



## North Bay Village

Administrative Offices

1666 Kennedy Causeway, Suite 300 North Bay Village, FL 33141

Tel: (305) 756-7171 Fax: (305) 756-7722 Website: www.nbvillage.com

*Addendum 2  
Issued on September 6, 2016*

**BID NO. 2016-002  
FOR  
BAYWALK PLAZA AREA DESIGN (SOUTH SIDE ONLY)**

**Issued by:** North Bay Village

**Notice to all Bidders:**

1) **Question:** Will the engineer provide a SWPP?

**Response:** SWPP plans were not prepared as they are not required. Per FDEP if you're "disturbing" more than 1 acre then you need to get an NPDES permit. The total project area is approximately 0.2 acres. The contractor still needs to exercise best management practices during construction so as to not allow debris or turbid runoff to make its way into the adjacent water body or into the City's drainage system.

2) **Question:** Sheet C-400-2" Irrigation Line Profile B detail shows a proposed oval concrete storm pipe. Is this part of the south side improvements?

**Response:** The pipe reflected on the profile is not proposed by Kimley-Horn. It is labeled as "By Others" and therefore not part of the plans prepared by Kimley-Horn and not part of the work to be done by the contractor as part of the south side improvements.

3) **Question:** Have geotechnical investigations been done and can a geotechnical report be provided?

**Response:** A geotechnical report is attached.

**MANDATORY.**

**PROOF OF RECEIPT**

**Recipient Signature:** \_\_\_\_\_  
**Print Name:** \_\_\_\_\_  
**Company:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**SUBMIT WITH RFP RESPONSE**

# NELCO

## TESTING AND ENGINEERING SERVICES

### PERCOLATION TEST REPORT

**CLIENT: Kimley Horn**  
 1221 Brickell Avenue, Suite 400  
 Miami, Florida 33131

**DATE: July 1, 2015**  
**JOB No.: P-150780**


<b>Project:</b>	Baywalk Plazas Project
<b>Location:</b>	NE 79 Street and Bayshore Drive, Miami, Florida

PERCOLATION TEST RESULTS		
Test Number (No) (u)	1	SOIL CONDITIONS
Test Hole Diameter (d) (ft)	0.5	0.0' - 8.0': Sand with gravel
Depth to Water Table (H <sub>2</sub> ) (ft)	9.5	8.0' - 15.0': Sand
Saturated Depth (Ds) (ft)	5.5	
"Stabilized" Flow Rate (Q) (c.f.s.)	6.67E-02	
Hydraulic Conductivity (K)	4.31E-04	

$$K = \frac{4Q}{\pi d (2H z^2 + 4H_2 D_s + H_2 d)}$$

**Per S.F.W.M.D. Permitting Information Manual (Vol IV - May, 2004)" Usual Open-Hole Test"**

Comments: **Please note:** "Soil Conditions" listed above are representative of material encountered in test hole only.  
 In no way whatsoever shall any assumptions of soil conditions outside the test hole area be made based  
 on the soil conditions outlined in this report.

  
**V.M.B. Venkatesan** 7/1/15  
 Professional Engineer No. 63107  
 State of Florida

# NELCO

## TESTING AND ENGINEERING SERVICES

### PERCOLATION TEST REPORT

**CLIENT: Kimley Horn**  
 1221 Brickell Avenue, Suite 400  
 Miami, Florida 33131

**DATE: July 1, 2015**  
**JOB No.: P-150780**


<b>Project:</b>	Baywalk Plazas Project
<b>Location:</b>	NE 79 Street and Bayshore Drive, Miami, Florida

PERCOLATION TEST RESULTS		
Test Number (No) (u)	2	<b>SOIL CONDITIONS</b>
Test Hole Diameter (d) (ft)	0.5	0.0' - 8.0': Sand with gravel, some shells
Depth to Water Table (H <sub>2</sub> ) (ft)	8.75	8.0' - 15.0': Sand
Saturated Depth (D <sub>s</sub> ) (ft)	6.25	
"Stabilized" Flow Rate (Q) (c.f.s.)	6.40E-02	
Hydraulic Conductivity (K)	4.33E-04	

$$K = \frac{4Q}{\pi d (2H_2^2 + 4H_2D_s + H_2d)}$$

**Per S.F.W.M.D. Permitting Information Manual (Vol IV - May, 2004) " Usual Open-Hole Test"**

Comments: **Please note:** "Soil Conditions" listed above are representative of material encountered in test hole only.  
In no way whatsoever shall any assumptions of soil conditions outside the test hole area be made based on the soil conditions outlined in this report.

  
**V.M.B. Venkatesan** 7/16/15  
 Professional Engineer No. 63107  
 State of Florida

NELCO  
TESTING AND ENGINEERING SERVICES

Soil Percolation Test Location Sketch



Percolation Test Locations

**REPORT OF SUBSURFACE SOIL EXPLORATION  
GEOTECHNICAL EVALUATION AND RECOMMENDATIONS**

**BAYWALK PLAZAS PROJECT:  
NE 79<sup>th</sup> STREET & BAYSHORE COURT  
MIAMI, FLORIDA**

**JULY 2015**



**Prepared for:**

**KIMLEY HORN  
1221 BRICKELL AVENUE, SUITE 400  
MIAMI, FLORIDA 33131**

**NELCO TESTING AND ENGINEERING SERVICES, INC.  
13370 SW 131<sup>st</sup> Street, Suite 105  
Miami, Florida 33186**



**NELCO**  
TESTING & ENGINEERING SERVICES, INC.

July 14<sup>th</sup>, 2015

Kimley Horn  
1221 Brickell Avenue, Suite 400  
Miami, Florida 33131

Reference: Report of Subsurface Soil Exploration and Recommendations  
Evaluation of Subsurface Conditions  
For the Proposed Construction:

Baywalk Plazas Project  
NE 79<sup>th</sup> Street & Bayshore Court  
Miami, Florida

**NTES Project Number: B-150780**

Dear Sirs,

Following please find the report of subsurface soil explorations and geotechnical evaluation for the above referenced property. Test Borings and soil sampling took place on July 1<sup>st</sup>, 2015 using procedures in general accordance with ASTM D-1586, the Standard Penetration Test. This report presents our findings, data, and recommendations.

We appreciate this opportunity to assist you in this project. If you have any questions or comments, please call us at (305) 259-9779.

Respectfully Submitted,  
**NELCO Testing and Engineering Services, Inc.**

*VMB Venkatesan*  
V.M.B Venkatesan 7/14/15  
Professional Engineer No. 63107  
State of Florida

**NELCO**  
**TESTING AND ENGINEERING SERVICES**

**TABLE OF CONTENTS**

	<b>Page</b>
Introduction .....	2
Project Information .....	2
Testing Program and Subsurface Conditions.....	2
 <b>Evaluations and Recommendations</b>	
Foundation Support & Recommendations	
• Foundation Recommendations.....	3
• Soil Bearing Capacity for Foundations .....	4
• Anticipated Settlement .....	4
• Soil Erosion .....	4
 REPORT LIMITATIONS.....	 5

**APPENDICES**

	<b>Appendix</b>
Project Location Map .....	A
Test Boring Location Sketch .....	A
 Standard Penetration Test Boring Logs.....	 B

# **NELCO**

## **TESTING AND ENGINEERING SERVICES**

**Subsurface Soil Exploration and Recommendations  
For  
Baywalk Plazas Project  
NE 79<sup>th</sup> Street & Bayshore Court  
Miami, Florida**

### **INTRODUCTION**

The purpose of this sub-surface exploration was to obtain data in order to provide an evaluation of the sub-surface conditions and recommendations for foundation design for support of the proposed construction.

### **PROJECT INFORMATION**

Site plan and construction information was provided by Mr. George Puig of Kimley Horn. At the time of testing, the project area was observed to be vacant. Proposed construction consists of a boardwalk and associated park structures.

### **SUB-SURFACE CONDITIONS**

Sub-surface exploration consisted of two (2) Standard Penetration Test Boring conducted conforming to the guidelines as set forth in ASTM D-1586.

Testing was performed July 1<sup>st</sup>, 2015. A review of the Test Boring Reports generally indicates that the site consists of various layers of sand, sand with gravel and sand with shells throughout the maximum explored depth of fifteen (15) feet below existing grade.

Please note that soft soils have been encountered at approximate depths of 5.0 to 8.0 feet below existing grades. As a result these soils will need to be removed and replaced with controlled/engineered fill material as specified herein.

Groundwater at the time of testing was encountered at approximate depths of 9.0 feet below existing grade.

Please refer to the enclosed appendices for location, classification, and stratification information.



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## TESTING AND ENGINEERING SERVICES

### FOUNDATION RECOMMENDATIONS

1. Remove any vegetation, organic material and soil within building areas plus five (5) feet outside the building footprint, down to an approximate depth of 8.0 feet below existing grade. The area under footings, foundations, and concrete slabs on grade shall have all vegetation, stumps, roots, and foreign materials removed prior to placement of fill.
2. Compact the cleared area to a minimum compaction of 95 percent of the dry soil density as determined by the Modified Proctor Test – ASTM D-1557.
3. Fill and compact the cleared areas in lifts not greater than 12 inches of compacted thickness to elevate to the required grade. Fill material for areas in support of footings is to be a mixture of limerock (minimum LBR Value 40) and sand, free of vegetation, organic material, construction debris, and large rocks. Fill material for slab on grade areas may be clean sand, filled and compacted in lifts not greater than 12 inches of loose material. The maximum size of fill material (rocks) within 12 inches below the floor slab shall be no more than 3 inches in diameter.
4. All fill material shall be inorganic containing no more than 5% by weight organic material. Silt-size fine particulates (material passing the No. 200 Sieve) in fill material shall be limited to less than 10% by weight.
5. Compact each lift of fill material and excavated footings to a minimum compaction of 95 percent of the dry soil density as determined by the Modified Proctor Test – ASTM D-1557 prior to placement of any additional fill required.  
Prior to compaction, the moisture content of each lift of fill material shall be adjusted to within plus/minus 2 percent of the optimum moisture as determined by the Modified Proctor Test – ASTM D-1557.
6. Compaction of building site shall be verified by means of one Field Density Test for each 2500 square feet or fraction thereof for each lift of compacted soil for building pad or slab area. One Field Density Test will also be required for every 50 linear feet of excavated spread footings, and every isolated footing excavation. Field density tests shall be performed as per ASTM D-2922.
7. All Geotechnical work must be performed under the supervision of our geotechnical engineer or one of his representatives, in order to verify compliance with our specifications.

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**SOIL BEARING CAPACITY FOR FOUNDATIONS**

Our observations, exploration, and evaluation, supplemented by a review of sub-soil profile developed from the soil engineering Standard Penetration Test, indicate that the soils found, after improvements as specified, will be suitable for supporting foundations proportioned for a maximum allowable bearing stress of 3000 pounds per square foot, based on total load.

**ANTICIPATED SETTLEMENT**

Provided that foundations and soils (existing and fill material), are engineered and constructed in accordance with our recommendations and specifications the maximum total foundation settlement is expected to be less than 1 inch. Differential settlement between adjacent foundations is expected to be ½ of total settlement.

**SOIL EROSION**

The possibility exists for erosion to occur on soils providing structural support for any proposed or existing footings/foundations. This should be considered and addressed during the design and construction process for both existing soil and structurally placed fill material in support of any footings/foundations. This geotechnical report does not address this condition, its possibility of occurring, or its prevention.

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## **TESTING AND ENGINEERING SERVICES**

### **REPORT LIMITATIONS**

The recommendations submitted are based on the available subsurface information obtained by Nelco Testing and Engineering Services, Inc. (NTES) and design details provided by Kimley Horn for the proposed project. If there are any revisions to the nature, design or location of proposed structures, NTES should be notified immediately to determine if changes in recommendations are required. If NTES is not retained to perform these functions, NTES will not be responsible for the impact of those conditions of the project.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with ASTM specifications, and generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed. Evaluations expressed in this report are based on field observations and data collected during exploration. Variations throughout the sub-surface profile may exist between designated boring locations, and in inaccessible areas with existing structures. These may not become evident until construction operations have commenced. Should any variations become evident, NELCO Testing and Engineering Services, Inc. must be notified. A reevaluation of the information and professional opinions expressed in this report may be necessary.

Please note analysis and recommendations mentioned in this report are obtained from the borings performed at the indicated locations on the "Soil Boring Test Location Sketch" included in this report. Local variations outside of the vertical reach of the boring locations may be encountered. Descriptions represent our interpretation of the subsurface data and observations at the specific boring locations, on the date tested.

This geotechnical report has been prepared by NTES for the intended use of Kimley Horn and the specific application to the named project as described. Any third party use of this report should be conducted with the expressed written permission of NTES.

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**TESTING AND ENGINEERING SERVICES**

**APPENDIX A**

- Project Location Map
- Standard Penetration Test Boring Location Sketch



**PROJECT LOCATION MAP**  
BAY WALK PLAZAS PROJECT  
NE 79<sup>th</sup> STREET & BAYSHORE COURT, MIAMI, FLORIDA



**NELCO**  
TESTING & ENGINEERING SERVICES, INC.

# NELCO TESTING AND ENGINEERING SERVICES

## Soil Boring Test Location Sketch



 Soil Boring Test Location

VMB Venkatesan  
7/16/15

**NELCO**  
**TESTING AND ENGINEERING SERVICES**

**APPENDIX B**

- Standard Penetration Test Boring Logs



# TEST BORING LOG

Client: Kimley Horn

Date: July 1, 2015

Project: Baywalk Plazas Project

Job Number: B-150780

Project Location: NE 79 Street & Bayshore Court, Miami, Florida

Test Boring Number: 1

Depth	Water Level	Symbol	Strata Name	Description	SAMPLE			Standard Penetration Test N-value Blows/ft 10 30 50 70 90	
					Number	Blow Count			
						6"	6"		N-Value
0			Sand with some gravel	<i>Brown (with some limestone gravel)</i>					
1					1	X	11	20	
2									
3					2	6	9	21	
4									
5									
6									
7									
8			Sand	<i>Tan</i>	4	0	0	2	
9									
10					5	8	9	15	
11									
12					6	6	5	14	
13									
14					7	8	16	28	
15									
16			End of Boring		8	11	14	X	
17									
18									
19									
20									





# TEST BORING LOG

Client: Kimley Horn

Date: July 1, 2015

Project: Baywalk Plazas Project

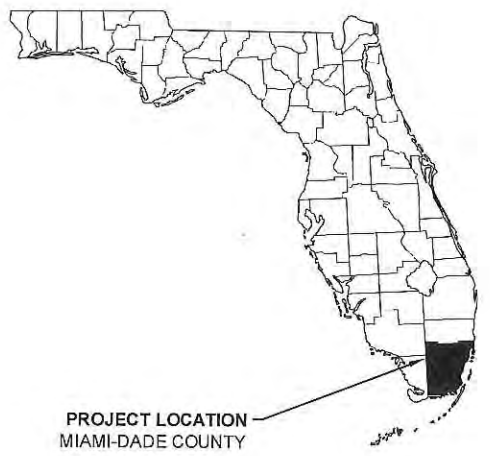
Job Number: B-150780

Project Location: NE 79 Street & Bayshore Court, Miami, Florida

Test Boring Number: 2

Depth	Water Level	Symbol	Strata Name	Description	SAMPLE			Standard Penetration Test											
					Number	Blow Count		N-Value	N-value										
						6"	6"		10	30	50	70	90						
0			Sand	<i>Brown</i>															
1			Sand with trace gravel	<i>Brown (with trace limestone gravel)</i>	1	X	9	14											
2						5	11												
3					2	18	13	23											
4						10	9												
5					3	5	7	10											
6						3	0												
7					4	0	0	0											
8						0	3												
9	July 1, 2015		Sand with some shells	<i>Tan (with some shells)</i>	5	9	14	24											
10						10	8												
11			Sand	<i>Tan</i>	6	6	5	11											
12						6	4												
13					7	2	11	25											
14						14	10												
15					8	8	6	X											
16			End of Boring																
17																			
18																			
19																			
20																			

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



# BAYWALK PLAZA (SOUTH SIDE ONLY) CONSTRUCTION PLANS FOR NORTH BAY VILLAGE

Sheet List Table	
Sheet Number	Sheet Title
L-000	COVER SHEET
L-100	EXISTING CONDITIONS
C-201	DEMOLITION PLAN
C-300	PAVING & GRADING PLAN
C-301	DRAINAGE PLAN
C-302	DRAINAGE DETAILS
C-400	WATER AND IRRIGATION PLAN
L-200	TREE MITIGATION PLAN
L-250	TREE MITIGATION NOTES
L-300	HARDSCAPE PLAN
L-350	HARDSCAPE DETAILS
L-351	HARDSCAPE DETAILS
L-352	HARDSCAPE DETAILS
L-400	LANDSCAPE PLAN
L-450	LANDSCAPE NOTES
L-451	LANDSCAPE DETAILS
L-500	IRRIGATION PLAN
L-550	IRRIGATION NOTES AND DETAILS
L-600	LIGHTING PLAN
L-650	LIGHTING DETAILS
E-100	ELECTRICAL PLAN
E-101	ELECTRICAL PLAN
E-102	ELECTRICAL DETAILS



VICINITY MAP  
NTS

No.	REVISIONS	DATE	BY

**PROJECT TEAM**

**OWNER**  
 NORTH BAY VILLAGE  
 1666 KENNEDY CAUSEWAY, 3RD FLOOR  
 NORTH BAY VILLAGE, FLORIDA 33141  
 CONTACT: RODNEY CARRERO-SANTANA,  
 DIRECTOR

**CIVIL ENGINEER**  
 KIMLEY-HORN  
 1221 BRICKELL AVENUE, SUITE 400  
 MIAMI, FL 33131  
 TEL: (305) 673-2025  
 CONTACT: ALBERTO HERRERA, P.E.


**LANDSCAPE ARCHITECT**  
 KIMLEY-HORN  
 1221 BRICKELL AVENUE, SUITE 400  
 MIAMI, FL 33131  
 TEL: (305) 673-2025  
 CONTACT: GEORGE PUIG, P.L.A.

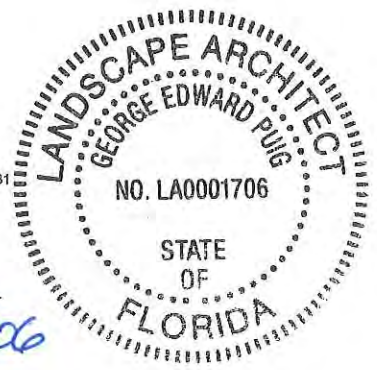
**STRUCTURAL ENGINEER**  
 KIMLEY-HORN  
 1221 BRICKELL AVENUE, SUITE 400  
 MIAMI, FL 33131  
 TEL: (305) 673-2025  
 CONTACT: NOEL RAMIREZ, P.E.

**ELECTRICAL ENGINEER**  
 KIMLEY-HORN  
 1920 WEKIVA WAY, SUITE 200  
 WEST PALM BEACH, FL 33411  
 TEL: (561) 845-0665

100% CONTRACT DOCUMENTS SUBMITTAL SET  
05/09/16

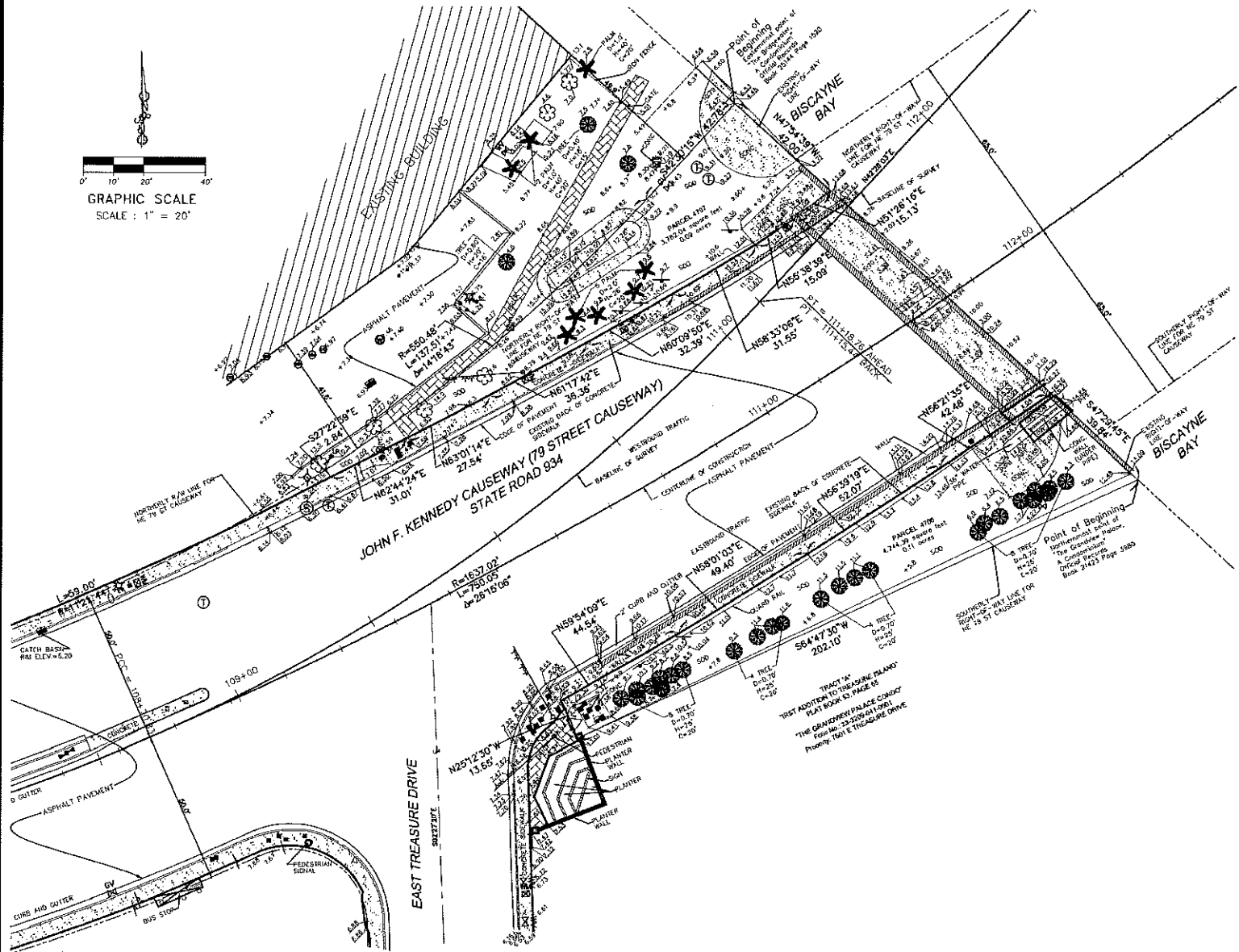
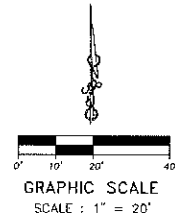
©2015 KIMLEY-HORN AND ASSOCIATES, INC.  
 1221 BRICKELL AVENUE, SUITE 400 MIAMI, FL 33131  
 TEL: (305) 673-2025  
 WWW.KIMLEY-HORN.COM CA 00000696

  
 GEORGE PUIG, PLA  
 DATE: 5/11/16 LIC. NO.: 0001706



THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

# MAP OF BOUNDARY AND TOPOGRAPHIC SURVEY



**SURVEYOR'S NOTES:**

**SECTION 1) DATE OF FIELD SURVEY:**

1. The date of completion of original field Survey was on July 16, 2014.

**SECTION 2) LEGAL DESCRIPTION:**

A parcel of land in Section 9, Township 53 South, Range 42 East, lying and being in Miami-Dade County, Florida, more particularly described as follows:

Beginning at the Easternmost Point of "The Bridgewater, A Condominium" recorded in Official Records Book 25144 Page 1520, of the Public Records of Miami-Dade County, Florida, which said point also lying on the Northernly Right-of-Way line of NE 79 Street Causeway (State Road 934); thence run S42°30'15"W along the said Northernly Right-of-Way line of NE 79 Street Causeway (State Road 934), a distance of 42.78 feet to the Point of Curvature of a circular curve to the right having for its elements a radius of 550.48 feet and a central angle of 14°18'43"; thence along the arc of said curve for a distance of 137.51 feet; thence run S27°22'39"E, for a distance of 2.84 feet to the back of an existing concrete sidewalk; thence run Northernly along the approximate location of said back of existing concrete sidewalk for the following seven (7) courses; thence run N62°44'24"E, for a distance of 31.01 feet; thence run N63°01'14"E, for a distance of 27.54 feet; thence run N61°17'42"E, for a distance of 36.36 feet; thence run N60°09'50"E, for a distance of 32.39 feet; thence run N58°33'06"E, for a distance of 31.55 feet; thence run N55°38'39"E, for a distance of 15.09 feet; thence run N51°26'16"E, for a distance of 15.13 feet; thence departing said sidewalk, run N47°54'39"W, for a distance of 42.00 feet to the Point of Beginning.

Containing 3762.04 square feet, 0.09 acres more or less by calculations.

And

A parcel of land in Section 9, Township 53 South, Range 42 East, lying and being in Miami-Dade County, Florida, more particularly described as follows: Beginning at the Northernmost Point of "The Grandview Palace, A Condominium" recorded in Official Records Book 21423 Page 3980, of the Public Records of Miami-Dade County, Florida, which said point also lying on the Southernly Right-of-Way line of NE 79 Street Causeway (State Road 934); thence run S64°47'30"W along the said Southernly Right-of-Way line of NE 79 Street Causeway (State Road 934), a distance of 202.10 feet; thence run N25°12'30"W, for a distance of 13.65 feet to the back of an existing concrete sidewalk; thence run Northernly along the approximate location of said back of existing concrete sidewalk for the following four (4) courses; thence run N59°54'09"E, for a distance of 44.54 feet; thence run N58°01'03"E, for a distance of 49.40 feet; thence run N56°39'19"E, for a distance of 52.07 feet; thence run N56°21'35"E, for a distance of 42.48 feet; thence departing said sidewalk, run S47°29'45"E, for a distance of 39.84 feet to the Point of Beginning.

**SECTION 3) ACCURACY:**

The accuracy obtained by field measurement methods and office calculations of closed geometric figures meets and exceeds the Minimum Technical Standards requirement for Commercial/High Risk area (Linear: 1 foot in 10,000 feet) as defined in Rule 5J-17.051, Florida Administrative Code.

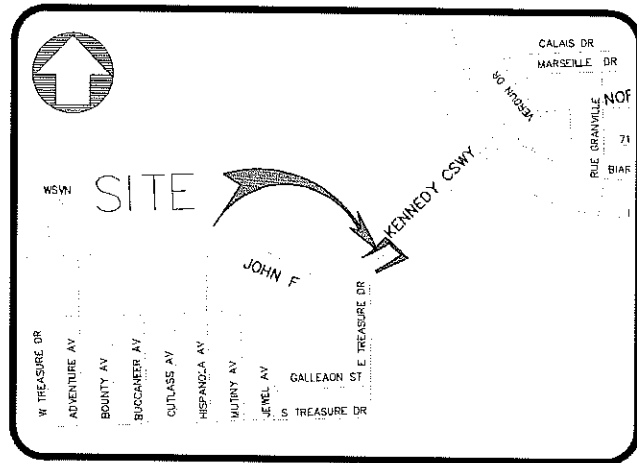
**LEGEND**

- Metal Light Pole
- Guy Wire
- Utility Power Pole
- Fire Hydrant
- Water Meter
- Electric Box
- Telephone Box
- Sewer Manhole
- Traffic Sign
- Catch Basin
- Drainage Manhole
- Overhead Utility Lines
- Wire Fence
- Wood Fence
- Light Pole
- Sewer Valve
- Water Valve
- Electric Manhole
- Telephone Manhole
- Unknown Manhole
- Guard Pole
- Inverts
- Spot Elevation
- T.B.M. - Temporary Benchmark
- Diameter-Height-Spread
- Lot Corner
- Tree (Species unknown)
- Palm Tree
- Ornamental Tree

**ABBREVIATIONS**

- R/W Right-of-Way Line
- P/L Property Line
- I.D. Identification
- C.S. Concrete Slab
- CL Center Line
- M. Monument Line
- B. Book
- P.B. Plat Book
- P.G. Page
- ASPH. Asphalt
- TYP. Typical
- F.F.E. Finish Floor Elevation
- A/C Air Conditioner

**SECTION 9 - TOWNSHIP 53 SOUTH - RANGE 42 EAST**



LOCATION MAP  
NOT TO SCALE

Elevations shown hereon are derived, refer and shown in National Geodetic Vertical Datum 1929 (NGVD).

Benchmark Identification:  
Miami-Dade County Benchmark: DOT BM  
Elevation: 15.55 feet (National Geodetic Vertical Datum)  
Location:  
79th Street CSWY  
Treasure Island & Normandy Isle-Bridge Between.

Dot Brass Disc in Sidewalk in S.W. Corner of Bridge.

**SECTION 5) LIMITATIONS:**

Since no other information were furnished other than what is cited in the Sources of Data, the Client is hereby advised that there may be legal restrictions on the Subject Property that are not shown on the Survey Map that may be found in the Public Records of Miami-Dade County.

The Surveyor makes no representation as to ownership or possession of the Subject Property by any entity or individual who may appear on public records of this County.

No excavation or determination was made as to how the Subject Property is served by utilities.

No improvements were located, other than those shown. No underground foundations, improvements and/or utilities were located or shown hereon.

**SECTION 6) CLIENT INFORMATION:**

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

**KIMLEY HORN**

**SECTION 7) SURVEYOR'S CERTIFICATE:**

I hereby certify: That this "Boundary and Topographic Survey" and the Survey Map resulting therefrom was performed under my direction and is true and correct to the best of my knowledge and belief and further, that said "Boundary Survey" meets the intent of the applicable provisions of the "Minimum Technical Standards for Land Surveying in the State of Florida", pursuant to Rule 5J-17.051 through 5J-17.052 of the Florida Administrative Code and its implementing law, Chapter 472.027 of the Florida Statutes.

**HADONNE CORP.**, a Florida Corporation  
Florida Certificate of Authorization Number LB7097

By: Raul Izquierdo, PSM Signature Date: \_\_\_\_\_  
Registered Surveyor and Mapper L56099  
State of Florida

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



**HADONNE**  
PROFESSIONAL LAND SURVEYORS AND MAPPERS  
1985 NW 88th Court, Suite 202, Doral, Florida, 33172  
Phone: 305.266.1188 Fax: 305.207.6845 www.hadonne.com

MAP OF BOUNDARY AND TOPOGRAPHIC SURVEY  
for  
**KIMLEY HORN**  
of  
**KENNEDY CAUSEWAY, NORTH BAY VILLAGE, FL**

**REVISIONS**

No.	REVISIONS	DATE	BY
1			
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**Kimley»Horn**

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PHONE: 305-673-2025 FAX: 305-673-4892  
WWW.KIMLEY-HORN.COM CA 00000689

LICENSED PROFESSIONAL

GEORGE PUIG, FLA  
FL LICENSE NUMBER  
LA0001706

DATE: 7/30/2015  
CHECKED BY: JRP

**EXISTING  
CONDITIONS**

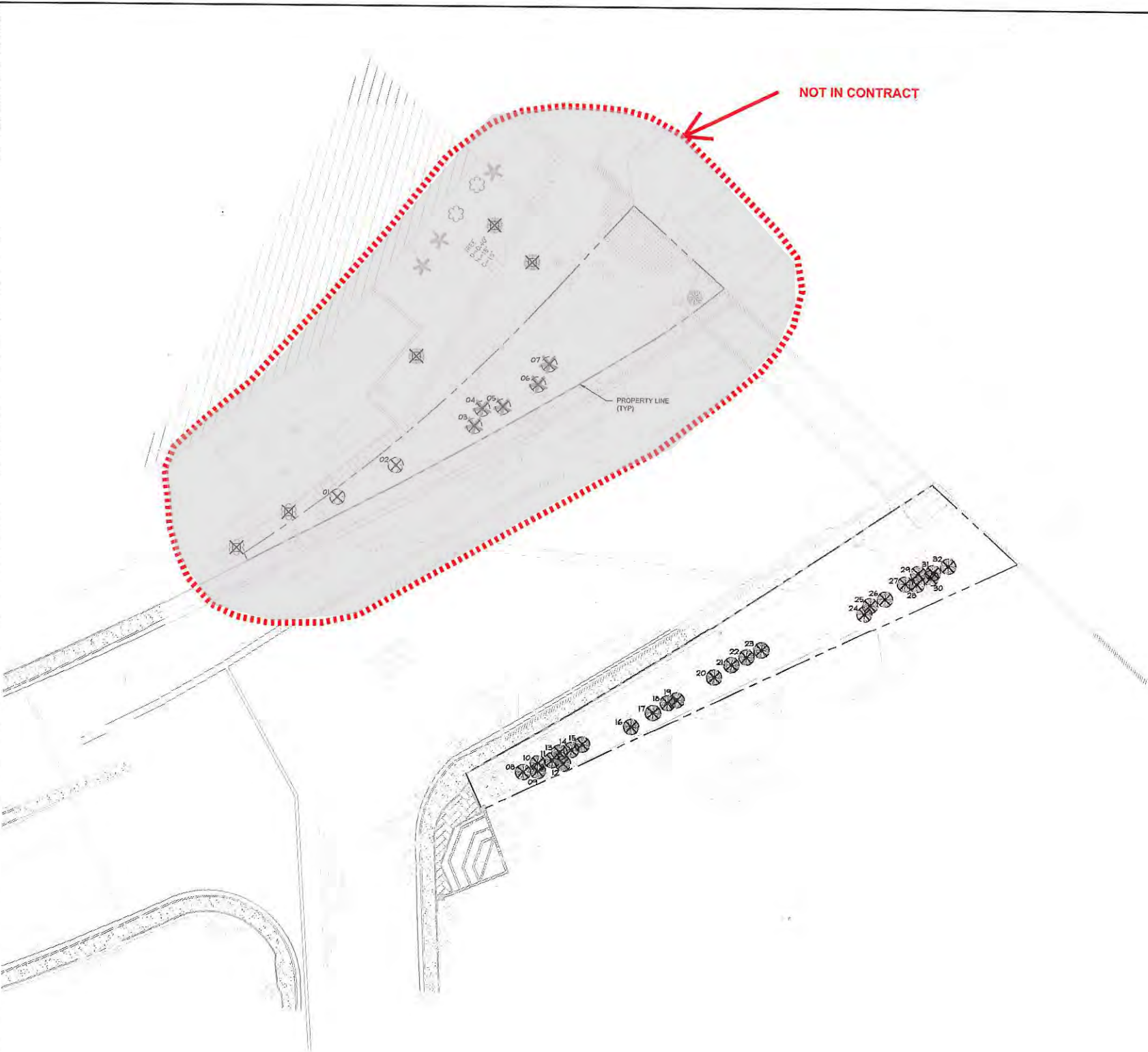
**BAYWALK PLAZA  
PREPARED FOR  
NORTH BAY VILLAGE**

NORTH BAY VILLAGE

SHEET NUMBER  
**L-100**

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Plotted By: Dean, Ed Sheet: Split: Baywalk Plaza Layout: L-200 TREE MITIGATION July 30, 2015 02:02:43pm K:\ASAR\_LRS\043138022 - Baywalk Plaza\CAD\Plots\Sheet\LA-200\_TREE MITIGATION\_043138022.dwg  
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**TREE MITIGATION LEGEND**

- EXISTING TO SAVE IN PLACE
- EXISTING TO BE REMOVED
- 20' PROTECTION ZONE
- DENOTES TREE OUTSIDE OF PROPERTY BOUNDARY TO BE REMOVED
- EXISTING TREE CANOPY SPREAD

**NOTES**

1. CONTRACTOR SHALL COORDINATE PHASING OF TREE MITIGATION / PROTECTION PLANS TO ENSURE THAT TREES TO REMAIN ARE FULLY PROTECTED.
2. SEE SHEET L-250 FOR TREE MITIGATION NOTES AND SHEET L-250 FOR INSTALLATION DETAILS.

**MITIGATION CALCULATIONS**

**TREE CANOPY (418" DBH)**  
 REMOVING 7890 SQ. FT.  
 REQUIRED = 2.1 SQ. FT. OF CANOPY = 15700 SQ. FT.

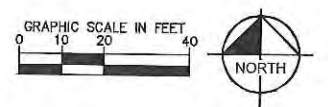
**SPECIMEN TREE CANOPY (18" DBH OR GREATER)**  
 REMOVING 1570 SQ. FT.  
 REQUIRED: 4:1 SQ. FT. OF CANOPY = 6280 SQ. FT.

**TOTAL REPLACEMENT CANOPY REQUIRED = 21,980 SQ. FT.**

**TREE DATA TABLE**

TREE #	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	DBH	CONDITION	ACTION	MITIGATION
1	Unknown	Unknown	n/a	n/a	n/a	n/a	REMAIN	0
2	Unknown	Unknown	n/a	n/a	n/a	n/a	REMAIN	0
3	Roystonea regia	Royal Palm	26'	20'	24"	n/a	REMOVE	314
4	Roystonea regia	Royal Palm	26'	20'	24"	n/a	REMOVE	314
5	Roystonea regia	Royal Palm	26'	20'	24"	n/a	REMOVE	314
6	Roystonea regia	Royal Palm	26'	20'	24"	n/a	REMOVE	314
7	Roystonea regia	Royal Palm	26'	20'	24"	n/a	REMOVE	314
8	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
9	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
10	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
11	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
12	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
13	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
14	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
15	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
16	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
17	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
18	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
19	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
20	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
21	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
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24	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
25	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
26	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
27	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
28	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
29	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
30	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
31	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314
32	Coccoloba uvifera	Sea Grape	25'	20'	8"	n/a	REMOVE	314

TOTAL TREE CANOPY TO BE REMOVED	8,792	SF
TREE CANOPY MITIGATION REQUIREMENTS	17,584	SF
TOTAL SPECIMEN TREE CANOPY TO BE REMOVED	1,570	SF
SPECIMEN TREE CANOPY MITIGATION REQUIREMENTS	6,280	SF



**Kimley»Horn**

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 PHONE: 305-673-2025 FAX: 305-673-4882  
 WWW.KIMLEY-HORN.COM CA 0000696

---

KHA PROJECT: 043138022  
 DATE: 07/30/2015  
 SCALE: AS SHOWN  
 DESIGNED BY: KHA  
 DRAWN BY: EMD  
 CHECKED BY: JRP

LICENSED PROFESSIONAL: GEORGE PUGH, PLA  
 FL LICENSE NUMBER: LA0001706  
 DATE: 7/30/2015

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**TREE MITIGATION**

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BAYWALK PLAZA  
 PREPARED FOR  
 NORTH BAY VILLAGE  
 NORTH BAY VILLAGE FL

---

SHEET NUMBER  
**L-200**



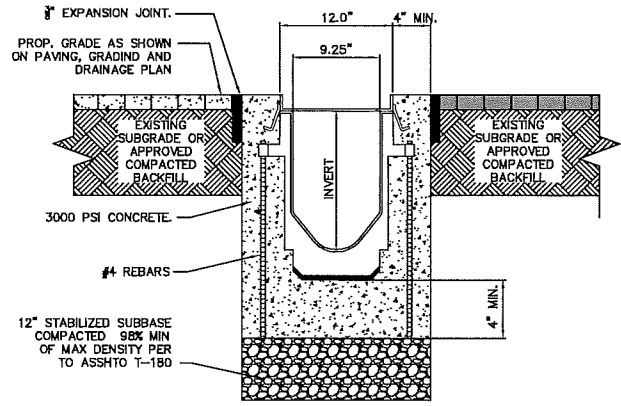








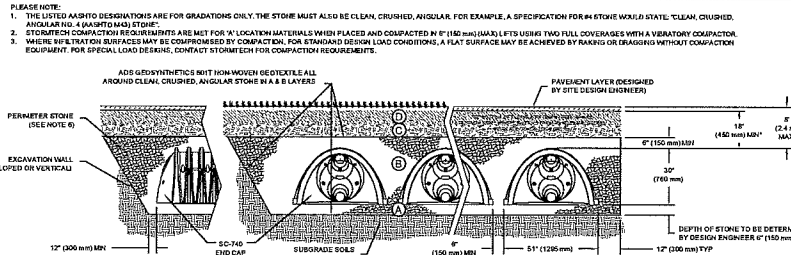
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**ZURN Z-882 TRENCH DRAIN SYSTEM DETAILS (TYPICAL)**  
(OR APPROVED EQUAL)  
N.T.S.

**ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 12" STARTS FROM THE TOP OF THE 1" LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED SURFACE ABOVE. NOTE THAT PAVEMENT SUBBASE SHALL BE PART OF THIS LAYER.	MSA	PREPARE PER SITE DESIGN ENGINEERS PLANS. PAVED INSTALLATIONS MAY HAVE STRENGTH MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 12" STARTS FROM THE TOP OF THE FINISHMENT STONE (2" LAYER) TO 12" ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 1" LAYER.	AASHTO M 45 A-1, A-2, A-3 OR AASHTO M 43 3, 5.7, 4, 4.87, 5, 5.5, 5.2, 4.97, 5.6, 7.7, 8.8, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBER IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 90% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 90% RELATIVE DENSITY FOR PROCESS AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 20,000 LB (9,070 KG). FORCE NOT TO EXCEED 25,000 LB (11,340 KG).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBER FROM THE FOUNDATION STONE (1" LAYER) TO THE 1" LAYER ABOVE.	AASHTO M 43 3, 3.97, 4, 4.87, 5, 5.6, 5.7	90% COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBER FROM THE SUBBASE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M 43 3, 3.97, 4, 4.87, 5, 5.6, 5.7	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. 1"



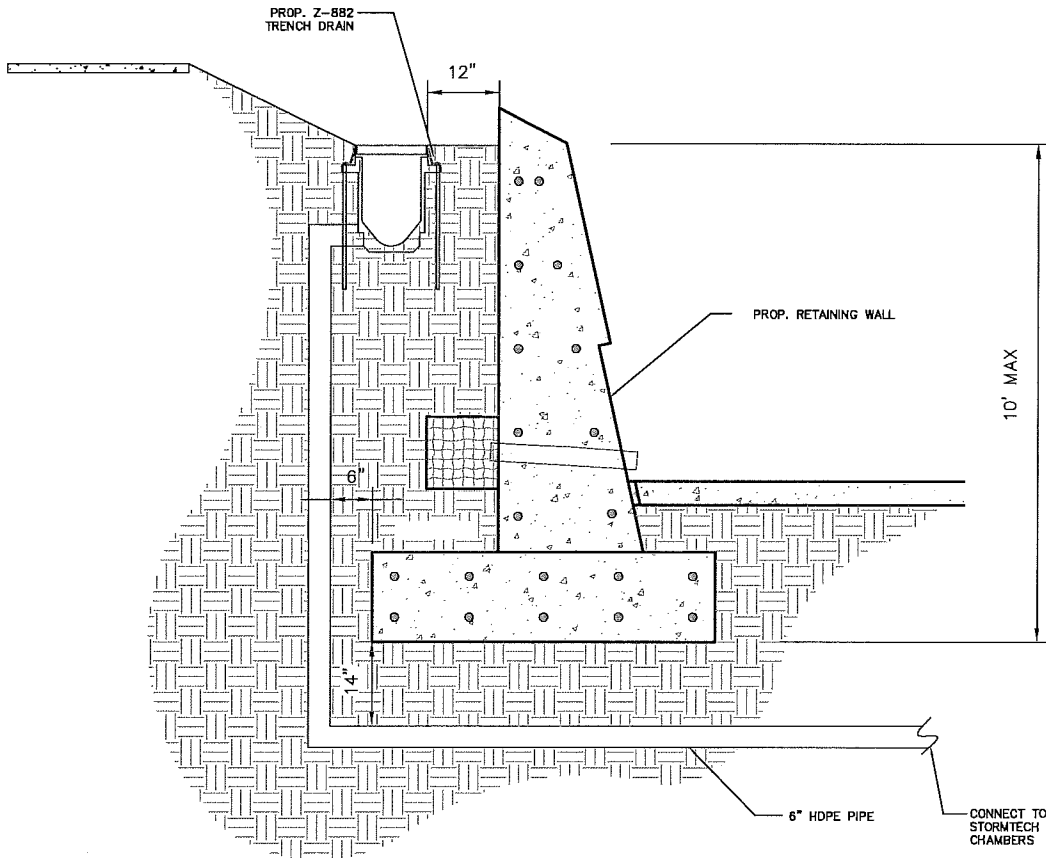
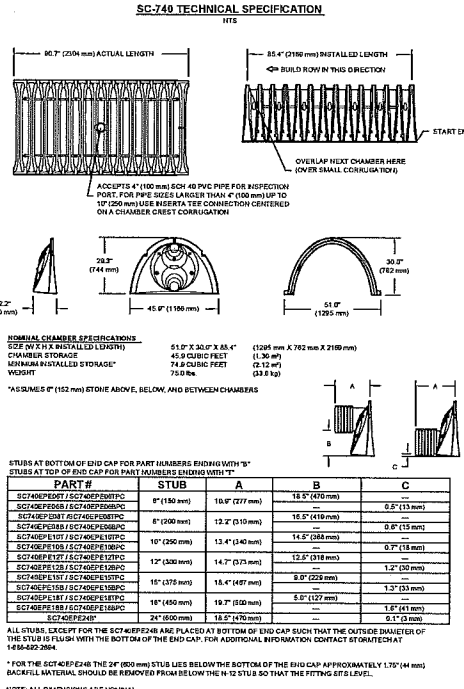
- PLEASE NOTE:**
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M 43) STONE.
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) MAX LIFTS USING TWO FULL COVERSAGES WITH A VIBRATORY COMPACTION. WHERE VIBRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD BEARING, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  - ADD GEOTEXTILES WITH NONWOVEN RESISTIBLE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE #4 & 8 LAYERS.
  - PAVEMENT LAYER (DESIGNED BY SITE DESIGN ENGINEER)
  - PERIMETER STONE (SEE NOTE 6)
  - EXCAVATION WALL (CAN BE SLOPED ON WATER)
  - SC-740 CHAMBER
  - SUBBASE SOLE (SEE NOTE 5)
  - DEPTH OF STONE TO BE DETERMINED BY DESIGN ENGINEER (150 mm MIN)
  - 12" (300 mm) MIN
  - 17" (430 mm) TYP
- NOTES:**
- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D2414 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2022 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
  - SC-740 CHAMBERS SHALL BE SPECIFIED IN ACCORDANCE WITH ASTM F2277 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THIN-WALLED PLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
  - "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
  - THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
  - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBBASE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
  - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
  - GRADE LAYER 1" IS PLACED. ANY SOLID MATERIAL CAN BE PLACED IN LAYER 12" UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 12" UP TO THE SITE DESIGN ENGINEER'S DESCRIPTION.

**STANDARD CROSS SECTION**

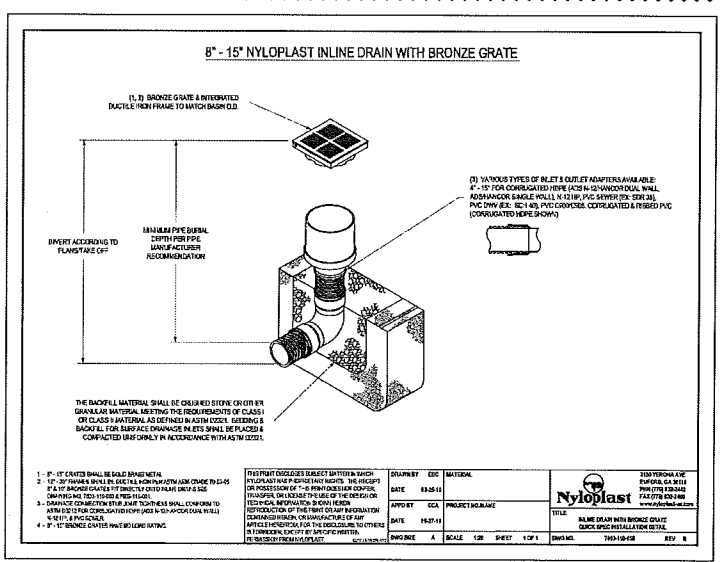
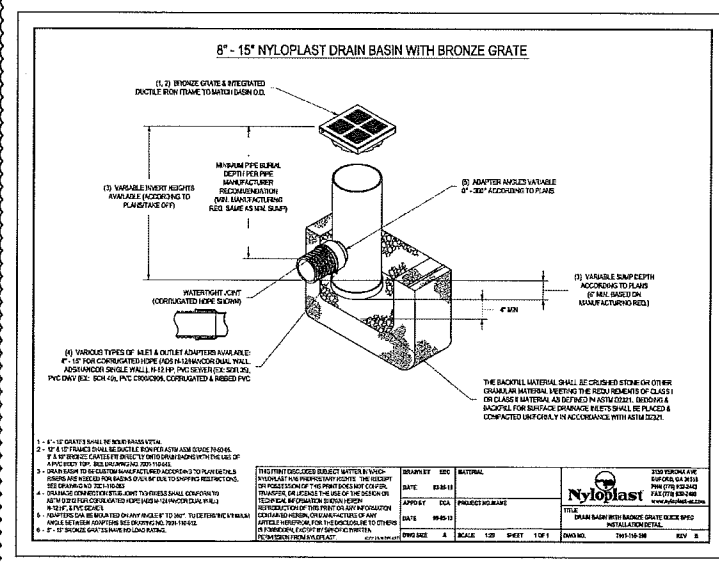
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DRAWN: JMF  
CHECKED: JMF  
PROJECT #:  
SHEET #:  
SCALE: 1" = 1'-0"

**Stormtech**  
11000 W. 110th St., Suite 100, Overland Park, KS 66213  
800.828.7272  
www.stormtech.com

**SC-740**  
SHEET 1 OF 1



**TD - 6 INSTALLATION DETAILS**  
N.T.S.



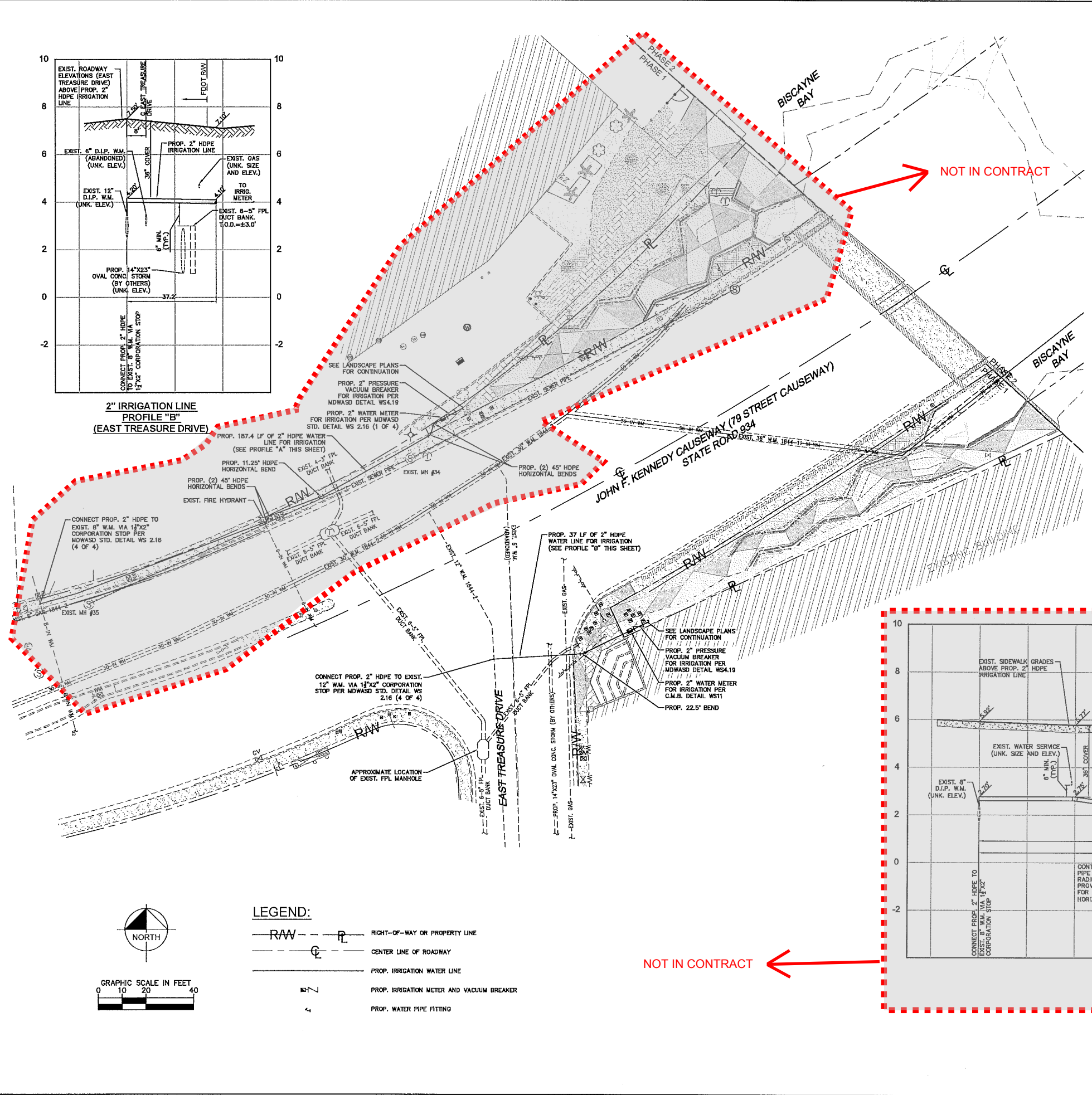
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LICENSED PROFESSIONAL ENGINEER  
No. 59357  
FLORIDA  
DESIGNED BY: JMF  
DRAWN BY: JMF  
CHECKED BY: JMF

**Kinley-Horn**  
2020 KINLEY-HORN AND ASSOCIATES, INC.  
1221 BRICKELL AVENUE, SUITE 400, MIAMI, FL 33131  
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**BAYWALK PLAZA**  
PREPARED FOR  
**NORTH BAY VILLAGE**  
NORTH BAY VILLAGE  
FLORIDA  
SHEET NUMBER  
**C-302**

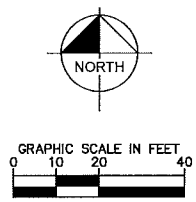
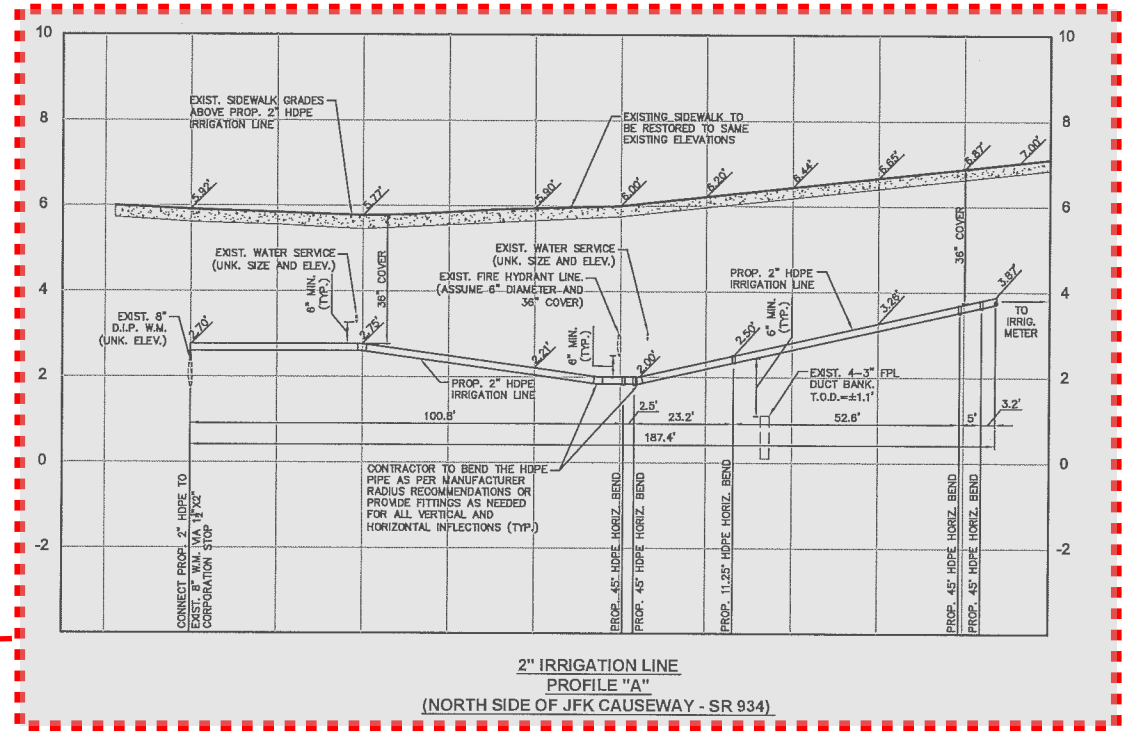
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**Sunshine811.com**

Plotted By: KumhoChan, Pinyo Sheet: S:\BAYWALK PLAZA - Layout\C-400 WATER AND IRRIGATION PLAN - May 09, 2016 05:08:20pm - K:\VIE\_URS\043138025\_Baywalk Plaza Area Design\CADD\PlanSheets\C-400 WATER AND IRRIGATION PLAN.dwg  
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**GENERAL NOTES**

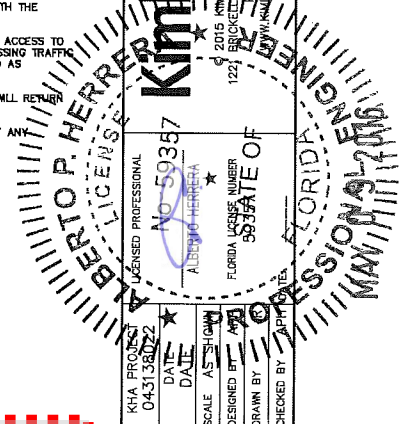
1. THE CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO PERFORM THE WORK AND MAINTAIN SAFETY TO THE PUBLIC AND WORKERS, AND THE PROTECTION OF PROPERTY THROUGHOUT CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA STANDARDS, AS APPLICABLE. CONTRACTOR MUST COMPLY WITH TRENCH SAFETY ACT.
2. ALL UTILITY CROSSING LINES IDENTIFIED ON PLANS AND PROFILES ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY UTILITY INFORMATION WITH APPROPRIATE UTILITIES AND SUNSHINE STATE ONE CALL CENTER OF FLORIDA 811. CONTRACTOR TO INCLUDE ON AS-BUILTS ACCURATE ELEVATION AND LOCATION OF ALL UTILITY CONFLICTS.
3. ALL UTILITIES DAMAGED BY CONSTRUCTION MUST BE PROMPTLY REPAIRED TO THE CONDITION EXISTING PRIOR TO THE DAMAGING OF THE UTILITY. REPAIRS ARE INCIDENTAL TO THE INSTALLATION OF THE MAIN AND EXTENSIONS AND SHALL BE REPAIRED AT NO COST TO THE OWNER.
4. ALL EXISTING MANHOLES, ELECTRIC BOXES, METER BOXES, AND VALVE BOXES SHALL BE ADJUSTED TO THE PROPOSED GRADE.
5. PROPERTY DAMAGE RESULTING FROM WORK REQUIRED BY THIS CONTRACT SHALL BE CLEANED UP, REPAIRED OR REPLACED AT NO COST TO OWNER.
6. CONTRACTOR SHALL PROVIDE ALL MAINS, ALL FITTINGS, ATTACHMENTS, AND EQUIPMENT REQUIRED TO PERFORM TESTING PER M-DWASD STANDARDS. PIPE AND FITTINGS SHALL BE RESTRAINED IN ACCORDANCE WITH M-DWASD STANDARD DETAIL OS 2.0 (1 THRU 5 OF 5)
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ALL INSPECTIONS.
8. ALL TRENCHES TO BE OVER-EXCAVATED A MINIMUM OF 6" TO PROVIDE FOR INSTALLATION OF ROCK BEDDING IN ACCORDANCE WITH M-DWASD STANDARDS.
9. SURFACE RESTORATION, PAVEMENT REPLACEMENT, SIDEWALK REPLACEMENT, TRENCH BACKFILLING AND COMPACTION SHALL COMPLY WITH M-DWASD STANDARD DETAILS OS1.9, SS18.0, A1.0, A1.1 AND A4.0, M-DWASD STANDARD DETAIL R2.1 AND THE APPLICABLE CURRENT CITY OF MIAMI PUBLIC WORKS, M-DWASD AND FDOT STANDARDS.
10. THE APPROXIMATE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS WERE PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. THE EXACT HORIZONTAL AND VERTICAL LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING IF "OTHER" UTILITIES (NOT SHOWN IN THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS THAT WERE NOT ANTICIPATED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
11. THE PERMITTEE WILL ENSURE THAT NO UNSAFE AREA(S) FOR PEDESTRIAN WILL REMAIN DURING ANY TIME OF CONSTRUCTION. PEDESTRIAN CONTROL FOR CLOSURE OF ROADS AND SIDEWALKS SHALL BE IN ACCORDANCE WITH THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX SERIES 600.
12. ACCESS TO REMAIN OPEN AT ALL TIMES, THE PERMITTEE SHALL PROVIDE AND MAINTAIN SAFE TEMPORARY ACCESS TO ALL ADJACENT PROPERTY AT ALL TIMES AND SHALL MAINTAIN ACCOMMODATIONS FOR INTERSECTING AND CROSSING TRAFFIC WITHIN THE CONSTRUCTION ZONE. NO ROAD OR STREET CROSSING SHALL BE BLOCKED OR UNDULY RESTRICTED AS DETERMINED BY THE ENGINEER.
13. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE WORK SITE DURING THE CONSTRUCTION PERIOD AND WILL RETURN TO AGENCY UPON COMPLETION IN CONDITION THAT WILL MEET THE FDOT STANDARD REQUIREMENTS.
14. CONTRACTOR SHALL NOTIFY THE CITY OF NORTH BAY VILLAGE AND THE ENGINEER OF RECORD IN CASE OF ANY CONFLICT AND A FIELD CHANGE MUST BE SUBMITTED FOR APPROVAL.



- LEGEND:**
- RAW — RIGHT-OF-WAY OR PROPERTY LINE
  - CL — CENTER LINE OF ROADWAY
  - I — PROP. IRRIGATION WATER LINE
  - M — PROP. IRRIGATION METER AND VACUUM BREAKER
  - F — PROP. WATER PIPE FITTING

NOT IN CONTRACT ←

← NOT IN CONTRACT



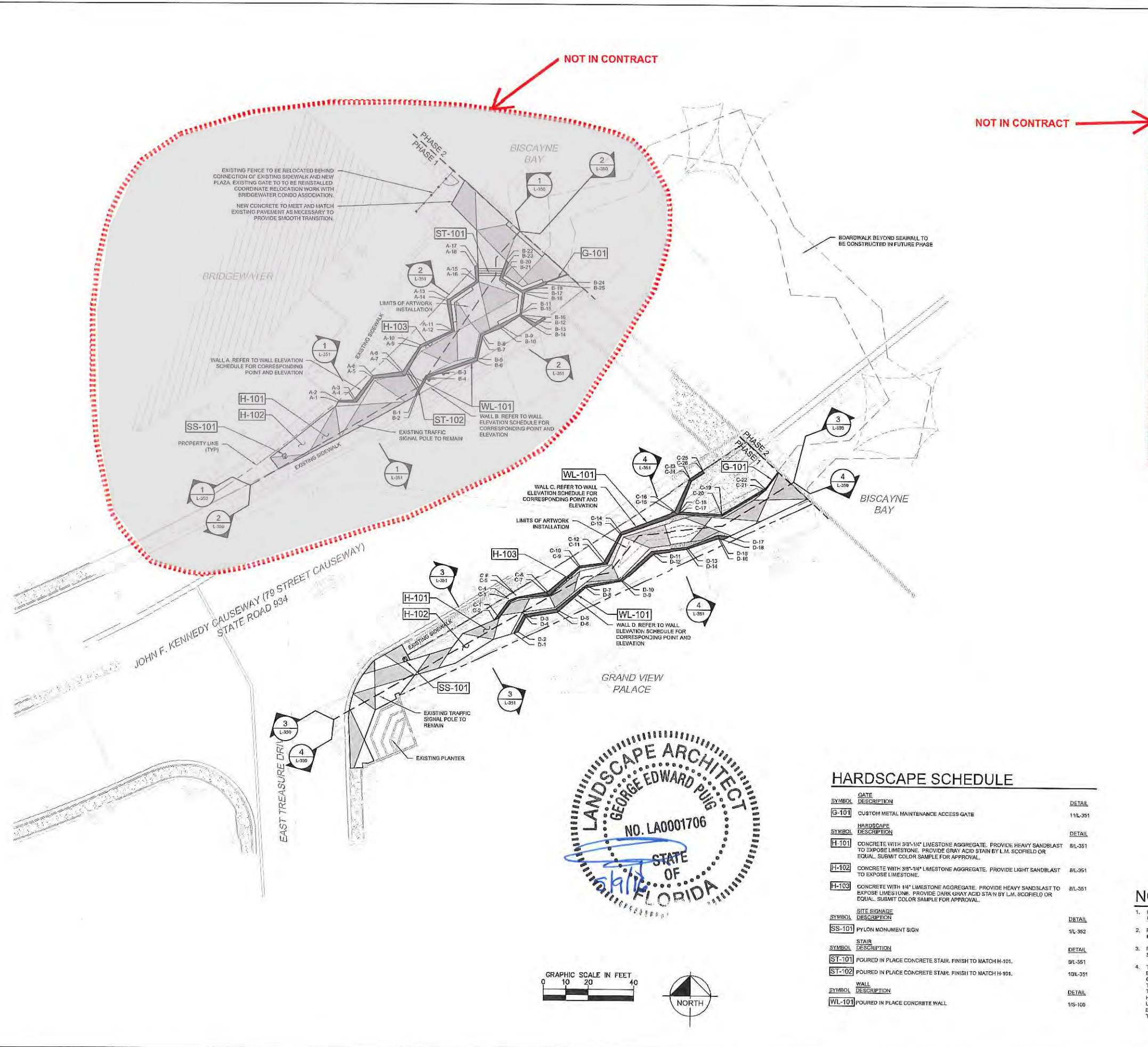
**BAYWALK PLAZA**  
 PREPARED FOR  
**NORTH BAY VILLAGE**  
 NORTH BAY VILLAGE  
 FLORIDA

SHEET NUMBER  
**C-400**



NO.	REVISIONS	DATE	BY

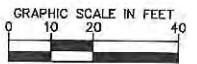
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WALL ELEVATION SCHEDULE				
	POINT #	INSIDE TOP OF WALL ELEVATION	OUTSIDE TOP OF WALL ELEVATION	FINISH CHANGE ELEVATION
WALL A	A-1	9.00	-	FINISH GRADE
	A-2	-	9.30	-
	A-3	10.00	-	9.20
	A-4	-	10.20	-
	A-5	10.00	-	9.60
	A-6	-	10.20	-
	A-7	10.50	-	10.00
	A-8	-	10.70	-
	A-9	8.90	-	7.50
	A-10	-	9.70	-
	A-11	8.00	-	8.50
	A-12	-	9.20	-
	A-13	10.00	-	7.25
A-14	-	13.00	-	
A-15	6.50	-	7.75	
A-16	-	8.0	-	
A-17	5.00	-	8.20	
A-18	-	6.25	-	
A-19	11.00	-	10.00	
B-1	-	11.50	-	
B-2	-	11.50	-	
B-3	11.00	-	8.75	
B-4	-	12.13	-	
B-5	12.00	-	4.50	
B-6	-	12.50	-	
B-7	11.00	-	8.00	
B-8	-	12.00	-	
B-9	12.50	-	7.50	
B-10	-	12.80	-	
B-11	11.00	-	7.00	
B-12	-	11.50	-	
B-13	MATCH EXISTING	-	-	
B-14	-	MATCH EXISTING	-	
B-15	6.48	-	7.00	
B-16	-	9.00	-	
B-17	-	9.00	-	
B-18	8.40	-	7.25	
B-19	9.00	-	8.00	
B-20	9.40	-	7.50	
B-21	9.40	-	8.50	
B-22	7.00	-	6.00	
B-23	7.20	-	6.00	
B-24	8.0	-	8.50	
WALL B	B-25	11.00	-	9.00
	C-1	-	11.00	-
	C-2	12.70	-	10.50
	C-3	-	12.00	-
	C-4	-	12.00	-
	C-5	12.70	-	9.84
	C-6	-	12.00	-
	C-7	12.60	-	8.00
	C-8	-	13.00	-
	C-9	13.00	-	10.00
	C-10	-	13.00	-
	C-11	13.00	-	6.00
	C-12	-	14.00	-
	C-13	13.00	-	9.00
	C-14	-	13.00	-
	C-15	10.50	-	8.75
	C-16	-	11.00	-
	C-17	8.00	-	6.75
	C-18	-	10.00	-
	C-19	10.50	-	8.25
	C-20	7.00	-	11.50
	C-21	8.00	-	8.00
C-22	-	9.50	-	
C-23	MATCH EXISTING	-	MATCH EXISTING	
C-24	MATCH EXISTING	-	MATCH EXISTING	
C-25	MATCH EXISTING	-	MATCH EXISTING	
C-26	MATCH EXISTING	-	MATCH EXISTING	
D-1	8.00	-	8.50	
D-2	-	9.30	-	
D-3	10.00	-	9.00	
D-4	-	10.50	-	
D-5	8.00	-	FINISH GRADE	
D-6	-	8.00	-	
D-7	5.00	-	FINISH GRADE	
D-8	-	9.30	-	
D-9	7.50	-	6.00	
D-10	-	7.70	-	
D-11	7.30	-	FINISH GRADE	
D-12	-	7.50	-	
D-13	7.00	-	FINISH GRADE	
D-14	-	7.30	-	
D-15	6.80	-	6.25	
D-16	-	6.30	-	
D-17	8.00	-	5.50	
D-18	-	6.30	-	

HARDSCAPE SCHEDULE		
SYMBOL	GATE DESCRIPTION	DETAIL
G-101	CUSTOM METAL MAINTENANCE ACCESS GATE	11/L-351
SYMBOL	HARDSCAPE DESCRIPTION	DETAIL
H-101	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL.	8/L-351
H-102	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE LIGHT SANDBLAST TO EXPOSE LIMESTONE.	8/L-351
H-103	CONCRETE WITH 1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE DARK GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL.	8/L-351
SYMBOL	SITE SIGNAGE DESCRIPTION	DETAIL
SS-101	PYLON MONUMENT SIGN	1/L-352
SYMBOL	STAIR DESCRIPTION	DETAIL
ST-101	POURED IN PLACE CONCRETE STAIR. FINISH TO MATCH H-101.	9/L-351
ST-102	POURED IN PLACE CONCRETE STAIR. FINISH TO MATCH H-101.	10/L-351
SYMBOL	WALL DESCRIPTION	DETAIL
WL-101	POURED IN PLACE CONCRETE WALL	10/L-100

- NOTES**
- CONTRACTOR TO PROVIDE SUBMITTAL FOR REVIEW AND APPROVAL PRIOR TO POURING QUALITY CONTROL MOCK UPS.
  - PROVIDE 4' X 4' QUALITY CONTROL MOCK UP OF EACH CONCRETE JOINT. COMPLETE WITH COLOR, FINISH TECHNIQUES, SAWCUT JOINTS AND EXPANSION JOINTS AS SPECIFIED.
  - PROVIDE GLAZE AND SEAL PENETRATING CONCRETE SEALER ON ALL CONCRETE SURFACES.
  - THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST THE EXACT FIELD LOCATION OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.



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**HARDSCAPE PLAN**

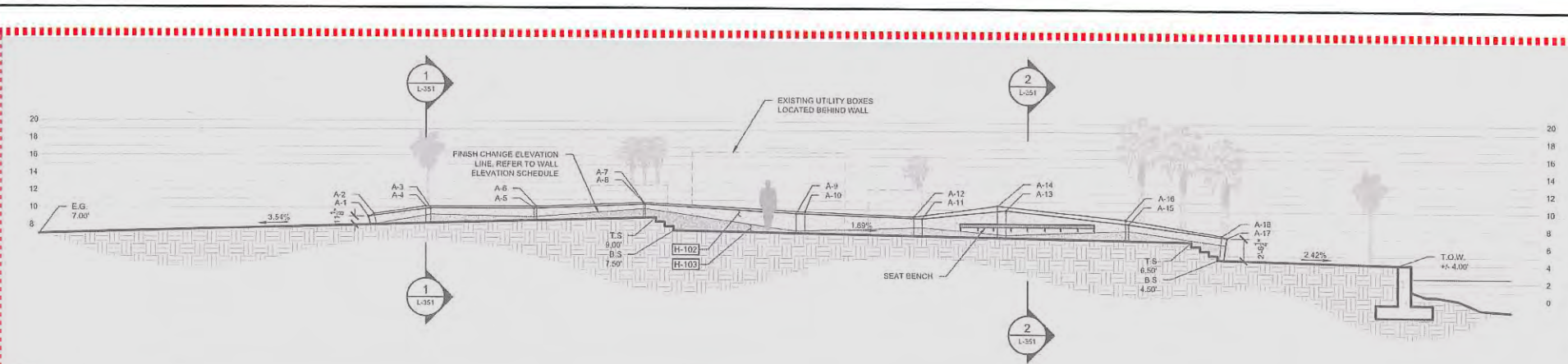
**BAYWALK PLAZA  
 PREPARED FOR  
 NORTH BAY VILLAGE**

SHEET NUMBER  
**L-300**

NO.	REVISIONS	DATE	BY

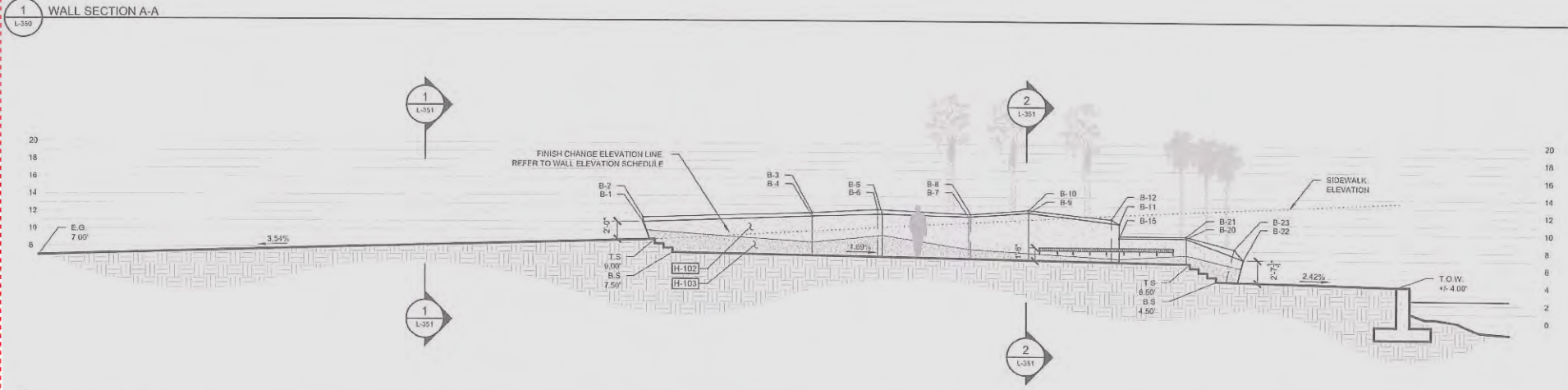
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 KHA PROJECT 043135022  
 DATE 07/30/2015  
 SCALE AS SHOWN  
 DESIGNED BY KHA  
 DRAWN BY EMD  
 CHECKED BY JRP DATE 5/5/2016

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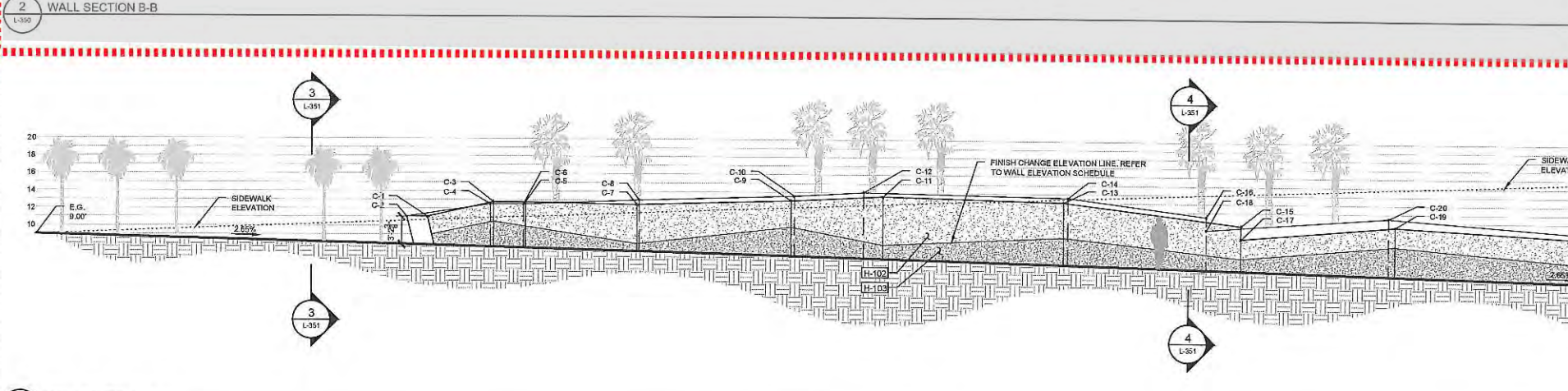
**WALL ELEVATION SCHEDULE**

POINT #	INSIDE TOP OF WALL ELEVATION	OUTSIDE TOP OF WALL ELEVATION	FINISH CHANGE ELEVATION
A-1	9.00	-	-
A-2	-	9.30	-
A-3	9.10	-	9.20
A-4	-	10.20	-
A-5	10.00	-	9.00
A-6	-	10.20	-
A-7	10.10	-	10.00
A-8	9.50	-	7.50
A-9	9.00	9.10	8.00
A-10	-	9.20	-
A-11	10.00	-	7.20
A-12	-	10.50	-
A-13	8.50	-	7.30
A-14	-	9.4	-
A-15	6.00	-	6.25
A-16	-	6.25	-
A-17	6.00	-	6.25
A-18	-	6.25	-



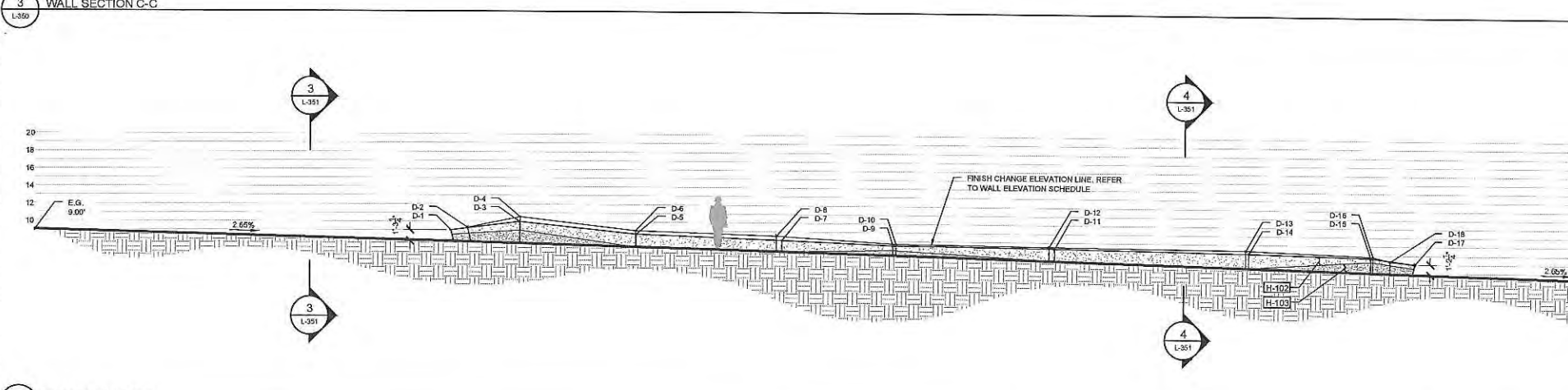
**WALL ELEVATION SCHEDULE**

POINT #	INSIDE TOP OF WALL ELEVATION	OUTSIDE TOP OF WALL ELEVATION	FINISH CHANGE ELEVATION
B-1	11.00	-	10.00
B-2	-	11.50	-
B-3	11.63	-	6.75
B-4	-	12.10	-
B-5	12.00	-	9.50
B-6	-	12.50	-
B-7	11.70	-	6.00
B-8	-	12.60	-
B-9	12.00	-	7.00
B-10	-	12.50	-
B-11	11.00	12.50	-
B-12	-	11.50	7.00
B-13	MATCH EXISTING	MATCH EXISTING	-
B-14	-	-	-
B-15	9.10	-	7.00
B-16	-	9.00	-
B-17	-	9.50	-
B-18	9.10	-	7.25
B-19	9.10	-	5.50
B-20	9.10	-	7.50
B-21	9.50	-	5.50
B-22	7.00	-	6.00
B-23	7.20	-	6.00
B-24	9.0	-	5.50
B-25	-	9.20	-



**WALL ELEVATION SCHEDULE**

POINT #	INSIDE TOP OF WALL ELEVATION	OUTSIDE TOP OF WALL ELEVATION	FINISH CHANGE ELEVATION
C-1	11.00	-	9.00
C-2	-	11.50	-
C-3	12.70	-	10.50
C-4	-	12.50	-
C-5	12.70	-	9.94
C-6	-	12.50	-
C-7	12.50	-	8.00
C-8	-	13.00	-
C-9	13.00	-	10.00
C-10	-	13.50	-
C-11	13.50	-	8.50
C-12	-	14.00	-
C-13	13.00	-	9.00
C-14	-	13.00	-
C-15	10.50	-	6.75
C-16	-	11.50	-
C-17	9.00	-	6.75
C-18	-	10.00	-
C-19	10.50	-	9.25
C-20	10.00	11.50	-
C-21	9.00	-	6.00
C-22	-	9.00	-
C-23	MATCH EXISTING	MATCH EXISTING	-
C-24	MATCH EXISTING	MATCH EXISTING	-
C-25	MATCH EXISTING	MATCH EXISTING	-
C-26	MATCH EXISTING	MATCH EXISTING	-

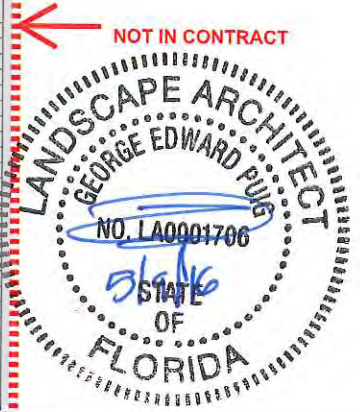


**WALL ELEVATION SCHEDULE**

POINT #	INSIDE TOP OF WALL ELEVATION	OUTSIDE TOP OF WALL ELEVATION	FINISH CHANGE ELEVATION
D-1	9.00	-	8.50
D-2	-	8.30	-
D-3	10.00	-	9.00
D-4	-	10.50	-
D-5	8.40	-	FINISH GRADE
D-6	-	9.00	-
D-7	8.00	-	FINISH GRADE
D-8	-	8.50	-
D-9	7.50	-	5.00
D-10	-	7.70	-
D-11	7.30	-	FINISH GRADE
D-12	-	7.50	-
D-13	7.00	-	FINISH GRADE
D-14	-	7.20	-
D-15	6.80	-	6.25
D-16	-	6.85	-
D-17	6.00	-	5.50
D-18	-	6.30	-

**FINISH SCHEDULE**

SYMBOL	DESCRIPTION
H-102	CONCRETE WITH 3/8"-1/4" LIMESTONE AGGREGATE. PROVIDE LIGHT SANDBLAST TO EXPOSE LIMESTONE.
H-103	CONCRETE WITH 1/4" LIMESTONE AGGREGATE. PROVIDE HEAVY SANDBLAST TO EXPOSE LIMESTONE. PROVIDE DARK GRAY ACID STAIN BY L.M. SCOFIELD OR EQUAL. SUBMIT COLOR SAMPLE FOR APPROVAL.



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**LANDSCAPE ARCHITECT**  
 GEORGE EDWARD PUG  
 NO. LA0001706  
 STATE OF FLORIDA

REVISIONS  
 No. DATE BY

LICENSED PROFESSIONAL  
 GEORGE PUG, P.L.A.  
 FL LICENSE NUMBER  
 LA0001706

KHA PROJECT  
 043138022

DATE  
 07/30/2015

SCALE  
 AS SHOWN

DESIGNED BY  
 KHA

DRAWN BY  
 END

CHECKED BY  
 JRP

DATE  
 7/31/2015

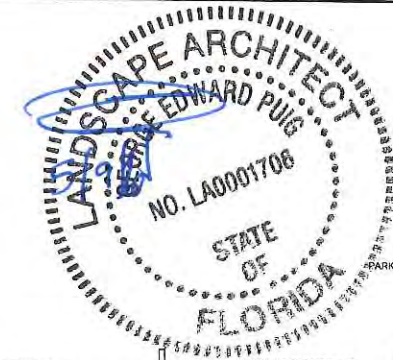
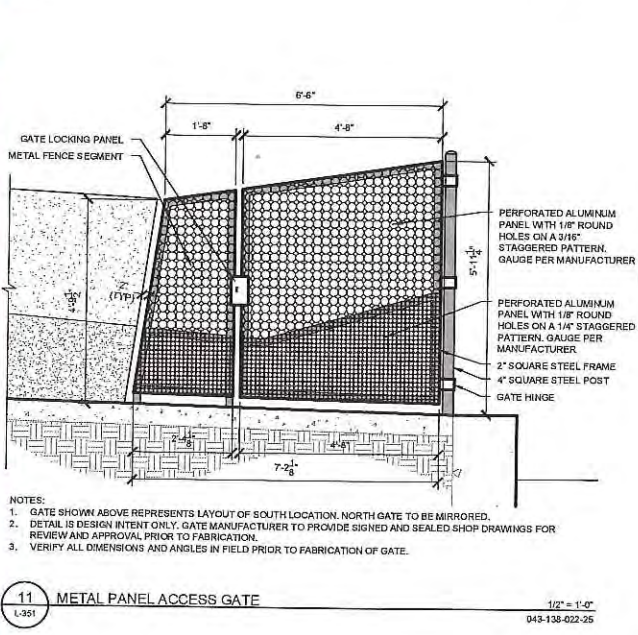
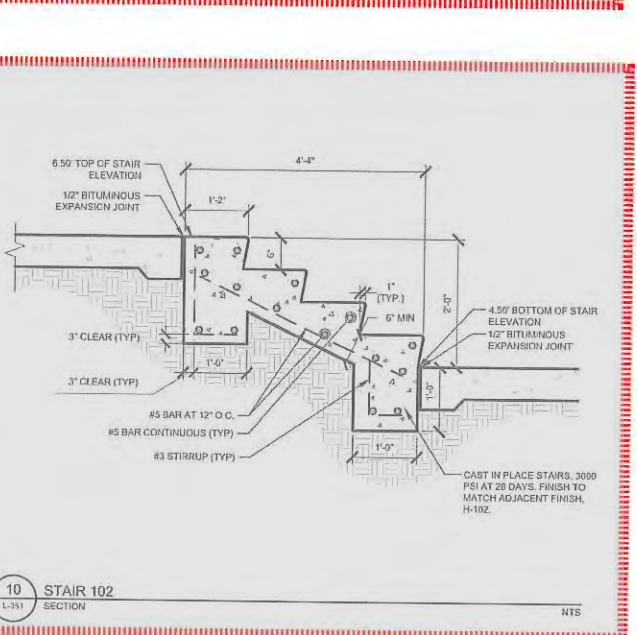
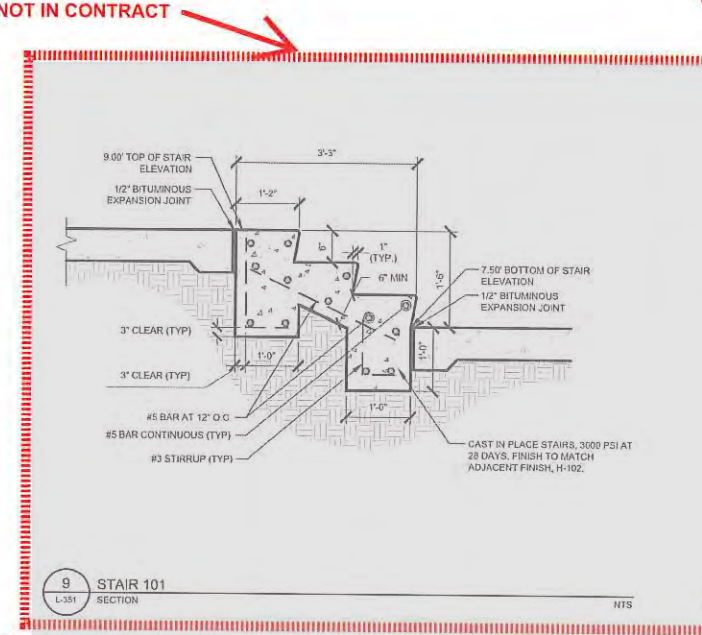
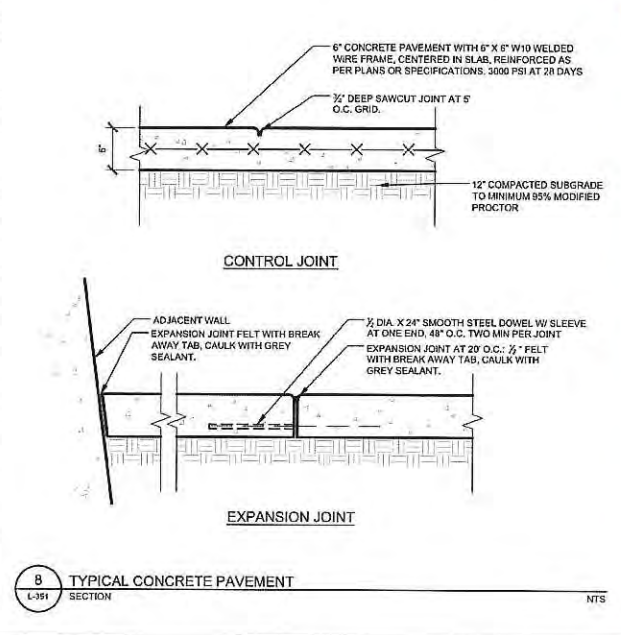
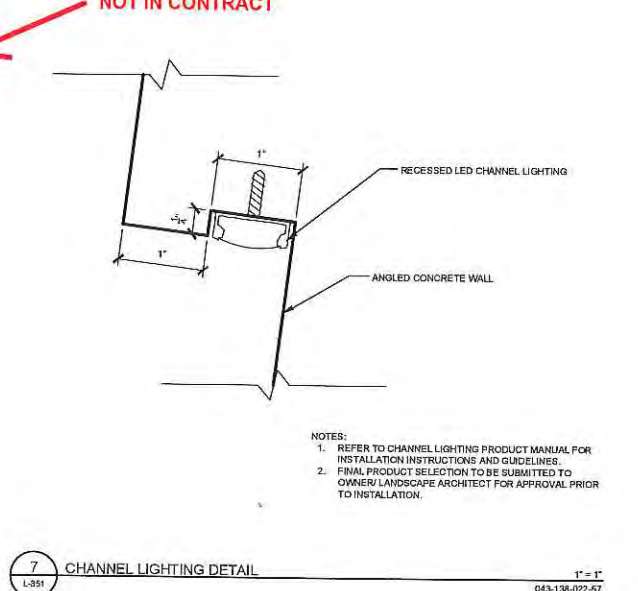
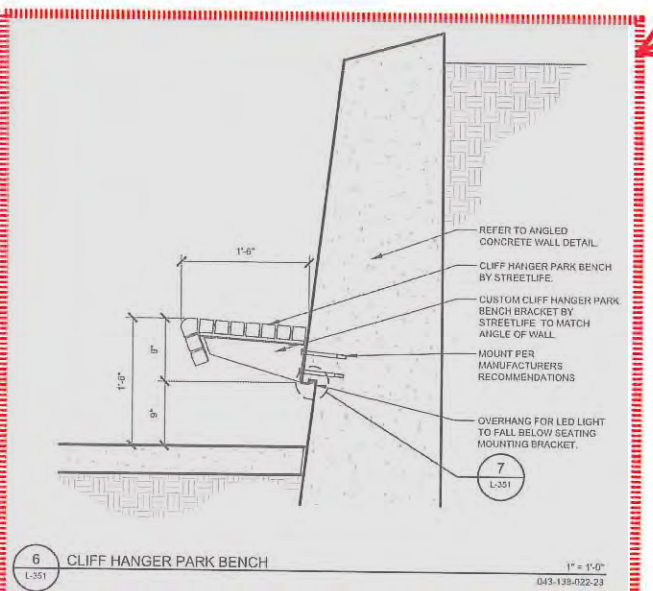
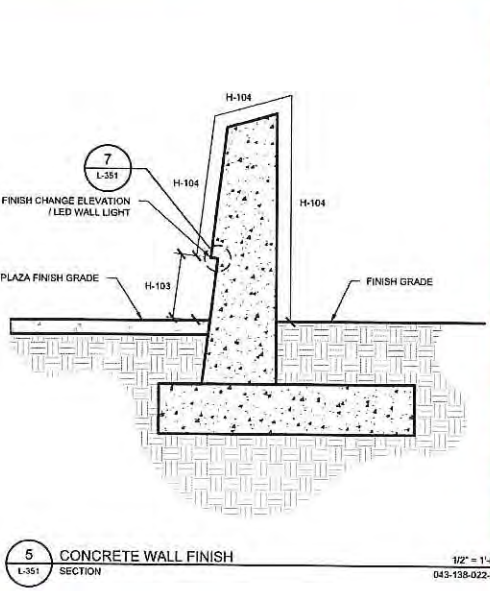
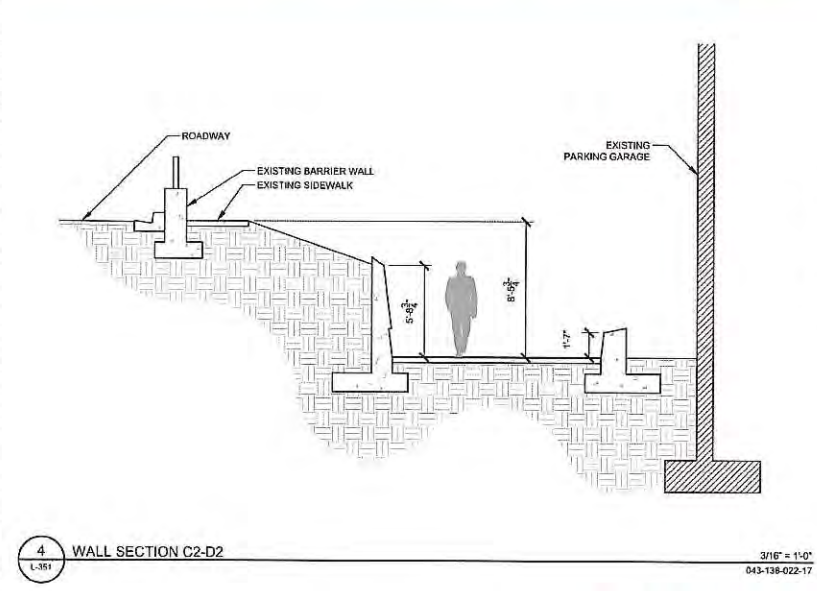
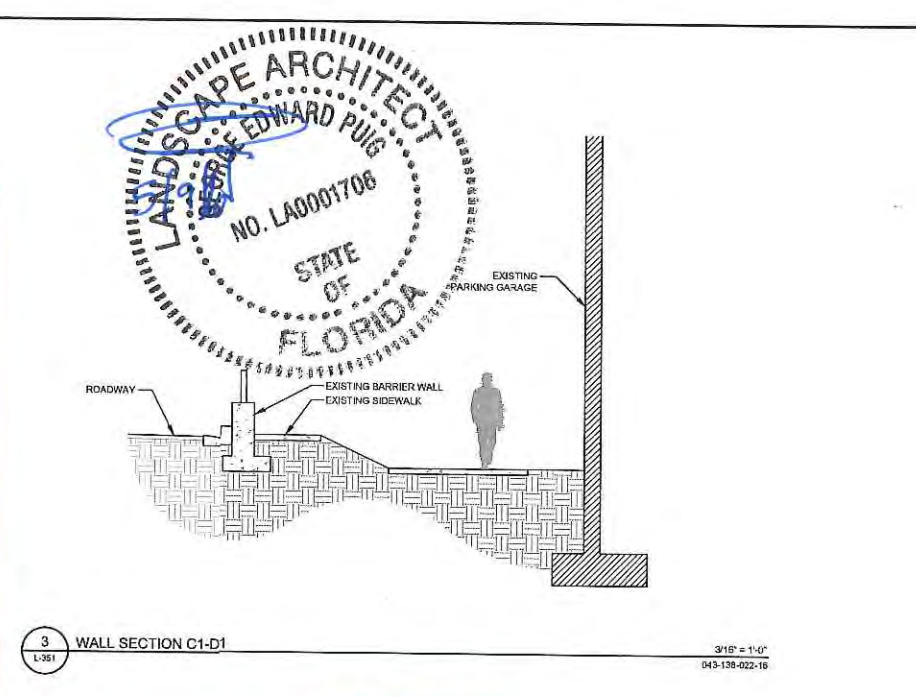
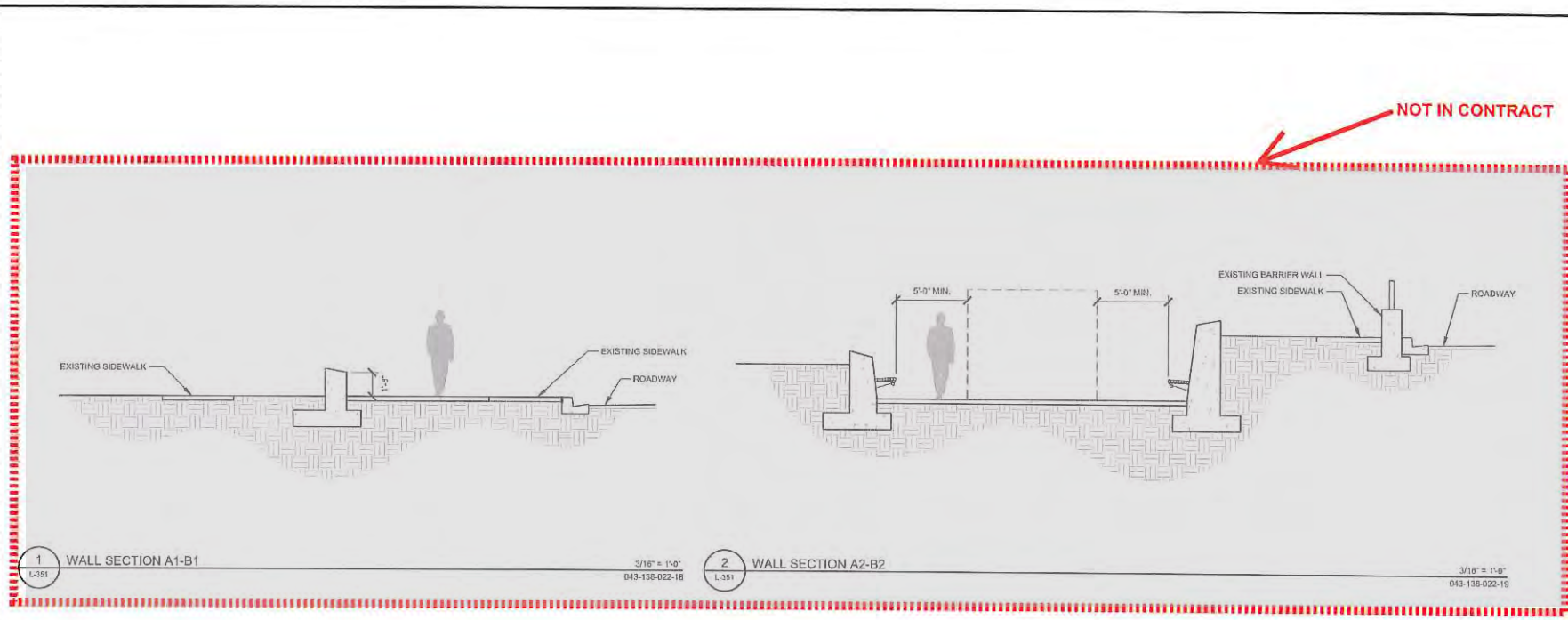
**HARDSCAPE DETAILS**

BAYWALK PLAZA  
 PREPARED FOR  
 NORTH BAY VILLAGE

NORTH BAY VILLAGE

SHEET NUMBER  
**L-350**

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No.	REVISIONS	DATE	BY

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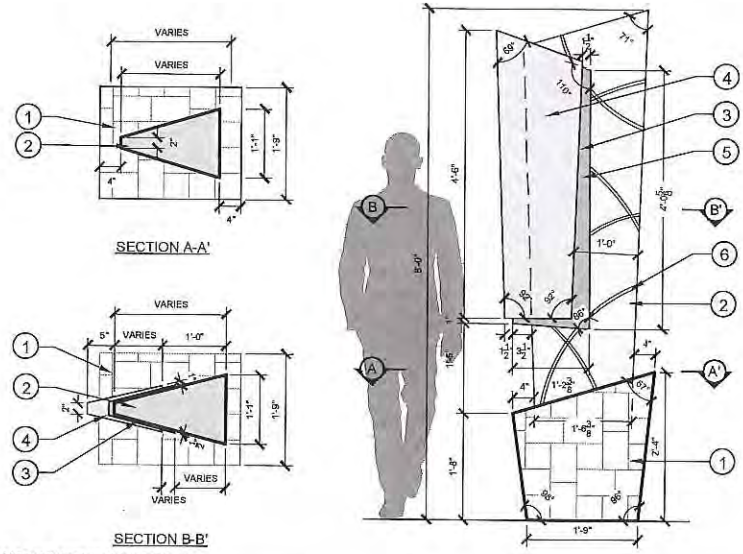
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 GEORGE PUG, PLA  
 FL LICENSE NUMBER  
 LA0001706  
 DATE: 7/31/2015  
 KHA PROJECT  
 043138022  
 DATE  
 07/30/2015  
 SCALE AS SHOWN  
 DESIGNED BY KHA  
 DRAWN BY END  
 CHECKED BY JRP

**HARDSCAPE DETAILS**

**BAYWALK PLAZA**  
 PREPARED FOR  
**NORTH BAY VILLAGE**  
 NORTH BAY VILLAGE FL

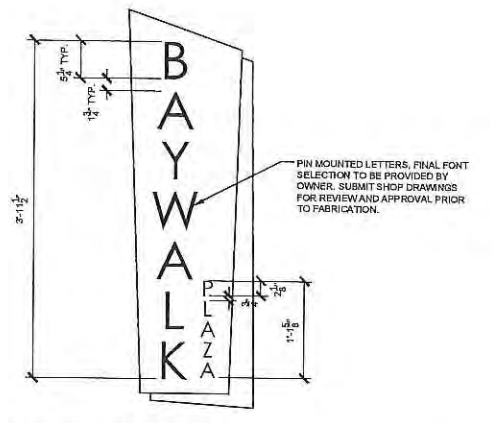
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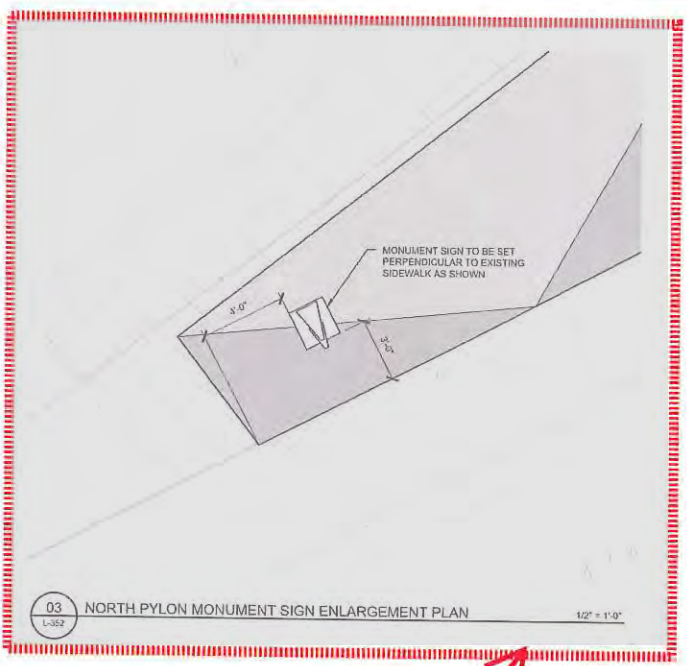
- 1 1'-9" X 1'-9" TAPERED CONCRETE BASE WITH 1" THICK KEYSTONE VENEER. VENEER TO BE APPLIED IN HSTAR PATTERN. ALL EXPOSED EDGES SHALL RECEIVE 1/4" BULLNOSE.
- 2 TAPERED WHITE CONCRETE PYLON
- 3 PAINTED METAL PANEL WITH FLUSH MOUNTED LETTERING
- 4 PAINTED METAL PANEL WITH FLUSH MOUNTED LETTERING
- 5 SIGNAGE COPY AREA. SEE L-352/2
- 6 LED LIGHT STRIP (TYP). PROVIDE 50% BLUE AND 50% GREEN LIGHTS.
- NOTES:  
 1. DETAIL IS DESIGN INTENT ONLY.  
 2. ALL MATERIALS TO BE SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.  
 3. CONTRACTOR TO PROVIDE SIGNED AND SEALED SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS SHALL INCLUDE FOOTING AND STRUCTURAL DESIGN OF ALL RELATED MONUMENT SIGN COMPONENTS.  
 4. CONTRACTOR TO COORDINATE ELECTRICAL REQUIREMENTS AS NECESSARY.  
 5. KEYSTONE VENEER TO MATCH FINISH OF KEYSTONE VENEER USED ON THE PRIVACY WALLS ALONG THE WESTERN PORTION OF JFK CAUSEWAY RIGHT-OF-WAY LANDSCAPE.

1/4" = 1'-0"  
 043-138-022-58



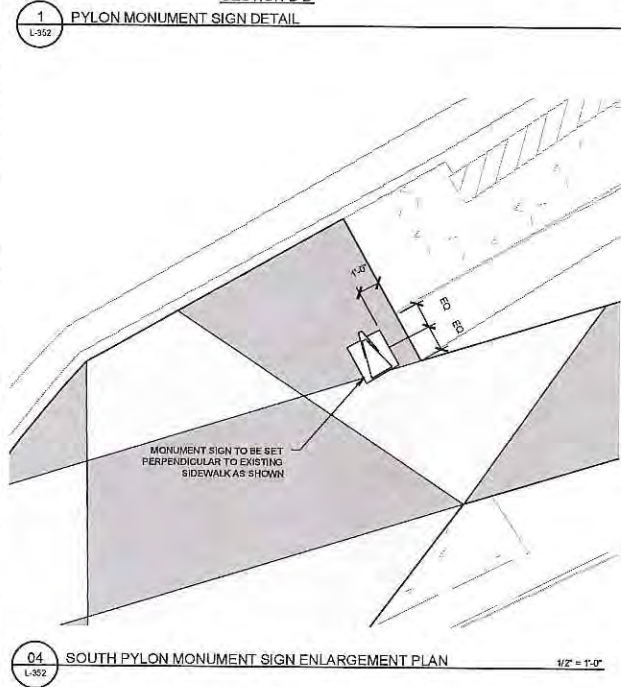
NOTE: MONUMENT SIGNS ARE DOUBLE SIDED. PIN MOUNTED LETTERING TO BE INSTALLED ON BOTH SIDES OF PYLON.

1" = 1'-0"  
 043-138-022-59



1/2" = 1'-0"  
 043-138-022-60

NOT IN CONTRACT



1/2" = 1'-0"  
 043-138-022-61



<b>BAYWALK PLAZA</b> PREPARED FOR <b>NORTH BAY VILLAGE</b> NORTH BAY VILLAGE FL	<b>HARDSCAPE DETAILS</b>	KHA PROJECT 043138022	LICENSED PROFESSIONAL GEORGE PUGH, PLA	DATE 07/30/2015	SCALE AS SHOWN	DESIGNED BY KHA	DRAWN BY END	CHECKED BY JRP	DATE 7/31/2015
		SHEET NUMBER <b>L-352</b>	KIMLEY HORN © 2015 KIMLEY-HORN AND ASSOCIATES, INC. 1221 BRICHELL AVENUE, SUITE 400, MIAMI, FL 33131 PHONE: 305-673-2025 FAX: 305-673-4882 WWW.KIMLEY-HORN.COM CA 0000686	REVISIONS NO.	DATE BY				



Printed By: Dean, Ed. Sheet: S&L-Baywalk Plaza - L-450 LANDSCAPE NOTES. Date: 07/30/2015 02:04:17pm. K:\S&L\JRC\043138022 - Baywalk Plaza\CA\043138022 - L-450 LANDSCAPE NOTES. 043138022.dwg  
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### GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

#### A. SCOPE OF WORK

1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS SPECIFIED HEREIN.
2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER.
3. PROTECTION OF EXISTING STRUCTURES
  1. ALL EXISTING BUILDINGS, WALLS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED AND DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
  2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BMP DEVICES ACCORDING TO ALL REGULATORY AGENCY'S STANDARDS THROUGH THE DURATION OF ALL CONSTRUCTION ACTIVITIES.
  3. THE CONTRACTOR SHALL SUBMIT A DETAILED PROJECT SPECIFIC WORK ZONE TRAFFIC CONTROL PLAN UNLESS THE WORK REQUIRES NOTHING MORE THAN A DIRECT APPLICATION OF FOOT DESIGN STANDARDS, INDEX 600. IF A DIRECT APPLICATION OF INDEX 600 IS PROPOSED, THE CONTRACTOR SHALL SUBMIT IN WRITING A STATEMENT INDICATING THE STANDARD INDEX AND PAGE NUMBER NO LESS THAN 10 BUSINESS DAYS PRIOR TO START OF CONSTRUCTION. WHEN A DIRECT APPLICATION OF FOOT STANDARD INDEX 600 IS NOT ACCEPTABLE, A PROJECT SPECIFIC WORK ZONE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY A FLORIDA PROFESSIONAL ENGINEER WHO HAS SUCCESSFULLY COMPLETED ADVANCED TRAINING IN MAINTENANCE OF TRAFFIC, AS DEFINED BY FOOT FOR APPROVAL BY THE COUNTY ENGINEER'S REPRESENTATIVE.
  4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE OWNER OF SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPURTENANCES OBSERVED IN THE FIELD. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY SUCH INFORMATION OR DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA. LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION, THE SAFETY AND PROTECTION THEREOF, REPAIRING ANY DAMAGE RESULTING FROM THE WORK, THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

#### C. PROTECTION OF EXISTING PLANT MATERIALS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC.. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPRINKLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURIED ON-SITE. EXISTING TREES UP TO 12" DBH THAT THEY ARE MISPLACED AND TO BE REMOVED SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF THREE HUNDRED DOLLARS (\$300) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.
2. SEE TREE MITIGATION PLAN AND NOTES, IF APPLICABLE.

#### D. MATERIALS

1. GENERAL  
MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE OWNER UPON APPROVAL. DELIVERY OF MATERIALS MAY COMMENCE.  

MATERIAL	SAMPLE SIZE
MULCH	ONE (1) CUBIC FOOT
TOPSOIL MIX	ONE (1) CUBIC FOOT
PLANTS	ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY)
2. PLANT MATERIALS
  1. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER, WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNERS REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNERS REPRESENTATIVE.
  2. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
  3. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER. FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

#### E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)

1. CONTRACTOR SHALL TEST EXISTING SOIL AND AMEND AS NECESSARY IN ACCORDANCE WITH THE GUIDELINES BELOW:
2. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW. CONTRACTOR TO SUBMIT SAMPLES AND PH TESTING RESULTS OF SOIL MIXTURE FOR OWNERS REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.  
4. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRANK, AND OF A LOAMY CHARACTER, REASONABLY FREE OF SUSPENSION, CLAY LUMPS, BRUSH, WEEDS AND OTHER LITTER, FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND HAVE A PH BETWEEN 5.5 AND 7.0.  
ii. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND.
2. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNDESIRABLE, AT WHICH POINT THE CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.

#### F. WATER

1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC.. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.  
\* WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

#### G. FERTILIZER

1. CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY DERIVED.  
\* FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

#### H. MULCH

1. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE (3) INCHES. CLEAR MULCH FROM EACH PLANTS CROWN BASE. MULCH SHALL BE FLORIDIAN, EUCALYPTUS MULCH, OR SIMILAR SUSTAINABLY HARVESTED MULCH UNLESS SPECIFIED OTHERWISE.
2. PROVIDE A THREE (3) INCH MINIMUM LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT (IF MINIMUM) PLANTED UNDER THIS CONTRACT.

#### I. DIGGING AND HANDLING

1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSPORT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO THE SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT (WATERPROOF OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
2. BALLED AND BRANCHED (BBB), AND FIELD GROWN (FG) PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBRILS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALLS IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "ER" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO PLANTING.
4. PROTECTION OF PALMS: ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL.
5. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PAIRED SUB-BASES.
4. CONTAINER GROWN STOCK
  1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
  2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPORTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBRILS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.
  3. ROOT BOUND PLANTS ARE NOT ACCEPTABLE AND WILL BE REJECTED.
  4. RPOG - "ROOTS PLUS GROWER" CONTAINER PRODUCTS SHALL BE USED WHERE SPECIFIED.
- K. COLLECTED STOCK  
WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNERS REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.
- L. NATIVE STOCK  
PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPORTING INTO THE NURSERY ROW.
- M. MATERIALS LIST  
QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.
- N. FINE GRADING
  1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. REMAINS AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.
  2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOIL AND/OR MULCH DEPTH. CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.
  3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES, IF APPLICABLE.

#### O. PLANTING PROCEDURES

1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIVE MATTER DAILY. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CONTRACTOR RESPONSIBLE FOR THE CORRECTIVE MEASURES OF THE CONTRACTOR.
2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL SUNSHINE STATE ONE CALL OF FLORIDA, INC. (811) TO LOCATE UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMESTONE AND LIMESTONE SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 3" OR TO NATIVE SOIL. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO FINISHED FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMESTONE OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 3" DEEP EXCAVATION BY THE CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL.
4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS SPECIFIED HEREIN. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
5. COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEATED IN FOR A PERIOD EXCEEDING FORTY (40) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY BY GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.
6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH AS ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACK FILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR EXIST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FURNISHED INTO PLACE WITH A BLOW. FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "SETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "SET STOCK" OR EQUAL IS RECOMMENDED.
8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.
10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACK FILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMING).
11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.
12. FILL HOLES WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET, AND MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
13. TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNERS REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNINGS TO BE PERFORMED BY CERTIFIED ARBORIST, IN ACCORDANCE WITH ANSI A-300.
14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS INSTALLED SHALL MEET MINIMUM SPECIMEN REQUIREMENTS OR QUANTITIES SHOWN ON PLANS, WHICHEVER IS GREATER. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 1". REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" OF THE PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
15. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNBARRICADED TREES FALLEN UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
16. ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER, (AS ALLOWED BY JURISDICTIONAL AUTHORITY).

#### P. LAWN SODDING

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
2. ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS BY MEANS OF A SOIL CUTTER TO A DEPTH OF THREE (3) INCHES, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH, DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.

3. PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.
4. SODDING
  1. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
  2. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.
  3. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS. ADJACENT TO BUILDINGS, A 24 INCH STONE WELCH STRIP SHALL BE PROVIDED. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNERS REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.
  5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.
  6. LAWN MAINTENANCE
    1. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, BUNKEN OR BARE SPOTS (LARGER THAN 12"x12") UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNERS REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).
    2. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNERS REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATER/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.
5. CLEANUP  
UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNERS REPRESENTATIVE.
6. PLANT MATERIAL MAINTENANCE  
ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNERS REPRESENTATIVE.
7. FINAL INSPECTION AND ACCEPTANCE OF WORK  
FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPAIR AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.
8. WARRANTY
  1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTANCE BY THE OWNERS REPRESENTATIVE.
  2. ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
  3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE AND IRRIGATION MAINTENANCE, THE CONTRACTOR SHOULD VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VICIOUS AND HEALTHY PLANT GROWTH. SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.



No.	REVISIONS	DATE	BY

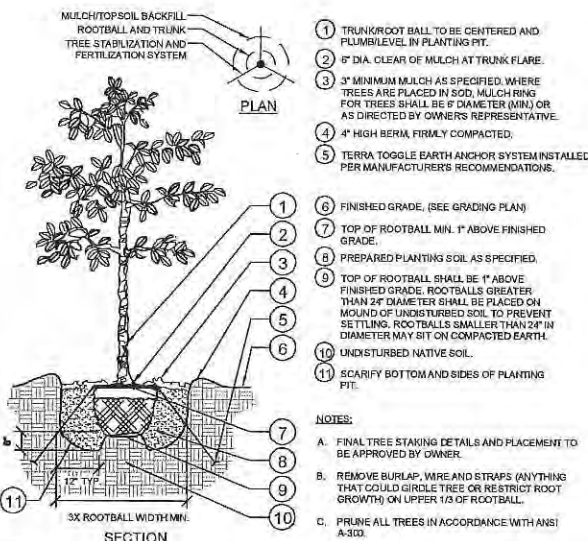
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DATE: 07/30/2015  
SCALE: AS SHOWN  
DESIGNED BY: KHA  
DRAWN BY: END  
CHECKED BY: JRF  
DATE: 7/30/2015  
LICENSED PROFESSIONAL: GEORGE PUGH, P.E.  
FL LICENSE NUMBER: LA0001706

**LANDSCAPE NOTES**  
BAYWALK PLAZA  
PREPARED FOR  
NORTH BAY VILLAGE  
NORTH BAY VILLAGE  
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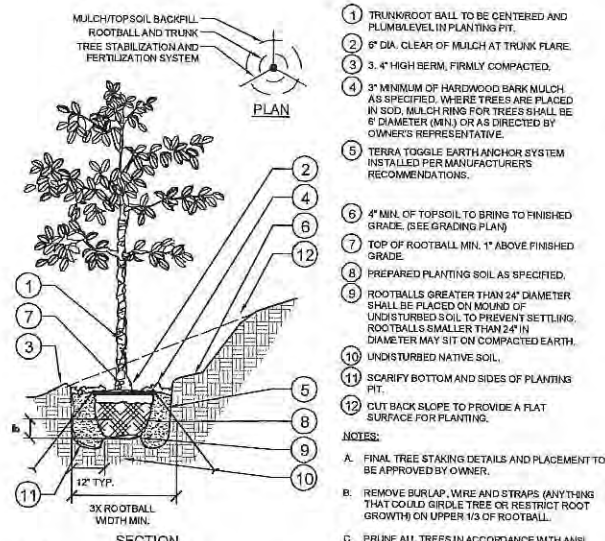


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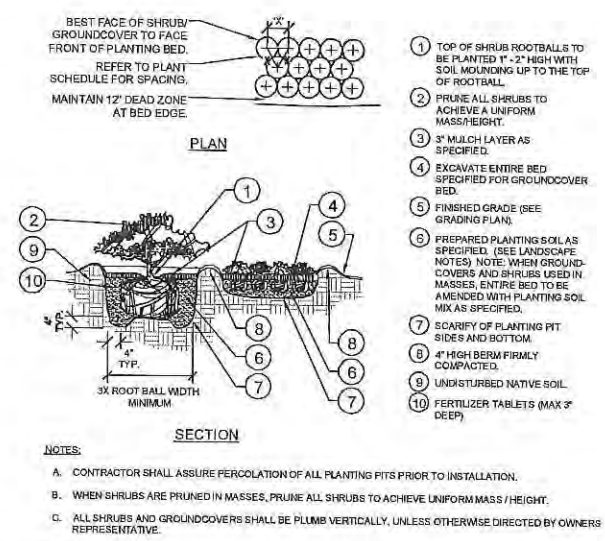
- 1 TRUNK/ROOT BALL TO BE CENTERED AND PLUMB LEVEL IN PLANTING PIT.
  - 2 7" DIA. CLEAR OF MULCH AT TRUNK FLARE.
  - 3 3" MINIMUM MULCH AS SPECIFIED, WHERE TREES ARE PLACED IN SOIL. MULCH RING FOR TREES SHALL BE 6" DIAMETER (MIN) OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
  - 4 4" HIGH BERM, FIRMLY COMPACTED.
  - 5 TERRA TOGGLE EARTH ANCHOR SYSTEM INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  - 6 FINISHED GRADE, (SEE GRADING PLAN)
  - 7 TOP OF ROOTBALL MIN. 1" ABOVE FINISHED GRADE.
  - 8 PREPARED PLANTING SOIL AS SPECIFIED.
  - 9 TOP OF ROOTBALL SHALL BE 1" ABOVE FINISHED GRADE. ROOTBALLS GREATER THAN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING. ROOTBALLS SMALLER THAN 24" IN DIAMETER MAY SIT ON COMPACTED EARTH.
  - 10 UNDISTURBED NATIVE SOIL.
  - 11 SCARIFY BOTTOM AND SIDES OF PLANTING PIT.
- NOTES:
- A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
  - B. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLING TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.
  - C. PRUNE ALL TREES IN ACCORDANCE WITH ANSI A-303.

1 TYPICAL TREE PLANTING  
SECTION / PLAN  
L-451 NTS



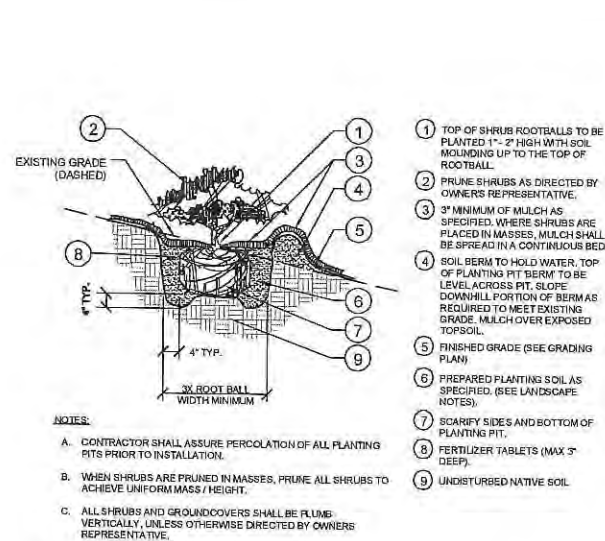
- 1 TRUNK/ROOT BALL TO BE CENTERED AND PLUMB LEVEL IN PLANTING PIT.
  - 2 6" DIA. CLEAR OF MULCH AT TRUNK FLARE.
  - 3 3.4" HIGH BERM, FIRMLY COMPACTED.
  - 4 3" MINIMUM OF HARDWOOD BARK MULCH AS SPECIFIED, WHERE TREES ARE PLACED IN SOIL. MULCH RING FOR TREES SHALL BE 6" DIAMETER (MIN) OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
  - 5 TERRA TOGGLE EARTH ANCHOR SYSTEM INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  - 6 4" MIN. OF TOPSOIL TO BRING TO FINISHED GRADE. (SEE GRADING PLAN)
  - 7 TOP OF ROOTBALL MIN. 1" ABOVE FINISHED GRADE.
  - 8 PREPARED PLANTING SOIL AS SPECIFIED.
  - 9 ROOTBALLS GREATER THAN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING. ROOTBALLS SMALLER THAN 24" IN DIAMETER MAY SIT ON COMPACTED EARTH.
  - 10 UNDISTURBED NATIVE SOIL.
  - 11 SCARIFY BOTTOM AND SIDES OF PLANTING PIT.
  - 12 CUT BACK SLOPE TO PROVIDE A FLAT SURFACE FOR PLANTING.
- NOTES:
- A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
  - B. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLING TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.
  - C. PRUNE ALL TREES IN ACCORDANCE WITH ANSI A-303.

2 TYPICAL TREE PLANTING ON A SLOPE  
SECTION / PLAN  
L-451 NTS



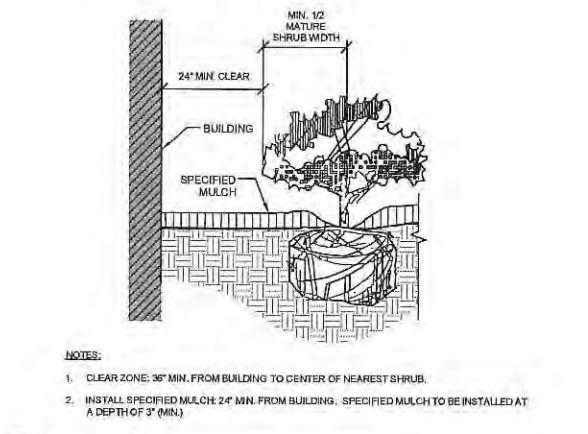
- 1 TOP OF SHRUB ROOTBALLS TO BE PLANTED 1"-2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
  - 2 PRUNE ALL SHRUBS TO ACHIEVE A UNIFORM MASS/HEIGHT.
  - 3 3" MULCH LAYER AS SPECIFIED.
  - 4 EXCAVATE ENTIRE BED SPECIFIED FOR GROUND COVER BED.
  - 5 FINISHED GRADE (SEE GRADING PLAN).
  - 6 PREPARED PLANTING SOIL AS SPECIFIED. (SEE LANDSCAPE NOTES). NOTE: WHEN GROUND-COVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
  - 7 SCARIFY OF PLANTING PIT SIDES AND BOTTOM.
  - 8 4" HIGH BERM FIRMLY COMPACTED.
  - 9 UNDISTURBED NATIVE SOIL.
  - 10 FERTILIZER TABLETS (MAX 3" DEEP)
- NOTES:
- A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING FITS PRIOR TO INSTALLATION.
  - B. WHEN SHRUBS ARE PRUNED IN MASSES, PRUNE ALL SHRUBS TO ACHIEVE UNIFORM MASS / HEIGHT.
  - C. ALL SHRUBS AND GROUNDCOVERS SHALL BE PLUMB VERTICALLY, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

3 TYPICAL SHRUB/GROUNDCOVER PLANTING  
SECTION / PLAN  
L-451 NTS



- 1 TOP OF SHRUB ROOTBALLS TO BE PLANTED 1"-2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
  - 2 PRUNE SHRUBS AS DIRECTED BY OWNER'S REPRESENTATIVE.
  - 3 3" MINIMUM OF MULCH AS SPECIFIED, WHERE SHRUBS ARE PLACED IN A CONTIGUOUS BED.
  - 4 SOIL BERM TO HOLD WATER. TOP OF PLANTING PIT BERM TO BE LEVEL ACROSS PIT. SLOPE DOWNHILL PORTION OF BERMS REQUIRED TO MEET EXISTING GRADE. MULCH OVER EXPOSED TOPSOIL.
  - 5 FINISHED GRADE (SEE GRADING PLAN)
  - 6 PREPARED PLANTING SOIL AS SPECIFIED. (SEE LANDSCAPE NOTES).
  - 7 SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
  - 8 FERTILIZER TABLETS (MAX 3" DEEP).
  - 9 UNDISTURBED NATIVE SOIL.
- NOTES:
- A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING FITS PRIOR TO INSTALLATION.
  - B. WHEN SHRUBS ARE PRUNED IN MASSES, PRUNE ALL SHRUBS TO ACHIEVE UNIFORM MASS / HEIGHT.
  - C. ALL SHRUBS AND GROUNDCOVERS SHALL BE PLUMB VERTICALLY, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

4 TYPICAL SHRUB/GROUNDCOVER PLANTING ON A SLOPE  
SECTION  
L-451 NTS



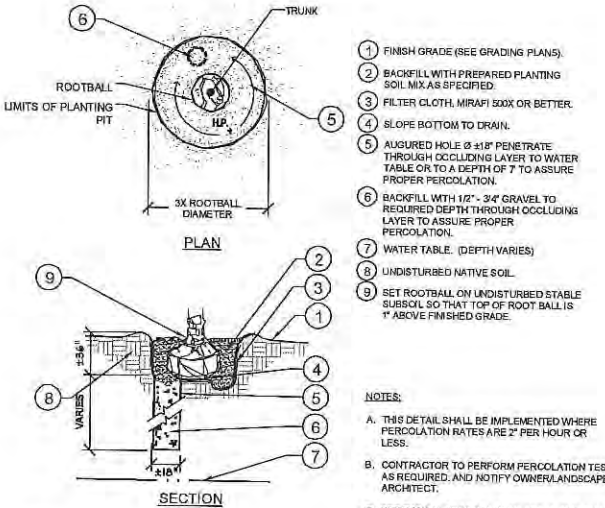
- NOTES:
1. CLEAR ZONE: 36" MIN. FROM BUILDING TO CENTER OF NEAREST SHRUB.
  2. INSTALL SPECIFIED MULCH 24" MIN. FROM BUILDING. SPECIFIED MULCH TO BE INSTALLED AT A DEPTH OF 3" (MIN).

5 TYPICAL PLANTINGS ADJACENT TO BUILDINGS  
SECTION  
L-451 NTS



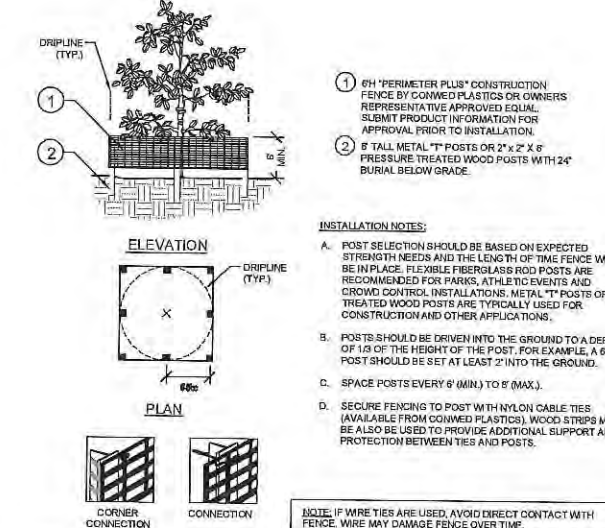
- 1 5 LAYERS OF BURLAP TO PROTECT TRUNK.
  - 2 FIVE 2" X 4" X 10" WOOD BATTENS.
  - 3 SECURE BATTENS WITH 2-3/4" CARBON STEEL BANDS TO HOLD BATTENS IN PLACE. NO NAILS SHALL BE DRIVEN INTO PALM. HEIGHT OF BATTENS SHALL BE LOCATED IN RELATION TO THE HEIGHT OF THE PALM FOR ADEQUATE BRACING.
  - 4 (1) 2"x4"x8' SUPPORTS. NAIL DRILL AN NAIL IF NECESSARY TO BATTENS AND 2" 4" STAKES. STAIN DARK BROWN.
  - 5 3" SPECIFIED MULCH
  - 6 BERM SOIL TO HOLD WATER.
  - 7 FINISH GRADE
  - 8 2"x4"x4" (MIN) P.T. WOOD STAKES (TYP.) NAIL TO SUPPORT POLES.
  - 9 PREPARED PLANTING SOIL AS SPECIFIED. (SEE LANDSCAPE NOTES).
- NOTES:
- A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
  - B. ALL TREE STAKING IS TO BE WITHIN MULCH BED AREA OUTSIDE TREE PIT.
  - C. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING FITS PRIOR TO INSTALLATION. REFER TO POOR DRAINAGE CONDITION DETAIL.

6 TYPICAL PALM PLANTING  
SECTION / PLAN  
L-451 NTS



- 1 FINISH GRADE (SEE GRADING PLANS).
  - 2 BACKFILL WITH PREPARED PLANTING SOIL MIX AS SPECIFIED.
  - 3 FILTER CLOTH, MIRAFIX 500X OR BETTER.
  - 4 SLOPE BOTTOM TO DRAIN.
  - 5 AUGURED HOLE 8-12" PENETRATE THROUGH OCCULSION LAYER TO WATER TABLE OR TO A DEPTH OF 7' TO ASSURE PROPER PERCOLATION.
  - 6 BACKFILL WITH 1/2" - 3/4" GRAVEL TO REQUIRED DEPTH THROUGH OCCULSION LAYER TO ASSURE PROPER PERCOLATION.
  - 7 WATER TABLE. (DEPTH VARIES)
  - 8 UNDISTURBED NATIVE SOIL.
  - 9 SET ROOTBALL ON UNDISTURBED STABLE SUBSOIL SO THAT TOP OF ROOT BALL IS 1" ABOVE FINISHED GRADE.
- NOTES:
- A. THIS DETAIL SHALL BE IMPLEMENTED WHERE PERCOLATION RATES ARE 2" PER HOUR OR LESS.
  - B. CONTRACTOR TO PERFORM PERCOLATION TEST AS REQUIRED, AND NOTIFY OWNER/LANDSCAPE ARCHITECT.
  - C. SEE TYPICAL TREE PLANTING DETAIL THIS SHEET FOR PLANT STAKING.

7 TYPICAL POOR DRAINAGE CONDITION  
SECTION / PLAN  
L-451 NTS



- 1 6" PERIMETER PLUS" CONSTRUCTION FENCE BY CORNER PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
  - 2 8" TALL METAL "T" POSTS OR 2"x2" X 2" PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.
- INSTALLATION NOTES:
- A. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
  - B. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/3 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 6' POST SHOULD BE SET AT LEAST 2' INTO THE GROUND.
  - C. SPACE POSTS EVERY 8' (MIN) TO 8' (MAX).
  - D. SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CORNER PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.
- NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.

8 TYPICAL TREE PROTECTION FENCING  
ELEVATION / PLAN  
L-451 NTS



<h2 style="margin: 0;">Kimley»Horn</h2> <p style="font-size: small; margin: 0;">© 2015 KIMLEY-HORN AND ASSOCIATES, INC. 1221 BRICKELL AVENUE, SUITE 400, MIAMI, FL 33131 PHONE: 305-473-2025 WWW.KIMLEY-HORN.COM CA 0000586</p>	<p style="font-size: x-small; margin: 0;">LICENSED PROFESSIONAL GEORGE PUG, P.L.A. FL LICENSE NUMBER LA0001706 ISSUED DATE 5/9/2016</p>						
<h3 style="margin: 0;">LANDSCAPE DETAILS</h3>	<p style="font-size: x-small; margin: 0;">KHA PROJECT 043136022 DATE 07/30/2015 SCALE AS SHOWN DESIGNED BY KHA DRAWN BY JEB CHECKED BY JRP</p>						
<h2 style="margin: 0;">BAYWALK PLAZA</h2> <p style="font-size: x-small; margin: 0;">PREPARED FOR NORTH BAY VILLAGE</p>	<p style="font-size: x-small; margin: 0;">NORTH BAY VILLAGE FL</p>						
<p style="font-size: x-small; margin: 0;">SHEET NUMBER <b>L-451</b></p>	<p style="font-size: x-small; margin: 0;">REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 45%;">DATE</th> <th style="width: 50%;">BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY			
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### IRRIGATION SCHEDULE: NORTH SIDE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	HUNTER MP1000 PROS-04-FRS40-CV TURF ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON FRS40 BODY, 4-HOLE/ROUND ADJ ARG 80 TO 210, L-LIGHT BLUE 210 TO 270 ARC, O-CLIVE 360 ARC.	1	55
	HUNTER MP300SR PROS-06-FRS40-CV TURF ROTATOR, 6.0" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON FRS40 BODY, 4-HOLE/ROUND AND GRAY (ARG 90-210), 360-LINE GREEN AND GRAY (ARG 360)	22	45
	HUNTER MP CORNER PROS-06-FRS40-CV TURF ROTATOR, 6" (15.24CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON FRS40 BODY, T-TURQUOISE ADJ ARG 45-105.	2	55
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD XCZ-150-PRB-COM HIGH FLOW CONTROL ZONE KIT, FOR LARGE COMMERCIAL DRIP ZONES, 1-1/2" PEBB VALVE WITH TWO 1" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTERS, FLOW RANGE: 15-40GPM.	2	
	LARGE TREE DRIP RING EMITTERS CONTRACTOR TO PROVIDE FOUR (4) RAINBIRD PC DIFF SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS WITH SELF-PIERCING BARB INLET AND DIFFUSER CAP, FLOW RATE: 24GPH-ORANGE.	26	
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-P-09-18 (18) XFS SUB-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE W/ COPPER SHIELD TECHNOLOGY, 0.6GPH EMITTERS AT 18.0" O.C. DRIPLINE LATERALS SPACED AT 18.0" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, PURPLE TUBING FOR NON-POTABLE WATER.	2,656 S.F.	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD PEB-PRS-D 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES, LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION, WITH PRESSURE REGULATOR MODULE.	1	
	RAIN BIRD ESP/ME WITH (1) ESP-SM3 7 STATION, HYBRID MODULAR OUTDOOR CONTROLLER, FOR RESIDENTIAL OR LIGHT COMMERCIAL APPLICATIONS.	1	
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, EXTENSION WIRE.	1	
	WATER METER 2"	1	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE, ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.	643.2 L.F.	
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE.	97.3 L.F.	
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE, PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING FOR CONSTRUCTION.	83.4 L.F.	

### VALVE SCHEDULE: NORTH SIDE

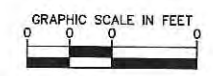
NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ POC	GPM	PRECIP
1	RAIN BIRD PEB-PRS-D	1"	TURF ROTARY	50.48	51.77	21.35	1.31 in/h
2	RAIN BIRD XCZ-150-PRB-COM	1-1/2"	DRIP EMITTER	23.58	21.54	22.41	0.89 in/h
3	RAIN BIRD XCZ-150-PRB-COM	1-1/2"	DRIP EMITTER	28.21	25.44	31.16	0.69 in/h

### IRRIGATION SCHEDULE: SOUTH SIDE

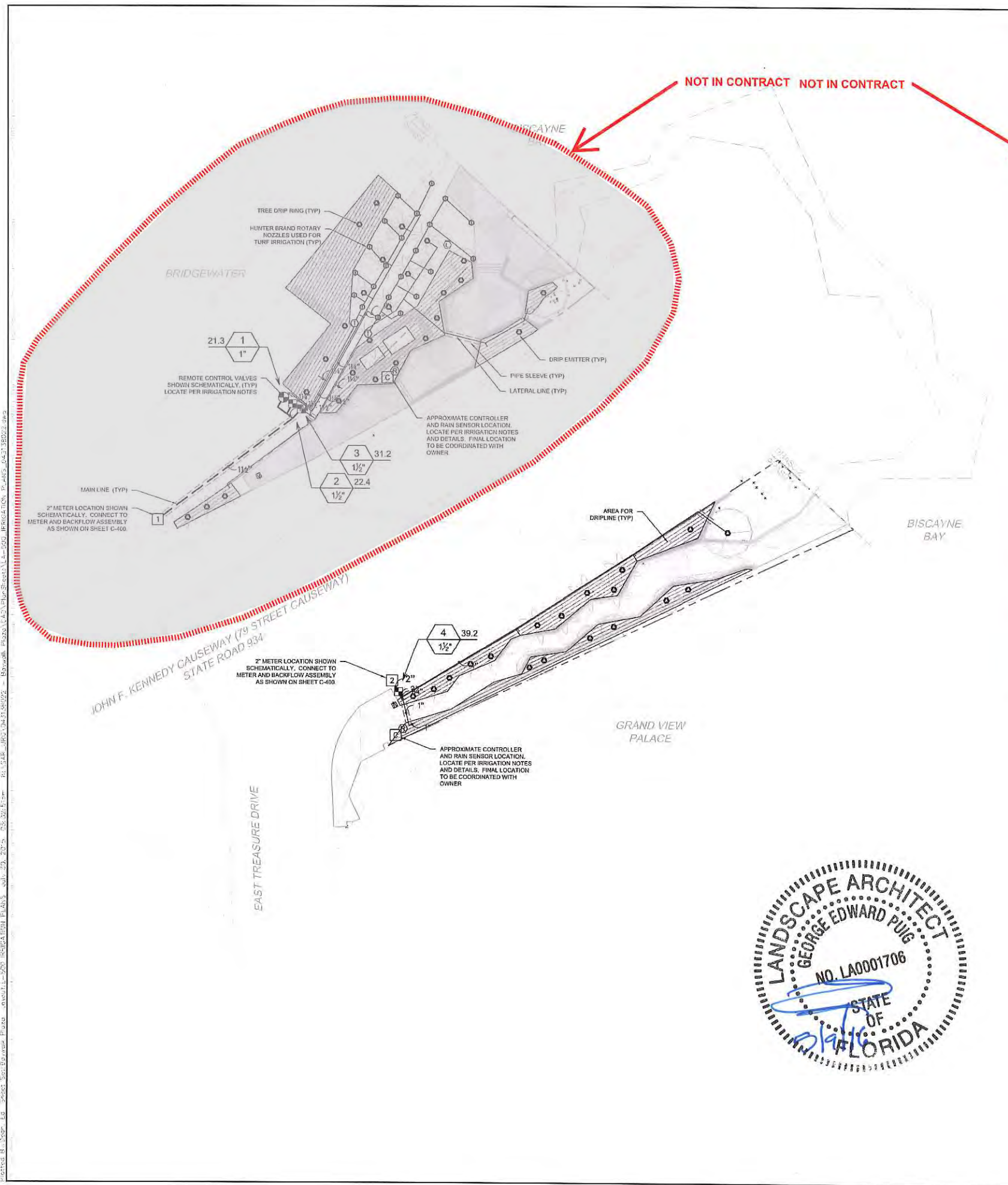
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD XCZ-150-PRB-COM HIGH FLOW CONTROL ZONE KIT, FOR LARGE COMMERCIAL DRIP ZONES, 1-1/2" PEBB VALVE WITH TWO 1" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTERS, FLOW RANGE: 15-40GPM.	1	
	LARGE TREE DRIP RING EMITTERS CONTRACTOR TO PROVIDE FOUR (4) RAINBIRD PC DIFF SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS WITH SELF-PIERCING BARB INLET AND DIFFUSER CAP, FLOW RATE: 24GPH-ORANGE.	10	
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-P-09-18 (18) XFS SUB-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE W/ COPPER SHIELD TECHNOLOGY, 0.6GPH EMITTERS AT 18.0" O.C. DRIPLINE LATERALS SPACED AT 18.0" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, PURPLE TUBING FOR NON-POTABLE WATER.	1,430 S.F.	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD ESP/ME WITH (1) ESP-SM3 7 STATION, HYBRID MODULAR OUTDOOR CONTROLLER, FOR RESIDENTIAL OR LIGHT COMMERCIAL APPLICATIONS.	1	
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, EXTENSION WIRE.	1	
	WATER METER 2"	1	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE, ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.	172.2 L.F.	
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE.	50.0 L.F.	
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE, PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING FOR CONSTRUCTION.	14.7 L.F.	

### VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ POC	GPM	PRECIP
4	RAIN BIRD XCZ-150-PRB-COM	1-1/2"	AREA FOR DRIPLINE	42.27	43.57	39.16	0.69 in/h



NOT IN CONTRACT NOT IN CONTRACT



# Kimley»Horn

3015 KIMLEY HORN AND ASSOCIATES, INC. 31  
1220 KIMLEY HORN DRIVE  
PHONE: 305-674-2025 FAX: 305-674-1892  
WWW.KIMLEY-HORN.COM CA 00000858

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PROJECT: KHA-PROJECT 04-3135022  
DATE: 07/30/2015  
SCALE: AS SHOWN  
DESIGNED BY: KHA  
DRAWN BY: JRB  
CHECKED BY: JRB

LICENSED PROFESSIONAL  
GEORGE PUGH, P.E.  
FL LICENSE NUMBER: LA0001706  
DATE: 7/30/2015

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## IRRIGATION PLANS

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BAYWALK PLAZA  
PREPARED FOR  
NORTH BAY VILLAGE

NORTH BAY VILLAGE  
SHEET NUMBER  
**L-500**

**GENERAL IRRIGATION SPECIFICATIONS AND NOTES**

- THE SYSTEM SHALL BE DESIGNED TO PROVIDE 100% COVERAGE. ANY CHANGES MADE IN THE LAYOUT DUE TO FIELD CONDITIONS SHALL BE IN ACCORDANCE WITH THESE STANDARDS.
- VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL FIELD VERIFY.
- CONTRACTOR TO FIELD VERIFY ALL POINT OF CONNECTION SOURCE INFORMATION INCLUDING PSI AND GPM PRIOR TO CONSTRUCTION.
- INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SMOOTH AND ORDERLY COMPLETION OF ALL WORK ON-SITE.
- IRRIGATION DESIGN IS SCHEMATIC ONLY. FULL AND COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL COORDINATE WITH THE PLANTING PLAN FOR PLANTER BED AND TREE LOCATIONS TO ENSURE ALL PLANT MATERIAL IS COVERED BY 100% HEAD-TO-HEAD IRRIGATION.
- CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
- IRRIGATION CONTRACTOR TO PROVIDE POWER SUPPLY TO ELECTRIC CONTROLLERS.
- IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE JURISDICTION.
- IRRIGATION SYSTEM SHALL NOT BE INSTALLED THROUGH PRESERVED PLANT COMMUNITIES OR WITHIN WETLANDS OR THEIR ASSOCIATED BUFFERS.
- LOCATE ALL IRRIGATION LINES WITHIN LANDSCAPED AREAS WHENEVER POSSIBLE. ALL LINES UNDER PAVEMENT MUST BE SLEEVED. ALL VALVES SHALL BE LOCATED WITHIN LANDSCAPED AREAS, AS SPECIFIED.
- MAINLINE SHALL NOT BE LOCATED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR TO COORDINATE LOCATION OF ALL METERS AND BACKFLOW ASSEMBLIES WITH PROJECT OWNER.
- THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR SLEEVING AND DIRECTIONAL BORES.
- ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF THE SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES ON PLAN FOR WALL PENETRATIONS AND UNDER SIDEWALKS SHALL BE SIZED TWO PIPE SIZES GREATER THAN THE PIPE IT CARRIES.
- ALL PRESSURIZED MAINLINES AND LATERALS UNDER PAVEMENT SHALL BE WITHIN SLEEVES AS NOTED. WHERE ELECTRIC OR HYDRAULIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
- SLEEVES UNDER EXISTING PAVEMENT MUST BE DIRECTIONAL BORE. OPEN CUT IS NOT AN OPTION.
- NUMBER THE TOP OF ALL VALVE BOX LIDS WITH MINIMUM 1" HEIGHT BLACK LETTERS TO CORRESPOND TO AUTOMATIC AND GATE VALVE DESIGNATIONS. ALL HOSE BIBB VALVE BOXES SHALL BE LABELED IN A SIMILAR MANNER WITH THE DESIGNATION "HIB" LETTER OUTSIDE OF TIME CLOCK CABINETS TO CORRESPOND WITH IRRIGATION CLOCK PROGRAM DESIGNATION.
- THE IRRIGATION CONTRACTOR SHALL INSTALL A COLOR CODED METAL DETECTABLE MARKING TAPE WHICH CLEARLY NOTES: "CAUTION: IRRIGATION LINE BURIED BELOW." THE TAPE SHALL BE INSTALLED THE FULL LENGTH OF THE IRRIGATION MAINLINE.
- ALL VALVES, SPLICES WITHIN CONTROL LINES, AND QUICK COUPLERS SHALL BE LOCATED WITHIN NDS VALVE BOXES AS FOLLOWS: RECTANGULAR 12"x17" HEAVY DUTY BOX. (PURPLE COVER FOR REUSE TO BE PROVIDED WHERE APPROPRIATE).
- ALL UNSIZED PIPE SHALL BE 9/4" UNLESS OTHERWISE NOTED ON PLAN. SEE LATERAL PIPE SIZING REQUIREMENTS.
- EACH TREE AND PALM (AS SHOWN ON THE PLANS) SHALL HAVE TWO (2) FLOOR BUBBLERS. SUCH HEADS SHALL BE ON MINIMUM 5'-0" LENGTH OF FLEXIBLE PIPE TO ALLOW ITS POSITIONING AT THE TREE. LOCATE BUBBLER ON THE UPHILL SIDE OF TREES OR ON ALL SLOPES.
- ALL IRRIGATION HEADS DRIP TUBING SHALL BE LOCATED ONE (1) FOOT FROM BACK OF CURB WHEN NEXT TO A ROADWAY. (THIS SHALL NOT INCLUDE PARKING AREAS OR DRIVE AISLES).
- LOCATE ALL VALVES IN PLANTING BEDS WITH A MINIMUM OF 3'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. PIPE SIZES ON EITHER SIDE OF SECTION VALVES CONNECTING MAINLINE TO SECTION LATERAL SHALL BE ONE (1) PIPE SIZE LARGER THAN VALVE SIZE. WHERE MAINLINES RUN PARALLEL TO PAVEMENT OR CURBING, THE MAINLINE SHALL BE OFFSET 2'-0" FROM THE EDGE OF PAVEMENT OR CURB.
- IRRIGATION ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER USE REQUIREMENTS AND OPERATED ON DIFFERENT WATERING CYCLES. BUBBLERS, ORPLINE, AND SPRAY HEADS SHALL BE SEPARATED ON DIFFERENT VALVES. AT NO TIME SHALL MULTIPLE IRRIGATION HEAD TYPES BE LOCATED ON THE SAME VALVE.
- ALL DRIP ZONES SHALL BE INSTALLED WITH A FLUSH VALVE AND AIR RELIEF VALVE. IN THE EVENT THAT A DRIP ZONE HAS MORE THAN ONE HIGH OR LOW POINT, MORE THAN ONE AIR RELIEF VALVE OR FLUSH VALVE WILL BE REQUIRED FOR THAT ZONE. DRIFLINE SHALL PROVIDE 0.5 GPM EMITTERS, 12" O.C. WITH 18" LINE SPACING AT A MINIMUM.
- IRRIGATION CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL CONTROLLER AND RAIN SENSOR LOCATIONS. THE CONTROLLER SHALL BE PLACED IN A LOCKING CABINET APPROPRIATE FOR ITS LOCATION. (INDOOR VS. OUTDOOR USE)
- LOCATE THE AUTOMATIC RAIN SENSOR SHUT-OFF DEVICE IN AN AREA THAT IS UNSHROUDED BY TREES, ROOF OVERHANGS, OR ANY OTHER OVERHEAD OBJECT. THE SENSOR SHALL NOT BE PLACED WITHIN THE SPRAY ZONE OF ANY SPRINKLER HEAD, INCLUDING OFF-SITE IRRIGATION. CONTRACTOR SHALL LOCATE SENSOR WITHIN CLOSE PROXIMITY TO THE IRRIGATION CONTROLLER.
- CONTRACTOR SHALL PERFORM HYDRO-TESTING OF MAIN LINES.

**HYDRO-TESTING TO BE PERFORMED AS LISTED:**

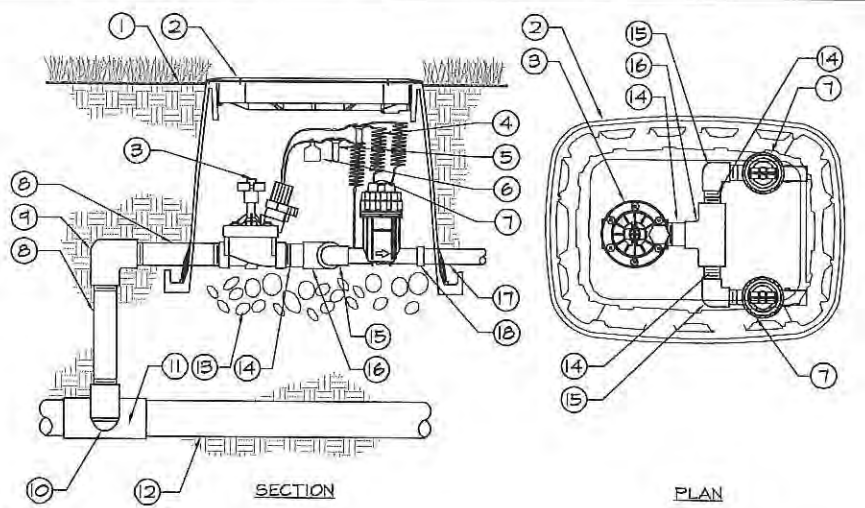
THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FORTY-EIGHT (48) HOURS IN ADVANCE OF TESTING. PRIOR TO BACKFILLING, CONTRACTOR SHALL FILL PIPING WITH WATER. IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE, TAKING CARE TO PURGE THE AIR FROM A SMALL HIGH PRESSURE PUMP OR OTHER MEANS OF MAINTAINING A CONTINUOUS WATER SUPPLY SHALL BE CONNECTED TO THE PIPING AND SET SO AS TO MAINTAIN 125 PSI FOR TWO (2) HOURS WITHOUT INTERRUPTION. CONTRACTOR SHALL MAKE ANY NECESSARY CORRECTIONS AND RE-TEST THE SYSTEM UNTIL THE OWNER'S REPRESENTATIVE IS SATISFIED THAT THE SYSTEM IS REASONABLY SOUND.

ALL WIRING FOR CONNECTION OF THE VALVES TO THE CONTROLLER SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS. IF REQUIRED, ALL WIRING FOR A TWO WIRE PATH SHALL BE WITH REVERSE TWISTED PAIR (4 AWG). ELECTRIC CONTROL LINES FROM THE DECODER TO THE SOLENOID VALVES SHALL BE TWISTED PAIR (18 AWG). ALL DECODERS SHALL BE GROUNDED EVERY 1,000 FT. OR EVERY 2 DEVICES. ALL WIRE SHALL BE FURNISHED IN MINIMUM 2,500 REELS AND SPLICING SHALL BE MINIMIZED. BURY SPLICE KIT, ALL 24 VOLT WIRING SHALL BE DONE IN ACCORDANCE WITH EXISTING CODES. SPLICING SHALL BE IN VALVE BOXES OR CONTROLLERS ONLY. IRRIGATION SYSTEM CONTROL SHALL BE TWO WIRE PATH. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S REQUIREMENTS FOR THIS INSTALLATION. TWO WIRE SYSTEM SHALL HAVE 2-WAY COMMUNICATIONS FIELD PROGRAMMABILITY, STATION SPECIFICATIONS AND INTEGRATED SURGE PROTECTION.

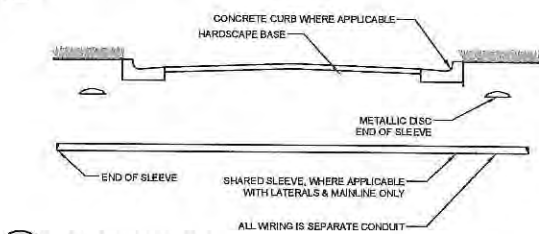
**LATERAL PIPE SIZING REQUIREMENTS**

FLOW RANGE	MINIMUM PIPE SIZE
1 TO 16 GPM	3/4"
11 TO 20 GPM	1"
21 TO 30 GPM	1-1/4"
31 TO 40 GPM	1-1/2"
41 TO 60 GPM	2"
61 TO 90 GPM	2-1/2"
91 TO 100 GPM	3"

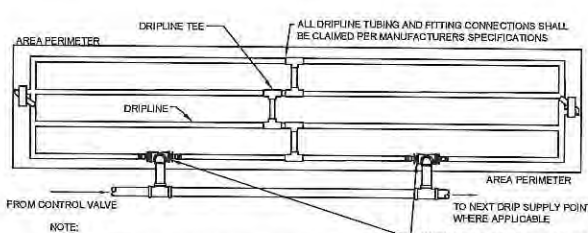
PIPE SIZES ILLUSTRATED IN THE ABOVE CHART ARE MINIMUM ACCEPTABLE SIZES. CONTRACTOR SHALL FIELD SIZE ALL LATERAL PIPING TO KEEP ALL FRICTION LOSS VELOCITIES BELOW 5.0 FPS.



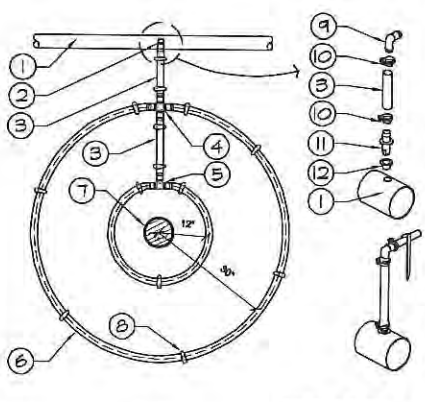
**1 TYPICAL DRIF ZONE VALVE KIT**  
L-550 SECTION / PLAN NTS



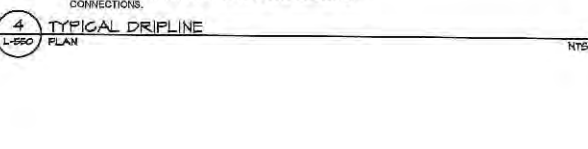
**3 TYPICAL SLEEVING**  
L-550 SECTION NTS



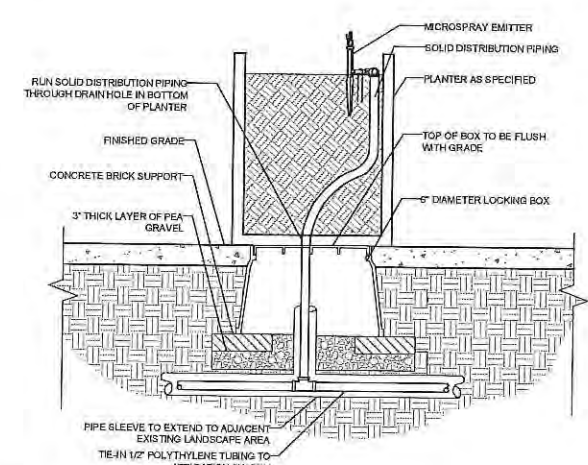
**4 TYPICAL DRIFLINE**  
L-550 PLAN NTS



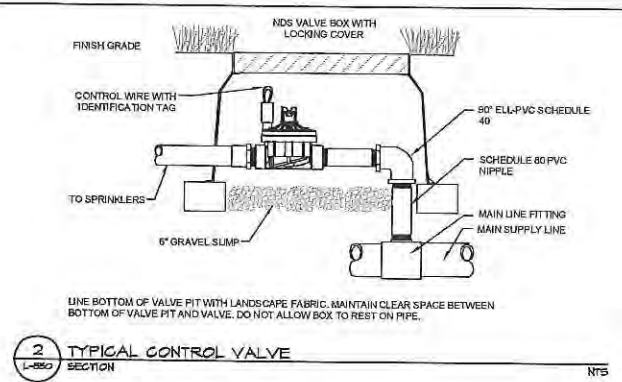
**5 TYPICAL TREE DRIF RING**  
L-550 SECTION / PLAN NTS



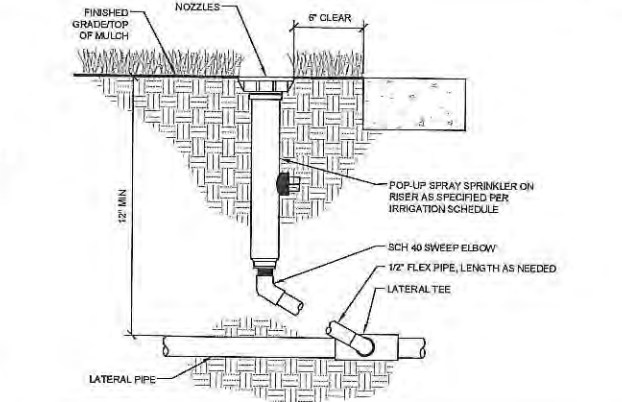
**7 TYPICAL AIR RELIEF VALVE IN DRIFLINE**  
L-550 SECTION NTS



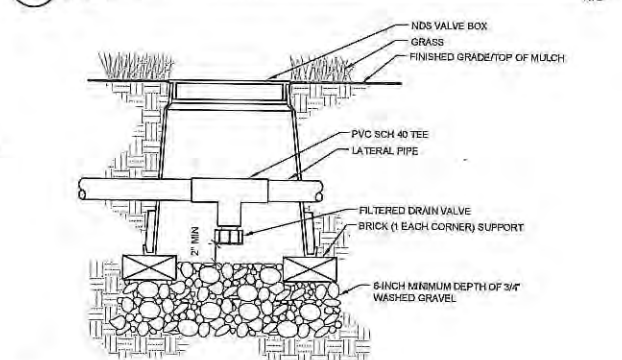
**8 TYPICAL MICROSPRAY EMITTER THROUGH PLANTER**  
L-550 SECTION NTS



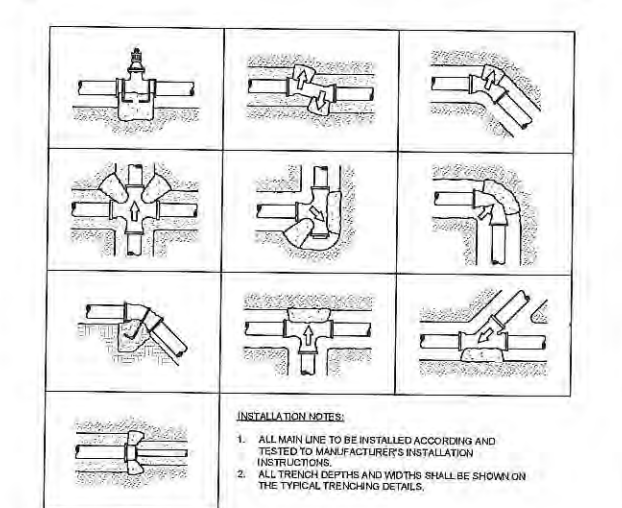
**2 TYPICAL CONTROL VALVE**  
L-550 SECTION NTS



**6 TYPICAL SPRAY / ROTAR HEAD**  
L-550 SECTION NTS



**9 TYPICAL DRAIN VALVE**  
L-550 SECTION NTS



**10 TYPICAL THRUST BLOCK**  
L-550 SECTION NTS



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PHONE: 305-673-2028  
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**IRRIGATION NOTES AND DETAILS**

**BAYWALK PLAZA**  
PREPARED FOR  
**NORTH BAY VILLAGE**  
NORTH BAY VILLAGE

PROJECT: KHA PROJECT DA3135022  
DATE: 07/30/2015  
SCALE: AS SHOWN  
DESIGNED BY: KHA  
DRAWN BY: JEB  
CHECKED BY: JRP  
DATE: 5/9/2016

REVISIONS

No.	REVISIONS	DATE	BY

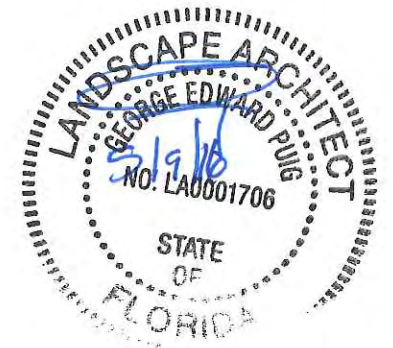
SHEET NUMBER  
**L-550**

BRIDGEWATER

NOT IN CONTRACT

Panel Board Schedule					
North Plaza Lighting					
Nema 3R, 1 Phase, 3 Wire, 240/120V 2-Pole 30A MCB					
Ckt No	SERVING	KVA	AMPS	C. BKR	CONDUCTOR
2	North Plaza Lighting	1.04	8.7	20A/1P	4
3	North Irrigation Controller	0.12	1.0	20A/1P	10

Panel Board Schedule					
South Plaza Lighting					
Nema 3R, 1 Phase, 3 Wire, 240/120V 2-Pole 30A MCB					
Ckt No	SERVING	KVA	AMPS	C. BKR	CONDUCTOR
2	South Plaza Lighting	1.04	8.7	20A/1P	4
3	South Irrigation Controller	0.12	1.0	20A/1P	10



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 07/30/2015 09:05:59am

ENNEDY CAUSEWAY (79 STREET CAUSEWAY)  
STATE ROAD 934

GRAND VIEW  
PALACE

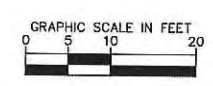
WALL LIGHT LED JUNCTION BOX  
30' LENGTH MAX LED RIBBON IN BOTH DIRECTIONS (60' TOTAL)

LLX16WET-RGB LED WALL LIGHT BY LUMINI TO BE  
INSTALLED IN IN RECESSED SLIM WIDE 8  
MOUNTING CHANNEL REFER TO DETAILS ON  
SHEET L-650. (TYP)

12'-0" CITY ELEMENTS LIGHT POLE BY HESS  
LIGHTING. REFER TO DETAILS ON SHEET L-650.  
(TYP)

Calculation Summary							
Label	Category	Units	Avg	Max	Min	Avg/Min	Max/Min
WALL	Illuminance	Ft	2.68	1.8	6.0	3.4	3.33

Object Summary		
Label	Type	Description
WALL	Polygon/Face	WALL AT 30' AWAY REFLECTANCE 20%
WALL_1	Polygon/Face	WALL AT 30' AWAY REFLECTANCE 20%
WALL_2	Polygon/Face	WALL AT 30' AWAY REFLECTANCE 20%
WALL_3	Polygon/Face	WALL AT 30' AWAY REFLECTANCE 20%
WALL_4	Polygon/Face	WALL AT 30' AWAY REFLECTANCE 20%



No.	REVISIONS	DATE	BY

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 PHOENIX, AZ 85016-3111  
 WWW.KIMLEY-HORN.COM CA 00000688

LICENSED PROFESSIONAL  
 GEORGE PUG, P.A.  
 FL LICENSE NUMBER  
 LA0001706  
 DATE 7/30/2015

KHA PROJECT  
 043138022  
 DATE  
 07/30/2015  
 SCALE AS SHOWN  
 DESIGNED BY  
 DRAWN BY  
 CHECKED BY

**BAYWALK PLAZA**  
 PREPARED FOR  
**NORTH BAY VILLAGE**  
 NORTH BAY VILLAGE  
 FL  
 SHEET NUMBER  
**L-600**

Potted By: Dean, Ed. Sheet: Site: Baywalk Plaza Level: L1-650 LIGHTING DETAILS July 30, 2015 02:05:36pm I:\SAR\_LRG\043138022 - Baywalk Plaza\CAD\PlanSheets\L1-650 LIGHTING PLAN\_04313802.dwg  
 This document, together with the concepts and design presented herein, is prepared for the specific purpose and client for which it was prepared. Hessa of and Hessa are not responsible for any other use or misuse of this information.

**LLX18-RGB Wet** | Color-changing linear LED strip for wet locations - 24V



Line LED RGB wet location

The LLX18-RGB Wet is a small profile and energy efficient color-changing light strip. It is easily installed directly on to the mounting surface with double sided tape or within discrete mounting extrusions. The durable but flexible circuit board enables the perfect fit for every application.

**Applications:** Indoor/outdoor use, exterior accents, decks, gazebos, barbecue stations, wet bars, signage, etc.

**Operating voltage**  
24 VDC (RGB controller and PSV wires power supply required)

**Operating temperature**  
-40° F to 180° F (-40° C to 80° C)

**Beam Angle**  
120°

**Average life**  
50,000 hours

**Mounting**  
LLX18 RGB strip is equipped with 3M self-adhesive tape. Mounting to an aluminum profile or the HSI aluminum heat sink tape is required to reach the rated 50,000 hours average life.

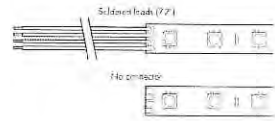


**Approvals**  
cETLus listed for wet locations

**Technical specifications**

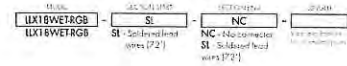
MODEL	LLX18-RGB
LEDs/ft	18
Light output	100 lumens/ft*
Average power consumption (for 15' section)	4.6 W/ft*
Amperage load at maximum run	4.0 A
Ordering increment	3.00'
Maximum run length	30 ft
Dimensions	0.39" W 0.11" H

**Section start/end options**



\*See also 3 in our catalog brightness

**Ordering code**



REV 01

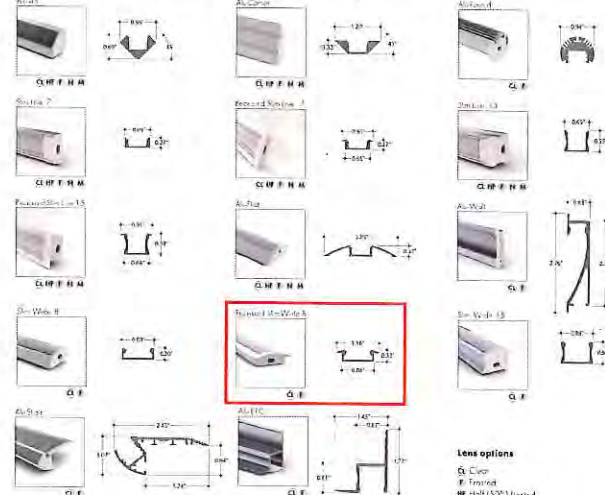
page 1 of 4

www.hess.com | 64-294-333-6000

**LLX18-RGB Wet** | Color-changing linear LED strip for wet locations - 24V

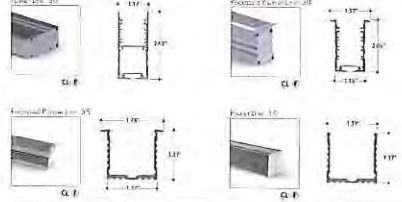


**Optional mounting channels - Single row LEDs**



**Lens options**  
 C Clear  
 F Frosted  
 H High (50%) Bezel  
 M Non-reflective Bezel  
 N Matte Bezel Bezel

**Optional mounting channels - Double row LEDs**



**Installation**  
 All mounting channels are held in place using either one or two screws. Mounting holes are provided for routing wires.  
 Joints and end caps to be selected for wet location applications.

**Ordering**  
 Channels are sold separately. View separate specifications for details on ordering, mounting and application. (Includes mounting brackets, etc.)

REV 01

page 4 of 4

www.hess.com | 64-294-333-6000

**CITY ELEMENTS 230 AA900 LED**

Specification



City Elements 230 offers design professionals the flexibility of a multi-purpose lighting system in a single architectural structure. The modularity of the light column system allows each column to be customized for area lighting, accenting, waymarking, or pathway illumination or a combination of several different functions. Modules are fully rotatable and adjustable internally for highlighting and aiming. Heights range from low level bollards to columns up to thirty feet tall. Base elements are available in flanged or flangeless models. Optional modules are also available to accommodate security cameras or convenience outlets with in-use covers for remote power. Luminaire housings and extruded aluminum shaft with flush handle are finished in finely textured paint. All hardware is stainless steel. Consult on-line Configurator at [www.hessamerica.com](http://www.hessamerica.com) for detailed technical specifications and information on CE230 for smaller diameter columns. CSA Certified for Wet Locations.



Model	Color Temperature	Distribution	Volt	Finish	Option
CE230/AA900/1LV - 1 LEVD	WW - 3000K	ME - Type III	UNV - 120-277V	SG - Silver Grey	Dim - 0-10VDC
Module					Dimming
CE230/AA900/2LV - 2 LEVD	NW - 4000K	S - Type II	UNV	DG - Dark Grey	N - None
Modules					GG - Graphite Grey
	CW - 5600K			BLK - Matte Black	CC - Custom Color

**Ordering Information**

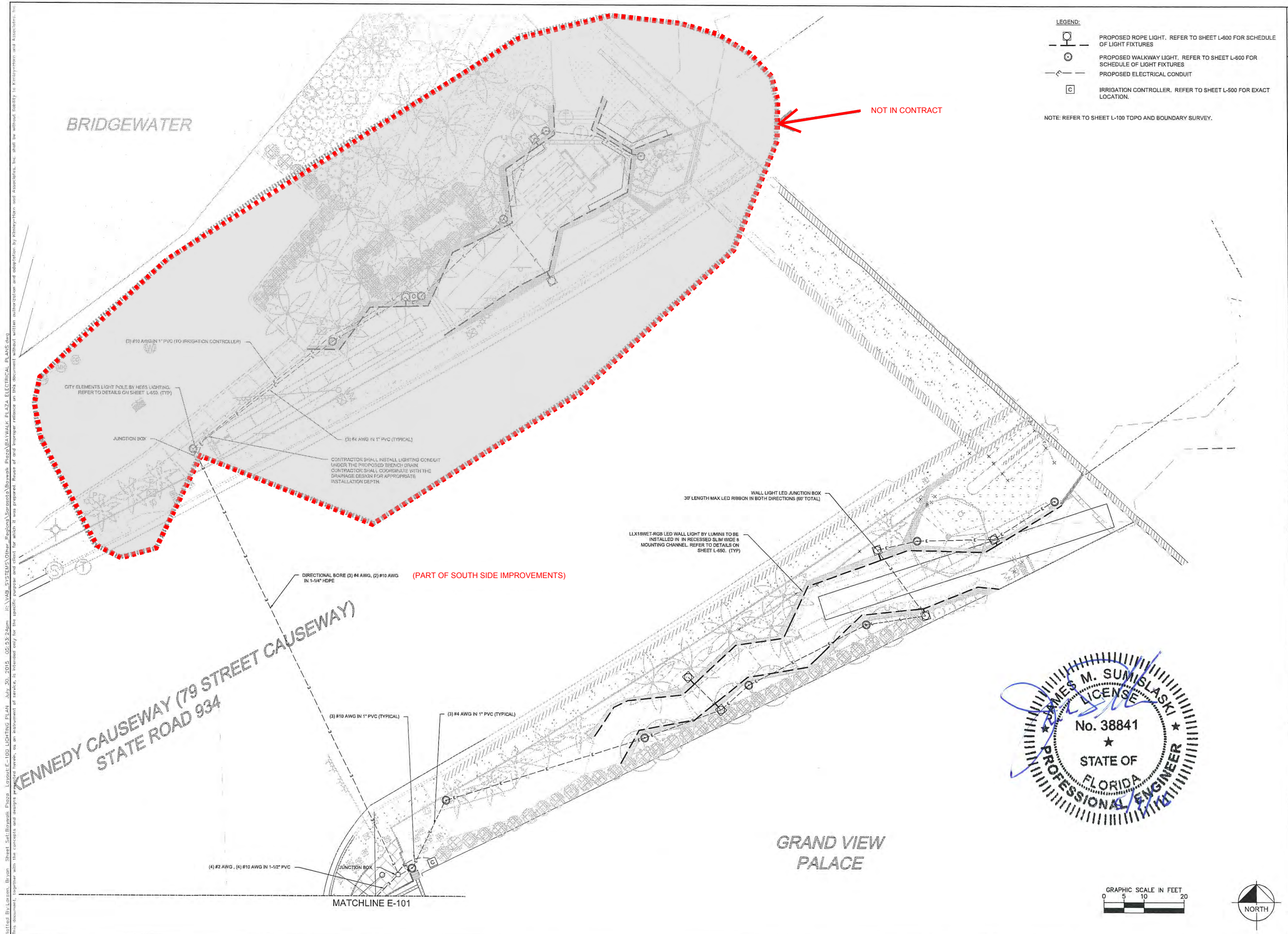
CE230/AA900/2LV	NW	S	UNV	CC	N
-----------------	----	---	-----	----	---

Specifications are subject to change without notification  
 HessaAmerica > Products > Lighting Products > Illuminating Columns > CITY ELEMENTS 230  
[http://www.hessamerica.com/Products/Lighting/Illuminating\\_Columns/CITY\\_ELEMENTS\\_230/](http://www.hessamerica.com/Products/Lighting/Illuminating_Columns/CITY_ELEMENTS_230/)

Page 1



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<b>LIGHTING DETAILS</b>	LICENSED PROFESSIONAL	DATE	DATE
BAYWALK PLAZA PREPARED FOR NORTH BAY VILLAGE	GEORGE PUGH, P.L.A.	07/30/2015	7/30/2015
SHEET NUMBER <b>L-650</b>	FLORIDA LICENSE NUMBER LA0001706	DESIGNED BY KHA	CHECKED BY JRP
		DRAWN BY EMD	



- LEGEND:**
- PROPOSED ROPE LIGHT. REFER TO SHEET L-600 FOR SCHEDULE OF LIGHT FIXTURES
  - PROPOSED WALKWAY LIGHT. REFER TO SHEET L-600 FOR SCHEDULE OF LIGHT FIXTURES
  - PROPOSED ELECTRICAL CONDUIT
  - IRRIGATION CONTROLLER. REFER TO SHEET L-500 FOR EXACT LOCATION.

NOTE: REFER TO SHEET L-100 TOPO AND BOUNDARY SURVEY.

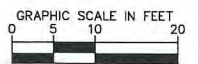
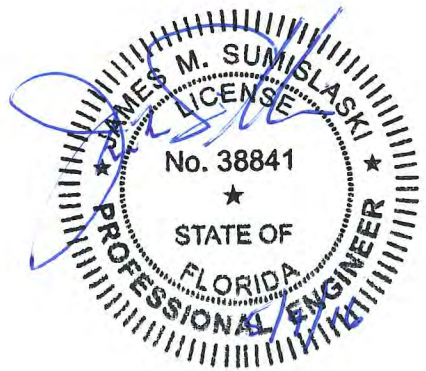
Electrical Plan License: Brian, Sheet Set, Baywalk Plaza - Layout E-100 LIGHTING PLAN, July 30, 2015, 05:53:24pm. ICS: VLAB, SYSTEMS\Other\_Regional\Projects\Baywalk Plaza\Baywalk Plaza ELECTRICAL PLANS.dwg  
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No.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL  
**JAMES SUMISLASKI, P.E.**  
 PE LICENSE NUMBER 38841  
 DATE: 7/30/2015

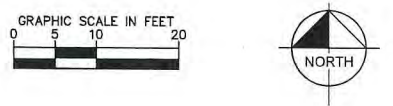
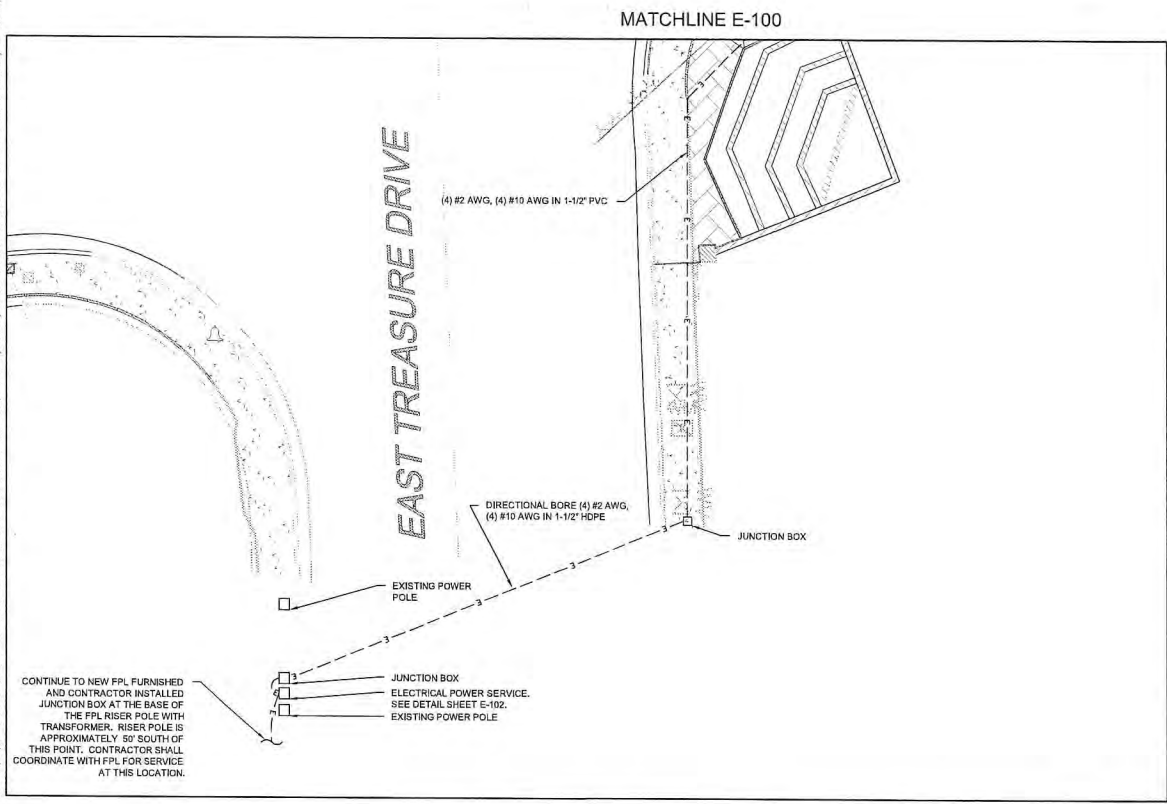
**ELECTRICAL PLAN**



**BAYWALK PLAZA**  
 PREPARED FOR  
**NORTH BAY VILLAGE**  
 NORTH BAY VILLAGE FL

SHEET NUMBER  
**E-100**

Plotted By: Larsen, Brian Sheet: Sct\_Boxwalk\_Plaza\_Layout\_E-101 ELECTRICAL PLAN July 30, 2015 05:54:17am K:\VAB\_SYSTEMS\Other\_Regions\Sarasota\Bovwalk\_Plaza\BAYWALK\_PLAZA ELECTRICAL PLANS.dwg  
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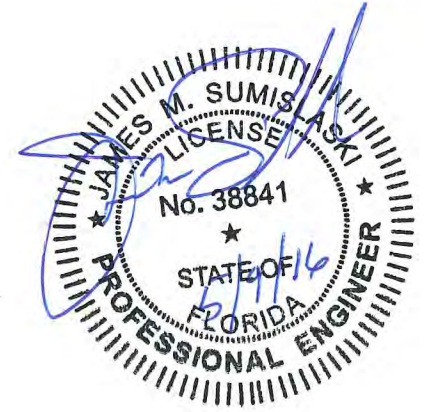


- LEGEND:**
- PROPOSED ROPE LIGHT. REFER TO SHEET L-600 FOR SCHEDULE OF LIGHT FIXTURES
  - PROPOSED WALKWAY LIGHT. REFER TO SHEET L-600 FOR SCHEDULE OF LIGHT FIXTURES
  - PROPOSED ELECTRICAL CONDUIT

NOTE: REFER TO SHEET L-100 TOPO AND BOUNDARY SURVEY.

**LIGHTING NOTES:**

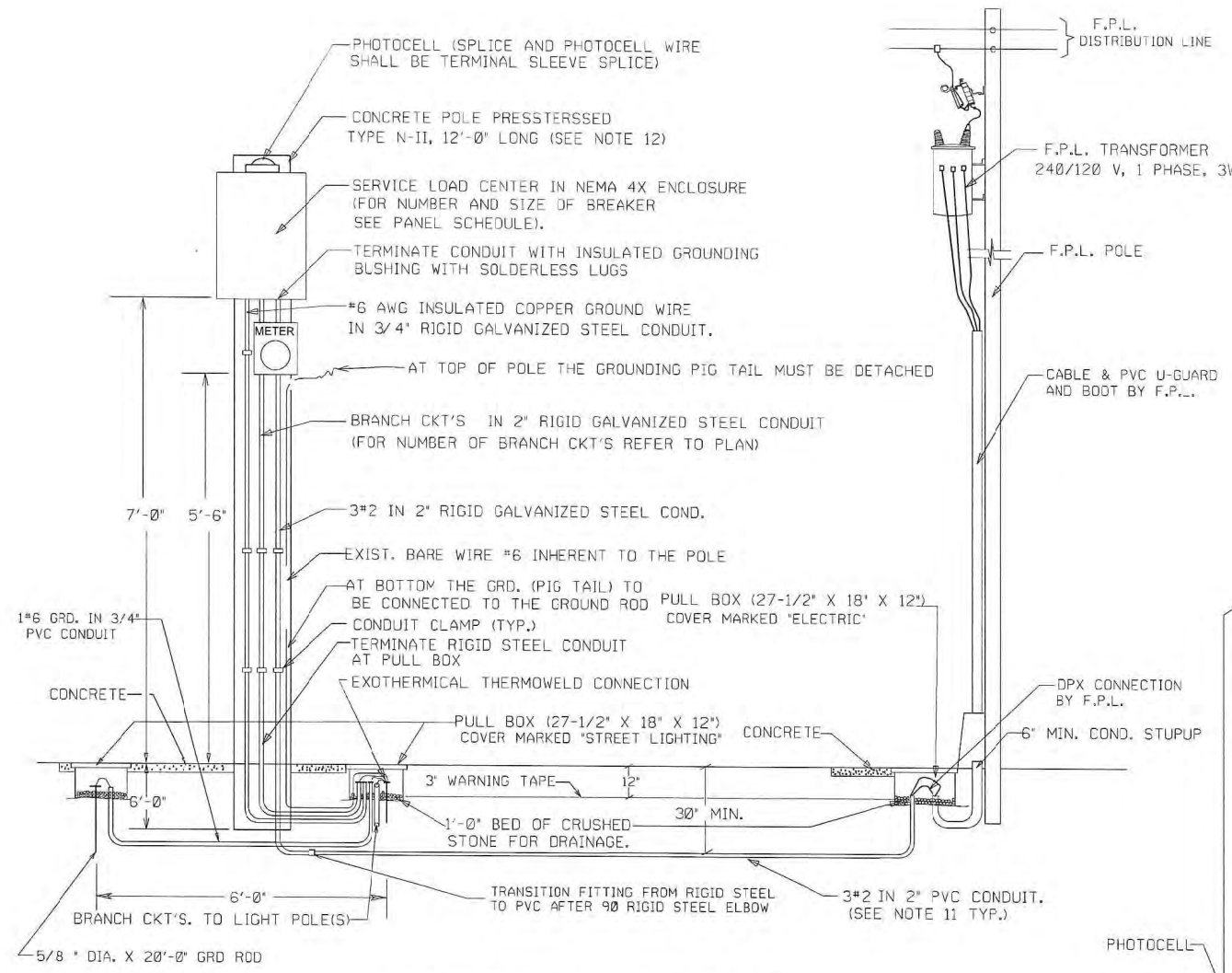
1. THE CONTRACTOR SHALL PERFORM AN INVENTORY OF THE EXISTING LIGHTING SYSTEM PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES. A WRITTEN REPORT WILL BE PREPARED LISTING ALL LIGHTING ITEMS OPERABLE AND INOPERABLE. THE COMPLETED REPORT WILL BE FORWARDED TO THE PROJECT ENGINEER WITH COPIES TO THE MAINTAINING AGENCY PRIOR TO THE BEGINNING OF CONSTRUCTION.
2. ENDS OF CONDUITS SHALL BE SEALED WITH POLYURETHANE FOAM AFTER WIRING IS COMPLETE. FOAM SEAL SHALL NOT BE USED AS A MEANS TO PROTECT CONDUCTORS FROM ABRASION IN RACEWAYS. GALVANIZED RIGID METAL CONDUIT SHALL HAVE PROPER FITTINGS TO PROTECT CONDUCTORS FROM ABRASION.
3. ATTACH LIGHTNING ARRESTOR TO THE WALL OF THE PULL BOX BY MEANS OF A SELF-TAPPING SCREW OR BY A MASONRY SCREW. CARE SHOULD BE EXERCISED WHEN UTILIZING THIS METHOD NOT TO BREAK THE SUPPORTING TABS; SCREWS SHOULD BE FIRM BUT NOT SNUG AGAINST THE SUPPORTING TABS.
4. PROVIDE TWO 5/8" X 20' COPPER CLAD STEEL GROUNDING ELECTRODES AT EACH SERVICE POINT. THEY MUST BE SPACED A MINIMUM OF SIX FEET AND SIX INCHES FROM EACH OTHER WHEN INSTALLED AS AN ARRAY. WHEN THE GROUNDING ELECTRODE CONDUCTOR IS ENCLOSED IN A METAL RACEWAY, BOTH ENDS OF THE RACEWAYS AND ALL INTERVENING RACEWAYS AND METALLIC ENCLOSURES CONTAINING THE GROUNDING ELECTRODE CONDUCTOR MUST BE BONDED TO THE GROUNDING ELECTRODE CONDUCTOR.
5. ALL AERIAL GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED AS PER F.D.O.T. SPECIFICATIONS SECTION 715-11 WHERE THE POLE CABLE DISTRIBUTION SYSTEM IS EMPLOYED (MG SQUARE, DOT 3), GROUNDING CONNECTIONS TO THE DISTRIBUTION BLOCK AND LIGHTNING ARRESTOR OR OTHER DEVICES CONTAINING LEADS SMALLER THAN # 8 AWG, SHALL BE DONE BY MECHANICAL CONNECTIONS OR OTHER APPROVED MEANS.
6. THE CONTRACTOR SHALL CHECK THE CONTINUITY OF GROUNDING CONDUCTOR USING MEGGER OR EQUAL LOW RESISTANCE / HIGH CAPACITY OHMMETER CALIBRATED WITHIN THE PAST 180 DAYS. A NEUTRAL / GROUND LOOP RESISTANCE OF MORE THAN 0.5 OHMS-PER THOUSAND FEET SHALL BE CONSIDERED INADEQUATE.
7. ONLY LINE CONDUCTORS WILL BE PERMITTED IN SERVICE PULL BOX. NO GROUND RODS OR ANY OTHER ITEMS OR DEVICES SHALL BE ALLOWED.
8. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED AT A GRADE THAT IS FLUSH WITH THE ADJACENT AND SURROUNDING SIDEWALK.
9. THE COST TO RESTORE THE EXISTING SIDEWALK TO THE NEAREST FLAG JOINT SHALL BE INCLUDED IN BID ITEMS ASSOCIATED WITH THE POLE INSTALLATION.
10. POLE CABLE DISTRIBUTION SYSTEM USED SHALL BE MG SQUARE DOT 3 AS DESCRIBED IN STANDARD SPECIFICATIONS SUBARTICLE 992-12.2.
11. SPLICES FOR #4 AWG AND #6 AWG CONDUCTORS SHALL UTILIZE THE MOLDED SPLICE KIT TYCO-RAYCHEM CATALOG # GELCAP-SL-20-3 HOLE.
12. NO UNNECESSARY SPLICING WILL BE PERMITTED IN PULL BOXES
13. WHERE CONVENTIONAL WIRING SYSTEMS ARE EMPLOYED OR THE EXISTING POLES ARE UTILIZED, CONDUCTORS SHALL BE SO ROUTED AND COORDINATED AS TO TERMINATE ON THE LINE SIDE OF THE FUSE-HOLDERS (HEB'S & HEBR'S).
14. PAYMENT FOR CONDUCTOR SHALL BE BASED ON THE LINEAR FEET OF SINGLE CONDUCTOR IN HORIZONTAL MEASUREMENT. NO ALLOWANCES SHALL BE MADE FOR CONNECTION IN PULL BOXES, CABINETS OR POLES.
15. THE CONTRACTOR IS RESPONSIBLE TO PAY THE POWER COMPANY THE COST OF PROVIDING ELECTRICITY TO THE TEMPORARY AND PROPOSED LIGHTING FROM THE MOMENT THE EXISTING SERVICE IS DISCONNECTED UNTIL FINAL ACCEPTANCE OF THE NEW LIGHTING BY THE MAINTAINING AGENCY. COST TO BE INCLUDED IN PAY ITEM 102-1 MAINTENANCE OF TRAFFIC
16. ABOVE GROUND UTILITY LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION BY PRE-TRENCHING THE LOCATION OF PROPOSED LIGHT POLES PRIOR TO SUBMITTING SHOP DRAWINGS, COST OF PRE-TRENCHING TO BE INCLUDED IN THE COST OF THE LIGHT POLES.
17. CONTRACTOR SHALL ADJUST LOCATION OF PROPOSED LIGHT POLES AND CONDUIT ACCORDINGLY TO AVOID UTILITY FIELD CONFLICTS, FINAL LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
18. THE LOCATION OF UTILITIES WITHIN THE JOHN F. KENNEDY CAUSEWAY RIGHT OF WAY WERE UNKNOWN AT THE TIME OF DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH UTILITIES.



KHA PROJECT 043138022		LICENSED PROFESSIONAL JAMES SUMISLASKI, P.E.	
DATE 07/20/2015	SCALE AS SHOWN	PE LICENSE NUMBER 38841	DATE 7/30/2015
DESIGNED BY	DRAWN BY	CHECKED BY	
<b>ELECTRICAL PLAN</b>		<b>BAYWALK PLAZA PREPARED FOR NORTH BAY VILLAGE</b>	
SHEET NUMBER <b>E-101</b>		NORTH BAY VILLAGE FL	
		REVISIONS	
No.		DATE	BY

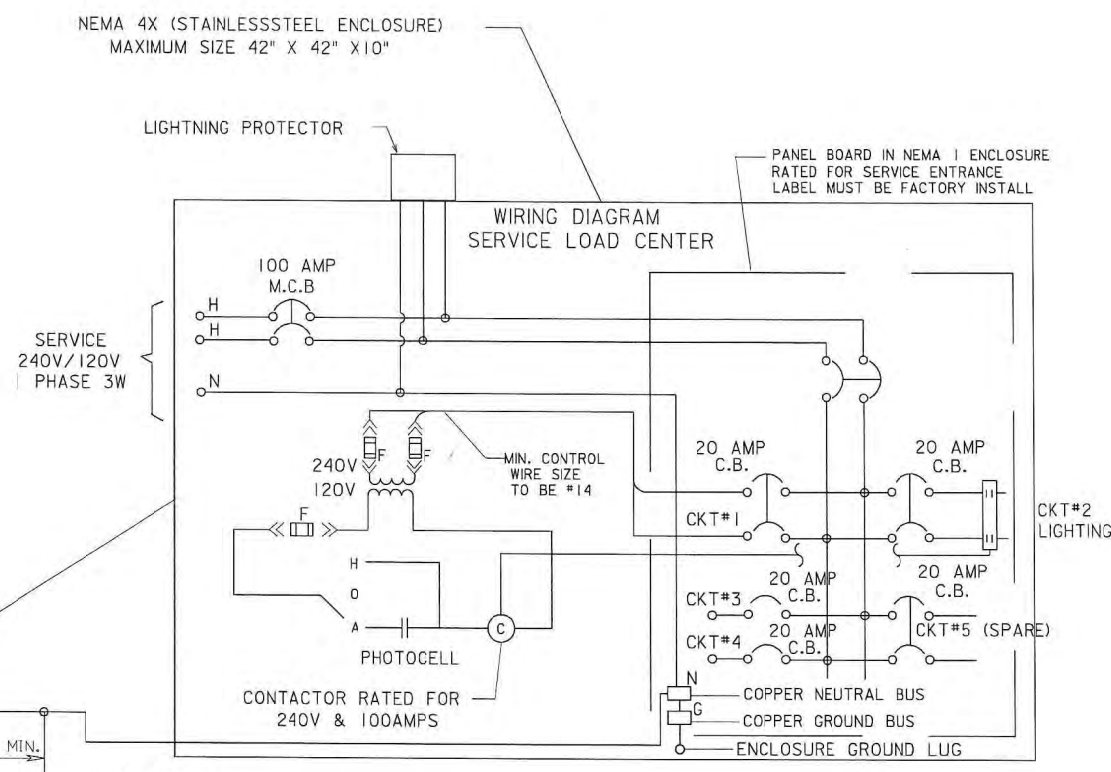
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 1777 WWA W  
 PHONE: 841-379-7600  
 WWW.KIMLEY-HORN.COM CA 00006986

Project: Baywalk Plaza - Sheet: S11 Baywalk Plaza - Layout: E-102 ELECTRICAL PLAN - July 30, 2015, 08:54:33pm - K:\VAB\_SYSTEMS\Other\_Regions\Broward\Baywalk Plaza\BAYWALK PLAZA ELECTRICAL PLANS.dwg  
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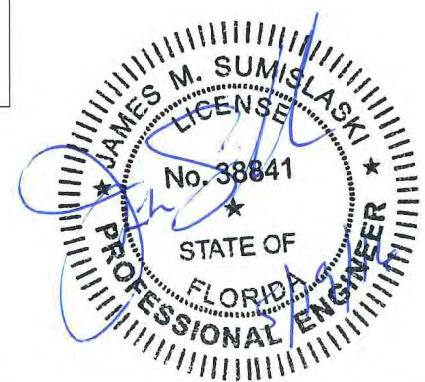
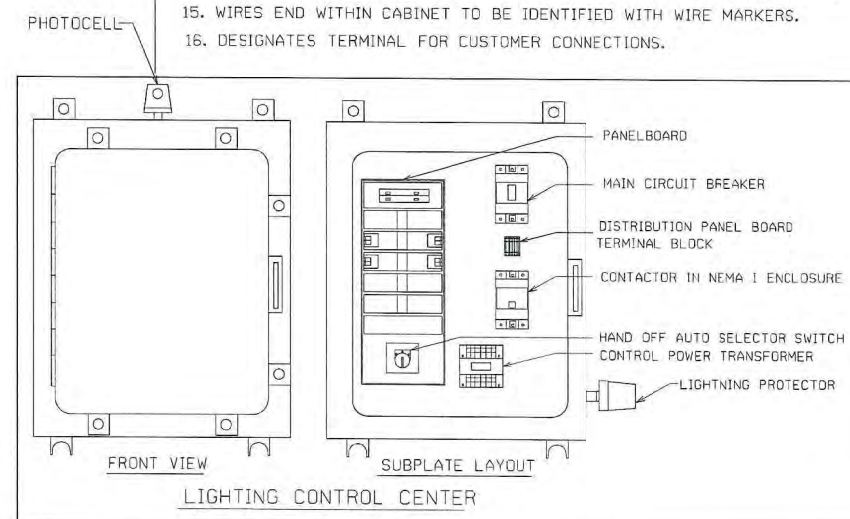
**NOTES:**      **SERVICE POINT DETAIL**  
N.T.S

1. THE ENCLOSURE SHALL BE NEMA-4X (STAINLESS STEEL), POLE MOUNTED, RIGIDLY ATTACHED TO THE POLE FACE.
2. THE ENCLOSURE DOOR SHALL BE SECURED BY LOCKABLE LATCH. THE DOOR SHALL HAVE A MINIMUM OF THREE HINGES AND BE LATCHABLE. NO SCREWS TO BE USED TO ATTACH DOOR.
3. 240V MINIMUM RATING BOLT IN TYPE BREAKERS SHALL BE USED.
4. A 600V LIGHTNING PROTECTOR SHALL BE WIRED OUTSIDE THE ENCLOSURE.
5. A MAIN BREAKER IS REQUIRED IN ALL SERVICE PANELS WITH 2 OR MORE FEEDER BREAKERS.
6. ALL SERVICE EQUIPMENT SHALL BE U.L. APPROVED.
7. BUS BAR TO BE COPPER COATED AND HAVE A MINIMUM RATING OF 100 AMPS WHEN MAIN BREAKER EXCEEDS 100 AMPS. BUSBAR TO MATCH BREAKER AMPERAGE.
8. LOCATE CONTACTOR, TRANSFORMER, AND H.O.A. SWITCH INSIDE ENCLOSURE. THE ENCLOSURE TO BE SIZED TO ACCOMMODATE AS MANY BREAKERS AS CALLED FOR AND ALL OTHER SERVICE EQUIPMENT.
9. THE ENCLOSURE TO BE RIGIDLY ATTACHED TO THE POLE FACE.



**NOTES:**

10. ALL GROUND ROD SHALL BE INTERCONNECTED (USING #6 GROUND WIRE).
11. ALL CONDUCTOR SHALL BE TYPE THWN-2. (OTHER TYPE OF CONDUCTOR IS NOT ALLOWED, EXCEPT GROUND WIRE WHICH SHALL BE TYPE THWN.)
12. CONTRACTOR SHALL SUBMIT STRUCTURAL CALCULATIONS OF THE POLE, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.
13. AFTER OPENING THE PANEL, THE PANEL BOARD SHALL HAVE A DEAD FRONT COVER FOR THE PURPOSE OF COVERING ALL THE WIRING AND EXPOSING ONLY THE BUTTONS OF THE BREAKERS; IN COMPLIANCE WITH THE N.E.C.
14. ALL WIRES EXTERNAL TO CONTROL CABINET TO BE TERMINATED TO A TERMINAL.
15. WIRES END WITHIN CABINET TO BE IDENTIFIED WITH WIRE MARKERS.
16. DESIGNATES TERMINAL FOR CUSTOMER CONNECTIONS.



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KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY	DATE	BY
04-3136022	07/20/2015	AS SHOWN	JAMES SUMISLASKI, P.E.	38841	38841	7/30/2015	FL
<b>ELECTRICAL DETAILS</b>							
<b>BAYWALK PLAZA</b> PREPARED FOR <b>NORTH BAY VILLAGE</b> NORTH BAY VILLAGE							
SHEET NUMBER <b>E-102</b>							



