# Exhibit "A"

**The Town of Lauderdale-By-The-Sea**

**Bougainvilla Drive Median Parking Project**

**Drawing Index**

The Plans and Specifications Set was prepared on November 2, 2012 and consists of the following 9 pages:

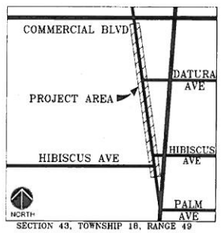
| | | |
|---|---|---|
| Page 1 of 9 | Cover Sheet | No Date |
| Page 2 of 9 | Sheet C-1 | 10/03/12 |
| Page 3 of 9 | Sheet C-2 | 10/03/12 |
| Page 4 of 9 | Sheet C-3 | 10/03/12 (11/02/12 Revision) |
| Page 5 of 9 | Sheet C-4 | 10/03/12 |
| Page 6 of 9 | Sheet LP-1 | 08/28/12 |
| Page 7 of 9 | Sheet LP-2 | 08/28/12 |
| Page 8 of 9 | Sheet LP-3 | 08/28/12 |
| Page 9 of 9 | Sheet LP-4 | 08/28/12 |

# THE TOWN OF LAUDERDALE BY THE SEA
# SOUTH BOUGAINVILLA DRIVE

## INDEX


| | |
|---|---|
| C1 | DEMOLITION PLAN |
| C2 | PAVEMENT MARKING AND SIGNAGE PLAN |
| C3 | PAVING, GRADING, AND DRAINAGE PLAN |
| C4 | DETAILS, GENERAL NOTES, AND SPECIFICATIONS |
| LP1 | LANDSCAPE PLAN |
| LP2 | LANDSCAPE PLAN |
| LP3 | LANDSCAPE PLAN |
| LP4 | LANDSCAPE DETAILS |


NOTE:
THIS SET OF PLANS IS DESIGNED USING NAVD 88 DATUM.
NGVD 29 = NAVD 88 + 1.585'




PROJECT LOCATION MAP
N.T.S.


ARCHITECTURE
LANDSCAPE ARCHITECTURE
LAND PLANNING
INTERIOR DESIGN
GOVERNMENTAL PROCESSING
ARCHITECTURAL ALLIANCE

FLYNN ENGINEERING SERVICES, P.A.
CIVIL ENGINEERS

241 COMMERCIAL BLVD.
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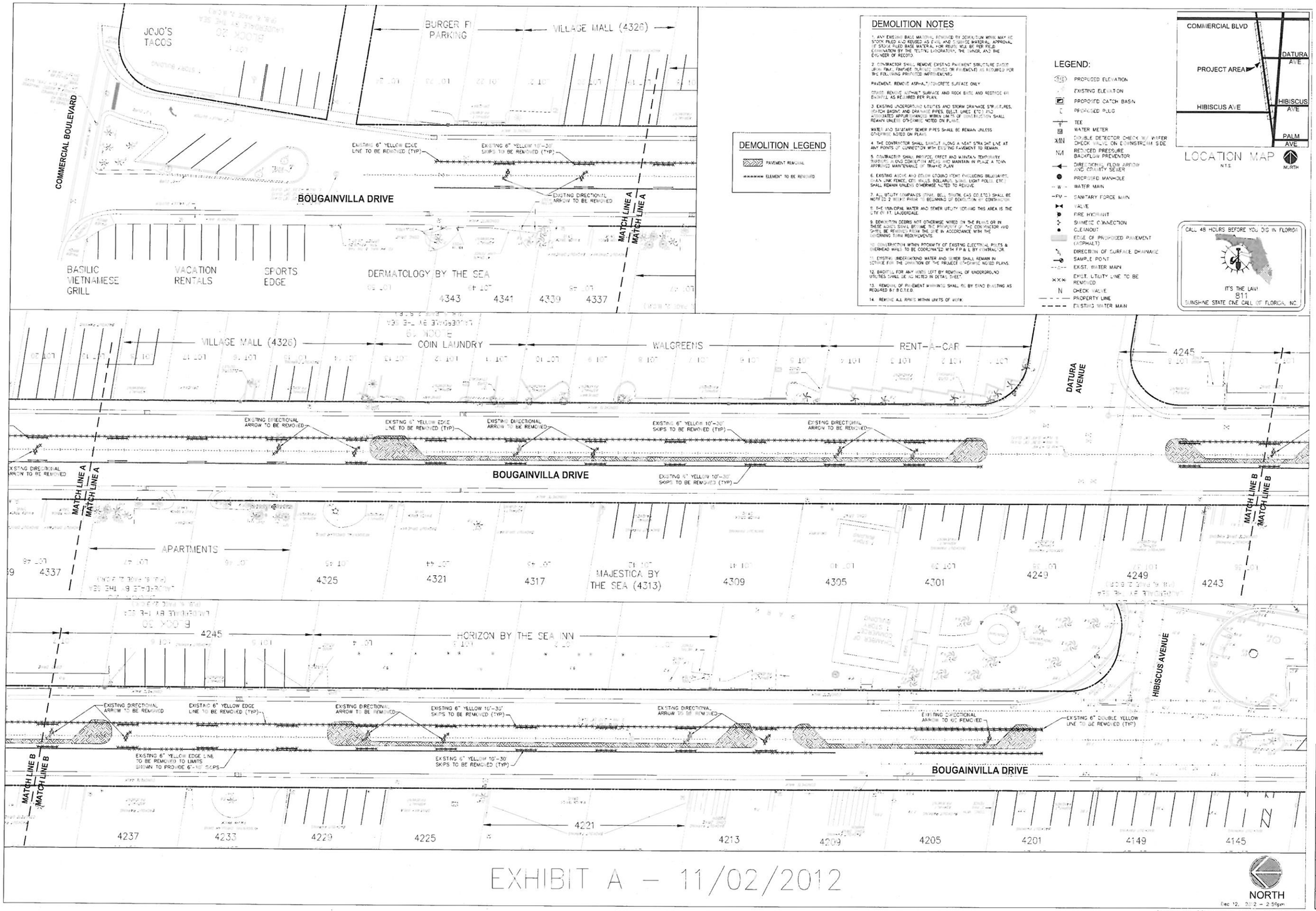
EB# 6578


EXHIBIT A – 11/02/2012




## DEMOLITION NOTES

1. ANY EXISTING BASE MATERIAL REMOVED BY DEMOLITION WHICH MAY BE STOCK PILED AND REUSED AS FILL AND SUBBASE MATERIAL, APPROVAL OF STOCK PILED BASE MATERIAL FOR REUSE WILL BE PER FIELD EVALUATION BY THE TESTING LABORATORY, THE OWNER AND THE ENGINEER OF RECORD.

2. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT STRUCTURE (SURFACE COURSE, FINAL, FINISHED, SURFACE COURSE OR PAVEMENT) AS REQUIRED FOR THE FOLLOWING PROPOSED IMPROVEMENTS:

PAVEMENT: REMOVE ASPHALT/CONCRETE SURFACE ONLY

OTHER: REMOVE ASPHALT SURFACE AND ROCK BASE AND RECTIFY AS EXISTING AS REQUIRED PER PLANS.

3. EXISTING UNDERGROUND UTILITIES AND STORM DRAINAGE STRUCTURES, (CATCH BASINS AND DRAINAGE PIPES, ELECT. LINES, ETC.) AND ASSOCIATED APPURTENANCES WITHIN LIMITS OF CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE NOTED ON PLANS.

WATER AND SANITARY SEWER PIPES SHALL BE REMAIN UNLESS OTHERWISE NOTED ON PLANS.

4. THE CONTRACTOR SHALL SAWCUT ALONG A NEAT STRAIGHT LINE AT ANY POINTS OF CONNECTION WITH EXISTING PAVEMENT TO REMAIN.

5. CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN TEMPORARY BARRIERS AND CONSTRUCTION AREAS AND MAINTAIN IN PLACE A TOWN APPROVED MAINTENANCE OF TRAFFIC PLAN.

6. EXISTING AIRCRAFT AND OTHER GROUND ITEMS (INCLUDING BILLBOARDS, CHAIN LINK FENCE, CITY WALLS, BOLLARDS, SIGNS, LIGHT POLES, ETC.) SHALL REMAIN UNLESS OTHERWISE NOTED TO REMOVE.

7. ALL UTILITY COMPANIES (FPL, BELL SOUTH, GAS CO. ETC.) SHALL BE NOTIFIED 2 WEEKS PRIOR TO BEGINNING OF DEMOLITION BY CONTRACTOR.

8. THE MUNICIPAL WATER AND SEWER UTILITY SERVING THIS AREA IS THE CITY OF FT. LAUDERDALE.

9. DEMOLITION DEBRIS NOT OTHERWISE NOTED ON THE PLANS OR IN THESE NOTES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN ACCORDANCE WITH THE GOVERNING TOWN REQUIREMENTS.

10. CONSTRUCTION WITHIN PROXIMITY OF EXISTING ELECTRICAL POLES & OVERHEAD WIRES TO BE COORDINATED WITH F.P.& L. BY CONTRACTOR.

11. EXISTING UNDERGROUND WATER AND SEWER SHALL REMAIN IN SERVICE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE NOTED PLANS.

12. BACKFILL FOR ANY VOIDS LEFT BY REMOVAL OF UNDERGROUND UTILITIES SHALL BE AS NOTED IN DETAIL SHEET.

13. REMOVAL OF PAVEMENT MARKINGS SHALL BE BY SAND BLASTING AS REQUIRED BY FDOT.

14. REMOVE ALL RINGS WITHIN LIMITS OF WORK

## DEMOLITION LEGEND

- PAVEMENT REMOVAL
- ELEMENT TO BE REMOVED

## LEGEND:

- PROPOSED ELEVATION
- EXISTING ELEVATION
- PROPOSED CATCH BASIN
- PROPOSED PLUG
- TEE
- WATER METER
- DOUBLE DETECTOR CHECK VALVE
- CHECK VALVE ON DOWNSTREAM SIDE
- REDUCED PRESSURE BACKFLOW PREVENTOR
- DIRECTIONAL FLOW ARROW AND QUANTITY SEWER
- PROPOSED MANHOLE
- WATER MAIN
- SANITARY FORCE MAIN
- VALVE
- FIRE HYDRANT
- SIAMESE CONNECTION
- CLEANOUT
- EDGE OF PROPOSED PAVEMENT (ASPHALT)
- DIRECTION OF SURFACE DRAINAGE
- SAMPLE POINT
- EXIST. WATER MAIN
- EXIST. UTILITY LINE TO BE REMOVED
- CHECK VALVE
- PROPERTY LINE
- EXISTING WATER MAIN




LOCATION MAP
N.T.S.
NORTH

CALL 48 HOURS BEFORE YOU DIG IN FLORIDA
IT'S THE LAW!
811
SUNSHINE STATE ONE CALL OF FLORIDA, INC.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Sheet Title
DEMOLITION PLAN

Job Title
SOUTH BOUGAINVILLA DRIVE

BOUGAINVILLA DRIVE BETWEEN COMMERCIAL BLVD AND N. OCEAN DRIVE
LAUDERDALE BY THE SEA, FLORIDA 33308

Phase:
PERMIT DOCUMENTS

Revisions

| | |
|---|---|
| Scale: 1"=20' | Date: 10/03/12 |
| Job No: 12-1033.00 | Plot Date: 11/02/12 |
| Drawn by: SHG | Sheet No. C1 |
| Proj. Mgr: DFS | |
| Appr. by: DFS | 1 of 4 |

EXHIBIT A – 11/02/2012

Dec 12, 2012 – 2:56pm

Drawing name: F:\2012 Jobs\12-1033.00 South Bougainvilla Parking\12-1033.00 SITE.dwg

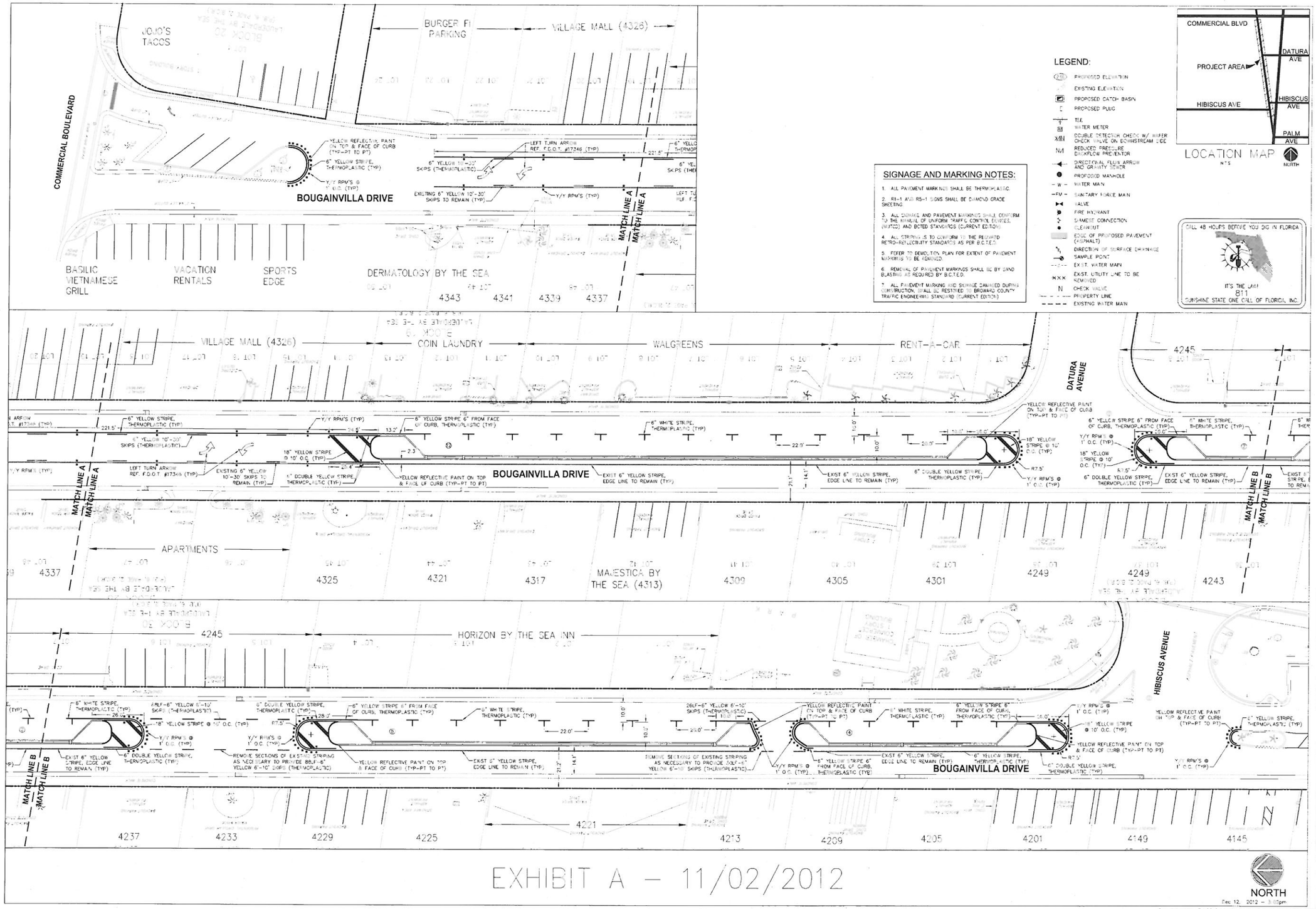


EXHIBIT A – 11/02/2012

## SIGNAGE AND MARKING NOTES:

1. ALL PAVEMENT MARKING SHALL BE THERMOPLASTIC.
2. R1-1 AND R5-1 SIGNS SHALL BE DIAMOND GRADE SHEETING.
3. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) AND BCTED STANDARDS (CURRENT EDITION).
4. ALL STRIPING IS TO CONFORM TO THE REQUIRED RETRO-REFLECTIVITY STANDARDS AS PER B.C.T.E.D.
5. REFER TO DEMOLITION PLAN FOR EXTENT OF PAVEMENT MARKINGS TO BE REMOVED.
6. REMOVAL OF PAVEMENT MARKINGS SHALL BE BY SAND BLASTING AS REQUIRED BY B.C.T.E.D.
7. ALL PAVEMENT MARKING AND SIGNAGE DAMAGED DURING CONSTRUCTION, SHALL BE RESTORED TO BROWARD COUNTY TRAFFIC ENGINEERING STANDARD (CURRENT EDITION).

## LEGEND:

- PROPOSED ELEVATION
- EXISTING ELEVATION
- PROPOSED CATCH BASIN
- PROPOSED PLUG
- TEE
- WM WATER METER
- DCVA DOUBLE DETECTOR CHECK W/ WATER CHECK VALVE ON DOWNSTREAM SIDE
- RPZ REDUCED PRESSURE BACKFLOW PREVENTOR
- DIRECTIONAL FLOW ARROW AND GRAVITY SEWER
- PROPOSED MANHOLE
- W WATER MAIN
- FM SANITARY FORCE MAIN
- VALVE
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Sheet Title
PAVEMENT MARKING AND SIGNAGE PLAN

Job Title
SOUTH BOUGAINVILLA DRIVE
BOUGAINVILLA DRIVE BETWEEN COMMERCIAL BLVD AND N. OCEAN DRIVE
LAUDERDALE BY THE SEA, FLORIDA 33308

Phase:
PERMIT DOCUMENTS

Revisions

| | |
|---|---|
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| Job No. 12-1633.00 | Pdf Date: 11/02/12 |
| Drawn by: SHG | Sheet No. C2 |
| Proj. Mgr: DRS | |
| Appr. by: DRS | 2 of 4 |

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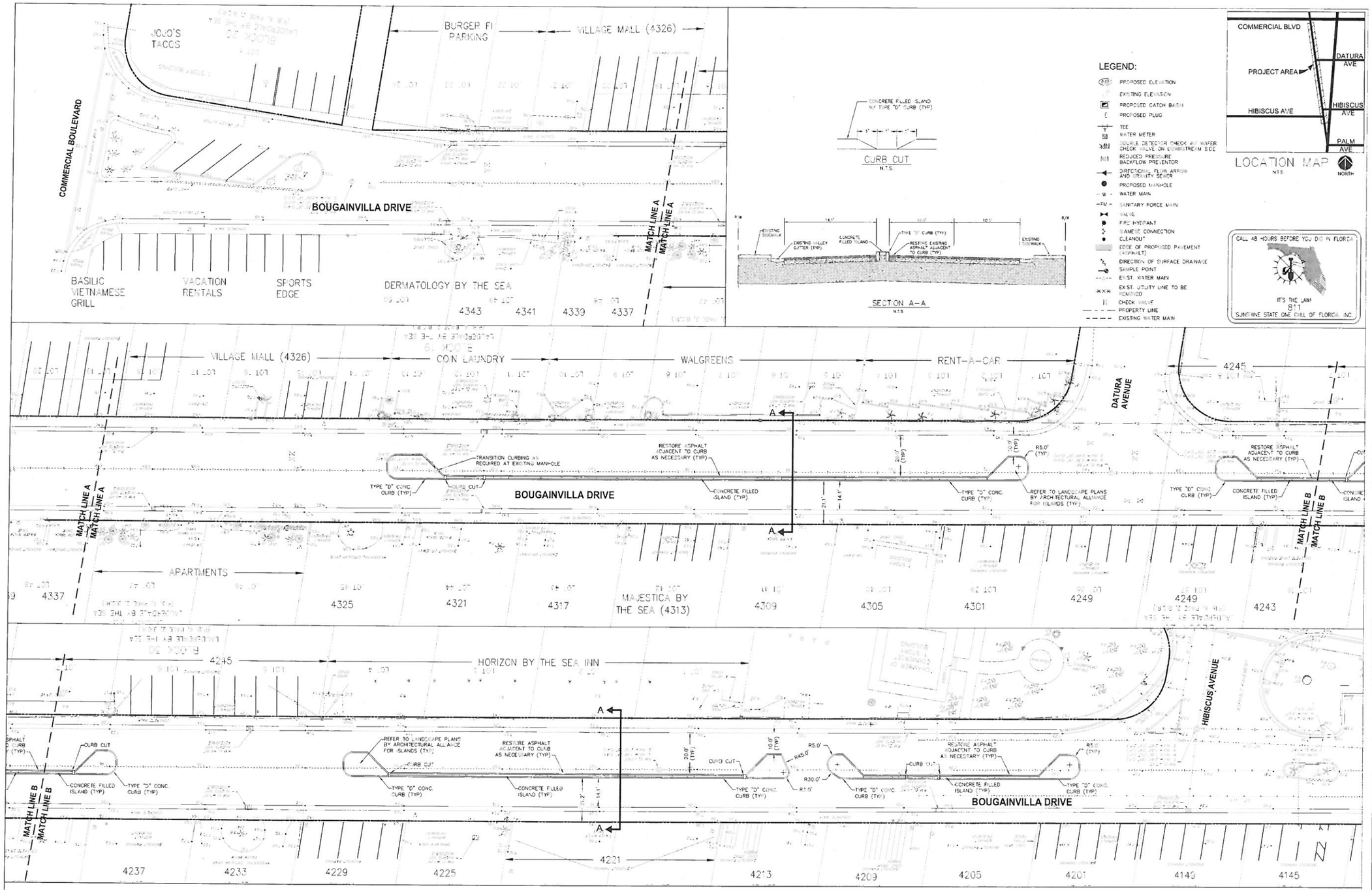


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Sheet Title
PAVING, GRADING AND DRAINAGE PLAN

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SOUTH BOUGAINVILLA DRIVE

BOUGAINVILLA DRIVE BETWEEN COMMERCIAL BLVD AND N. OCEAN DRIVE
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Phase:
PERMIT DOCUMENTS

Revisions
11/02/12-ADDED CURB CUTS

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| Scale: 1"=20' | Date: 10/03/12 |
| Job No. 12-1033.00 | Pkt Date: 11/02/12 |
| Drawn by: S-G | Sheet No. C3 |
| Proj. Mgr. DRS | |
| Appr. by: DRS | 3 of 4 |

Drawing name: F:\2012 Jobs\12-1033.00 South Bougainvilla Parking\12-1033.00 SITE.dwg

I. GENERAL NOTES

A. APPLICABLE CODES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY, COUNTY AND STATE.

2. CONSTRUCTION SAFETY - ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER. SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

3. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH CHAPTER 90-96 OF THE LAWS OF FLORIDA (THE TRENCH SAFETY ACT) AND OSHA STANDARD 29 C.F.R. SECTION 1926.650 SUBPART P. THE CONTRACTOR SHALL SUBMIT WITH HIS CONTRACT A COMPLETED, SIGNED, AND NOTARIZED COPY OF THE TRENCH SAFETY ACT COMPLIANCE STATEMENT. THE CONTRACTOR SHALL ALSO SUBMIT A SEPARATE COST ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY CODES.

4. NO CONSTRUCTION MAY COMMENCE UNTIL THE APPROPRIATE PERMITS HAVE BEEN OBTAINED FROM ALL LOCAL, STATE AND FEDERAL AGENCIES.

B. PRECONSTRUCTION RESPONSIBILITIES

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND HIMSELF.

2. THE CONTRACTOR SHALL OBTAIN AN SUNSHINE STATE ONE CALL OF FLORIDA CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO PRIOR TO BEGINNING ANY EXCAVATION.

3. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH HE FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.

5. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

C. INSPECTIONS

1. THE OWNER, ENGINEER, AND LOCAL PERMITTING AGENCIES MAY MAKE INSPECTIONS OF THE WORK AT ANY TIME. THE CONTRACTOR SHALL COOPERATE FULLY WITH ALL INSPECTIONS.

D. SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT (5) FIVE SETS OF SHOP DRAWINGS FOR APPROVAL TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION FOR ALL MATERIALS USED ON THE PROJECT. APPROVED SHOP DRAWINGS FROM THE ENGINEER SHALL THEN BE SUBMITTED BY THE CONTRACTOR TO THE COUNTY OR CITY FOR THEIR APPROVAL. NO CONSTRUCTION SHALL COMMENCE UNTIL THE APPROVED SHOP DRAWINGS HAVE BEEN OBTAINED BY THE CONTRACTOR FROM THE ENGINEER, CITY, AND/OR COUNTY.

2. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOG LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

E. TEMPORARY FACILITIES

1. TEMPORARY UTILITIES - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.

2. TRAFFIC REGULATION - MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND THE FDOT STANDARD SPECIFICATIONS.

3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC. NO HOLES SHALL BE LEFT OPEN OVERNIGHT.

F. PROJECT SITE

1. DURING CONSTRUCTION THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEPT BROOM CLEAN.

2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK, AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.

3. WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

G. PROJECT RECORD DOCUMENTS

1. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS COMPLETED. INFORMATION RELATIVE TO MANHOLES, VALVES, SERVICES, FITTINGS, LENGTH OF PIPE, INVERT ELEVATIONS, FINISHED GRADE ELEVATIONS AND THE LIKE, SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR. TOP ELEVATIONS @ 100' O.C.

2. PRIOR TO THE PLACEMENT OF ANY ASPHALT OR CONCRETE PAVEMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD "AS-BUILT" PLANS SHOWING LIMEROCK BASE GRADES, ALL DRAINAGE, WATER, AND SEWER IMPROVEMENTS. PAVING OPERATIONS SHALL NOT COMMENCE UNTIL THE ENGINEER HAS REVIEWED THE "AS-BUILTS" AND THE ENGINEER HAS APPROVED PAVING TO COMMENCE.

3. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING LIMEROCK BASE MATERIAL.

4. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR LIMEROCK SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING ASPHALT.

5. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER AND ANY APPLICABLE REVIEWING AGENCY THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.

6. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD FIVE COMPLETE SETS OF "AS-BUILT" CONSTRUCTION DRAWINGS (PRINTS) AND ONE MYLAR ORIGINAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED BY THE CONTRACTOR.

7. ALL "AS-BUILT" INFORMATION ON ELEVATIONS OF PAVING, DRAINAGE, WATER, AND SEWER SHALL BE CERTIFIED BY A REGISTERED LAND SURVEYOR.

8. ALL AS-BUILT INFORMATION MUST BE PROVIDED IN AUTOCAD® RELEASE 14 OR 2000 FORMAT.

H. EARTHWORK

1. NONE OF THE EXISTING MATERIAL IS TO BE INCORPORATED IN THE LIMEROCK BASE.

2. ALL SUBGRADE UNDER PAVED AREAS SHALL HAVE A MINIMUM LBR VALUE OF 40 AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

3. ALL FILL MATERIAL IN AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

4. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL WITHIN WORK LIMITS AND SWALE AREAS SHALL BE REMOVED.

I. PAVING

1. TESTING - REQUIRED. ASPHALT AND LIMEROCK TESTS SHALL BE TAKEN AT THE DIRECTION OF THE ENGINEER OR THE LOCAL GOVERNMENT AGENCY.

J. GENERAL UTILITY NOTES

1. THE LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION (VERTICAL & HORIZONTAL) OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. ANY AND ALL CONFLICTS OR DISCREPANCIES OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS OF CONSTRUCTION DRAWINGS SHALL BE RESOLVED BY THE ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES IF APPLICABLE:
FLORIDA POWER AND LIGHT COMPANYSOUTHERN BELL-
LOCAL GAS COMPANY-
LOCAL WATER AND SEWER UTILITY COMPANY(S)-
LOCAL CABLE TELEVISION COMPANY(S)-
LOCAL CITY ENGINEERING DEPARTMENT-
FLORIDA DEPARTMENT OF TRANSPORTATION-
SUNSHINE STATE ONE CALL OF FLORIDA-
(CALL 811)
FOR STREET EXCAVATION OR CLOSING:
TRAFFIC SARGEANT-
FIRE DISPATCH-

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF EXISTING PAVEMENT, PIPES, CONDUITS, CABLES, ETC., AND LANDSCAPED AREAS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTORS, AND SHALL RESTORE THEM PROMPTLY. THIS REPAIR SHALL BE DONE AT NO EXPENSE TO THE OWNER OF THE DAMAGED UTILITY OR PROPERTY.

4. COORDINATE CONSTRUCTION SCHEDULING FOR CONNECTION TO THE EXISTING WATER AND SEWER LINES WITH THE CITY UTILITY DEPARTMENT.

5. ALL PAVEMENT RESTORATION TO BE MADE IN ACCORDANCE WITH THE CITY, COUNTY OR STATE OF FLORIDA D.O.T. STANDARD SPECIFICATIONS, WHERE APPLICABLE.

6. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL SUPPLY THE ENGINEER OF RECORD WITH THE CERTIFICATION THAT ALL CONSTRUCTION AND MATERIALS MEET OR EXCEEDS THE DESIGN AND HAS BEEN INSTALLED PER THE DRAWINGS AND/OR AS-BUILT DRAWINGS.

7. THE CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS IN THE AREA AND ANY OTHER UNDERGROUND CONDUIT REQUIRED FOR FPL, SOUTHERN BELL, IRRIGATION SYSTEM, ETC., PRIOR TO BEGINNING SUBGRADE. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING UTILITIES WITH APPLICABLE UTILITY COMPANIES.

8. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN OVERNIGHT WITHOUT WRITTEN PERMISSION OF THE CITY OR OWNER.

9. THE CONTRACTOR MUST NOTIFY FLYNN ENGINEERING SERVICES, P.A. PRIOR TO STARTING EACH PHASE OF ANY UNDERGROUND UTILITY WORK OR PAVING AND GRADING OPERATIONS SO THAT THE PROPER INSPECTIONS MAY BE SCHEDULED.

K. SURVEY INFORMATION

1. SURVEY DATA - ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).

2. SURVEY INFORMATION BASED ON SURVEY BY AVIROM & ASSOCIATES, INC., DATED 07/02/12 (JOB #8958-2).

II. CONSTRUCTION SPECIFICATIONS

A. GENERAL

1. IT IS THE INTENT OF THESE SPECIFICATIONS TO DESCRIBE THE MINIMUM ACCEPTABLE TECHNICAL REQUIREMENTS FOR THE MATERIALS AND WORKMANSHIP FOR CONSTRUCTION OF SITE IMPROVEMENTS FOR THIS PROJECT. SUCH IMPROVEMENTS SHALL GENERALLY INCLUDE, BUT NOT TO BE LIMITED TO, CLEARING, GRADING, PAVING, REMOVAL OF EXISTING PAVEMENT, AND STORM DRAINAGE.

2. IT IS THE INTENT THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" DATED 2008 TOGETHER WITH "SUPPLEMENTAL SPECIFICATIONS TO THE 2008 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" DATED 2008 BE USED WHERE APPLICABLE FOR THE VARIOUS WORK, AND THAT WHERE SUCH WORDING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORDING IS INTENDED TO BE REPLACED WITH THE WORDING WHICH WOULD PROVIDE PROPER TERMINOLOGY; THEREBY MAKING SUCH "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS THE "STANDARD SPECIFICATIONS" FOR THIS PROJECT. IF WITHIN A PARTICULAR SECTION, ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE PART OF THE STANDARD SPECIFICATIONS ALSO. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL AND STATE LAWS, REGULATIONS AND BUILDING CODES WHICH HAVE JURISDICTION IN THE AREA.

3. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT AND PERFORM ALL OPERATIONS REQUIRED TO COMPLETE THE CONSTRUCTION OF A PAVING, DRAINAGE, WATER AND SEWER SYSTEM AS SHOWN ON THE PLANS, SPECIFIED HEREIN, OR BOTH. IT IS THE INTENT TO PROVIDE A COMPLETE AND OPERATING FACILITY IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE CONSTRUCTION DRAWINGS. THE MATERIAL AND EQUIPMENT SHOWN OR SPECIFIED SHALL NOT BE TAKEN TO EXCLUDE ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.

4. ALL LABOR, MATERIALS, AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE PLANS AND CONSTRUCTION SPECIFICATIONS AND THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY THE UNIT OF GOVERNMENT WHICH HAS JURISDICTION AND RESPONSIBILITY FOR THE CONSTRUCTION. WHERE CONFLICTS OR OMISSIONS EXIST, THE JURISDICTIONAL GOVERNMENT ENGINEERING DEPARTMENT'S STANDARDS SHALL GOVERN. SUBSTITUTIONS AND DEVIATIONS FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.

5. GUARANTEE - ALL MATERIALS AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT, SHALL BE GUARANTEED FOR A PERIOD OF (1) ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF, AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT OR MATERIALS, DURING THE GUARANTEE PERIOD, THE AFFECTED PART OR MATERIALS SHALL BE REPLACED PROMPTLY WITH NEW PARTS OR MATERIALS BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER. IN THE EVENT THE CONTRACTOR FAILS TO MAKE NECESSARY REPLACEMENT OR REPAIRS WITHIN (7) SEVEN DAYS AFTER NOTIFICATION BY THE OWNER, THE OWNER MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.

B. EARTHWORK

1. ALL AREAS WITHIN THE LIMITS OF WORK SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF 1'. ITEMS DESIGNATED TO REMAIN OR TO BE RELOCATED OR TO BE ADJUSTED SHALL BE SO DESIGNATED ON THE DRAWINGS. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 110 OF THE STANDARD SPECIFICATIONS.

2. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3, OR A-2-4 IN ACCORDANCE WITH AASHTO M--145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL. NOT MORE THAN 10% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.

3. ALL MATERIAL OF CONSTRUCTION SHALL BE SUBJECT TO INSPECTION AND TESTING TO ESTABLISH CONFORMANCE WITH THE SPECIFICATIONS AND SUITABILITY FOR THE USES INTENDED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO THE TIME HE WILL BE READY FOR AN INSPECTION OR TEST. THE CONTRACTOR SHALL FOLLOW CITY AND COUNTY INSPECTION PROCEDURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PHASE OF WORK DEPENDENT ON AN INSPECTION OR TEST OF AN EARLIER PHASE OF WORK, PRIOR TO THAT TEST OR INSPECTION PASSING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND LIMEROCK, UTILITIES, EXCAVATION, ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.

4. WHEN ENCOUNTERED, MUCK SHALL BE COMPLETELY REMOVED FROM THE CENTER LINE (10) TEN FEET BEYOND THE EDGE OF PAVEMENT EACH SIDE. ALL SUCH MATERIAL SHALL BE REPLACED BY APPROVED GRANULAR FILL, COMPACTED TO 98% OF MAXIMUM DENSITY (AASHTO T-180).

5. WHEN ENCOUNTERED WITHIN DRAINAGE SWALES, HARDPAN OR MUCK SHALL BE REMOVED FOR A WIDTH OF (5) FIVE FEET AT THE INVERT AND REPLACED WITH GRANULAR MATERIALS.

6. ALL UNDERGROUND UTILITIES AND DRAINAGE INSTALLATIONS SHALL BE IN PLACE PRIOR TO SUBGRADE COMPACTION AND PAVEMENT CONSTRUCTION.

7. GROUND ADJACENT TO ROADWAY/PAVEMENT HAVING RUNOFF SHALL BE GRADED (2) TWO INCHES LOWER THAN THE EDGE OF PAVEMENT TO ALLOW FOR THE PLACEMENT OF SOD.

8. SITE GRADING ELEVATIONS SHALL BE WITHIN 0.1' OF THE REQUIRED ELEVATION AND ALL AREAS SHALL BE GRADED TO DRAIN WITHOUT PONDING.

9. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION, FILL, EMBANKMENT AND GRADING TO ACHIEVE THE PROPOSED PLAN GRADES INCLUDING TYPICAL ROAD SECTIONS, SIDE SLOPES AND CANAL SECTIONS. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS. IF FILL MATERIAL IS REQUIRED IN EXCESS OF THAT GENERATED BY THE EXCAVATION, THE CONTRACTOR SHALL SUPPLY THIS MATERIAL AS REQUIRED FROM OFF-SITE.

C. DRAINAGE

1. INLETS - ALL INLETS SHALL BE THE TYPE DESIGNATED ON THE PLANS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FLORIDA D.O.T. SPECIFICATIONS, 2010, SECTION 425. ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS AND PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEM SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.

2. PIPE SPECIFICATIONS: THE MATERIAL TYPE IS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING DESIGNATIONS:
RCP = REINFORCED CONCRETE PIPE, ASTM DESIGNATION C--76, TABLE III, F.D.O.T., SECTION 941.
CMP = CORRUGATED METAL (ALUMINUM) PIPE, ASTM DESIGNATION M-196.
CMP (SMOOTH LINED) = CORRUGATED METAL ALUMINUM PIPE, (SMOOTH LINED) ASTM DESIGNATION M-196.
SCP = SLOTTED CONCRETE PIPE, F.D.O.T. SECTIONS 941 AND 942.
PVC = POLYVINYL CHLORIDE PIPE.
PCMP = PERFORATED CMP, F.D.O.T. SECTION 945

3. PIPE BACKFILL - REQUIREMENTS FOR PIPE BACKFILL CROSSING ROADS OR PARKING AREAS SHALL BE AS DEFINED IN THE FLORIDA D.O.T. SPECIFICATIONS, 2010, SECTION 125-8. PIPELINE BACKFILL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED TO 100% OF THE STANDARD PROCTOR (AASHTO T--99 SPECIFICATIONS).

4. LOCATION OF DRAINAGE STRUCTURES SHALL GOVERN, AND PIPE LENGTH MAY HAVE TO BE ADJUSTED TO ACCOMPLISH CONSTRUCTION AS SHOWN ON THESE PLANS.

5. PLASTIC FILTER FABRIC SHALL BE MIRAFI, TYPAR OR EQUAL CONFORMING TO SECTION 985 OF THE F.D.O.T. STANDARD SPECIFICATIONS.

6. ALL DRAINAGE LINES SHALL BE LAMPED PRIOR TO FINAL ACCEPTANCE.

D. PAVING

1. WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE. PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE.

2. INTERNAL ASPHALT PAVING CONSTRUCTED ON EXISTING SANDY SOILS SHALL BE CONSTRUCTED WITH A 12" SUBGRADE, COMPACTED TO A MINIMUM DENSITY OF 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99. THE COMPACTED SUBGRADE SHALL BE CONSTRUCTED IN THE LIMITS SHOWN ON THE PLANS. ALL SUBGRADE SHALL HAVE AN LBR OF 40 UNLESS OTHERWISE NOTED.

3. ASPHALTIC CONCRETE SURFACE COURSE SHALL BE CONSTRUCTED TO THE LIMITS SHOWN ON THE PLANS. THE SURFACE COURSE SHALL CONSIST OF THE THICKNESS AND TYPE ASPHALTIC CONCRETE AS SPECIFIED IN THE PLANS. ALL ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH SECTIONS 320, 330, 331, 332, 333, 335, 337 AND 339 OF THE STANDARD SPECIFICATIONS.

4. LIMEROCK BASE SHALL BE PREPARED, COMPACTED AND GRADED AND SHALL BE IN ACCORDANCE WITH SECTION 200 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION". ALL LIMEROCK SHALL BE COMPACTED TO 98% PER AASHTO T-180 AND HAVE NOT LESS THAN 70% OF CARBONATES OF CALCIUM AND MAGNESIUM UNLESS OTHERWISE DESIGNATED. ALL LIMEROCK SHALL BE PRIMED. THE ENGINEER SHALL INSPECT THE COMPLETED BASE COURSE AND THE CONTRACTOR SHALL CORRECT ANY DEFICIENCIES AND CLEAN THE BASE COURSE PRIOR TO THE PLACEMENT OF THE PRIME COAT. A TACK COAT WILL ALSO BE REQUIRED IF THE ENGINEER FINDS THAT THE PRIMED BASE HAS BECOME EXCESSIVELY DIRTY OR THE PRIME COAT HAS CURED TO THE EXTENT OF LOSING BONDING EFFECT PRIOR TO PLACEMENT OF THE ASPHALTIC CONCRETE SURFACE COURSE. THE PRIME AND TACK COATS SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

5. LIMEROCK BASE MATERIAL SHALL BE PLACED IN MAXIMUM 6" LIFTS. BASES GREATER THAN 6" SHALL BE PLACED IN TWO EQUAL LIFTS.

6. ASPHALT EDGES THAT ARE NOT CURBED SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE TO THE DIMENSIONS SHOWN ON THE HORIZONTAL CONTROL PLAN.

E. CONSTRUCTION

1. CONCRETE SIDEWALK SHALL BE 4" THICK ON COMPACTED SUBGRADE, WITH 1/2" EXPANSION JOINTS PLACED AT A MAXIMUM OF 75'. CRACK CONTROL JOINTS SHALL BE 5' ON CENTER. THE BACK OF SIDEWALK ELEVATION SHALL BE 3" HIGHER THAN THE EDGE OF PAVEMENT, UNLESS OTHERWISE SPECIFIED BY LOCAL CODES, OR SHOWN ON THE DRAWINGS. ALL CONCRETE SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE 6" THICK AND HAVE A MINIMUM OF 3000 P.S.I. CONCRETE.

2. CONCRETE CURB SHALL BE CONSTRUCTED TO THE LIMITS SHOWN ON THE PLANS. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS AND SHALL BE IN ACCORDANCE WITH SECTION 345 OF THE STANDARD SPECIFICATIONS.

F. SIGNAGE AND PAVEMENT MARKINGS

1. THE ROADS AND PARKING AREAS SHALL BE STRIPED IN ACCORDANCE WITH THE PLANS. NO STRIPE SHALL BE LESS THAN THE SPECIFIED WIDTH NOR SHALL IT EXCEED THE SPECIFIED WIDTH BY MORE THAN 1/2 INCH. STRIPING SHALL BE IN ACCORDANCE WITH SECTION 11046 OF THE STANDARD SPECIFICATIONS. ALL STRIPPING WITHIN THE PUBLIC RIGHT-OF-WAY AND AT DRIVEWAY ACCESS POINTS SHALL BE THERMOPLASTIC IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

2. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL AND MAINTAIN ADEQUATE TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS FOR THE PURPOSE OF PROTECTING THE TRAVELLING PUBLIC, HIS WORKMEN AND THE WORK AREA IN GENERAL. SUCH TRAFFIC CONTROL SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT PERIOD, INCLUDING ANY TEMPORARY SUSPENSIONS OF THE WORK. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH SECTION 600 OF THE STANDARD SPECIFICATIONS AND THE STATE OF FLORIDA, MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS.

3. ALL PAVEMENT MARKINGS ON-SITE SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

4. ALL SIGNING AND MARKINGS SHALL CONFORM TO MUTCD AND BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS (LATEST EDITION).

G. SEWER SYSTEM NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE B.C. UTILITY DEPARTMENT MINIMUM STANDARDS AND APPLICABLE CODES.

2. THE CONTRACTOR SHALL FIELD VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF EXISTING SEWER LINES, MANHOLES, AND STUBOUTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE FIELD INFORMATION DIFFERS FROM THAT SHOWN ON THE PLANS.

3. ALL GRAVITY SEWER PIPE 4" & LARGER SHALL BE POLYVINYL CHLORIDE (PVC) ASTM 3034, SDR 35 FOR THE ON-SITE SANITARY AWWA C-900 PVC OFF-SITE SHALL BE USED IN THE CITY R.O.W.

4. MINIMUM SLOPE SHALL BE 0.4% FOR 8" PIPE AND 1% FOR 6" SERVICE LATERALS.

5. DUCTILE IRON SEWER PIPE FOR GRAVITY MAINS SHALL BE CLASS 350 POLYLINED WITH A MINIMUM OF 30" OF COVER.

6. PVC LINES ENTERING OR LEAVING MANHOLES SHALL HAVE A NEOPRENE BOOT WITH STAINLESS STEEL ACCESSORIES.

7. CONNECTIONS TO EXISTING MAINS SHALL BE MADE UNDER THE DIRECTION OF THE CITY UTILITY DEPARTMENT.

8. CLEANOUTS SHALL BE INSTALLED AT ALL SEWER SERVICES EXCEEDING 75' IN LENGTH (EVERY 75') WITH A CLEANOUT AT THE PROPERTY LINE, EASEMENT LINE, OR 5' FROM A BUILDING. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE BUILDING CLEANOUT (5' FROM THE BUILDING) AND ELEVATION OF THE END OF THE SEWER SERVICE WITH THE BUILDING PLUMBING CONTRACTOR.

9. LIMITS OF INFILTRATION OR EXFILTRATION OR LEAKAGE FOR THE ENTIRE SYSTEM, INCLUDING SERVICE LINES, SHALL NOT EXCEED A RATE OF 0.1 GALLONS PER FOOT PER 24 HOURS FOR ALL SIZES OF PIPE THROUGHOUT THE SYSTEM. THE ALLOWABLE LIMITS OF INFILTRATION OR EXFILTRATION OF MANHOLES SHALL NOT EXCEED A RATE OF 4 GALLONS PER MANHOLE PER 24 HOURS.

10. ALL SEWER MAINS AND SERVICES, UP TO AND INCLUDING THE END OF THE SERVICE, SHALL BE CONSTRUCTED WITHIN A MINIMUM OF A 15' UTILITY EASEMENT, UNLESS OTHERWISE SHOWN.

11. THE ENTIRE SYSTEM SHALL BE CLEANED PRIOR TO LAMPING OF THE LINES. 12" SANITARY SEWER MUST BE TELEVISED @ CONTRACTORS EXPENSE. ALL DEFICIENCIES OBSERVED ON THE VIDEO TAPES SHALL BE CORRECTED PRIOR TO CITY CERTIFICATION TO ANY AGENCY.

12. PROVIDE ORANGE RPM @ CENTERLINE OF ROAD OF NEAREST DRIVING LANE FOR MANHOLES LOCATED IN GREEN AREAS.

H. WATER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LOCAL UTILITY DEPARTMENT MINIMUM STANDARDS AND APPLICABLE CODES.

2. ALL POTABLE WATER PIPE 4" AND LARGER SHALL BE POLYVINYL CHLORIDE (PVC) PRESSURE PIPE CONFORMING TO AWWA C900-07 PVC-1120, SDR-18 OR DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C151/A21.51-02 AND LINED AND COATED PER ANSI/AWWA C104/A21.4-03. 4" DIP SHALL BE CLASS 350, 6" AND 8" DIP SHALL BE CLASS 350, AND 10" DIP SHALL BE CLASS 350. MINIMUM DEPTH OF COVER IS 36" FOR PVC AND 30" FOR DIP. ALL PIPE TO HAVE 150 PSI MINIMUM PRESSURE RATING. FITTINGS 4" AND LARGER SHALL BE DUCTILE IRON MEETING ANSI/AWWA C110/A21.10-03. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER C104/A21.4-03 PRESSURE RATING OF ALL FITTINGS SHALL BE 350 PSI. ALL WATER MAIN PIPES WITHIN THE CITIES RIGHT-OF-WAY OR EASEMENT SHALL BE DUCTILE IRON PIPE CLASS 350. ALL FIRE MAINS SHALL BE DIP OR PVC C-900 (DR-14) AND PRESSURE TESTED @ 200 PSI FOR 2 HRS.

3. ALL WATER PIPE SMALLER THAN 4 INCHES SHALL BE PVC MINIMUM SCHEDULE 80 WITH A MINIMUM WORKING PRESSURE OF 160 PSI. FITTINGS FOR PIPE SMALLER THAN 4" SHALL BE MINIMUM SCHEDULE 80 SOLVENT WELD SOCKET TYPE ASTM D-2464 OR MINIMUM SCHEDULE 80 THREADED TYPE ASTM D-2464.

4. THERE SHALL BE NO CONNECTION TO AN EXISTING WATER MAIN UNTIL PRESSURE AND BACTERIOLOGICAL TESTS HAVE BEEN RUN AND THE SYSTEM ACCEPTED BY THE CITY AND THE COUNTY HEALTH DEPARTMENT.

5. ALL CONNECTIONS TO EXISTING MAINS SHALL BE MADE UNDER THE DIRECTION OF THE CITY UTILITY DEPARTMENT.

6. WATER METERS 2" OR SMALLER SHALL BE INSTALLED BY THE CITY. THE CONTRACTOR SHALL COORDINATE WITH THE CITY UTILITY DEPARTMENT AND PROVIDE THE PROPER FITTINGS NECESSARY TO INSTALL THE METERS. ALL COSTS ASSOCIATED WITH THE METER INSTALLATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

7. GATE VALVES, 4" OR LARGER, SHALL MEET AWWA C509-01 STANDARD. BUTTERFLY VALVES, 14" OR LARGER, SHALL MEET AWWA C504-00, CLASS 150B STANDARDS.

8. FIRE HYDRANTS SHALL BE TRAFFIC BREAK AWAY TYPE CONFORMING TO AWWA C502-05 STANDARDS. FIRE HYDRANTS SHALL BE MUELLER MODEL A-423 OR CLOW MEDALLION 2546-5B.

9. ALL TRENCHING, PIPE LAYING, BACKFILLING, PRESSURE TESTING, AND DISINFECTING MUST COMPLY WITH AWWA C600-05 AND C651-05 STANDARDS.

10. DEFLECT WATER MAINS AS NECESSARY TO AVOID ANY CONFLICTS WITH OTHER UTILITIES. ALLOWABLE DEFLECTION SHALL NOT EXCEED AWWA STANDARDS.

11. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND ELEVATION OF THE ENDS OF THE WATER SERVICES WITH THE BUILDING PLUMBING CONTRACTOR.

12. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING WATER MAINS AND PROPOSED CONNECTION POINTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE FIELD INFORMATION DIFFERS FROM THAT SHOWN ON THE PLANS.

13. ALL WATER MAINS TO BE FLUSHED VIA POLY PIG.

14. THE CONTRACTOR MUST ARRANGE AND PAY FOR ANY TEMPORARY WATER REQUIRED FOR CONSTRUCTION, CLEANING, TESTING, ETC.

15. TESTING

A. ALL PIPE SHALL BE TESTED UNDER A CONSTANT PRESSURE OF 150 PSI (200 PSI FOR FIRE MAIN) FOR A MINIMUM TEST PERIOD OF 2 HOURS AND SHALL NOT EXCEED THE LEAKAGE REQUIREMENTS AS PER ANSI/AWWA SPECIFICATIONS OF C600-05 LEAKAGE FORMULA:

$$L = \frac{SD\sqrt{P}}{148,000}$$

L = ALLOWABLE LEAKAGE IN GALLONS PER HOUR.
S = TOTAL LENGTH OF PIPE TESTED, FEET.
D = DIAMETER OF THE PIPE TESTED, INCHES.
P = AVERAGE TEST PRESSURE, PSI.

THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE CITY AND THE ENGINEER OF RECORD.

B. DISINFECTION OF ALL WATER LINES SHALL COMPLY WITH ANSI/AWWA C651-05 BACTERIOLOGICAL SAMPLING POINTS ARE SHOWN ON THE WATER AND SEWER PLAN A CHLORINE RESIDUAL OF .3 TO 1.5 PPM SHALL BE MAINTAINED. ALL STERILIZATION SHALL BE AT THE FULL EXPENSE OF THE CONTRACTOR. BACTERIOLOGICAL SAMPLES MUST BE APPROVED BY THE COUNTY PUBLIC HEALTH UNIT AND THE CITY PRIOR TO OPERATION OF THE SYSTEM.

16. ALL PVC PIPE SHALL BE INSTALLED WITH METALLIC LOCATOR TAPE 18" ABOVE THE TOP OF PIPE.

17. BACK FLOW PREVENTERS MUST BE APPROVED BY THE CITY AS TO TYPE AND LOCATION PRIOR TO INSTALLATION.

18. "ALL WATER MAIN PIPE, INCLUDING FITTINGS, INSTALLED ON OR AFTER AUGUST 28, 2003, EXCEPT PIPE INSTALLED UNDER A CONSTRUCTION PERMIT FOR WHICH HEALTH DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28, 2003, SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLIDWALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO WALL PIPE. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE, FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE AT DRINKING WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED IN ACCORDANCE WITH SUBSECTION 62-555.320(10), F.A.C., AND ALL OTHER ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.'SUBSECTION 62-555.320(10), F.A.C. READS AS FOLLOWS: "COLOR CODING OF PIPES AT DRINKING WATER TREATMENT PLANTS. ALL NEW OR ALTERED, ABOVEGROUND PIPING AT DRINKING WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED AS RECOMMENDED IN SECTION 2.14 OF RECOMMENDED STANDARDS FOR WATER WORKS AS INCORPORATED INTO RULE 62-555.330, F.A.C. IN ADDITION, ALL UNDERGROUND WATER MAIN PIPE THAT IS INSTALLED AT DRINKING WATER TREATMENT PLANTS ON OR AFTER AUGUST 28, 2003, AND THAT IS CONVEYING FINISHED DRINKING WATER SHALL BE COLOR CODED AS REQUIRED UNDER SUBPARAGRAPH 62-555.320(21)(B)3., F.A.C.. THIS SUBSECTION DOES NOT APPLY TO DRINKING WATER TREATMENT PLANT PIPING INSTALLED OR ALTERED UNDER A CONSTRUCTION PERMIT FOR WHICH THE DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28, 2003."

III. SPECIFIC SITE NOTES

A. GENERAL

1. "CITY" IN THESE NOTES REFERS TO THE TOWN OF LAUDERDALE-BY-THE-SEA.
2. "COUNTY" IN THESE NOTES REFERS TO BROWARD COUNTY.
3. "STATE" IN THESE NOTES REFERS TO THE STATE OF FLORIDA.

IIII. INTENT OF DRAWINGS & SPECIFACTIONS

1. INTENT OF SPECIFICATIONS AND DRAWINGS IS TO COVER AN INSTALLATION COMPLETE IN EVERY ASPECT. IT IS NOT INTENDED TO GIVE EVERY DETAIL ON DRAWINGS AND SPECIFICATIONS. OWNER WILL NOT BE RESPONSIBLE FOR ABSENCE OF ANY DETAIL WHICH CONTRACTOR MAY REQUIRE, NOR FOR ANY SPECIAL CONSTRUCTION WHICH MAY BE FOUND NECESSARY AS WORK PROGRESSES. IF AN ITEM IS EITHER INDICATED OR SPECIFIED, IT SHALL BE CONSIDERED SUFFICIENT FOR INCLUSION OF SAID ITEM IN CONTRACT. CONTRACTOR SHALL FURNISH AND INSTALL MATERIALS AND EQUIPMENT USUALLY FURNISHED WITH SUCH SYSTEMS, AND AS NEEDED TO COMPLETE AN OPERATING INSTALLATION, WHETHER MENTIONED OR NOT, WHICH ARE CUSTOMARY TO ITS TRADE.

2. INCIDENTAL ACCESSORIES NOT USUALLY SHOWN OR SPECIFIED BUT WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION SHALL BE INCLUDED IN WORK WITHOUT ADDITIONAL COST TO THE OWNER, THE SAME AS IF HEREIN SPECIFIED.

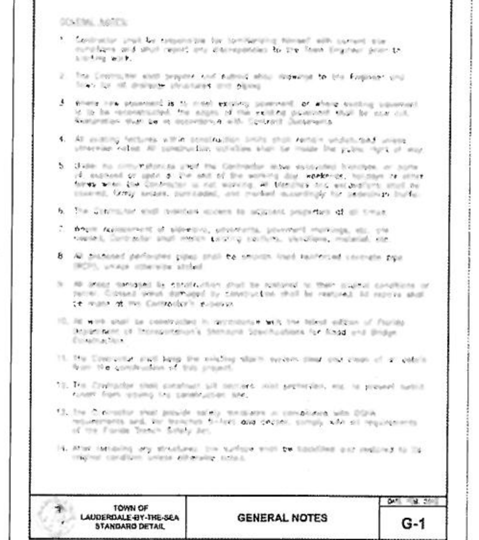
3. ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT SHOWN ON BUT MENTIONED IN THE SPECIFICAIONS, OR VICE-VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE FURNISHED, DELIVERED, AND INSTALLED BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER.

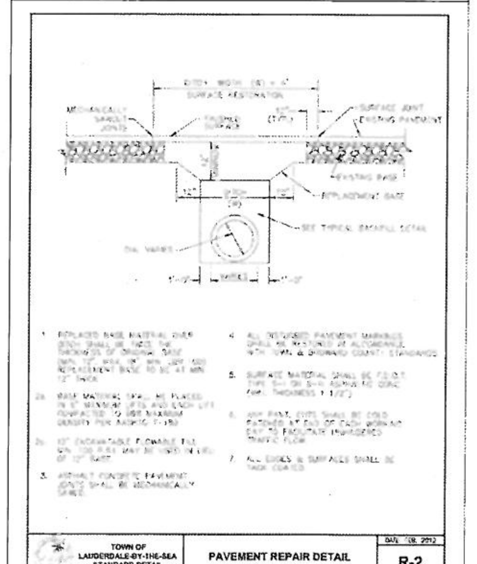
4. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INDICATED (DO NOT SCALE THE DRAWINGS). CONSULT THE ENGINEER FOR EXACT LOCATIONS OF ITEMS WHICH ARE NOT DEFINITELY LOCATED ON THE DRAWINGS.

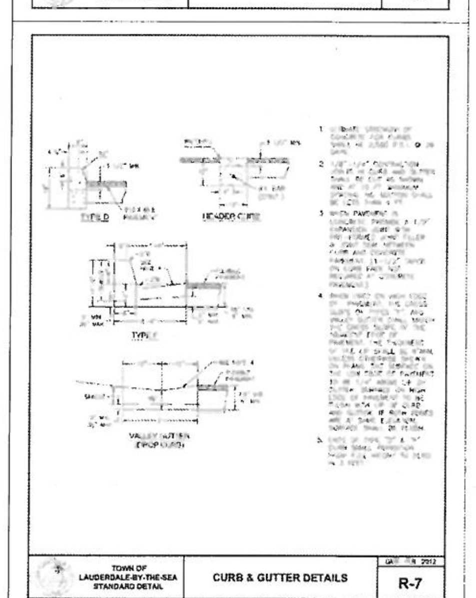
5. ENGINEER'S INTERPRETATION OF DRAWINGS AND SPECIFICATIONS SHALL BE FINAL AND BINDING UPON CONTRACTOR.

6. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID, AND THOROUGHLY INVESTIGATE AND VERIFY ALL CONDITIONS UNDER WHICH WORK SHALL BE PERFORMED.

7. IF A DISCREPANCY OCCURS BETWEEN A DETAIL, PLAN OR SPECIFICAITONS, THE MOST RESTRICTIVE DETAIL TAKES PRECEDENCE & SHALL BE IMPLEMENTED IN THE CONSTRUCTED PROJECT.

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Sheet Title: DETAILS, GENERAL NOTES, AND SPECIFICATIONS

Job Title: SOUTH BOUGAINVILLA DRIVE
BOUGAINVILLA DRIVE BETWEEN COMMERCIAL BLVD AND N. OCEAN DRIVE
LAUDERDALE BY THE SEA, FLORIDA 33308

Phase: PERMIT DOCUMENTS

Revisions

| | |
|---|---|
| Scale: N.T.S. | Date 10/03/12 |
| Job No. 12-1033.00 | Plot Date 11/02/12 |
| Drawn by SHG | Sheet No. C4 |
| Proj. Mgr. DRS | |
| Appr. by DRS | 4 of 4 |

EXHIBIT A — 11/02/2012

Dec 12, 2012 - 3:14pm
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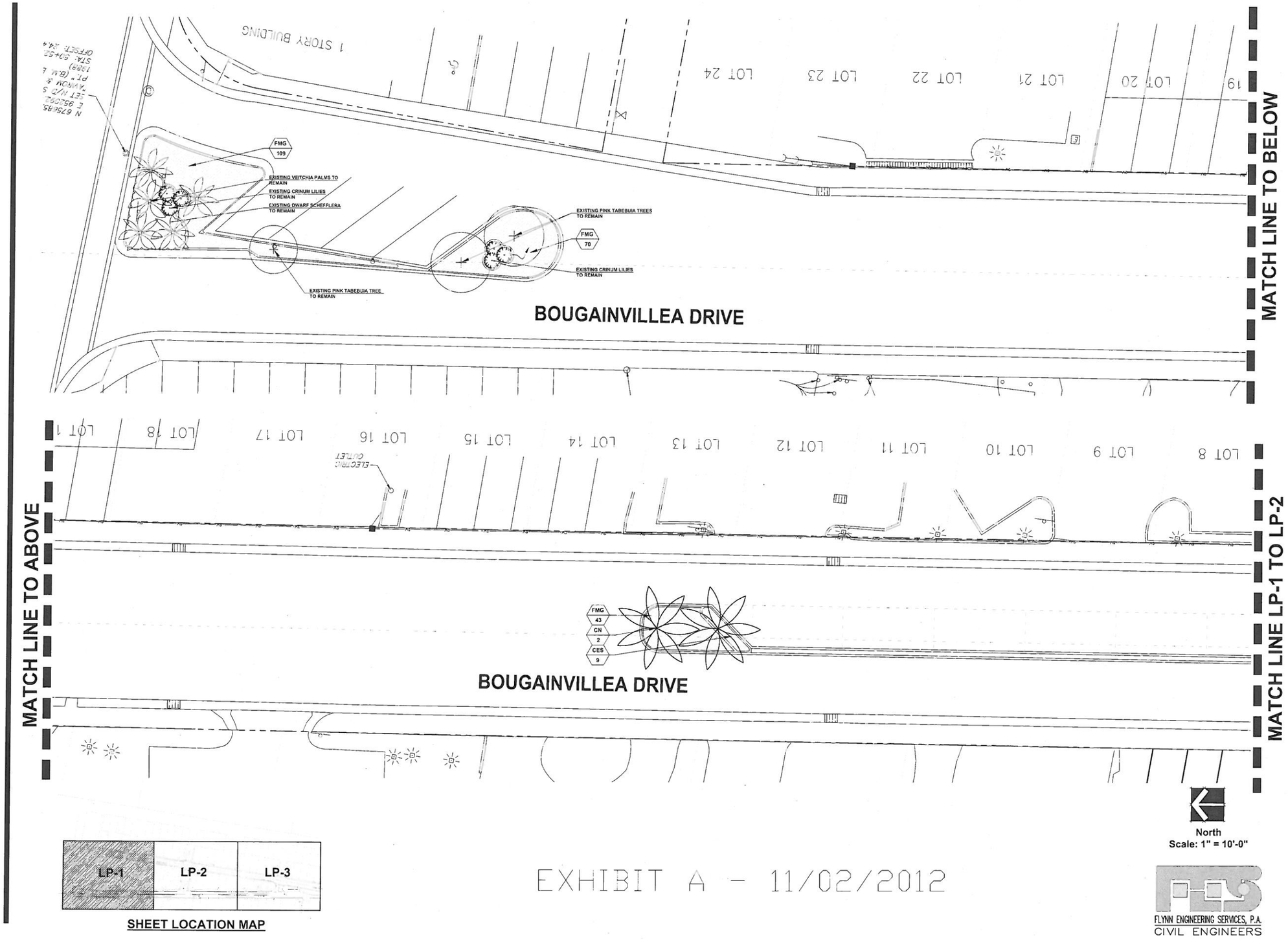



SHEET LOCATION MAP

EXHIBIT A - 11/02/2012

FLYNN ENGINEERING SERVICES, P.A.
CIVIL ENGINEERS

ARCHITECTURAL ALLIANCE
ARCHITECTURE
LANDSCAPE ARCHITECTURE
LAND PLANNING
INTERIOR DESIGN
GOVERNMENTAL PROCESSING

HUGH JOHNSON
RLA #C000237

Seal

Revision Dates

Landscape Plan
# S. Bougainvilla Dr. Project
The Town of
Lauderdale-By-The-Sea, Florida

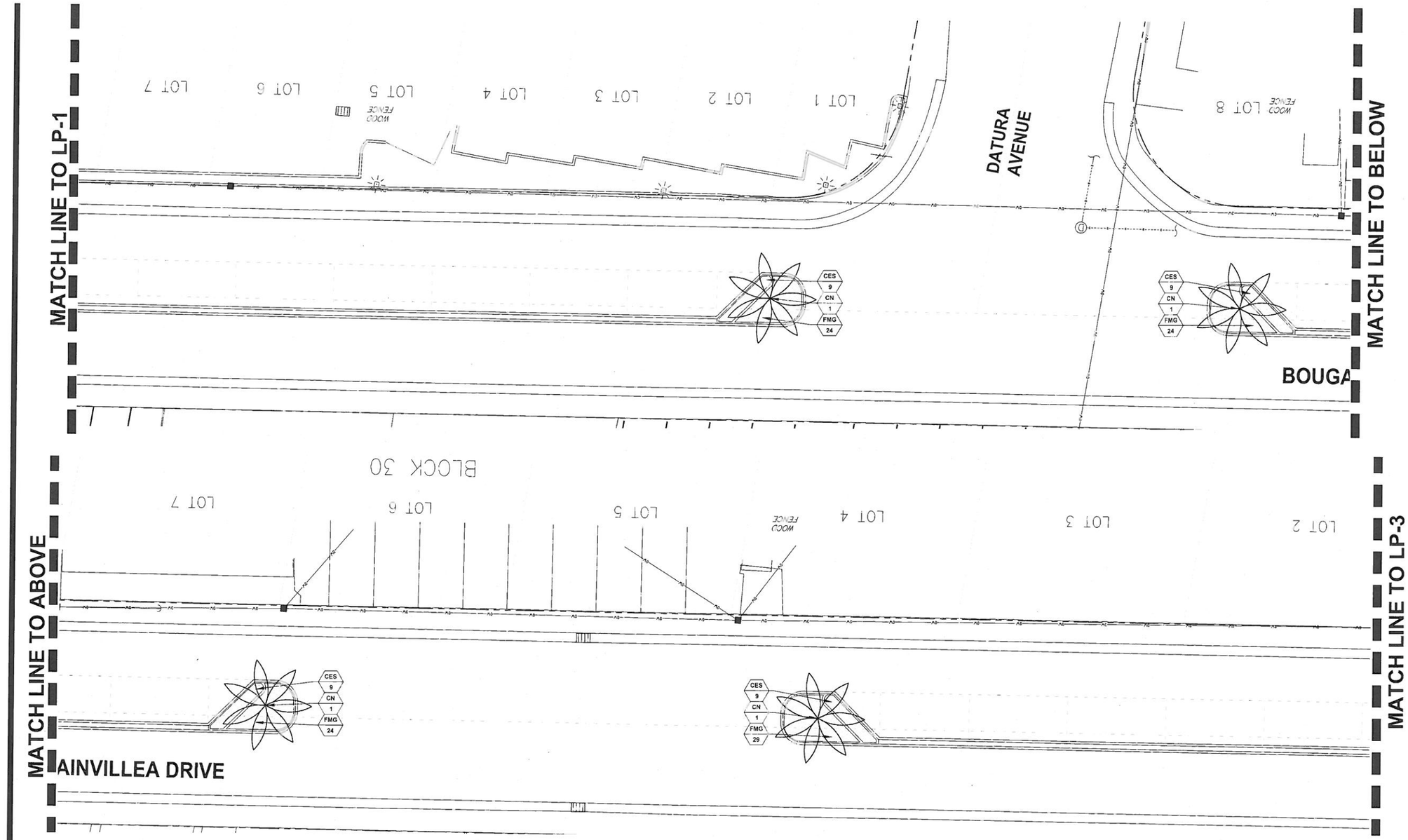
Sheet Description
Landscape Plan

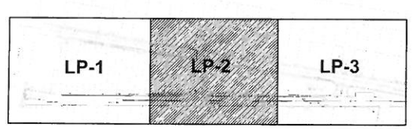
Release Date
8-28-12

Project Number
1211B

Drawing Number
LP-1

Sheet 1 of 4




SHEET LOCATION MAP

EXHIBIT A - 11/02/2012

North
Scale: 1" = 10'-0"

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HUGH JOHNSON
RLA #0000237

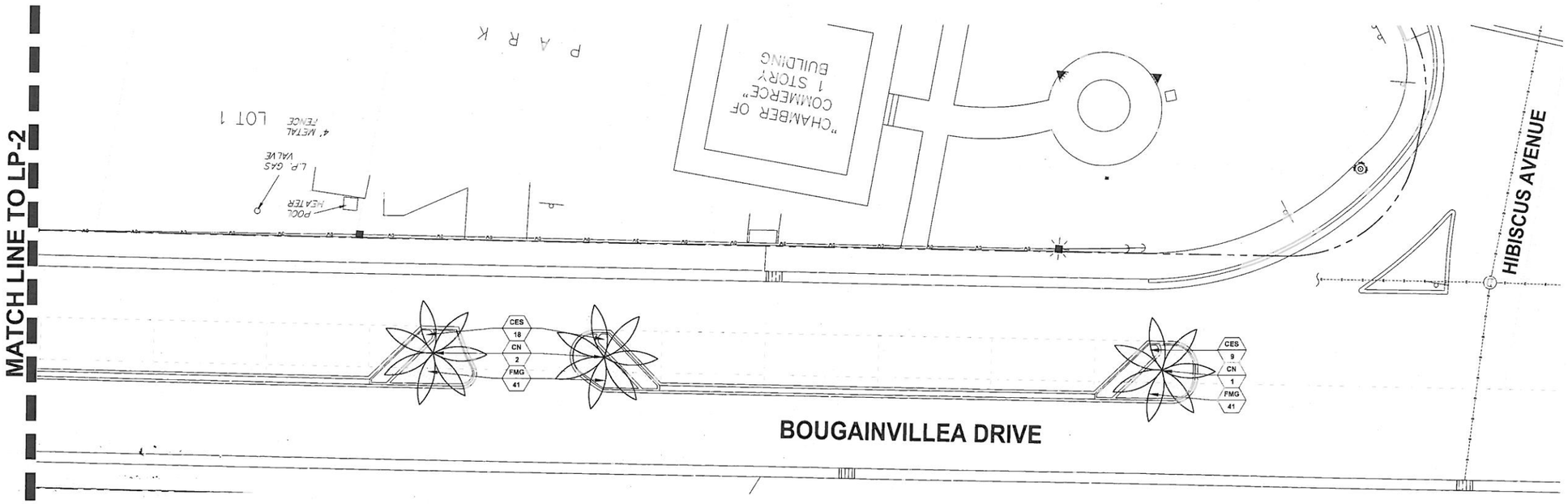
Seal

Revision Dates

Landscape Plan
# S. Bougainvilla Dr. Project
The Town of
Lauderdale-By-The-Sea, Florida

| | |
|---|---|
| Sheet Description | Landscape Plan |
| Release Date | 8-28-12 |
| Project Number | 1211B |
| Drawing Number | LP-2 |

Sheet 2 of 4




| LP-1 | LP-2 | LP-3 |
|---|---|---|

**SHEET LOCATION MAP**

EXHIBIT A - 11/02/2012

North
Scale: 1" = 10'-0"

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Revision Dates

Landscape Plan
# S. Bougainvilla Dr. Project
The Town of
Lauderdale-By-The-Sea, Florida

Sheet Description
Landscape Plan

Release Date
8-28-12

Project Number
1211B

Drawing Number
LP-3

Sheet 3 of 4

EXHIBIT A - 11/02/2012

## NOTES:

### GENERAL PLANTING REQUIREMENTS

All sizes shown for plant material on the plans are to be considered Minimum. All plant material must meet or exceed these minimum requirements for both height and spread. Any other requirements for specific shape or effect as noted on the plan(s) will also be required for final acceptance.

All plant material furnished by the landscape contractor shall be Florida #1 or better as established by "Grades and Standards for Florida Nursery Plants" and "Grades and Standards for Florida Nursery Trees". All material shall be installed as per CSI specifications.

All plant material as included herein shall be warrantied by the landscape contractor for a minimum period as follows: All trees and palms for 12 months, all shrubs, vines, groundcovers and miscellaneous planting materials for 90 days, and all lawn areas for 60 days after final acceptance by the owner or owner's representative.

All plant material shall be planted in planting soil that is delivered to the site in a clean loose and friable condition. All soil shall have a well drained characteristic. Soil must be free of all rocks, sticks, and objectionable material including weeds and weed seeds as per CSI specifications.

Twelve inches (12") of planting soil 50/50 sand/topsoil mix is required around and beneath the root ball of all trees and palms, and 1 cubic yard per 50 bedding or groundcover plants.

All landscape areas shall be covered with Eucalyptus or sterilized seed free Melaleuca mulch to a minimum depth of three inches (3") of cover when settled. Cypress bark mulch shall not be used.

All plant material shall be thoroughly watered in at the time of planting; no dry planting permitted. All plant materials shall be planted such that the top of the plant ball is flush with the surrounding grade.

All landscape and lawn areas shall be irrigated by a fully automatic sprinkler system adjusted to provide 100% coverage of all landscape areas. All heads shall be adjusted to 100% overlap as per manufacturers specifications and performance standards utilizing a rust free water source. Each system shall be installed with a rain sensor.

It is the sole responsibility of the landscape contractor to insure that all new plantings receive adequate water during the installation and during all plant warranty periods. Deep watering of all new trees and palms and any supplemental watering that may be required to augment natural rainfall and site irrigation is mandatory to insure proper plant development and shall be provided as a part of this contract.

All plant material shall be installed with fertilizer, which shall be State approved as a complete fertilizer containing the required minimum of trace elements in addition to N-P-K, of which 50% of the nitrogen shall be derived from an organic source as per CSI specifications.

Contractors are responsible for coordinating with the owners and appropriate public agencies to assist in locating and verifying all underground utilities prior to excavation.

All ideas, designs and plans indicated or represented by this drawing are owned by and are the exclusive property of Architectural Alliance.

The plan takes precedence over the plant list.

### SPECIAL INSTRUCTIONS

General site and berm grading to +/- 1 inch (1") shall be provided by the general contractor. All finished site grading and final decorative berm shaping shall be provided by the landscape contractor.

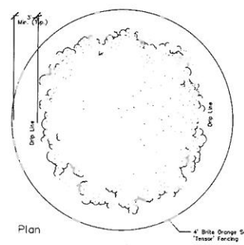
All sod areas as indicated on the planting plan shall receive Sod called for in Plant List under miscellaneous - solid sod. It shall be the responsibility of the landscape contractor to include in the bid, the repair of any sod which may be damaged from the landscape installation operations.

Structural Soil Note:
Planting beds will be provided with the approrpriate soil to support the best tree growth.

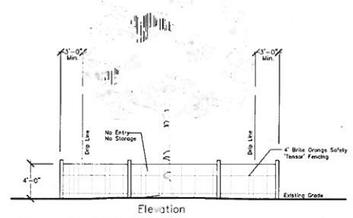
## PLANT LIST

| Code | | Drought | QTY. | Botanical Name / Common Name | Specifications |
|---|---|---|---|---|---|
| TREES / PALMS | | | | | |
| CN | | V | 8 | Cocos nucifera / Green Malayan Coconut Palm | B&B Field Grown, 6' CT., 22-26' OA. |
| ACCENTS / SHRUBS / GROUND COVERS | | | | | |
| CES | (N) | V | 72 | Conocarpus erectus sericeus / Silver Buttonwood | 3 Gal., 20-24" OA, 2' OC. |
| FMG | | V | 405 | Ficus microcarpa / Green Island Ficus | 3 Gal., 18-24" OA, 2' OC. |
| MISCELLANEOUS | | | | | |
| SOD | | M | | Stenotaphrum secundatum / St. Augustine 'Floratam' | Solid application - no gaps between seams - as / if needed |
| SOIL | | | | 50/50 Soil Mix | Sand / Topsoil |

(N) Florida Native Plant Species
L Low Drought Tolerance
M Moderate Drought Tolerance
V Very Drought Tolerant



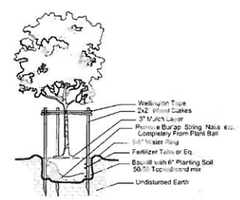
Plan



Elevation

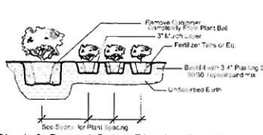
Existing Tree(s) Protection Detail

NTS



Small Tree Planting Detail

NTS



Shrub & Ground Cover Planting Detail

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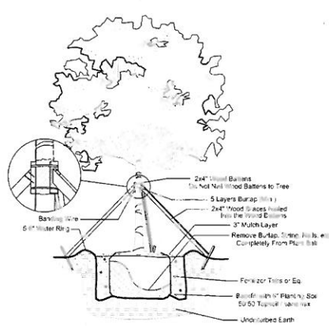

Large Tree Planting Detail

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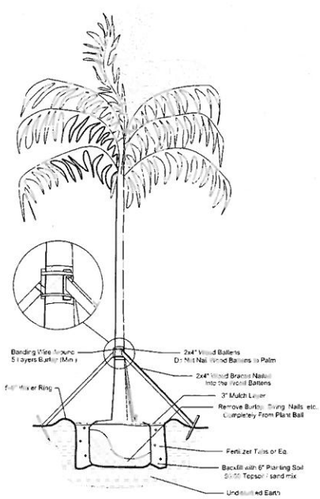

Palm Planting Detail

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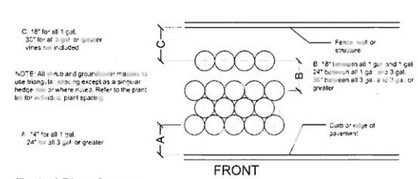

Typical Plant Spacing

NTS

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Revision Dates

Plant List, Notes, and Details
S. Bougainvilla Dr. Project
The Town of
Lauderdale-By-The-Sea, Florida

Sheet Description
Plant List, Notes, and Details

Release Date
8-28-12

Project Number
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Drawing Number
LP-4

Sheet 4 of 4