

# CITY OF WILMINGTON, NC

## BID INVITATION

**BIDS ARE DUE:** JUNE 11, 2024, at 3:00 PM

**PRE-BID MEETING VIA ZOOM:** MAY 9, 2024, at 3:00 PM  
**HOSTED BY: THE PIGNATO GROUP**

**PROJECT NAME:** MUNICIPAL GOLF COURSE  
**INSTALLATION OF NEW IRRIGATION PROJECT**

**PROJECT NUMBER:**

**CONTRACT NUMBER:** GC-TPG-0624

**PROJECT DESIGNER:** THE PIGNATO GROUP – 561-313-4219

**PROJECT DIRECTOR:** MATTHEW SMITH – 910- 547-9709

**SUBMIT BIDS TO:** PURCHASING MANAGER  
P. O. BOX 1810  
929 N FRONT ST., 10<sup>th</sup> FLOOR  
WILMINGTON, N. C. 28402-1810  
(910) 341-7830

**BIDDERS NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_

**MUNICIPAL GOLF COURSE INSTALLATION OF NEW IRRIGATION  
PROJECT  
GC-TPG-0624**

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**(Project Manual No. 240119-PM1)  
(Dwg # WGC-230828-IRR1)**

ADVERTISEMENT FOR BID  
CITY OF WILMINGTON, NC  
MUNICIPAL GOLF COURSE INSTALLATION OF NEW IRRIGATION PROJECT  
CONTRACT NUMBER: GC-TPG-0624

Pursuant to North Carolina General Statute 143-129, sealed proposals addressed to the Purchasing Manager, P. O. Box 1810, 929 N Front Street, 10th Floor, Wilmington, NC 28402, and marked "Municipal Golf Course Installation of New Irrigation Project" will be received until 3:00 p.m., Tuesday, June 11, 2024 at which time they will be publicly opened and read at the Purchasing Division, 929 N. Front Street 1<sup>st</sup> Floor Lobby Meeting Room No. 1, Wilmington, NC. The City will receive SINGLE PRIME BIDS ONLY for this project.

Project Description: Installation of the Irrigation System at **WILMINGTON GOLF COURSE**, Wilmington, North Carolina, as described in Drawing Number WGC-230828-IRR1, pages 1 through 11 and Project Manual Number 240119-PM1.

All firms submitting bids for the proposed work must be properly licensed. The bidder's license number must appear on the outside of the envelope. In accordance with Policy Number 116 of the City of Wilmington Administrative Policies, all firms submitting bids for this project must complete pre-qualification application and receive pre-qualification approval by the City of Wilmington, in order to be considered for this work.

In accordance with the City of Wilmington's Minority/Disadvantaged Business Policy, the bidder shall make good faith efforts, as defined by the Bid Specifications, to subcontract 14% of the dollar value of the prime contract to businesses which are at least 51% owned and controlled by minority, socially, and/or economically disadvantaged individuals (MBE/DBE's). A complete copy of the City of Wilmington's MBE/WBE policy is available for inspection at the Purchasing Manager's Office.

Potential Subcontract opportunities which may exist on this project include, but may not be limited to: Irrigation, Suppliers and other items not specifically referenced herein.

If the bidder fails to achieve the contract goal stated herein, it is required to provide documentation demonstrating that it made a good faith effort in attempting to meet the established goals. A bid which fails to meet these requirements will be considered non-responsive and will be rejected.

**A Pre-Bid Conference will be held via Zoom Hosted by The Pignato Group at 3:00 p.m., Thursday May 9, 2024.**

Plans, Specifications and Bid Documents are available for review at the Office of the Purchasing Manager, 929 N Front Street, 10<sup>th</sup> Floor Wilmington, NC., or contact Raquel Perez at [Raquel.perez@wilmingtonnc.gov](mailto:Raquel.perez@wilmingtonnc.gov) for an electronic version.

Potential subcontractors may secure a list of potential prime contractors from the City's Web Site, [www.wilmingtonnc.gov](http://www.wilmingtonnc.gov)

The City of Wilmington does not discriminate on the basis of race, sex, color, age, national origin, religion or disability in its employment opportunities, programs, services, or activities.

Bids for this project shall be guaranteed by all bidders for a period of 90 calendar days following the bid opening. **THE CITY OF WILMINGTON RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS.**

Daryle L. Parker  
Purchasing Manager  
May 2, 2024

## **BIDDER'S CHECKLIST**

1. READ AND UNDERSTAND ALL SPECIAL NOTICES.
2. SIGN AFFIDAVIT OF NON-COLLUSION A-1 AND A-2.  
HAVE THIRD PARTY NOTARIZE PAGE A-3
3. SIGN AFFIDAVIT OF COMPLIANCE WITH NC E-VERIFY STATUTES
4. READ AND UNDERSTAND MBE/DBE PROVISIONS MBE-1 TO MBE-4.
5. COMPLETE, SIGN AND SUBMIT WITH THE BID, AFFIDAVIT A "AFFIDAVIT OF GOOD FAITH COMPLIANCE" LISTING OF THE GOOD FAITH EFFORT INDICATING ALL ACTIONS UNDERTAKEN, AS DESCRIBED IN THE FORM, TO RECRUIT MINORITY PARTICIPATION ON THIS PROJECT. (AFFIDAVIT A)
6. SUBMIT A LISTING OF PARTICIPATING SUBCONTRACTORS AND SUPPLIERS.
7. PORTION OF WORK TO BE PERFORMED BY M/WBE FIRMS (AFFIDAVIT C)
8. BIDDERS GOOD FAITH EFFORTS (AFFIDAVIT D)
9. LIST ALL FIRMS CONTACTED TO PERFORM SUBCONTRACT WORK IN ACCORDANCE WITH THE SPECIAL NOTICE. (Subcontractor Contact Schedule)
10. COMPLETE THE PROPOSAL SECTION AND SIGN.
11. ALL ADDENDA ISSUED FOR THIS PROJECT HAVE BEEN SIGNED OR ACKNOWLEDGED ON THE PROPOSAL PAGE.
12. THE BID SURETY IS ENCLOSED AND PROPERLY EXECUTED.  
REFERENCE PARAGRAPH G-1.04.2, PAGE G-2.
13. BID ENVELOPE SEALED AND MARKED WITH THE BIDDERS NAME, LICENSE NUMBER, PROJECT NAME AND NUMBER. NOTE: MULTIPLRIME AND SINGLE PRIME BIDS FROM THE SAME BIDDER MUST BE IN SEPARATE CLEARLY MARKED ENVELOPES.
14. ENVELOPE ADDRESSED AND MARKED:  
PURCHASING MANAGER  
CITY OF WILMINGTON  
PO BOX 1810  
929 N FRONT STREET, 10<sup>th</sup> FL  
WILMINGTON, NC 28401  
BID NAME: GC-TPG-0624 MUNICIPAL GOLF COURSE  
INSTALLATION OF NEW IRRIGATION SYSTEM PROJECT
15. THE BID MUST BE MAILED OR DELIVERED TO THE ABOVE ADDRESS SO THAT RECEIPT IS PRIOR TO THE TIME AND DATE OF THE BID OPENING. BIDS RECEIVED AFTER THE SPECIFIED TIME WILL NOT BE CONSIDERED. THE CITY OF WILMINGTON ASSUMES NO RESPONSIBILITY FOR MAIL DELIVERY.

SPECIAL NOTICE TO ALL BIDDERS

MARCH 23, 1990 REV: 3-2020

1. Bid Rigging Affidavit

**In accordance with the City of Wilmington's Bid Rigging and Conflict of Interest Ordinances, an Affidavit and Certificate of Non-Collusion and Non-Suspension is enclosed, Pages A-1, A-2 and A-3. The affidavit must be properly filled out, sealed and attested in order for your bid to be considered.**

2. Subletting

Paragraph G-1.15, SUBLETTING OR ASSIGNMENT OF CONTRACT, of the City's General Specifications. All bidders must submit with their bid a listing of subcontractors contacted to submit proposals for this project. The listing must indicate the subcontractors to be used, the dollar amount of the proposed subcontract work, and type of work to be performed. If no subcontractors are to be utilized, this must be specified. This must be submitted at the time of the bid opening in order for the bid to be considered.

If subcontract firms are contacted but their proposals rejected for any reason the bidder must complete the justification form included in the bid document.

3. The City reserves the right to waive any immaterial defects in the bid documents.

4. Minority Business Policy

**The MBE/WBE/HUB/DBE statement, MBE-4, must be properly filled out in order for your bid to be considered.**

5. Federal Funding

This project may be funded in whole or in part with Federal funds and all bidders are advised to pay strict attention to the Federal requirements which may be attached. Bid packages which include Affirmative Action under Section 3 require that each bidder submit with his bid an Affirmative Action Plan. The City will not require bidders to submit their plan with the bid. However, it will be required and must be submitted by the lowest responsible bidder and approved by the City prior to beginning work.

**Paragraph 5 applies only if Federal Regulations are included in the Bid Documents.**

If you have any questions concerning these requirements, please contact my office.

Daryle L. Parker  
Purchasing Manager

STATE OF NORTH CAROLINA

COUNTY OF NEW HANOVER

AFFIDAVIT AND CERTIFICATE OF  
NON-COLLUSION, NON-SUSPENSION AND NON-CONVICTION

The undersigned, being first duly sworn, deposes and says:

1. I understand that for the purposes of this affidavit, the term "bidder" shall include the person(s), firm(s), or corporation(s) signing this affidavit, the undersigned's subcontractor(s), subsidiary(ies) and affiliate(s) and any officer, director, employee or agent of the bidder; and the term "conviction" shall include guilty pleas, pleadings of nolo contendere and similar pleas.

2. This Affidavit and Certificate is made in accordance with Article 3 of Chapter 133 of the North Carolina General Statutes; I certify that this proposal is made without prior understanding, agreement, or connection with any person(s), firm(s), or corporation(s) making bids or proposals; I further certify that the bidder has not entered into any agreement with any other bidder or prospective bidder or with any other person(s), firm(s) or corporation(s) relating to the price named in said proposal, nor any agreement or arrangement under which any person(s), firm(s) or corporation(s) is to refrain from bidding, nor any agreement or arrangement for any act or omission in restraint of free competition among bidders; I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards; and I further certify that the bidder will abide by all terms of this bid or proposal.

3. The bidder is not suspended or debarred from bidding by any federal or state governmental agency that is providing funds for this contract.

4. The bidder is not presently charged in an indictment or information with engaging in any conspiracy, combination, or other unlawful act in restraint of trade or any similar charges in any federal court or a court of this or any other state.

5. The bidder, within one year immediately preceding the date of this affidavit, has not been convicted of charges or engaging in any conspiracy, combination, or other unlawful act in restraint of trade or similar charges in any federal court or a court of this or any other state.

6. If, during the time of this proposal, from the date advertised to the date bids are opened, the bidder is indicted or convicted of bid-rigging, I understand this proposal shall be rejected and not considered for award.

7. I hereby affirm that all information contained in this affidavit is true, correct, accurate and complete, and any untrue, incorrect, inaccurate or incomplete statements will result in the disqualification and rejection of this proposal. I certify that I am authorized to sign this bid and to make the representations set forth herein on behalf of myself and the bidder.

This the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

COMPANY NAME \_\_\_\_\_

BY: \_\_\_\_\_  
(Owner, Partner, or Corporate President, Vice  
President or Assistant Vice President only)

ATTEST:

\_\_\_\_\_  
(Secretary, Assistant Secretary,  
Cashier or Assistant Cashier only)

(CORPORATE SEAL)

(TO BE EXECUTED ON BEHALF OF THE CONTRACTOR)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public, certify that  
(Name)

\_\_\_\_\_ personally came  
(Name of Secretary, Assist. Sec., Cashier, Assist. Cashier)

before me this day and acknowledged that he (she) is \_\_\_\_\_  
(Secretary, Assist. Sec.,

\_\_\_\_\_ of \_\_\_\_\_, a  
Cashier, Assist. Cashier) (Name of Corporation)

corporation, and that by authority duly given and as the act of the corporation, the foregoing Affidavit

was signed in its name by its \_\_\_\_\_,  
(President, Vice President, Assist. Vice President)

sealed with its corporate seal, and attest by himself (or herself) as its

\_\_\_\_\_  
(Secretary, Assist. Sec., Cashier, Assist. Cashier)

WITNESS my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

(NOTARY SEAL)



STATE OF NORTH CAROLINA

COUNTY OF NEW HANOVER

**AFFIDAVIT of COMPLIANCE**  
**with N.C. E-VERIFY STATUTES**

I, \_\_\_\_\_ (hereinafter the "Affiant"), duly authorized by  
and on behalf of \_\_\_\_\_ (hereinafter the "Employer") after  
being first duly sworn deposes and says as follows:

1. I am the \_\_\_\_\_ (President, Manager, CEO, etc.) of the Employer and possess the full authority to speak for and on behalf of the Employer identified above.
2. Employer understands that "E-Verify" means the federal E-Verify program operated by the United States Dept. 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.
3. \_\_\_\_\_ Employer employs 25 or more employees in the State of North Carolina, and is in compliance with the provisions of N.C. Gen. Stat. §64-26. Employer has verified the work authorization of its employees through E-Verify and shall retain the records of verification for a period of at least one year.  
  
\_\_\_\_\_ Employer employs fewer than 25 Employees and is therefore not subject to the provisions of N.C. Gen. Stat. §64-26.
4. All subcontractors engaged by or to be engaged by Employer have or will have likewise complied with the provisions of N.C. Gen. Stat. §64-26.
5. Employer shall keep the City of Wilmington informed of any change in its status pursuant to Article 2 of Chapter 64 of the North Carolina General Statutes.

Further this affiant sayeth not.

This the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Affiant

STATE OF NORTH CAROLINA

COUNTY OF \_\_\_\_\_

Sworn to and subscribed before me, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

[NOTARY SEAL]

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

CITY OF WILMINGTON  
**MBE/WBE/HUB/DBE POLICY STATEMENT**

SPECIAL NOTICE

1. ALL FIRMS SUBMITTING BIDS FOR THIS PROJECT MUST MAKE A GOOD FAITH EFFORT, AS DEFINED ON PAGES MBE-1 TO MBE-3, TO SUBCONTRACT 14% OF THE WORK TO CERTIFIED MBE/WBE/HUB/DBE FIRMS. THIS REQUIREMENT APPLIES EVEN THOUGH THE BIDDER HAS THE CAPABILITY OF PERFORMING ALL WORK WITH HIS OWN FORCES OR IF THE BIDDER IS A CERTIFIED MBE/WBE CONTRACTOR.

2. AS PART OF THE SUBMITTED BID DOCUMENT BIDDERS MUST SUBMIT A LISTING OF ALL SUBCONTRACTORS CONTACTED OR ATTEMPTED TO CONTACT FOR WORK ON THIS CONTRACT. THE LIST MUST INCLUDE THE FIRM NAME, CONTACT PERSON, PHONE NUMBER, TYPE OF SUBCONTRACT WORK, INDICATION AS TO MBE/WBE/HUB/DBE FIRM OR NON-MBE/WBE/HUB/DBE FIRM, AND DOLLAR AMOUNT OF THE WORK. THE LISTING MUST INDICATE THE FIRM TO BE UTILIZED FOR THE SUBCONTRACT WORK. A FORM IS INCLUDED HEREIN FOR THIS LISTING.

A FORM IS INCLUDED HEREIN FOR THIS PURPOSE HOWEVER, BIDDERS MAY SUBMIT THE DATA ON THEIR OWN FORM.

3. AS PART OF THE SUBMITTED BID DOCUMENTS, ALL BIDDERS MUST SUBMIT, THE ENCLOSED "AFFIDAVIT OF GOOD FAITH COMPLIANCE". THE AFFIDAVIT MUST INCLUDE EVIDENCE OF THE GOOD FAITH EFFORTS MADE BY THE BIDDER TO CONTRACT WITH AND HIRE MBE/WBE/HUB/DBE FIRMS AS SUBCONTRACTORS FOR THIS PROJECT.

A LISTING OF GOOD FAITH EFFORTS THAT THE CITY WILL REVIEW AND CONSIDER IS CONTAINED IN THE BID DOCUMENT.

"The bidder/proposer shall make good faith efforts, as defined in the bid specifications, to subcontract **14%** percent of the dollar value of the prime contract to business owned and/or controlled by minority, socially, and or economically disadvantaged individuals (MBE/WBE/HUB/DBE's).

Bidders are required to submit information concerning MBE/WBE/HUB/DBE's which will participate in the contract. The information will include (1) name and address of each MBE/WBE/HUB/DBE; (2) a description of the work to be performed by named firm; and (3) the dollar value of the work of the contract. If the bidder fails to achieve the contract goal stated herein, it is required to provide documentation demonstrating that it made good faith efforts in attempting to meet established goals. A bid that fails to meet these requirements will be considered non-responsive."

**MBESUPP 6/93**

**SPECIAL PROVISION**  
**MINORITY/DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**  
**CITY OF WILMINGTON, NC**  
POLICY:

It is the policy of the City of Wilmington that MBE/WBE/HUB/DBE enterprises as defined in NCGS 143-128(g)(1)(2) and (3) shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part by City funds under this agreement. Consequently, the MBE/WBE/HUB/DBE requirements of NCGS 143-128 apply to this bid and any subsequent contract.

MBE/WBE/HUB/DBE OBLIGATION:

The City and its contractor agree to ensure that MBE/WBE/HUB/DBE's have the maximum opportunity to participate in the performance of contract and subcontracts financed in whole or in part with City of Wilmington funds provided under this agreement. In this regard, bidders and contractors shall take all necessary and reasonable steps in accordance with NCGS 143-128 to ensure that MBE/WBE/HUB/DBE firms have the maximum opportunity to compete and perform under this bid, any change orders and any subsequent contract. The City of Wilmington and its contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and/or performance of this contract.

NOTICE:

All bidders, potential contractors, or subcontractors for this contract are hereby notified that failure to carry out the City of Wilmington policy and MBE/WBE/HUB/DBE obligation, as set forth herein, shall constitute a breach of contract which may result in the termination of the contract or other such remedy as deemed appropriate by the City.

SUBCONTRACT CLAUSES:

All bidders and potential contractors hereby assure the City that they will include the above clauses in all subcontracts which offer further subcontracting opportunities. The terms, conditions and requirements of each contract between the contractor and each subcontractor performing work under a subdivision of branch of work listed in the bid documents shall incorporated by reference the terms, conditions and requirements of this contract between the CITY and the CONTRACTOR.

CONTRACT AWARD:

Bidders are hereby advised that meeting the MBE/WBE/HUB/DBE subcontract goals or making a "GOOD FAITH EFFORT" as defined below to meet such goals are conditions for being awarded this contract. The City proposes to award the contract to the lowest responsible bidder submitting a reasonable bid, provided s/he has made a "GOOD FAITH EFFORT" as defined below to meet the established MBE/WBE/HUB/DBE participation goals.

Bidders are advised that the City has the sole authority to determine if the bidder has made a "GOOD FAITH EFFORT" toward meeting the MBE/WBE/HUB/DBE goals to qualify for contract award. The City reserves the right to reject any and all bids submitted.

SUBSTITUTION OF MBE/WBE/HUB/DBE SUBCONTRACTORS

MBE/WBE/HUB/DBE firms identified in the bid document may not be substituted or replaced without just cause and only with the written approval of the CITY. If a substitution is agreed to by the CITY, the CONTRACTOR must make a good faith effort to replace the MBE/WBE/HUB/DBE with another MBE/WBE/HUB/DBE firm.

MBE/WBE/HUB/DBE SUBCONTRACT GOALS:

The attainment of goals established for this contract are to be measured as a percentage of the total dollar value of the contract. The goals established for this contract are as follows: 14%\* MBE/WBE/HUB/DBE \*

\*MBE/WBE/HUB/DBE GOALS ARE ACCOMPLISHED VIA SUBCONTRACTS PERFORMED BY CERTIFIED BUSINESSES. SUBCONTRACTS MAY INCLUDE SUPPLYING OF MATERIALS.

AVAILABLE MBEWBE/HUB/DBE's

MBE/WBE/HUB/DBE firms may be utilized by the bidder provided they meet the minimum requirements as established by NCGS 143-128 and are certified seven (7) days prior to award in accordance with the MBE/WBE/HUB/DBE program.

Bidders may access the N. C. Dept. of Administration, NCDOT web site for certified firms. Failure to achieve the goal and failure to contact known MBE/WBE/HUB/DBE firms on all lists referenced herein may not qualify as a good faith effort to identify and hire MBE/WBE/HUB/DBE firms.

**MBE/WBE/HUB/DBE firms certified by the Department of Transportation or Department of Administration may be counted toward to established goal.**

Firms listed by the bidder as certified which are not on the Department of Transportation or Department of Administration's list of certified firms must provide evidence of certification.

CONTRACTORS REQUIRED SUBMISSIONS:

If the bidder fails to meet the contract goals established herein, s/he must submit information, which will assist the City in determining whether or not the bidder made acceptable "GOOD FAITH EFFORTS" to meet the contract goals. **Failure to meet the goals by lack of "GOOD FAITH EFFORTS" will disqualify the bidder's proposal.**

The bidder shall complete all forms included herein which pertain the verification of MBE/WBE/HUB/DBE participation and/or good faith efforts made as part of the bid.

## **DEFINITION**

### **"GOOD FAITH EFFORT"**

**In accordance with the North Carolina Administrative Code 01-NCAC 301.0101 and the North Carolina General Statutes, the bidder must earn a minimum of 50 points from the good faith efforts listed below in order to be deemed to have made a good faith effort. If the bidder meets the 14% goal, the bidder shall be deemed to have met the good faith effort.**

The following is a list of items which the contractor and the city may use in making a determination as to the acceptability of contractors "GOOD FAITH EFFORT" in meeting the goals established herein.

(1) Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed. 10 POINTS

(2) Making the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due. 10 POINTS

(3) Breaking down or combining elements of work into economically feasible units to facilitate minority participation. 15 POINTS

(4) Working with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses. 10 POINTS

(5) Attending any prebid meetings scheduled by the public owner. 10 POINTS

(6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors. 20 POINTS

(7) Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing. 15 POINTS

(8) Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. 25 POINTS

(9) Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible. 20 POINTS

(10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. 20 POINTS

#### PAY REQUESTS AND MAINTENANCE OF RECORDS:

The contractor shall maintain adequate records of the MBE/WBE/HUB/DBE's performance and payments and shall submit regular reports to the City. These reports shall be sent with the contractors monthly "REQUEST FOR CONTRACT PAYMENT". The request shall include a breakdown of the amount of the payment to be made by the City which will be paid to the MBE/WBE/HUB/DBE's identified in the bid documents.

#### PROHIBITED AGREEMENTS:

Agreements between the bidder/proposer and a MBE/WBE/HUB/DBE in which the MBE/WBE/HUB/DBE promises not to provide subcontracting quotations to other bidders/proposers are prohibited.

**ATTACH THIS PAGE TO THE BID**

City of Wilmington - AFFIDAVIT A – “AFFIDAVIT OF GOOD FAITH COMPLIANCE”

**Listing of the Good Faith Effort**

Affidavit of \_\_\_\_\_  
(Name of Bidder)

**I have made a good faith effort to comply under the following areas checked:**

**The bidder must earn a minimum of 50 points from the good faith efforts listed below in order to be deemed to have made a good faith effort.**

- 1** - Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed. **10 points**
- 2** -Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due. **10 points**
- 3** - Broken down or combined elements of work into economically feasible units to facilitate minority participation. **15 points**
- 4** - Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses. **10 points**
- 5** - Attended prebid meetings scheduled by the public owner. **10 points**
- 6** - Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors. **20 points**
- 7** - Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing. **15 points**
- 8** - Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. **25 points**
- 9** - Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible. **20 points**
- 10** - Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. **20 points**

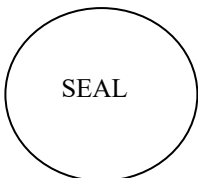
**Total Points**

In accordance with GS143-128.2(d) the undersigned will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon execution of a contract with the Owner. Failure to abide by this statutory provision will constitute a breach of the contract. The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2024

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

# City of Wilmington - AFFIDAVIT C - Portion of the Work to be Performed by Minority Firms

\*\*\*\*\***(NOTE: THIS FORM IS NOT TO BE SUBMITTED WITH THE BID PROPOSAL)**\*\*\*\*\*

If the portion of the work to be executed by minority businesses as defined in GS143-128.2(g) is equal to or greater than 14% of the bidders total contract price, then the bidder must complete this affidavit.  
 This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of \_\_\_\_\_ I do hereby certify that on the  
**(Name of Bidder)**

\_\_\_\_\_  
**(Project Name)**

Project ID# \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required

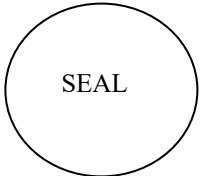
| Name and Phone Number | *Minority Category | Work description | Dollar Value |
|-----------------------|--------------------|------------------|--------------|
|                       |                    |                  |              |
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\*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_



Signature: \_\_\_\_\_

Title: \_\_\_\_\_

State of \_\_\_\_\_, County of \_\_\_\_\_  
 Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2024  
 Notary Public \_\_\_\_\_  
 My commission expires \_\_\_\_\_

# City of Wilmington

# AFFIDAVIT D – Good Faith Efforts

\*\*\*\*\***(NOTE: THIS FORM IS NOT TO BE SUBMITTED WITH THE BID PROPOSAL)**\*\*\*\*\*

If the goal of 14% participation by minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of: \_\_\_\_\_  
(Name of Bidder)

Project Name: \_\_\_\_\_

I do certify the attached documentation as true and accurate representation of my good faith efforts.

(Attach additional sheets if required)

| Name and Phone Number | *Minority Category | Work description | Dollar Value |
|-----------------------|--------------------|------------------|--------------|
|                       |                    |                  |              |
|                       |                    |                  |              |
|                       |                    |                  |              |
|                       |                    |                  |              |
|                       |                    |                  |              |

\*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

Documentation of the Bidder's good faith efforts to meet the goals set forth in these provisions. Examples of documentation include, but are not limited to, the following evidence:

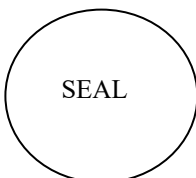
- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2024

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_



# POTENTIAL SUBCONTRACTING OPPORTUNITIES

**CONTRACT NAME:** MUNICIPAL GOLF COURSE INSTALLATION OF NEW IRRIGATION PROJECT

**PROJECT NUMBER:** GC-TGP-0624

**WORK ITEM DESCRIPTION:** Irrigation, Suppliers and other items not specifically referenced herein.

THE ABOVE LISTED AREAS OF SUBCONTRACT OPPORTUNITIES ARE THE AREAS THAT HAVE BEEN IDENTIFIED BY THE CITY STAFF AND/OR THE CITY CONSULTANTS FOR THE ABOVE REFERENCED PROJECT.

THE LIST IS BY NO MEANS EXHAUSTIVE AND BIDDERS ARE ENCOURAGED TO SEARCH FOR OTHER AREAS OF POTENTIAL SUBCONTRACTING OPPORTUNITIES. THE BIDDERS EFFORTS IN THIS REGARD WILL ALSO BE A CONSIDERATION IN THE CITY'S REVIEW OF THE GOOD FAITH EFFORT.

IF THERE ARE NO IDENTIFIED AREAS OF POTENTIAL SUBCONTRACT OPPORTUNITIES FOR A PARTICULAR CONTRACT THEN THE BIDDER MUST MAKE A GOOD FAITH EFFORT TO IDENTIFY OTHER AREAS OF POTENTIAL SUBCONTRACT WORK.

**THE REQUIREMENT TO MAKE A "GOOD FAITH EFFORT" APPLIES TO ALL CONTRACTS ESTIMATED BY THE CITY TO BE IN EXCESS OF \$100,000. THE POLICY DOES NOT APPLY TO CONTRACTS BELOW \$100,000.**

THE CONTRACT GOAL FOR MBE/WBE/HUB/DBE PARTICIPATION IS 14%.

## **MBE/WBE/HUB/DBE Web Sites**

North Carolina Department of Administration  
[www.doa.state.nc.us/hub](http://www.doa.state.nc.us/hub)

North Carolina Department of Transportation  
[www.ncdot.org](http://www.ncdot.org)

Bidders should furnish evidence as part of the post bid submittal that the above referenced web sites were used in attempting to contact MBE/WBE/HUB/DBE firms and as part of their good faith efforts.

# REPORT OF PARTICIPATING SUBCONTRACTORS AND SUPPLIERS

Please supply data for all subcontractors and suppliers, whose services will be utilized on the project being bid upon by your firm. This document must be completed and submitted along with the bid proposal.

BIDDER'S NAME \_\_\_\_\_ PROJECT: \_\_\_\_\_

BID IS FOR: GENERAL CONSTRUCTION ( ); ELECTRICAL ( ); HVAC ( ); PLUMBING ( )  
AMOUNT OF BID \$ \_\_\_\_\_ VALUE OF SUBCONTRACTS \$ \_\_\_\_\_

PERCENTAGE OF **CERTIFIED** MBE/WBE/HUB/DBE PARTICIPATION  
\_\_\_\_\_ %

## **CERTIFIED MBE/WBE/HUB/DBE SUBCONTRACTORS AND SUPPLIERS:**

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

=====

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

=====

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

=====

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

=====

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

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NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

=====

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
\_\_\_\_\_ ( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

=====

**PLEASE LIST BELOW ALL OTHER SUBCONTRACTORS AND SUPPLIERS AND NON-CERTIFIED MBE/WBE/HUB/DBE's.**

PERCENTAGE OF OTHER SUBCONTRACTORS, SUPPLIERS AND NON-CERTIFIED MBE/WBE/HUB/DBE's \_\_\_\_\_ %

**OTHER SUBCONTRACTORS & SUPPLIERS AND NON-CERTIFIED**  
**MBE/WBE/HUB/DBE's:**

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_ PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ OWNER'S NAME: \_\_\_\_\_  
( ) SUBCONTRACTOR ( ) SUPPLIER

WORK/SERVICE TO BE PERFORMED: \_\_\_\_\_  
AMOUNT TO BE PAID \$ \_\_\_\_\_ % OF TOTAL \_\_\_\_\_

**COMPLETE AND SUBMIT ALONG WITH AFFIDAVIT C OR AFFIDAVIT D**

In order for the City to determine the Good Faith Effort performed by the bidder, the bidder must list ALL firms contacted to perform subcontract work for the project.

**SUBCONTRACT CONTACT SCHEDULE**

**PRIME CONTRACTOR:** \_\_\_\_\_  
**PROJECT NAME:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

| DATE CONTACTED | NAME & ADDRESS OF PERSON/BUSINESS CONTACTED | PHONE NUMBER | SERVICE PROVIDED | PERSON MAKING CONTACT | CERTIFIED MBE/WBE/HUB/DBE/WBE? YES/NO | RESPONSE | PRICE QUOTED |
|----------------|---|--------------|------------------|-----------------------|---------------------------------------|----------|--------------|
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I HEREBY CERTIFY THAT THE SUBCONTRACTORS LISTED ABOVE WERE CONTACTED BY MY FIRM, AND REQUESTED TO SUBMIT QUOTES ON THE ABOVE REFERENCED PROJECT. ALL INTERESTED SUBCONTRACTORS WERE NEGOTIATED WITH IN GOOD FAITH.

I hereby certify that the above referenced information is true and accurate.  
 Inaccurate information provided in the bid document will be reported to the North Carolina Attorney Generals office and result in investigations and/or legal action against the bidder.

SIGNED: \_\_\_\_\_ TITLE: \_\_\_\_\_ COMPANY: \_\_\_\_\_

## GENERAL PROVISIONS

### Section G

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## INSTRUCTION TO BIDDERS

### SPECIAL NOTICE

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- G-1.01 The name of a certain brand, make, manufacturer, or definite specification is to denote the quality standard of the article desired, but does not restrict bidders to the specific brand, make, manufacturer, or specification named; it is to set forth and convey to the prospective bidders the general style, type, character, and quality of the article desired.
- G-1.02 The award of each contract will be made to the lowest responsible bidder as soon as practicable; provided, that in the selection of equipment or materials a contract may be awarded to a responsible bidder other than the lowest in the interest of standardization, or if ultimate economy is clearly evident.

If the project is being bid under the single and multiprime bidding methods, the CITY reserves the right to award the contract in whichever manner is in the best interest of the CITY taking into consideration the total cost of the project, including but not limited to contract administration and preparation costs.

The award of the contract represents a preliminary determination as to the qualifications of the bidder, the availability of funds for the project, and other matters precedent to the City's execution of the contract. No legally-binding acceptance of the offer set forth in the Contractor's bid occurs until the City executes the contract.

- G-1.03 If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, he may submit to the Engineer a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. An interpretation of the proposed documents will be made only by addendum duly issued, and a copy of such addendum will be mailed or delivered to each person receiving a set of such documents. The City of Wilmington will not be responsible for any other explanations or interpretations of the proposed documents.

## GENERAL SPECIFICATIONS

- G-1.04 **SEALED PROPOSALS REQUIRED: INSTRUCTIONS:** In accordance with the attached copy of advertisement and the following specifications, proposals will be received by the City Council of the City of Wilmington, North Carolina, at 305 Chestnut Street, Purchasing Manager's Office, on the date and time designated in the Advertisement, when they will publicly open and read the proposals properly submitted for Municipal Improvements in the City of Wilmington, North Carolina. Firms submitting single and multiprime bids must enclose these in separate sealed, clearly marked envelopes.

If bids are requested for single and multiprime contracts, bids will be received, but not opened, for the separate prime contracts one (1) hours prior to the deadline for submission of single prime bids. All bids will be opened at the time for receipt of the single prime bids.

G-1.04.1 Proposals must be placed in a sealed envelope and addressed to The Purchasing Manager, City of Wilmington, North Carolina. The envelope shall show the name and address of the bidder and be plainly marked to show the project name and number and section (if applicable), as given in the Advertisement. The envelope must also be marked on the face to show the Contractor's North Carolina Contractor's License Number. Bid forms are contained in this bound copy of the Contract Documents, copies of the proposal pages may be submitted. All

information entered on proposal forms must be original and in ink. Submission of the entire document is not required. However, bidders are cautioned to submit all required forms, as referenced in the bound document, properly signed with the sealed bid. Bid forms will be filled in and completed in all respects as required herein.

Firms submitting bids for Single and Multi-Prime bids on the same project must submit each bid to the Purchasing Manager in a separate, properly identified sealed envelope

**Failure by the bidder to properly complete the Bid Proposal, Affidavit of Non-Collusion, MBE/WBE/HUB/DBE forms or other documents will be cause for declaring the bid non-responsive and cause for rejection.**

G-1.04.2 Each proposal shall be accompanied by a cash deposit or certified check, said check to be payable to the City of Wilmington, and to be drawn on some bank or trust company insured by the Federal Deposit Insurance Corporation, in an amount equal to not less than five percent (5%) of the proposal. In lieu of making a cash or certified check deposit, as above provided, a bidder may file a bid bond executed by a corporate surety, licensed under the laws of the State of North Carolina to execute such bonds, said bid bond to be in an amount equal to not less than five percent (5%) of the amount of the bid, and said bid bond to be conditioned so that the surety will, upon demand, forthwith make payment to the City of Wilmington upon said bond if the bidder fails to execute the contract as provided below, and upon failure to forthwith make payment, the surety shall pay to the City an amount equal to the amount of said bid bond. Said deposit of cash, certified check, or bid bond to be forfeited to the City of Wilmington in the event of the bidder's failure to execute the contract within ten (10) days after award, as required by Section 143-129 of the General Statutes of North Carolina, Volume 3, as amended.

Deposits will be retained by the City, as property of the several bidders until the award of the contract is made, or all bids are rejected, after which the deposits will be returned.

G-1.04.3 No bid may be withdrawn for a period of ninety (90) days after being filed.

G-1.04.4 The work contemplated in these specifications, and the prices named in the proposals will be considered to include all cost of supplying, delivering, and all labor necessary for the incorporation of all materials into the work, and the use of all tools, machinery and equipment of every name and description that is used in carrying out the plans and specifications under this contract.

G-1.04.5 Bidders are cautioned to carefully examine the proposed location of work, as well as the plans and specifications, and to go over the whole project thoroughly with the Engineer before submitting their bids. It is understood and agreed that the quantities in the specifications, or as shown on the plans are approximate only, and no claim will be made against the City Council for any excess or deficiency, and no allowance will be made for the failure of the bidder to estimate correctly the difficulties attending the execution of the work.

G-1.04.6 Bidders are cautioned to adhere strictly to the spirit of the specifications in submitting their tenders, and it will be considered bad form to submit a proposal, expecting concessions after being awarded the contract by proposing the use of inferior materials and methods of construction for cheapening the work. The Engineer, Owner, or City desires to aid the Contractor in every legitimate way to carry on the work economically and expeditiously as set out in these specifications, and no alternate bids will be allowed unless requested in the proposal.

G-1.04.7 Where bids are received on Unit Prices, the City Council reserves the right, to authorize an increase of fifty percent (50%) of the amount of work set out in the proposal, or to decrease it to an extent equal to fifty percent (50%) of actual cost of the original work predicted on the unit prices given in the proposal. Such increase or decrease shall not vitiate or annul the

contract agreement hereinafter entered into. In the event of a discrepancy in the unit prices and the extended prices the unit prices shall prevail.

G-1.04.8 The bidder shall be required to produce substantial evidence that he is properly qualified to carry on the work as set out in the specifications. The qualifications required of all bidders are as follows: Thorough knowledge and experience in work of this character; labor and equipment in such quantities and quality as to enable the Contractor to carry on the work economically and expeditiously; financial condition must be such as not to require aid from the City Council, other than the regular monthly estimates.

G-1.04.9 The City Council will not consider any bid or award of contract to any person, firm, or corporation, who has defaulted in any obligation to the City of Wilmington, or who, in the opinion of the Council, failed to perform his work satisfactorily as to character or time.

G-1.04.10 The City reserves the right to reject any and all bids, or to accept the bid, or bids on the entire project, or any section of the project, as given in the Proposal, which, in its opinion, is to the best interest of the City.

G-1.04.11 The Contractor's attention is especially called to the fact that he will be requested by the Council, and will be expected to push this work with all speed possible.

G-1.05 CONTRACT SURETY OF PERFORMANCE BOND: Contractor shall furnish and deliver to the City a Payment Bond and a Performance Bond covering the faithful performance and completion of the work included in this Agreement and payment for all materials and labor furnished or supplied in connection with the work included in this Agreement. Said bonds shall be issued and furnished to the City prior to, and as a condition precedent to, commencement of the work of this Agreement. Each of the Payment Bond and Performance Bond shall be furnished on behalf of the Contractor, shall name the City of Wilmington obligee, and shall be in the amount of one hundred percent (100%) of the contract price. Such bond(s) shall be solely for the protection of the City. The Payment Bond and the Performance Bond shall be issued by a surety of financial standing having a rating from A.M. Best Company equal to or better than A and must be included on the approved list of sureties issued by the United States Department of Treasury. The surety bond must be in the form set forth in NCGS 44A-33, without any variations there from. The Contractor shall provide surety bond wherein Surety waives notice of any and all modifications, omissions, additions, changes and advance payments or deferred payments in or about the Contract, and agrees that the obligations undertaken by the Bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, and advance payments or deferred payments. The surety bond must set forth no requirement that suit be initiated prior to the time stipulated in applicable North Carolina Statutes of Limitation.

G-1.06 INSURANCE REQUIREMENTS: Before commencing any work, the Contractor shall procure insurance in the contractor's name and maintain all insurance policies for the duration of the contract of the types and in the amounts listed in Section G-1.06. The insurance shall provide coverage against claims for injuries to persons or damages to property which may arise from operations or in connection with the performance of the work hereunder by the contractor, his agents, representatives, employees, or subcontractors, whether such operations by himself/herself or anyone directly or indirectly employed by him/her.

G-1.06.1 COMMERCIAL GENERAL LIABILITY: Contractor shall maintain Commercial General Liability (CGL) and if necessary, Commercial Umbrella Liability insurance with a total limit of not less than \$5,000,000 each occurrence for bodily injury and property damage. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location or the general aggregate shall be twice the required limit. CGL insurance shall be written on Insurance Services Office (ISO) "occurrence" form CG 00 01 covering Commercial General Liability or its equivalent and shall cover the liability arising from premises, operations,

independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

The City of Wilmington, its officers, officials, agents, and employees are to be covered as additional insureds under the CGL by endorsement CG 20 10 or CG 20 33 **AND** CG 20 37 or an endorsement providing equivalent coverage as respects to liability arising out of activities performed by or on behalf of the contractor; products and completed operations of the contractor; premises owned, leased or used by the contractor; and under the commercial umbrella, if any. The coverage shall contain no special limitations on the scope of protection afforded to the City of Wilmington, its officers, officials, agents, and employees.

There shall be no endorsement or modification of the CGL or Umbrella Liability limiting the scope of coverage for liability arising from explosion, collapse, underground property damage, or damage to the named insured's work, when those exposures exist.

The insurer shall agree to waive all rights of subrogation against the City of Wilmington, its officers, officials, agents and employees for losses arising from work performed by the contractor for the City of Wilmington.

**G-1.06.2 WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY:** Contractor shall maintain Workers' Compensation as required by the general statutes of the State of North Carolina and Employer's Liability Insurance. The Employer's Liability, and if necessary, Commercial Umbrella Liability insurance shall not be less than \$5,000,000 each accident for bodily injury by accident, \$5,000,000 each employee for bodily injury by disease, and \$5,000,000 policy limit.

The insurer shall agree to waive all rights of subrogation against the City of Wilmington, its officers, officials, agents and employees for losses arising from work performed by the contractor for the City of Wilmington.

The U.S. Longshore and Harborworkers Compensation Act endorsement shall be attached to the policy when the services will be on or in close proximity to navigable waterways. The Maritime Coverage endorsement (WC 00 02 01) shall be attached to the policy when the contracted services involve the use of watercraft.

**G-1.06.3 BUSINESS AUTO LIABILITY:** Contractor shall maintain Business Auto Liability and, if necessary, Commercial Umbrella Liability insurance with a limit of not less than \$5,000,000 each accident. Such insurance shall cover liability arising out of any auto, including owned, hired, and non-owned autos. Business Auto coverage shall be written on ISO form CA 00 01, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in ISO form CA 00 01.

Pollution liability coverage equivalent to that provided under the ISO pollution liability-broadened coverage for covered autos endorsement (CA 99 48) shall be provided, and the Motor Carrier Act endorsement (MCS 90) shall be attached when those exposures exist.

Contractor waives all rights against the City of Wilmington, its officers, officials, agents and employees for recovery of damages to the extent these damage are covered by the business auto liability or commercial umbrella liability insurance obtained by Contractor pursuant to G-1.06.03 of this agreement.

The contractor's Business Auto Liability insurance shall be primary as the City of Wilmington, its officers, officials, agents, and employees. Any other insurance or self-insurance maintained



by the City of Wilmington, its officers, officials, and employees shall be excess of and not contribute with the contractor's insurance.

**G-1.06.4 OWNERS AND CONTRACTORS PROTECTIVE LIABILITY INSURANCE:**

Contractor shall maintain Owners and Contractors Protective Liability (OCP) insurance on behalf of the City of Wilmington, as named insured, with an each occurrence limit of \$5,000,000.

**G-1.06.5 BUILDERS RISK INSURANCE: DELETED**

**G1-1.06.6 INSTALLATION FLOATER:**

1. Contractor shall purchase and maintain in force Installation Floater insurance for the installation of material. Such insurance shall be written in an amount equal to the replacement cost of the material. The insurance shall apply on a replacement cost basis.
2. Insured property shall include portions of the work located away from the site but intended for use at the site, and shall also cover portions of the work in transit.
3. Installation Floater insurance shall name City of Wilmington as loss payee.
4. Installation Floater insurance shall, at a minimum, cover the perils insured under the ISO special causes of loss for (CP10 30).
5. Installation Floater insurance shall include coverage for flood. (Required is there is a flood exposure.)
6. Any deductible applicable to the Installation Floater shall be paid by the Contractor.
7. If the City of Wilmington is damaged by the failure of the Contractor to maintain Installation Floater insurance, then the Contractor shall bear all reasonable costs properly attributable to that failure.

**G1-1.06.7 PROFESSIONAL LIABILITY INSURANCE: DELETED**

**G1-1.06.8 ENVIRONMENTAL PROFESSIONAL LIABILITY INSURANCE: DELETED**

**G1-1.06.9 BAILEE COVERAGE (INCLUDING TRANSIT): DELETED**

**G1-1.06.10 CONTRACTORS POLLUTION LIABILITY INSURANCE: DELETED**

**G1-1.06.11 PROTECTION & INDEMNITY: DELETED**

**G1-1.06.12 ABUSE/MOLESTATION COVERAGE: DELETED**

**G1-1.06.13 ACCIDENT INSURANCE: DELETED**

**G1-1.06.14 ELECTRONIC DATA LIABILITY INSURANCE: DELETED**

**G1-1.06.15 FIDELITY COVERAGE: DELETED**

**G1-1.06.16 GARAGE LIABILITY AND/OR COMMERCIAL GENERAL LIABILITY: DELETED**

**G1-1.06.17 GARAGEKEEPER'S LEGAL LIABILITY: DELETED**

**G1-1.06.18 ON-HOOK CARGO: DELETED**

**G1-1.06.19 NETWORK SECURITY AND PRIVACY LIABILITY: DELETED**

**G1-1.06.20 TECHNOLOGY ERRORS & OMISSIONS: DELETED**

**G1-1.06.21 RAILROAD PROTECTIVE LIABILITY INSURANCE: DELETED**

G1-1.06.6 DEDUCTIBLES AND SELF-INSURED RETENTIONS: The contractor shall be solely responsible for the payment of all deductibles to which such policies are subject, whether or not the City is an insured under the policy.

G1-1.06.7 MISCELLANEOUS INSURANCE PROVISIONS: The policies are to contain, or be endorsed to contain, the following provisions:

1. Each insurance policy required by this contract shall be endorsed to state that coverage shall not be canceled by either party except after 30 days prior written notice has been given to the City of Wilmington, PO Box 1810, Wilmington, NC 28402-1810.
2. If Contractor's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

G1-1.06.8 ACCEPTABILITY OF INSURERS: Insurance is to be placed with insurers licensed to do business in the State of North Carolina with an A.M. Best's rating of no less than A VII unless specific approval has been granted by the City.

G1-1.06.9 EVIDENCE OF INSURANCE: The Contractor shall furnish the City with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements prior to commencing the work, and thereafter upon renewal or replacement of each certified coverage until all operations under this contract are deemed complete. Evidence of additional insured status shall be noted on the certificate of insurance as per requirements in Section G1-1.06. This Certificate shall be in six (6) counterparts and, when the contract is signed by the Contractor, a copy thereof shall be inserted in each copy of the contract documents and upon insertion shall become a part of such documents.

With respect to insurance maintained after final payment in compliance with requirements, an additional certificate(s) evidencing such coverage shall be provided to the City with final application for payment and thereafter upon renewal or replacement of such insurance until the expiration of the period for which such insurance must be maintained.

G1-1.06.10 SUBCONTRACTORS: Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein. Commercial General Liability coverage shall include independent contractors' coverage, and the contractor shall be responsible for assuring that all subcontractors are properly insured.

G1-1.06.11 CONDITIONS:

1. The insurance required for this contract must be on forms acceptable to the City.
2. The contractor shall provide that the insurance contributing to satisfaction of insurance requirements in G1-1.06 shall not be canceled, terminated or modified by the contractor without prior written approval of the City.
3. The contractor shall promptly notify the Safety & Risk Manager at (910) 341-5864 of any accidents arising in the course of operations under the contract causing bodily injury or property damage.
4. The City reserves the right to obtain complete, certified copies of all required insurance policies, at any time.
5. Failure of the City to demand a certificate of insurance or other evidence of full compliance with these insurance requirements or failure of the City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
6. By requiring insurance herein, the City does not represent that coverage and limits will necessarily be adequate to protect the Contractor and such coverage and limits shall not

be deemed as a limitation of Contractor's liability under the indemnities granted to the City of Wilmington in this contract.

7. The City shall have the right, but not the obligation of prohibiting Contractor or any subcontractor from entering the project site or withhold payment until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the City.

G-1.07 DELETED

G-1.08 DELETED

G-1.09 DELETED

G-1.10 DELETED

G-1.11 PAYMENT OF EMPLOYEES: The Contractor, and each of his Sub-contractors, shall pay each of his employees, engaged in work on this project, in full (less deductions made mandatory by law) not less often than on the Contractor's regular pay days, which shall be normally each week.

G-1.12 PAYMENT: Payment by the City to the Contractor will be made under either one of the following procedures:

G1.12.1 Public Construction Contracts equal to or greater than one hundred thousand dollars (\$100,000)

- A. The City shall retain five percent (5%) of any periodic payment due a Contractor.
- B. When the project is fifty percent (50%) complete, the City, with written consent of the surety, shall not retain any further retainage from periodic payments due the Contractor if the Contractor continues to perform satisfactorily and any nonconforming work identified in writing prior to that time by the Architect, Engineer, or City has been corrected by the Contractor and accepted by the City Engineer, Architect, Engineer, or Project Manager. If the City determines the Contractor's performance is unsatisfactory, the City may reinstate retainage for each subsequent periodic payment application up to the maximum amount of five percent (5%). The project shall be deemed fifty percent (50%) complete when the Contractor's gross project invoices, excluding the value of materials stored off-site, equal or exceed fifty percent (50%) of the value of the contract, except the value of materials stored on-site shall not exceed twenty percent (20%) of the contractor's gross project invoices for the purpose of determining whether the project is fifty percent (50%) complete.
- C. 50% complete means:
  - Gross project invoices, excluding material stored off site, of the value of the contract
  - The value of materials stored on-site shall not exceed 20% of the gross project invoices

G-1.12.2 PAYMENT ON UNIT PRICE CONTRACTS: Not later than 30 work days after receipt of a City approved invoice the City will make partial payment to the Contractor, on the basis of a duly certified approved estimate by the City Engineer, Project Architect or City Project Manager of the work performed during the preceding calendar month by the Contractor, in accordance with item 12.1.1 above.

G-1.12.3 PAYMENT ON LUMP SUM CONTRACTS, THIRTY DAYS OR MORE IN DURATION: Not later than 30 work days after receipt of a City approved invoice and acceptance of work performed during that period, the City will make partial payment to the Contractor on the basis of a duly certified approved estimate by the City Engineer, Architect, Designer or Project Manager of the work performed during the preceding calendar month by the Contractor, and the value of the materials on the job, but not installed. The City will retain five percent (5%) of the amount of each such estimates in accordance with item 12.1.1 above. For purposes of preparing these monthly estimates, after the execution of the Contract, the Contractor will be required to submit to the City Engineer, Architect, Designer or Project Manager a breakdown of his lump sum bid in sufficient detail to permit an accurate determination of the progress of the work.

G-1.12.4 UNSATISFACTORY PERFORMANCE AND RETAINAGE: Retainage of the maximum of 5% may be reinstated if performance of the Contractor is unsatisfactory as determined by the City.

G-12.5 Within 60 days after the submission of a pay request and one of the following occurs, as specified in the contract documents, the owner with written consent of the surety shall release to the contractor all retainage on payments held by the owner: (i) the City receives a certificate of substantial completion from the Project Manager, Architect, Engineer, or Designer in charge of the project; or (ii) the owner receives beneficial occupancy or use of the project. However, the City may retain sufficient funds to secure completion of the project or corrections on any work. If the City retains funds, the amount retained shall not exceed two and one-half (2 ½) times the estimated value of the work to be completed or corrected. Any reduction in the amount of the retainage on payments shall be with the consent of the contractor's surety.

G1.12.6 Release of Retainage shall be in accordance with G.S. 143-134.1.

G1.12.7 There will be no retainage on periodic or final payments made by the City or prime contractor on public construction contracts in which the total project costs are less than one hundred thousand dollars (\$100,000).

G-1.12.8 PAYMENT ON LUMP SUM CONTRACTS, THIRTY DAYS OR LESS IN DURATION: Where the time for completion of work, as stated in the proposal, is thirty (30) calendar days, or less, the City will make one payment in full upon completion of work and acceptance by the City Council. No partial or interim payments will be made.

G-12.9 The Prime contractor and all Subcontractors working on the project shall comply with G.S. 143-134.1 in regards to payments to all subcontractors

G-12.9 Nothing in this section shall prevent the City from withholding payment to the contractor in addition to the amounts authorized under G.S. 143-134.1 for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

G1.12.10 Payment to Subcontractors by Prime Contractor or General Contractor

Within seven days of receipt by the prime contractor of each periodic or final payment, the prime contractor shall pay the subcontractor based on work completed or service provided under the subcontract. If any periodic or final payment to the subcontractor -is delayed by more than seven days after receipt of periodic or final payment by the prime contractor, the prime contractor shall pay the subcontractor interest, beginning on the eighth day, at the rate of one percent (1%) per month or fraction thereof on unpaid balance as may be due.

A subcontract on a contract governed by this section may include a provision for the retainage on periodic payments made by the prime contractor to the subcontractor. However, the percentage of the payment retained: (i) shall be paid to the subcontractor under the same terms and conditions as provided to the Prime Contractor and shall not exceed the percentage of retainage on payments made by the owner to the prime contractor. Subject to section G-1.12.4, any percentage of retainage on payments made by the prime contractor to the subcontractor that exceeds the percentage of retainage on payments made by the owner to the prime contractor shall be subject to interest to be paid by the prime contractor to the subcontractor at the rate of one percent (1%) per month or fraction thereof.

Nothing in this section shall prevent the prime contractor at the time of application and certification to the City from withholding application and certification to the City for payment to the subcontractor for unsatisfactory job progress; defective construction not remedied; disputed work; third party claims filed or reasonable evidence that claim will be filed; failure of subcontractor to make timely payments for labor, equipment, and materials; damage to prime contractor or another subcontractor; reasonable evidence that subcontract cannot be completed for the unpaid balance of the subcontract sum; or a reasonable amount for retainage not to exceed the initial percentage retained by the owner.

The Prime contractor shall comply in all respects with G.S. 143-134.1 in all manners in payments to any an all subcontractors.

Neither the City's nor contractor's release of retainage on payments as part of a payment in full on a line-item of work shall affect any applicable warranties on work done by the contractor or subcontractor, and the warranties shall not begin to run any earlier than either the owner's receipt of a certificate of substantial completion from the architect, engineer, or designer in charge of the project or the owner receives beneficial occupancy.

G-1.13 COMMENCEMENT AND COMPLETION OF WORK: The Contractor for the construction of improvements under this contract shall commence work under his contract within ten days after written notice by the City PURCHASING MANAGER, and shall fully complete all work thereunder within the time stated in the proposal form.

G-1.14 EXISTING CONDITIONS: The Contractor, in signing this contract, acknowledges that he has read these Specifications and is familiar with their terms; that he has studied the plans and drawings, which are entirely clear to him; that he has been over the ground where the work is to be done, and has fully acquainted himself with the existing conditions; that he is fully prepared to sustain all losses or damages incurred by the action of the elements, or from any unforeseen obstructions, or encumbrances that may be encountered in the prosecution of the work; is prepared to provide the necessary tools, appliances and machinery, skilled and unskilled labor and materials of all kind as specified, and to guarantee that on completion, all work will be in strict compliance with the plans and specifications.

G-1.15 SUBLETTING OR ASSIGNMENT OF CONTRACT: The Contractor shall keep the work under his own control, and shall not assign, by power of attorney, or otherwise, nor sublet the work or any part thereof, without the written consent of the City. The Contractor shall perform on the site and with his own organization work equivalent to at least thirty percent (30%) of the work to be performed under this Contract. If, during the progress of the work hereunder, the Contractor requests a reduction of such percentage, and the City Manager determines that it would be to the City's advantage, the percentage of the work required to be performed by the Contractor's own organization may be reduced; provided prior written approval of such reduction is obtained by the Contractor from the City Manager. The Contractor shall submit in writing the name of such Subcontractor as he intends employing, the portion of the work which he is to do, the dollar amount of the work, indication as the MBE/WBE/HUB/DBE status of the subcontractor, his place of

business, and such other information as the City may require, in order to know whether said Sub-contractor is reputable, reliable and able to properly perform the work he proposes to do and to determine the effort made by the bidder in securing MBE/WBE/HUB/DBE subcontractors. Also, with respect to each Sub-contractor, the Contractor shall either submit certification by his insurance carrier that such Sub-contractor is covered under the provisions of his policy, or submit a certificate from the Sub-contractor's insurer that the Sub-contractor is covered, in accordance with Paragraphs G-1.05 through G-1.10, inclusive.

The Contractor shall not, either legally or equitably, assign any of the monies payable under this Contract, or his claim thereto, except by consent of the City.

Written consent by the City to sublet or assign any portion of the contract shall not be construed to relieve the Contractor, or surety, of any responsibility for the fulfillment of the Contract.

#### INTENT OF SPECIFICATIONS

G-1.16 INTENT: The intent of these specifications is to provide for the work herein enumerated to be constructed of the best materials of their respective kinds, and perfectly suited to the work contemplated. The work to be fully completed in every detail for the purpose designed, and it is hereby understood that the Contractor, in accepting this contract, agrees to furnish skilled labor, and everything necessary to complete the work in a workmanlike and satisfactory manner.

G-1.17 CONTRACT: In order that the contractor may understand the scope of the work to be performed and the details of its construction, several documents have been prepared, and it is understood and agreed by and between the contracting parties that the following documents form, and are essential parts of the complete contract: Advertisement, Information for Bidders, General and Technical Specifications, Proposal, Specific Contract, Contractor's Bond, Drawings, Plans, Maps, MBE/WBE/HUB/DBE policy and Profiles, attached or herein described, and others that may be prepared from time to time governing and illustrating the work to be done under the terms of the contract, and all of which shall have the same weight as if embodied herein.

G-1.18 SPECIFICATIONS: The General Provisions of the Specifications give in detail the duties and obligations of the two parties to the contract, the procedure of the work, and manner in which payments are to be made under the contract. The Technical Specifications, following, give in more detail the characteristics and requirements of the several classes of materials and special instructions governing the methods of construction. Where there is conflict, the Technical Specifications shall always take precedence over the General Specifications.

#### DEFINITIONS

G-1.19 DEFINITIONS: Wherever in the Specifications, Proposal, Contract, or Bond the following terms, pronouns, or abbreviations used in their stead, occur, the intent and meaning shall be interpreted as follows:

A. N. S. I.  
American National Standards Institute

A. S. T. M.  
American Society for Testing and Materials

A. W. S.  
American Welding Society

A. W. W. A.

American Water Works Association

A. A. S. H. T. O.

American Association of State Highway and Transportation Officials

Bid Bond

BID BOND: The security to be furnished by the bidder as guaranty of good faith to enter into a contract with the City for the proposed work, if such work is awarded to him.

Bidder

The person, or persons, partnership, firm or corporation submitting a proposal for the work contemplated.

Change Order

A written order from the Engineer signed by the Contractor and the City of Wilmington authorizing addition, deletion or revision in the work or an adjustment in the price or time for completion. All change orders must be approved by the City Manager.

City

The word City in these specifications refers to the City of Wilmington, North Carolina, the party of the second part to the contract, also referred to herein as the "Owner".

City Council or Council

The word Council, or City Council, refers to the City Council, the governing body of the City of Wilmington.

Contractor

The person, or persons, partnership, firm or corporation who enters into the contract awarded him by the City.

Drawings

All drawings, or reproductions thereof, pertaining to the construction of the work, which are approved by the Engineer for such purpose.

Engineer

The word Engineer, as used in these specifications, refers to the consulting engineer whose name appears on the drawings and/or to the City Engineer, and to his or their properly authorized assistants, limited to the duties entrusted to them.

Extra Work

A written order to the Contractor, signed by the Engineer, ordering a change in, or an addition to the work done, from that originally shown by the drawings and specifications. An authorized Change order shall be issued for this work.

F. S.

Federal Specifications

General Specifications

All requirements and provisions contained in this document.

Performance Bond

The approved form of security executed by the Contractor and his surety, guaranteeing complete execution of the contract.

Bond Proposal

Written offer submitted by the bidder in the required manner to perform the work contemplated.

N. C. S. H. C. or N. C. H. C. Specifications  
North Carolina State Highway Commission, Raleigh, North Carolina, and to their  
"Standard Specifications of Roads and Structures," latest edition.

**Request for Contract Payment**

The form supplied by the City and completed by the Contractor to request periodic payments on the contract. This form also includes a MBE/WBE/HUB/DBE payment form.

**Special Provisions**

Statements modifying or changing the requirements or provisions of the General Specifications, or adding new requirements or provisions thereto.

**Specifications**

The General Specifications, Special Provisions, and all written or printed agreements and instructions pertaining to the performance of the work, and to the quantity and quality of the materials to be furnished under the contract.

**Standard Details**

The Standard Detail drawings, or reproductions thereof, which pertain to the standard method of construction of the work, and which are approved by the Engineer.

**Surety**

The corporate body which is bound with and for the contractor, that is primarily liable with the contractor, for the acceptable performance of the contract and for the completion of the work.

**Phrases**

Wherever, in the specifications, or upon the drawings, the words "As required", "As permitted", or words of like import are used, it shall be understood that the direction, requirements, or permission of the Engineer is intended; and similarly the words "approved", "acceptable" and "satisfactory", or words of like import shall mean approved, acceptable, or satisfactory to the Engineer.

**MBE/WBE/HUB/DBE POLICY**

The policy adopted by City Council. A copy of the entire policy is available for inspection at the office of the Purchasing Manager.

**THE DUTIES AND AUTHORITY OF THE ENGINEER DEFINED**

**G-1.20 INTERPRETATIONS AND CORRECTIONS:** It is agreed by and between the contracting parties that the Engineer shall make all necessary explanations as to the meaning and intent of these specifications, and correct any errors, discrepancies or omissions that occur in the plans and specifications; it is further agreed that the Engineer shall, in all cases, determine the amount, quality, acceptability, and fitness of the several classes of work which are to be paid for under the contract; and it is also agreed that the Engineer shall act as referee upon all questions arising between the parties of this contract; and in all differences that occur between contractors working on adjoining sections concerning the work to be done under the terms of the contract, and the Engineer's decision shall be final and binding.

**G-1.20.1 INTERPRETATIONS OF PLANS AND/OR SPECIFICATIONS PRIOR TO RECEIPT OF BIDS:** If any prospective bidder feels that there are items within the plans or specifications, in the work proposed, or upon the site contemplated, which need clarification or interpretation, he shall, prior to the date and time for the receipt of bids, address a written



statement to the Engineer, covering the points which he feels need clarification. It shall be the responsibility of the person addressing the inquiry to see that such a request is in the hands of the Engineer in sufficient time for proper consideration and answer. Upon receipt of such a written request, the Engineer will make a determination and if, in his opinion, interpretation, clarification and/or change should be made in the plans and/or specifications, he will inform each holder of the plans and specifications in writing of his decision or findings in the matter in question. No other procedure will be followed in interpretation or addendum to these specifications, and the City of Wilmington will not be responsible for any change unless made in accordance with this procedure.

**Questions related to the proposed project, including questions concerning the plans and specifications will be addressed by the City or Engineer up to Seven (7) calendar days prior to the bid opening. No addenda will be issued after this time.**

- G-1.21 **FIELD WORK:** The Engineer shall give all necessary base lines and bench marks and information of like character for the guidance of the contractor, and all the work shall accurately conform thereto. Any work done without established lines, grades, may be ordered removed and replaced, without additional expense to the City.
- G-1.22 **INSPECTION:** All materials and workmanship will be inspected by the Engineer, and the Contractor will be held to the spirit of the specifications at all times, the intent of such inspection being simply to obtain work of a high character, and one in which both parties to the contract can take pride.
- G-1.23 **ALTERATIONS:** It is agreed by the contracting parties that the Engineer may at all times, before or after the commencement of the work, make alterations, or changes in the location, alignment, grades, materials and methods of construction that is desired, regardless of whether the location of such work be as shown on the plans upon which bids have been invited, and such change shall not vitiate or annul this contract, but the Engineer will determine the value of said work, and should such change diminish the amount of work to be done, no claim shall be made by the Contractor for damages on the grounds of anticipated profits from the part disposed with, but should the plan of a particular piece of work be altered or changed after commencement of said work and result in extra cost to the Contractor, the Engineer shall determine and certify a fair equitable value therefor, and his decision shall be final and binding.
- G-1.24 **INSPECTORS:** Should it be found necessary, in the opinion of the Engineer, to appoint inspectors to pass upon the quality, amount, and general character of the work and the materials incorporated therein, such person, or persons, who, in the opinion of the Engineer, are deemed competent, may be appointed. The duties of this office are purely supervisory, and their decisions are subject to review by the Engineer.

#### EXTRA WORK

- G-1.25 **EXTRA WORK:** The Contractor shall do any work not otherwise herein provided for when, and as ordered by the Engineer in writing by himself or specially authorized assistants. In the event that a mutually agreed price is not arrived at prior to the accomplishment of this extra work, the Contractor shall keep a strict account of the labor, equipment, and material used on said extra work, and shall give the Engineer an itemized statement each day of the amount. He shall further furnish the Engineer with bills, accounts and vouchers relating to the cost and access to all accounts concerning this work.

G-1.25.1 Request for reimbursement for Extra Work must be submitted by the Contractor within ten (10) days of the date upon which such extra work is accomplished, and subject request for reimbursement must bear on its face the authorizing number of the written order issued by the Engineer.

G-1.25.2 No request for reimbursement on account of additional work will be honored by the Engineer unless previously authorized by him in the manner stated.

- G-1.26 PROTECTION: When such work is being carried on under the written instructions of the Engineer, and the work is damaged from whatever cause due to the carelessness or neglect of properly protecting it, or the use of improper materials, or inferior workmanship, such part thereof as the Engineer directs shall be removed and replaced by the Contractor at his own expense.
- G-1.27 PAYMENT: For all such extra work, as authorized under the terms of Paragraph G-1.25, where it is possible for the Contractor and the Engineer to arrive at a mutually agreeable price (either lump sum or unit price) for this extra work in advance of the actual accomplishment of said work, this price may be used. In the event that this is not possible or practicable, the Contractor shall receive the reasonable cost of said work, plus ten percent (10%) of such cost. The decision of the Engineer shall be final upon all questions of the amount and value of extra work. The Engineer will include in such valuation the cost to the Contractor of all materials used, all labor, Social Security and insurance on labor only, common and skilled, labor foremen, and the fair rental of all machinery used for the period of such use. The Engineer will not include in this valuation any cost or rental of small tools, buildings, any portion of the time of the Contractor or superintendent, clerical help, overhead expenses or any allowance for the use of capital, these items being considered as covered by the ten percent (10%) added to the reasonable cost.
- G-1.28 TIMEKEEPER: The Engineer shall have the right to appoint a timekeeper to represent the City on extra work, and the Contractor shall furnish him all necessary facilities for obtaining a correct record of the time and the materials incorporated in the work. The Engineer shall have the right to designate what force shall be employed, the compensation therefor and the foreman shall be approved by the Engineer.

#### GENERAL INSTRUCTIONS

- G-1.29 OBSERVANCE OF THE LAW: In all operations connected with the work, the Contractor shall observe and obey all the precepts of the law, the ordinances and regulations of the Federal, City, County and State. The Contractor shall provide and maintain such barriers, signals, red lights, and watchmen to effectually prevent any accident in consequence of the work, and the Contractor shall be responsible and liable for all damage to life or property occasioned in any way by his acts or that of his agents.
- G-1.30 DISPOSITION OF CLAIMS: In the event of injuries or damages to persons or property of any kind legally existing along, or adjacent to the work, the Contractor agrees to make repairs or payment for damages or injuries as may be necessary, and should the Contractor fail to promptly repair or satisfy any legal complication that arises, after being notified in writing by the Engineer, the right is conferred upon the CITY to deduct the cost thereof from any money due, or to become due, the Contractor under the terms of the contract. All claims arising under this contract shall be settled to the satisfaction of the Engineer within sixty (60) days after notification to the Contractor of such claims, unless proceedings are entered into in a court of law.
- G-1.31 PATENTS: Should the Contractor use any patented invention, article or contrivance in the construction or maintenance of the work, or any part thereof embraced in these specifications, the fee or royalty for the use of such patented article as aforesaid shall be included in the Contractor's proposal; and the Contractor agrees to hold the City harmless against any and all demands for such fees or royalties; and before final payment to the Contractor he shall furnish satisfactory evidence that all such claims have been settled.
- G-1.32 PRIVATE PROPERTY: The Contractor shall not enter, or occupy with men, tools, machinery and materials, any property except that under the control of the City without the consent of the

Engineer, and then only with written consent of the property owner. A copy of this written consent shall be given, or mailed to the Engineer.

- G-1.33 LAYING OUT THE WORK: The Engineer will provide a base line for alignment purposes and a benchmark for vertical control. All construction offset stakes, forms, and batterboards shall be set by the contractor and are subject to review and approval by the Engineer, however, such approval of these items shall not relieve the Contractor of his responsibility to construct the work to the line and grade shown on the plans.
- G-1.34 UNAUTHORIZED WORK: Any work done without lines, levels and instructions having been given by the Engineer, or without the supervision of an Inspector, will not be estimated or paid for, except when such work is authorized by the Engineer. Work so done, without the authority of the Engineer, may be ordered removed and replaced at the Contractor's cost.
- G-1.35 RESPECT FOR FIELD RECORDS: The Contractor shall carefully preserve and maintain the proper position of all lines, stakes and grade boards until authorized to remove them. Any work that shows lack of alignment or grade where the Engineer's control stakes are missing, or the position of the points, stakes, or grades indicate that they have been carelessly maintained, such work shall be removed and replaced at the Contractor's expense. If, in the opinion of the Engineer, the Contractor does not utilize reasonable care in preserving control stakes, he shall be required to pay for all expenses involved in the replacement of these stakes.
- G-1.36 INSPECTION OF MATERIALS: The Contractor shall furnish and deliver on the ground where it is to be used all materials suitable for the purpose intended. All materials and workmanship shall be subject to the Engineer's inspection, approval, or rejection at all times, and this inspection and approval during the progress of the work does not relieve the Contractor of repairs or renewal where the work has been damaged, proven defective, or overlooked, and on demand of the Engineer any work found not in conformity with the specifications shall be removed at once and replaced in accordance with the specifications.
- G-1.37 WORKERS: Only competent and skilled workers of each class shall be employed on the work, and if the Engineer notifies the Contractor that any common or skilled workers, including those superintending the work, are unfaithful, disobedient, disorderly, or unsatisfactory, such worker, or workers shall be taken off of this project not again employed upon the work without the consent of the Engineer.
- G-1.38 PROSECUTION OF WORK: The Contractor shall begin the work provided for under the terms of the contract within ten (10) days after written notice by the Purchasing Manager, and shall diligently prosecute and fully complete same within the time stated in his proposal. The Contractor shall prosecute the work in such manner, time and place as directed by the Engineer, and he shall carry out without delay all orders and instructions given by the Engineer. During the absence of the Contractor, a qualified representative shall have authority to direct the work and to receive orders and instructions from the Engineer; but this direction by the Engineer for prosecuting the work shall not relieve the Contractor of any of the obligations or liabilities assumed under the contract.
- G-1.39 SANITATION: Necessary sanitation conveniences for the use of workers employed upon the work shall be constructed and maintained by the Contractor, in strict accordance with the provisions of the City-County, and State Health Departments. The Contractor shall obey and enforce the aforesaid rules and regulations, including preventative measures where the workers have been exposed to infections and communicable diseases.
- G-1.40 PUBLIC TRAFFIC: The Contractor shall maintain, in a safe and practical way, the roadways that are now used by the public or individuals that neither may be unnecessarily delayed nor inconvenienced on account of the work being carried on by the Contractor. The Contractor will

be responsible for all injuries, damages to persons or property incurred by such person, or persons, firm or corporation on account of the acts or claims of negligence by the Contractor to the aforesaid while passing over the public or private roadways. The Contractor will be required to repair, or make reparation for any damages that he may have caused to the roadways, public or private, immediately after discontinuing traffic along such route, or when authorized to do so by the Engineer.

#### G-1.41 BARRICADES AND LIGHTS:

G-1.41.1 Travel upon streets or any intersecting alley, street, or private driveway shall not be inconvenienced needlessly, nor shall any street or alley be wholly obstructed for more than two blocks at any one time, except in special cases where a greater distance may be allowed by the Engineer.

G-1.41.2 Whenever a street is closed, the Contractor shall cause plainly worded signs, announcing such fact, to be placed with proper barricades at the nearest cross street upon each side of such obstruction, and upon intersecting streets.

G-1.41.3 The Contractor shall also maintain sufficient warning lights during the hours of darkness in and about the work which is under way, and it is his full responsibility to see that such lights are lit and kept lit from sunset to sunrise.

G-1.41.4 The Contractor shall also provide and maintain suitable detour signs so as to warn the public of work under way, and to guide them around the work in progress where it would be dangerous for them to proceed through the working area.

G-1.41.5 If required by the Engineer, the Contractor shall also provide watchmen, or signalmen for protection and guidance of the public.

G-1.41.6 All barricades, lights, signage, flagging, and signalmen shall be established and operate in accordance with City requirements and North Carolina Department of Transportation.

G-1.42 DRAINAGE: The Contractor shall maintain an unobstructed flow of the natural and artificial drains at all times, and in the event it is necessary during the prosecution of work to obstruct the free flow of either, the Contractor shall provide for flow of water in such manner that no damage shall result, or a nuisance be created.

G-1.43 CLEANING UP: On the completion of any part of the work, the Contractor shall remove all surplus earth, materials of construction, debris, and refuse from the work as directed by the Engineer. On the final completion of the work, all debris over the entire contract, which is a result of work by the Contractor, shall be moved or destroyed as directed by the Engineer.

G-1.44 INCIDENTAL WORK: The duties of the Contractor have been set out in these specifications in a broad manner, with the intent of bringing to the attention of the Contractor his responsibilities under the contract, and any details of the work not specifically mentioned, but obviously necessary for carrying on, and the completion of the work shall be considered incidental thereto, and as being a part of, and included with the work for which prices have been named in the proposal, and the Contractor will not be entitled to any additional compensation therefor.

G-1.45 CONTRACTOR'S CLAIM FOR DAMAGES: In the event the Contractor is of the opinion that he should be compensated for damages sustained by reason of some act of the City, its agents or employees, the amount of such claims shall be itemized and a detailed report shall be furnished the Engineer by the Contractor within ten (10) days after the date it is claimed such damages were sustained. If the Contractor fails to file his claim in the manner and within the time named, but presents such claim at a later date when it would be impossible to make a thorough investigation,

such claims will be forfeited and invalidated, and payment of the alleged damages will be disallowed.

G-1.46 EXTENSION OF TIME: No extension of time will be made the Contractor for completing the work on account of ordinary and usual delays, such as the condition of the weather, and lack of material, accidents, and the occurrence of such will not relieve the Contractor from the necessity of maintaining the rate of progress agreed upon. The City will have the right, upon the recommendation of the Engineer after investigation, to extend the time for completion when extraordinary delays or accidents of unusual nature are incurred over which the Contractor has no possible control; but such action on the part of the City shall not operate or be construed to waive any of the rights of the City under this Contract and the Performance Bond. In the event the Contractor fails to complete the work in the specified time named in the proposal, and is permitted to continue and complete the work as if such time had not lapsed, such permission shall not be deemed a waiver in any respect by the City of any liability for extra expense thereby incurred arising from the noncompletion of said work, within the specified time, but such liability shall remain in full force against the Contractor.

G-1.47 TIME FOR COMPLETION AND LIQUIDATED DAMAGES: It is hereby understood and mutually agreed, by and between the Contractor and the City, that the date of beginning and the time for completion as specified in the contract of work to be done hereunder are ESSENTIAL CONDITIONS of this contract.

The beginning date of the construction period shall be ten (10) days following the date on the NOTICE TO PROCEED letter duly mailed by the Purchasing Manager to the contractors address indicated in the bid documents.

The Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the City, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

If the said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the City, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the City the amount specified in the contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work.

The said amount is fixed and agreed upon by and between the Contractor and the City because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain, and said amount is agreed to be the amount of damages which the City would sustain and said amount shall be retained from time to time by the City from current periodical estimates.

It is further agreed that time is of the essence of each and every portion of this contract and of the specification wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be to the essence of this contract.

Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the City determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the City; Provided further, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to any preference, priority or allocation order duly issued by the City.

G-1.48 SALVAGED MATERIALS: Any used materials removed from the site of the construction, such as granite curb, manhole and catch basin castings, pipe, fill materials, which materials will not be re-used under this contract, are the property of the City of Wilmington. Pipe, curb, castings, etc., shall be carefully removed by the Contractor and delivered to the City Lot at Tenth and Fanning Streets, where a receipt will be given. Excess fill material will be dumped on disposal areas indicated by the Engineer. The Contractor will be charged with any salvaged materials which he cannot account for as having delivered, as specified.

G-1.49 FINAL ESTIMATE: The Engineer shall certify to the City in writing when, in his opinion, the Contractor has performed all that is set out in the contract and the specifications relative to the construction, and the Engineer shall show in such certificate the amount of work done from actual measurement, and the value of such work under and according to the prices named in the proposal. The City, on acceptance of said certificate, shall pay unto the Contractor within thirty (30) days thereafter the amount remaining due, and that part of the estimate remaining unpaid and including all moneys retained in the monthly estimates and for other causes under the contract.

The acceptance by the Contractor of the final payment shall release the City of any and all claims, liabilities and obligations to the Contractor for any and all work done and materials furnished, or for any act of the City or its agents or employees affecting the same. Before final payment is made, the Contractor shall submit an affidavit to the Engineer, stating that he has fully paid all bills for equipment, materials, or labor used on this project.

G-1.50 INSPECTION AND TESTING MATERIALS: Whenever in these contract documents, inspection and testing of materials is called for, the selection of bureaus, laboratories and/or agencies for such inspection and testing is subject to the approval of the Engineer.

G-1.50.1 Documentary evidence satisfactory to the Engineer that the materials have passed the required inspection and testing must be furnished to the City by the Contractor prior to the incorporation of such materials in the work, when required by the Engineer, and rejected materials must be promptly removed from the premises.

G-1.50.2 Wherever an outside testing laboratory is employed for testing of materials to be incorporated in this contract, the City of Wilmington shall employ and pay said laboratory for services rendered.

G-1.51 CONTRACTOR'S USE OF PUBLIC WATER: The Contractor shall comply with all requirements of the Cape Fear Public Utility Authority for use of public water.

G-1.52 PRECAUTIONS PRIOR TO AND DURING EXCAVATION OF ANY STREETS: No excavation, tree removal or clearing shall be begun by the Contractor upon any street within the City, or any area upon which work is to be done under this contract until he has notified and arranged for an authorized representative of the utility companies and departments which maintain underground systems within the City of Wilmington (water, sewer, electric, telephone and gas) to go over all areas to be graded, excavated or cleared, and designate the location of all hidden or underground facilities, lines, cables, pipes, or other structures and adequately mark these for proper protection during the progress of the proposed construction. The City will use its best offices to require that the owners of utilities which are in physical interference with the work relocate their utilities with utmost speed when these obstructions are encountered. In case any obstruction so located or placed as to interfere with the work, is unexpectedly encountered, the Contractor shall at once notify the Engineer of the locality and circumstances, and the place shall be passed over until satisfactory arrangements can be made. The Contractor shall make no claim against the City for damages arising out of such a delay.

G-1.52.1 Any utility which requires relocation due to physical interference with the proposed construction will be required to be relocated by the owners by the City under its franchise agreement with the operators of said utility.

G-1.52.2 Any utility line which, in the opinion of the Engineer, does not require relocation due to physical interference with the proposed project shall be the responsibility of the Contractor to protect during the progress of the work. In the event of damage to any such line upon which a repair cost is claimed, this claim shall be paid by the Contractor. Where the utility owner has given incorrect or insufficient information to the Contractor as to the location of its underground lines, then the Contractor shall be relieved of the costs of repair, which shall then be borne by the utility company or operating department.

G-1.52.3 Under no circumstances, however, shall machine excavation, grading or cut of any nature be made in a street, or areas where high voltage underground cable or gas distribution lines, services, or mains are situated without the continuous presence of an authorized representative of the owning utility who is capable of "shutting down", "cutting off", discontinuing, or taking such other action as may be necessary to prevent a dangerous condition or occurrence of said utility lines, cables or facilities are damaged during such operations.

G-1.52.4 Should the location or position of any underground or surface obstruction be such that in the opinion of the Engineer its removal, replacement, realignment, or change is required for the prosecution of the work, and it shall be deemed desirable or expedient by the Engineer, the Contractor shall perform such work as may be required as Extra Work under this Contract. (See G-1.25, G-1.26, G-1.27, and G1.28).

G-1.53 RIGHTS-OF-WAY: The City shall furnish all needed rights-of-way for the project, but in the event that any certain rights-of-way and grounds necessary for the purpose of this Contract be not acquired by the City until after the beginning of the work, the Contractor shall so arrange the procedure of work as to allow time for the acquisition of such rights-of-way, and the City will not reimburse, or be liable to the Contractor for any losses resulting from, or incident to, such delay. As soon as the rights-of-way in question have been acquired, the Contractor shall at once proceed with the work thereon with such forces as will insure its prompt completion, but if there is such delay in procuring the right-of-way in question that there will not remain a reasonable length of time before the date set for the completion of this particular work, this fact shall operate so as to extend the time for completion of the particular work affected and to compensate for the actual time lost.

G-1.54 USE OF A PORTION OF THE WORK: Whenever, in the opinion of the Engineer, any portion of the work is completed, or is in an acceptable condition for use, it shall be used for the purpose intended. Such use shall not be held in any way as an acceptance of that portion of the work used, or as a waiver of any of the provisions of these specifications. Necessary repairs or renewals in any section of the work due to defective materials, defective workmanship, or natural causes, under the instructions of the Engineer shall be performed by the Contractor at no additional cost to the City.

G-1.55 EXCISE TAX ON MATERIALS OR FEDERAL TRANSPORTATION TAX, EXEMPTION THEREON: Wherever existing Federal Laws concerning Federal Excise Taxes and Federal Transportation Tax provide that the City of Wilmington is exempt from payment of such tax on items purchased by it, and these laws and regulations permit the extension of this exemption to the Contractors performing work for the City, the City will supply affidavits as to the existence and nature of the Contract, as requested by the Contractor for his use in filing with his vendors and transportation agencies to make his purchases for work under this Contract exempt from such taxes; providing (1) that the Contractor shall have filed an affidavit with the City that his bid on this contract does not include any costs of said taxes, and (2) that the materials for which he will request exemption from tax will be only those materials, which upon completion of the Contract

will have actually been incorporated into the work under this Contract, and upon receipt of final payment by the Contractor will become the property of the City of Wilmington.

- G-1.56 **REQUIRED RECORDS ON SALES AND USE TAX:** In order that the City may substantiate a refund claim for sales and use taxes, the Contractor shall furnish the City certified statements in triplicate, setting forth the cost of building materials, supplies and fixtures, and equipment which become a part of, or are annexed to any building or structure being erected, altered, or repaired under contract with the City and the amount of sales and/or use taxes paid thereon.

In the event the Contractor makes several purchases from the same vendor, such certified statement must indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices and the sales and use taxes paid thereon. Such statement must also include the cost of any tangible personal property withdrawn from the Contractor's warehouse stock which is incorporated in the work, and the amount of sales and use tax paid thereon by the Contractor. The Contractor shall also obtain similar certified statements by his Sub-contractors and submit them to the City.

Bidders are reminded that an additional Two percent (2%) North Carolina Sales Tax is now collected on all sales made within certain counties. Purchases within these counties will require separate certified statements for this 2% tax. This statement shall give the vendors name, invoice number, total amount of invoice, date of invoice, the amount of the special 2% tax paid and the County in which the purchase was made. In the event that the Contractor wishes to file a combined certified statement showing the 4% tax and the 2% tax separately, this will be acceptable provided he gives the counties in which the 2% tax was paid.

This certified statement must be submitted to the City Engineer monthly, and all certified statements shall be submitted before final payment is made for work performed under this contract.

- G-1.57 **SURFACE AND SUB-SURFACE STRUCTURES:** The Contractor shall be held responsible for the proper replacement of all bridges, crossings, or like structures.

In case any pipe or other obstruction, located or placed so as to interfere with the work is unexpectedly encountered, the Contractor shall at once notify the Engineer of the locality and circumstances, and the place shall be passed over until satisfactory arrangement can be made, without any claim for damages arising from such delay.

Should the location or position of any underground or surface obstruction be such that, in the opinion of the Engineer it must be relocated, and he deems it desirable or expedient that the Contractor undertake the necessary work, the Contractor will undertake to accomplish such work as directed by the Engineer, as provided under the sections of these Specifications dealing with Extra Work.

The Contractor is to take all risks and shall be responsible for all expenses and damage attending the presence or proximity of any gas or water pipe, or public or private sewers or drains, conduits, or other structures located in such a manner as shall not, in the opinion of the Engineer, require shifting, accommodating, or removing.

- G-1.58 **SETTLEMENT OVER EXCAVATION:** The Contractor shall be entirely responsible for all settlement over any and all trenches and excavations which may have been cut along the line of his work at any time prior to the completion of his contract, and for a period of twelve (12) months after completion of his contract.

- G-1.59 **TEMPORARY SUSPENSION OF WORK:** The Engineer shall have the authority to suspend the work, wholly or in part, for such period or periods as may be deemed necessary due to unsuitable



weather, or other such conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as is necessary due to the failure on the part of the Contractor to carry out orders given, or perform any or all provisions of the Contract. If it should be necessary to stop work for an indefinite period, the Contractor shall store all materials necessary in such a manner that they will not deteriorate or become damaged in any way, and he shall take every precaution necessary to prevent damage or deterioration of the work performed, provide suitable drainage by opening ditches, shoulder drains, etc., and erect structures where necessary. The Contractor shall not suspend the work without authority from the Engineer. Neither the failure of the Engineer to notify the Contractor to suspend the work on account of bad weather, nor permission from the Engineer to continue work during bad weather shall be cause for the acceptance of any work which does not comply in every respect with the Contract and Specifications.

G-1.60 EQUAL OPPORTUNITY REQUIREMENTS: The Contractor agrees that it will in carrying out the terms of this agreement, comply with the provisions of Executive Order 11246 entitled "Equal Employment Opportunity".

In complying with the provisions of Executive Order 11246, the Contractor agrees as follows:

- (a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (b) The Contractor will in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- (c) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or worker representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (d) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (e) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the Department of Housing and Urban Development and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- (f) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further federally assisted construction contracts in accordance with

procedures authorized in Executive Order 11246 or September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor.

(h) EXEMPTIONS TO EQUAL OPPORTUNITY CLAUSE: (1) Contracts and sub-contracts not exceeding \$10,000.00 (other than Government bills of lading) are exempt. The amount of the contract, rather than the amount of the Federal Financial Assistance shall govern in determining the applicability of this exemption. (2) Except in the case of sub-contractors for the performance of construction work at the site of construction, the clause shall not be required to be inserted in sub-contracts below the second tier. (3) Contracts and sub-contracts not exceeding \$100,000.00 for standard commercial supplies or raw materials are exempt.

G-1.61 SAFETY: The contractor and each of his subcontractors shall comply at all times with all regulations of the Occupational Safety and Health Administration and all labor laws and regulations of the State of North Carolina applicable to safety. Such standards include 29 CFR Part 1926 and applicable standards from 29 CFR Part 1910 of the Code of Federal Regulations.

The contractor and each of his subcontractors shall maintain adequate protection against damage to life and property during the work and shall provide and maintain all necessary protective devices until completion and acceptance of the work by the City.

In any emergency threatening life or property not considered by the contractor as coming under the provisions provided in this Section G-1.61 the contractor may act at his own discretion to prevent or alleviate the threatening situation without authorization by the City.

G-1.62 Contractor shall obtain building, electrical, mechanical and plumbing permits for all work under the Contract. There will be no fee for obtaining these permits.

G-1.63 GENERAL CONTRACTOR: In the event the bid and subsequent contract require separate prime contractors for the various phases of the work, the Contractor receiving the GENERAL CONSTRUCTION contract shall act as the General Contractor for the project in regards to scheduling of the work and other duties generally carried out by the General Contractor.

G-1.64 PLANS AND SPECIFICATIONS: All firms receiving award on a section of the contract shall receive free of charge from the City of Wilmington two (2) complete sets of plans and specifications for the project. For Single prime contracts involving multiple subcontractors, the primary subcontractors (HCAC, Plumbing, and Electrical or specialty item specifically bid as a separate item) shall receive up to two (2) complete sets of plans and specifications. Any further sets required by the contractor shall be charged to the contractor at the cost of reproduction.

G-1.65 DISPUTES: Any disputes in excess of \$15,000 shall be processed in accordance with Section 13 of the contract.

Rev. 2/02

NEW HANOVER COUNTY

CONTRACT FOR CONSTRUCTION SERVICES

THIS CONTRACT, made this the \_\_\_\_ day of \_\_\_\_\_, 2024 by and between the CITY OF WILMINGTON, NORTH CAROLINA, a Municipal Corporation located in New Hanover County (hereinafter called "CITY"); and 1. a corporation organized under the laws of the State of \_\_\_\_\_; 2. a non-profit corporation organized under the laws of the State of \_\_\_\_\_; 3. an unincorporated association having its principal place of business in \_\_\_\_\_; 4. a resident of \_\_\_\_\_; or 5. owner of a partnership organized under the laws of the State of \_\_\_\_\_, with its principal offices in \_\_\_\_\_ (hereinafter called "CONTRACTOR").

W I T N E S S E T H:

1. Purpose

The CITY hereby employs the CONTRACTOR to furnish all labor, materials and equipment to perform all work in manner and form as specified by the attached plans, specifications and documents consisting of, but not limited to: Advertisement, Instructions to Bidders, General Conditions, Technical Specifications, Proposal and Affidavit, Contract and Performance and Payment Bonds, which are incorporated as if fully set out, for the following:

MUNICIPAL GOLF COURSE INSTALLATION OF NEW IRRIGATION PROJECT as specified herein and on the plans, specifications, contract documents, drawings, addenda and change orders (if any).

2. Term of Contract/Liquidated Damages

The CONTRACTOR shall commence the work to be performed under this contract within ten (10) days of receipt of a written order from the Purchasing Manager and shall complete all work hereunder within 120 calendar days of the date of beginning. The CONTRACTOR further agrees to pay, as liquidated damages, the sum of \$1,000.00 for each consecutive calendar day thereafter as hereinafter provided in Paragraph G-1.47 of the General Conditions.

3. Extra Work

In the event extra work is necessary, not set forth or contemplated in this contract, the CONTRACTOR agrees to faithfully perform all such work under a written change order from the CITY, setting forth and describing fully the work to be done. The CITY hereby agrees to pay to the CONTRACTOR, for any such extra work, upon presentation of properly prepared, itemized statements of cost computed as follows:

(a) The CONTRACTOR shall be allowed to charge for labor used at the actual payroll charges during the time actually spent on extra work, (b) He shall be allowed to add on labor charges the percentage shown in Paragraph 8 of the Proposal for Workmen's Compensation Insurance, Social Security and other payroll charges, (c) The rate for such equipment, this hourly rate to be for operating hours only, (d) The CONTRACTOR shall be allowed to charge for material purchased by him and used on extra work orders the amount charged to him by the vendor upon presentation of paid invoices, (e) The CONTRACTOR shall be allowed to add to the costs of said work arrived at enumerated above ten (10%) percent of materials, cost of equipment and actual payroll cost for overhead and profit.

4. Payment

4.1 The CITY agrees to pay to the CONTRACTOR for the faithful performance of this contract, subject to any additions or deductions as provided for in the Specifications or Proposal, and in accordance with the prices as set forth, subject to any additions which may be due under Paragraph 3 of this Agreement, Unit Prices and/or lump sum price, as set forth in the Proposal, the estimated total cost of \_\_\_\_\_  
(\$ \_\_\_\_\_)

4.2 Not later than 30 work days after receipt of a City approved invoice the City will make partial payment to the Contractor on the basis of a duly certified approved estimate by the City Engineer of the work performed during the preceding calendar month by the Contractor, and the value of the materials on the job, but not installed, less ten (5%) percent of the amount of such estimate, which is to be retained by the CITY until all work has been performed strictly in accordance with this contract and until such work is accepted by the CITY.

**4.3 Invoices, or estimates of the cost of work performed, through June 30<sup>th</sup>, must be received by the 10<sup>th</sup> calendar day of July.**

4.4 Upon submission by the CONTRACTOR of evidence satisfactory to the CITY that all payrolls, materials, bills and any other liabilities or costs incurred by the CONTRACTOR in connection with the construction of this work has been paid in full, final payment on account of this contract shall be made within thirty (30) days after completion by the CONTRACTOR of all work covered by this agreement and the acceptance of such work by the CITY.

5. Performance Bond

It is agreed that if, at any time after the execution of this contract and the surety bond attached for its faithful performance, the CITY shall deem the surety or sureties upon such bond to be unsatisfactory, or if for any reason such bond ceases to be adequate to cover the performance of the work, the CONTRACTOR shall, at his expense, within five days after receipt of notice from the CITY to do so, furnish an additional bond or bonds in such form and amount, and with such surety, or sureties, as shall be satisfactory to the CITY.

6. Insurance; Proof of Coverage

The CONTRACTOR shall take out and maintain, during the life of this contract, all insurance required under Paragraph G-1.06 of the General Provisions, and shall, at execution of this contract, attach to each of the counterparts thereof documentary proof of compliance in the form of a Certificate from his insurer, stating the amount, policy numbers, and kinds of insurance carried. This certificate shall also contain a statement by the insurer that he will notify the City of Wilmington by Registered Mail twenty (20) days prior to any cancellation or lapse of the insurance shown on this certificate. It is further agreed that the CONTRACTOR shall furnish the CITY with one memorandum copy of the policy, or policies, shown on this certificate at the time of the signing of this contract.

7. Guarantee

The CONTRACTOR hereby agrees to guarantee, for a period of one year after date of final payment, the work accomplished under this Contract. The CONTRACTOR agrees to repair at no cost to the CITY any defects due to faulty workmanship or materials which may appear in his work during this period.

8. Release and Indemnity

To the fullest extent permitted by law, the CONTRACTOR shall release, indemnify, keep and save harmless the CITY, its agents, officials and employees, from any and all responsibility or liability for any and all damage or injury of any kind or nature whatever (including death resulting therefrom) to all persons, whether agents, officials or employees of the CITY or third persons, and to all property proximately caused by, incident to, resulting from, arising out of, or occurring in connection with, directly or indirectly, the performance or nonperformance by CONTRACTOR (or by any person acting for the CONTRACTOR or for whom the CONTRACTOR is or is alleged to be in any way responsible), whether such claim may be based in whole or in part upon contract, tort (including alleged active or passive negligence or participation in the wrong), or upon any alleged breach of any duty or obligation on the part of the CONTRACTOR, its agents, officials and employees or otherwise. The provisions of this Section shall include any claims for equitable relief or for damages (compensatory or punitive) against the CITY, its agents, officials, and employees including alleged injury to the business of any claimant and shall include any and all losses, damages, injuries, settlements, judgments, decrees, awards, fines, penalties, claims, costs and expenses. Expenses as used herein shall include without limitation the costs incurred by the CITY, its agents, officials and employees, in connection with investigating any claim or defending any action, and shall also include reasonable attorneys' fees by reason of the assertion of any such claim against the CITY, its agents, officials or employees. The CONTRACTOR expressly understands and agrees that any performance bond or insurance protection required by this agreement, or otherwise provided by the CONTRACTOR, shall in no way limit the CONTRACTOR'S responsibility to release, indemnify, keep and save harmless and defend the CITY as herein provided. The intention of the parties is to apply and construe broadly in favor of the CITY the foregoing provisions subject to the limitations, if any, set forth in N.C.G.S. 22B-1.

9. Personnel

It is mutually agreed that CONTRACTOR is an independent contractor and not an agent of the CITY, and as such the CONTRACTOR shall not be entitled to any CITY employment benefits, such as, but not limited to, vacation, sick leave, insurance, workmen's compensation, or pension and retirement benefits.

10. Conflict of Interest

No paid employee of the CITY shall have a personal or financial interest, direct or indirect, as a contracting party or otherwise, in the performance of this agreement.

11. Non-Waiver of Rights

It is agreed that the CITY'S failure to insist upon the strict performance of any provision of this agreement, or to exercise any right based upon a breach thereof, or the acceptance of any performance during such breach, shall not constitute a waiver of any rights under this agreement.

12. Suspension or Termination of Agreement

12.1 In the event that review of Contractor's performance shows non-conformance to the attached scope of service or other terms or conditions contained herein as a result of the Contractor's errors, omissions or negligent acts, the contractor shall be in breach of this Agreement and the City may take corrective action as it deems necessary including, but not limited to, withholding or reduction of payment.

12.2 The City shall also have the right to suspend this Agreement upon written notice to the Contractor. Such suspension may be made for any of the following reasons: (a) violations or non-compliance with the contract terms, (b) violations of OSHA laws or regulations, (c) violations of Federal or State environmental and health laws or regulations, (d) operating City valves without permission, (e) moving City supplied water meters without permission, (f) failure to adequately plan for the protection of underground utilities during construction, (g) violation of any City ordinances or regulations or (h) verbal abuse of any City employees or others. In addition, any such violations may result in the Contractor being disqualified from bidding on future City projects. The written notice of suspension shall state the reasons for suspension and allow for a review period of ten (10) days during which the Contractor shall be provided with an opportunity to respond with an explanation or a justification, and/or shall undertake any reasonable remedial action required by the City. If, in the opinion of the City, the Contractor has not addressed the reasons for suspension at the completion of the ten (10) day suspension period, the City shall have a right to terminate this Agreement whereupon all obligations of the City to the Contractor shall cease.

12.3 The City may, at any time, terminate this contract for the City's convenience and without cause. Upon receipt of written notice from the City of such termination for the City's convenience, the Contractor shall (a) cease operations as directed by the City in the notice; (b) take actions necessary, or that the City may direct, for the protection and preservation of the work; and (c) except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing sub- contracts and purchase orders and enter into no further sub-contracts and purchase orders. In the event that this project is terminated for the convenience of the City, the Contractor shall be paid for services performed to the date of termination and costs incurred by reason of such termination, but such costs shall not include anticipated profit on unperformed work. (In no event will the amount due contractor in the event of termination for convenience exceed that amount set forth in Paragraph 4.1 of this Agreement. Contractor shall be paid for all reimbursables, as defined herein, which are due him.)

12.4 If after notice of termination of this contract under the provisions of Paragraph 12.2, it is determined for any reason that the Contractor was not in default under the provisions of such paragraph, or that the default was excusable under the provisions of this contract, the rights and obligations of the parties shall be the same as if the notice of termination had been issued by the City for convenience as set forth in Paragraph 12.3.

12.5 Nothing contained herein shall prevent the City from pursuing any other remedy which it may have against the Contractor including claims for damages.

13. Contract Disputes

In accordance with G.S. 143-128.1(8) the parties agree to mediate contract disputes in excess of \$15,000.00. Within ten (10) days of such contract disputes, the parties shall select a mediator that is certified pursuant to all of the parties involved in the dispute. If the parties cannot agree on a mediator or do not timely select a mediator, the City shall select the mediator. The parties and the mediator shall agree upon the mediator's rate of compensation. The parties to the dispute shall share in the payment of the mediator's compensation with the City paying a minimum of one-third of the compensation if the City is a party to the dispute.

14. Assignment of Agreement

It is mutually agreed by the parties hereto that this agreement is not transferable by either party to this agreement without the consent of the other party to this agreement.

15. Subcontracts

The CONTRACTOR shall utilize no subcontracts for carrying out the services to be performed under this agreement without the written approval of the CITY.

16. Entire Agreement

The agreement constitutes the entire understanding of the parties.

17. Binding Effect

The agreement shall be binding upon the heirs, successors, assigns, agents, officials, employees, independent contractors, and subcontractors of the parties.

18. Continuing Obligation

The parties will make and execute all further instruments and documents required to carry out the purposes and intent of the agreement.

19. Reference

Use of the masculine includes feminine and neuter, singular includes plural; and captions and headings are inserted for convenience of reference and do not define, describe, extend or limit the scope of intent of the agreement.

20. Interpretation

All of the terms and conditions contained herein shall be interpreted in accordance with the laws of the State of North Carolina. In the event of a conflict between the various terms and conditions contained herein or between these terms and other applicable provisions, then the more particular shall prevail over the general and the more stringent or higher standard shall prevail over the less stringent or lower standard.

21. Saving Clause

If any section, subsection, paragraph, sentence, clause, phrase or portion of this contract is for any reason held invalid, unlawful, or unconstitutional by any court of competent jurisdiction, such portion shall be deemed severable and such holding shall not affect the validity of the remaining portions hereof.

22. Other Laws and Regulations

CONTRACTOR will comply with any and all applicable federal, state and local standards, regulations, laws, statutes and ordinances including those regarding toxic, hazardous and solid wastes and any pollutants; public and private nuisances; health or safety; and zoning, subdivision or other land use controls. CONTRACTOR will take all reasonably necessary, proper or required safety, preventative and remedial measures in accordance with any and all relations and directives from the North Carolina Department of Human Resources, the United States Environmental Protection Agency, the North Carolina Department of Environmental Management, Health Departments, and any other federal, state or local agency having jurisdiction, to insure the prompt prevention or cessation (now or in the future) of violations of either the applicable provisions of such standards, regulations, laws, statutes, and ordinances or any permits or conditions issued thereunder. CONTRACTOR specifically acknowledges and agrees that CONTRACTOR, and any subcontractors it uses, has complied with and shall continue to comply with the provisions of the federal E-Verify program in compliance with Article 2 of Chapter 64 of the North Carolina General Statutes. CONTRACTOR shall maintain adequate safeguards with respect to sensitive customer information in conformance with and pursuant to 16 C.F.R. §681.1 and in accordance with N.C. Gen. Stat. §132-1.10 and §75-65.

23. Amendments

This agreement shall not be modified or otherwise amended except in writing signed by the parties.

24. Non-Discrimination

CONTRACTOR will take affirmative action not to discriminate against any employee or applicant for employment or otherwise illegally deny any person participation in or the benefits of the program which is the subject of this agreement because of race, creed, color, sex, age, disability or national origin. To the extent applicable, CONTRACTOR will comply with all provisions of Executive Order No. 11246, the Civil Rights Act of 1964, (P.L. 88-352) and 1968 (P.L. 90-284), and all applicable federal, state and local laws, ordinances, rules, regulations, orders, instructions, designations and other directives promulgated to prohibit discrimination. Violation of this provision, after notice, shall be a material breach of this agreement and may result, at CITY'S option, in a termination or suspension of this agreement in whole or in part.

25. Authority to Act

Each of the persons executing this Agreement on behalf of CONTRACTOR does hereby covenant, warrant and represent that the CONTRACTOR is a duly organized and validly existing legal entity authorized to transact business within the State of North Carolina, that the CONTRACTOR has full right and authority to enter into this Agreement, and that each and all persons signing on behalf of the CONTRACTOR were authorized to do so.



26. Counterparts.

This Agreement may be executed in several counterparts, including separate counterparts. Each shall be an original, but all of them together constitute the same instrument.

27. No Publicity.

No advertising, sales promotion or other materials of the CONTRACTOR or its agents or representations may identify or reference this Contract or the CITY in any manner absent the written consent of the CITY. Notwithstanding the forgoing, the parties agree that the CONTRACTOR may list the CITY as a reference in responses to requests for proposals, and may identify the CITY as a customer in presentations to potential customers.

28. CITY Not Liable For Special or Consequential Damages.

The CITY shall not be liable to the CONTRACTOR, its agents or representatives or any subcontractor for or on account of any stoppages or delay in the performance of any obligations of the CITY, or any other consequential, indirect or special damages or lost profits related to this Contract.

29. Public Records.

CONTRACTOR acknowledges that the CITY is a public entity, subject to North Carolina's public records laws (N.C.G.S. § 132) and that any documents related to this Agreement may be subject to disclosure pursuant to state law in response to a public records request or to subpoena or other judicial process.

If CONTRACTOR believes documents related to the Agreement contain trade secrets or other proprietary data, CONTRACTOR must notify the CITY and include with the notification a statement that explains and supports CONTRACTOR'S claim. CONTRACTOR also must specifically identify the trade secrets or other proprietary data that CONTRACTOR believes should remain confidential.

In the event the CITY determines it is legally required to disclose pursuant to law any documents or information CONTRACTOR deems confidential trade secrets or proprietary data, the CITY, to the extent possible, will provide CONTRACTOR with prompt written notice by certified mail, fax, email, or other method that tracks delivery status of the requirement to disclose the information so CONTRACTOR may seek a protective order from a court having jurisdiction over the matter or obtain other appropriate remedies. The notice will include a time period for CONTRACTOR to seek court ordered protection or other legal remedies as deemed appropriate by CONTRACTOR. If CONTRACTOR does not obtain such court ordered protection by the expiration of said time period, the CITY may release the information without further notice to CONTRACTOR.

30. Minority Business Enterprise (MBE)

The CITY desires that minority business enterprises have the maximum opportunity to participate in the performance of this contract and will:

- 30.1 Promote affirmatively (where feasible) in accordance with North Carolina General Statute 143-129, together with all other applicable laws, statutes and constitutional provisions, the procurement of goods, services in connection with construction projects for minority owned business enterprises.
- 30.2 Ensure that competitive and equitable bidding opportunities are followed to afford minority business enterprises participation. Strive to obtain contract and subcontract awards to minority business enterprises.
- 30.3 Identify and communicate to the minority business enterprises community procedures and contract requirements necessary for procurement of goods and services for construction projects and subcontracts.
- 30.4 Provide technical assistance as needed.
- 30.5 Promulgate and enforce contractual requirements that the general CONTRACTOR or all construction projects shall exercise all necessary and reasonable steps to insure that minority business enterprises participate in the work required in such construction contracts.

The CONTRACTOR shall insure that minority business enterprises have the maximum opportunity to compete for and perform portions of the work included in this contract and shall not discriminate on the basis of race, color, national origin or sex. The CONTRACTOR shall include this special provision, Minority Business Enterprise (MBE), in all subcontracts for this contract. Failure on the part of the CONTRACTOR to carry out the requirements set forth in this special provision may constitute a breach of contract and after proper notification may result in termination of the contract or other appropriate remedy.

A minority business enterprise is defined as a business, with at least fifty-one (51%) percent owned and controlled by minority group members. The minority ownership must exercise actual day-to-day management. Minority group members may consist of Black Americans (an individual of the Black race of African origin), Hispanic Americans (an individual of a Spanish speaking culture and origin at parentage), Asian Americans (an individual of a culture, origin or parentage traceable to the areas of the Far East, Southeast Asia, the Indian subcontinent and the Pacific Islands), Indian Americans (an individual who is an enrolled member of a Federally recognized Indian tribe, or recognized by the tribe as being an Indian, as evidenced by a certification of a tribal leader), American Aleuts or any recognized minority group approved by the CITY.

A Woman Business Enterprise is a business with at least fifty-one (51%) percent owned and controlled by women who exercise actual day-to-day management.

The CONTRACTOR shall exercise all necessary and reasonable steps to ensure that Minority Business Enterprises and Woman Business Enterprises participate in the work required in this contract. The CONTRACTOR agrees by executing this contract that he will exercise all necessary and reasonable steps to ensure that this special provision contained herein on Minority Business Enterprise is complied with.

IN WITNESS WHEREOF, the CITY has caused this agreement to be duly executed in its name and behalf and the CONTRACTOR has caused this agreement to be duly executed in its name and behalf and its corporate seal to be hereunto affixed, and attested to.

CITY OF WILMINGTON, NORTH CAROLINA

BY: \_\_\_\_\_  
Anthony N. Caudle, City Manager

WITNESS:

\_\_\_\_\_  
Daryle L. Parker, Purchasing Manager

APPROVED AS TO FORM:

\_\_\_\_\_  
Shawn R. Evans, Deputy City Attorney

FINANCE OFFICER'S CERTIFICATION STATEMENT

This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Jennifer R. Maready, Director of Finance

Project String: \_\_\_\_\_

Org./Obj.: \_\_\_\_\_

Amount of Contract \$ \_\_\_\_\_

PO# \_\_\_\_\_

Federal ID Number: 56-6000239

\_\_\_\_\_  
BY: \_\_\_\_\_  
President, Vice President,  
Assistant Vice President

ATTEST:

\_\_\_\_\_  
Secretary, Assistant Secretary,  
Trust Officer

(CORPORATE SEAL)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public, certify that  
(Name)

\_\_\_\_\_ personally came before me this day and  
(Name of Sec., Assist. Sec., Cashier, Assist. Cashier)

acknowledged that he (she) is \_\_\_\_\_ of  
(Secretary, Assist. Sec., Cashier, Assist. Cashier)

\_\_\_\_\_, a corporation, and that by authority duly given and  
(Name of Corporation)

as the act of the corporation, the foregoing Contract: , Performance Bond: Page C-11, and

Payment Bond: Page C-12 were signed in its name by its

\_\_\_\_\_, sealed with  
(President or Vice President)

its corporate seal, and attested by himself (or herself) as its

\_\_\_\_\_.  
(Sec., Assist. Sec., Cashier, Assist. Cashier)

WITNESS my hand and official seal, this the \_\_\_\_\_ day of \_\_\_\_\_, 2024

\_\_\_\_\_  
Notary Public

My Commission expires: \_\_\_\_\_

(NOTARY SEAL)

PERFORMANCE BOND

CITY OF WILMINGTON, NORTH CAROLINA

PRINCIPAL: \_\_\_\_\_

SURETY: \_\_\_\_\_

BOND AMOUNT: \_\_\_\_\_

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_ )

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

CONTRACT NUMBER: \_\_\_\_\_

"KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL AND SURETY above named, are held and firmly bound unto the CITY OF WILMINGTON, NORTH CAROLINA, hereinafter called the CITY, 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 into a certain contract with the CITY, numbered 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 CITY, 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 said 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.

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

(CORPORATE SEAL)

ATTEST:

\_\_\_\_\_  
Secretary

PRINCIPAL: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

SURETY: \_\_\_\_\_

WITNESS:

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

PAYMENT BOND

CITY OF WILMINGTON, NORTH CAROLINA

PRINCIPAL: \_\_\_\_\_

SURETY: \_\_\_\_\_

BOND AMOUNT: \_\_\_\_\_  
\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_)

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

CONTRACT NUMBER: \_\_\_\_\_

"KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL AND SURETY above named, are held and firmly bound unto the CITY OF WILMINGTON, NORTH CAROLINA, hereinafter called the CITY, 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 into a certain contract with the CITY, numbered as shown above and hereto attached:

"NOW, THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said 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.

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

(CORPORATE SEAL)

ATTEST:

\_\_\_\_\_  
Secretary

PRINCIPAL: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

SURETY: \_\_\_\_\_

WITNESS:

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

(TO BE EXECUTED ON BEHALF OF SURETY AGENT)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this the \_\_\_\_\_ day of \_\_\_\_\_, 2024 before me the subscriber, Notary Public of the State of \_\_\_\_\_, in and for the County of \_\_\_\_\_, duly commissioned and qualified came \_\_\_\_\_, to me personally known, and to me personally known to be the individual who executed the foregoing Payment Bond and Performance Bond: Pages C-9 and C-10, and he acknowledges the execution of the same, and being by me duly sworn deposes and says that he has Power-of-Attorney from \_\_\_\_\_, with their principal offices at \_\_\_\_\_, to execute the preceding instruments in the amount specified in the Payment Bond and Performance Bond on their behalf, that his signature was duly affixed and he subscribed to the said Payment Bond and Performance Bond by authority and direction of said corporation.

IN WITNESS, I have hereunto set my hand and affixed my official seal at the City of \_\_\_\_\_, the day and year first above written.

My Commission expires:  
\_\_\_\_\_

\_\_\_\_\_  
Notary Public

(SEAL)

POWER OF ATTORNEY

DOCUMENTS

(Attached hereto original or validated documents which give to individual who signed Contract Bond Power of Attorney for Surety)



## INSURANCE CERTIFICATES

(Staple Insurance Certificates as required  
under Paragraph G-1.06 to this sheet

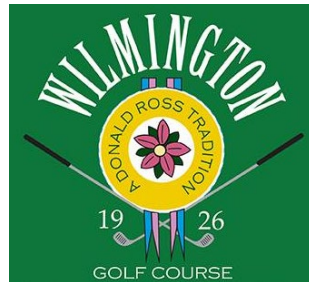
PREPARED FOR

# WILMINGTON

# GOLF COURSE

Wilmington, North Carolina

**2024 GOLF COURSE  
IRRIGATION SYSTEM PROJECT  
(Project Manual No. 240119-PM1)  
(Dwg # WGC-230828-IRR1)**



Matthew Smith  
Golf Course Supt



PREPARED BY  
**THE PIGNATO GROUP**  
GOLF IRRIGATION CONSULTANTS  
ASHEVILLE, NORTH CAROLINA  
TELEPHONE 561.313.4219  
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# WILMINGTON GOLF COURSE

## Wilmington, North Carolina

### Scope of Work

1. The Contractor will be responsible for purchasing all required irrigation whole goods and associated devices to include but not be limited to sprinklers, swing joints , electric valves, controlllers, Central and software, and all “allied” material, which is understood to be, but not limited to, pipe, wire, fittings, splice kits, machinery required for installation, concrete, all devices/equipment for connection, welding, fusing, or joining pipe.
2. The Irrigation Contractor shall plan to connect an existing pump station (1500 gpm at 120 psi) at the station isolation valve with an 12” DR 13.5 HDPE Z Pipe to be fabricated by the Irrigation Contractor ( see details). Note: An HDPE SPACER will be required at that point of connection to allow for isolation valve closure
3. The Club will be contracting the installation of the irrigation system directly with a Golf Irrigation Contractor who have their own Irrigation Division, or using one of the approved listed Irrigation Subcontractors listed below. Irrigation Division is understood to be individuals who have been a direct employee of the GC, and is not a subcontractor. This person shall have been employed by the GC for the past year and is solely responsible for irrigation system installations only. No other sub contracts for Irrigation will be considered at this time.
4. All required permitting for the installation of the irrigation system is the responsibility of the Irrigation Contractor
5. All mainline pipe shall be open trenched and all lateral pipe shall be installed via a vibratory plow.
6. Where the sod allows (this is where it is removable and re-plantable) all Mainline ditches will have the sod lifted and placed back to the GC Supts satisfaction.
7. All Trunk Supply ditches to the middle of each golf hole will have the sod removed and replaced to the GC Supts satisfaction.
8. The Contractor shall be responsible for the off-site removal of the debris, excess fill, and material scrap.

# DIVISION I – THE PIGNATO GROUP GENERAL BID INSTRUCTIONS INVITATION TO BID

## **WILMINGTON GOLF COURSE 2024 Golf Course Irrigation Project Wilmington, North Carolina Golf Irrigation Contractor**

Pursuant to North Carolina General Statute 143-129, sealed proposals addressed to the Purchasing Manager, P. O. Box 1810, 929 N Front Street, 10<sup>th</sup> Floor, Wilmington, NC 28402, and marked “MUNICIPAL GOLF COURSE INSTALLATION OF NEW IRRIGATION PROJECT” will be received until 3:00 p.m., Tuesday, June 11, 2024 at which time they will be publicly opened and read at the Purchasing Division, 929 N Front Street, 1<sup>st</sup> Floor Lobby Meeting Room No. 1, Wilmington, NC. The City will receive SINGLE PRIME BIDS ONLY for this project.

### PROJECT DESCRIPTION

Installation of the Irrigation System at **WILMINGTON GOLF COURSE**, Wilmington, North Carolina, as described in Drawing Number WGC-230828-IRR1, pages 1 through 11 and Project Manual Number 240119-PM1. All bids must arrive, on or before at the locations listed above on the assigned date and time. All Bids that are received after the assigned date and time of the Bid Opening will not be accepted. Bid Proposals will only be accepted from those companies on the Invited Bid List.

All bidders are to submit all Bids on the Bid Forms that are attached. Bid Forms may be duplicated as necessary. The **Owner** reserves the right to reject any and all Bids. The **Owner** reserves the right to re-advertise the project for bid and to accept the Bid Proposal that is in the best interest of the Project and the **Owner**. The **Owner** reserves the right to waive formalities and/or informalities. The **Owner** reserves the right to make additions/deletions to the scope of work or to all materials.

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

### BASE PROPOSAL

Matthew Smith  
Golf Course Superintendent  
Wilmington Golf Course

WILMINGTON GOLF COURSE

THE PIGNATO GROUP



Wilmington, North Carolina

I have reviewed and examined the Project Manual, the Irrigation System Design, the Material Specifications, and all Addendums, and fully understand the scope of work, conditions, and requirements for this project. The following Addendums were received, understood and incorporated into the base bid of this proposal.

| ADDENDUM NUMBER | ISSUE DATE |
|-----------------|------------|
| _____           | _____      |
| _____           | _____      |

It is understood that the conditions and offers set forth in this proposal shall remain in effect for a period of ninety (90) days, and acceptance of this Bid by the **Owner** binds both parties to its contents during the term that it takes to satisfactorily complete the installation of the irrigation system at **WILMINGTON GOLF COURSE**, Wilmington, North Carolina.

It is understood that the Unit Pricing section of this bid must be completely filled out and accompany the Base Bid. It is understood that failure to do so can result in a non-responsive bid.

I/ We, representing, or as Agent for \_\_\_\_\_  
Company

\_\_\_\_\_

Address

\_\_\_\_\_

City, State, Zip Code

and hereby known as **Golf General/Irrigation Contractor**, agrees to furnish all equipment, labor, and material as stated in the Project Manual, detailed on the Irrigation design, and required in the Project Manual for the installation of the Irrigation System at **WILMINGTON GOLF COURSE**, Wilmington, North Carolina.

For this required scope of work the Contract Price is: \$ \_\_\_\_\_

**In Words:** \_\_\_\_\_

|  |                     |
|--|---------------------|
| <b>IRRIGATION MATERIALS TOTAL</b>  | <b>\$ _____</b>     |
| <b>IRRIGATION LABOR TOTAL</b>  | <b>\$ _____</b>     |
| <b>DIRECTIONAL BORING TOTAL</b>  | <b>\$ _____</b>     |
| <b>PUMP STATION CONNECTION</b>   | <b>\$5000.00</b>    |
| <b>YARDAGE MARKER ALLOWANCE</b>  | <b>\$2000.00</b>    |
| <br><b>TOTAL IRRIGATION PROJECT</b><br><i>(Including all permits, taxes, fees)</i> | <br><b>\$ _____</b> |



## CONTRACTOR MATERIAL QUANTITY LIST

The following is a Unit Pricing Proposal for the supplying of the materials for the Irrigation System at **WILMINGTON GOLF COURSE**, Wilmington, North Carolina. It is understood that the number of units quoted include all material and equipment (except where noted). It is understood that all items for which there is no specific breakdown, are to be considered as necessary and integral parts to other items, of which when combined, form a complete and understood component. The following quantities will be used as the quantity guideline for determining the qualification and accuracy of the Base Bid. **NOTE: These quantities are not to be used as part of your contract with the Club. They are for reference and comparison ONLY. The bidding Contractor(s) should perform their own quantity take-off.**

### MATERIAL QUANTITY LIST

#### SPRINKLERS / VALVES – 2 WIRE SYSTEM

##### DESCRIPTION

|  |     |
|--|-----|
| 1 ½" Full Circle Sprinkler, 2 Wire, 50 gpm, 80' spacing  | 337 |
| 1 ½" Part Circle Sprinkler, 2 Wire, 50 gpm, 80' spacing  | 454 |
| 1" Part Circle Sprinkler, 2 Wire, 37 gpm, 70' spacing    | 0   |
| 1 1/2" Two Wire Actuated Plastic Pressure Reducing Valve | 3   |
| ¾" Part Circle Rotor, 5 gpm, 35' spacing                 | 17  |
| 1" Quick Coupler   | 21  |
| 3/4" Swing Joint   | 17  |
| 1" Swing Joints  | 21  |
| 1 1/2" Swing Joints with Saddle                          | 791 |
| Grounding Assemblies                                     | 56  |

**CENTRAL / SOFTWARE**

*Central to Field Interface via Radio, to Sprinkler  
via Wire ----IPAD to Central From Field*

with all software, premium computer,  
radio base station, , Radio Antenna,

site surveys, 5 Year Manufacturer Support Subscription 1

IPAD for remote operation 2

Field Interface Unit 1

Campbell Scientific Weather Station 1  
w/ radio modem comm / Solar Power

**PIPING**

|   |           |
|---|-----------|
| 2" CL 200 PVC BOE PIPE                              | 800 lf    |
| 3" CL 200 PVC BOE PIPE                              | 100 lf    |
| 2" DR 13.5 4710 HDPE Pipe(Water Cooler) BLUE STRIPE | 5,000 lf  |
| 2" DR 13.5 4710 HDPE Pipe                           | 70,000 lf |
| 3" DR 13.5 4710 HDPE Pipe                           | 4,800 lf  |
| 4" DR 13.5 4710 HDPE Pipe                           | 4,000 lf  |
| 6" DR 13.5 4710 HDPE Pipe                           | 9,200 lf  |
| 8" DR 13.5 4710 HDPE Pipe                           | 4,500 lf  |
| 10" DR 13.5 4710 HDPE Pipe                          | 0 lf      |
| 12" DR 13.5 4710 HDPE Pipe                          | 200 lf    |
| 16" DR 13.5 4710 HDPE Pipe                          | 0 lf      |

**ISOLATION VALVES (HDPE Type w Integrated HDPE Extensions)**

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|  |    |
|--|----|
| 3" Drain Valve(1 at each lake off lateral) | 6  |
| 3"   | 23 |
| 4"   | 5  |
| 6"   | 22 |
| 8"   | 7  |
| 10"  | 0  |
| 12"  | 0  |
| 1" Air Release Valves                      | 6  |

**WIRE**

|  |           |
|--|-----------|
| #12 2-Trunk Wire Red (Double jacketed)     | 3,500 LF  |
| #12 2- Trunk Wire Blue (Double jacketed)   | 5,000 LF  |
| #12 2-Trunk Wire Green (Double jacketed)   | 4,500 LF  |
| #12 2- Trunk Wire Purple(Double jacketed)  | 4,700 LF  |
| #14 2-Lateral Wire Green (Double jacketed) | 90,000 LF |
| 8' X 5/8" Copper Ground Rod                | 60        |
| #6 Bare Copper Wire                        | 2,000 lf  |
| 2- #2 awg with a #2 ground (Water Cooler)  | 2,500 LF  |
| 2- #4 awg with a #4 ground (Water Cooler)  | 1,500 LF  |
| 3M Scotch Splice Kits                      | 1,600     |

**VALVE BOXES**

|   |    |
|---|----|
| 6" Valve Box w/ Lid<br>QC   | 21 |
| 10" Valve Box w/ Lid<br>Mainline, Grns, Fwys<br>Iso valves, Lake Drains | 63 |
| 12" Rectangular GRAY Valve Box w/Lid<br>2 wire splices                  | 21 |
| 24" Rectangular Valve Box w/ Lid<br>Elec Valves, Air Rel Valves         | 9  |

**ALL FITTINGS**

**BY CONTRACTORS**

It is understood that all items for which there is no specific breakdown, are to be considered as necessary and integral parts to other items, of which when combined, form a complete and understood component.

**THE IRRIGATION MANUFACTURER, DISTRIBUTOR, AND CONTRACTOR MUST EXAMINE THE IRRIGATION DESIGN AND PROJECT SPECIFICATIONS AND BASE THE BID PROPOSAL ON THEIR OWN CALCULATIONS**

## CONTRACTOR UNIT PRICING PROPOSAL

The following is a Unit Pricing Proposal for the Irrigation System at **WILMINGTON GOLF COURSE**, Wilmington, North Carolina. It is understood that the pricing quoted include all material, labor, and equipment for the complete installation and functional operation of that specific component (except where noted). It is understood that all items for which there is no specific breakdown, are to be considered as necessary and integral parts to other items, of which when combined, form a complete and understood component.

The following unit pricing will be used as the quantity guideline for determining the qualification and accuracy of the Base Bid and will be used as the guideline for determining the cost basis of a Change Order offered by the Irrigation Contractor, or the Owner for any additions or deletions to the original irrigation system design and the original Base Bid.

### MATERIAL UNIT PRICE LIST

|                | DESCRIPTION                | UNIT PRICE              | ROCK PRICE   |
|----------------|----------------------------|-------------------------|--------------|
| <b>I.</b>      | <b>PIPE</b>                |                         |              |
|                | 4" DR 13.5 HDPE Pipe       | \$ _____ /FT            | \$ _____ /FT |
|                | 6" DR 13.5 HDPE Pipe       | \$ _____ /FT            | \$ _____ /FT |
|                | 8" DR 13.5 HDPE Pipe       | \$ _____ /FT            | \$ _____ /FT |
| <br><b>II.</b> | <br><b>SPRINKLER HEADS</b> |                         |              |
|                | 1 ½" FC Sprinkler          | \$ _____ (Allied/Labor) |              |
|                | 1 ½" PC Sprinkler          | \$ _____ (Allied/Labor) |              |
|                | 1 " PC Sprinkler           | \$ _____ (Allied/Labor) |              |
|                | 1" QC                      | \$ _____ (Allied/Labor) |              |

**III. ISOLATION VALVES**

|                        |                             |
|------------------------|-----------------------------|
| 2" (Lake Drain Valves) | \$ _____/EA(labor/material) |
| 3"                     | \$ _____/EA(labor/material) |
| 4"                     | \$ _____/EA(labor/material) |
| 6"                     | \$ _____/EA(labor/material) |
| 8"                     | \$ _____/EA(labor/material) |
| 1" Air Release Valves  | \$ _____/EA(labor/material) |

**IV. GROUNDING**

|                         |                               |
|-------------------------|-------------------------------|
| 2 Wire Grounding Device | \$ _____ -EA (labor/material) |
| Copper Plates           | \$ _____ -EA (labor/material) |
| GEM Wells               | \$ _____ -EA (labor/material) |
| Ground Rods             | \$ _____ -EA (labor/material) |

**It is understood that all items for which there is no specific breakdown, are to be considered as necessary and integral parts to other items, of which when combined, form a complete and understood component.**

THE IRRIGATION MANUFACTURER, DISTRIBUTOR, AND CONTRACTOR MUST EXAMINE THE IRRIGATION DESIGN AND PROJECT SPECIFICATIONS AND BASE THE BID ON THEIR OWN CALCULATIONS

## COMPANY PROFILE

To be submitted in duplicate and to accompany bids submitted to construct the "GOLF COURSE IRRIGATION SYSTEM" , **WILMINGTON GOLF COURSE, Wilmington, North Carolina**

Name of Bidder

1. Business Address
2. Telephone/ Fax\_Number
3. E-mail
4. When Organized / Where Incorporated ?
5. Financial Statement Attached Y/N
6. Credit Available for this Contract        \$ \_\_\_\_\_
7. Contracts now in hand, Gross Amount    \$ \_\_\_\_\_
8. How many years have you been engaged in the contracting business under the present firm name?
9. Licenses held by Company, Owner, or Agent
10. Plan of Organization (Proprietorship, Partnership, Corporation)
11. Have you ever refused to sign a contract at your original bid?
12. Have you ever been declared in default on a contract?
13. Remarks regarding #12 or #13 attached (Y/N)

## CONTRACTOR RESUME

- I. Company Name & Address
- II. Telephone/Facsimile Numbers
- III. List Previous 5 Projects Completed. Please Include The Following:
  - Name and Address of the Project
  - Name and Telephone Number of Golf Course contact
  - Name and Telephone Number of Golf Course Builder
  - Date Installed
  - Type of Control System and # of Heads
  - Any special notes

### **Bidder Resume: PROJECT #1**



**Bidder Resume: PROJECT #2**

**Bidder Resume: PROJECT #3**

WILMINGTON GOLF COURSE

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**Bidder Resume: PROJECT #4**

**Bidder Resume: PROJECT #5**

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Date

WILMINGTON GOLF COURSE

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## WORKFORCE PROFILE

- (1) Name of this Job's Supervisor, and any key Foreman
  
  
  
  
  
  
  
  
  
  
- (2) Last three similar projects that this Supervisor has administrated representing your company
  
  
  
  
  
  
  
  
  
  
- (3) Anticipated crew size and the number of men in each job scope, i.e., pipe fitters, electrical/controllers, laborers.

## DIVISION II – GENERAL PROJECT REQUIREMENTS

### SCOPE OF WORK

The scope of work at **WILMINGTON GOLF COURSE, Wilmington, North Carolina** shall be to supply all material, labor, and equipment necessary to complete the installation of the Irrigation System per the plans and specifications provided by The Pignato Group, Inc. The requirements and specifications for the installation of this system shall be as documented and stated in these attached specifications, and any reasonable work required, however not included in the accepted scope of work, shall be considered necessary and should be provided in order to satisfactorily completion of this scope of work. The bidding contractors shall take note of the following items and incorporate them into their proposals being offered to **WILMINGTON GOLF COURSE ,Wilmington, North Carolina:**

1. The Contractor will be responsible for purchasing all required irrigation whole goods and associated devices to include but not be limited to sprinklers, swing joints , electric valves, controlllers, Central and software, and all “allied” material, which is understood to be, but not limited to, pipe, wire, fittings, splice kits, machinery required for installation, concrete, all devices/equipment for connection, welding, fusing, or joining pipe.
2. The Irrigation Contractor shall plan to connect an existing pump station (1500 gpm at 120 psi) at the station isolation valve with an 12” DR 13.5 HDPE Z Pipe to be fabricated by the Irrigation Contractor ( see details). Note: An HDPE SPACER will be required at that point of connection to allow for isolation valve closure
3. The Club will be contracting the installation of the irrigation system directly with a Golf Irrigation Contractor who have their own Irrigation Division, or using one of the approved listed Irrigation Subcontractors listed below. Irrigation Division is understood to be individuals who have been a direct employee of the GC, and is not a subcontractor. This person shall have been employed by the GC for the past year and is solely responsible for irrigation system installations only. No other sub contracts for Irrigation will be considered at this time.
4. All required permitting for the installation of the irrigation system is the responsibility of the Irrigation Contractor
5. All mainline pipe shall be open trenched and all lateral pipe shall be installed via a vibratory plow.
6. Where the sod allows (this is where it is removable and re-plantable) all Mainline ditches will have the sod lifted and placed back to the GC Supts satisfaction.
7. All Trunk Supply ditches to the middle of each golf hole will have the sod removed and replaced to the GC Supts satisfaction.
8. The Contractor shall be responsible for the off-site removal of the debris, excess fill, and material scrap.

## DEFINITION OF PARTIES

- **Owner:** City of Wilmington, North Carolina
- **Owner's Representative:** Matthew Smith
- **Owner's Site Representative:**
- **Golf Course Architect:** NA
- **Site Contractor:** TBD.
- **Irrigation Contractor:** The Company selected and contracted with by the **Owner**, to follow the Scope of Work as outlined in the Project Manual.
- **Subcontractor:** The individual, or Company that engages in any work and is employed and contracted by the **Irrigation Contractor** to engage in such work, and is not directly contracted and employed by the **Owner**.
- **Irrigation Consultant:** The Pignato Group.

## DRAWING AND SITE VERIFICATION

The Irrigation Design is scaled and schematic in nature. All equipment detailed on the design is being shown in location that is approximate. Should site conditions require alternate placement, the **Irrigation Contractor** shall do so with the intent of best possible location to insure the quality and performance of the final installed system. The **Owner**, his **Representative**, or the **Irrigation Consultant**, shall have final approval before work is to continue on the alternate change that has been proposed by the **Irrigation Contractor** to the **Owner**.

Prior to commencing work the **Irrigation Contractor** shall check and verify all quantities and measurements, and should any discrepancies occur the **Owner** shall be notified in writing. Failure to do so will result in the addition and/or relocating of the equipment by the **Irrigation Contractor** at his own expense.

The **Irrigation Contractor** will be responsible for being familiar with site conditions, and will verify the location of all utilities and facilities above and below ground prior to commencing work.

## AUTHORIZED REPRESENTATIVES

The **Owner** shall designate and appoint, with his authority, one (1) person to represent, and act in the **Owner's** behalf. This person known as the **Owner's Representative**, or the **Owner** herein, shall work with the **Irrigation Contractor** in the best interest of the project, and it's final satisfactory completion.

The **Irrigation Contractor** shall designate as his representative, a **Job Superintendent** that will dutifully adhere to all project requirements. The **Superintendent** shall represent the **Irrigation Contractor** in his absence, and any decisions or actions made by the **Superintendent** that misrepresents these specifications, or diminishes the intended quality of the Irrigation System shall be the responsibility of the **Irrigation Contractor**.

## PERMITS, FEES, AND INSPECTIONS

The **Irrigation Contractor** should obtain and pay for all permits and licenses required by local governing authority. (City of Wilmington, State of North Carolina).

All local, state, and federal laws, regulations, and codes governing or related to any portion of these specifications, shall become incorporated into these specifications, and be followed as intended, by the **Irrigation Contractor**.

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Any inspections by local, state, or federal authority that are to be made, shall be made with the **Owner**, and/or the **Irrigation Consultant**, and the **Irrigation Contractor** and/or his **Superintendent** present. Any fines, penalties, or permit reapplication fees shall be the responsibility of the **Irrigation Contractor**.

## WARRANTY

The **Irrigation Contractor** will furnish a written warranty against all workmanship, defects, and materials for ALL COMPONENTS EXCEPT HDPE PIPE/FITTING ASSEMBLY for a period of one (1) year from the date of final acceptance of this project. All pipe and fitting assembly whether HDPE or PVC system is installed shall carry a 5-year workmanship warranty to include replacement parts, equipment, and labor.

The **Irrigation Contractor** shall furnish at his expense all labor and material to make any repairs under warranty.

## PROTECTION OF PROPERTY AND FACILITIES

The **Irrigation Contractor** shall exercise due diligence in maintaining and protecting all existing utilities, structures, equipment, and facilities. Any damage done by the **Irrigation Contractor**, shall be repaired and the payment of such shall be the responsibility of the **Irrigation Contractor**. This is to include but not be limited to cart paths, bridges, existing utilities, and existing golf course features.

All utility location shall be the responsibility of the **Irrigation Contractor**. **At no time shall the Irrigation Contractor rely on the utility location services of anyone other than a professional location service.** All other existing equipment that is to be determined at risk of damage and undesirable of such shall be identified and located by the **Owner** and avoided by the **Irrigation Contractor**. Any damage to this equipment by the **Irrigation Contractor** shall be repaired in a timely manner at his own expense. If this equipment is not located by the **Owner** and damaged, then the **Owner** shall be responsible for the repair in a timely manner.

Portions of the golf course that are to be designated as natural habitats, reserves, wetlands, etc. are to be protected by the **Irrigation Contractor**, and any damage caused by the **Irrigation Contractor**, shall be his responsibility, and any fines, penalties, and the repairs of this damage shall also be his responsibility.

## AS-BUILT RECORDS/GPS

The **Irrigation Contractor** shall document in a field book format and stake (w/3/4" PVC) the FINAL location of all irrigation equipment, valves, valve boxes, splices, mainlines, lateral lines, satellites, and wiring. He shall also provide a set of station assignments for each satellite, detailing head location, station number, and station responsibility (green, tee, rough, fairway, approach). The **Irrigation Consultant** will GPS each irrigation sprinkler location during staking visits and issue to the Contractor As Staked dwgs. The Irrigation Contractor shall stake, color code, and label the following:

- MAINLINE: One Stake every 200' and at each change of direction
- ISOLATION VALVES : One Stake with denoting size and function (main, fwy, green, tee)
- ELECTRIC VALVES: 1 Stake denoting size
- AIR RELEASE/DRAIN/QC : 1 Stake denoting type
- WIRE SPLICE : 1 Stake denoting Wire Path / Wire Size
- SPRINKLER: 1 Stake denoting PC or FC

These stakes shall be placed during installation and be kept in place until the Golf Hole is GPS'd and completely signed off and approved as Final. After completion all stakes shall be removed by the Contractor and discarded.

Along with this information and the daily field notes, it will all be sent to the Irrigation Consultant. The Irrigation Consultant to produce the Final As Builts and Irrigation Central Program.

The accumulation and documentation of this data should be done on a daily basis, and submitted Bi-Weekly to the **Owner** and the **Irrigation Consultant**, along with the Request for Payment. **FINAL AS-BUILTS FOR THAT MONTH'S WORK WILL ACCOMPANY MONTHLY PAY REQUEST FOR ALL HOLES COMPLETED AND INVOICED.** Should the **Owner**, or the **Irrigation Consultant** conclude that the As-Built is not being properly documented in format, or in timeliness then the **Owner** reserves the right to stop future work by the **Irrigation Contractor**, until such documents are up to date and in his possession. The time that it takes to complete this shall not be added to the completion time that the **Irrigation Contractor** has agreed to.

Before FINAL payment, or FINAL acceptance of the system by the **Owner**, the **Irrigation Contractor** shall have provided all As Built information as needed. Final production of the As Built shall be the responsibility of the **Irrigation Consultant**.

## SCHEDULE OF WORK

The **Irrigation Contractor**, understanding the work described herein, shall commence work no later than fourteen (14) days from the date of notification by the **Owner**. All work and FINAL acceptance of the system should take place within the schedule of construction as assigned by **WILMINGTON GOLF COURSE**. The accumulation of these days shall not include Sundays, holidays, or days lost because of bad weather, and any damage that may have resulted from such.

Work shall take place **Monday-Saturday, between 7:00 A.M. and 6:00 P.M.** No Holiday work is permitted. Sunday work will only commence with written approval from the **Owner**.

## APPROVAL SCHEDULE

The **Irrigation Contractor** and the **Owner**, understanding the work described herein, will notify the **Irrigation Consultant** at the phased completion of 3 holes. At that point when the **Contractor** has installed all components, as specified, and on a particular golf hole, has backfilled, tamped, and is prepared for a partial release of that hole he shall notify the **Irrigation Consultant** for a Rough Final. The term "Rough Final" will be understood to mean that all components as designed and specified have been installed, all ditches have been tamped, and filled to grade, and that all mechanical work is complete on the hole. It does not release the **Irrigation Contractor** from the responsibility of workmanship or product warranty issues that may arise after completion. A Rough Final when approved shall relinquish the **Irrigation Contractor** of responsibility for any issues relating to the clean up and backfill of that group of golf holes. All specifications related to ditch settling, workmanship, and mechanical warranties will still remain in effect. However, the erosion of ditch lines, the deterioration of ditch lines, and the displacement of installed irrigation equipment as a result of tractors and mowing equipment shall become the responsibility of the **Owner**.

A Final Release for a group of golf holes will be at the request of the **Irrigation Contractor**. At that point, all equipment is installed as specified, all equipment is functioning as intended by the manufacturer, all grounds (ohms resistance) have been checked, and it is understood by the **Owner** and the **Irrigation Contractor** that all work is 100% complete. The term "Final Release" shall be understood to mean that all work performed meets the standards set by all manufacturers, all specifications described herein, and the

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approval of the **Irrigation Consultant** and the **Owner's Representative**. At that point, all maintenance on that portion of the project shall now become the responsibility of the **Owner**. It will not release the **Contractor** from any warranty, or workmanship issues that may arise.

## SUBCONTRACTORS

The use of subcontract labor, or service is permitted. The **Irrigation Contractor** shall supply the **Owner** with a written list of all subcontractors that are to be used on this project. Any variations from this list shall be requested to the **Owner** and the **Irrigation Consultant** in writing. The **Owner** reserves the right to cancel any subcontract agreements. The **Irrigation Contractor** shall pay for all subcontracts, except where noted, and the **Owner** shall reimburse the **Irrigation Contractor** once the work has been approved and request for payment made. All Lien Releases relevant to any subcontractor purchases shall be submitted with each payment request. These Lien Releases are to apply to all materials and equipment that were purchased and received up to and included in the previous payment request.

All subcontractors will follow all site regulations, specifications stated herein, and any local, state, federal, laws, codes, or regulations as they apply. The **Irrigation Contractor** shall be responsible for any damage to the site or it's facilities, made by his subcontractor, and the repair and payment for such shall also be the responsibility of the **Irrigation Contractor**. The subletting of any portion of work shall not release the **Irrigation Contractor** from his obligations and responsibilities regarding that portion of work, and the **Irrigation Contractor** is to be considered to have performed and completed said portion of work. All insurance requirements stated herein shall apply to the subcontractor.

## INSURANCE AND LIABILITY

The **Irrigation Contractor** shall take out and furnish satisfactory proof by certificate or otherwise as may be required that he has taken out public liability and property damage insurance with an insurance carrier that is satisfactory to the **Owner**. The insurance shall be in such form as to satisfy the **Owner** and protect the **Irrigation Contractor** against a loss from liability imposed by law from damages on account of bodily injury, including death resulting from, suffered or alleged to have been suffered by any person or persons, other than employees, resulting directly or indirectly from the performance or execution of this contract or any subcontract thereunder, and also to protect said contractor against loss from liability imposed by law for damage to any property, caused directly, or indirectly by the performance or execution of this contract or any subcontracts thereunder, which insurance shall also cover accidents arising out of the use and operations of automobiles, equipment, machinery, and trucks.

The **Irrigation Contractor** shall maintain a public liability and property damage insurance in full force and effect during the entire period of performance under this contract. The amounts of coverage of insurance shall not be less than the following:

|                      |  |
|----------------------|--|
| Public Liability     | \$5,000,000 for one person injured in one accident.<br>\$5,000,000 for more than one person injured in one accident. |
| Property Damage      | \$5,000,000 for each occurrence.   |
| Automobile Liability | \$5,000,000 for one person injured.  |

Workman's Compensation Insurance shall be maintained by the **Irrigation Contractor**, at his expense, during the time period it takes to complete the irrigation system. The **Irrigation Contractor** shall provide a certificate verifying coverage to the **Owner**. Said requirements shall apply to all subcontractors employed by the **Irrigation Contractor**.



## ACCIDENTS

In the event of an accident, the **Irrigation Contractor** shall provide on the site all equipment and first aid service to anyone who is injured in connection with his scope of work. The **Irrigation Contractor** shall immediately notify all accidents to the **Owner**, and to the necessary government agency. An accurate record and report must be submitted in writing within 24 hours, to the **Owner**.

The **Irrigation Contractor** is responsible for instructing all personnel as to all safety regulations that are applicable to the work and to ensure that all persons are adhering to these regulations at all times.

## DELAYS

If it is in the opinion of the **Owner**, that the **Irrigation Contractor** is unskilled, misrepresented himself, has inadequate equipment, or for any reason that the **Owner** feels the **Irrigation Contractor** is not constructing the irrigation system in a diligent effort towards completion then the **Owner** has the right and shall notify the **Irrigation Contractor** in writing to remove from the project all such causes. If the **Owner** feels that the **Irrigation Contractor** has not complied satisfactorily with his request, then the **Owner** has the right to terminate the contract at the **Irrigation Contractor's** expense.

If it is in the mutual opinion and understanding that the delays are occurring with no connection or responsibility to that of the **Irrigation Contractor**, but as a result of other influences then the time period for which the **Owner** and the **Irrigation Contractor** had agreed upon as the project installation time window, shall be adjusted by the **Owner** to extend the time needed to complete the project.

**All days lost to weather shall be documented with a "Weather Delay" form and signed by both the Owner's Representative and the Contractor. Copies shall be sent via fax to the Irrigation Consultant for record. Issuance of the Weather Delay form will be at the sole discretion of the Owner.**

## SCHEDULE OF PAYMENT

Prior to the beginning of construction, the **Owner** and the **Irrigation Contractor** shall define and agree upon a schedule of payments for the installation of the irrigation system. The **Owner** and the **Irrigation Contractor** will agree upon the work to be completed for each billing period and the amount that each billing will be prior to its' submittal for payment to the **Owner**. Any extras that are to be billed will be billed as they occur and will be billed at the rate upon which has been set in the unit pricing section of the Bid Proposal. Only those extras that are approved by the **Owner**, via a signed Work Authorization Form, shall be considered upon receipt of the payment request. **Owner** shall have signed Work Authorization Form in his possession prior to "extra" work commencing.

If the payment request is to include subcontract reimbursement, then a copy of the subcontractor invoice is to accompany the request for payment along with the **Irrigation Contractor's** written approval that the work has been completed correctly. All Lien Releases relevant to any purchases made by the **Irrigation Contractor** or any **Subcontractor** shall be submitted with each payment request. These Lien Releases are to apply to all materials and equipment that were purchased and received up to and included in the previous payment request.

With each payment the **Owner** shall withhold 5 % Retainage and will be held until Final Payment; when at that time, it shall paid in full. Retainage shall not be withheld on Irrigation Materials.

Prior to final acceptance and payment, the system shall be pressure tested at a static pressure of 120 psi for 12 hours with the Line Maintenance Pumps starting no more than one time per hour. Upon completion of

the irrigation project, the **Owner** shall make FINAL payment to the **Irrigation Contractor** within thirty (30) days of final acceptance by the **Owner**, the **Irrigation Consultant**, and the **Irrigation Contractor**. Any remaining work that is considered by the **Owner** to be part of the agreement with the **Irrigation Contractor** is grounds for the **Owner** to hold FINAL payment until such work is completed to the satisfaction of the **Owner**, or the **Irrigation Consultant**.

## SITE VISITS

By contract, the **Irrigation Consultant** is required to make visits every 10-14 days, or as needed during the Irrigation Phase of construction. These visits shall be at the request of the **Owner**. The purpose of these site visits is to include Field Work (head location, valve location, etc.) central programming, as-built information gathering, and site inspections. Should additional visits be required and that are a result from delays caused by the **Irrigation Contractor**, then the **Irrigation Contractor** shall be responsible for payment to the **Irrigation Consultant** for his services and travel expenses.

## TRENCHING

All trenches shall be of sufficient depth and width in order to properly install the pipe and fittings as designed. All mainline piping shall have a minimum of 24" of cover to finished construction grade. All lateral piping shall have a minimum of 18" of cover to finished construction grade. All trenching shall be done in accordance with manufacturer's recommended installation instructions. Parallel pipes shall not be allowed in the same trench unless otherwise noted or approved by Irrigation Consultant.

All routing shall be done in accordance with the irrigation design as provided by the **Irrigation Consultant**. The **Owner**, and the **Irrigation Consultant** reserve the right to change the routing in the event that obstacles are encountered.

Because of the potential that rock may be encountered while trenching, the **Irrigation Contractor** shall establish a unit price per linear foot for Rock Excavation as outlined in the Unit Pricing Section of the Project Manual. He will insure that the bedding on which the pipe shall be placed, will be free of all unsuitable materials. Unsuitable materials shall be defined as all rock or debris larger than 2" in diameter. Should these conditions exist in the base of the trench, the **Irrigation Contractor** shall supply clean bedding material for backfilling. These materials shall be located and stockpiled at each hole by the **Irrigation Contractor**.

The **Irrigation Contractor** shall be responsible for all unsuitable materials that cannot be used as fill in open trenches. These materials are to be disposed of on-site in an area that has been assigned by the **Owner**, or his representative. The relocation of these materials shall be the responsibility of the **Irrigation Contractor**.

The **Irrigation Contractor** is responsible for obtaining the clean material for backfilling the trenches. The **Owner** shall be responsible for payment of the clean backfill material per the established unit pricing offered by the **Irrigation Contractor**. The **Irrigation Contractor** shall be responsible for the cleanup of the stockpiled and unusable bedding material.

The Irrigation Contractor shall tamp all trenches with a vibratory wheel. For a period of one year the **Irrigation Contractor** shall be responsible for any settling that occurs.

Directional boring, pavement cutting, concrete cutting or any other trench preparation shall be the responsibility of the **Irrigation Contractor**. All patching to cart paths, roadways, curbs, etc. shall be the responsibility of the **Irrigation Contractor**.

At any time when solid rock, slate, lime rock, coral or material is encountered that cannot be trenched through, or removed with a small backhoe, or standard mechanical trenching machine with a standard spade toothed blade, the **Irrigation Consultant**, and the **Owner** shall determine if a routing change is possible. If a re-routing is not possible then the Contractor shall secure the appropriate equipment to insure pipe installation to proper depths. This shall be deemed an extra under the Rock Clause Unit Pricing and shall be documented in footage by both the Irrigation Contractor and the Owners Representative. The **Owner** shall be responsible for all blasting that would be required to install pipe. The **Irrigation Contractor** shall include a separate Rock Clause based on the size of the pipe and in a per linear foot format.

The **Irrigation Contractor** shall be fully aware of the construction site. The **Irrigation Contractor** shall provide the proper trenching equipment for the required trench sizes and depths. All equipment shall be in good condition and able to perform the job satisfactorily, to the **Owner's** and **Irrigation Consultant's** discretion.

## TRENCHLINE RESTORATION

During the backfilling of all trenches, the **Contractor** shall make efforts to insure that no debris or rock be used in the filling of the first 10" of backfill. After tamping, the remainder of the ditch shall be free of any rock or debris larger than a tennis ball. While excavating and trenching in dirt conditions, the Irrigation contractor shall after installation tamp each ditch in 8" lifts and leave at final grade in the condition as it was first found. While trenching in turfgrass, and after tamping, and re-establishing the trench to grade, all spoils shall be removed from trenchlines created by the installation of the new irrigation system within 24 hours of the hole completion. All mainline pipe shall be open trenched and all lateral pipe shall be installed via a vibratory plow. Where the sod allows all Mainline ditches will have the sod lifted and placed back to the GC Supts satisfaction. All Trunk Supply ditches to the middle of each golf hole will have the sod removed and replaced to the GC Supts satisfaction.

Once a trenchline has been issued a Final it shall become the maintenance responsibility of the Owner. All trench lines will be grassed and grown in by the Golf Course Superintendent. All specifications related to ditch settling, workmanship, and mechanical warranties will still remain in effect.

**HEADS PLACED IN AREAS TO BE SODDED SHALL BE INSTALLED TO FINAL GRADE WITH THE OUTER EDGE OF THE HEAD AT THE SAME GRADE AS THE TOP OF THE SOD.**

## DIVISION III – IRRIGATION MATERIAL SPECIFICATIONS

### MATERIAL CONDITION

The materials to be used shall be as designated in the FINAL project specifications and as shown on the FINAL project drawings. All materials to be used shall be new and equal to the specifications set forth herein. No material used on this project shall be imported, as a leftover from a previous project. All materials shall be shipped and received for the sole purpose of installation on THIS project.

### MATERIAL STORAGE

All materials shall be stored in a manner that will best maintain its' original condition. Store all plastic and PVC material out of the sunlight. Discolored pipe or fittings shall be rejected from installation. All damaged, dented, or scratched materials shall be rejected from installation. The **Owner** shall provide an area designated for the use of the **Irrigation Contractor** as his staging and storage area. By providing this area, this in no way waives the **Irrigation Contractor** from his responsibility to protect and maintain the materials. All losses to materials due to damage, deterioration, theft or neglect shall be the responsibility of the **Irrigation Contractor**. Any repairs, or service that occurs as a result of improperly cared for materials being installed, shall be the responsibility of the **Irrigation Contractor**.

### MATERIAL SPECIFICATION CHANGES

The **Irrigation Contractor** shall follow the specifications for materials that are outlined in the Project Manual. However, should the **Irrigation Contractor** wish to substitute an equivalent material, a request for substitution must be made to the **Irrigation Consultant** and to the **Owner**, in writing. Copies of material specification sheets, or product performance sheets must accompany this written request.

### VERIFICATION OF QUANTITIES

The **Irrigation Consultant** has provided a design that is scaled and schematic in nature. The **Irrigation Contractor** shall be responsible for calculating and verifying all quantities shown on both the Final Design and the Final Materials Quantity Sheet. The **Irrigation Contractor** is not to rely on any quantities from the **Irrigation Consultant, Golf Course Builder, General Contractor, Project Owner, or Local Distributor**, as the **Irrigation Contractor** is responsible for installing all components and material to make the irrigation system operational as intended by the **Irrigation Consultant** and the Manufacturer.

### RECEIVING OF MATERIAL

The **Irrigation Contractor** will be held responsible for the receipt of all irrigation equipment that is to be used in the installation of the irrigation system. A representative from the **Irrigation Contractor** shall be designated to receive and verify all material and quantities. Should any discrepancy occur, it must be noted and brought to the attention of the **Owner** as soon as possible. The **Irrigation Consultant** shall inspect materials, and should the **Owner** or the **Irrigation Consultant** deem any material unacceptable, then the **Contractor** shall immediately replace those materials at his expense. The materials shall be removed within 72 hours of notification. Once material has been received and signed for by a representative of the **Irrigation Contractor**, it shall become the responsibility of the **Irrigation Contractor**, until installed and approved by the **Owner**, or the **Irrigation Consultant**.

## MATERIAL DISPOSAL

The **Irrigation Contractor** shall dispose of all material waste and scrap in an area that is to be assigned and provided by the **Owner**. The term material shall not be limited to what is known as Irrigation Materials, but shall also include dirt, rock, tree stumps and roots, grass, and any other debris or by-product that results from the installation of any part of the irrigation system. The Irrigation Contractor shall provide the transport of this to the disposal site.

## HDPE PIPE/FITTING SPECIFICATIONS

### 1.0 PIPE (DR 13.5)

**1.1** Pipe and tubing shall be manufactured from a PE4710 resin listed with the Plastic Pipe Institute (PPI) as TR-4. The PE 4710 resin material will meet the specifications of ASTM D 3350-09 with a minimum cell classification of PE 445474C. Pipe shall be manufactured to the dimensions and requirements of ASTM F714 or ASTM D3035. The pipe shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. All HDPE pipe shall be in straight lengths or coils. Manufacturer should be ISO 9001:2008 certified or have a similar quality assurance and control program.

### 1.2

| <b>Table-1<br/>HDPE Physical Properties per ASTM D 3350-09</b>   |                      |                         |                       |
|--|----------------------|-------------------------|-----------------------|
| <b>For Cell Class (445474C)<br/>Associated Property</b>  | <b>Specification</b> | <b>Allowable Values</b> | <b>Typical Values</b> |
| (4) Density (g/cm <sup>3</sup> )   | ASTM D 1505          | >0.955                  | >0.960                |
| (4) Melt Index (g/min)   | ASTM D 1238          | <0.150                  | <0.150                |
| (5) Flexural Modulus (psi)   | ASTM D 790           | 110,000 to <160,000     | 125,000               |
| (4) Tensile Strength at Yield (psi)  | ASTM D 638           | 3500 to <4000           | 3650                  |
| (7) Slow Crack Growth Resistance Pent (hours)  | ASTM F 1473          | 500                     | >2500                 |
| (4) Hydrostatic Design Basis at 73.4°F (psi) <sup>(1)</sup>  | ASTM D 2837          | 1600/1000               | 1600/1000             |
| (C) Black Color UV stabilizer  | ASTM D 3350          | Min 2%                  | Avg. 2.25%            |
| <b>Table Notes:<br/>For operating temperatures over 80°F contact an authorized factory representative to obtain a derated working pressure rating.<br/>The approved HDPE system, AquaFuse, ISCO or equal</b> |                      |                         |                       |

**2.0** The Pipe shall be ISCO, AquaFuse as supplied for CMF Global (hot line) or equal.

### **Pipe, Tubing and Fitting Compliance Requirements**

**2.1** The supplier must be capable of supplying both the pipe and fittings.

- 2.2** The supplier must have the capability to train the contractor’s employees in butt fusion, electrofusion, socket fusion, sidewall saddle fusion and compatible fusion of HDPE pipe and fittings.
  - 2.3** The supplier must be capable of providing a “**Fusion Technical Hot Line**” 740-953-0589 to assist in fusion and fusion equipment questions.
  - 2.4** The supplier must be capable of providing a trained representative on site upon the request of the contractor, owner or consultant to address any problems that are encountered during the installation.
  - 2.5** The supplier must furnish a written **25 year limited Warranty** for HDPE pipe fittings and valves Golf, Turf and Commercial Irrigation applications as provided by ISCO, CMF Global.
  - 2.6** Recommended supplier: ISCO, CMF Global. Or equal.
- 3.0 FITTINGS (DR 11 Fittings)**
- 3.1** Socket Fusion Fittings - Fittings shall be PE 4710 with a minimum cell classification of PE 445474C (depending on supplier this may also be PE445575C). Butt Fusion molded Fittings shall have a manufacturing standard of ASTM D3261. Molded & fabricated fittings shall have the same minimum pressure rating as the pipe unless otherwise specified on the plans. Fabricated fittings are to be manufactured to meet the FM (Factory Mutual) performance standards. Fabricated fittings are to be manufactured using a Data Logger. Reference to the Data Logger quality control records should be referenced from an indented stamp in each fusion bead of each fitting. Temperature, fusion pressure and a graphic representation of the fusion cycle shall be part of the quality control records.
  - 3.2** Flanged and Mechanical Joint Adapters - Flanged and Mechanical Joint Adapters shall be PE 4710 resin with a minimum cell classification of PE 445474C. Flange adapters and Mechanical Joint Adapters shall have the same pressure rating as the pipe unless otherwise specified on the plans.
    - 3.2.1** Main Line Isolation Valves shall be Waterous/ AVK LUG TYPE Isolation Valves.
    - 3.2.2** All gate valves will have stainless steel stem with HDPE stubs.
    - 3.2.3** All 3”, and 4” pipe for sprinkler connections can be made using Bolt on Stainless Saddles OR Side Wall Welded/Fused Saddles with 1½ acme thread outlet, drilling the hole prior to installing the saddle. The pressure rating shall be equal to or greater than 100 PSI PE 4710 or approved equal.
- 4.0 EXECUTION**
- 4.1** Pipe and Fittings: Size as indicated on the plans. Install as shown in accordance with manufacturer’s recommendations
  - 4.2** HAULING, UNLOADING and DISTRIBUTING PIPE: During loading, transportation and unloading, every precaution shall be taken to prevent injury to the pipe. No pipe shall be dropped from cars or trucks, or allowed to roll down slides without proper retaining ropes. During transportation pipe shall rest on suitable pads, strips, skids or blocks securely wedged or tied in place. Any pipe damaged shall be replaced. (add PPI TR Note)
- 5.0 FUSION**
- 5.1** Sections of polyethylene pipe should be joined into continuous lengths on the jobsite above ground, when ever possible. The joining method shall be the butt fusion and or socket fusion method and shall be performed in strict accordance with the pipe supplier’s recommendations. The butt fusion equipment used in the joining procedures should be capable of meeting all conditions recommended by the pipe supplier, including, but not limited to, temperature requirements of 425 +/- 15 degrees Fahrenheit, alignment, and an interfacial fusion pressure of 75 +/- 15 psi for hydraulic . The fusion equipment used shall be manufactured by McElroy Manufacturing, or equal. The butt fusion joining will produce a joint weld strength equal to or greater than the tensile strength of the pipe itself.
  - 5.2** Electrofusion or socket fusion (500°F +/-25 may be used where the butt fusion method cannot be used. Electrofusion couplings and fittings shall be PE 4710 with a minimum cell classification of PE 445474C. Electro-fusion couplings or fittings shall have a manufacturing

standard of ASTM F1055. Couplings and fittings shall have the same pressure rating as the pipe unless otherwise specified on the plans.

**5.3** Mechanical connection to other types of pipe shall be made by one of the following methods:

**5.3.1** Flange, using HDPE flange adapter with ductile iron back up ring, and zinc-plated bolt pack.

**5.3.2** Mechanical joint, using HDPE Mechanical Joint (MJ) adapter kit.

**5.3.3** Bell MJ adapter with kit (4"- 12)

**5.4** INSPECTION: Inspect the pipe for defects before installation and fusion. Pipe shall not exhibit scratches or gouges greater than Defective, damaged or unsound pipe will be rejected.

**5.5** TESTING if pressure testing is required testing shall be done hydrostatically. For detailed testing information contact

**6.0** **Quality Control Testing (On Site Bend Back Test)**

**6.1** Prior to HDPE pipe being installed in the trench, at the beginning of the job, the contractor shall cut out the first butt fusion of each pipe size. The contractor shall prepare the sample for the test in accordance with the "Bend Back Testing" procedure in accordance with ASTM F 2620.

**6.2** The samples shall be tested in the presence of the owner's representative and / or the irrigation consultant, all in accordance with testing procedures outlined. All samples shall be labeled and saved. Testing must be done at 73 degrees F plus or minus 5 degrees. The test temperature and sample size are critical to testing. The purpose of the test is to determine if the weld meets specified standards. A pass means no failures during the bend back test. This means a good weld. A break means a bad weld. Any failure shall require additional testing.

**7.0** **Contractor Qualifications**

**7.1** The contractor shall have successfully installed high density polyethylene pipe in golf/turf or commercial irrigation projects. References will be required. These reference(s) must provide a satisfactory response or the experience will not be accepted.

**7.2** **Prior to the commencement of this project the Contractor will be required to have a qualified fusion technician from ISCO , CMF Global, or equal, for a period of three to five days (at the expense of the contractor). Regardless of the Contractors most recent certification on another project by ISCO, CMF Global or any other training facility, for THIS project the training will be required and on site. The required time for HDPE pipe (fusion and mechanical) training shall be collectively agreed to by the owner, ISCO, CMF Global and the specifier. Training shall provided by a qualified technician and shall include the following:**

**7.3** Training administered shall be ISCO, AquaFUSION by CMF Global, or equal

**7.3.1** Butt fusion

**7.3.2** Socket fusion

**7.3.3** Electrofusion

**7.3.4** Attachment of mechanical saddles

**7.3.5** If electro and/or sidewall fusion is required, this training must also be completed while the technician is on site.

**7.3.6** Sidewall saddle fusion (if required for project)

**7.3.7** Compatible fusion

**7.4** Contractor Equipment Qualifications

**7.4.1** If the contractor owns butt fusion equipment, the equipment must be serviced prior to use for this project. The machine must be environmentally friendly and in good working order. The hydraulic system must be leak free. All fusion equipment with pressure gauges shall be properly calibrated and the heating tool is to be in proper working condition prior to use.

**7.4.2** Rented butt fusion machines must be rented from a company that has a fusion machine service center or centers certified by the butt fusion machine manufacturer. The fusion equipment supplied shall have certification that pressure gauges are

properly calibrated and the heating tool is to be in proper working condition prior to use.

**8.0 25 Year Limited Warranty for Golf/Turf and Commercial Irrigation Applications**

**8.1 Product Warranty**

**8.1.1 LIMITED WARRANTY:** Seller warrants that, for a period of twenty five years from the date of shipment for a Golf /Turf or Commercial irrigation application, it will replace any section of HDPE pipe, fittings and valves product that is defective in materials or workmanship, provided that Buyer, upon discovery of a defect, promptly notifies Seller of the defect and, as instructed by Seller at such time, either returns the product to Seller for inspection or allows Seller to inspect at the place of installation. If Seller determines the product to be defective, Seller will provide new product of the same specification and same quantity as the defective product and Seller will bear the expense of freight to deliver the replacement product to the jobsite for domestic projects, and to the closest USA port for foreign projects. Seller does not warrant the installation of product. Any defects introduced after the shipment of product by Seller, whether due to handling, installation or other cause, are not covered by this warranty. This warranty does not cover labor or other costs of installing products. Buyer's sole remedy for defective product shall be to receive replacement product as provided in this Limited Warranty.

**8.1.2 OTHER THAN THE ABOVE LIMITED WARRANTY, SELLER MAKES NO WARRANTY AND EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.SELLER'S LIABILITY ARISING OUT OF OR RELATED TO THIS CONTRACT OR ANY PRODUCT OR SERVICE SUPPLIED BY SELLER (WHETHER SUCH LIABILITY IS ALLEGED AS A BREACH OF CONTRACT, BREACH OF WARRANTY, MISREPRESENTATION, NEGLIGENCE, INDEMNIFICATION, PRODUCT LIABILITY OR OTHERWISE) SHALL IN NO EVENT EXCEED THE ORIGINAL PURCHASE PRICE OF THE DEFECTIVE PRODUCT PLUS APPLICABLE FREIGHT COSTS ACTUALLY PAID BY BUYER. SELLER WILL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY OR OTHER LOSS EVEN IF SELLER KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES OR LOSSES.**

**8.1.3**

**8.2 CONTRACTOR'S WARRANTY**

**8.2.1 LIMITED WARRANTY:** Contractor warrants that, for a period of (5) five years from the date of installation, it will re-fuse or repair a fusion connection that is defective in workmanship, provided that Buyer, upon discovery of a defect, promptly notifies Contractor of the defect and, allows the Contractor to inspect at the place of installation. If it is determined the fused connection to be defective, Contractor will re-fuse or repair the connection at the jobsite. Contractor does not warrant the product itself, only the fused connection. This warranty does not cover labor or other costs, only the fused connection. Buyer's sole remedy for defective connection shall be to receive replacement fusion of the pipe or fitting as provided in this Limited Warranty

**8.2.2 OTHER THAN THE ABOVE LIMITED WARRANTY, CONTRACTOR MAKES NO WARRANTY AND EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT**



LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

**CONTRACTOR'S LIABILITY ARISING OUT OF OR RELATED TO THIS CONTRACT OR ANY PRODUCT OR SERVICE SUPPLIED BY CONTRACTOR (WHETHER SUCH LIABILITY IS ALLEGED AS A BREACH OF CONTRACT, BREACH OF WARRANTY, MISREPRESENTATION, NEGLIGENCE, INDEMNIFICATION, PRODUCT LIABILITY OR OTHERWISE) SHALL IN NO EVENT EXCEED THE ORIGINAL PURCHASE PRICE OF THE DEFECTIVE CONNECTION PLUS APPLICABLE FREIGHT COSTS ACTUALLY PAID BY BUYER. CONTRACTOR WILL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY OR OTHER LOSS EVEN IF CONTRACTOR KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES OR**

## SWING JOINTS

### MATERIAL

All sprinkler heads, quick coupling valves, and air release valves shall be installed on swing joints of required size. The swing joint shall be Pre-Assembled, with O-Rings Seals in each joint. The swing joint shall be manufactured/supplied by Toro or an approved equal. The swing joint shall meet or exceed all requirements set forth in ASTM D 3139.

Acme threads are permissible.

### INSTALLATION

All threads shall be wrapped with Teflon tape (no pipe dope is to be used). The swing joint upon installation shall rest so that the angle between the lateral pipe and the arm of the swing joint is between 30 and 45 degrees. It may be necessary to use riser extensions to increase height rather than vertically placing and setting the swing joint.

## SPRINKLER HEADS

### MATERIAL

The sprinkler heads shall be 2 Wire System actuated, pressure regulating, Valve in head, with 1 ½" inlets. The sprinkler heads shall be full circle and adjustable part circle, and shall be utilized where the arc type permits and where diagrammed on the Irrigation Design. The sprinklers shall have a top serviceable removable cap that allows for all operational components, to include but not be limited to on/off signal decoder, pilot valve assembly, solenoid, and all wire splices are to be located within the cavity of the sprinkler body and sealed with the lid.

The sprinkler heads performance shall be as noted below (full circles a minimum of 87' radius, adjustable part circles a minimum of 87' radius, minimum of 47 GPM on all heads.)

1 1/2" FC/PC VIH Sprinklers, 1" PC Rotors

## INSTALLATION

The Irrigation Contractor, Irrigation Consultant, and the Owner's representative shall do the spacing and layout of the sprinkler heads. Each hole when staked shall require final approval from the **Irrigation Consultant**, and the **Owner's** representative before trenching and installation can begin. In areas where regrassing will not take place, the Irrigation Contractor shall install all heads to final grade. At the time of installation, the **Irrigation Contractor** shall install all sprinkler heads to final grade. If final grassing grade is not yet established at the time of installation, then the Contractor shall install the sprinkler 6" high and come back at the time final grassing grade is established and lower the sprinkler to its final placement.

Placement of the heads will be to the satisfaction of the **Owner's Representative**. If a head is questioned, it shall be judged for straightness and elevation by laying a three foot piece of 2" X 4" sideways across the top of the head. The head should not elevate the 2" X 4" nor should it be any lower than ½" from the 2" X 4".

All field wires shall be coiled with an extra 2' of wire and shall be clipped to side of the swing joint at the bottom of the joint.

All sprinkler heads shall be installed in accordance with the manufacturers recommended installation procedures.

## CENTRAL CONTROL SYSTEM

### **Central to Remote Field Decoder Controller VIA Radio, Remote Controller to Field via 2 Wire, Field to Central, Via Hand Held Radio or IPAD**

The central controller shall utilize a personal-computer-based, Microsoft Windows 11 or latest platform, user-friendly irrigation management and control program. The central controller shall utilize a client/server architecture. Computer shall include 2 video outputs and allow map graphic to be floated onto secondary monitor.

The central controller shall utilize site graphics with 64-bit software, including site graphics at the station level. The software shall be presented in a "flat" display, where all of the information needed is available to the user for a given operation, without having to open and close additional windows.

The central controller shall have programs based on a hierarchy organized the same as the golf course. Course(s), Areas (greens, tees, fairways, etc.) followed by holes (1 through 48), followed by the individual sprinklers. The central controller shall have the ability to view the system at any of the four levels (course, area, hole, sprinkler) by Dynamic Drill down (simply clicking on a plus/minus box ) to give the user intuitive control. A graphic red "Water Drop" will identify areas and holes that have stations turned off. A graphic green "Water Drop" will identify areas, holes and stations set to run automatically. A graphic blue "Water Drop" will identify areas not scheduled to water.

The central controller shall allow the user to schedule areas to irrigate by either entering runtimes in minutes, or by entering amount of water to apply. If the amount is utilized, the corresponding minutes will automatically be calculated and displayed. If minutes are utilized, the corresponding amount of application shall be calculated and displayed. Runtimes shall be calculated and executed to the minute.

The central controller shall have a "Course Report" to allow the user to determine the status of each sprinkler station on the golf course. The Course Report shall auto generate after each night's watering to allow confirmation of all sprinkler runtimes at a glance. The Course Report will display all Automatic, Manual, and Group Multi-Manual Irrigation as well as stations that are currently running. Stations that

have not operated as scheduled shall be identified with a graphic red “Water Drop”. The Course Report / Alert Panel shall display feedback from the Gateway(s) to indicate station status. The Course Report will utilize the Area, Hole, Station layout with Dynamic Drill down to quickly navigate to exceptions.

The central controller shall support the creation of a customized site map displaying multiple layers. The central controller shall allow the user to quickly create a map from any digital image (jpeg, bmp or tif format). The control system will allow the user to edit the locations of sprinklers, Turf Guard Sensors, and switches on the map. The central controller shall provide system status at the station level and display changes in status. The central controller shall be capable of creating user-defined work orders. If a scaled CAD map is utilized, the central controller will display area and distance measurements.

The central controller shall be capable of graphically displaying projected flow on the map at the station level and displaying station activation utilizing a color-coding system that shows how stations will activate during the next 24 hours. The central controller shall be capable of creating irrigation programs through the map and making station level percentage adjustments. When programming or manually running stations, the map shall be capable of automatically zooming into the stations, holes, and areas selected.

The central controller shall automatically calculate sunrise and sunset based on longitude, latitude and date, and provide this information for starting or stopping a program in relation to sunrise or sunset. The central controller shall permit true random access of all stations in the system and allow Instant Programs to be constructed with any combination of stations regardless of wiring sequences or satellite designation. The central controller shall have the ability to manually adjust (percentage increase/decrease) by course, area, hole, station, and/or the entire system. System adjustment factors may be input via actual percentage or operational ET. The central controller shall have the ability to connect to a weather station. The weather station will measure and store temperature, relative humidity, dew point, wind speed and direction, and solar radiation for use in the calculation of evapo-transpiration. The central shall have the ability to automatically calculate and adjust watering times based on evapo-transpiration. The central controller shall also have the ability to reduce the automatically calculated runtime by the rainfall measured over the preceding 24 hours. Further, the central controller shall have the ability to adjust calculated runtimes after they have been scheduled utilizing a Rain Re-Flow alarm response.

The central controller shall include the Soil Sensor software. Individual sensor data can be assigned to specific sprinklers to allow the user to view current soil moisture on the Watering Plan, allowing the user to choose to skip watering if moisture levels are above user-defined thresholds, or to activate stations if moisture levels are below defined thresholds.

The central controller shall employ advanced hydraulic/electrical systems management, allowing the user to specify hydraulic system design (sources and pipes representing mainlines, branches and flow groups) and the hydraulic limits of each entity. The central controller shall manage system flow by automatically generating the appropriate station start times based on the program priority and hydraulic limits set for each source and pipe, and for the simultaneous station limit set for each wire path. The central controller shall incorporate the ability to use Precipitation Management Groups to specific which stations are allowed to operate simultaneously when hydraulic capacity is available.

The central controller shall display projected flow by source, course, area, program and hole using colors to differentiate. The graph will calculate and display the maximum instantaneous flow as well as the total volume. Maximum flow and volume will be displayed in user-selected units. When pump integration is configured, the actual flow reported by the pump station can be displayed simultaneously with the projected flow for up to the last 7 days. The central controller shall have the ability to manually start programs for an entire area or for an individual hole/area. Manual programs may be started in normal program time or a manually selected time. The central controller shall have the ability to start a multi-manual cycle on a wire path, running up to 100 stations simultaneously with a run time of up to 99 minutes.

The central controller shall have the ability to independently suspend (hold) the automatic operation of an individual station, a course or the entire system. The station hold duration shall be programmable for the current irrigation day up to 30 days, or may be permanent. The central controller shall have the ability to control non-irrigation devices through switch outputs. Each switch (up to 50) will have an independent seven-day calendar schedule and start times for up to 24 starts. Switch outputs may run from one minute to 23 hours and 59 minutes (programmable in one-minute increments), with individual start times for each station (switch output). Switches may also be scheduled to run with any program and include the ability to offset the start time prior to or after the start of the program.

The central controller shall provide reports detailing the following information: 1) projected schedule activity, 2) contents of the database constructed while programming the central controller, 3) overview of scheduled irrigation activity including start time, end time and area information, flow and program, 4) report stations that did not acknowledge a message to run, 5) stations that are assigned to more than one program.

The central controller shall be capable of integrating with up to 10 pump stations manufactured by, MCI, or Watertronics. The central controller shall be capable of displaying key pump station data including flow and pressure. The central controller shall be capable of responding to "alarm" conditions based on data received from the MCI or Watertronics pump stations. When alarms are activated, the irrigation system will respond in one of the following ways: log only no response, pause irrigation, resume irrigation, turn a switch on/off, cancel a program or station, initiate a rain hold or cancel, start a program or initiate a Re-Flow response. The central controller will be able to limit flow during specified times with the configuration of a pump profile with or without pump station integration. These features allow savings in markets where the utility companies have adopted tiered electricity rates for peak use periods.

The system shall require a personal computer which has been certified by the manufacturer for use with the central control system. The system shall come with a one-year dedicated support program provided by the manufacturer which includes extended warranties, 24-hour component replacement, toll-free help-line support and remote diagnostics by a licensed irrigator.

The system shall include GSP for secure remote access to allow the user to operate the Lynx system from any computer connected to the internet. This will also allow GSP to do remote diagnostics and support of the central controller. The system shall include one year of GSP, a service that will allow GSP to remotely monitor the computer 24/7/365 and will alert the user to internal computer hardware and software issues.

## REMOTE 2 WIRE CONTROL SYSTEM

The irrigation satellites shall be installed and mounted on a concrete slab no less than 6" in thickness. A 4" sweep (field wires), and a 2" sweep (power wires) shall be incorporated into the construction of each Remote Controller (RC) pad. All slabs will be brush finished, with smooth trim, and rounded edge.

The satellite cabinets shall be constructed of Plastic, with locking doors. All control devices shall be enclosed and installed as per manufacturer's recommended installation procedures.

Each satellite shall have a power disconnect, with receptacle installed. This disconnect shall meet all local electrical codes.

The power supply will be 120 VAC, and 24 VAC power for the field wire. Each RC location, shall be connected with # 6 bare copper wire, via a CadWeld to a minimum of three 5/8" ground rods in a grid triangle distanced 16' apart, and surrounding the satellite group. A resistance to Ohms of 10 or less is required at each location before it can be approved and signed off. Should additional grounding rods be

required, it shall be considered an extra, and the **Owner** shall be responsible for payment as outlined in the unit pricing section of the Bid form.

Each RC shall have installed surge protection for the 120 VAC power wires, 40 VAC field wires. This surge protection shall include any fuses, chokes, gap relays, MOV's or resistors that are typically part of timing mechanism, transformer construction, or satellite construction.

**ALL RCs SHALL BE SIZED TO ACCOMMODATE THE REQUIRED NUMBER OF STATIONS PRESENT IN EACH HYDROZONE.**

## ISOLATION VALVES

### MAINLINE, LATERAL, TEES & GREENS ISOLATION VALVES

All Isolation Valves shall follow the following specifications with the exception that the bid for the HDPE SYSTEM shall include Lug Type Epoxy Coated Metal valves with integrated HDPE stubs on each side of the valve no less than 18" in length OR transition from HDPE to the valve via a mechanical joint assembly.

All isolation valves shall be sized as specified on the irrigation design, and no variation shall be allowed unless approved by the **Irrigation Consultant**. All isolation valves on the project shall be of the same manufacturer.

**All greens isolation valves shall be installed within fifty (50) feet from the green's edge. If this is not possible, then the Owner shall select the valve location.**

All mainline pipe supplying green's loops are 4", and all green's loops are 3" in diameter.

The **Irrigation Contractor** will provide to the **Owner**, four (4) valve-adjusting wrenches, each shall be 5' in length.

### VALVE BOXES

Valve boxes shall be placed over all isolation valves, quick coupling valves, drain valves, air release valves, electrical wire splices, communication cable splices, and ground rod locations. Valve boxes shall be of high strength plastic, and valve lids shall be **green** (unless otherwise required by local code) for irrigation components. Electrical splices shall be installed in rectangular valve boxes **gray or black** in color. All Mainline/Lateral irrigation valve boxes shall be 24" Rectangular Boxes, all Lateral electric valve boxes shall be 24" rectangular, and quick couplers and ground rod valve boxes 6" in diameter, and electrical splices 24" rectangular. Valve box extensions must be used where necessary. Valve boxes are to be manufactured by Brooks or Carson.

### QUICK COUPLERS

All quick coupling valves shall be constructed of brass and they shall be 1" in size. All quick coupling valves will be supplied via the green loop. Each quick coupling valve will be enclosed in a 6" valve box, with a green lid.

All quick coupling valves shall be connected to the Lasco Snap-Lok swing joint with a brass male stabilizer elbow (G14S-212). Quick Coupling valves shall be located at the back right head of each green.

## AIR RELEASE VALVES/DRAIN VALVES

### AIR RELEASE VALVES

The irrigation system shall have a minimum of six (6) 1" Air Release Valves. The locations shall be determined during construction depending on site conditions. Bermad, Model 4405, or an approved equal shall manufacture the air releases valves. Each A.R. Valve shall have a gate valve to allow service.

### DRAIN VALVES

The irrigation system shall have a 2" Lug Type Valve at each lake on the golf course. These drain valves shall be attached to the nearest fairway lateral via and housed in a valve box 10-15' from the lake's edge.

## WIRE

### 2-WIRE COMMUNICATION WIRE

Trunk Wire shall refer to the wire path that parallels the mainline and Lateral Wire shall refer to the wire that leaves the Trunk Wire and runs with the sprinkler lateral pipe to each sprinkler. All wire shall be Polyvinyl Chloride (PVC) thermoplastic-coated underground feeder (UF) wire and rated to 600 volts. All 120 VAC wire shall be installed as per all Local and National Electric Codes. All wire shall be tested by Underwriter's Laboratories, and bear all UL labels. The **Irrigation Contractor** shall follow all color schemes and sizes as shown on the irrigation design and in the Project Manual.

The 2-WIRE TRUNK Soft drawn bare copper meeting the requirements of ASTM specification B-3 or B-8. Insulation shall be low density high molecular weight polyethylene and a thickness of 0.045". The two conductors (black and yellow) shall be twisted with a minimum lay of 4". All wire is to be manufactured by Regency. An optional Mylar tape may be used over the conductors. A rip cord shall be placed directly below the outer jacket. Overall jacket shall be high density polyethylene with a thickness of 0.035". Colors shall be as defined in the Qty Section of the PM and on the drawings. The jacket shall be sufficiently round, and loose, to facilitate its removal when being stripped. Colors are as displayed in the drawings.

The 2 WIRE LATERAL WIRE Soft drawn bare copper meeting the requirements of ASTM specification B-3 or B-8. Insulation shall be low density high molecular weight polyethylene and a thickness of 0.045". The two conductors (black and yellow) shall be twisted with a minimum lay of 4". All wire is to be manufactured by Regency. An optional Mylar tape may be used over the conductors. A rip cord shall be placed directly below the outer jacket. Overall jacket shall be high density polyethylene with a thickness of 0.035". Colors shall be as defined in the Qty Section of the PM and on the drawings. The jacket shall be sufficiently round, and loose, to facilitate its removal when being stripped.

Wire colors for the Lateral Wires shall be as follows:

All Trunk wires shall be as defined in the dwgs. All Fairway and Greens shall be GREEN/BLACK.

All wires shall be installed in lengths so that splicing can be avoided. However, both the Irrigation Consultant and the Owner understand that in some cases this will not be possible. When a splice is necessary, all 2 Wire splices should be at the closest sprinkler with 3M DBY/DBR , or an approved equal.

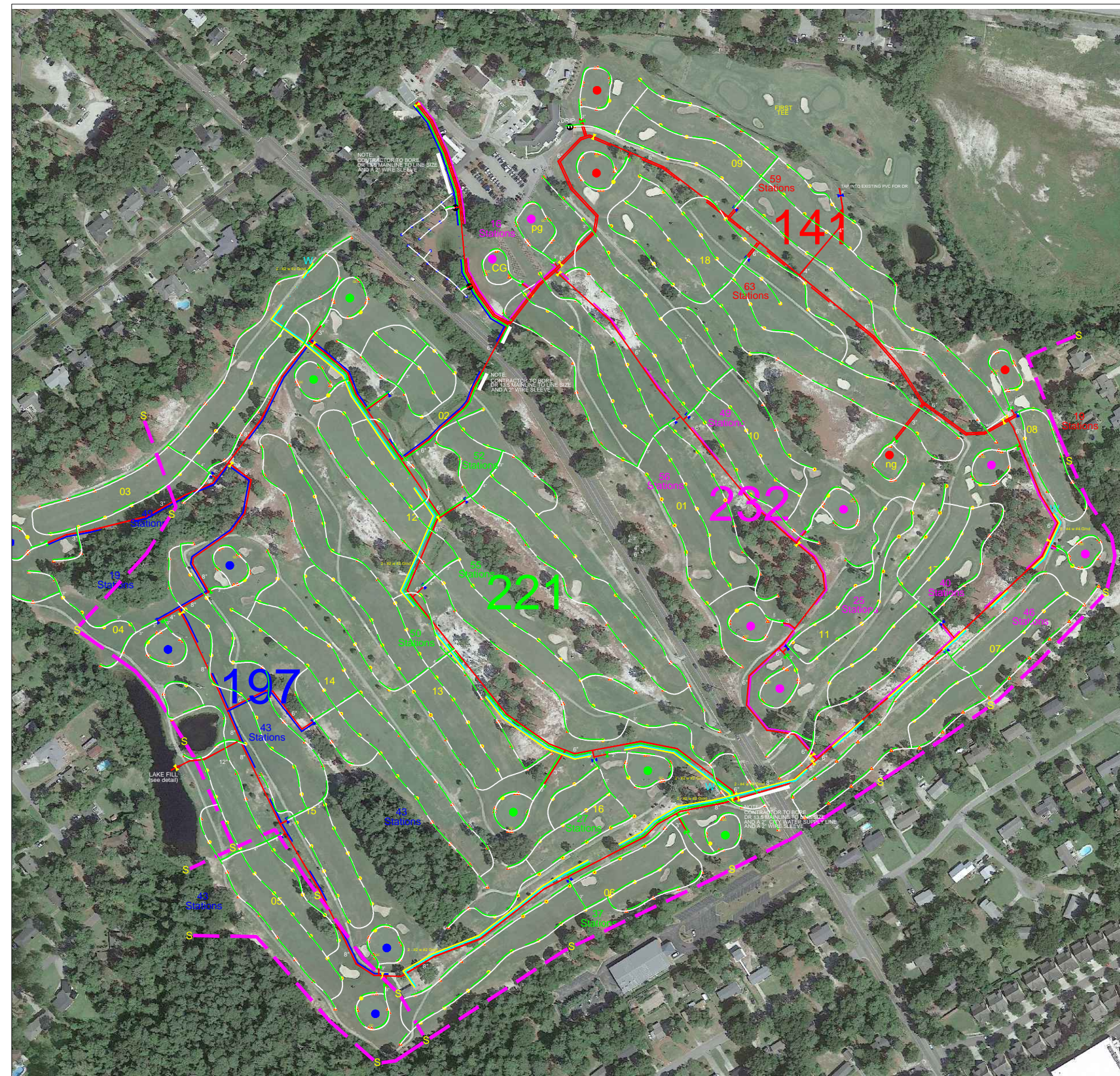
**All bare copper wire splices in the field shall be joined via a split bolt to ground rod at that point where the spool empties.** All wire splices are to be buried in a valve box. (See Valve Box section). All wire splices will be made as per manufacturer's instruction.

## TWO WIRE SPLICE

All Two Wire Trunk Splices and 3 Way Lateral Wire Spices shall be made with a Polaris splice kit. It shall be comprised of a hard molded rubber coated, aluminum bus bar with accessible allen screws for tightening and testing. Each wire shall be housed in a watertight sleeve and be trimmed to wire diameter. These devices are to be waterproof to 6'.

## GROUND WIRE

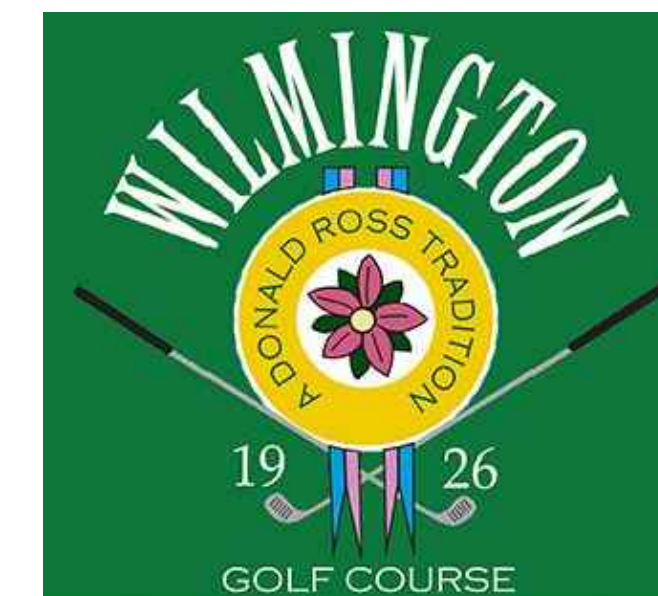
The irrigation satellites shall be connected to the ground rods with a #6 BARE copper wire. This same wire will travel the length of all power wire runs. The wire shall be attached to the rods with a CadWeld. All splices shall be made with a ground rod and CADWELD. The ground wires from a group of two or more satellites may be unioned together, and connected to the ground rods via a single #6 bare copper wire.



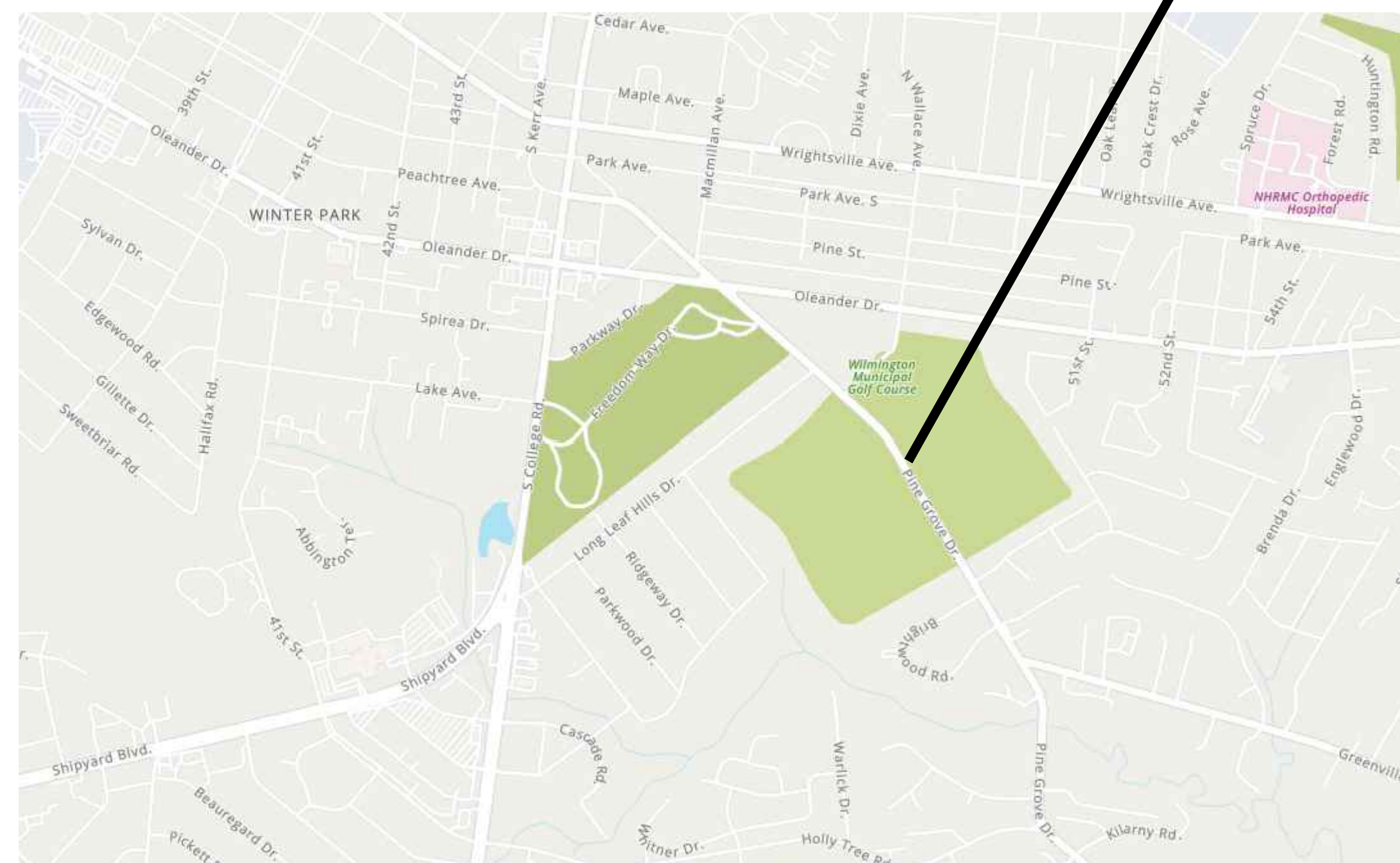
# WILMINGTON GOLF COURSE

Wilmington, North Carolina

2024 GOLF COURSE IRRIGATION SYSTEM PROJECT  
 (Dwg # WGC230828-IRR1 / Proj Man #240119-PM1 )

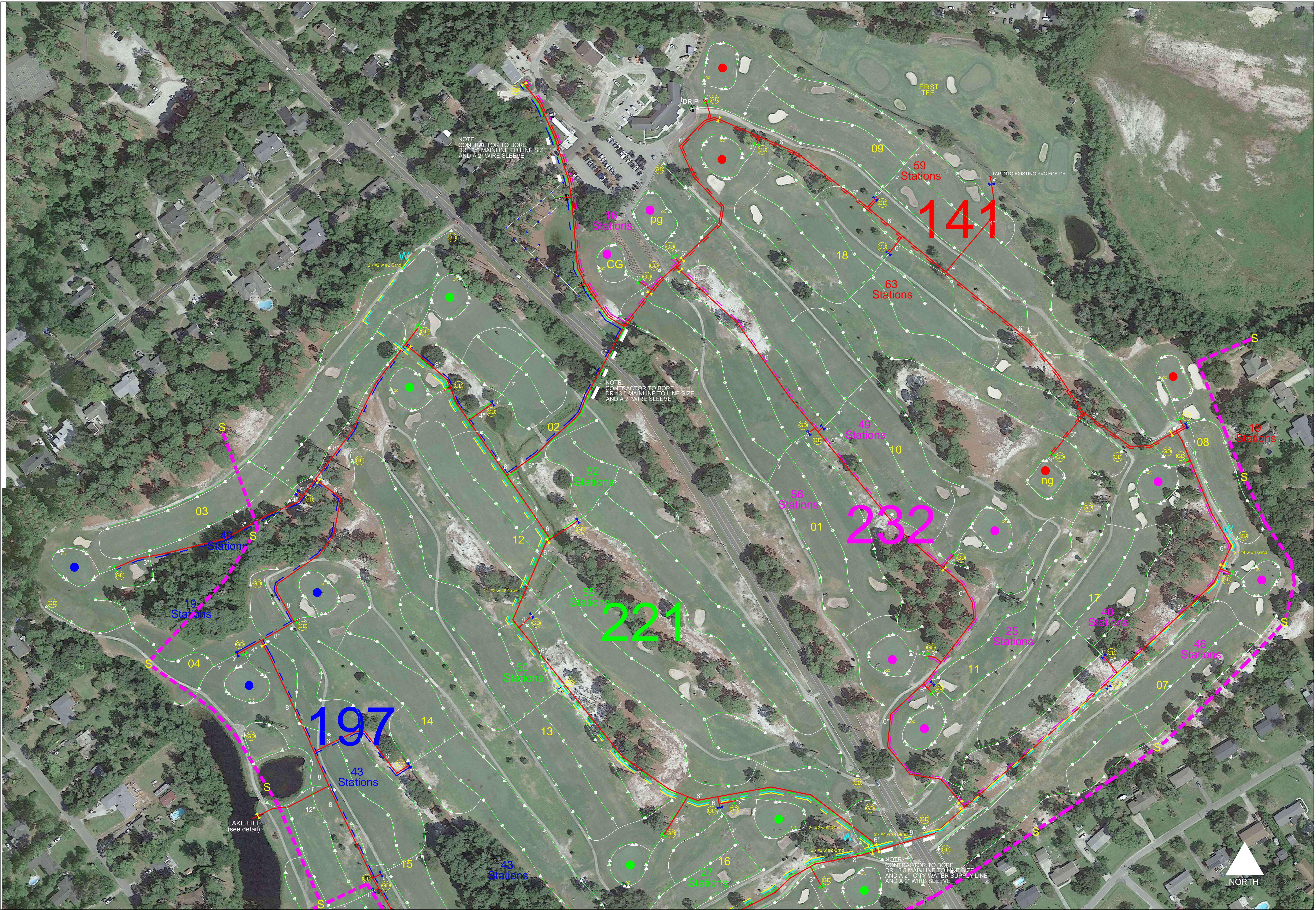


PROJECT SITE



THE PIGNATO GROUP  
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 TEL. 561.313.4219  
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CITY OF  
**WILMINGTON**  
 NORTH CAROLINA

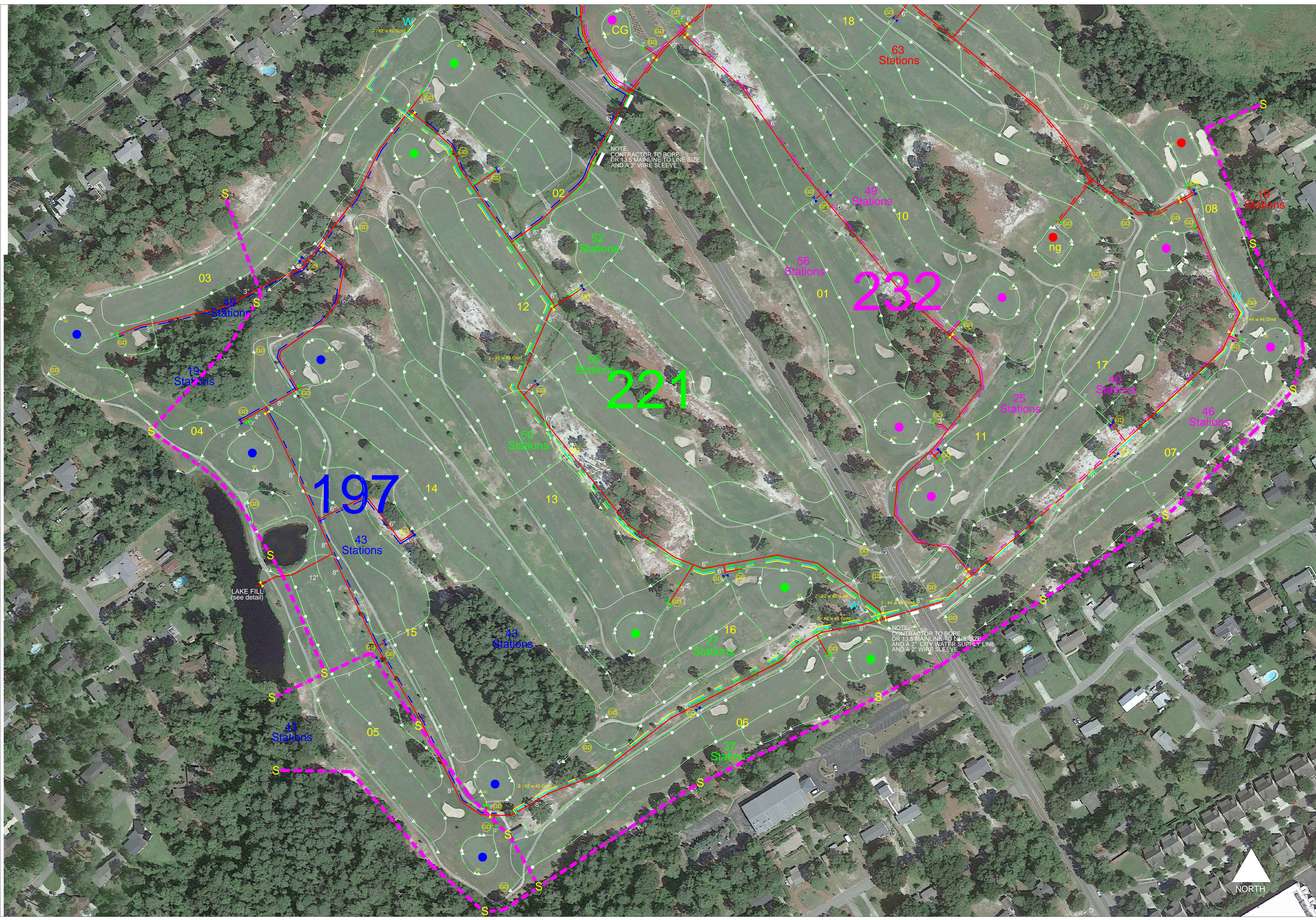


**WILMINGTON GOLF COURSE**  
 Wilmington, North Carolina  
**IRRIGATION SYSTEM- OVERALL SYSTEM**

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| DESIGNED:   | DATE: |
|-------------|-------|
|             |       |
| APPROVED:   | DATE: |
|             |       |
| JOB NUMBER: | DATE: |
|             |       |
| REVISIONS:  | DATE: |
|             |       |

**IRR 01**  
 SCALE 1" = 100'



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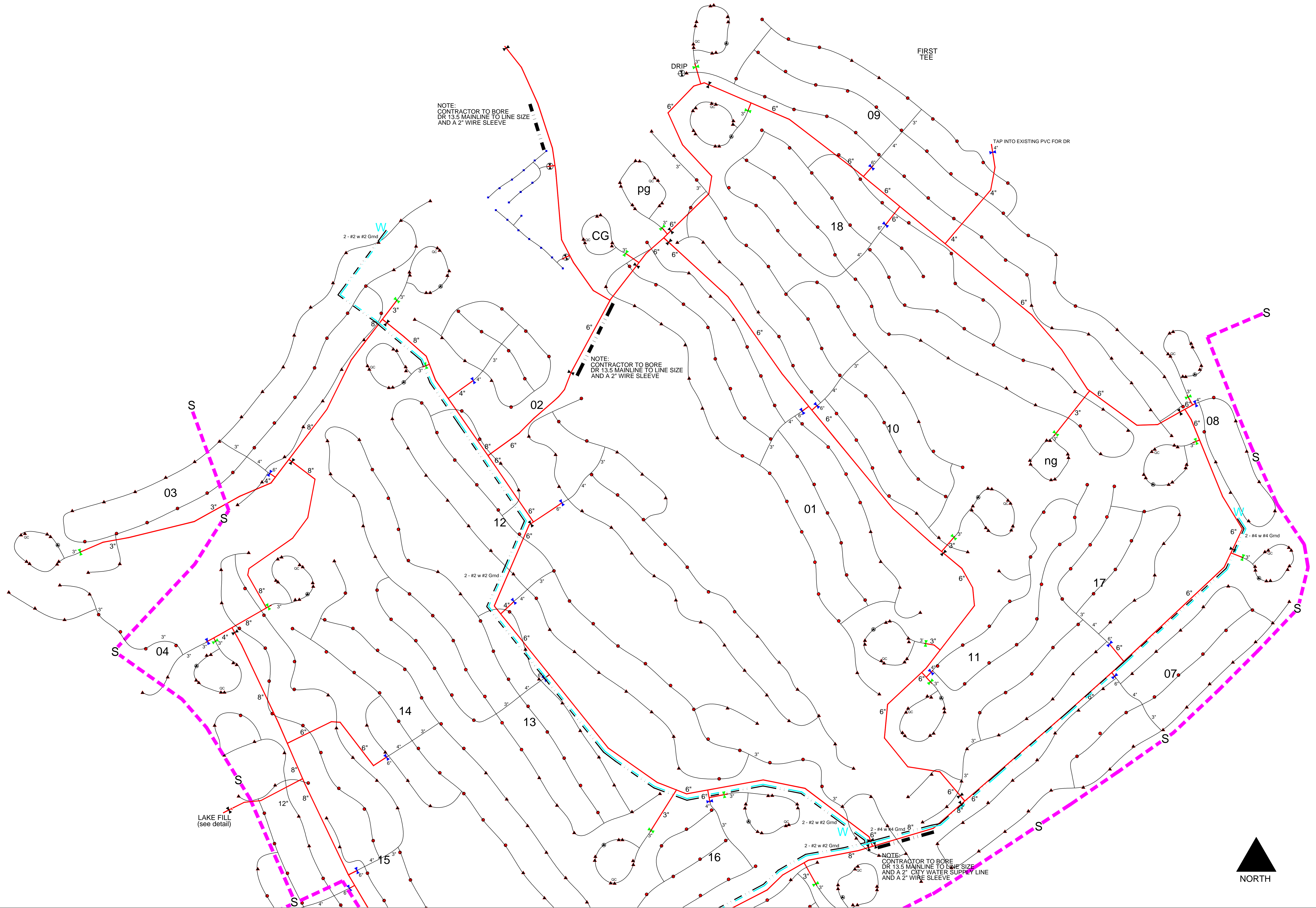
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 Wilmington, North Carolina  
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|             |                |
|-------------|----------------|
| DESIGNED:   | M.P.           |
| APPROVED:   | M.P.           |
| JOB NUMBER: | JUGG-220624282 |
| DATE:       | JULY 28, 2023  |
| PERSONS:    | NO. 220624282  |

**IRR 02**  
 SCALE 1" = 100'





NOTE:  
CONTRACTOR TO BORE  
DR 13.5 MAINLINE TO LINE SIZE  
AND A 2" WIRE SLEEVE

NOTE:  
CONTRACTOR TO BORE  
DR 13.5 MAINLINE TO LINE SIZE  
AND A 2" WIRE SLEEVE

NOTE:  
CONTRACTOR TO BORE  
DR 13.5 MAINLINE TO LINE SIZE  
AND A 2" CITY WATER SUPPLY LINE  
AND A 2" WIRE SLEEVE

LAKE FILL  
(see detail)



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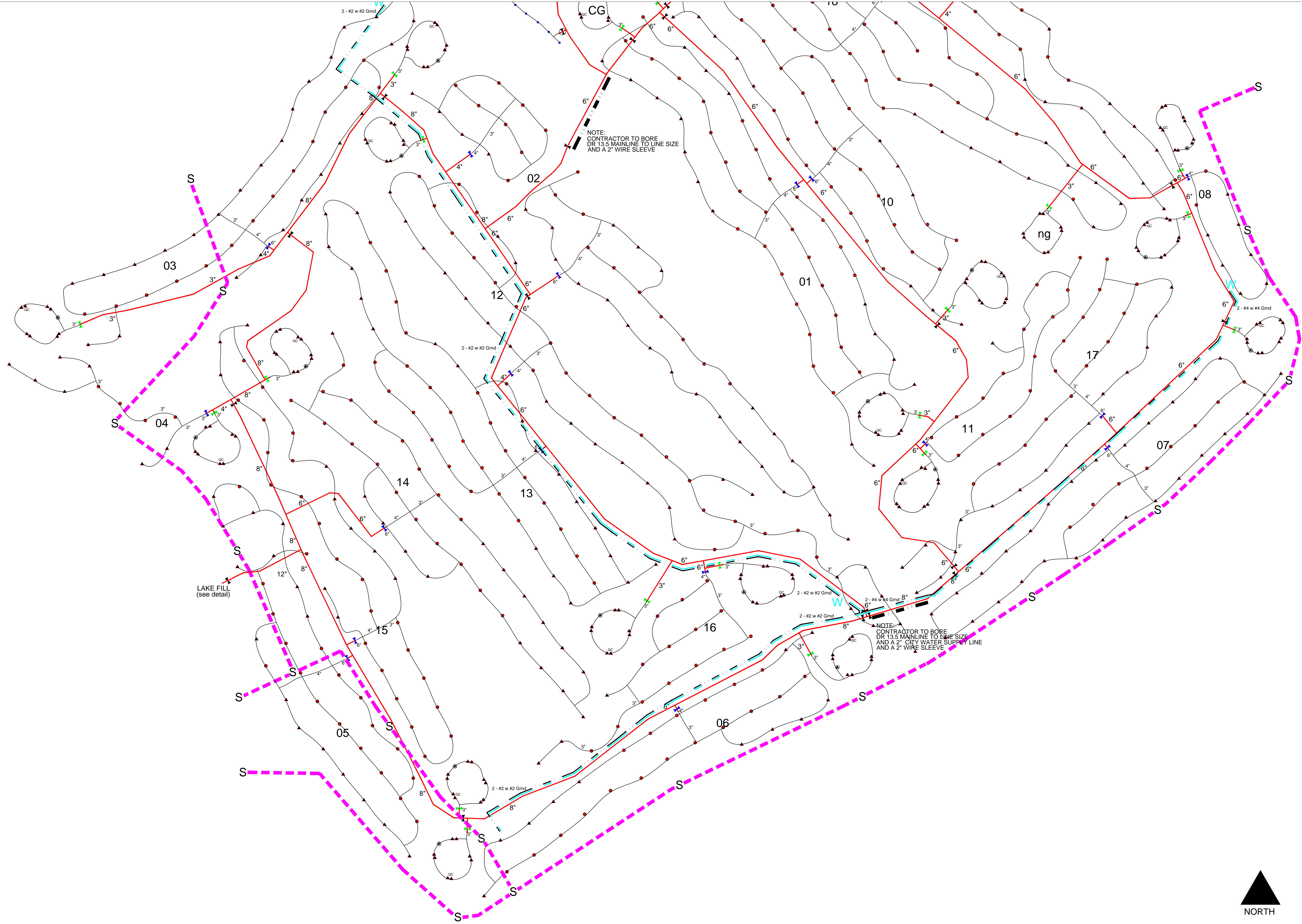


**WILMINGTON GOLF COURSE**  
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IRRIGATION SYSTEM- PIPING

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|             |                      |
|-------------|----------------------|
| DESIGNED:   | J.M.P.               |
| APPROVED:   | J.M.P.               |
| JOB NUMBER: | JGCG-2202020202      |
| DATE:       | 08/20/2023           |
| PERSONS:    | JOHN REBELLE, J.M.P. |

**IRR 03**  
SCALE 1" = 100'



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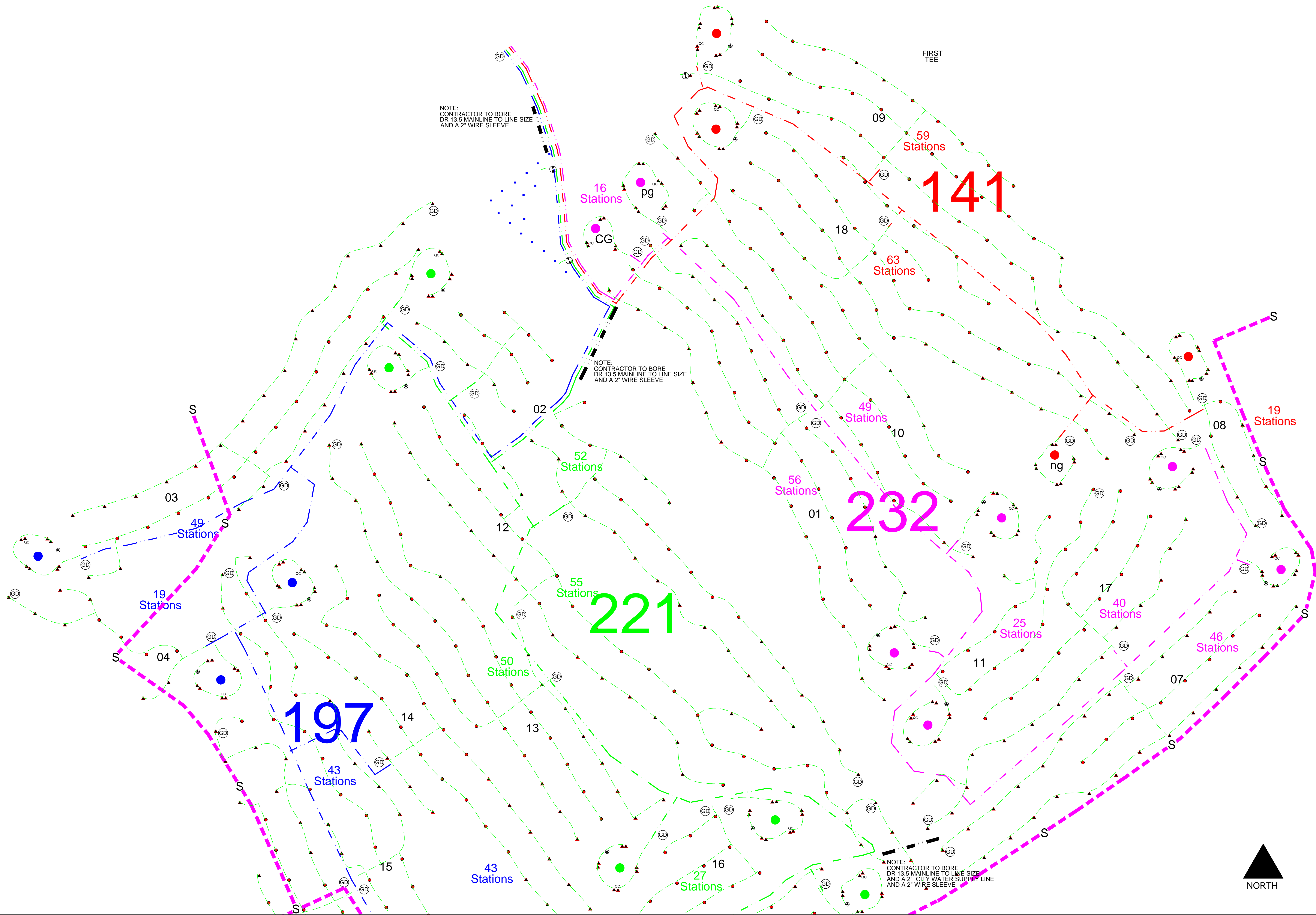
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|              |                   |
|--------------|-------------------|
| DESIGNED     | JMP               |
| APPROVED     | JMP               |
| JOB NUMBER   | JG06-220204020402 |
| DATE         | NOVEMBER 11, 2022 |
| PERFORMANCES | JG06-220204020402 |



**IRR 04**  
 SCALE 1" = 100'



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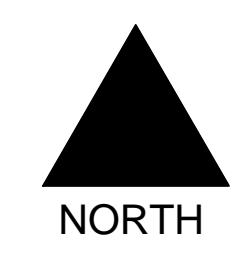


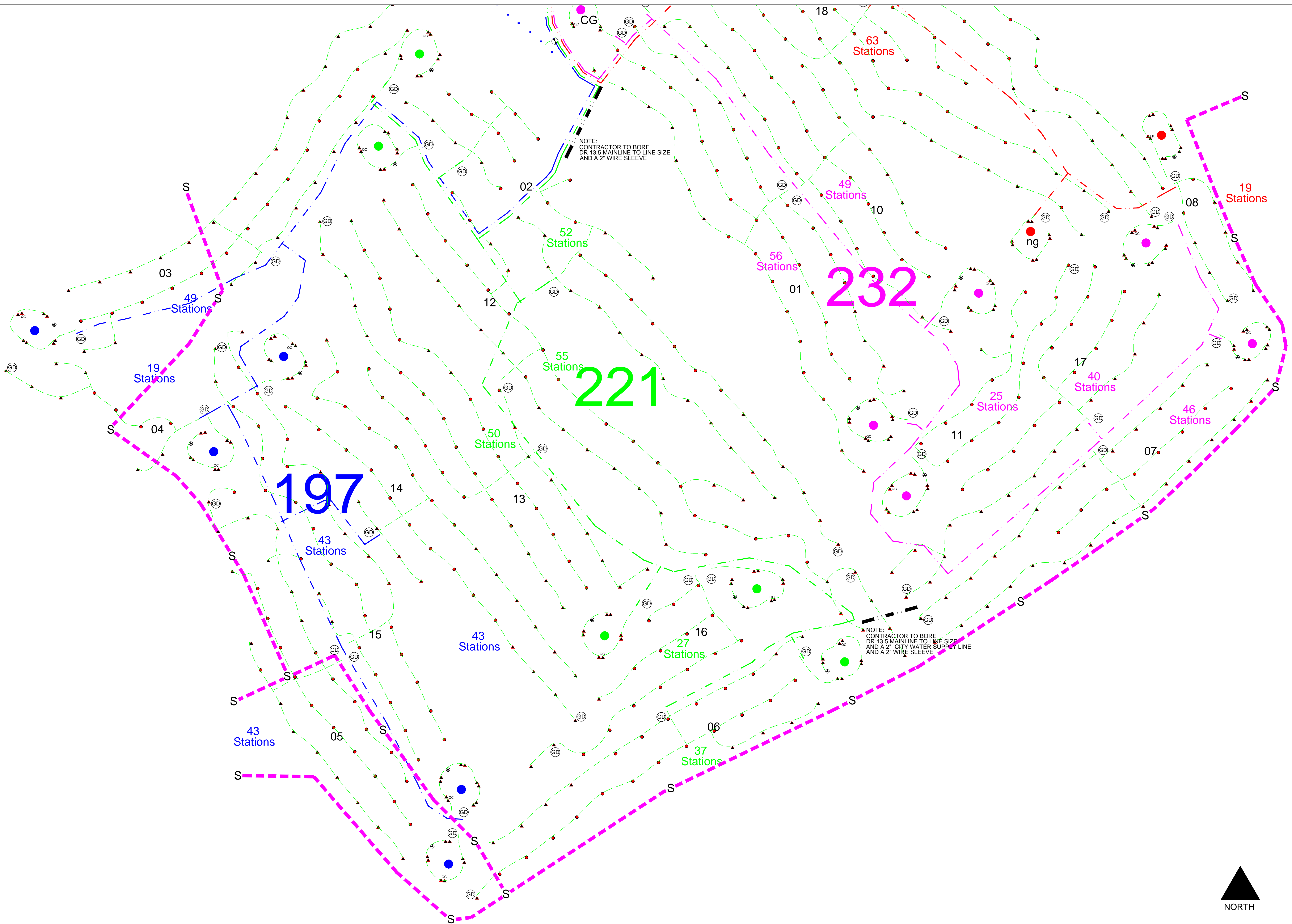
**WILMINGTON GOLF COURSE**  
 Wilmington, North Carolina  
 IRRIGATION SYSTEM- TWO WIRE PATHS

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|            |                   |
|------------|-------------------|
| DESIGNED   | M.P.              |
| APPROVED   | M.P.              |
| JOB NUMBER | JG02-220242-RELL  |
| DATE       | JUN 08 2023       |
| PERSONS    | LOGS/RECORDS/EASL |

**IRR 05**  
 SCALE 1" = 100'





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**WILMINGTON GOLF COURSE**  
 Wilmington, North Carolina  
**IRRIGATION SYSTEM- TWO WIRE PATHS**

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|             |                   |
|-------------|-------------------|
| DESIGNED:   | J.M.P.            |
| APPROVED:   | J.M.P.            |
| JOB NUMBER: | JG06-2206242RELL  |
| DATE:       | NOVEMBER 14, 2023 |
| PERSONS:    | J.M.P., J.B.E.L.  |



**IRR 06**  
 SCALE 1" = 100'



NOTE:  
CONTRACTOR TO BORE  
DR 13.5 MAINLINE TO LINE SIZE  
AND A 2" WIRE SLEEVE

NOTE:  
CONTRACTOR TO BORE  
DR 13.5 MAINLINE TO LINE SIZE  
AND A 2" CITY WATER SUPPLY LINE  
AND A 2" WIRE SLEEVE



|             |                  |
|-------------|------------------|
| DESIGNED:   | M.P.             |
| APPROVED:   | M.P.             |
| JOB NUMBER: | JUG-22062&RELL   |
| DATE:       | 08/28/2022       |
| PERSONS:    | JOE/RELL/ETL/AEL |

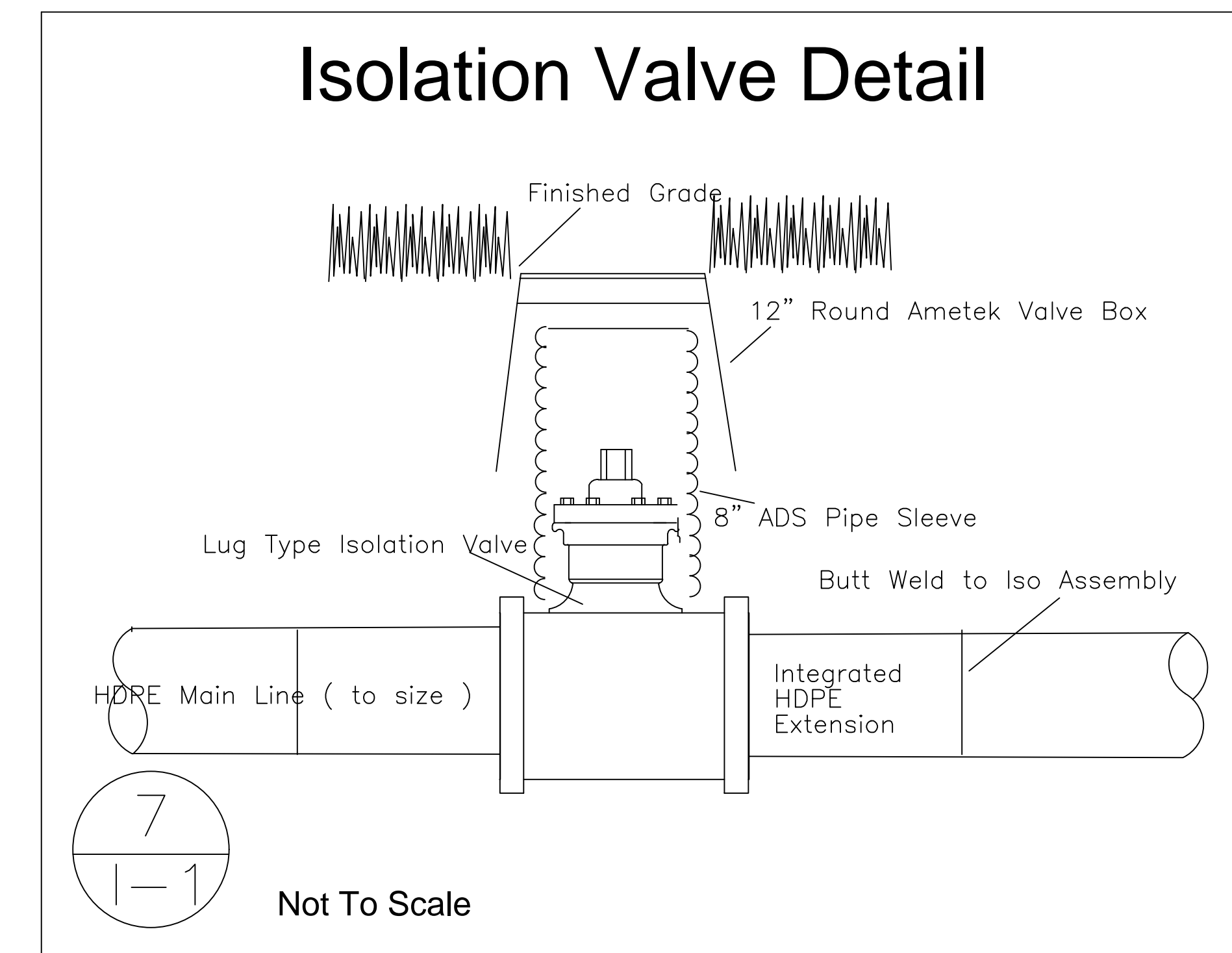
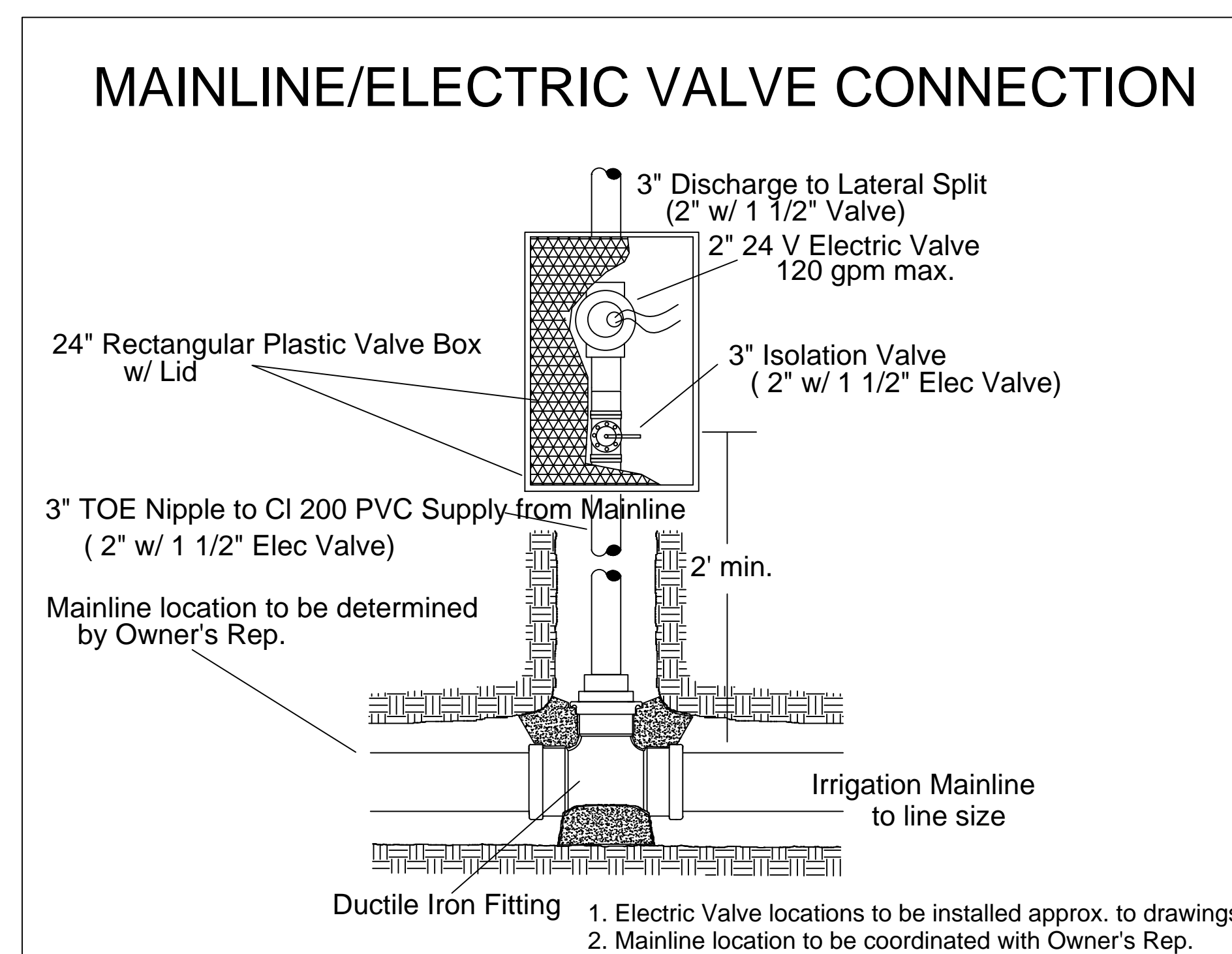
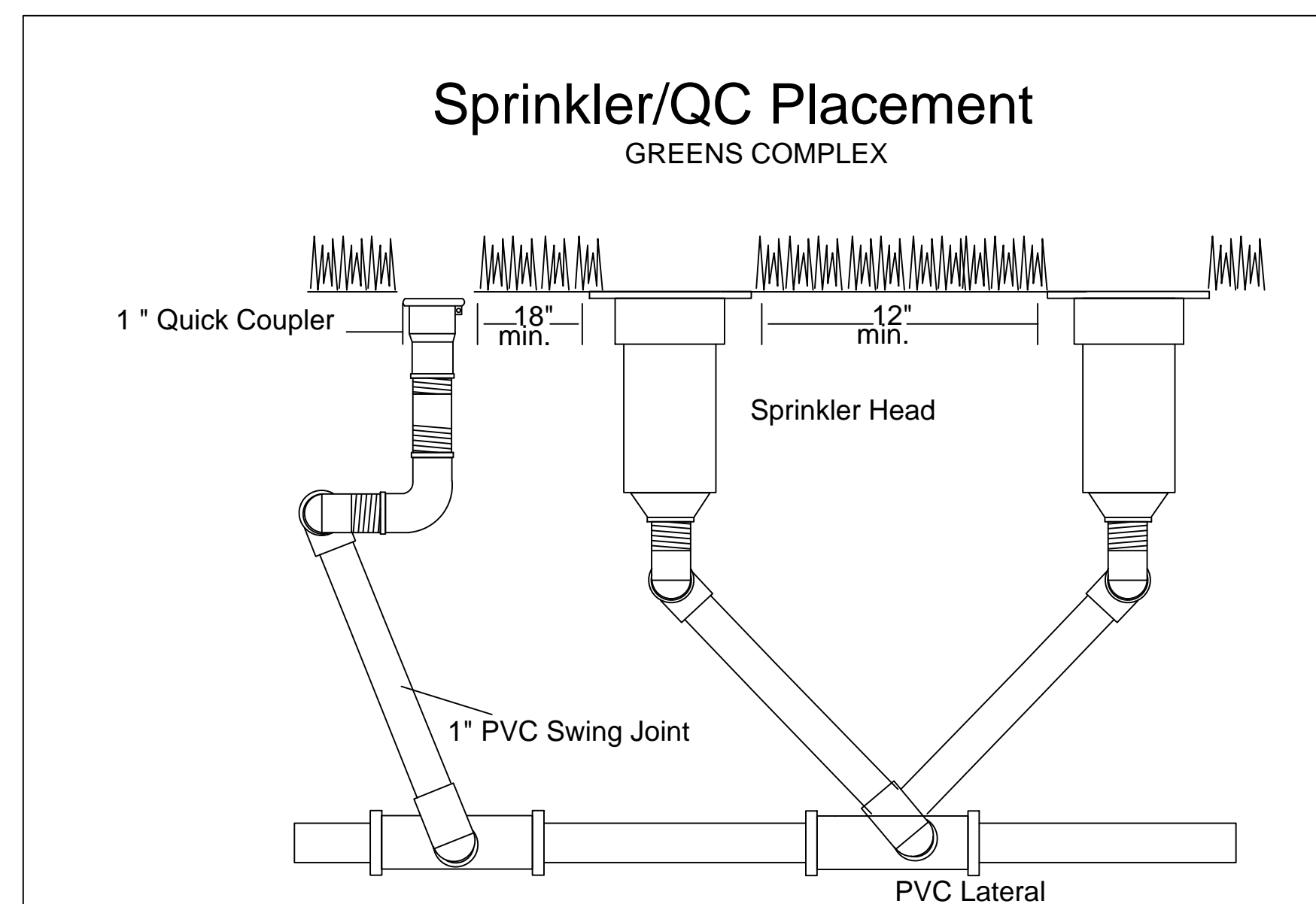
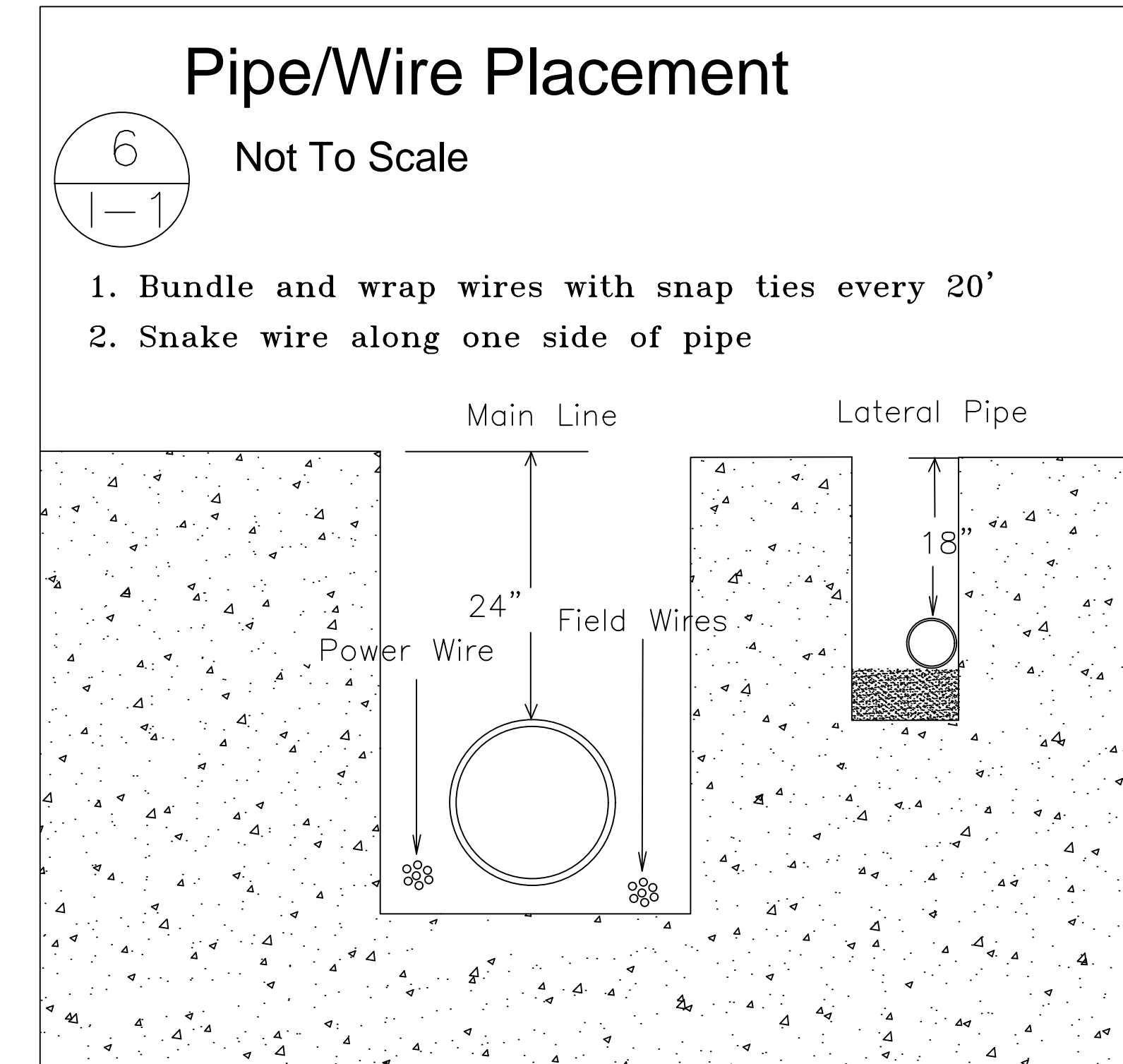
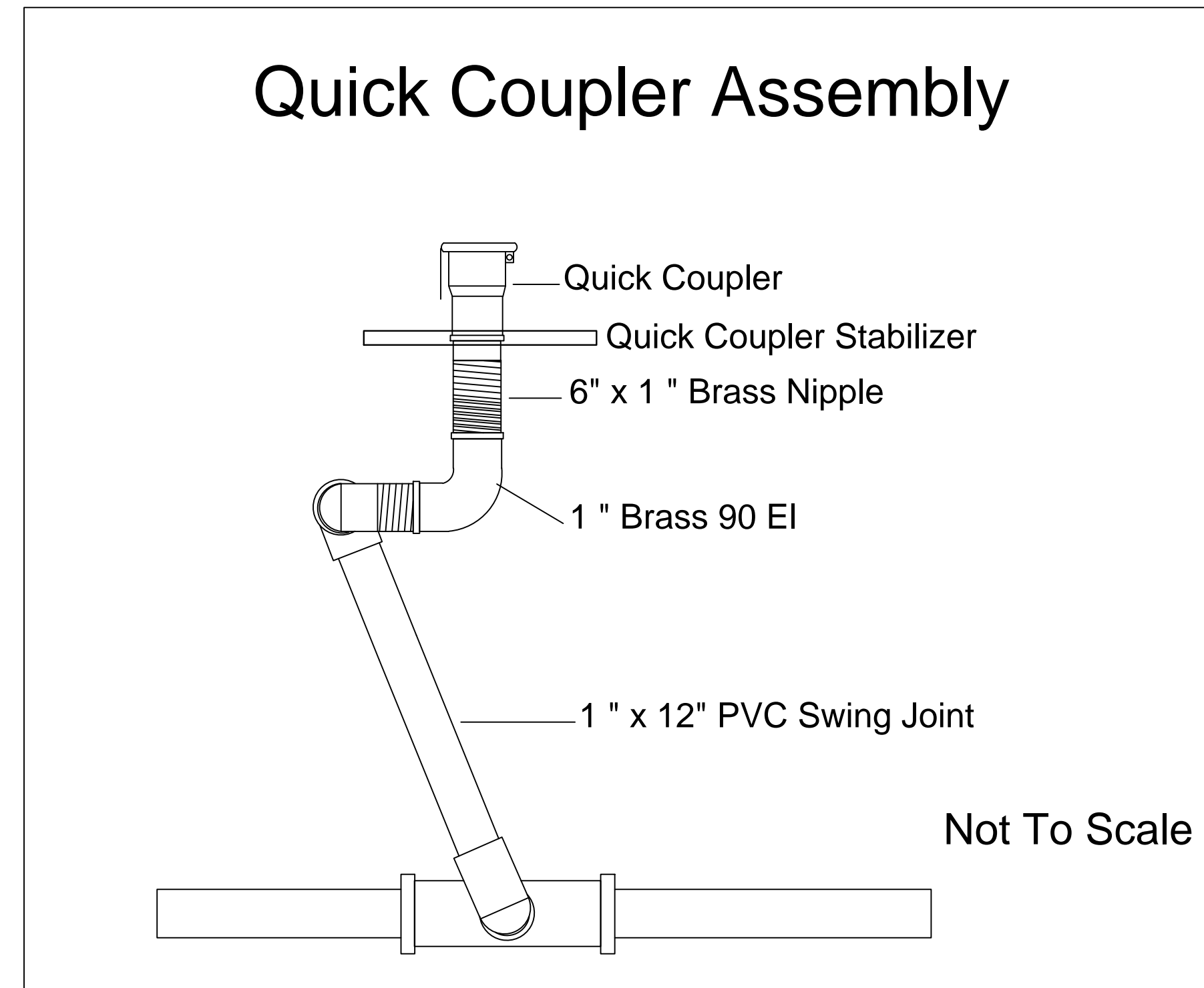
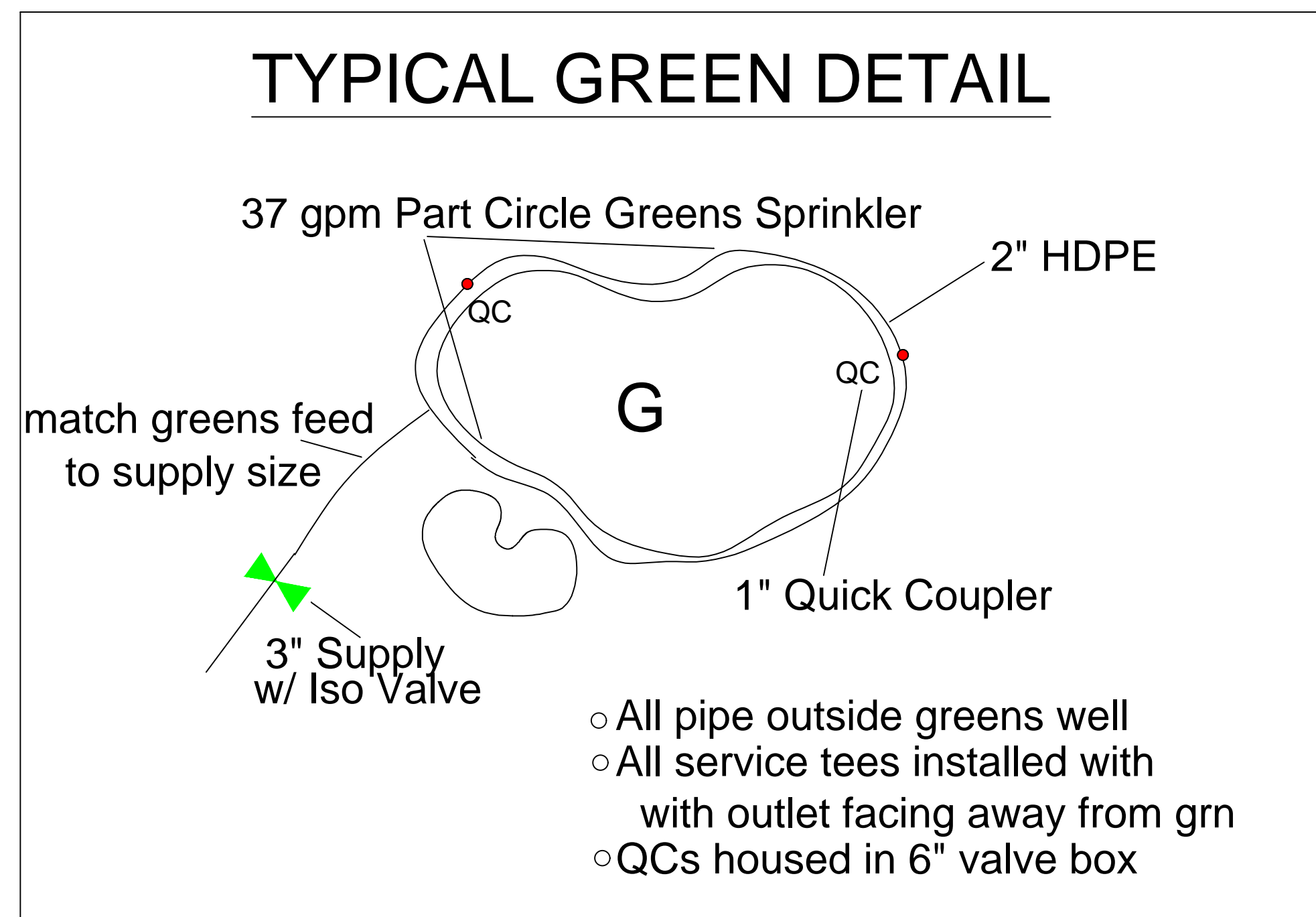
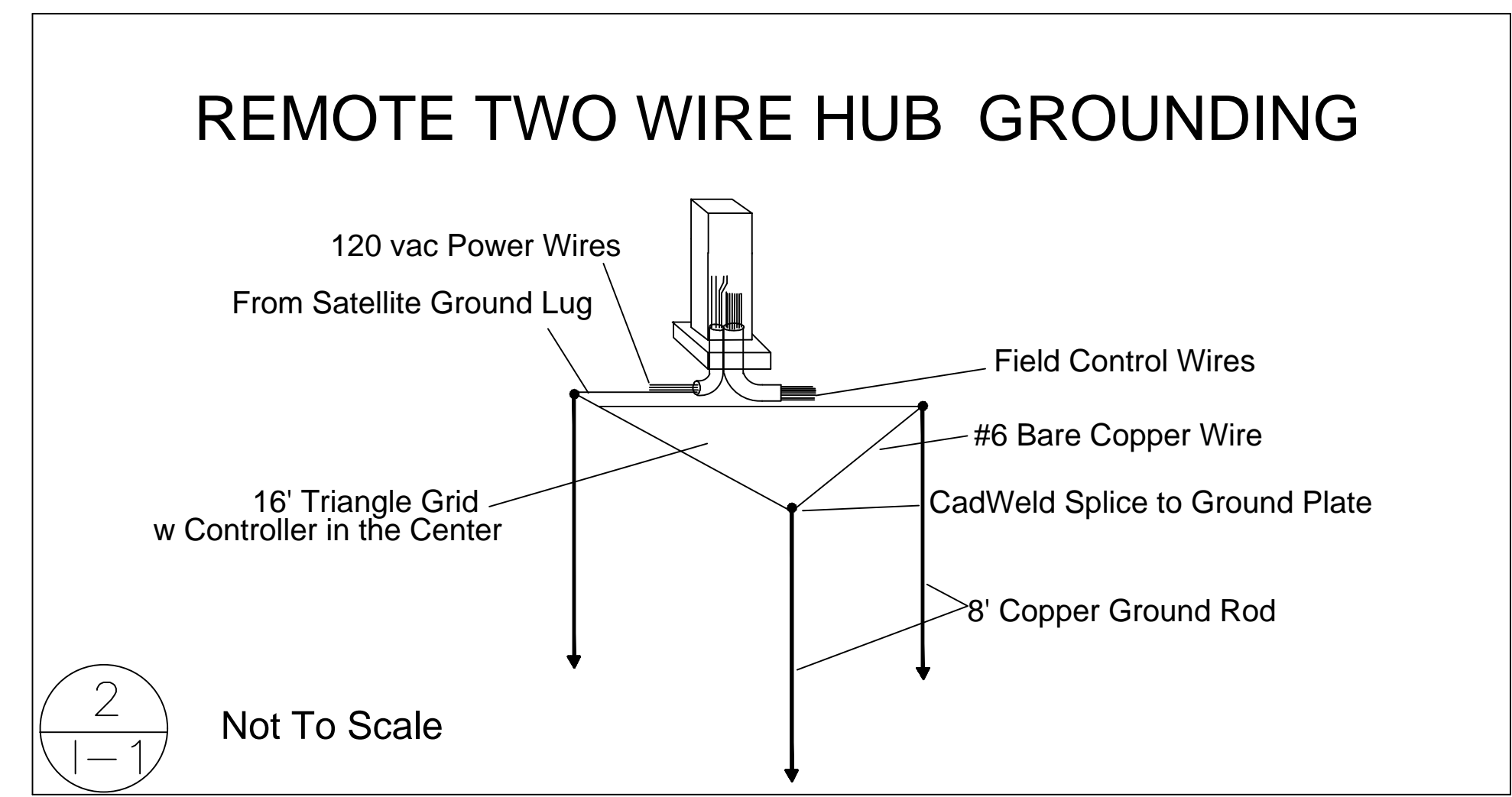
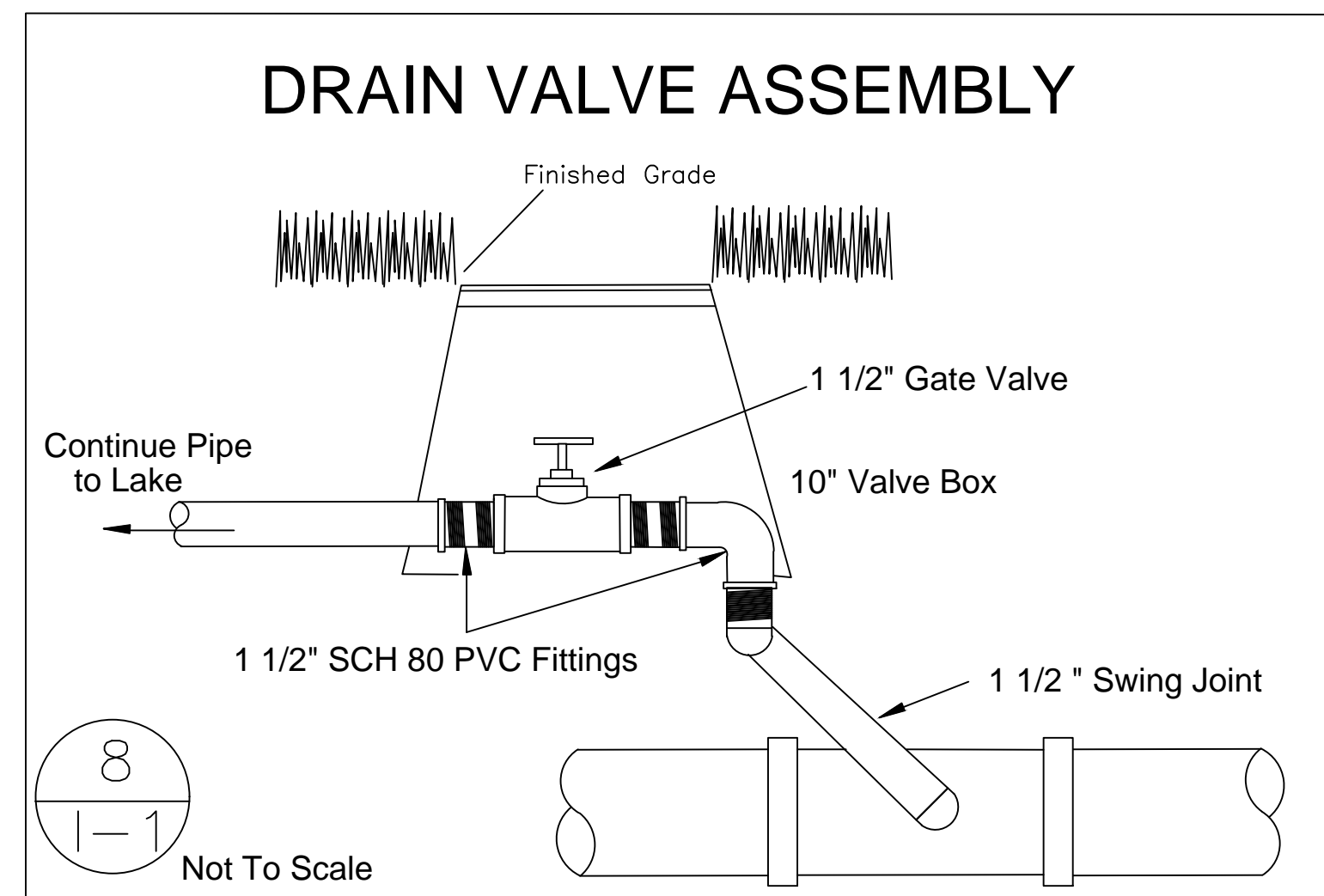
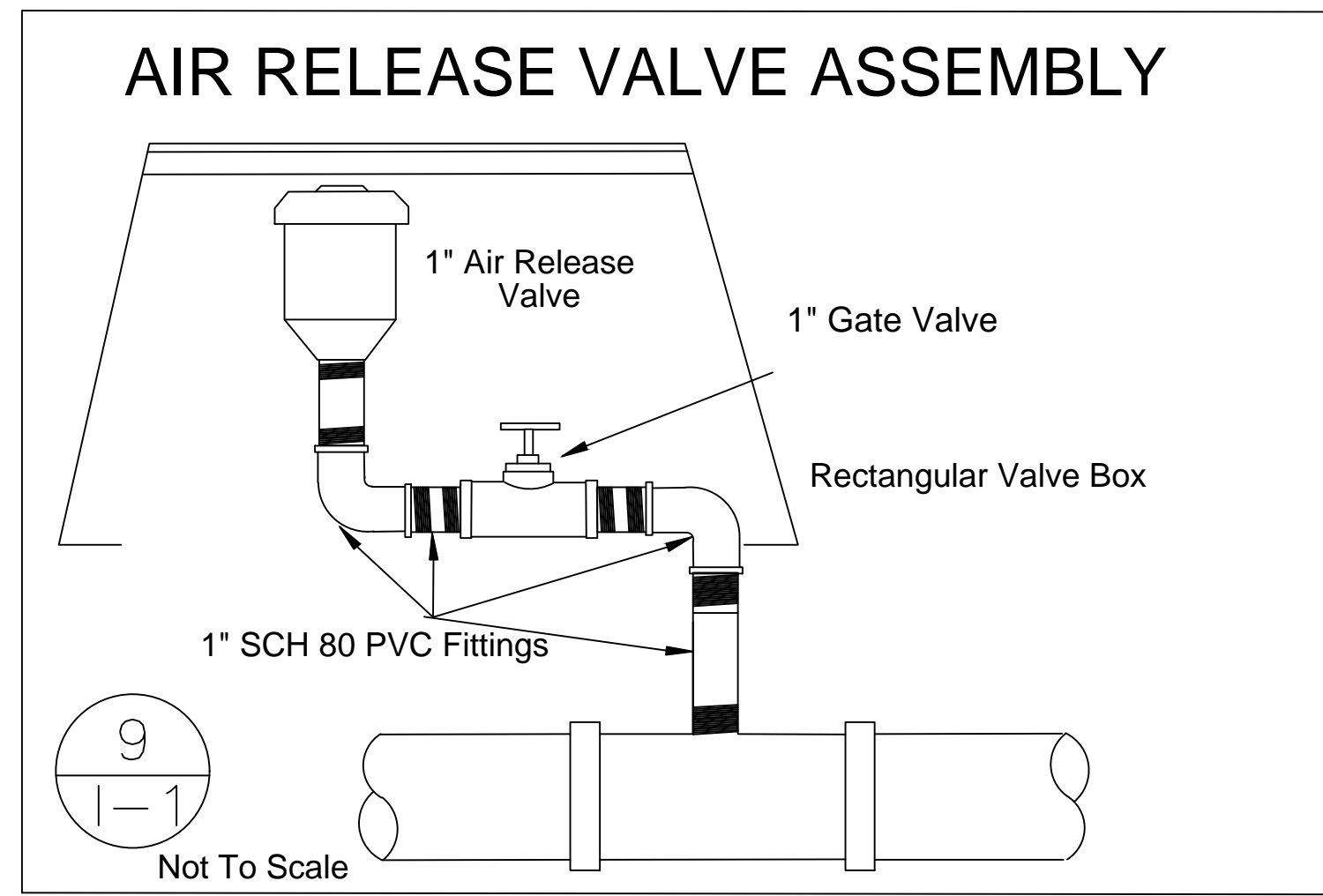
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**WILMINGTON GOLF COURSE**  
Wilmington, North Carolina  
**SEWER & NEW DRINKING WATER SYSTEM**



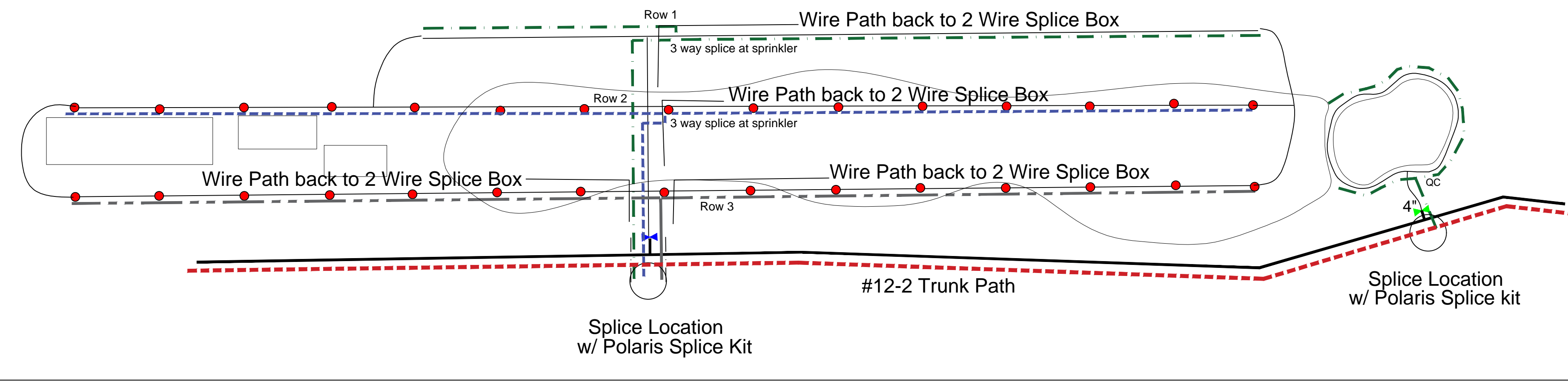
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**IRR 07**  
SCALE 1" = 100'

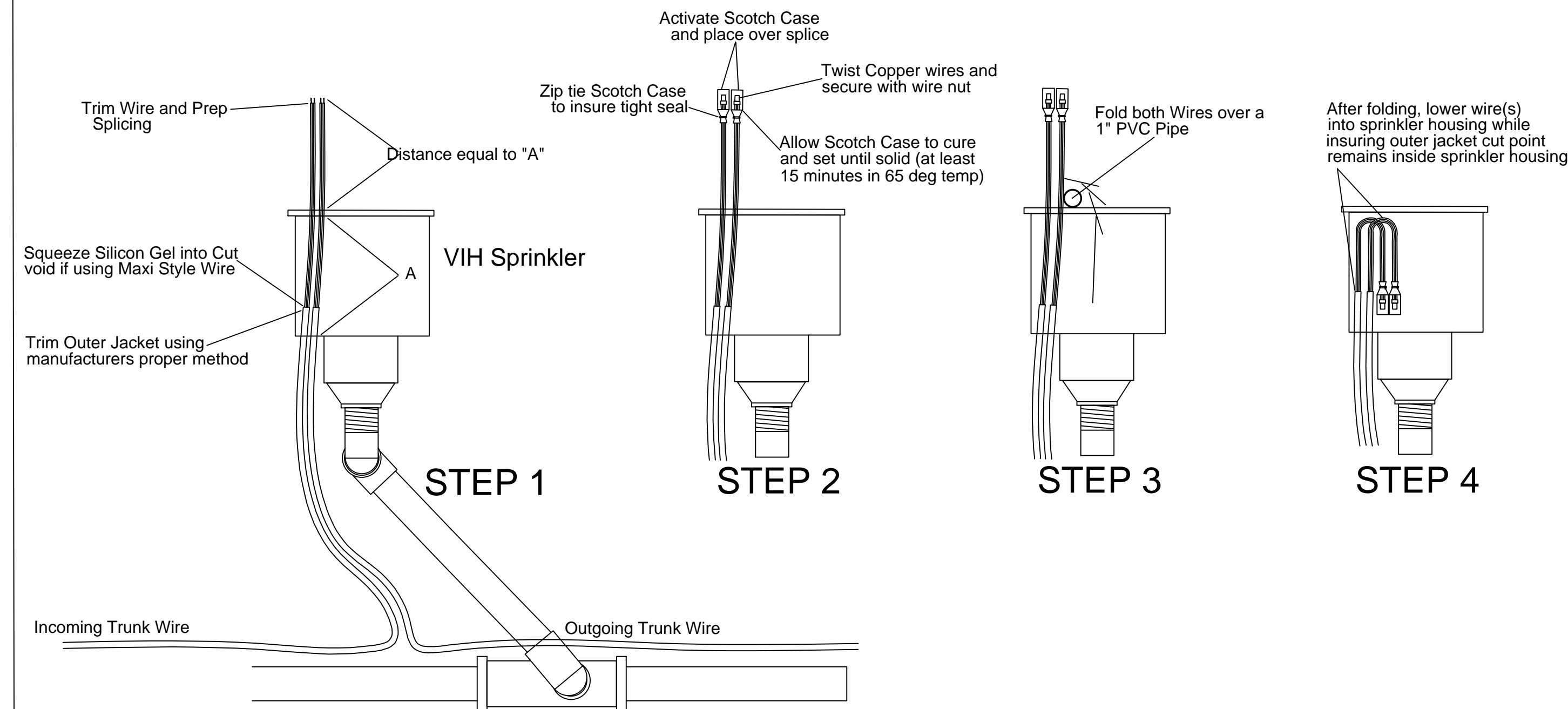




## 2 WIRE PATHS ON GOLF HOLE - TYPICAL



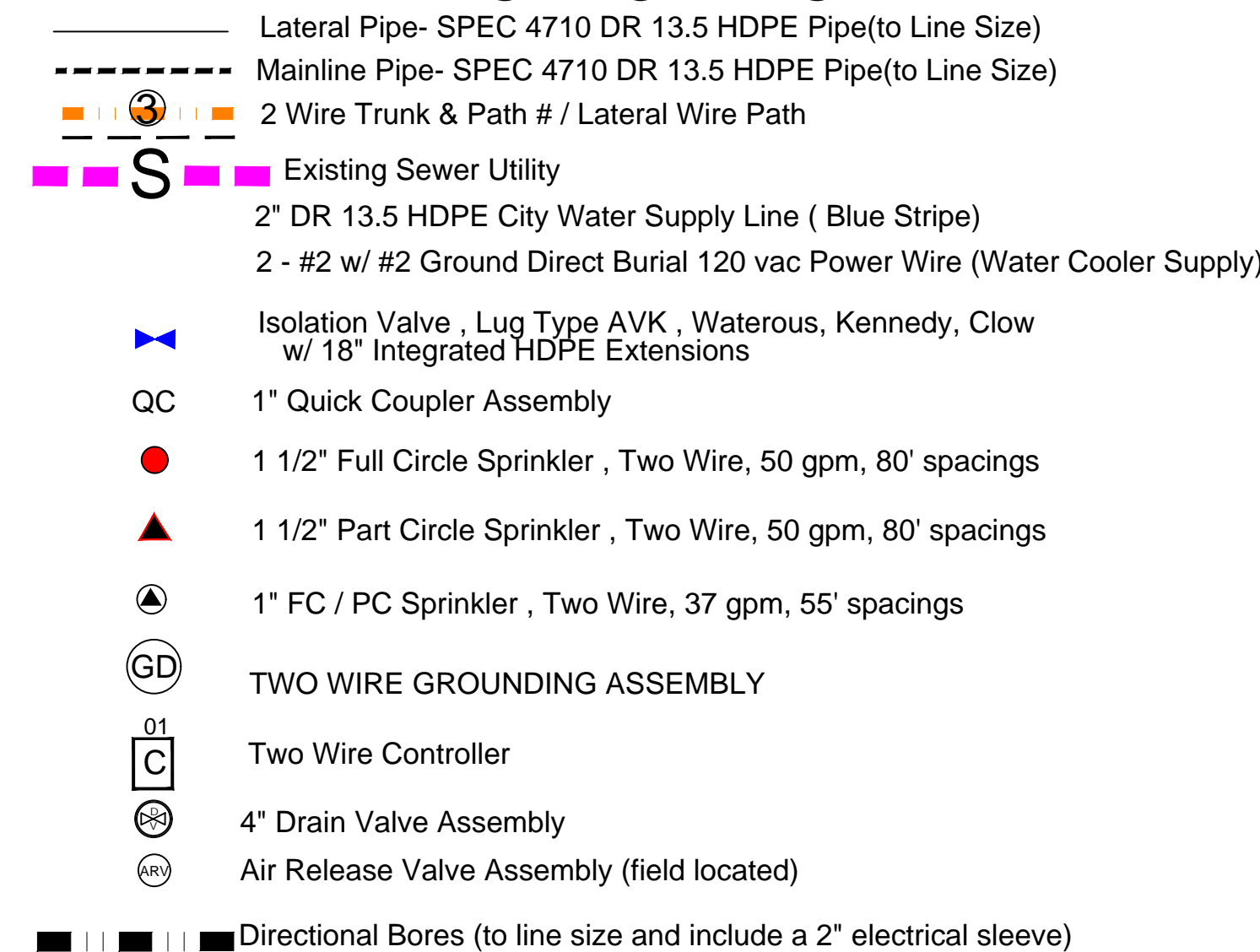
## Sprinkler Wire Splice



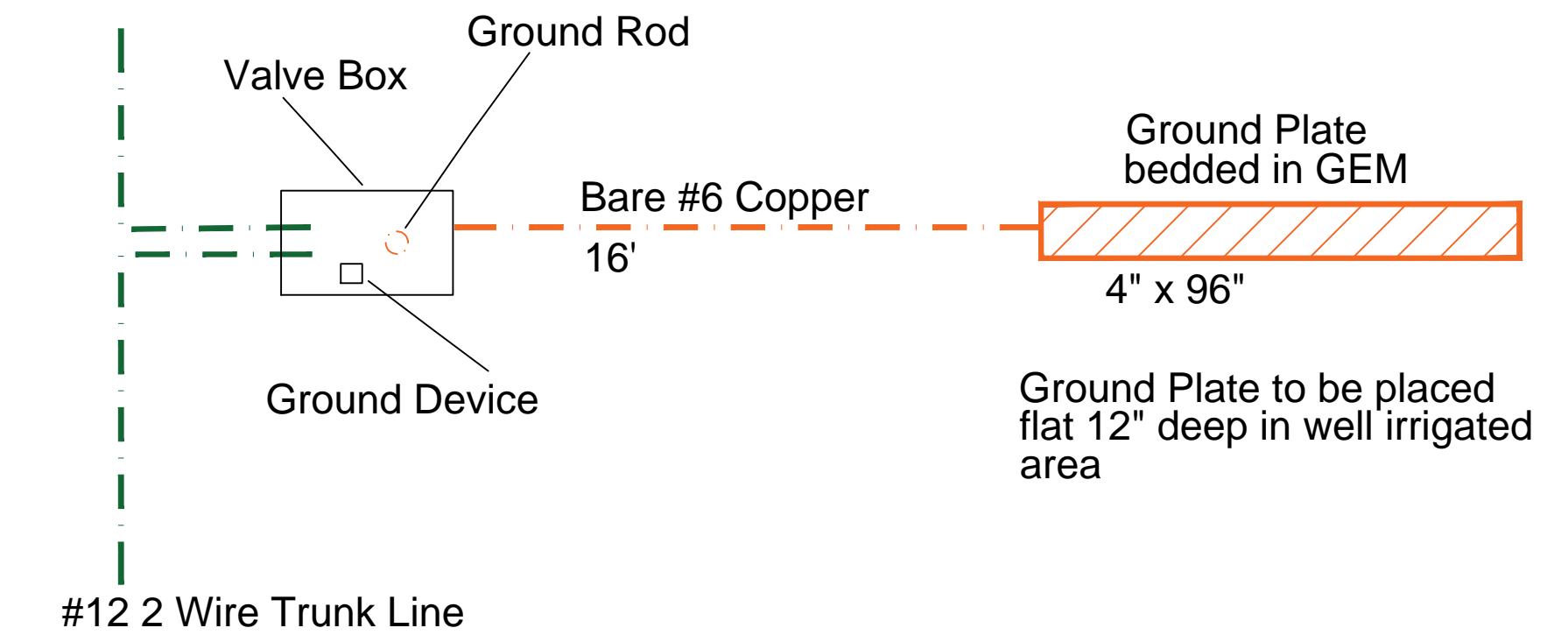
### PROJECT NOTES:

- Drawings are schematic by nature and not to be viewed as absolute. Any changes that are to be made shall be only with the approval of TPG and/or the Owner's appointed Representative.
- This System will be supplied by an existing Pump Station with the capability of supplying 1500 gpm at 120 psi
- HDPE Piping - All Main Line and Lateral Pipe shall be DR 13.5, SPEC 4710 HDPE Pipe and all fittings shall be DR 11 HDPE suitable for butt or socket fusing.
- All pipe downstream of any 24v Electric Valve shall be 2" CL 200 BOE PVC pipe and joined together with a solvent weld
- The Irrigation Contractor shall install all equipment as detailed on the drawings inclusive of sprinklers, controllers, electric valves, and bunker mist heads.
- This Irrigation System shall be a "Pressurized" system which will start via a pressure drop after a 24v valve opens
- All local applicable codes shall apply.
- Any changes that are required to be made to these drawings shall be made only with the consent of the Irrigation Consultant, or the Owner's Representative.
- All pipe not sized on drawings shall be HDPE- 2" DR 13.5
- All newly installed mainline shall have 24" of cover from finished grade and all Laterals shall have 18" of cover
- Grounding per Manufacturers Specifications and Installation Techniques

### IRRIGATION LEGEND



## 2 WIRE SYSTEM FIELD GROUNDING



### Installation Instructions

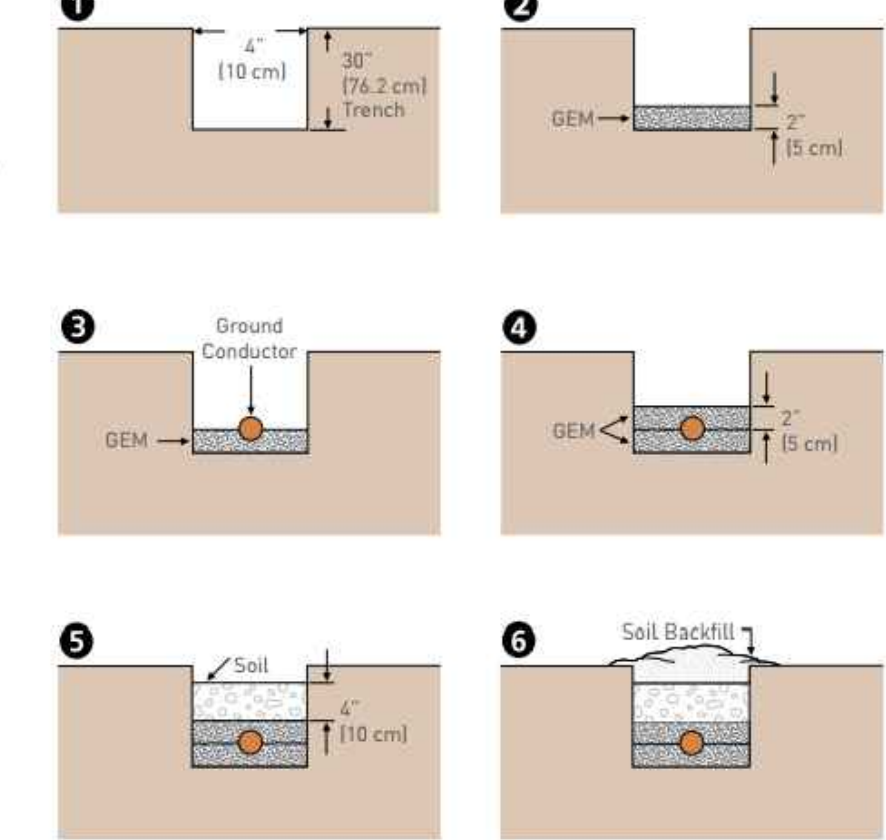
#### Trench Installation:

1. Mix GEM into a slurry form by using a standard cement mixer or mix in a bucket, mixing box, wheelbarrow, etc. Use 1.5 to 2 gallons (5.7 to 7.6 liters) of clean-potable water per bag or bucket of GEM. Do not mix GEM with salt water.
2. Spread out enough GEM to uniformly cover bottom of trench -about 2 in (5 cm) deep. [See Table]. Let the GEM harden to prevent the conductor from sinking to the bottom of the trench.
3. Place conductor on top of GEM. [See Note 1]
4. Spread more GEM on top of conductor to completely cover conductor - about 2 in (5 cm) deep. Allow GEM to harden. Wait 30 minutes to one hour before filling the trench with soil backfill.
5. Carefully cover the GEM with soil making sure not to expose the conductor.

Note 1: Wait for the GEM to harden, about 15 to 20 minutes, before placing the conductor on top of the GEM. You must apply 4 inches (10 cm) of insulating material to the conductors and ground rods exiting the GEM, starting 2 inches (5 cm) inside the GEM.

Note 2: Excess standing water must be removed from trench.

NOTE: This installation will require a plate depth 18"



## GROUNDING NOTES

- At each change of direction for a wire path that 3 way splice will be housed in an electrical valve box
- Each grounding location for a green or fairway shall be located in well irrigated turf
- Each ground plate shall be placed at a depth of 18"
- Ground rods will be driven in 5' sections and it is anticipated that each location will average a depth of 20'
- Each grounding location shall be tested and certified by a manufacturers representative. If a location is deemed to be inadequate, the Contractor shall add additional grounding in this order:
  1. Additional two (2) sections of ground rods
  2. Additional ground plate with GEM material (with Owners approval)

## REMOTE TWO WIRE HUB GROUNDING

