require retesting of all anchors of the same diameter and type installed in the Work. CONTRACTOR shall be responsible for retesting costs.

- c. ENGINEER will direct which adhesive anchors are to be tested and indicate test load to be used
 - d. Apply test loads with hydraulic ram.
 - e. Displacement of post-installed anchors shall not exceed $D/10$, where D is nominal diameter of anchor being tested.
- 2. Correct defective Work by removing and replacing or correcting, as directed by ENGINEER.
 - 3. CONTRACTOR shall pay for all corrections and subsequent testing required to confirm competence in the installation of post-installed mechanical anchors.
 - 4. Testing agency shall submit test results to CONTRACTOR and ENGINEER within 24 hours of completion of test.

B. Manufacturer's Services:

- 1. Provide at the Site services of qualified adhesive manufacturer's representative during initial installation of adhesive anchor systems to train CONTRACTOR's personnel in proper installation procedures. Manufacturer's representative shall observe to confirm that installer demonstrates proper installation procedures for adhesive anchors and adhesive material.

+ + END OF SECTION + +

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