

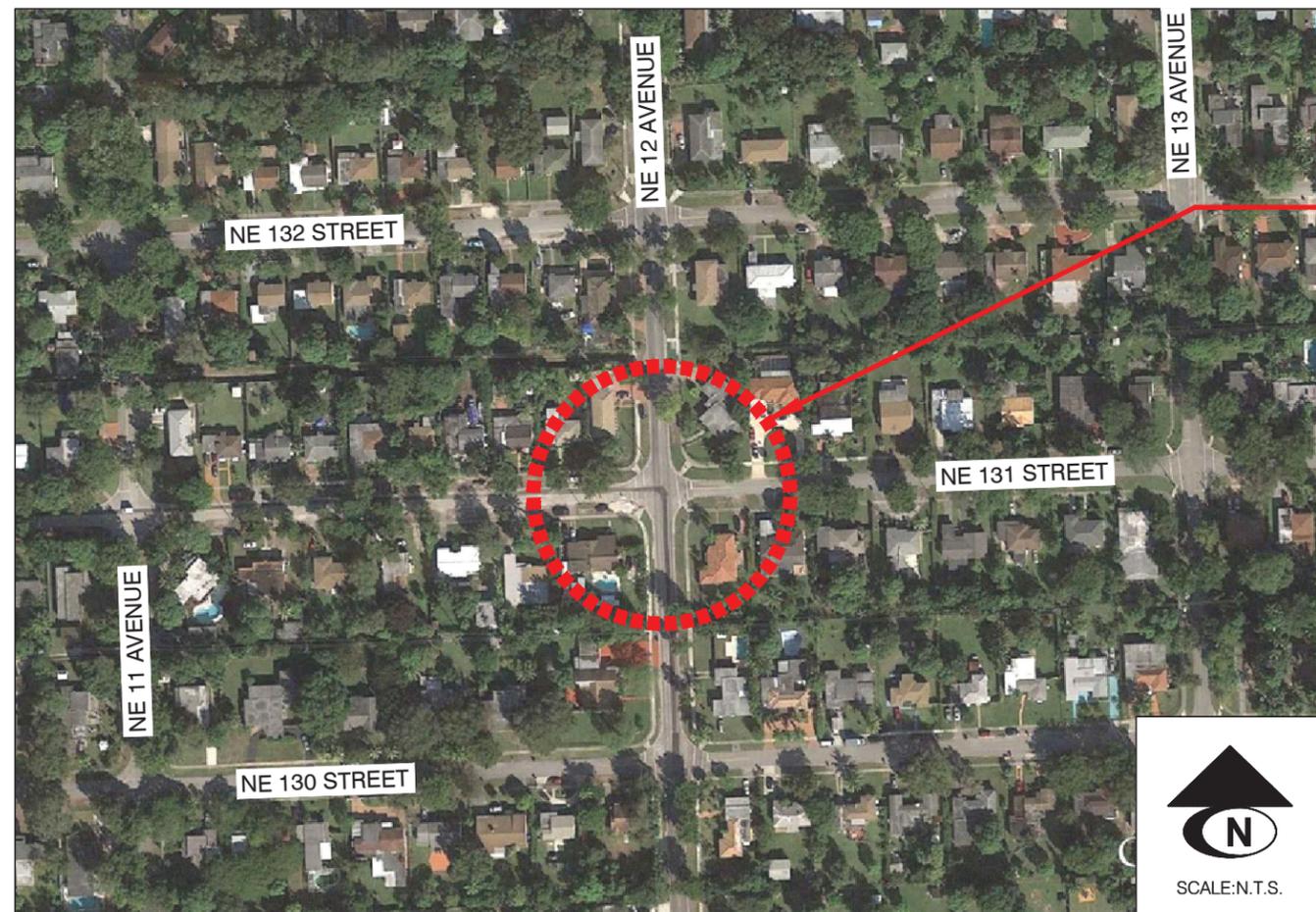


CITY OF NORTH MIAMI  
PUBLIC WORKS DEPARTMENT  
NORTH MIAMI, FLORIDA

# PROPOSED TRAFFIC CIRCLE INTERSECTION AT NE 12th AVENUE AND NE 131st STREET AND NE 131st STREET

Dr. Smith Joseph, **Mayor**  
Carol Keys, Esq., **Vice-Mayor**  
Scott Galvin, **Councilman**  
Philippe Bien-Aime, **Councilman**  
Alix Desulme, **Councilman**

Aleem A. Ghany, **City Manager**  
Wisler Pierre-Louis, **Public Works Director**

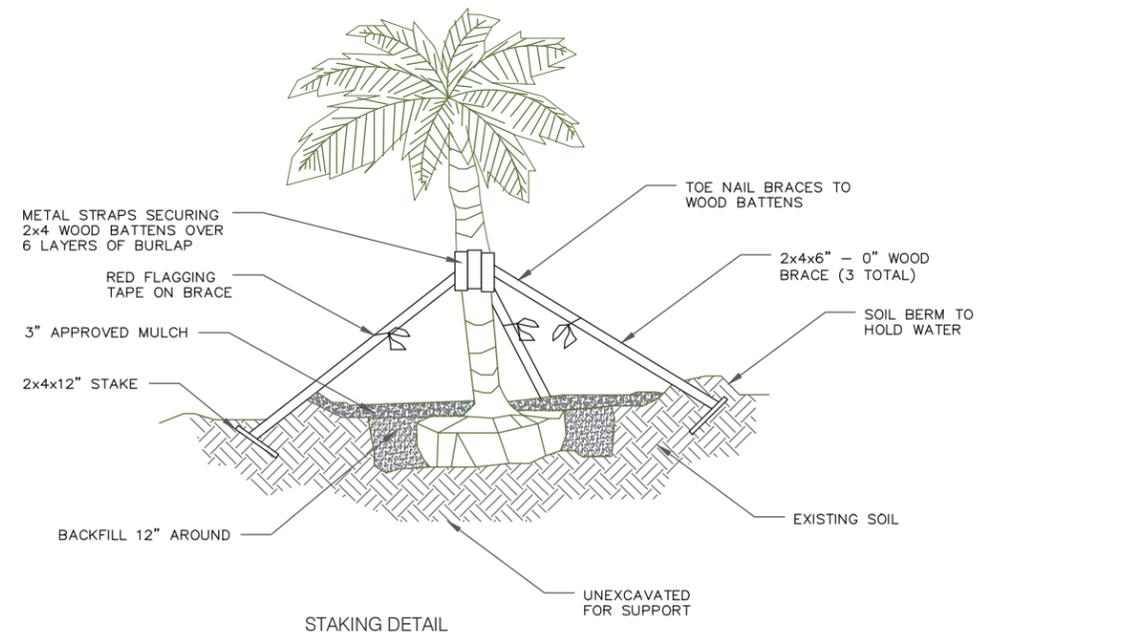
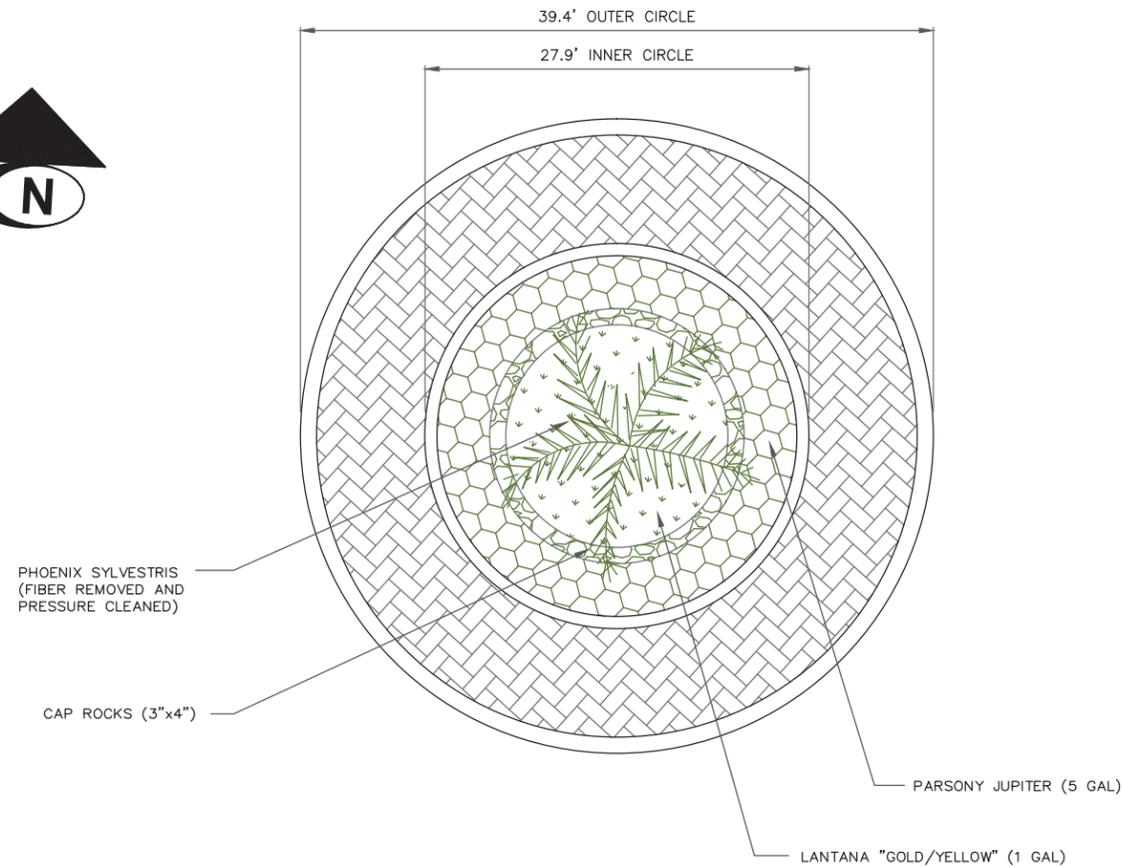


PROJECT LOCATION

## SURVEY SYMBOLOGY

<ul style="list-style-type: none"> <li>○ CLEANOUT</li> <li>■ CATCH BASIN</li> <li>□ CONCRETE POWER POLE</li> <li>○ GUARD RAIL</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>⚡ METAL BUS STOP BENCH</li> <li>⚡ MONITORING WELL</li> <li>⚡ MAIL BOX</li> <li>⚡ NEWS PAPERS AND MAGAZINE STAND</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>⚡ LAWN SPOT LIGHT</li> <li>⚡ DETECTABLE SURFACING</li> <li>— CHAIN LINK FENCE</li> <li>- - - WOOD FENCE</li> <li>🌳 TREE</li> <li>🌲 PINE</li> <li>🌴 PALM</li> </ul>	<ul style="list-style-type: none"> <li>⚡ SPOT ELEVATION</li> <li>⚡ SEWER VALVE</li> <li>⚡ UTILITY BOX</li> <li>⚡ WATER VALVE</li> <li>⚡ WATER METER</li> <li>⚡ WOOD POLE</li> <li>⚡ WOOD POLE WITH TRANSFORMER</li> <li>⚡ GUY WIRE</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> <li>⚡ TRAFFIC SIGNAL MAST ARM</li> <li>■ DENOTES CONCRETE</li> <li>■ DENOTES BRICK TILE ON CONCRETE</li> <li>■ DENOTES TILE</li> <li>■ DENOTES ASPHALT</li> <li>■ DENOTES GRANITE</li> <li>■ DENOTES DETECTABLE SURFING</li> </ul>	<ul style="list-style-type: none"> <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>CL CENTER LINE</li> <li>CONC. CONCRETE</li> <li>Δ DELTA</li> <li>E EAST</li> <li>ENC. ENCROACHMENT</li> <li>F.I.P. FOUND IRON PIPE</li> <li>F.J.R. FOUND REBAR</li> <li>F.F.E. FINISH FLOOR ELEVATION</li> <li>F.N. FOUND NAIL</li> <li>GV GAS VALVE</li> <li>L LENGTH</li> <li>N NORTH</li> <li>N.G.V.D. NATIONAL GEODETIC VERTICAL DATUM</li> <li>O.E. OVERHEAD ELECTRIC LINE</li> <li>O/L ON LINE</li> <li>(O.R.B.) OFFICIAL RECORD BOOK</li> <li>(MEAS.) MEASURED</li> <li>P.R.M. POINT REFERENCE MONUMENT</li> <li>(REC.) RECORD</li> <li>R RADIUS</li> <li>R/W RIGHT-OF-WAY</li> <li>S SOUTH</li> <li>SEC. SECTION</li> <li>T TANGENT</li> <li>U.E. UTILITY EASEMENT</li> <li>W WEST</li> <li>W/F WOOD FENCE</li> <li>P.O.B. POINT OF BEGINNING</li> <li>P.O.C. POINT OF COMMENCEMENT</li> <li>B.O.B. BASIS OF BEARING</li> <li>V.C.P. VITRIFIED CLAY PIPE</li> <li>R.C.P. REINFORCED CONCRETE PIPE</li> <li>C.M.P. CORRUGATED METAL PIPE</li> </ul>
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SCOPE OF WORK

THE WORK COVERED UNDER THIS CONTRACT CONSISTS OF FURNISHING ALL LABOR, MATERIAL AND EQUIPMENT TO DELIVER AND INSTALL THE FOLLOWING PLANTS ON SITE ON A PER CIRCLE BASIS.

LANDSCAPING, WATER, METERS, BACKFLOW DEVICES, IRRIGATION AND ELECTRICAL DROPS

- A. WORK: PROVIDE AN UNDERGROUND IRRIGATION SYSTEM TO PROVIDE 100% COVERAGE WITH 75 TO 100% OVERLAP WITH MINIMAL OVERSPRAY ON NON-LANDSCAPE AREAS, AND PROVIDE A PRECIPITATION RATE OF 1" PER HOUR. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED ENGINEERING DRAWINGS, CALCULATIONS, ETC. AS REQUIRED BY NORTH MIAMI BUILDING AND ZONING TO SECURE ALL PERMITS AND ENSURE ALL WORK PASSES INSPECTIONS.

THE WORK INCLUDES:

- COORDINATE WATER METER INSTALLATION THROUGH THE CITY OF NORTH MIAMI WATER DEPARTMENT, PAYING ALL APPLICABLE FOR A 3/4 INCH METER INSTALLED
- INSTALL IRRIGATION CONTROLLER MOUNTED IN A "NENA-3" LOCKABLE ENCLOSURE.
- INSTALL AUTOMATIC IRRIGATION SYSTEM INCLUDING PIPING, FITTINGS, SPRINKLER HEADS, AND ACCESSORIES.
- INSTALL ELECTRIC REMOTE CONTROL VALVES
- INSTALL CONTROL WIRES
- EXCAVATING AND BACKFILLING IRRIGATION SYSTEM WORK
- INSTALL RAIN SENSORS
- COMPLETE ELECTRICAL ( UNITRUST SYSTEM AND FLP DROPS)

PROJECT CONDITIONS:

- A: PROTECT EXISTING TREES, PLANTS, LAWNS AND OTHER FEATURES DESIGNED TO REMAIN AS PART OF THE FINAL LANDSCAPE WORK.
- B: PROMPTLY REPAIR DAMAGE TO ADJACENT FACILITIES CAUSED BY IRRIGATION SYSTEM WORK OPERATIONS. COST OF REPAIRS AT CONTRACTORS EXPENSE.
- C: PROMPTLY NOTIFY THE CITY OF UNEXPECTED SUBSURFACE CONDITIONS

GENERAL:

ALL PLANT MATERIAL SHALL BE FLA #1 OR BETTER AS DEFINED IN THE GRADES AND STANDARDS FOR NURSERY PLANTS PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. THE CONTRACTOR SHALL PROVIDE A SPECIAL WARRANTY IN LETTER OR CERTIFICATE FORM ADDRESSED TO THE CITY OF NORTH MIAMI, GUARANTEEING THAT THE PLANT MATERIAL BE MAINTAINED IN A HEALTHY, VIGOROUS, WATERED CONDITION FOR (1) YEAR AFTER THE COMPLETION OF ALL INITIAL PLANTING. CONTRACTOR IS RESPONSIBLE FOR OBTAINING UTILITY LOCATIONS PRIOR TO EXCAVATING. CITY OF NORTH MIAMI WILL NOT BE RESPONSIBLE FOR ANY DAMAGES DONE TO ANY UTILITY OR PRIVATE PROPERTY TO THE CONTRACTOR.

SOD:

SOD SHALL BE ST. AUGUSTINE

PLANT LIST:

PHOENIX SYLVESTRIS (FIBER REMOVED AND PRESSURE CLEANED)

SPECIAL NOTE:

PALM SHALL HAVE AN IRRIGATION RISER SECURED AND EXTENDING ABOVE THE TOP OF THE PALM CANOPY TERMINATING WITH A SPINNER/ROTOR TYPE HEAD THAT WILL COVER THE ENTIRE CANOPY WITH WATER AND SHALL BE HOOKED TO A SEPARATE ZONE. ADDITIONALLY, THERE ARE TO BE FOUR ADJUSTABLE HEAD/NOZZLES AROUND THE PALM ROOT BALL CONNECTED TO THE SAME ZONE. THIS IS TEMPORARY AND WILL BE REMOVED BY THE CITY AT A LATER DATE.

TREE REMOVALS:

1. A PERMIT FOR TREE REMOVAL WILL BE REQUIRED. CONTRACTOR MUST OBTAIN AND PAY NECESSARY FEES.
2. THE TRUNK AND ROOT SYSTEMS MAY BE GROUND DOWN.
3. SAND SHALL BE INSTALLED TO RESTORE A LEVEL GRADE AND SOD INSTALLED.
4. CANOPY REPLACEMENT WILL BE REQUIRED AT THE RATE OF ONE FOR ONE.
5. REPLACEMENT TREES SHALL BE 12 TO 14 FEET TALL, QUERCUS VIRGINIANA, RATED FLORIDA NO. 1 OR BETTER.
6. REPLACEMENT TREES SHALL BE DELIVERED TO THE NORTH MIAMI PARKS OPERATIONS CENTER, 12181 N.E. 13 AVENUE.

INSTALLATION:

CONTRACTOR IS RESPONSIBLE FOR OBTAINING UTILITY LOCATIONS PRIOR TO EXCAVATING. BIDDER SHALL INSTALL PALMS IN LOCATIONS MARKED BY THE PARTS DEPARTMENT. SET PALM LEVEL WITH ITS ORIGINAL GRADE. PALMS SHALL NOT BE PLUGGED AND SET AS INDICATED ON SITE. PALMS SHALL BE THOROUGHLY WATERED IN TO ELIMINATE ALL AIR POCKETS. A 6 INCH HIGH RIM OF DIRT SHALL BE INSTALLED AROUND THE EDGE OF THE EXCAVATED HOLE TO FORM A SAUCER SHAPE WHICH WILL HOLD WATER AROUND THE ROOT BALL. THE TOP 1/3 OF BURLAP SHALL BE REMOVED FROM THE ROOT BALL PRIOR TO FINAL FILLING. FERTILIZER SHALL BE APPLIED AROUND THE EDGE OF THE BACKFILLED HOLE AND THEN COVERED WITH A 3 INCH LAYER OF MULCH, WHICH WILL EXTEND FROM THE OUTSIDE OF THE RIM OF THE SAUCER TO THE BASE OF THE PALMS.

PALMS SHALL BE BRACED TO INSURE THEIR STABILITY FOR THE GUARANTEE PERIOD. (SEE STAKING DETAIL).

MATERIALS:

PALMS SHALL BE FIELD GROWN IN MARL, BALLED AND BURLAPED WITH THE HEADS TO BE FULL AND OF GOOD COLOR. PALMS SHALL BE FREE OF SCARS, LESIONS, UN-UNIFORMED RINGS, RECEDING TRUNK AROUND ROOT INITIATION ZONE, PENCILING, ETC. FERTILIZER: SHALL BE GRANULAR MIXTURE OF 12-4-12 WITH MINORS OR EQUAL APPLIED EVENLY AROUND THE TOP OF THE WATER RETENTION RING AFTER BACKFILLING AND BEFORE MULCHING. SOIL: BACKFILL PLANTING HOLES AFTER TREES ARE SET WITH A SOIL MIX CONSISTING OF A HOMOGENOUS MIXTURE OF 40% SAND, 25% CANADIAN PEAT MOSS, 20% STERILIZED SOIL, 15% PINE BARK, MIXED WITH 50% OF SOIL FROM THE EXCAVATED HOLE. ALL AREAS NEED TO BE FREE OF ALL DEBRIS AND ROCKS AND MULCHED WITH CYPRESS OR MELALEUCA MULCH TO A DEPTH OF 3".

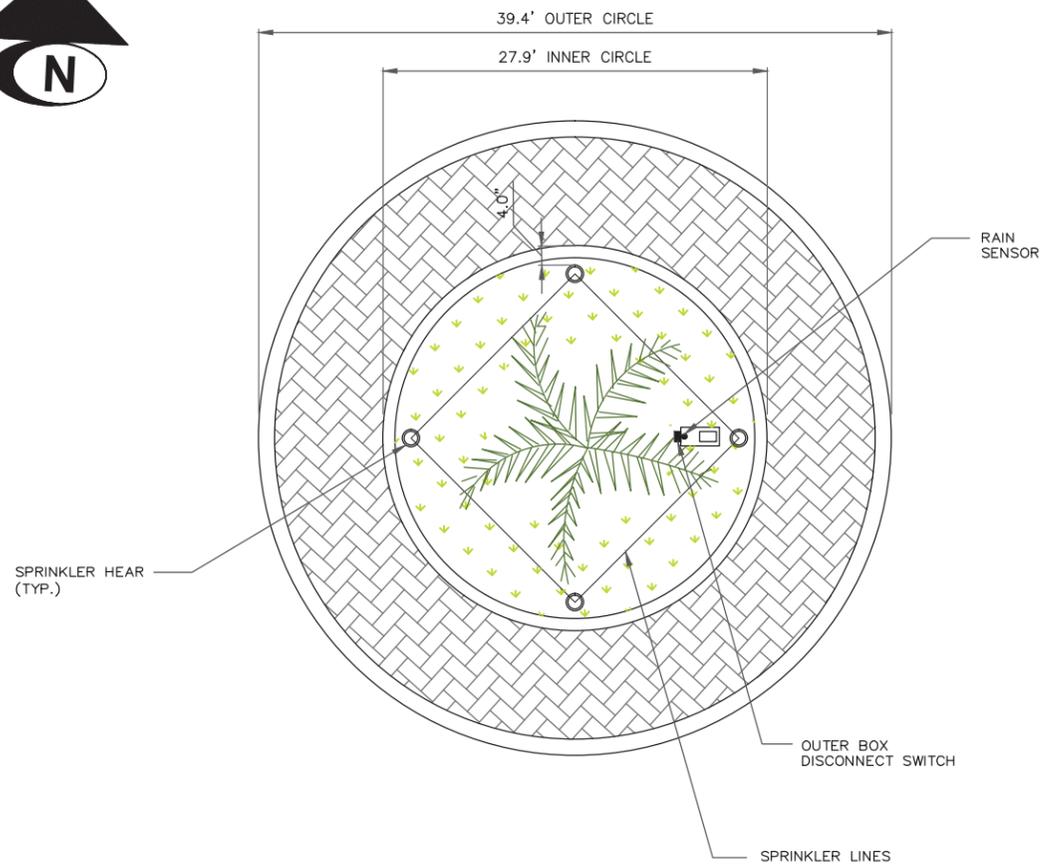
CHECKED BY:	GREGORY NETTO, P.E.
PREPARED BY:	W. FARYNA-A.
DATE:	SEPTEMBER, 2015
DWG No.:	3 OF 8

SIGNED AND SEALED BY:	
	CHUKS OKEREKE, P.E. (#60204)

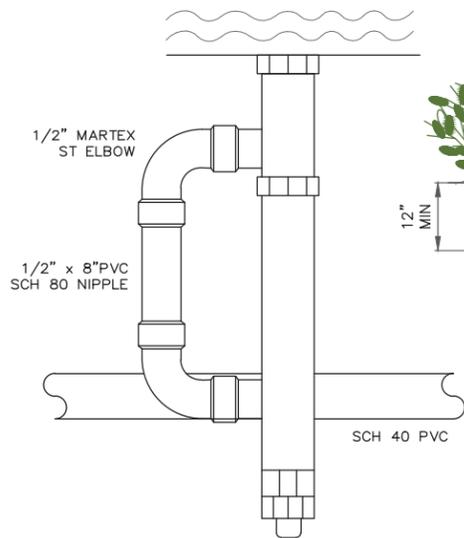
**PROPOSED TRAFFIC CIRCLE INTERSECTION AT  
NE 12 AVENUE AND NE 131 STREET  
(LANDSCAPING DESIGN)**



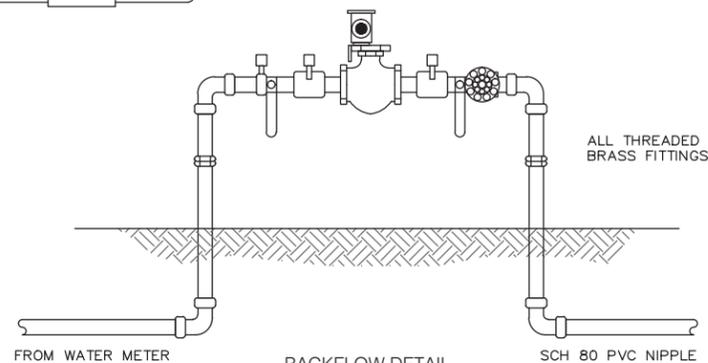
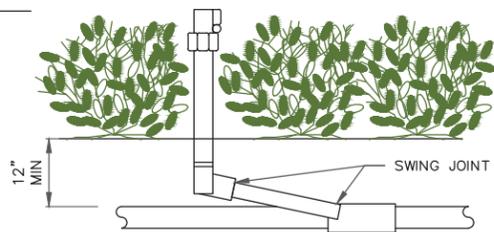
CITY OF NORTH MIAMI  
PUBLIC WORKS DEPARTMENT  
NORTH MIAMI, FLORIDA



RISER DETAIL



RAINBIRD 1812 DETAIL



BACKFLOW DETAIL  
1" 800 M4-QT

INSTALLATION:

- A. PROVIDE APPROVED EARTH FILL OR SAND TO A POINT 4" ABOVE THE TOP OF THE PIPE.
- B. FILL TO WITHIN 6" FINAL GRADE WITH APPROVED EXCAVATED FILL MATERIAL FREE OF LUMPS OR ROCKS LARGER THAN 3" IN ANY DIMENSION.
- C. PROVIDE CLEAN SOIL FREE OF ROCKS AND DEBRIS FOR TOP 6" OF FILL.
- D. INSTALL IRRIGATION MAINS WITH A MINIMUM COVER OF 16" BASED ON FINISHED GRADES. INSTALL IRRIGATION LATERALS WITH A MINIMUM COVER OF 12" BASED ON FINISHED GRADES.
- E. EXCAVATE TRENCHES AND INSTALL PIPE AND FILL DURING THE SAME WORKING DAY. DO NOT LEAVE OPEN TRENCHES OR PARTIALLY FILLED TRENCHES OPEN OVERNIGHT.
  
- F. PLASTIC PIPE:
  - 1. INSTALL PLASTIC PIPE IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, PROVIDE FOR THERMAL EXPANSION AND CONTRACTION.
  - 2. SAW OUT PLASTIC PIPE, REMOVE BURRS AND SHAVINGS AT CUT ENDS PRIOR TO INSTALLATION.
  - 3. MAKE PLASTIC TO PLASTIC JOINTS AND SOLVENT WELD JOINTS. USE HEAVY DUTY CRAY SOLVENT WELD JOINTS. INSTALL PLASTIC PIPE FITTINGS IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTRUCTIONS.
  - 4. MAKE PLASTIC TO F.P.T. JOINT WITH SCHEDULE 80 PVC NIPPLES.
  - 5. ALLOW JOINTS TO SET AT LEAST 24 HOURS BEFORE PRESSURE IS APPLIED TO THE SYSTEM.
  
- G. SPRINKLERS, FITTINGS, VALVES AND ACCESSORIES:
  - 1. INSTALL FITTINGS, VALVES, SPRINKLER HEADS, RISERS AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS EXCEPT AS OTHERWISE INDICATED.
  - 2. SET SPRINKLER HEADS PERPENDICULAR TO FINISHED GRADES.
  - 3. PROVIDE PO-UP SPRAY HEADS WITH AN ADJUSTABLE DOUBLE SWING JOINT RISER ASSEMBLED BY THE USE OF AT LEAST 3, 1/2 MARLEX 90 ELLS, FABRICATE DOUBLE SWING JOINT RISERS OF SCHEDULE 50 PVC NIPPLES AND MARLEX 90 DEGREE ELLS. (1812 DETAIL) SIDE INTLET ON 1812 SPRINKLER HEADS MAY BE UTILIZED.
  - 4. LOCATE SPRINKLER HEADS TO ASSURE PROPER COVERAGE AND OVERLAP.
  - 5. INSTALL RISERS FOR SPRAY HEADS IN SHRUB OF LOWER BED AREAS AND PLANTERS OF SUFFICIENT HEIGHT TO PREVENT INTERRUPTION OF THE STREAM BY THE PLANT MATERIAL. SEE RISER RETAIL.
  - 6. PROVIDE RISERS OF 1/2 SCHEDULE 40 PVC PIPE, S.S. AND PIPE CLAMPED TO A 3/4" ALUMINUM ANGLE AND PAINTED FLAT BLACK.
  - 7. INSTALL CONTROLLER PER MANUFACTURER'S REQUIREMENTS.
  - 8. INSTALL IN-GROUND CONTROL VALVES IN A VALVE, ACCESS BOX.
  - 9. INSTALL VALVE ACCESS BOXES ON A SUITABLE BASE OF GRAVEL TO PROVIDE A LEVEL FOUNDATION AT PROPER GRADE AND TO PROVIDE DRAINAGE OF ACCESS BOX.
  - 10. SEAL THREADED CONNECTIONS ON PRESSURE SIDE OF CONTROL VALVES WITH TEFLON TAPE OR APPROVED PLASTIC JOINT TYPE COMPOUND.
  
- H. CONTROL WIRING:
  - 1. INSTALL ALL ELECTRIC CONTROL WIRES IN APPROPRIATELY SIZED ELECTRICAL PVC CONDUIT IN THE PIPING TRENCHES WHEREVER POSSIBLE. WHERE NECESSARY TO RUN WIRE IN A SEPARATE TRENCH, PROVIDE A MINIMUM COVER OF 12".
  - 2. PROVIDE SUFFICIENT SLACK AT SITE CONNECTIONS AT REMOTE CONTROL VALVES IN CONTROL BOXES AND AT ALL WIRE SPLICES TO ALLOW RAISING THE VALVE BONNET OR SPLICE TO THE SURFACE WITHOUT DISCONNECTING THE WIRES WHEN REPAIR IS REQUIRED.
  - 3. CONNECT EACH REMOTE CONTROL VALVE TO ONE STATION OF A CONTROLLER.
  - 4. CONNECT REMOTE VALVES TO COMMON GROUND WIRE SYSTEM.
  - 5. MAKE WIRE CONNECTIONS TO REMOTE CONTROL ELECTRIC VALVES AND SPLICES OF WIRE IN THE FIELD, USING WIRE CONNECTORS AND SEALING CEMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THERE ARE TO BE IN NO GROUND SPLICES.
  - 6. PROVIDE TIGHT JOINTS TO PREVENT LEAKAGE OF WATER AND CORROSION BUILD-UP OF THE JOINT.
  
- I. FLUSHING, TESTING AND ADJUSTMENT:
  - 1. AFTER SPRINKLER PIPING AND RISERS ARE INSTALLED AND BEFORE SPRINKLER HEADS ARE INSTALLED, OPEN CONTROL VALVES AND FLUSH OUT THE SYSTEM WITH FULL HEAD OF WATER.
  - 2. PERFORM SYSTEM TESTING UPON COMPLETION OF EACH SECTION. MAKE NECESSARY REPAIRS AND RETEST REPAIRED SECTIONS AS REQUIRED.
  - 3. ADJUST SPRINKLERS AFTER INSTALLATION FOR PROPER AND ADEQUATE DISTRIBUTION OF THE WATER OVER THE COVERAGE PATTERN, ADJUST FOR PROPER ARC OF COVERAGE.
  - 4. TIGHEN NOZZLES ON SPRAY TYPE SPRINKLERS AFTER INSTALLATION, ADJUST SPRINKLER. ADJUSTING SCREW ON LATERAL LINE OR CIRCUIT ARE REQUIRED FOR PROPER RADIUS. INTERCHANGE NOZZLES' PATTERNS AS DIRECTED BY THE ARCHITECT TO GIVE THE BEST ARC OF COVERAGE.
  - 5. ADJUST ALL ELECTRIC REMOTE CONTROL VALVE FLOW CONTROL, STEMS FOR SYSTEM BALANCE.
  - 6. TESTTEST AND DEMONSTRATED THE CONTROLLER BY OPERATING APPROPRIATE DAY, HOUR AND STATION SELECTION FEATURES AS REQUIRED TO AUTOMATICALLY START AND SHUT DOWN IRRIGATION CYCLES TO ACCOMMODATE PLANT REQUIREMENTS.

ACCEPTABLE COMPONENTS:

- A. RAINBIRDS VALVES PESO SERIES
- B. RAINBIRDS HEADS 1812 SERIES WITH APPROPRIATE NOZZLES, WITH APPROPRIATE VAN NOZZLES.
- C. RAIN SENSOR, RSO-CEX.
- D. RAINBIRD ESP4-OUTDOOR 120V, 4 STATION CONTROLLER.
- E. VALVE ACCESS BOXES: TAPERED ENCLOSURE OF RIGID PLASTIC MATERIAL COMPRISED OF FIBROUS COMPONENTS CHEMICALLY INERT AND UNAFFECTED BY MOISTURE, CORROSION AND TEMPERATURE CHANGES. PROVIDE LID OF SAME MATERIAL, GREEN IN COLOR.
- F. WATTS PVC 009QT OR APPROVED EQUAL BY NORTH MIAMI WATER AND SEWER.
- G. BACKFLOW PREVENTER SHALL BE 1" 800 M4-QT

MATERIALS:

- A. PLASTIC PIPE FITTINGS AND CONNECTIONS:
  - 1. POLYVINYL CHLORIDE PIPE: ASTW D2241, RIGID PVC PIPE FREE FROM VISIBLE CRACKS, HOLES, FOREIGN MATERIALS, BUSTERS, WRINKLES AND DENTS.
    - a. LATERAL LINES SCHEDULE 40
    - b. MAIN LINES SCHEDULE 40
  - 2. PVC PIPE FITTINGS: ASTM D2241 SCHEDULE 40 PVC MOLDED FITTINGS SUITABLE FOR SOLVENT WELD. FITTING MADE OF OTHER MATERIALS ARE NOT PERMITTED.
  - 3. ALL PIPES UNDER PAVED AREAS WILL BE SLEEVED WITH SCHEDULE 40 PVC (TWO SIZE LARGER THAN PIPE BEING SLEEVED)
- B. ELECTRICAL CONTROL WIRE
  - 1. ELECTRICAL CONTROL AND GROUND WIRE: TYPE UF 800 VOLT, DIRECT BURIAL, SINGLE CONDUCTOR, AWC x14, OR LARGER.
  - 2. WIRE COLOR CODE: PROVIDE CONTROL OR 'HOT' WIRES RED IN COLOR, PROVIDE COMMON OR 'GROUND' WIRES IN GREEN COLOR.

SPECIAL NOTE:

PALM SHALL HAVE AN IRRIGATION RISER SECURED AND EXTENDING ABOVE THE TOP OF THE PALM CANOPY TERMINATING WITH A SPINNER/ROTER TYPE HEAD THAT WILL COVER THE ENTIRE CANOPY WITH WATER AND SHALL BE HOOKED TO A SEPARATE ZONE. ADDITIONALLY, THERE ARE TO BE FOUR ADJUSTABLE HEAD/NOZZLES AROUND THE PALM ROOT BALL CONNECTED TO THE SAME ZONE. THIS IS TEMPORARY AND WILL BE REMOVED BY THE CITY AT A LATER DATE.

- JUNIPER CHINESESES: PARSOMI JUMPER (6 CL FULL)
- LAMATAMA MONTEVIDENSIS: YELLOW LAMATAMA (1 CL FULL)
- CAP ROCK (FLAT TOPS 3'X4' OR GREATER, BUT UNIFORM THROUGHOUT); BROKEN OR NON-UNIFORM ROCKS WILL BE REJECTED.

IRRIGATION SLEEVED:

TWO (2) -N 4" SCHEDULE 40 PVC PIPE SHALL BE PLACED FROM CENTER OF CITY SWALE TO CENTER OF CIRCLE (APPROXIMATELY 60'). ACTUAL DETERMINATION OF CROSSING SHALL BE BASED ON LOCATION OF FPL DROP NECESSARY FOR IRRIGATION METER.

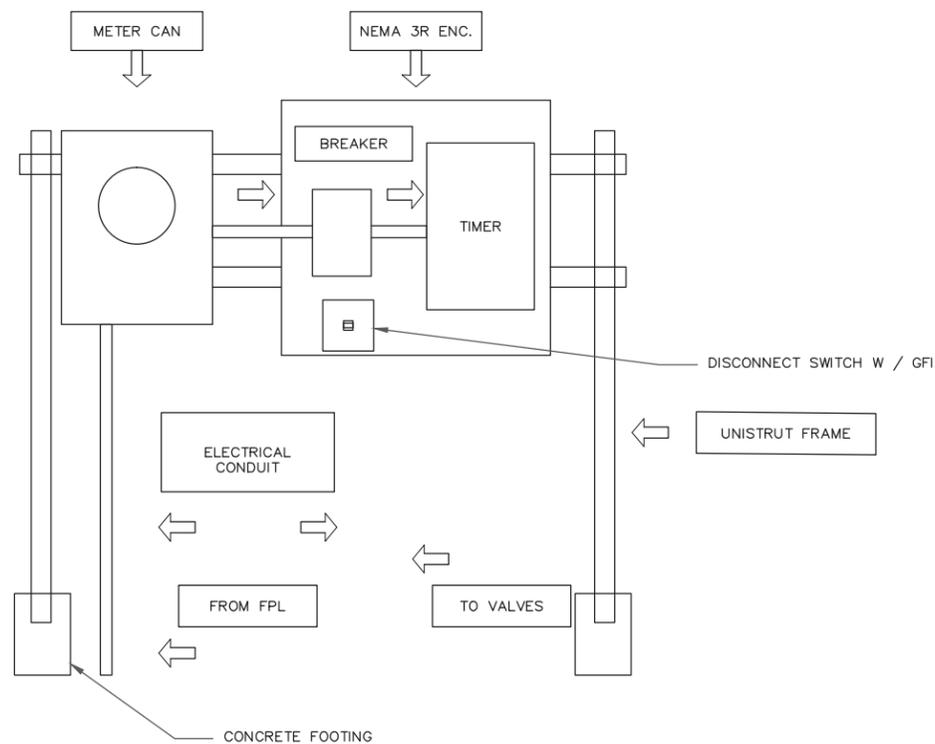
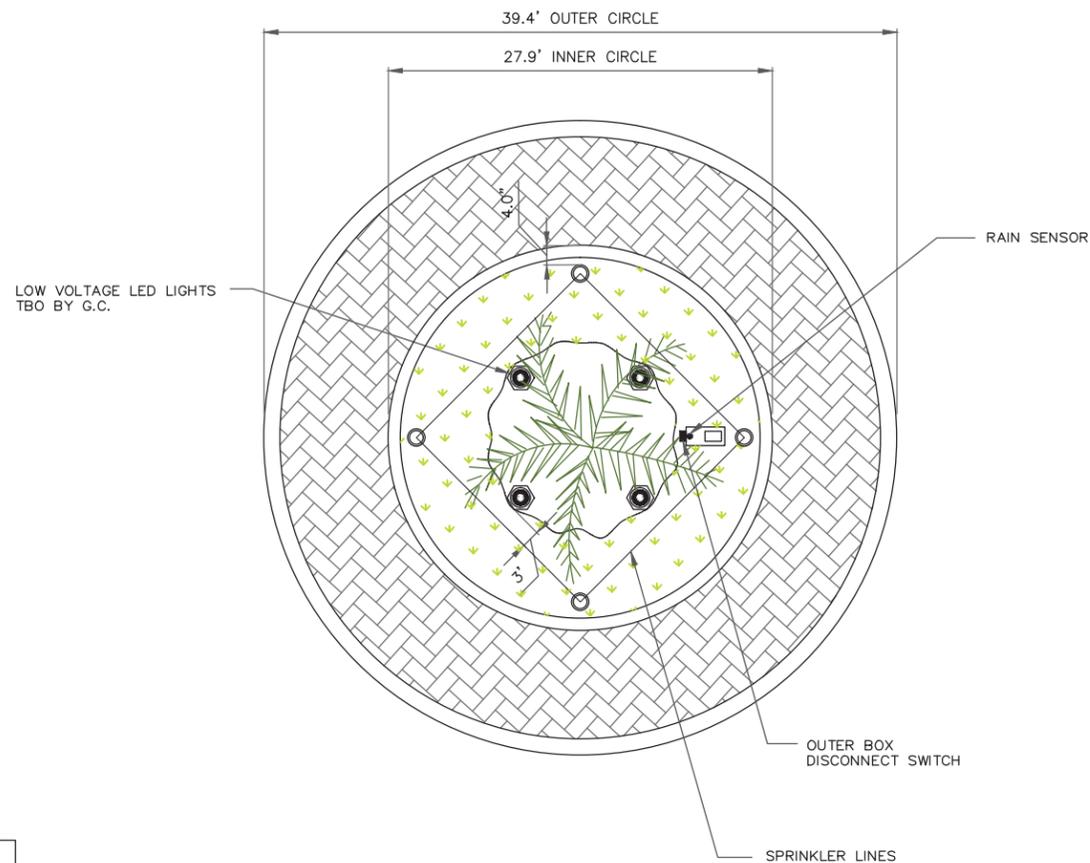
CHECKED BY: GREGORY NETTO, P.E.  
 PREPARED BY: W. FARYNA-A.  
 DATE: SEPTEMBER, 2015  
 DWG No.: 4 OF 8

SIGNED AND SEALED BY:  
 CHUKS OKEREKE, P.E. (#60204)

**PROPOSED TRAFFIC CIRCLE INTERSECTION AT  
 NE 12 AVENUE AND NE 131 STREET  
 (IRRIGATION PLAN)**



CITY OF NORTH MIAMI  
 PUBLIC WORKS DEPARTMENT  
 NORTH MIAMI, FLORIDA



DESCRIPTION:

CONTRACTOR SHALL PROVIDE COMPLETE ELECTRICAL SYSTEM NECESSARY TO ENSURE THE INTENT OF THE PROJECT IS MET AND ACCEPTED BY THE CITY, THE ELECTRIC PANEL AND IRRIGATION CONTROLLER WILL BE INSTALLED IN A "NEMA 3R" STEEL ENCLOSURE WITH HINGED HASP AND STAPLE COVER. SERVICE AND ENCLOSURE SHALL BE MOUNTED ON A PEDESTAL CONSTRUCTED ON UNISTRUT POST WITH CROSS MEMBERS. "NEMA 3R" STEEL ENCLOSURE SHALL BE LARGE ENOUGH TO HOUSE ELECTRIC CIRCUIT PANEL AND IRRIGATION CONTROLLER.

ELECTRICAL:  
GENERAL

- CONTRACTOR SHALL CONSTRUCT A COMPLETE OPERATIONAL ELECTRICAL SYSTEM.
- CONTRACTOR SHALL PAY FOR AND COORDINATE SERVICE DROPS WITH FPL.
- CONTRACTOR SHALL INSTALL ELECTRIC CONDUIT FROM THE FPL POLE TO THE NEW CITY ELECTRIC METER IN THE PLANTER. METER CAN AND WEATHERPROOF ENCLOSURE SHALL BE MOUNTED SECURELY ON PEDESTAL IN THE PLANTER. CONDUIT FROM THE RISER TO THE METER SHALL CONFORM TO FPL SPECIFICATIONS.
- CONDUIT SHALL BE INSTALLED FROM THE POLE TO PLANTER AS APPROVED BY FP&L. SEE POLE LOCATIONS.
- CONDUIT SHALL BE INSTALLED VIA TRENCH, OR DIRECTIONAL BORING.
- CONDUIT UNDER ASPHALT OR CONCRETE SHALL BE 2" SCHEDULE 40 PVC APPROVED ELECTRICAL CONDUIT. ALL CONDUITS SHALL BE INSTALLED AT A DEPTHS THAT CONFORMS TO FPL SPECIFICATION OR 24" MINIMUM, WHICHEVER IS GREATER. INSTALLATION OF CONDUIT SHALL BE DONE IN COMPLIANCE WITH FDOT STD. AND FPLD SPECIFICATIONS, INCLUDING PROPER BEDDING AND FILL AROUND THE CONDUIT AND CLOSURES OF THE TRENCH.
- ALL JOINTS SHALL BE GLUED WITH HEAVY-DUTY CEMENT.
- PEDESTAL SHALL BE 1 5/8 UNISTRUT STAKES WITH 1/2 UNISTRUT CROSS MEMBERS. UNISTRUT STAKES SHALL BE PAINTED WITH "BITUMASTIC 50" PAINT (OR APPROVED EQUAL) TO SIX INCHES ABOVE GRADE.

MATERIALS:

- ALL EQUIPMENT SHALL BE UNDERWRITERS LABORATORY APPROVED AND IN NEW CONDITION. NO REMANUFACTURED COMPONENTS SHALL BE ACCEPTED. ALL COMPONENTS SHALL BE MANUFACTURERS SPECIFICS OR EQUIVALENT DESIGN AND FINISH.
- ENCLOSURES SHALL BE OF DURABLE FINISH IN GALVANIZED OR FACTORY ENAMEL PAINT FINISH; SITE FINISH WILL NOT BE ACCEPTED.
- ELECTRIC CONDUIT SHALL BE GALVANIZED HEAVY WALL OR INTERMEDIATE RIGID CONDUIT ABOVE GROUND AND SHALL BE PAINTED WITH "BITUMASTIC 50" PAINT (OR APPROVED EQUAL) TO SIX INCHES ABOVE GRADE. BELOW GRADE CONDUIT BE FIELD BENT WITH MANUFACTURER-APPROVED BENDER OR BE FACTORY PRE-BENT. ALL FITTINGS SHALL BE THREADED. NO SETSCREWS OR COMPRESSION FITTINGS SHALL BE ACCEPTED.
- LIGHTING SHALL BE BY LED ONLY.

EXECUTION:

- SERVICE SHALL BE UNDERGROUND LATERAL FROM FPL RISER TO THE SERVICE METER. CONDUIT SHALL BE 2" PVC (SCH 40) UNDERGROUND AND RIGID ABOVE GROUND. CONTRACTOR SHALL CUT AND REPAIR CONCRETE OR ASPHALT SURFACES AS NEEDED TO FACILITATE CONDUIT INSTALLATION.
- METER ENCLOSURES SHALL BE LANDIS AND GYR. CAT #UAT131-0G WITH COVER PLATE #56933-1.
- SERVICE DISCONNECTED SHALL BE 20 AMP BREAKERS, SQUARE BREAKER, SQUARE, D OR EQUIVALENT TO BE MOUNTED WITHIN THE HOFFMAN WEATHER PROOF ENCLOSURE BY RIGID CONDUIT, 3/4" TRADE SIZE. CONDUCTORS SHALL BE 3, #10. THREADED BUSHING SHALL BE INSTALLED.
- THE SERVICE SHALL BE GROUNDED BY DRIVEN GROUND RODS (2). GROUND RODS SHALL BE 5/8"X10' COPPER CLAD. GROUNDING ELECTRODE CONDUCTOR SHALL BE #6 COPPER. GROUNDING ELECTRODE CONDUCTOR SHALL BE RUN INSIDE OF 1/2" RIGID TRADE SIZE CONDUITS. CONNECTION SHALL BE CALDWELL TYPE OR GT CONNECTIONS FOR DIRECT BURIAL APPLICATION.
- CONTRACTOR SHALL INSTALL THE HOFFMAN, NEMA-3R, GENERAL EQUIPMENT WEATHERPROOF ENCLOSURE ADJACENT TO THE METER ENCLOSURE. ENCLOSURE SHALL BE SIZED TO CONTAIN THE ELECTRICAL BREAKER, AND IRRIGATION SYSTEM CONTROLLER (7 1/2" WIDTH, 4 1/2" DEPTH, 9" HEIGHT).
- ALL ELECTRICAL SHALL CONFORM TO THE CITY OF NORTH MIAMI CODES AND ALL OTHER LOCAL, STATE AND NATIONAL ORDINANCES.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE DRAWINGS, AND SPECIFICATIONS REQUIRED BY THE CITY OF NORTH MIAMI BUILDING AND ZONING TO OBTAIN THE APPROPRIATE BUILDING PERMITS.

CHECKED BY: GREGORY NETTO, P.E.  
 PREPARED BY: W. FARYNA-A.  
 DATE: SEPTEMBER, 2015  
 DWG No.: 5 OF 8

SIGNED AND SEALED BY:  
 CHUKS OKEREKE, P.E. (#60204)

**PROPOSED TRAFFIC CIRCLE INTERSECTION AT  
 NE 12 AVENUE AND NE 131 STREET  
 (ELECTRICAL PLAN)**



CITY OF NORTH MIAMI  
 PUBLIC WORKS DEPARTMENT  
 NORTH MIAMI, FLORIDA