



# INVITATION FOR BID

**IFB No. 47-11-12**

**Pioneer Blvd (NE 137<sup>th</sup> Street)  
Streetscape Improvement**

**RESPONSES ARE DUE NO LATER THAN**

**Tuesday, August 28, 2012 at 3:00 PM (Local Time)**

**AT**

**CITY OF NORTH MIAMI  
OFFICE OF THE CITY CLERK  
CITY HALL, 1<sup>ST</sup> FLOOR  
776 NE 125<sup>TH</sup> STREET  
NORTH MIAMI, FL 33161-4116**

The responsibility for submitting a response to this solicitation to the Office of the City Clerk on or before the stated time and date will be solely and strictly the responsibility of the Proposer. The City of North Miami will in no way be responsible for delays caused by the United States mail delivery or causes by any other occurrence.

Copies of this IFB Document may be obtained by contacting DemandStar by Oniva at [www.demandstar.com](http://www.demandstar.com) or calling toll free 1-800-711-1712 and request Document No. 47-11-12

Contact Person: Ruby C. Johnson  
Email: [rcrenshaw@northmiamifl.gov](mailto:rcrenshaw@northmiamifl.gov) | Phone: (305) 895-9886 | Fax: (305) 895-1015



## INVITATION FOR BID

The City of North Miami is requesting sealed bids from general contractors and engineering contractors for the installation of an entry fountain, enhancement of an existing frog pond and plaza to create a desirable entry feature along NE 6<sup>th</sup> Avenue and NE 137<sup>th</sup> Street (a.k.a Pioneer Blvd) in North Miami, FL. This project must be completed within 180 calendar days from Notice to Proceed.

### **BID SUBMISSION**

Please submit an original bid, one (1) CD and two (2) copies in response to this Invitation for Bid (IFB). Bids are to be submitted in a sealed envelope bearing the name of the Proposer, and the address as well as the title of the IFB no later than 3:00 P.M. local time **Tuesday, August 28, 2012** at which time they will be opened and read in the Council Chambers by the Purchasing Director. Bids received after this time will not be considered and no time extensions will be permitted. Address your proposal to City of North Miami, Office of the City Clerk, 776 N E 125<sup>th</sup> Street, North Miami, Florida 33161. Please clearly mark bids:

### **IFB # 47-11-12** **Pioneer Blvd (NE 137<sup>th</sup> Street) Streetscape Improvement**

A 5% Bid Bond and a Performance Bond is a requirement of this bid.

The City's tentative schedule for this Invitation to Bid is as follows:

<b>Advertisement Date:</b>	<b>August 2, 2012</b>
<b>Opening of Bids:</b>	<b>August 28, 2012</b>
<b>Cut- off Date for Questions:</b>	<b>August 22, 2012</b>
<b>Bid Review:</b>	<b>August 29-September 5, 2012</b>
<b>Award / Council Approval:</b>	<b>TBD</b>

The City reserves the right to delay or modify scheduled dates and will notify Bidders of all changes in scheduled dates.

Copies of this Bid Document may be obtained by contacting DemandStar by Oniva at [www.demandstar.com](http://www.demandstar.com) or calling toll free 1-800-711-1712 and request Document No. 47-11-12 or may be purchased for a non-refundable fee of \$45.00 from the Purchasing Department, 776 N E 125<sup>th</sup> Street, North Miami, Florida 33161.

### **FOR INFORMATION**

For information on this Invitation for Bid, contact the Purchasing Department, (305) 893-6511 ext. 12131.

### **ACCEPTANCE AND REJECTIONS**

The City of North Miami reserves the right to reject any or all bids with or without cause; to waive any or all irregularities with regard to the specifications and to make the award to the firm offering the greatest advantage to the City.

Please be advised that the Bid(s) are issued subject to the City of North Miami Code Section 2-312 prohibiting certain communications with the City as completely specified in General Conditions of the Bid(s).

We look forward to your active participation in this solicitation.

Sincerely,

*Ruby C. Johnson*

Ruby C. Johnson, CPPO  
Procurement Director

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All of our forms are fill-in able and can be found on our website at:  
<http://www.northmiamifl.gov/business/purchasing/forms.asp>.

## **SECTION 1.0 SCOPE OF WORK**

### **1.1 SCOPE OF WORK**

The project includes work entails demolition, planting, paving, lighting and irrigation. Contractor shall provide all labor, equipment and material required to complete the following:

- To build an entry fountain and plaza with planting to create an entry feature at NE 6<sup>th</sup> Avenue and NE 137<sup>th</sup> Street
- To enhance the frog pond area by creating two seating areas adjacent to the fountain

The successful Proposer will also be expected to complete the project in a timely manner

### **1.2 GENERAL SPECIFICATIONS**

- The project involves carefully demolishing the existing planter wall on the west side of the entry feature while preserving and shoring existing wall and columns.
- Reconstruct wall to create water basins for new fountain
- Clear and grub area west of entry fountain to create new seating/walking area
- Install all equipment – electrical and plumbing
- Install paving per the hardscape plan
- Install plant material per the planting plan
- Install all light fixtures per the lighting plan

Attachment A - Bid Proposal Form must be completed in full. All items must be quoted to be considered responsive.

Attachment B – Technical Specifications are included in the plan documents labeled – Pioneer Gardens NW 137<sup>th</sup> Street Streetscape Plans (Located at the end of the bid documents)

- 100% Construction Documents
- Concrete Pavers Spec
- Landscape Specs
- Lighting Specs
- Irrigation Specs
- Furniture Specs

Additional Specs:

The Rumac coating desired to coat the interior of the fountain base is Ultra Poly One Coat manufactured by Poly Solutions, Inc in Gibsonia, PA. – Color Black

**END OF SECTION 1**

## **SECTION 2.0 SPECIAL CONDITIONS**

### **2.1 PURPOSE**

The purpose of this Invitation for Bid is to establish a contract, by means of sealed bids, for the furnishing of all labor, equipment, materials and expertise as required for the installation of an entry fountain, frog pond and plaza with planting to create a desirable entry feature along NE 6th Avenue and NE 137th Street in the City of North Miami as specified herein, from a source that will give prompt and efficient service.

### **2.2 BIDDER QUALIFICATIONS**

In order for bids to be considered, Bidders must submit with their bid, evidence that they are qualified to satisfactorily perform the specified work. Evidence shall include all information necessary to certify that the Bidder:

- a. is a State of Florida Certified General Contractor or Engineering Contractor;
- b. must have completed three (3) similar sized projects within the past two years and be able to provide references;
- c. maintains a permanent place of business;
- d. have available the organization and qualified manpower to do the work;
- e. has adequate financial status to meet the financial obligations to perform the work

### **2.3 METHOD OF AWARD**

Award of this bid may be made to the lowest responsive, responsible Bidder whose bid, qualifications and references demonstrates to be the most advantageous to the City of North Miami.

The City reserves the right to award to more than one Bidder.

### **2.4 COMPLETION TIME TERM OF CONTRACT**

A contract shall be executed after award by the City of North Miami, Florida.

Bidder(s) shall start the project within ten (10) days after written Notice to Proceed and shall complete the work within one hundred and eighty (180) consecutive calendar days.

The City seeks a source of supply that will provide accurate and timely service. The awarded Bidder must adhere to a construction schedule. If, in the opinion of the Public Works Director, the successful Bidder fails at any time to meet the requirements herein, then the contract may be terminated upon written notice.

### **2.5 ADDITIONS/DELETIONS OF FACILITIES**

Although this solicitation identifies specific facilities/areas to be serviced, it is hereby agreed and understood that additional facilities may be added/deleted to/for, this contract at the option of the City.

### **2.6 PRICES SHALL BE FIXED AND FIRM FOR TERM OF CONTRACT**

If the Bidder is awarded a contract under this bid solicitation, the prices quoted by the Bidder on the Bid Form shall remain fixed and firm during the term of this contract; provided, however, that the Bid may offer incentive discounts from this fixed price to the City at any time during the contractual term.

**2.7 PRE-BID CONFERENCE**

N/A

**2.8 SITE INSPECTION**

Prior to submitting the bid, Bidder is required to visit the site of the proposed work and to become familiar with any conditions which may in any manner, affect the work to be done or affect the equipment, materials and labor required. The Bidder is also required to examine carefully the specifications and be thoroughly informed regarding any and all conditions and requirements that may in any manner affect the work to be performed under the contract. No additional allowances will be made because of lack of knowledge of these conditions.

**2.9 INSURANCE**

**Bidders must submit with their bid**, proof of insurance meeting or exceeding the following requirements or a letter of intent to provide the following requirements if awarded the contract:

- Worker's Compensation Insurance – as required by law
- Employer's Liability Insurance - \$1,000,000 per occurrence
- General Liability Insurance - \$1,000,000 per person and \$1,000,000 per accident for bodily injury
- Automobile Liability Insurance - \$500,000 per occurrence, \$500,000 per accident for bodily injury and \$500,000 per accident for property damage

The required insurance coverage shall be issued by an insurance company authorized and licensed to do business in the State of Florida, with the minimum rating of B+ or better, in accordance with the latest edition of A.M. Best's Insurance Guide.

**The successful Bidder(s) must submit, no later than ten (10) days after award and prior to commencement of any work, a Certificate of Insurance naming the City of North Miami as additional insured.**

**2.10 CONTACT PERSON**

For any additional information regarding the specifications and requirements of this bid, contact: Ruby Johnson via facsimile (305) 891-1015 or email at [rcrenshaw@northmiamifl.gov](mailto:rcrenshaw@northmiamifl.gov).

**2.11 BID CLARIFICATION**

Any questions or clarifications concerning this Bid shall be submitted in writing by mail, facsimile or email to the Purchasing Department, 776 N.E. 125th Street, North Miami, Florida 33161, Fax: (305) 891-1015. The bid title/number shall be referenced on all correspondence. All questions must be received no later than **Wednesday August 22, 2012**. All responses to questions/clarifications will be sent to all prospective Bidders in the form of an addendum. **NO QUESTIONS WILL BE RECEIVED VERBALLY OR AFTER SAID DEADLINE.**

**2.12 FAILURE TO PERFORM**

If in the opinion of the City's representative, the Bidder refuses to begin work, improperly perform said work, or shall neglect or refuse to take out or rebuild such work, as shall

have been rejected or as being defective or unsuitable, then City's representative may notify the Bidder to repair and replace work immediately or discontinue all work under this Contract.

If at any time the City's representative shall be of the opinion that the said work is being unnecessarily delayed and will not be finished within the prescribed time then City's representative may notify the Bidder to discontinue all work under this Contract. The Bidder shall immediately respect said notice and stop said work and cease to have any rights in the possession of the ground and shall forfeit this contract.

The City may thereupon look to the next lowest and responsive and responsible Bidder to complete the work or advertise for bids and let a contract for the uncompleted work in the same manner as was followed in the letting of this Contract and charge the cost thereof to the original Bidder upon his contract. Any excess cost arising there from over and above the original contract price shall be charged to the Bidder.

**2.13 BID/PERFORMANCE/PAYMENT BOND**

All bids must be accompanied by a bid bond in the amount of 5% of the total bid submitted, to be in the form of a Cashier's Check, made payable to the City of North Miami; a bond written by a surety company authorized to do business in the State of Florida and shall comply with State Statute 287.0935. The bond, if in the form of a Cashier's Check, of all unsuccessful Bidders will be returned after bid award.

The successful Bidder will be required to furnish to the City of North Miami, a Performance Bond and Payment Bond for 100% of the total bid submitted, to be in the form of a Cashier's Check, made payable to the City of North Miami; a bond written by a surety company authorized to do business in the State of Florida and shall comply with State Statute 287.0935; or an Irrevocable Letter of Credit. If the latter is chosen, it must be written on a bank located Miami-Dade County, be in the amount of the contract and should clearly and expressly state that it cannot be revoked until express written approval has been given by the City of North Miami. The City, to draw on same, would merely have to give written notice to the bank with a copy to the successful Bidder.

**2.14 LIQUIDATED DAMAGES**

If the successful Bidder(s) fails to complete the work within one hundred and eighty (180) consecutive calendar days, it is understood that \$350.00 per consecutive calendar day will be deducted, as liquidated damages, for each day beyond the specified completion time. The City may, in lieu of the above, notify the Bidder to cease work and the City will complete the work. The cost of completion thereof to the City including all materials, rent, labor, equipment and necessary supervision plus 15% for overhead, shall be deducted from the contract consideration and shall be an obligation of the Bidder.

**2.15 CONDITIONS OF WORK**

If property (public or private) is damaged performing work specified or is removed for the convenience of the work, it shall be repaired or replaced at the expense of the Bidder in a manner acceptable to the City of North Miami. Such property shall include but not limited to: roads, driveways (whether concrete or asphalt), approaches (whether

concrete or asphalt), sod, walls, fences, water features, footings, underground utilities, shrubs, trees, etc.

Bidder shall submit to the Public Works Department for review, pictures or video of the work site(s) having pre-existing damage to roadways, driveways, approaches, sod, swales, adjacent improvements, etc. before beginning work. Failure to do so shall obligate the Bidder to make repairs per above paragraph.

Bidder shall notify the Parks and Recreation Department of any pre-existing damage to tree trunks or limbs before beginning work. Failure to do so shall obligate the Bidder for tree removal, and canopy replacement as per Miami Dade County codes, ordinances and or resolutions.

**2.16 PROTECTION**

Bidder shall be solely responsible for pedestrian and vehicular safety and control within the work site and shall provide the necessary warning devices, barricades and ground personnel needed to give safety, protection and warning to persons and vehicular traffic within the area. All safety devices must have suitable and sufficient lighting for the prevention of accidents. All minimum safety standards required by Municipal, County, State and Federal ordinances and laws shall be strictly met by the Bidder.

**2.17 HOURS OF WORK**

Bidder will perform work Monday through Friday from 7:30 a.m. to 5:00 p.m., excluding holidays unless prior approval is given by the City. Hours beyond those allotted must be requested in writing and approved by the City of North Miami.

**2.18 EMPLOYEES**

Bidder shall be responsible for the appearance of all working personnel assigned to the project (clean and appropriately dressed at all times). Personnel must be able to supply proper identification at all times.

All employees of the Bidder shall be considered to be at all times the sole employees of the contractor, under the Bidder's sole direction, and not an employee or agent of the City of North Miami. The Bidder shall supply competent and physically capable employees and the City may require the Bidder to remove any employee it deems careless, incompetent, insubordinate or otherwise objectionable and whose presence on City property is not in the best interest of the City. City shall not have any duty to implement or enforce such requirements.

Bidder shall assign an "On Duty" supervisor who speaks and reads English.

**2.19 WARRANTY**

The successful Bidder will be required to warranty all work performed for a minimum of one (1) year.

**2.20 PERMITS**

Bidder shall obtain all necessary permits. As to the City, the City will waive its permit fee, but is required to collect the \$.60/\$1,000 Miami-Dade county surcharge fee. Work to be performed is located on a County maintained road and Bidder must obtain permits from the County and other authorities having jurisdiction.

Bidder shall verify all locations of underground utilities with Sunshine One Call, Peoples Gas, Southern Bell, TCI cable, etc. prior to any work.

All work not stated herein shall be in compliance with the Florida Building Code and all other national, state, and local codes and regulations. All permits to be posted on job site.

All inspections shall be requested a minimum of twenty-four (24) hours prior to inspection. Inspection shall be required at the following stages of construction:

- a. Subgrade prep completion
- b. Sidewalk formed prior to pouring concrete
- c. Paving
- d. Final

## **2.21 PRODUCT INFORMATION**

All Bidders must submit product information on the items they propose to furnish on this bid if different from products specified. Any bid not containing this information may be rejected for that reason.

## **2.22 EQUAL PRODUCT, MANUFACTURER'S PRODUCT**

Where equal is proposed, bid must be accompanied by complete product information sheet. The City shall be the sole judge of the acceptability of the product in conformance with the Bid Specifications and its decision shall be final.

## **2.23 REFERENCES AND SUB-CONTRACTORS**

Each bid must be accompanied by a list of three (3) references (**See Form A-14**) of similar work, which shall include the name of the company, a contact person and the telephone number. **NO BID WILL BE CONSIDERED WITHOUT THIS LIST.** It is the responsibility of the Bidder to ascertain that the contact person will be responsive.

**Bidders must complete a STATEMENT OF EXPERIENCE OF BIDDERS and complete Form A-6 - Proposer's Disclosure of Subcontractors and Suppliers" and return with Bid package.**

## **2.24 COMPLETE PROJECT REQUIRED**

These specifications describe the various items or classes of work required, enumerating or defining the extent of same necessary, but failure to list any items or classes under scope of the several sections shall not relieve the Bidder from furnishing, installing or performing such work where required by any part of these specifications, or necessary to the satisfactory completion of the project.

## **2.25 BID SUBMITTAL / ADDENDUMS**

All bids submitted shall include the completed Bid Form and all required product information and any other items as indicated on the Bid Form. Bids will be considered "Non-Responsive" if the required information is not submitted by the date and time specified.

Before submitting bid, each Bidder shall make all investigations and examinations necessary to ascertain if any addendums were issued by the Purchasing Agent.

**2.26 LATE BIDS**

The City of North Miami cannot accept bids received after opening time and encourages early submittal.

**2.27 EXCEPTIONS TO SPECIFICATIONS**

Exceptions to the specifications shall be listed on the Bid Form and shall reference the section. Any exceptions to the General or Special Conditions shall be cause for the bid to be considered non-responsive.

**2.28 BID FORMAT**

To be considered a valid bid, Bidders must provide the original, one (1) CD and two (2) copies of the Bid and Bid Form must be filled in completely in a sealed envelope in the following format:

- Section 1 Bidder's Qualifications (See Section 2.2)
- Section 2 Required Forms
  - A-1 Public Entity Crimes
  - A-2 Non-Collusive Certificate
  - A-3 Local Preference Certification
  - A-4 Questionnaire
  - A-5 Acknowledgement of Addenda
  - A-6 Proposer's Disclosure of Subcontractors and Suppliers
  - A-7 Insurance Requirements
  - A-9 Bid Bond
  - A-10 Performance Bond (required at time of award)
  - A-14 References
- Section 3 Price Proposal (See Attachment A)

All of our forms can now be found on our website at:

<http://www.northmiamifl.gov/business/purchasing/forms.asp>.

**End of Section 2**

# SECTION III

Attachment A - Bid Form  
Attachment B - Plans & Technical Specifications

## Contract Forms

All of our forms can now be found on our website at:

<http://www.northmiamifl.gov/business/purchasing/forms.asp>.

These forms are fill –in forms. Please ensure to include all applicable forms with your bid. All documents must be signed and notarized as required. Emailed forms will not be accepted.

The following forms are required for this bid document:

- A-1 Public Entity Crimes
- A-2 Non-Collusive Certificate
- A-3 Local Preference Certification
- A-4 Questionnaire
- A-5 Acknowledgement of Addenda
- A-6 Proposer's Disclosure of Subcontractors and Suppliers
- A-7 Insurance Requirements
- A-9 Bid Bond
- A-10 Performance Bond (Required at time of Award)
- A-14 References

## ATTACHMENT A BID FORM

The prices listed in the bid form shall include the total cost to complete the work including but not limited to materials, labor, equipment, bonds, insurances, etc, as necessary to ensure proper delivery of services and product requested by the City of North Miami.

ITEM	ESTIMATED QTY	UNIT	UNIT COST	SUB-TOTAL
<b>PLANTING</b>				
SITE WORK/CLEARING & GRUBBING	7,000	SF		
TREES - Caesalpinia grandillo - Bridal Veil (see specs)	14	EA		
PALMS -Veitchia winin - Winin Palm (see specs)	4	EA		
SHRUBS - Ficus microcarpa 'Green Island" - Ficus Green Isle (see specs)	1,000	EA		
SHRUBS - Monstera deliciosa - Monstera (see specs)	30	EA		
GROUNDCOVER - Bulbine frutescens - Cat's Tail Lily (see specs)	146	EA		
GROUNDCOVER - Latana montevidensis - Purple Latana (see specs)	715	EA		
MULCH	4,970	SF		
PLANTING SOIL	92	CY		
IRRIGATION	1	LS		
<b>PLANTING SUB-TOTAL</b>			<b>SUBTOTAL</b>	
<b>FOUNTAIN @ NE 6 TH AVE</b>				
SITWORK/DEMOLITION	476	SF		
SIGNAGE - (estimate only)	1	LS		
FOUNTAIN BASIN WALLS	102	LF		
FOUNTAIN SLABS	543	SF		
FOUNTAIN EQUIPMENT & LIGHTING	1	LS		
FOUNTAIN STONE WORK	206	SF		-
<b>FOUNTAIN SUB-TOTAL</b>			<b>SUBTOTAL</b>	
<b>OTHER SITE FEATURES</b>				
PAVERS	1,500	SF		
SITE LIGHTING	40	EA		
SITE FURNITURE - BENCHES	10	EA		-

<b>OTHER FEATURES SUB-TOTAL</b>			<b>SUBTOTAL</b>	
<b>PROJECT SUBTOTAL</b>				
<b>CONTINGENCY</b>			10%	-
<b>TOTAL COST</b>				

\_\_\_\_\_  
Name: (Please Print)

\_\_\_\_\_  
Offeror Signature Title: Date:

**BID SUBMITTAL FOR:  
47-11-12**

FEIN NO. : \_\_\_\_ / \_\_\_\_ - \_\_\_\_ / \_\_\_\_ / \_\_\_\_ / \_\_\_\_ / \_\_\_\_ / \_\_\_\_

(Bidder Federal Employer Identification Number) If none, Bidder Social Security Number.

- LOCAL PREFERENCE CERTIFICATION:** For the purpose of this certification, a "local business" is a business located within the limits of City of North Miami that conforms with the provisions of Section 4.62 of the General Terms and Conditions of this solicitation and contributes to the economic development of the community in a verifiable and measurable way. Place a check here only if affirming bidder meets requirements for Local Preference. **Failure to complete this certification at this time (by checking the box above) shall render the Bidder ineligible for Local Preference.**

**OR**

- WORKFORCE LOCAL PREFERENCE CERTIFICATION:** The local preference may be applied to firms with a least ten percent (10%) of its total workforce residing within the geographical boundaries of the City. Place a check here only if affirming bidder meets the requirements for workforce Local Preference. **Failure to complete this certification at this time (by checking the box above) shall render the Bidder ineligible for Workforce Local Preference.**

**OR**

- SUBCONTRACTOR LOCAL PREFERENCE CERTIFICATION:** The local preference may be applied to firms that subcontract at least ten percent (10%) of the contractual amount of a City project to subcontractor who are physically located within the City of North Miami. **(Must complete forms A-3a Statement of Intent & A-3b Participation Schedule.)** Place a check here only if affirming bidder meets the requirements for Subcontractor Local Preference. **Failure to complete this certification at this time (by checking the box above) shall render the Bidder ineligible for Subcontractor Local Preference.**

All referenced forms can be found on the City's website at:

<http://www.northmiamifl.gov/departments/purchasing/forms.asp>

The undersigned bidder certifies that this bid is submitted in accordance with the bid specifications and conditions governing this bid, and that the bidder will accept any award(s) made to him as a result of this bid.

FIRM NAME: \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_

CITY/STATE/ZIP CODE \_\_\_\_\_

TELEPHONE NO. \_\_\_\_\_ FAX NO. \_\_\_\_\_

E-MAIL \_\_\_\_\_

***By signing this document the bidder agrees to all Terms and Conditions of this Solicitation and the resulting Contract.***

AUTHORIZED SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_

PERSON AUTHORIZED TO ENTER INTO CONTRACTUAL AGREEMENT

PRINT NAME OF AFFIANT \_\_\_\_\_

TITLE OF OFFICER \_\_\_\_\_

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF BIDDER TO BE BOUND BY THE TERMS OF ITS PROPOSAL. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED ABOVE BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE PROPOSAL NON-RESPONSIVE. THE CITY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY PROPOSAL THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE BIDDER TO THE TERMS OF ITS OFFER.

# **Attachment B**

## **Technical Specifications**

### **Pioneer Gardens NE 137<sup>th</sup> Street Streetscape Plans**

1. Construction Documents
2. Concrete Pavers Spec
3. Landscape Specs
4. Lighting Specs
5. Irrigation Specs
6. Furniture Specs

## SECTION 4.0 GENERAL TERMS & CONDITIONS

### 4.1 CITY OVERVIEW

North Miami, Florida (pop.60, 000) is a diverse community, ideally located midway between Miami and Fort Lauderdale and encompasses approximately 9.5 square miles. As the fifth largest city of Miami-Dade County, North Miami is committed to growth in its business community, while also focusing on issues such as education, the arts, leisure activities and sustainability to provide a viable future for our residents and preserve the City's rich history since its incorporation in 1926.

The City currently has 550+ employees and provides a wide range of governmental services including public safety / police services, parks and recreation, public works, water and sewer, planning, building and zoning, code enforcement, and community development to its citizens.

The City is a very large consumer of goods and services and the purchasing decisions of our employees and contractors can positively or negatively affect the environment. By including environmental considerations in our procurement decisions, along with our traditional concerns with price, performance and availability, we will remain fiscally responsible while promoting practices that improve public health and safety, reduce pollution, and conserve natural resources.

### 4.2 DEFINITIONS

The following terms, phrases, words and their derivations shall have the meaning given herein:

- a) **'Award'** means the acceptance of a bid, offer, or proposal by the City, pursuant to code.
- b) **'Awarded Bidder'** or **'Contractor'** means the Bidder or Bidders that receive any award of contract from the City as a result of this 'Invitation to Bid'
- c) **'Bidder'** means the person firm, entity or organization submitting a bid in response to this Invitation to Bid.
- d) **'Solicitation'** means an Invitation to Bid, Request for Proposal, Request for Quotation or any document used to obtain bids and proposals for the purposes of entering into a contract..
- e) **'Work', 'Services', 'Program', 'Project',** or **'Engagement'** to mean all matters and things

that will require to be done by the Awarded Bidder(s) in accordance with the scope of work and all terms and conditions of this Invitation to Bid.

### 4.3 INVITATION

This Invitation for Bid is extended to firms and organizations that can provide the requirement(s) specified herein. The requirements presented in this Invitation for Bid represent the City's anticipated needs.

### 4.4 PUBLIC ENTITY CRIME/ DISCRIMINATORY VENDOR LIST

The *Public Entity Crime Affidavit Form, (Form "A-1")* attached to this Invitation for Bid, includes documentation that shall be executed by an individual authorized to bind the Bidder. Any Bidder, or any of its suppliers, subcontractors, or consultants who shall provide goods and services which are intended to benefit the City, shall not be a convicted vendor or included on the discriminatory vendor list. If the Bidder or any affiliate of the Bidder has been convicted of a public entity crime or has been placed on the discriminatory vendor list, a period longer than 36 months must have passed since that person was placed on the convicted vendor or discriminatory vendor list. The Bidder further understands and accepts that any contract issued as a result of this Invitation for Bid shall be either voidable or subject to immediate termination by the City. In the event there is any misrepresentation or lack of compliance with the mandates of Section 287.133 or Section 287.134, respectively, Florida Statutes. The City in the event in such termination, shall not incur any liability to the Bidder for any goods, services or materials furnished.

### 4.5 LOBBYING

All Bidders, their agents and proposed sub consultants or subcontractors, are hereby placed on notice that neither the City Council Members, any evaluation committee members, employees of the City or employees of any other project sponsoring agencies shall be lobbied either individually or collectively regarding this Invitation for Bid. Bidders, their agents and proposed sub-consultants or subcontractors are hereby placed on notice that they are prohibited from contacting any of these individuals for any purpose relating to the Invitation for Bid (e.g., general information, meetings of introduction, meals, etc.). Any bid submitted by a

Bidder, its agents and potential sub consultants or subcontractors who violate these guidelines will not be considered for review. The Purchasing Director or Contract Specialist (identified on the cover page of this Invitation for Bid) shall be the only point of contact for questions and/or clarifications concerning the Invitation for Bid, the selection process and the negotiation and award procedures.

#### **4.6 SUSPENSION OF CONTRACTORS FOR MATERIAL BREACH OF CITY CONTRACTS**

Pursuant to Sec 7-160 (a), (b) & (c) upon recommendation by the Director of Purchasing may temporarily or permanently suspend contractors from doing business with the city whenever a contractor materially breaches its contract with the City. Any Bid submitted by a Bidder, its proposed subcontractors or sub consultants who are included on the City's Suspension List shall not be considered for review.

In addition, the principles of any Bidders or its proposed subcontractors or sub consultants shall not attempt to do business with the City under a different name or form a new legal entity in order to do business with the City while the principals of the Bidder or its proposed subcontractors or sub consultants remain on the Suspension List. In the event there is any intentional misrepresentation, the Bidder further understands and accepts that any contract issued as a result of this Invitation for Bid shall be subject to immediate termination for default and suspension procedures by the City. The City, in the event of such termination, shall not incur any liability to the Bidder for any goods, services or materials furnished.

#### **4.7 POINTS OF CONTACT/ TIMETABLE FOR INQUIRES**

Bidders shall contact the contract specialist, identified on the cover page of this Invitation for Bid, for all related inquiries. All Bidders' technical inquiries shall be confirmed in writing either through the mail, via facsimile transmission or electronic mail.

Technical questions will not be entertained beyond the cut-off date indicated on the cover page so that answers to substantive questions, in the form of written addenda, can be posted on the City's web site ([www.northmiamifl.gov](http://www.northmiamifl.gov)) and Demand Star by Onvia at [www.demandstar.com](http://www.demandstar.com) or calling toll free 1-

800-711-1712 and requesting the corresponding documents number.

#### **4.8 ORAL REPRESENTATION**

No oral representation made by the City staff shall be binding. The contents of this Invitation for Bid and any subsequent addenda issued by the City shall govern all aspects of this Invitation for Bid.

#### **4.9 ADDENDA**

If any revisions to the Invitation for Bid become necessary (other than changes to the deadline for Bid submission), the City will post written addenda on the City web's site at ([www.northmiamifl.gov](http://www.northmiamifl.gov)) and on Demand Star by Onvia at [www.demandstar.com](http://www.demandstar.com) or calling toll free 1-800-711-1712 and requesting the corresponding document number at least seven (7) calendar days before the date scheduled for opening the Bids. The City may revise the deadline for Bid submission at any time prior to the date and time scheduled for opening the Bids. **It is the responsibility of all Bidders to ascertain whether any addenda have been issued before the Invitation for Bid deadline by either calling or checking the City's web site ([www.northmiamifl.gov](http://www.northmiamifl.gov)) and Demand Star and by Onvia at [www.demandstar.com](http://www.demandstar.com) or calling toll free 1-800-711-1712 and requesting the corresponding document number.** All addenda placed on the Demand Star can be down loaded.

#### **4.10 CANCELLATION OF THE INVITATION FOR BID**

The City reserves the right to cancel this Invitation for Bid and/or re-advertise and re-solicit the requirements at any time when determined to be in the best interest of the city.

#### **4.11 BID PROTEST**

If a potential Bidder protest any provisions of the Invitation for Bid documents a written protest must be filed with the City Clerk within five (5) business days (excluding weekends and City observed holidays) prior to date set for opening of the bids. A written protest is considered filed when received by the City Clerk.

Any Bidder who files a formal written protest pursuant to Section 7-158 City Code, shall post with the city at the time of filing the formal written protest with the city at the time of filing the formal written protest a filing fee in an amount equal to one percent (1%) of the amount of the bid or proposed

contract, or one thousand dollars (\$1,000), whichever is less. Failure to file a notice of protest within the time prescribed in Section 7-158, City Code, or failure to post the filing fee within the time allowed, shall constitute a waiver of such Bidder's right to file a protest.

Any Bidder who files a formal written protest pursuant to Section 7-158 City Code, shall post with the city at the time of filing the formal written protest with the city at the time of filing the formal written protest a filing fee in an amount equal to one percent (1%) of the amount of the bid or proposed contract, or one thousand dollars (\$1,000), whichever is less. Failure to file a notice of protest within the time prescribed in Section 7-158, City Code, or failure to post the filing fee within the time allowed, shall constitute a waiver of such Bidder's right to file a protest.

*Notice of written protest along with the filing fee, shall be timely filed with the City Clerk of the City North Miami at 776 NE 125<sup>th</sup> Street, 1<sup>st</sup> Floor North Miami, FL 33161. The City will not accept receipt of any formal written protests filed at any location other than the City's Clerk's Office*

#### **4.12 DEVELOPMENT COSTS**

Neither the City nor its representatives shall be liable for any expenses incurred in connection with the preparation, submission or presentation of a Bid in response to this Invitation for Bid. All information in the Bid shall be provided at no cost to the City.

#### **4.13 TAX EXEMPT STATUS**

The City is exempt from Florida Sales and Federal Excise taxes on direct purchase of tangible property.

#### **4.14 BID SUBMISSION AND OPENING**

All Bids shall be submitted in a sealed envelope by the deadline indicated on the cover page of this Invitation for Bid. The Bid shall identify the Bid number and title specified on the cover page of this Invitation for Bid. Reference information shall also be marked on the outside of the sealed envelope, including the Bidder's return address. The City assumes no responsibility for Bids not properly marked.

The City will not accept Bids delivered after the established deadline. If the Bid is delivered after the

established deadline, a Bidder shall be deemed non-responsive to the Invitation for Bid requirements.

Receipts of a Bid by any City office, receptionist or personal other than the Clerk's Office will not constitute "delivery" as required by this Invitation for Bid. The City will not accept or consider Bids submitted via facsimile transmission. The public is welcome to attend the Bid opening.

#### **4.15 ASSIGNMENT OF BIDS**

A Bidder shall not transfer or assign its Bid to a third party following submission of a Bid to the City.

#### **4.16 WITHDRAWAL OF BID**

Bidders shall withdraw their submitted Bid by notifying the City either in writing or in person through an authorized representative at any time prior to the deadline. Individuals making the withdrawal shall provide evidence of serving as an authorized representative of the Bidder. Bids, once received, become the property of the City, and will not be returned to Bidders even when they are withdrawn from consideration.

Bids, once opened, shall not be withdrawn or modified except to the extent agreed to by the City during subsequent contract negotiation.

#### **4.17 PUBLIC RECORDS AND EXEMPTIONS**

Upon receipt, Bids become "public records" and shall be subject to public disclosure consistent with Chapter 119, Florida Statutes. Bidders shall invoke the exemptions to disclosure provided by law, in the Bid, by providing the specific statutory authority for the claimed exemption, identifying the data or other materials to be protected and stating the reasons why such exclusion from public disclosure is necessary. Bids will be made available for public inspection at the time the City posts notice of its decision or intended decision concerning contract awards, or ten (10) days after the Bid opening, whichever is earlier.

#### **4.18 REJECTION OF BIDS**

Pursuant to Section 7-136 of the City Ordinance the City reserves the right to reject any and all Bids for reasons including, but not limited to, the following: (1) when such rejection is in the interests of the City; (2) if such Bid is deemed non-responsive; (3) if the Bidder is deemed non-responsible; or (4) if the Bid contains any materials irregularities. Minor

irregularities contained in Bid will be waived by the City. A minor irregularity is a variation from the Invitation for Bid that does not affect the price of the contract nor does it give a Bidder an advantage or benefit not enjoyed by other Bidders and does not adversely impact the City.

**4.19 CONE OF SILENCE / CONFLICT OF INTEREST AND CODE OF ETHICS**

This Invitation for Bid is issued pursuant to the City of North Miami Ordinance Section 7-193 which prohibits certain types of communications: (a) A Cone of Silence shall be imposed upon each Invitation for Bid after the advertisement of said Invitation for Bid. At the time of imposition of the Cone of Silence, the director of the purchasing department or designee shall provide for public notice of the Cone of Silence. The director of the purchasing department shall issue a written notice thereof to the affected departments, file a copy of such a notice with the city clerk, with the copy thereof to each city council member, and shall include in any public solicitation for supplies or services a statement disclosing the requirements of this ordinance. Notwithstanding any other provision of this section, the imposition of a cone of silence on a particular Invitation for Bid shall not preclude purchasing staff from obtaining industry comment or performing market research provided all communication related thereto with a potential offeror, service provider, bidder, lobbyist, or consultant are in writing or are made at a duly noticed public meeting.

The ordinance does not apply to oral communications at pre-bid conference, oral presentations before selection committees, contract negotiations, public presentations made to the City Council during any duly noticed public meeting or communications in writing at any time with any City Council unless specifically prohibited by the applicable Invitation for Bid documents. A copy of all written communications must be filed with the City Clerk.

**4.20 BUSINESS ENTITY REGISTRATION**

The City of North Miami requires business entities to complete registration application before doing business with the City. Bidders need not register with the City to present a bid; however, the selected Bidder(s) must register prior to award of a contract as failure to register may result in the rejection of

the bid. To register, contact the Purchasing Department at (305) 895-9886 or you may download the application (*revised 7/09*) from our website at [www.northmiamifl.gov](http://www.northmiamifl.gov) it is the responsibility of the business entity to update and renew its application concerning any changes such as new address, telephone number, commodities, etc. during the performance of any agreement obtained as a result of this Invitation for Bid.

**4.21 SEALED BIDS:**

Original copy of the Bid Form as well as any other pertinent documents must be returned in order for the Bid to be considered for award. All Bids are subject to the conditions specified herein and on the attached Special Conditions, Specifications and Bid Form.

The completed Bid must be submitted in a sealed envelope clearly marked with the Bid Title to the Office of the City Clerk of North Miami, Room 12, City Hall, 776 N.E.125th Street, North Miami, Florida 33161-5216 until 3:00 p.m., local time on date due.

**4.22 EXECUTION OF BID:**

The Bid must contain a manual signature of an authorized representative in the space provided on the Bid Form. Failure to properly sign Bid shall invalidate same and it shall NOT be considered for award. All Bids must be completed in pen or be typewritten. No erasures are permitted. If a correction is necessary draw a single line through the entered figure and enter the corrected figure above it. Corrections must be initialed by the person signing the Bid. Any illegible entries, pencil bids or corrections not initialed will not be tabulated. The original Bid conditions and specifications CANNOT be changed or altered in any way after being submitted to the City.

**4.23 PRICES QUOTED:**

Deduct trade discounts and quote firm net prices. Give both unit price and extended total, when requested. Prices must be stated in units of quantity specified in the Bid specifications. In case of discrepancy in computing the amount of the bid, the UNIT PRICE quoted will govern. All prices must be F.O.B. destination, freight prepaid (unless otherwise stated in special conditions). Award, if made, will be in accordance with terms and conditions stated herein. Each item must be proposed separately and no attempt is to be made to tie any item or items in

with any other item or items. Cash or quantity discounts offered will not be a consideration in determination of award of Bid(s). All prices quoted shall be guaranteed for 60 days from bid date unless otherwise specified in Special Conditions.

**4.24 MISTAKES:**

Bidders are expected to examine the specifications, delivery schedules, bid prices and extensions and all instructions pertaining to supplies and services. Failure to do so will be at the Bidder's risk.

**4.25 UNDERWRITERS' LABORATORIES:**

Unless otherwise stipulated in the Bid, all manufactured items and fabricated assemblies shall be U.L. listed or re-examination listing where such has been established by U.L. for the item(s) offered and furnished.

**4.26 BID'S CONDITIONS:**

The City reserves the right to waive irregularities in Bids or to reject all Bids or any part of any Bid deemed necessary for the best interest of the City of North Miami, Florida.

**4.27 PRODUCTS, MATERIALS WITH RECYCLED CONTENT:**

It is the intent and policy of the City of North Miami, Florida, that the needs of the City for products and materials be made using recycled contents whenever possible. Bidders must certify in writing the percentage of recycled content in the product or material. "Recycled content" means materials that have been recycled that are contained in the products or materials to be procured, including, but not limited to, paper, aluminum, glass and composted material. The minimum percentage of recycled content shall be twenty-five (25) percent of materials recovered from post consumer waste. The term does not include internally generated scrap that is commonly used in industrial or manufactured processes or waste or scrap purchased from another manufacturer who manufactures the same or a closely related product. The City may allow up to ten (10) percent price difference to a responsible Bidder who has certified in writing the above recycled content.

**4.28 EQUIVALENTS:**

If Bidder offers makes of equipment or brands of supplies other than those specified, it must be

indicated in the Bid. Specific article(s) of equipment/supplies shall conform in quality, design and construction with all published claims of the manufacturer.

Brand Names: Catalog numbers, manufacturers' and brand names, when listed, are informational guides as to a standard of acceptable product quality level only and should not be construed as an endorsement or a product limitation of recognized and legitimate manufacturers. Bidders shall formally substantiate and verify that product(s) offered conform with or exceed quality as listed in the specifications.

Bidder shall indicate on the Bid Form the manufacturers' name and number if proposing other than the specified brands, and shall indicate ANY deviation from the specifications as listed. **Other than specified items offered requires complete descriptive technical literature marked to indicate detail(s) conformance with specifications and must be included with the Bid. No bids will be considered without this data.**

Lacking any written indication of intent to quote an alternate brand or model number, the Bid will be considered as a Bid in complete compliance with the specifications as listed on the attached form.

**4.29 NON-CONFORMANCE TO CONTRACT CONDITIONS:**

Items may be tested for compliance with specifications. Any item delivered, not conforming to specifications, may be rejected and returned at Bidder's expense. These items and items not delivered as per delivery date in Bid and/or purchase order may be purchased on the open market. Any increase in cost may be charged against the Bidder. Any violation of these stipulations may also result in Bidder's Name being removed from the vendor list.

**4.30 SAMPLES:**

Samples of items, when required, must be furnished free of expense and, if not destroyed, will, upon request, be returned at the Bidder's expense. Bidders will be responsible for the removal of all samples furnished within (30) days after Bid opening. All samples will be disposed of after thirty (30) days. Each individual sample must be labeled with Bidder's name. Failure of Bidder to either deliver required samples or to clearly identify

samples may be reason for rejection of the bid. Unless otherwise indicated, samples should be delivered to the Purchasing Department, 776 N.E. 125th Street, North Miami, Florida 33161.

**4.31 DELIVERY:**

Unless actual date of delivery is specified (or if specified delivery cannot be met), show number of days (in calendar days) required to make delivery after receipt of purchase order, in space provided. Delivery time may become a basis for making an Award. Delivery shall be within the normal working hours of the City, Monday through Friday, excluding holidays.

**4.32 INTERPRETATIONS:**

Unless otherwise stated in the Bid, any questions concerning conditions and specifications should be submitted in writing to the Purchasing Director, 776 N.E. 125th Street, North Miami, FL 33161, facsimile or email.

**4.33 BID OPENING:**

Bids shall be opened and publicly read in the Council Chambers, 776 N.E. 125th Street, North Miami, Florida 33161 on the date and at the time specified on the Bid Form. All bids received after that time shall be returned, unopened.

**4.34 INSPECTION, ACCEPTANCE & TITLE:**

Inspection and acceptance will be destination unless otherwise provided. Title to/or risk of loss or damage to all items shall be the responsibility of the successful Bidder until acceptance by the City unless loss or damage result from negligence by the City. If the materials or services supplied to the City are found to be defective or not conform to specifications, the City reserves the right to cancel the order upon written notice to the seller and return product at Bidder's expense.

**4.35 PAYMENT:**

Payment will be made by the City after the items awarded to a Bidder have been received, inspected, and found to comply with award specifications, free of damage or defect and properly invoiced. The City of North Miami complies with Florida Statue 218.70, Florida Prompt Payment Act. Prompt payment is made within forty-five (45) days of date on which proper invoicing is received for goods and services

and thirty (30) business days for construction services.

**4.36 DISPUTES:**

In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of the City shall be final and binding on both parties.

**4.37 LEGAL REQUIREMENTS:**

Federal, State, County and City laws, ordinances, rules and regulations that in any manner affect the items covered herein apply. Lack of knowledge by the Bidder will in no way be a cause for relief from responsibility.

The individual executing this Bid on behalf of the Company warrant to the City that the Company is a Florida corporation duly constituted and authorized to do business in the State of Florida, is in good standing and that Company possesses all of the required licenses and certificates of competency required by the State of Florida and the County of Miami-Dade to provide the goods or perform the services herein described.

**4.38 PATENTS & ROYALTIES:**

The Bidder, without exception, shall indemnify and save harmless the City of North Miami, Florida and its employees from liability of any nature or kind, including cost and expenses for, or on account of, any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by The City of North Miami, Florida. If the Bidder uses any design, device or materials covered by letters, patent, or copyright, it is mutually understood and agreed, without exception, that the Bid prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in providing the required goods or services.

**4.39 OSHA:**

The Bidder warrants that the product and services supplied to the City of North Miami, Florida shall conform in all respects to the standards set forth in the Occupational Safety and Health Act of 1970, as amended, and the failure to comply with this condition will be considered as a breach of contract. Any fines levied because of inadequacies to comply with these requirements shall be borne solely by the Bidder responsible for same.

**4.40 SPECIAL CONDITIONS:**

Any and all Special Conditions that may vary from these General Conditions shall have precedence.

**4.41 ANTI-DISCRIMINATION:**

The Bidder certifies compliance with the non-discrimination clause contained in Section 202, Executive Order 11246, as amended by Executive Order 11375, relative to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin.

**4.42 INSURANCE:**

Bidders are required assume the full duty, obligation and expense of obtaining all necessary licenses, permits and insurance and assure all work complies with all Dade County and City of North Miami building requirements and the South Florida Building Code. The Bidder shall be liable for any damages or loss to the City occasioned by negligence of the Bidder (or agent) or any person the Bidder has designated in the completion of the contract as a result of the Bid.

**4.43 BID BONDS, PERFORMANCE BONDS, CERTIFICATES OF INSURANCE:**

Bid Bonds, when required, shall be submitted with the bid in the amount specified in Special Conditions. After acceptance of Bid, the City will notify the successful Bidder to submit a performance bond and certificate of insurance in the amount specified in Special Conditions.

**4.44 DEFAULT/FAILURE TO PERFORM:**

The City shall be the sole judge of nonperformance, which shall include any failure on the part of the successful Bidder to accept the Award, to furnish required documents, and/or to fulfill any portion of this contract within the time stipulated.

Upon default by the successful Bidder to meet any terms of this agreement, the City will notify the Bidder five (5) days (weekends and holidays excluded) to remedy the default. Failure on the contractor's part to correct the default within the required five (5) days shall result in the contract being terminated and upon the City notifying in writing the contractor of its intentions and the effective date of the termination. The following shall constitute default:

- a) Failure to perform the work required under the contract and/or within the time required or

failing to use the subcontractors, entities and personnel as identified and set forth, and to the degree specified in the contract.

- b) Failure to begin the work under this Bid within the time specified.
- c) Failure to perform the work with sufficient workers and equipment or with sufficient materials to ensure timely completion.
- d) Neglecting or refusing to remove materials or perform new work where prior work has been rejected as non conforming with the terms of the contract.
- e) Becoming insolvent, being declared bankrupt, or committing act of bankruptcy or insolvency, or making an assignment renders the successful Bidder incapable of performing the work in accordance with and as required by the contract.
- f) Failure to comply with any of the terms of the contract in any material respect.

In the event of default of a contract, the successful Bidder shall pay all attorney's fees and court costs incurred in collecting any damages. The successful Bidder shall pay the City for any and all costs incurred in ensuing the completion of the project.

**4.45 BILLING INSTRUCTIONS:**

Invoices, unless otherwise indicated, must show purchase order numbers and shall be submitted in DUPLICATE to the City of North Miami, 776 N.E. 125th Street, North Miami, Florida 33161.

**4.46 SUBSTITUTIONS:**

The City of North Miami, Florida WILL NOT accept substitute shipments of any kind. Bidder(s) is expected to furnish the brand quoted in their bid once awarded. Any substitute shipments will be returned at the Bidder's expense.

**4.47 FACILITIES:**

The City reserves the right to inspect the Bidder's facilities at any time with prior notice.

**4.48 BID TABULATIONS:**

Bidders desiring a copy of the bid tabulation may request same by enclosing a self-addressed stamped envelope with the bid or may visit the City's website to view bid tabulations at [www.northmiamifl.gov](http://www.northmiamifl.gov) or Demand Star at [www.demandstar.com](http://www.demandstar.com)

**4.49 APPLICABLE LAW AND VENUE:**

The law of the State of Florida shall govern the contract between the City of North Miami and the successful Bidder and any action shall be brought in Miami-Dade County, Florida.

**4.50 CLARIFICATION AND ADDENDA TO BID SPECIFICATIONS:**

If any person contemplating submitting a Bid under this Invitation for Bid is in doubt as to the true meaning of the specifications or other Bid documents or any part thereof, the Bidder must submit to the City of North Miami Purchasing Director at least seven (7) calendar days prior to scheduled Bid opening, a request for clarification. All such requests for clarification must be made in writing and the person submitting the request will be responsible for its timely delivery.

Any interpretation of the Bid, if made, will be made only by Addendum duly issued by the City of North Miami Purchasing Director. The City shall issue an Informational Addendum if clarification or minimal changes are required. The City shall issue a Formal Addendum if substantial changes which impact the technical submission of Bids are required. A copy of such Addendum will be emailed to each Bidder receiving the Invitation for Bid. In the event of conflict with the original Contract Documents, Addendum shall govern all other Contract Documents to the extent specified. Subsequent addendum shall govern over prior addendum only to the extent specified.

**4.51 AWARD OF CONTRACT:**

- A. A contract may be awarded to the lowest responsive, responsible Bidder(s) whose Bid(s), conforming to the Invitation for Bid, is most advantageous to the City of North Miami. The lowest responsive, responsible Bidder(s) will be determined in conjunction with the method of award which is described in the Special Conditions. Tie bids will be decided as described in Special Conditions.
- B. The City shall award a contract to a Bidder through action taken by the City Council or the City Manager of the City of North Miami, Florida.
- C. The General Terms and Conditions, the Special Conditions, the Technical Specification, and the Bidder's Bid are collectively and integral part of

the contract between the City of North Miami and the successful Bidder.

- D. While the City of North Miami may determine to award a contract to a Bidder(s) under this Invitation for Bid, said Award may be conditional on the subsequent submission of other documents as specified in the Special Conditions. The Bidder shall be in default of any conditional award if any of these documents are not submitted in a timely manner and in the form required by the City. If the Bidder is in default, the City, through the Purchasing Director, will void its acceptance of the Bidder's offer and may determine to select the second lowest responsive, responsible Bidder or re-solicit Bids. The City may, at its sole option, seek monetary restitution from the defaulting Bidder as a result of damages or excess costs sustained and/or may prohibit the Bidder from submitting future Bids for a period of one year.
- E. The City reserves the right to exercise the option to renew a term contract of any successful Bidder(s) to a subsequent optional period; provided that such option is stipulated in the Special Conditions and is contained in any contract ultimately awarded in regard to this bid.
- F. The City reserves the right to automatically extend any contract for a maximum period not to exceed ninety (90) calendar days in order to provide City departments with continual service and supplies while a new contract is being solicited, evaluated and/or awarded, provided this is expressly made a part of any contract awarded in regard to this bid.

**4.52 ASSIGNMENT:**

The Bidder shall not assign, transfer, convey, or otherwise dispose of any contract, including any or all of its right, title, or interest therein, or his or its power to execute such contract to any person, company or corporation without prior written consent of the City of North Miami.

**4.53 LAWS, PERMITS AND REGULATIONS:**

The Bidder shall obtain and pay all licenses, permits and inspection fees as may be required; and shall comply with all laws, ordinances, regulations,

building code requirements applicable to the goods or services contemplated herein.

**4.54 OPTIONAL CONTRACT USAGE:**

Other State agencies, and/or Governmental Entities in the State of Florida may purchase from the resulting contract, provided the Department of Management Services, Division of Purchasing, has certified its use to be cost effective and in the best interest of the State. Bidders shall sell these commodities or services certified by the Division to the other State agencies and/or Governmental Entities in the State of Florida at the agencies' and/or entities option.

**4.55 SPOT MARKET PURCHASES:**

It is the intent of the City to purchase the goods or services specifically listed in this bid from the selected Bidder. However, items that are to be "Spot Market Purchased" may be purchased by other methods, i.e. Federal, State or local contracts.

**4.56 INCENTIVES/DISINCENTIVES:**

The City of North Miami has EXCLUDED incentive/disincentive for early completion provisions in the contract. Liquidated damages may apply for untimely delivery of goods or services.

**4.57 NON-COLLUSION:**

By submitting this bid, Bidder certifies that this offer is made without prior understanding, agreement, or connection with any corporation, firm or person submitting an offer for the same materials, services, supplies, or equipment and is in all respects fair and without collusion or fraud.

No premiums, rebates or gratuities are permitted, either with, prior to or after any delivery of material or provision of services. Any violation of this provision may result in the Contract cancellation, return of materials or discontinuation of services and the possible removal from the vendor bid list(s).

**4.58 FLORIDA PUBLIC RECORDS ACT:**

All material submitted regarding this bid becomes the property of the City. Bids may be reviewed by any person ten (10) days after the public opening. Bidders should take special note of this as it relates to any proprietary information that might be included in their offer.

Any resulting contract may be reviewed by any person after the contract has been executed by the City. The City has the right to use any or all information/material submitted in response to this bid and/or any resulting contract from same. Disqualification of a Bidder does not eliminate this right.

**4.59 CONVICT PRODUCED MATERIAL**

Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if such materials have been:

1. Produced by convicts who are on parole, supervised release, or probation from a prison or;
2. Produced in a qualified prison facility and the cumulative annual production amount of such materials for use in Federal-aid highway construction does not exceed the amount of such materials produced in such facility for use in Federal-aid highway construction during the 12-month period ending July 1, 1987. Qualified prison facility means any prison facility in which convicts, during the 12-month period ending July 1, 1987, produced materials for use in Federal-aid highway construction projects.[53 FR 1923, Jan. 25, 1988, as amended at 58 FR 38975, July 21, 1993] Item 26. Public Agencies in Competition (e) except in the case of a concession agreement, as defined in section 710.703 of this title, no public agency shall be permitted to bid in competition or to enter into subcontracts with private Bidders.

**4.60 PROJECT RECORDS**

City shall have the right to inspect and copy, at City's expense, the books and records and accounts of the awarded Bidder which relate in any way to the Project, and to any claim for additional compensation made by the Bidder, and to conduct an audit of the financial and accounting records of the Bidder which relate to the Project and to any claim for additional compensation made by the Bidder. Bidder shall retain and make available to City all such books and records and accounts, financial or otherwise, which relate to the Project and to any claim for a period of three (3) years following final completion of the Project. During the Project and the three (3) year period following final completion of the Project, the Bidder shall provide City access to its books and records upon seventy-two (72) hours written notice.

**4.61 STANDARDIZED CHANGES**

Contract documents shall be modified to reflect the requirements of 23 CFR 635.109. The changed conditions contract clauses shall be made part of, and incorporated in this project which has been approved under 23 U.S.C. 106.

**4.62 LOCAL PREFERENCE / 10% TOTAL WORKFORCE CONSISTING OF NORTH MIAMI RESIDENTS**

The evaluation of competitive bids is subject to Section 7-151 of the City Code which, except where contrary to federal and state law, or any other funding source requirements, provides that preference be given to local businesses. To satisfy this requirement, the Bidder shall affirm in writing its compliance with either of the following objective criteria as of the Bid submission date stated in the Invitation for Bid. A local business shall be defined as:

- a) A business that has a valid local business tax receipt, issued by City of North Miami at least one year prior to bid submission, that is appropriate for the goods, services or construction to be purchased; or
- b) A business that has a physical business address located within the limits of the City of North Miami from which the vendor operates or performs business. Post Office Boxes are not verifiable and shall not be used for the purpose of establishing said physical address; or
- c) A business has at least ten percent (10%) of its total workforce residing in the city prior to the city's issuance of the solicitation for supplies or services; or

- d) A business that subcontracts at least ten percent (10%) of the contractual amount of a City project to subcontractors who are physically located within the City of North Miami.

The preference is applied during the evaluation process. Bids received from local businesses are assigned a preference of ten (10) percent of the total price. (See Form A-3, A-3a & A-3b)

**4.63 NON-EXCLUSIVITY**

It is the intent of the City to enter into an agreement with the successful Bidder that will satisfy its needs as described herein. However, the City reserves the right as deemed in its best interest to perform, or cause to be performed, the work and services, or any portion thereof, herein described in any manner it sees fit, including but not limited to: award of other contracts, use of any contractor, or perform the work with its own employees.

**4.64 TERMINATION FOR CONVENIENCE**

The City, at its sole discretion, reserves the right to terminate this contract without cause upon thirty (30) days written notice. Upon receipt of such notice, the successful bidder(s) shall not incur any additional costs under this contract. The City shall be liable only for reasonable costs incurred by the successful Bidder(s) prior to the notice of termination. The City shall be the sole judge of "reasonable costs".

**END OF SECTION 4**

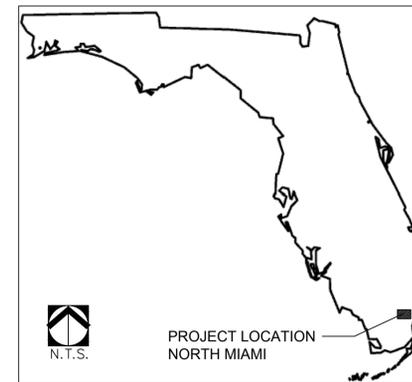


# PIONEER BLVD STREETSCAPE PROJECT

## CITY OF NORTH MIAMI

# 100% CONSTRUCTION DOCUMENTS

**BID SET**  
**February 24, 2012**

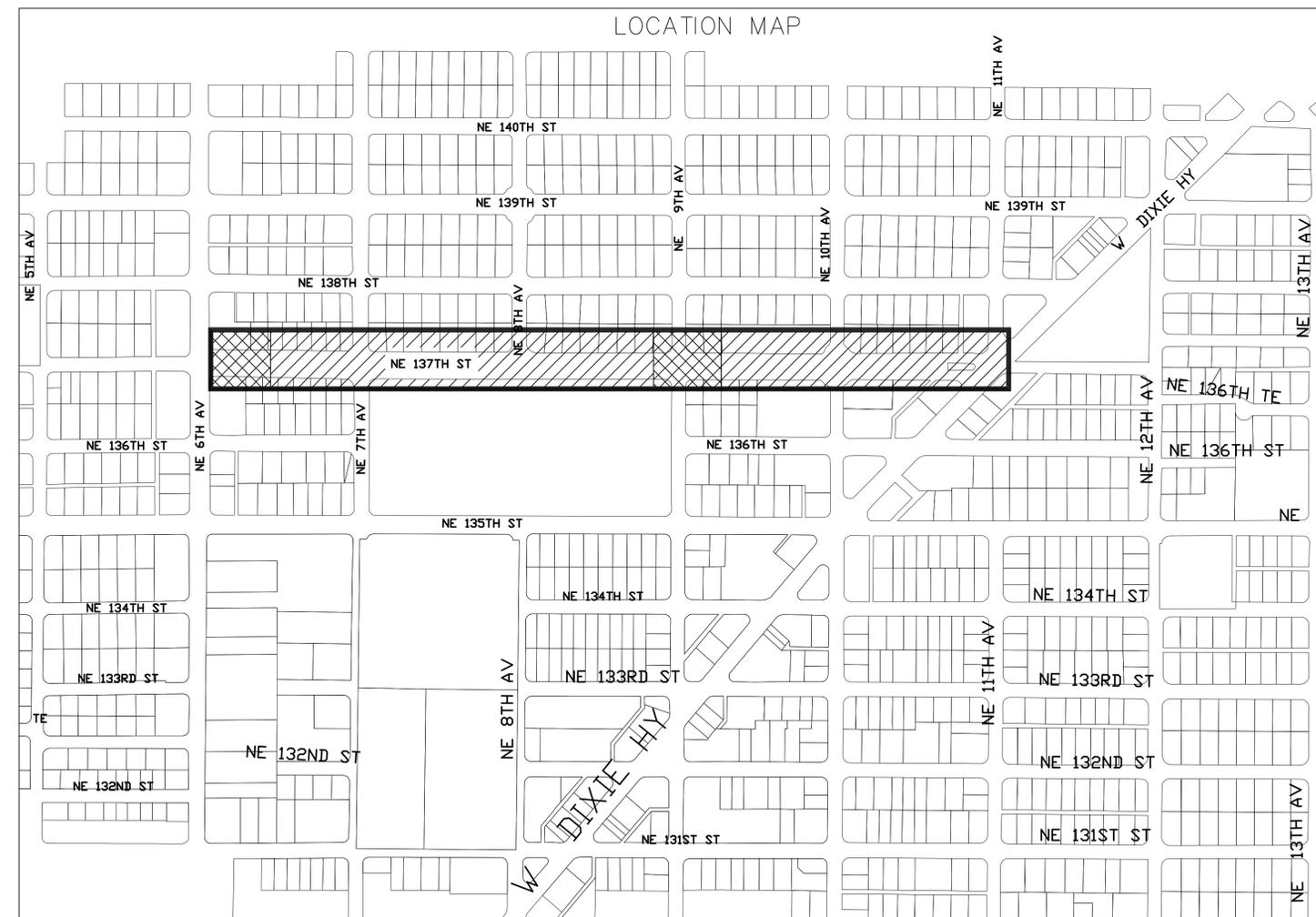


### SHEET INDEX

G-0	PROJECT INDEX, GENERAL NOTES & LOCATION
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G-2	EXISTING SURVEY
G-3	EXISTING SURVEY
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LH-2	FOUNTAIN PLAN, DEMOLITION PLAN
LH-2A	FOUNTAIN PLAN
LH-3	FOUNTAIN SECTION & ELEVATION
LH-4	FOUNTAIN PLAN, ELEVATION & DETAILS
LP-1	PLANTING PLAN
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LI-1	IRRIGATION PLAN
LI-2	IRRIGATION LEGEND, NOTES & SPECS.
LI-3	IRRIGATION DETAILS
LL-1	LIGHTING PLAN & SCHEDULE
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S-2.01	FOUNTAIN PLAN
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F-3	FOUNTAIN SECTION & DETAILS
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E0.00	SYMBOL LEGEND, NOTES & LIGHTING FIXTURE SCHEDULE
E1.00	LIGHTING AND POWER PLAN
E2.00	PANELS SCHEDULE

### GENERAL NOTES

- The Owner's engineer will be responsible for insuring the structural integrity and compliance with all local codes, of all elements. The Landscape Architect is responsible for the layout, aesthetic detailing of site and the finish specifications of elements
- See Engineering drawings and Survey for all exterior finished grades, site, drainage, and utility layout.
- Contractor shall verify all dimensions and elevations on site prior to beginning construction, and any discrepancies shall be brought to the immediate attention of the Landscape Architect.
- Contractor shall stake the layout plan (or retain a registered surveyor, if required) in the field and have such staking approved by the Landscape Architect prior to proceeding with construction. The building contractor shall report all layout discrepancies immediately to the Landscape Architect for decision.
- All work to be performed and material under this contract shall be in compliance with the latest edition of the Florida Building Code (Miami Dade County latest amendments) and all other applicable State and Local Labor Laws, Regulations, rules, codes and ordinances having jurisdiction over the project.
- The Contractor shall be responsible for obtaining all required permits to carry out the work described in the construction documents.
- The General Contractor and the Sub-contractors shall acquaint himself /herself with the existing conditions of the site relative to the scope of work related to project materials, handling, storage and delivery, working area available, safety precaution required and all other conditions necessary prior to submitting the bid. No increase in project cost will be allowed for failure of the contractor to familiarize with the existing site
- The General Contractor and the Sub-contractors shall acquaint himself /herself with the existing conditions of the site relative to the scope of work related to project materials, handling, storage and delivery, working area available, safety precaution required and all other conditions necessary prior to commencing the work, including verification of all dimensions and conditions before proceeding with work.
- Any discrepancies in dimensions, or special modifications required due to field conditions shall be reported in writing to the landscape architect for clarification, approval or modification before commencing the work. The responsibility of any changes made in the field without any notification to the landscape architect shall rest with the General Contractor or any person approving such change.
- General Contractor to be responsible for security of the site and the materials at job site until final acceptance of job by owner.
- Trash & Cleanliness: The Contractor to be responsible for daily trash removal and pick-up. He /She shall remove debris at the end of every work day and provide a dumpster for trash and debris storage, until it can be removed by him from the work area. All special cleaning of paint removal, stains, marks, scratches, dust, etc caused by all trades during the construction shall be removed by the General Contractor upon completion.
- Elevations Shown refer to the National Geodetic vertical datum (N.G.V.D.)
- DO NOT SCALE DRAWINGS. Any discrepancies should be called on and consulted with architect. Written dimensions precede over scaled or unwritten dimensions.
- All plans, details and wall sections are assumed typical conditions unless otherwise noted.
- The Contractor shall be responsible for coordinating landscape architectural work with all trades, for the completion of the work. Including coordinating Sub-Contractors to avoid interference with progress of construction. All possible interference, omissions and inconsistencies between trades shall be immediately notified to the landscape architect for clarification.
- The landscape architect is not responsible or liable for the integrity or correctness of the existing conditions and its components. Project is based on plans and surveys provided by owner. It shall be the Contractor's responsibility to verify all underground utilities and other site conditions prior to commencing the work. In the event of damage to existing utilities, the contractor shall replace or repair such damage.
- The contractor will provide adequate protection to all existing structures, that are to be retained so that they will not be damaged.
- Contractor will patch, repair, or replace existing work damaged by new construction.
- All workmanship of contractor shall be neat, clean, true, and correct.
- All existing utilities (plumbing, gas, electrical) not reused shall be properly capped and tied off.
- Contractor shall obtain written approval for substitutions made in specified equipment, materials and colors.
- All materials shall be new, of quality specified and delivered in a timely manner to prevent delay of work.
- The General Contractor shall install all materials according to Manufacturer's recommended specifications. He/she shall submit in writing to the architect if, because of unforeseen conditions, any material can not be installed according to the specifications prior to installation. No substitutions are allowed for materials where specific manufacturers are indicated unless approved by owner/architect.
- Requests for substitutions shall be made in writing prior to ordering materials or commencing work. Requests shall be dated, with description of work and costs to the owner as well as anticipated time of delivery of such substitution.
- All materials shall be installed according to Manufacturers Recommendations. New materials shall bear Underwriters and Union labels where applicable.
- The General Contractor shall submit manufacturers/suppliers shop Drawings, product data, mock ups & samples to the architect for approval prior to fabrication. Sub-Contractors shall visit the Project Site for verification. Submit one reproducible and minimum 7 copies of each submittal for Landscape Architect /Owner's approval of all items requiring fabrication. General Contractor shall review all submittals prior to submitting to Architect /engineers for their approvals. Do not fabricate until approved. Allow minimum 10 working days for Landscape Architect's review.
  - Shop Drawings shall be submitted for all the following items:
    - Aluminum Signage
    - Water fountain Spout
- Submit shop drawings for scaffolding, shoring, as necessary prepared by a licensed Structural Engineer, and meet ASHTO requirements.
- Security: Contractor is responsible for security for construction materials stored at the job site.
- Storage of material: Contractor shall obtain owner approval for storing materials on the job site during construction.
- The Landscape Architect shall not have control of charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, for the acts or omissions of the contractor, subcontractors or any other persons performing any of the work, or for the failure of any item to carry out the work in accordance with the contract documents.
- Testing of material: All the required tests shall be performed at the expense of the contractor and by an approved testing laboratory. The test results shall be submitted to the engineer of record.
- STUCCO
  - Patching: Contractor is to remove existing stucco and/or plaster around areas to be patched, as required, to provide finish which matches with existing surrounding surface.
  - Stucco applied over masonry and/or concrete surfaces scratched and floated in three coats minimum standard operation
  - All masonry walls should be clean and free from efflorescence, damp, rough and coated with bonding mix.
  - Stucco should be applied according to the latest edition of the FBC.
- PAINTING
  - Exterior color paint shall be selected by Owner/Architect
  - For exterior stucco, Masonry Primer coat before final two coats of exterior latex paint.
  - Provide a 3" x 3" sample in an inconspicuous area of the job (with owner's approval) before final application.
  - All surfaces to be painted shall be prepared as per paint manufacturer's recommended treatment, and as noted on drawings.



City of North Miami  
776 NE 125TH STREET  
North Miami, FL 33161  
305.893.6511 tel

Mayor:  
Andre D. Pierre, ESQ

Council District 1:  
Scott Galvin

Council District 2:  
Michael R. Blynn

Council District 3:  
Jean R. Marcellus

Council District 4:  
Marie Erlande Steril

City Manager:  
Russell Benford

Public Works Director:  
Aleem Ghany, P.E.

Parks & Recreations Director:  
Jeff Geimer

Consultants:

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Fountain Consultant  
Hall Fountains, Inc.  
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Ft. Lauderdale, FL 33309  
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PROJECT  
PIONEER BOULEVARD  
NORTH MIAMI, FLORIDA  
PHASE II

DRAWING  
LANDSCAPE PLAN

SCALE  
AS SHOWN  
PROJECT NUMBER

DATE  
02-24-2012

REVISIONS

SHEET NUMBER

G-0



# TOPOGRAPHIC SURVEY

PREPARED BY:  
**3 TCI, Inc.**  
 PROFESSIONAL LAND SURVEYORS AND MAPPERS  
 MIAMI, FLORIDA  
 LB7799

FOR:



CITY OF NORTH MIAMI  
 776 NE 125 ST  
 NORTH MIAMI, FL 33161

## LEGEND & ABBREVIATIONS:

<ul style="list-style-type: none"> <li>☐ CLEANOUT</li> <li>☐ CATCH BASIN</li> <li>☐ CONCRETE POWER POLE</li> <li>☐ GUARD POLE</li> <li>☐ GREASE TRAP</li> <li>☐ GAS VALVE</li> <li>☐ HANDICAP SIGN</li> <li>☐ LIGHT POLE</li> <li>☐ LIGHT BOLLARD</li> <li>☐ ELECTRIC BOX</li> <li>☐ ELECTRIC MANHOLE</li> <li>☐ FIRE HYDRANT</li> <li>☐ IRRIGATION CONTROL VALVE</li> <li>☐ MONITORING WELL</li> <li>☐ MAIL BOX</li> <li>☐ SIGN</li> <li>☐ SIGN</li> <li>☐ SANITARY SEWER MANHOLE</li> <li>☐ STORM SEWER MANHOLE</li> <li>☐ TELEPHONE MANHOLE</li> <li>☐ UNKNOWN MANHOLE</li> <li>☐ DETECTABLE SURFACING</li> </ul>	<ul style="list-style-type: none"> <li>1019</li> <li>☐ SPOT ELEVATION</li> <li>☐ SEWER VALVE</li> <li>☐ UTILITY BOX</li> <li>☐ WATER VALVE</li> <li>☐ WATER METER</li> <li>☐ WATER BACKFLOW PREVENTER</li> <li>☐ WOOD POLE</li> <li>☐ WOOD POLE WITH TRANSFORMER</li> <li>☐ STREET LIGHT</li> <li>☐ TRAFFIC SIGNAL BOX</li> <li>☐ PUBLIC TELEPHONE BOOTH</li> <li>☐ TRAFFIC CONTROL PANEL</li> <li>☐ TRASH CAN</li> <li>☐ FLAG POLE</li> <li>☐ PEDESTRIAN SIGNAL POLE</li> <li>☐ LIGHT POLE</li> <li>☐ TELEPHONE BOX</li> <li>☐ GAS METER</li> <li>☐ PUBLIC TELEPHONE BOX</li> <li>☐ CONCRETE POLE</li> <li>☐ BENCH</li> </ul>	<ul style="list-style-type: none"> <li>A ARC DISTANCE</li> <li>A/C AIR CONDITIONING PAD</li> <li>BLDG. BUILDING</li> <li>CLF CHAIN LINK FENCE</li> <li>CBS CONCRETE BLOCK STRUCTURE</li> <li>(C) CALCULATED</li> <li>CB CATCH BASIN</li> <li>CH. CHORD DISTANCE</li> <li>Q CENTER LINE</li> <li>CONC. CONCRETE</li> <li>GUY WIRE</li> <li>F.I.P. FOUND IRON PIPE</li> <li>F.L.R. FOUND REBAR</li> <li>F.N. FOUND NAIL</li> <li>GV GAS VALVE</li> <li>N.G.V.D. NATIONAL GEODETIC VERTICAL DATUM</li> <li>O.E. OVERHEAD ELECTRIC LINE</li> <li>(MEAS.) MEASURED</li> <li>(REC.) RECORD</li> <li>R RADIUS</li> <li>R/W RIGHT-OF-WAY</li> <li>P.C.P. PERMANENT CONTROL POINT</li> <li>SEC. SECTION</li> <li>SUB. SUBDIVISION</li> <li>PC POINT OF CURVATURE</li> <li>PT POINT OF TANGENCY</li> <li>O.R.B. OFFICIAL RECORD BOOK</li> <li>(B.O.B.) BASIS OF BEARINGS</li> </ul>
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## LOCATION MAP

SCALE: 1"=300'  
 SECTION 19, TOWNSHIP 52 S., RANGE 42 E.

Subsurface soil conditions were not determined, as this falls outside the purview of this Survey. These conditions may include the determination of wetlands, filled-in areas, geological conditions or possible contamination by hazardous liquid or solid waste that may occur within, upon, across, abutting or adjacent to the Subject Property.

Well-identified features as depicted on the Survey Map were measured to an estimated horizontal positional accuracy of 1/10 foot.

The elevations of well-identified features as depicted on the Survey Map were measured to an estimated vertical positional accuracy of 2/10 foot for natural ground surfaces and 1/100 foot for hardscape surfaces. The relationship of the elevations depicted on the Survey Map to the National Geodetic Vertical Datum of 1929 (based on the G.P.S. observations).

## VI- EASEMENTS AND ENCUMBRANCES:

No information was provided as to the existence of any easements or encumbrances. There may be Easements inside the subject property. Due to the amount of utilities found, The surveyor believes that there may be utility easements that were not shown in the Plat of record, but could be dedicated by the owner to their respective utility companies. A more specific search will be advised in case of any future construction.

## VI- CLIENT INFORMATION:

This Topographic Survey was prepared at the insistence of and certified to:

City of North Miami Public Works Department

## VII- SURVEYOR'S CERTIFICATE:

I hereby certify: That this "Topographic Survey" and the Survey Map resulting therefrom was performed under my direction and is true and correct to the best of my knowledge and belief and further, that said "Topographic Survey" meets the intent of the applicable provisions of the "Minimum Technical Standards for Land Surveying in the State of Florida", pursuant to Rule 5J-17 of the Florida Administrative Code and its implementing law, Chapter 472.027 of the Florida Statutes.

3TCI, Inc., a Florida corporation  
 Florida Certificate of Authorization Number LB7799

By: \_\_\_\_\_  
 Rolando Ortiz  
 Registered Surveyor and Mapper LS4312  
 State of Florida

NOTICE: Not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper. Additions or deletions to Survey Maps by other than the signing party are prohibited without the written consent of the signing party.

## SURVEYOR'S NOTES

### I- DATE OF COMPLETION:

04-11-2011

### II- LOCATION:

NE 137th STREET (BETWEEN NE 6th AVE AND WEST DIXIE HIGHWAY)

### III- ACCURACY:

Although this is within public property, the survey was predicated on the expected use of land, as classified in the "Minimum Technical Standards for Land Surveying in the State of Florida," pursuant to Rule 5J-17 of the Florida Administrative Code is "Commercial/High Risk." The minimum relative distance accuracy for this type of Survey is 1 foot in 10000 feet. The accuracy obtained by measurement and calculation of closed geometric figures was found to exceed this requirement.

### IV- SOURCES OF DATA:

North arrow direction is based on an assumed Meridian.

Bearings as shown hereon are based upon the Center line of N.E. 137th Street, with an assumed bearing of N87°05'36"E, said line to be considered a well monumented line.

This site appears to be located in Flood Zone "AE-7" / "X", as per Federal Emergency Management Agency (FEMA) Community-Panel Number 12086C, Map No. 0143, Suffix L, Effective Date: September 11, 2009

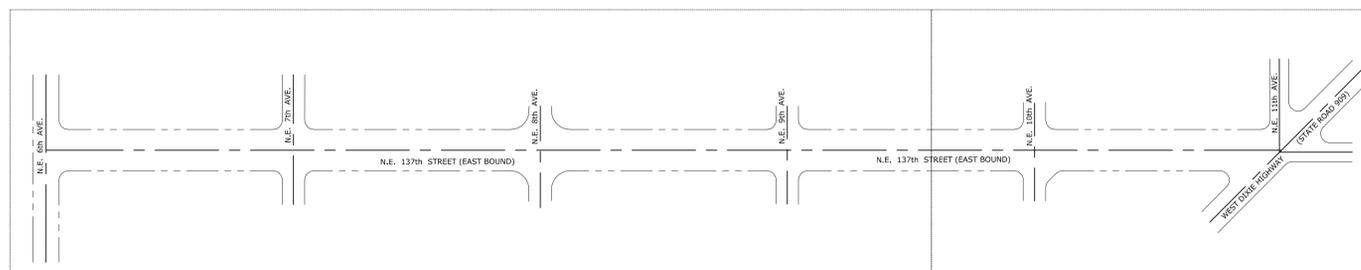
Buildings are shown for information purpose only. Building interior dividing lines were shown for reference purpose and does not represent the actual and exact location of those dividing walls. This is not a Boundary Survey.

Vertical Control:

Elevations are based upon the National Geodetic Vertical Datum 1929 as per Miami-Dade County Bench Mark No. N-360-R and located on NE 135th St and NE 6th Ave.

SHEET 2 OF 3

SHEET 3 OF 3



THIS IS NOT A BOUNDARY SURVEY  
 THIS IS NOT A TREE SURVEY

TREES ARE SHOWN FOR REFERENCE PURPOSE ONLY

NOT VALID WITHOUT SHEET 2 AND 3 OF 3  
 (SHEETS 2 AND 3 OF 3 CONTAIN THE SURVEY MAP)

**savinomiller**  
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 LANDSCAPE ARCHITECTURE | URBAN DESIGN | ARCHITECTURE  
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 T: 305.955.9082 F: 305.955.9083 WWW.SAVINOMILLER.COM  
 ANNOUAS 10-000008

REVISIONS
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TOPOGRAPHIC SURVEY  
 for  
 CITY OF NORTH MIAMI  
 of  
 NE 137th STREET (BETWEEN NE 6th AVE AND WEST DIXIE HIGHWAY)

**3TCI, Inc.** LB7799  
 PROFESSIONAL LAND SURVEYORS AND MAPPERS  
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 tel: 305-316-8474 fax: 305-220-3762 www.3tci.com



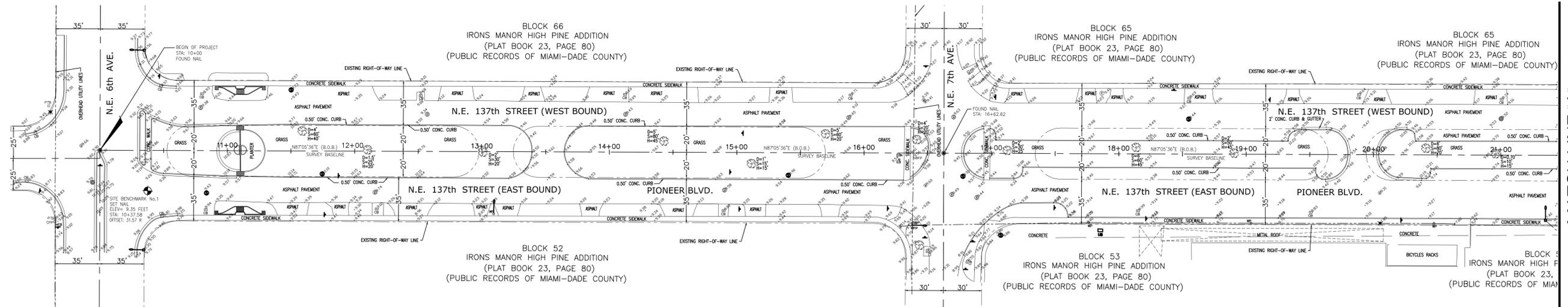
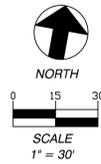
SEAL

ORIGINAL SURVEY DATE:  
 04/11/2011

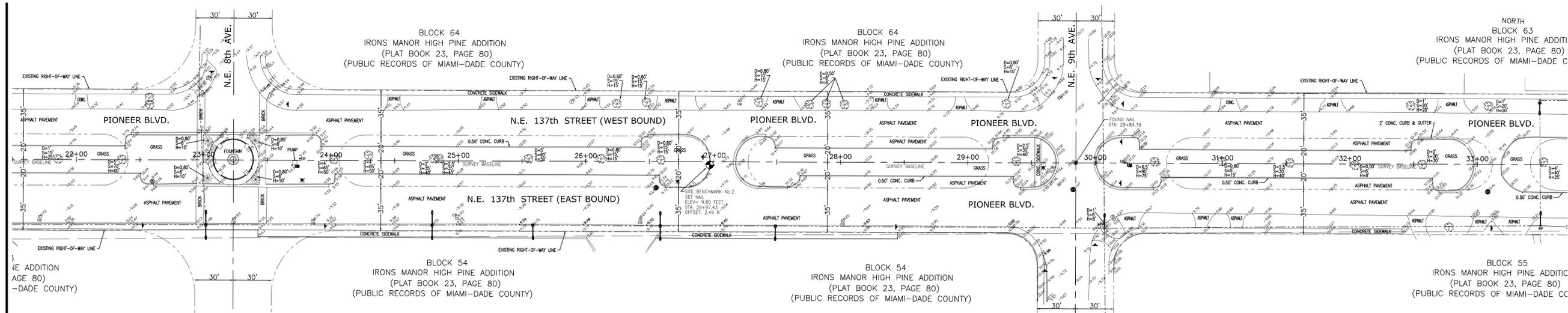
FEMA: "AE-7" "X"	FLOOD ZONE:	COMMUNITY PANEL NUMBER: 120655	COMMUNITY NAME: CITY OF NORTH MIAMI	MAP NUMBER: 0143	SUFFIX: L	FEMA EFFECTIVE DATE: 09/11/2009	BENCH MARK:	BENCH MARK NAME: N-360-R	ELEVATION: 8.95	DESCRIPTION: N.E. 135th ST AND NE 6th AVENUE	DWG INFO:	DRAFTER: FS	CHECKED: RO	FIELD BOOK: FB 2011-1	JOB NUMBER: 11-031	SCALE: N/A	SHEET: G-1
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# TOPOGRAPHIC SURVEY

NOT VALID WITHOUT SHEET 1 AND 2 OF 3  
(SHEET 1 OF 3 CONTAINS THE SURVEY REPORT)



MATCH LINE "A"



MATCH LINE "A"

MATCH LINE "B" (SEE SHEET G-3)

THIS IS NOT A BOUNDARY SURVEY  
THIS IS NOT A TREE SURVEY  
TREES ARE SHOWN FOR REFERENCE PURPOSE ONLY



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TOPOGRAPHIC SURVEY  
for  
CITY OF NORTH MIAMI  
of  
NE 137th STREET (BETWEEN NE 6th AVE AND WEST DIXIE HIGHWAY)



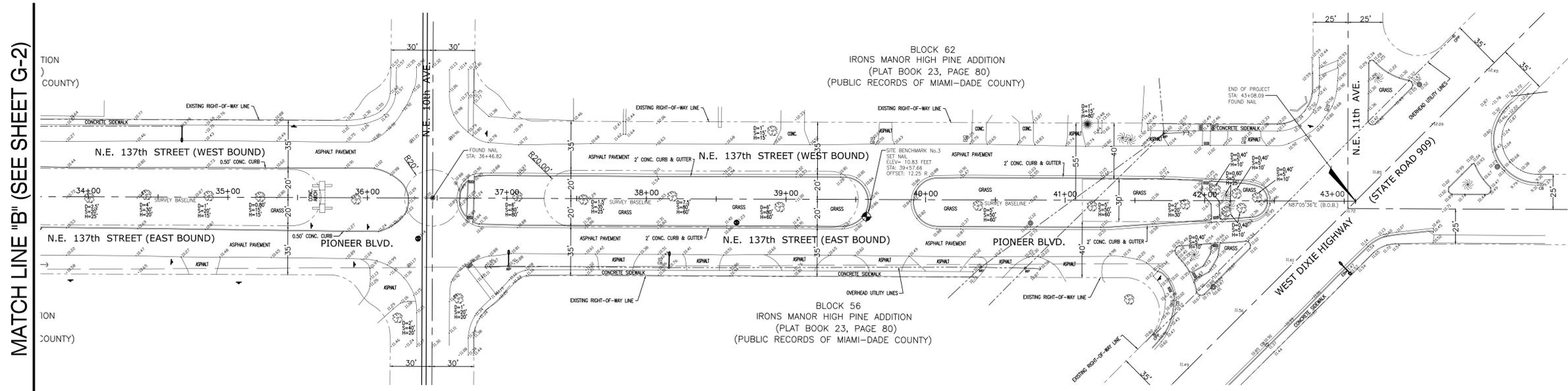
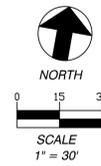
**3TCI, Inc.** LB7799  
PROFESSIONAL LAND SURVEYORS AND MAPPERS  
1262 SW 144th CT. MIAMI FL 33184  
tel: 305-316-8474 fax: 305-220-3762 www.3tci.com



DWG INFO:	DRAFTER: FS	CHECKED: RO	FIELD BOOK: FB 2011-1	JOB NUMBER: 11-031	SCALE: 1"=40'	SHEET: 2 OF 3
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# TOPOGRAPHIC SURVEY

NOT VALID WITHOUT SHEET 1 AND 2 OF 3  
(SHEET 1 OF 3 CONTAINS THE SURVEY REPORT)



THIS IS NOT A BOUNDARY SURVEY  
THIS IS NOT A TREE SURVEY  
TREES ARE SHOWN FOR REFERENCE PURPOSE ONLY

**savinomiller**  
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AND/ORMS LLC 0000000

REVISIONS
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TOPOGRAPHIC SURVEY  
for  
CITY OF NORTH MIAMI  
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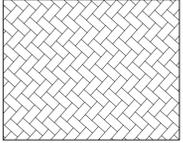
**3TCI, Inc.** LB7799  
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DWG INFO:	DRAFTER: FS	CHECKED: RO	FIELD BOOK: FB 2011-1	JOB NUMBER: 11-031	SCALE: 1"=40'	SHEET: G-3
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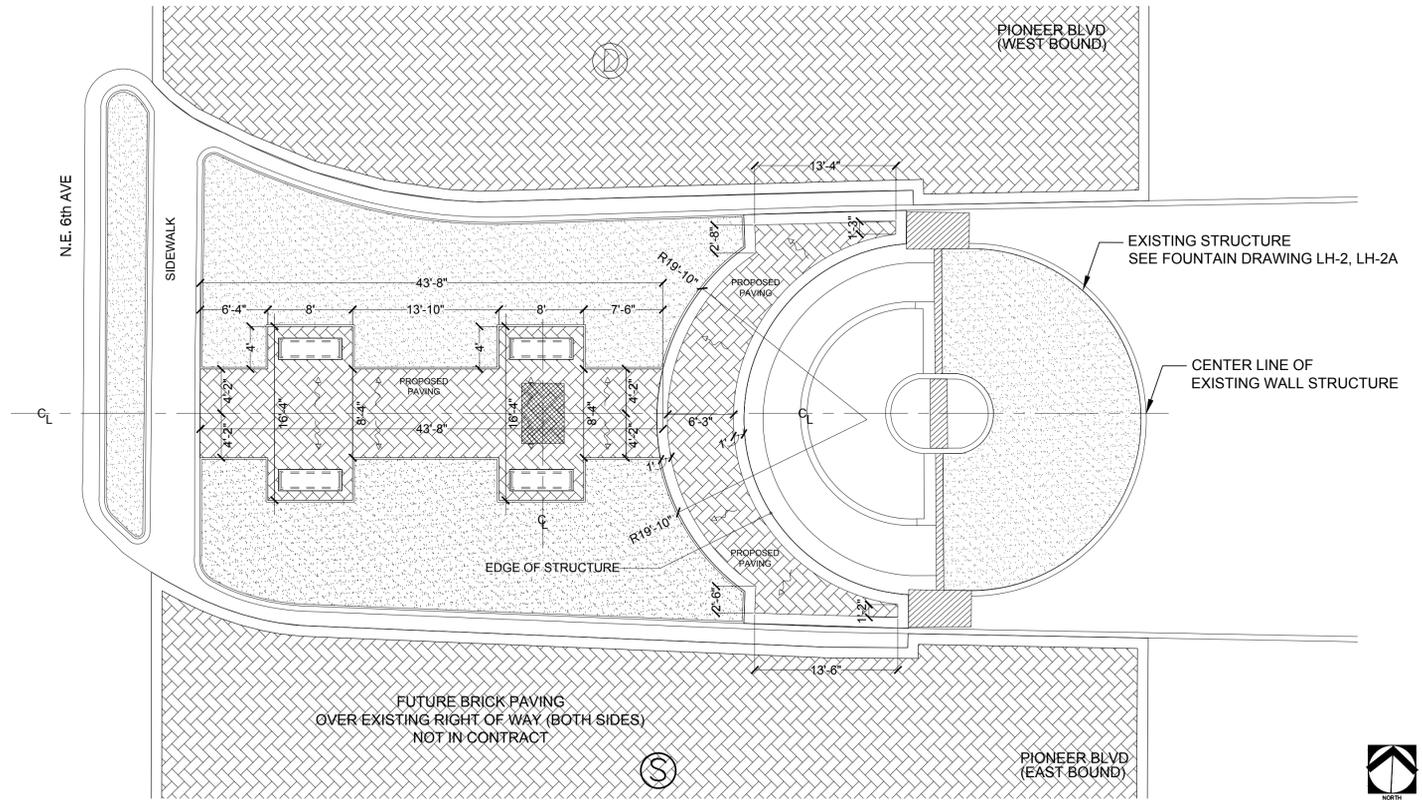
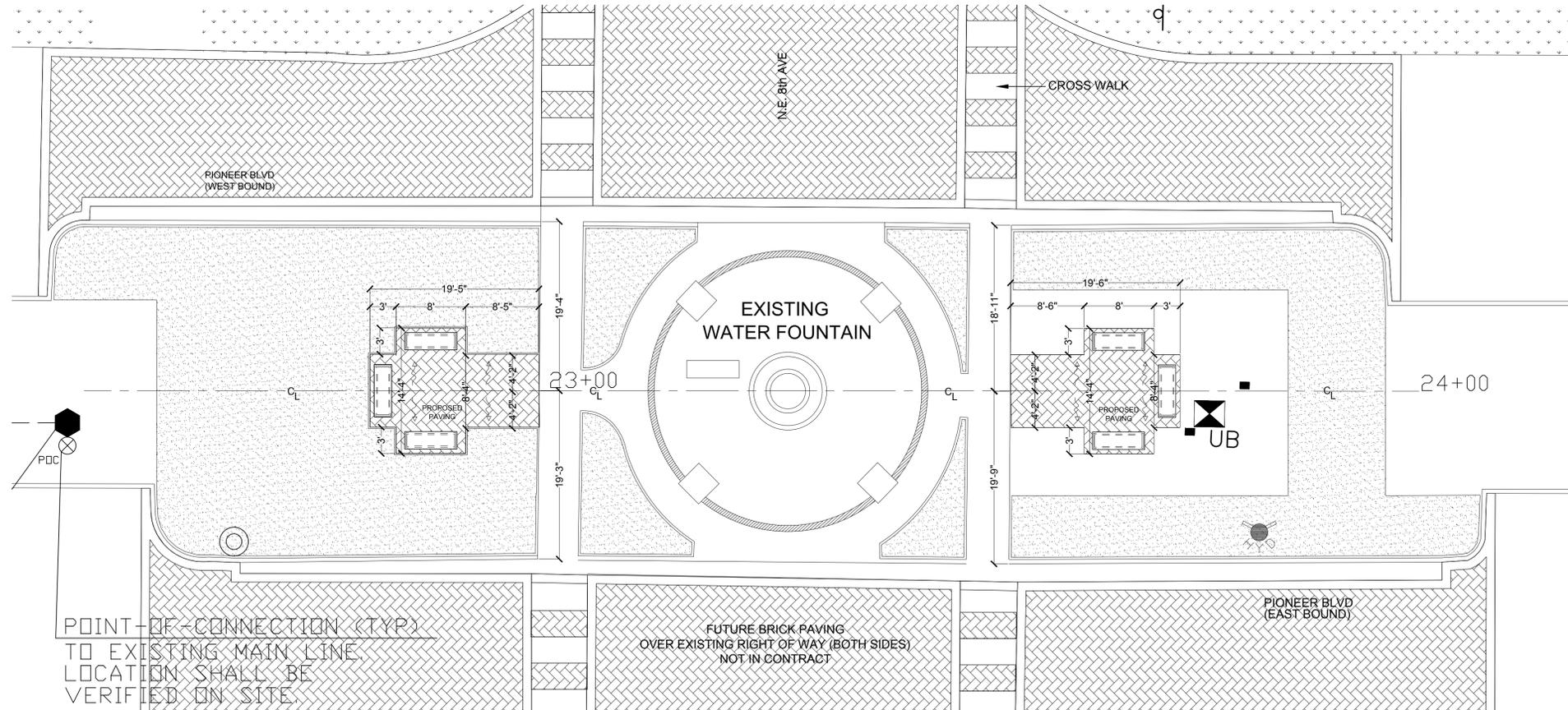
NOTE: CONTRACTOR TO USE EXISTING STRUCTURE AS POINT OF REFERENCE FOR PAVING & PLANTING LAYOUT

LEGEND:

-  NEW 4" x 8" X 2.5" CONCRETE PAVERS OVER COMPACTED SUBGRADE. HERRINGBONE PATTERN TYPE & COLOR TO BE SELECTED BY OWNER
-  PLANTING AREAS
-  PROPOSED NEW BENCH LOCATION
-  NEW LOCATION PUMP PIT (SEE FOUNTAIN DRAWINGS) COORDINATE W/ FOUNTAIN CONTRACTOR FOR SIZE & DEPTH.
-  EXISTING UTILITY BOX
-  EXISTING ELECTRICAL BOX

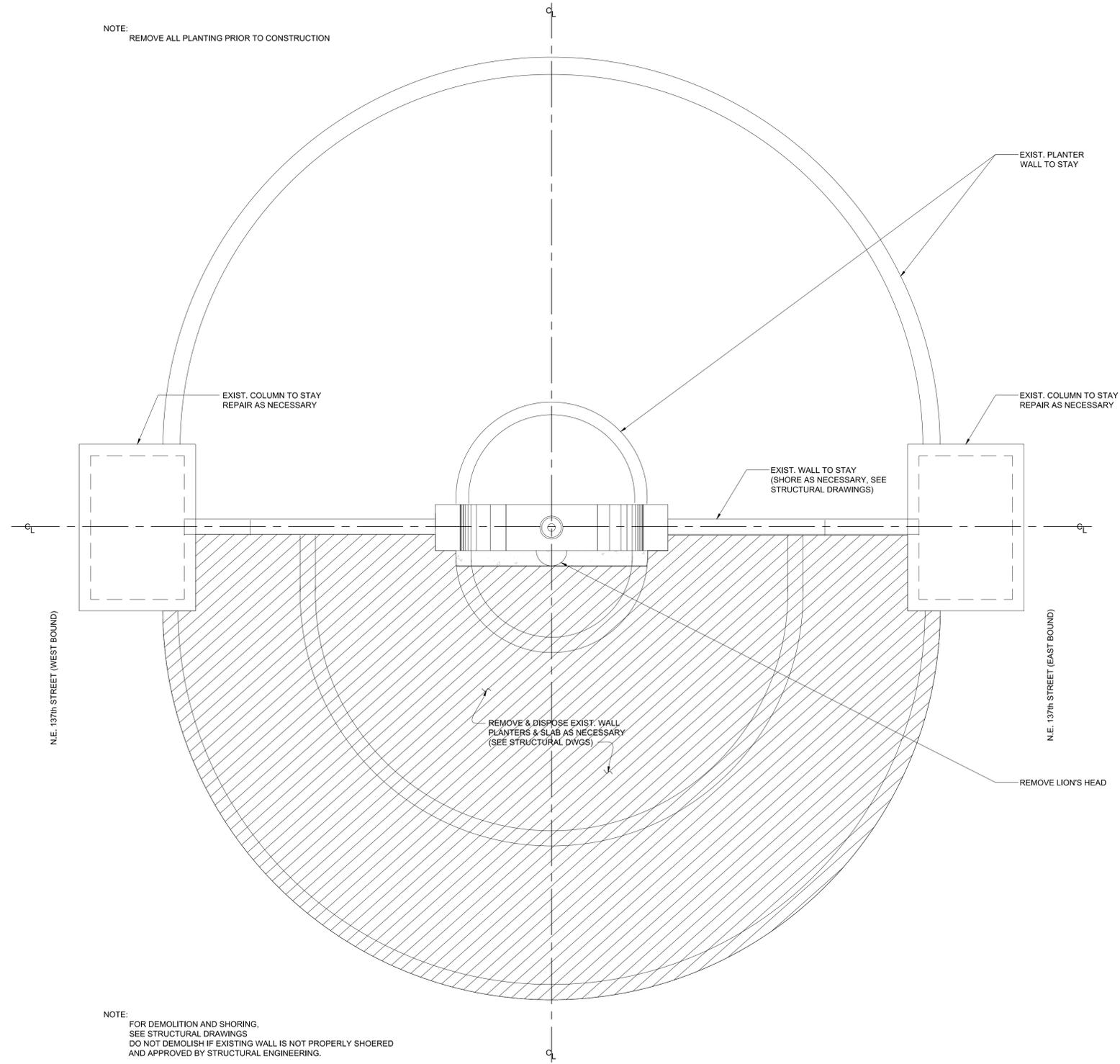
HARDSCAPE GENERAL NOTES

1. The Owner's Engineer will be responsible for insuring the structural integrity and compliance with all local codes, of all elements designed on this sheet. The Landscape Architect is responsible for the layout, aesthetic detailing of the site, and the finish specifications of elements designed on this sheet.
2. See Civil Drawings for all exterior finished grades at curbing, streets, driveways, utilities, and drainage structures.
3. Contractor shall verify all dimensions and elevations on site prior to beginning construction, and any discrepancies shall be brought to the immediate attention of the Landscape Architect.
4. Contractor shall stake the layout plan (or retain a registered surveyor, if required) in the field and have such staking approved by the Landscape Architect prior to proceeding with construction. The building contractor shall report all layout discrepancies immediately to the Landscape Architect for decision.
5. Contractor is responsible for location and protection of all existing underground and above ground utilities, asphalt, curbs, walks, above ground structures and vegetation as noted on the landscape plans.
6. Contractor is responsible for location and protection of all existing underground and above ground utilities, asphalt, curbs, walks, above ground structures and vegetation as noted on the landscape plans
7. All dimensions are to face of curb unless otherwise noted.
8. All angles are 90 degrees unless otherwise noted.
9. Contractor shall stake the layout of all site improvements for review and approval by landscape architect before installation.



1 PIONEER BLVD ENTRANCE FOUNTAIN HARDSCAPE LAYOUT PLAN  
LH-1 SCALE: 1/8" = 1'-0"

2 FROG POND HARDSCAPE LAYOUT PLAN  
LH-1 SCALE: 1/8" = 1'-0"



**EXIST. FOUNTAIN (DEMOLITION PLAN)**  
SCALE: 3/8" = 1'-0"



ALL DRAWINGS AND SPECIFICATIONS ARE PREPARED AND CHECKED BY THE ARCHITECT AND SHALL BE USED AS SUCH. THE ARCHITECT SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED ON ANY OTHER DRAWINGS REFERENCED HEREIN.

PROJECT  
**PIONEER BOULEVARD  
NORTH MIAMI, FLORIDA  
PHASE II**

DRAWING  
**FOUNTAIN PLAN,  
DEMOLITION PLAN**

SCALE  
**AS SHOWN**

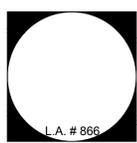
PROJECT NUMBER

DATE  
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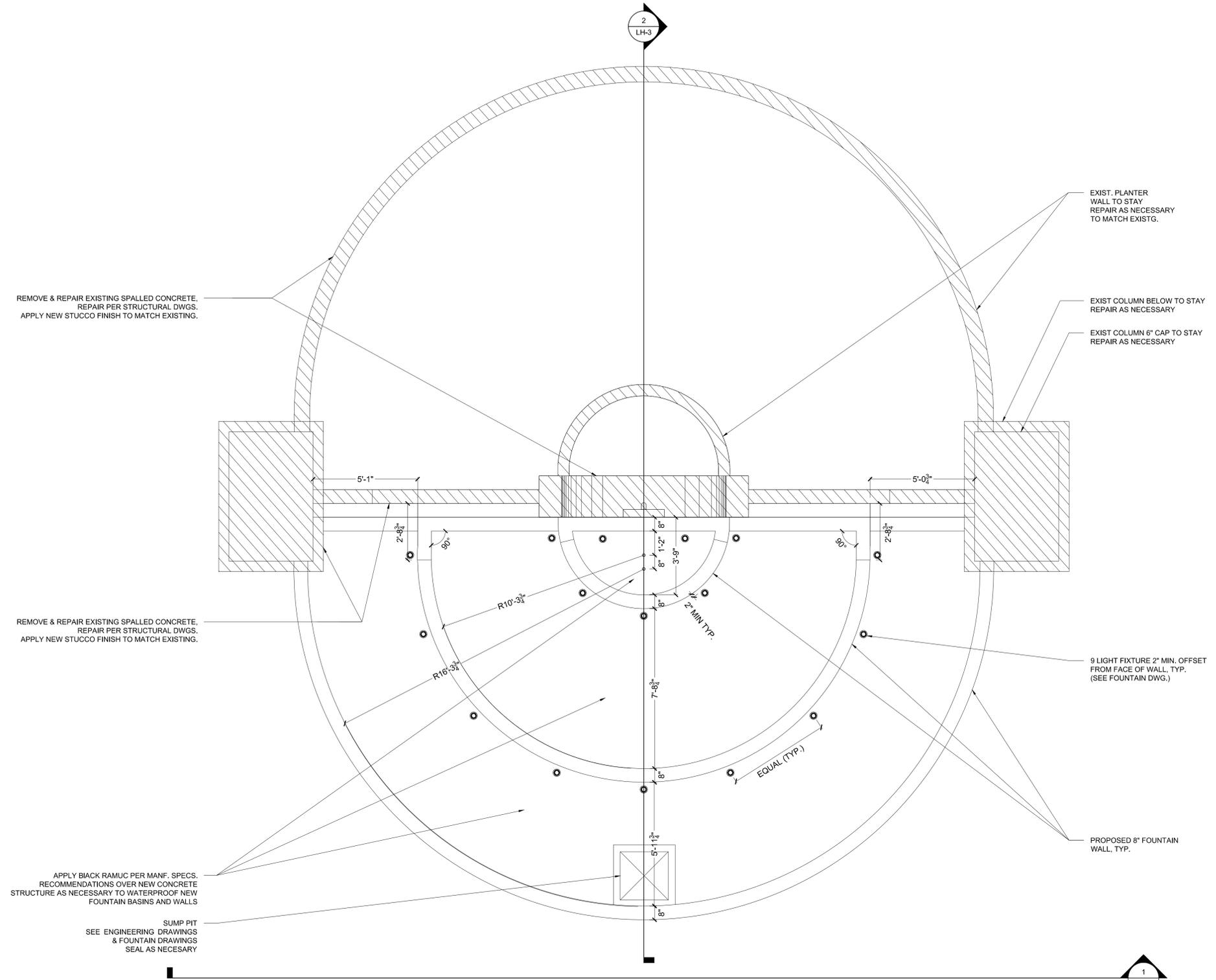
REVISIONS

SHEET NUMBER

**LH-2**



2  
 LH-3



REMOVE & REPAIR EXISTING SPALLED CONCRETE.  
 REPAIR PER STRUCTURAL DWGS.  
 APPLY NEW STUCCO FINISH TO MATCH EXISTING.

REMOVE & REPAIR EXISTING SPALLED CONCRETE.  
 REPAIR PER STRUCTURAL DWGS.  
 APPLY NEW STUCCO FINISH TO MATCH EXISTING.

APPLY BLACK RAMUC PER MANF. SPECS.  
 RECOMMENDATIONS OVER NEW CONCRETE  
 STRUCTURE AS NECESSARY TO WATERPROOF NEW  
 FOUNTAIN BASINS AND WALLS

SUMP PIT  
 SEE ENGINEERING DRAWINGS  
 & FOUNTAIN DRAWINGS  
 SEAL AS NECESSARY

EXIST. PLANTER  
 WALL TO STAY  
 REPAIR AS NECESSARY  
 TO MATCH EXISTG.

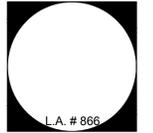
EXIST COLUMN BELOW TO STAY  
 REPAIR AS NECESSARY  
 EXIST COLUMN 6\"/>

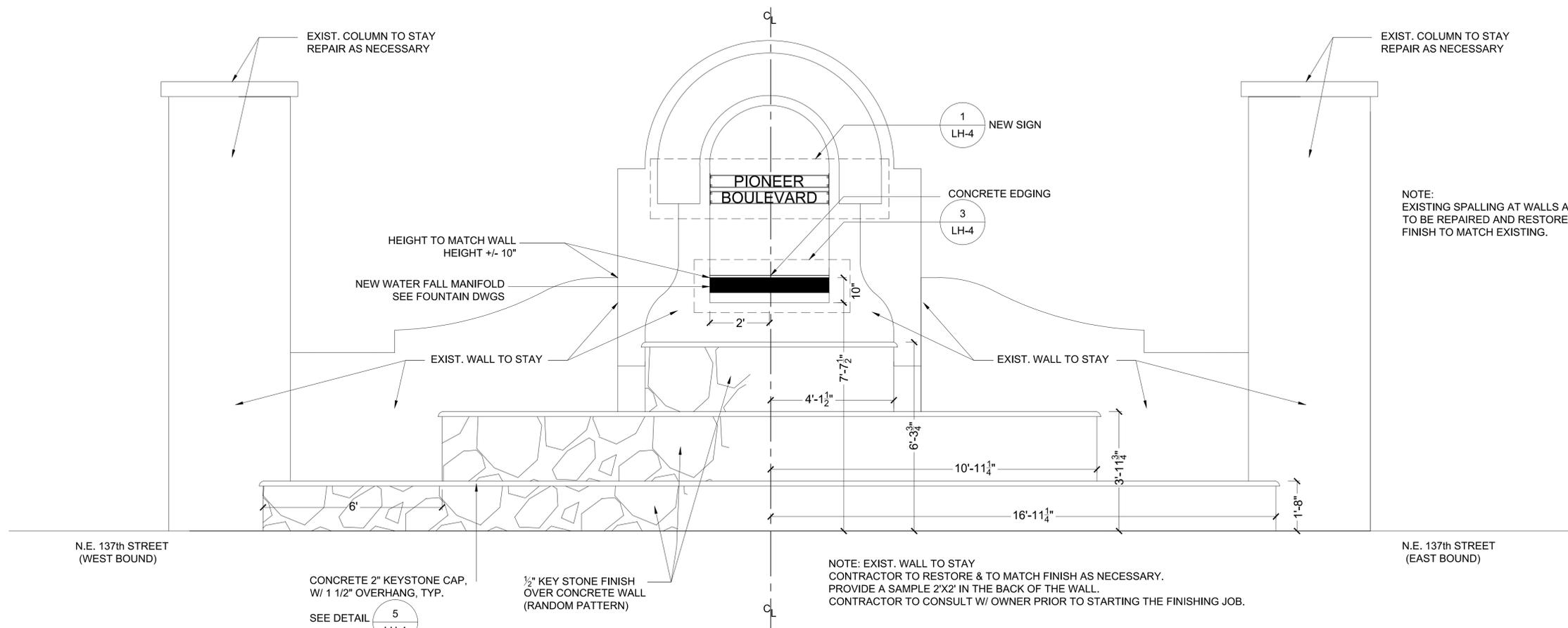
9 LIGHT FIXTURE 2\"/>

PROPOSED 8\"/>

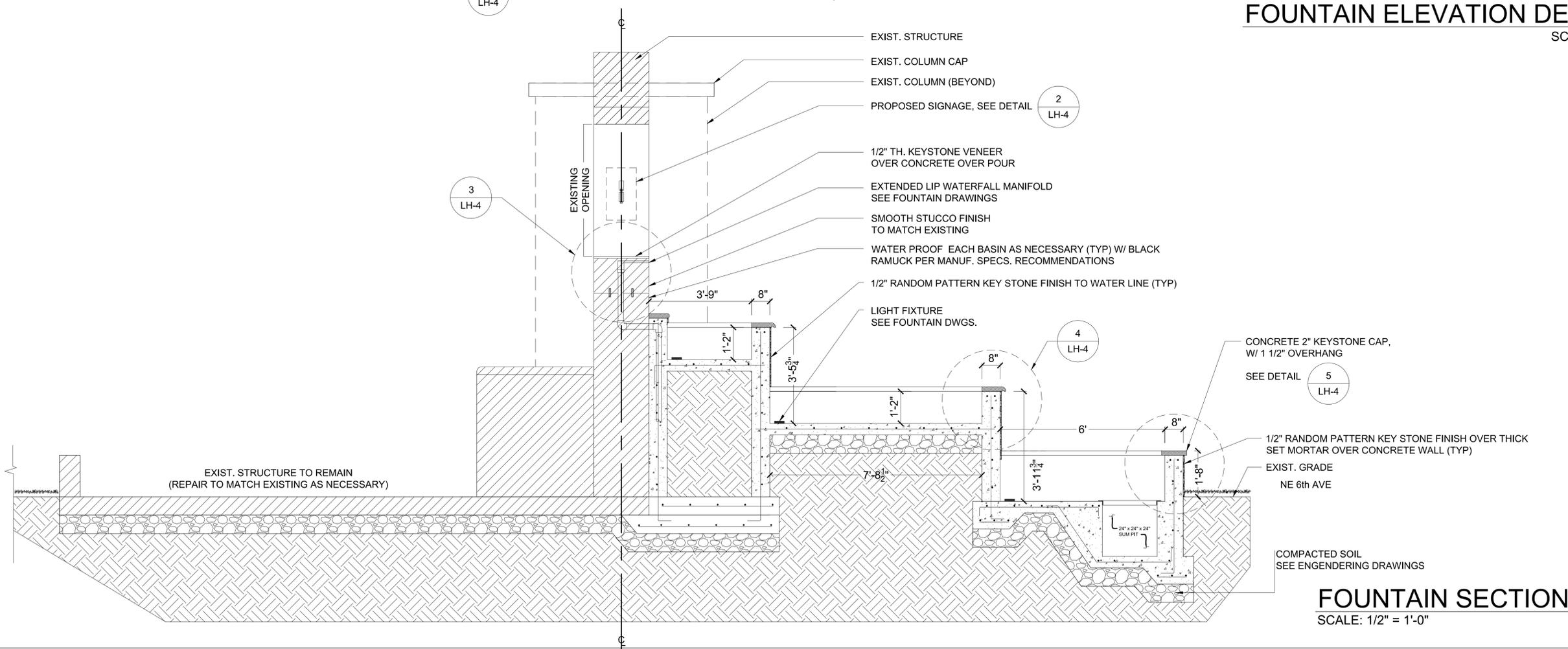
**PROPOSED FOUNTAIN PLAN**  
 SCALE: 3/8" = 1'-0"

1  
 LH-3

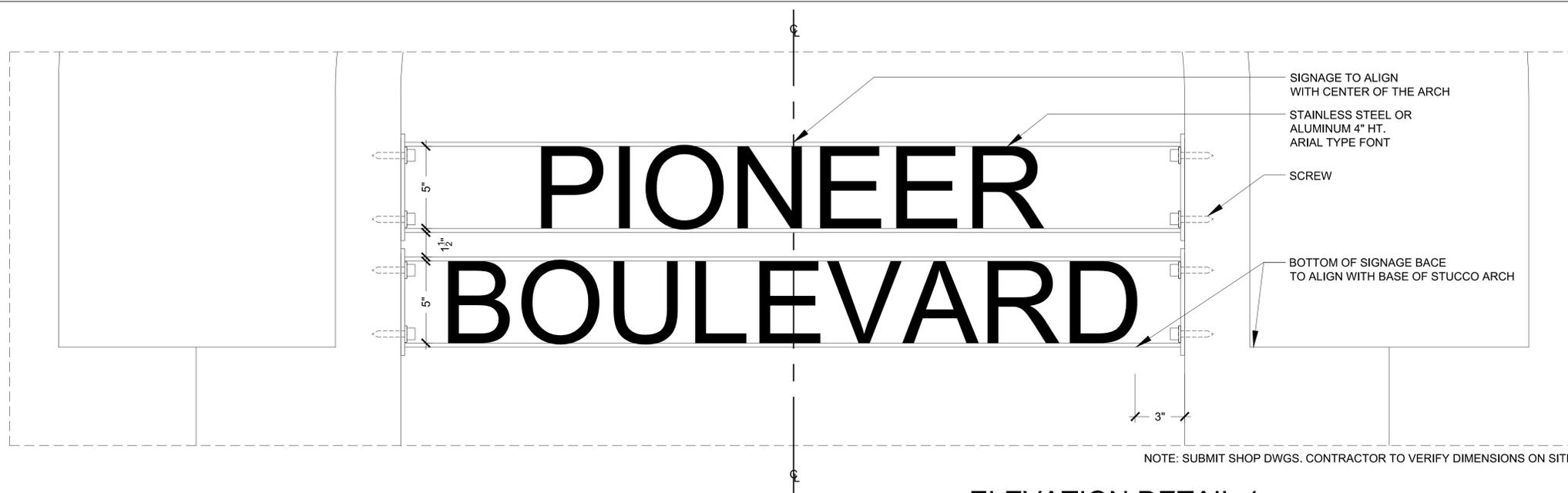




**FOUNTAIN ELEVATION DETAIL 1**  
 SCALE: 1/2" = 1'-0"



**FOUNTAIN SECTION DETAIL 2**  
 SCALE: 1/2" = 1'-0"

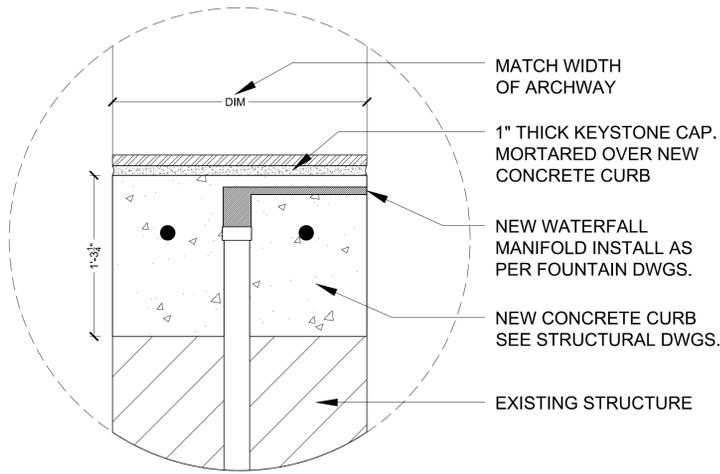


**ELEVATION DETAIL 1**

FOUNTAIN SIGNAGE ELEVATION

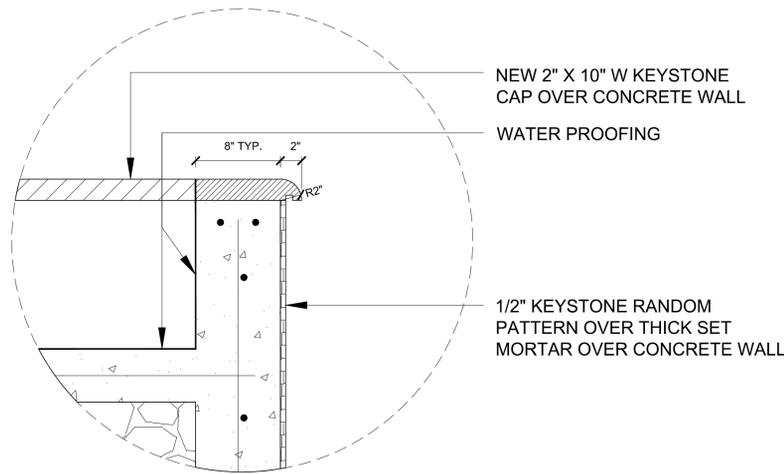
SCALE: 1" = 1'-0"

NOTE: SUBMIT SHOP DWGS. CONTRACTOR TO VERIFY DIMENSIONS ON SITE.



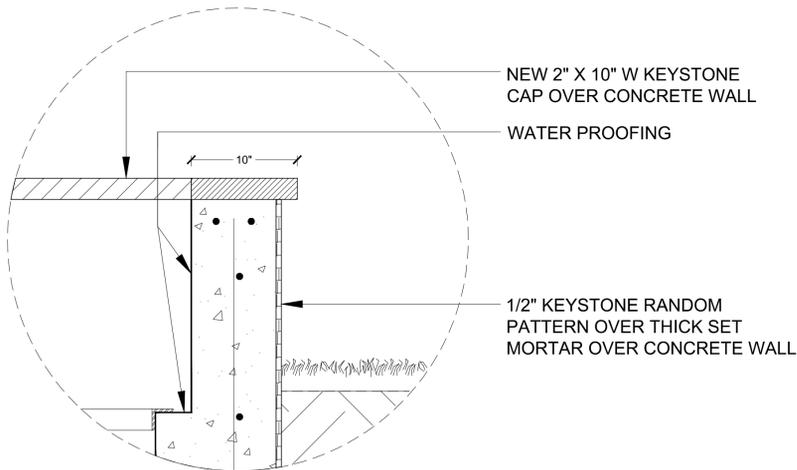
**DETAIL SECTION 3**

SCALE: 1-1/2"=1'-0"



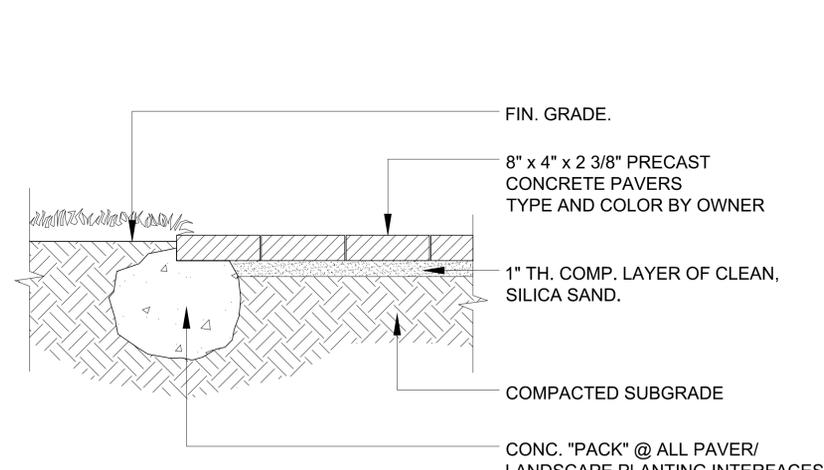
**DETAIL SECTION 4**

SCALE: 1-1/2"=1'-0"



**DETAIL SECTION 5**

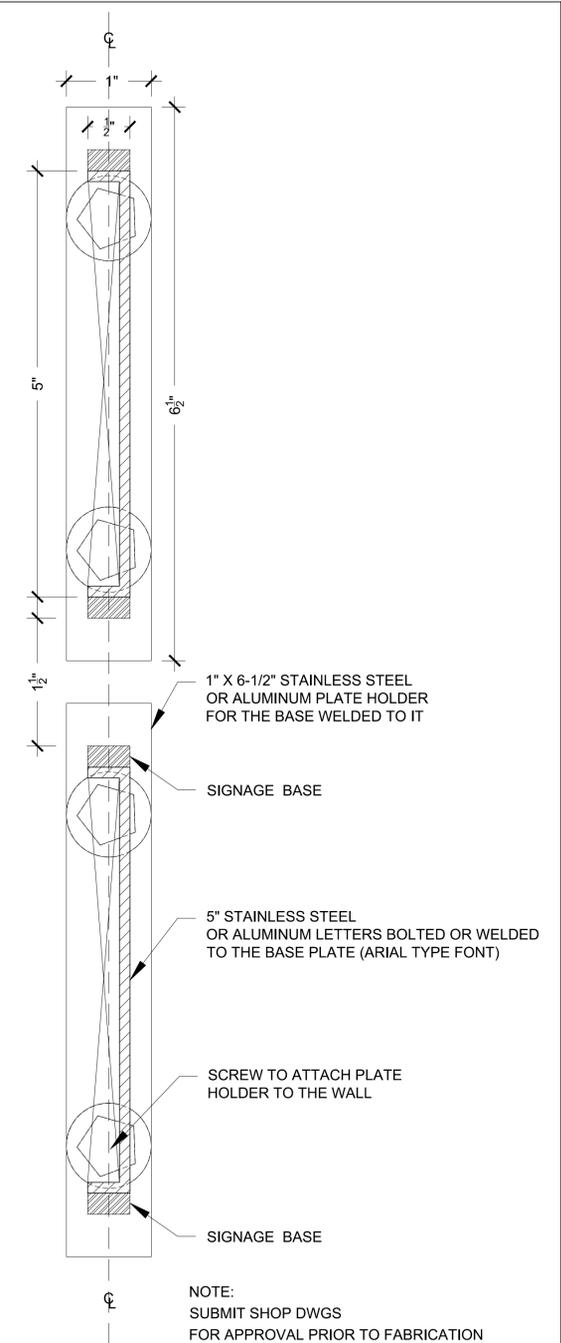
SCALE: 1-1/2"=1'-0"



**DETAIL SECTION 6**

TYPICAL CONCRETE PAVER SECTION - PEDESTRIAN

SCALE: 1-1/2"=1'-0"



**DETAIL 2**

FOUNTAIN SIGNAGE SECTION

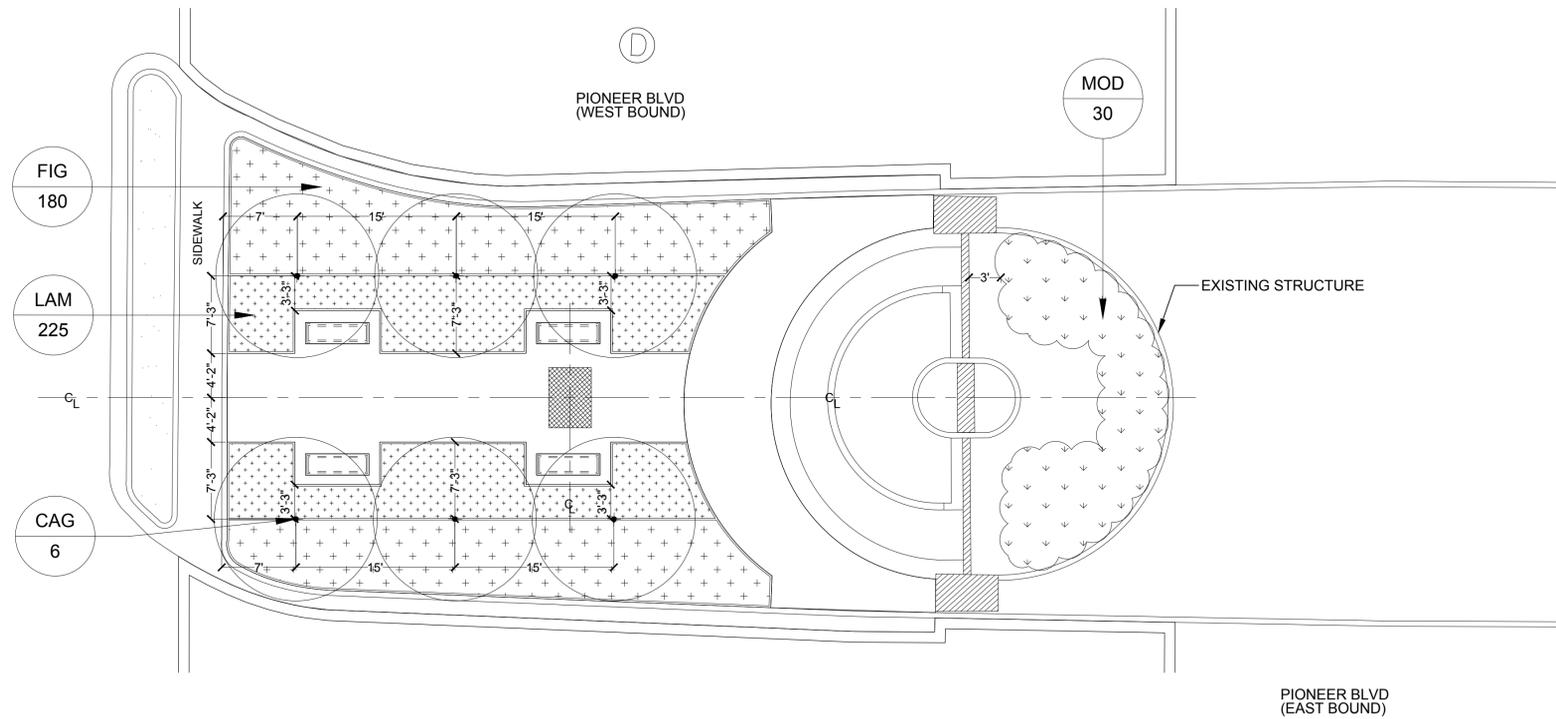
SCALE: 1"=1'

NOTE:  
 SUBMIT SHOP DWGS  
 FOR APPROVAL PRIOR TO FABRICATION

PIONEER BLVD - MASTER PLANT LIST			
KEY	QTY.	BOTANICAL/Common NAME	SIZE
<b>TREES</b>			
CAG	14	Caesalpinia granidillo Bridal Veil	10'-12" Ht. x 6'-7" Spr., 25 gal.
<b>PALMS</b>			
VEM	4	Veitchia winin Winin Palm	18' - 20' OA Ht., B&B triple trunk
<b>SHRUBS &amp; GROUNDCOVERS</b>			
BUF	146	Bulbine frutescens Cat's Tail Lily	6" OA, 1 gal.
FIG	1000	Ficus microcarpa 'Green Island' / Ficus Green Isle	18"-20" Ht., 3g, Full, 24" OC
LAM	715	Lantana montevidensis Purple Lantana	9"-12" OA, 1 gal., 15" OC
MOD	30	Monstera deliciosa / Monstera	18"-24" OA, 3 gal., 36" OC

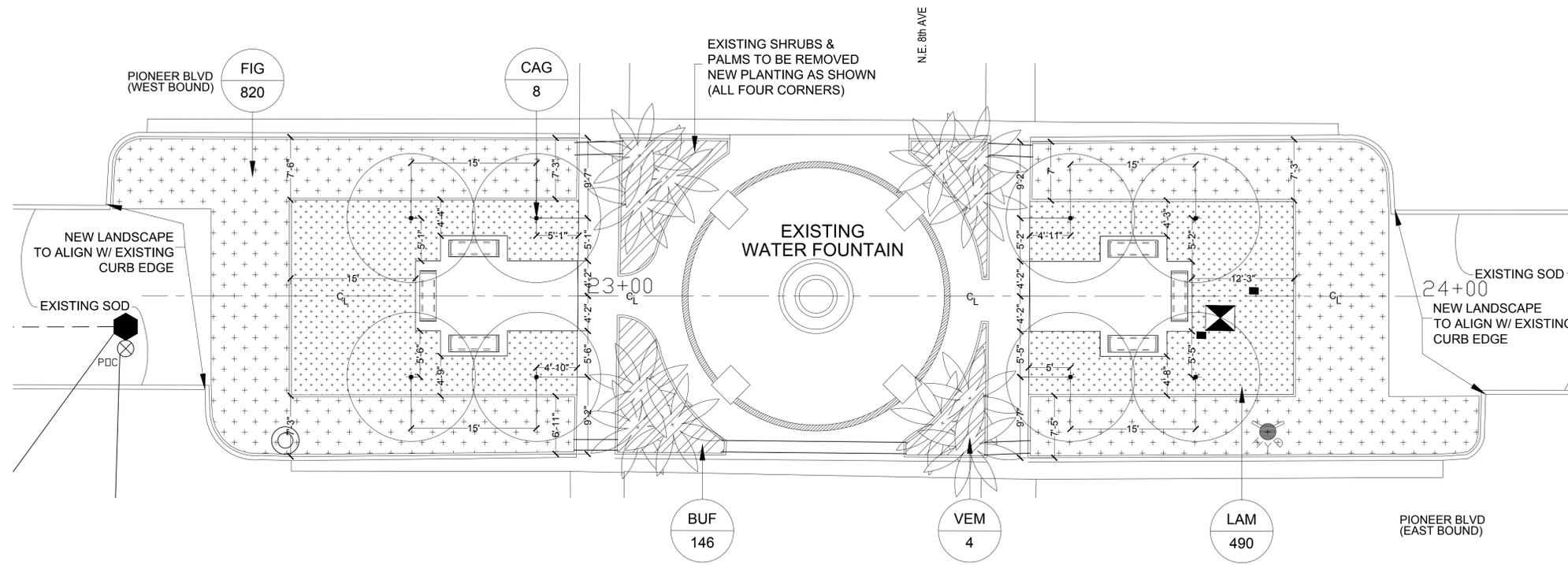
LEGEND:

-  PROPOSED NEW BENCH LOCATION
-  NEW LOCATION PUMP PIT (SEE FOUNTAIN DRAWINGS) COORDINATE W/ FOUNTAIN CONTRACTOR FOR SIZE & DEPTH.
-  EXISTING UTILITY BOX
-  EXISTING ELECTRICAL BOX



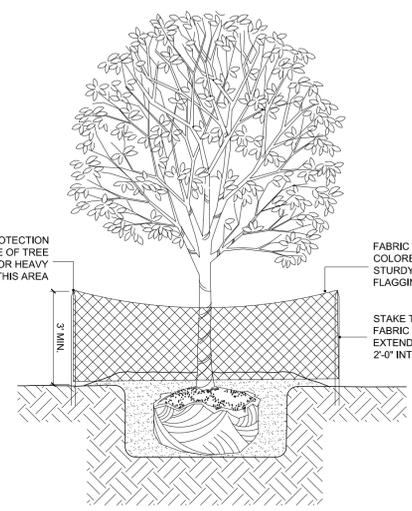
PIONEER BLVD ENTRANCE FOUNTAIN PLANTING LAYOUT DETAIL

SCALE: 1/8" = 1'-0"

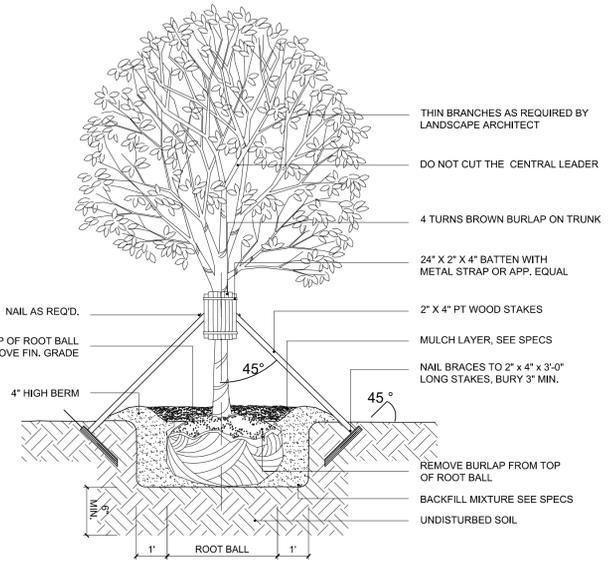


FROG POND PLANTING LAYOUT DETAIL

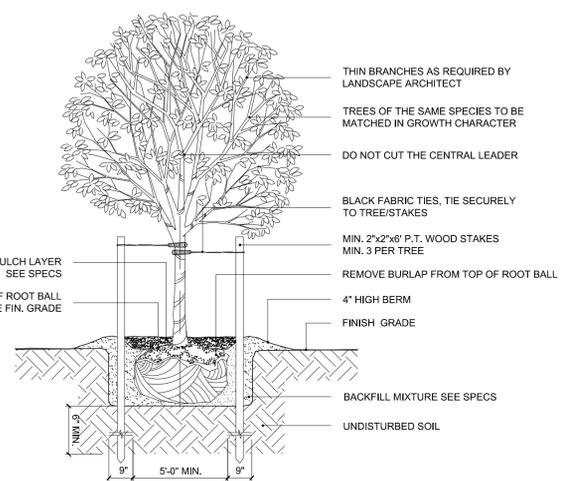
SCALE: 1/8" = 1'-0"



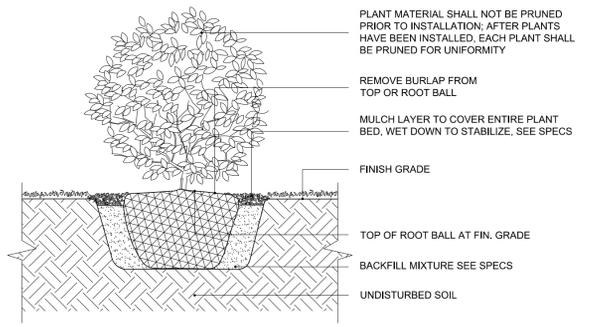
**1** TREE/PALM PROTECTION DETAIL  
NTS



**2** LARGE TREE STAKING DETAIL  
NTS



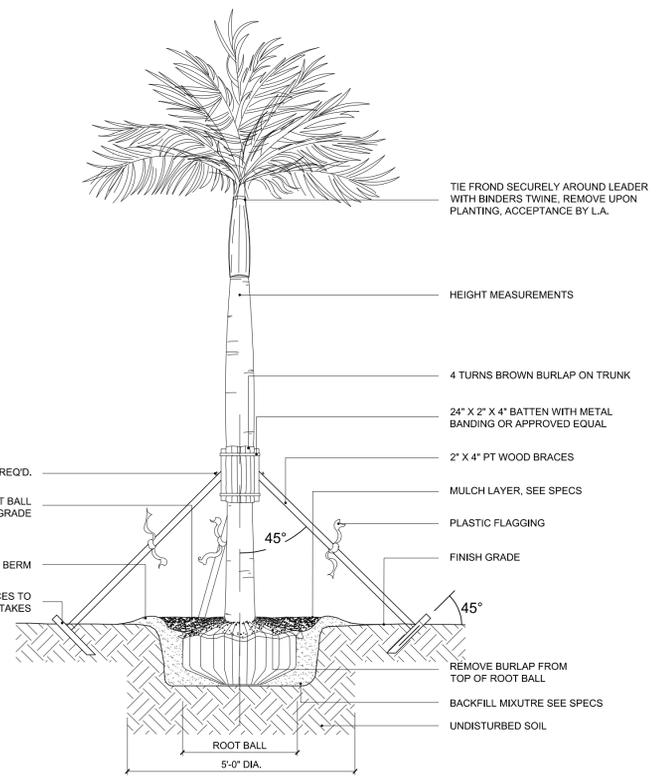
**3** SMALL TREE GUYING DETAIL  
NTS



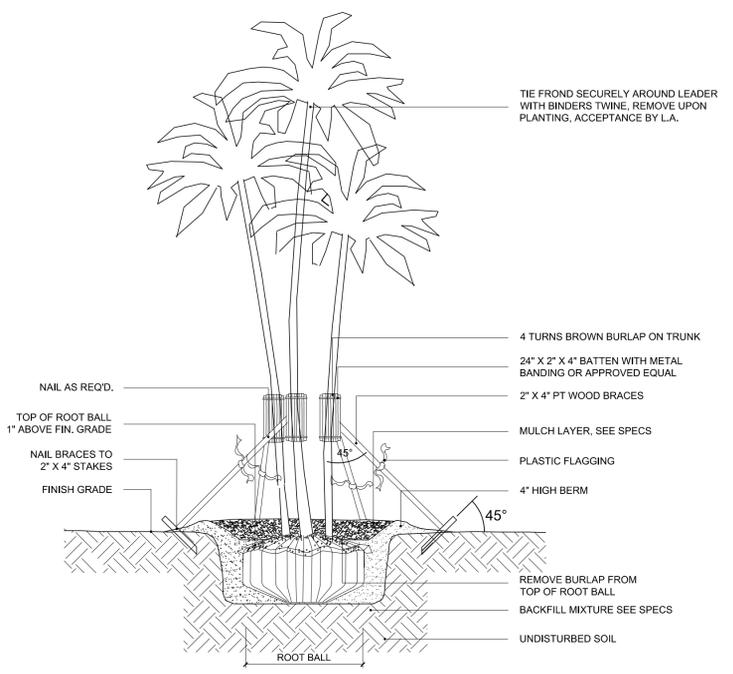
**4** SHRUB DETAIL  
NTS

**GENERAL NOTES**

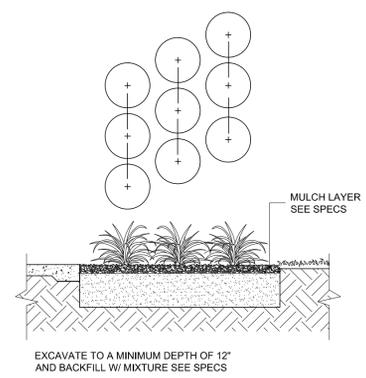
- All plants furnished by the Landscape Contractor unless otherwise specified shall be Florida No. 1 or better, and shall be specified in Grades and Standards for Nursery Plants, Part 1 (2nd Ed., 1998) by the Florida Department of Agriculture and Consumer Services Division of the plant industry.
- All shrubs and groundcovers shall be guaranteed for six months from date of final acceptance. All trees and palms shall be guaranteed for one year from date of final acceptance. The Contractor shall be responsible to remove all the failing plant materials and replace them with the same kind and size material as specified in the plant list, with the same guarantee as initial planting.
- Contractor shall familiarize him/herself with the limits of work and existing conditions and verify all information. Where discrepancies with quantities and/or species differ between the planting plan(s) and the plant list, the contractor shall notify owner's representative in writing within seven (7) calendar days of notice to proceed. No changes shall be made without the prior, written consent of the Landscape Architect and/or Owner.
- Any substitution in size and/or plant material must be approved by the Landscape Architect in writing. All plants will be subject to approval by the Landscape Architect and/or owner's representative before planting can begin.
- All biodegradable burlap shall be untied and pulled down on the ball. Wire baskets and other non-biodegradable material attached to plants shall be removed prior to planting. Care shall be taken not to break or disturb rootball of plants.
- All plants shall be watered immediately after planting.
- Planting soil shall be weed-free, and consist of 70% clear silica sand and 30% Everglades muck. Mix planting soil with excavated soil in 1:1 ratio.
- All planting beds to be weed and grass free. Contractor shall apply herbicide to soil as recommended by manufacturer.
- Contractor shall notify all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities and other obstructions and coordinate with owner's representative in writing prior to initiating operations.
- Landscape Contractor shall locate and verify all underground utilities and obtain As-Built information prior to digging. Drawings were prepared according to the best information available at the time. Contractor shall notify owner's representative in writing within seven (7) calendar days of notice to proceed with any discrepancies.
- All trees and palms shall be staked as shown in the plans. No nail staking permitted.
- Typically, shrub and groundcover plantings are shown as mass planting beds. Plants shall be placed on a triangular spacing configuration (staggered spacing). Plant center to center dimensions (O.C.) are listed on the plant list.
- The Contractor shall bear all costs of testing of soils, amendments, etc. associated with the work and included in the specifications.
- All trees shall be fertilized at installation with "Agriform Pills", 21 gram size, with a 20-10-5 formulation, (or approved equal), according to manufacturer's recommendations.
- All palms and other plants shall be fertilized at installation with Florida Atlantic East Coast Fertilizer "Palm Special" 8-4-12 time-release fertilizer (with slow release sulphur) according to manufacturer's recommendations, unless otherwise approved by the Landscape Architect.
- Cover all planting beds with a minimum of 3" layer of shredded Metaleuca, or Eucalyptus mulch, Grade B. Do not use Cypress Mulch.
- A fully automatic, zoned irrigation system, equipped with an automatic rain sensor and providing 100% coverage of planted areas with minimum 75% overlap, shall be installed by the Contractor. Adjust irrigation nozzles to avoid overspray onto adjacent building, sidewalks, asphalt paving, and properties.
- Contractor shall provide maintenance, including mowing, pruning, trimming, fertilization and application of pesticide, as required for all landscape areas for a period of one year after Final Approval of landscape installation.
- All vegetation maintenance that does not damage plants as defined by Department of Environmental Protection and DERM, including trimming, shearing, pruning, dead heading and other accepted horticultural practices is exempt from permit requirements.



**5** LARGE PALM STAKING DETAIL  
NTS



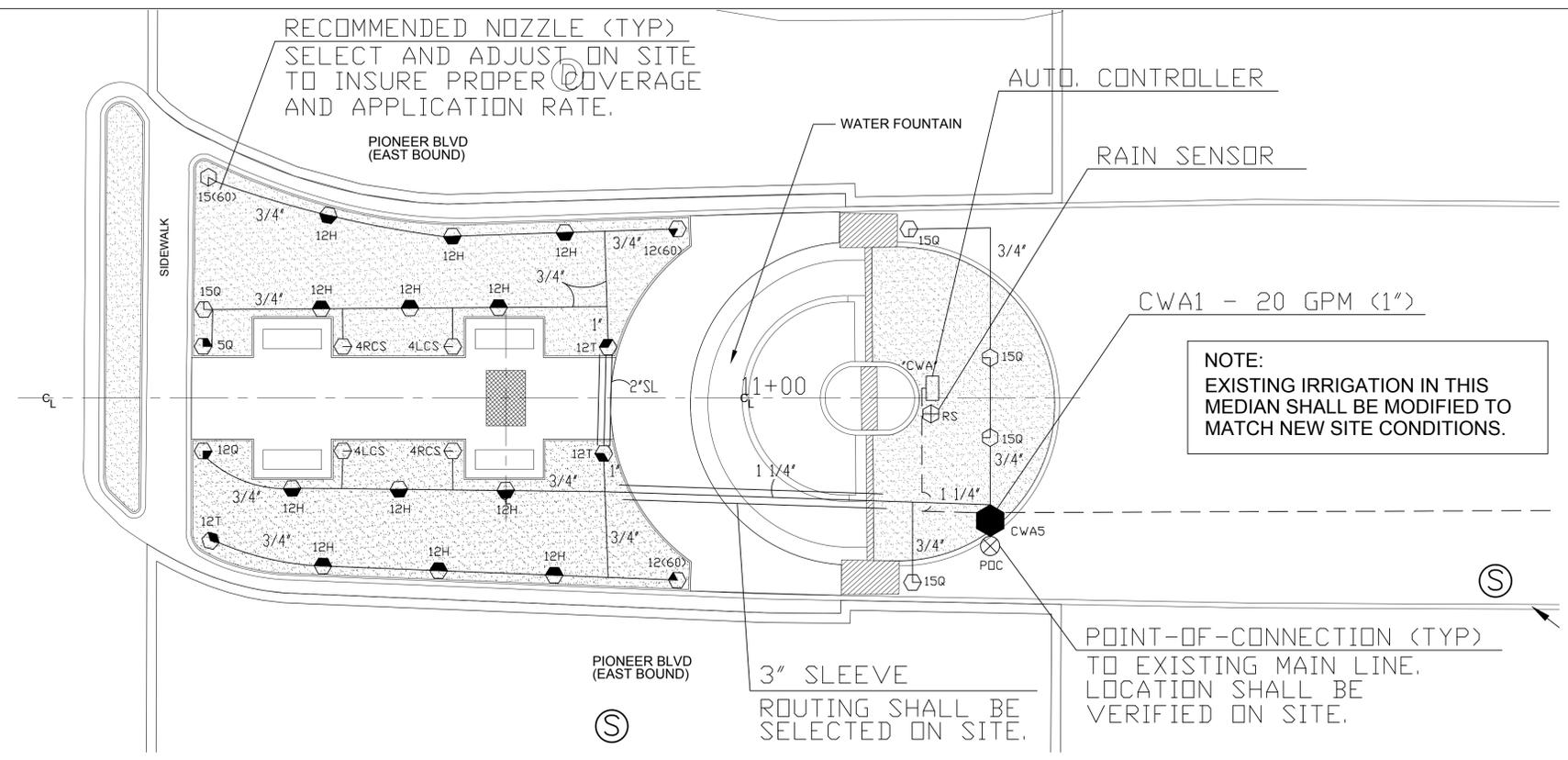
**6** MULTI-TRUNK PALM STAKING DETAIL  
NTS



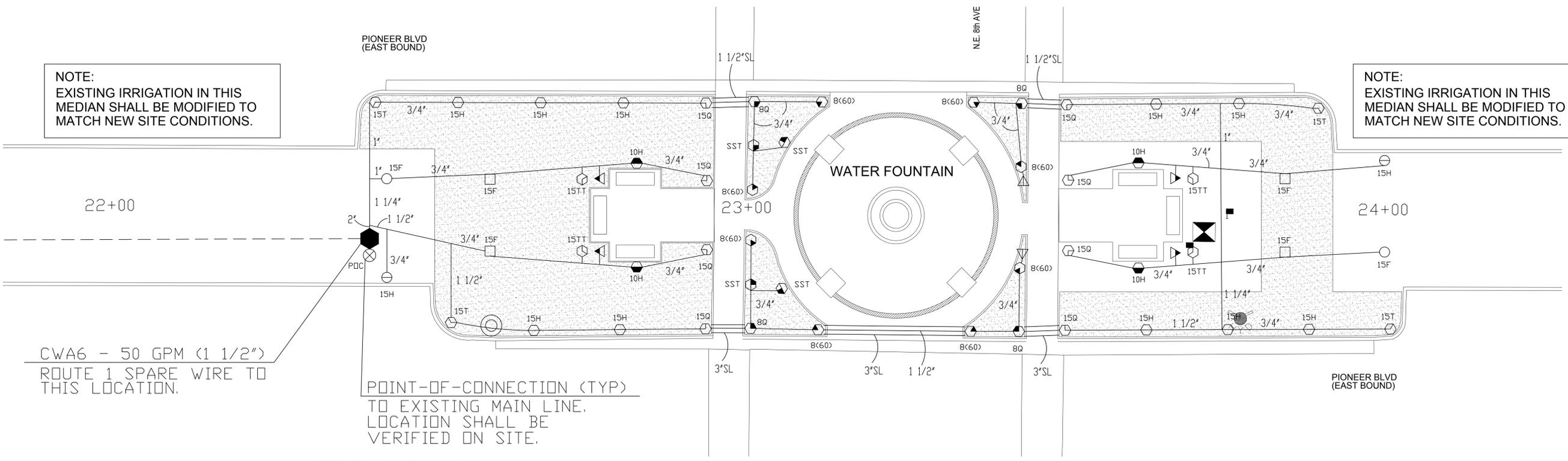
**7** GROUNDCOVER SPACING DETAIL  
NTS

Z:\PROJECTS\PIONEER BOULEVARD - NORTH MIAMI\DRAWINGS & IMAGES\CAD DRAWINGS\Construction Documents\2012-02-23\_PioneerBoulevard PHASE II. Courtney

- LEGEND:**
-  PLANTING AREAS
  -  NEW LOCATION PUMP PIT (SEE FOUNTAIN DRAWINGS) COORDINATE W/ FOUNTAIN CONTRACTOR FOR SIZE & DEPTH.
  -  EXISTING UTILITY BOX
  -  EXISTING ELECTRICAL BOX



**PIONEER BLVD ENTRANCE FOUNTAIN IRRIGATION PLAN**  
SCALE: 1/8" = 1'-0"



**FROG POND IRRIGATION PLAN**  
SCALE: 1/8" = 1'-0"

**LEGEND**

SYMBOL	MODEL NO.	DESCRIPTION	* EST. QUANTITY
▲	570S-SB-90	TDR STREAM BUBBLER	02
▲	570S-SB-2S-180	TDR STREAM BUBBLER	02
■	570S-XF-DT-12Q	TDR SHRUB SPRAY	04
■	570S-XF-DT-12F	TDR SHRUB SPRAY	02
■	570S-XF-DT-15Q	TDR SHRUB SPRAY	04
■	570S-XF-DT-15F	TDR SHRUB SPRAY	04
⊙	570Z-6P-XF-DT-15(1500)	TDR 6" POP-UP SPRAY	05
⊙	570Z-6P-XF-DT-15H	TDR 6" POP-UP SPRAY	10
⊙	570Z-6P-XF-DT-15F	TDR 6" POP-UP SPRAY	06
⊙	570Z-12P-XF-DT-8(60)	TDR 12" POP-UP SPRAY	08
⊙	570Z-12P-XF-DT-8Q	TDR 12" POP-UP SPRAY	04
⊙	570Z-12P-XF-DT-10H	TDR 12" POP-UP SPRAY	04
⊙	570Z-12P-XF-DT-12(60)	TDR 12" POP-UP SPRAY	03
⊙	570Z-12P-XF-DT-12Q	TDR 12" POP-UP SPRAY	09
⊙	570Z-12P-XF-DT-12T	TDR 12" POP-UP SPRAY	05
⊙	570Z-12P-XF-DT-12(1500)	TDR 12" POP-UP SPRAY	01
⊙	570Z-12P-XF-DT-12H	TDR 12" POP-UP SPRAY	24
⊙	570Z-12P-XF-DT-12TT	TDR 12" POP-UP SPRAY	01
⊙	570Z-12P-XF-DT-15(60)	TDR 12" POP-UP SPRAY	02
⊙	570Z-12P-XF-DT-15Q	TDR 12" POP-UP SPRAY	16
⊙	570Z-12P-XF-DT-15T	TDR 12" POP-UP SPRAY	04
⊙	570Z-12P-XF-DT-15(1500)	TDR 12" POP-UP SPRAY	02
⊙	570Z-12P-XF-DT-15H	TDR 12" POP-UP SPRAY	08
⊙	570Z-12P-XF-DT-15TT	TDR 12" POP-UP SPRAY	04
⊙	570Z-12P-XF-DT-15TQ	TDR 12" POP-UP SPRAY	02
⊙	4RCS	570Z-12P-XF-DT-4RCSTDR	02
⊙	4LCS	570Z-12P-XF-DT-4LCSTDR	02
⊙	4SST	570Z-12P-XF-DT-4SSTDR	04
●	P220 SERIES	TDR 24 VAC SOLENOID VALVE	
		1"	02
		1 1/2"	02
□	ESPLXM	RAIN BIRD AUTO. CONTROLLER	02
⊕	RSD-BEX	RAIN BIRD RAIN SENSOR	02
NOT SHOWN		PAIGE DIRECT BURIAL UF WIRE	AS REQUIRED
		#12 AWG COMMON	
		#14 AWG CONTROL	
		SCH 40 PVC	AS REQUIRED
		LATERALS	
		SLEEVES	
NOT SHOWN		SPRINKLER RISERS	
NOT SHOWN		FITTINGS	
●		VALVE BOX	04
□		GROUND LOCATION	02
⊙		POINT-OF-CONNECTION	04

NOTE: ABOVE QUANTITIES ARE FOR COMPARISON ONLY.  
CONTRACTOR SHALL VERIFY PRIOR TO SUBMITTING BID.

**ZONE SUMMARY CHART**

**CONTROLLER CWA**

STA NO.	VALVE	SPRINKLER TYPE	VALVE SIZE	WATER DEMAND	RUN *TIME	WEEKLY USAGE
1	CWA1	EXISTING	--	-- GPM	-- MIN/WK	---
2	CWA2	EXISTING	--	-- GPM	-- MIN/WK	---
3	CWA3	EXISTING	--	-- GPM	-- MIN/WK	---
4	CWA4	EXISTING	--	-- GPM	-- MIN/WK	---
5	CWA5	SPRAY	1"	20 GPM	60 MIN/WK	1,200 GAL/WK
6	CWA6	SPRAY	1 1/2"	50 GPM	60 MIN/WK	3,000 GAL/WK
7-8	SPARE					

\* TO APPLY 1.5 IN/WK

**CONTROLLER CWB**

STA NO.	VALVE	SPRINKLER TYPE	VALVE SIZE	WATER DEMAND	RUN *TIME	WEEKLY USAGE
1	CWB1	EXISTING	--	-- GPM	-- MIN/WK	---
2	CWB2	EXISTING	--	-- GPM	-- MIN/WK	---
3	CWB3	EXISTING	--	-- GPM	-- MIN/WK	---
4	CWB4	EXISTING	--	-- GPM	-- MIN/WK	---
5	CWB5	SPRAY	1 1/2"	31 GPM	60 MIN/WK	1,860 GAL/WK
6	CWB6	SPRAY	1"	20 GPM	60 MIN/WK	1,200 GAL/WK
7-8	SPARE					

\* TO APPLY 1.5 IN/WK

**IRRIGATION NOTES & SPECIFICATIONS**

AUTOMATIC IRRIGATION SYSTEM  
WATER DEMAND / ZONE REFER TO PLAN  
WATER SOURCE EXISTING SYSTEM  
PRESSURE REQUIRED 50 PSI

**GENERAL**

IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, CONTRACT DRAWINGS, CONTRACT SPECIFICATIONS, AND APPENDIX "F" OF THE FLORIDA BUILDING CODE.

IRRIGATION DESIGN BASED ON "PLANTING PLAN" DATED JULY 6, 2011. CONTRACTOR SHALL REFER TO THIS PLAN TO COORDINATE SPRINKLER LOCATIONS AND PIPE ROUTING WITH NEW AND EXISTING PLANT LOCATIONS.

THIS IRRIGATION PLAN SHALL BE USED AS A GUIDE ONLY. CONTRACTOR SHALL INSTALL IRRIGATION TO MATCH ON SITE CONDITIONS AND TO OVERCOME THE INHERENT INACCURACIES THAT RESULT WHEN DESIGNING FROM BASE PLANS SCALED AT 1" = 40' 0".

THIS IRRIGATION HAS BEEN DESIGNED AS A TYPICAL BLOCK VALVE TYPE USING TDR SPRAY SPRINKLERS IN-LINE VALVES, AND A RAIN BIRD CONTROL SYSTEM. WATER CONSERVATION EQUIPMENT SHALL BE INSTALLED.

THE SOURCE SHALL BE THE EXISTING SYSTEM FOR THE MEDIAN. THE LOCATION OF EACH POINT-OF-CONNECTION TO EXISTING MAIN LINE SHALL BE VERIFIED ON SITE.

CONTRACTOR IS ADVISED TO VISIT THE SITE TO BECOME FAMILIAR WITH ON SITE CONDITIONS, AND TO REFER TO THE PLAN FOR ADDITIONAL INFORMATION.

CONTRACTOR SHALL BE REQUIRED TO INSTALL NEW IRRIGATION AND MODIFY EXISTING IRRIGATION TO INSURE PROPER COVERAGE IN AREAS COMMON TO BOTH SYSTEM. ALL IRRIGATION SHALL BE IN GOOD WORKING ORDER UPON COMPLETION OF THE PROJECT.

TO ENSURE PROPER OPERATION, PRESSURE REQUIRED, VALVE SIZE, ZONE CAPACITIES, SPRINKLER SPACING, PIPE AND WIRE SIZES, INSTALLATION NOTES AND DETAILS, AND SPECIFICATIONS SHALL BE FOLLOWED AS SHOWN.

**PIPING**

PIPE ROUTING IS SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS.

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND PIPE MANUFACTURER'S INSTRUCTIONS.

PIPE ROUTED UNDER HARDSCAPED AREAS SHALL BE SLEEVED IN SCH 40 PVC. EACH SLEEVE SHALL: (1) BE BURIED TO A MINIMUM DEPTH OF 18"; (2) BE TWO PIPE SIZES LARGER THAN CARRIER PIPE, AND (3) EXTEND 3' BEYOND HARDSCAPED AREA ON EACH END. CONTRACTOR SHALL VERIFY THE SIZE, DEPTH AND LOCATION OF ALL EXISTING SLEEVES.

PIPE AND FITTINGS SHALL BE SCH 40 TYPE 1120 PVC.

PIPE SIZED TO LIMIT FLOW VELOCITIES TO 5 FEET/SECOND AND TO LIMIT FRICTION LOSS IN THE PIPING NETWORK.

PIPE SHALL BE INSTALLED AT SUFFICIENT DEPTH BELOW GROUND TO PROTECT IT FROM HAZARD SUCH AS VEHICULAR TRAFFIC OR ROUTINE OCCURRENCES WHICH OCCUR IN THE NORMAL USE AND MAINTENANCE OF THE PROPERTY. DEPTHS OF COVER SHALL MEET OR EXCEED SCS CODE 430-DD. REFER TO THE APPLICABLE DETAIL FOR ADDITIONAL INFORMATION.

BACKFILL SHALL BE OF SUITABLE MATERIAL, FREE OF ROCKS, STONES, AND OTHER DEBRIS THAT WOULD DAMAGE IRRIGATION SYSTEM COMPONENTS.

THE LOCATION OF POINTS-OF-CONNECTION TO EXISTING MAIN LINE SHALL BE VERIFIED ON SITE.

**SPRINKLERS**

SPRINKLER LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR LANDSCAPING, SITE LIGHTING, PREVAILING WIND, UTILITIES, ETC., TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. A PRIME OBJECTIVE SHALL BE TO ELIMINATE UNDESIRABLE OVERTHROW.

SPRAY HEADS SHALL BE TDR 570 SERIES, SIX INCH POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH SOD AND MULCH, 12" POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH GROUND COVER AND LOW SHRUBS, SHRUB HEADS SHALL BE INSTALLED IN AREAS LANDSCAPED WITH TALL SHRUBS, AND BUBBLERS SHALL BE INSTALLED IN NARROW LANDSCAPED AREAS.

POP-UP SPRINKLERS LOCATED IN SOD AND LOW GROUND COVER SHALL BE INSTALLED ON FLEXIBLE SWING JOINTS CONSISTING OF THICKWALLED POLY PIPE AND 1/2" INSERT ELBOWS.

POP-UP SPRINKLERS LOCATED IN LOW SHRUBS SHALL BE INSTALLED ON PVC SWING JOINTS WITH 1/2" SCH 40 PVC RISERS TO A HEIGHT SO SPRINKLERS ARE CONCEALED FROM VIEW EXCEPT DURING USE.

SHRUB HEADS AND BUBBLERS SHALL BE INSTALLED ON 1/2" SCH 40 PVC RISERS. SHRUB HEADS SHALL BE INSTALLED TO A STANDARD HEIGHT OF 6" ABOVE PLANTS AND SHALL BE LOCATED WITHIN PLANTS TO BE CONCEALED FROM VIEW. BUBBLERS SHALL BE INSTALLED AT THE BASE OF SHRUBS FOR LOW LEVEL WATERING. RISERS SHALL BE BLACK TO BE LESS VISIBLE.

EACH SPRINKLER SHALL BE EQUIPPED WITH THE APPROPRIATE MPR OSCILLATING SPRAY TYPE NOZZLE AND X-FLO FEATURE.

SPRINKLERS SHALL BE INSTALLED AND MAINTAINED AT THE PROPER HEIGHT TO ELIMINATE THE CHANCE OF INJURY AND TO MINIMIZE OVERTHROW ONTO PAVEMENT.

ADJUSTMENT FEATURES OF SPRINKLERS SPECIFIED SHALL BE UTILIZED TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW.

SPRINKLERS LOCATED ADJACENT TO HARDSCAPED AREAS SHALL BE INSTALLED AWAY FROM HARDSCAPED AREAS TO MINIMIZE OVERTHROW AND THE CHANCE OF DAMAGE BY VEHICLES, PEDESTRIANS, AND LAWN MAINTENANCE PERSONNEL. AS A GENERAL RULE, 6" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 4" AND SHRUB HEADS AND 12" POP-UP SPRAYS SHALL BE INSTALLED IN 12". REFER TO INSTALLATION DETAILS FOR ADDITIONAL INFORMATION.

**CONTROL SYSTEM**

A RAIN BIRD ESP SERIES 24 VOLT ELECTRIC CONTROL SYSTEM HAS BEEN SPECIFIED. FOR EACH AREA, ONE 8 STATION CONTROLLER SHALL ACTIVATE TWO NEW VALVES AND FOUR EXISTING VALVES. A RAIN SENSOR SHALL BE INSTALLED PER CONTROLLER TO CONSERVE WATER.

CONTROLLERS SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND MANUFACTURER'S INSTRUCTIONS. PROPER GROUNDING FOR PROTECTION FROM LIGHTNING SHALL BE ESTABLISHED.

CONTROLLER LOCATIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE. A 110 VAC ELECTRIC SOURCE IS REQUIRED.

CONTROL LINES FROM AUTOMATIC CONTROLLERS TO NEW AND EXISTING IN-LINE AUTOMATIC VALVES SHALL BE #14 AWG DIRECT BURIAL UNDERGROUND FEED TYPE WHICH SHALL BE: (1) INSTALLED IN ACCORDANCE WITH LOCAL CODES; (2) SLEEVED WHEN ROUTED UNDER PAVEMENT, AND (3) SPliced MOSTLY AT VALVE LOCATIONS. SPLICES SHALL BE MADE WATERPROOF USING APPROVED METHODS. SPARE WIRES SHALL BE ROUTED FROM EACH CONTROLLER IN ALL DIRECTIONS TO THE FARTHEST VALVES CONTROLLED.

AUTOMATIC VALVE LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS. EACH VALVE SHALL BE INSTALLED IN A VALVE BOX. A MINIMUM OF ONE CUBIC FOOT OF GRAVEL SHALL BE PROVIDED PER BOX TO PROMOTE DRAINAGE.

WATER CONSERVATION EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. EACH RAIN SENSOR SHALL BE PLACED ON A STATIONARY STRUCTURE, MINIMUM OF 5' CLEARANCE FROM OTHER OUTDOOR EQUIPMENT, FREE AND CLEAR OF ANY TREE CANOPY OR OTHER OVERHEAD OBSTRUCTION, AND ABOVE THE HEIGHT OF SPRINKLER COVERAGE.

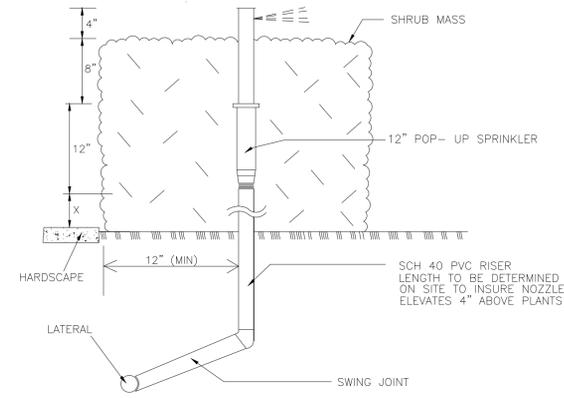
**TIMING AND PRECIPITATION**

TIMING OF EACH STATION SHALL BE SET IN THE FIELD TO MATCH LOCAL REQUIREMENTS. REFER TO ZONE SUMMARY CHARTS FOR RECOMMENDED RUN TIMES TO APPLY 1.5 INCHES/WEEK.

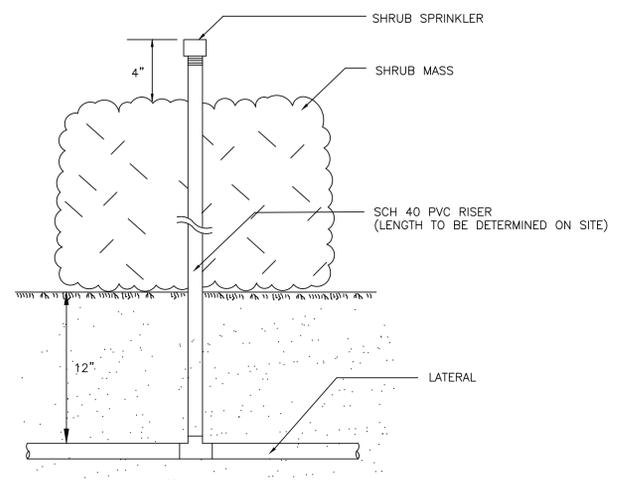
**PROGRAMMING**

SYSTEM SHALL BE PROGRAMMED TO INSURE IRRIGATION IS COMPLETED WITHIN THE GUIDELINES DEFINED FOR PHASE II WATER RESTRICTIONS.

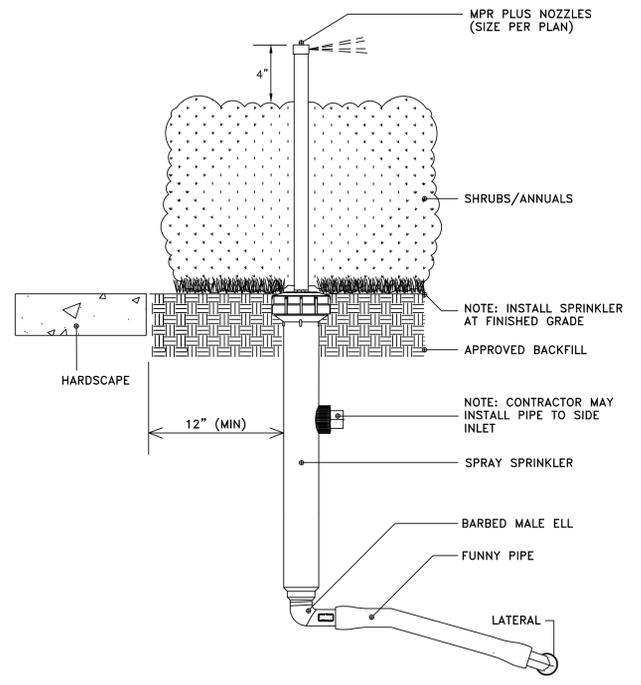
NOTE:  
EXISTING IRRIGATION IN THIS  
MEDIAN SHALL BE MODIFIED TO  
MATCH NEW SITE CONDITIONS.



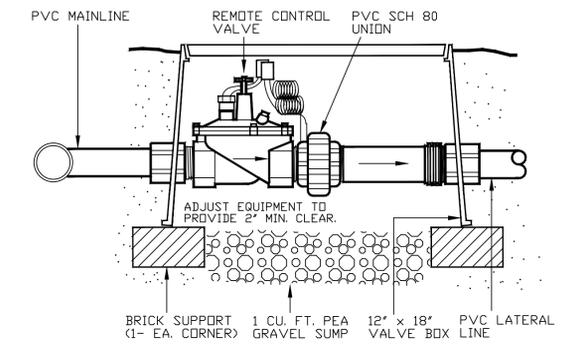
**SPRINKLER DETAIL (NTS)**  
12" POP-UP ON PVC SWING JOINT WITH RISER LOCATED IN PLANT MASS MAINTAINED TO A MINIMUM HEIGHT OF 18".



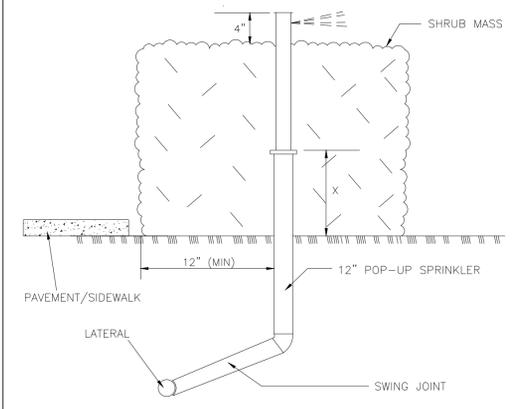
**SPRINKLER DETAIL (NTS)**  
SHRUB SPRAY ON RISER AT INTERIOR LOCATION IN PLANT MASS.



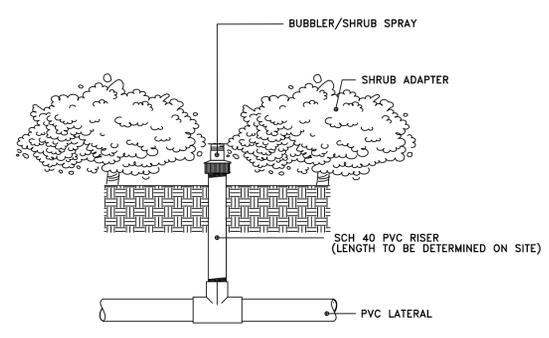
**SPRINKLER DETAIL (NTS)**  
12" POP-UP SPRAY ON POLY PIPE SWING JOINT LOCATED IN PLANTS MAINTAINED TO A MAXIMUM HEIGHT OF 8".



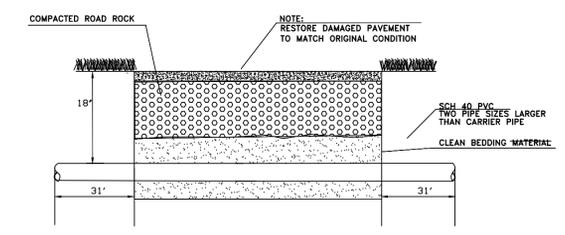
**REMOTE CONTROL VALVE DETAIL**  
NOT TO SCALE



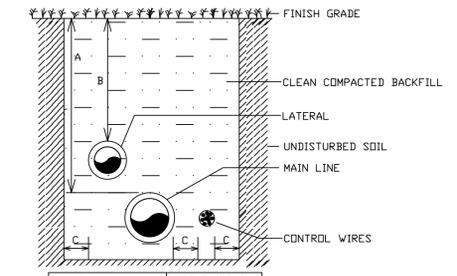
**SPRINKLER DETAIL (NTS)**  
12" POP-UP INSTALLED ON PVC SWING JOINT LOCATED IN PLANT MASS MAINTAINED TO A MAXIMUM HEIGHT OF 18".



**SPRINKLER DETAIL (NTS)**  
BUBBLER/SHRUB SPRAY INSTALLED AT THE BASE OF PLANTS FOR LOW LEVEL WATERING

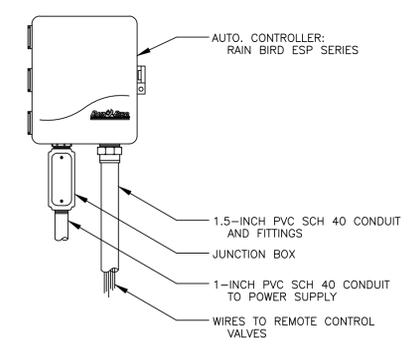


**PIPE SLEEVE DETAIL**  
NOT TO SCALE

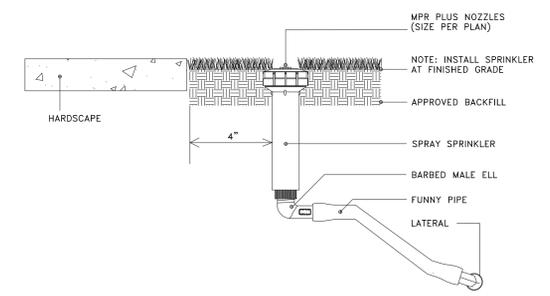


PIPE SIZE	DIMENSIONS		
	A	B	C
3/4" TO 2"	18"	12"	4"
2 1/2" AND 3"	18"	18"	4"
4" AND LARGER	24"	4"	4"

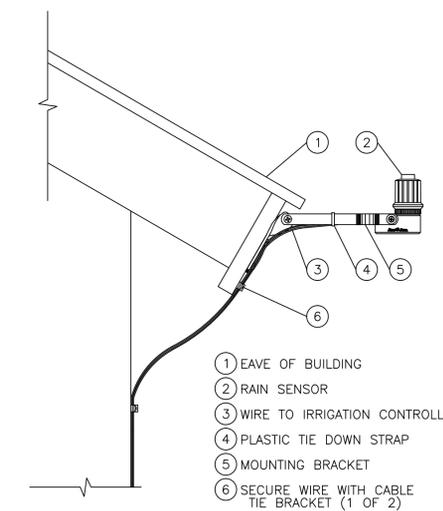
**TRENCHING DETAIL (NTS)**  
NON-TRAFFIC AREAS



**ESP AUTOMATIC CONTROLLER**  
NOT TO SCALE



**SPRINKLER DETAIL (NTS)**  
POP-UP SPRAY ON POLY PIPE SWING JOINT LOCATED IN SOD OR MULCH

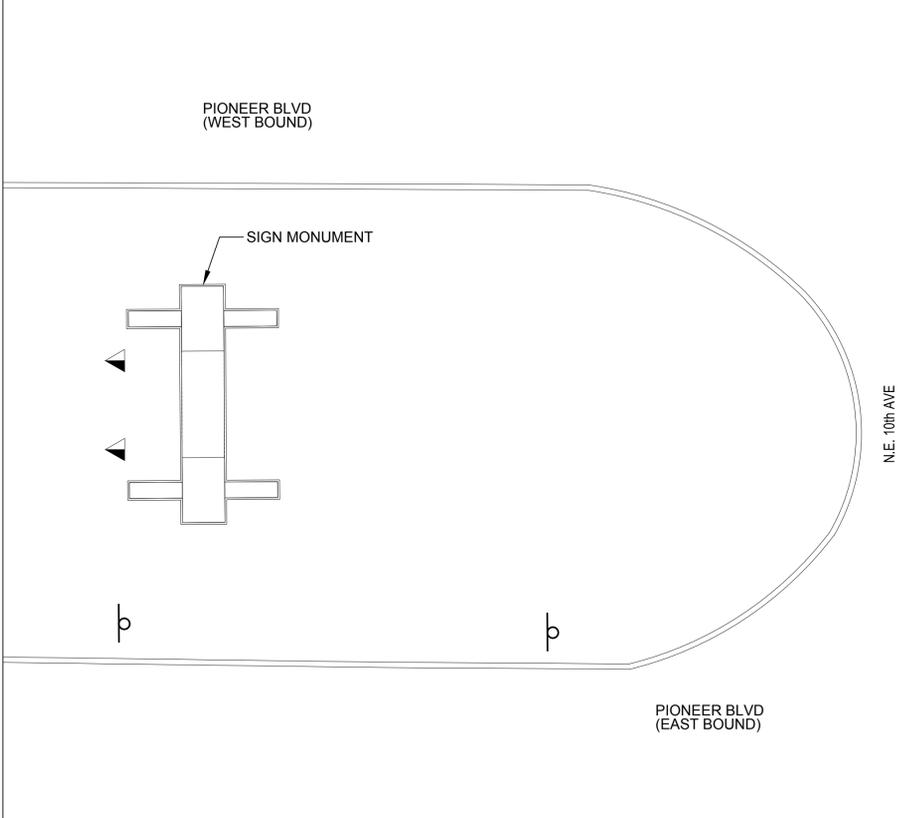


- 1 EAVE OF BUILDING
- 2 RAIN SENSOR
- 3 WIRE TO IRRIGATION CONTROLLER
- 4 PLASTIC TIE DOWN STRAP
- 5 MOUNTING BRACKET
- 6 SECURE WIRE WITH CABLE TIE BRACKET (1 OF 2)

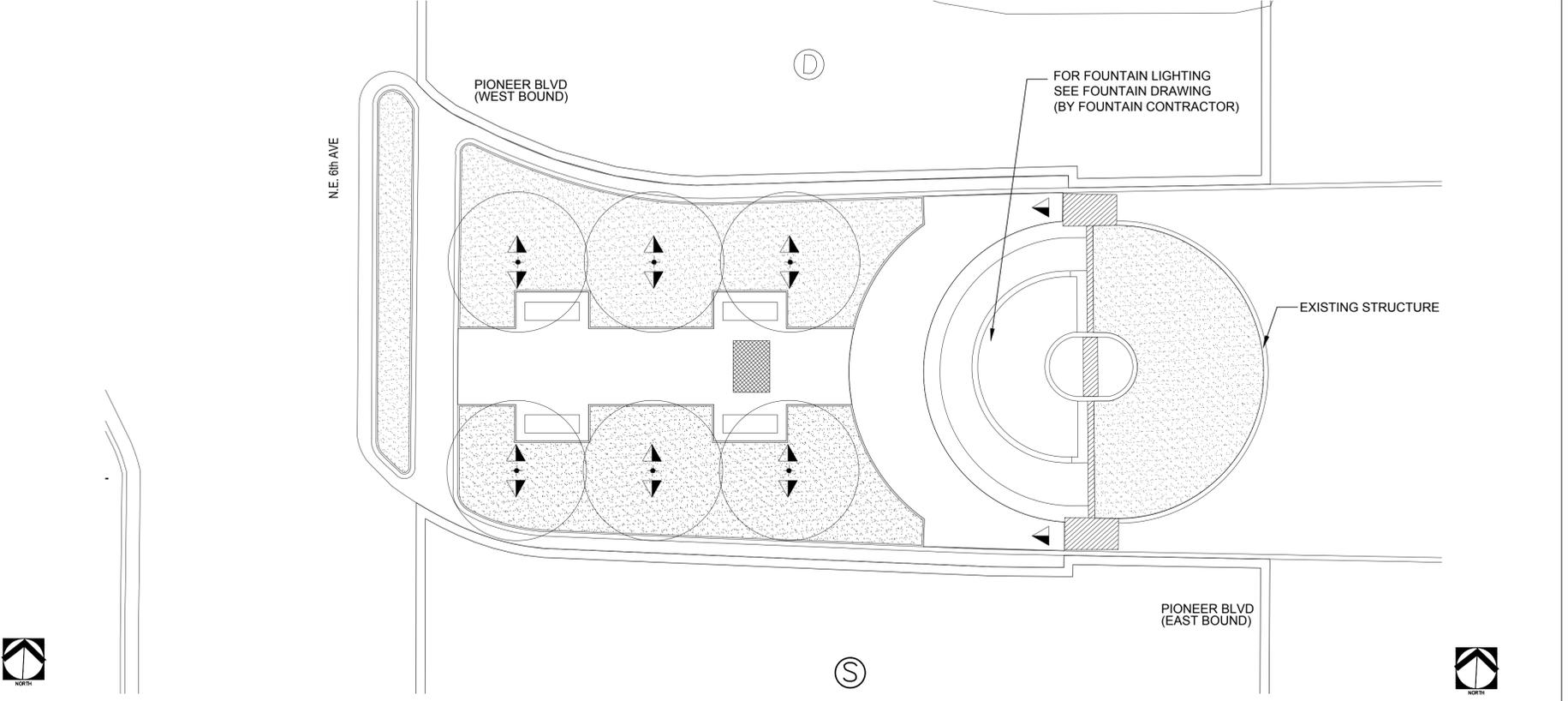
**RAIN SENSOR**  
NOT TO SCALE

**NOTE:**  
EXISTING IRRIGATION IN THIS MEDIAN SHALL BE MODIFIED TO MATCH NEW SITE CONDITIONS.

Z:\PROJECTS\PIONEER BOULEVARD - NORTH MIAMI\DRAWINGS & IMAGES\CAD DRAWINGS\Construction Documents\2012-02-23\_PioneerBoulevard PHASE II. Courtney



**SIGNAGE MONUMENT LIGHTING LAYOUT DETAIL**  
SCALE: 1/8" = 1'-0"

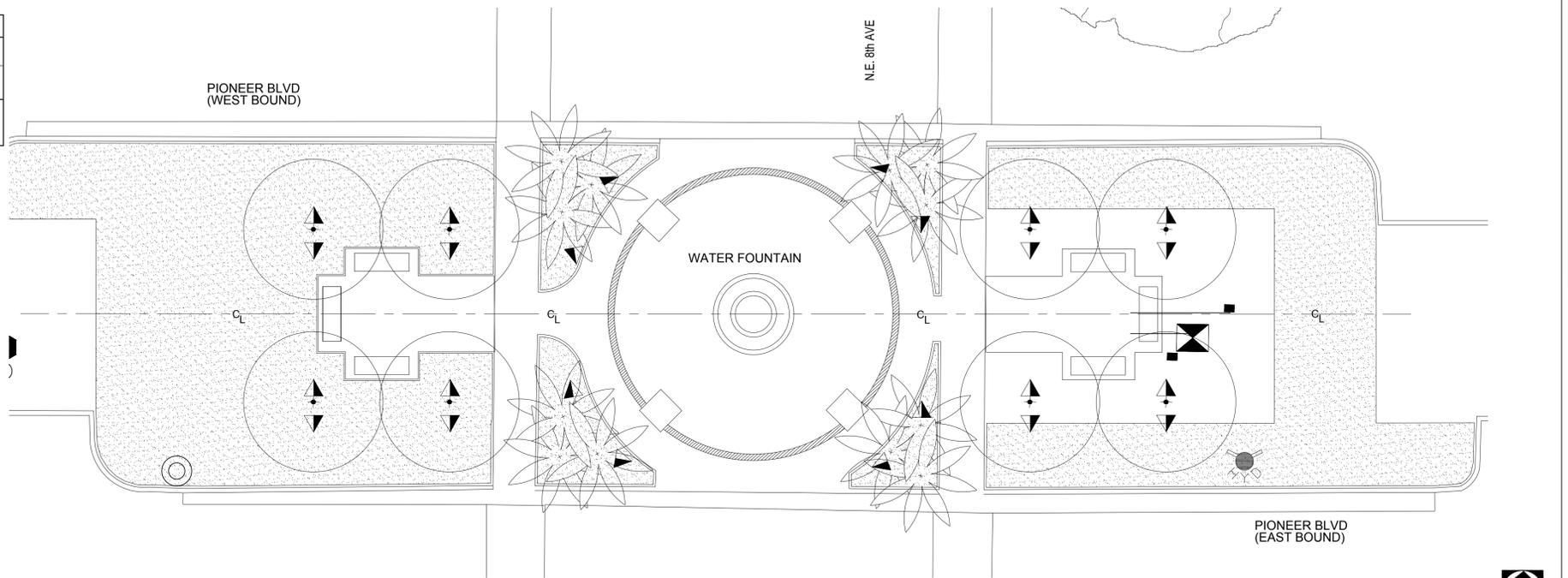


**PIONEER BLVD ENTRANCE FOUNTAIN LIGHTING LAYOUT DETAIL**  
SCALE: 1/8" = 1'-0"

CHASE BANK MIAMI BEACH LANDSCAPE								
LIGHTING FIXTURE SCHEDULE								
MARK	MFG.	CATALOG No.	LAMP		VOLT	WATTS	MOUNTING	DESCRIPTION/ APPLICATION
			TYPE	NO.				
▼	HADCO	BN4-CD59-N-H-L	LED	1	120	17	GROUND	LARGE LED UPLIGHT WITH NARROW 10 DEG OPTIC

**LEGEND:**

-  PLANTING AREAS
-  NEW LOCATION PUMP PIT (SEE FOUNTAIN DRAWINGS) COORDINATE W/ FOUNTAIN CONTRACTOR FOR SIZE & DEPTH.
-  EXTG. UTILITY BOX
-  EXISTING ELECTRICAL BOX



**FROG POND LIGHTING LAYOUT DETAIL**  
SCALE: 1/8" = 1'-0"

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PROJECT  
**PIONEER BOULEVARD  
NORTH MIAMI, FLORIDA**

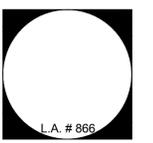
DRAWING  
**LIGHTING PLAN  
& SCHEDULE**

SCALE  
AS SHOWN  
PROJECT NUMBER

DATE  
02-24-2012  
REVISIONS

SHEET NUMBER

**LL-1**



## GENERAL STRUCTURAL NOTES

- CODES:**  
ALL WORK SHALL CONFORM TO THE FLORIDA BUILDING CODE, 2007 EDITION, WITH 2009 AMENDMENTS AND ALL OTHER APPLICABLE LOCAL CODES.
- BUILDING PERMIT:**
  - OBTAIN BUILDING PERMIT.
  - COMPLY WITH THE REQUIREMENTS OF THE BUILDING PERMIT AND WITH OTHER REQUIREMENTS OF THE PERMITTING AUTHORITY.
  - IF CHANGES TO STRUCTURAL DESIGN ARE ISSUED BY THE ENGINEER, SUBMIT CHANGES TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL. MAINTAIN PERMIT APPROVALS CONCURRENT WITH CONSTRUCTION.
- CONSTRUCTION DOCUMENTS:**
  - EXAMINE AND STUDY ALL CONSTRUCTION DOCUMENTS PRIOR TO COMMENCEMENT OF WORK. DIRECT ANY QUESTIONS TO THE ENGINEER.
- COORDINATION AND DIMENSIONS:**
  - COORDINATE ALL DIMENSIONS AND ELEVATIONS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK. VERIFY ALL DIMENSIONS AND CONDITIONS RELATED TO EXISTING CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION. BRING ANY DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE ENGINEER. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. SCALE IS FOR GUIDELINE PURPOSES ONLY. IF DIMENSIONS ARE UNCLEAR, DO NOT SCALE. REQUEST CLARIFICATION FROM THE ENGINEER.
  - COORDINATE THE STRUCTURAL WORK WITH THE WORK OF ALL OTHER TRADES.
  - COORDINATE THE STRUCTURAL WORK WITH SLAB DEPRESSIONS, MECHANICAL OPENINGS, PIPING AND CONDUITS AS SHOWN ON OTHER DRAWINGS.
- CONFLICTS IN DOCUMENTS:**  
IF CONFLICTS OCCUR IN OR BETWEEN ARCHITECTURAL AND ENGINEERING DOCUMENTS, BETWEEN DOCUMENTS AND FIELD CONDITIONS OR OTHERWISE, IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION AND DIRECTION BEFORE PROCEEDING. COORDINATE ALL DIMENSIONS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
- METHODS & SAFETY:**  
THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION. PROVIDE APPROPRIATE SUPERVISION THROUGHOUT THE PROJECT. CONSTRUCTION SITE SAFETY, INCLUDING ALL ADEQUATE TEMPORARY BRACING AND SHORING, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EMPLOY THE NECESSARY PROFESSIONAL SERVICES TO DETERMINE THE NECESSARY METHODS AND SUPPORTS REGARDING FORMING AND CONSTRUCTION LOADS. TEMPORARY BRACING AND SHORING SHALL BE DESIGNED TO RESIST ALL CONSTRUCTION LOADS INCLUDING THE WEIGHTS OF ALL SUPPORTED MATERIALS PLUS A LIVE LOAD OF 50 PSF ON HORIZONTAL SURFACES. MAINTAIN TEMPORARY BRACING AND RETAIN IN PLACE UNTIL PERMANENT STRUCTURAL SYSTEMS ARE CAPABLE OF RESISTING ALL CONSTRUCTION PHASE LOADS.
- PROTECTION OF EXISTING CONSTRUCTION:**  
DO NOT DAMAGE EXISTING CONSTRUCTION WHICH IS TO REMAIN. LOCATE AND PROTECT CONCEALED PIPES, CONDUITS AND OTHER EXISTING CONSTRUCTION PRIOR TO DEMOLITION AND TAKE APPROPRIATE ACTION TO PROTECT THEM AND TO PROVIDE FOR SAFETY.
- CONSTRUCTION INSPECTIONS:**  
NOTIFY THE BUILDING INSPECTOR FOR INSPECTION OF ALL STRUCTURAL ELEMENTS. VERIFY THAT EACH AND EVERY STRUCTURAL ITEM HAS BEEN ACCEPTED BY THE INSPECTOR PRIOR TO PROCEEDING WITH SUBSEQUENT WORK AND/OR CONCEALING ANY STRUCTURAL ITEM. ANY STRUCTURAL ITEM WHICH HAS NOT BEEN SPECIFICALLY ACCEPTED BY THE INSPECTOR AND/OR ANY CONCEALING CONSTRUCTION WILL BE SUBJECT TO REMOVAL AND RECONSTRUCTION.
- SPECIAL INSPECTION (SELECTED SYSTEMS):**  
BY PROVISION OF THE FLORIDA BUILDING CODE 2007, SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING STRUCTURAL SYSTEMS: SOIL PREPARATION AND AS MAY OTHERWISE BE REQUIRED BY THE BUILDING OFFICIAL. NOTIFY SPECIAL INSPECTOR FOR INSPECTION OF ALL COMPONENTS OF THESE SYSTEMS PRIOR TO THEIR CONCEALMENT BY OTHER CONSTRUCTION. DO NOT CONCEAL ANY COMPONENT OF THESE SYSTEMS UNTIL ACCEPTED BY SPECIAL INSPECTOR AND UNTIL SO INDICATED ON THE SPECIAL INSPECTION LOG. THE SPECIAL INSPECTION LOG WILL BE PREPARED BY SPECIAL INSPECTOR AND GIVEN TO CONTRACTOR FOR KEEPING ON SITE. KEEP THE SPECIAL INSPECTION LOG IN A CLEAN DRY AREA AT THE SITE AND MAKE IT AVAILABLE TO THE SPECIAL INSPECTOR AND TO THE MUNICIPAL BUILDING INSPECTOR UPON REQUEST. THE SPECIAL INSPECTOR WILL MAKE ENTRIES ON THE LOG FOR EACH SITE VISIT AND WILL INDICATE ACCEPTANCE OR REJECTION OF THE ITEMS OBSERVED. ACCEPTANCE APPLIES ONLY TO THOSE SPECIFIC ITEMS SO INDICATED. NO OTHER ITEMS OR AREAS ARE TO BE ASSUMED TO BE ACCEPTED. ANY COMPONENTS OF THE STRUCTURAL SYSTEMS WHICH HAVE BEEN CONCEALED WITHOUT SPECIFIC ACCEPTANCE BY THE SPECIAL INSPECTOR WILL BE REJECTED. AND ANY CONCEALING CONSTRUCTION MUST BE REMOVED. UPON ACCEPTANCE OF ALL COMPONENTS OF ALL SYSTEMS, RETURN SPECIAL INSPECTION LOG TO THE SPECIAL INSPECTOR.
- SHOP DRAWINGS:**
  - SUBMIT TO THE ENGINEER COMPLETE SHOP DRAWINGS AS REQUIRED BY THESE NOTES.
  - CHECK ALL SHOP DRAWINGS FOR COMPLIANCE AND COMPLETENESS PRIOR TO SUBMITTAL. ALL SHOP DRAWINGS SHALL BEAR EVIDENCE OF CONTRACTOR'S REVIEW AND APPROVAL.
  - REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR THE DESIGN CONCEPT ONLY. REVIEW BY THE ENGINEER IS NOT FOR THE PURPOSE OF APPROVING CHANGES OR SUBSTITUTIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, QUANTITIES, JOB CONDITIONS, AND COORDINATION WITH ALL DOCUMENTS AND OTHER TRADES.
- SOILS STATEMENT**  
THE ENGINEER HAS OBSERVED THE SITE. THE EXISTING SURFACE SOILS AND CONDITIONS ON THE SITE, BASED ON THESE OBSERVATIONS, THE EXISTING SOILS CONSIST OF SILTY SAND WITH SOME ORGANICS.
- SOILS PREPARATION & ALLOWABLE BEARING:**
  - STRIP ALL AREAS OF NEW CONSTRUCTION PLUS A THREE FOOT PERIMETER OF EXISTING CONSTRUCTION TO BE REMOVED. PLANT, TOP SOIL AND OTHER DELETERIOUS MATERIAL, WHERE REQUIRED, EXCAVATE THE EXISTING SOIL TO THE BOTTOM OF PROPOSED SLAB OR FOOTING ELEVATION. VISUALLY INSPECT THE ENTIRE BUILDING AREA. IF SOILS DIFFERENT FROM THOSE INDICATED ABOVE ARE ENCOUNTERED, NOTIFY THE ENGINEER FOR DIRECTION. THOROUGHLY COMPACT ENTIRE AREA, INCLUDING THE THREE FOOT PERIMETER BY AT LEAST EIGHT PASSES IN EACH OF TWO PERPENDICULAR DIRECTIONS OF A VIBRATING COMPACTOR TO ACHIEVE A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D1557. WHERE REQUIRED, PLACE CRUSHED LIMESTONE FILL (NO ROCKS GREATER THAN 2 INCHES). EXCAVATED MATERIAL MAY BE USED FOR BACKFILL IF FREE OF ORGANIC, MUCK OR OTHER DELETERIOUS MATERIALS AND IF DEEMED TO BE ACCEPTABLE BY THE GEOTECHNICAL ENGINEER. PLACE FILL IN MAXIMUM EIGHT INCH LIFTS. COMPACT EACH LIFT TO A MINIMUM OF 95% OF MAXIMUM DENSITY. PRIOR TO COMPACTION, MOISTEN OR DRY SOIL TO ACHIEVE A MOISTURE CONTENT WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557.
  - TEST ALL LAYERS OF SOILS, INCLUDING EXPOSED EXISTING SOILS. FILL AND BACKFILL FOR DENSITY. SUBMIT TEST REPORTS TO THE ENGINEER. CONDUCT A MINIMUM OF ONE TEST IN EACH ISOLATED FOOTING. FOR EACH 1,000 SQUARE FEET OF FLOOR OR PAVEMENT AREA, FOR EACH 50 LINEAR FEET OF WALL FOOTING AND AS OTHERWISE DIRECTED BY THE ENGINEER.
  - ALL SOIL PREPARATION OPERATIONS SHALL BE MONITORED BY A GEOTECHNICAL ENGINEER, WHO SHALL ISSUE A STATEMENT OF COMPLIANCE.
  - WITH THE SOILS PREPARATION DESCRIBED ABOVE, THE ALLOWABLE SOIL BEARING CAPACITY IS EXPECTED TO BE AT LEAST 2,000 PSF.
- POLYETHYLENE SHEET:**  
PLACE MINIMUM 6 MIL THICK POLYETHYLENE SHEET CONTINUOUSLY UNDER CONCRETE SLABS PLACED ON GROUND LAP SPLICE ALL JOINTS MINIMUM 12 INCHES AND CONTINUOUSLY TAPE WITH MINIMUM OF TWO-INCH WIDE VINYL TAPE. AT ALL PENETRATIONS, EXTEND POLYETHYLENE SHEET TO WITHIN 1/2 INCH OF PENETRATING OBJECT AND SEAL TO OBJECT ALL AROUND WITH TWO-INCH WIDE VINYL TAPE. ALSO, EXTEND POLYETHYLENE SHEET ONE INCH ON STEM WALL OR FOOTING. IF THIS IS NOT POSSIBLE, THEN ASSURE CONTACT WITH VERTICAL STRUCTURAL MEMBER AND EXTEND VERTICALLY, BUT NOT MORE THAN ONE HALF THE SLAB THICKNESS. REPAIR ANY HOLES OR TEARS IN SHEET BY INSTALLING AN OVERLAY SHEET EXTENDING TWELVE INCHES BEYOND DAMAGED AREA AND SEALED TO LOWER SHEET WITH TWO INCH WIDE VINYL TAPE.

- CONCRETE (CAST-IN-PLACE):**
  - STANDARDS: ACI 318, ACI 301, ACI 347, ACI 207 AND ACI 117.
  - CONCRETE MIXES
    - SUBMIT CONCRETE MIX DESIGNS TO ENGINEER FOR REVIEW PRIOR TO USE.
    - PROPORTION ALL NORMAL-WEIGHT CONCRETE IN ACCORDANCE WITH ACI 301 TO ATTAIN THE FOLLOWING PROPERTIES:

CONCRETE LOCATION	COMPRESSIVE STRENGTH	NOTES
ALL LOCATION	3000 PSI @ 28 DAYS	

- SLUMP SHALL BE 4" (±1") FOR REGULAR MIXES AND NOT GREATER THAN 9" FOR MIXES WITH WATER-REDUCING ADMIXTURES. ADD NO WATER TO THE CONCRETE AT THE SITE, UNLESS OTHERWISE APPROVED BY THE ENGINEER IN ADVANCE AND ONLY IF TEST SAMPLES ARE TAKEN AFTER ADDITION OF THE APPROVED WATER.
- MAXIMUM WATER-CEMENT RATIO FOR ALL CONCRETE SHALL BE 0.50 (UNLESS OTHERWISE NOTED).
- LARGE-AGGREGATE PUMP MIXES WITH WATER-REDUCING ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. PEA ROCK PUMP MIXES WILL NOT BE APPROVED.
- COARSE AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-33.
- WATER SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-1602.
- READY-MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-94.
- CONTRACT AN INDEPENDENT TESTING LABORATORY TO PERFORM THE CONCRETE CYLINDER SAMPLING AND TESTING AS REQUIRED BY SECTION 1923.2 OF THE FLORIDA BUILDING CODE, 2007. SUBMIT TEST REPORTS TO THE ENGINEER.
- PROVIDE ALL FORMING AND TEMPORARY SHORING.
- DO NOT EMBED PIPES OR CONDUITS EXCEEDING 1/3 THE SLAB OR WALL THICKNESS IN OUTSIDE DIAMETER WITHOUT THE WRITTEN APPROVAL FROM THE ENGINEER. WHERE PIPES OR CONDUITS ARE PERMITTED, PLACE NO CLOSER THAN THREE DIAMETERS O.C. AND LOCATE SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE.
- REINFORCEMENT:**
  - STANDARD: ASTM A-615, GRADE 60, ASTM A185 FOR WELDED WIRE FABRIC.
  - CONCRETE COVER OVER REINFORCEMENT: UNLESS OTHERWISE INDICATED IN THESE DRAWINGS, PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS:
    - 3 INCHES WHERE CAST AGAINST EARTH
    - 2 INCHES WHERE CAST IN FORMS OR ON POLYETHYLENE SHEET.
- REINFORCEMENT PLACEMENT TOLERANCES: THE TOLERANCES FOR PLACING REINFORCING BARS SHALL BE AS FOLLOWS:
  - MEMBERS WITH EFFECTIVE DEPTH LESS THAN 8":
    - TOLERANCE ON EFFECTIVE DEPTH = +/- 3/8"
    - TOLERANCE ON CONCRETE COVER = - 3/8"
  - MEMBERS WITH EFFECTIVE DEPTH GREATER THAN 8":
    - TOLERANCE ON EFFECTIVE DEPTH = +/- 1/2"
    - TOLERANCE ON CONCRETE COVER = +/- 1/2" THE EFFECTIVE DEPTH OF A MEMBER IS DEFINED AS THE OVERALL DEPTH LESS THE APPROPRIATE CONCRETE COVER FOR EACH MEMBER AS DEFINED ABOVE, STIRRUP OR THE DIAMETER, AND MINUS THE DISTANCE TO THE CENTER OF THE REINFORCING BARS. THE EFFECTIVE DEPTH OF MEMBERS INDICATED TO BE REINFORCED AT MID-DEPTH SHALL BE ONE HALF THE OVERALL MEMBER THICKNESS. THE TOLERANCE FOR LONGITUDINAL LOCATIONS OF BENDS AND ENDS OF REINFORCEMENT SHALL BE ± 2", EXCEPT THE TOLERANCE SHALL BE ± 1/2" AT THE DISCONTINUOUS ENDS OF BRACKETS AND CORBELS, AND ± 1" AT THE DISCONTINUOUS ENDS OF OTHER MEMBERS.
- TOLERANCES
  - MEMBER DIMENSION TOLERANCES
    - MEMBER OVERALL DIMENSION LESS THAN OR EQUAL TO 12" : +3/8", -1/4"
    - MEMBER OVERALL DIMENSION GREATER THAN 12" AND LESS THAN 36" : +1/2", -3/8"
    - MEMBER OVERALL DIMENSION GREATER THAN 36" : +1", -3/4"
  - VARIATIONS FROM PLUMB:
    - FOR COLUMNS, PIERS AND WALLS: IN ANY TEN FOOT LENGTH: 1/4" MAXIMUM FOR ENTIRE LENGTH: 1"
    - FOR EXPOSED CORNER COLUMNS, CONTROL JOINTS, GROOVE AND OTHER LINES: IN ANY TEN FOOT LENGTH: 1/4" MAXIMUM FOR ENTIRE LENGTH: 1/2"
  - VARIATIONS FROM LEVEL OR FROM INDICATED GRADES
    - SLABS AND BEAMS IN ANY TEN FOOT LENGTH: 1/4" IN ANY BAY OR IN ANY 20 FOOT LENGTH: 3/8" MAXIMUM FOR ENTIRE LENGTH: 1/4"
    - FOR EXPOSED LINTELS, SILLS, PARAPETS, HORIZONTAL GROOVES AND OTHER LINES: IN ANY BAY OR IN ANY 20 FOOT LENGTH: 1/4" MAXIMUM FOR ENTIRE LENGTH: 1/2"
- MAKE CONSTRUCTION JOINTS IN THE MANNER AND LOCATIONS INDICATED IN THESE DRAWINGS OR AS APPROVED BY THE ENGINEER IN ADVANCE.
- EMBEDMENT OF REINFORCEMENT: UNLESS OTHERWISE INDICATED IN THESE DRAWINGS, EMBED ALL REINFORCING BARS TO THE FAR SIDE (LESS APPROPRIATE COVERAGE) OF CONNECTING AND SUPPORTING MEMBERS.
- REINFORCING LAP SPLICES
  - UNLESS OTHERWISE INDICATED OR APPROVED BY THE ENGINEER IN ADVANCE, MAKE SPLICES FOR REINFORCING BARS BY LAPPING BARS. UNLESS OTHERWISE NOTED, LAP SPLICE COLUMN AND WALL BARS ABOVE SLAB AND FOOTING LEVELS. UNLESS OTHERWISE NOTED FOR BEAMS AND SLABS, PLACE LAP SPLICES FOR TOP BARS WITHIN THE MIDDLE THIRD OF THE SPANS AND PLACE LAP SPLICES FOR BOTTOM BARS AND INTERMEDIATE BARS CENTERED OVER SUPPORTS, OR WHEN THIS IS NOT POSSIBLE, PLACE THEM WITHIN ONE THIRD OF THE SPAN LENGTH FROM THE CENTERLINE OF THE SUPPORTING COLUMN OR WALL. U.O.N., LENGTHS OF TENSION LAP SPLICES SHALL BE 58 BAR DIAMETERS.
- SUBMIT SHOP DRAWING FOR ALL CONCRETE REINFORCEMENT.
- FINISH ALL CONCRETE AS APPROPRIATE FOR THE ARCHITECTURAL FINISHES INDICATED IN THE ARCHITECTURAL DRAWINGS. GIVE A LIGHT BROOM FINISH TO ALL SURFACES WHICH ARE TO RECEIVE A TILE, STONE OR CEMENTATION FINISH.
- CURE ALL CONCRETE FOR MINIMUM OF SEVEN DAYS. THE CURING SHALL ENTAIL MAINTENANCE OF THE MOISTURE IN THE CONCRETE. GENERALLY, THIS SHALL BE ACCOMPLISHED BY TREATING EXPOSED CONCRETE SURFACES WITH A CHEMICAL CURING COMPOUND IMMEDIATELY AFTER FINISHING AND IMMEDIATELY AFTER REMOVAL OF FORMS. FORMS SHALL BE KEPT MOIST BY FREQUENT WATER SPRAYING PRIOR TO REMOVAL. CURING COMPOUND SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-309. VERIFY COMPATIBILITY OF CURING COMPOUND WITH PROPOSED FINISHES, OR COMPLETELY REMOVE CURING COMPOUND PRIOR TO APPLYING FINISHES.

CONC. WALL SCHEDULE				
WALL MARK	WIDTH	REINFORCEMENT		REMARKS
		VERTICAL	HORIZONTAL	
W-1	8"	#5 @ 12" MID-DEPTH	#5 @ 12" MID-DEPTH	

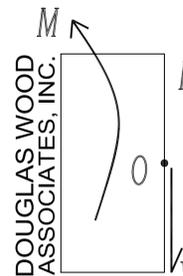
CONCRETE WALL NOTES:  
1. fc = 3000 psi FOR ALL CONCRETE WALLS

FOOTING SCHEDULE							
MARK	SIZE	THICKNESS	TOP. REINF.		BOT. REINF.		REMARKS
			SHORT WAY	LONG WAY	SHORT WAY	LONG WAY	
WF-16	1'-4" x CONT.	16"	--	--	--	3#5	COORDINATE DEPTH W/ DEPTH OF EXIST. SLAB
WF-16A	1'-4" x CONT.	12"	--	--	--	3#5	

- FOOTING NOTES:
- AT ALL FOOTING CORNERS AND INTERSECTIONS, PROVIDE 2#5 L-SHAPED CORNER BARS WITH 30-INCH LONG LEGS.
  - LAP SPLICE BARS MINIMUM 36-INCHES.
  - WHERE CONCRETE FOOTINGS BEGIN FROM EXISTING CONSTRUCTION, DRILL 6" INTO SIDE OF EXISTING CONCRETE FOOTING AND SET 2#7 x 3'-0" DOWELS IN EPOXY ADHESIVE.

## ABBREVIATION LEGEND

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
#5	REBAR SIZE	INFO.	INFORMATION
ADD.	ADDITIONAL	INT.	INTERMEDIATE
ADJ.	ADJACENT	K	KIP (1000 LBS)
A.F.F.	ABOVE FINISHED FLOOR	LB. (S)	POUNDS (S)
AHU.	AIR HANDLING UNIT	L.P.	LOW POINT
ALUM.	ALUMINUM	LWC.	LIGHTWEIGHT CONCRETE
ANCH.	ANCHOR	MAX.	MAXIMUM
APPROX.	APPROXIMATE	MECH.	MECHANICAL
ARCH.	ARCHITECTURAL	MFR.	MANUFACTURER
B.E.	BOTH ENDS	MIN.	MINIMUM
B.F.	BOTH FACES	MISC.	MISCELLANEOUS
B.W.	BOTH WAYS (PERPENDICULAR)	MW-X	C.M.U. WALL MARK
BLDG.	BUILDING	N/A	NOT APPLICABLE
BLK.	BLOCKING	N.I.C.	NOT IN CONTRACT
BM.	BEAM	N.T.S.	NOT TO SCALE
BOTT.	BOTTOM	NWC	NORMAL WEIGHT CONCRETE
BRDG.	BRIDGING	O.C.	ON CENTER
BRG.	BEARING	OPNG. (S)	OPENING (S)
BTWN.	BETWEEN	OPP. HAND	OPPOSITE HAND
CANT.	CANTILEVER	PCF	POUNDS PER CUBIC FOOT
C.I.P.	CAST IN PLACE CONCRETE	P/C	PRECAST
C.J.	CONSTRUCTION JOINT OR CONTROL JOINT	P.C.J.	PRECAST JOIST
C.M.U.	CONCRETE MASONRY UNIT	PC	PILECAP
C/C	CENTER TO CENTER	PL	PLATE
∅	DIMENSION CENTERLINE OF ELEMENTS	PLF	POUNDS PER LINEAR FOOT
CLR.	CLEAR DISTANCE BETWEEN ELEMENTS	P.P.T.	PRESSURE PRESERVATIVE TREATED
COL.	COLUMN	PRELIM.	PRELIMINARY
CONC.	CONCRETE	PROP.	PROPERTY
CONN.	CONNECTION	PSF	POUNDS PER SQUARE FOOT
CONST.	CONSTRUCTION	PSI	POUNDS PER SQUARE INCH
CONT.	CONTINUOUS CONDITION	QTY.	QUANTITY
COORD.	COORDINATE	REINF.	REINFORCING OR REINFORCEMENT
CORR.	CORRUGATED	REQD.	REQUIRED
CTR.	CENTER	REV.	REVISION
db	BAR DIAMETER	RTU.	ROOF TOP UNIT
DIA.	DIAMETER	SCHED.	SCHEDULE
DIAG.	DIAGONAL	SECT.	SECTION
DIM.	DIMENSION	S.H.	SHEAR HEAD
DIST.	DISTANCE	SHT.	SHEET
DN.	DOWN	SIM.	SIMILAR
DTL.	DETAIL	SPECS.	SPECIFICATIONS
DWG.	DRAWING	SQ.	SQUARE
EA.	EACH	STAGG.	STAGGERED
E.J.	EXPANSION JOINT	STD.	STANDARD
EL.	ELEVATION	STIFF.	STIFFENER
EMBED.	EMBEDMENT	STL.	STEEL
ENGR.	ENGINEER	STR.	STIRRUP
E.O.R.	ENGINEER-OF-RECORD	STRUCT.	STRUCTURE OR STRUCTURAL
EQ.	EQUAL	SW -X	SHEARWALL MARK
EQUIP.	EQUIPMENT	SYM.	SYMMETRICAL CONDITION
E.W.	EACH WAY	T.O.	TOP OF
EXIST.	EXISTING	T.O.B	TOP OF BEAM
EXT.	EXTERIOR	T.O.C.	TOP OF CONCRETE
FAB.	FABRICATE	T.O.S.	TOP OF SLAB
FDN.	FOUNDATION	T.O.W.	TOP OF WALL
FIN.	FINISHED	TYP.	TYPICAL
FLR.	FLOOR	U.O.N.	UNLESS NOTED OTHERWISE
FTG.	FOOTING	U.O.N.	UNLESS OTHERWISE NOTED
FUT.	FUTURE	VERT.	VERTICAL
GEN.	GENERAL	V.I.F.	VERIFY IN FIELD
G.L.	GRID LINE	W/P	WATER PROOFING
GALV.	GALVANIZED	WD.	WOOD
H.P.	HIGH POINT	WT.	WEIGHT
HORIZ.	HORIZONTAL	W.W.F	WELDED WIRE FABRIC



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PROJECT  
PIONEER BOULEVARD  
STREETSCAPE  
NORTH MIAMI, FLORIDA

DRAWING  
GENERAL STRUCTURAL NOTES,  
ABBREVIATION LEGEND AND  
SCHEDULES

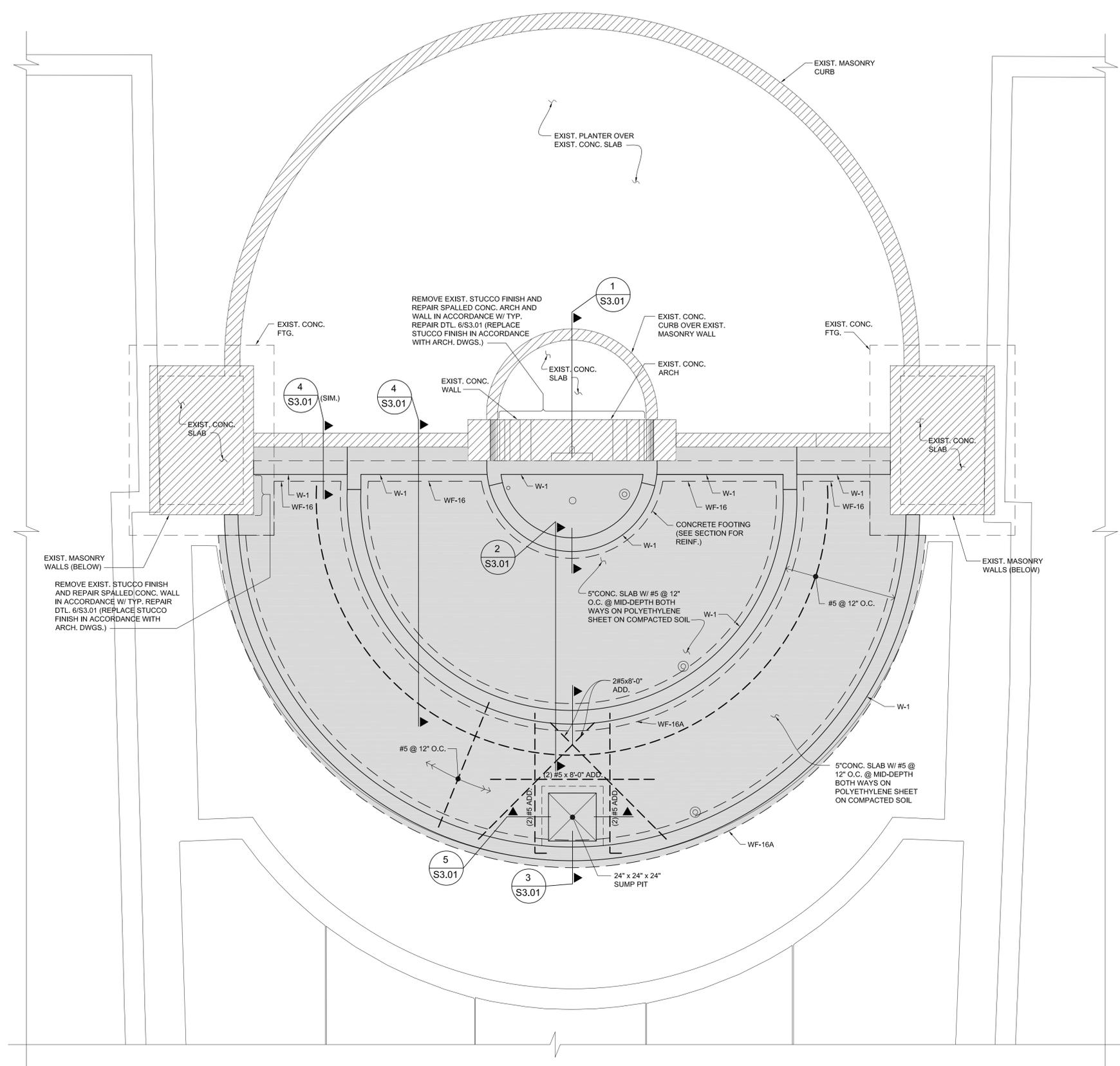
SCALE  
AS SHOWN  
PROJECT NUMBER  
11038  
DATE  
02-24-12  
REVISIONS

SHEET NUMBER

S1.01

SEAL:

DOUGLAS WOOD, P.E.  
FL P.E. #32092



**FOUNTAIN PLAN**  
3/8 = 1'-0"



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PROJECT  
PIONEER BOULEVARD  
STREETSCAPE  
NORTH MIAMI, FLORIDA

**PERMIT SET**

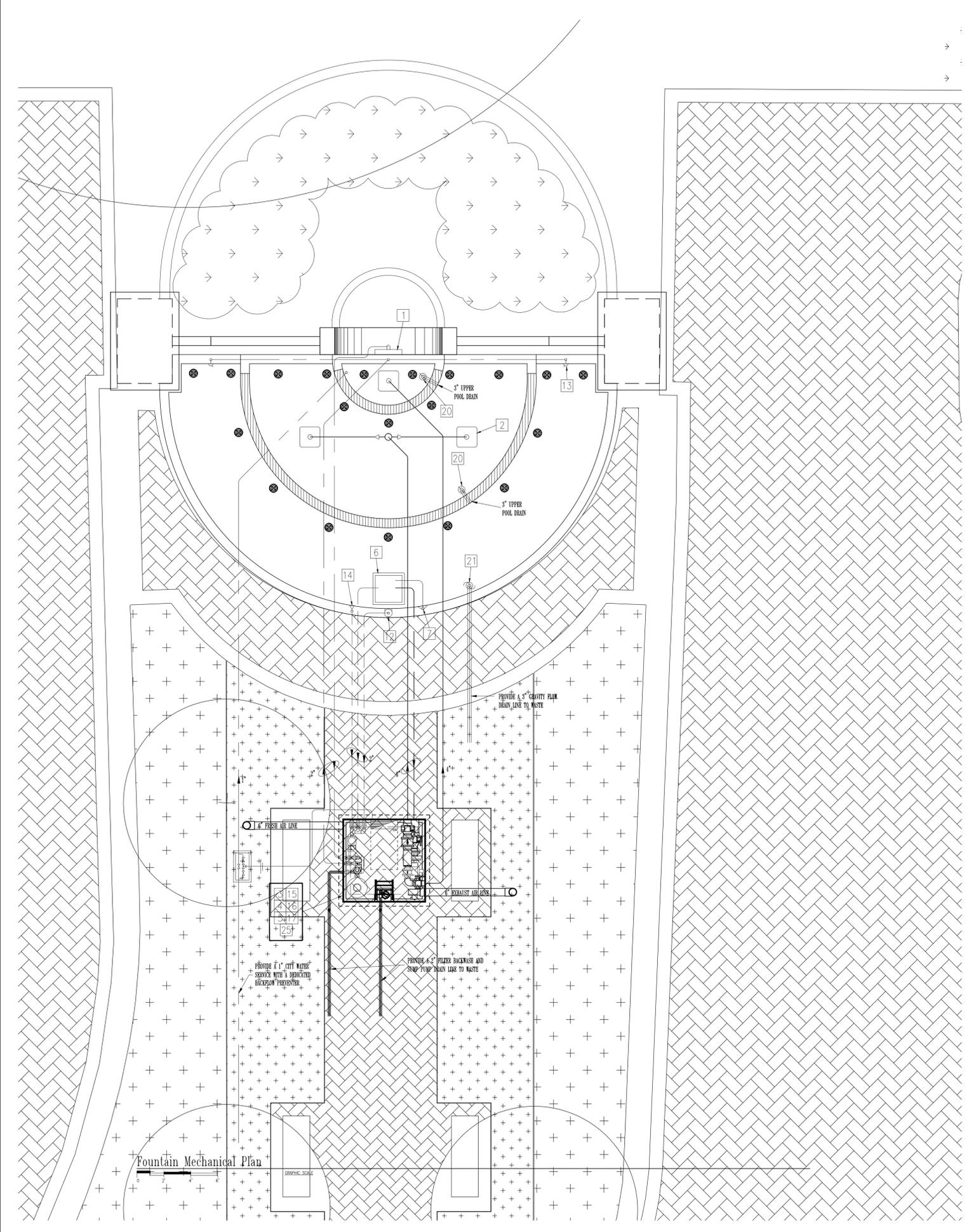
DRAWING  
FOUNTAIN PLAN  
SCALE  
AS SHOWN  
PROJECT NUMBER  
11038  
DATE  
02-24-12  
REVISIONS

SHEET NUMBER  
**S2.01**

SEAL:  
DOUGLAS WOOD, P.E.  
FL P.E. #32092

SHADING ON THIS SHEET DENOTES AREAS OF CONSTRUCTION  
CROSS HATCH ON THIS SHEET DENOTES AREAS OF EXISTING CONDITIONS  
CONTRACTOR SHALL COORDINATE ALL DIMENSIONS ON THESE STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.  
CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO PROCEEDING WITH THE WORK.

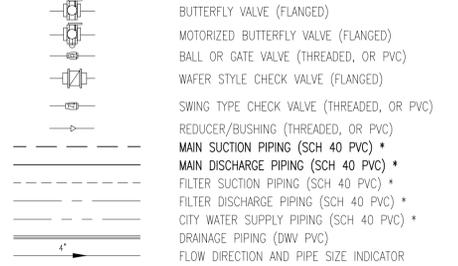




Fountain Mechanical Plan

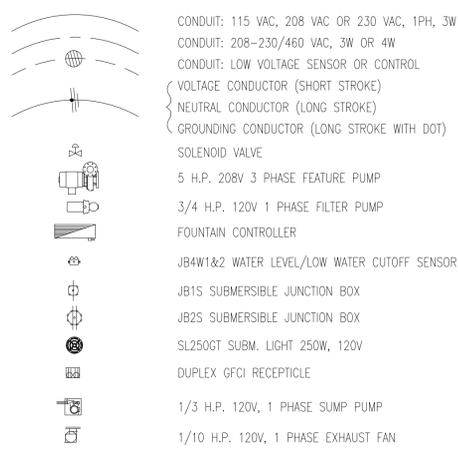
### Legends

#### PLUMBING LEGEND



\* SCHEDULE 80 PVC PIPING IS RECOMMENDED FOR USE UNDER CONCRETE SLABS AND FOOTINGS. WORKING PRESSURES ALLOW THE USE OF SCHEDULE 40 PVC PIPING AND FITTINGS.

#### ELECTRICAL LEGEND



#### CONDUIT LEGEND (CONDUIT WIRE AND INSTALLATION BY PROJECT ELECTRICIAN)

- (A) PROVIDE AN 80A, 120/208 VAC, 3PH, 4W ELECTRICAL SERVICE TO FOUNTAIN CONTROLLER FROM SERVICE PANEL.
- (B) 3/4" C, 6#12 & BOND, LOW-VOLTAGE WATER LEVEL SENSOR "C1"
- (C) 1/2" C, 2#12, 120 VAC WATER SUPPLY SOLENOID VALVE "C1"
- (D) 1" C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT1"
- (E) 1" C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT2"
- (F) 1" C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT3"
- (G) 1" C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT4"

#### CONDUIT LEGEND (FACTORY INSTALLED IN FEP66 EQUIPMENT PIT)

- (H) 3/4" C, 3#12 & BOND, 35A, 208 VAC, 3PH FEATURE PUMP "P1"
- (I) 1/2" C, 2#12 & BOND, 20A, 120 VAC, 1 PHASE FILTER PUMP "P2"
- (J) 1/2" C, 2#12 & BOND, 15A, 120 VAC, 1 PHASE EXHAUST FAN "F1"
- (K) 1/2" C, 2#12 & BOND, 15A, 120 VAC, 1 PH GFCI UTILITY RECEPTACLE "UT1"

### General Notes

THIS DRAWING IS SUBJECT TO THE PROJECT ARCHITECT'S AND/OR THE PROJECT ENGINEER'S APPROVAL.

INSTALLATION OF ALL EQUIPMENT IS TO BE BY OTHERS.

SCHEDULE 80 PVC PIPING IS REQUIRED FOR USE UNDER CONCRETE SLABS AND FOOTINGS. WORKING PRESSURES ALLOW THE USE OF SCHEDULE 40 PVC PIPING AND FITTINGS.

LOCAL BUILDING CODES VARY FROM MUNICIPALITY TO MUNICIPALITY AND OVERRIDE NATIONAL CODES. COMPLIANCE WITH LOCAL CODES MUST BE INDEPENDENTLY VERIFIED BY OWNER'S ARCHITECT AND/OR ENGINEER. ANY DEVIATION FROM LOCAL CODES MUST BE BROUGHT TO THE ATTENTION OF HALL FOUNTAINS, INC. IMMEDIATELY.

THE INLET OF ANY FLOODED-END SUCTION PUMP MUST BE SET BELOW THE WATER LEVEL OF THE POOL FROM WHICH IT DRAWS. SUCTION PIPING FOR ALL DRY-TYPE PUMPS MUST BE FREE FROM "HIGH-POINT" OR OTHER CONDITIONS THAT MAY CAUSE ENTRAPMENT OF AIR AND/OR PUMP CAVITATION.

CARE MUST BE TAKEN IN THE PLACEMENT OF CONCRETE AROUND ALL PIPE PENETRATIONS AND FITTING LOCATIONS TO PREVENT LEAKS.

ALL DIMENSIONS SHOWN ARE TO THE FINISHED POOL SURFACE AND CENTER OF PIPE OR FIXTURE, UNLESS OTHERWISE INDICATED.

ALL IN-POOL ELECTRICAL EQUIPMENT ON A CURRENT OVER 15 VOLTS MUST BE ON CLASS "A" GROUND FAULT CIRCUIT INTERRUPTER (G.F.C.I.) PER ARTICLE 680 OF THE NATIONAL ELECTRIC CODE.

ALL CIRCUITS BETWEEN THE FOUNTAIN CONTROLLER AND ANY SENSOR MUST BE A CONTINUOUS RUN. MAKE NO BREAKS IN THE WIRING, USE NO PULL BOXES.

CONFIRM ALL MOTOR VOLTAGES FOR COMPATIBILITY BEFORE INSTALLATION.

ALL CONDUIT PENETRATIONS THROUGH CONCRETE TO BE IN BRASS.

### Equipment by Hall

#### ITEM QTY DESCRIPTION

- 1 1 2" WIDE WATERFALL MANFOLD & TROUGH - fabricated from heavy duty cycloc to produce a clear sheet of water that arches outward from the raised pool wall. Manifold has a 1-1/2" inlet.
- 3 18" x 18" WATERFALL SUPPLY DIFFUSER - fabricated entirely from type 304 stainless steel with a clamp to fit a 4" sch 40 PVC pipe.
- 1 5 HP CENTRIFUGAL FEATURE PUMP - cast iron, close coupled, flooded-end suction pump with mechanical shaft seal, dynamically balanced impeller, and drip proof 5 HP, 1800 RPM, 208 volt 3 phase motor with grease lubricated ball bearings and moisture resistant insulation. Intake and discharge are flanged 5" x 4".
- 1 FEATURE PUMP INTAKE MANFOLD - with all valves and fittings shown on drawing. Manifold comes with bolts, nuts, and gaskets ready for PVC piping.
- 1 FEATURE PUMP DISCHARGE MANFOLD - with all valves and fittings shown on drawing. Manifold comes with bolts, nuts, and gaskets ready for PVC piping.
- 1 PCS24X24 INTAKE SCREEN - fabricated for a 2' x 2' sump. Features a 1-1/2" x 3/16" stainless steel angle frame with locking lugs that pours in sump edge, and a perforated stainless steel sheet with 1/8" dia. holes, spot welded to a 1-1/2" x 3/16" stainless steel angle frame, with cross members and lifting handles, that bolts into frame in pool floor.
- 1 SIDEWALL SUMP VENT FITTING - constructed of rugged cast bronze with 2" FPT inlet, polished brass grate and stainless steel fasteners.
- 20 SL250GT UL LISTED CAST BRONZE SUBMERSIBLE LIGHT - free-standing fixture with thermal protection, swivel base, rack guard, machined surface with lens clearance for even gasket compression, 6-1/2" tempered clear lens, neoprene gaskets, bronze cord seal, porcelain socket, and stainless steel fastenings. Lamped 250W., 120V. (Q250MCL), with 10' 16/3 type ST cord. Cord entry is encapsulated in epoxy to prevent the entrance of moisture. Air tested, lamped and assembled ready for installation.
- 1 JB1S UL LISTED CAST BRONZE UNDERWATER JUNCTION BOX - features neoprene lid gasket, stainless steel fastenings, four threaded side openings with cord seals and neoprene grommets (for 16/3 type ST cord), delrin plugs (for unused openings), and a 1" FPT bottom conduit entrance. Supplied with potting paraffin as per section 680 of the National Electrical Code.
- 1 JB2S UL LISTED CAST BRONZE UNDERWATER JUNCTION BOX - features neoprene lid gasket, stainless steel fastenings, eight threaded side openings with cord seals and neoprene grommets (for 16/3 type ST cord), delrin plugs (for unused openings), and a 1" FPT bottom conduit entrance. Supplied with potting paraffin as per section 680 of the National Electrical Code.
- 2 CSI WATER-TIGHT CORD SEAL - 3/4" MPT, cord seal designed for use with type ST cord used with submersible light.
- 1 FA150L FRONT ACCESS POOL SKIMMER - constructed of rugged white cycloc with a heavy duty cast bronze face plate and removable basket.
- 2 EB150 EYEBALL RETURN FITTING - is a receptacle fitting featuring rugged black cycloc construction having 1-1/2" PVC female slip connection.
- 1 VE150 VACUUM FITTING - features rugged black cycloc construction having a 1-1/2" PVC female slip connection, flush mounted plug and gasket.
- 1 3/4 HP SELF-PRIMING FILTER PUMP - features a one-piece Noryl strainer and volute assembly, 6" dia. strainer basket with Lexan lid, Noryl high efficiency impeller and quiet tunnel diffuser. The 3/4 HP, 3600 RPM motor with thermal overload protection is rated for 120 or 240 volt single phase power. The pump intake and discharge are both 1-1/2" FPT.
- 1 TR40 SAND FILTER WITH BACKWASH VALVE - features seamless fiberglass construction and a 10 position backwash valve with 1-1/2" FPT ports. Total filter area is 1.9 sq. ft. and is rated for 38 GPM flow rate.
- 1 UL LISTED FOUNTAIN CONTROLLER - with a main disconnect and door handle, a three phase full-voltage starter, with overload protection, contactors, timers, circuit breakers (standard or GFI), and other controls, pre-wired to a terminal bar through pan-duct wiring trough and mounted on a removable backing plate in a NEMA Type 3R enclosure. Power is supplied from a remote breaker panel (by others).
- 1 JB4W 1 & 2 LOW VOLTAGE WATER LEVEL/LOW WATER CUTOFF SENSOR - is a dual-purpose in-pool electronic sensor mounted on twin adjustable brass sensor rods with titanium probes all mounted to a cast bronze submersible junction box with two brass cord seals for 16/3 submersible cable and 3/4" conduit hub.
- 1 SV100B 1" BRONZE AUTOMATIC SOLENOID VALVE - for connection to pool water supply line. Features include cast bronze body and bonnet and flow control stem for manual open/close control. Supplied with 120 VAC coil.
- 2 PD300 FLOOR DRAIN FITTING - features all PVC base with 3" slip inlet, and cast bronze adjustable floor fitting with machined plug and O-ring seal.
- 1 OD300 COMBINATION OVERFLOW & DRAIN FITTING - features cast PVC base with 3" slip inlet, cast bronze adjustable floor fitting with O-ring seal, and stainless steel standpipe with nickel/bronze dome.
- 1 1" x 6" RED BRASS NIPPLE - to be used as an electrical conduit stubup to the underwater junction box supplied by Hall Fountains.
- 1 3/4" x 6" RED BRASS NIPPLE - to be used as an electrical conduit stubup to the underwater junction box supplied by Hall Fountains.
- 2 3/4" THREADED BRASS COUPLING - to be used as an electrical conduit stubup to the CSI cord seal supplied by Hall Fountains.
- 1 FEP66 FOUNTAIN EQUIPMENT PIT - fabricated from reinforced fiberglass with a hinged hardscape hatch, ladder, drainage sump, automatic sump pump, exhaust fan, and utility receptacle. All components are supplied prewired & prelubed with PVC sleeves and conduits on the outside for all connections to pit.



5500 N.W. 22nd Avenue  
 Ft. Lauderdale, Florida 33309  
 1-800-777-4255 \* 954-484-8530  
 www.hallfountains.com

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HALL FOUNTAINS, INC. is not responsible for the installation of the equipment shown on this drawing. Any equipment to be ordered and any installation to be made from this drawing must be independently verified by the buyer's architect or engineer to determine that the same meets all governmental requirements and is acceptable for its intended application. The only liability assumed by HALL FOUNTAINS, INC. is for the quality of the equipment supplied as set forth in the materials warranty.

Installation of equipment is to be BY OTHERS

Only the items listed under the heading "Equipment by HALL" are to be supplied by HALL FOUNTAINS, INC.

H Indicates an item that is to be supplied by HALL. Refer to the corresponding item number under the heading "Equipment by HALL".

## Pioneer Park

North Miami, Florida

### 6th Avenue Entry Water Feature

PRINT DISTRIBUTION LOG			
date	sets	to	
10/06/11	DWG FILE	Savino & Miller	

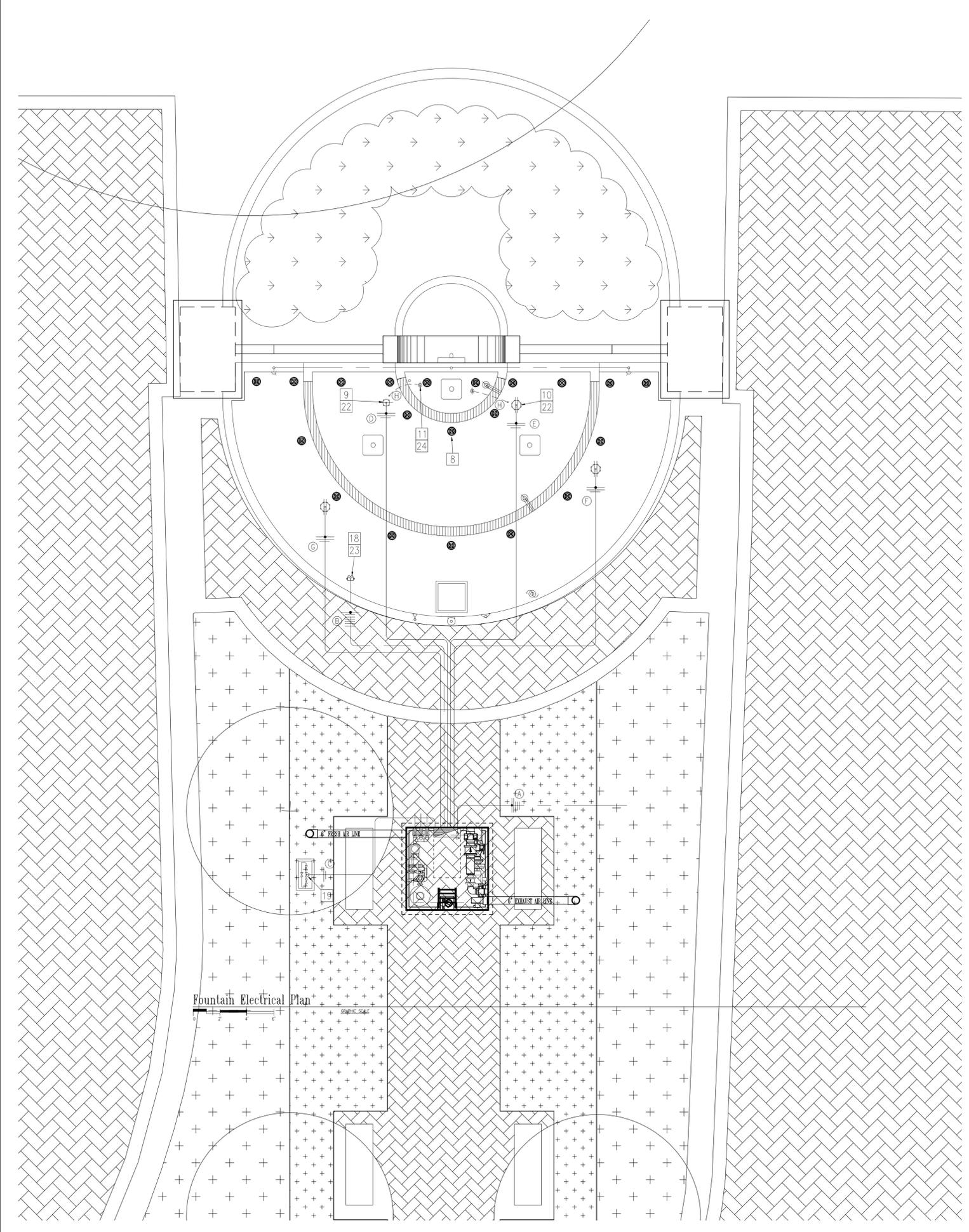
REVISION LOG		
date	description	drawn/checked
10/06/11	Coordination	Wayne Blanding

DATE: 10/06/11

SHEET: F1 OF 4

DRWG. NO.: H-13120F





### Legends

#### PLUMBING LEGEND

- BUTTERFLY VALVE (FLANGED)
- MOTORIZED BUTTERFLY VALVE (FLANGED)
- BALL OR GATE VALVE (THREADED, OR PVC)
- WAFER STYLE CHECK VALVE (FLANGED)
- SWING TYPE CHECK VALVE (THREADED, OR PVC)
- REDUCER/BUSHING (THREADED, OR PVC)
- MAIN SUCTION PIPING (SCH 40 PVC) \*
- MAIN DISCHARGE PIPING (SCH 40 PVC) \*
- FILTER SUCTION PIPING (SCH 40 PVC) \*
- FILTER DISCHARGE PIPING (SCH 40 PVC) \*
- CITY WATER SUPPLY PIPING (SCH 40 PVC) \*
- DRAINAGE PIPING (DWV PVC)
- FLOW DIRECTION AND PIPE SIZE INDICATOR

\* SCHEDULE 80 PVC PIPING IS RECOMMENDED FOR USE UNDER CONCRETE SLABS AND FOOTINGS. WORKING PRESSURES ALLOW THE USE OF SCHEDULE 40 PVC PIPING AND FITTINGS.

#### ELECTRICAL LEGEND

- CONDUIT: 115 VAC, 208 VAC OR 230 VAC, 1PH, 3W  
CONDUIT: 208-230/460 VAC, 3W OR 4W  
CONDUIT: LOW VOLTAGE SENSOR OR CONTROL
- VOLTAGE CONDUCTOR (SHORT STROKE)
- NEUTRAL CONDUCTOR (LONG STROKE)
- GROUNDING CONDUCTOR (LONG STROKE WITH DOT)
- SOLENOID VALVE
- 5 H.P. 208V 3 PHASE FEATURE PUMP
- 3/4 H.P. 120V 1 PHASE FILTER PUMP
- FOUNTAIN CONTROLLER
- JB4W1&2 WATER LEVEL/LOW WATER CUTOFF SENSOR
- JB1S SUBMERSIBLE JUNCTION BOX
- JB2S SUBMERSIBLE JUNCTION BOX
- SL250T SUBM. LIGHT 250W, 120V
- DUPLEX GFCI RECEPTACLE
- 1/3 H.P. 120V, 1 PHASE SUMP PUMP
- 1/10 H.P. 120V, 1 PHASE EXHAUST FAN

#### CONDUIT LEGEND (CONDUIT WIRE AND INSTALLATION BY PROJECT ELECTRICIAN)

- (A) PROVIDE AN 80A, 120/208 VAC, 3PH, 4W ELECTRICAL SERVICE TO FOUNTAIN CONTROLLER FROM SERVICE PANEL
- (B) 3/4"C, 6#12 & BOND, LOW-VOLTAGE WATER LEVEL SENSOR "C1"
- (C) 1/2"C, 2#12, 120 VAC WATER SUPPLY SOLENOID VALVE "C1"
- (D) 1"C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT1"
- (E) 1"C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT2"
- (F) 1"C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT3"
- (G) 1"C, 2#12 & BOND, 20A, 120 VAC, GFCI FOUNTAIN LIGHTING "LT4"
- (H) 3/4" CONDUIT RACEWAY FOR 16/3 STW SUBMERSIBLE LIGHT CABLE

#### CONDUIT LEGEND (FACTORY INSTALLED IN FEP66 EQUIPMENT PIT)

- (1) 3/4"C, 3#12 & BOND, 35A, 208 VAC, 3PH FEATURE PUMP "P1"
- (2) 1/2"C, 2#12 & BOND, 20A, 120 VAC, 1 PHASE FILTER PUMP "P2"
- (3) 1/2"C, 2#12 & BOND, 15A, 120 VAC, 1 PHASE EXHAUST FAN "F1"
- (4) 1/2"C, 2#12 & BOND, 15A, 120 VAC, 1 PH GFCI UTILITY RECEPTACLE "UT1"

### Equipment by Hall

- | ITEM | QTY | DESCRIPTION   |
|------|-----|---|
| 1    | 1   | 2" WIDE WATERFALL MANIFOLD & TROUGH - fabricated from heavy duty cycloc to produce a clear sheet of water that arches outward from the raised pool wall. Manifold has a 1-1/2" inlet.   |
| 2    | 3   | 18" x 18" WATERFALL SUPPLY DIFFUSER - fabricated entirely from type 304 stainless steel with a clamp to fit a 4" sch 40 PVC pipe.   |
| 3    | 1   | 5 HP CENTRIFUGAL FEATURE PUMP - cast iron, close coupled, flooded-end suction pump with mechanical shaft seal, dynamically balanced impeller, and drip proof 5 HP, 1800 RPM, 208 volt 3 phase motor with grease lubricated ball bearings and moisture resistant insulation. Intake and discharge are flanged 5" x 4".   |
| 4    | 1   | FEATURE PUMP INTAKE MANIFOLD - with all valves and fittings shown on drawing. Manifold comes with bolts, nuts, and gaskets ready for PVC piping.  |
| 5    | 1   | FEATURE PUMP DISCHARGE MANIFOLD - with all valves and fittings shown on drawing. Manifold comes with bolts, nuts, and gaskets ready for PVC piping.   |
| 6    | 1   | PCS24X24 INTAKE SCREEN - fabricated for a 2' x 2' sump. Features a 1-1/2" x 3/16" stainless steel angle frame with locking lugs that pours in sump edge, and a perforated stainless steel sheet with 1/8" dia. holes, spot welded to a 1-1/2" x 3/16" stainless steel angle frame, with cross members and lifting handles, that bolts into frame in pool floor.   |
| 7    | 1   | SEAWALL SUMP VENT FITTING - constructed of rugged cast bronze with 2" FPT inlet, polished brass grate and stainless steel fasteners.  |
| 8    | 20  | SL250GT UL LISTED CAST BRONZE SUBMERSIBLE LIGHT - free-standing fixture with thermal protection, swivel base, rack guard, machined surface with lens clearance for even gasket compression, 6-1/2" tempered clear lens, neoprene gaskets, bronze cord seal, porcelain socket, and stainless steel fastenings. Lamped 250W, 120V. (Q250MCL), with 10' 16/3 type ST cord. Cord entry is encapsulated in epoxy to prevent the entrance of moisture. Air tested, lamped and assembled ready for installation. |
| 9    | 1   | JB1S UL LISTED CAST BRONZE UNDERWATER JUNCTION BOX - features neoprene lid gasket, stainless steel fastenings, four threaded side openings with cord seals and neoprene grommets (for 16/3 type ST cord), delrin plugs (for unused openings), and a 1" FPT bottom conduit entrance. Supplied with potting paraffin as per section 680 of the National Electrical Code.  |
| 10   | 3   | JB2S UL LISTED CAST BRONZE UNDERWATER JUNCTION BOX - features neoprene lid gasket, stainless steel fastenings, eight threaded side openings with cord seals and neoprene grommets (for 16/3 type ST cord), delrin plugs (for unused openings), and a 1" FPT bottom conduit entrance. Supplied with potting paraffin as per section 680 of the National Electrical Code.   |
| 11   | 2   | CS1 WATER-TIGHT CORD SEAL - 3/4" MPT, cord seal designed for use with type ST cord used with submersible light.   |
| 12   | 1   | FA150L FRONT ACCESS POOL SKIMMER - constructed of rugged white cycloc with a heavy duty cast bronze face plate and removable basket.  |
| 13   | 2   | EB150 EYEBALL RETURN FITTING - is a receptacle fitting featuring rugged black cycloc construction having 1-1/2" PVC female slip connection.   |
| 14   | 1   | VE150 VACUUM FITTING - features rugged black cycloc construction having a 1-1/2" PVC female slip connection, flush mounted plug and gasket.   |
| 15   | 1   | 3/4 HP SELF-PRIMING FILTER PUMP - features a one-piece Noryl strainer and volute assembly, 6" dia. strainer basket with Lexan lid, Noryl high efficiency impeller and quiet tunnel diffuser. The 3/4 HP, 3600 RPM motor with thermal overload protection is rated for 120 or 240 volt single phase power. The pump intake and discharge are both 1-1/2" FPT.  |
| 16   | 1   | TR40 SAND FILTER WITH BACKWASH VALVE - features seamless fiberglass construction and a 10 position backwash valve with 1-1/2" FPT ports. Total filter area is 1.9 sq. ft. and is rated for 38 GPM flow rate.  |
| 17   | 1   | UL LISTED FOUNTAIN CONTROLLER - with a main disconnect and door handle, a three phase full-voltage starter, with overload protection, contactors, timers, circuit breakers (standard or GFI), and other controls, pre-wired to a terminal bar through pan-duct wiring trough and mounted on a removable backing plate in a NEMA Type 3R enclosure. Power is supplied from a remote breaker panel (by others).   |
| 18   | 1   | JB4W 1 & 2 LOW VOLTAGE WATER LEVEL/LOW WATER CUTOFF SENSOR - is a dual-purpose in-pool electronic sensor mounted on twin adjustable brass sensor rods with titanium probes all mounted to a cast bronze submersible junction box with two brass cord seals for 16/3 submersible cable and 3/4" conduit hub.   |
| 19   | 1   | SV100B 1" BRONZE AUTOMATIC SOLENOID VALVE - for connection to pool water supply line. Features include cast bronze body and bonnet and flow control stem for manual open/close control. Supplied with 120 VAC coil.   |
| 20   | 2   | PD300 FLOOR DRAIN FITTING - features all PVC base with 3" slip inlet, and cast bronze adjustable floor fitting with machined plug and O-ring seal.  |
| 21   | 1   | OD300 COMBINATION OVERFLOW & DRAIN FITTING - features cast PVC base with 3" slip inlet, cast bronze adjustable floor fitting with O-ring seal, and stainless steel standpipe with nickel/bronze dome.   |
| 22   | 1   | 1" x 6" RED BRASS NIPPLE - to be used as an electrical conduit stubup to the underwater junction box supplied by Hall Fountains.  |
| 23   | 1   | 3/4" x 6" RED BRASS NIPPLE - to be used as an electrical conduit stubup to the underwater junction box supplied by Hall Fountains.  |
| 24   | 2   | 3/4" THREADED BRASS COUPLING - to be used as an electrical conduit stubup to the CS1 cord seal supplied by Hall Fountains.  |
| 25   | 1   | FEP66 FOUNTAIN EQUIPMENT PIT - fabricated from reinforced fiberglass with a hinged hardscape hatch, ladder, drainage sump, automatic sump pump, exhaust fan, and utility receptacle. All components are supplied prewired & preplumbed with PVC sleeves and conduits on the outside for all connections to pit.   |



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## Pioneer Park

North Miami, Florida

### 6th Avenue Entry Water Feature

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date	sets	to	
10/06/11	DWG FILE	Savino & Miller	

REVISION LOG		
date	description	drawn/checked
10/06/11	Coordination	Wayne Blanding

DATE: 10/06/11  
 SHEET: F2 OF 4  
 DRWG. NO.: H-13120F



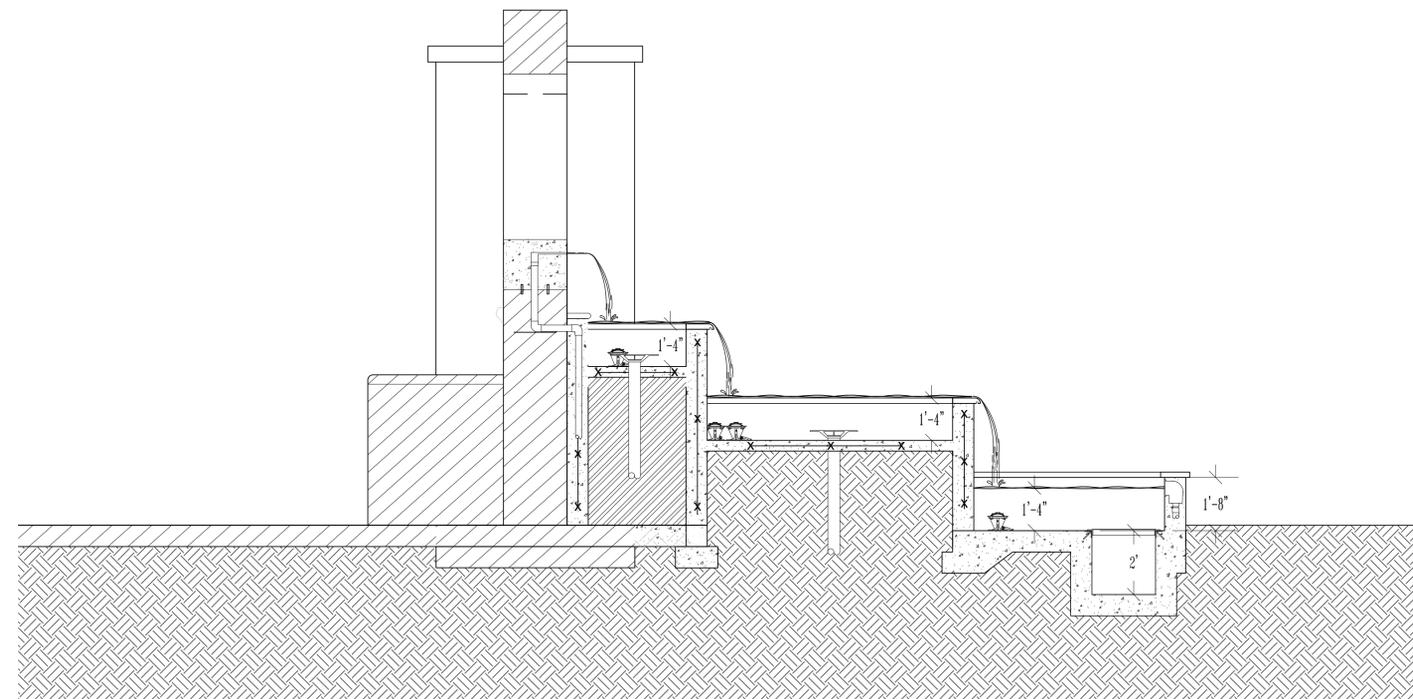
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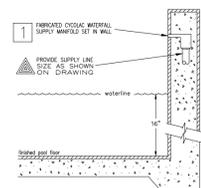
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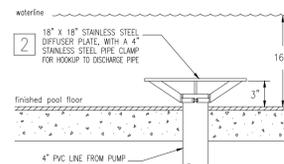
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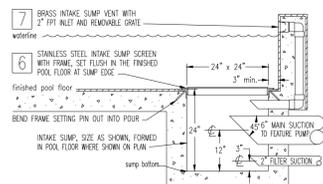
Fountain Section



**1 Waterfall Manifold**  
 N.T.S. Typical Installation Detail



**2 Stainless Steel Diffuser**  
 N.T.S. Typical Installation Detail

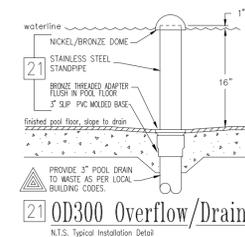
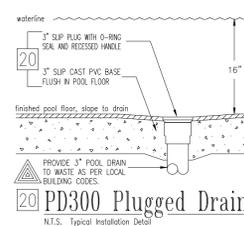
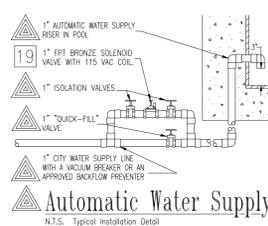
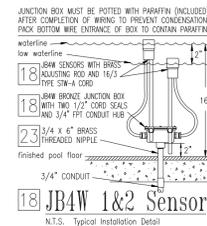
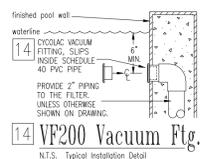
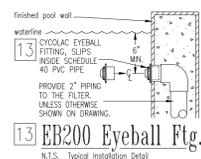
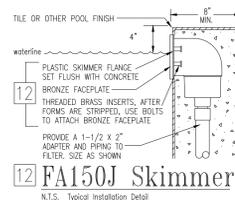
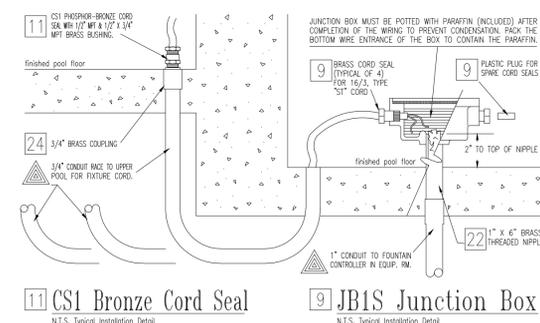
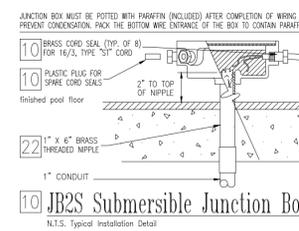
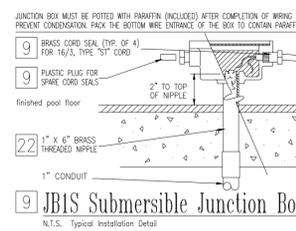


**6 PCS 24" x 24" Sump Screen**  
 N.T.S. Typical Installation Detail

CAUTION: REQUIRES A 3" MINIMUM WATER LEVEL CLEARANCE ABOVE THE TOP OF THE LENS. DO NOT REMOVE EXCESS CABLE. LOOP AROUND THE BASE OF THE FIXTURE TO FACILITATE REPLACING.  
 COLORED LENSES AND CORDS LONGER THAN THE STANDARD 10 FEET ARE AVAILABLE UPON REQUEST.

**8 SL250GT Submersible Light Fixture 250 Watt**  
 FIXTURE HAS INTERNAL THERMAL PROTECTION  
 N.T.S. Typical Installation Detail

- \* LAMPED 250 WATT, 120V, Q2500/LMC QUARTZ
- \* UL LISTED FOR UNDERWATER USE
- \* CAST BRONZE FIXTURE WITH STAINLESS STEEL FENDERS
- \* 16/3 WATER RESISTANT CABLE
- \* FREE STANDING FIXTURE HAS AN ADJUSTABLE BASE



Pioneer Park

North Miami, Florida

6th Avenue Entry Water Feature

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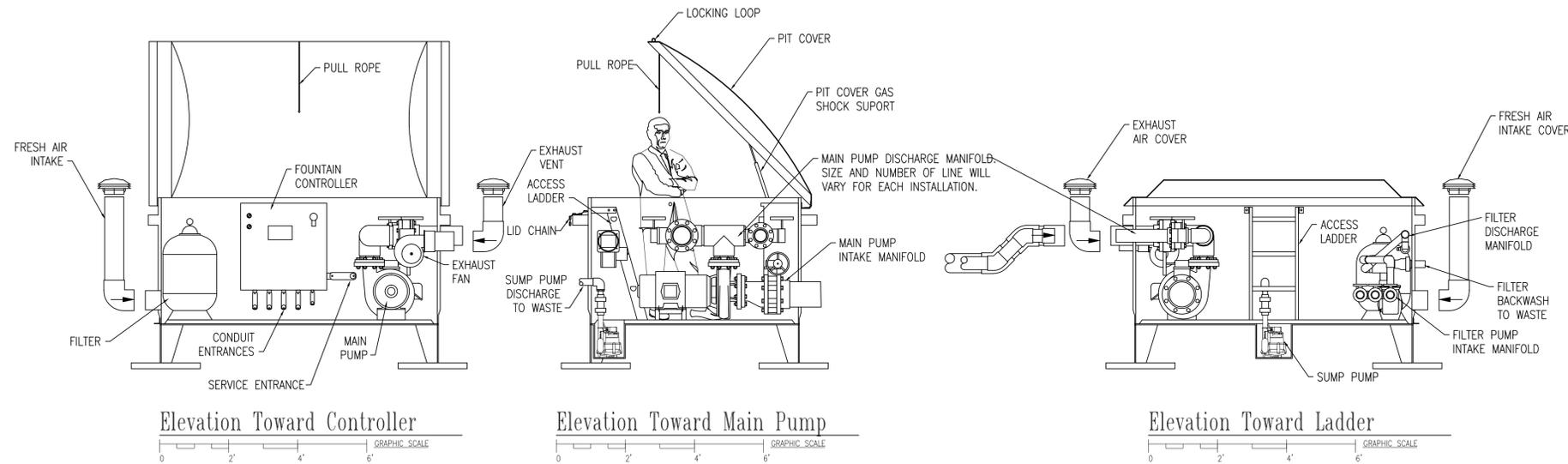
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# Typical Equipment Pit Installation and Layout (Pit Size and Equipment Installed Will Vary)



## \* IMPORTANT NOTES:

- \* THIS DRAWING IS SUBJECT TO THE PROJECT ARCHITECTS AND/OR ENGINEER'S APPROVAL.
- \* LOCAL BUILDING CODES VARY FROM MUNICIPALITY TO MUNICIPALITY AND MAY OVERRIDE NATIONAL CODES. COMPLIANCE WITH LOCAL CODES MUST BE INDEPENDENTLY VERIFIED BY OWNER'S ARCHITECT AND/OR ENGINEER. ANY DEVIATION FROM LOCAL CODES MUST BE BROUGHT TO THE ATTENTION OF HALL FOUNTAINS, INC. IMMEDIATELY.
- \* PIT COMES WITH ALL NECESSARY EQUIPMENT INSTALLED, PRE-PLUMBED, AND PRE-WIRED WITH EXTERNAL FITTING READY FOR HOOK-UP TO FOUNTAIN PIPING AND ELECTRICAL CONDUITS THAT ARE BY THE INSTALLATION CONTRACTOR.
- \* PIT MUST BE SET LEVEL FOR PROPER REMOVAL OF ANY WATER THAT MAY ENTER
- \* ORIENT PIT TO THE FOUNTAIN POOL FOR THE MOST EFFICIENT ROUTING OF PIPING. NORMALLY THE MAIN SUCTION INTAKE WILL GO DIRECTLY TO THE POOL. USE THE LEAST AMOUNT OF FITTING POSSIBLE. SCHEDULE 80 PVC PIPING IS REQUIRED UNDER CONCRETE SLABS AND FOOTINGS. WORKING PRESSURES ALLOW THE USE OF SCHEDULE 40 PVC PIPING AND FITTINGS
- \* CARE MUST BE TAKEN DURING THE INSTALLATION OF THE PIT AND CONSTRUCTION PHASES OF THE FOUNTAIN TO PROTECT AGAINST WATER ENTERING THE PIT. IF MAIN POWER SUPPLY IS NOT AVAILABLE AT TIME OF INSTALLATION, TEMPORARY POWER MUST BE SUPPLIED TO THE SUMP PUMP TO PROTECT THE EQUIPMENT AND THE SUMP WASTE LINE MUST RUN TO DRAIN. NEVER LEAVE ANY PIPING OR CONDUITS OPEN THAT WOULD ALLOW WATER TO ENTER PIT DURING RAIN OR FLOODING. NEVER LEAVE PIT UNATTENDED WITH COVER OPEN AS EXCESS RAIN COULD DAMAGE EQUIPMENT.
- \* NEVER INSTALL PIT IN A LOW AREA WHERE WATER CAN PUDDLE AND CAUSE FLOODING. GROUND SURFACE SHOULD BE LEVEL OR TILT SLIGHTLY DOWN AND AWAY FROM PIT.
- \* IF ANY POSSIBILITY EXISTS FOR GROUND WATER TO RISE UP ON THE PIT OR A RAIN CONDITION COULD BE EXPECTED TO EXIST THAT COULD CAUSE THE PIT TO FLOAT, A REINFORCED CONCRETE LOCKING SLAB AND BAND MUST BE INSTALLED AS SHOWN.
- \* ALL CONDUITS AND CIRCUITS BETWEEN THE FOUNTAIN CONTROLLER AND ANY IN POOL UNDERWATER JUNCTION BOXES, SENSORS OR OTHER CONTROL DEVICE MUST BE A CONTINUOUS RUN. MAKE NO BREAKS IN THE WIRING, USE NO PULL BOXES. MAKE SURE THAT ALL CONDUITS ARE SEALED TO PROTECT AGAINST WATER ENTERING THE CONTROLLER AND PIT THROUGH UNDER-GROUND CONDUITS.
- \* WHEN MAKING PIPING CONNECTIONS TO PIT AND ALL PHASES OF CONSTRUCTION, CARE MUST BE TAKEN TO KEEP ALL DEBRIS OUT OF THE SYSTEM. DEBRIS CAN CAUSE BLOCKAGE IN PUMP AND JETS AT START-UP. THIS REQUIRES DISASSEMBLY OF THE SYSTEM AND MAY CAUSE DAMAGE.



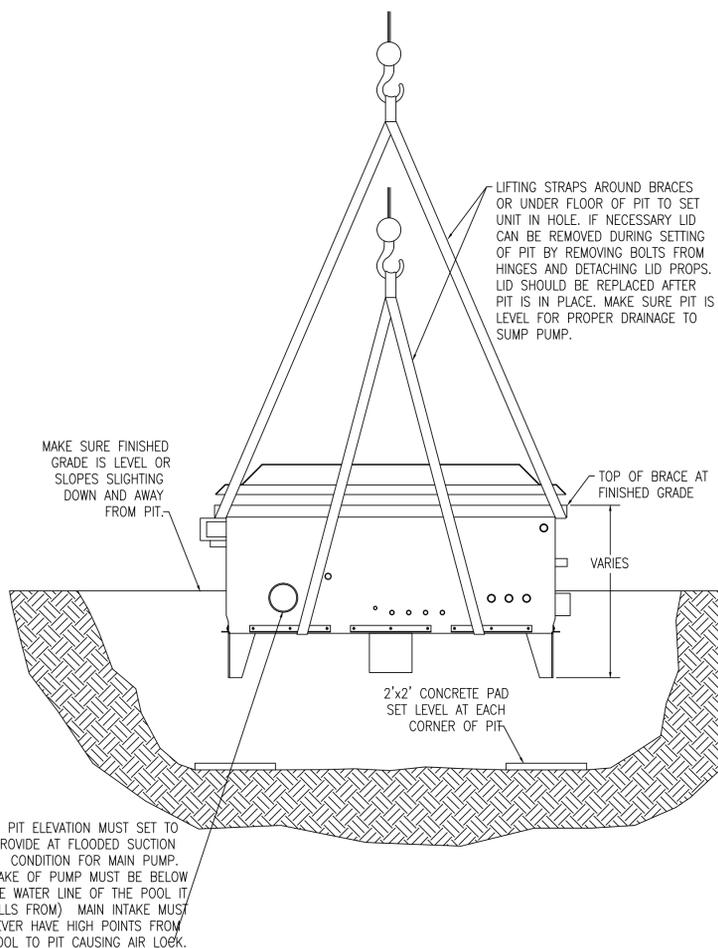
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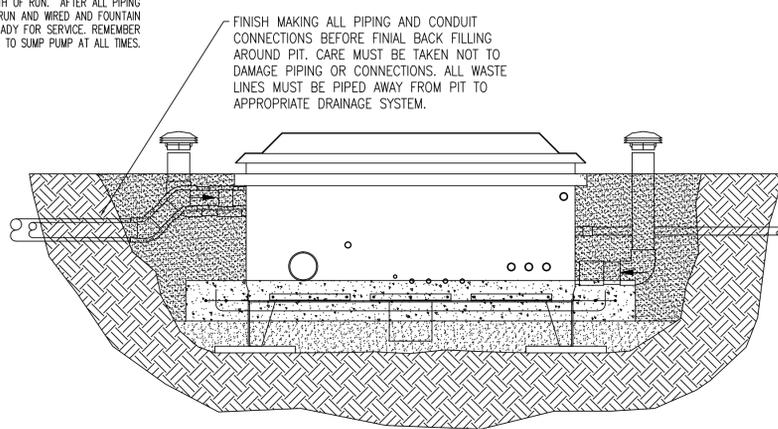
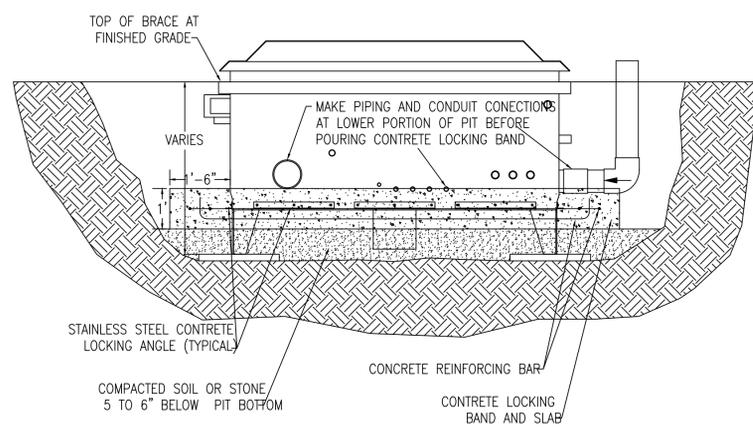
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EXCAVATE HOLE AT DESIRED LOCATION OF PIT. DEPTH OF HOLE FROM FINISHED GRADE SHOULD BE THE DISTANCE FROM THE TOP OF THE UPPER BRACE TO THE BOTTOM OF PIT LEG PLUS THE THICKNESS OF THE CONCRETE SETTING PADS. HOLE SHOULD BE LONG AND WIDE ENOUGH TO HAVE ROOM TO MAKE PIPING AND CONDUIT CONNECTIONS ON OUTSIDE OF PIT. SLOPE SIDES DEPENDING ON SOIL CONDITIONS TO PREVENT CAVE-INS. POUR OR SET CONCRETE PADS AT EACH CORNER AND LEVEL. PIT SHOULD NOT BE SET UNTIL SUCH TIME THAT PIPING & CONDUIT CONNECTIONS CAN BE MADE. PIT SHOULD BE LIFTED WITH STRAPS EITHER UNDER BOTTOM OR AROUND UPPER BRACE AS SHOWN IN DRAWING. BE CAREFUL THAT STRAPS DO NOT CAUSE UNDUE PRESSURE ON PIPING AND CONDUIT CONNECTIONS OR ON PIT COVER. COVER MAY BE REMOVED IF NECESSARY BY REMOVING BOLTS FROM HINGES AND DISCONNECTING SHOCK SUPPORTS OR BLOCKING MAY BE USED. AFTER SETTING PIT, CHECK FOR LEVEL AND ORIENTATION AND ADJUST IF NEEDED. PIPING AND CONDUIT CONNECTIONS ARE TO BE MADE AS SOON AS POSSIBLE. IF SERVICE POWER IS NOT AVAILABLE AT TIME OF INSTALLATION ON PIT, TEMPORARY POWER MUST BE SUPPLIED TO SUMP PUMP AND WASTE LINE FROM SUMP PUMP PLUMBED TO A SUITABLE WASTE AWAY FROM PIT. IF PIT WILL BE LEFT UNATTENDED FOR ANY LENGTH OF TIME AN AUTOMATIC SUMP PUMP SHOULD BE PLACED IN PIT HOLE TO PROTECT AGAINST FLOODING AND DAMAGING SYSTEM BEFORE COMPLETE INSTALLATION. IF COVER WAS REMOVED DURING SETTING OF PIT, IT SHOULD BE REPLACED AFTER FINAL LEVELING. PIT LID SHOULD BE KEPT CLOSED WHEN NOT WORKING ON SYSTEM TO PREVENT RAIN WATER FROM DAMAGING EQUIPMENT IN PIT. MAKE SURE THE SOIL IS COMPACTED GOOD BEFORE PROCEEDING TO THE NEXT STEPS OF CONCRETE LOCKING BAND AND PIPING AND CONDUIT CONNECTIONS.

AFTER PIT IS IN PLACE ON CONCRETE PADS AND LEVELED, BACK FILL UNDER PIT WITH STONE OR SOIL AND COMPACT TO A LEVEL OF 5" TO 6" BELOW PIT BOTTOM. BEFORE FORMING FOR LOCKING SLAB AND BAND, ANY PIPING AND CONDUIT CONNECTIONS SHOULD BE MADE NEAR THE BOTTOM OF THE PIT THAT MITE INTERFERE WITH CONCRETE. FRESH AIR INTAKE LINE AND CONDUIT CONNECTIONS ARE CAPPED AT THE FACTORY TO HELP PROTECT EQUIPMENT DURING SHIPMENT AND SETTING OF PIT. REMOVE CAPS AND MAKE LOWER CONNECTIONS. THE USE OF HEAVY DUTY GRAY PVC GLUE IS RECOMMENDED. FRESH AIR INTAKE LINE SHOULD STUB UP APPROXIMATELY 6 INCHES ABOVE FINISHED GRADE AND BE CAPPED IN SAME MANNER. THE SUPPLIED VENT COVER SHOULD BE INSTALLED AFTER ALL INSTALLATION WORK IS COMPLETED AS THEY CAN BE EASILY BE DAMAGED DURING CONSTRUCTION. THE CONCRETE SLAB AND LOCKING BAND SHOULD BE REINFORCED WITH STEEL REBAR AROUND AND UNDER PIT. CONCRETE SHOULD BE PUMPED UNDER PIT IF POSSIBLE TO COMPLETELY FILL VOID BETWEEN PIT BOTTOM AND COMPACTED STONE OR SOIL BELOW PIT. CONCRETE SHOULD COME UP ON THE SIDES OF THE PIT OVER THE STAINLESS STEEL LOCKING ANGLES APPROXIMATELY 6 INCHES CARE MUST BE TAKEN TO KEEP CONCRETE OR ANY OTHER DEBRIS OUT OF PIPING AND CONDUITS RUNNING FROM PIT TO THE FOUNTAIN. CAP ALL ENDS OF RUNS IF NECESSARY. AFTER CONCRETE HAS SET ANY FORMS THAT MAY HAVE BEEN USED CAN BE REMOVED.

ALL REMAINING PIPING AND CONDUIT CONNECTIONS CAN NOW BE FINISHED. CAPS ON EXHAUST VENT LINE AND REMAINING CONDUIT CONNECTIONS CAN BE REMOVED. AS WITH THE FRESH AIR INTAKE THE EXHAUST LINE SHOULD BE STUBBED UP 6 INCHES ABOVE FINISHED GRADE AND CAPPED. THE VENT COVERS SUPPLIED WITH PIT SHOULD BE INSTALL AFTER ALL WORK IS COMPLETED. THE FILTER BACKWASH LINE MUST BE PIPED AWAY FROM PIT TO AN APPROPRIATE WASTE. THE SUMP PUMP SHOULD HAVE ALREADY BEEN PIPED WHEN PIT WAS SET IN PLACE. MAKE SURE ALL DISCHARGE LINES GO TO THE SPECIFIED LOCATIONS IN FOUNTAIN. DISCHARGE MANIFOLD MAY HAVE SPECIAL VALVING SUCH AS CHECK OR AUTOMATIC VALVES, AND EVEN THOUGH THERE MITE BE TWO DISCHARGES OF THE SAME SIZE, THEY MUST BE PIPED TO THE CORRECT FEATURE. AFTER ALL CONDUITS ARE CONNECTED AND PIPING IS FINISHED AND TESTED, AREA AROUND PIT CAN BE BACK-FILLED. CARE MUST BE TAKEN TO FILL UNDER AND AROUND ALL LINES WITH NO VOIDS. A BACKHOLE OR OTHER MACHINE HAS THE POTENTIAL FOR DAMAGING PIT OR CONNECTIONS, USE EXTRA CARE. ELECTRICAL WIRING CAN NOW BE COMPLETED. ALL INTERNAL WIRING IN PIT IS FACTORY INSTALLED. REFER TO HALL FOUNTAINS DRAWING FOR NUMBER AND SIZE OF WIRES FOR EACH CONDUIT THAT RETURNS TO CONTROLLER FROM OUTSIDE THE PIT. THE CONDUITS AND WIRES MUST BE CONTINUOUS RUNS WITH NO OPEN ENDS THAT COULD ALLOW WATER TO ENTER CONTROLLER AND PIT THROUGH CONDUITS. SERVICE AMPERAGE AND VOLTAGE REQUIREMENTS ARE STATED ON THE DRAWINGS. SERVICE WIRE SIZE AND VOLTAGE DROP MUST BE DETERMINED BY ELECTRICAL CONTRACTOR OR ENGINEER DEPENDENT ON LENGTH OF RUN. AFTER ALL PIPING IS COMPLETED, CONDUITS ARE RUN AND WIRED AND FOUNTAIN IS COMPLETED PIT WILL BE READY FOR SERVICE. REMEMBER THAT POWER MUST BE SUPPLIED TO SUMP PUMP AT ALL TIMES.



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DRWG. NO.: H-13120F

**GENERAL NOTES:**

- SITE INVESTIGATION: PRIOR TO BIDDING THE CONTRACTOR SHALL VISIT THE JOBSITE AND BECOME ACQUAINTED WITH ALL OF THE EXISTING CONDITIONS WHICH WILL AFFECT HIS WORK. FAILURE TO DO SO WILL NOT BE ACCEPTED AS A REASON FOR REQUESTING EXTRA PAY WHERE THE EXISTING CONDITION RESULTS IN EXTRA MATERIAL OR LABOR. THE CONTRACTOR SHALL SUBMIT IN HIS BID AN AMOUNT THAT WOULD BE SET ASIDE FOR UNIDENTIFIED ITEMS.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS MANNER AND SHALL BE A COMPLETED AND FULLY OPERATIVE TO THE ACCEPTANCE OF THE OWNER, GENERAL CONTRACTOR AND ENGINEER.
- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS, ALL IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH THE FLORIDA BUILDING CODE 200 AND NFPA CODES INCLUDING, BUT NOT LIMITED TO NFPA 70 - NEC.
- THIS CONTRACTOR SHALL PAY FOR ALL FEES, INSPECTIONS, TESTS, FINES, ETC., AS REQUIRED.
- MINIMUM STANDARDS: THE MATERIAL, EQUIPMENT, INSTALLATIONS, AND WORKMANSHIP FURNISHED UNDER THIS SECTION SHALL CONFORM AT LEAST TO THE REQUIREMENTS OF THE REGULATING AGENCIES AS LISTED IN ITEM 11 ABOVE.
- ALL MATERIALS AND EQUIPMENT USED SHALL BE LISTED OR BEAR THE U.L. APPROVAL FOR THEIR INTENDED USE.
- RESPONSIBILITIES: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE INSTALLATION OF THE RACEWAY SYSTEM, EQUIPMENT AND WIRING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
  - GUARANTEE: THE CONTRACTOR/SUB-CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE THAT ALL WORK EXECUTED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS OF WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AND THAT HE AT HIS OWN EXPENSE, REPAIR OR REPLACE ALL WORK WHICH BECOMES DEFECTIVE DURING THE TIME OF THE GUARANTEE.
  - ALL EQUIPMENT, SYSTEM AND SYSTEM COMPONENTS SHALL BE FROM THE SAME MANUFACTURER AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS.
  - VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION OR INSTALLATION.
- OBTAIN FULL INFORMATION REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF THE EQUIPMENT AND MATERIALS UNDER CONTRACT, AND PROVIDE READY ACCESSIBILITY TO ELECTRICAL EQUIPMENT, INCLUDING ANY PART OF SYSTEM REQUIRED TO BE REACHED FOR MAINTENANCE AND OPERATIONS.
- PROVIDE AN ACCURATE LAYOUT, GRADES AND ELEVATIONS, TAKE PROPER PRECAUTIONS TO PROTECT WORK AND EQUIPMENT FROM DAMAGE.
- PROVIDE CODE APPROVED FIRE STOPPING AT ALL CONDUIT, PENETRATIONS THROUGH BUILDING CONSTRUCTION TO MAINTAIN FIRE, SMOKE AND SOUND RATING. FIRE SEAL ALL PENETRATIONS. SEAL TELECOMMUNICATION SLEEVES AFTER CABLES HAVE BEEN INSTALLED.
- RACEWAYS AND FITTINGS: CONDUIT RUNS SHALL CONCEALED IN CEILING SPACES, AND WALL PARTITIONS, NO CONDUIT SHALL BE EXPOSED IN INTERIOR SPACES EXCEPT FLEXIBLE CONNECTION TO WIRE MOLDS. CONCEALED CONDUITS TO BE EMT. SURFACE MOUNTED RACEWAY TO BE INSTALLED OUTDOORS. THE MINIMUM CONDUIT SIZE IS TO BE 1/2". ALL CONDUITS AND RACEWAYS SHALL BE METAL INSIDE AND PVC OUTSIDE.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH OTHERS AS WELL AS PROVIDING TEMPORARY POWER.
- VERIFY EQUIPMENT SIZES, VOLTAGE AND CURRENT CHARACTERISTICS, ETC., BEFORE THE ORDERING OF ANY EQUIPMENT AND BEFORE ROUGHING-IN FOR EQUIPMENT TO BE SUPPLIED TO OTHERS. NOTIFY ENGINEER OF ANY CONFLICT.
- PROVIDE A COMPLETE POWER CIRCUIT WIRING AND CONNECTIONS FOR EACH AND EVERY ITEM OF PERMANENT MECHANICAL EQUIPMENT. PRIOR TO ANY ROUGH-IN COORDINATE WITH HVAC AND PLUMBING EQUIPMENT NAME PLATE TO OBTAIN CORRECT WIRE SIZE AND OVERCURRENT PROTECTION RATINGS. IF THE NAME PLATE LABEL REQUIRES THE OVERCURRENT PROTECTION DEVICE TO BE FUSES, PROVIDE A FUSED SWITCH WITH PROPER SIZE FUSES AT THE EQUIPMENT LOCATION.
  - CONDUCTOR: ALL CONDUCTOR WIRE AND CABLE SHALL CONSIST OF (1) CONDUCTIVITY COPPER. ALL CABLES SHALL BE SINGLE CONDUCTOR, 600 VOLT, THERMOPLASTIC INSULATION, SUITABLE FOR CONTINUOUS OPERATION AT (2) DEGREES C. CONDUCTOR TEMPERATURE IN BOTH WET AND DRY LOCATIONS. THESE CABLES SHALL BE N.E.C. INSULATION CLASSIFICATION TYPE THWN THHN. MINIMUM SIZE SHALL BE #12. ALL CONDUCTOR INSULATION SHALL BE COLOR CODED MAINTAINING THE INTEGRITY OF EXISTING INSTALLATION. COLORED INSULATION SHALL BE USED FOR AWG SIZES #10 AND SMALLER AND APPROVED COLOR TAPES SHALL BE USED FOR AWG SIZES #11 AND LARGER. ALL POWER AND CONTROL CIRCUITS SHALL CARRY EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC 2.0-122. (1) FOR LOW VOLTAGE WIRING REFER TO PERFORMANCE SPECIFICATION FOR 12 VOLT LANDSCAPE LIGHTING SYSTEM.
  - THE NATURE OF THIS TYPE OF CONSTRUCTION POSES SPECIAL PROBLEMS FOR THE DESIGN ENGINEER AS WELL AS THE CONTRACTOR. EVERY EFFORT HAS BEEN MADE BY THE ENGINEER TO SHOW AND VERIFY WHERE POSSIBLE THE LOCATION OF THE EXISTING ELECTRICAL SYSTEM. THE MAJOR PORTION OF THE ELECTRICAL SYSTEMS ARE AS SHOWN ON THE DRAWINGS. HOWEVER MINOR DEVIATIONS MAY BECOME EVIDENT AS THE JOB PROGRESSES, NO ADVANTAGE IS TO BE TAKEN BY THE CONTRACTOR BECAUSE OF THESE MINOR DIFFERENCES.
  - CORRECTION OF ANY DEFECTS, REPAIR OR DAMAGE DURING CONSTRUCTION AS WELL AS ANY MINOR CHANGES IN OUTLET LOCATIONS SHALL BE MADE WITHOUT ADDITIONAL COST.
- GUTTERS, PULL BOXES, ETC., SHALL BE GALVANIZED STEEL SIZED PER NATIONAL ELECTRICAL CODE, ARTICLE #12, MADE OF MATERIAL SUITABLE FOR THE ENVIRONMENTAL CONDITIONS PRESENT.
- ALL FLOORS, WALLS, AND ROOF PENETRATIONS SHALL BE PROPERLY SEALED-OFF. IF FIRE RATED, AN APPROVED FIRE RETARDANT SEAL SHALL BE USED.
- ALL WIRING SHALL BE IN RACEWAY.
  - INDOORS - USE THE FOLLOWING WIRE METHODS:
    - EXPOSED - EMT ONLY IN ELECTRICAL ROOMS
    - CONCEALED - EMT
    - CONNECTION TO VIBRATION EQUIPMENT INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, ELECTRIC SOLENOID, OR MOTOR-DRIVEN EQUIPMENT: FMC, EXCEPT IN WET OR DAMP LOCATIONS USE LFMC.
    - DAMP OR WET LOCATIONS: RIGID STEEL CONDUIT.
    - BOXES AND ENCLOSURES: NEMA 2.0, TYPE 1, EXCEPT AS FOLLOWS:
      - DAMP OR WET LOCATIONS: NEMA 2.0, TYPE 1R STEEL.
      - DAMP OR WET LOCATIONS: 2.0, TYPE 4, NONMETALLIC.
  - UNDERGROUND UNDER SLAB - PVC SCHEDULE 40.

**B. OUTDOOR**

- UNDERGROUND, ABOVE GROUND OR UNDER SLAB ON GRADE - PVC SCHEDULE 40.
- THESE DRAWINGS ARE A GUIDE FOR THE INSTALLATION OF THE RACEWAY SYSTEM AND EQUIPMENT. THEY ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND PARTLY DIAGRAMMATIC. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FUNCTIONAL INSTALLATION.
  - CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL AND SHALL BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS. PROVIDE TYPE WRITTEN PANEL BOARD DIRECTORIES IN EXISTING PANEL BOARD DIRECTORIES. UPDATE ALL DIRECTORIES IN EXISTING PANEL BOARDS AFFECTED BY THIS PROJECT ELECTRONICALLY TRACING ALL CIRCUITS.
  - ANY DEVIATION FROM THESE DRAWINGS AND SPECIFICATIONS MUST BE AUTHORIZED IN WRITING FROM THE ENGINEERS OFFICE. THE CONTRACTOR SHOULD BE HELD LIABLE FOR ANY DEVIATIONS WITHOUT SUCH AUTHORIZATION.
  - ALL POWER AND LIGHTING CIRCUITS SHALL HAVE A GREEN EQUIPMENT GROUNDING CONDUCTOR SIZED AS PER NEC 2.0-122. NEUTRAL CONDUCTOR SHALL BE 10 AWG. MINIMUM CU-THW IN ALL MULTICIRCUIT BRANCH CIRCUITS.
  - PROVIDE NYLON PULL STRINGS IN ALL EMPTY CONDUITS FOR FUTURE USE.
  - COLOR CODING FOR CONDUCTORS:
    - WIRING FOR 120/208 VOLT SYSTEM SHALL BE CODED AS FOLLOWS:
      - PHASE A - BLACK
      - PHASE B - RED
      - PHASE C - BLUE
      - NEUTRAL - WHITE
      - GROUND - GREEN
    - WIRING FOR 277/480 VOLT SYSTEM SHALL BE CODED AS FOLLOWS:
      - PHASE A - YELLOW
      - PHASE B - BROWN
      - PHASE C - ORANGE
      - NEUTRAL - GRAY
      - GROUND - GREEN
    - COLORS ON CONDUCTOR 6 AWG AND SMALLER SHALL BE INTEGRAL PART OF INSULATION. ON CONDUCTOR 4 AWG AND LARGER CONDUCTORS, EITHER COLOR CODING TAPE OR PAINTED WITH TWO COATS OF CORRECT COLOR PAINT AT ALL TERMINALS AND CONNECTION POINTS.
      - UNLESS OTHERWISE REQUIRED BY APPLICABLE CODE.
  - ANY WORK NOT SHOWN OR SPECIFICALLY MENTIONED ON THESE PLANS BUT CONSIDERED NECESSARY FOR COMPLETION OF WORK IN THE PROPER MANNER SHALL BE PROVIDED BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGE.
  - CONTRACTOR SHALL VERIFY SPACE CONDITIONS AND DIMENSIONS AT JOB SITE PRIOR TO FABRICATION AND INSTALLATION OF MATERIALS AND EQUIPMENT. ELECTRICAL CONTRACTOR TO COORDINATE HIS WORK WITH THE ARCHITECT BEFORE ROUGH INSTALLATION OF ALL OUTLETS, LIGHTS, RECEPTACLES, SWITCHES, PULL BOXES, ETC., FOR EXACT LOCATION.
    - ALL ELECTRICAL EQUIPMENT SUCH AS PANELS, PULL BOXES, FEEDERS, ETC. SHALL BE PROPERLY IDENTIFIED WITH A PERMANENT LABEL AFFIXED TO THE EQUIPMENT. IDENTIFY CIRCUIT IN PANELS BY MEANS OF A TYPED, PLASTIC COVERED DIRECTORY.
    - SPOT PAINT CONDUITS AND BOXES. IDENTIFY CONDUITS WITHIN 6 INCHES 6 OF BOX OR ENCLOSURE. USE ONLY COLOR CODE IN COMPLIANCE WITH USER REQUIREMENTS UPON COMPLETION.
    - ALL SERVICE INTERRUPTIONS AND ALL REMOVAL AND DISPOSAL WORK SHALL BE SCHEDULED AND COORDINATED WITH THE AUTHORIZED REPRESENTATIVE OF THE OWNER.
  - CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, TAXES, INSPECTIONS, TESTS AND OTHER ITEMS AS REQUIRED FOR THE WORK AS OUTLINED IN THE PLANS. PROVIDE ALL THE REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
    - CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF PRINTS FOR INDICATING ALL CHANGES AS THE CONTRACTOR PROGRESSES. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL DELIVER A SET OF AS-BUILT DRAWINGS TO THE OWNER IN REPRODUCIBLE MATERIAL. CONTRACTOR SHALL STAMP AS-BUILT ON THE PLANS, EACH SHEET, AND PRINT, DATE AND SIGN WITH INK.
  - CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL PARTITION, FLOOR CEILING, CONDUIT PENETRATION, AND ANY OTHER EXISTING CONDITION AFFECTED BY THIS PROJECT. UPON COMPLETION, RE-PAINT ALL AFFECTED SURFACES MATCHING SURROUNDING COLOR.
  - TELECOM RACEWAYS, EMPTY BOXES AND PULL STRINGS TO BE INSTALLED BY ELECTRICAL CONTRACTOR, WIRING AND WIRING DEVICES AND FINAL CONNECTION BY OWNER.
  - FOR LOW VOLTAGE REQUIREMENTS, REFER TO PERFORMANCE SPECIFICATIONS FOR 12 VOLT LANDSCAPE LIGHTING SYSTEM.

**DEMOLITION NOTES:**

- ALL WORK HEREIN DESCRIBED AND SHOWN ON DRAWINGS AND REQUIRED TO MAKE PROJECT COMPLETE IN EVERY ASPECT, PLUS ANY AND ALL PATCHING NECESSARY SHALL BE DONE TO THE COMPLETE SATISFACTION OF THE ARCHITECT, ENGINEER AND/OR OWNER AND SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. ALL MATERIALS SHALL MATCH EXISTING WHERE APPLICABLE AND ALL CONSTRUCTION AND ALTERATION LEFT IN NEW CONDITION.
- ALL ITEMS TO BE REMOVED SHALL BE REMOVED WITH UTMOST CARE AND WITHOUT DAMAGE, AND THOSE ITEMS NOT DESIGNATED TO BE REUSED SHALL BE DELIVERED TO THE OWNER OR DISPOSED OF AS PER HIS WRITTEN INSTRUCTIONS.
  - ALL ALTERATIONS, DEMOLITION AND REMOVAL, CUTTING AND PATCHING AND OTHER WORK NECESSARY FOR CONSTRUCTION OF THIS CONTRACT SHALL BE PERFORMED WITHOUT ADDITIONAL COST TO THE OWNER. THIS SHALL INCLUDE REMOVAL, REROUTING, ETC. OF ALL ELECTRICAL ITEMS REQUIRED TO COMPLETE INSTALLATION INTENDED.
- PATCH OR REPLACE ALL DAMAGED FLOOR, WALL, CEILING, ETC. SURFACES ALTERED TO ACCOMMODATE THE NEW CONSTRUCTION. PATCHED SURFACES SHALL MATCH EXISTING ADJACENT SPACES.
  - ALL CUTTING, PATCHING, DEMOLITION, REPAIRING, REPLACING, ETC. NECESSARY UNDER THIS CONTRACT WILL BE COORDINATED BY THE GENERAL CONTRACTOR. WHERE APPLICABLE COORDINATE WORK WITH UTILITY COMPANIES. LOCAL AND STATE AUTHORITIES HAVING JURISDICTION, OWNERS REPRESENTATIVE AND ALL APPLICABLE CODES.
- WHERE ALTERATIONS TAKE PLACE IN OCCUPIED AREAS, CONTRACTOR SHALL CLEAN UP DAILY AND NOISE SHALL BE KEPT TO A MINIMUM.
  - NONE OF THE SERVICES TO EXISTING BUILDINGS SHALL BE DISRUPTED IN ANY WAY EXCEPT WITH THE WRITTEN PERMISSION OF THE OWNER.
  - ALL EQUIPMENT PRESENTLY HOT AND REQUIRED TO BE MAINTAINED SHALL BE RETURNED TO THIS CONDITION AFTER PERFORMING THE CHANGES TO EXISTING BUILDING. REROUTE CONDUITS AND EXTEND OR REPLACE CIRCUITS AS REQUIRED. PERFORM WORK AT CONVENIENCE OF OWNER.
  - WHERE DEVICES ARE TO BE REMOVED, REMOVE ALL ASSOCIATED WIRING BACK TO THE SOURCE AND RE-USE CONDUITS FROM PANEL TO THE AREA OF WORK. MAINTAIN CONTINUITY OF THE CIRCUIT IF OTHER LOADS ARE SERVED FROM THE SAME CIRCUIT. CONSOLIDATE PARTIALLY LOADED CONVENIENCE RECEPTACLE CIRCUITS TO MAXIMIZE SPACE MADE AVAILABLE AT THE PANEL BOARD.
- EXECUTE ALL WORK IN SUCH MANNER TO AVOID INTERFERENCE WITH THE USE OF PASSAGE TO AND FROM ADJOINING BUILDING OR AREAS.
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGE TO EXISTING BUILDING AND TO CONTENTS THEREOF INCLUDING MACHINERY, FURNITURE, EQUIPMENT, ETC. AND DAMAGED TO BUILDINGS OR CONTENTS THEREOF DUE TO CONTRACTOR OPERATIONS. SHALL BE REPAIRED OR REPLACED AT DIRECTION OF ARCHITECT ENGINEER, AND OR OWNER, THE CONTRACTOR, AT NO EXTRA COST TO THE OWNER.
- CONNECTION TO EXISTING STRUCTURES OR SYSTEMS SHALL BE MADE IN SUCH A MANNER THAT AS LITTLE TIME AS ABSOLUTELY POSSIBLE WILL BE TAKEN, AND CONTRACTOR WILL BE REQUIRED TO COORDINATE FULLY WITH OWNER IN CONNECTION WITH CONVENIENCE AND SAFETY OF ALL PERSONS INVOLVED, INCLUDING EMPLOYEES.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OWNER TO DETERMINE OWNERS REQUIREMENTS REGARDING ACCESS, TIME OF WORK, PROTECTION OF EXISTING CONDITIONS, ETC.

**ABBREVIATIONS/SUFFIXES**

- A.F.F. ABOVE FINISHED FLOOR
- A.F.G. ABOVE FINISHED GRADE
- B.D. BOARD
- C. CONDUIT
- CAB. CABINET
- C.B. CIRCUIT BREAKER
- C.K.T. CIRCUIT
- E.A. EMPTY CONDUIT
- E.W.C. ELECTRIC WATER COOLER
- E. EXISTING TO REMAIN
- ER. EXISTING RELOCATED
- EMT. ELECTRICAL METALLIC TUBING
- F.A. FIRE ALARM
- G.F.I. GROUND FAULT INTERRUPTER
- GND. GROUND
- HID. HIGH INTENSIVE DISCHARGE
- HPS. HIGH PRESSURE SODIUM
- I.G. ISOLATED GROUND
- L.T. LIGHT
- LTG. LIGHTING
- MCB. MAIN CIRCUIT BREAKER
- MLO. MAIN LUGS ONLY
- MT. MOUNT
- MTG. HT. MOUNTING HEIGHT
- N.E.C. NATIONAL ELECTRICAL CODE
- N.I.C. NOT IN CONTRACT
- P.A. PUBLIC ADDRESS
- PNL. PANEL
- RECEPT. RECEPTACLE
- S.D.B.C. SOFT DRAWN BARE COPPER SWITCH
- SW. SWITCH
- U.O.N. UNLESS OTHERWISE NOTED
- V.P. VAPOR PROOF
- W.P. WEATHER PROOF (NEMA R ENCLOSURE)
- X.P. EXPLOSION PROOF (CLASS TO MEET N.E.C.)
- TVSS. TRANSIENT VOLTAGE SURGE SUPPRESSION PANEL
- CCTV. CLOSED CIRCUIT TELEVISION
- WAP. WIRELESS ACCESS POINT
- PT. PAN-TILT-ZOOM CAMERA
- NFPA. NATIONAL FIRE PROTECTION ASSOCIATION
- LFMC. LISTED TIGHT FLEXIBLE METAL CONDUIT
- NEMA. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
- RMC. RIGID METAL CONDUIT
- AWG. AMERICAN WIRE GAUGE
- CO-THW. COPPER WIRE WITH THERMOPLASTIC, HEAT RESISTANT, MOISTURE RESISTANT CHARACTERISTICS
- VOC. VOLATILE ORGANIC COMPOUND

NOTE:  
 NOT ALL SYMBOLS USED IN THIS PROJECT.

**ELECTRICAL LEGEND**

**POWER EQUIPMENT**

- LOW VOLTAGE PANEL BOARD 120/208 V.
- HD FUSIBLE DISCONNECT OR CIRCUIT BREAKER. NEMA R WHEN OUTDOORS.
  - NO. OF POLES, 60 SWITCH SIZE, 0 FUSE, NF, NON-FUSED,
  - FUSE SIZE AS REQUIRED BY LOAD.
- MOTOR STARTER W/CONTROL XFMR, HOA SELECTOR SW. AND RED PILOT LIGHT. NEMA SIZE BY MOTOR. PROVIDE NEMA 4 ENCLOSURE WHEN OUTDOORS
- COMBINATION MOTOR STARTER W/ DISCONNECT SWITCH OR CB. SAME ENCLOSURE AND ACCESSORIES AS INDICATED ABOVE
- CONTACTOR. SAME ENCLOSURE AND ACCESSORIES AS STARTERS
- FAN
- MOTOR

**WIRING**

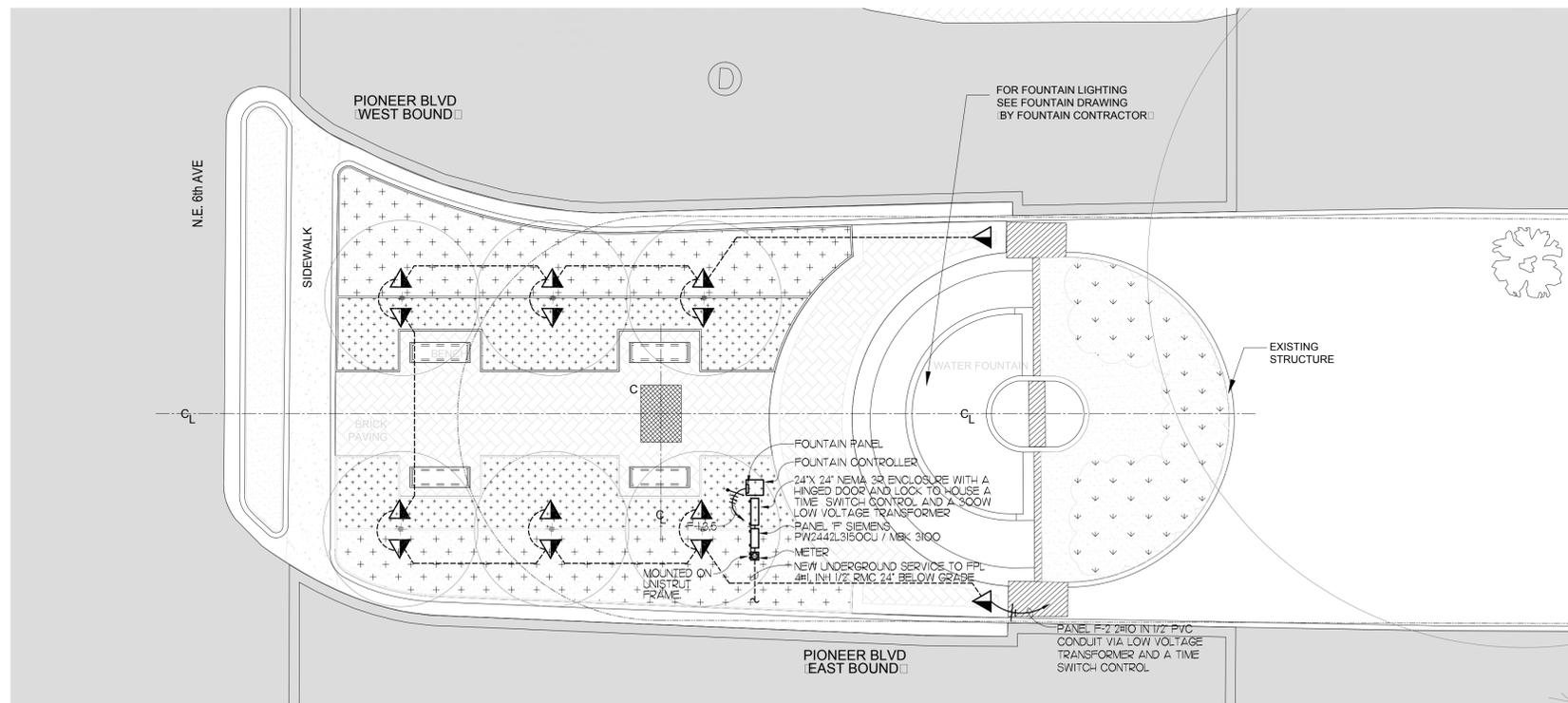
- BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT. NO TICKS INDICATES 2 #12 CONDUCTORS & 1 #12 GROUND IN 4 CONDUIT. TICK MARKS WHEN SHOWN INDICATES NUMBER OF #12 CONDUCTORS IF OTHER THAN THREE. # INDICATES GROUND. CONDUIT LARGER THAN #4 & CONDUCTOR LARGER THAN #12 SHALL BE AS INDICATED.
- HOME RUN TO PANEL. # PANEL DESIGNATION, # CIRCUIT NUMBERS, U.O.N. MINIMUM SIZE OF #4 C AND MAXIMUM OF THREE CIRCUITS PER HOMERUN.
- FLEXIBLE CONDUIT
- CONDUIT RUN CONCEALED IN CEILING WALLS, OR UNDERGROUND

**WIRING DEVICES**

- DUPLEX RECEPT - 20 AMP NEMA 5-20R #1/0 A.F.F.
- DUPLEX RECEPTACLE - 20AMP NEMA 5-20R GFI (WETHER PROOF INSTALLATION IN A NEMA R ENCLOSURE EQUAL TO INTERMATIC WP 1000 SERIES CLEAR DOUBLE AND GUARDIAN WEATHER PROOF COVER #1/0 A.F.F.)
- JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- SINGLE POLE SWITCH - 20 AMP #1/0 A.F.F.
- THREE WAY SWITCH - 20 AMP #1/0 A.F.F.
- DIMMER SWITCH 2000 WATTS #1/0 A.F.F.
- KEY OPERATED SWITCH - 20 AMP #1/0 A.F.F.
- SINGLE POLE SWITCH WITH PILOT LIGHT - 20 AMP #1/0 A.F.F.
- MOTOR RATED SWITCH WITH OVERLOADS.
- TIME CONTROL SWITCH
- SINGLE POLE LIGHT SWITCH WITH PILOT LIGHT - 20A #1/0 AFF.
- SINGLE POLE LIGHT SWITCH - 20A WEATHER PROOF INSTALLED IN A NEMA R ENCLOSURE EQUAL TO INTERMATIC WP 1000 SERIES CLEAR DOUBLE GANG. GUARDIAN WEATHER PROOF COVER #1/0 A.F.F.

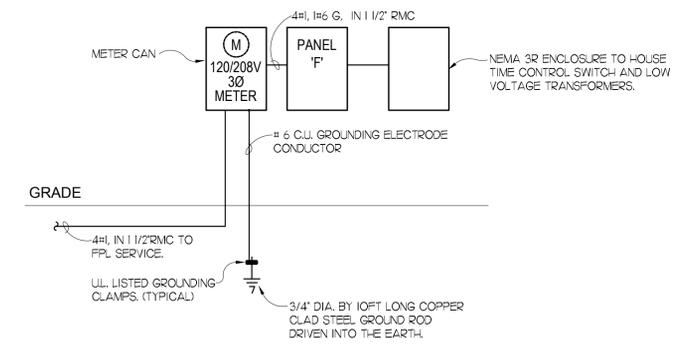
**LIGHTING FIXTURE SCHEDULE**

TYPE	MANUFACTURER & CATALOG No. (OR APPROVED EQUIVALENT)	MOUNTING	LAMPS			FIXTURE		REMARKS
			NO.	TYPE	WATTS	SERVICE VOLTS	TOTAL WATTS	
	HADCO BL-W-5D4-H-C-HW/REMOTE XFMR	GROUND	1	LED 4000K	12.4	120 / 12	12.4	SMALL UPLIGHT WITH WIDE 38 DEG OPTIC AND REMOTE TRANSFORMER



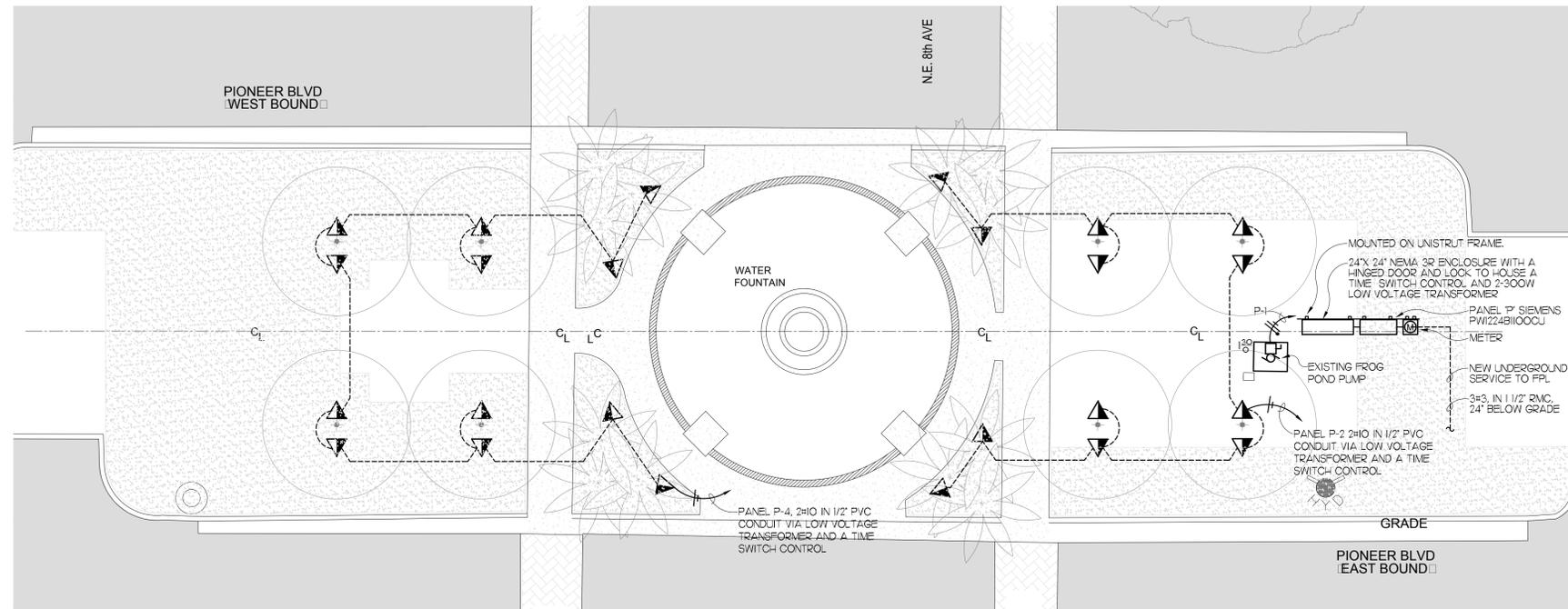
**PIONEER BLVD ENTRANCE FOUNTAIN LIGHTING AND POWER**

SCALE: 1" = 1'-0"



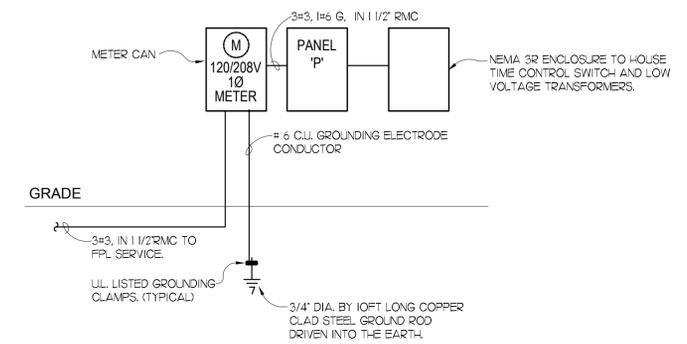
**ELECTRICAL POWER RISER DIAGRAM**

SCALE: NTS.



**FROG POND LIGHTING AND POWER**

SCALE: 1" = 1'-0"



**ELECTRICAL POWER RISER DIAGRAM**

SCALE: NTS.

PROJECT  
**PIONEER BOULEVARD  
 NORTH MIAMI, FLORIDA**

DRAWING  
**LIGHTING AND POWER  
 PLAN**

SCALE  
**AS SHOWN**

PROJECT NUMBER  
 DATE  
**02-24-2012**

REVISIONS

SHEET NUMBER

**E1.00**



ELECTRICAL  
**MARIO D. PAZOS PE  
 LICENSE # 52078**

PROJ. No. 21032 CA 924



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**savinmiller**  
 D E S I G N S T U D I O  
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 1700 BAYVIEW BLVD. SUITE 100  
 MIAMI, FLORIDA 33139  
 (305) 575-8888  
 WWW.SAVINMILLER.COM

TYPE: SIEMENS METER - LOAD CENTER PW1224B100CU														PANEL "P"				MAN BUS: 100 AMP	
SERVICE: 1PH, 3W, 60HZ														INTEGRATED EQUIPMENT SHORT CIRCUIT RATING:				NEUTRAL: 100 AMP	
VOLTAGE: 120/208														25000 AMPS SYMMIS @ 240 V. (U.L. LISTED)				MAINS: 100 A MCB	
MOUNTING: SURFACE IN A NEMA 1 ENCLOSURE														LOCATION: TOP					
DEMAND LOAD VA	NO DEM. LOAD VA	CONDUIT SIZE	WIRE SIZE	TRIP AMP	POLES	LOAD DESCRIPTION AND REMARKS	CKT NO.	PHASE A B C	CKT NO.	LOAD DESCRIPTION AND REMARKS	POLES	TRIP AMP	WIRE SIZE	CONDUIT	NO DEM. LOAD VA	DEMAND LOAD VA			
0	1200	3/4	12	20	1-	FROG POND PUMP	-1	--S--	2-	LANDSCAPE LIGHTING [1][3]	-1	20	12	3/4	300	0			
0	0				1-	SPACE	-3	--S--	4-	LANDSCAPE LIGHTING [1][3]	-1	20	12	3/4	300	0			
0	0				1-	SPACE	-5	--S--	6-	SPARE	-1	20			0	0			
0	0				1-	SPACE	-7	--S--	8-	SPARE	-1	20			0	0			
0	0				1-	SPACE	-9	--S--	10-	SPARE	-1	20			0	0			
0	0				1-	SPACE	-11	--S--	12-	SPARE	-1	20			0	0			
0		1200		= SUB - TOTALS		D.F. = 0.50				SUB - TOTALS =		600		0		0			
0 VA : DEMAND LOAD														PANELBOARD TOTAL LOAD = 1800 VA					
1800 VA : NO DEMAND LOAD																E = VOLTAMPERE / VOLT = 8.6 AMP			
1800 VA : TOTAL																FEEDER: 3 #3, IN 1" C.			
0 VA : TOTAL DEMAND LOAD (d)																FED FROM: FPL SERVICE			
1800 VA : TOTAL NO DEMAND LOAD																REMARKS: 1. PROVIDE GROUNDING BAR KIT.			
1800 VA : TOTAL FOR THIS PANEL																2. PROVIDE A TIME CONTROL SWITCH TORK CATALOG NO. 7200 TO CONTROL LANDSCAPE LIGHTING.			
																3. PROVIDE GFI TYPE CIRCUIT BREAKER			
																(d) APPLYING DEMAND PER NEC TABLE 220.44 TO TOTAL DEMAND LOAD THIS PANEL.			

TYPE: SIEMENS - LOAD CENTER PW2442L3150CU / MBK3125														PANEL "F"				MAN BUS: 100 AMP	
SERVICE: 3PH, 4W, 60HZ														INTEGRATED EQUIPMENT SHORT CIRCUIT RATING:				NEUTRAL: 100 AMP	
VOLTAGE: 120/208														25000 AMPS SYMMIS @ 240 V. (U.L. LISTED)				MAINS: 100 A MCB	
MOUNTING: SURFACE IN A NEMA 1 ENCLOSURE														LOCATION: TOP					
DEMAND LOAD VA	NO DEM. LOAD VA	CONDUIT SIZE	WIRE SIZE	TRIP AMP	POLES	LOAD DESCRIPTION AND REMARKS	CKT NO.	PHASE A B C	CKT NO.	LOAD DESCRIPTION AND REMARKS	POLES	TRIP AMP	WIRE SIZE	CONDUIT	NO DEM. LOAD VA	DEMAND LOAD VA			
0	4193				-		-1	-A-+-	2-	LANDSCAPE LIGHTING [2]	-1	20	12	3/4	300	0			
0	4193	1-1/4	4	80	3-	FOUNTAIN CONTROLLER	-3	+B-+	4-	SPARE	-1	20			0	0			
0	4193				-		-5	+ -C-	6-	SPARE	-1	20			0	0			
0	0				1-	SPACE	-7	-A-+-	8-	SPARE	-1	20			0	0			
0	0				1-	SPACE	-9	+B-+	10-	SPARE	-1	20			0	0			
0	0				1-	SPACE	-11	+ -C-	12-	SPARE	-1	20			0	0			
0		12579		= SUB - TOTALS		D.F. = 0.50				SUB - TOTALS =		300		0		0			
0 VA : DEMAND LOAD																PANELBOARD TOTAL LOAD = 12879 VA			
12879 VA : NO DEMAND LOAD																E = VOLTAMPERE / VOLT = 36 AMP			
12879 VA : TOTAL																FEEDER: 4 #1, IN 1-1/2" C.			
0 VA : TOTAL DEMAND LOAD (d)																FED FROM: FPL SERVICE			
12879 VA : TOTAL NO DEMAND LOAD																REMARKS: 1. PROVIDE GROUNDING BAR KIT.			
12879 VA : TOTAL FOR THIS PANEL																2. PROVIDE A TIME CONTROL SWITCH TORK CATALOG NO. 7200 TO CONTROL LANDSCAPE LIGHTING.			
																3. PROVIDE GFI TYPE CIRCUIT BREAKER			
																(d) APPLYING DEMAND PER NEC TABLE 220.44 TO TOTAL DEMAND LOAD THIS PANEL.			

PROJECT  
**PIONEER BOULEVARD  
 NORTH MIAMI, FLORIDA**

DRAWING  
**PANELS SCHEDULE**

SCALE  
**AS SHOWN**

PROJECT NUMBER

DATE  
**02-24-2012**

REVISIONS

SHEET NUMBER

**E2.00**

ELECTRICAL  
 MARIO D. PAZOS PE  
 LICENSE # 52078

## SECTION 02783

### CONCRETE PAVERS

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SCOPE

- A. The work shall include all labor, material, equipment and transportation required to install the concrete pavers as shown in the drawings. The Contractor shall be equipped to provide a foreman or supervisor who has built at least three such installations of high quality in the last three years.

##### 1.3 RELATED WORK

- A. Division 3 - Concrete Work.
- B. Division 31 - Site Grading.
- C. Division 32 - Trees, Shrubs and Groundcover.

##### 1.4 WORK INCLUDES

- A. Demolition and removal of existing surfaces.
- B. Preparation of subgrade.
- C. Installation of sand setting bed.
- B. Installation of precast concrete pavers.
- C. Perform final clean up.

##### 1.5 SAMPLE PAVING PANEL

- A. Prior to panel sample installation, contractor shall provide a minimum of five pavers of each color, size and finish for approval by Owner.
- B. At a location to be approved by the Owner, the Contractor shall construct a sample panel no less than 6' x 6' and large enough to demonstrate the specified concrete pavers and their relationship to the existing curb, property lines and design layout the as shown on the drawings. The Contractor shall rebuild or revise the sample panels as often as required to obtain the Owner's approval of the pavers, pattern, cleaning and workmanship. The approved panel shall become the standard of comparison for all masonry work built of the materials that the approved panel includes. The panels shall not be altered, moved or destroyed without the Owner's approval.

##### 1.6 CONTRACTOR QUALIFICATIONS

- A. Contractor must have 24 months of previous continuous experience in the installation of compressed concrete paver units in the State of Florida. The Contractor or subcontractor must

have completed three (3) similar sized projects within the past twelve months and be able to provide references upon request of the Owner's Representative/Designer.

## **PART 2 PRODUCTS**

### **2.1 SETTING BED AND JOINT SAND**

- A. Fine aggregate shall be clean, hard sand with durable particles and free from adherent coatings, lumps of clay, alkali salts and organic matter.

### **2.2 PRE-CAST CONCRETE PAVERS**

- A. Paver blocks shall be composed of compressed concrete and meet or exceed performance standards set by Architectural Paver Manufacturing Inc.
  - 1. Paver type shall be selected by Owner.
  - 2. Size: 4" x 8" x 2.5"
  - 3. Finish shall have beveled edges.
  - 4. Color is to be selected by Owner.
  - 5. Pattern is Herringbone.
  - 6. All concrete pavers shall be shipped package palletized in accordance with manufacturer's standard packaging procedures. Concrete pavers shall not be dumped at the site.
  - 7. Concrete pavers shall be kept protected until they are installed with waterproof, non-staining tarpaulins. Cracked, broken, stained, or otherwise damaged pavers will not be acceptable in finished work.
- B. Pavers shall be in conformance with ASTM C 936-82.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION PROCESS**

- A. Contractor shall verify that the base for pavers has been properly graded to the correct elevation, and compacted to 95% maximum dry density as determined by the Modified Proctor Test ASTM D-1557-64 + (plus 4% or minus 2% optimum moisture). Remove from the setting bed rock or other materials, which create uneven bearing.
- B. Place aggregate for compacted base over properly prepared and compacted subgrade. Provide minimum compacted thickness according to Florida Department of Transportation standard, taking care to ensure it remains loose until paving units are set and compacted.
- C. Set concrete paving units hand tight, being careful not to disturb leveling base. Use string lines to keep straight lines. Use block splitter to cut edges when full-size units cannot be used. Select units from four or more cubes to blend color and texture variations.
- D. Vibrate concrete pavers into leveling base with a plate vibrator capable of a 3,500 to 5,000 pound compaction force. Perform this operation on installed areas of paving at end of each day or before any rain.
- E. Fill joints after vibration with sharp sand as specified.

- F. Finish grade to allow for settlement: finish elevation for ungrouted, mortarless pavers shall be 1/8" higher than adjacent concrete.

### **3.2 GENERAL INSTALLATION**

- A. Do not use pavers with excessive chips, cracks, voids, discolorations or other defects which might be visible or cause staining in finished work, curbs, manholes, meter boxes, etc.
- B. Cut pavers with motor-driven saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern shown and to fit adjoining work neatly. Use full units without cutting along poured concrete bands or edges.
- C. Set pavers accurately to lines, levels and in patterns as indicated on the drawings and with uniform joints of width indicated. Back cut all pavers as required to accommodate work of other trades located in setting beds.
- D. Match existing paver patterns and jointing where indicated.
- E. Tolerances – Maintain surface plane for finished paving not exceeding a tolerance of 1/8" in 10' when tested with a 10' straight edge.

### **3.3 JOINTS**

- A. All joints shall be swept sand aggregate as specified.
- B. Maximum allowable space between paver coursing and concrete bands and/or wall face shall be 1/4-inch.

### **3.4 CUTTING PAVER BLOCKS**

- A. Layout pavers and adjust paver coursing such that no concrete pavers shall have to be cut along, or parallel to, its long axis, unless necessary and approved by Owner's Representative/Designer.
- B. Layout pavers and adjust paver coursing such that no pavers shall be cut to less than half its length across the long axis. If it is unavoidable to cut bricks smaller than one-half (1/2) their long dimension cut to the necessity of maintaining the paving pattern, the Contractor shall notify the Owner's Representative/Designer and request their permission to proceed with the cutting.
- C. Cut paver with abrasive cut-off saw. Do not clip or crack. Cut surfaces shall be concealed in the work. No pave saw dust resulting from cutting shall be permitted to be deposited or disposed in planting areas.

### **3.5 REPAIR, POINTING, CLEANING AND PROTECTION**

- A. Remove and replace paver units which are loose, chipped, broken stained or otherwise damaged, or if units do not match adjoining units as intended. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment to eliminate evidence of replacement.
- B. Protect paver block installation from deterioration, discoloration, or damage during subsequent construction and until acceptance of work, in compliance with recommendations of installer and paving unit manufacturer.
- C. Disposal of all excess materials follows approved installation of all concrete paver units.

- D. Exposed paver surfaces shall be thoroughly cleaned and free from any traces of stains. At the contractor's option, he may employ normal, on-site measures to protect exposed paver surfaces from traces of stains, including waxing the exposed surface of the pavers. The Contractor shall submit to the Owner's Representative/Designer for approval the method of protection and cleaning of the paver surface prior to beginning any paver work. Method of protection and cleaning shall be incorporated in the sample paving panel.

### **3.5 TESTING**

- A. Destructive testing reports for representative samples of paver units at no less than a ratio of one unit per 5,000 square feet of surface area of installed pavers shall be forwarded to Owner's Representative/Designer by an approved independent local testing firm contracted by contractor prior to shipment and delivery to site. Test results to be in accordance with ASTM C936-82.

**END OF SECTION 321314**

**SECTION 02900**  
**LANDSCAPE WORK**

**PART 1 GENERAL**

1.1 THE REQUIREMENT

- A. The work included in this section consists of furnishing all labor, supplies equipment and materials necessary to complete the installation of all landscaping as shown on the Plans, as well as all other related responsibilities as specified herein.
- B. All plant materials included shall be of the specific size and quality indicated on the plans and in these specifications and shall be installed in strict accordance with sound nursery practices, and shall include plant delivery and temporary storage, mulching, fertilizing, maintenance and watering for all work outlined on the plans and specifications until final acceptance.
- C. The ENGINEER reserves the right to adjust the number and locations of the designated types and species to be used at any of the locations shown in order to provide for any modifications which might become necessary.
- D. Investigation of Subsurface Conditions: The Contractor shall be responsible for making site subsurface investigations and examinations as he or she chooses in order to become familiar with the character of the existing material and the construction conditions under which he or she will be working. These subsurface investigations and examinations shall be included in the bid. The Contractor shall not receive separate, additional compensation for such investigation
- E. Excavation Related to Inadequate Drainage: Some or all work areas may contain existing materials, such as but not limited to, limerock, and it may even be compacted. This material and any compacted material may interfere with adequate vertical drainage and/or proper plant survival and growth. Removal of this material, in order to have adequate vertical drainage, is part of the scope of work for the project. Therefore, the sub-surface investigations and examinations are necessary in order to determine the extent of removal and excavation required above and beyond the minimum requirements indicated in these Specifications, under the heading of "Excavation of Plant Holes", which is in PART 3. Compensation for any excavation and removal required, above and beyond the minimum requirements indicated, including any additional planting soil needed to fill the larger excavated area, shall be included in the bid. The Contractor shall not receive separate, additional compensation for this.
- F. No separate, additional compensation will be granted because of any unusual difficulties which may be encountered in the execution of any portion of the work.
- G. The Plans are not complete unless accompanied by these Specifications.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Demolition
- B. Site Grading
- C. Topsoil
- D. Irrigation
- E. Concrete Work

### 1.3 QUALITY ASSURANCE

- A. The CONTRACTOR'S Superintendent shall be well versed in Florida plant material, planting operations, blue print reading, and coordination with other performing contracts or services in the job area. All CONTRACTOR employees shall be competent and highly skilled in their particular job in order to properly perform the work assigned to them. The CONTRACTOR shall be responsible for maintaining the quality of the material on the job throughout the duration of its responsibility.
- B. Acceptance of any proposed individual, company, or corporation shall not relieve the Contractor of his responsibility to supervise the work and to coordinate the activities of his sub-contractor with work of all other trades.
  - 1. Sub-Contractor Qualification - No individual, company or corporation will be permitted to perform any work under this Section by Contract of sub-Contract unless such individual, company or corporation is fully qualified to perform the work. The Contractor, if requested, shall provide the following evidence that he or any of his proposed contractors or sub-contractors is qualified.
    - a. State or local license, where license is required by law.
    - b. Membership in trade or professional organizations;
      - 1. Associated Landscape Contractors of America;
      - 2. American Association of Nurserymen, or
      - 3. Florida Nurserymen and Growers Association.
    - c. List of three (3) similar projects which the individual, company or corporations performed under contract or subcontract to a general contractor or Owner.
- C. In the event that it becomes apparent that any nursery supplying plants for this work has knowingly and consistently represented the grade of plants as being higher than their actual grades as determined under these provisions, all plants already delivered from such sources shall be removed from the job at the CONTRACTOR'S expense, and no further plants will be accepted from such nursery until written evidence is submitted and confirmed that all material for delivery has been inspected and approved by inspectors of the State Plant Board as being of the grade as represented.
- D. All plant material shall conform to the names given in Hortus Third, 1976 edition. Names of varieties not included therein conform generally with names accepted in the nursery trade.
- E. Correct Grade of Plants: Any supplier of materials misrepresenting the grade or quality of their materials (i.e. a higher grade than they are), as determined by the Engineer through the application of the Plans and Specifications, shall not be allowed to supply any material for this project. All material already supplied and received from such a supplier, which is below specified grade, shall be removed and replaced at no additional cost to the City. This requirement for removal and replacement shall also include any installed materials. No further materials will be accepted from such supplier until written evidence is submitted and confirmed that all material for delivery is of the grade or quality represented.
  - 1. Grade and Quality:
    - a. All plant material shall be nursery grown, and comply with all required inspections, grading and quality standards and plant regulations as set forth in the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, 1998 Edition, Part 1 and Part 2", or with any superseding specifications that may be called for on the Plans or in the Specifications and as established by the Turfgrass Producers Association of Florida, Inc., ALL PLANTS NOT LISTED IN THE GRADES AND STANDARDS FOR NURSERY PLANTS, shall conform to a Florida No. 1 as to: (1) health and vitality, (2) condition of foliage, (3) root system, (4) freedom from pest or mechanical damage and (5) heavily branched and densely foliated according to the accepted normal shape of the species or sport.

- b. Exception to "Grades and Standards": Any section of Florida Department of Agriculture's "Grades and Standards" which allows nails or spikes in the trunks of trees or palms shall be EXCLUDED from these Specifications. THESE SPECIFICATIONS PROHIBIT NAILS AND SPIKES IN TRUNKS.
- 2. Requirements for Various Plant Designations:
  - a. Balled and Burlapped (B&B) Plants:
    - 1. Burlap and other wrapping materials made of natural, biodegradable materials shall be used.
  - b. Growing site inspections shall be requested in writing with 48 hours advance notice by the Contractor.
  - c. The fact that the Engineer has not made an early inspection and discovery of faulty work or of work omitted, or of work performed which is not in accordance with the contract requirements, shall not bar the Landscape Architect from subsequently rejecting such work.
  - d. The Landscape Architect's on site inspections shall be for the purpose of verifying that the Plans and Specifications are being implemented properly only. The Landscape Architect's on-site inspections are not for safety on or off the job site. Job site safety is the sole responsibility of the Contractor.
- F. The Engineer shall have the right, during any phase of the work operations, to reject any and all work and materials which do not meet the requirements of the Plans or Specifications. Rejected work and materials shall be immediately removed from the project area and replaced with acceptable work and material within seven (7) calendar days or as approved by the City's Representative.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Movement of nursery stock shall comply with all Federal, State, and local laws and regulations. Therefore, required inspection certificates shall accompany each shipment, and shall be filed with the City's Representative.  
Wire wrap burlap if root ball is not sufficiently compacted. Palms will not require burlap wrapping if the following requirements are met:
  - 1. Dug from marl or heavy soil that adheres to roots and retains shape without shattering.
  - 2. Moistened material used to cover ball and roots not exposed to wind and sun.
  - 3. Transport material on vehicles large enough to allow plants not to be crowded. Plants shall be covered to prevent wind damage during transit and shall be kept moist, fresh and protected at all times. Such protection shall encompass the entire period that the plants are in transit, being handled, or are in temporary storage.
- B. All plant material shall not remain on the work site longer than two (2) days prior to being installed.

#### 1.5 SUBMITTALS

- A. Written requests for approval, to substitute a material's plant designation (B&B, WB&B, CG, etc.), type, grade, quality, size, quantity, etc., due to the non-availability of the material specified, shall be submitted within 14 calendar days after the preconstruction conference. Approval shall be given by the Engineer before the material is delivered and installed on the project.
- B. Any request for the approval of an equal shall be in writing. Requests shall be submitted within 14 calendar days after the preconstruction conference. Approval shall be given by the Engineer before the material is delivered and installed on the project.
- C. Submit prints of shop drawings for any special conditions not covered in the details indicated.

This shall be for approval by the Engineer before they are installed on the project.

- D. If requested by the Engineer, submit a written schedule of sources or suppliers of all materials for inspection and approval by the Engineer before they are delivered and installed on the project. Two color photographs of each different item requested by the Engineer, showing different side views of the item shall be submitted with the schedule. Additional color photographs shall be submitted, if requested.
- E. Submit a sample and analysis of all planting soil types for approval by the Landscape Architect before the material is delivered and installed on the project.
- F. Submit a sample and analysis of mulch for approval by the Engineer before the material is delivered and installed on the project.
- G. If requested by the Engineer, submit copies of the manufacturer's specifications or analysis for all fertilizer including data substantiating that proposed materials comply with specified requirements. This shall be for approval by the Engineer before the material is delivered and installed on the project.
- H. The Engineer must review and approve shop drawings of all staking and guying, methods, before they are implemented on the project.
- I. Submit, on an as needed basis, a schedule for spraying and dusting of materials to be used to control pests and disease infestation, the reason for their use and the method to be used to apply the materials and the method of application before it is delivered and used on the project. Also, if requested by the CITY, furnish documentation that the implementation of these control measures for pests and disease infestation is in strict compliance with all federal and local regulations.

#### 1.6 SUBSTITUTIONS

- A. Substitutions of plant types or change in the size of plant material will only be permitted upon submission of documented proof that the particular plant type and size specified is not obtainable.
- B. Where B&B or WB&B plants are specified, CG plants of the same species, etc., will not be accepted. Where a B&B or WB&B is not specified on a particular plant material, B&B, WB&B or CG plants may be used provided they meet all specifications.

#### 1.7 GUARANTEE

- A. All trees and palms shall be guaranteed for a minimum of one (1) calendar year from the time of final acceptance of the project. All shrubs and groundcover shall be guaranteed for a minimum of 180 calendar days from the time of final acceptance.

#### 1.8 REPLACEMENT

- A. The guaranteeing of plant material shall be construed to mean the complete and immediate replacement of plant material if it is:
  - 1. Not in a healthy growing condition, and not contributing to the aesthetic appearance of the project, as determined by the City.
  - 2. There is a question to its survival ability at the end of the guarantee period.
  - 3. It is dead.

1.9 SIZE, QUALITY AND GRADE OF REPLACEMENT

- A. Replacement plant material shall be of the same species, quality and grade as that of the plant to be replaced. The size of the replacement shall not necessarily be the same size as the original specified plant at its initial planting but shall closely match specimens of the same species. Replacements shall be guaranteed for a period equal to the originally specified guarantee. This guarantee period shall begin at time of plant replacement.

1.10 GUARANTEE NULL AND VOID

- A. The guarantee shall be null and void for plant material which is damaged or dies as a result of "Act of God" limited to hail, freeze, lightning, winds which exceed hurricane force, and lethal yellowing, providing the plant was in a healthy growing condition prior to these "Acts of God".

1.11 UNIT PRICES

- A. The successful bidder shall furnish a unit price breakdown for all materials to the City's Representative. The Engineer may, at his discretion, add to or delete from the quantity of materials utilizing the unit price breakdown submitted to and accepted by the City. Unit prices shall be valid for the entire construction period.

**PART 2 MATERIALS**

2.1 PLANT MATERIAL

- A. Except where another grade is specifically called for in the Plans, all plant material shall be not less than Florida No. 1, or better, at the time of installation and final acceptance.
- B. Containerized material shall be well established with at least one (1) full growing season in its container. Field grown material shall be well established with at least two (2) full growing seasons in its existing location.
- C. Habit of Growth: All plant material shall have a habit of growth that is normal for that species and shall be sound, healthy, vigorous and free from insects, plant diseases and injuries.
- D. Measurement of Trees, Palms, Shrubs & Ground Cover:
  - 1. Trees, Shrubs and Ground Cover:
    - a. Rootball: Requirements for the measurement of rootball diameter and depth shall comply with requirements as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, Part 1 and Part 2.
    - b. Height: The height of plant material shall be measured from finish grade and continue up to where the main mass of the plant uniformly ends. The height shall not include any singular or isolated parts of the plant, such as leaves, shoots, branches, limbs or fronds, which extend out beyond the main mass of the plant.
    - c. Width: The width of plant material shall be measured from one side of where the main mass uniformly ends and continue to the other side of where the main mass of the plant uniformly ends. The width shall not include any singular or isolated parts of the plant, such as leaves, shoots, branches, limbs or fronds, which extend out beyond the main mass of the plant.
    - d. Caliper: The caliper of tree trunks shall be measured 3' above the ground unless:
      - 1. The landscape regulations, ordinances and code requirements from the appropriate local jurisdiction the project is located in indicate another method of measurement.
      - 2. Another method of measurement is indicated otherwise on the Plans.
  - 2. Palms: Requirements for the measurement of clear trunk, clear wood, graywood, rootball

diameter and depth shall comply with requirements as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, Part 2".

- E. All sizes shown for plant material on the Plans are to be CONSIDERED AS MINIMUMS. All plant material must meet or exceed these minimum requirements for height, spread, etc. as indicated on the Plans. When plant sizes are specified as a range of size, installed material shall average the mean of the range specified. Plant materials which exceed the minimum dimensions shall not constitute a means for additional compensation to the Contractor or dispensation from other portions of the work.
- F. Die-Back and Leaf-Drop: Plant material showing signs of die-back or leaf-drop will not be accepted and must be removed from the project immediately, if so directed by the Landscape Architect. Therefore, any plant material with tendencies toward leaf-drop or die-back must be root pruned early enough to provide a sound network of hair roots prior to relocation.
- G. Mechanical Destruction of Foliage: Mechanical destruction of foliage resulting from root pruning shall not affect more than 10% of the total foliage prior to planting on the project. Loss of foliage caused by seasonal change will be accepted.
- H. Palms:
  - 1. Before Transporting: See "Delivery and Handling" for requirements related to wrapping of root balls.
  - 2. Remove a minimum of fronds from the crown of the palms to facilitate transporting and handling.
  - 3. Palms with burn marks and frond boots on trunk will not be accepted.
  - 4. Using biodegradable material, such as a burlap strip or untreated cotton twine, tie **Sabal palmetto** bud and leave in-place until palm is established. If by this time the bud has not opened naturally, then the Contractor shall remove the tie, including any bracing, even if the project has been completed, final acceptance has been given and the Contractor has left the job. There shall be no separate, additional compensation for this task. Tying shall be as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants". Tying of other palms shall be at the option of the Contractor.
  - 5. To reduce head volume, Palm fronds may be taper trimmed by not more than one-third.
  - 6. Palms showing cable or chain marks and equipment scars shall be rejected.
- I. Chlorosis: The allowable level of Chlorosis in foliage shall be set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants".
- J. Plant material shall not be accepted when the ball of earth surrounding its roots has been cracked, broken or otherwise damaged.
- K. Root pruning of plant material, when necessary, shall be done a minimum of six (6) weeks or for a period as determined by the Landscape Architect, prior to planting at the project. Prior to root pruning, the Contractor shall give 48 hour advance notice to the Engineer advising of the date to root prune any plant material. This shall allow for any inspections during or after the root pruning, if necessary.

## 2.2 PLANTING SOIL for TREES, PALMS, SHRUBS & GROUNDCOVER

- A. PLANTING SOIL shall be natural, friable, and free from rocks larger than 1/2" diameter, weeds, stumps, plant tissue, litter, toxic substances, or any other deleterious materials. The Planting soil shall consist of 70% clean, sharp, coarse, Lake Wales Silica Sand "alternate FDOT #3 coarse sand" and 30% Everglades muck, mixed with the native, excavated soil in a 1:1 ratio (50/50). Soil must be taken from ground that has never been stripped, with a slight

acid reaction (5.5 to 6.5 ph) and without an excess of calcium or carbonate. Soil shall be delivered in a loose friable condition.

- B. Proof of soil characteristics shall be the Contractor's responsibility and shall be supplied by independent and certified testing laboratories, independently mailed to the Owner/Owner's Representative prior to the delivery and/or use of the soil.
- C. General Type: All plant material shall be planted with a backfill material comprised of 50% existing native material and 50% planting soil.
- D. Submit soil analysis and sample at no additional cost to the Engineer.

## 2.3 WATER

- A. The Landscape Contractor is responsible to ascertain the location and accessibility of a potable water source. The Landscape Contractor is responsible for distribution of water to the areas of planting. If there is no source of potable water available at the job site approved for use, then the Landscape Contractor shall be responsible for bringing in a water truck or tank for hand watering. If water volumes accessibility and distribution are not satisfactory to the Contractor, it is his responsibility to negotiate acceptable terms with the CITY prior to signing of a contract. If during the planting, water availability previously agreed to, is curtailed, the Contractor shall notify, in writing within 24 hours, the City's Representative of the condition and, if the Landscape Contractor deems necessary, his intent to cease work until water is restored. For plants already installed prior to cut-off of water availability, the Landscape Contractor shall continue to be responsible for providing water as required by specifications.

## 2.4 MULCH

- A. Mulch shall be processed entirely from the Melaleuca tree and composed of 97% hard inner wood and 3% outer bark. It shall be uniformly shredded and free from foreign matter, large pieces of bark, tree stump material, burrowing nematodes and ants. (Melaleuca mulch must have a written guarantee that there will not be any germination of Melaleuca seed which may be present in the mulch. If germination occurs, the Contractor shall be responsible for removal of the mulch and seedlings to the satisfaction of the Landscape Architect. The mulch shall be replaced with another acceptable mulch approved by the Landscape Architect).

## 2.5 FERTILIZER

- A. Submit copies of the manufacturer's specifications or analysis of all fertilizer for approval.
- B. Trees and Palms (Container): Fertilize per City's requirements during Maintenance Period. Shall be a "8-4-12" 'Palm Special' formulation, with a minimum of 50% nitrogen in the slow-release (preferably sulfur-coated) and a complete line of micro-nutrients, or approved equal.
- C. Shrubs and Ground Cover: Fertilize per City's requirements during Maintenance Period. Shall be a "8-4-12" 'Palm Special' formulation, with a minimum of 50% nitrogen in the slow-release (preferably sulfur-coated) and a complete line of micro-nutrients. release (preferably sulfur-coated) and a complete line of micro-nutrients, or approved equal.
- D. Submit manufacturer's specification sheet(s) for approval of product. Submit tags from bags of fertilizer used on site to the City.
- E. Composition and Quality: All fertilizer shall be uniform in composition and dry. Granular fertilizer shall be free flowing and delivered in unopened bags. Tabletized fertilizer shall be delivered in unopened containers or boxes. All bags, containers or boxes shall be fully

labeled with the manufacturer's analysis.

- F. All shall comply with the State of Florida fertilizer laws.

### **PART 3 EXECUTION**

#### **3.1 INSPECTION**

- A. Prior to the work, carefully inspect the installed work of other trades and the site conditions and verify that all such work and site conditions are complete to the point where this installation may properly commence.
- B. Start of work shall imply acceptance of the site conditions.
- C. Utilities (Overhead and Underground)
  1. The work area may have existing utilities, such as, but not limited to, irrigation, phone, electrical and storm sewer. It shall be the responsibility of the Contractor to verify the location of all such utilities, structures, etc., by hand excavation or other appropriate measures before performing any work that could result in damage or injury to persons, utilities, structures or property. The Contractor shall make a thorough search of the site for utilities, structures, etc., before work is commenced in any particular location.
  2. The Contractor shall take immediate steps to repair, replace, or restore all services to any utilities or other facilities which are disrupted due to his or her operations. Further, the Contractor shall engage any additional outside repairs on a continuous "around the clock" basis until services are restored. He or she shall also provide and operate any supplemental temporary services to maintain uninterrupted use of the facilities. All costs involved in the repairs and restoring of disrupted service resulting from negligence on the part of the Contractor shall be borne by the Contractor and he or she shall be fully responsible for any and all claims resulting from the damage.
  3. Should utilities, structures, etc., be encountered which interfere with the work the Engineer shall be consulted immediately in order for a decision to be made on the relocation of the work so it will clear the obstruction, if the obstruction cannot be relocated.
  4. The Contractor shall not purposefully disrupt or disconnect any type of utility whatsoever without first obtaining the written permission of the Landscape Architect. Requests for disconnection must be in writing and received by the Engineer at least 72 hours prior to the time of the requested interruption.

#### **3.2 GRADES**

- A. Rough Grades: Grading for drainage, swales, etc. shall be provided by the Contractor.
- B. It shall be the responsibility of the Contractor to provide the final grading so the final level for planting areas conforms to surrounding grades and is at the proper elevation with relation to walks, paving, drain structures and other site conditions, unless indicated otherwise on the Plans.
- C. Plant Areas Next to Pavement: All planting areas next to pavement areas, such as, but not limited to, curbs, roads, drives, walks, terraces, decks and slabs shall be set so that the TOP OF THE MULCH IS 1" BELOW THE TOP OF THE PAVEMENT AREA or as indicated otherwise on the Plans.

#### **3.3 HERBICIDE TREATMENT**

- A. In all areas infected with weed and/or grass growth, a herbicide as approved by the Engineer

shall be applied per manufacturer's rates. When it has been established where work will be done, the herbicide shall be applied in accordance with manufacturer's labeling to kill all noxious growth. Landscape Contractor shall schedule his work to allow more than one application to obtain at least 95% kill of undesirable growth. Landscape Contractor shall exercise extreme care to prevent damage to desirable existing growth. If necessary, Landscape Contractor shall conduct a test to establish suitability of product and applicator to be used on this project, prior to execution of the full application.

### 3.4 PREPARATION

- A. All areas proposed for planting not covered by more than 12" of new fill shall be scarified by an approved means to a depth of not less than 36", and shall be treated with two separate applications of appropriate herbicide as recommended by the manufacturer and approved by the City's Representative.
- B. Staking Plant Locations: Stake or mark plant material locations prior to plant hole excavation, based on information from the Plans.
- C. Spacing of Ground Cover and Shrubs: The location of a planting bed (shrub or groundcover) next to another bed, walkway, structure, etc., shall have the plants along the perimeter spaced so that the plants can mature properly without growing into the other bed, walkway, structure, etc.
- D. The rootballs of B&B plants which cannot be planted immediately shall be covered with moist soil or mulch to insure protection from drying winds and sun. All plants shall be maintained as necessary until planting. Refer to the section entitled "DELIVERY, HANDLING AND STORAGE" for additional requirements.
- E. Subsurface Conditions: Some or all work areas may be compacted and/or contain existing material such as limerock which may interfere with adequate vertical drainage and/or proper plant survival and growth and therefore removal of this material is part of the scope of work for the project. The Contractor shall be responsible for insuring adequate drainage in these areas and shall remove this existing material, as required, by such means as augering, drilling or rototilling.
- F. The Contractor shall remove all existing concrete, asphaltic concrete and rocks, above and below grade, from areas to be landscaped unless indicated otherwise on the Plans.
- G. Excavation of Plant Holes:
  - 1. General:
    - a. The hole shall be cylindrical in shape with the sides approximately vertical. The Engineer reserves the right to adjust the size and shape of the plant hole and the location of the plant in the hole to compensate for unanticipated structures or unanticipated factors which are a conflict.
    - b. The excavated material from the plant holes shall be used to backfill around the plant material. Extra material shall be disposed of either on the project site or off the site, as directed by the Landscape Architect.
  - 2. Trees and Palms:
    - a. Depth of hole shall be one (1) inch less than the rootball height, unless further depth is required to provide adequate drainage as per 3.04 D.
    - b. Diameter of hole shall be two to two and a half (2.0 – 2.5) times the diameter of the rootball.
  - 3. Shrubs:
    - a. Single Plants:
      - 1. Depth of hole shall be equal to the rootball depth.

- 2. Diameter of hole shall be 50% greater than the rootball width.
- b. Mass Planting (2 or more together) Planted 24 Inches on Center or Less:
  - 1. Depth shall be equal to the rootball.
  - 2. Diameter: Shrub material in mass shall not be planted in individual holes but rather in one continuous hole or excavation for the entire mass.
- 4. Groundcover Beds:
  - a. Container Material:
    - 1. Depth shall be equal to the rootball depth.
    - 2. Diameter: Groundcover material in mass shall not be planted in individual holes but rather in one continuous hole or excavation for the entire mass, all at a depth equal to the depth of the rootball.

### 3.5 INSTALLATION

- A. Container Plant Material: After container grown plant material is removed from its container, the sides of the root ball shall be given six (6) vertical cuts full length. These cuts shall be about 1/4 inch deep. The bottom of the root ball shall also receive an "X" shaped cut that is 1/4 inch deep.
- B. Setting of Plants:
  - 1. PLANT MATERIAL SHALL BE PLANTED AT THEIR NATURAL AND ORIGINAL PLANTING LEVEL PRIOR TO THEIR PLACEMENT ON THIS PROJECT OR JOB. WHEN LOWERED INTO THE HOLE, THE PLANTS SHALL REST ON THE PREPARED HOLE BOTTOM SUCH THAT THE SURFACE ROOTS AT THE TOP OF THE ROOTBALL ARE LEVEL OR SLIGHTLY ABOVE THE LEVEL OF THE SURROUNDING FINAL GRADE AFTER SETTLEMENT (I.E. THE FINAL LEVEL OF THE TOP OF THE PLANT'S ROOTBALL SHALL BE THE SAME AS THE SURROUNDING FINAL GRADE). THE PRACTICE OF PLUNGING, BURYING OR PLANTING ANY PLANT MATERIAL SUCH THAT THE SURFACE ROOTS AT THE TOP OF THE ROOTBALL ARE BELOW THE LEVEL OF THE SURROUNDING FINAL GRADE, WILL NOT BE PERMITTED UNLESS IT IS INDICATED OTHERWISE IN THESE SPECIFICATIONS OR IT IS APPROVED IN WRITING BY THE ENGINEER PRIOR TO SUCH ACTION BEING TAKEN.  
The plants shall be set straight or plumb or normal to the relationship of their growth prior to transplanting. The Engineer reserves the right to realign any plant material after it has been set.
  - 2. Plant material of the shrub category and smaller must be handled by the ball only. Plant material too large for handling by hand, if moved by winch or crane, must be thoroughly protected from chain, rope or cable marks, girdling, bark slippage, limb breakage and any other damage that might occur by improper handling or negligence.
  - 3. All trees and palms shall be handled by both the trunk and rootball at the same time and not by the trunk only. Trunks shall be thoroughly protected.
  - 4. Container grown plant material shall be carefully removed from the container so as not to disturb the root system.
  - 5. All palms and trees planted east of Coastal Construction Control Line (CCCL) shall be set with anchoring system as shown in the plans.
- C. Backfilling: Use planting soil indicated under "PLANTING SOIL". Backfill the bottom two thirds of the planting hole and firmly tamp and settle by watering as backfilling progresses. After having tamped and settled the bottom two thirds of the hole, thoroughly puddle with water and fill remaining one third of the hole with planting soil, tamping and watering to eliminate air pockets.
- D. Application Rates of Fertilizer: Shall be as recommended by the fertilizer manufacturer, or as otherwise approved by the City.

- E. Mulch: Within 24 hours after planting. Planted areas must be mulched uniformly to a depth of approximately two inches, or as indicated on the Plans. Keep mulch approximately one inch away from trunks, stems or growing points of ground covers.
- F. Staking and Guying:
1. Staking and guying shall not be attached to the plant material with nails. Staking and guying, shall be installed as indicated in the details or approved shop drawings. Refer to the heading "Setting of Plants", which is in PART 3 of these Specifications, for additional information.
  2. Staking and guying shall be in accordance with all applicable regulations, ordinances and code requirements in effect at the time of award of the contract.
  3. The decision of whether to stake or guy shall be left to the discretion of the Contractor, provided it is not required according to local regulations, ordinances and code requirements. However, a Contractor's decision not to stake or guy shall not relieve he or she of the responsibility of resetting plant material if it blows, falls or leans over. Also, it will not relieve he or she of the guarantee if the material dies as a result of blowing, falling or leaning over.
    - a. Install in the manner indicated in the details.
    - b. The contractor shall remove and dispose of materials when it is determined by the Engineer that sufficient time has elapsed for the plants roots to stabilize the plant.
- G. Watering:
1. Initially, water the plant material to develop uniform coverage and deep water penetration of at least six inches. Avoid erosion, puddling, and washing soil away from plant roots.
  2. Provide continuous watering of plant material, after planting, in order to achieve optimum growth conditions to establish plants. Water shall be applied as necessary and the amount of water and frequency of watering shall be based on the specific needs of each plant type, the time of year, amount of rainfall and other environmental conditions present at the time. This watering shall begin after the plant is planted and continue until final acceptance or for a minimum of sixty (60) consecutive calendar days, whichever is greater in time. ALL TREES AND PALMS SHALL BE HAND WATERED, ONLY, DURING THIS PERIOD. DO NOT RELY ON THE IRRIGATION SYSTEM, IF THERE IS ONE, TO ACHIEVE THIS TASK. It cannot deliver the volume of water required, without flooding areas beyond where water is needed and/or overwatering other landscape material. Shrubs and ground cover may be watered by using the irrigation system, if there is one, otherwise hand water during this period.
  3. If there is no source for water available at the project, such as a hose bib(s) or fire hydrant(s) if approved for use, then the Contractor shall be responsible for supplying water for hand watering by means of a truck or tank.
  4. Canopy watering of transplanted existing trees, using misting heads on PVC risers to cover entire canopy, may be required at the discretion of the Landscape Architect. Operate by hand or on a time clock to spray as required to keep soil at root ball from getting too wet.
- H. Pruning and Thinning:
1. The amount of general pruning and thinning shall be limited to the minimum necessary to remove dead or injured twigs and branches and to compensate for the loss of roots as a result of transplanting operations. Pruning and thinning shall be done in such a manner as not to change the natural form or shape of a plant. The Engineer shall be contacted prior to performing any major pruning and thinning and may elect to be present during any pruning and thinning.
  2. All broken or damaged branches or roots shall be cut off smoothly.
  3. "Hat racking" shall only be allowed upon written approval and direction of the Landscape Architect.

- I. Weeding:
  - 1. If weeds become prevalent to such an extent that they threaten the health of plant material, then they shall be removed. This condition shall apply during the construction, maintenance and guarantee periods if the weeds were introduced by the Contractor through the plant material, planting soil, sand or mulch used.
  - 2. If necessary, plant material, mulch, sand and/or planting soil shall be replaced as needed to eliminate weeds or undesirable vegetation at the expense of the Contractor.
- J. Removal of Plant Material: All plant material to be removed, shall be removed completely, including the rootball or as directed by the Landscape Architect, from the job site. The remaining hole shall be filled with suitable material or planting soil.

### 3.6 CLEANUP

- A. Disposal of Waste: All waste and other objectionable material created through planting operations and landscape construction shall be removed completely, on a daily basis, from the job site or as directed by the Landscape Architect. Any paved area, including curbs and sidewalks which contain soil, fertilizer or other waste shall be thoroughly swept. The City is not required to supply areas or facilities for storage or removal of waste on-site.
- B. Excess Fill: All excess fill which results from the installation of the project shall remain the property of the City and remain on the project at the option of the City. All excess fill which the City does not want shall be removed and disposed of from the project at no additional cost to the City. No excess fill shall be removed or disposed of from the site until approved by the City's Representative. Excess fill shall be disposed of as directed.

### 3.7 PROTECTION

- A. Responsibility for Protection and Restoration of Property: The Contractor shall be responsible for all damage or injury to person or property.
- B. Protection Against Mechanical Damage: The Contractor's responsibility for protection against mechanical damage shall include providing protection from vehicles and providing warning signs and barricades as might be necessary and he or she shall repair, restore and replace all property which becomes damaged as a result of any negligence of the Contractor or his or her employees in complying with these requirements. Coordination shall be with the THE CITY'S REPRESENTATIVE and the Landscape Architect.

### 3.8 COMPLETION AND FINAL ACCEPTANCE

- A. Upon written notice from the Contractor of the presumptive completion, as defined below, of the entire project, the Landscape Architect, along with other appropriate parties, will make an inspection within 48 hours after the written notice. If all construction provided for and contemplated by the Plans and Specifications, is found to be completed in accordance with the Plans and Specifications, such inspection shall constitute the final inspection. The Contractor shall be notified in writing of final acceptance as of the date of the final inspection.
- B. If, however, the inspection mentioned in paragraph A, above discloses any work, in whole or in part, as being unsatisfactory, final acceptance shall not be given the Contractor. THE CITY'S REPRESENTATIVE will give to the Contractor the necessary instructions or "punch lists" for correction of same, and the Contractor shall have up to 20 calendar days from the date such instructions or "punch lists" to correct the work are received. If the instructions or "punch lists" to correct the work are not complete within the 20 calendar days, then THE

CITY'S REPRESENTATIVE may correct the work and back-charge the Contractor for materials, labor and equipment.

- C. Upon correction of work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, THE CITY'S REPRESENTATIVE or their representative shall make the final acceptance and notify the contractor in writing of this final acceptance as of the date of this final inspection.
- D. Completion of the work shall mean the full and exact compliance and conformity with the provisions expressed or implied in the Plans and Specifications including any and all "punch lists" which may be issued outlining certain items of work which were found unsatisfactory or require completion or correction action.
- E. Final acceptance shall not be given until all construction provided for and indicated in the Plans and Specifications is inspected by THE CITY'S REPRESENTATIVE and found to be completed in accordance with the Plans and Specifications.
- F. Final acceptance shall not be official until acknowledged in writing by THE CITY'S REPRESENTATIVE.
- G. The guarantee shall not begin until the day final acceptance is given.

### 3.9 RESPONSIBILITY PRIOR TO FINAL ACCEPTANCE

- A. Certain responsibilities prior to final acceptance: The following is a partial list of certain responsibilities. It is not a complete list, but only a summary of certain responsibilities. There are other responsibilities indicated elsewhere in the Plans and Specifications. The lack of listing a responsibility on the following list does not relieve the Contractor of that responsibility if it is indicated elsewhere in the Plans and Specifications. Also, the listing of a responsibility on the following list does not necessarily make it any more important than one which is not listed:
  - 1. The Contractor is responsible for the entire project prior to final acceptance.
  - 2. The Contractor is responsible for safety on and off the job site.
- B. Maintenance Prior to Final Acceptance:
  - 1. Maintenance shall begin immediately after each plant is planted and continue until final acceptance except for the watering indicated in the paragraph below. This watering shall begin as indicated and shall continue until completed, even if the indicated period goes beyond the time of final acceptance.
  - 2. Plant maintenance shall include watering, pruning, weeding, cultivating, repair of erosion, mulching, tightening and repairing of guys, stakes, braces, etc., replacement of sick or dead plants, resetting plants to proper grades or upright position, maintenance of the watering saucer, litter removal, and all other care needed for proper growth of the plants. Mowing and edging shall be done at least every fourteen (14) days and the irrigation system shall be checked every fourteen (14) days and report and repairs required to responsible Contractor.
  - 3. Immediately after planting, each plant shall be watered and the watering period shall continue until final acceptance or for a minimum of 42 consecutive calendar days, whichever is greater in time. Refer to the section entitled "Watering" for additional requirements.
  - 4. All plant material shall be weeded once a week. In the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, the weeds shall be removed as directed by the Landscape Architect. If necessary, the plant material, mulch, sand and/or planting soil shall be replaced as needed to eliminate weeds or undesirable vegetation at the expense of the Contractor.

5. Insecticides:
    - a. Contractor shall apply all insecticides as needed, for complete control of pests and diseases. The materials and methods shall be in accordance with highest standard horticultural practices and as recommended by the County Agent, and approved by the Landscape Architect, prior to implementation.
    - b. When a chemical is being applied, the person using it shall have in their possession all labeling associated with the chemical. Also, the chemical shall be applied as indicated on the said labeling.
    - c. The spraying of insecticides and other such chemicals are to be confined to the individual plant. Spraying techniques which may introduce the material being sprayed beyond the immediate area of the individual plant, is strictly prohibited.
    - d. The implementation of control measures for pests and disease infestations shall be in strict compliance with all federal and local regulations. Upon request, the Contractor shall furnish documentation of such compliance.
    - e. All insecticides shall be applied by a licensed/certified operator only. The operator shall have the license/certification in their possession when insecticides are being applied.
  7. Protection: Planted trees and plants shall be protected against trespassing and damage. If any plants become damaged or injured, they shall be treated or replaced as directed and in compliance with the Specifications at no additional cost to the City. No work shall be done within or over planting areas or adjacent to plants without proper safeguards and protection.
  8. Keep sidewalks, curbs and gutters, drainage structures, driveways, parking areas, streets, terraces, decks and pavers free of plant cuttings, debris and stains.
  9. Material rejected during the course of construction shall be removed within ten (10) working days and replaced before an inspection for completion will be scheduled.
  10. If the Contractor fails to perform maintenance consistent with these specifications, as determined by THE CITY'S REPRESENTATIVE, then the City may perform any necessary maintenance and backcharge the Contractor for labor and materials.
- C. Survival and Conditions: The Contractor shall be responsible for the proper maintenance and the survival and condition of all landscape items from the time a landscape item is installed until final acceptance.
- D. Replacement: Replacement of plant material shall be the responsibility of the Contractor including the possible replacement of plant material resulting from removal by theft or vandalism or acts of negligence on the part of others. All plant material shall be alive and in good growing condition for each specific kind of plant at the time of final acceptance.
- E. Rating: The rating of plant material according to Florida Grades and Standards shall be equal to or better than that called for on the Plans and in these Specifications at the time of final acceptance.

**END OF SECTION 02900**

# LED Bullyte Narrow Optic (BN4) Specification Sheet

Project Name: PIONEER BOULEVARD

Location: NORTH MIAMI, FL

MFG: Philips Hadco

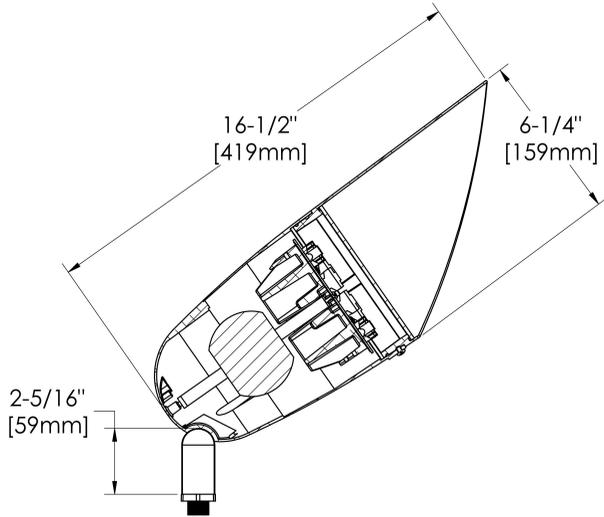
Fixture Type:

Catalog No.: BN4-CD59-N-H-L

Qty:

## Ordering Guide

Example: BN4 WD41 H A L



<b>Product Code</b>	BN4	LED Bullyte Narrow Optic
<b>LED Color/Lumens</b>	WD41 CD59	Warm White, 404 Lumens Cool White, 589 Lumens
<b>Internal Accessory</b>	H N S B L	Honeycomb Louver None Multi-Directional Spread Lens Ice Blue Lens Linear Spread Lens
<b>Finish</b>	A H G	Black Bronze Verde
<b>Shroud</b>	L	Long Shroud

\*1 Smart Select Electronic Driver: 120-277VAC 50/60 Hz auto-sensing

## Specifications

### HOUSING:

Die-cast aluminum. Fully-adjustable swivel arm with vibration-proof locking teeth. 1/2" NPS male threads to screw onto accessory mounting stake or junction box, sold separately. Gasketing is silicone. Fasteners are 300 series stainless steel to prevent corrosion and ensure longer life.

### FINISH:

Thermoset polyester powdercoat is electrostatically applied after a five-stage conversion cleaning process and bonded by heat fusion thermosetting. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B117 specifications.

### LAMPING:

Color Temperature (CCT): cool white (4,000K nominal) or warm white (3,000K nominal). Approximately 50,000 hours of operational life (at 25°C ambient temp. and 70% lumen maintenance). >80 CRI.

### OPTICAL ASSEMBLY:

Integral collimating spot (10°) optics. Integral collimating narrow flood (26°) optics. Integral collimating wide flood (38°) optics. Clear tempered glass affixed at 10° angle for natural cleaning.

### ELECTRICAL ASSEMBLY:

Smart Select Electronic Driver 120 to 277 VAC input; 50-60Hz; auto-sensing. Operating start temperature -40 C (-40 F) 13.7 watts consumed (total fixture consumption).

### CERTIFICATIONS:

Manufactured to ISO 9001:2008 Standards. ETL listed to U.S. safety standards for wet locations. cETL listed to Canadian safety standards for wet locations.

### WARRANTY:

ISO 9001:2008 Registered

Page 1 of 2



Note: Philips reserves the right to modify the above details to reflect changes in the cost of materials and/or production and/or design without prior notice.  
100 Craftway Drive, Littlestown, PA 17340 | P: +1-717-359-7131 F: +1-717-359-9289 | <http://www.hadco.com> | Copyright 2011 Philips  
HW2

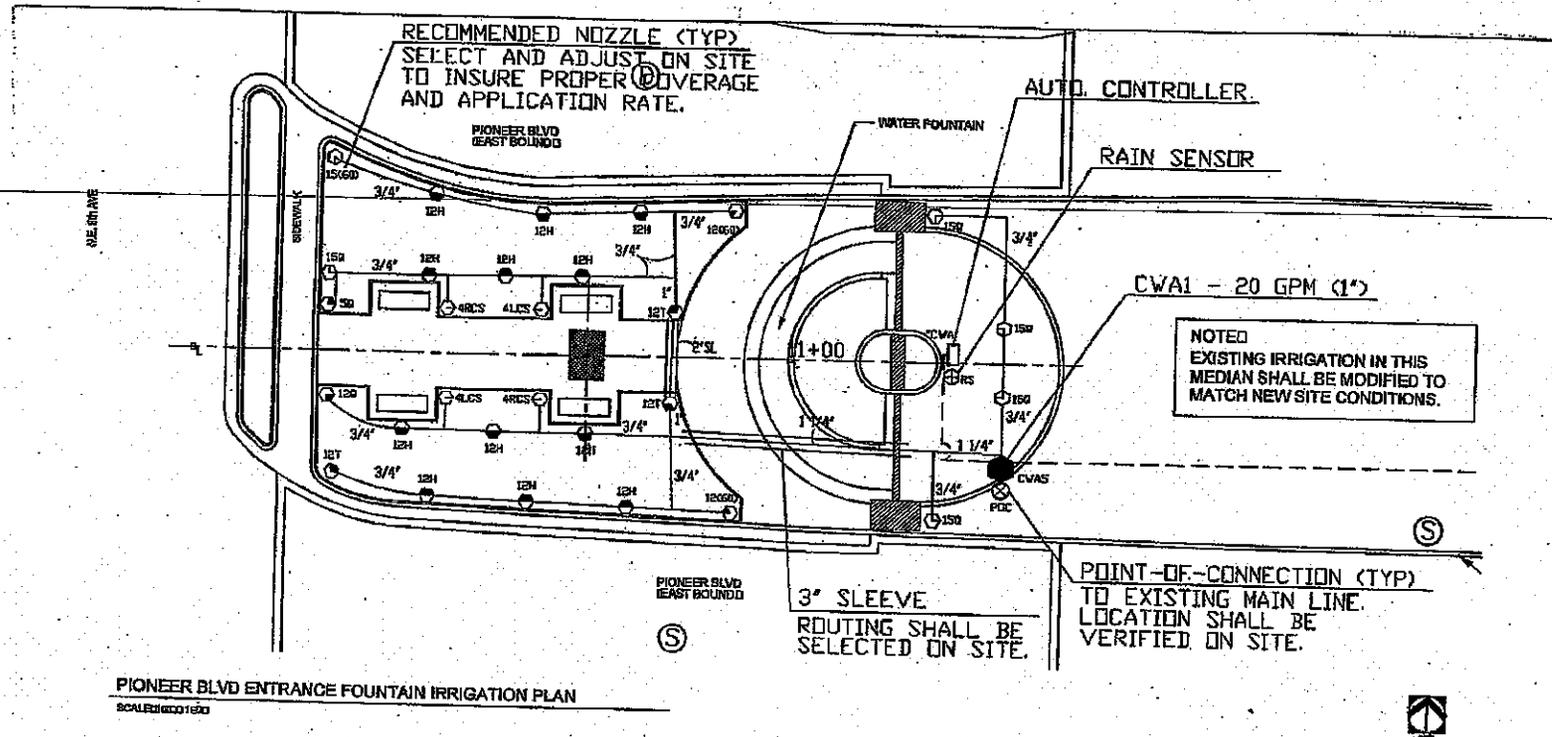
# LED Bullyte Narrow Optic (BN4) Specification Sheet

Project Name:	Location:	MFG: Philips Hadco
Fixture Type:	Catalog No.:	Qty:

Ten-year limited warranty.

# IRRIGATION PLANS

## NE 137<sup>th</sup> Street Streetscape Improvement



PIONEER BLVD ENTRANCE FOUNTAIN IRRIGATION PLAN  
SCALE: 1/8" = 1'-0"

### Pioneer Boulevard Entrance Fountain Irrigation Plan

1. The irrigation area [new zone(s)] in front of the fountain require a new supply going back to the backflow, meter located on NE 7<sup>th</sup> Avenue.
2. The enclosure as well as the controller requires upgrading to (ESP LXM).
3. New control conductor (wire) and a new valve require connection (in-conduit) from the new controller to the new zone(s).
4. All irrigation components shall be Rainbird.
5. Return old irrigation components to Parks & Recreation department.
6. Use Nema-3 enclosures of appropriate size to store all components.
7. Backflows shall be protected and the same color, make and model.



## SECTION 02945

### SITE FURNITURE

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Benches

##### 1.2 REFERENCES

- A. ASTM Testing Standards:
  1. ASTM B 117 – Standard Practice for Operating Salt Spray (Fog) Apparatus.
  2. ASTM D 522 – Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings.
  3. ASTM D 523 – Standard Test Method for Specular Gloss.
  4. ASTM D 2247 – Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
  5. ASTM D 2794 – Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
  6. ASTM D 3359 – Standard Test Methods for Measuring Adhesion by Tape Test.
  7. ASTM D 3363 – Standard Test Method for Film Hardness by Pencil Test.
  8. ASTM G 155 – Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
- B. ISO Testing Standards:
  1. ISO 1520 – Paints and Varnishes – Cupping Test.
  2. ISO 2815 – Paints and Varnishes – Buchholz Indentation Test.
- C. ANSI/BIFMA Testing Standards:
  1. ANSI/BIFMA X5.4-2005 – Standard Test for Lounge Seating.

##### 1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, storage and handling requirements and recommendations, installation methods and available colors, styles, patterns and textures.
- B. Shop Drawings: Submit manufacturer's shop drawings, including plans and elevations, indicating overall dimensions.
- C. Samples: Submit manufacturer's samples of materials, finishes, and colors.
- D. Warranty: Manufacturer's standard warranty.

##### 1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged in manufacture of site furnishings since 1969.
- B. Product Support: Products are supported with complete engineering drawings and design patents.
- C. Base Worth: An installed base of products worth in excess of one hundred million dollars.

- D. Assets: Excess of twenty million dollars in assets.
- E. Production: Orders are filled within a 40-day schedule.
- F. Facility Operator: Welders and machine operators are certified.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep materials in manufacturer's original, unopened containers and packaging until installation.
- C. Handling: Protect materials and finish during handling and installation to prevent damage.

#### 1.6 WARRANTY

- A. Warranty Information:
  - Products will be free from defects in material and/or workmanship for a period of three years from the date of invoice.
  - The warranty does not apply to damage resulting from accident, alteration, misuse, tampering, negligence, or abuse.
  - Landscape Forms, Inc. shall, at its option, repair, replace, or refund the purchase price of any items found defective upon inspection by an authorized Landscape Forms service representative.
  - Purchasers should be aware that normal use of these high quality products can result in superficial damage affecting the finish. Scratches, nicks, and dents are to be considered normal wear and tear, and are not the responsibility of the manufacturer.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURER

- A. Landscape Forms, Inc., 431 Lawndale Avenue, Kalamazoo, Michigan 49048. Toll Free (800) 521-2546. Phone (269) 381-0396. Fax (269) 381-3455. Website [www.landscapeforms.com](http://www.landscapeforms.com). E-mail: [specify@landscapeforms.com](mailto:specify@landscapeforms.com).

#### 2.2 BENCHES

- A. "Towne Square" Benches
- B. Style: Backed
- C. Size:
  1. Depth: 27 inches
  2. Height: 32 inches
  3. Length: 70 inches
  4. Frame: Frame is 1/25" outer diameter x 0.120" wall.
- D. Seat and Panel:
  1. Perforated

- E. Mounting: Shipped with nylon freestanding glides.
  - 1. Surface mounted

- F. Divider:
  - 1. With Out Divider(s)

## 2.3 MATERIALS

- A. Seat and Back Panel: A single panel is formed to make a comfortable seat and back. Panels are made of ASTM A 1011 hot rolled pickled and oiled commercial steel type B. Panel is welded to frame with clips 0.187" x 1" x 1.15" type 304 stainless steel sheet.
  - 1. Perforated Panel: Perforated panel is 0.134" thick with 0.312 diameter holes on 0.5" centers.
- B. Frame: ASTM A 513 type 1 steel tubing.

## 2.4 ACCESSORIES

- A. Anchor Bolts: Corrosion resistant anchors appropriate for the surface. Anchors are not supplied by manufacturer.

## 2.5 RECYCLED CONTENT

- Recycled Material Content: Minimum 88 percent.
- Post-Consumer Material Content: Minimum 57 percent.
- Pre-Consumer Material Content: Minimum 31 percent.
- Recyclable: 100 percent.

## 2.6 FABRICATION

- A. Shop assembled benches.

## 2.7 FINISHES

- A. Finish on Metal: Landscape Forms, Inc. "Pangard II".
  - 1. Primer: Rust inhibitor.
  - 2. Topcoat: Thermosetting polyester powdercoat. UV, chip, and flake resistant.
  - 3. Test Results: "Pangard II".
    - a. Gloss, Garner 60 Degrees, ASTM D 523: Plus or minus 5.
    - b. UV Resistance, Color and Gloss, ASTM G 155, Cycle 7: Delta E less than 2 at 2.0 mils and less than 20 percent loss.
    - c. Cross-Hatch Adhesion, ASTM D 3359, Method B: 100 percent pass.
    - d. Flexibility Test, Mandrel, ASTM D 522: 3 mm at 2 mils.
    - e. Erichsen Cupping, ISO 1520: 8 mm.
    - f. Impression Hardness, Buchholz, ISO 2815: 95.
    - g. Impact Test, ASTM D 2794: 60 inches/pound at 2.5 mils
    - h. Pencil Hardness, ASTM D 3363: 2H minimum.
    - i. Corrosion Resistance, 1,500-Hour Test, ASTM B 117: Max. undercutting 1 mm.
    - j. Humidity Resistance, 1,500-Hour Test, ASTM D 2247: Max. blisters 1 mm.
  - 4. Color: Silver.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine areas to receive benches.
- B. Notify Landscape Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

#### **3.2 INSTALLATION**

- A. Install benches in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install benches level.
- C. Anchor benches securely in place.

#### **3.3 ADJUSTING**

- A. Finish Damage: Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Landscape Architect.
- B. Component Damage: Remove and replace damaged components that cannot be successfully repaired as determined by Landscape Architect.

#### **3.4 CLEANING**

- A. Clean benches promptly after installation in accordance with manufacturer's instructions.
- B. Do not use harsh cleaning materials or methods that could damage finish.

#### **3.5 PROTECTION**

- A. Protect installed benches to ensure that, except for normal weathering, benches will be without damage or deterioration at time of Substantial Completion.

**END OF SECTION 02945**