



CITY OF DELRAY BEACH
100 N.W. 1ST AVENUE, DELRAY BEACH, FL 33444

Solicitation Addendum

Addendum No.: 1

Solicitation No.: 2017- 058

Project No.: 17-062

Solicitation Title: Christmas Tree and North Pole Village Assembly and Storage

Addendum Date: July 10, 2017

Purchasing Contact: Jose Hidalgo – hidalgoj@mydelraybeach.com

THE FOLLOWING ITEMS ARE MADE AND HEREBY BECOME A PART OF THIS SOLICITATION:

Change to:

LEGAL ADVERTISEMENT Good approach to PM

The City of Delray Beach is seeking Bids from qualified contractors to assemble, dis-assemble and store the City one-hundred foot aluminum Christmas Tree and ~~nine~~ seven North Pole Village Structures, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid.

Change to:

SECTION 2, SPECIAL TERMS AND CONDITIONS, ITEM 2.1

2.1 PURPOSE

The purpose of this Solicitation is to obtain bids for a five-year agreement for the assembly, dis-assembly, maintenance, repair, storage, and transportation for the City's 100 Foot Aluminum Christmas Tree as well as the ~~nine~~ seven North Pole Village Structures

Change to:

SECTION 3, SCOPE OF WORK, ITEM 3.1

3.1 PROJECT SCOPE

Sealed Bid to provide the following services for a five-year term for assembly, disassembly, maintenance, repair, bonded storage, and transportation for the City's one

hundred foot aluminum Christmas tree (Christmas Tree) as well as the ~~nine~~ seven North Pole Village Structures (Village). The awarded Bidder (hereinafter in this Scope of Work referred to as Contractor) shall provide all labor, materials, facilities, equipment, supplies, transportation, and travel for the work.

Add:

EXHIBIT 12, Drawings & Photos

Exhibit 12, Drawings & Photos, that includes electrical drawings, is hereby incorporated into the solicitation and part a part hereof.

NOTE: Items that are ~~struck through~~ are deleted. Items that are underlined have been added. All other terms and conditions remain as stated in the RFP.

QUESTIONS AND RESPONSES:

Q1. How many ornaments go on the Christmas tree?

R1. The number of ornaments is approximately 10,000.

Q2. What sizes are the ornaments?

R2. The ornaments are similar in size to those used for large residential Christmas trees.

Q3. Provide the exact specifications on the tree; the number of frame pieces, the number of branches; how many branches will need ‘fluffing’ after assembly; type of lights on the tree; the power draw of the tree.

R3. For information that is currently available on the tree specifications, frame pieces branches and electrical components of the tree, refer to the attached Exhibit 12, Drawings & Photos.

Q4. Can we obtain pictures of the tree frame and branches?

R4. For information that is currently available on the tree frame and branches, refer to the attached Exhibit 12, Drawings & Photos.

Q5. Is employer’s liability insurance and professional liability insurance required?

R5. Yes, they are required. Refer to the Solicitation, Section 2.12, Item ii. Employer’s Liability and Item iii. Professional Liability.

Q6. Why would the warehouse that the tree is to be stored in need to be bonded? Here is the definition I found of a bonded warehouse: *A bonded warehouse is a secured warehouse facility that is covered by customs rules. Companies that export products, materials and items abroad commonly use bonded warehousing facilities to store their products.*

R6. Due to the value of the tree that will be store, a bonded warehouse is required.

Q7. How many North Pole Village Structures are part of the scope?

R7. Per this addendum the number of North Pole Village Structures has been updated to seven.

Q8. Who are the companies that have worked on the City Christmas tree in the past?

R8. The following are some of the firms that worked on the assembly and disassembly of the steel Christmas tree in the past. However, the new tree is aluminum and all of the services previously required may not be applicable to the contract resulting from this solicitation.

- a. Iron workers – Eagle Metal
- b. Electricians – Meisner Electric
- c. Towing for containers – Sisters Towing
- d. Flatbeds – Hard Drives
- e. Cranes – Allegiance Crane, Hunter Merchant Crane

Q9. How does the tree get put together?

R9. The previous steel Christmas tree was put together by City staff with the assistance of City contractors and volunteers. This process does not apply to the contract resulting from this solicitation. The awarded Contractor will be solely responsible for all aspects of assembly and disassembly. The details and instructions for the new aluminum Christmas tree assembly and disassembly will be as specified by the manufacturer of the tree and will be provided to the awarded Contractor. Assembly of the Christmas tree must be completed in time for the tree lighting ceremony which is generally the week following Thanksgiving.

The previous process for assembly was as follows. In mid-October, the tree and village structures were transported to the assembly site. Then several of the largest rings were brought out and put into place on the ground and some of the village structures were placed inside the rings. Assembly of the rings continued at ground level along with the addition of branches, lights and ornaments until the tree was ready to stack, usually about mid-November. The tree was then stacked and the remaining rings, branches, lights and ornaments were added. Once the tree was assembled the remaining village structures and model train were put into place.

End of Addendum

INSTRUCTIONS:

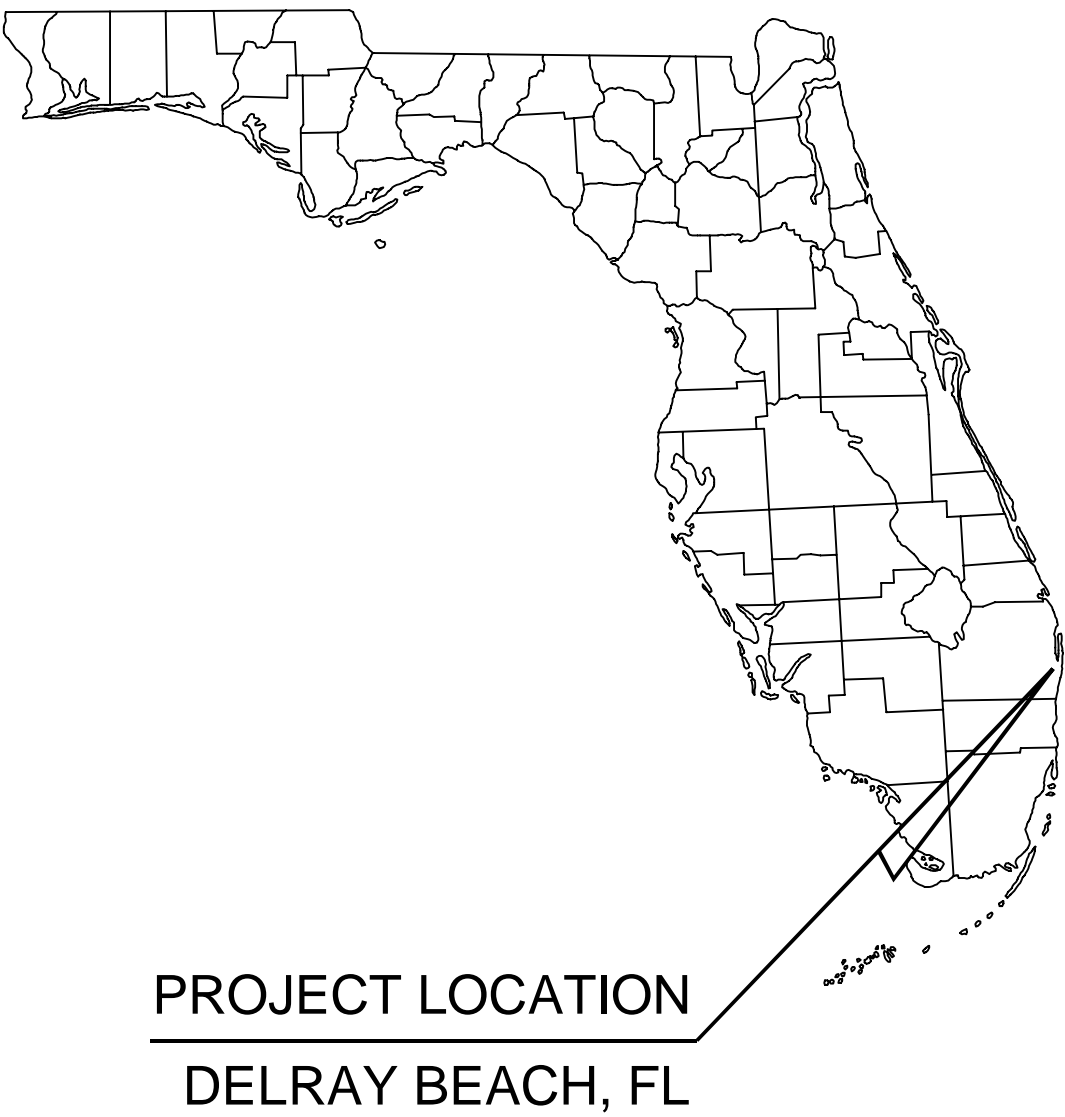
Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the disqualification of Respondent's response.

EXHIBIT 12

DELRAY CHRISTMAS TREE FOUNDATION

CONSTRUCTION SITE PLANS

CITY OF DELRAY BEACH
DELRAY BEACH, FLORIDA



VICINITY MAP

INDEX OF SHEETS

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PROJECT LOCATION

Plotted By: Marjory, Chelsea (Knox) Sheet Set: Delray Christmas Tree Foundation Layout: C-1 Cover Page July 05, 2017 03:01:25pm K:\WPB - Forensics\2017 START DATE BUILDING FORENSICS\044300050 (AGF) Delray - Xmas Tree Foundation\CAD\PlanSheets\C-1 Cover Page.dwg
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KHA PROJECT 044300050
DATE JUNE 2017
SCALE AS SHOWN
DESIGNED BY CMM
DRAWN BY KHA
CHECKED BY AGF

CITY OF DELRAY
BEACH

**DELRAY CHRISTMAS TREE
FOUNDATION**

PREPARED FOR
CITY OF DELRAY BEACH

FLORIDA

LICENSED PROFESSIONAL
ANGELINA G. FAIRCHILD
FLORIDA LICENSE NUMBER #43958
DATE: ____

COVER PAGE

SHEET NUMBER

C-1

Plotted By: Marc J. Chesea (knox) Sheet Set: Delray Christmas Tree Foundation Layout: C-2 GENERAL NOTES July 05, 2017 03:01:30pm K:\WPB_Forensics\2017 START DATE\BUILDING FORENSICS\044300050 (AGF) Delray - Xmas Tree Foundation\CAD\ShopSheets\C-2 GENERAL NOTES.dwg
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GENERAL NOTES:

- THESE NOTES ARE NOT INTENDED TO REPLACE THE PROJECT SPECIFICATIONS OR CONSTRUCTION DRAWING NOTES & DETAILS. IN CASE OF CONFLICT BETWEEN THE REQUIREMENTS OF THE SPECIFICATIONS/CONSTRUCTION DRAWINGS AND THESE NOTES, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- THE GOVERNING CODE FOR THIS PROJECT IS THE FLORIDA BUILDING CODE, 2014 EDITION.
- THE CONTRACT DOCUMENTS HAVE MADE NO INTENT TO GIVE SPECIFIC INSTRUCTIONS CONCERNING THE MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND ASSIGNMENT OF WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SUPERVISING AND DIRECTING THE WORK.
- TO THE BEST OF OUR KNOWLEDGE, THE CIVIL DRAWINGS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE GOVERNING BUILDING CODE.
- CONSTRUCTION SHALL COMPLY WITH REQUIREMENTS OF THE GOVERNING BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES, STANDARDS, REGULATIONS AND LAWS.
- THE CIVIL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THOSE OF THE OTHER TRADES. IF A CONFLICT EXISTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- CONTRACTOR SHALL VISIT PROJECT SITE AND BE FAMILIAR WITH THE PROPOSED WORK. TAKE FIELD MEASUREMENTS AND VERIFY ALL FIELD CONDITIONS, AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS, DIMENSIONS AND SITE CONDITIONS AND COORDINATE WITH FIELD DIMENSIONS AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS GIVEN, STRUCTURAL AND FINISHED FLOOR ELEVATIONS, MEMBER SIZES, ETC, WITH THE DRAWINGS OF OTHER TRADES BEFORE STARTING ANY WORK. REPORT ANY DISCREPANCIES VERBALLY AND IN WRITING IMMEDIATELY TO ENGINEER PRIOR TO PROCEEDING WITH WORK. WORK SHALL NOT COMMENCE UNTIL THE DISCREPANCIES ARE RESOLVED.
- CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITY LINES FROM DAMAGE AND SHALL PROTECT HIS WORK, ADJACENT PROPERTY AND THE PUBLIC. CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY, CONSTRUCTION PROCEDURES AND DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
- CONTRACTOR SHALL SUITABLY DOCUMENT EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK, AND SHALL RESTORE ALL DAMAGED OR DISTURBED AREAS TO MEET OR EXCEED ORIGINAL SITE CONDITIONS TO THE OWNER'S SATISFACTION.
- DO NOT REPRODUCE THE STRUCTURAL DRAWINGS FOR USE AS ERECTION, PLACING, FABRICATION OR SHOP DRAWINGS.
- SCALING OF DRAWINGS SHALL NOT BE USED TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE ENGINEER FOR INSTRUCTION FOR ANY DIMENSION NOT GIVEN ON DRAWINGS.
- DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE RESOLVED BY THE ENGINEER.
- CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM ADVANCE NOTICE TO ENGINEER FOR ALL REQUIRED FIELD REVIEWS.
- CONTRACTOR SHALL COORDINATE WITH OWNER ALL ITEMS TO BE CONTRACTED, SUPPLIED OR INSTALLED BY HIM.
- CONTRACTOR IS RESPONSIBLE FOR ALL BUILDING, PERMIT, REVIEW, LICENSE AND DEVELOPMENT FEES REQUIRED TO COMPLETE THE PROJECT.
- CONTRACTOR SHALL ASSEMBLE AND INSTALL MATERIALS AND PRODUCTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND WITH INDUSTRY/ASSOCIATION STANDARDS. MATERIALS OR WORK DESCRIBED IN WORDS WHICH HAVE A WELL-KNOWN TECHNICAL TRADE MEANING SHALL BE HELD TO REFER TO THE RECOGNIZED STANDARD. ALL MATERIALS SHALL BE NEW, U.O.N.
- MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK, HOWEVER, NO CHANGES THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE WITHOUT A CHANGE ORDER.

UTILITIES

- CONTRACTOR SHALL LOCATE IN THE FIELD ALL UTILITIES OCCURRING WITHIN THE LIMITS OF EXCAVATION.
- CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA, INC. (1-800-432-4770) AT LEAST 48 HOURS BEFORE COMMENCEMENT OF ANY EXCAVATION OPERATIONS ON SITE
- DATA CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

DOCUMENTS AND LIMITATIONS

- THE DRAWINGS, CALCULATIONS, AND REPRODUCTIONS RELATING TO THE STRUCTURAL PART OF THE PROJECT ARE INSTRUMENTS OF SERVICE TO BE USED FOR THIS PROJECT ONLY.
- IT IS UNDERSTOOD THAT THE ENGINEER MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO THE FINDINGS, DESIGNS, RECOMMENDATIONS, SPECIFICATIONS, OR PROFESSIONAL ADVICE EXCEPT THAT THESE INSTRUMENTS OF SERVICE HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRACTICES.

SHOP DRAWINGS AND OTHER SUBMITTALS

- REVIEW OF SUBMITTALS BY THE ENGINEER IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTITIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SUBMITTALS REQUIRED TO BE SUBMITTED WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT REVIEW.
- ALL SUBMITTALS SHALL BE ACCOMPANIED BY A LETTER OF TRANSMITTAL. CONTRACTOR'S SUBMITTAL NUMBER SHALL BE INDICATED ON TRANSMITTAL. DO NOT COMBINE DIFFERENT SUBMITTALS ON THE SAME TRANSMITTAL. SUBMIT SHOP DRAWINGS IN A TIMELY MANNER, CONSISTENT WITH THE ABOVE, AND PRIOR TO FABRICATION, INSTALLATION OR COMMENCEMENT OF THE WORK. ALLOW UP TO 10 WORKING DAYS FOR ENGINEER TO REVIEW AND RETURN SHOP DRAWINGS. NUMBER OF COPIES OF EACH SUBMITTED SHOP DRAWING SHALL BE SUFFICIENT FOR ENGINEER TO RETAIN 2 COPIES.

- ALL SUBMITTALS MUST BEAR EVIDENCE OF CONTRACTOR'S REVIEW (INCLUDING COMPANY STAMP AND DATED SIGNATURE OF REVIEWER) AND MUST BE APPROVED OR APPROVED AS NOTED BY HIM PRIOR TO SUBMITTING TO THE ENGINEER
- ALL CHANGES AND ADDITIONS MADE ON RESUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RESUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RESUBMITTAL.
- DO NOT REPRODUCE THE STRUCTURAL DRAWINGS FOR USE AS ERECTION, PLACING OR FABRICATION DRAWINGS.
- SUBMITTALS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL NOT BE REVIEWED.
- SUBMITTALS:

- AS A MINIMUM, THE FOLLOWING SHALL BE SUBMITTED, AS APPLICABLE, TO THE ENGINEER FOR REVIEW AND COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS PRIOR TO FABRICATION, INSTALLATION, OR COMMENCEMENT OF THE WORK:
- CONCRETE, MORTAR AND GROUT MIX DESIGNS, INCLUDING ADMIXTURE DATA SHEETS.
 - BILL OF REINFORCING AND LAYOUT.
 - MISCELLANEOUS METAL FABRICATIONS.
 - TIE-DOWN ANCHORS FOR ROOF TRUSS SYSTEM.
 - HANDRAIL, GUARDRAIL AND LADDER DETAILS AND CONNECTIONS.
 - JOINT LAYOUT PLAN AND MATERIALS.
 - PAINT, SEALANT, TOPPINGS AND OTHER FINISH PRODUCTS.
 - CERTIFICATIONS FOR MASONRY UNITS.
 - SHORING.
 - TEMPORARY RETAINING WALL DESIGN DRAWINGS AND CALCULATIONS.
 - TIE-INS TO EXISTING STRUCTURES.

IN ADDITION, CUT SHEETS FOR WATERPROOFING, VAPOR BARRIERS, WATERSTOPS, PROPRIETARY ANCHORS, FASTENERS, OTHER STANDARD ATTACHMENTS, EXPANSION JOINTS, MORTAR, BONDING AGENT, DOORS, WINDOWS, INSULATION, AND OTHER MATERIALS AND APPROPRIATE CERTIFICATIONS SHALL ALSO BE SUBMITTED. WELDER CERTIFICATIONS FOR ALL WELDERS SHALL BE SUBMITTED. CERTIFICATIONS MUST HAVE BEEN ISSUED WITHIN 3 YEARS PRIOR TO PERFORMING WORK ON THE PROJECT.

- REQUESTS FOR SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW. SUBMIT 3 COPIES OF ALL PRODUCT DATA AND CUT SHEETS AS NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT REQUIREMENTS. CONTRACTOR SHALL BEAR THE BURDEN OF OBTAINING AUTHORIZATION FOR USE OF ITEMS TO BE SUBSTITUTED. ENGINEER'S DECISION REGARDING SUBSTITUTION SHALL BE FINAL.

- FOR ADDITIONAL CRITERIA APPLICABLE TO SUBMITTALS REQUIRING ENGINEERING INPUT BY A DELEGATED ENGINEER, SEE BELOW.

STRUCTURAL STEEL

- DESIGN, FABRICATE AND ERECT STRUCTURAL STEEL IN CONFORMANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "LRFD MANUAL OF STEEL CONSTRUCTION – THIRD EDITION," "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES – 2005," AND "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS – 2005."
- VERIFY ALL DIMENSIONS AS REQUIRED PRIOR TO FABRICATION OF ANY STRUCTURAL STEEL.

CLEAN UP

- THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS EMPLOYEES.
- CONTRACTOR SHALL VISUALLY INSPECT INTERIOR AND EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES, STAINS, SPLASHED MATERIAL, PAINT DROPPINGS AND OTHER FOREIGN MATTER PRIOR TO COMPLETION OF THE WORK.

AS-BUILT DRAWINGS

- CONTRACTOR SHALL PREPARE AND MAINTAIN CURRENT A SET OF REDLINED AS-BUILT DRAWINGS SHOWING ALL DEVIATIONS AND CHANGES MADE TO THE CONSTRUCTION DRAWINGS.
- AS-BUILT DRAWINGS SHALL BE MADE AVAILABLE TO THE ENGINEER FOR REVIEW UPON REQUEST AT ANY TIME DURING THE COURSE OF THE PROJECT.
- CONTRACTOR SHALL SUBMIT THE ORIGINAL AS-BUILT DRAWINGS TO THE ENGINEER WITHIN ONE WEEK FROM THE DATE OF FINAL COMPLETION, AND PRIOR TO OWNER'S ACCEPTANCE OF CONTRACTOR'S FINAL INVOICE.
- SUBMITTED AS-BUILT DRAWINGS WILL REMAIN THE PROPERTY OF THE ENGINEER.

ABBREVIATIONS

- EA. EACH
E.F. EACH FACE
EL. ELEVATION
E.W. EACH WAY
MAX. MAXIMUM
MIN. MINIMUM
O.C. ON CENTER
STD. STANDARD
T&B TOP & BOTTOM
TYP. TYPICAL
U.O.N. UNLESS OTHERWISE NOTED
W.P. WORK POINT

DESIGN CRITERIA

2014 FLORIDA BUILDING CODE
WINDLOADS (ASCE 7-10)
ULTIMATE WINDSPEED = 170 MPH
NOMINAL WINDSPEED = 132 MPH
RISK CATEGORY: II
WIND EXPOSURE: C

REFERENCE DRAWINGS

OLD SQUARE PARK: PHASE 1, CITY PROJECT NO. 2006-053, SITE CONSTRUCTION DOCUMENTS, PREPARED BY GLATTING JACKSON KERCHER ANGLIN, JULY 10, 2009.

No.	REVISIONS	DATE	BY



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KHA PROJECT 044300050
DATE JUNE 2017
SCALE AS SHOWN
DESIGNED BY CMM
DRAWN BY KHA
CHECKED BY AGF

DELRAY CHRISTMAS TREE
FOUNDATION

PREPARED FOR
CITY OF DELRAY BEACH

CITY OF DELRAY
BEACH

FLORIDA

LICENSED PROFESSIONAL

ANGELINA G. FAIRCHILD

FLORIDA LICENSE NUMBER
#43958

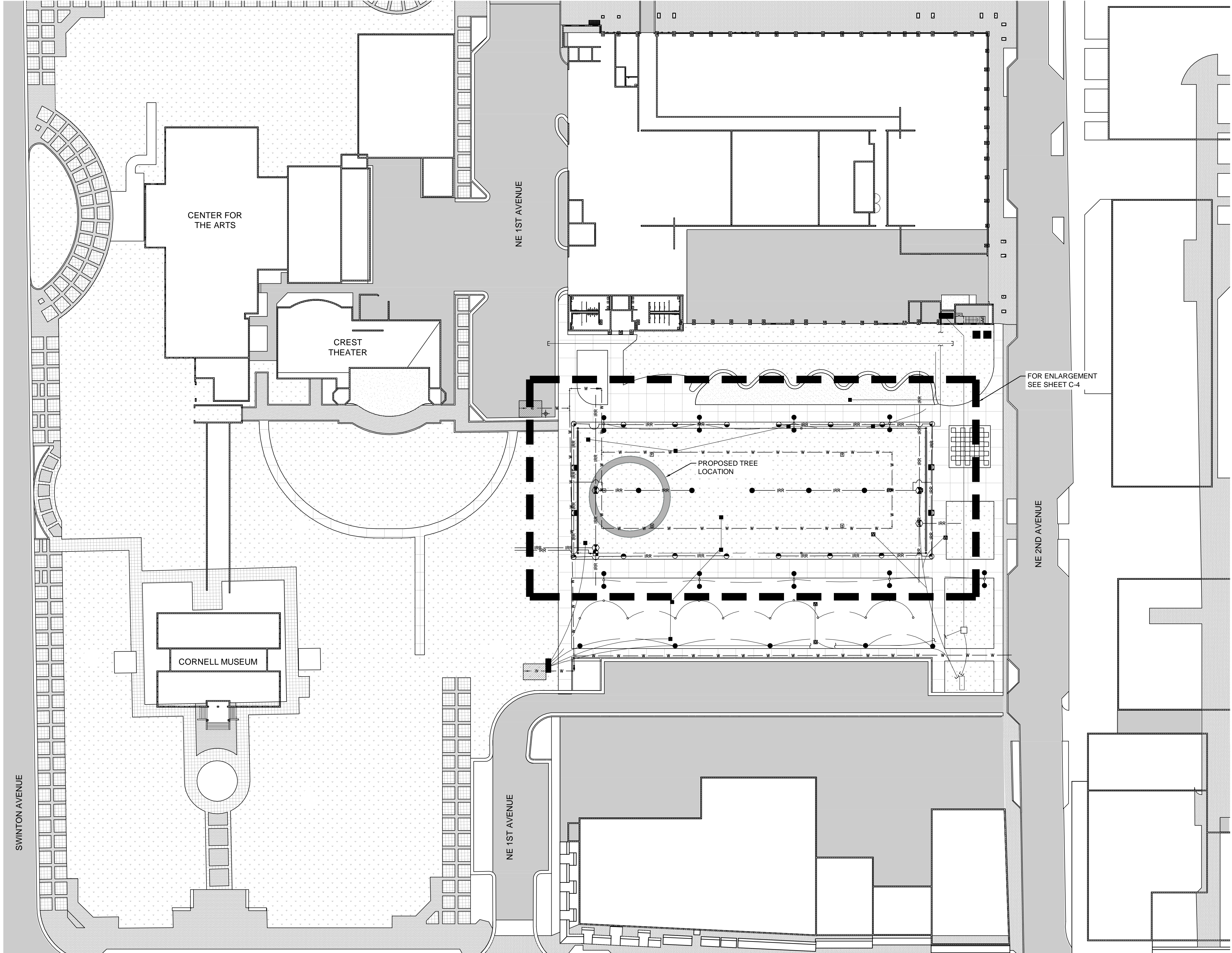
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GENERAL NOTES

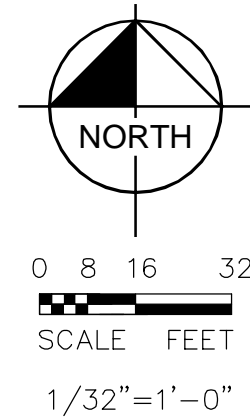
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C-2

Plotted By: Marjorie, Chelsea (Knox) Sheet Set: Delray Christmas Tree Foundation Layout: C-3 OVERALL SITE PLAN July 05, 2017 03:01:34pm K:\WPB_Forensics\2017 START DATE\BUILDING FORENSICS\044300050 (AGF) Delray - Xmas Tree Foundation\CAD\PlanSheets\C-3_C-5 SITE PLAN.dwg
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- NOTES:
1. APPROXIMATE LOCATIONS OF UTILITIES SHOWN WITHIN WORK AREA. CONTRACTOR TO FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION AND DEMOLITION.
 2. CONTRACTOR TO COORDINATE LIMITS OF DEMOLITION WITH CITY. REMOVE OR RELOCATE ALL UTILITIES WITHIN PROPOSED FOUNDATION FOOTPRINT.



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**DELRAY CHRISTMAS TREE
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PREPARED FOR
CITY OF DELRAY BEACH

CITY OF DELRAY BEACH

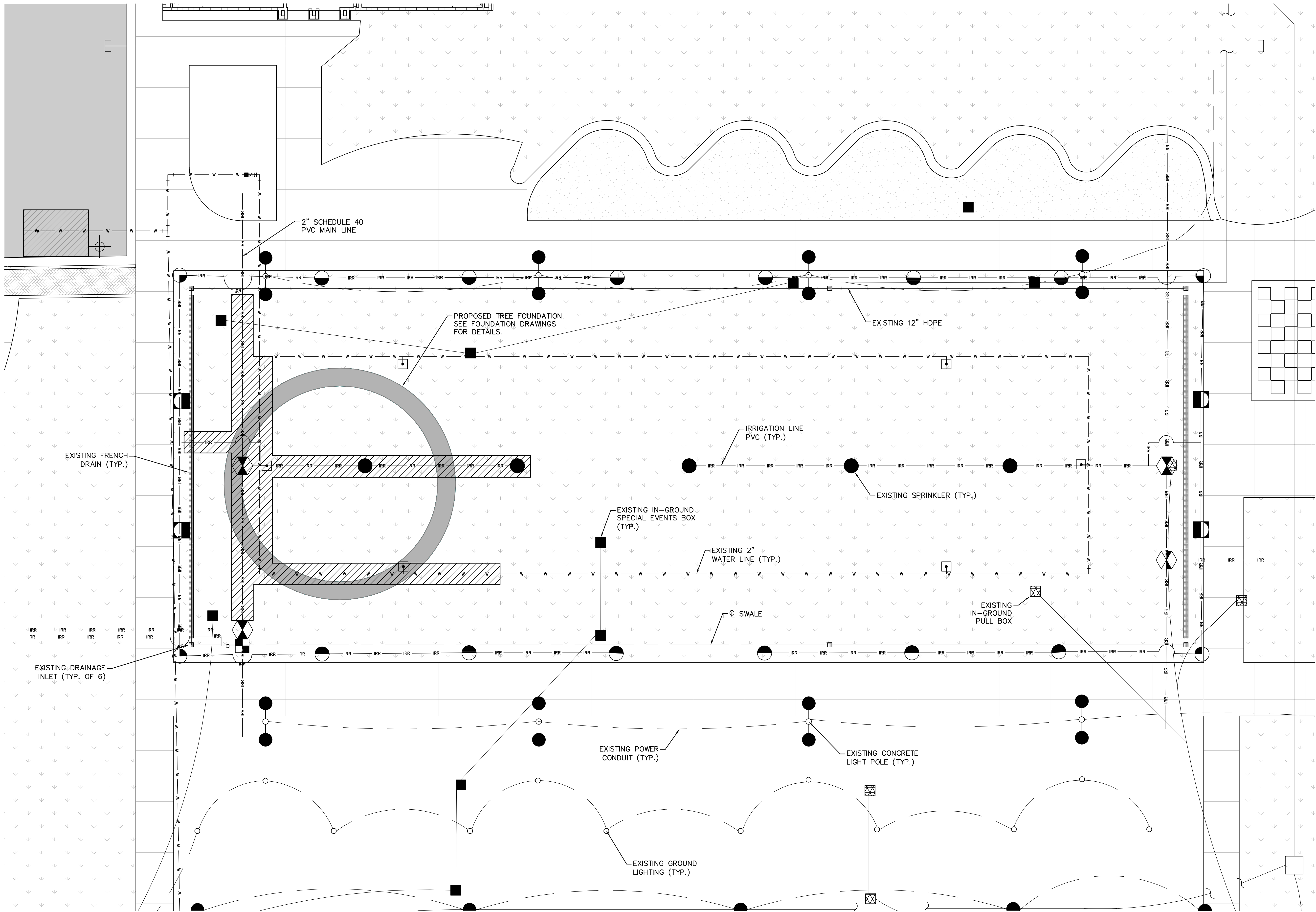
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FLORIDA LICENSE NUMBER #43958
DATE: ----

OVERALL SITE PLAN

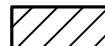
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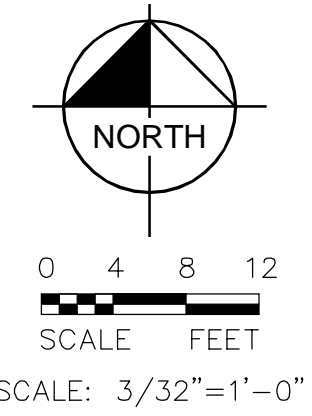
LEGEND

 LIMITS OF DEMOLITION (WATER AND IRRIGATION LINES)

NOTES:

1. APPROXIMATE LOCATIONS SHOWN. CONTRACTOR TO FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION AND DEMOLITION.

2. CONTRACTOR TO COORDINATE LIMITS OF DEMOLITION WITH CITY. REMOVE OR RELOCATE ALL UTILITIES WITHIN PROPOSED FOUNDATION FOOTPRINT.



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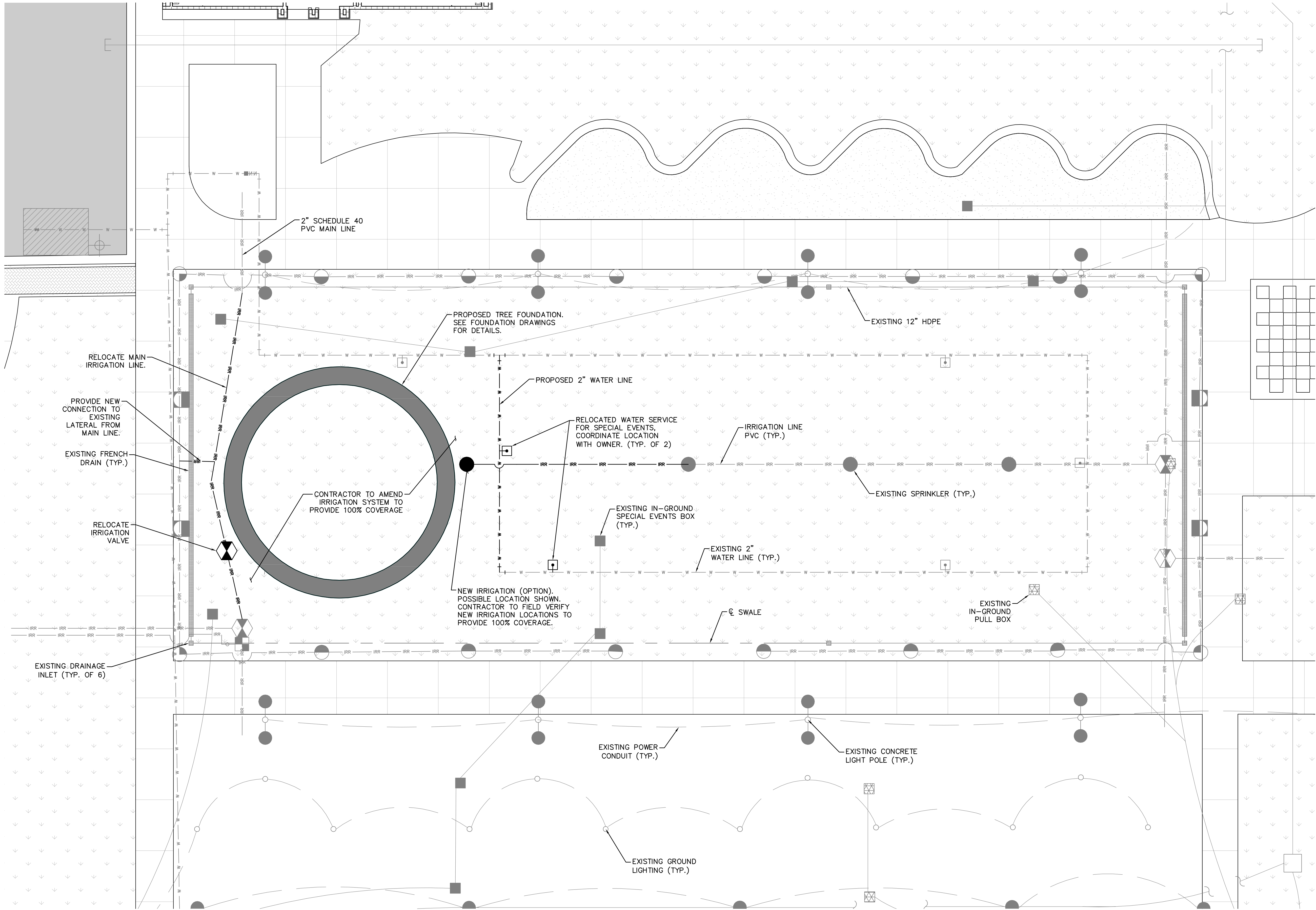
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**EXISTING SITE PLAN AND
DEMOLITION**

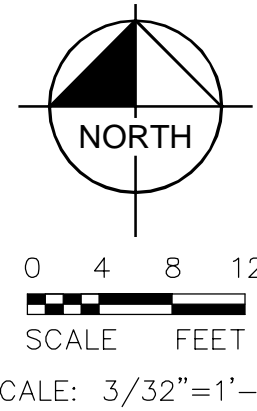
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- NOTES:
1. PROPOSED ELECTRICAL NOT SHOWN. SEE SHEET E-1.0 FOR LOCATIONS AND DETAILS.
 2. CONTRACTOR TO AMEND IRRIGATION TO PROVIDE 100% COVERAGE. COORDINATE LOCATION OF SPRINKLERS WITH CITY. PROVIDE ABILITY TO SHUT OFF OR REDIRECT SPRAY DURING EVENTS.
 3. APPROXIMATE LOCATIONS SHOWN. CONTRACTOR TO FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION AND DEMOLITION.



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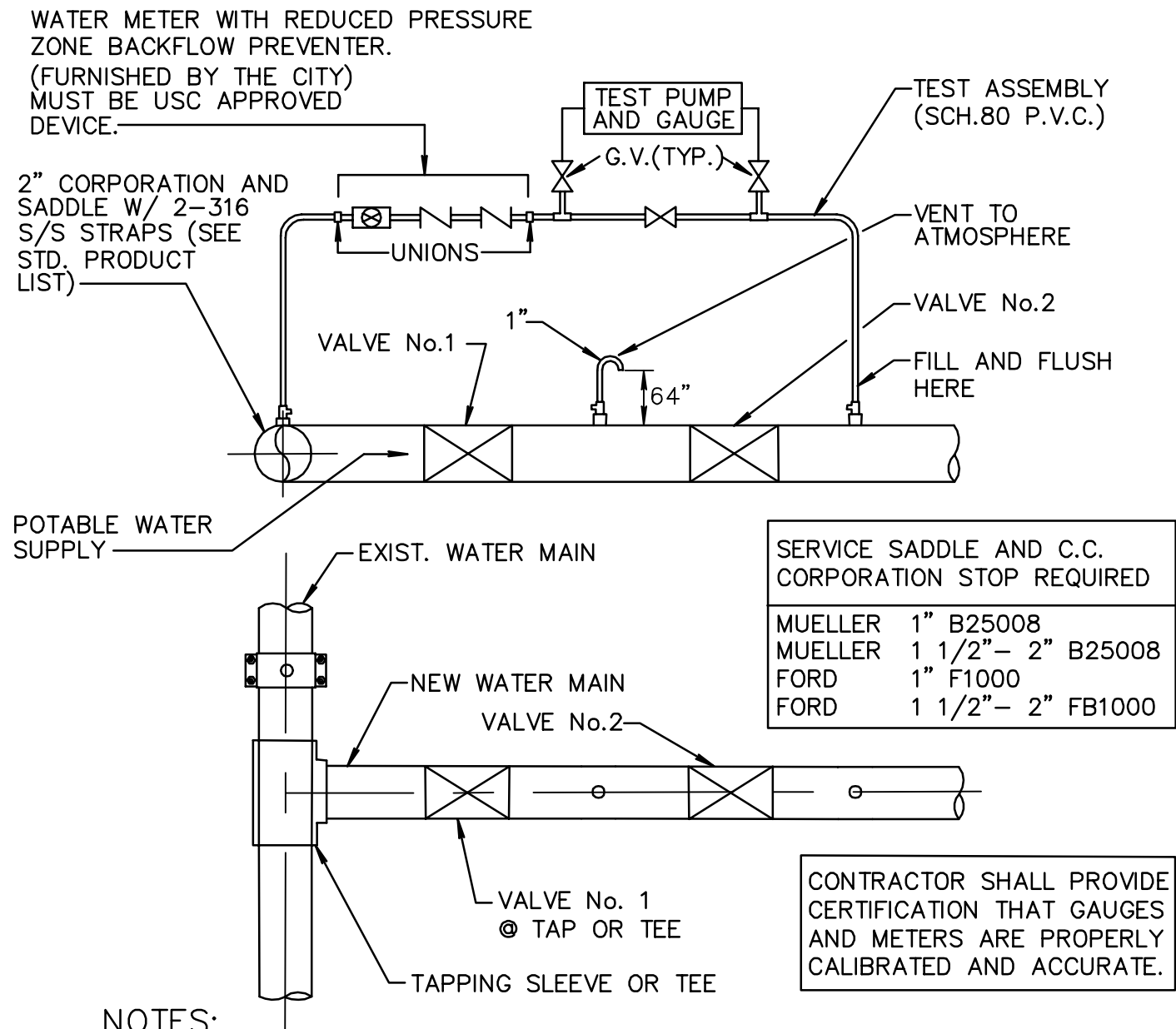
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FINAL SITE PLAN

SHEET NUMBER

C-5

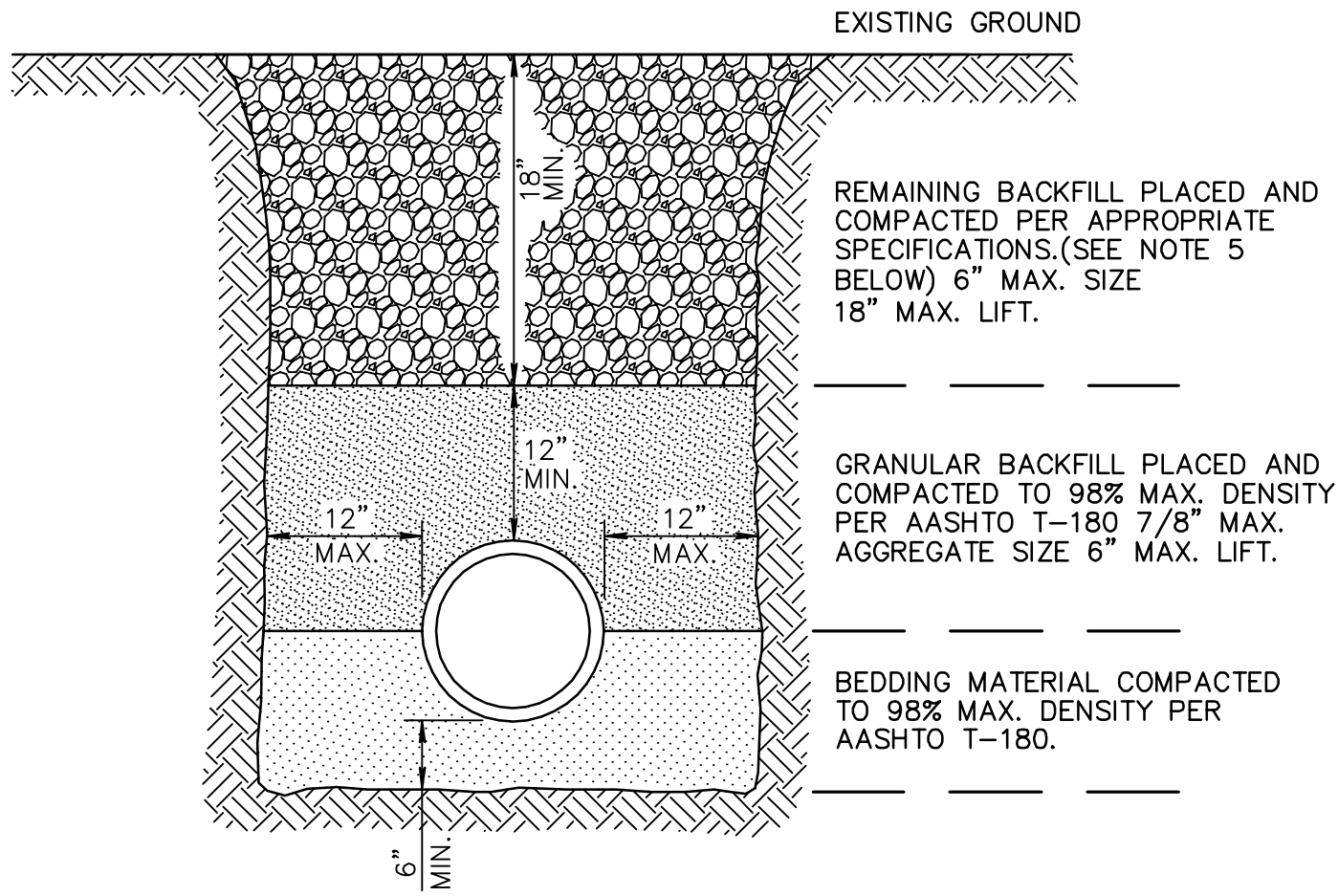
Plotted By: Marc J. Chessa (Knox) Sheet Set: Delray Christmas Tree Foundation Layout: C-6 DETAILS July 05, 2017 03:01:42pm K:\WPB Forensics\2017 START DATE BUILDING FORENSICS\044300050 (AGF) Delray - Knox Tree Foundation\CAD\PlanSheets\C-6 DETAILS.dwg
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NOTES:

- BOTH VALVES SHALL BE KEPT CLOSED UNTIL FILLING, FLUSHING, AND BACTERIOLOGICAL TESTING IS COMPLETED AND APPROVED.
- GAUGE AND RISER TO BE REMOVED AFTER PRESSURE TEST.
- CITY SHALL BE NOTIFIED BEFORE FILLING AND FLUSHING.
- AFTER RELEASE FROM THE HEALTH DEPARTMENT, BOTH VALVES TO BE LEFT OPEN WITH VALVE BOX INSTALLED ON BOTH VALVES.
- PRESSURE TEST PUMP MAY CONNECT TO SERVICE LINE, FIRE HYDRANTS OR BLOWOFF. NO EXTRA TAPS ARE PERMITTED SOLELY FOR TESTING PURPOSES UNLESS PRECEDING ARE NOT PRESENT IN TEST SECTION.
- TAPPING SADDLE OR SLEEVE (PER CURRENT CITY PRODUCT LIST) IS REQUIRED ON EXISTING MAIN.
- SETUP FOR ALL DOUBLE VALVE CONNECTIONS TO INCLUDE ATMOSPHERE VENTS AS SHOWN ABOVE.
- OUTLET ON VENT TO ATMOSPHERE A MINIMUM 24" ABOVE EXISTING GRADE.

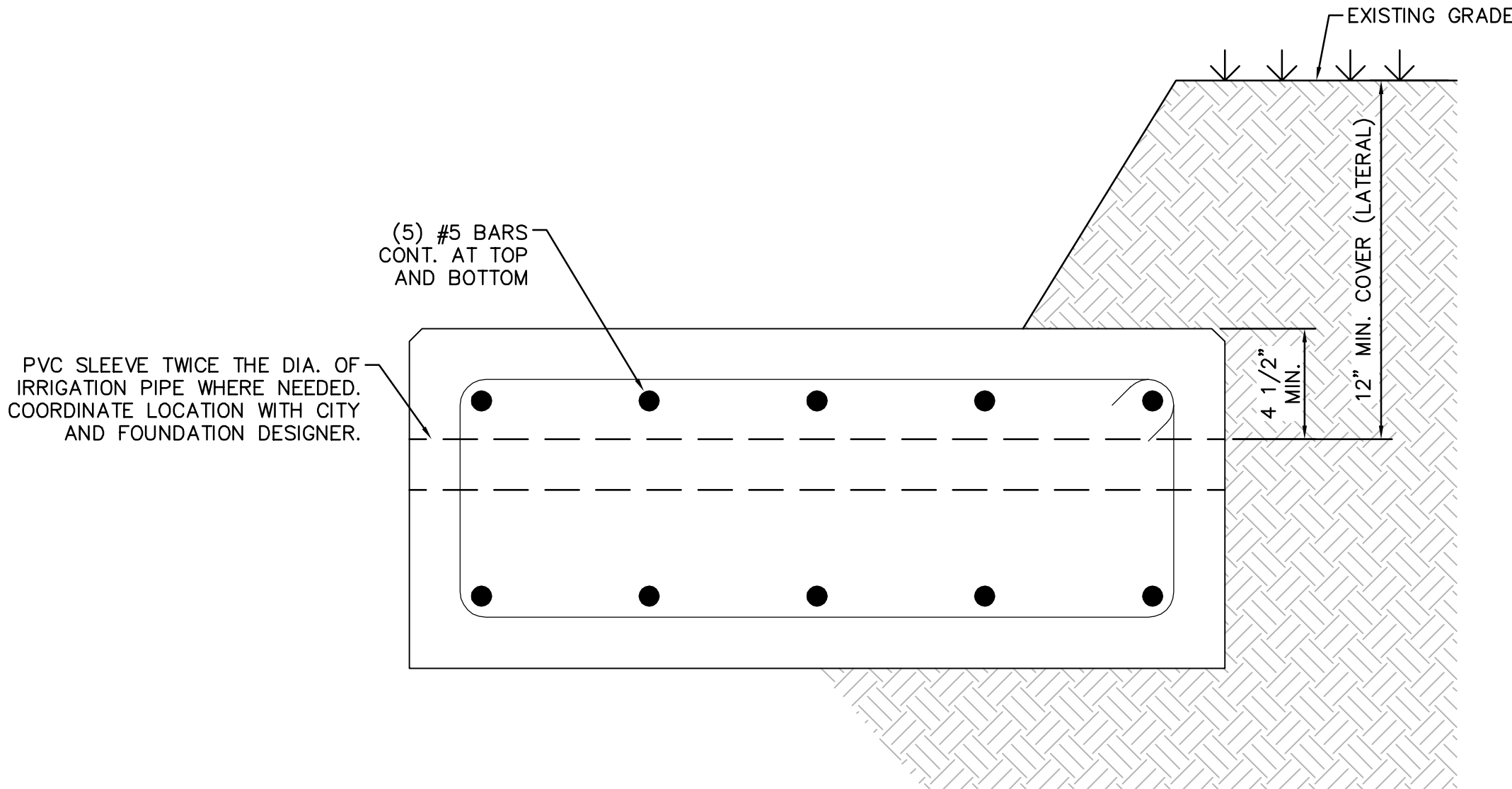
FILL & FLUSH DETAIL PW 1.1



NOTES:

- UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGE ROCKS SHALL BE REMOVED; BEDDING MATERIAL AND BACKFILL CONSISTING OF WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING.
- THE PIPE AND/OR STRUCTURE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
- THE PIPE AND/OR STRUCTURE SHALL BE PLACED IN A DRY TRENCH.
- BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
- COMPACT BACKFILL TO 98% DENSITY UNDER PAVEMENT AND TO 95% DENSITY ELSEWHERE.(AASHTO T-180)
- COMPACTION AND DENSITY TESTS SHALL BE COMPLETED DURING BACKFILL OPERATIONS. CONTRACTORS NOT FOLLOWING THIS PROCEDURE, FOR WHATEVER REASONS, SHALL BE REQUIRED TO RE-EXCAVATE THE AREA IN QUESTION, DOWN TO THE BEDDING MATERIAL, THEN BACKFILL FOLLOWING THE ABOVE PROCEDURES.

TYPICAL BACKFILL DETAIL GU 2.1



NOTE:

- POSITION SLEEVE TO MISS REINFORCING
- CONTRACTOR TO COORDINATE SLEEVE LOCATION WITH FOUNDATION DESIGNER.

FOUNDATION SLEEVE DETAIL

No.	REVISIONS	DATE	BY

Kimley»Horn

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PHONE: 561-845-0665 FAX: 561-863-8175
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KHA PROJECT 044300050
DATE JUNE 2017
SCALE AS SHOWN
DESIGNED BY CMM
DRAWN BY KHA
CHECKED BY AGF

CITY OF DELRAY BEACH

DELRAY CHRISTMAS TREE FOUNDATION

PREPARED FOR
CITY OF DELRAY BEACH

LICENSED PROFESSIONAL

ANGELINA G. FAIRCHILD

FLORIDA LICENSE NUMBER
#43958

DATE: ____

DETAILS

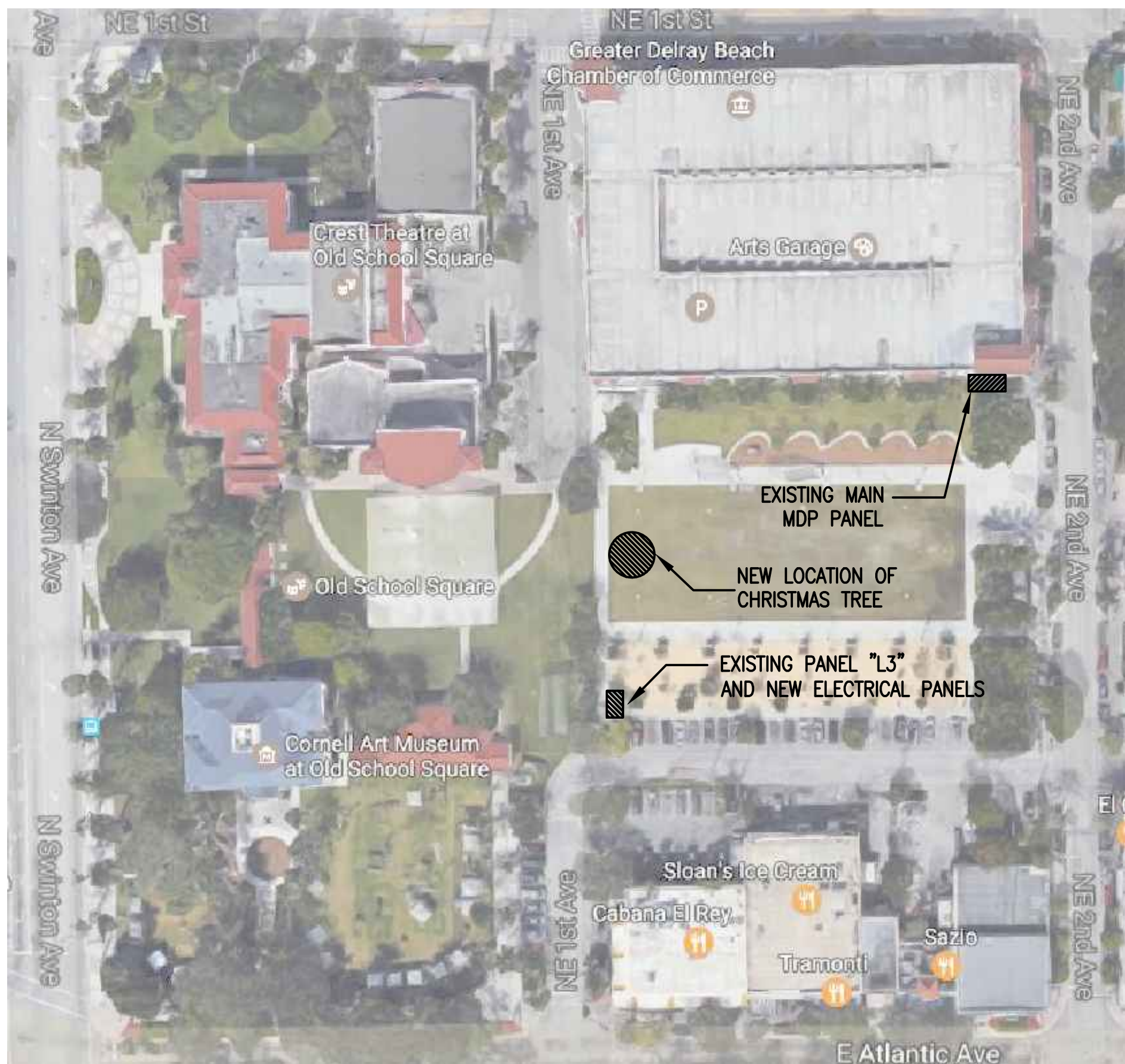
SHEET NUMBER

C-6

Plotted on: Jun 29, 2017 - 1:49pm

Layout Name: E-1.0

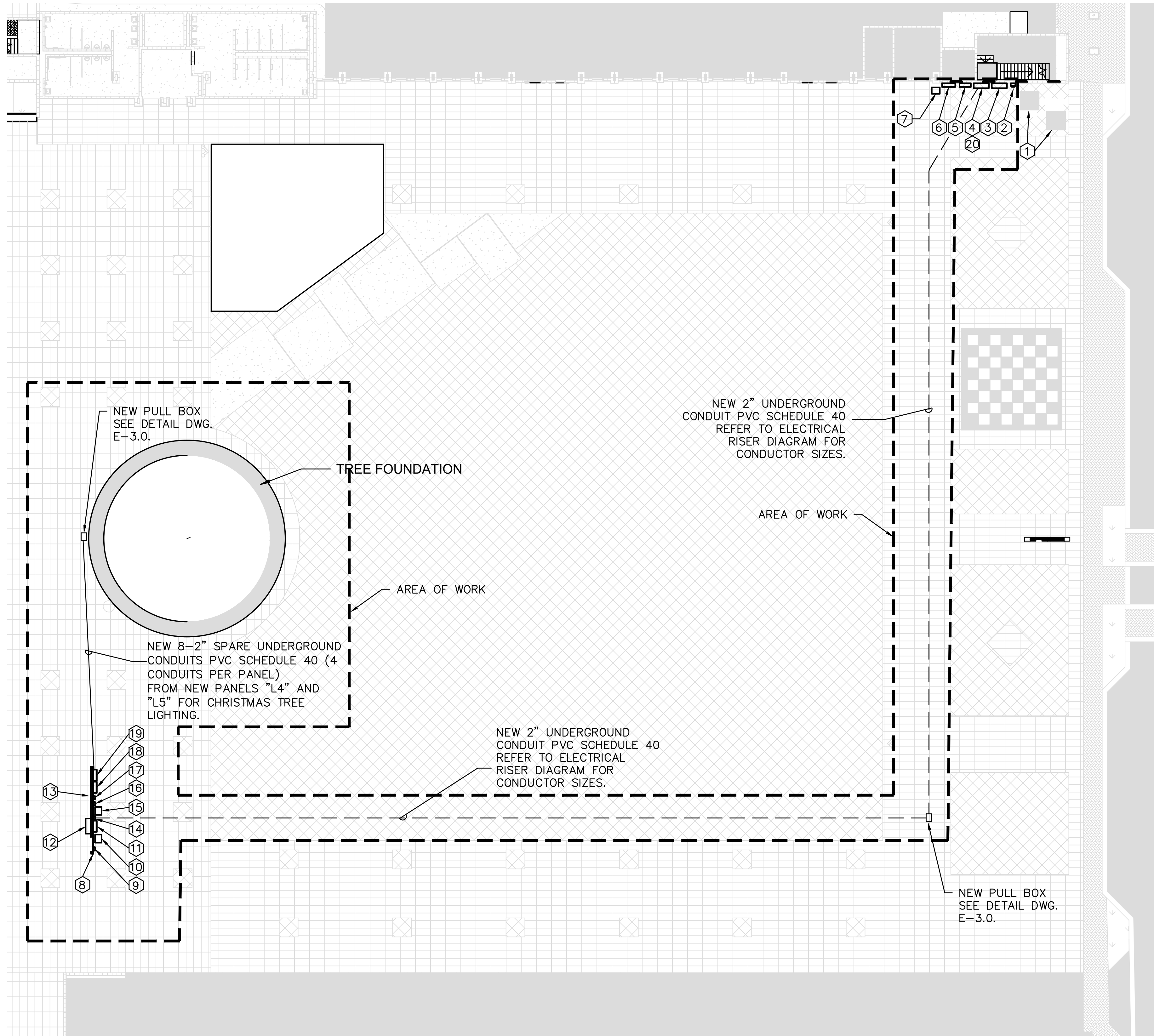
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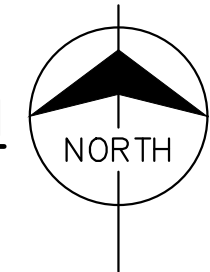
CHRISTMAS TREE LOCATION KEY PLAN
SCALE: N.T.S.

KEYED NOTES:

- 1 EXISTING FPL PAD MOUNTED TRANSFORMERS.
- 2 EXISTING FPL METER FOR 480/277VAC, 3 PHASE SERVICE.
- 3 EXISTING CT CAN.
- 4 EXISTING MDP 480/277VAC, 3 PHASE, 4W 800AMPS MCB, SERVING AREA OF WORK FOR THIS PROJECT.
- 5 EXISTING PANEL "L1" 120/240VAC, 1 PHASE, 3W 400AMPS MCB.
- 6 EXISTING TIME CLOCKS, POLE LIGHTS AND POLE RECEPTACLES BREAKERS.
- 7 EXISTING 75KVA STEP DOWN TRANSFORMER 480/277V-120/240V FEEDING EXISTING PANEL "L1".
- 8 EXISTING UNISTRUT MOUNTED ELECTRICAL SWITCHGEAR.
- 9 EXISTING 200AMP, 480/277VAC, 1 PHASE DISCONNECT TO TRANSFORMER.
- 10 EXISTING PAD MOUNTED 75KVA STEP DOWN TRANSFORMER 480/277V-120/240V 1 PHASE FEEDING EXISTING PANEL "L3".
- 11 EXISTING PANEL "L3" 120/240VAC, 1 PHASE, 3W 400AMPS MCB.
- 12 EXISTING TIME CLOCKS, POLE LIGHTS AND POLE RECEPTACLES BREAKERS.
- 13 EXTEND EXISTING UNISTRUT TO ACCOMMODATE NEW ELECTRICAL SWITCHGEAR AS NEEDED.
- 14 NEW 125AMP, 480/277VAC, 3 PHASE, DISCONNECT, NEMA 4X LOCKABLE ON UNISTRUT.
- 15 NEW 75KVA, 480/277-120/240VAC, 3 PHASE, STEP DOWN TRANSFORMER NEMA 3R FOR NEW PANELS "L4" AND "L5".
- 16 NEW 225AMP, 120/208VAC, 3 PHASE, DISCONNECT, NEMA 4X LOCKABLE ON UNISTRUT.
- 17 NEW 3 POLE 225AMP, 120VAC LIGHTING CONTACTOR NEMA 3R AND REMOTE WEATHER RESISTANT SWITCH.
- 18 NEW PANEL "L4" 120/208VAC, 3 PHASE, 225AMPS NEMA 4X LOCKABLE.
- 19 NEW PANEL "L5" 120/208VAC, 3 PHASE, 225AMPS NEMA 4X LOCKABLE.
- 20 REPLACE EXISTING SPARE 2 POLE BREAKER SPACE #5, (100AMPS, 480/277VAC) IN EXISTING PANEL MDP WITH NEW 125AMP, 3 POLE, 480/277V BREAKER. ROUTE CONDUIT AND CONDUCTORS AS SHOWN ON SITE PLAN TO NEW 125AMP, 480/277VAC, 3 PHASE DISCONNECT AT EXISTING UNISTRUT.



CHRISTMAS TREE NEW LOCATION ELECTRICAL PLAN
SCALE: 1/16"=1'-0"



100% SUBMITTAL
JUNE 2017

NO.	DATE	BY	REVISION

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DATE:	6-10-17
DESIGNED:	FR
DRAWN:	FR
CHECKED:	LMS
APPROVED:	

LARRY M. SMITH, P.E. NO. 45997 SEAL

SEC Smith Engineering Consultants, Inc. State Auth. #8228 2161 Palm Beach Lakes Blvd., Suite 312 West Palm Beach, Florida 33409 (561) 616-3911 fax (561) 616-3912 www.smithengineeringconsultants.com



CITY OF DELRAY BEACH
ENVIRONMENTAL SERVICES
DEPARTMENT

CHRISTMAS ALUMINUM TREE
RELOCATION PROJECT

PROJECT NO. 17015

CHRISTMAS TREE ELECTRICAL
RELOCATION PLAN

DRAWING NO.

E-1.0

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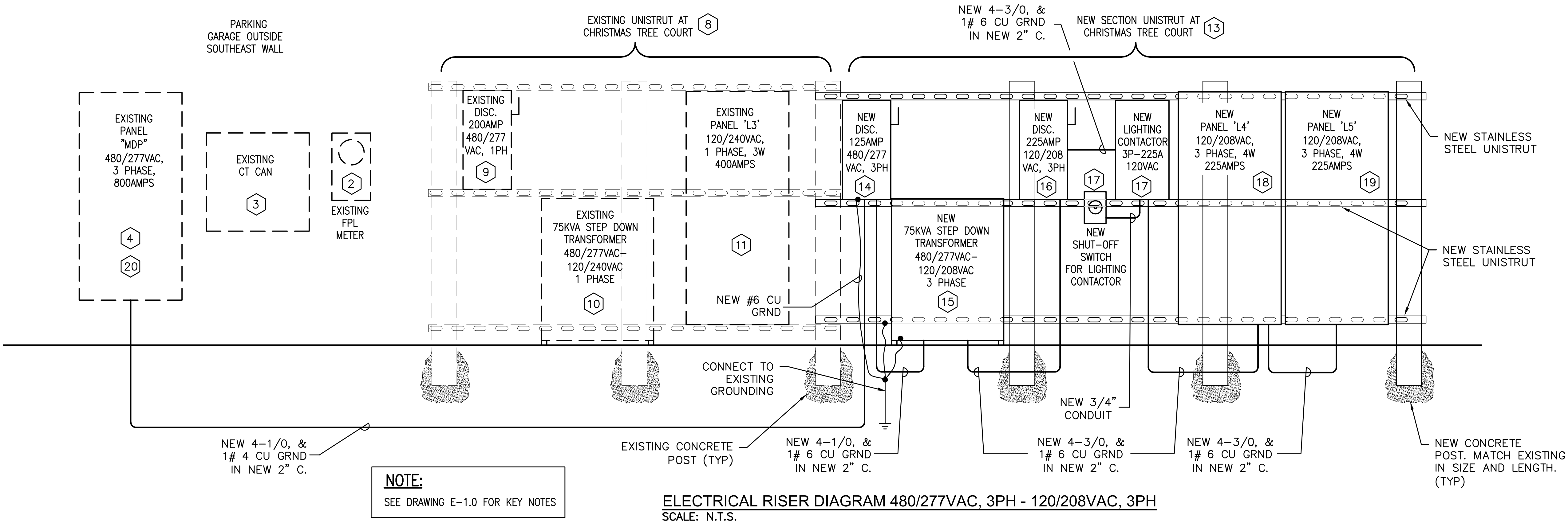
Drawing name: I:\Projects\SEC 2017\17015 Christmas Tree Relocation\Electrical Dwg\E-1.0.dwg
Layout Name: E-2.0
Plotted on: Jun 29, 2017 - 1:48pm

GENERAL NOTES AND SPECIFICATIONS:

- THE SCOPE OF WORK IS DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS, PRIMARILY CONSIST OF THE FOLLOWING:
 - PROVIDE AND INSTALL ALL ELECTRICAL ASSOCIATED WITH NEW CHRISTMAS TREE RELOCATION LIGHTING CIRCUIT ELECTRICAL PANELS COMPLETE IN PLACE.
 - PROVIDE AND INSTALL NEW CONDUIT, PULL BOXES AND WIRING COMPLETE IN PLACE.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR TO INSTALL THE ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT NECESSARY FOR COMPLETION OF THE WORK SHALL BE INCLUDED.
- THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LOCAL CODES, CITY CODES, PALM BEACH COUNTY CODES AND THE FLORIDA BUILDING CODE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS AND SHALL COORDINATE HIS WORK WITH THE ENGINEER AND OWNER.
- THE CONTRACTOR SHALL, BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
- GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH NEC, ARTICLE 250. THE GROUNDING SYSTEM TEST SHALL NOT EXCEED A 48 HOUR SPAN DRY RESISTANCE OF 10 OHMS. ADDITIONAL GROUNDING TO MEET THIS REQUIREMENT SHALL BE INSTALLED AT NO EXTRA COST. GROUNDING AND BONDING CONNECTIONS SHALL NOT BE PAINTED. AN EQUIPMENT GROUND WIRE SIZED PER NEC SHALL BE PULLED IN ALL ELECTRICAL CONDUITS, POWER AND CONTROL, WHETHER OR NOT INDICATED ON THE PLANS.
- ALL EQUIPMENT AND MATERIAL SHALL BE UNUSED AND U.L. LISTED.
- THE CONTRACTOR IS RESPONSIBLE TO TEST ALL SYSTEMS AND REPAIR OR REPLACE ALL DEFECTIVE WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER.
- ALL EQUIPMENT FURNISHED AND INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL ACCEPTANCE.
- COORDINATE ALL ELECTRICAL EQUIPMENT LOCATIONS AND VERIFY ALL OBSTRUCTIONS WITH ALL SUBCONTRACTORS AND EQUIPMENT SUPPLIERS PRIOR TO ANY INSTALLATION. THE DRAWINGS ARE NOT INTENDED TO SHOW THE EXACT LOCATION OF CONDUIT RUNS. THESE ARE TO BE COORDINATED WITH THE OTHER TRADES SO THAT CONFLICTS ARE AVOIDED PRIOR TO INSTALLATIONS.
- ALL CONDUCTORS SHALL BE 600V, U.L. LISTED. POWER CABLES SHALL BE TYPE THHW/THWN. ALL CONDUCTING MEDIA SHALL BE COPPER. NO ALUMINUM ALLOWED.
- ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40. ALL ABOVE GRADE CONDUIT SHALL BE PVC SCHEDULE 80.
- ALL CIRCUITS SHALL BE IDENTIFIED IN JUNCTION BOXES, CONTROLLERS AND PANELBOARDS. IDENTIFICATION SHALL MATCH PANELBOARD SCHEDULES. EXPOSED RUNS OF CONDUITS SHALL BE INSTALLED WITH RUNS PARALLEL OR PERPENDICULAR TO WALLS, STRUCTURAL MEMBERS OR INTERSECTIONS OF VERTICAL PLANES AND CEILINGS, WITH RIGHT ANGLE TURNS CONSISTING OF SYMMETRICAL BENDS OR PULL BOXES AS INDICATED ON THE DRAWINGS. BENDS AND OFFSETS SHALL BE AVOIDED WHERE POSSIBLE.
- ALL REFERENCES TO A PARTICULAR MANUFACTURER ARE GIVEN ON AN "APPROVED EQUAL" BASIS.

- ALL EXCAVATIONS FOR CONDUITS AND HANDHOLES SHALL BE HAND EXCAVATED AND COORDINATED WITH ENGINEER. MINIMUM DEPTH FROM TOP OF DUCTBANKS OR CONDUITS TO FINISHED GRADE SHALL BE 24" UNLESS OTHERWISE NOTED.
- CONDUCTOR PULLING TENSIONS SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATION. CONTRACTOR SHALL INSTALL PULL BOXES TO MEET MANUFACTURER'S REQUIREMENTS.
- MINIMUM DISTANCE ALLOWED BETWEEN POWER CONDUITS AND INSTRUMENTATION CONDUITS SHALL BE:

VOLTAGE	DISTANCE
480V	2 FT
120V	1 FT
- ALL LOCATIONS OF EQUIPMENT, PANELS ETC. ARE SHOWN FOR ILLUSTRATION PURPOSES. CONTRACTOR SHALL VERIFY EXACT LOCATION AND SIZE AND INSTALL AS SUCH WITH CORRESPONDING CONDUIT STUB-UPS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUIT AND WIRING INSTALLATION FOR ALL VENDOR PROVIDED EQUIPMENT (PACKAGE SYSTEMS) INCLUDING OWNER SUPPLIED AND USER-CHOICE PANELS. IF THE SHOP DRAWINGS DIFFER FROM THE DESIGNED FACILITIES, THE CONTRACTOR SHALL REDESIGN THE FACILITIES AND SUBMIT THE REVISED DESIGN FOR THE ENGINEER'S APPROVAL ALONG WITH THE SHOP DRAWINGS. THERE SHALL BE NO ADDITIONAL COST TO THE OWNER FOR THE REDESIGN NOR FOR ANY ADDITIONAL CONDUITS AND WIRING.
- PROVIDE DUCT SEAL IN ALL EXISTING AND NEW CONDUITS INSIDE SWITCHGEAR AND JUNCTION BOX.
- DEMOLISH ALL ITEMS AS INDICATED ON DRAWINGS. TURN OVER TO THE OWNER AT THE OWNER'S DISCRETION AND PROPERLY DISPOSE OF ALL DEMOLITION ITEMS NOT WANTED BY THE OWNER.
- ALL INSTALLATION AND EQUIPMENT SHALL COMPLY WITH N.E.C. STANDARD, EXCEPT IF OTHERWISE SHOWN IN DRAWINGS.
- ALL CONDUIT PENETRATIONS SHALL BE AT THE BOTTOM OF ANY ENCLOSURE. SIDE PENETRATION IS ONLY ALLOWED WHEN CONNECTING SURGE PROTECTIVE DEVICE (SPD) AND PANEL AND AS INDICATED ON DRAWINGS.
- ALL MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL.
- CONTRACTOR SHALL, WITHIN 30 DAYS AFTER THE DATE OF THE SYSTEM ACCEPTANCE, PROVIDE TO THE BUILDING OWNER RECORD DRAWINGS OF THE ACTUAL INSTALLATION INCLUDING A SINGLE LINE DIAGRAM OF THE ELECTRICAL DISTRIBUTION SYSTEM AND RELATED FLOOR PLANS INDICATING THE LOCATION AND AREA SERVED FOR THE DISTRIBUTION.
- CONTRACTOR SHALL PROVIDE TO THE BUILDING OWNER AN OPERATING AND MAINTENANCE MANUAL IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION C405.7.4.2 OF THE 2014 FLORIDA BUILDING CODE - ENERGY CONSERVATION, INCLUDING ANY AMENDMENTS THERETO.
- SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL PANELS, WIRE, CONDUIT, TRANSFORMER, CIRCUIT BREAKERS EQUIPMENT AND MATERIAL.
- ALL CIRCUITS SHALL BE IDENTIFIED IN JUNCTION BOXES, PULL BOXES, CONTROL PANELS, PANELBOARDS, CONTROLLERS AND SERVICE POINTS IDENTIFICATION SHALL MATCH PANELBOARD SCHEDULES.



NOTE:
SEE DRAWING E-1.0 FOR KEY NOTES

ELECTRICAL RISER DIAGRAM 480/277VAC, 3PH - 120/208VAC, 3PH
SCALE: N.T.S.

				<div>WARNING</div> <div><div>0121</div></div> <div>IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE</div>	DATE: 6-10-17	<div>SEC Smith Engineering Consultants, Inc.</div> <div>State Auth. #8228</div> <div>2161 Palm Beach Lakes Blvd., Suite 312 West Palm Beach, Florida 33409 (561) 616-3911 fax (561) 616-3912 www.smithengineeringconsultants.com</div>	<div>CITY OF DELRAY BEACH</div>	CITY OF DELRAY BEACH ENVIRONMENTAL SERVICES DEPARTMENT	CHRISTMAS ALUMINUM TREE RELOCATION PROJECT	PARTIAL ELECTRICAL RISER DIAGRAM	DRAWING NO. E-2.0
NO.	DATE	BY	REVISION		CHECKED: LMS						
					APPROVED:	LARRY M. SMITH, P.E. NO. 45997					
					SEAL				PROJECT NO. 17015		

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JUNE 2017

SERVICE LOAD CALCULATIONS:

NEC 220.87:
PER F.P.L. MAX. 12 MO. KVA = 133
= 159A @ 480V (0.85 P.F. ASSUMED)
X1.25 = 198.8A
= 100.0A PANELS 'L4' & 'L5'
= 298.8A

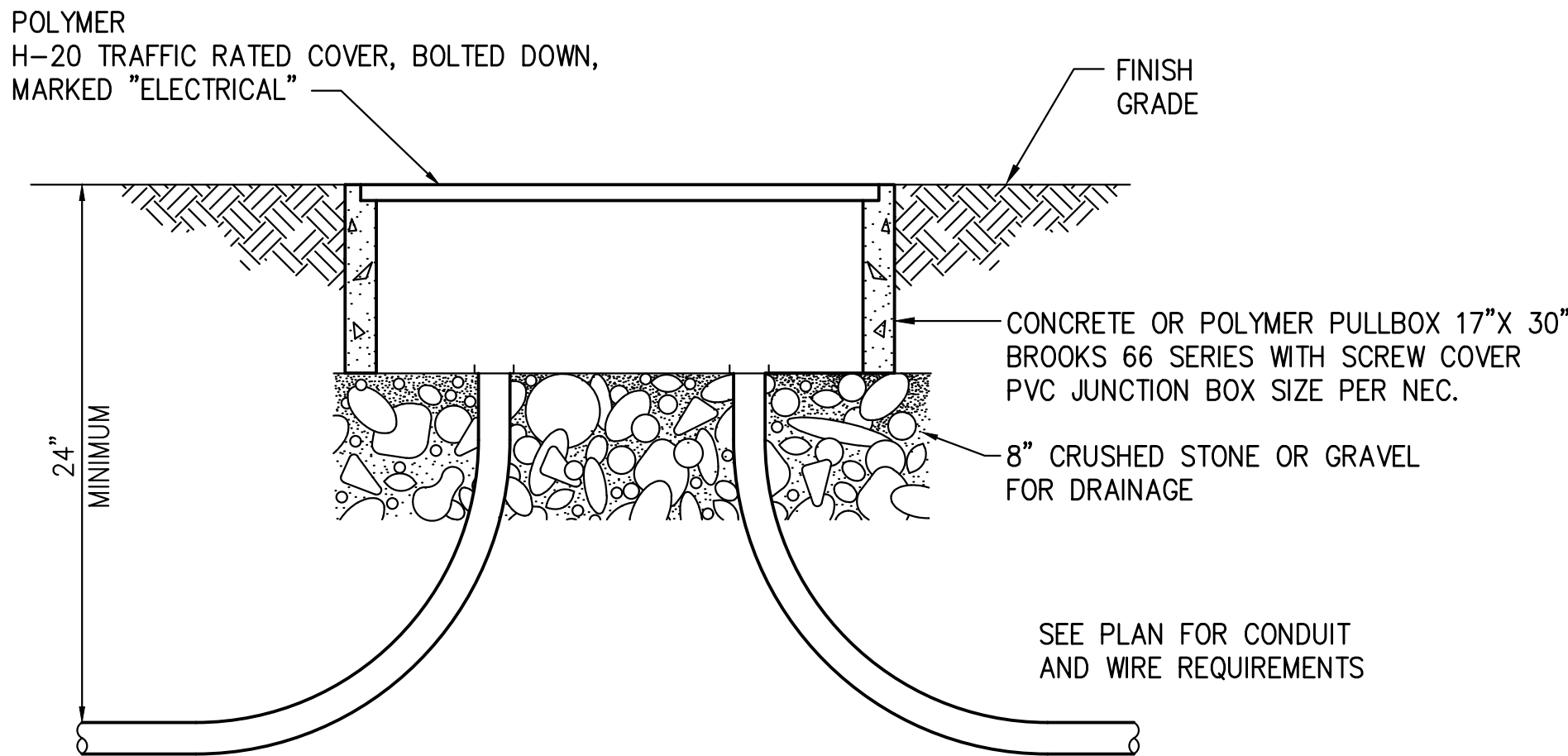
THEREFORE THE EXISTING 800AMP SERVICE IS
ADEQUATE.

Input Wire Size			Voltage Drop Calculation Three Phase"		
Length (L)	Amps (I)	Constant (K)	CM (D)	Volts Dropped	
430	125	12.90	105600	11.37	
Input Volts # of Sets (S)				468.63	Adjusted Voltage
480	1				
Panel 'MDP'				2.37%	%Volts Dropped

EXISTING PANEL "MDP"																(1)(2)(3)(4)			
MOUNTING: SURFACE SHORT CIRCUIT RATING: 65K AIC POLES: 42 FED FROM PANEL: FPL										VOLT: 480/277V,3Ø,4W MAIN BUS AMPS: 800 A MAIN BREAKER AMPS: 800 MANUFACTURER/TYPE: CUTLER HAMMER									
CKT	LOAD SERVED	POLE	TRIP	WIRE	COND	AMPS 'A'	AMPS 'B'	AMPS 'C'	AMPS 'A'	AMPS 'B'	AMPS 'C'	COND	WIRE	TRIP	POLE	LOAD SERVED	CKT		
1	EXIST PANEL 'L1'	2	200	3/0	1 1/2"	120.0			120.0			1 1/2"	250	200	2	EXIST PANEL 'L3'	2		
3	↓						120.0			120.0						↓	4		
5	SPARE	2	200											100	2	SPARE	6		
7	↓															↓	8		
9	PANELS 'L4' & 'L5' VIA TRANSF. (4)	3	125	10	3/4"		100.0			40.0		3/4"	10	60	3	EXIST. SURGE PROT.	10		
11	↓										40.0					↓	12		
13						100.0				40.0							14		
15	SPACE															SPACE	16		
17	SPACE															SPACE	18		
19	SPACE															SPACE	20		
21	SPACE															SPACE	22		
23	SPACE															SPACE	24		
25	SPACE															SPACE	26		
27	SPACE															SPACE	28		
29	SPACE															SPACE	30		
31	SPACE															SPACE	32		
33	SPACE															SPACE	34		
35	SPACE															SPACE	36		
37	SPACE															SPACE	38		
39	SPACE															SPACE	40		
41	SPACE															SPACE	42		
CONNECTED AMPS =						220.0	220.0	100.0	160.0	160.0	40.0								
TOTAL CONNECTED AMPS =						380.0	380.0	140.0	249.30 KVA										
Note: (1) MAX 3% VD ON BRANCH CIRCUITS AS PER FBC (2) NEMA 4X ENCLOSURE (3) SERVICE ENTRANCE RATED (4) SEE DWG. E-1.0 FOR KEY NOTE #20																			

PANEL "L4"																(1)(2)	
MOUNTING: SURFACE						(FEED THRU LUGS)						VOLT: 208/120V, 3Ø, 4W					
SHORT CIRCUIT RATING: 42K AIC												MAIN BUS AMPS: 225 A					
POLES: 42												MAIN BREAKER AMPS: MLO A					
FED FROM PANEL: PANEL MDP VIA TRANSFORMER												MANUFACTURER/TYPE: CUTLER-HAMMER, SQ-D, GE					
CKT	LOAD SERVED	POLE	TRIP	WIRE	COND	AMPS 'A'	AMPS 'B'	AMPS 'C'	AMPS 'A'	AMPS 'B'	AMPS 'C'	COND	WIRE	TRIP	POLE	LOAD SERVED	CKT
1	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	2
3	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	4
5	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	6
7	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	8
9	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	10
11	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	12
13	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	14
15	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	16
17	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	18
19	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	20
21	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	22
23	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	24
25	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	26
27	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	28
29	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	30
31	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	32
33	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	34
35	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	36
37	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	38
39	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	40
41	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	42
CONNECTED AMPS =						42.0	42.0	42.0	42.0	42.0	42.0						
CONNECTED AMPS PNL 'L4' =						84.0	84.0	84.0	30.24 KVA								
CONNECTED AMPS PNL 'L5' =						85.0	84.0	84.0									
TOTAL CONNECTED AMPS =						169.0	168.0	168.0									
Note: (1) MAX 3% VD ON BRANCH CIRCUITS AS PER FBC (2) NEMA 4X ENCLOSURE LOCKABLE																	

PANEL "L5"																(1)(2)	
MOUNTING: SURFACE SHORT CIRCUIT RATING: 42K AIC POLES: 42 FED FROM PANEL: PANEL 'L4'										VOLT: 208/120V, 3Ø, 4W MAIN BUS AMPS: 225 A MAIN BREAKER AMPS: MLO A MANUFACTURER/TYPE: CUTLER-HAMMER, SQ-D, GE							
CKT	LOAD SERVED	POLE	TRIP	WIRE	COND	AMPS 'A'	AMPS 'B'	AMPS 'C'	AMPS 'A'	AMPS 'B'	AMPS 'C'	COND	WIRE	TRIP	POLE	LOAD SERVED	CKT
1	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	2
3	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	4
5	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	6
7	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	8
9	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	10
11	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	12
13	CHRISTMAS TREE LIGHTS	1	20	12	2"	7.0			6			2"	12	20	1	CHRISTMAS TREE LIGHTS	14
15	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	16
17	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	18
19	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	20
21	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	22
23	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	24
25	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	26
27	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	28
29	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	30
31	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	32
33	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	34
35	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	36
37	CHRISTMAS TREE LIGHTS	1	20	12	2"	6.0			6.0			2"	12	20	1	CHRISTMAS TREE LIGHTS	38
39	CHRISTMAS TREE LIGHTS	1	20	12	2"		6.0			6.0		2"	12	20	1	CHRISTMAS TREE LIGHTS	40
41	CHRISTMAS TREE LIGHTS	1	20	12	2"			6.0			6.0	2"	12	20	1	CHRISTMAS TREE LIGHTS	42
CONNECTED AMPS =						43.0	42.0	42.0	42.0	42.0	42.0						
TOTAL CONNECTED AMPS =						85.0	84.0	84.0	30.36 KVA								
Note: (1) MAX 3% VD ON BRANCH CIRCUITS AS PER FBC (2) NEMA 4X ENCLOSURE LOCKABLE																	



PULL BOX DETAIL
NOT TO SCALE

ELECTRICAL PANEL SCHEDULES
SCALE: N.T.S.

				<div>WARNING</div> <div><div>01/21</div></div> <div>IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE</div>		<div>DATE: 6-10-17</div> <div>DESIGNED: FR</div> <div>DRAWN: FR</div> <div>CHECKED: LMS</div> <div>APPROVED:</div>	<div>LARRY M. SMITH, P.E.</div> <div>NO. 45997</div> <div>SEAL</div>	<div><div>SEC</div><div>Smith Engineering Consultants, Inc.</div><div>State Auth. #6228</div><div>2161 Palm Beach Lakes Blvd., Suite 312</div><div>West Palm Beach, Florida 33409</div><div>(561) 616-3911 fax (561) 616-3912</div><div>www.smithengineeringconsultants.com</div></div>	<div><div>CITY OF DELRAY BEACH</div><div>CITY OF DELRAY BEACH ENVIRONMENTAL SERVICES DEPARTMENT</div></div>	<div>CHRISTMAS ALUMINUM TREE RELOCATION PROJECT</div>	<div>PANEL SCHEDULES AND DETAILS</div>	<div>DRAWING NO.</div> <div>E-3.0</div>
<div>NO.</div>	<div>DATE</div>	<div>BY</div>	<div>REVISION</div>	<div>PROJECT NO. 17015</div>								

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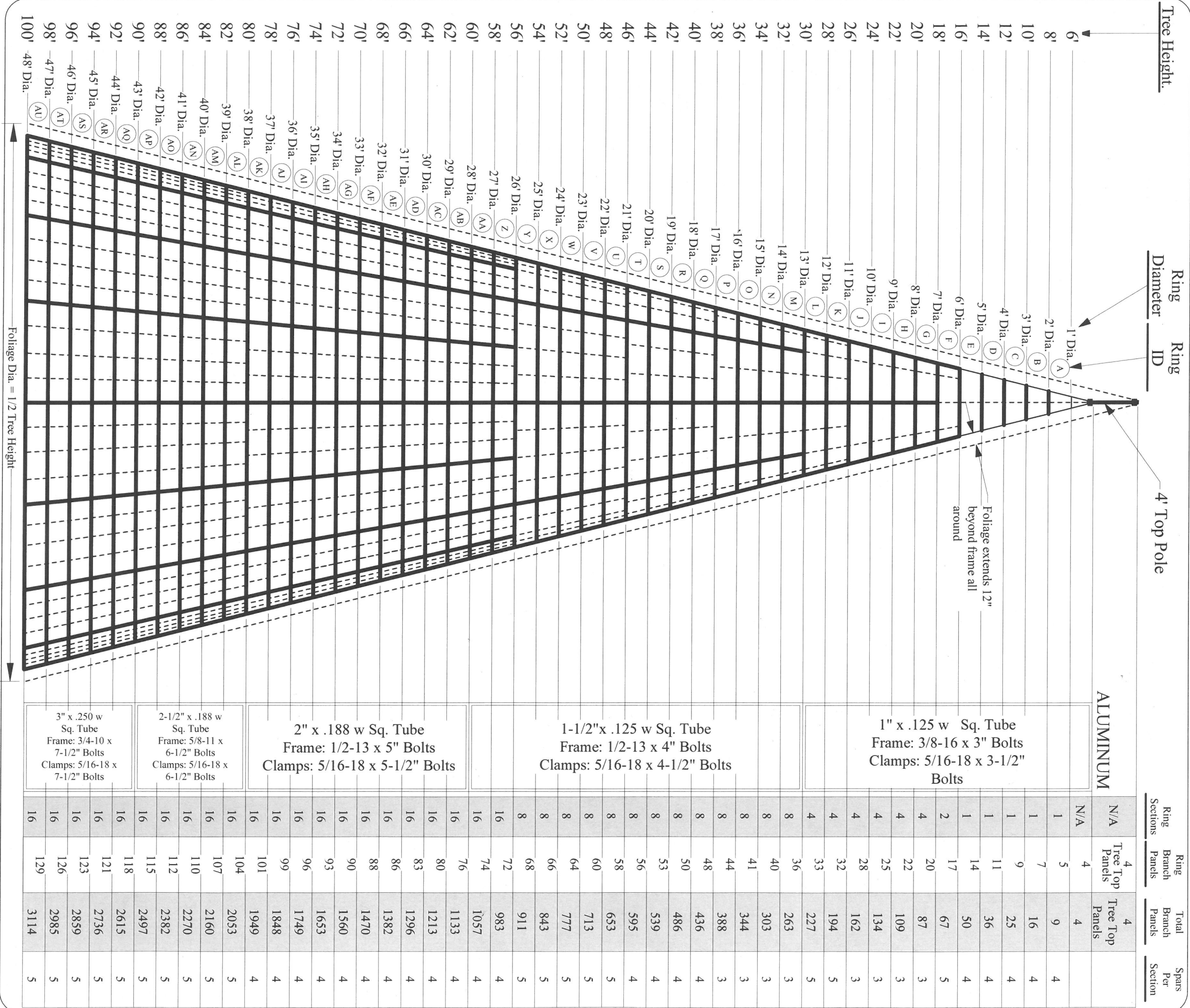
Plotting on: Jun 29, 2017 - 1:49pm
Layout Name: E-3.0

Drawing name: I:\Projects\SEC 2017\17015 Christmas tree Relocation\Electrical Dwg\E-1.0.dwg

100% SUBMITTAL
JUNE 2017

		BRANCHES							
Tree Height	Ring ID	Branches	Branch Spacing-ARC Dim.	Weight of Branches	Total Tree Weight	Load Per Spar			
4' Top Pole		Per Ring	Total	Per Ring	Total				
	6'	4	Top Branches	28	28				
	8'	4	4	28	56				
	10'	A	5	9	35	125			
	12'	B	7	16	49	196			
	14'	C	9	25	63	288			
	16'	D	11	36	77	399			
	18'	E	14	50	98	537			
	20'	F	17	67	119	713			
	22'	G	20	87	140	919			
24'	H	22	109	154	1145				
26'	I	25	134	175	1398				
28'	J	28	162	196	1679				
	K	32	194	224	1386	2008			
	30'	L	33	227	231	1617			
	32'	M	36	263	252	1869			
	34'	N	40	303	280	2149			
	36'	O	41	344	287	2436			
	38'	P	44	388	308	2744			
	40'	Q	48	436	336	3080			
	42'	R	50	486	350	3430			
	44'	S	53	539	371	3801			
	46'	T	56	595	392	4193			
48'	U	58	653	406	4599				
50'	V	60	713	420	5019				
52'	W	64	777	448	5467				
54'	X	66	843	462	5929				
56'	Y	68	911	476	6405				
58'	Z	72	983	504	6909				
	60'	AA	74	1057	518	7427			
	62'	AB	76	1133	532	7959			
	64'	AC	80	1213	560	8519			
	66'	AD	83	1296	581	9100			
	68'	AE	86	1382	602	9702			
	70'	AF	88	1470	616	10318			
	72'	AG	90	1560	630	10948			
	74'	AH	93	1653	651	11599			
	76'	AI	96	1749	672	12271			
	78'	AJ	99	1848	693	12964			
80'	AK	101	1949	707	13671				
82'	AL	104	2053	728	14399				
84'	AM	107	2160	749	15148				
86'	AN	110	2270	770	15918				
88'	AO	112	2382	784	16702				
	90'	AP	115	2497	805	17507			
	92'	AQ	118	2615	826	18333			
	94'	AR	121	2736	847	19180			
	96'	AS	123	2859	861	20041			
	98'	AT	126	2985	882	20923			
	100'	AU	129	3114	903	21826			

Crystal Valley Decorating
100' FRAME ALUMINUM



Crystal Valley Decorating

100' FRAME ALUMINUM WALK THRU

