



REQUEST FOR BID:

McINNIS AQUATIC CENTER POOL IMPROVEMENTS

Project No. 2024-024

BID # 2634

ENGINEERING DEPARTMENT
635 ALFRED BROWN JR. COURT SW, POST OFFICE BOX
CONCORD, NORTH CAROLINA 28026-0308

TABLE OF CONTENTS

SECTION I – BIDS, AGREEMENTS, AND NOTICES

INVITATION TO BID	2
INSTRUCTIONS TO BIDDERS.....	4
BID FORM (must be completed & submitted with bid)	11
STANDARD FORM OF PERFORMANCE BOND	16
PROJECT SPECIAL CONDITIONS	18
SITE PICTURES	20
STANDARD FORM OF CONSTRUCTION CONTRACT.....	26
EXHIBIT “A” – BID FORM	
EXHIBIT “B” – E- VERIFY	
EXHIBIT “C” – TAX FORMS	
EXHIBIT “D” – CERTIFICATE OF INSURANCE	
NOTICE OF AWARD	57
NOTICE TO PROCEED.....	58
APPLICATION FOR PAYMENT.....	59
CONTRACT CHANGE ORDER	60
FIELD ORDER	61
NC SALES TAX REPORT	62
NORTH CAROLINA ONE CALL	63

SECTION II – GENERAL CONDITIONS.....64

See City Webpage – Engineering Department – Forms & Downloads – Standard Details & Specifications

[PART A - SECTION II \(concordnc.gov\)](http://concordnc.gov)

[ARTICLE 1 \(concordnc.gov\)](http://concordnc.gov)

SECTION III – PLANS..... 65



BID ADVERTISEMENT/INVITATION TO BID

June 6, 2024

Project Title: McINNIS AQUATIC CENTER POOL IMPROVEMENTS

Project No. 2024-024

Project Description: The City of Concord proposes to install a new zero entry into the existing pool located at 115 Academy Avenue, NW, Concord, NC. Project will include new water features and improvements to the entire pool and its equipment. All work will be performed per plans furnished by the City of Concord dated 4/26/2023. Actual construction work for this project will have to begin after the pool closes for the 2024 summer season on August 19, 2024.

Sealed Bids will be received by the City of Concord (Owner) at the address below. Please submit notarized bids in a sealed envelope by the bid opening time and date. All Bids must be in accordance with the Bidding Documents on file with the City of Concord Engineering Department. Bidders must be licensed contractors in the State of North Carolina. Bids will be received on a unit price basis. A five percent (5%) Bid security must accompany each Bid. The Successful Bidder will be required to furnish a Construction Performance Bond and a Construction Payment Bond as security for the faithful performance and the payment of all bills and obligations arising from the performance of the Contract if the total bid amount is greater than \$300,000 (see Section 16 of the Contract). Contractor and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. The owner also reserves the right to waive informalities. Please contact Jimmy Butler, 704-920-5422, BUTLERJL@CONCORDNC.GOV with any questions concerning this project.

Engineer: Enrique A. Blat, P.E., Deputy City Engineer
City of Concord Engineering Department
Alfred M. Brown Operations Center
635 Alfred Brown Jr. Court SW: P O Box 308, Concord,
NC 28026-0308

For **TECHNICAL QUESTIONS OR CONTRACT DOCUMENTS:** Jimmy Butler 704.920.5422

Bid Opening Date: **Thursday June 27, 2024 @ 2:00 PM**

Location: Alfred M. Brown Operations Center
635 Alfred Brown Jr. Court SW: Conference Room "C"
Concord, NC 28026

Alfred M. Brown Operations Center

City of Concord ● 635 Alfred Brown Jr. Court SW. ● P.O. Box 308 ●
Concord, North Carolina 28026 ● (704) 920-5425 ● Fax (704) 786-4521 ●
TDD 1-800-735-8262 ● www.concordnc.gov

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS. Terms used in these Instructions to Bidders are meanings assigned to them in the General Conditions and the Supplementary Conditions. An additional term is defined as follows:

Successful Bidder - The lowest, qualified, responsible, and responsive Bidder to whom Owner (based on Owner's evaluation as herein provided) makes an award.

2. COPIES OF BID DOCUMENTS. Bid Documents which include all front-end documents may be obtained free of charge from the City of Concord's Engineering Department.

McINNIS AQUATIC CENTER POOL IMPROVEMENTS

Project # 2024-024

Complete sets of Bid Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misrepresentations resulting from the use of incomplete sets of Quoting Documents.

Owner and Engineer, in making copies of Quoting Documents available on the above terms, do so only for obtaining Bids for the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF Bidders. To demonstrate qualifications to perform the Work, Bidder may be required to submit written evidence on financial data, previous experience, present commitments, and other such data as may be requested by Owner or Engineer. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located, or Bidder must agree to obtain such qualification prior to award of the Contract.

IF CONTRACTOR WISHES TO BE ADDED TO THE BIDDERS LIST, PLEASE REGISTER WITH THE CITY OF CONCORD BY SENDING AN EMAIL THAT INCLUDES YOUR NAME AND COMPANY CONTACT INFORMATION TO butlerjl@concordnc.gov.

EXAMINATION OF CONTRACT DOCUMENTS AND SITE. It is the responsibility of each Bidder, before submitting a Bid, to (a) thoroughly examine the Contract Documents, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work, (c) consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors, or discrepancies discovered by Bidder in the Contract Documents.

3.2. Underground Facilities. Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site are based upon information and data furnished to Owner and

Engineer by owners of such underground facilities or others, and Owner and Engineer disclaim responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

3.3. Additional Information. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in

accordance with the time, price, and other terms and conditions of the Contract Documents.

On request 24 hours in advance, the Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. The bidder shall fill all holes and clean up and restore the site to its former condition upon completion of such explorations. Arrangements for site visits shall be made by calling the office of the Deputy Director of Engineering for the City of Concord at 704.920.5425.

3.4. Easements. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by the Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by the Owner unless otherwise specified in the Contract Documents.

3.5. Unit Price Contracts. Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid schedule by examination of the site and a review of the drawings and the specifications, including the addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done.

3.6. Bidder's Representation. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement concerning examination of the Contract Documents and the site, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

4. INTERPRETATIONS AND ADDENDA. All questions about the meaning or intent of the Quoting Documents and the Contract Documents shall be submitted to Owner in writing. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Quoting Documents. Questions received less than 10 days prior to the date for opening of Bids may not be answered. Only answers issued by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5. **BID SECURITY**. Each Proposal must be accompanied by a deposit equal to 5% of the net pricebid. This deposit may consist of cash, or a Cashier's Check issued by, or a Certified Check drawn on a Bank or Trust Company authorized to do business in North Carolina, or on a Bank insured by the Federal Deposit Insurance Corporation, or a U.S. Money Order, payable to the City of Concord or 5% Bid Bond in the form required by G.S. 143-129 as amended, issued by an Insurance Company authorized to do business in North Carolina, said deposit to be retained in the event of failure of the successful bidder to execute a formal contract within ten (10) days after award or to give satisfactory surety required. The Bid security of the Successful Bidder (if so required) will be retained until such Bidder has executed the Agreement, furnished the required contract security (if so required), and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within the number of days set forth in the Bid Form, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security (if so required) of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Agreement or the day after the last day the Bid remain subject to acceptance as set forth in the Bid Form, whereupon Bid security furnished by such Bidders will be returned. Bid security accompanying Bid which are deemed by Owner to be noncompetitive will be returned within 7 days after the designated Bid opening.

6. CONTRACT TIMES. The numbers of calendar days within which, or the dates by which, the Work is to be substantially completed and completed and ready for final payment (the Contract Times) are set forth in the Bid Form.

7. LIQUIDATED DAMAGES. Provisions for liquidated damages, if any, are set forth in the Agreement.

8. SUBSTITUTES OR "OR-EQUAL ITEMS. The bidder's attention is directed to Article 6.5 of the General Conditions concerning substitutes and "or-equal" items. Where an item or material is specified by a proprietary name, it is done for the purpose of establishing a basis of quality and not for the purpose of limiting competition. The Engineer's intent is to consider alternative products which have the desired essential characteristics. The Engineer will consider any such products offered. Requests for acceptance of alternative products shall be made through Bidders quoting as prime Contractors. Acceptances for substitutions will not be granted directly to suppliers, distributors, or subcontractors. Pursuant to Section 133-3, General Statutes of North Carolina, the following procedures shall be used:

Bidders desiring to submit alternative product proposals for prior acceptance of the Engineers shall submit, in writing, such proposals from 6/10/2024, until 6/21/2024. Applications received after this time will not be reviewed. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and test data, and other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment, or other work that incorporation of the substitute would require shall be included. The Engineer shall consider and either accept or reject all alternative product proposals submitted.

If, by the close of the fifth day prior to the deadline for receiving the Bid, the Engineer has accepted any alternative product proposals, the Quoting Documents shall be modified to include the alternative products. The Engineer shall publish the modification in an Addenda at least 5 days prior to the deadline for receiving Bids. The Engineer's decision of acceptance or rejection of a proposed substitute shall be final.

9. SUBCONTRACTORS, SUPPLIERS, AND OTHERS. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within 3 days after the opening submit to Owner the List of Subcontractors completed with all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. The list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person, or organization, if requested by Owner. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, Supplier, or other person or organization, Owner may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in the Bid. All Subcontractors shall be licensed utility contractors in the State of North Carolina.

10. BID FORM. The Bid Form is bound in the Contract Documents and shall not be removed therefrom. Bid Form must be completed in ink.

Bids by corporations must be executed in the corporate name by the president or vice-president (or other corporate officer accompanied by evidence of authority to sign for the corporation). Bids by partnerships must be executed in the partnership name and signed by a partner. Bids by joint ventures shall be signed by each participant in the joint venture or by a representative of the joint venture accompanied by evidence of authority to sign for the joint venture.

The names of all the people signing shall be legibly printed below the signature. A Bid by a person who affixes to his signature the word "president", "secretary", "agent", or other designation without disclosing his principal may be held to be the Bid of the individual signing. When requested by Owner, evidence of the authority of the person signing shall be furnished.

All blanks in the Bid Form shall be filled. A Bid price shall be indicated for each unit price item listed therein, or the words "No Bid", "No Charge", "No Change", or another appropriate phrase shall be entered.

The Bid shall contain an acknowledgment of receipt of all Addenda; the numbers and dates of which shall be filled in on the Bid Form.

No alterations in Bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable unless each such alteration is signed or initialed by the Bidder; if initialed, Owner may require the Bidder to identify any alteration so initialed.

11.01. Contingency. The Contingency is to be added to the Bid price and is to be used for minor change order items. If the Contingency is to be used, the scope of work and price will be negotiated. **The Contingency is for the sole use of the Owner.** A change order will be issued to delete any unauthorized portion of the Contingency.

11. SUBMISSION OF BIDS. Bids shall be submitted at the time and place indicated in the Invitation to Bid, or the modified time and place indicated by Addendum. Bids shall be enclosed in a sealed envelope or wrapping, addressed to:

The City of Concord
c/o Enrique A. Blat, P.E.
Deputy City Engineer
P.O. Box 308
635 Alfred Brown Jr. Court SW
Concord, North Carolina 28026-0308

Bids shall be marked with the name, license number, and address of the Bidder and shall be accompanied by the Bid security (if required) and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

Each Bid envelope shall be identified on the outside with the words **"McINNIS AQUATIC CENTER POOL IMPROVEMENTS – 2024-024"**

Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

One copy of the bound documents containing the Bid Form must be submitted with the Bid.

Oral, telephone, facsimile, or telegraph Bids are invalid and will not receive consideration.

No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

A conditional or qualified Bid will not be accepted.

12. MODIFICATION AND WITHDRAWAL OF BIDS. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

If, within 24 hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security (if any)

will be returned. Thereafter, that Bidder will be disqualified from further quoting on the Work to be provided under the Contract Documents.

13. OPENING OF BIDS. Bids will be opened at the office and at the discretion of the Director of Engineering and read aloud.

The procedure for opening Bids will follow guidelines issued by the State Building Commission dated December 10, 1990, and endorsed by the Consulting Engineers Council of North Carolina.

14. BIDS TO REMAIN SUBJECT TO ACCEPTANCE. All Bids will remain subject to acceptance for the number of days set forth in the Bid Form, but the Owner may, in its sole discretion, release any Bid and return the security (if any) prior to that date.

15. AWARD OF CONTRACT. Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. The owner also reserves the right to waive informalities.

In evaluating Bids, Owner will consider the qualifications of the Bidders, whether the Bids comply with the prescribed requirements, and such alternatives, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time. If the Contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of Owner. If the Contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within the number of days set forth in the Bid Form. The evaluation of Suppliers' or manufacturers' data submitted with the Bid, or submitted upon request prior to the Notice of Award, will include consideration of the following:

Owner-required inventory of spare parts. Building design changes which would be required to accommodate the proposed materials and equipment. Installation requirements and related engineering, training, and operating costs. Experience and performance record of the Supplier or the manufacturer. Maintenance and frequency of inspections required to assure reliable performance of the equipment. Suppliers' or manufacturers' service facilities and availability of qualified field service personnel. Efficiency and related operating expense during the anticipated useful life of the equipment.

16. CONTRACT SECURITY. The General Conditions set forth Owner's requirements as to Performance and Payment Bonds (required). These Bonds shall be delivered to Owner with the executed Agreement.

17. SIGNING OF AGREEMENT. When the Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by two unsigned counterparts of the Agreement with all other written Contract Documents attached. Within the number of days set forth in the Bid Form, the Successful Bidder shall sign, leaving the dates blank, and deliver the required number of counterparts of the Agreement and attached

documents to Owner with the required Bonds and power of attorney. Within 30 days thereafter, Owner shall execute all copies of the Agreement and other Contract Documents submitted by Contractor (Successful Bidder); shall insert the date of contract on the Agreement, Bonds, and power of attorney; and shall distribute signed copies as stipulated in the Agreement.

Should the Owner not execute the Contract within the period specified, the Successful Bidder may, by written notice, withdraw his signed Contract. Such notice or withdrawal shall be effective upon receipt of the notice by the Owner.

18. SALES AND USE TAXES. Provisions for sales and use taxes, if any, are set forth in the Supplementary Conditions.

19. RETAINAGE. Provisions concerning retainage are set forth in the Agreement.

20. LAWS AND REGULATIONS. Modifications, if any, to the General Conditions concerning Laws and Regulations are set forth in the Supplementary Conditions. Additional provisions, if any, concerning Laws and Regulations are set forth in the Agreement.

21.01. Collusive Bidding. In accordance with Section 112(c) of Title 23 USC, and G.S. 75-5(b)(7) of the State of North Carolina, the Contractor (Bidder), by submission and execution of this bid or Bid, certifies that he has not entered any agreement, participated in any collusion, or project.

EXHIBIT 'A' BID FORM

CITY OF CONCORD McINNIS AQUATIC CENTER POOL IMPROVEMENTS

Project No. 2024-024

THIS BID IS SUBMITTED TO:

City of Concord
c/o Enrique A. Blat, P.E.
Deputy City Engineer
635 Alfred Brown Jr. Court SW, P.O. Box
308 Concord, North Carolina 28026-0308

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter an agreement with Owner in the form included in the Contract/BID Documents to perform and furnish all Work as specified or indicated in the Contract/BID Documents within the specified time and for the amount indicated in this Bid and in accordance with the other terms and conditions of the Contract/BID Documents.

2. The Bidder accepts all the terms and conditions of the Invitation to Bid and the Instructions to Bid, including without limitation those dealing with the disposition of the Bid security (if security is required by the City Manager). This Bid will remain subject to acceptance for 60 days after the day designated for reception of Bids. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Quoting Documents within 10 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents that:

- a. Bidder has examined copies of all the Quoting Documents and of the following Addenda (receipt of all which is hereby acknowledged):

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

- b. Bidder has visited the site and become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Work.
- c. Bidder is familiar with and has satisfied itself as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, performance, and furnishing of Work.
- d. Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have provided by the owner and under the conditions normally used and identified in the Supplementary Conditions and Special Conditions as provided in Paragraph 4.2.1 of the General Conditions. Bidder accepts the determination set forth in the Supplementary Conditions and Special Conditions of the extent of the "technical data" contained in such reports and drawings upon which Bidder is entitled to rely as provided in Paragraph 4.2 of the General Conditions. The Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder's purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or

- e. indicated in the Quoting Documents with respect to underground facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
- f. The Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- g. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- h. Bidder has given Engineer written and verbal notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- i. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid Bidder has not solicited or induced any person, firm, or corporation to refrain from quoting; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

4. The terms used in this BID, which are defined in the General Conditions, have the meanings assigned to them in the General Conditions.

DATE: _____

NAME OF BIDDER: _____

BUSINESS ADDRESS: _____

PHONE: _____

FAX: _____

EMAIL: _____

NC CONTRACTOR NO.: _____

In compliance with the Instructions to Bidders, the undersigned, having carefully examined the Bidding Documents, Scope of Work, Special Provisions, Drawings and Specifications, all subsequent Addenda as prepared by the Owner, visited the site and being familiar with all conditions and requirements of the work, hereby agrees to furnish all labor, materials, equipment and services, etc., to complete the work required in accordance with the Contract/BID Documents for the consideration of the following amount/amounts.

LUMP SUM BASE BID (Fill in amount in words and figures, words to govern in case of conflict) includes amount shown hereinafter in Performance and Payment Bonds:

The undersigned Bidder, having carefully investigated the existing conditions at the project site, and having thoroughly familiarized himself with the Contract Documents, hereby proposes to provide all necessary labor, permits, equipment, materials, services and etc. to complete the installation of the:

**CITY OF CONCORD McINNIS AQUATIC CENTER POOL
IMPROVEMENTS**

Project No. 2024-024

All in accordance with the aforementioned Contract Documents and the
attached drawings for the lump sum price of:

BASE BID =====> \$ _____

10% CONTINGENCY =====> \$ _____

TOTAL BID =====> \$ _____

(Total Bid should be the addition of the Base Bid, and 10% Contingency)

TIME OF COMPLETION

The undersigned further agrees to begin work within fourteen (14) days after a "Notice to Proceed" with an adequate work force, carry the work forward as rapidly as possible and complete the work within 180 Calendar Days from Notice to Proceed.

LIQUIDATED DAMAGES

If the "Time of Completion" is not met, the City of Concord will charge liquidated damages to the contractor. Liquidated damages for failure to meet the "Time of Completion" as described in this section shall be \$250.00 per calendar day.

SIGNATURE OF BIDDER: _____

Contractor's License Number _____

License Expiration Date _____

If an Individual

By _____
(signature of individual)

doing business as _____

Business address _____

Phone No. _____

Date _____, 2024

ATTEST _____ TITLE

If a Partnership

By _____
(firm name)

(signature of general partner)

Business address _____

Phone No. _____

Date _____, 2024

ATTEST _____ TITLE

If a Corporation

By _____
(corporation name)

By _____
(signature of authorized person)

(title) _____

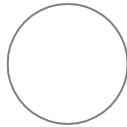
Business address _____

Phone No. _____

Date _____, 2024

ATTEST _____ TITLE _____

(Seal)



If a Joint Venture (Other party must sign below.)

By (name) _____

Contractor's License Number _____

License Expiration Date _____

**STANDARD FORM OF
PERFORMANCE BOND**

Date of Execution of this Bond _____

Name and Address of
Principal (Contractor) _____

Name and Address
of Surety _____

Name and Address of
Contracting Body _____

Amount of Bond _____

Contract That certain contract by and between the Principal and the
Contracting Body above named dated _____
for _____

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above-named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered a certain contract with the Contracting Body, identified as shown above and hereto attached;

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligation to be void; otherwise, to remain in full force and virtue.

PERFORMANCE BOND: (Continued)

THIS PERFORMANCE BOND is made and given pursuant to the requirements and provisions of Section 129 of Chapter 143 of the General Statutes of North Carolina and pursuant to Article 3 of Chapter 44-A of the General Statutes of North Carolina, and each and every provision set forth and contained in Section 129 of Chapter 143 and in Article 3 of Chapter 44-A of the General Statutes of North Carolina is incorporated herein, made a part hereof, and deemed to be conclusively written into this Bond.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals as of the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned and representative, pursuant to authority of its governing body.

WITNESS: _____

Principal (Name of individual and trade name, partnership, corporation, or joint venture)

(Proprietorship or Partnership)

Printed Name _____

BY _____ (SEAL)

Printed Name _____

TITLE _____
(Owner, Partner, Office held in corporation, joint venture)

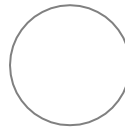
ATTEST: (Corporation)

(Corporate Seal of Principal)

BY _____

Printed Name _____

TITLE _____
(Corporation Secretary or Assistant Secretary Only)



WITNESS:

Surety (Name of Surety Company)

BY _____

Printed Name _____

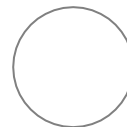
TITLE Attorney in Fact

COUNTERSIGNED:

(Corporate Seal of Surety)

N.C. Licensed Resident Agent

(Address of Attorney in Fact)



CITY OF CONCORD PROJECTS

SPECIAL CONDITIONS

1. Please email Jimmy Butler at butlerjl@concordnc.gov to arrange all site visits.
2. The Contractor will provide all materials unless otherwise noted.
3. Bidders must possess a General Contractors License in the State of North Carolina.
4. The contractor will be responsible for all permits and associated fees. This also includes water and sewer tap fees and a low voltage permit for City of Concord data being run. Every fee charged by the City of Concord can be viewed online at www.concordnc.gov/Departments/Finance/Adopted-Fees-Schedule. Contact Cabarrus County for all other required project associated fees.
5. The contractor will be able to begin work starting on 8/19/2024 and Kate Wright (919-917-3344) with P&R Department will furnish the contractor with all keys needed for access.
6. Normal work hours will apply unless alternate hours are requested and approved by the P&R Department.
7. The pool and equipment room are currently supplied with 110 / 208, 3 phase power.
8. All concrete cuts on the pool deck to install new infrastructure to the pool equipment building will need to be from existing joint to existing joint.
9. All work shall meet the following standards, rules, and procedures applicable to each project:

NC State Building Code – 2018

NC Administrative Code and Policies – 2018

NC Fire Prevention Code – 2018

NC Mechanical Code – 2018

NC Plumbing Code – 2018

NEC – National Electrical Code

NC Electrical Code – 2014

NC Energy Conversation Code – 2018

NC Fuel Gas Code – 2018

NC Existing Building Code – 2018

NC Réhabilitation Code – 2012

NC DOT Standard Spécifications for Roads and Structures - 2018

AA	– Aluminium Association
AAMA	– American Architectural Manufacturers Association
ACI	– American Concrete Institute
AF&PA	– American Forest & Paper Association
AISC	– American Institute of Steel Construction
AISI	– American Iron and Steel Institute
AITC	– American Institute of Timber Construction

ANSI	– American National Standards Institute
APA	– Engineered Wood Association
ASCE/SEI	– American Society of Civil Engineers Structural Engineering Institute
ASME	– American Society of Mechanical Engineers
ASTM	– ASTM International
AWCI	– Association of the Wall and Ceiling Industry
AWPA	– American Wood Protection Association
AWS	– American Welding Society
BHMA	– Builders Hardware Manufacturer’s Association
CPA	– Composite Panel Association
CPSC	– Consumer Product Safety Commission
CSA	– Canadian Standards Associations
CSSB	– Cedar Shake and Shingle Bureau
DASMA	– Door and Access Systems Manufactures Association International
DOC	– US Dept. of Commerce – National Institute of Standards and Technology
DOJ	– US Department of Justice
DOL	– US Department of Labor
GA	– Gypsum Association
HPVA	– Hardwood Plywood Veneer Association
HUD	– US Department of Housing and Urban Development
ICC	– International Code Council
NAAMM	– National Association of Architectural Metal Manufacturers
NCDOT	– North Carolina Department of Transportation
NCMA	– National Concrete Masonry Association
NFPA	– National Fire Protection Association
PCI	– Precast Pre-Stressed Concrete Institute
PTI	– Post-Tensioning Institute
RMI	– Rack Manufacturers Institute
SDI	– Steel Deck Institute
SJI	– Steel Joist Institute
SPRI	– Single-Ply Roofing Institute
TIA	– Telecommunications Industry Association
TMS	– The Masonry Society
TPI	– Truss Plate Institute
UL	– Underwriters Laboratories, Inc.
WDMA	– Window and Door Manufacturers Association
WRI	– Wire Reinforcement Institute

SITE PHOTO



SITE PHOTO



SITE PHOTO



SITE PHOTO



SITE PHOTO



SITE PHOTO



CITY OF CONCORD SAMPLE CONTRACT

STANDARD FORM CONSTRUCTION CONTRACT

This contract (together with all exhibits and valid amendments, the "Agreement" or the "Contract") is made and entered into as of the ____ day of _____, 20__, by the City of CONCORD ("City") and _____ ("Contractor"), () a corporation, () a professional corporation, () a professional association, () a limited partnership, () a sole proprietorship, or () a general partnership; organized and existing under the laws of the State of _____.

Sec. 1. Background and Purpose.

Sec. 2. Services and Scope to be Performed. The Contractor shall provide the services at the charges set forth either in this paragraph or in Exhibit "A". Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

In this Contract, "services" means the services that the Contractor is required to perform pursuant to this Contract and all of the Contractor's duties to the City that arise out of this Contract. Any amendments, corrections, or change orders by either party must be made in writing signed in the same manner as the original. (This form may be used for amendments and change orders.) The City reserves the right to refuse payment for any work outside that authorized herein or pursuant to a duly approved amendment or change order.

Sec. 3. Complete Work without Extra Cost. Unless otherwise provided, the Contractor shall obtain and provide, without additional cost to the City, all labor, materials, equipment, transportation, facilities, services, permits, and licenses necessary to perform the Work.

Sec. 4. Compensation. The City shall pay the Contractor for the Work as described in this paragraph below OR as described in Exhibit "A" attached. In the event of a conflict, the provisions of this paragraph shall control. Any additional expenses or charges shall only be paid after both the City and the Contractor agree to and execute a written change order. The City shall not be obligated to pay the Contractor any fees, payments, expenses or compensation other than those authorized in this Contract or in a duly-approved change order. All payments shall be deemed inclusive of tax and other obligations.

Sec. 4a. Retainage. The City shall withhold no retainage on Contracts having a "total project cost" of less than \$100,000.00. The City may withhold retainage on contracts having a total project cost between \$100,000 and \$200,000. The City shall withhold retainage on contracts whose total project cost exceeds \$300,000. When withheld, retainage shall equal no more than five percent of each progress payment. When the project is fifty per cent complete, the City shall not retain anything from future project payments provided that (i) the surety concurs in writing, (ii) the Contractor continues to perform satisfactorily, (iii) any non-conforming work identified in writing by the architect, engineer(s) or City has been corrected by the Contractor and accepted by the architect, engineer(s) or City. However, if the City determines that the Contractor's performance is unsatisfactory, the City may withhold up to five percent retainage from each project payment. The City may withhold additional amounts above five percent ~~for unsatisfactory~~ job progress, defective construction not remedied, disputed work, third party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

Definitions:

"Total Project Cost": Total value of the Contract and any approved change orders or amendments.

"Project is Fifty Percent Complete": When the Contractor's validly-issued gross project invoices (excluding the value of the materials stored off-site) equal or exceed fifty percent of the value of the Contract, except that the value of

materials stored on-site shall not exceed twenty percent of the Contractor's gross project invoices for the purpose of determining whether the project is fifty percent complete.

Sec. 5. Term. The Contractor shall commence work within _____() days of the date of its receipt of written Notice to Proceed from the City. The date that is _____() days from the date of the Contractor's receipt of the Notice to Proceed shall be the "Commencement Date." All work as set forth in the Scope of Services in Exhibit "A" shall be completed within _____() calendar days of the Commencement Date. The date that is _____() calendar days from the Commencement Date shall be the "Completion Date." Time is of the essence with regard to this Project. If Contractor's obligations are not completed by the Completion Date, the City reserves the right to nullify this Agreement, order the Contractor to immediately cease all work under this Agreement and vacate the premises, and to seek professional services equivalent to those outlined in Exhibit "A." The Contractor shall be held accountable for all damages incurred by the City as a consequence of the missed Completion Date. The exercise of any of these rights by the City shall not be interpreted to prejudice any other rights the City may have under this Agreement or in law or equity. This Contract shall not be automatically extended unless agreed to in writing by the City or as provided in Exhibit "A".

Sec. 6. Contractor's Billings to City. Payments will be made in accordance with the schedule found in this section below OR attached at Exhibit "A". Contractor shall submit an original pay request (invoice) to the City Purchasing Agent by the first of each month in order to expedite payment. Upon receipt of the request the City Purchasing Agent shall verify the amounts and if correct forward the request to the Accounts Receivable Division of the Finance Dept. Final payment on the Contract shall be made in 45 days, except in the case of retainage. Within 60 days after the submission of the final pay request, the City (with the written consent of the surety) shall release to the Contractor all retainage payments IF the City receives a certificate of substantial completion from the architect, engineer or designer-in-charge of the project OR the City receives beneficial occupancy and use of the project. In either case, the City may retain up to 2.5 times the estimated value of the work to be completed or corrected.

Sec. 7. Insurance. Contractor shall maintain and cause all sub-contractors to maintain insurance policies at all times with minimum limits as follows:

<u>Coverage</u>	<u>Minimum Limits</u>
Workers' Compensation	\$500,000 each accident, \$500,000 bodily injury by disease each employee, \$500,000 bodily injury by disease policy limit
General Liability	\$1,000,000 per occurrence regardless of the contract size
Automobile Liability	\$1,000,000 per occurrence regardless of the contract size
Umbrella	<input type="checkbox"/> \$1,000,000 per occurrence if contract does not exceed 180 days and does not exceed \$500,000; otherwise, <input type="checkbox"/> \$2,000,000 per occurrence

Contractor shall provide a Certificate of Insurance to the City listing the City as an additional insured. Such Certificate shall be in a form acceptable to the City.

Sec. 8. Documentation Requirements:

A. Contractor shall provide the City with a **Certificate of Insurance** for review prior to the issuance of any contract or Purchase Order. All Certificates of Insurance will require written notice by the insurer or Contractor's agent in the event of cancellation, reduction or other modifications of coverage by the insurer. Such notice shall be not less than 30 days for nonrenewal by the insurer, not less than 10 days for cancellation due to nonpayment of the premium and as soon as possible for all other types of modifications. In addition to the notice requirement above, Contractor shall provide the City with written notice of cancellation, reduction, or other modification of coverage of insurance whether instigated by the insurer or by the Contractor immediately upon Contractor's receipt of knowledge of such modifications. Upon failure of the Contractor to provide such notice, Contractor assumes sole responsibility for all

loses incurred by the City for which insurance would have provided coverage. The insurance certificate shall be for the insured period in which the initial contract period begins and shall be renewed by the Contractor for each subsequent renewal period of the insurance for so long as the contract remains in effect.

The City shall be named as an **additional insured** on all policies except Workers' Compensation and it is required that coverage be placed with "A" rated insurance companies acceptable to the City. Statement should read, "City of Concord is added as an additional insured as evidenced by an endorsement attached to this certificate." Failure to maintain the required insurance in force may be cause for termination of this Agreement. In the event that the Contractor fails to maintain and keep in force the insurance herein required, the City has the right to cancel and terminate the Agreement without notice.

B. Contractor shall provide a completed W-9 form to the City prior to execution by the City of this Agreement.

Sec. 9. Performance of Work by Contractor.

(a) The Contractor warrants that all work performed under this Contract conforms to the Contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of 1 year from the date of issuance by the City of written final completion of the work.

(b) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to City - owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(d) The City shall notify the Contractor, in writing, within a reasonable time, not to exceed 30 days, after the discovery of any failure, defect, or damage.

(e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time, not to exceed 30 days unless otherwise agreed in writing and signed by the City Manager or his designee, after receipt of notice, the City shall have the right to replace repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice,

(2) Require all warranties to be executed, in writing, for the benefit of the City, if directed to do so by the City; and

(3) Enforce all warranties for the benefit of the City, if directed to do so by the City

(g) In the event the Contractor's warranty has expired, the City may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the City nor for the repair of any damage that results from any defect in City-furnished material or design.

Sec. 10. Performance of Work by City. If the Contractor fails to perform the Work in accordance with the schedule referred to in Exhibit "A", the City may, in its discretion, perform or cause to be performed some or all of the Work, and doing so shall not waive any of the City's rights and remedies. Before doing so, the City shall give the Contractor reasonable notice of its intention. The Contractor shall reimburse the City for all costs incurred by the City in exercising its right to perform or cause to be performed some or all of the Work pursuant to this section.

Sec. 11. Attachments. Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

The following attachments are made a part of this Contract and incorporated herein by reference:

- (a) Exhibit "A" – Scope of Services / Fee for Scope of Services.
- (b) Exhibit "B" – Contractor must execute the Affidavit attached as Exhibit "B", attesting to compliance with state and federal laws related to E-Verify.
- (c) Exhibit "C" – Tax Form(s).
- (d) Exhibit "D" - Certificate of Insurance.

In case of conflict between an attachment and the text of this contract excluding the attachment, the text of this contract shall control. Any attachment that materially alters the standard terms contained herein must be reviewed by the City Attorney and approved by the City in writing.

Sec. 12. Notice. (a) All notices and other communications required or permitted by this Contract shall be in writing and shall be given either by personal delivery, fax, or certified United States mail, return receipt requested, addressed as follows:

To the City:

Jacklyn Deal, Director of Engineering
City of Concord
P.O. Box 308
Concord, NC 28026
Fax Number: (704) 786-4521

To the Contractor:

VaLerie Kolczynski, Esq.
City Attorney
PO Box 308
Concord, NC 28026
Fax Number: (704) 784-1791

(b) **Change of Address, Date Notice Deemed Given:** A change of address, fax number, or person to receive notice may be made by either party by notice given to the other party. Any notice or other communication under this Contract shall be deemed given at the time of actual delivery, if it is personally delivered or sent by fax. If the notice or other communication is sent by US Mail, it shall be deemed given upon the third calendar day following the day on which such notice or other communication is deposited with the US Postal Service or upon actual delivery, whichever first occurs.

Sec. 13. Indemnification. To the maximum extent allowed by law, the Contractor shall defend, indemnify, and save harmless the City of Concord, its agents, officers, and employees, from and against all charges that arise in any manner from, in connection with, or out of this Contract as a result of the acts or omissions of the Contractor or subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable except for damage or injury caused solely by the negligence of the City its agents, officers, or employees. In performing its duties under this section, the Contractor shall at its sole expense defend the City of Concord, its agents, officers, and employees with legal counsel reasonably acceptable to City. As used in this subsection – "Charges" means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, expenses, interest, reasonable attorney's fees, and amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders. Nothing in this section shall affect any warranties in favor of the City that are otherwise provided in or arise out of this Contract. This section is in addition to and shall be construed separately from any other indemnification provisions that may be in this Contract.

This section shall remain in force despite termination of this Contract (whether by expiration of the term or otherwise) and termination of the services of the Contract under this Contract.

Sec. 14. Corporate Status. If the Contractor is dissolved or suspended and the Contractor does not notify the City of such dissolution within three (3) business days from date of dissolution or suspension, and/or the corporate status is not reinstated within thirty (30) days, this Contract, at the sole option of the City and without prejudice to City's other remedies, shall be declared null and void or the Contractor shall execute a new contract showing the Contractor's correct legal entity.

Sec. 15. Miscellaneous.

(a) Choice of Law and Forum. This Contract shall be deemed made in Cabarrus County, North Carolina. This Contract shall be governed by and construed in accordance with the laws of North Carolina. The exclusive forum and venue for all actions arising out of this Contract shall be the appropriate division of the North Carolina General Court of Justice, in Cabarrus County. Such actions shall neither be commenced in nor removed to federal court. This section shall not apply to subsequent actions to enforce a judgment entered in actions heard pursuant to this section.

(b) Waiver. No action or failure to act by the City shall constitute a waiver of any of its rights or remedies that arise out of this Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

(c) Performance of Government Functions. Nothing contained in this Contract shall be deemed or construed so as to in any way estop, limit, or impair the City from exercising or performing any regulatory, policing, legislative, governmental, or other powers or functions.

(d) Severability. If any provision of this Contract shall be unenforceable, the remainder of this Contract shall be enforceable to the extent permitted by law.

(e) Assignment, Successors and Assigns. Without the City's written consent, the Contractor shall not assign (which includes to delegate) any of its rights (including the right to payment) or duties that arise out of this Contract. Unless the City otherwise agrees in writing, the Contractor and all assigns shall be subject to all of the City's defenses and shall be liable for all of the Contractor's duties that arise out of this Contract and all of the City's claims that arise out of this Contract. Without granting the Contractor the right to assign, it is agreed that the duties of the Contractor that arise out of this Contract shall be binding upon it and its heirs, personal representatives, successors, and assigns.

(f) Compliance with Law. In performing all of the Work, the Contractor shall comply with all applicable law. Without limitation, Contractor shall comply with the requirements of Article 2, Chapter 64 (Verification of Work Authorization) of the North Carolina General Statutes relating to E-Verify. Further, if Contractor utilizes a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Pursuant to the requirements of the Iran Divestment Act, N.C.G.S. § 143C-6A-1, et. seq., Contractor certifies that as of the Effective Date of this Agreement, Contractor is not on the Final Divestment List as created by the State Treasurer in compliance with N.C.G.S. § 143-6A-4 and located at www.nctreasurer.com/Iran. Furthermore, Contractor agrees that it will not enter into any subcontracts for the performance of this Agreement with any entity on the Final Divestment List.

(g) City Policy. THE CITY OPPOSES DISCRIMINATION ON THE BASIS OF RACE AND SEX AND URGES ALL OF ITS CONTRACTORS TO PROVIDE A FAIR OPPORTUNITY FOR MINORITIES AND WOMEN TO PARTICIPATE IN THEIR WORK FORCE AND AS SUBCONTRACTORS AND VENDORS UNDER CITY CONTRACTS.

(h) EEO Provisions. During the performance of this Contract the Contractor agrees as follows:

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or disability. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated equally during employment, without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or disability. The Contractor shall post in conspicuous places available to employees and applicants for employment, notices setting forth these EEO provisions.

(2) The Contractor in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or disability.

(i) No Third Party Right Created. This Contract is intended for the benefit of the City and the Contractor and not any other person.

(j) Principles of Interpretation. In this Contract, unless the context requires otherwise the singular includes the plural and the plural the singular. The pronouns "it" and "its" include the masculine and feminine. Reference to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation. References to contracts and agreements shall be deemed to include all amendments to them. The word

“person” includes natural persons, firms, companies associations, partnerships, trusts, corporations, governmental agencies and units, and any other legal entities.

(k) Modifications, Entire Agreement. A modification of this Contract is not valid unless signed by both parties and otherwise in accordance with requirements of law. Further, a modification is not enforceable against the City unless the City Manager or other duly authorized official signs it for the City. This Contract contains the entire agreement between the parties pertaining to the subject matter of this Contract. With respect to that subject matter, there are no promises, agreements, conditions, inducements, warranties, or understandings, written or oral, expressed or implied, between the parties, other than as set forth or referenced in this Contract.

(l) Corporate Seal. If a corporate seal is included by any party to this Contract, it is only for authentication purposes. This Contract is not signed under seal.

(m) No Employment Relationship. For all matters relating to this Agreement, Contractor shall be deemed an Independent Contractor. Nothing in this Agreement shall be construed in such a manner as to create an employee-employer relationship between City and Contractor.

(The following section applies to construction contracts only if the total amount of contracts awarded for the project is \$300,000 or more.)

Sec. 16. Bonding. Both performance and payment bonds for the full amount of this Contract are required to be attached. Instead of bonds, you may submit a deposit of money, certified check or government securities for the full amount of the Contract. The performance bond shall have a value equal to 100% of this Contract. This bond shall be conditioned upon faithful performance of the Contract in accordance with the plans, specifications and conditions of the Contract. The performance bond shall be solely for the protection of the City. The payment bond shall be in an amount equal to 100% of the Contract, and conditioned upon the prompt payment for all labor or materials for which a contractor or subcontractor is liable. The payment bond shall be solely for the protection of the persons furnishing materials or performing labor for which a contractor, subcontractor or construction manager at risk is liable.

When the total amount of contracts awarded for any project exceeds three hundred thousand dollars (\$300,000), performance and payment bonds are required from any contractor or construction manager at risk with a contract amount of or exceeding fifty thousand dollars (\$50,000).

Sec. 17. Dispute Resolution. It is understood and agreed that NCGS 143-128(f1-g) requires that disputes arising under an agreement for the erection, construction, alteration or repair of a building be subject to a dispute resolution process specified by the City. The amount in controversy shall be at least \$15,000.00 before this dispute resolution procedure may be used. In compliance with this statutory provision, the City specifies this Section as the dispute resolution process to be used on this Project. It is further understood and agreed that this dispute resolution process is based on non-binding mediation and will only be effective to the extent that the Parties to any mediated dispute participate in the mediation in good faith. It is also understood and agreed that the City is under no obligation under any circumstance to secure or enforce the participation of any other Party in the mediation of any dispute subject to this Section and NCGS 143-128(f1-g).

This Section 17 does not apply to:

(a) **The purchase and erection of prefabricated or relocatable buildings or portions of such buildings, except that portion of the work that must be performed at the construction site; or**

(b) **The erection, construction alteration or repair of a building when the cost of such building is \$300,000 or less.**

17.1 Any dispute arising between or among the Parties listed in Section 17.3 that arises from an agreement to construct the Project, including without limitation a breach of such agreement, shall be subject to non-binding mediation administered by the American Arbitration Association under its Construction Industry Mediation Rules (“Rules”), except as otherwise expressly set forth in this Section. To the extent any provision of the Rules is inconsistent with the provisions of this Section, the provisions of this Section shall control. The mediation provided in this Section shall be used pursuant to this Agreement and NCGS 143-128(f1-g) and is in lieu of any dispute resolution process adopted by the North Carolina State Building Commission, which process shall not apply to this Project.

17.2 For purposes of this Section the following definitions shall apply:

- a. *Agreement to construct the Project* means an agreement to construct the Project that is subject to the requirements of NCGS 143-128 and does not include any agreement related to the Project that is not subject to said statute.
- b. *Construct or construction* refers to and includes the erection, construction, alteration or repair of the Project.
- c. *Party or Parties* refers to the parties listed in Section 16.4.
- d. *Project* means the building to be erected, constructed, altered or repaired pursuant to this Agreement.

17.3 The City and any Party contracting with the City or with any first-tier or lower-tier subcontractor for the construction of the Project agree to participate in good faith in any mediation of a dispute subject to this Section and NCGS 143-128(f1-g), including without limitation the following Parties (if any): architect(s), engineer(s), surveyor(s), construction manager, construction manager at risk, prime contractor(s), surety(ies), subcontractor(s), and supplier(s).

17.4 In order to facilitate compliance with NCGS 143-128(f1-g), the Contractor and all other Parties shall include this Section 17 in every agreement to which it (any of them) is a Party for the construction of the Project without variation or exception. Failure to do so will constitute a breach of this Agreement, and the Contractor or other Party failing to include this Section in any agreement required by this Section shall indemnify and hold harmless the remaining Parties from and against any and all claims, including without limitation reasonable attorney fees and other costs of litigation, arising in any manner from such breach. Notwithstanding the foregoing provisions of this Section, it is expressly understood and agreed that the Parties are intended to be and shall be third-party beneficiaries of the provisions of this Section and can enforce the provisions hereof.

17.5 The following disputes are not subject to mediation: (i) a dispute seeking a non-monetary recovery; and (ii) a dispute seeking a monetary recovery of \$15,000 or less.

17.6 A dispute seeking the extension of any time limit set forth in an agreement to construct the Project shall be subject to mediation pursuant to this Section and NCGS 143-128(f1-g), but only if the damages which would be suffered by the Party seeking the extension would exceed \$15,000 if the disputed extension is denied. To the extent that liquidated damages are set forth in such agreement as the measurement of damages for failure by such Party to meet such time limit, such liquidated damages shall be the exclusive standard for determining the amount of damages associated with such dispute.

17.7 For purposes of this Section, a dispute is limited to the recovery of monetary damages from the same transaction or occurrence against a single Party or two or more Parties alleged to be liable jointly, severally or in the alternative. Two or more disputes may not be consolidated or otherwise combined without the consent of all Parties to such disputes.

17.8 In addition to such matters as are required by the Rules, a request for mediation shall include the amount of the monetary relief requested.

17.9 Prior to requesting mediation, a Party must form a good faith belief that it is entitled under applicable law to recover the monetary amount to be included in the request from one or more of the remaining Parties. Such belief must be based on a reasonable and prudent investigation into the dispute that is the subject of the request. The request for mediation must be based on such investigation and may not include any amount or the name of any remaining Party, unless supported by such investigation and good faith belief by the Party requesting the mediation.

17.10 If a Party breaches any provision of Section 17.9, it shall indemnify and hold harmless all other Parties from any costs, including reasonable attorney fees and other costs of litigation, and damages incurred by such other Parties that arise from such breach.

17.11 All expenses incurred by a Party to a dispute in preparing and presenting any claim or defense at the

mediation shall be paid by the Party. Such expenses include without limitation preparation and production of witnesses and exhibits and attorney fees. All other expenses of the mediation, including filing fees and required traveling and other expenses of the mediator, shall be borne as follows: one half by the Party requesting the mediation, with the remaining parties paying equal shares of the remaining expenses and costs; provided that, if the City is named as a party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties. If more than one Party to a dispute requests a mediation, the mediation expenses and costs to be divided among the Parties shall be borne equally by the Parties to the dispute; provided that, if the City is named as a Party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties.

17.12 The mediation shall be held at a location agreeable to the mediator and all of the Parties; provided that, if no agreement can be reached, the mediation will be held at such location in Cabarrus County as the mediator shall determine.

17.13 The provisions of this Section are subject to any other provision of this Agreement concerning the submission, documentation and/or proof of any claim or dispute. Such other provisions shall apply in full force and shall be satisfied as a condition precedent to mediation pursuant to this Section.

17.14 The Parties understand and agree that mediation in accordance with this Section shall be a condition precedent to institution of any legal or equitable proceeding seeking monetary recovery based on any dispute that is subject to mediation pursuant to this Section.

Sec. 18. Breach. In the event of a violation of any material term of this Agreement, the non-violating party may terminate the Agreement upon written notice. Such notice shall state the violation with specificity and shall give ten (10) days to cure the violation. The cure period shall be measured as ten (10) days from the date of receipt of notice by the violating party, or, if the date is not known, then thirteen (13) days from the date the notice is placed in the United States Post. If the violation remains uncorrected at the end of the cure period, the Agreement shall be terminated without any further action by the non-violating party. Any remaining disputes shall be subject to the dispute resolution procedure set forth above, if applicable.

[Signature Page to Follow]

IN WITNESS WHEREOF, the City of Concord and the Contractor have caused this Contract to be executed by their respective duly authorized agents or officers.

CITY OF CONCORD:

(Typed or Printed Legal Name of Contractor)

By: _____
City Manager

By: _____
Signature of President/Vice President/Manager/Partner

Date: _____

Printed Name: _____

Title: _____

ATTEST BY:

Date: _____

City Clerk

ATTEST:

BY: _____
Signature of Vice President, Secretary, or other officer

Printed Name: _____

Title _____

APPROVED AS TO FORM:

Attorney for the City of Concord

SEAL

APPROVAL BY CITY FINANCE OFFICER

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Signature

EXHIBIT “A”

BID FORM

EXHIBIT "B"

E-VERIFY

STATE OF NORTH CAROLINA

AFFIDAVIT

COUNTY OF CABARRUS

I, _____ (the individual signing below), being duly authorized by and on behalf of
_____ (the legal name of the entity entering the contract, "Employer") after first being
duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-26.
2. Employer understands that Employers Must Use E-Verify. Each employer (as such term is defined in NCGS § 64-25), after hiring an employee (as such term is defined in NCGS § 64-25) to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS §64-26(a). Employer attests that Employer is following the requirements of the federal and state laws relevant to E-verify.
3. Employer is a person, business entity, or other organization that transacts business in the State of North Carolina. Employer employs 25 or more employees in this State. (mark Yes or No)
a. YES _____, or b. NO _____.
4. Employer attests that all subcontractors employed by it as part of this contract comply with the requirements of E-Verify, and Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer as part of any contract with the City of Concord.
5. Employer shall have a continuing duty to inform the City of Concord of any changes to this sworn information.
This ____ day of _____, 2024.

Signature of Affiant
Print or Type Name: _____

State of North Carolina County of Cabarrus

Signed and sworn to (or affirmed) before me, this the _____
day of _____, 2024.

My Commission Expires:

Notary Public

(Affix Official/Notarial Seal)

EXHIBIT “C”

TAX FORM(S)

EXHIBIT “D”

CERTIFICATE OF INSURANCE

NOTICE OF AWARD

TO:

FROM: City of Concord City Council (OWNER)
P.O. Box 308
26 Union Street, South
Concord, North Carolina 28026-0308

PROJECT: **CITY OF CONCORD McINNIS AQUATIC CENTER POOL
IMPROVEMENTS**

City Project No. 2024-024

You are hereby notified that the bid submitted by you for the above-named project in response to the City of Concord's Invitation to Bid dated **June 7, 2024**, in the amount of

_____ And _____/100 DOLLARS

(\$ _____) has been accepted.

You are hereby required to execute the formal AGREEMENT with the City of Concord City Council and to furnish all Contractor's Bond(s), Certificate of Insurance and Power of Attorney(s) along with other documents pertaining to the work as designated by the City of Concord.

If you fail to execute said AGREEMENT and to furnish this and any other required documents pertaining to the work within ten (10) days from the date of delivery of this NOTICE OF AWARD, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your bid as abandoned and to award the work covered by your proposal to another, or to re-bid the work or otherwise dispose thereof as the Owner may see fit.

Dated this the _____ day of _____, 2024

City of Concord, North Carolina

By: _____
Title: City Manager

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above NOTICE OF AWARD is hereby acknowledged this the _____ day of _____, 2024.

By: _____
Title: _____

NOTICE TO PROCEED

TO:

FROM: City of Concord City Council (OWNER)
P.O. Box 308
26 Union Street, South
Concord, North Carolina 28026-0308

PROJECT: **CITY OF CONCORD McINNIS AQUATIC CENTER POOL
IMPROVEMENTS**

City Project No. 2024-024

Contract Amount: _____ DOLLARS (\$_____).

You are hereby notified to commence work on or before the _____ of _____, 2024, and are to fully complete the work by the _____ day of _____, 2024.

Your project completion date is therefore the _____ day of _____, 2024, and as set forth in the above-named project's schedule unless an extension is granted by the City of Concord Director of Engineering in writing.

City of Concord, North Carolina

By: _____
Title: City Manager

Dated this the day of _____, 2024.

City of Concord

Post Office Box 308
Concord, North Carolina 28026-0308

For Office Use Only:

Charge to P.O. #

Due:

PROJECT:

Date Notice to Proceed: ==>

Completion Date: =====>

Days Remaining in Contract ->

Percent Work Complete: ==>

Percent Time Complete: ==>

Percent Payment Complete: ->

APPLICATION FOR PAYMENT NO. _____ SHEET NO. _____ OF _____

PERIOD FROM: _____ TO: _____

CERTIFICATE OF THE CONTRACTOR

To the best of my knowledge and belief, I certify that this periodical estimate is correct, and all work has been performed and materials supplied in full accordance with the terms and conditions of the contract documents between the undersigned contractor and the City of Concord.

GROSS AMOUNT OF PARTIAL PAYMENT - \$

LESS: RETAINAGE AT PERCENT ----- \$

PREVIOUS PAYMENT ----- \$

LIQUIDATION DAMAGES

____ DAYS @ \$ _____ ----- \$

OTHER DEDUCTIONS:

_____ ----- \$

_____ ----- \$

TOTAL DEDUCTIONS ----- \$

NET AMOUNT DUE THIS ESTIMATE ----- \$

Name of Contractor: _____ Address: _____

Signed: _____ Title: _____ Date: _____

CERTIFICATE OF CONSTRUCTION ADMINISTRATOR/ENGINEER

I certify that I have verified this periodical estimate and that to the best of my knowledge and belief, it is a true and correct statement of work performed and materials supplied under the contract.

Consultant Engineer: _____ Date: _____

Construction Administrator: _____ Date: _____

APPROVED AND PAYMENT RECOMMENDED:

CITY OF CONCORD

Signed: _____ Title: _____ Date: _____

PAY REQUEST

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	TOTAL PRICE	QUANT. THIS EST.	TOTAL THIS EST.	QUANT. PREV. EST.	TOTAL PREVIOUS	QUANT. TO DATE	TOTAL TO DATE	QUANT. DIFF.	TOTAL DIFF.
1			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
2			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
3			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
4			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
5			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
6			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
7					\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
8			EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
9			LBS		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
10			SF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
11			SF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
12			LF		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
13													
a			EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
b			EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
c			EA		\$ -		\$ -		\$ -	0.00	\$ -	0.00	\$0.00
Add 1			EA				\$ -		\$ -	0.00	\$ -	0.00	\$0.00
Add 2			LS				\$ -		\$ -	0.00	\$ -	0.00	\$0.00
Add 3			LF				\$ -		\$ -	0.00	\$ -	0.00	\$0.00
Add 4			SY				\$ -		\$ -	0.00	\$ -	0.00	\$0.00
Add 5			SY				\$ -		\$ -	0.00	\$ -	0.00	\$0.00
	Base Bid	\$			\$ -		\$ -		\$ -		\$ -		\$0.00
	10 % Contingency	\$			\$ -								\$ -
	Total Base Bid	\$			\$ -								\$0.00

CITY OF CONCORD
CONCORD, NORTH CAROLINA
CONTRACT CHANGE ORDER

Project: _____ **Date:** _____

Owner: City of Concord **Change Order No.** _____

To: (CONTRACTOR)

Account No. _____

Purchase Order No. _____

You are hereby requested to make the following changes in this Contract to comply with the provisions of the attached and/or the original Contract Documents.

Item No.	Description of Changes	Additions	Deductions
		\$0.00	\$0.00

Original Contract Amount

Net Changes by Previous Change Orders

Net Changes This Change Order \$0.00

New Contract Amount **\$0.00**

The Contract Time will be _____ by _____ calendar days.

The Completion Date as of this Change Order is: _____

Accepted: (Contractor)

By: _____ **Date:** _____

Accepted: CITY OF CONCORD

By: _____ **Date:** _____

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

By: _____ **Date:** _____ **Finance Director**

CITY OF CONCORD FIELD
ORDER
ENGINEERING DEPARTMENT

FIELD ORDER NO _____ CONTRACT _____ DATE _____

PROJECT _____

LOCATION _____

TO: _____

=====

THIS ORDER AUTHORIZES YOU TO PROCEED WITH THE ALTERATIONS AND/OR ADDITIONS TO THE WORK AS DESCRIBED HEREIN, IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF OUR STANDARD FORM OF CONTRACT.

DESCRIPTION OF WORK: _____

QUOTATION RECEIVED AND APPROVED BY THE CITY OF CONCORD.

QUOTATION NOT RECEIVED. PLEASE FURNISH QUOTATION IMMEDIATELY TO THE CITY OF CONCORD FOR CHECK AND APPROVAL.

TIME AND MATERIAL BASIS. FURNISH TIME AND MATERIAL REPORTS DAILY TO THE CITY OF CONCORD FOR VERIFICATION AND SIGNATURE.

OTHER _____

AUTHORIZED BY: _____

**NORTH
CAROLINA
SALES TAX
REPORT**

OWNER: _____

CONTRACTOR: _____

PROJECT: _____

PURCHASE ORDER: _____

DATE	VENDOR NAME	INVOICE NO.	NET INVOICE AMOUNT	STATE TAX AMOUNT	COUNTY TAX AMOUNT	SPECIAL COUNTY TAX	COUNTY PAID
TOTAL							

I certify that the above listed vendors were paid sales tax upon purchases of materials during the period covered by the Construction Estimate, and the property upon which such taxes were paid with or will be used in the performance of this contract. No tax on purchases or rentals of tools and/or equipment is included in the above list. All the materials above became a part of or is annexed to the building or structure being erected, altered or repaired.

Contractor or Subcontractor Name (PRINT)
Signature
: _____
Name
(print): _____
Title: _____

SWORN AND SUBSCRIBED BEFORE
ME THIS _____ DAY OF _____, 2024.

NOTARY
PUBLIC

MY COMMISSON EXPIRES ON: _____

North Carolina 811, Inc.

North Carolina One Call Center, Inc., a non-profit organization funded by participating utility companies and municipalities in the interest of community and job safety and improved service through damage reduction to the utilities.

A ONE CALL TOLL FREE TELEPHONE NUMBER, 1-800-632-4949, PROVIDES AN AVENUE TO ALL THE PARTICIPATING MEMBERS FROM ANY POINT WITHIN THE STATE OF NORTH CAROLINA.

Anyone proposing to excavate, dig, bore, tunnel, blast or disturb the earth in any way buried utilities may be damaged is requested to call the toll-free number between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, three working days before starting the proposed work.

Within minutes of your telephone call, the participating members will be made aware of your plans and will be given pertinent information that has been provided by you about your planned work. You will be told the names of the participating members from whom you can expect a response - if there are buried facilities in the path of your activity, the route of the utilities will be staked and/or marked at no expense to you. If there are no facilities around the planned work, you will be called or notified by a representative of a participating company accordingly.

Should a non-participating utility operator be serving your area, we recommend that you call them on an individual basis. All utility operators, whether company or municipality, will be provided an opportunity to become a member of North Carolina One Call Center, Inc.

Naturally, knowing the route of utilities, the excavator is expected to exercise caution and to avoid damage as the project progresses.

Damage prevention does not just happen – it is a planned and orderly process through which each of us can participate - **YES, WE CAN AND WE WILL DRAMATICALLY REDUCE DAMAGES TO THE UTILITIES IN THE STATE OF NORTH CAROLINA!! THANKS FOR YOUR HELP.**

BEFORE YOU DIG
IN THE INTEREST OF COMMUNITY AND JOB SAFETY AND IMPROVED SERVICE

CALL NORTH CAROLINA ONE CALL CENTER, INC.

1-800-632-4949 OR 811

SECTION II

GENERAL CONDITIONS

Please reference online at

[PART A - SECTION II \(concordnc.gov\)](#)

Dated: 01/5/2010

[ARTICLE 1 \(concordnc.gov\)](#)

Dated: 01/8/2010

SECTION III
PLANS and SPECIFICATIONS SHEETS

McInnis Aquatic Center

Swimming Pool Improvements
115 Academy Avenue, NW, Concord North Carolina

Construction Documents - First Submittal

January 23, 2024

Project Team

Owner &
Developer



City of Concord Parks & Recreation
147 Academy Ave., NW
PO Box 308
Concord, NC 28026
www.concordnc.gov
Phone: 704.920.8600

Landscape Architect &
Civil Engineer



Alfred Benesch & Company
2359 Perimeter Pointe Parkway, Suite 350
Charlotte, NC 28208
www.benesch.com
P 704.521.9880
Corp. NC License: F-1320

Pool
Designer

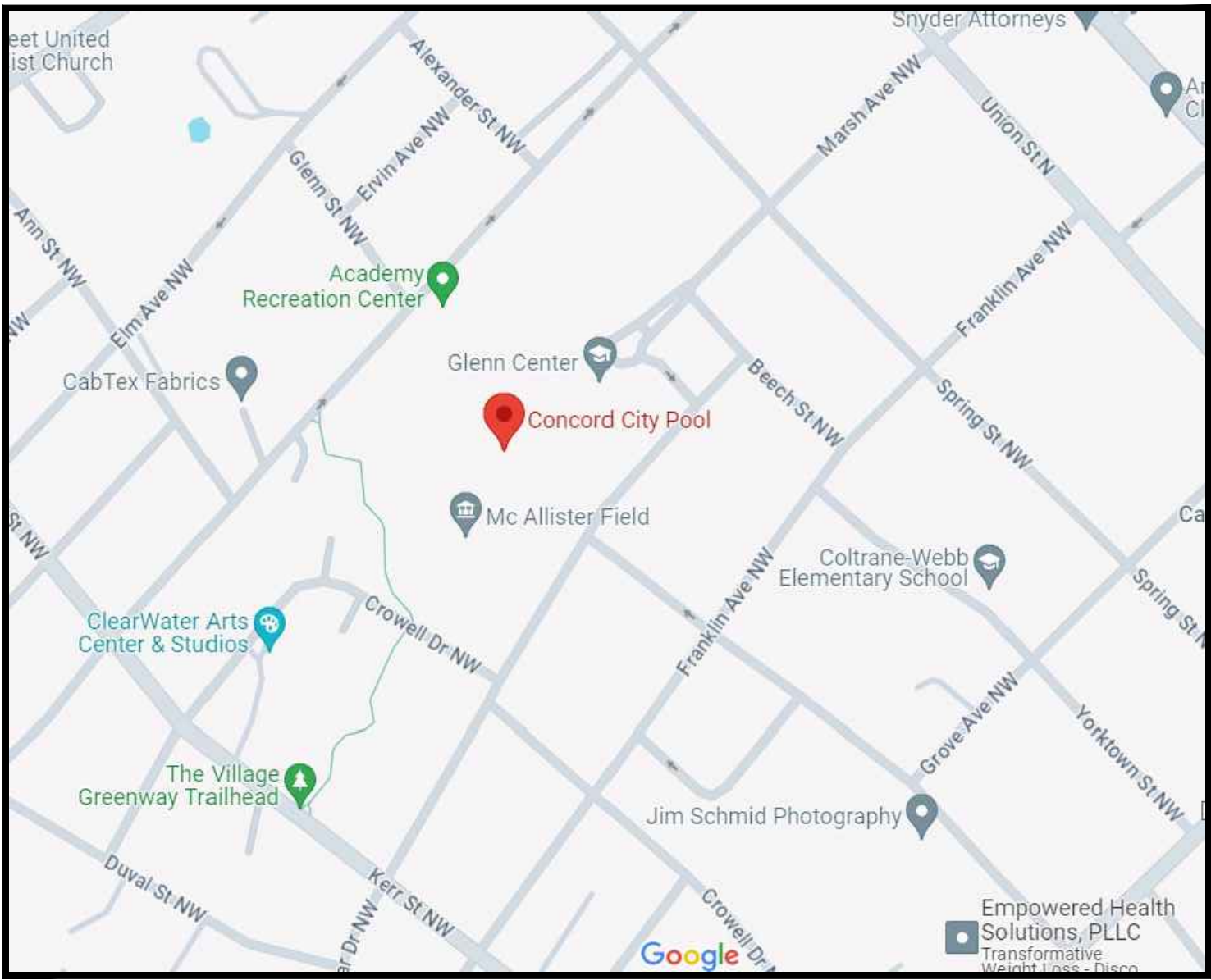


Shultz Engineering Group, PC
212 N. McDowell St
Charlotte, NC 28204
www.shultzeg.com
Phone: 704.334.7583

Index of Drawings

Sheet List Table	
Sheet Number	Sheet Title
C000	COVER SHEET
L100	POOL ZERO ENTRY PLAN & PROFILE
SP-1	EXISTING POOL ZERO ENTRY ADDITION WITH PLAY FEATURES
SP-2	NEW ZERO ENTRY ADDITION WITH PLAY FEATURES
SP-3	DEMO PLAN AND DETAILS
SP-4	POOL DETAILS
SP-5	PIPING PLAN
SP-6	PIPING SCHEMATIC
SP-7	EQUIPMENT ROOM DETAILS
SP-8	DETAILS

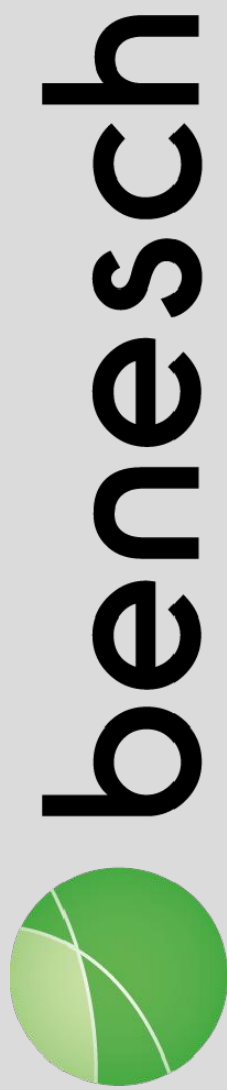
Vicinity Map

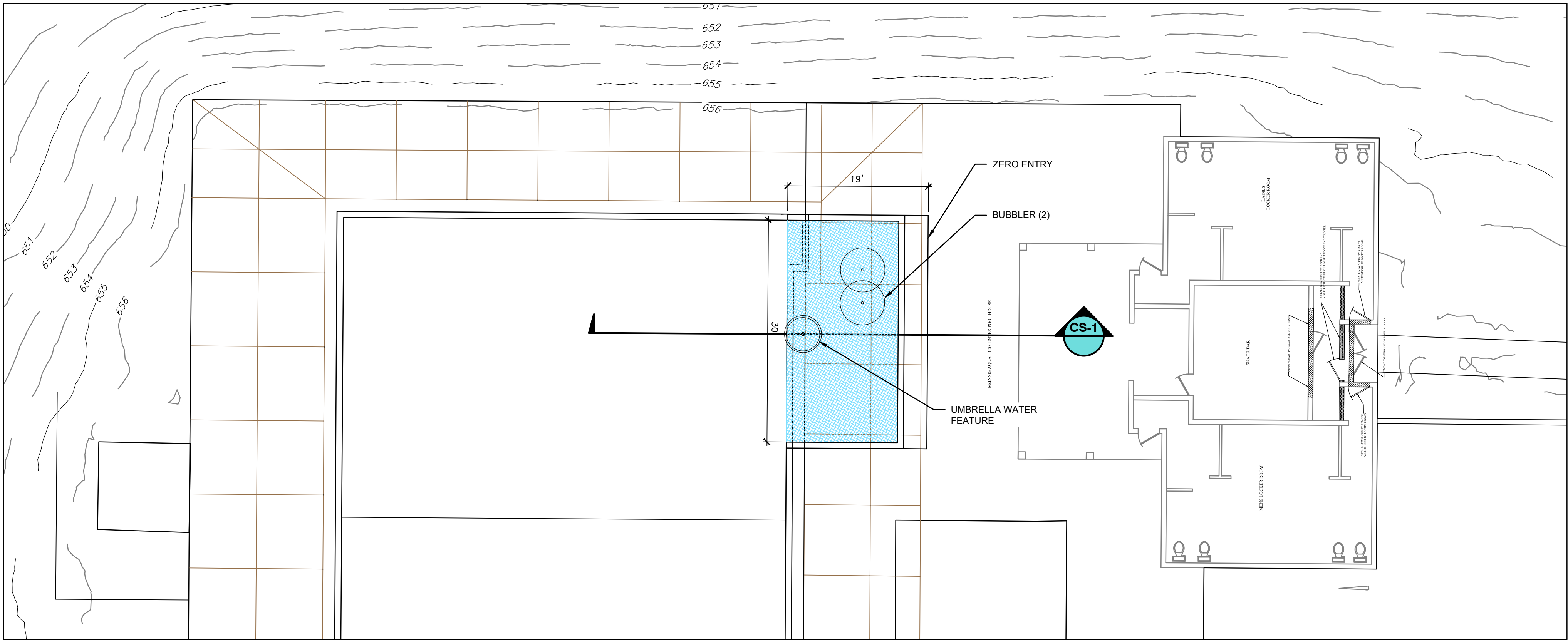
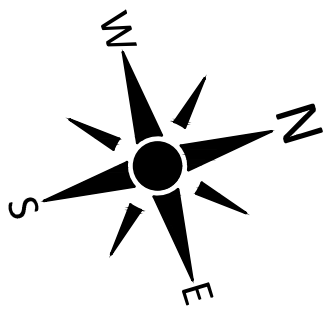


McInnis Aquatic Center

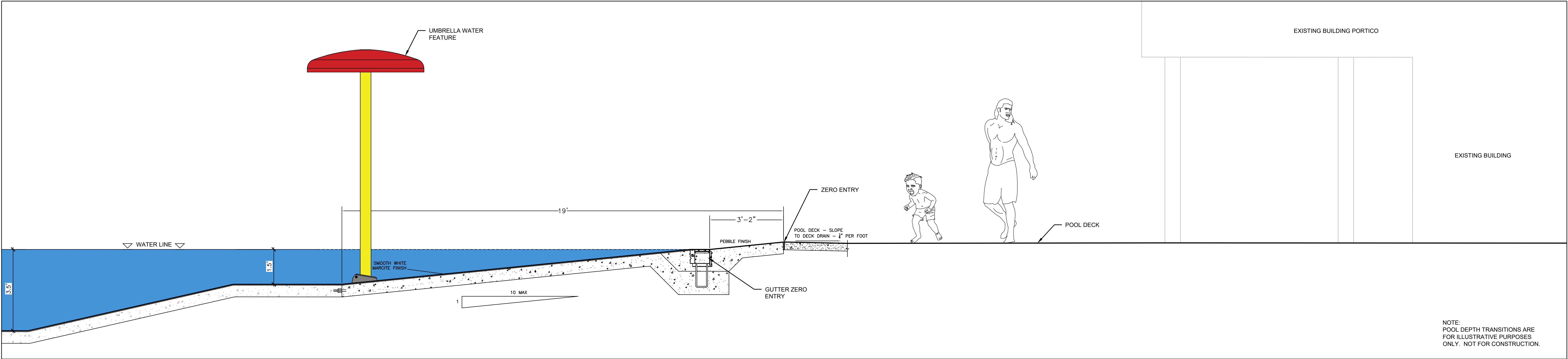
Swimming Pool Improvements
115 Academy Avenue, NW, Concord North Carolina
Construction Documents - First Submittal

January 23, 2024

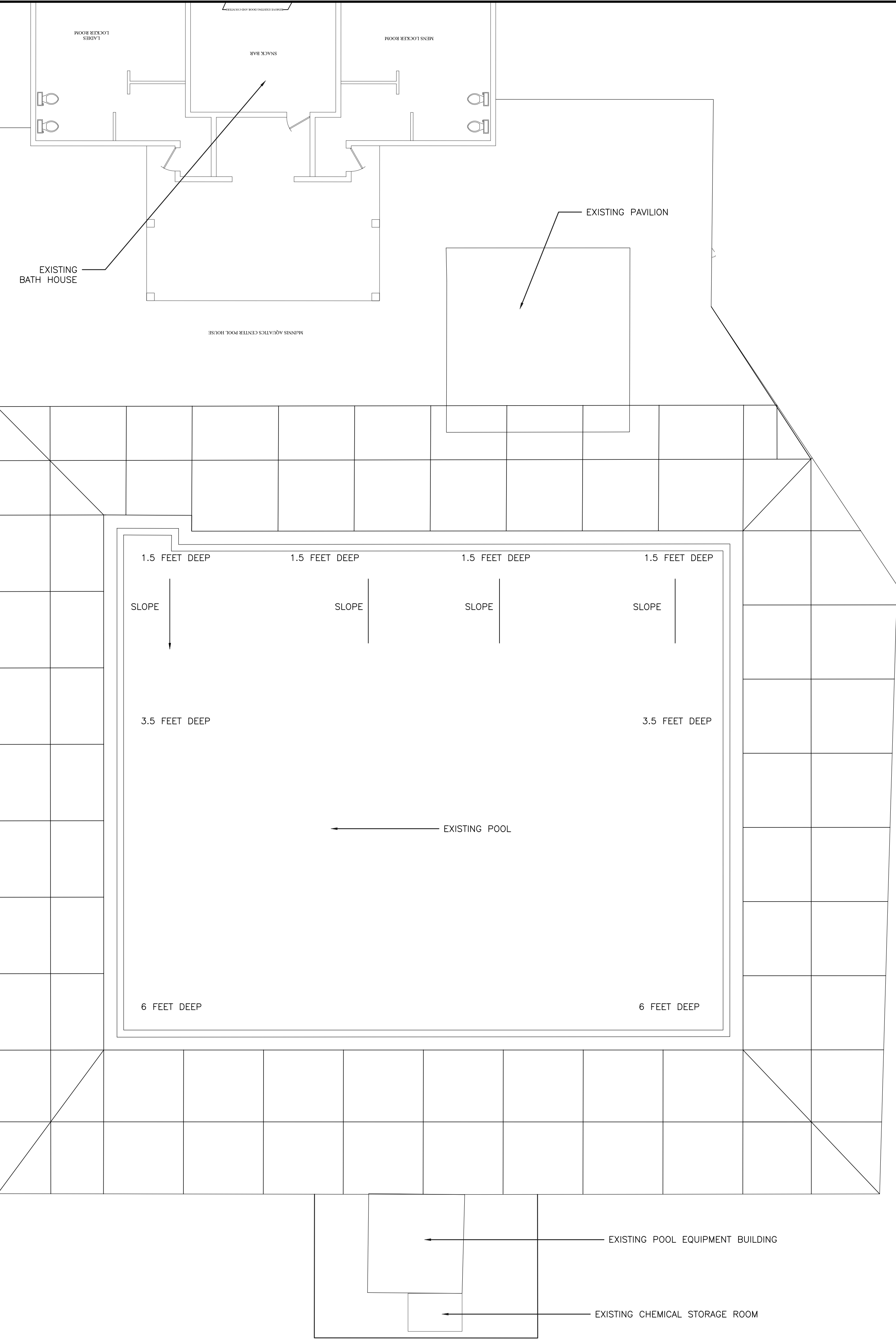




I Pool Plan View
1"=10'-0"



CS-I Pool Cross Section
1"=2'-0"

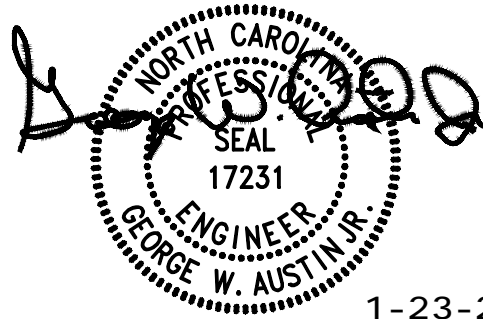


- SCOPE OF WORK:
- EXISTING FILTRATION SYSTEM AND PIPING TO REMAIN IN PLACE AND NOT IN SCOPE OF WORK.
 - CUT OUT A SECTION OF POOL WALL AND EXISTING GUTTER TO CREATE A 30 FOOT X 19 FOOT ZERO ENTRY.
 - THE INCREASE IN WATER VOLUME OF POOL BECAUSE OF THE ADDITION IS 2,457 GALLONS.
 - ADD NEW GUTTER TO MATCH EXISTING AROUND THE NEW PORTION OF ZERO ENTRY.
 - INCLUDE NEW I-BAR GRATING OR HDPE GRATING FOR THE NEW GUTTER PORTION OF THE ZERO ENTRY, THE REST OF THE EXISTING I-BAR GRATING WILL NOT BE IN SCOPE OF WORK.
 - ADD NEW FLAT FEATURE DRAINS SUMPS AND GRATES FOR THE NEW PLAY FEATURES.
 - ADD NEW VORTEX UMBRELLA FEATURE.
 - ADD (2) NEW FLUSH BUBBLERS IN ZERO ENTRY.
 - ADD (2) DECK JETS FITTINGS TO NEW ZERO.
 - ADD (6) FLOOR RETURN TO ZERO ENTRY AND VALVE LINE FROM MANIFOLD.
 - CLEAN AND PREPARE POOL FOR NEW PLASTER AND TILED SWIM LANE.
 - INSTALL NEW POOL PLASTER FINISH.



**SHULTZ
ENGINEERING
GROUP, PC**

212 N. McDowell St, Suite 204
Charlotte, NC 28204
(P) 704.334.7363 | (F) 704.347.0093
www.shultzeg.com | SEG - 23-477
NC FIRM LICENSE NUMBER: C-0896



1-23-24

2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
NO.	REVISION	DATE	BY

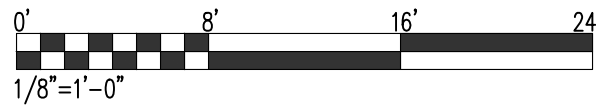
McInnis Aquatic Center
151 Academy Ave. NW
Concord, North Carolina 28025

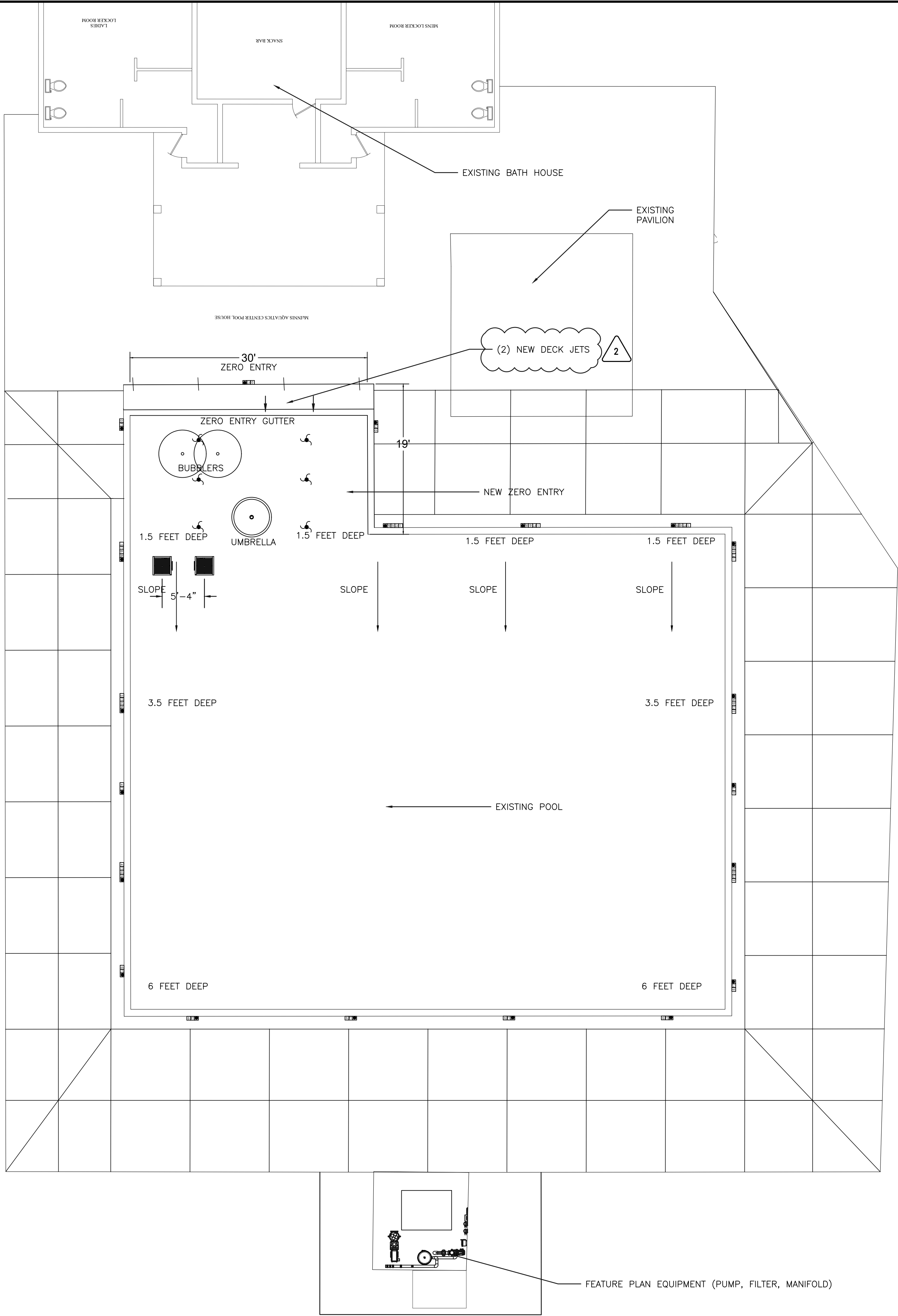
EXISTING POOL ZERO
ENTRY ADDITION WITH
PLAY FEATURES

DATE: 04.26.23
DRAWN BY: TDE CHECKED BY: GWA
PROJECT ID: 0941

SP-1

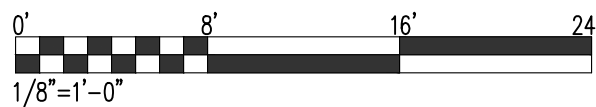
1
SP-1
EXISTING CONDITIONS
SCALE 1/8" = 1'-0"





1
SP-2

NEW ZERO ENTRY LAYOUT
SCALE 1/8" = 1'-0"



FEATURE EQUIPMENT				
QTY	ITEM	MANUFACTURER	MODEL NO.	DESCRIPTION
2	65 ± GUTTER ADDITION	PADDOCK		ASC-W RECIRCULATING SYSTEM (304 ST.ST.) WITH ZERO ENTRY
1	PUMP, FEATURE	PENTAIR	011057	INTELLIFLO VS, UP TO 3 HP, 230V, 16 AMP, 1 PH, 123 GPM @ 65' TDH.
1	BASKET STRAINER, SPARE	PENTAIR	070387Z	STRAINER BASKET, INTELLIFLO PUMP
1	CARTRIDGE FILTER	PENTAIR	160332	CLEAN AND CLEAR CARTRIDGE FILTER, 22" DIAMETER 520 FT ² FILTRATION AREA, 150 GPM, COP520
1	SPARE CARTRIDGE	PENTAIR		CARTRIDGE FOR FILTER MODEL 160332
1	EROSION FEEDER	PENTAIR	R171016	300-SERIES OFF-LINE CHLORINE FEEDER
1	FLOW METER	BLUE WHITE	F-30300P	F-300 SERIES, FOR 3" SCHEDULE 40 PVC PIPE, 45-240 GPM
2	VGB GRATE COVER & SUMP	PADDOCK	2424ESMD-FC-6	MODEL 2424ESMD-FC-6, 24" X 24" 304 ST.ST. ENTRAPMENT SAFE MAIN DRAIN SUMP W/ 6" CONNECTION & ST.ST. 24" X 24" V.G.B. CERTIFIED FLAT COVER
2	BUBBLERS	ROMAN FOUNTAINS	N/A	FLUSH MOUNT BUBBLER FEATURE, 22 GPM, 2" CONNECTION
1	UMBRELLA	VORTEX	N/A	VERTICAL FEATURE 10FT, MAX 100 GPM, 2" CONNECTION
1	UMBRELLA ANCHOR	VORTEX	SAFESWAP No1	TYPICAL ANCHORING SAFESWAP FOR UMBRELLA
1	6 FLOOR RETURN	STA-RITE	08417-0000	WHITE COLOR, ADJUSTABLE FLOW, NON-CORROSIVE RETURN OUTLET FOR 1-1/2" (WITH ADAPTER) & 2" PIPE SIZES
2	DECK JETS	ROMAN FOUNTAINS	ROHN-APJ	3/8" ORIFICE ADJUSTABLE PRECISION JET, 5 GPM EACH MAX

LIFE SAVING EQUIPMENT – EXISTING				
QTY	ITEM	MANUFACTURER	MODEL NO.	DESCRIPTION

MAINTENANCE EQUIPMENT – EXISTING				
QTY	ITEM	MANUFACTURER	MODEL NO.	DESCRIPTION

REQUIRED SIGNS – EXISTING				
QTY	ITEM	MANUFACTURER	MODEL NO.	DESCRIPTION

OUTDOOR POOL DATA	
NORTH CAROLINA POOL TYPE	PUBLIC
PERIMETER AT WATER'S EDGE, LN FT – NEW	310
WATER SURFACE AREA, SQUARE FEET – NEW	5,087
WATER VOLUME, GALLONS – NEW	107,457
POOL MINIMUM REQUIRED PUMP FLOW RATE 6 HR TURNOVER, GPM – NEW	299
DESIGN PUMP FLOW RATE @ 65 FEET TOTAL DYNAMIC HEAD, GPM – NEW (COMBINED EXISTING AND NEW PUMP AND FILTER)	353
TURNOVER TIME, HOURS – NEW	5.07
POOL BATHER LIMIT, PERSONS – NEW	308
CHEMICAL STORAGE ROOM SIZE, MIN SQ FT	38
DECK AREA, SQUARE FEET – NEW	8,634
DECK LIGHTING IF NIGHT SWIMMING IS ALLOWED 10' FOOT CANDLES (10 LUMENS/SQ FT)	N/A

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NC FIRM LICENSE NUMBER: C-0896

1-23-24

2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
NO.	REVISION	DATE	BY

McInnis Aquatic Center
151 Academy Ave. NW
Concord, North Carolina 28025

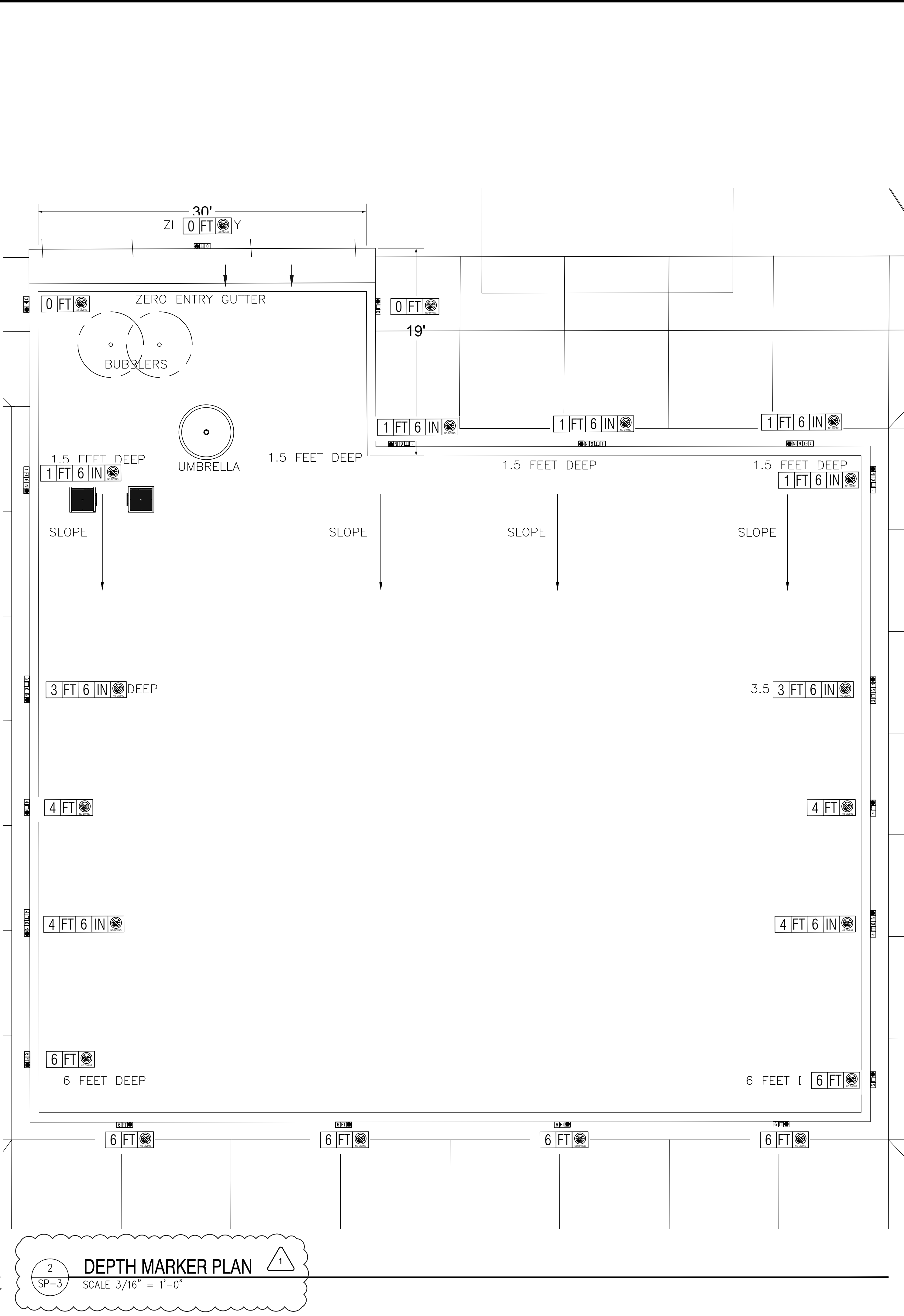
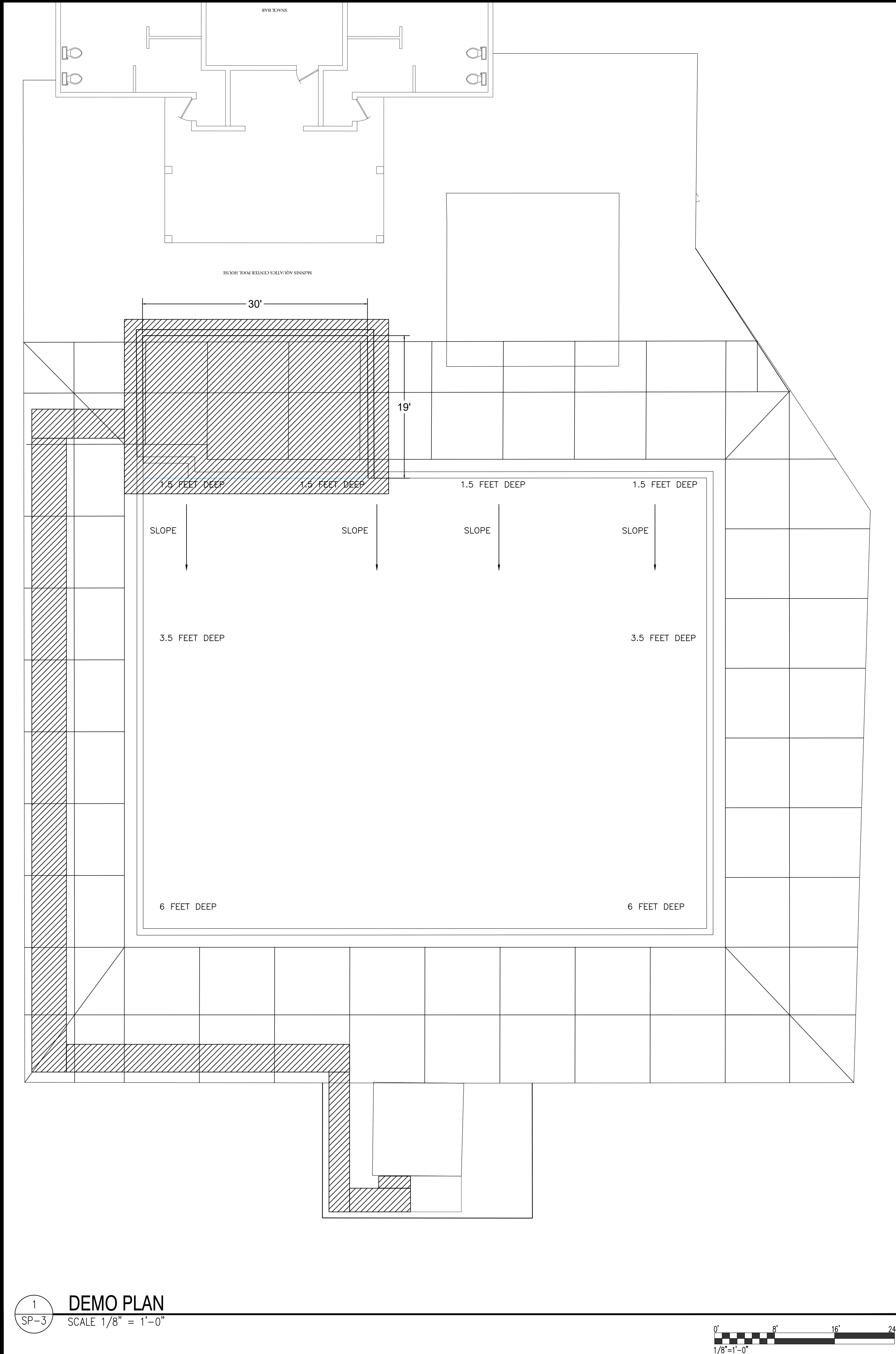
NEW ZERO ENTRY
ADDITION WITH PLAY
FEATURES

DATE: 04.26.23

DRAWN BY: TDE CHECKED BY: GWA

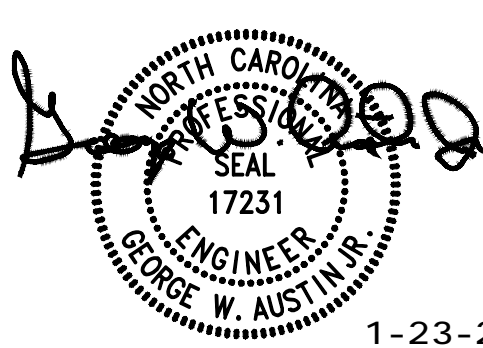
PROJECT ID: 0941

SP-2



**SHULTZ
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GROUP, PC**

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Charlotte, NC 28204
(P) 704.334.7863 | (F) 704.347.0093
www.shultzeg.com | SEG - 23-477
NC FIRM LICENSE NUMBER: C-0898



1-23-24

2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
NO.	REVISION	DATE	BY

McInnis Aquatic Center
151 Academy Ave. NW
Concord, North Carolina 28025

DEMO PLAN
AND DETAILS

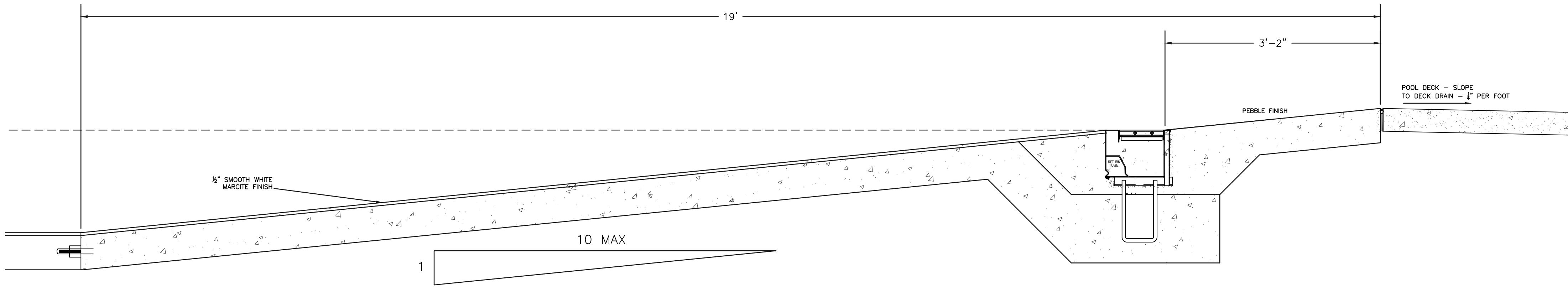
DATE: 04.26.23
DRAWN BY: TDE CHECKED BY: GWA
PROJECT ID: 0941

SP-3

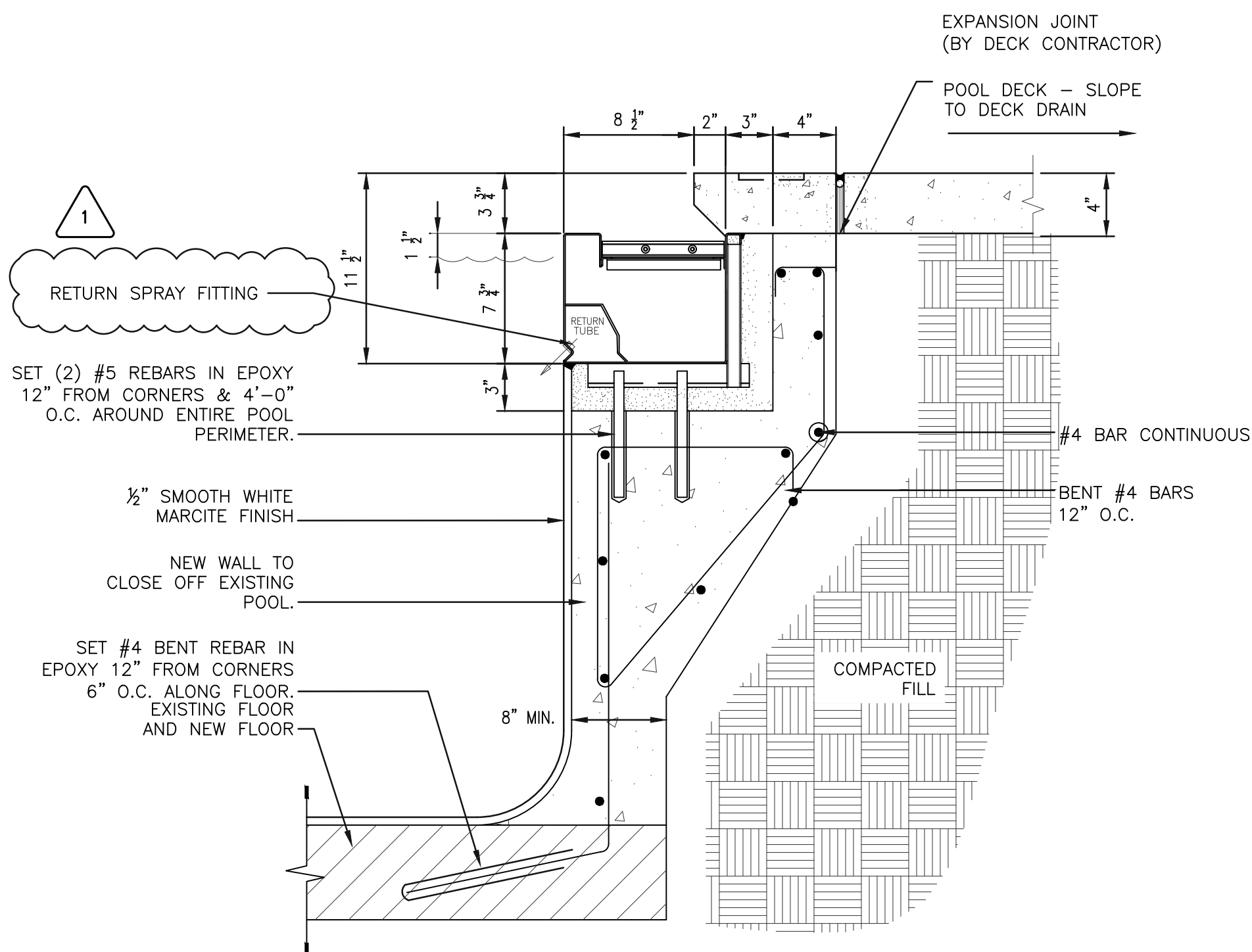
1 DEMO PLAN
SP-3 SCALE 1/8" = 1'-0"

2 DEPTH MARKER PLAN
SP-3 SCALE 3/16" = 1'-0"

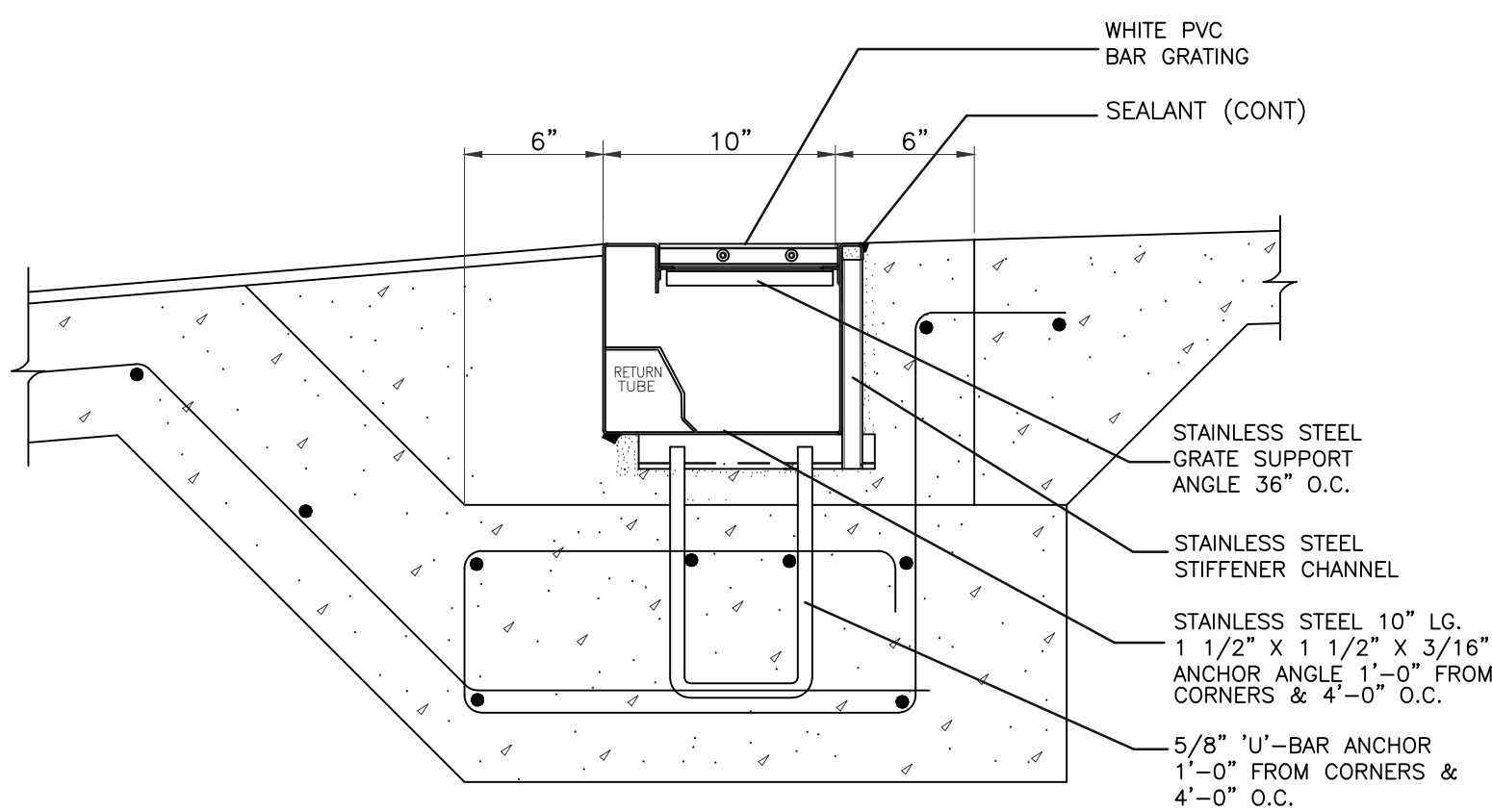




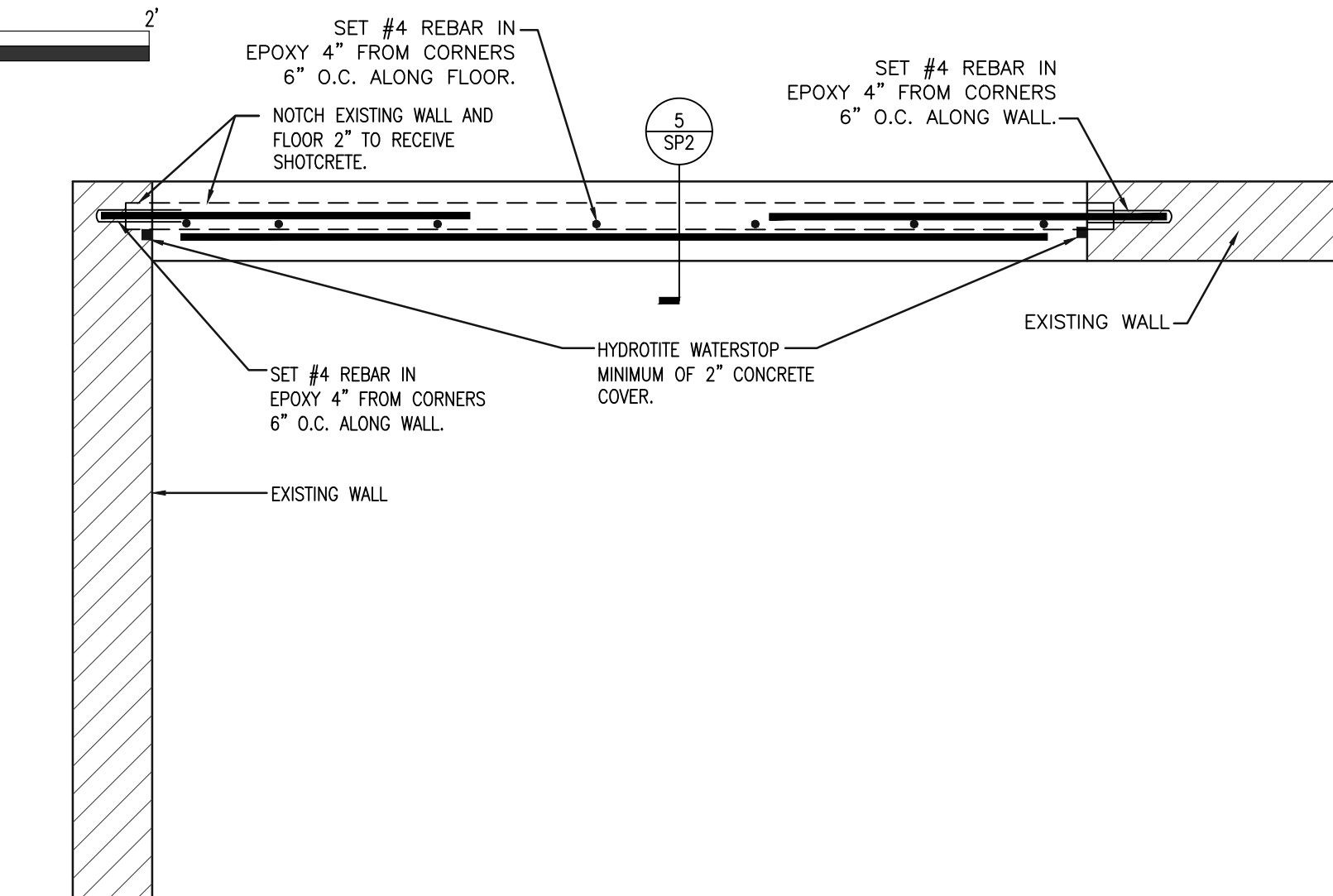
1
SP-4
NEW GUTTER ZERO ENTRY DETAIL
SCALE 1" = 1'-0"



2
SP-4
NEW GUTTER WALL DETAIL
SCALE 1 1/2" = 1'-0"



3
SP-4
NEW GUTTER ZERO ENTRY DETAIL
SCALE 1 1/2" = 1'-0"



4
SP-4
WALL REPAIR DETAIL
SCALE 1" = 1'-0"

POOL SHELL CONCRETE REQUIREMENTS:

STANDARDS:

ACI 506.2 SPECIFICATIONS FOR MATERIALS, PROPORTIONING, AND APPLICATION OF GUNITE

ACI 506.3R GUIDE TO CERTIFICATION OF GUNITE NOZZLEMEN

GENERAL:

- GUNITE WORK SHALL BE PERFORMED BY A FIRM OR COMPANY REGULARLY ENGAGED IN THE BUSINESS OF APPLYING GUNITE MATERIALS, USING NOZZLE OPERATORS AND WORKERS SKILLED AND EXPERIENCED IN THE TYPE OF WORK SPECIFIED.
- GUNITE SUPERVISOR SHALL HAVE NOT LESS THAN TWO YEARS EXPERIENCE AS A GUNITE NOZZLE OPERATOR.
- NOZZLE OPERATOR SHALL HAVE NOT LESS THAN ONE YEAR EXPERIENCE AND, UPON REQUEST OF THE ENGINEER, SHALL DEMONSTRATE ABILITY TO PROPERLY PLACE GUNITE.
- PROOF OF COMPLIANCE WITH ACI 506.3R SHALL BE FURNISHED FOR EACH NOZZLE OPERATOR.
- GUNITE SHALL NOT BE PLACED DURING INCLEMENT OR WINDY WEATHER.

MIX DESIGN

- DESIGN OF PREDAMPENED GUNITE DRY MIX, INCLUDING RECOMMENDED AMOUNTS OF ADMIXTURE AND WATER TO BE USED, SHALL BE OBTAINED BY THE CONTRACTOR FROM A QUALIFIED INDEPENDENT TESTING LABORATORY OR AGENCY, OR FROM A MILL OR READY-MIX PLANT, PROPERLY EQUIPPED TO DESIGN GUNITE MIXES. THE LABORATORY, AGENCY, MILL OR READY-MIX PLANT SHALL MEET THE APPLICABLE REQUIREMENTS OF ASTM E329, AND SHALL MEET WITH APPROVAL OF THE ENGINEER. THE MIX DESIGN SHALL BE CERTIFIED AND SIGNED BY A PROFESSIONAL ENGINEER.
- UPON RECEIPT OF ACCEPTABLE GUNITE MIX DESIGN AND TEST RESULTS FROM THE PRE-APPROVED INDEPENDENT TESTING LABORATORY, AGENCY, MILL, OR READY-MIX PLANT, CONFORMING WITH SPECIFIED REQUIREMENTS, THE CONTRACTOR SHALL SUBMIT THE ACCEPTED MIX DESIGN TO THE ENGINEER FOR REVIEW PRIOR TO PLACING ANY GUNITE.

GUNITE MIX SHALL CONFORM WITH THE FOLLOWING REQUIREMENTS:

- PORTLAND CEMENT OF AMERICAN MANUFACTURE SHALL MEET A.S.T.M. C-150-67 'STANDARD SPECIFICATIONS FOR PORTLAND CEMENT'. TYPE I PORTLAND SHALL BE USED UNLESS SPECIFIED IN THE DETAILED SPECIFICATIONS.
- FINE AGGREGATES SHALL CONSIST OF WASHED SAND AND SHALL BE HARD, DENSE, DURABLE, CLEAN, SHARP AND GRADED EVENLY FROM FINE TO COARSE IN ACCORDANCE WITH THE 'STANDARD SPECIFICATIONS FOR CONCRETE AGGREGATES,' A.S.T.M. DESIGNATION: C33-67. IT SHALL BE FREE FROM ORGANIC MATTER AND SHALL NOT CONTAIN MORE THAN 5% BY WEIGHT OF DELETERIOUS SUBSTANCES.
- PROPORTION OF CEMENT TO SAND AGGREGATE SHALL BE AS REQUIRED TO ACHIEVE THE INDICATED OR SPECIFIED STRENGTH.
- COMPRESSIVE STRENGTH OF GUNITE SHALL BE NOT LESS THAN 4000 PSI 28-DAY COMPRESSIVE STRENGTH.
- WATER USED FOR HYDRATION AT THE NOZZLE SHALL BE FIT FOR DRINKING AND SHALL BE MAINTAINED AT A UNIFORM PRESSURE WHICH SHALL BE AT LEAST 15 POUNDS PER SQUARE INCH ABOVE AIR PRESSURE AT THE NOZZLE.
- WATER CONTENT AT TIME OF DISCHARGE FROM NOZZLE SHALL NOT EXCEED AMOUNT REQUIRED TO ACHIEVE THE MAXIMUM PERMITTED SLUMP.

GUNNING/NOZZLE OPERATION:

- BUILD EACH LAYER BY MAKING SEVERAL PASSES OVER THE WORKING AREA. THICKNESS OF EACH LAYER SHALL BE GOVERNED BY THE REQUIREMENT THAT SAGGING OF GUNITE SHALL NOT OCCUR. MAINTAIN TOP SURFACE OF THICK LAYERS AT 45 DEGREE SLOPE. EACH LAYER TO BE COVERED BY A SUCCEEDING LAYER SHALL BE ALLOWED TO TAKE ITS INITIAL SET.
- LAITANCE, LOOSE MATERIAL, AND REBOUND SHALL BE REMOVED BY AIR-JETTING. LAITANCE THAT HAS TAKEN A FINAL SET SHALL BE REMOVED BY SANDBLASTING AND THE SURFACE CLEANED WITH AIR-WATER JET. ALL LAYERS TO BE SHOT SHALL BE DAMP.
- UNLESS OTHERWISE PERMITTED, BEGIN APPLICATION AT THE LOWEST ELEVATION.
- DO NOT TROWEL OR FINISH INITIAL LAYERS IN ANY WAY.
- REBOUND: ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE SHALL BE REMOVED FROM THE SURFACE TO BE COVERED PRIOR TO PLACING SUCCEEDING LAYERS. REBOUND SHALL NOT BE SALVAGED FOR REUSE.

CONSTRUCTION JOINTS:

UNFINISHED WORK SHALL NOT STAND MORE THAN 30 MINUTES UNLESS JOINTS ARE PREPARED. ENTIRE JOINT SURFACE SHALL BE CLEANED, ROUGHENED, AND DAMPENED PRIOR TO APPLICATION OF ADDITIONAL GUNITE.

FINISHING:

BRING GUNITE LAYERS TO WITHIN 1/4 INCH OF FINAL FINISHED SURFACE. WHEN SURFACE HAS TAKEN ITS INITIAL SET, TRIM EXCESS MATERIAL WITH A SHARP EDGE CUTTING SCREED.

CURING

IMMEDIATELY FOLLOWING GUNITE FINISHING, SURFACES SHALL BE CURED FOR NOT LESS THAN SEVEN DAYS USING AN APPROVED CURING METHOD AS SPECIFIED IN ACI 506.2.

INSPECTION:

AFTER GUNITE HAS BEEN IN PLACE FOR A MINIMUM OF 14 DAYS, INSPECT STRUCTURE FOR CRACKING. ALL CRACKS SHOULD BE REPAIRED BY EPOXY INJECTION OR OTHER METHODS APPROVED BY ENGINEER. IF CRACKING IS EXCESSIVE IN THE OPINION OF THE ENGINEER, CORE SAMPLES WILL BE TAKEN AT THE EXPENSE OF THE CONTRACTOR AND THE STRUCTURE EVALUATED BY ENGINEER FOR REPAIRABILITY. IF DEEM UNREPAIRABLE BY ENGINEER, CONTRACTOR SHALL REMOVE POOL SHELL AND REPLACE AT HIS EXPENSE.

680.26 Equipotential Bonding

680.26 (A) Performance. The equipotential bonding required by this section shall be installed to reduce voltage gradients in the pool area.

680.26 (B) Bonded Parts. The parts specified in 680.26(B)(1) through (B)(7) shall be bonded together using solid copper conductors, insulated covered, or bare, not smaller than 8 AWG or with rigid metal conduit of brass or other identified corrosion-resistant metal. Connections to bonded parts shall be made in accordance with 250.8 (see note following). An 8 AWG or larger solid copper bonding conductor provided to reduce voltage gradients in the pool area shall not be required to be extended or attached to remote panel boards, service equipment, or electrodes.

NOTE: Article 250.8 specifies equipment grounding conductors, grounding electrode conductors, and bonding jumpers shall be connected by pressure connectors listed as grounding and bonding equipment.

680.26(B)(1) Conductive Pool Shells. Bonding to conductive pool shells shall be provided as specified in 680.26(B)(1)(a) or (B)(1)(b). Paired concrete, pneumatically applied or sprayed concrete and concrete block with painted or plastered coatings shall all be considered conductive materials due to water permeability and porosity. Vinyl liners and fiberglass composite shells shall be considered to be non-conductive materials.

(a) Structural Reinforcing Steel. Un-encapsulated structural reinforcing steel shall be bonded together by steel tie wires or the equivalent. Where structural reinforcing steel is encapsulated in a nonconductive compound, a copper conductor grid shall be installed in accordance with 680.26(B)(1)(b).

(b) Copper Conductor Grid. A copper conductor grid shall be provided and shall comply with (b)(1) through (b)(4).

(1) Be constructed of minimum 8 AWG bare solid copper conductors bonded to each other at all points of crossing. The bonding shall be in accordance with 250.8 or other approved means.

(2) Conform to the contour of the pool.

(3) Be arranged in a 300-mm (12-in.) by 300-mm (12-in.) network of conductors in a uniformly spaced perpendicular grid pattern with a tolerance of 100-mm (4 in.).

(4) Be secured within or under the pool no more than 150-mm (6 in.) from the outer contour of the pool shell.

680.26(B)(2) Perimeter Surfaces. The perimeter surface shall extend for 1 m (3 ft) horizontally beyond the inside walls of the pool and shall include unpaved surfaces, as well as poured concrete surfaces and other types of paving. Perimeter surfaces less than 1 m (3 ft) separated by a permanent wall or building 1.5 m (5 ft) in height or more shall require equipotential bonding on the pool side of the permanent wall or building. Bonding to perimeter surfaces shall be provided as specified in 680.26(B)(2)(a) or (2)(b) and shall be attached to the pool reinforcing steel or copper conductor grid at a minimum of four (4) points uniformly spaced around the perimeter of the pool. For nonconductive pool shells, bonding at four points shall not be required.

(a) Structural Reinforcing Steel. Structural reinforcing steel shall be bonded in accordance with 680.26(B)(1)(a).

(b) Alternate Means. Where structural reinforcing steel is not available or is encapsulated in a non-conductive compound, a copper conductor(s) shall (1) At least one minimum 8 AWG bare solid copper conductor shall be provided.

(2) The conductors shall follow the contour of the perimeter surface.

(3) Only listed splices shall be permitted.

(4) The required conductor shall be 450 mm to 600 mm (18 in. to 24 in.) from the inside walls of the pool.

(5) The required conductor shall be secured within or under the perimeter surface 100 mm to 150 mm (4 in. to 6 in.) below the subgrade.

680.26(B)(3) Metallic Components. All metallic parts of the pool structure, including reinforcing metal not addressed in 680.26(B)(1)(a), shall be bonded.

Where reinforcing steel is encapsulated with a nonconductive compound, the reinforcing steel shall not be required to be bonded.

680.26(B)(4) Underwater Lighting. All metal forming shells and mounting brackets of no-niche luminaries shall be bonded.

Exception: Listed low-voltage lighting systems with non-metallic forming shells shall not require bonding.

680.26(B)(5) Metal Fittings. All metal fittings within or attached to the pool structure shall be bonded, isolated parts that are not over 100 mm (4 in.) in any dimension and do not penetrate into the pool structure more than 25 mm (1 in.) shall not require bonding.

680.26(B)(6) Electrical Equipment. Metal parts of electrical equipment associated with the pool water circulating system, including pump motors and metal parts of equipment associated with pool covers, including electric motors, shall be bonded.

Exception: Metal parts of listed equipment incorporating an approved system of double insulation shall not be bonded.

(a) Double-insulated Water Pump Motors. Where a double-insulated water pump motor is installed under the provisions of this rule, a solid 8 AWG copper conductor of sufficient length to make a bonding connection to a replacement motor shall be extended from the bonding grid to an accessible point in the vicinity of the pool pump motor. Where there is no connection for the premises, this bonding conductor shall be connected to the equipment grounding conductor of the motor circuit.

(b) Pool Water Heaters. For pool water heaters rated at more than 50 amperes and having specific instructions regarding bonding and grounding, only those parts designated to be bonded shall be bonded and only those parts designated to be grounded shall be grounded.

680.26(B)(7) Fixed Metal Parts. All fixed metal parts shall be bonded including, but not limited to, metal-sheathed cables and raceways, metal piping, metal awnings, metal fences, and metal door and window frames.

Exception No. 1: Those separated from the pool by a permanent barrier that prevents contact by a person shall not be required to be bonded.

Exception No. 2: Those greater than 1.5m (5 ft) horizontally of the inside walls of the pool shall not be required to be bonded.

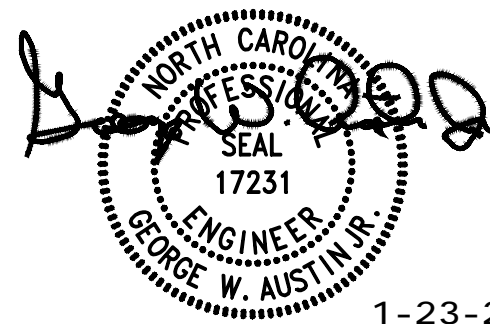
Exception No. 3: Those greater than 3.7m (12 ft) measured vertically above the maximum water level of the pool, or as measured vertically above any observation stands, towers, or platforms, or any diving structures, shall not be required to be bonded.

680.26(C) Pool Water. An intentional bond of a minimum conductive surface area of 5800 mm² (9 in.²) shall be installed in contact with the pool water. This bond shall be permitted to consist of parts that are required to be bonded in 680.26(B).



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1-23-24

2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
NO.	REVISION	DATE	BY

McInnis Aquatic Center

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POOL DETAILS

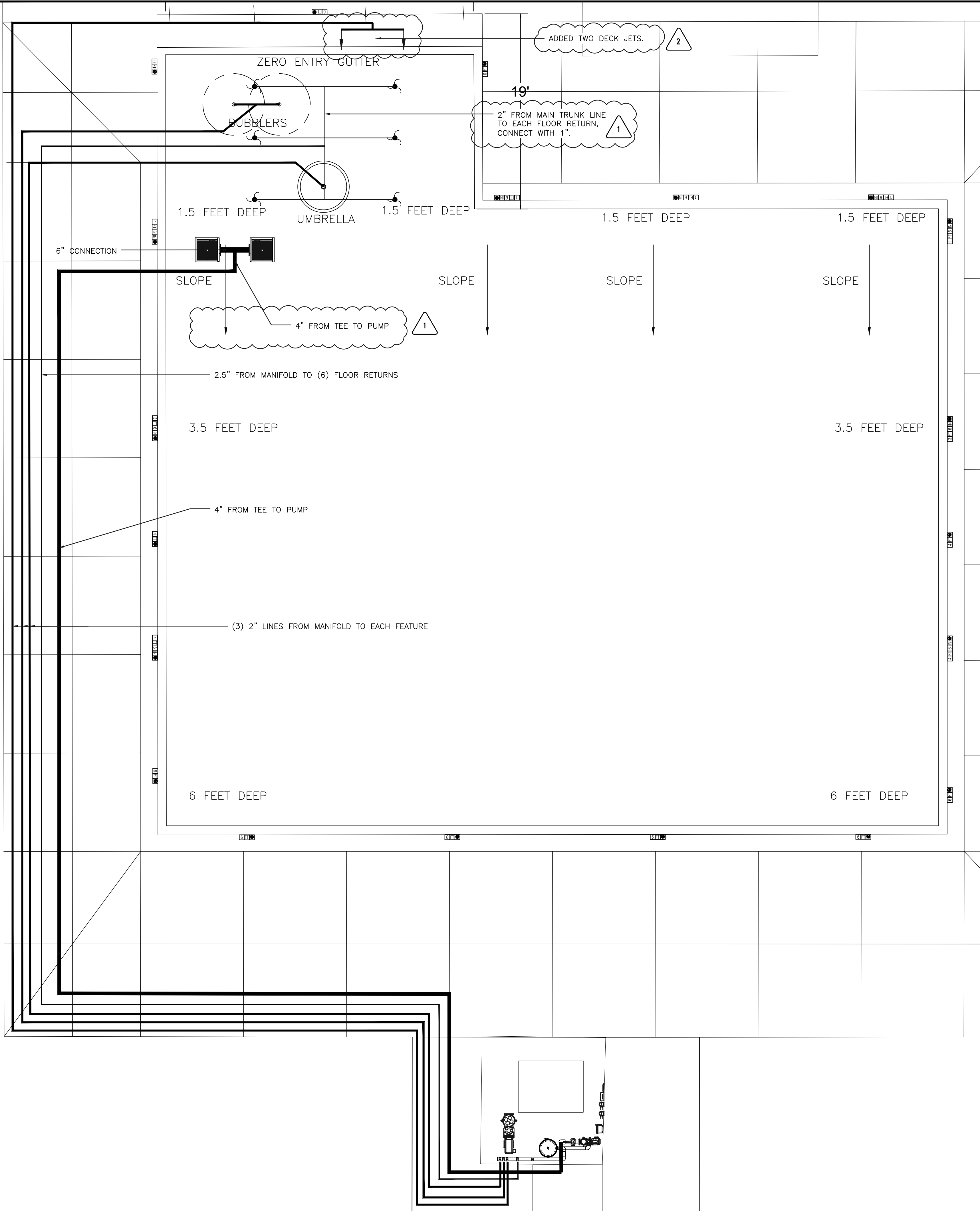
DATE: 04.26.23

DRAWN BY: TDE

CHECKED BY: GWA

PROJECT ID: 0941

SP-4



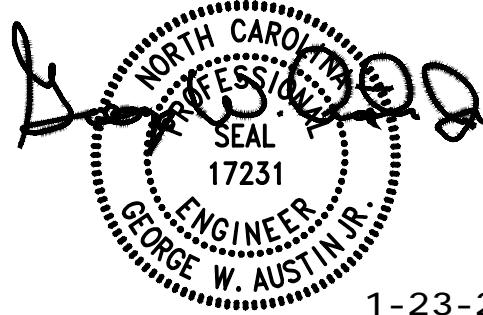
- NOTE:
- ALL SCHEDULE 40 PVC PRESSURE RATED PIPING UNLESS NOTED OTHERWISE.
 - ONLY SDR 26 (CLASS 160) AND SDR 21 (CLASS 200) PVC PIPE MEETING ASTM STANDARD D1785 OR D2241 ARE ACCEPTABLE IN SIZES 12" & SMALLER. NO HEAT BENDING OF PVC PIPE IS ALLOWED.
 - CPVC PIPE SHALL BE USED FOR CONNECTING TO HEATERS.

NOTE:
TO AVOID ENTRAPMENT, ALL SUCTION OUTLETS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH ANSI/APSP-7



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1-23-24

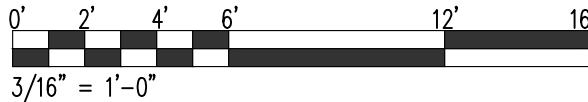
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1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
NO.	REVISION	DATE	BY

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PIPING PLAN

DATE: 04.26.23
DRAWN BY: TDE CHECKED BY: GWA
PROJECT ID: 0941

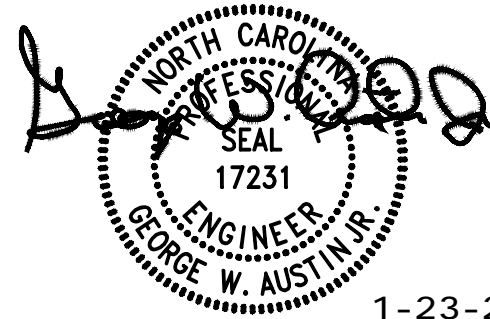
SP-5





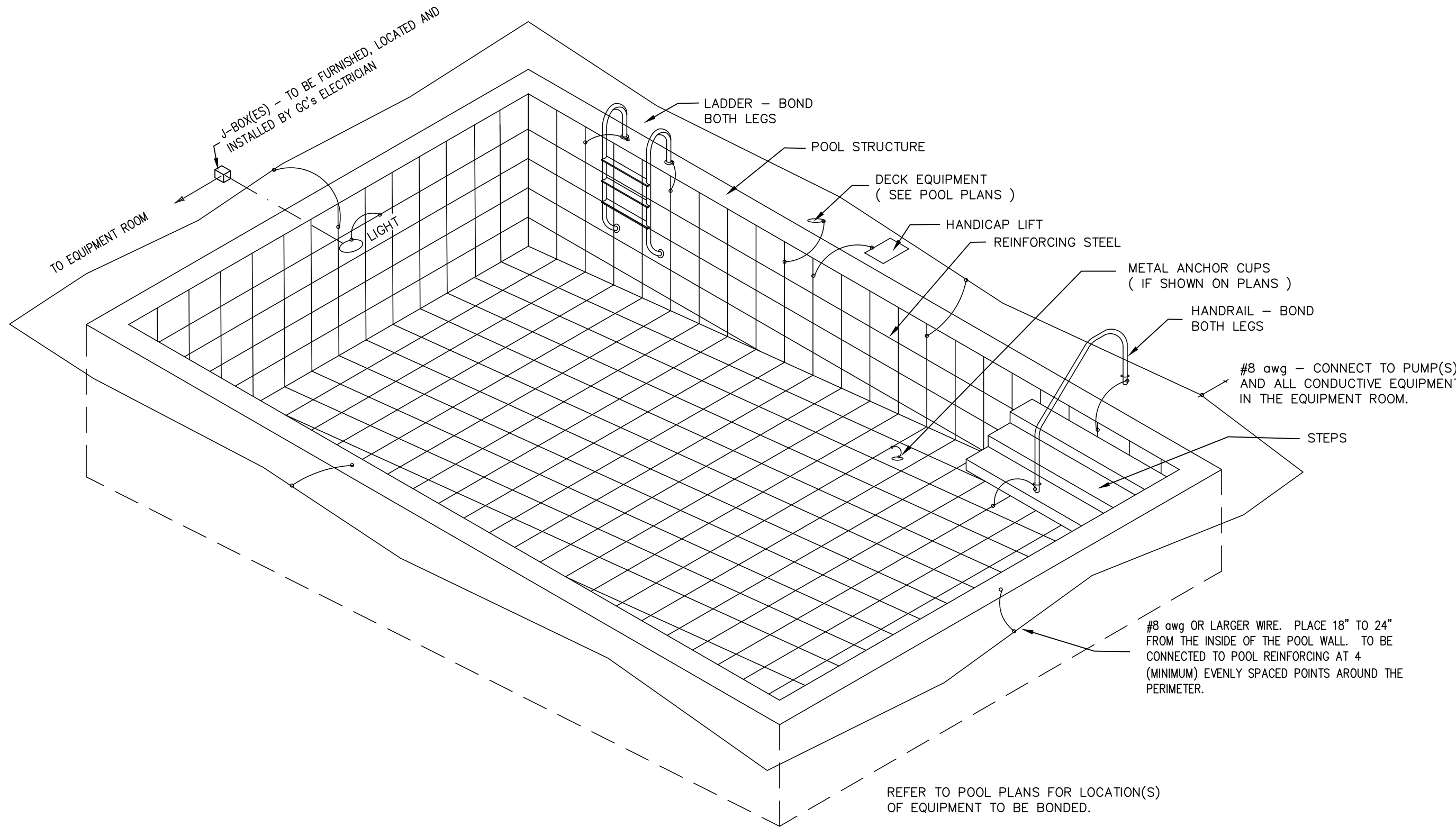
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1-23-24

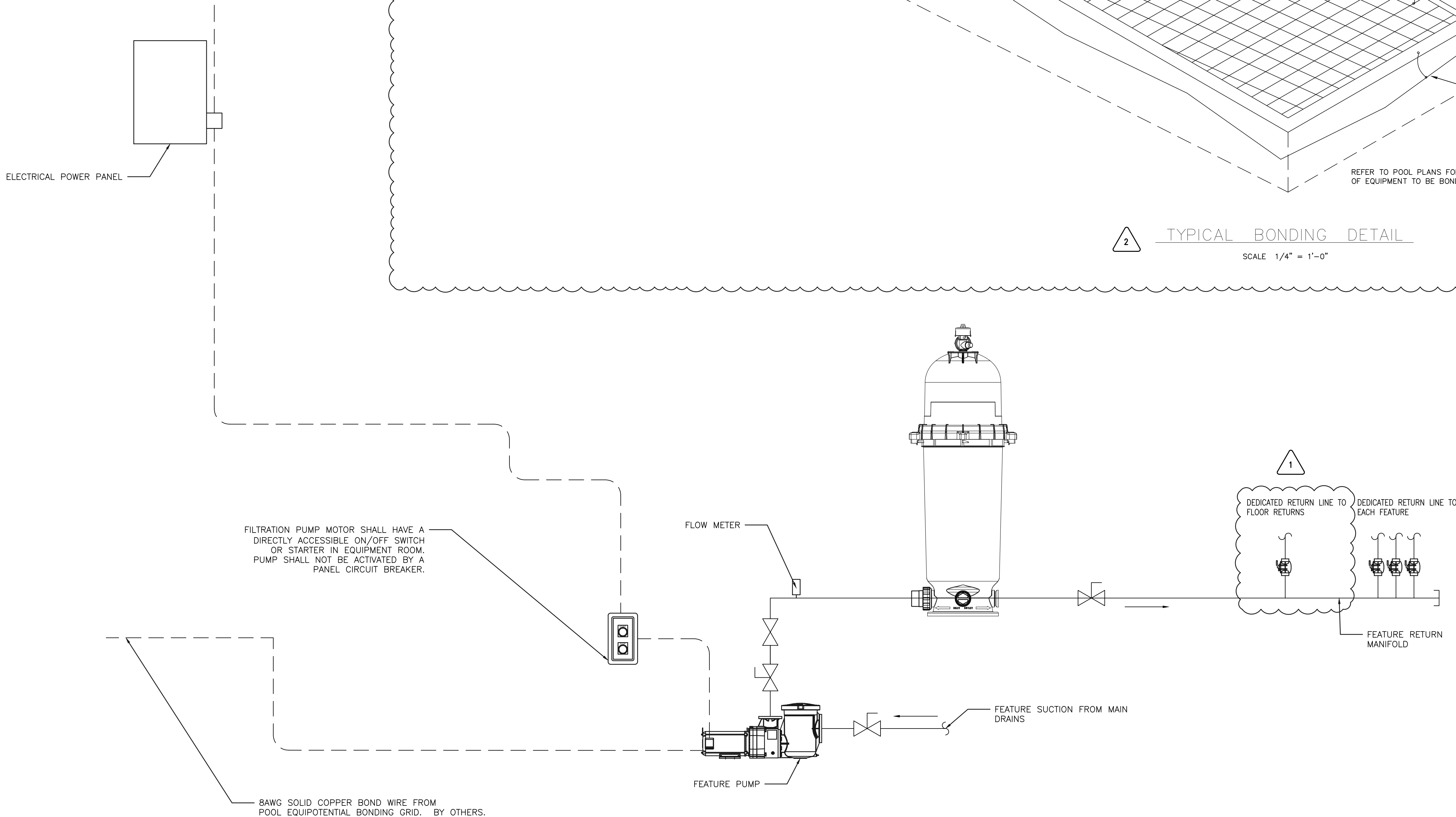
BONDING NOTES:	
1.	BONDING WIRE TO BE #8 awg OR LARGER. PLACE 18" TO 24" FROM INSIDE OF POOL WALLS.
2.	BONDING WIRE TO BE CLAMPED TO POOL STEEL IN 4 (MINIMUM) EVEN SPACES AROUND THE POOL PERIMETER.
3.	ALL BONDING TO MEET SECTION 680 OF THE CURRENT NEC CODE. BONDING WIRE TO BE #8 awg OR LARGER TO MEET THE REQUIREMENTS OF NEC SECTION 680.26(2).
4.	BONDING LUG TO BE PANDUIT COPPER PLIN-4C OR EQUIV
5.	GROUNDING WIRE TO BE #8 awg OR LARGER.
6.	ANY OVERLAPS IN GROUNDING WIRES SHALL BE CLAMPED IN TWO PLACES.
7.	ALL METAL AND CONDUCTIVE EQUIPMENT SHALL BE CLAMPED TO THE BONDING GRID. LIGHT(S), NICHE(S) ABS JUNCTION BOX(ES) SHALL BE CLAMPED TO THE BONDING GRID PER CURRENT NEC CODE.
8.	ALL CONDUCTIVE EQUIPMENT IN THE POOL'S EQUIPMENT ROOM SHALL BE CLAMPED TO THE GRID PER CURRENT NEC CODES.
9.	ALL BONDING TO BE VERIFIED AND CONNECTED BY GC'S ELECTRICIAN.
10.	VERIFY ALL BONDING REQUIREMENTS WITH LOCAL CODE OFFICIALS PRIOR TO CONSTRUCTION.
11.	GC'S ELECTRICIAN TO FURNISH, LOCATE AND INSTALL ALL J-BOXES.
12.	BONDING INCLUDES PERIMETER SURFACES EXTENDING 36" HORIZONTALLY BEYOND THE INSIDE POOL WALL. (PER NEC 680.26)



2

TYPICAL BONDING DETAIL

SCALE 1/4" = 1'-0"



NO.	REVISION	DATE	BY
2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA

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PIPING SCHEMATIC

DATE: 04.26.23

DRAWN BY: TDE CHECKED BY: GWA

PROJECT ID: 0941

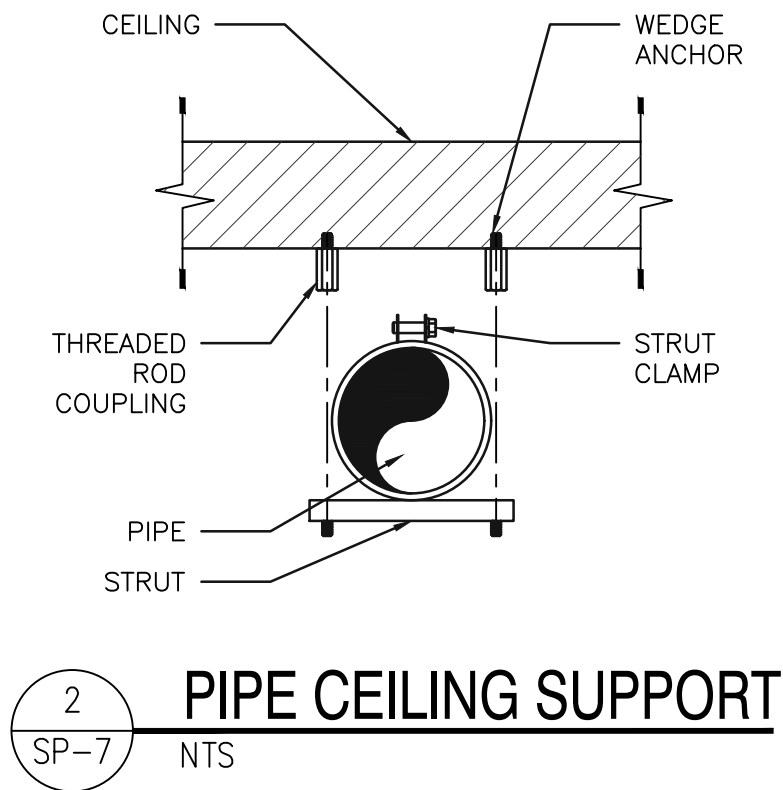
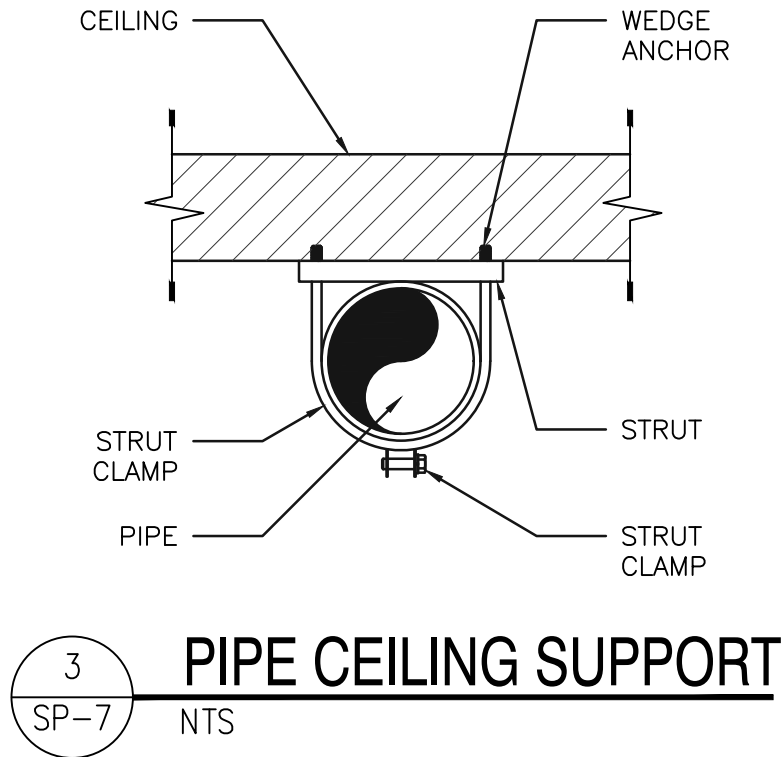
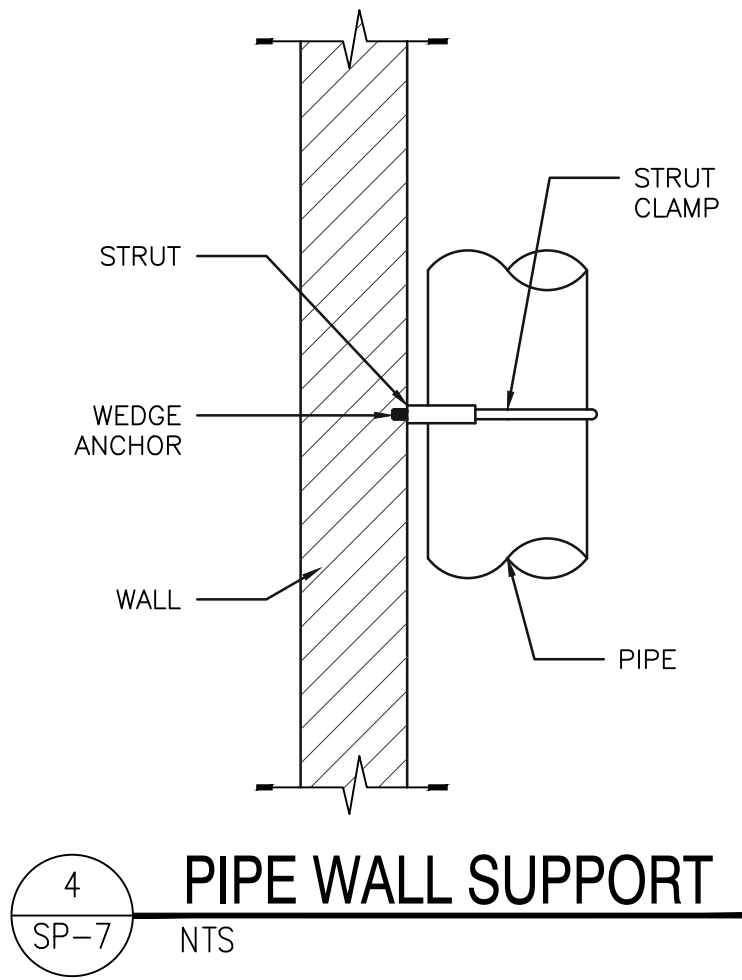
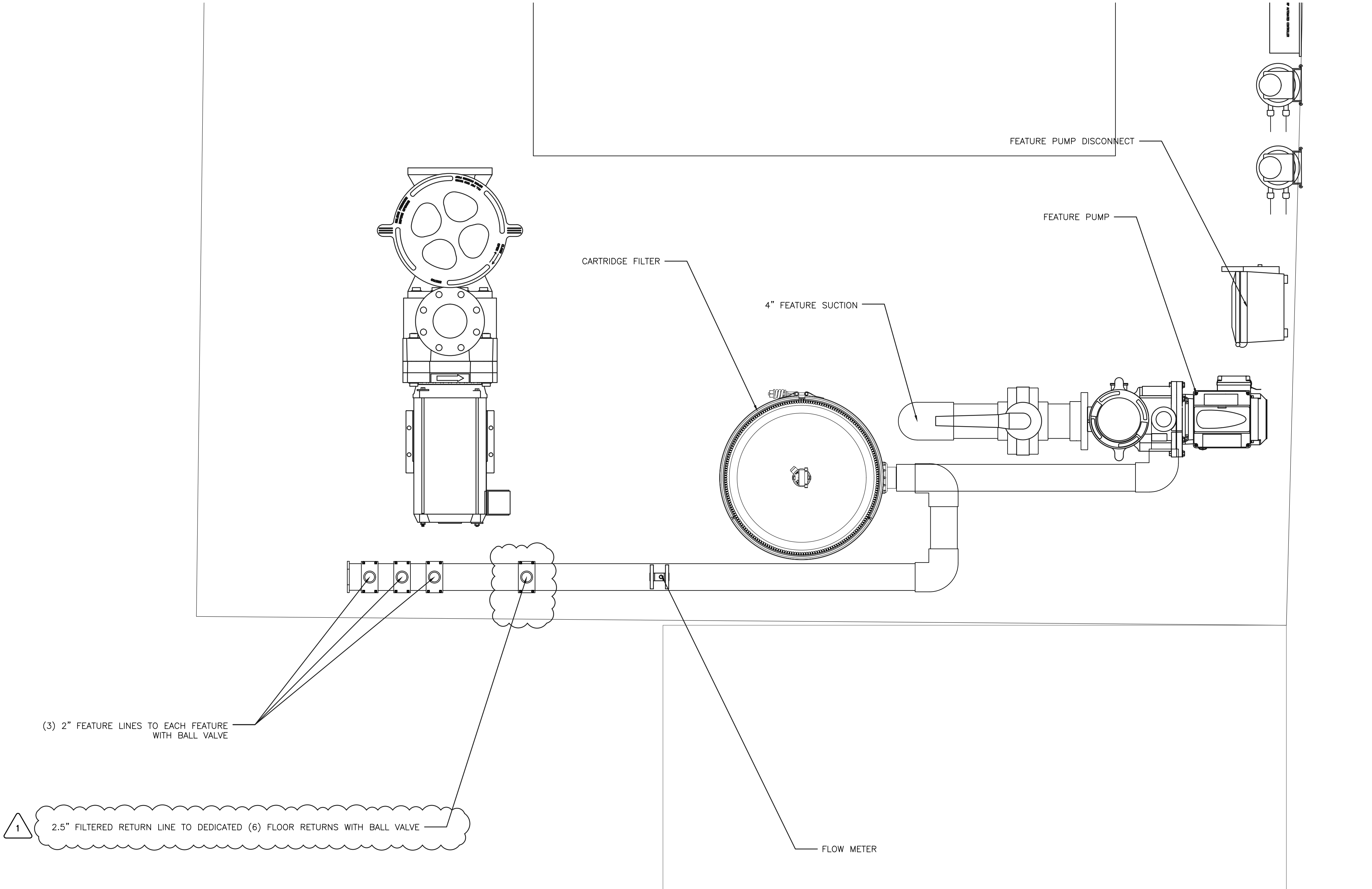
SP-6

SPLASH PAD/WATER SLIDE ELECTRICAL REQUIREMENTS			
QTY	EQUIPMENT	ELECTRICAL	NOTES (WORK BY OTHERS)
1	3 HP FEATURE PUMP	230V, 60 HZ, 16A, 1PH	RUN POWER TO DISCONNECT IN EQUIPMENT ROOM
1	POOL EQUIPOTENTIAL BONDING GRID	MINIMUM 8 AWG SOLID COPPER BONDING WIRE	LOCATED AROUND POOL AND CONNECTED INTO POOL EQUIPMENT ROOM BONDING

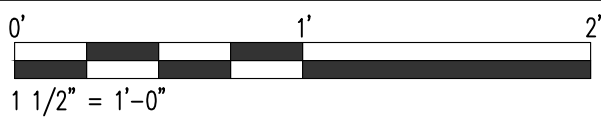
NOTE: WE DO NOT ALWAYS KNOW THE POWER SUPPLY COMING TO THE POOL EQUIPMENT ROOM. IN THE EVENT 208-230V OR 230V, SINGLE PHASE PUMPS ARE SPECIFIED ON THIS PROJECT **ELECTRICAL ENGINEERS PLEASE NOTE: IF THE SUPPLY TO THE POOL EQUIPMENT ROOM IS 208 VOLTAGE, "BUCK BOOSTERS" MAY BE REQUIRED TO MAKE SURE THE PUMP IS GETTING THE CORRECT VOLTAGE OR MOTOR DRIVE FAILURE MAY OCCUR.

- NOTE:
- ALL SCHEDULE 40 PVC PRESSURE RATED PIPING UNLESS NOTED OTHERWISE.
 - ONLY SD 26 (CLASS 160) AND SD 21 (CLASS 200) PVC PIPE MEETING ASTM STANDARD D1785 OR D2241 ARE ACCEPTABLE IN SIZES 12" & SMALLER. NO HEAT BENDING OF PVC PIPE IS ALLOWED.
 - CPVC PIPE SHALL BE USED FOR CONNECTING TO POOL/SPA HEATERS.

ELECTRICAL AND MECHANICAL NOTES ARE SHOWN FOR COORDINATION PURPOSES ONLY – ALL ELECTRICAL, MECHANICAL, FRESH WATER AND SANITARY DESIGN TO BE SHOWN ON BUILDING PME DOCUMENTS AS WELL AS POOL EQUIPOTENTIAL BONDING PLAN TO BE SHOWN ON ELECTRICAL PLANS.

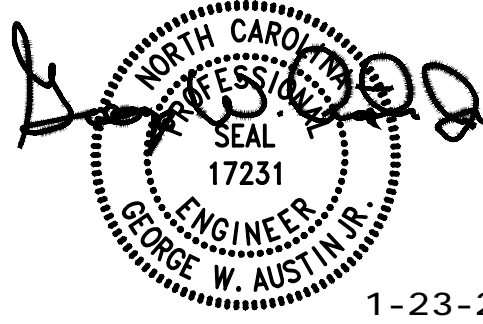


1 SP-7 EQUIPMENT ROOM
SCALE: 1 1/2"=1'-0"



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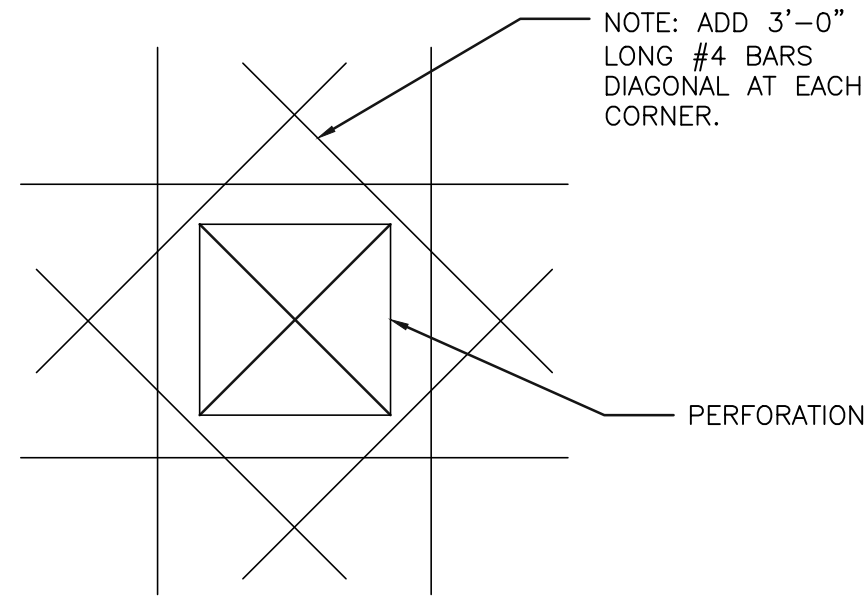
2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
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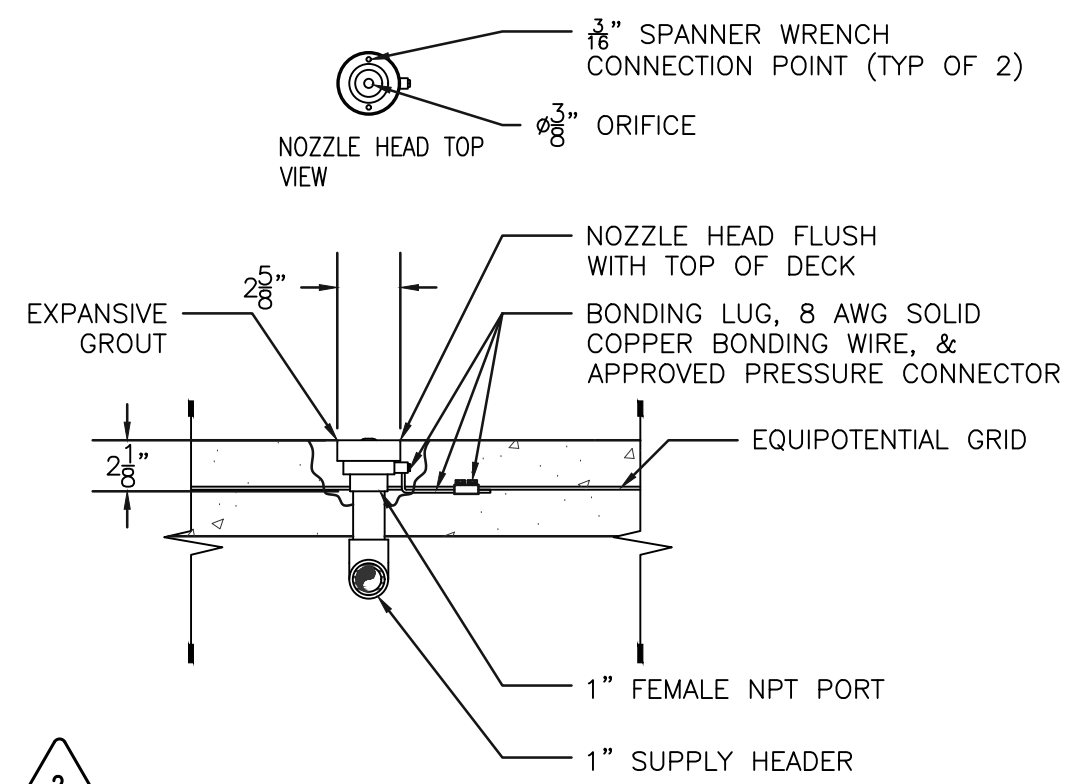
EQUIPMENT ROOM
DETAILS

DATE: 04.26.23
DRAWN BY: TDE CHECKED BY: GWA
PROJECT ID: 0941

SP-7

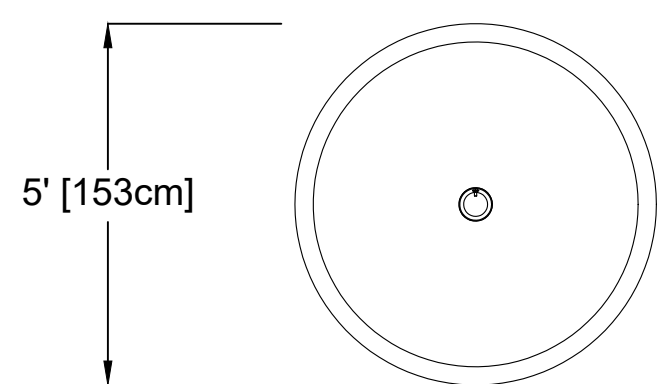


6
SP-8
DIAGONAL BARS
SCALE: NTS

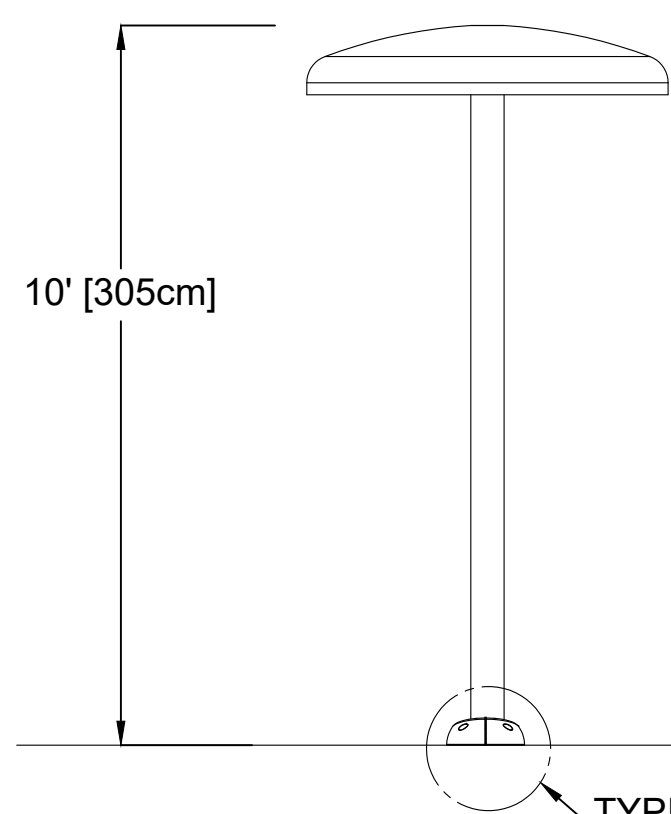


7
SP-8
DECK JET
1 1/2" = 1'-0"

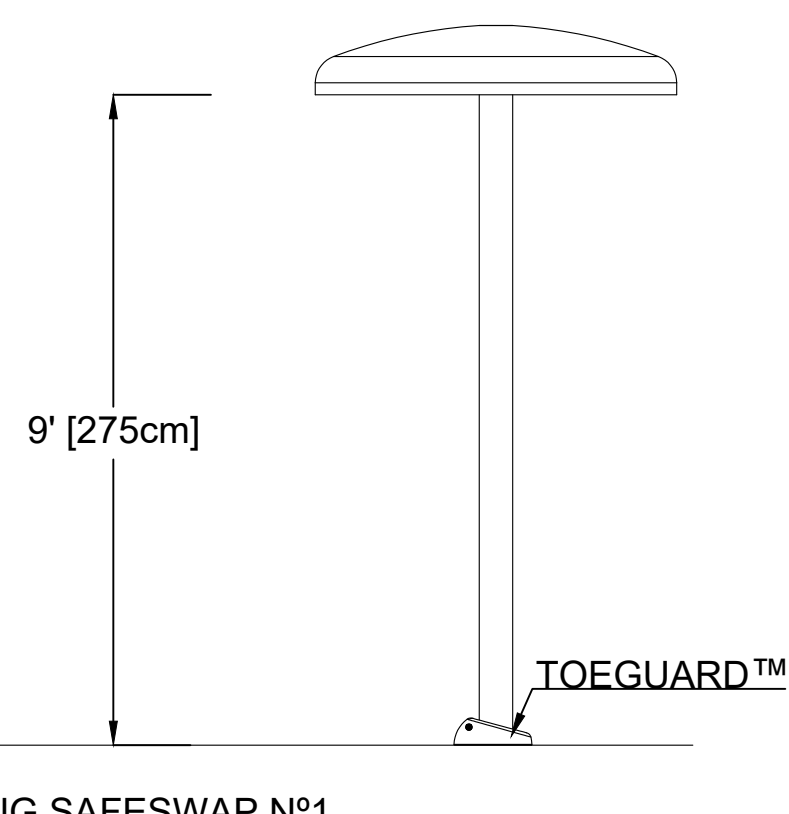
PLAN VIEW



FRONT ELEVATION VIEW

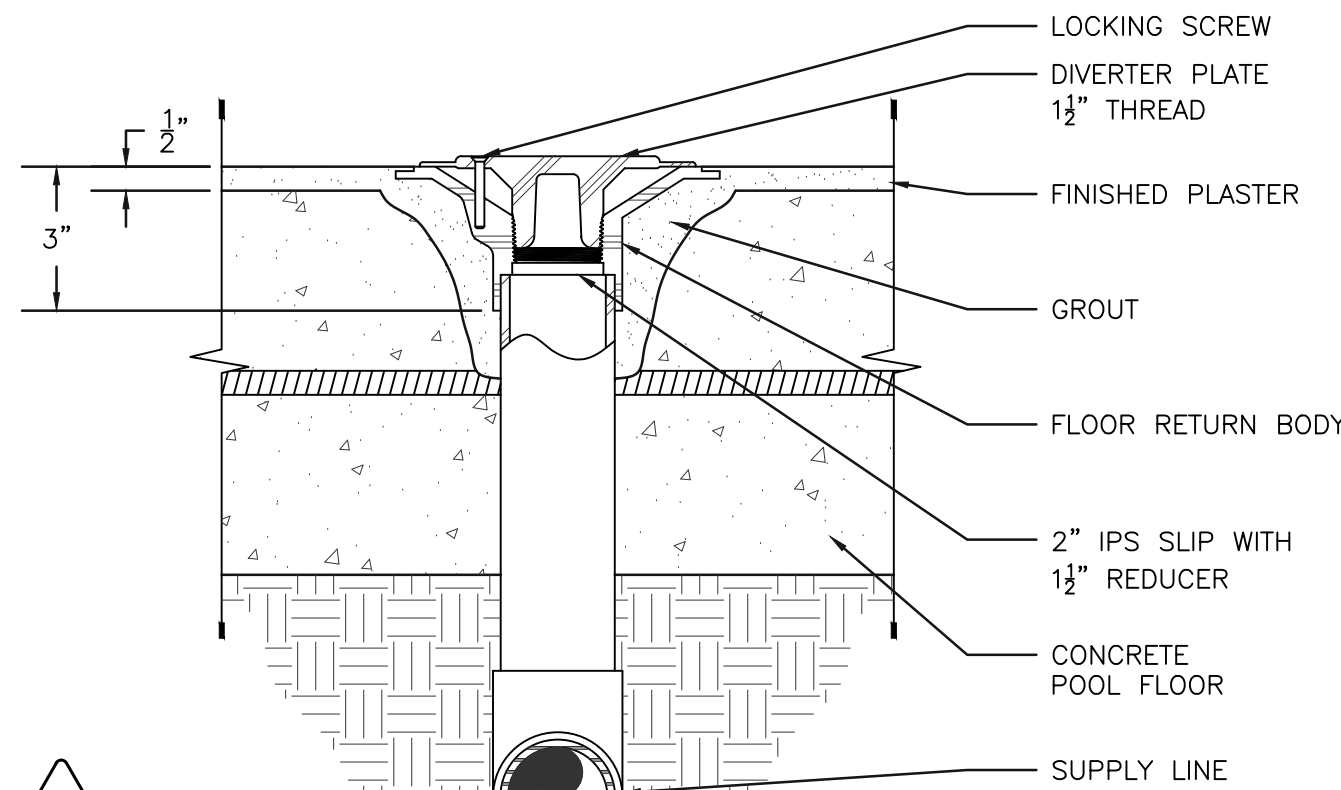


SIDE ELEVATION VIEW

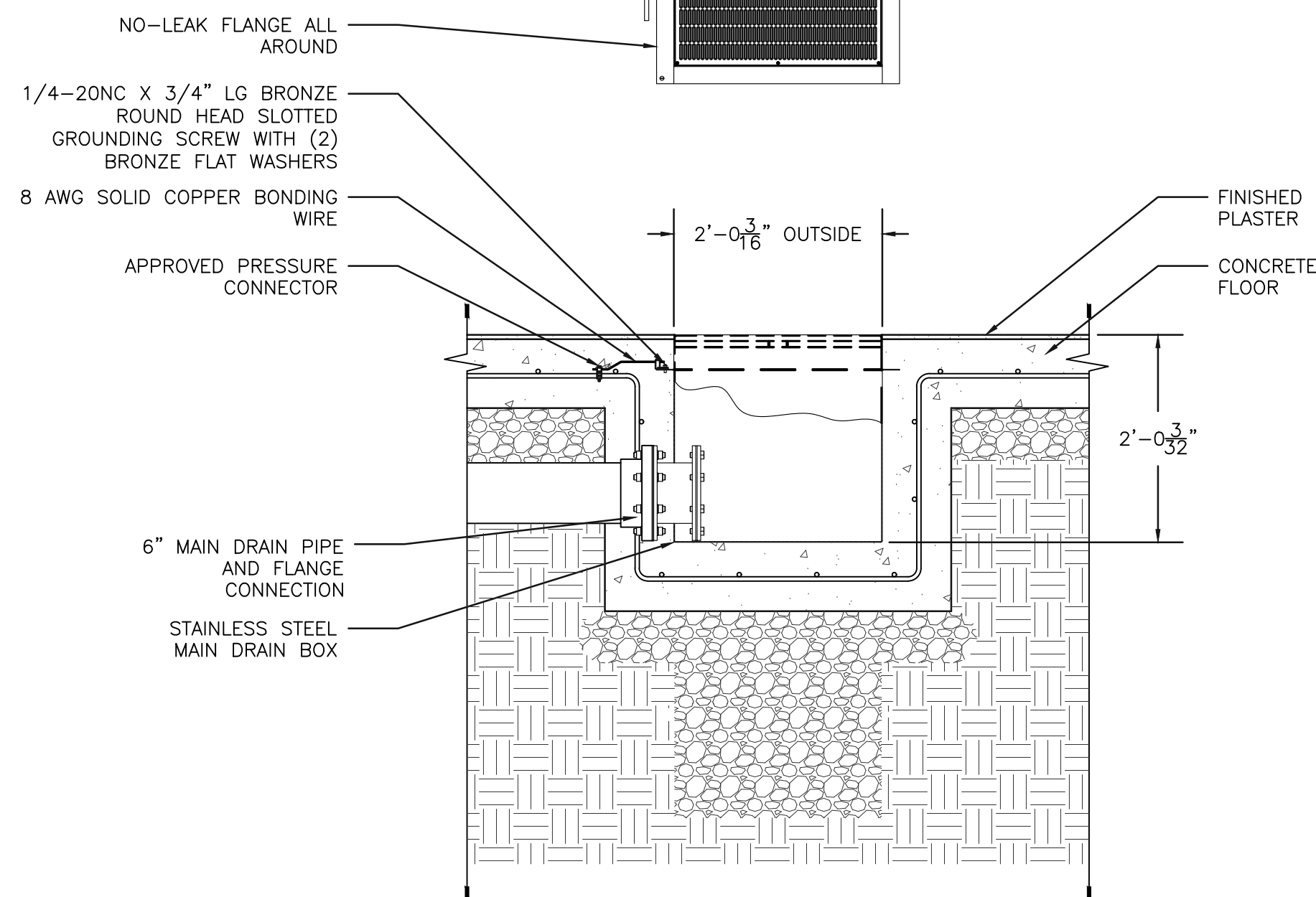


TYPICAL ANCHORING SAFESWAP No1

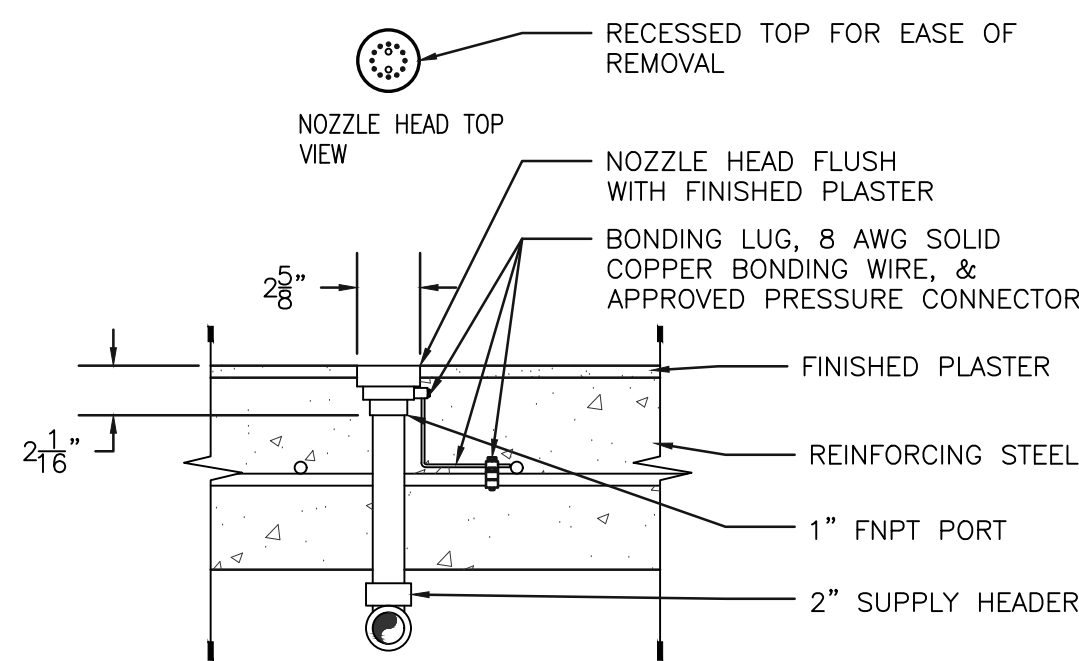
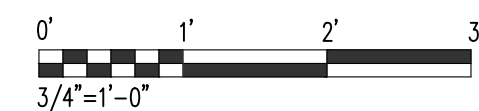
NOTE: FLOOR INLET SHALL BE INSTALLED SO THAT IT DOES NOT PROTRUDE ABOVE THE POOL FLOOR. ALL INLETS SHALL BE INSTALLED SO AS NOT TO PRESENT OR CONSTITUTE SHARP EDGES OR PROTRUSION HAZARDS TO BATHERS.



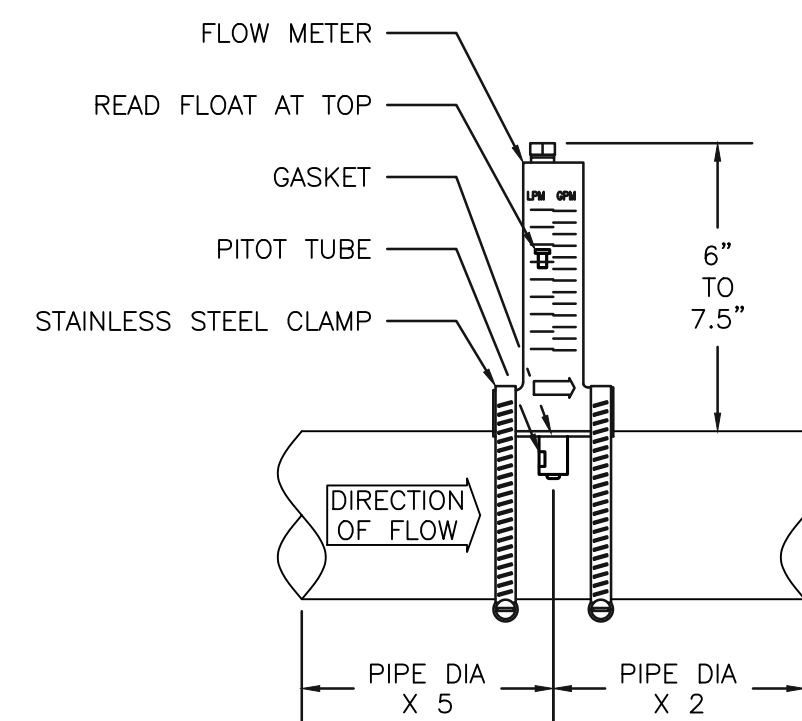
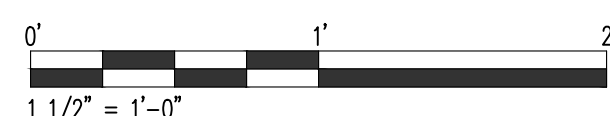
5
SP-8
FLOOR RETURN DETAIL
SCALE: 3"=1'-0"



4
SP-8
FEATURE DRAINS
SCALE: 3/4" = 1'-0"



2
SP-8
BUBBLER DETAIL
SCALE: 1 1/2"=1'



3
SP-8
FLOW METER ± 5%
SCALE: 3" = 1'-0"



PRODUCT NAME: #####	PRODUCT INFORMATION		
PRODUCT NUMBER: #####	DATE: 11/08/23	SHEET NO: 1/1	11"x17" SHEET SIZE

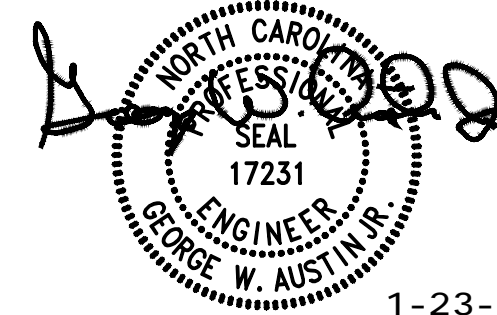


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(P) 704.334.7363 | (F) 704.347.0093
www.shultzeg.com | SEG - 23-477
NC FIRM LICENSE NUMBER: C-0896



1-23-24

NO.	REVISION	DATE	BY
2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA

McInnis Aquatic Center
151 Academy Ave. NW
Concord, North Carolina 28025

DETAILS

DATE: 04.26.23
DRAWN BY: TDE CHECKED BY: GWA
PROJECT ID: 0941

SP-8

General

COUNTY TRADE BUILDING

Created by: David Meachern on 1/30/2024, 2:41:33 PM

CONDITION

Description:

It is the understanding of Cabarrus County Construction Standard that you intend to begin construction as soon as possible in accordance with these approved documents. Please note that changes or revisions should be submitted to our office for review and approval prior to completion of the work. When construction is not started within one year of the date of this letter, our approval of these documents expires and they are subject to re-review for compliance with any changes in the governing codes and regulations that may have occurred. Please understand that approval of these documents in no way relieves the owner, architect, or engineer from responsibility related to violations of governing codes and regulations not found by our office or other reviewing agencies. When such violations are found they must be corrected. A permit issued shall be construed as permission to proceed with work and not as authority to violate, cancel, alter, or set aside any of the provisions in the technical codes. Issuance of a permit shall not prevent the Inspection Department from thereafter requiring correction of errors in plans, construction or violations of this code. (G.S. 153A-357, 160A-417) Plans are required on the job site and available to the field inspectors throughout the construction process. Misrepresentation of Application. The Code Enforcement Official shall revoke, in writing, a permit or approval issued under the provisions of this or the technical codes for:

- Any substantial departure from the approved application, drawings, or specifications.
- Refusal or failure to comply with the requirements with any applicable State or local codes.
- Any false statement or misrepresentation as to the material fact in the application or plans on which the permit or approval was based.

Requirements of the applicable codes regarding accessibility for persons with disabilities shall apply to this building and its interior and exterior features, including, but not limited to, parking, sidewalks, ramps, accessory facilities and paths of travel.(N.C. State Building Code. & ICC A117.1)

OPEN

McInnis Aquatic Center

Swimming Pool Improvements
115 Academy Avenue, NW, Concord North Carolina

Construction Documents - First Submittal

January 23, 2024

Project Team

Owner & Developer



Landscape Architect & Civil Engineer



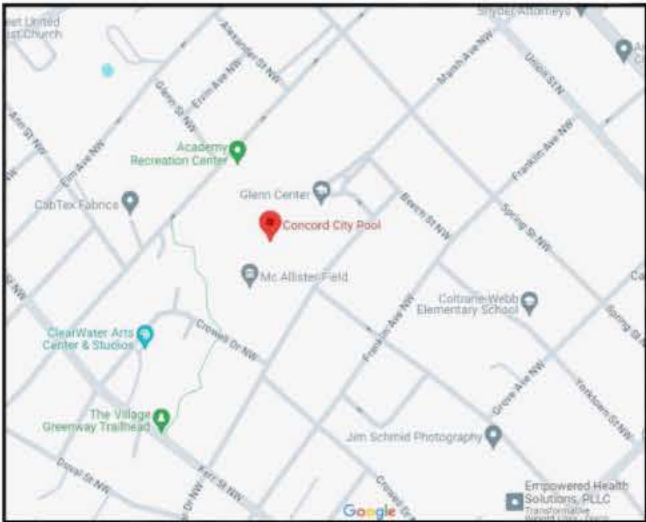
Pool Designer



Index of Drawings

Sheet List Table	
Sheet Number	Sheet Title
C000	COVER SHEET
L100	POOL ZERO ENTRY PLAN & PROFILE
SP-1	EXISTING POOL ZERO ENTRY ADDITION WITH PLAY FEATURES
SP-2	NEW ZERO ENTRY ADDITION WITH PLAY FEATURES
SP-3	DEMO PLAN AND DETAILS
SP-4	POOL DETAILS
SP-5	PIPING PLAN
SP-6	PIPING SCHEMATIC
SP-7	EQUIPMENT ROOM DETAILS
SP-8	DETAILS

Vicinity Map



McInnis Aquatic Center

Swimming Pool Improvements
115 Academy Avenue, NW, Concord North Carolina
Construction Documents - First Submittal



January 23, 2024

CONDITION

< All Conditions and Notes

Conditions

CITY ELECTRIC UTILITY

Created by: Brandon Hargett on 2/5/2024, 3:07:56 PM

CONDITION

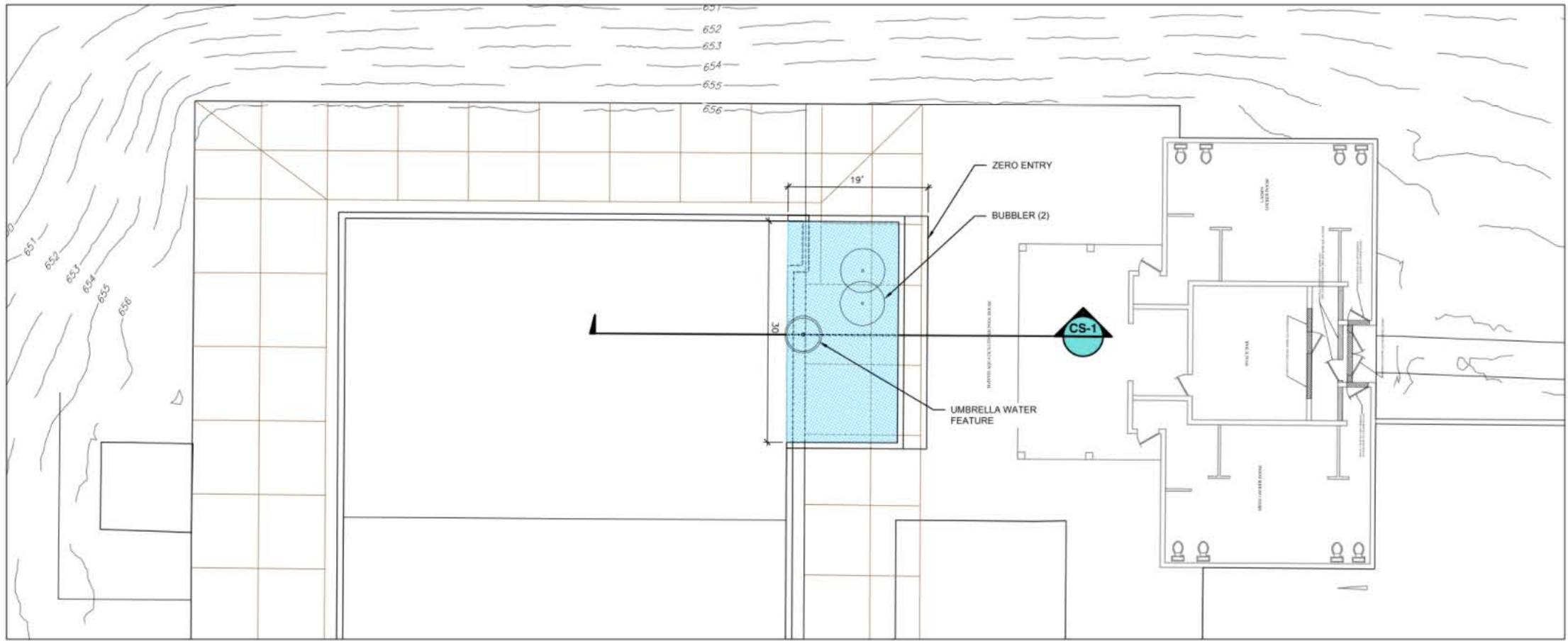
Description:
1. Any movement of existing COC electric utilities can be at owner/developer cost.
2. All electrical installations must comply with City of Concord technical standards manual.

OPEN

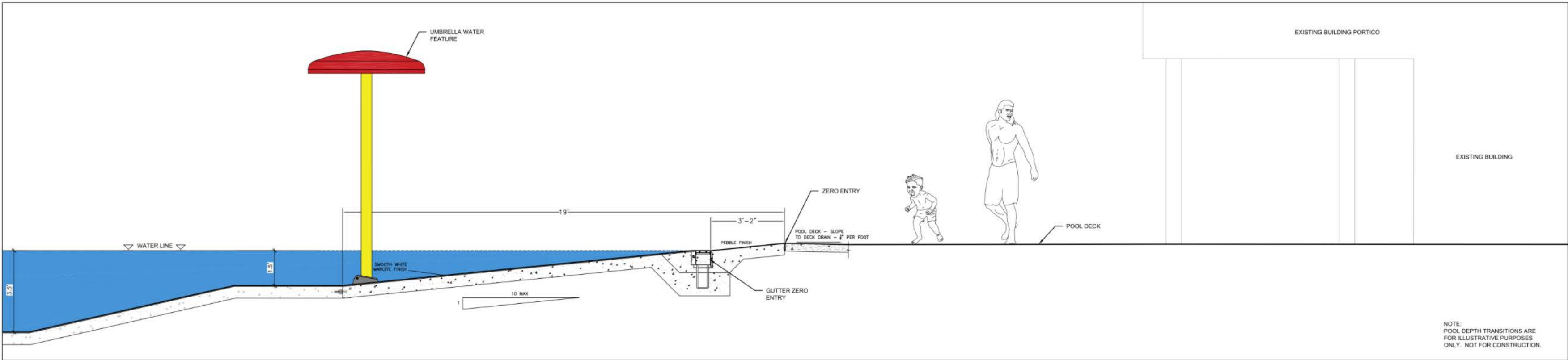
McInnis Aquatic Center | Pool Zero Entry Plan & Profile

Concord, NC

City of Concord | 09.28.2023



I Pool Plan View
1"=10'-0"



CS-I Pool Cross Section
1"=2'-0"



Electrical Conditions

COUNTY TRADE ELECTRICAL

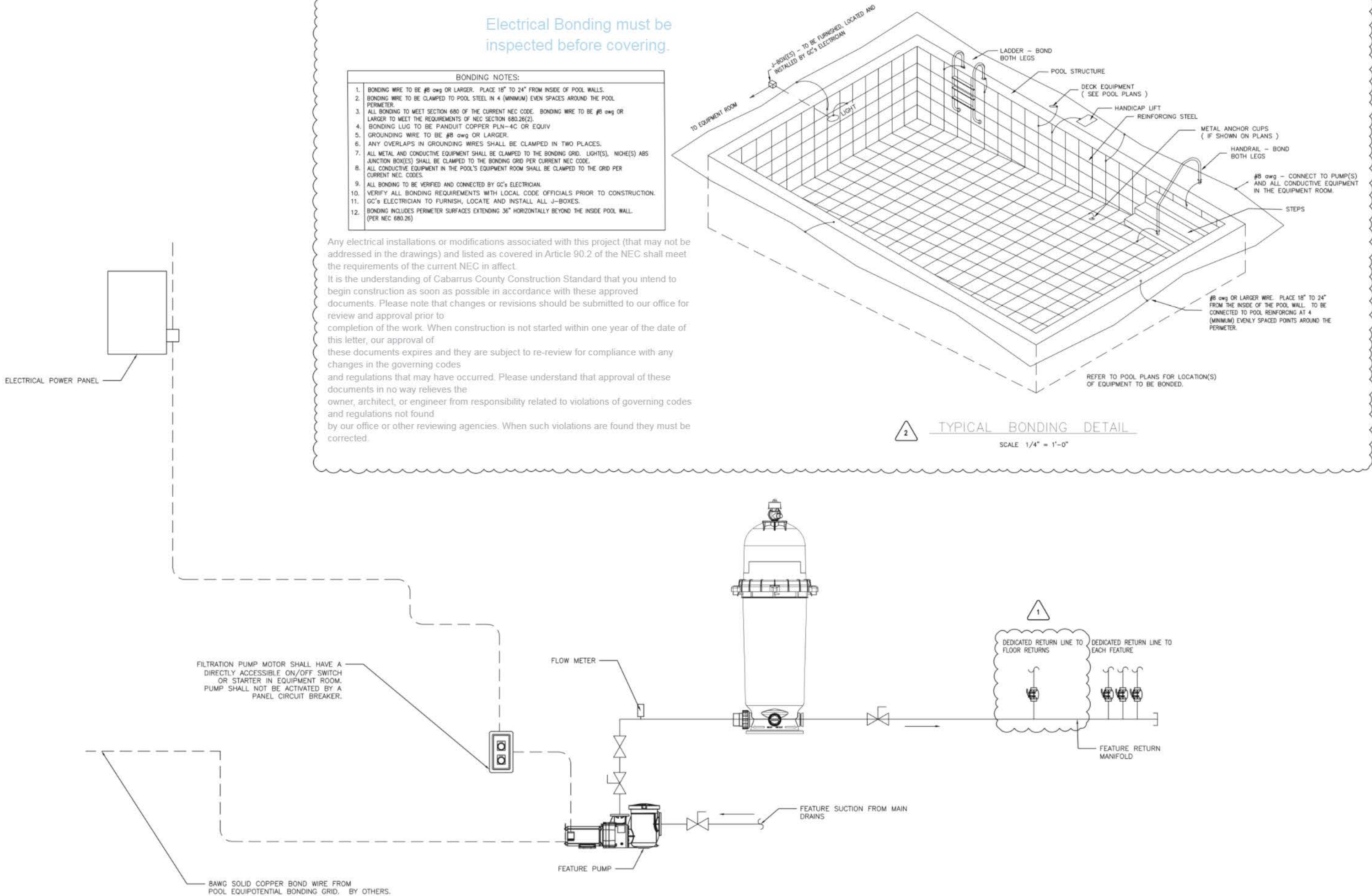
Created by: Timothy Gray on 1/29/2024, 3:06:02 PM

CONDITION

Description:

Any electrical installations or modifications associated with this project (that may not be addressed in the drawings) and listed as covered in Article 90.2 of the NEC shall meet the requirements of the current NEC in affect. It is the understanding of Cabarrus County Construction Standard that you intend to begin construction as soon as possible in accordance with these approved documents. Please note that changes or revisions should be submitted to our office for review and approval prior to completion of the work. When construction is not started within one year of the date of this letter, our approval of these documents expires and they are subject to re-review for compliance with any changes in the governing codes and regulations that may have occurred. Please understand that approval of these documents in no way relieves the owner, architect, or engineer from responsibility related to violations of governing codes and regulations not found by our office or other reviewing agencies. When such violations are found they must be corrected.

OPEN



FILTRATION PUMP MOTOR SHALL HAVE A DIRECTLY ACCESSIBLE ON/OFF SWITCH OR STARTER IN EQUIPMENT ROOM. PUMP SHALL NOT BE ACTIVATED BY A PANEL CIRCUIT BREAKER.

FLOW METER



DEDICATED RETURN LINE TO FLOOR RETURNS

DEDICATED RETURN LINE TO EACH FEATURE

FEATURE RETURN MANIFOLD

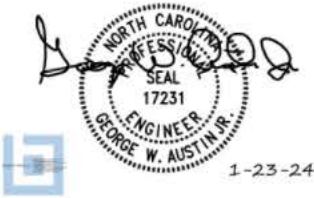
FEATURE SUCTION FROM MAIN DRAINS

FEATURE PUMP

8AWG SOLID COPPER BOND WIRE FROM POOL EQUIPOTENTIAL BONDING GRID, BY OTHERS.



SHULTZ
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GROUP, PC
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NC FIRM LICENSE NUMBER: C-0898



1-23-24

2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
1	REVISED PER HEALTH COMMENTS	9.29.23	GWA
0	ISSUE FOR PERMIT/CONSTRUCTION	8.14.23	GWA
A	ISSUE FOR REVIEW		GWA
NO.	REVISION	DATE	BY

McInnis Aquatic Center
151 Academy Ave. NW
Concord, North Carolina 28025

PIPING SCHEMATIC

DATE: 04.26.23
DRAWN BY: TDE CHECKED BY: GWA
PROJECT ID: 0941

SP-6

Bonding

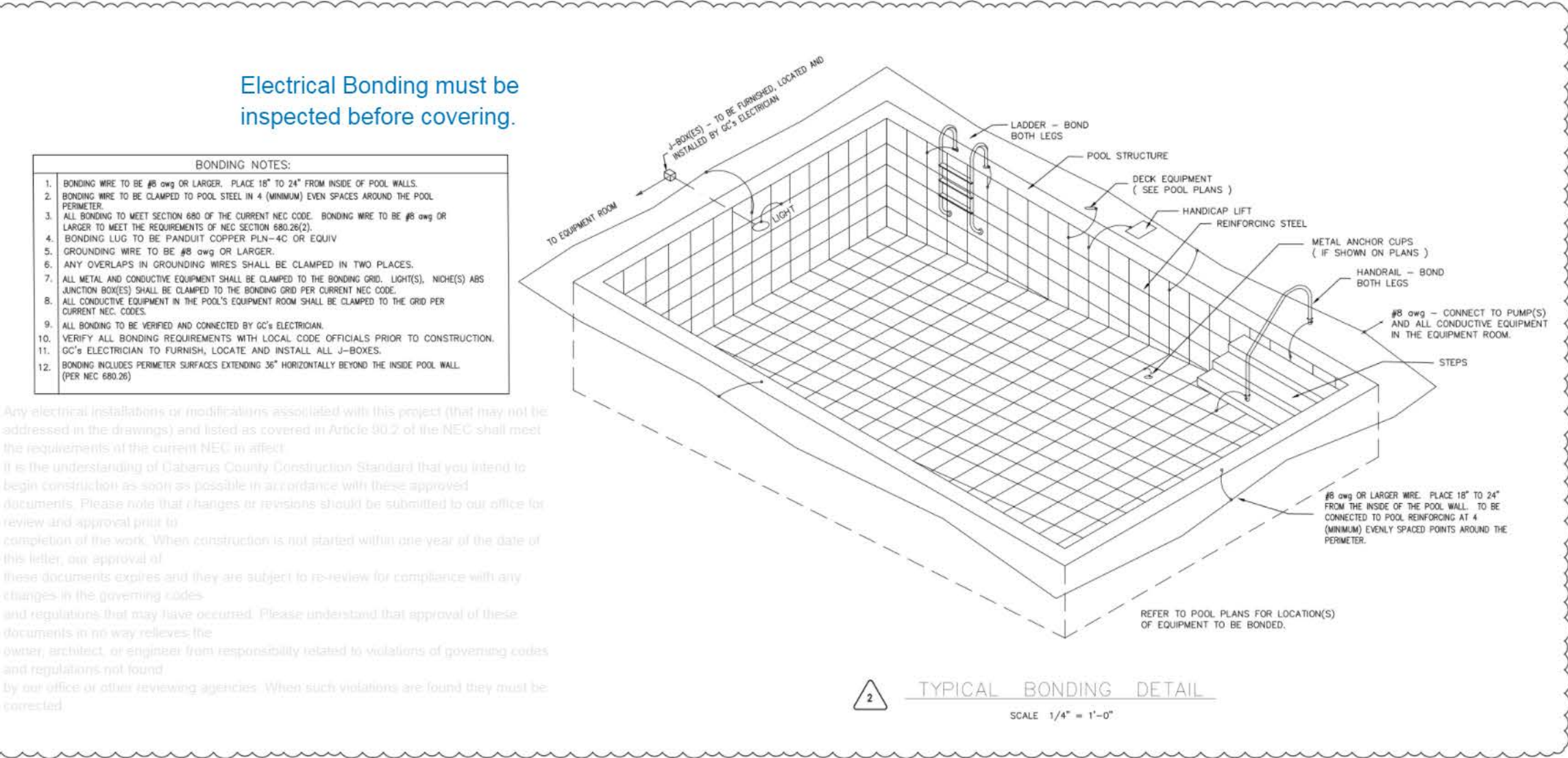
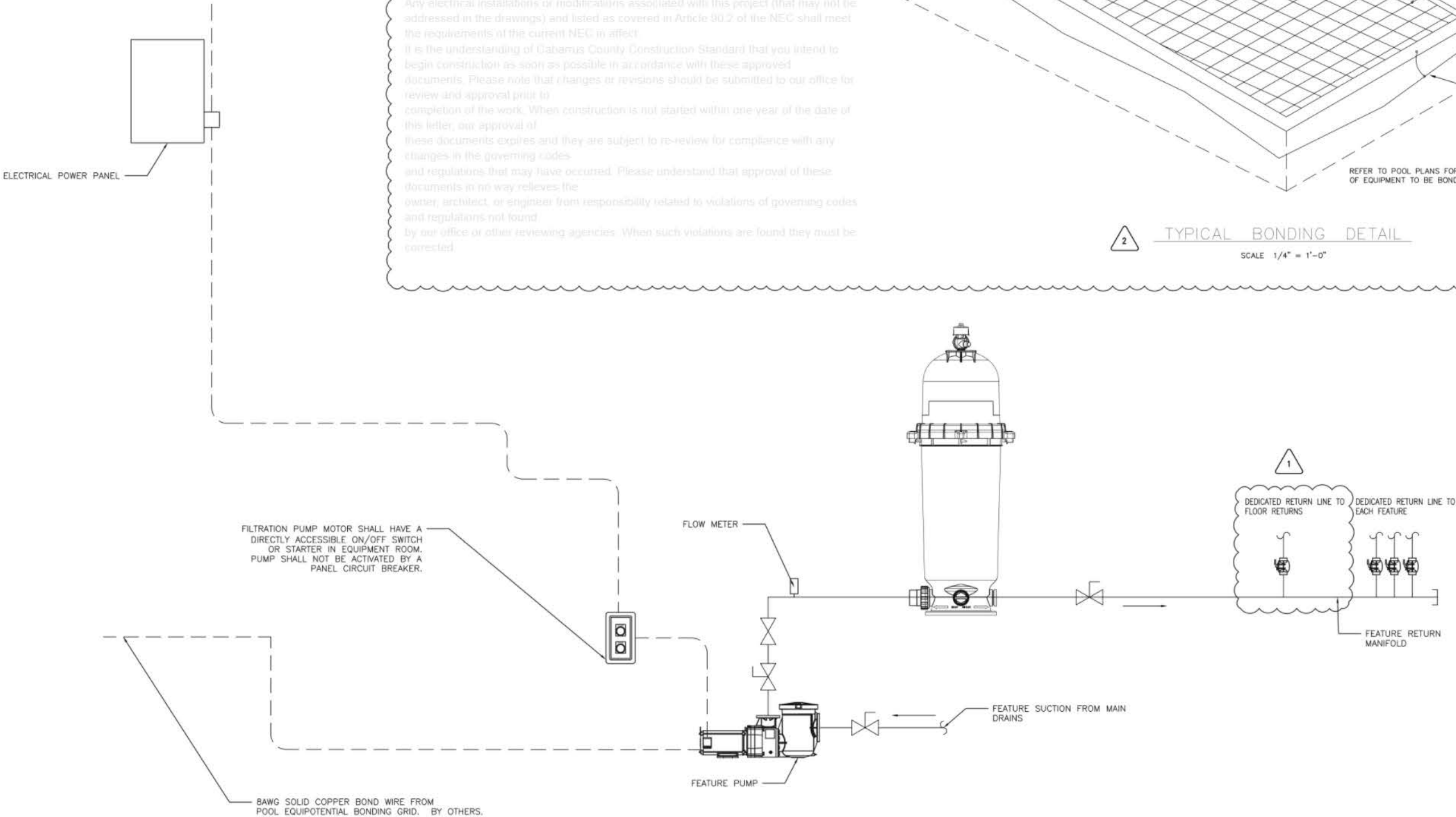
COUNTY TRADE BUILDING

Created by: Timothy Gray on 1/29/2024, 3:04:54 PM

CONDITION

Description:

OPEN





**SHULTZ
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GROUP, PC**
212 N. McDowell St., Suite 204
Charlotte, NC 28204
(P) 704.334.7363 | (F) 704.347.0093
www.shultzeng.com | SEC-23-477
NC FIRM LICENSE NUMBER: C-0888



1-23-24

2	REVISED PER HEALTH COMMENTS	11.6.23	GWA
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McInnis Aquatic Center
151 Academy Ave. NW
Concord, North Carolina 28025

PIPING SCHEMATIC

DATE: 04.26.23

DRAWN BY: TDE CHECKED BY: GWA

PROJECT ID: 0941

SP-6

EQ SERIES®

HIGH PERFORMANCE COMMERCIAL PUMP

FOR COMMERCIAL SWIMMING POOLS AND OTHER WATER APPLICATIONS

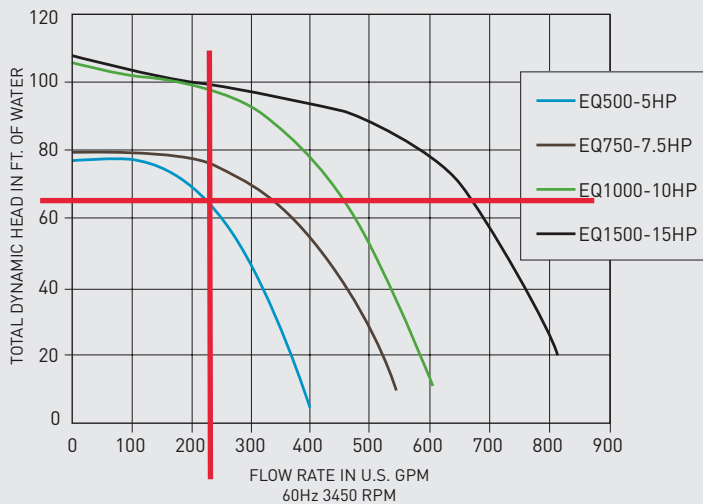
EQ Series Pumps are designed for maximum efficiency and quiet operation in every detail. They are the only non-corrosive, all-plastic pumps designed for the commercial pool and water applications market. The EQ Series Pump impellers are manufactured for true breakthrough performance, allowing for lower loads and longer motor life. The pumps are available with and without the strainer pot and in flows to 800 GPM and from 3-15 HP.

STANDARD FEATURES

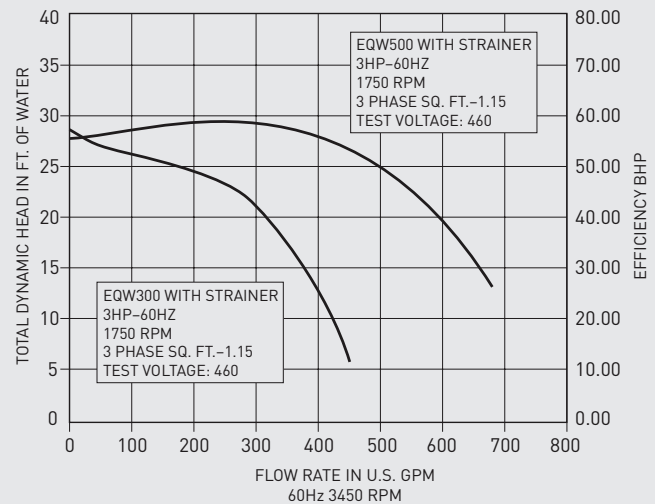
- Close-coupled for quiet, stable flow operation.
- Lightweight for easy, one-man installation.
- Clear Cam and Ramp™ Lid for added service convenience.
- Available in single- and three-phase models. TEFC motor available, three-phase only.
- Closed impeller for long life and durability.
- 6-inch suction and 4-inch discharge with strainer pot.
- Great for use with Acu Drive™ XS Variable Frequency Drives.
- Self-priming under NSF standards; NSF certified.



EQ Series® Commercial Pump Performance Curve



EQ Series® WaterFall Pump Performance Curve



MATERIALS AND DESIGN

PUMP BODY

Volute type, back pull-out design.

- **Port Size**
 - 6-inch, ANSI-rated 125 bolted flange suction port.¹
 - 4-inch, ANSI-rated 125 bolted flange discharge port.¹
- **Material – Volute and Motor Adapter**
 - PPO resin.
- **Impeller**
 - PPO resin.
- **Base**
 - 6061 aluminum design, slotted for mounting ease.
- **Corrosion Prevention**
 - All-plastic pump for maximum hydraulic performance and corrosion prevention.

HAIR AND LINT STRAINER

- **Material**
 - Separate bolt-on PPO resin body with plastic basket, polycarbonate resin thermoplastic lid, and stainless steel bolts.
- **Size**
 - 6-inch, ANSI-rated 125 bolted flange suction and discharge ports.

PUMP MAXIMUM THERMAL LIMITS

- Ambient air temperature: 104° F.
- Liquid temperature: 104° F.

MOTOR

Standard JM type. Premium efficient ODP class F insulated. On TEFC options, JMZ type, premium efficient, class F insulated.

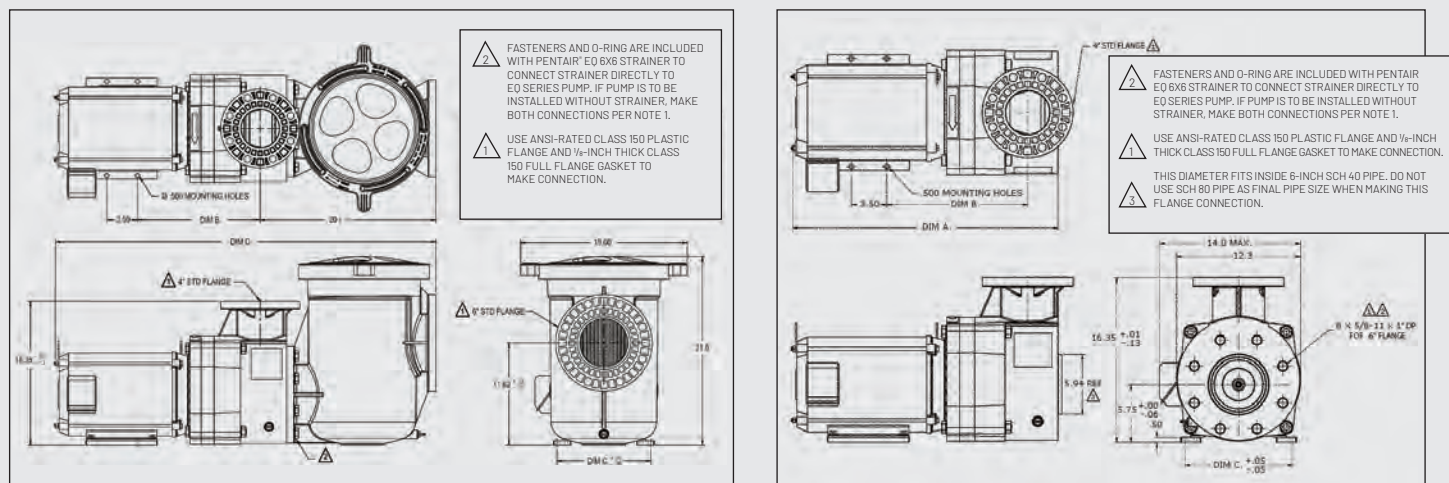
- **Frame and Size**
 - NEMA-rated "C" flange.
- **Shaft**
 - 303 stainless steel construction.
- **Design**
 - 3-15 HP, 3,500 RPM, JM open drip-proof, continuous duty, three-phase and single-phase (5, 7½, 10 HP). 5-15 HP, 3,500 RPM JMZ TEFC, continuous duty, three-phase.
- **Bearings**
 - Double-shielded, single row, deep-groove type, permanently lubricated.
- **Thermal Overload Protection**
 - All models require external thermal overload protector.

ELECTRICAL

- **Power Supply Required**
 - Three-phase pumps are 208-230/460. Single-phase models are available in ODP 230V, 60 Hz only.

¹Use ANSI-rated class 125 plastic flange and 1/8-inch thick class 125 full flange gasket to make connection.

EQ Series Commercial Pump Without Strainer Pot

[illegible]

Part # ODP Motor	Part # TEFC Motor	Description	Voltage	Amps	Phase	HP	Wt
340014		EQW 300 WaterFall	115/230	38/19	1	3	97
340016		EQWK 300 WaterFall	208 – 230/460	8.4 – 7.9/3.9	3	3	77
340017		EQW 500 WaterFall	230	23.4	1	5	97
340018		EQWK 500 WaterFall	208 – 230/460	13.6 – 12.7/6.4	3	5	77
340019		EQ500	230	19.6	1	5	97
340020	340608	EQK500	208 – 230/460	13.5 – 12.3/6.2	3	5	77
340021		EQ750	230	30.4	1	7.5	132
340022	340609	EQK750	208 – 230/460	20.1 – 18.3/9.1	3	7.5	87
340237		EQ1000	230	40.0	1	10	125
340023	340610	EQK1000	208 – 230/460	27.1 – 24.3/12.2	3	10	117
340024	340611	EQK1500	208 – 230/460	40.0 – 36.0/17.8	3	15	132

EQ Series Pumps are available in 575-V and 50-Hz models. Please contact your local sales representative or Pentair office for details.

EQ SERIES®

HIGH PERFORMANCE COMMERCIAL PUMP



ENGINEERING SPECIFICATIONS

EQ SERIES PUMP

Recirculation pump shall be Pentair® EQ Series Pump model number _____ self-priming centrifugal pump, _____ phase, 60 Hz.

GENERAL NOTES

- Install pump in a cool, dry, well-vented location away from pool heaters and chemical storage.
- Pump should be firmly mounted, with pipe supported to prevent vibration and undue operational noise.
- Allow 12-inch minimum clearance behind motor for servicing.
- Motor overheating may be caused by a voltage drop or excessive voltage. Be sure that wire size and voltage input are properly regulated.

SPECIFICATIONS

- The recirculation pump shall be a self-priming, centrifugal design with a hair and lint strainer, as shown in the plans.
- The pump body, seal plate and attached hair and lint strainer shall be constructed of non-corrosive PPO resin materials and close-coupled to an electric motor by means of an adaptor of the same material. The pump body shall have a single suction port with a 6-inch, ANSI-rated 125 bolt flange to the hair and lint strainer. A centerline discharge port of 4-inch, ANSI-rated 125 bolt flange and a winterizing drain port of 1/4 inch NPT shall be a part of the design.
- The pump shall be a back pull-out design to allow servicing without disturbing piping. The pump shall have a PPO resin diffuser to aid in priming, and it shall contain a replaceable bronze wear ring for the impeller. The impeller shall be of the closed type and PPO resin, non-overloading at any point on the performance curve. The mechanical shaft seal shall be constructed of ceramic and carbon seal faces, with stainless steel, brass and Buna N materials in the spring.

bellows portion. The impeller shall be secured to the motor shaft by means of a stainless steel key and locking screw into the end of the motor shaft. The pump shall be capable of operating at up to 50 psi and maintaining 104° F continuous water temperature.

- The electric motor coupled to the pump shall be of the NEMA-rated series JM construction with stainless steel shaft inside a removable shaft sleeve of 300 series stainless steel. The motor shall be of an open, drip-proof design (or TEFC JMZ frame) with double-shielded, single row, deep-groove ball bearings. Motors shall be continuous-duty rated at 40° C (or realign better) ambient and be suitable for outdoor installation.
- The pump motor shall be a _____ HP, _____ phase, 60 Hz, 3450 RPM for service on a _____ volt electric supply. The pump shall be rated for _____ GPM at _____ TDH. The pump shall be tested and certified by a nationally recognized testing laboratory to conform to National Sanitation Foundation Standard 50.

HAIR AND LINT STRAINER

- The pump strainer shall consist of a PPO resin body, polycarbonate resin thermoplastic cover with O-ring seal, Cam and Ramp™ Lid and a strainer basket of mineral-reinforced polypropylene material.
- The strainer body shall be 6-inch, ANSI-rated 150 bolt flange suction and discharge ports. The strainer body shall have a removable drain plug for winterizing.
- The strainer basket shall be securely positioned below the suction inlet of the trap, with access for inspection and cleaning through a removable trap body lid. The trap body lid shall be secured by means of a locking ring. The strainer basket shall have a perforation with a total open area of 98 square inches.



1620 Hawkins Ave | Sanford, NC 27330 | United States | 800.831.7133 | pentair.com

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(877) 794-1802

RPSS-100, FLUSH 'SUNSHELF' NOZZLE

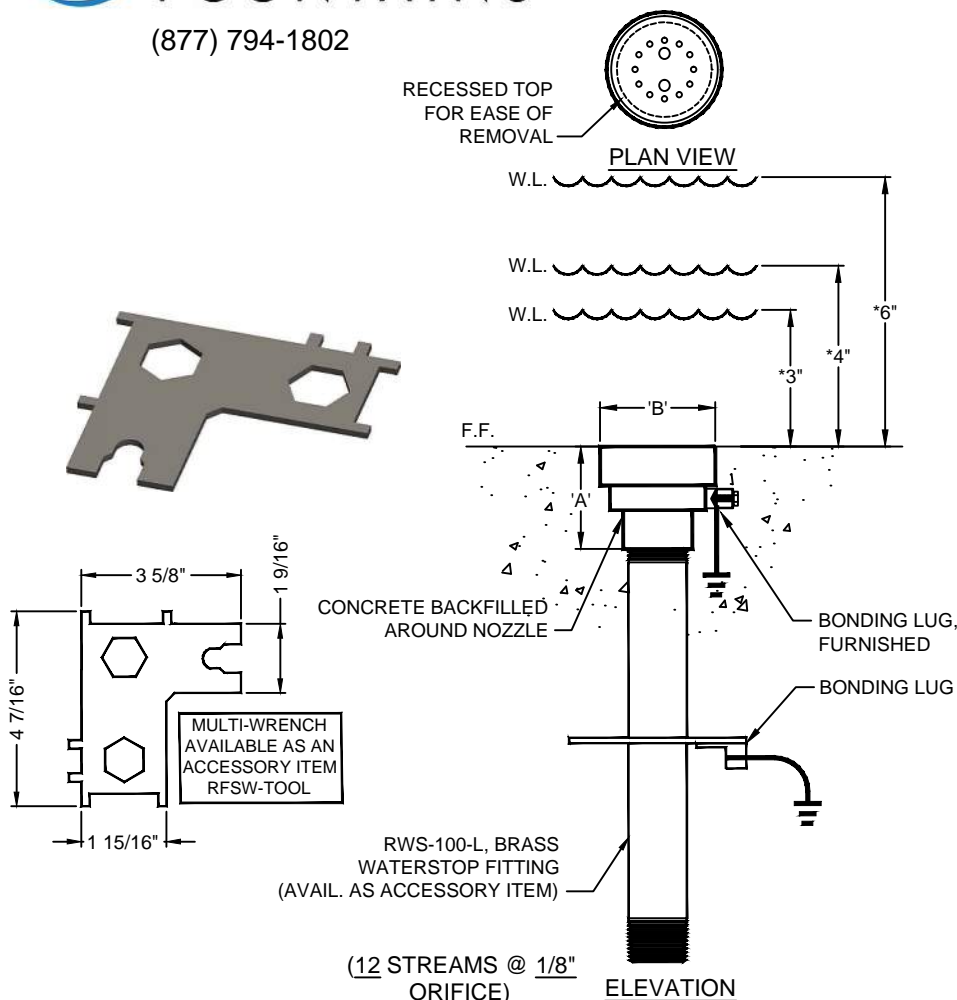


OPERATING DATA:

NOISE: _____ Low to Medium
VISIBILITY: _____ Medium
SPLASH/MIST: _____ Medium
WIND STABILITY: _____ Low
AERATION _____ High
QUALITY: _____



3D IMAGE



SPECIFICATION DATA: Flush "Sunshelf" Nozzle, machined brass and bronze construction, machined brass jet orifices, recessed removable cap for easy cleaning, bonding lug, and 1" (F) N.P.T. threaded connection

DESIGN/APPLICATION DATA: When submerged, the RPSS-100 nozzle will produce a vertical mound of water via concentric ring of precision orifices to push through the shallow water.

- NOTES:**
1. Sunshelf nozzle may generate wave turbulence in small, confined pools, requiring a dampening device (available as accessory item); see catalog data sheet 1.810/1.811.
 2. Screening at pump (.062") to minimize clogging potential is recommended.
 3. Greater submergence creates broader/fuller display, but requires greater GPM and pressure.
 4. Due to continuing product improvement program, Roman Fountains reserves the right to change the specifications without notice.

TECHNICAL AND HYDRAULIC DATA									
DIMENSIONS				SPRAY HEIGHT/PERFORMANCE					
MODEL NO.	DIM. 'A'	DIM. 'B'	(F) N.P.T.	*SUBM. (INCHES)	APPROX. SPRAY HEIGHT	8"	12"	18"	24"
RPSS-100 (Submerged)	2-5/16"	2-5/8"	1"	6"	GPM	22	25	34	44
					HEAD (ft.)	14'	20'	30'	38'
				4"	GPM	18	21	29	36
					HEAD (ft.)	8'	12'	19'	26'
				3"	GPM	16	19	23	29
					HEAD (ft.)	7'	11'	16'	23'

CLEAN & CLEAR® PLUS

CARTRIDGE FILTER

Crystal clear water the easy way.

The Clean & Clear Plus Filter combines top-end filter performance with low maintenance. This dependable design uses special filter elements to strip tiny particles from your pool water, some as small as 20 microns (an average grain of beach sand is 1,000 microns). Our four-cartridge design provides maximum filter surface area to capture more dirt and extend time between cleanings. And cleaning is a snap—open the top, remove the cartridges, hose them off and the Clean & Clear Plus Filter is ready to go again.

We've optimized cartridge surface consistency to block and trap the maximum amount of solids. Plus we use the most durable materials to extend cartridge life. The Clean & Clear Plus Filter delivers commercial-grade performance that keeps pools clean and sparkling, day in and day out.



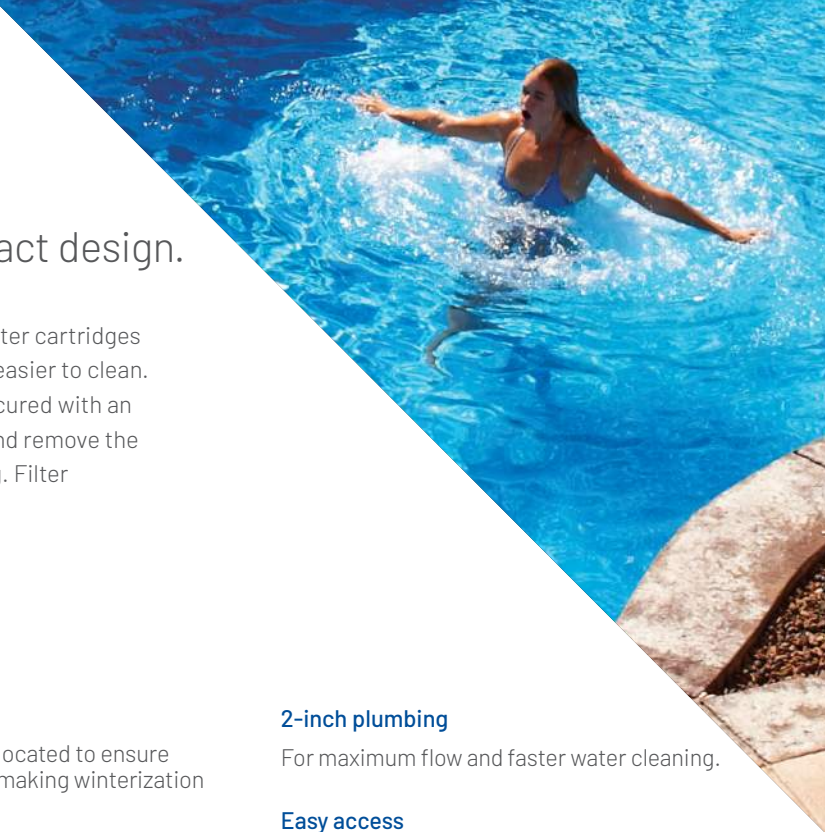
PENTAIR.COM



CLEAN & CLEAR® PLUS CARTRIDGE FILTER

Four cartridges in a compact design.

Clean & Clear Plus Filters contain four polyester cartridges that hold enormous amounts of dirt, yet are easier to clean. The fiberglass-reinforced tank halves are secured with an innovative clamp ring—just loosen the ring and remove the top half for easy cartridge access and rinsing. Filter maintenance doesn't get any easier.



KEY FEATURES

Single-piece base and tank

Constructed of fiberglass-reinforced polypropylene for strength, corrosion resistance and stability for years of dependable service.

Four-cartridge design

Traps more dirt and extends time between cleanings.

1½-inch drain

Easy to access and located to ensure complete draining, making winterization fast and simple.

Internal air bleed

Continuous internal air bleed helps prevent air buildup to keep the filter operating at peak performance.

2-inch plumbing

For maximum flow and faster water cleaning.

Easy access

Clamp ring makes it quick and easy to remove and rinse cartridges and provides access to internal parts to speed service routines.

Model Number	Filter Area Sq. Ft.	Vertical Clearance*	Filter Diameter	Flow Rate GPM ² Residential	Turnover Capacity-Res. (Gallons)		
					8 hrs.	10 hrs.	12 hrs.
CCP240	240	56"	21.5"	90	43,200	54,000	64,800
CCP320 ¹	320	62"	21.5"	120	57,600	72,000	86,400
CCP420 ¹	420	68"	21.5"	150	72,000	90,000	108,000
CCP520 ¹	520	74"	21.5"	150	72,000	90,000	108,000

¹Certified to NSF/ANSI Standard 50.

²Residential rate .375 GPM per sq. ft. of filter area.



The Clean & Clear Plus Cartridge Filter has earned the Eco Select® brand distinction as one of the greenest and most efficient choices from Pentair.

TRADEGRADE

The TradeGrade family of products is exclusively made for and sold by the world's most demanding pool professionals.

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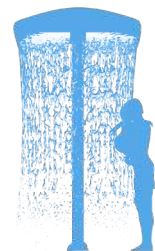


Ideal age group: 2 years and up

VOR 0114 UMBRELLA

PRODUCT HIGHLIGHTS

- Immersive sound and visual experience
- Simulates rain-like sound and water effect



VORTEX

1.877.586.7839 (free USA/CANADA)

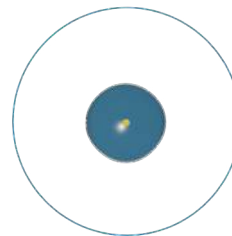
+1.514.694.3868 (INTERNATIONAL)

info@vortex-intl.com • VORTEX-INTL.COM



Spray Zone

ø15' (457 cm)



H/W/L

120/60/60 in
305/153/153 cm

Pressure

5-15 PSI
0.3-1 BAR

Flow

50-100 GPM
189-379 LPM

Smartflow

-
-

Color Choices: Vortex colors or polished

VORTEX EXCLUSIVE TECHNOLOGIES

This product features the following technologies that are unique to Vortex.



TOEGUARD™

- Soft-touch Elastomer
- Protects children's toes from anchoring hardware
- Durable, vandal resistant, resistant to chemicals
- Infused with a UV resistant bright color
- Available in one or two pieces ensuring tight fit to post

WATER EFFECTS

- Waterfall (1)

Revised: 07/10/2017

DIAMOND BRITE®

EXPOSED AGGREGATE POOL FINISHES

*The Leader in Quality
Swimming Pool, Spa
& Fountain Finishes*

*There's more to a great pool finish
than meets the eye...*

A great pool finish is durable, comfortable, easily maintained and enhances your poolscape environment. Diamond Brite from SGM is all that and more.

Diamond Brite combines natural quartz aggregate, polymer-modified cement and non-fading Diamond Quartz in a stunning variety of colors. The result is a unique finish that stands up to the harshest pool environments while providing years of enjoyment.



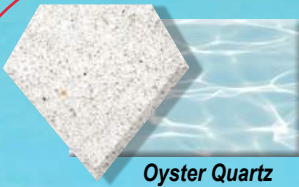
800.641.9247

www.sgm.cc

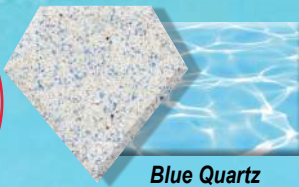
SGM

SWIMMING
POOL, SPA &
DECK FINISHES

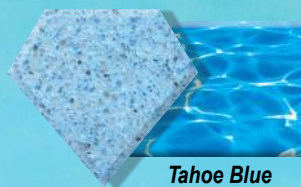
Diamond Brite's dynamic, factory blended finishes and simple maintenance feature makes it well suited for fountains and spas, as well as other water features. Its insoluble quartz aggregate is unaffected by the harshest pool chemicals and resists permanent staining. The Diamond Quartz accent colors won't rust, rub off or fade like other colored aggregates because our coating technology produces a tough, permanently bonded color aggregates. Additionally, the accent colors in Diamond Brite give the surface a variegated appearance, masking the slight imperfections that are readily apparent in traditional finishes. You'll also have an added sense of security knowing that your pool is comfortable to the feet and slip resistant.



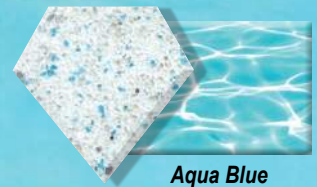
Oyster Quartz



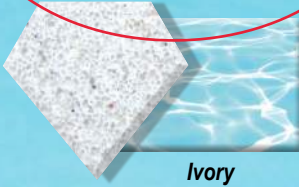
Blue Quartz



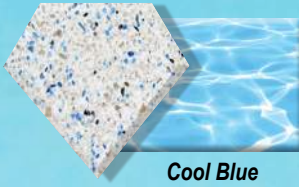
Tahoe Blue



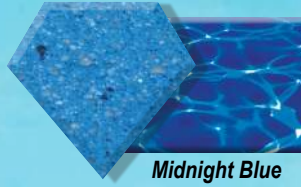
Aqua Blue



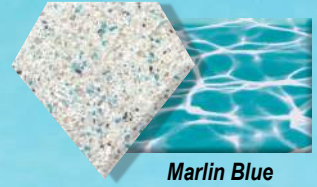
Ivory



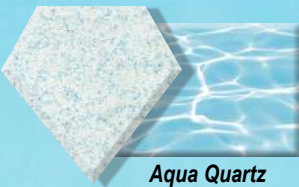
Cool Blue



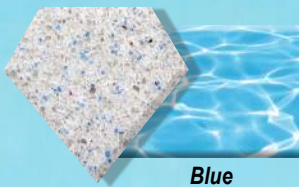
Midnight Blue



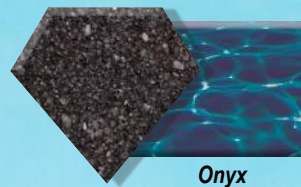
Marlin Blue



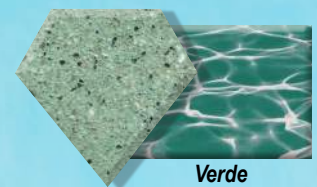
Aqua Quartz



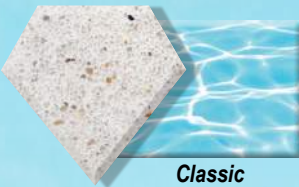
Blue



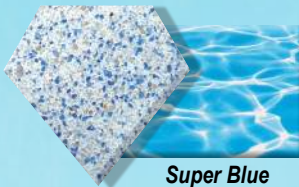
Onyx



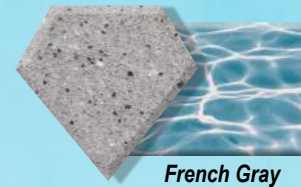
Verde



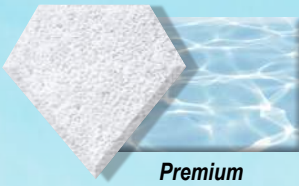
Classic



Super Blue



French Gray

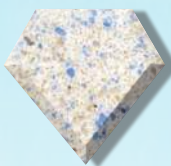


**Premium
Commercial White**

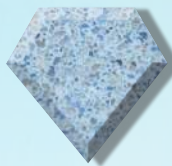
Commercial Projects: Premium Commercial White is specially formulated for commercial installations, and is the only Diamond Brite choice that offers a 10 year extended warranty for commercial pools. Made from 100% Pure Diamond Quartz ceramic colored white aggregate, Premium Commercial White meets and exceeds Industry and Municipal Standards for Total Solar Reflectance.



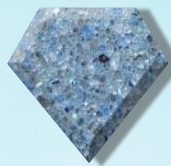
Two or more Diamond Brite selections can be blended to create the unique finishes of the **Watercolor Series**, which complement a variety of poolscape.



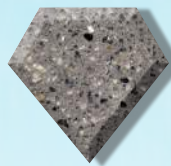
Cool Quartz



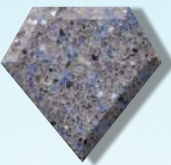
Tahiti Blue



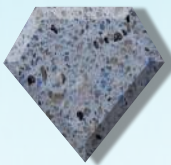
Bahama Breeze



Grecian Slate



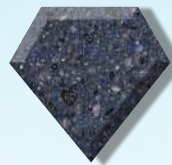
Steel Blue



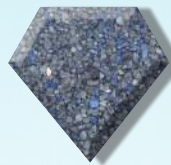
Aegean Sea



Isla Verde



Ocean Blue



Cobalt

Warranty

You can be assured the highest quality materials have been used and our products are supported by the best warranty program in the industry. It's a sign of our commitment to achieve the highest quality standards in all our swimming pool, spa and fountain finishes.

To register your warranty online visit:
www.sgm.cc

*Sample colors are as accurate as modern printing can produce. The color of your pool may vary due to water depth, lighting conditions at job-site, mixing and installation methods. For best results, match to a keychain sample chip or wet cement sample chip.

800.641.9247

www.sgm.cc



F-300

Variable Area Flow Meter



Video link: 

Features

- > Easy to read dual scale (SCH 40 / SCH 80)
- > Reads Horizontal, upwards or downwards flow
- > Acceptable for outdoor installations
- > Pitot Tube design makes it easy to install on existing pipe
- > One-piece, machined acrylic meter body

Highlights

Flow range

5.0 - 2,200 GPM (SCH 40)
4.0 - 1,950 LPM (SCH 40)

Pressures up to

75 PSI
(5.17 bar)

Max. fluid temp.

190 °F
88 °C

Body material

Acrylic

Pipe sizes

1" to 8"

Warranty

1 Year

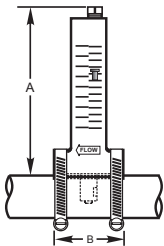


Pipe Requirements	IPS inch pipe size (ASTM-D-1785)
Maximum Working Pressure (Excluding pump tubes)	75 PSI (5.2 bar) at 70 °F (21 °C)
Fluid Temperature Range	0° to 190 °F / -18 to 88 °C @ 0 PSI
Ambient Temp Range	0° to 110 °F / -18 to 43 °C
Full Scale Accuracy	1", 1.25", 1.5" and 2" pipe size: 5% of rate
	2.5", 3", 4", 6", and 8" pipe size: 10% of rate
Calibration Fluid	Water, specific gravity 1.0
Approximate Shipping Weight	1" - 4" units: 1 lb (.45kg)
	6" - 8" units: 2 lb (.91kg)

Dimensions

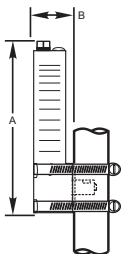
F-300 Series

Pipe Size	A	B
1"	6"	2-7/16"
1-1/4"	6"	2-7/16"
1-1/2"	6"	2-7/16"
2"	6"	2-7/16"
2-1/2"	6"	2-7/16"
3"	6"	2-7/16"
4"	6"	2-7/16"
5"	6"	2-7/16"
6"	7-1/2"	2-7/16"
8"	7-1/2"	2-7/16"

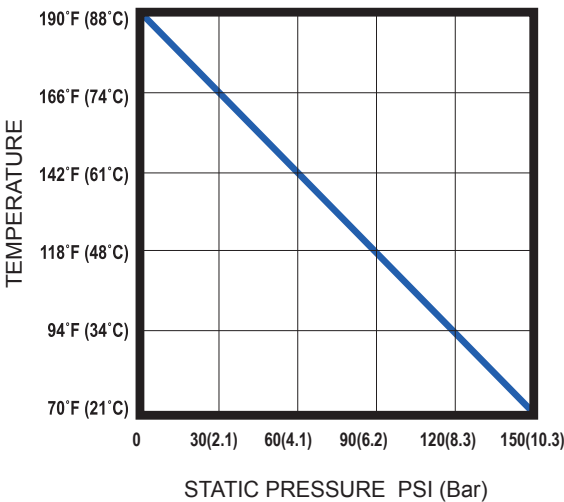


U/D-300 Series

Pipe Size	A	B
1-1/2"	6"	1-9/16"
2"	6"	1-9/16"



Maximum Temperature vs. Pressure



Wetted Components:

Meter Body Acrylic

Float PVDF

Gasket Neoprene

Pipe Clamp 316ss

Output Specifications

Models for Mounting on Horizontal Pipe
Models for U.S. IPS Sch40 & 80 Pipe
(ASTM 1785)

Model	Pipe size	Sch40	Sch80
F-30100P	1"	5 to 35	4 to 26
F-30125P	1-1/4"	9 to 50	8 to 40
F-30150P	1-1/2"	10 to 70	10 to 60
F-30200P	2"	20 to 120	18 to 100
F-30250P	2-1/2"	29 to 150	25 to 130
F-30300P	3"	45 to 240	40 to 215
F-30400P	4"	75 to 420	70 to 400
F-30600P	6"	170 to 1100	160 to 1000
F-30800P	8"	300 to 2200	275 to 1950

Models for Mounting on Vertical Pipe
Models for U.S. IPS Sch40 & 80 Pipe
(ASTM 1785)

Model	Pipe size	Sch40	Sch80	Flow direction
U-30150P	1-1/2"	10 to 60	10 to 50	UP
D-30150P	1-1/2"	10 to 60	10 to 50	DOWN
U-30200P	2"	20 to 110	20 to 100	UP
D-30200P	2"	20 to 110	20 to 100	DOWN

Model Number Matrix

F-300 Model Number

F	Standard Flow Meter (Horizontal Flow)
U	Flow Meter (Upwards Flow 1.5" and 2.0" only)
D	Flow Meter (Downwards Flow 1.5" and 2.0" only)

Series

30	F-300 Acrylic Body
----	--------------------

GPM Scale SCH 40 / SCH 80

100	1.0" Pipe, 5 - 35 GPM sch 40 (4 - 26 GPM sch 80)
125	1.25" Pipe, 9 - 50 GPM sch 40 (8 - 40 GPM sch 80)
150	1.50" Pipe, 10 - 70 GPM sch 40 (10 - 60 GPM sch 80)
150	UP/DOWN 1.5" Pipe, 10 - 60 GPM sch 40 (10 - 50 GPM sch 80)
200	2.0" Pipe, 20 -120 GPM sch 40 (18 - 100 GPM sch 80)
200	UP/DOWN 2.0" Pipe, 20 - 110 GPM sch 40 (20 - 100 GPM sch 80)
250	2.5" Pipe, 29 - 150 GPM sch 40 (25 - 130 GPM sch 80)
300	3.0" Pipe, 45 - 240 GPM sch 40 (40 - 205 GPM sch 80)
400	4.0" Pipe, 75 - 420 GPM sch 40 (70 - 375 GPM sch 80)
600	6.0" Pipe, 170 - 1100 GPM sch 40 (160 - 1000 GPM sch 80)
800	8.0" Pipe, 300 - 2200 GPM sch 40 (275 - 1950 GPM sch 80)

F	-	30	100	P	Sample Model Number
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Accessories



F-300SL
KIT F-300 SENSOR/SWITCH

1.0"P - 1.25"P ONLY



F-300S
F-300 SENSOR/SWITCH

1.5"P - 4.0"P ONLY



INTELLIFLO® VS+SVRS

INTELLIFLO® VS+SVRS

VARIABLE SPEED PUMP

The smart choice for savings and added protection.



PENTAIR.COM





ADDED SAVINGS. GREATER PEACE OF MIND.

IntelliFlo® VS+SVRS Pump—trusted by parents who want greater peace of mind.

The IntelliFlo VS+SVRS Variable Speed Pump was the first pump developed with an integrated Safety Vacuum Release System (SVRS). This system features a built-in controller and proprietary software designed to help detect a suction or drain blockage and automatically stop the pump, providing an added layer of protection against entrapment when used in conjunction with VGB-approved drain covers. The IntelliFlo VS+SVRS Pump complies with the current ASME A112.19.17 standard for Safety Vacuum Release Systems (SVRS).*



INSTALLED IN MORE POOLS WORLDWIDE THAN ANY OTHER VARIABLE SPEED PUMP.

IntelliFlo innovations add up to greater efficiency, energy savings and universal appeal.

IntelliFlo Variable Speed Pumps started an energy-savings revolution. No wonder they're the world's best-selling variable speed pumps. And, the IntelliFlo VS+SVRS just got better. With energy savings of up to 90%** versus conventional pumps, a new easy-to-read rotatable keypad and advanced programming capabilities, pool pros and pool owners love them even more. Plus, they have a record of proven field reliability that no competitor can match.

Part number: 011057
WEF 6.9 THP 3.95

FEATURE RICH AND AUTOMATION READY TO GIVE YOU OPTIMIZED PERFORMANCE, EVEN REMOTELY.†

Designed to handle your pool's automation needs and still deliver maximum energy efficiency.

To meet your pool's needs today—and be ready for upgrades tomorrow—there's no better choice than the IntelliFlo VS+SVRS Variable Speed Pump. This advanced pump can be programmed to deliver the right flow required for filtration, water features, spas and other equipment. With the IntelliFlo VS+SVRS, you can add equipment and features, or change them, without reducing pump performance, all while still providing maximum energy efficiency.

*Standard for residential and commercial swimming pool, spa, hot tub and wading pool suction systems, as required by the Virginia Graeme Baker Pool and Spa Safety Act.

**Savings based on variable speed pump compared to a single-speed pump running 12 hours per day at an average of \$0.16 per kWh in a 20,000-gallon pool. Actual savings may vary based on local utility rates, pool size, pump run time, pump horsepower, pump RPM, plumbing size and length, pump model, service factor and other hydraulic factors.

Remote access via a computer, smartphone or mobile digital device requires the separate purchase of a ScreenLogic® Interface.†

†The Pentair ScreenLogic Interface for MACINTOSH® DESKTOP COMPUTERS IS NOT COMPATIBLE with the recently released 64-bit-speed Macintosh CATALINA Operating System. Customers who update their Mac desktop computers to the new Catalina MacOS® will no longer be able to use the ScreenLogic Desktop Interface. Please NOTE: This change DOES NOT AFFECT iPhone®, iPad® mobile digital devices, Amazon Echo® or any other ScreenLogic Interfaces. Only MAC® computer desktop users with ScreenLogic who update to the new Catalina OS will be affected.



Energy savings of up to 90%.**
Moves water more efficiently at lower speeds.



More environmentally responsible.
Dramatically reduces electricity consumption.



Runs on the same type of electric motor as a hybrid car.

The advanced permanent magnet motor is far more efficient than single- and two-speed pumps.

The IntelliFlo VS+SVRS Pump interfaces with Pentair Automation Systems to give you the convenience of mobile digital device control.†



INTELLIFLO® VS+SVRS

VARIABLE SPEED PUMP

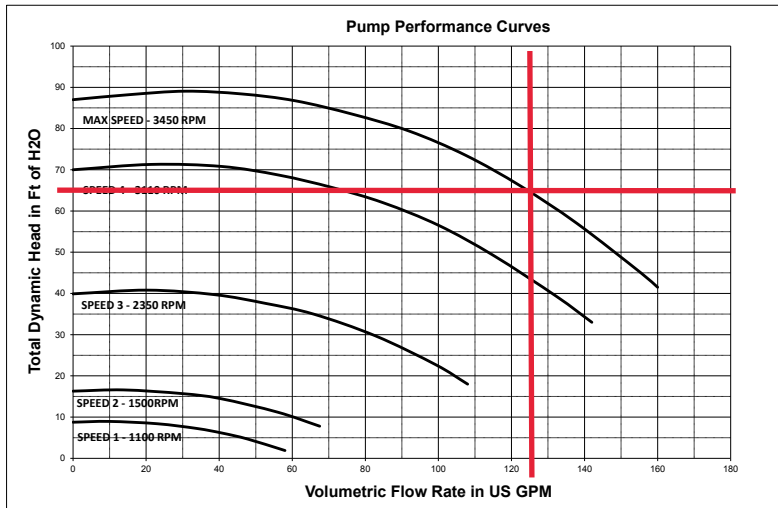


SUPER EFFICIENT—AND SO QUIET YOU CAN HEAR THE SAVINGS PILE UP.

Reliability and savings. That's why pool builders, retailers and service professionals count on Pentair.

Quiet means you enjoy a more relaxing, satisfying pool and spa experience, because the IntelliFlo® VS+SVRS Pump is the quietest pump on the planet. While its Totally Enclosed Fan-Cooled (TEFC) motor helps to reduce noise and prolong pump life, its reliable variable speed technology allows it to operate so efficiently and quietly that at lower speeds you might not realize it's running.

PERFORMANCE CURVES



NOTE: The chart above demonstrates performance rates at factory preset speeds of 3450 RPM, 3110 RPM, 2350 RPM, 1500 RPM and 1100 RPM.



The IntelliFlo VS+SVRS Variable Speed Pump has earned the Eco Select® brand distinction as one of the greenest and most efficient choices from Pentair.



ENERGY STAR® certified SuperFlo VS Pumps from Pentair meet strict energy efficiency criteria set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. These pumps save money, reduce energy use and protect the environment.

1620 Hawkins Ave | Sanford, NC 27330 | United States | 800.831.7133 | pentair.com

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Main Drain Sumps

1414ESMD-FC
1818ESMD-FC
2424ESMD-FC

1414ESMD-DC
1818ESMD-DC

2040ESMD-GO

2448ESMD-FC



Patent Pending

Description	Mounting Position	Total Open Area	Recommended Design Flow	NSF Maximum Safe Flow
Model #1414ESMD-DC 14 x 14 Entrapment Safe Main Drain with 20 x 20 Paddock Certified <i>Drain</i> Cover	Floor Only	122.15 sq. inches	572 GPM @ 1.5 fps	1200 GPM
Model #1414ESMD-FC 18 x 18 Entrapment Safe Main Drain with 24 x 24 Paddock Certified <i>Flat</i> Cover	Floor or Wall	212.89 sq. inches	915 GPM @ 1.37 fps	915 GPM
Model #1818ESMD-DC 18 x 18 Entrapment Safe Main Drain with 24 x 24 Paddock Certified <i>Drain</i> Cover	Floor or Wall	186.6 sq. inches	874 GPM @ 1.5 fps	1420 GPM
Model #1818ESMD-FC 18 x 18 Entrapment Safe Main Drain with 24 x 24 Paddock Certified <i>Flat</i> Cover	Floor or Wall	212.89 sq. inches	915 GPM @ 1.37 fps	915 GPM
Model #2040ESMD-GO 20 x 40 Entrapment Safe Main Drain with (2) 20 x 20 Paddock Certified <i>Grate</i> Only	Floor or Wall	244.28 sq. inches	1145 GPM @ 1.5 fps	1960 GPM
Model #2424ESMD-FC 24 x 24 Entrapment Safe Main Drain with 24 x 24 Paddock Certified <i>Flat</i> Cover	Floor or Wall	212.89 sq. inches	915 GPM @ 1.37 fps	915 GPM
Model #2448ESMD-FC 24 x 48 Entrapment Safe Main Drain with (2) 24 x 24 Paddock Certified <i>Flat</i> Cover	Floor Wall	425.78 sq. inches 425.78 sq. inches	1996 GPM @ 1.5 fps 1996 GPM @ 1.5 fps	3500 GPM 3000 GPM

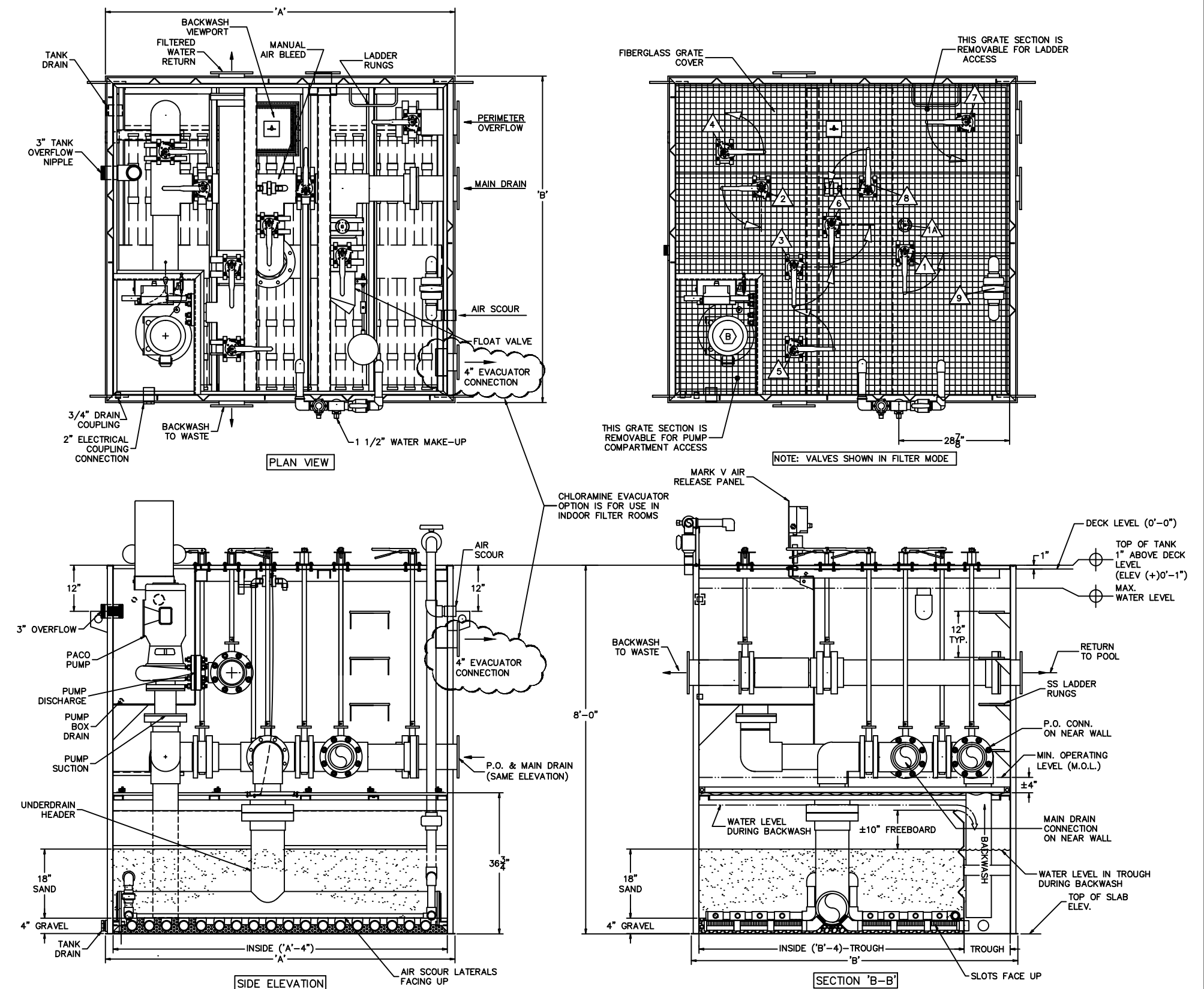
Paddock **Certified Flat Cover (FC)** or Paddock **Certified Drain Cover (DC)** is used with a Paddock Entrapment Safe Sump Box with an Anti-Vortex Reduction Device (AVRD) if one is required.

Standard Features

- § Type 304 Material
- § Suction Outlet Fitting Includes Anti-Vortex Reduction Device
- § ANSI/APSP-16 Approved
- § NSF Listed

555 Paddock Parkway, Rock Hill, SC 29730

T: 800-849-2729 F: 803-324-1116



- NOTES:
- 1. FILTER CONNECTION LOCATIONS ARE APPROXIMATE AND MAY VARY BASED ON SPECIAL CIRCUMSTANCES OR INDIVIDUAL REQUIREMENTS OF FILTERS.
 - 2. AIR SCOUR CONNECTION (OPTIONAL) WILL NOT BE LARGER THAN 2".
 - 3. PERIMETER OVERFLOW CONNECTION MAY BE MOVED AS REQUIRED.
 - 4. ADDITIONAL PERIMETER OVERFLOW CONNECTION MAY BE ADDED.

Size FT ²	Catalog Number	Filter Rate, IN GPM @ 15 GPM/FT ²	Backwash Rate @ 7.5 GPM/FT ²	Tank Volume, Gal.	Length A, in	Width B, in	M.D. & P.O. Pipe Std. Sizes-D, in	Paco Pump, H.P.*	Ret./BW Pipe std. D, in	All-Star Air Scour Blower @ 2 CFM/FT ²	Shipping Weight, lbs	Media Capacity Cu.Ft.	
												Sand	Gravel
20	9792-1520	300	150	1623	76	60	8	3095-7, 7.5	4	RB3-101-3	2200	32	6
25	9792-1525	375	187	2363	92	72	8	3095-7, 7.5	4	RB3-101-3	2400	40	8
30	9792-1530	450	225	2496	82	85	8	3095-7, 10	6	RB3-101-3	2600	47	9
35	9792-1535	525	262	2496	82	85	10	4095-7, 10	6	RB3-101-3	2900	48	10
40	9794-1540	600	300	2633	91	85	10	4095-7, 15	6	RB3-105-3	3200	60	11
45	9794-1545	675	337	3127	91	94	10	4095-7, 15	6	RB3-105-3	3500	67	12
50	9794-1550	750	375	3450	100	94	12	4095-7, 15	6	RB3-105-3	3600	75	14
55	9794-1555	825	412	3706	106	96	12	4095-7, 15	6	RB4-205-3	3700	85	16
60	9795-1560	900	450	3924	112	96	12	4095-7, 20	6	RB6-305-3	3900	89	18
65	9795-1565	975	487	4142	118	96	12	5095-7, 20	8	RB6-305-3	4100	96	20
70	9795-1570	1050	525	4505	128	96	12	5095-7, 20	8	RB6-305-3	4400	103	22
75	9795-1575	1125	562	4978	141	96	14	5095-7, 20	8	RB6-305-3	4600	114	25
80	9796-1580	1200	600	5123	145	96	14	5095-7, 20	8	RB6-305-3	4800	125	26
85	9796-1585	1275	637	5450	154	96	16	5095-7, 20	8	RB6-305-3	5000	131	27
90	9796-1590	1350	675	5741	162	96	16	6095-1, 25	8	RB6-305-3	5400	138	29
95	9796-1595	1425	712	6068	171	96	16	6095-1, 25	8	RB6-305-3	6000	142	30
100	9798-15100	1500	750	6650	187	96	16	6012-3, 30	8	RB8-805-3	7400	146	32
105	9798-15105	1575	788	6972	198	96	(2)12	6012-3, 30	10	RB8-805-3	7550	156	23
110	9798-15110	1650	825	7259	206	96	(2)12	6012-3, 30	10	RB8-805-3	7700	174	24
115	9798-15115	1725	863	7547	214	96	(2)12	6012-3, 30	10	RB8-805-3	7850	192	26
120	9798-15120	1800	900	7834	222	96	(2)12	(2)4095-7, 20	10	RB8-805-3	8000	210	27
125	9798-15125	1875	938	8158	231	96	(2)12	(2)5095-7, 20	10	RB8-805-3	8490	228	28
130	9798-15130	1950	975	8481	240	96	(2)14	(2)5095-7, 20	10	RB8-805-3	8790	246	30
140	9798-15140	2100	1050	9128	258	96	(2)14	(2)5095-7, 20	10	RB8-805-3	9100	282	34

*Pumps in chart are for THD of 50'. Higher heads may require larger pump or more horsepower.

AIR SCOUR BLOWERS (AIR SCOUR BACKWASH IS OPTIONAL)
ALL-STAR RB3-101-3, 1.1HP, 70 SCFM @ 2 PSI, 1.5" CONN.
ALL-STAR RB3-105-3, 1.5HP, 70 SCFM @ 2 PSI, 1.5" CONN.
ALL-STAR RB4-205-3, 2.5HP, 130 SCFM @ 2 PSI, 2" CONN.
ALL-STAR RB6-305-3, 3.5HP, 170 SCFM @ 2 PSI, 2" CONN.
ALL-STAR RB8-805-3, 8.5HP, 320 SCFM @ 2 PSI, 2.5" CONN.





PADDOCK
POOL EQUIPMENT COMPANY
555 Paddock Parkway
Rock Hill, SC 29730
Phone: (803)324-1111
Fax: (803)324-1116
info@paddockindustries.com

Paddock VGB Drain Cover Lifespan

1. **Requirement** – Inspect cover at 10 years minimum for any signs of damage and replace if needed. (Covers older than 10 years must be inspected yearly by facility operators and documented, then every year thereafter for any damage compromising unit which would necessitate replacement.)
2. **Requirement** – Replace screws every 7 years at minimum and document information for records (use only the size and grade of stainless steel screws 8/32 x ½" SS 316L recommended by Paddock).
3. **Recommendation** – Establish a yearly checklist for facility operators to document inspection of covers and screws for damage – replace any covers or screws immediately that are compromised, damaged or broken in any way.
4. **VGB Covers do not need to be replaced unless they are compromised, damaged or broken and all above requirements are met.** These are stainless steel covers and should last life of facility if properly maintained. Ultraviolet light test which establishes life expectancy is for degradation of resin products such as PVC or plastics.

Examples of Paddock covers & sumps offered



2424PCFC VGB Cover



2020PCDC or 2424PCDC VGB Cover



2040PCGO or 2448PCFC VGB Cover



Paddock Sumps

VGB Compliant Sump and Cover Key Terminology

ESMD	Entrapment Safe Main Drain (Sump Unit)
PCDC	Paddock Certified Drain Cover (Raised Cover)
PCGO	Paddock Certified Grate Only (Flat Cover)
PCFC	Paddock Certified Flat Cover (Flat Cover)
AVRD	Anti-Vortex Reduction Device <i>Three Standard Styles Available:</i> <ol style="list-style-type: none">1. Threaded PVC2. Flanged PVC3. Stainless Steel <i>Customs are available upon request</i>

VGB COVER MODELS AVAILABLE

Frame/Grate Raised Cover

2020PCDC 2424PCDC

May be used in multiples

Frame/Grate Flat Cover

2040PCGO, 2060PCGO, 2080PCGO, 20100PCGO, 20120PCGO
4040PCGO, 4060PCGO, 4080PCGO, 40100PCGO, 40120PCGO

2424PCFC, 2448PCFC, 2472PCFC, 2496PCFC, 24120PCFC
4848PCFC, 4872PCFC, 4896PCFC, 48120PCFC

May be used in multiples

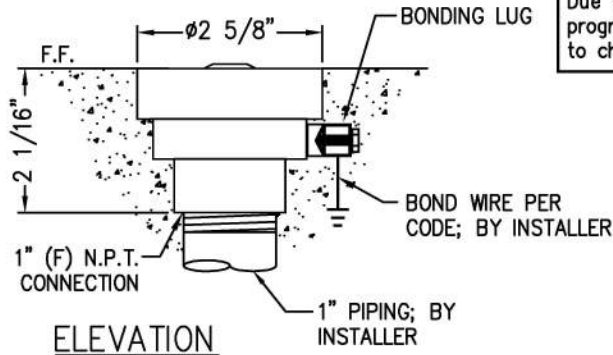
VGB Compliant SUMP MODELS

1414 ESMD 1818ESMD 2424ESMD
2040ESMD 2448ESMD

We are a custom shop where we can handle unusual requests



RBBK-NOZZLE BODY, W/
1" (F) N.P.T. CONNECTION



NOTE:
Due to our continuing product improvement program, Roman Fountains reserves the right to change the specifications without notice.



RDHN-APJ 3/8"
ORIFICE ADJUSTABLE
PRECISION JET



RDHN-CJ
360° CROWN JET



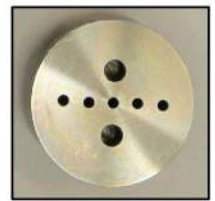
RDHN-JC
JET CLUSTER



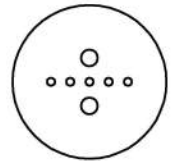
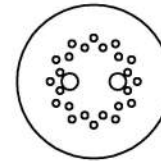
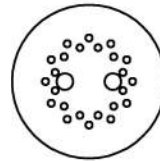
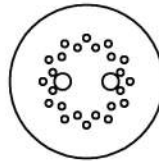
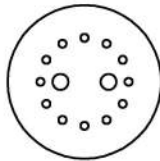
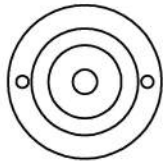
RDHN-TT
360° TWO TIER 5-7



RDHN-SJ
SPRITZER JET



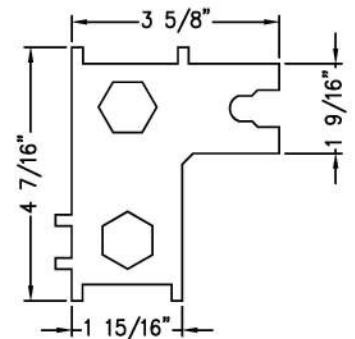
RDHN-FJ
LINEAR FAN JET



Model No.		TECHNICAL DATA						
		SPRAY HEIGHT						
		2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
RDHN-APJ	GPM	4.08	4.93	5.71	6.49	7.02	7.58	8.15
	HEAD	3.46'	4.62'	6.93'	8.08'	9.24'	10.39'	11.55'
RDHN-CJ	GPM	4.04	4.93	5.71	6.49	7.09	7.69	8.35
	HEAD	3.46'	5.19'	6.93'	8.08'	9.24'	10.39'	11.55'
RDHN-JC	GPM	8.15	9.57	11.13	12.83	14.07	15.17	16.09
	HEAD	4.62'	5.77'	7.5'	9.24'	10.39'	11.55'	12.7'
RDHN-TT	GPM	7.76	9.75	11.59	12.83	14	15.35	16.59
	HEAD	4.62'	5.77'	6.93'	8.08'	9.24'	10.39'	11.55'
RDHN-SJ	GPM	7.58	9.5	10.88	12.23	13.82	15.23	16.27
	HEAD	4.62'	5.77'	6.93'	8.08'	9.81'	11.55'	12.12'
RDHN-FJ	GPM	2.2	2.76	3.19	3.61	4	4.29	4.57
	HEAD	4.62	5.77'	6.93'	8.08'	9.24'	10.39'	11.55

☐ BRASS

☐ STAINLESS STEEL



RFSW, Flat
Spanner Wrench
(Offered as an Accessory Item)

SPECIFICATION DATA: RBBK-Series, Flush Deck Nozzles are machined from brass or type 303 stainless steel and include recessed removable cap feature for easy cleaning, bonding lug and 1" (F) N.P.T. threaded connection. Each cover produces a distinctly different spray pattern, from single 3/8" dia. solid stream of water, to multiple stream patterns in various widths and heights; See catalog cut sheets 1.70a & 1.70b for spray pattern images.

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TYP. () ITEM # _____



America's Fountain Company!™

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<http://www.romanfountains.com>

Revisions:

No.	Date	By

RBBK-Series, Flush

Deck Nozzles

Drawn By: S.S.	Model No.
Checked By: R.A.	RBBK-Series
Scale: None	Drawing No.
Date: 02/26/2014	1.73