Memorandum

MIAMI-DADE COUNTY

Date: September 21, 2010

Agenda Item No. 5(B)

To: Honorable Chairman Dennis C. Moss
and Members, Board of County Commissioners

From: George M. Burgess
County Manager

Subject: Class I Permit Application by the Town of Golden Beach for the Replacement of the Navona Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

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Attached, please find for your consideration an application by the Town of Golden Beach for a Class I permit. Also, attached is the recommendation of the Director of the Department of Environmental Resources Management and a resolution seeking the Board's approval of the aforesaid Class I permit.

Assistant County Manager

Memorandum

MIAMI-DADE COUNTY

Date: August 24, 2010

To: George M. Burgess
County Manager

From: Carlos Espinosa, P.E., Director
Environmental Resources Management

Subject: Class I Permit Application by the Town of Golden Beach for the Replacement of the Navona Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

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Recommendation
I have reviewed the attached Class I permit application submitted by the Town of Golden Beach. Based upon the applicable evaluation factors set forth in Section 24-48.3 of the Code of Miami-Dade County (Code), Florida, I recommend that the Board of County Commissioners (Board) approve the issuance of a Class I permit for the reasons set forth below.

Scope
The project site is located between Golden Beach Drive and North Island Drive, Golden Beach, Miami-Dade County, in Commission District 4.

Fiscal Impact/Funding Source
Not applicable.

Track Record/Monitor
Not applicable.

Background
The subject Class I permit application involves the removal of the Navona Avenue two-lane bridge which spans the Grand Canal in the Town of Golden Beach, and the replacement of said bridge with a wider two-lane bridge. The project site is located between North Island Drive and Golden Beach Drive in the Town of Golden Beach in northeastern Miami-Dade County, Florida. The proposed project is required to be reviewed and approved by the Board at a public hearing because the scope of work is not specifically referenced in Section 24-48.2 of the Code as work that can be processed administratively with a short form application. Therefore, a standard form application including a public hearing is required.

The project will occur within the North Island Grand Canal, a man-made waterway that connects to the Intracoastal Waterway, north of Dumfoundling Bay. The existing, fixed span concrete bridge was built in 1955 and provides residents the only access between North Island and Golden Beach Drive. The existing bridge is structurally deficient and does not meet the current safety and design standards of the Town of Golden Beach and the Florida Department of Transportation (FDOT). The Town of Golden Beach, as applicant, is proposing to replace the existing bridge with a 42 foot wide by 100 foot long two-lane bridge with a pedestrian and bicycle pathway. The proposed bridge incorporates a design that will improve stormwater drainage, lighting, signage, and landscaping. The bridge abutments will be widened and reconstructed in order to properly connect to the wider bridge. In order to provide navigational access and maintain sufficient clearance, the proposed bridge has been designed to yield a minimum of five ~~(5)~~ feet over water clearance, which is the same over water clearance provided by the existing bridge.

The shorelines adjacent to the proposed bridge are stabilized by existing concrete seawalls. The seawalls on both banks of the canal, within the right-of-way, will be replaced as a result of this project. In order to backfill behind the new seawalls, eighty-three point eight (83.8) square feet of tidal waters will be filled. Section 24-48.4 of the Code requires that adverse environmental impacts to natural resources be avoided and minimized. A benthic survey conducted by biologists from the Department of Environmental Resources Management (DERM) revealed that no significant benthic resources were located within the project footprint. Therefore, the work associated with the bridge and seawall replacement and the filling of tidal waters is not expected to result in impacts to benthic resources. However, the project will result in minor temporary water quality impacts to the surrounding area from the demolition and construction of the two-lane bridge and associated seawalls. To mitigate for these impacts, the applicant has agreed to provide a contribution to the Biscayne Bay Environmental Enhancement Trust Fund in the amount of $7,992.00 that will be used for the creation of a marine habitat.

The proposed project will result in the temporary relocation of a gas main, water main, and sewer force main that run along the sides of the existing bridge. Said utilities are owned by TECO Peoples Gas, Miami-Dade County Water and Sewer Department and the City of North Miami Beach, respectively. The above-mentioned utility companies have no objection to the project as proposed and have provided authorization for the temporary relocation and re-installation of said utilities.

The proposed project is located within an area identified by the Miami-Dade County Manatee Protection Plan as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

The proposed project has been designed in accordance with all relevant Miami-Dade County coastal construction criteria and is consistent with all other Miami-Dade County coastal protection provisions. Please find attached a DERM Project Report which sets forth the reasons the proposed project is recommended for approval by DERM pursuant to the applicable evaluation factors set forth in Section 24-48.3 of the Code. The conditions, limitations, and restrictions set forth in the Project Report attached hereto are incorporated herein by references hereto.

Attachments

Attachment A: Class I Permit Application
Attachment B: Owner/Agent Letter, Engineer Certification Letter and Project Sketches
Attachment C: Zoning Memorandum
Attachment D: Names and Addresses of Owners of All Riparian or Wetland Property within Three Hundred (300) Feet of the Proposed Work
Attachment E: DERM Project Report

NOTICE OF PUBLIC HEARING ON AN APPLICATION BY THE TOWN OF GOLDEN BEACH FOR A CLASS I PERMIT FOR THE REPLACEMENT OF THE STRAND AVENUE TWO-LANE BRIDGE SPANNING THE GRAND CANAL IN THE TOWN OF GOLDEN BEACH

BOARD OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

NOTICE IS HEREBY GIVEN pursuant to Article IV, Division 1 of Chapter 24 of the Code of Miami-Dade County that the Board of County Commissioners of Miami-Dade County will hold and conduct a Public Hearing on a request by the Town of Golden Beach for a Class I permit for the replacement of The Strand Avenue two-lane bridge spanning the Grand Canal in the Town of Golden Beach, Miami-Dade County, Florida. Such Public Hearing will be held on the 21st day of September 2010 at 9:30 AM in the County Commission Chambers on the 2nd Floor of the Stephen P. Clark Center at 111 NW 1st Street in Miami, Florida.

Plans and details concerning the work requested in the application may be reviewed by interested persons at the office of the Miami-Dade County Department of Environmental Resources Management, 6th Floor, 701 NW 1st Court, Miami, Florida 33136.

Oral statements will be heard and appropriate records made. For accuracy of records, all important facts and arguments should be prepared in writing in triplicate, with two copies being submitted to the Deputy Clerk of the County Commission at the hearing or mailed to her beforehand (Diane Collins, Deputy Clerk), 111 NW 1st Street, Stephen P. Clark Center, Suite 17-202, Miami, Florida 33128; and with one copy being submitted beforehand to the Miami-Dade County Department of Environmental Resources Management, 701 NW 1st Court, Miami, Florida 33136.

A person who decides to appeal any decision made by any Board, Agency, or Commission with respect to any matter considered at its meeting or hearing, will need a record of proceedings. Such person may need to ensure that a verbatim record of the proceedings is made, including the testimony and evidence upon which the appeal is to be based.

BOARD OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

HARVEY RUVIN, CLERK

BY: _____
Diane Collins, Deputy Clerk

MEMORANDUM
(Revised)

TO: Honorable Chairman Dennis C. Moss and Members, Board of County Commissioners

DATE: September 21,2010

FROM: R. A. Cuevas, Jr. County Attorney

SUBJECT: Agenda Item No. 5(B)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

✓ **Ordinance creating a new board requires detailed County Manager's report for public hearing**

_____ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 5(B)
9-21-10

RESOLUTION NO. _____

RESOLUTION RELATING TO AN APPLICATION BY THE TOWN OF GOLDEN BEACH FOR A CLASS I PERMIT FOR THE REPLACEMENT OF THE STRAND AVENUE TWO-LANE BRIDGE SPANNING THE GRAND CANAL IN THE TOWN OF GOLDEN BEACH

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board having considered all the applicable factors contained within Section 24-48.3 of the Code of Miami-Dade County, hereby approves the application by the Town of Golden Beach for a Class I permit for the replacement of The Strand Avenue two-lane bridge spanning the Grand Canal in the Town of Golden Beach, Miami-Dade County, Florida, subject to the conditions set forth in the memorandum from the Director of the Miami-Dade County Department of Environmental Resources Management, a copy of which is attached hereto and made a part hereof. The issuance of this approval does not relieve the applicant from obtaining all applicable Federal, State, and local permits.

The foregoing resolution was offered by Commissioner , who moved its adoption. The motion was seconded by Commissioner and upon being put to a vote, the vote was as follows:

Dennis C. Moss, Chairman
Jose "Pepe" Diaz, Vice-Chairman

Bruno A. Barreiro	Audrey M. Edmonson
Carlos A. Gimenez	Sally A. Heyman
Barbara J. Jordan	Joe A. Martinez
Dorrin D. Rolle	Natacha Seijas
Katy Sorenson	Rebeca Sosa
Sen. Javier D. Souto	

The Chairperson thereupon declared the resolution duly passed and adopted this 21st day of September, 2010. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By:_____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Thomas H. Robertson

Attachment A

Class I Permit Application

MIAMI-DADE COUNTY

Class I Permit Application

FOR DEPARTMENTAL USE ONLY

Date Received:	Application Number:
	Application Fee:

Application must be filled out in its entirety. Please indicate N/A for non-applicable fields.

1. Applicant Information:

Name: Town of Golden Beach

Address: 1 Golden BEach Drive

Golden Beach, FL Zip Code: 33160

Phone #: 305-932-0744 Fax#: 305-933-3825

Email: AlexDiaz@goldenbeach.us

* This should be the applicant's information for contact purposes.

2. Applicant's Authorized Permit Agent:

Agent is allowed to process the application, furnish supplemental information relating to the application and bind the applicant to all requirements of the application.

Name: Ramon Castella, P.E.

Address: 901 Ponce De Leon Blvd, Suite 900

Coral Gables, FL Zip Code: 33134

Phone #: 305-445-2900 Fax #: 305-445-5366

Email: RCastella@C3TS.com

3. Location where proposed activity exists or will occur (latitude and longitude are only necessary for properties without address or folio #):

Folio #(s): N/A Birdge/Roadway Right-of-Way Latitude: 25 57' 59" N Longitude: 80 07' 18" W

Street Address: Strand Ave b/w Golden Beach Dr&Center Dr Section: 35 Township: 51S Range: 42E

In City or Town: Town of Golden Beach Near City or Town: Town of Golden Beach

Name of waterway at location of the activity: Grand Canal Waterway

4. Describe the proposed activity (check all that apply):

- ☒ Seawall
  - ☒ New/Replacement Seawall
  - ☒ Seawall Cap
  - ☐ Batter Piles
  - ☐ King Piles
  - ☐ Footer/Toe Wall
  - ☐ Riprap
- ☐ Dock(s)
- ☐ Pier(s)
- ☐ Viewing Platform
- ☐ Boatlift
- ☐ Mooring Piles
- ☐ Fender Piles
- ☐ Davits
- ☐ Dredging
  - ☐ Maintenance
  - ☐ New
- ☐ Filling
- ☐ Mangrove Trimming
- ☐ Mangrove Removal

☒ Other: _____

Estimated project cost = $ 5,000,000

Are you seeking an after-the-fact approval (ATF)? ☐ Yes ☒ No If "Yes", describe the ATF work: _____

5. Proposed Use (check all that apply):

- ☐ Single Family
- ☐ Multi-Family
- ☐ Private
- ☒ Public
- ☐ Commercial
- ☐ Industrial
- ☐ Utility

6. If the proposed work relates to the mooring of vessels provide the following information (please also indicate if the applicant does not have a vessel):

Proposed Vessel Type (s): N/A

Vessel Make/Model (If known): N/A

Draft (s)(range in inches.): N/A Length (s)(range in feet.): N/A

Total Number of Slips: N/A

7. List all permits or certifications that have been applied for or obtained for the above referenced work:

Issuing Agency	Type of Approval	Identification Number	Application Date	Approval Date
SEE ATTACHED				

RECEIVED

AUG 11 2010

DERM Coastal Resources Section
Natural Resources Regulation & Restoration

8. Contractor Information (If known):

Name: CONTRACTOR TO BE DETERMINE License # (County/State): _____

Address: _____ Zip Code: _____

Phone #: _____ Fax #: _____ E-mail: _____

9. IMPORTANT NOTICE TO APPLICANTS: The written consent of the property owner is required for all applications to be considered complete. Your application WILL NOT BE PROCESSED unless the Applicant and Owner Consent portion of the application is completed below. You have the obligation to apprise the Department of any changes to information provided in this application.

Application is hereby made for a Miami-Dade County Class I permit to authorize the activities described herein. I agree to or affirm the following:

- **I possess the authority to authorize the proposed activities at the subject property, and**
- **I am familiar with the information, data and plans contained in this application, and**
- **To the best of my knowledge and belief, the information, data and plans submitted are true, complete and accurate, and**
- **I will provide any additional information, evidence or data necessary to provide reasonable assurance that the proposed project will comply with the applicable State and County water quality standards both during construction and after the project is completed, and**
- **I am authorizing the permit agent listed in Section 2 of this application to process the application, furnish supplemental information relating to this application and bind the applicant to all requirements of this application, and**
- **I agree to provide access and allow entry to the project site to inspectors and authorized representatives of Miami-Dade County for the purpose of making the preliminary analyses of the site and to monitor permitted activities and adherence to all permit conditions.**

A. IF APPLICANT IS AN INDIVIDUAL

Signature of Applicant | Print Applicant's Name | Date

B. IF APPLICANT IS OTHER THAN AN INDIVIDUAL OR NATURAL PERSON
(Examples: Corporation, Partnership, Trust, LLC, LLP, etc.)

The Town of Golden Beach | | Florida

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Applicant, to bind the Applicant, and if so required to authorize the issuance of a bond on behalf of the Applicant. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ***

Signature of Authorized Representative | Alexander Diaz (Print Authorized Representative's Name) | Town Manager (Title) | 8/10/2010 (Date)

C. IF APPLICANT IS A JOINT VENTURE Each party must sign below(If more than two members, list on attached page)

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Print Name of Applicant (Enter the complete name as registered) | Type (Corp, LLC, LLP, etc.) | State of Registration/Incorporation

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Applicant, to bind the Applicant, and if so required to authorize the issuance of a bond on behalf of the Applicant. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreements, or other applicable agreements or laws, you must attach additional signature pages. ***

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

Signature of Authorized Representative | Print Authorized Representative's Name | Title | Date

RECEIVED
AUG 11 2010
DERM Coastal Resources Section
Natural Resources Regulation & Restoration

10. WRITTEN CONSENT OF THE PROPERTY OWNER OF THE AREA OF THE PROPOSED WORK

I/We are the fee simple owner(s) of the real property located at The Strand Avenue, Town of Golden Beach Miami-Dade County, Florida, otherwise identified in the public records of Miami-Dade County as Folio No. NOT APPLICABLE. I am aware and familiar with the contents of this application for a Miami-Dade County Class I Permit to perform the work on or adjacent to the subject property, as described in Section 4 of this application. I possess the riparian rights to the area of the proposed work (if applicable) and hereby consent to the work identified in this Class I Permit application.

A. IF THE OWNER(S) IS AN INDIVIDUAL

Signature of Owner	Print Owner's Name	Date
Signature of Owner	Print Owner's Name	Date

B. IF THE OWNER IS OTHER THAN AN INDIVIDUAL OR NATURAL PERSON
(Examples: Corporation, Partnership, Joint Venture, Trust, LLC, LLP, etc.)

Print Name of Owner (Enter the complete name as registered)	Type (Corp, LLC, LLP, etc.)	State of Registration/Incorporation
Town of Golden Beach		Florida

Address of Owner: 1 Golden Beach Drive, Golden Beach, FL 33160

Under the penalty of perjury, I certify that I have the authority to sign this application on behalf of the Owner, to bind the Owner, and if so required to authorize the issuance of a bond on behalf of the Owner. (If asked, you must provide proof of such authority to the Department). ***Please Note: If additional signatures are required, pursuant to your governing documents, operating agreement, or other applicable agreements or laws, you must attach additional signature pages. ***

Signature of Authorized Representative	Print Authorized Representative's Name	Title	Date
	Alexander Diaz	Town Manager	8/10/2010
Signature of Authorized Representative	Print Authorized Representative's Name	Title	Date

Please Review Above

Appropriate signature(s) must be included in:

Box 9: either A, B or C

AND

Box 10: either A or B

RECEIVED
AUG 11 2010
DERM Coastal Resources Section
Coastal Resources Regulation & Restoration Division (A-3200)

11

Revised 1/16/09

Attachment B

Owner/Agent Letter, Engineer Certification Letter and Project Sketches

PERMIT APPLICANT/ AUTHORIZED AGENT STATEMENT

Date: July 21, 2010

To:
Miami Dade County DERM
Class I Permitting Program
701 NW 1st Court
Miami FL, 33136

Re: Class I Standard Form Permit Application Number 2009-CLI-PER-00059

By the attached Class I Standard Form permit application with supporting documents, I, Mr. Ramon Castella, Vice President, Corzo Castella Carballo Thompson Salman, P.A., am the Applicant's Authorized Permit Agent and hereby request permission to perform the work associated with Class I permit application 2009-CLI-PER-00059. I understand that a Miami-Dade County Class I Standard Form Permit is required to perform this work.

If approval is granted for the proposed work by the Board of County Commissioners, complete and detailed plans and calculations of the proposed work shall be prepared by an engineer registered/licensed in the State of Florida in accordance with the minimum requirements of Chapter 24 of the Code of Miami-Dade County, Florida. Said plans and calculations shall be subject to the review and approval of the Department of Environmental Resources Management. The permit applicant will secure the services of an engineer registered/licensed in the State of Florida to conduct inspections throughout the construction period, and said engineer shall prepare all required drawings of record. In the event that the proposed work which is the subject of this Class I Permit application involves the cutting or trimming of a mangrove tree(s), a detailed plan of the proposed cutting or trimming shall be prepared by a licensed landscape architect and submitted to the Department for review and approval, and the permit applicant will secure the services of a licensed landscape architect to supervise the trimming or cutting.

Respectfully submitted,

Mr. Ramon Castella, P.E.
Vice President
Corzo Castella Carballo Thompson Salman, P.A.
Applicant's Authorized Permit Agent

C3TS
CORZO CASTELLA CARBALLO THOMPSON SALMAN
Engineers
Architects
Planners

July 21, 2010

Miami-Dade County DERM
Class I Permitting Program
701 NW 1st Court
Miami, Florida 33136

Re: Class I Standard Form Permit Application Number 2009-CLI-PER-00059

Ladies and Gentlemen:

EB0005022
AAC002142

This letter will certify that I am an engineer registered/licensed in the State of Florida, qualified by education and experience in the area of construction, and that to the best of my knowledge and belief, the proposed work does not violate any laws of the State of Florida or any provision of the Code of Miami Dade County which may be applicable, that diligence and recognized standard practices of the engineering profession have been exercised in the engineer's design process for the proposed work, and in my opinion based upon my knowledge and belief, the following will not occur:

a. Harmful obstruction or undesirable alteration of the natural flow of the water within the area of the proposed work.
b. Harmful or increased erosion, shoaling of channels or stagnant areas of water. (Not applicable to Class IV Permits)
c. Material injury to adjacent property.
d. Adverse environmental impacts from changes in water quality or quantity. (Applicable to Class IV Permits only)

Further, I have been retained by the applicant to provide inspections throughout the construction period and to prepare a set of reproducible record prints of drawings showing changes made during the construction process based upon the marked-up prints, drawings, and other data furnished by the contractor to me

Sincerely,

Corzo Castella Carballo Thompson Salman, P.A.

Ricardo De Jesus Blanco, P.E. (P.E. # 53135)

901 Ponce de Leon Blvd., Suite 900 Coral Gables, Florida 33134 305.445 2900 1.800.448.0227 Facsimile 305.445 3366
Web Site www.c3ts.com Equal Opportunity Employer

PROJECT No.	SHEET No.
734-03	C0
CADD FILE 734-03COVER	

TOWN OF GOLDEN BEACH
THE STRAND BRIDGE REPLACEMENT

MIAMI–DADE COUNTY, FLORIDA

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
C0	COVER SHEET
C1	TYPICAL SECTIONS
C2	GENERAL NOTES
C3	CONSTRUCTION DETAILS
C4	SOIL STABILIZATION PLAN
C5	SOIL STABILIZATION DETAILS
C6	BACK OF SIDEWALK PROFILE
C7	ROADWAY PLAN & PROFILE
C8–C10	CROSS SECTIONS
C11–C12	UTILITY ADJUSTMENT PLAN
C13	TRAFFIC CONTROL NOTES
C14	TRAFFIC CONTROL PLAN
C15	TEMPORARY SIGNAL PLAN
C16	EROSION CONTROL PLAN
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E1–E4	LIGHTING PLANS
LA1	LANDSCAPING PLANS

BRIDGE PLANS

B-1	GENERAL NOTES, INDEX OF BRIDGE SHEETS AND BID ITEM NOTES
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B-4	BRIDGE HYDRAULIC RECOMMENDATIONS
B-5	CONSTRUCTION SEQUENCE
B-6	REPORT OF CORE BORINGS (1 OF 3)
B-7	REPORT OF CORE BORINGS (2 OF 3)
B-8	REPORT OF CORE BORINGS (3 OF 3)
B-9	FOUNDATION LAYOUT
B-10	DRILLED SHAFT DETAILS (1 OF 2)
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B-12	END BENT NO. 1
B-13	END BENT NO. 3
B-14	END BENT DETAILS (1 OF 2)
B-15	END BENT DETAILS (2 OF 2)
B-16	INTERMEDIATE BENT NO. 2
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B-19	SUPERSTRUCTURE DETAILS (1 OF 4)
B-20	SUPERSTRUCTURE DETAILS (2 OF 4)
B-21	SUPERSTRUCTURE DETAILS (3 OF 4)
B-22	SUPERSTRUCTURE DETAILS (4 OF 4)
B-23	PRESTRESSED SLAB UNITS (1 OF 2)
B-24	PRESTRESSED SLAB UNITS (2 OF 2)
B-25	APPROACH SLABS
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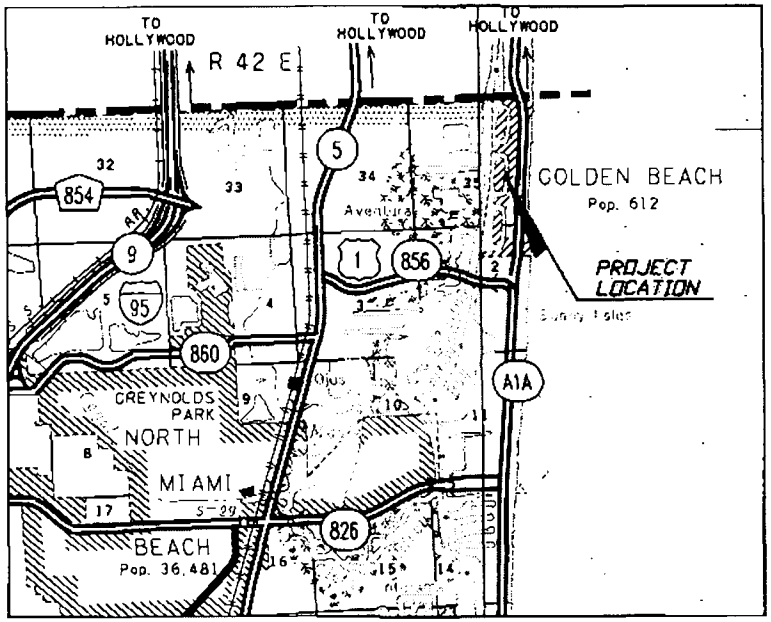
B-31	REINFORCING BAR LIST (5 OF 5)
B-32	LOAD RATING
BX-1	
AND	*EXISTING BRIDGE PLANS*
BX-2	



NORTH
NTS

C3TS PROJECT NO. 00734-03.002

TOWN COUNCIL:

Mayor: Glenn Singer
Vice Mayor: Amy Rojas
Council Members: Bernard Einstein
Judy Lusskin
Ken Bernstein
Town Manager: Alexander Diaz
Town Attorney: Stephen Helfman
Town Clerk: Elizabeth Sewell

FEBRUARY 1, 2010

Miami-Dade Consulting Engineers Council Member
Supporting Excellence in Engineering

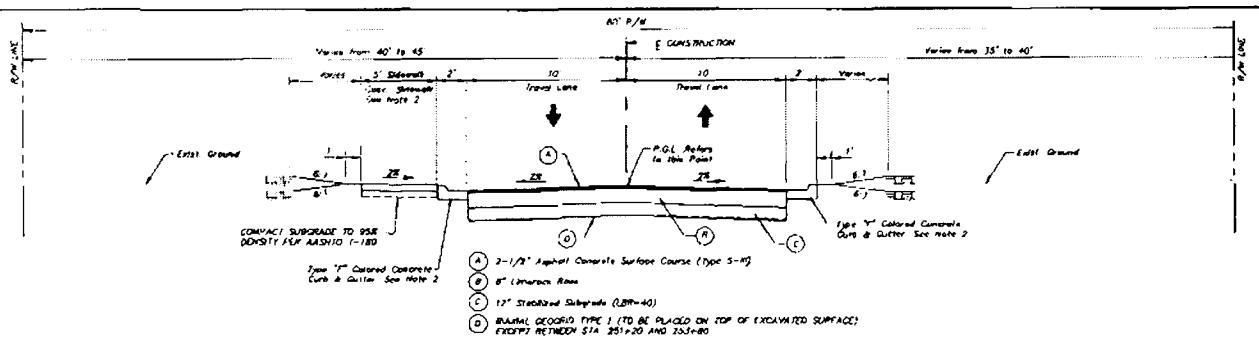
CIRZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
901 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-448-0287
FL REGISTRATIONS: EB0005922 AAC002142

Call 48 hours before you dig
1-800-432-4770

APPROVED BY

DATE

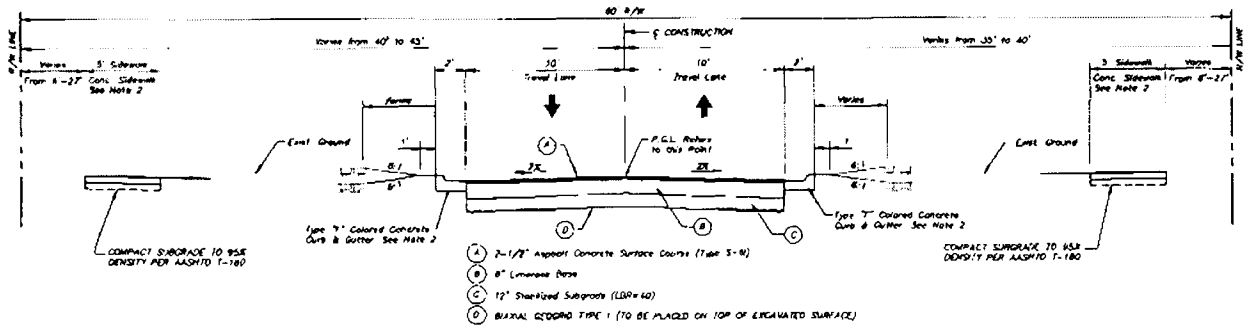
CARLOS M. HERDOCIA, P.E.
REGISTERED ENGINEER NO. 47660
STATE OF FLORIDA



THE STRAND

STA 250+10 TO STA 251+50

N.T.S.



THE STRAND

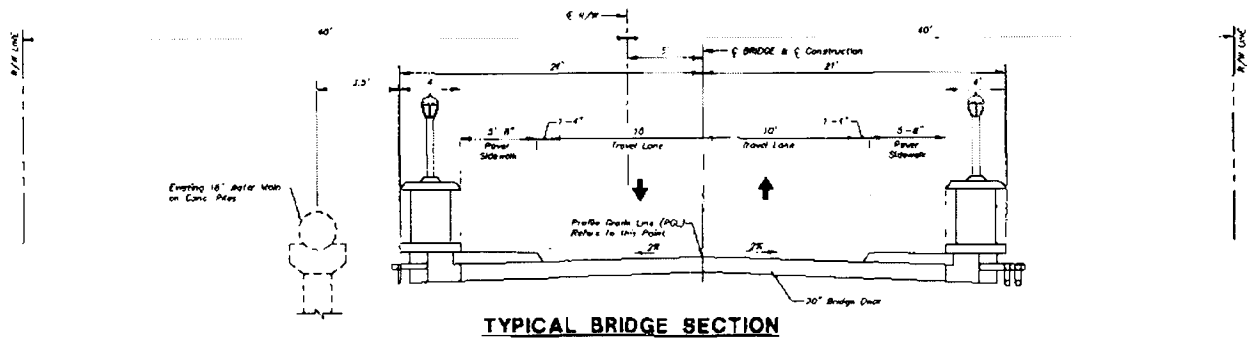
STA 253+90 TO STA 254+85

N.T.S.

DESIGN SPEED= 25 MPH

NOTES:

1. THE COST OF LIMEROCK BASE UNDER TYPE F CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF CURB AND GUTTER.
2. CONCRETE SIDEWALK AND CURB & GUTTER SHALL BE INTEGRALLY COLORED "GOLDEN BEACH TAN" (MESA BUFF 1LB. GREY CEMENT) BY LAMBERT CORPORATION AT THE DIRECTION OF THE ENGINEER OF RECORD. THE CONTRACTOR SHALL CAST PLAST IN THE FIELD TO DETERMINE THE EXACT AMOUNT OF COLORING AGENT TO CONCRETE FOR ALL COLORED CONCRETE SHALL BE PURCHASED BY THE CONTRACTOR THE SAME READY-MIX COMPANY TO ENSURE COLOR CONSISTENCY THROUGHOUT



TYPICAL BRIDGE SECTION

STA 252+00 TO STA 252+08.87

N.T.S.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORDELLA - LA CARRILLO - WYSON SAWAY, P.A.
ENGINEERS-ARCHITECTS-PLANNERS
601 BRICKELL KEY BLVD., SUITE 900
CORAL GABLES, FLORIDA 33131
MIAMI (305)-443-3900 FLORIDA (800)-478-8577
F.E. REGISTRATIONS ENGINEERING AA0003142

DATE:	01/08/2009
DRAWN	RM
DESIGNED	CH
CHECKED:	RC
QC.	RC
CADD FILE.	00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO.
C1

GENERAL NOTES

1. THE BENCH MARK DATA IS NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD-29)

2. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED AS CONTRACT OR AS FOLLOWS: CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK IN CHARGE OF BEING DAMAGED, DESTROYED OR CONCEALED SHALL BE PROPERLY REFERENCED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THAT SITE. THE CONTRACTOR SHALL RETAIN THE LAND SURVEYOR TO REFERENCE, AND RESTORE UPON COMPLETION OF THE WORK, ALL SUCH CORNERS AND MONUMENTS AND SHALL FURNISH TO THE DISTRICT LOCATION ENGINEER A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWINGS. INCLUDE ALL COST OF REFERENCING, RESTORING AND PRESERVING IN THE BID UNIT PRICE FOR ITEM 101-1 MOBILIZATION.

3. ALL N.G.V.D. BENCH MARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED AND RELOCATED BY THE CONTRACTOR IN THE SAME WAY AS PUBLIC LAND CORNERS, EXCEPT THAT THE LAND SURVEYORS SHALL NOT BE REQUIRED TO RESTORE THE N.G.V.D. BENCH MARK UPON COMPLETION OF THE WORK. THE CONTRACTOR SHALL PROMPTLY TRANSMIT ALL DISPLACED OR DAMAGED N.G.V.D. DISCS TO THE DISTRICT LOCATION SURVEYOR, WHO SHALL NOTIFY THE GEODETIC INFORMATION CENTER. INCLUDE ALL COST OF REFERENCING AND PROTECTING IN THE BID PRICE FOR ITEM 101-1 MOBILIZATION.

4. ALL EXCESS MATERIAL AS DETERMINED BY THE ENGINEER IS TO BE DISPOSED BY THE CONTRACTOR IN AREAS PROVIDED BY HIM WITHIN 75 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.

5. THE CONTRACTOR SHALL HAVE A STREET SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK. CLEANING AND PRESERVING IS TO BE INCLUDED IN ITEM 102-1 MAINTENANCE OF TRAFFIC.

6. THE CONTRACTOR SHALL PAINT ALL STATIONS WITH STENCILED NUMBERS ON THE FACE OF THE CURB.

   a. FROM THE BEGINNING OF THE PROJECT WHERE THE CURB IS TO REMAIN.
   b. AT NEW CURB NOT LATER THAN 72 HOURS AFTER BEING POURED.
   c. WHERE CURB DOES NOT EXIST AND SHALL NOT BE CONSTRUCTED THE CONTRACTOR SHALL MAINTAIN STATIONING WITH SURVEYING STAKES.

   THE CONTRACTOR SHALL MAINTAIN THE STATION MARKS VISIBLE UNTIL FINAL INSPECTION. COST TO BE INCLUDED IN RELATED PAY ITEM 102-1 MAINTENANCE OF TRAFFIC.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE DEWATERING PERMIT. COST OF PERMIT AND DEWATERING SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.

8. IF SHEETING, SHORING, OR DEWATERING, INCLUDING WELL POINTS ARE NECESSARY, THE CONTRACTOR MUST MONITOR AND CONTROL ALL WORK THAT MAY CAUSE DAMAGING TO ANY ADJACENT BUILDING, STRUCTURE OR PROPERTY AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THESE OPERATIONS. COST OF SHEETING, SHORING OR DEWATERING, INCLUDING WELL POINTS, AND ALL MONITORING COST SHALL BE INCLUDED IN THE RELATED BID ITEMS FOR THE WORK BEING DONE.

9. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING AND NEW INLETS CLEAN OF MILLING MATERIAL, LIMEROCK, DEBRIS, ETC. FROM THE DURATION OF THE PROJECT AT NO ADDITIONAL COST.

10. CLEARING AND GRUBBING, GRADING AND OTHER INCIDENTAL WORK NECESSARY FOR HARMONIZATION OUTSIDE R/W SHALL BE INCLUDED IN RELATED BID ITEMS (ASPHALT, SOD, CONCRETE, BARRICE, ETC.)

11. THE CONTRACTOR SHALL PERFORM SELECTIVE CLEARING AND GRUBBING FOR THE WORK BEING DONE. COST TO BE INCLUDED IN 110-1-1 CLEARING & GRUBBING

12. THE CONTRACTOR SHALL PROVIDE SURVEYS AND VIBRATION/VIBRATION MONITORING OF ADJACENT EXISTING STRUCTURES AS PER FDOT STANDARD SPECIFICATIONS. THE COST OF ALL VIBRATION MONITORING AS REQUIRED HERE AND SPECIFIED IN SECTION 455 SHALL BE PAID FOR UNDER PAY ITEM NO. 455-16, PROTECTION OF EXISTING STRUCTURES.

13. COPY OF THE FIELD OFFICE ONE MONTH BEFORE THE CONSTRUCTION BEGINS AND ONE MONTH AFTER THE CONSTRUCTION IS FINISHED, TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC. COST OF FIELD OFFICE DURING CONSTRUCTION TO BE INCLUDED IN 101-7-3

14. THE FIELD OFFICE SHALL BE LOCATED WITHIN ONE MILE OF THE LIMITS OF CONSTRUCTION

DRAINAGE NOTES:

1. EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMIT SHALL REMAIN UNLESS OTHERWISE NOTED.

2. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES EXTEND INTO THE STABILIZED PORTION OF THE ROADBED AND EXTREME CAUTION WILL BE NECESSARY IN STABILIZATION OPERATIONS AT THESE LOCATIONS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS ASSOCIATED WITH THIS PROJECT WITH THE DEPARTMENT'S ENVIRONMENTAL PERMITS COMPLIANCE MONITOR DURING THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT ENVIRONMENTAL COMPLIANCE MONITOR AT (305) 470-5389 AT LEAST 72 HOURS PRIOR TO STAGING AT THE END OF THE PROJECT, THE STAGING AREAS WILL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO THE DEPARTMENT.

2. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE SKIMMERS AND ABSORBENT MATERIAL AT THE WORK AREA FOR IMMEDIATE DEPLOYMENT IN THE EVENT OF AN ACCIDENTAL SPILL.

3. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF THE ENVIRONMENTAL PERMITS WHICH ARE A PART OF THIS PROJECT. PAYMENT FOR PERMIT RELATED WORK SHALL BE INCLUDED IN PAY ITEM 101-1, MOBILIZATION.

4. THE PROJECT CORRIDOR IS LOCATED IN THE VICINITY OF BISCAYNE WATERWAY, WHICH IS DESIGNATED AS OUTSTANDING FLORIDA WATERS. THEREFORE, NO DEGRADATION OF WATER QUALITY SHALL BE PERMITTED. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE DISCHARGE OF FOREIGN MATTER INTO AND/OR INCREASING THE TURBIDITY OF THE WATER. APPROPRIATE SEDIMENT CONTROL MEASURES SHOULD BE INSTALLED TO COMPLETELY ENCAPSULATE THE WORK AREA DURING CONSTRUCTION ACTIVITIES AND THE TURBIDITY LEVELS BEYOND THE CONTROL MECHANISMS ARE NOT ALLOWED TO EXCEED NATURAL BACKGROUND LEVELS.

5. THE CONTRACTOR IS PROHIBITED FROM ALLOWING BRIDGE FRAGMENTS OR DEBRIS BEING DISPOSED INTO THE WATER. THE CONTRACTOR WILL FIRE HIGH TO THE MAXIMUM EXTENT PRACTICABLE ANY DEBRIS OR FRAGMENT SEGMENTS DURING DEMOLITION AND CONSTRUCTION ACTIVITIES FROM ENTERING THE WATERWAY. ANY MATERIAL THAT ENTERS THE CANAL WILL BE REMOVED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE NEXT PHASE OF CONSTRUCTION. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

6. WEST INDIAN MANATEES (TRICHECHUS MANATUS LATIROSTRIS) MAY INHABITE THROUGH THE PROJECT AREA. THE WEST INDIAN MANATEE IS A FEDERAL AND STATE LISTED ENDANGERED SPECIES PROTECTED BY THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE REQUIREMENTS REGARDING ENDANGERED SPECIES, AND THE FDOT ENDANGERED SPECIES SPECIAL PROVISIONS. THE CONTRACTOR SHALL POST TEMPORARY SIGNS ON SITE CONCERNING MANATEES (SEE TI AND SYMBOL AND CONSTRUCTION ACTIVITIES, AND REMOVE ALL SIGNS UPON COMPLETION OF THE PROJECT. THE CONTRACTOR MUST PROVIDE A SIGNED MANUAL AT LEAST 3 BY 4 FEET THAT READS "CAUTION MANATEE AREA" IN A LOCATION PROMINENTLY VISIBLE TO WATER-RELATED CONSTRUCTION CREWS. IF VESSELS ARE ALLOCATED WITH THE CONSTRUCTION AREA, ADDITIONAL SIGNAGE SHALL BE DISPLAYED NEXT TO THE CONTROLS ON ALL CONSTRUCTION-RELATED VESSELS, MINIMUM AT LEAST 8.5 BY 11 INCHES AND READ "CAUTIONS MANATEE PRESENT". THE COST OF PROVIDING AND REMOVING ALL ITEMS REQUIRED FOR THE MONITORING AND PROTECTION OF MANATEES, SUCH AS, BUT NOT LIMITED TO SIGNS FOR SIGNS, POLARIZED GLASSES, BINOCULARS, MANATEE OBSERVER AND COTTRELL TRAINING SHALL BE INCLUDED UNDER PAY ITEM 101-1, MOBILIZATION.

UTILITY NOTES:

1. FOR UTILITY ADJUSTMENT SYMBOLS, SEE STANDARD INDEX No. 410

2. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED

3. TWO FULL BUSINESS DAYS PRIOR TO BEGINNING THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA, TELEPHONE NUMBER 1-800-432-4770, AND THE UTILITY OWNER AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE LIST BE PRESENT WHEN UTILITY COMPANIES LOCATE THEIR FACILITIES.

4. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES FROM THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, INSTALLING, BACKFILLING AND COMPACTING AROUND THESE LATERAL SERVICES MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.

5. PRE-TRENCHING IS THE ALIGNMENT AND GRADE OF PROPOSED PIPES STRUCTURES, MAINTENANCE PITS, FRENCH DRAINS, SEAL COVERED TRENCHES, CONDUITS AND/OR SUB-GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE UNDERGROUND UTILITY OWNERS AND THE DEPARTMENT WITH A SEVEN DAYS ADVANCE NOTICE OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND FOREIGN FACILITIES. PAYMENT FOR PRE-TRENCHING, SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.

6. THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED VA, VB AND VAL) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.

7. UTILITY OWNERS:

ATLANTIC COMMUNICATIONS	(305) 888-0877
AT&T-DIST	(954) 723-2646
AT&T	(770) 916-8624
COMCAST	(954)924-7417
FLORIDA CITY GAS	(305) 636-3662
FLORIDA POWER & LIGHT	(800) 888-8854
FPL - FIBERNET	(305) 342-2024
MCI	(972) 729 6016
MIAMI-DADE WATER & SEWER	(786) 268-5214
CITY OF NORTH MIAMI BEACH	(305) 948-7967
TECOGPEOPLES GAS	(954) 463-0634

PAY ITEMS NOTES:

102-1 INCLUDES THE COST OF FURNISHING, PLACING AND REMOVING COMMERCIAL MATERIAL FOR DRIVEWAY MAINTENANCE.

104-11-1 TURBIDITY CURTAIN SHALL BE OF SUFFICIENT DEPTH TO REACH THE BOTTOM OF THE CANAL.

120-4 INCLUDES THE COST OF REMOVING ALL MATERIAL DOWN TO THE BOTTOM OF THE LOAD TRANSFER PLATFORM, STORING ALL MATERIAL (EXCEPT ASPHALT MATERIAL) OUTSIDE THE WORKING AREA AT A PLANT FOR PROCESSING FOR BENEFICIAL PURPOSES. EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.

120-6 INCLUDES THE COST OF THE GRANULAR STRUCTURAL FILL, LIMEROCK FILL AND RIP STONE

162-7-1 INCLUDES THE COST OF FILTER FABRIC.

200-70 INCLUDES 5 CY FOR MISCELLANEOUS CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

327-70-1 INCLUDES THE COST OF SAWCUTTING EXISTING PAVEMENT

400-7-10 INCLUDES 5 CY FOR MISCELLANEOUS CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

425-1-11 INCLUDES THE COST OF CONNECTION OF NEW PIPES TO THE EXISTING DRAINAGE STRUCTURE.

455-101-3 INCLUDES THE CONSTRUCTION OF 18" DIAMETER AUGER CAST PILES.

460-6 INCLUDES THE COST OF THE MANTEX EXPANSION JOINT

520-3-9 INCLUDES THE COSTS FOR BOTH THE SIDEWALK AND DRIVEWAY CONCRETE EDGE CONSTRAINT

522-1 & 522-2 INCLUDES THE COST OF CONCRETE BASE UNDERNEATH THE PAVER SECTION.

530-1 INCLUDES THE COST OF FILTER FABRIC AND COARSE AGGREGATE

570-1-4 INCLUDES THE COST OF WATER, FERTILIZER AND TOPSOIL

710- ALL PAVEMENT MARKINGS SHALL BE PAINTED UNLESS OTHERWISE NOTED IN THE PLANS. PAVEMENT MARKING QUANTITIES SHOWN ON THE SIGNING AND PAVEMENT MARKING TABULATION SHEET ARE FOR ONE APPLICATION. TWO APPLICATIONS OF PAVEMENT MARKINGS WILL BE REQUIRED. THE TOTAL SHOWN ON THE ROADWAY SUMMARY OF PAY ITEMS INCLUDES THE QUANTITIES FOR PAVEMENT MARKINGS USED FOR TRAFFIC CONTROL, PAVEMENT MARKING AND TWO APPLICATIONS OF FINAL PAVEMENT MARKINGS

REVISIONS		APPROVED BY:							
DESCRIPTION	DATE	DATE:	CARLOS M. HERDOCIA, P.E. FLORIDA REGISTRATION No. 47660	CARLOS M. HERDOCIA & THOMAS SULIVAN, P.A. ENGINEERS-ARCHITECTS-PLANNERS 901 PONCE DE LEON BLVD., SUITE 900 CORAL GABLES, FLORIDA 33134	DATE: 01/08/2009	DRAWN: RM	DESIGNED: CH	CHECKED: RC	GC: RC	CADD FILE: 00734-03	TOWN OF GOLDEN BEACH	THE STRAND BRIDGE REPLACEMENT	00734-03	SHEET NO C2
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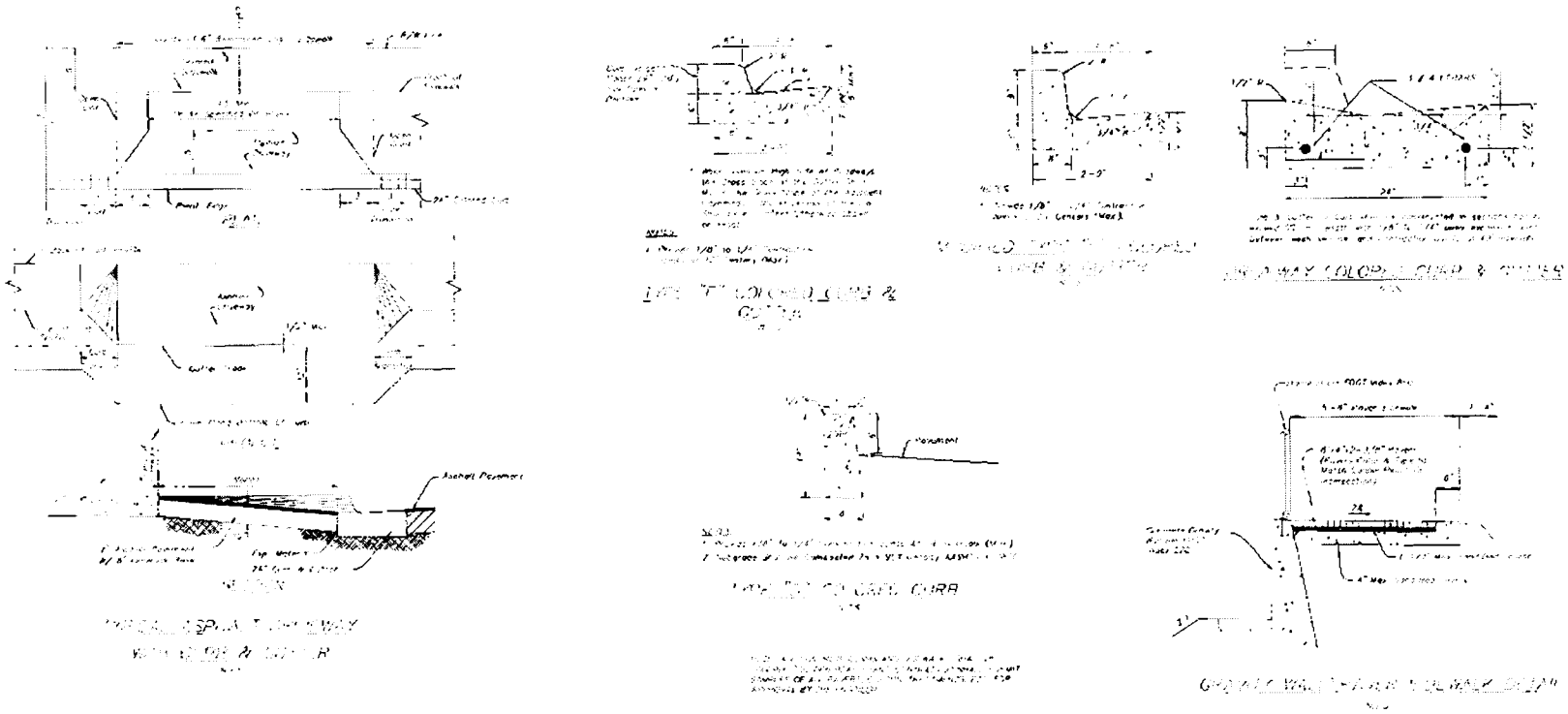

CONSTRUCTION DETAILS

REVISIONS		
DESCRIPTION	DATE	
1.		
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APPROVED BY:

DATE:

CARLOS M. HERODOCIA, P.E.
FLORIDA REGISTRATION No 42660

DATE:	01/08/2009
DRAWN:	RM
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TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO
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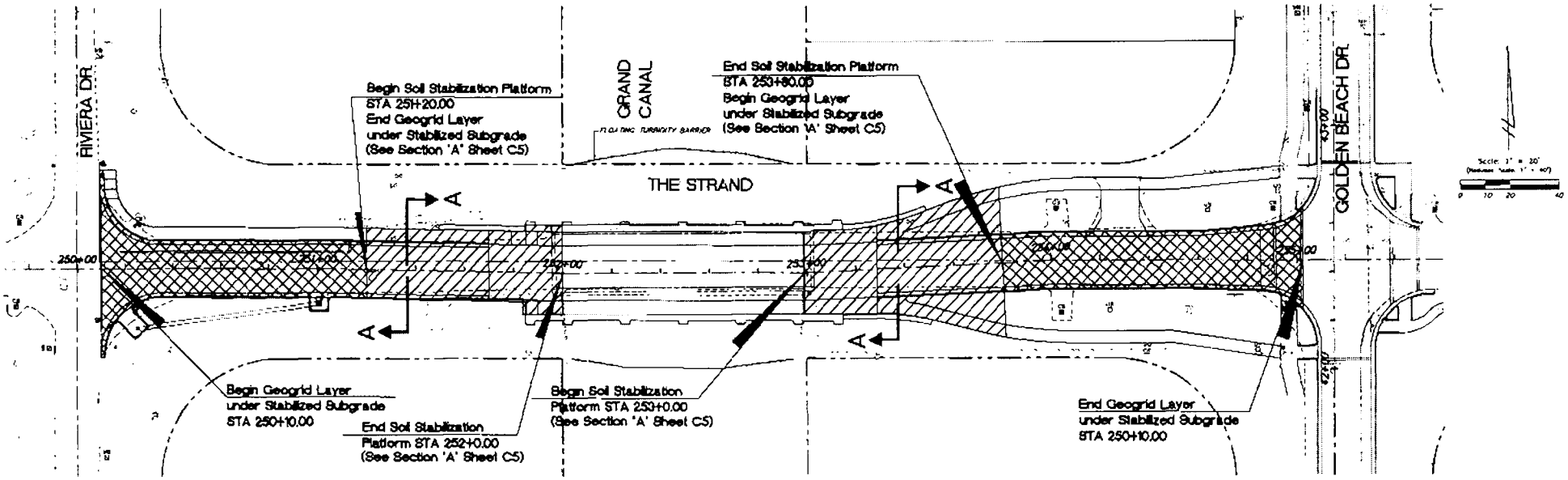

NOTES:

1. THE SOILS STABILIZATION AREA SYSTEM SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. SIGNED AND SEALED DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED AT LEAST 45 DAYS PRIOR TO STARTING CONSTRUCTION.
2. THE SOIL STABILIZATION SYSTEM SHALL HAVE A TOTAL SETTLEMENT OF NO MORE THAN 0.50 INCHES AND DIFFERENTIAL SETTLEMENT OF NO MORE THAN 0.40 INCHES

LEGEND:

- Soil Stabilization Platform
- Geogrid Reinforcement

SOILS STABILIZATION

REVISIONS		
DESCRIPTION	DATE	
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APPROVED BY:

DATE:

CARLOS M. HERODICIA, P.E.
FLORIDA REGISTRATION No. 47660

CGTS

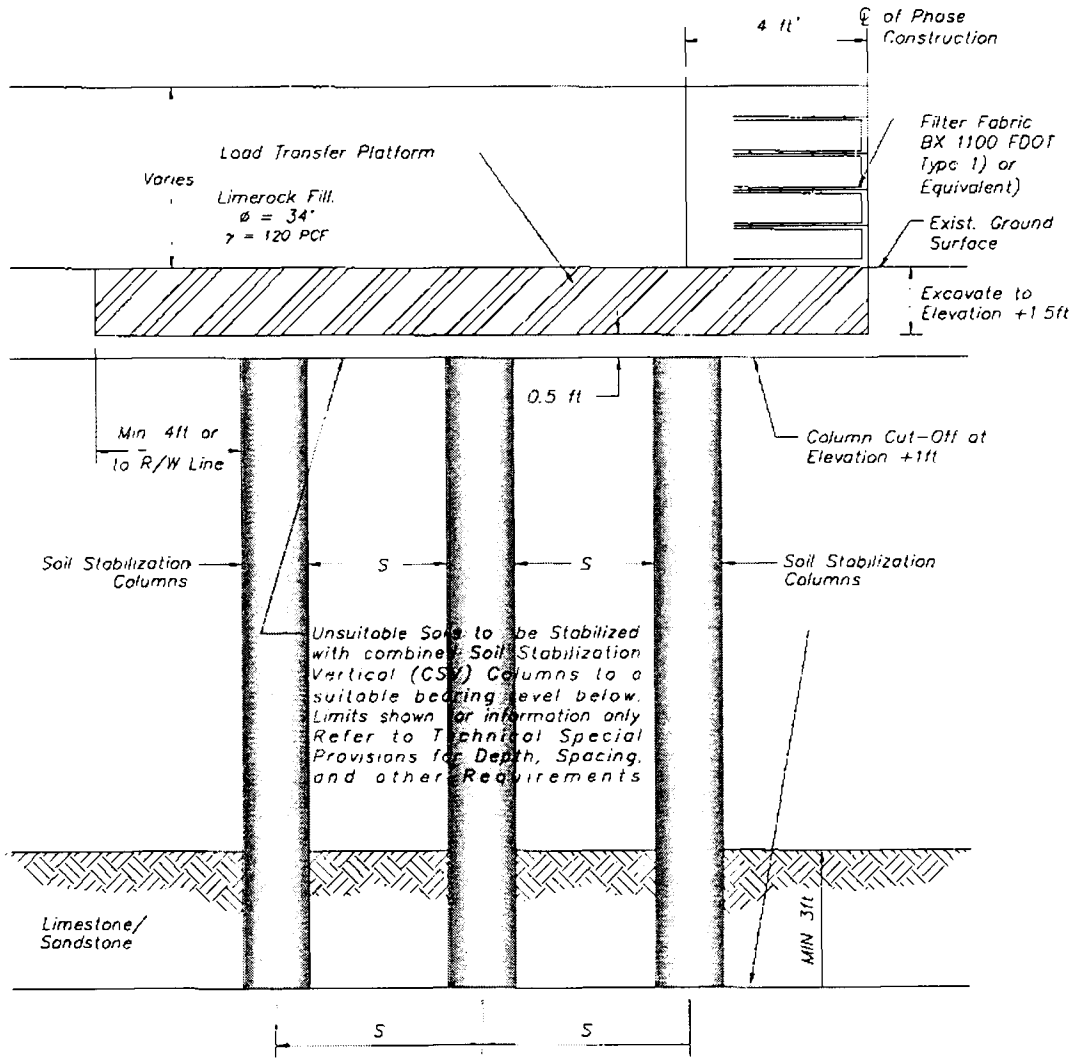
DATE	01/06/2009
DRAWN	RM
DESIGNED	CH
CHECKED	RC
QC	RC
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO
C4



SECTION "A" TYPICAL SOIL STABILIZATION CROSS SECTION

N.T.S.

NOTES:

1. THE LOAD TRANSFER PLATFORM SYSTEM SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. SIGNED AND SEALED DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED AT LEAST 45 DAYS PRIOR TO STARTING CONSTRUCTION.

2. THE DESIGN OF THE LOAD TRANSFER PLATFORM SHALL BE BASED ON THE FOLLOWING CRITERIA.

   A. THE LOAD TRANSFER PLATFORM SHALL TRANSFER THE FINAL DESIGN LOADS TO THE COLUMNS (TRAFFIC AND EMBANKMENT LOADS), ALLOWING FOR A MAXIMUM 0.5 INCH DEFLECTION OF THE REINFORCED PLATFORM AT THE MIDDLE DISTANCE BETWEEN COLUMNS.

   B. THE GRANULAR STRUCTURAL FILL SHALL COMPLY WITH SECTION 145 "TECHNICAL SPECIAL PROVISION," 145-3.2, BACKFILL MATERIAL, AND LIMITING THE MAXIMUM AGGREGATE SIZE TO 0.75 INCH. THE GRANULAR FILL SHALL HAVE A UNIT WEIGHT = 120 PCF, ø = 34°, C = 0 PSF.

3. THE LOAD TRANSFER PLATFORM SYSTEM COST SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING ADEQUATE GEOSYNTHETIC TO DEVELOP THE ARCHING EFFECT OF THE GRANULAR FILL, AND SINGED AND SEALED CONSTRUCTION SHOP DRAWINGS AND CALCULATIONS.

4. PLACE LAYERS OF ADDITIONAL STRUCTURAL FILL AS NEEDED TO COMPLETE THE EMBANKMENT TO THE BOTTOM OF THE PROPOSED BASE. THE EDGE OF THE EMBANKMENT ALONG THE CENTERLINE OF THE PHASE OF CONSTRUCTION SHALL BE STRENGTHENED USING BIAXIAL GEOGRID TYPE I, OR EQUIVALENT, AND A FILTER FABRIC AS INDICATED ON THIS PLAN.

5. SEE BRIDGE PLANS SHEET 8-5 FOR THE PHASES OF CONSTRUCTION AND ROADWAY PLANS SHEET C-14 FOR TRAFFIC CONTROL PHASING.

SOILS STABILIZATION

REVISIONS			
DESCRIPTION	DATE	APPROVED BY:	
1.			DATE:
2.		CARLOS W. HERDOCIA, P.E.	
3.		FLORIDA REGISTRATION No. 47660	
4.			

CORNELL, GONZALEZ, HERDOCIA & SILVA, P.A.
ENGINEERS, PLANNERS, SURVEYORS

DATE:	01/08/2009
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DESIGNED	CH
CHECKED:	RC
QC.	RC
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TOWN OF GOLDEN BEACH

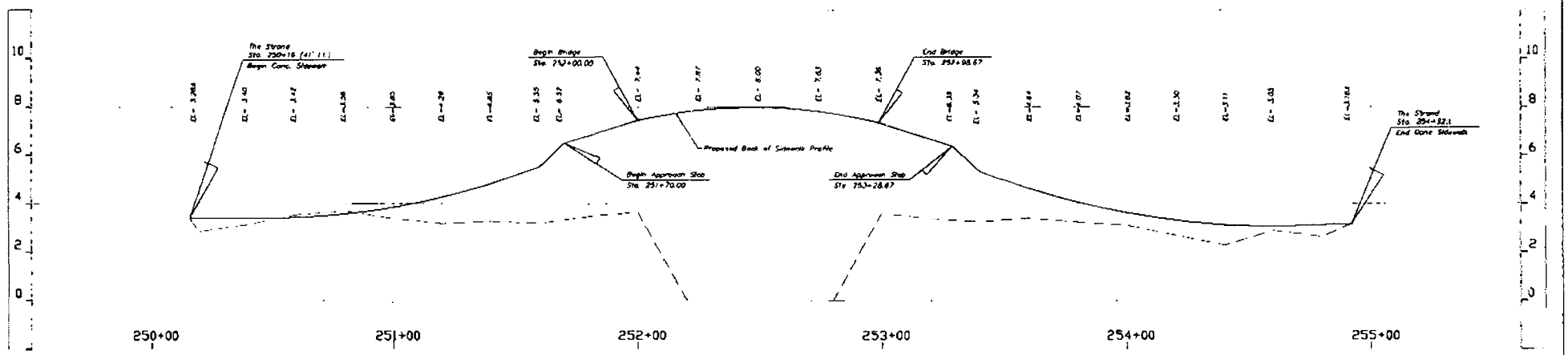
THE STRAND BRIDGE REPLACEMENT

00734-03

SHEET NO. **C5**

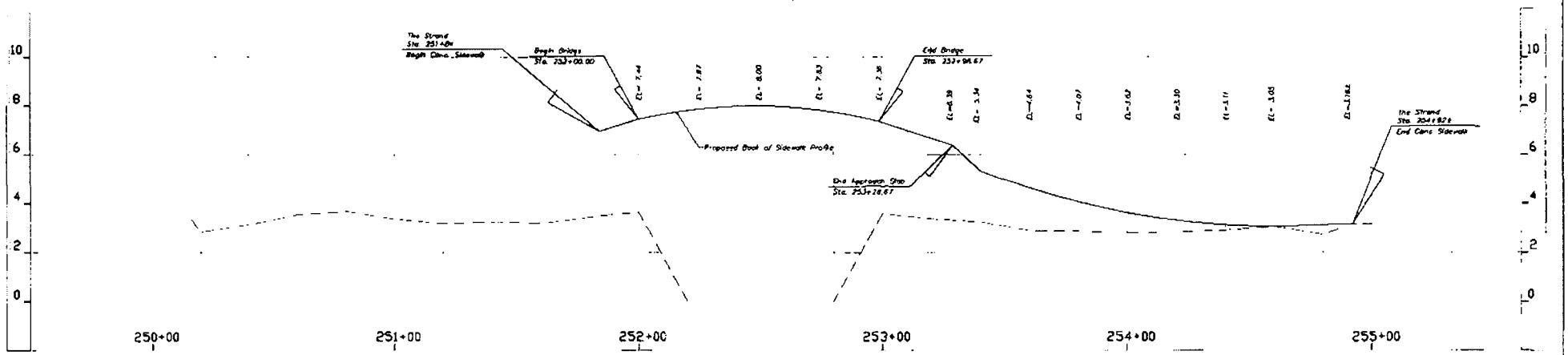
LEFT SIDE OF THE STRAND

Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 0.5'
(Reduced Horiz. Scale: 1" = 40')
(Reduced Vert. Scale: 1" = 1')



RIGHT SIDE OF THE STRAND

Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 0.5
(Reduced Horiz. Scale: 1" = 40')
(Reduced Vert. Scale: 1" = 1')



BACK OF SIDEWALK PROFILE

REVISIONS			
DESCRIPTION	DATE	APPROVED BY:	
1.			DATE:
2.		CARLOS M. HERCOCIA, P.E.	
3.		FLORIDA REGISTRATION No. 47660	
4.			

CORZO CASTELLA CARRERA ECHEVARRIA SAYAN, P.A.
ENGINEERS • ARCHITECTS • PLANNERS
C3TS

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TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

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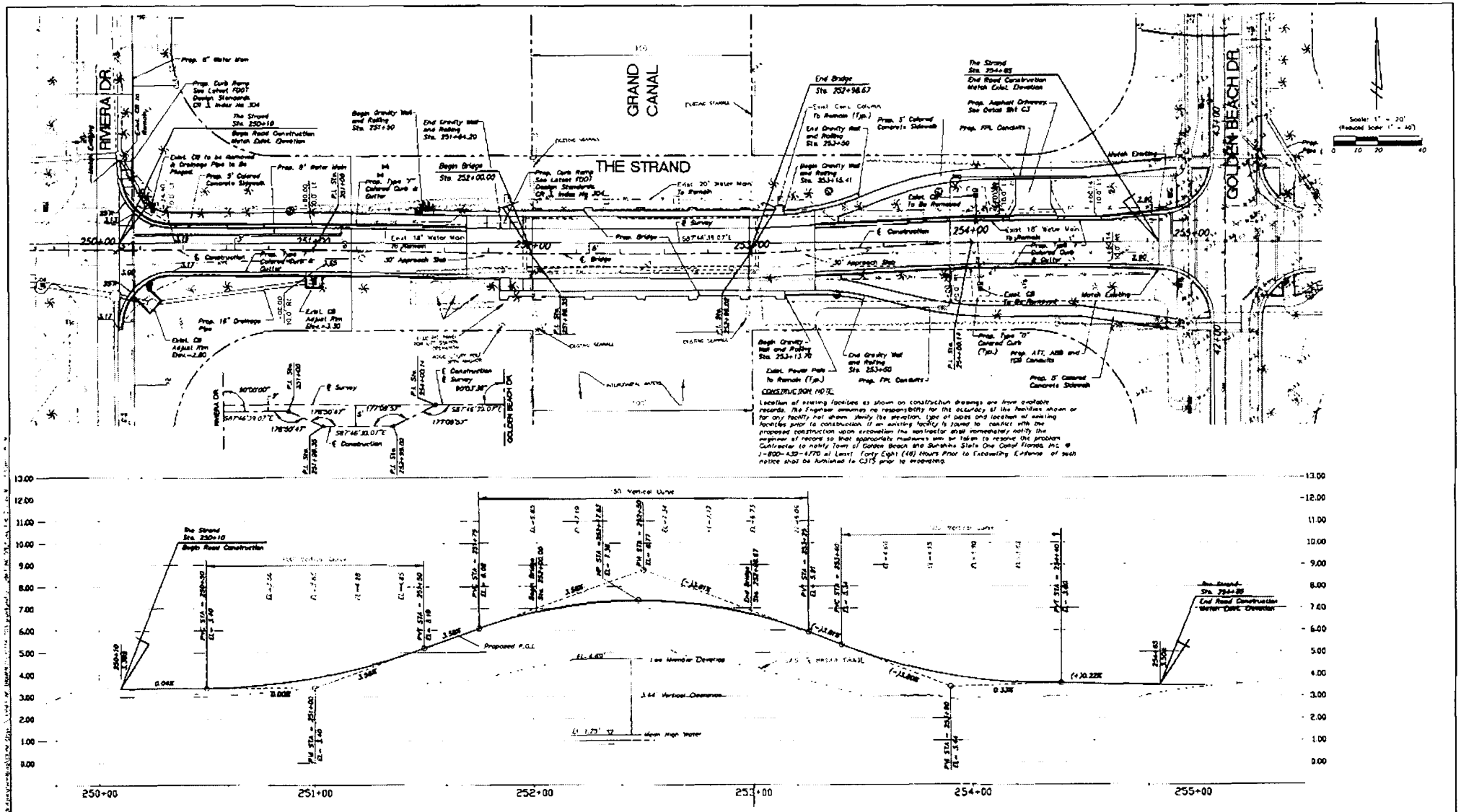

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APPROVED BY:

DATE.

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CONSULTING ENGINEERS ... THOMPSON SALMON, P.A.
ENGINEERS-ARCHITECTS-PLANNERS
80 ... BLVD., SUITE 800
CORAL GABLES, FLORIDA
FLORIDA REGISTRATION ... AA0003747

DATE	01/08/2009
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TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT

00734-03

SHEET NO

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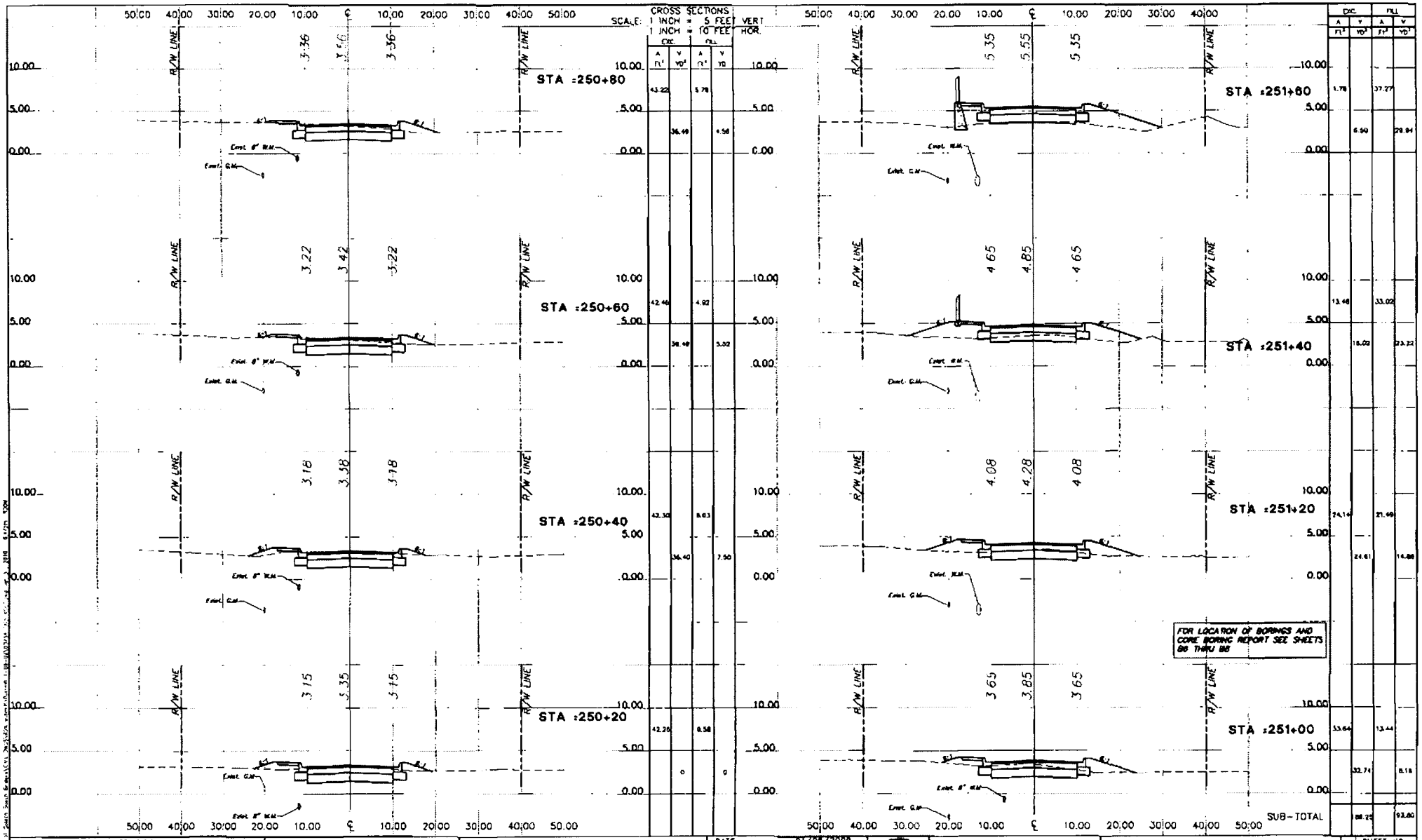

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APPROVED BY

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
801 PONCE DE LEON BLVD. SUITE 600
CORAL GABLES, FLORIDA 33134
PHONE (305) 444-7900 FLORIDA (800)-448-0897
FL REGISTRATIONS EB0006892 AAC002142

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TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT
CROSS SECTIONS

00734-03

SHEET NO. C8

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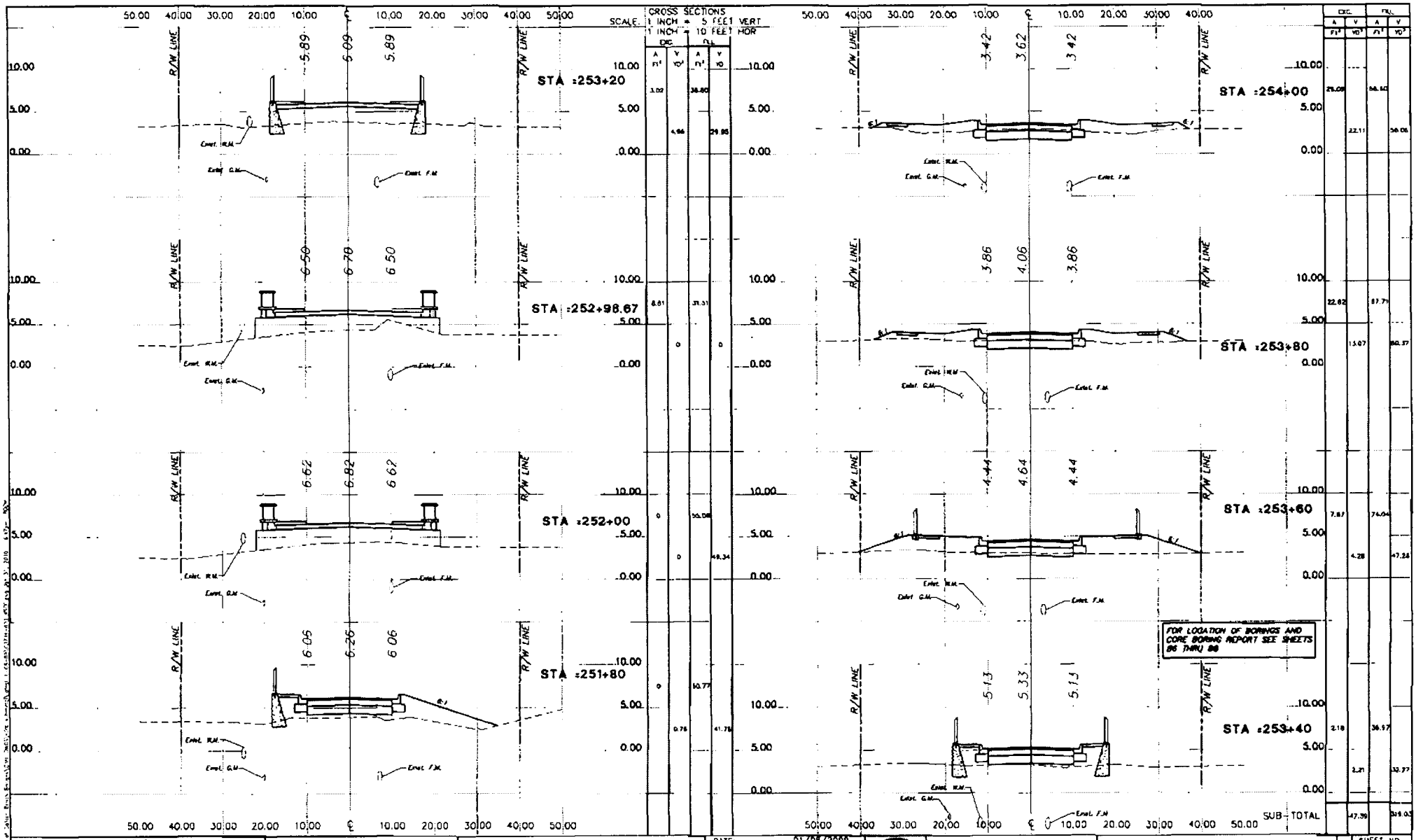

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DESCRIPTION	DATE
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APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS-ARCHITECTS-PLANNERS
891 PONCE DE LEON BLVD., SUITE 400
CORAL GABLES, FLORIDA 33134
MIAMI (305)-443-3900 FLORIDA (800)-448-0237
FL REGISTRATIONS EB0003033 AA0002142

DATE:	01/08/2009
DRAWN:	RW
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT
CROSS SECTIONS

00734-03

SHEET NO. C9

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET VERT
1 INCH = 10 FEET HOR

STA =254+60

STA =254+40

STA =254+20

STA =254+80

R/W LINE

Exist. W.M.
Exist. G.M.
Exist. F.M.

	EXC A (ft²)	EXC V (yd³)	FILL A (ft²)	FILL V (yd³)
STA =254+60	42.99	36.02	23.26	29.36
STA =254+40	42.21	33.56	44.12	43.19
STA =254+20	38.30	27.90	34.93	32.81
STA =254+80	46.04	37.10	38.10	26.99
SUB-TOTAL	335.16		231.34	
TOTALS	371.62		264.17	

FOR LOCATION OF BORINGS AND CORE BORING REPORT SEE SHEETS B6 THRU B8

REVISIONS		
DESCRIPTION	DATE	
1.		
2.		
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APPROVED BY

DATE

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
801 PONCE DE LEON BLVD. SUITE 600
CORAL GABLES, FLORIDA 33134
MIAMI (305) 443-2900 FLORIDA (800) 432-0157
FL REGISTRATIONS: ENGINEERING 4400 ARCHITECT

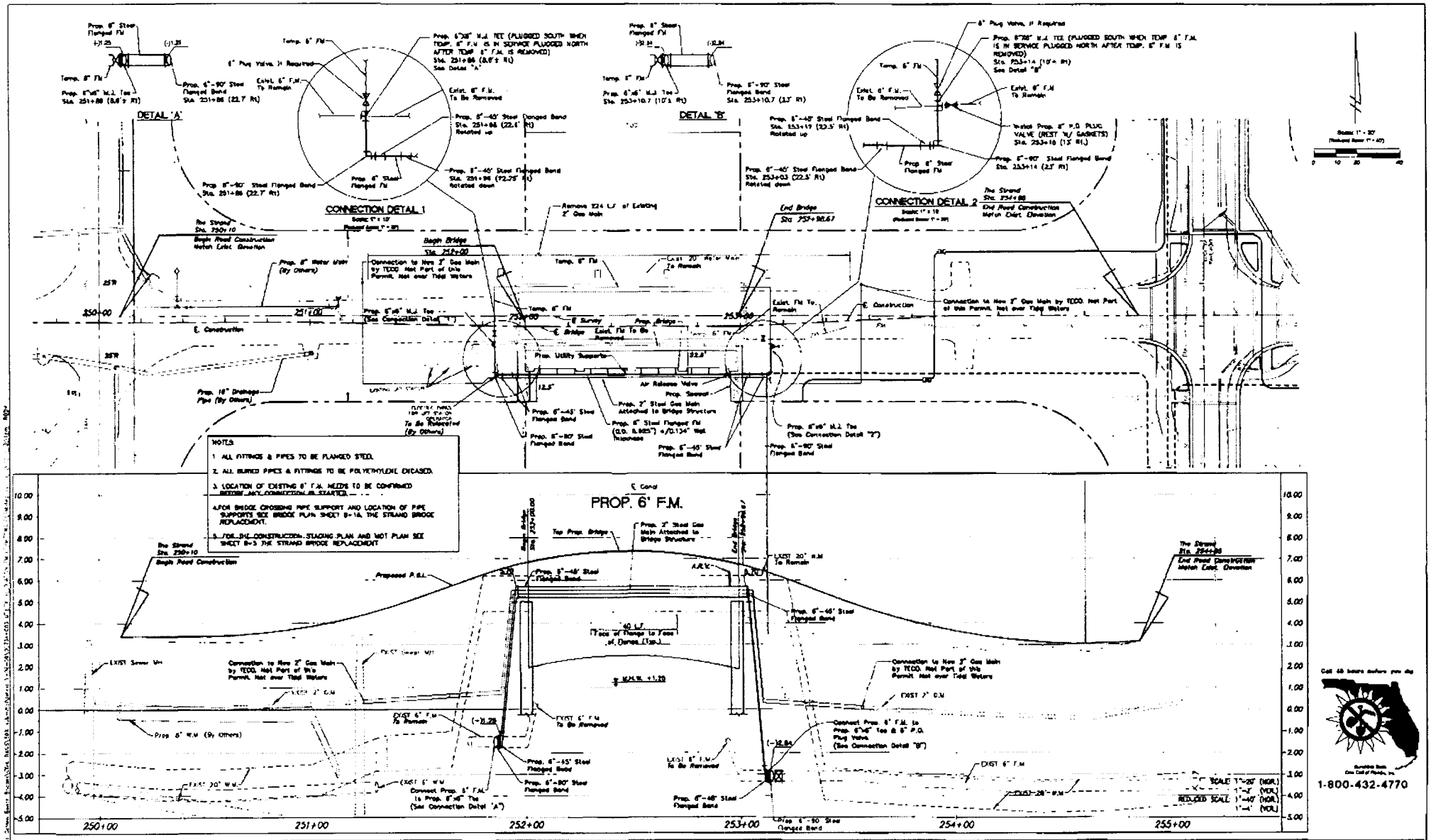
DATE	01/08/2009
DRAWN	RM
DESIGNED	CH
CHECKED	RC
QC.	RC
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT
CROSS SECTIONS

00734-03

SHEET NO
C10

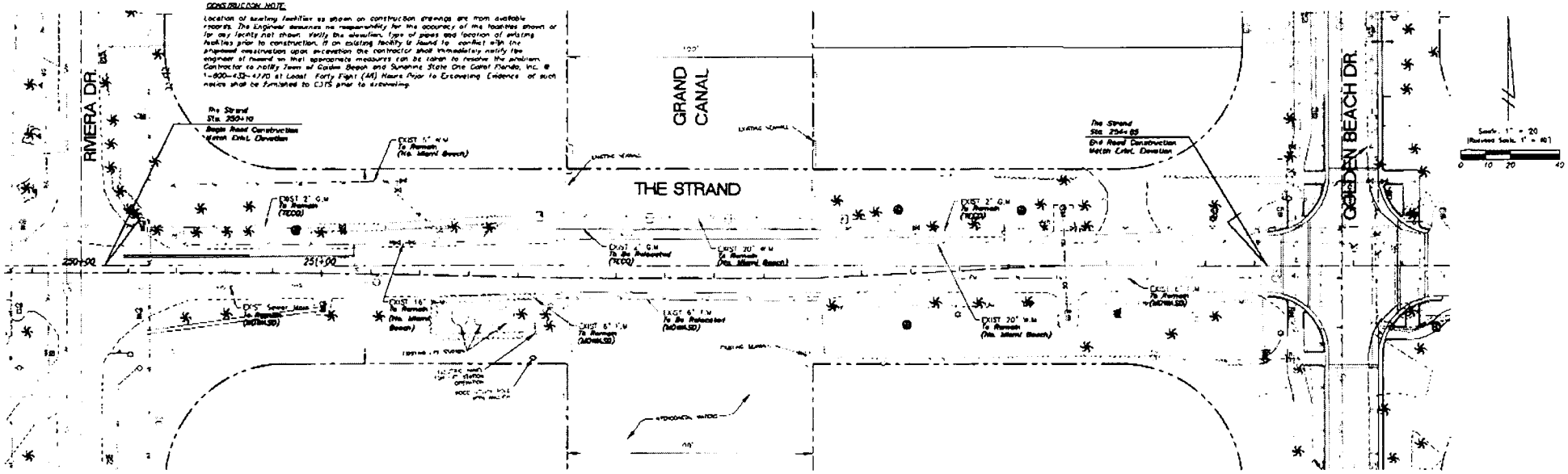


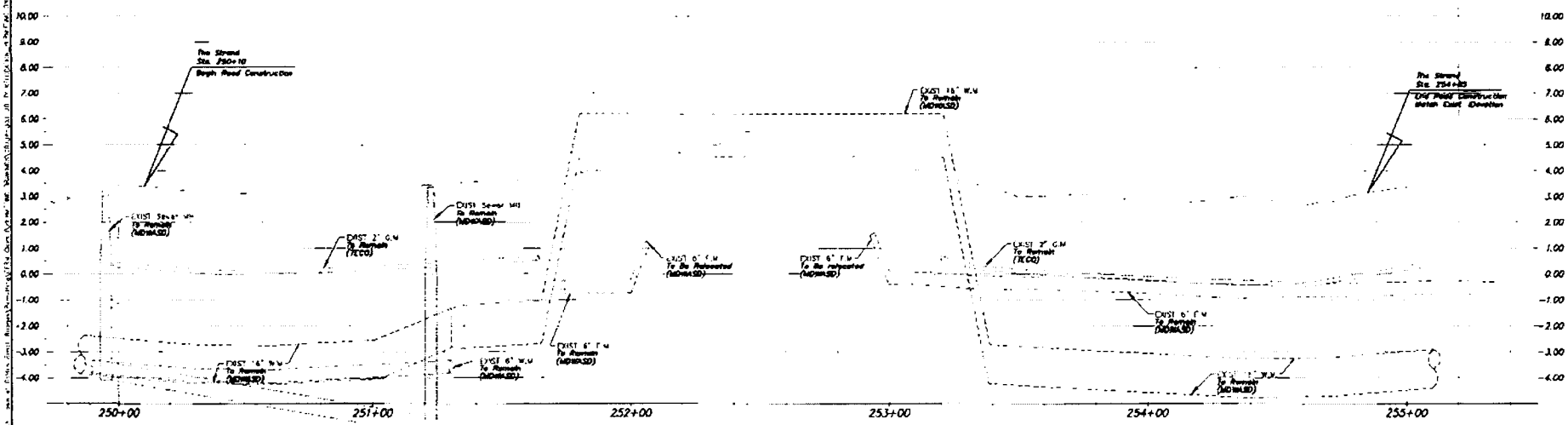
Call 48 hours before you dig
1-800-432-4770

REVISIONS		APPROVED BY:					
DESCRIPTION	DATE	DATE:	CARLOS & HERNANDEZ ENGINEERS·ARCHITECTS·PLANNERS	DATE 01/08/2009	TOWN OF GOLDEN BEACH	THE STRAND BRIDGE REPLACEMENT PERMANENT FORCE MAIN PLAN & PROFILE	SHEET NO C11
1.		CARLOS M. HERNDOCHA, P.E.	901 PONCE DE LEON BLVD., SUITE 900 CORAL GABLES, FLORIDA 33134	DRAWN RM			00734-03
2.		FLORIDA REGISTRATION No. 47660		DESIGNED CH			
3.				CHECKED RC			
4.				DC: RC			
				CADD FILE: 00734-03			

CONSTRUCTION NOTE

Location of existing facilities as shown on construction drawings are from available records. The Engineer assumes no responsibility for the accuracy of the facilities shown or for any facility not shown. Verify the elevation, type of pipes and location of existing facilities prior to construction. If an existing facility is found to conflict with the proposed construction upon excavation the contractor shall immediately notify the engineer of record so that appropriate measures can be taken to resolve the problem. Contractor to notify Town of Golden Beach and Sunshine State One Call of Florida, Inc. @ 1-800-432-4770 at Least Forty Eight (48) Hours Prior to Excavating Evidence of such notice shall be furnished to CJTS prior to excavating.





UTILITY ADJUSTMENT PLAN

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
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APPROVED BY

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CONSULTING ENGINEERS THOMPSON SALMAN, P.A.
ENGINEERS-ARCHITECTS-PLANNERS
CORAL GABLES, FLORIDA

DATE	01/08/2009
DRAWN	RM
DESIGNED	CH
CHECKED	RC
QC	RC
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

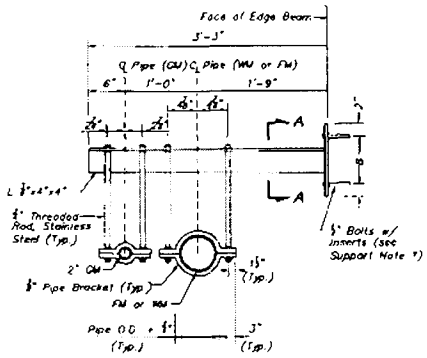
THE STRAND
BRIDGE REPLACEMENT

00734-03

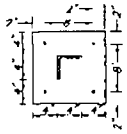
SHEET NO.
C11A

27

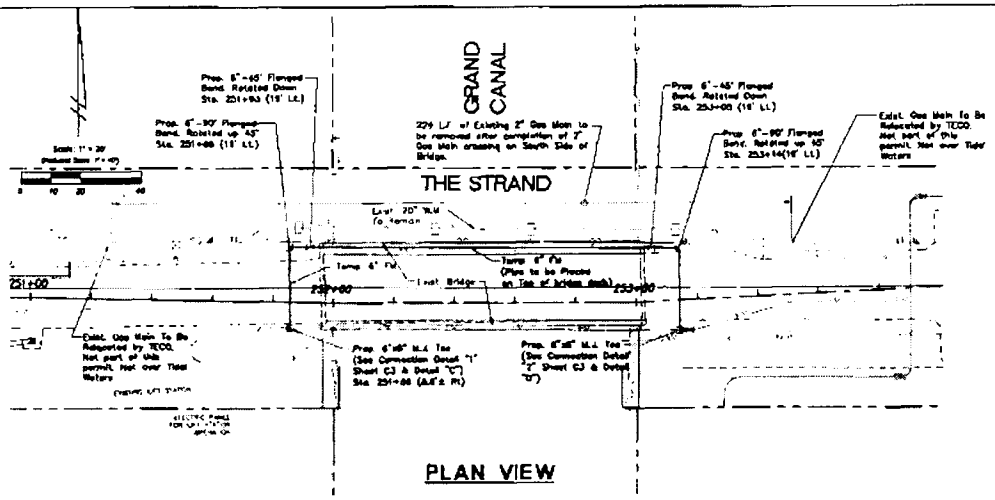
1. Detail of 6" Sanitary Sewer or 2" Gas Main shown. 8" Water Main similar, without Gas Main support.
2. All steel to be ASTM A-276 OR 304 Stainless Steel.
3. Attachment bolts and threaded inserts shall be Stainless Steel and have a minimum tensile capacity of 2,000 lbs.
4. Insert embedment into edge beam shall be as required to develop required capacity.
5. All cost of utility support shall be included in Item 400-4-4 Class IV Concrete Structure.



TYPICAL UTILITY SUPPORT
N.T.S.



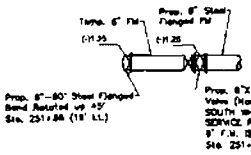
SECTION A-A



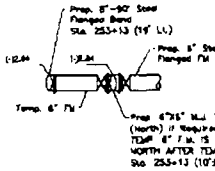
PLAN VIEW

NOTES:

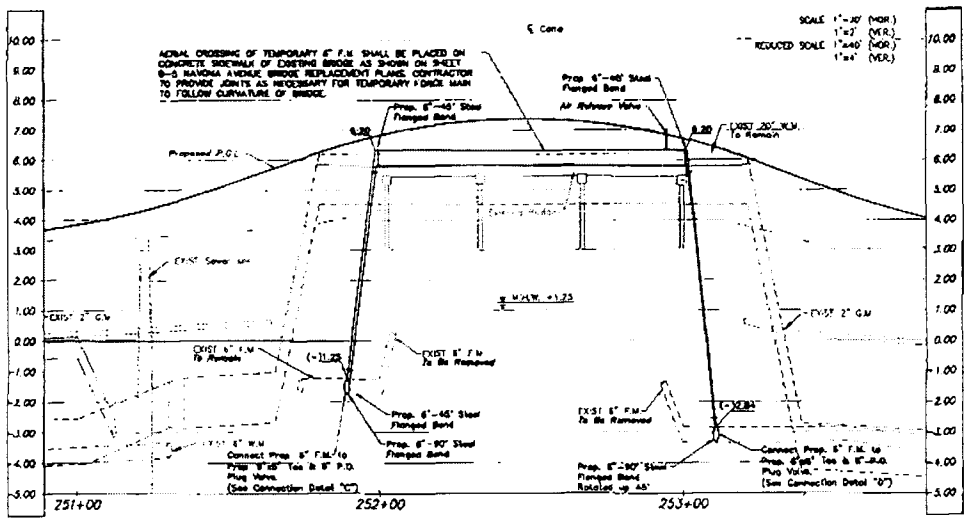
1. THE TEMPORARY FORCE MAIN SHALL BE 6" D.I.P. WITH MECHANICAL JOINTS. AERIAL CROSSING SHALL BE SUPPORTED 10' O.C. USING THE TEMPORARY PIPE SUPPORTS AS SHOWN ON THE DETAIL THIS SHEET
2. LOCATION OF EXISTING 6" F.M. , NEEDS TO BE CONFIRMED BEFORE ANY CONNECTION IS STARTED
3. FOR THE CONSTRUCTION STAGING PLAN AND VOT PLAN SEE SHEET 8-3 NAVONA AVENUE BRIDGE REPLACEMENT.

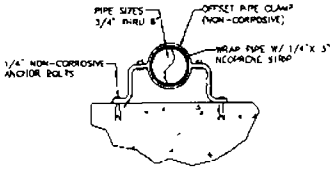


DETAIL "C"



DETAIL "D"





TEMPORARY PIPE SUPPORT
N.T.S.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY

DATE

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CURRO CASTILLO & CARRILLO PROFESSIONAL ASSOCIATION, P.A.
ENGINEERING CONSULTANTS
CORAL GABLES, FLORIDA 33134
PHONE (305) 446-2900 FAX (305) 446-0337
FL REGISTRATION #4600023 #AC0001149

DATE	01/08/2009
DRAWN:	RM
DESIGNED	CH
CHECKED	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT
TEMPORARY WATER MAIN
PLAN & PROFILE

00734-03

SHEET NO
C12

TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, THE CURRENT EDITION OF THE FLORIDA DOT DESIGN STANDARDS (600 SERIES), THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS MINIMUM CRITERIA.

2. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL POTHOLES THAT DEVELOP WITHIN THE PROJECT LIMITS AND WILL MAINTAIN A SUPPLY OF COLD MIX ON THE PROJECT SITE TO EXPEDITE THOSE REPAIRS. COST OF REPAIR TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

3. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO COSURE OR DETOUR BY SUBMITTING THE REQUIRED LANE CLOSURE FORM, SKETCHES, CALCULATIONS, AND OTHER DATA THROUGH THE ENGINEER TO THE DISTRICT TRAFFIC OPERATIONS OFFICE.

4. THE TRAFFIC AND TRAVEL WAYS SHALL NOT BE ALTERED BY THE CONTRACTOR TO CREATE A WORK ZONE UNTIL ALL LABOR AND MATERIAL ARE AVAILABLE FOR THE CONSTRUCTION IN THAT AREA.

5. REGULATORY SPEED ESTABLISHED WITHIN WORK ZONE TRAVEL WAYS SHALL BE 20 MPH. REDUCE SPEED AND REGULATORY SPEED SIGNS SHALL BE INSTALLED ON SEPARATE POSTS IN ACCORDANCE WITH THE STANDARD INDEXES.

6. AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE. COST OF COVERING AND UNCOVERING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRFFIC.

7. CONTRACTOR SHALL REMOVE, RELOCATE OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY REMOVING, RELOCATING, COVERING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

8. EACH EXISTING STREET NAME AND STOP SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE VISIBLE LOCATION FOR THE DURATION OF THE PROJECT, IN ORDER TO FACILITATE EMERGENCY VEHICLE TRAFFIC. WHEN NO LONGER AFFECTED BY CONSTRUCTION, THESE SIGNS SHALL BE RESTORED TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY RELOCATING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

9. FOR DROP OFFS, THE CONTRACTOR'S ATTENTION IS DIRECTED TO STANDARD INDEX NO. 600, SHEET 6 OF 10 THE CONTRACTOR SHALL USE SHOULDER TREATMENT DETAIL WHEN NO BARRIERS ARE REQUIRED IN THE PLANS.

10. THE CONTRACTOR SHALL REMOVE ANY EXISTING OR TEMPORARY PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. GRINDING OR MILLING WITHOUT ASPHALT OVERLAY SHALL ONLY BE PERMITTED IN NON-TRAFFIC AREAS AS DESIGNEATED BY THE ENGINEER. COST OF REMOVAL OF TEMPORARY PAVEMENT MARKINGS, REGARDLESS OF METHOD, IS INCLUDED IN THE RELATED PAVEMENT MARKING PAY ITEMS. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED.

11. TEMPORARY LANE TRANSITIONS, SHIFTS, AND CROSSOVERS SHALL HAVE SOLID LANE AND EDGE LINES FOR THE LENGTH OF THE TRANSITION, SHIFT OR CROSSOVER.

12. WORK HOURS ARE RESTRICTED TO 7 AM TO 9 PM ON WEEKDAYS AND 8 AM TO 5 PM ON WEEKENDS. NO WORK WILL BE ALLOWED ON HOLIDAYS.

13. ARROWS DENOTE DIRECTION OF TRAFFIC ONLY AND DO NOT REFLECT PAVEMENT MARKINGS.

14. SEE BRIDGE PLAN SHEET B-5 FOR THE PHASES OF CONSTRUCTION.

15. PROPERTY ACCESS SHALL BE MAINAINED IN ACCORDANCE TO ARTICLE 102-2-4 OF THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.

16. TEMPORARY RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INSTALLED ON THE ENDGE, CENTER, AND LANE LINES OF ALL CROSSOVERS, TRANSITIONS, AND TANGENT SECTIONS WITHIN THE WORK ZONE WHERE THE VEHICLE PATHS ARE ALTERED. THE SPACING FOR THESE RPM'S SHALL BE 40 FT. ON CENTERS FOR TANGENT SECTIONS AND 5 FT. FOR TRANSITIONS, CURVES, AND CROSSOVERS. COST OF THE TEMPORARY RPM'S SHALL BE INCLUDED IN PAY ITEM 102-78, TEMPORARY REFLECTIVE PAVEMENT MARKER.

17. AT THE END OF EACH WORK DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROP OFF ADJACENT TO VEHICULAR, PEDESTRIAN, BICYCLE, AND WHELLCHAIR TRAVEL PATHS SHALL BE BACKFILLED FLUSH WITH THE SAID PATHS OR PROTECTED WITH BARRICADES, TEMPORARY CONCRETE BARRIER WIALL, OR APPROVED HANDRAIL. COST OF BACKFILLING DROP OFF SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

18. PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAFIC SHALL BE MAINTAINED AND GUIDED USING APPROVED WARNING LIGHTS, SIGNING, AND DELINEATION DEVICES ON AT LEAST ONE SIDE OF THE PROJECT AT ALL TIMES THROUGHOUT THE PROJECT LIMITS. THE TRAVEL PATH SHALL BE A MINIMUM OF 4 FT. WIDE WITH A SMOOTH SURFACE THAT IS NOT SLICK AND IT SHOULD BE RAMPED AS NECESSARY FOR CONTINUITY. COST TO CONSTRUCT AND MAINTAIN THE TRAVEL PATH AS REQUIRED SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

19. ONE LANE OF TRAFFIC IS TO BE MAINTAINED AT ALL TIOMES LANE CLOSURES TO CORRESPOND WITH PHASE CONSTRUCTION OF BRIDGE.

20. TRAFFIC CONTROL PHASING

PHASE I
MAINTAIN IN BOTH DIRECTIONS OF TRAFFIC (ONE LANE) ON THE NORTH SIDE OF ROAD AND CONSTRUCT ROADWAY AND BRIDGE PER PLAN ON THE SOUTH SIDE OF THE ROAOD. UTILIZE FLAGGING OPERATIONS FOR CONSTRUCTION OF ROADWAY SECTION NOT PROTECTED BY TEMPORARY BARRIER WALL.

PHASE II
SHIFT BOTH DIRECTIONS OF TRAFFIC (ONE LANE) TO THE SOUTH SIDE OF ROAD AND CONSTRUCTION ROADWAY AND BRIDGE PEOR PLAN ON THE NORTH SIDE OF THE ROAD. UTILIZE FLAGGING OPERATIONS FOR CONSTRUCTION OF ROADWAY SECTION NOT PROTECTED BY TEMPORARY BARRIER WALL.

PHASE III
SHIFT TRAFFIC BACK TO TWO-WAY TRAFFIC AND REMOVE ALL TEMPORARY CONSTRUCTION ITEMS.

21. FLAGGING CONTROL OPERATIONS SHALL BE UTILIZED DURING ACTIVE WORK PERIODS. TEMPORARY SIGNAL CONTROL OPERATIONS SHALL BE UTILIZED DURING INACTIVE WORK PERIODS ONLY. THE TEMPORARY TRAFIC CONTROL WARNING SIGN W21-1a SHOWN IN THE TRAFFIC CONTROL PLAN SHALL BE CHANGED TO W20-7a DURING ACTIVE WORK PERIODS.

22. THE MESSAGE FOR THE TEMP VARIABLE MESSAGE SIGN SHALL READ "BRIDGE & ROADWAY WORK BEGINS XX/XX/XX". EACH SCREEN SHALL BE DISPLLAYED A MINIMUM OF SEVEN SECONDS. THE VMS IS TO BE INSTALLED SEVEN DAYS PRIOR TO BEGINNING CONSTRUCTION.

23. THE CONTRACTOR SHALL FURNISH AND MAINTAIN VARIABLE MESSAGE SIGNS (VMS) AT LOCATIONS SHOWN ON THE PLANS. MESSAGES FOR THE VMS SHALL BE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE VMS SHALL BE IN PLACE ONE WEEK BEFORE THE START OF ANY WORK ITEMS AFFECTING THE EXISTING VEHICULAR AND PEDESTRIAN TRAFFIC. VMS INSTALLATION, OPERATION AND REMOVAL BEFORE CONSTRUCTION BEGINS SHALL BE PAID UNDER PAY ITEM 102-1, MAINTENANCE OF TRAFFIC. VMS INSTALLATION, OPERATION AND REMOVAL DURING CONSTRUCTION SHALL BE PAID UNDER PAY ITEM 102-99, VARIABLE MESSAGE SIGN

24. THE CONTRACTOR IS PERMITTED TO PLACE TRAFFIC ON MILLED SURFACE DURING CONSTRUCTION.

25. THE CONTRACTOR SHALL INSTALL THE TEMPORARY FORCE MAIN PRIOR TO PHASE 1A ON SHEET B-5. TRAFFIC CONTROL AS PER STANDARD INDEX 600 SERIES

MOT LEGEND

DESCRIPTION	SYMBOL
WORK ZONE SIGN	
BARRIER WALL	
TEMP BARRICADE (TYPES I, II, VP & DRUM)	
TEMP BARRICADE (TYPE III) (6')	
TEMP IMPACT ATTENUATOR (REDIRECT OPTION)	
TEMP VARIABLE MESSAGE SIGN	

W21-1A

INACTIVE WORK

W20-7A

ACTIVE WORK PERIOD

TRAFFIC CONTROL NOTES

REVISIONS		
DESCRIPTION	DATE	
1		
2		
3		
4		

APPROVED BY:

DATE:

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

C3IS

DATE: 01/08/2009
DRAWN: RM
DESIGNED: CH
CHECKED RC
QC RC
CADD FILE: 00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO
C13

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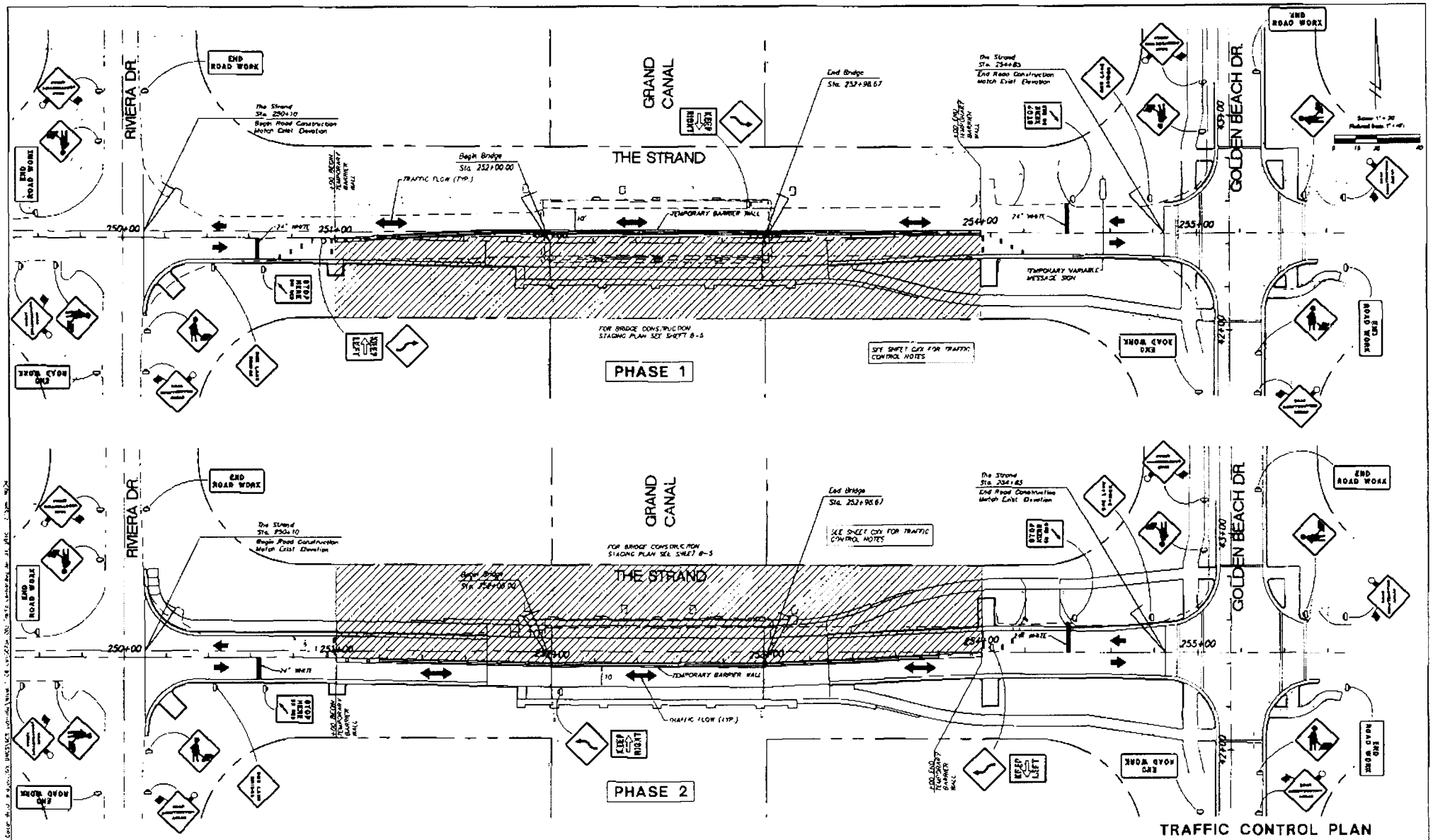

TRAFFIC CONTROL PLAN

REVISIONS		APPROVED BY						
DESCRIPTION	DATE	CARLOS M. HERDOCIA, P.E. FLORIDA REGISTRATION No. 47660	DATE	DATE: 01/08/2009	TOWN OF GOLDEN BEACH	THE STRAND BRIDGE REPLACEMENT	00734-03	SHEET NO. C14
1.				DRAWN: RM				
2.				DESIGNED: CH				
3.				CHECKED: RC				
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				CADD FILE: 00734-03				

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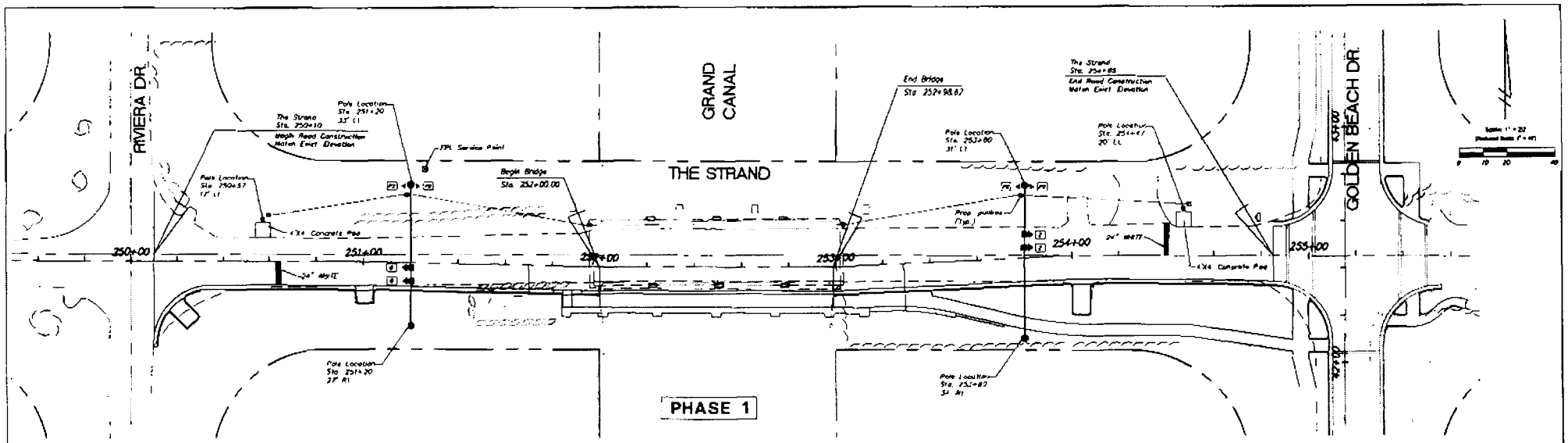
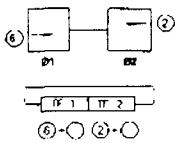
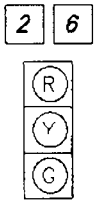
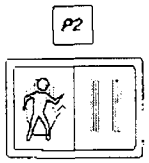


SPECIAL SIGNAL OPERATIONAL PLAN



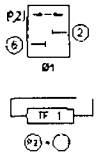


3-SECT 1-WAY (12" LENS)
ITEM NO 650-51-313
(4 REQ'D)



PEDESTRIAN COUNTDOWN SIGNAL
ITEM No 653-1161
(4 REQ'D)

SPECIAL PEDESTRIAN OPERATIONAL PLAN



TEMPORARY SIGNAL PLAN GENERAL NOTES:

1. S.O.P. TIMINGS TO BE BASED ON 90 SECOND CYCLE LENGHT WITH 73 SECOND GREEN, 4 SECOND YELLOW AND 70 SECONDS ON ALL RED FOR EACH PHASE. P.O.P. TIMINGS TO BE BASED ON 120 SECOND CYCLE LENGHT WITH 120 SECONDS ON ALL RED. THE P.O.P. PHASE SHALL ONLY BE ACTUATED WHEN THE PEDESTRIAN DETECTOR IS ACTIVATED. NORMAL S.O.P. CYCLE SHALL RESUME AT THE END OF THE P.O.P. CYCLE.
2. FOR PHASE II TRAFFIC CONTROL SIGNAL HEADS ARE TO BE ADJUSTED TO ALIGN MAINTAINED TRAFFIC TO THE SOUTH HALF OF THE TYPICAL SECTION. TEMPORARY BRIDGE MOUNTED SIGNAL CABLE IS TO BE RELOCATED AND TEMPORARILY ATTACHED TO THE NEW BRIDGE. TEMPORARY PULL BOXES ARE TO BE RELOCATED TO THE SOUTH HALF OF THE TYPICAL SECTION. THE R10-6 SIGNS ARE TO BE RELOCATED AND TEMPORARY 24" WHITE STOP BARS ARE TO BE PLACED AT LOCATIONS ADJACENT TO THOSE SHOWN ON PHASE I. PEDESTRIAN ACTUATORS AND SIGNALS TO BE RELOCATED TO SOUTH SIDE OF ROADWAY. FP&L SERVICE POINT TO BE RELOCATED TO SOUTH SIDE OF ROADWAY. THE COST OF RELOCATION, ADJUSTMENT AND REMOVAL OF TEMPORARY SIGNALIZATION WORK SHALL BE INCLUDED IN THE PAY ITEM 102-104-2. TEMPORARY TRAFFIC CONTROL SIGNALS REMOVED SIGNAL ITEMS TO REMAIN THE PROPERTY OF THE CONTRACTOR. THE COST OF REMOVING THE FOUR BY FOUR CONCRETE PAD IS INCLUDED IN THE PAY ITEM 102-104-2.
3. PAYMENT FOR THESE ITEMS SHOWN ON THIS SHEET ARE COVERED UNDER PAY ITEM 102-104-2, TEMPORARY TRAFFIC CONTROL SIGNAL (FIXED) PER EACH SIGNAL INSTALLED.
4. FLAGGING CONTROL OPERATIONS SHALL BE UTILIZED DURING ACTIVE WORK PERIODS. TEMPORARY SIGNAL CONTROL SHALL BE UTILIZED DURING INACTIVE WORK PERIODS ONLY.
5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND OBTAINING THE FLORIDA POWER AND LIGHT SERVICE POINT. PAYMENT FOR THIS WORK IS COVERED UNDER PAY ITEM 102-104-2, TEMPORARY CONTROL SIGNALS.

TEMPORARY SIGNAL PLAN

REVISIONS		
DESCRIPTION		DATE
1		
2		
3		
4		

APPROVED BY

DATE.

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No 47660

CARLOS M. HERDOCIA, SALMAN P.A.
ENGINEERS-ARCHITECTS-PLANNERS
CGTS

DATE:	01/08/2009
DRAWN.	RM
DESIGNED	CH
CHECKED	RC
DC.	RC
CADD FILE:	00734-03

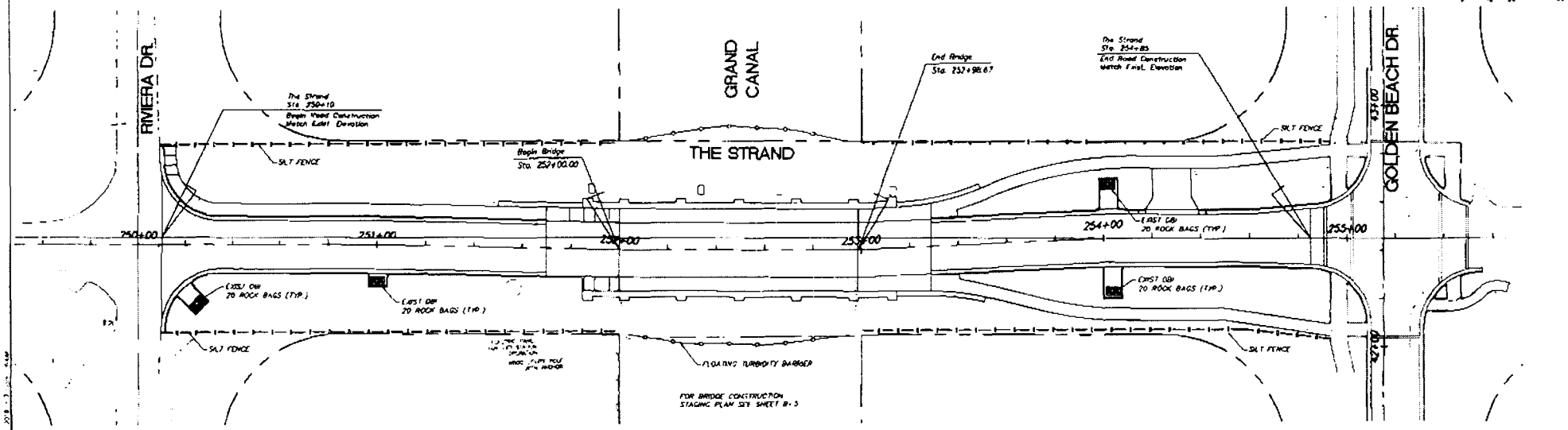
TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO
C15

NOTE
FOR FLOATING TURBIDITY BARRIER LOCATIONS
SEE SHEET (B-3).



ENVIRONMENTAL NOTES

1. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS ASSOCIATED WITH THIS PROJECT WITH THE DEPARTMENT'S ENVIRONMENTAL PERMITS COMPLIANCE MONITOR DURING THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT ENVIRONMENTAL COMPLIANCE MONITOR AT (305) 470-5232 AT LEAST 72 HOURS PRIOR TO STAGING. AT THE END OF THE PROJECT, THE STAGING AREAS WILL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO THE DEPARTMENT.

2. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE SKIMMERS AND ABSORBENT MATERIAL AT THE WORK AREA FOR IMMEDIATE DEPLOYMENT IN THE EVENT OF AN ACCIDENTAL SPILL.

3. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF THE ENVIRONMENTAL PERMITS WHICH ARE A PART OF THIS PROJECT. PAYMENT FOR PERMIT RELATED WORK SHALL BE INCLUDED IN PAY ITEM 101-1, MOBILIZATION.

4. THE PROJECT CORRIDOR IS LOCATED IN THE VICINITY OF BISCAYNE WATERWAY, WHICH IS DESIGNATED AS OUTSTANDING FLORIDA WATERS. THEREFORE, NO DEGRADATION OF WATER QUALITY SHALL BE PERMITTED. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE DISCHARGE OF FOREIGN MATTER INTO AND/OR INCREASING THE TURBIDITY OF THE WATER. APPROPRIATE SEDIMENT CONTROL MEASURES SHOULD BE INSTALLED TO COMPLETELY ENCAPSULATE THE WORK AREA DURING CONSTRUCTION ACTIVITIES AND THE TURBIDITY LEVELS BEYOND THE CONTROL MECHANISMS ARE NOT ALLOWED TO EXCEED NATURAL BACKGROUND LEVELS.

5. THE CONTRACTOR IS PROHIBITED FROM ALLOWING BRIDGE FRAGMENTS OR DEBRIS BEING DISPOSED INTO THE WATER. THE CONTRACTOR WILL PREVENT TO THE MAXIMUM EXTENT PRACTICABLE ANY DEBRIS OR FRAGMENT GENERATED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES FROM ENTERING THE WATERWAY. ANY MATERIAL THAT ENTERS THE CANAL WILL BE REMOVED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE NEXT PHASE OF CONSTRUCTION. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

6. WEST INDIAN MANATEES (TRICHECHUS MANATUS LATIROSTRIS) MAY MIGRATE THROUGH THE PROJECT AREA. THE WEST INDIAN MANATEE IS A FEDERAL AND STATE LISTED ENDANGERED SPECIES PROTECTED BY THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE REQUIREMENTS REGARDING ENDANGERED SPECIES, AND THE FDOT ENDANGERED SPECIES SPECIAL PROVISIONS. THE CONTRACTOR SHALL POST TEMPORARY SIGNS ON SITES CONCERNING MANATEES DRIVE TO ABIDE DRIVING NOT CONSTRICTURE ACTIVITIES, AND REMOVE ALL SIGNS UPON COMPLETION OF THE PROJECT. THE CONTRACTOR MUST POST A SIGN(S) MEASURING AT LEAST 3 BY 4 FEET THAT READS "CAUTION: MANATEE AREAS" IN A LOCATION PROMINENTLY VISIBLE TO WATER-RELATED CONSTRUCTION CREWS. IF VESSELS ARE ASSOCIATED WITH THE CONSTRUCTION AREA, ADDITIONAL SIGNAGE SHALL BE DISPLAYED NEXT TO THE CONTROLS ON ALL CONSTRUCTION-RELATED VESSELS, MEASURE AT LEAST 8.5 X 11 INCHES AND READ "CAUTION MANATEE HABITAT". THE COST OF PROVIDING AND REMOVING ALL ITEMS REQUIRED FOR THE MONITORING AND PROTECTION OF MANATEES, SUCH AS, BUT NOT LIMITED TO MANATEE SIGNS, POLARIZED GLASSES, BINOCULARS, MANATEE OBSERVER AND CERTIFIED TRAINING SHALL BE INCLUDED UNDER PAY ITEM 101-1, MOBILIZATION.

EROSION CONTROL PLAN

REVISIONS	
DESCRIPTION	DATE
1	
2	
3	
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APPROVED BY:
DATE:
CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORNELL CASTILLA CARRILLO THOMPSON SALMAN, P.A.
ENGINEERS AND PLANNERS
CGTS

DATE:	01/08/2009
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

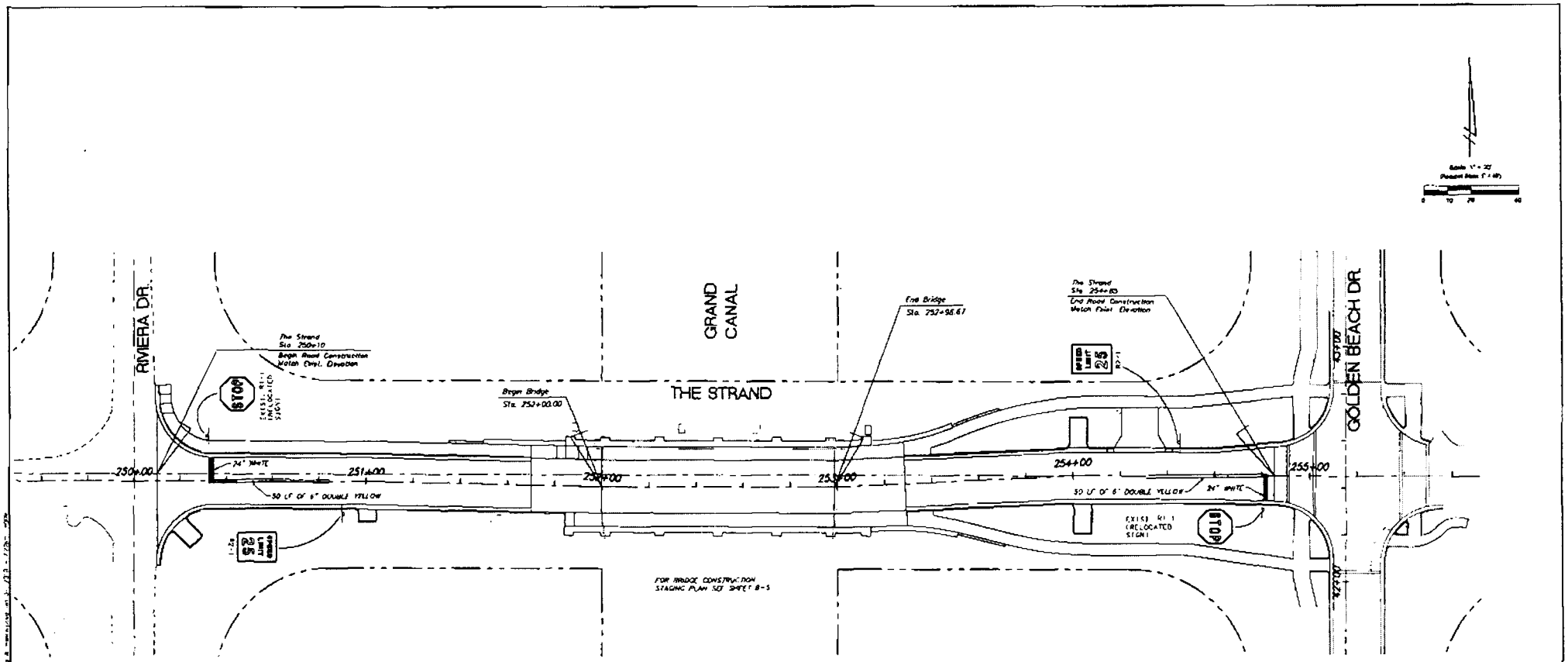
TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO.
C16

32



SIGNING & MARKING PLAN

REVISIONS		
DESCRIPTION	DATE	
1.		
2.		
3.		
4.		

APPROVED BY

DATE

CARLOS M. HERODCIA, P.E.
FLORIDA REGISTRATION No. 47660

DRC CASELLA GRAHID HOWSON SALVEY, P.A.
ENGINEERS · ARCHITECTS · PLANNERS

DATE	01/08/2009
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DESIGNED	CH
CHECKED:	RC
QC	RC
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO.
C17

SIGNING AND PAVEMENT MARKINGS

TABULATION OF QUANTITIES

BID ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS: THE STRAND C16 PLAN	C16 FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL	GRAND TOTAL PLAN	GRAND TOTAL FINAL	REF. SHEET
700-40-2	ROADSIDE SIGN (SPEED LIMIT 35 MPH R2-1, SINGLE POST)	AS	2																								2				
700-40-2	ROADSIDE SIGN (SPEED LIMIT 35 MPH R2-1, MOUNTED ON LIGHT POLE)	AS																													
700-40-2	ROADSIDE SIGN (ONLY R3-5, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (STOP AHEAD W3-1, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (PED -SCHOOL CROSSING S1-1, W/ W16-9P, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (PED -SCHOOL CROSSING S1-1, W/ W16-7P, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2 W/ W16-9P, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2 W/ W16-9P, MOUNTED ON LIGHT POLE)	AS																													
700-40-2	ROADSIDE SIGN (PEDESTRIAN W11-2 W/ W16-7P, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (R4-7, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (SW (12TH NEXT SIGNAL D3-2, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (CASE I YELLOW REFLECTOR, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (CASE I YELLOW REFLECTOR W/ W1-7, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (CASE I YELLOW REFLECTOR W/ W1-8, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (CASE II RED REFLECTOR, SINGLE POST)	AS																													
700-40-2	ROADSIDE SIGN (DEAD END W1-8, SINGLE POST)	AS																													
706-3	REFLECTIVE PAVEMENT MARKER (BI-DIRECTIONAL WHITE/RED)	EA	12																								12				
706-3	REFLECTIVE PAVEMENT MARKER (BI-DIRECTIONAL BLUE)	EA																													
711-4	DIRECTIONAL ARROWS	EA																													
711-31	SKIP TRAFFIC STRIPE (10'-30', 6" WHITE)	GM																													
711-31	SKIP TRAFFIC STRIPE (2'-4', 6" WHITE)	GM																													
711-32	SKIP TRAFFIC STRIPE (10'-30', 6" YELLOW)	GM																													
711-35-61	SOLID TRAFFIC STRIPE (6" WHITE)	LF																													
711-35-81	SOLID TRAFFIC STRIPE (8" WHITE)	LF																													
711-35-121	SOLID TRAFFIC STRIPE (12" WHITE)	LF																													
711-35-181	SOLID TRAFFIC STRIPE (18" WHITE)	LF																													
711-35-241	SOLID TRAFFIC STRIPE (24" WHITE)	LF	20																												
711-36-81	SOLID TRAFFIC STRIPE (6" YELLOW)	LF	100																												
711-36-181	SOLID TRAFFIC STRIPE (18" YELLOW)	LF																													

NOTES.

1. WHEN SINGLE AND MULTIPLE GROUND SIGN SUPPORTS ARE USED WITH STANDARD SIGN PANELS, FABRICATED IN ACCORDANCE WITH THESE PLANS, NO SHOP DRAWINGS ARE REQUIRED.
2. ALL STOP, YIELD, DO NOT ENTER WRONG WAY SIGNS FACES SHALL BE FABRICATED ENTIRELY WITH TYPE "B" REFLECTIVE SHEETING AS SPECIFIED IN SECTION 994-3 OF THE STANDARD SPECIFICATIONS.
3. ALL PAVEMENT MARKINGS, MESSAGES & ARROWS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
4. SIGN ASSEMBLY LOCATIONS SHOWN ON PLANS, WHICH ARE IN CONFLICT WITH LIGHTING, UTILITIES DRIVEWAYS, WHEELCHAIR RAMPS, ETC., MAY BE ADJUSTED SLIGHTLY AS DIRECTED BY THE ENGINEER.
5. PAVEMENT MARKINGS SHOULD BE PLACED AS SHOWN IN THE PLANS AND TRAFFIC DESIGN STANDARDS.
6. EXISTING GROUND MOUNTED SIGNS THAT ARE NOT UTILIZED, ARE TO BE CAREFULLY REMOVED WITHOUT CAUSING ANY DAMAGE, AND DELIVERED TO THE TOWN OF GOLDEN BEACH
7. MATCH EXISTING PAVEMENT MARKERS AT THE BEGINNING AND AT THE END OF THE PROJECT AND AT ALL SIDE STREETS WITHOUT JOGS OR OFFSETS.

REVISIONS DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE

CARLOS M. HERDOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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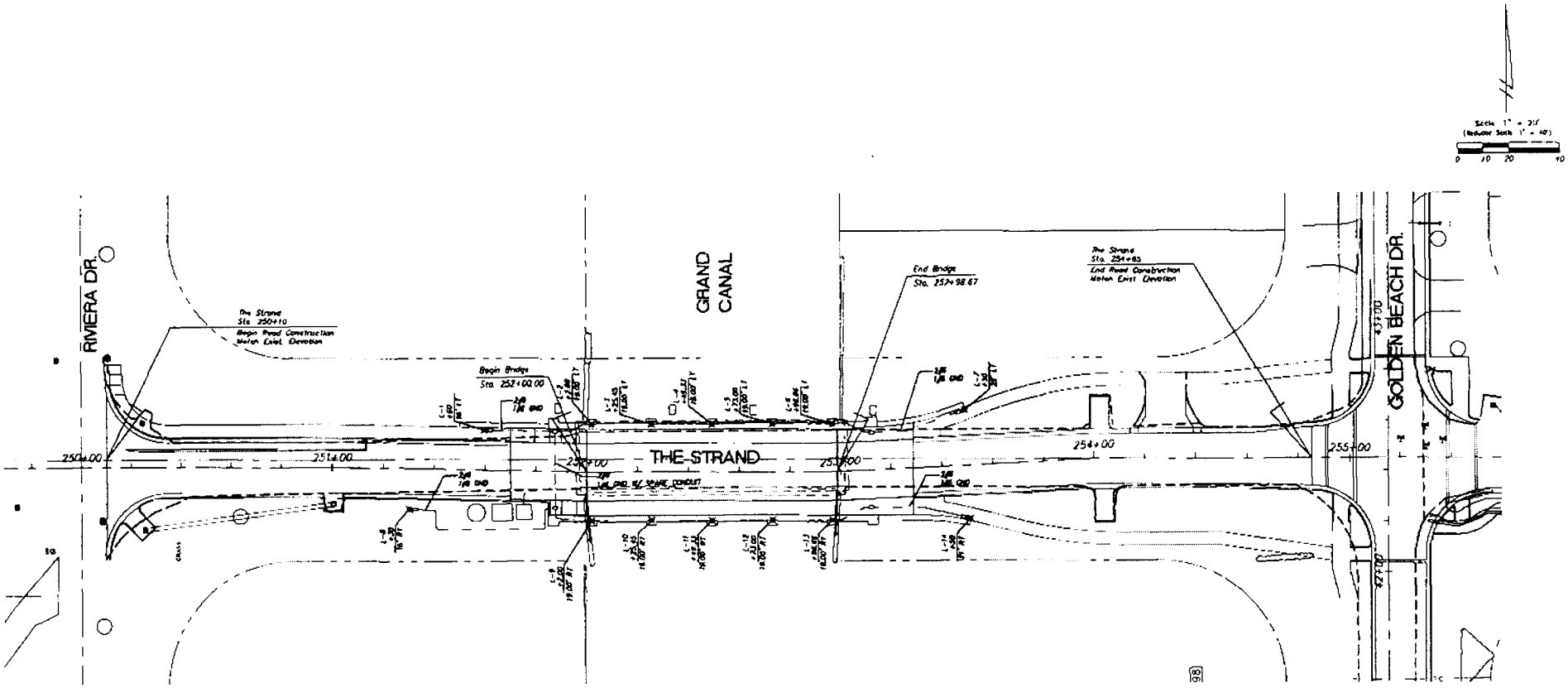
DRAWN:	RM
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET NO
C18



NOTE:

ALL EXISTING FPL POLE AND LUMINARIES TO BE REMOVED BY FPL

LIGHTING PLAN

REVISIONS		
DESCRIPTION		DATE
1		
2		
3		
4		

APPROVED BY:

DATE:

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 65584

LORIO CASTILLO TURRALLO THOMPSON SULIVAN P.A.
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PHONE (305) 443-2003 FAX (305) 443-1227
CERTIFICATE OF AUTHORIZATION NUMBER 00000022

DATE	01/08/2009
DRAWN	RM
DESIGNED	MJC
CHECKED:	RC
QC:	RC
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT

00734-03

SHEET NO.

E1

35

POLE DATA & CODED NOTES

POLE No.	CIRCUIT	LUMINAIRE STATION	SIDE	MOUNTING HEIGHT	LAMP WATT	REMARKS	NOTES
L-1		251+60	Lt	16'	175	BACK OF SIDEWALK	
L-2		252+02	Lt	11'	70	PILASTER MOUNTED	
L-3		252+25.45	Lt	8'	70	PILASTER MOUNTED	
L-4		252+48.33	Lt	8'	70	PILASTER MOUNTED	
L-5		252+73.00	Lt	8'	70	PILASTER MOUNTED	
L-6		252+96.66	Lt	11'	70	PILASTER MOUNTED	
L-7		253+50	Lt	16'	175	BACK OF SIDEWALK	
L-8		251+30	Rt	16'	175	BACK OF SIDEWALK	
L-9		252+02	Rt	11'	70	PILASTER MOUNTED	
L-10		252+25.45	Rt	8'	70	PILASTER MOUNTED	
L-11		252+48.33	Rt	8'	70	PILASTER MOUNTED	
L-12		252+73.00	Rt	8'	70	PILASTER MOUNTED	
L-13		252+96.66	Rt	11'	70	PILASTER MOUNTED	
L-14		253+50	Rt	16'	175	BACK OF SIDEWALK	

CONVENTIONAL LIGHTING DESIGN CRITERIA

A. DESIGN WIND SPEED ..... 150 M.P.H. PLUS 30% GUST FACTOR

B. UNIFORMITY RATIO ..... REQUIRED VALUE <=4:1 ..... PROVIDED 1.78

C. MAX. TO MIN. RATIO ..... REQUIRED VALUE <= 10:1 ..... PROVIDED 4.47

D. AVERAGE INITIAL ILLUMINATION ..... 1.5 F.C. ..... PROVIDED 3.03

E. AT THE FINAL INSPECTION THE CONTRACTOR SHALL VERIFY THE HORIZONTAL FOOT CANDLE LEVELS ON THE ROADWAY WITH AN APPROVED CURRENT CALIBRATED LIGHT METER TO THE SATISFACTION OF THE PROJECT ENGINEER

LEGEND

SERVICE POINT, SEE SHEET E?? FOR DETAILS. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF SERVICE POINT PRIOR TO INSTALLATION. ENCLOSURE TO BE MOUNTED OPPOSITE APPROACHING TRAFFIC.

ROADSIDE PULL BOX WITH POLYMER HEAVY DUTY TRAFFIC COVER MARKED "STREET LIGHTING"

SIZE 2" SCHEDULE 40 PVC CONDUIT UNDERGROUND WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE AND NUMBER OF CONDUCTORS AS SHOWN ON PLAN SHEETS). RUN 1#6 (THW GREEN INSULATION) COPPER BOND WIRE INSIDE CONDUIT WITH OTHER CONDUCTOR

SIZE 2" SCHEDULE 40 PVC CONDUIT UNDERPAVEMENT WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE AND NUMBER OF CONDUCTORS AS SHOWN ON PLAN SHEETS) RUN 1#6 (THW GREEN INSULATION) COPPER BOND WIRE INSIDE CONDUIT WITH OTHER CONDUCTOR. EXTEND CONDUIT BEYOND EDGE OF PAVEMENT TO PULL BOXES.

SIZE 2" SCHEDULE 40 PVC CONDUIT EMBEDDED IN WALL STRUCTURE WITH 2#8 RHW-XLP CONDUCTORS AND 1#6 THW GROUND FURNISHED AND INSTALLED CONDUIT BY ELECTRICAL CONTRACTOR. THE COST OF THIS CONDUIT IS INCLUDED IN THE COST OF WALL STRUCTURE

POLE MOUNTED LUMINAIRE AND ROADSIDE PULL BOX, DECORATIVE METAL HALIDE LUMINAIRE CUTOFF TYPE III DISTRIBUTION.
LUMEC No. 175MHAT20SCB3M120BKTX OR APPROVED EQUIVALENT. (IES FILE S0104022)

POLE MOUNTED LUMINAIRE, DECORATIVE METAL HALIDE LUMINAIRE, CUTOFF TYPE III DISTRIBUTION LUMEC No. 70MHAT20SCB3M120BKTX OR APPROVED EQUIVALENT. IES FILE S0104035)

EXISTING FPL POLE AND LUMINAIRE TO BE REMOVED BY FPL

LIGHTING PLANS
POLE DATA & CODED NOTES

REVISIONS

DESCRIPTION	DATE
1	
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APPROVED BY:

DATE:

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 55584

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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FL REG 8746 EB0009033 AA0003148

DATE	01/06/2009
DRAWN	RM
DESIGNED	MJC
CHECKED:	RC
QC	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT

00734-03

SHEET NO **E2**

36

GENERAL NOTES

1. THE MAINTENANCE OF TRAFFIC FOR THE PROJECT SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (U.S.D.O.T., FHWA). ATTENTION IS DIRECTED TO INDEX Nos. 600, 612, AND 625 OF THE ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

2. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS IS APPROXIMATE. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AND UTILITY OWNERS DURING CONSTRUCTION.

3. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES OF UNDERGROUND UTILITIES.

4. TWO FULL BUSINESS DAYS PRIOR TO DIGGING THE CONTRACTOR SHALL CALL SUNSHINE STATE CALL OF FLORIDA, TELEPHONE NUMBER 1-800-432-4770, AND THE UTILITY OWNER AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT DURING UTILITY COMPANY LOCATIONS OF THEIR FACILITIES.

UTILITY OWNERS:	PHONE No.
ATLANTIC COMMUNICATIONS	(305) 888-0877
ATT-DIST	(954) 723-3540
AT&T	(770) 318-5424
COMCAST	(954)534-7417
FLORIDA CITY GAS	(305) 635-3032
FLORIDA POWER & LIGHT	(800) 868-8554
FPL - FIBERNET	(305) 552-3024
MCI	(972) 729-8016
MIAMI-DADE WATER & SEWER	(786) 268-5214
TECO/PEOPLES GAS	(954) 453-0924

5. SEVEN COPIES OF SHOP DRAWINGS AND DESIGN DATA SHALL BE SUBMITTED TO THE ENGINEER OF RECORD WITH A COPY OF THE SUBMITTAL LETTER SENT TO THE DEPARTMENT'S RESIDENT CONSTRUCTION ENGINEER IN CHARGE OF THE PROJECT. ALLOW A 45 DAY TURNAROUND FOR SUBMITTALS.

6. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, EQUIPMENT SPECIFICATIONS OR DESIGN DATA FOR MATERIAL PROPOSED FOR THE PROJECT AND SHALL INCLUDE, BUT NOT BE LIMITED TO:

   A) LUMINAIRE AND LUMINAIRE PHOTOMETRICS. SUBMITTAL SHALL INCLUDE A COMPUTER PRINTOUT SHOWING HORIZONTAL FOOT-CANDLE LEVELS TO BE OBTAINED USING THE SUBMITTED LUMINAIRE'S ON THE PROJECT
   B) CONDUCTORS, CONDUIT, GROUND RODS AND PULL BOXES.
   C) FUSES, FUSE HOLDERS, SURGE PROTECTORS.
   D) SAFETY SWITCHES, PANELS, CIRCUIT BREAKERS AND OTHER MAJOR SERVICE POINT COMPONENTS.
   E) LIGHTING POLES INCLUDING ARMS.
   F) FOUNDATIONS.
   G) COPIES OF ALL WARRANTIES FROM THE MANUFACTURER.

7. ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE NATIONAL ELECTRICAL SAFETY CODE AND THE STATE OF FLORIDA D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER N.E.C. REQUIREMENTS.

8. THE CONTRACTOR SHALL MAINTAIN THE EXISTING LEVEL OF ILLUMINATION ON THE TRAVELLED ROADWAY THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE TEMPORARY OVERHEAD LIGHTING FOLLOWING THE REMOVAL OF THE EXISTING LIGHT POLES BY FPL. CONTRACTOR TO COORDINATE THIS WORK WITH FPL, MR. ELLIS OLENTON TEL. (305) 770-7304.

9. HANDHOLE COVERS FOR POLES AND TRANSFORMER BASES SHALL BE LOCATED OPPOSITE APPROACHING TRAFFIC.

10. END OF CONDUIT SHALL BE SEALED WITH POLYURETHANE FOAM AFTER WIRING IS COMPLETE.

11. SPLICES AND CONNECTIONS MADE IN PULL BOXES SHALL BE PROPERLY TAPED AND HEAT SHRINK TUBES OR CAPS SHALL BE USED TO WATERPROOF THESE CONNECTIONS.

12. GROUND RODS TO BE INSTALLED AT EACH PULL BOX AND #6 THW GREEN BONDED TO IT.

13. SYSTEM SHALL BE GROUNDED WITH #6 THW GREEN INSULATION RUN INSIDE CONDUIT.

14. PULL BOXES SHALL HAVE EXTERIOR DIMENSIONS OF 37" X 18" X 12" AND SHALL BE CONCRETE OR POLYMER (HEAVY WEAVE FIBERGLASS) REINFORCED CONCRETE WITH POLYMER HEAVY DUTIN TRAFFIC COVERS. PROVIDE 20 FT. MIN. GROUND ELECTRODE AT EACH PULL BOX. COVERS TO BE PROVIDED WITH GROUND LUG AND MARKED "STREET LIGHTING"

15. INSTALL #10 THW GREEN INSULATED PIGTAIL ON PULL BOX COVER AND CONNECT TO GROUND ROD

16. PULL BOX COVER BOLTED TO PULL BOX USING TAMPER PROOF NUT

17. CABLE DISTRIBUTION SHALL BE (MG)ZINC & DURALUME AND SHALL BE PROPERLY IDENTIFIED BY HAVING THE MIAMI-DADE COUNTY NUMBER MDC/PW#715-600 MOLDED ON THE DISTRIBUTION BLOCK AS REQUIRED BY MIAMI-DADE COUNTY. THE MAINTENANCE AGENCY

16. SPECIAL ATTENTION IS DIRECTED TO SECTIONS 715-13 AND 715-15 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2006. FOR LABELING OF EQUIPMENT AND TRANSFER OF WARRANTIES.

19. THE CONTRACTOR SHALL MEASURE THE GROUND ROD RESISTANCE AT EACH POLE, PULL BOX AND SERVICE POINT AS REQUIRED PER MIAMI-DADE COUNTY. THE MAINTAINING AGENCY. THE RESISTANCE SHALL BE RECORDED AND COPY GIVEN TO THE PROJECT ENGINEER FOR HIS RECORD.

20. THE CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS. WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL DEMONSTRATE SAME BY MEGGER TEST. TEST SHALL BE PERFORMED BEFORE CONNECTION TO BALLAST. THE INSULATION RESISTANCE TEST SHALL INDICATE ANY FAULTY INSULATION. IF ANY, THE CONTRACTOR SHALL LOCATE THE POINTS OF SUCH INSULATION. PULL THE CONDUCTOR AT FAULT, AND REPLACE SAME WITH NEW, AT HIS EXPENSE. THE ELIMINATION OF SUCH FAULT SHALL BE DEMONSTRATED BY FURTHER TESTING. COST OF SUCH WORK IS INCIDENTAL TO PAY ITEMS 715-516-115 AND 715-516-116

21. IDENTIFICATION PLATES ARE TO BE INSTALLED ON ALL POLES. PLATES SHALL CONTAIN THE FOLLOWING INFORMATION: CIRCUIT NUMBER AND POLE NUMBER AS SHOWN ON THE POLE DATA SHEET. IDENTIFICATION PLATES SHALL BE PLACED AT BACK OF POLE. COST OF SUCH ITEM IS INCIDENTAL TO PAY ITEM 715-516-116 AND 715-516-118. SEE SECTION 716-10.5 OF THE STANDARD SPECIFICATIONS.

22. THE CONTRACTOR SHALL MAINTAIN TWO COMPLETE SETS OF AS-BUILT PLANS INDICATING ALL CHANGES AND DEVIATIONS FROM PROPOSED CONSTRUCTION. USE COLOR PEN OR PENCIL TO MARK CHANGES AT TIME OF EXECUTION. THE COMPLETED SETS SHALL BE GIVEN TO THE MAINTAINING AGENCY.

23. ALL GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED AS PER F.D.O.T. SECTION 620 AND MIAMI DADE COUNTY MAINTENANCE AGENCY NEW SPECIFICATION

REVISIONS		
	DESCRIPTION	DATE
2		
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APPROVED BY: _____ DATE: _____

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 65584

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DESIGNED:	MJC
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT

00734-03

SHEET NO. E3

SUMMARY OF QUANTITIES AND GENERAL NOTES

THE STRAND SUMMARY OF QUANTITIES			
ITEM No.	ITEM	UNIT	TOTAL QUANTITY
715-1-1	GROUNDING ELECTRODE (POLES AND DISTRIBUTION POINT)	LF	XX
715-411-145	LIGHTING POLE COMPLETE (ALUMINUM) (45 FT. MOUNTING HEIGHT & 10' BRACKET ARM)	EACH	X
715-100-11	400 WATT. (480 V.) HIGH PRESSURE SODIUM VAPOR LUMIANIRE WITH LAMP	EACH	X
715-95-2	ELECTRIC SERVICE & COORDINATION	AS	1
715-7-11	LOAD CENTER (INCLUDES SWITCH, WEATHER HEAD & WIRE AT SERVICE POINT)	EACH	1
715-80-21	CONCRETE POLE BASE	EACH	X
715-14-12	PULL BOX (INCLUDING GROUND ROD COMPLETE WITH CLAMP)	EACH	X
715-2-115B	CONDUIT, 2" UNDERGROUND	LF	XXXX
715-1-114	CONDUCTORS #6	LF	XXXX
715-500-1C	DOT 3 MODULAR POLE CABLE DISTRIBUTION KIT FROM MG SQUARE	EACH	14

INCIDENTAL ITEMS OR ACCESSORIES REQUIRED TO COMPLETE THE WORK FOR EACH ITEM BID, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THAT SPECIFIC ITEM AS INDICATED IN THE BID FORM, SUCH AS BUT NOT LIMITED TO: ELBOWS, SPLIT BOLT CONNECTORS, FUSES & FUSE HOLDERS, ELECTRICAL TAPE, SCOTCHKOTE, P.V.C. GLUE, TRENCHING, BACKFILLING, PAVEMENT RESTORATION, CONCRETE SLAB REPLACEMENT ETC

GENERAL NOTES

A) POWER COMPANY SHALL PROVIDE 480 V. TO GROUND, P.E. CONTROLLED INCOMING SERVICE AT LOCATION SPECIFIED. THE DATE REQUIRED FOR INCOMING SERVICE TO BE COMPLETED MUST BE COORDINATED BY THE CONTRACTOR WITH THE POWER COMPANY AT THE PRE CONSTRUCTION MEETING

B) POWER COMPANY RESERVES THE RIGHT TO INSTALL THE RISER, SWITCH GEAR AND WEATHER HEAD ON POWER COMPANY POLES AT THE EXPENSE OF THE CONTRACTOR. CONTACT THE POWER COMPANY FOR COST OR FOR AUTHORIZATION FOR AN ALTERNATE PROCEDURE.

C) ALL CONDUIT EXPOSED OR SURFACE MOUNTED SHALL BE GALVANIZED STEEL AND GROUNDED

D) CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND STRUCTURAL CONFLICTS IN COOPERATION WITH THE UTILITY COMPANY (S)

E) STATIONING MAY BE ADJUSTED AS DIRECTED TO AVOID UTILITY OR STRUCTURAL CONFLICTS NOT INDICATED IN THE PLANS.

F) SIDEWALK SLABS DAMAGED DURING CONSTRUCTION SHALL BE REPLACE IN FULL AND COLORED WHERE NECESSARY TO MATCH THE EXISTING SIDEWALK.

G) CONTRACTOR MUST MAINTAIN THE EXISTING LIGHTING SYSTEM OR SUPPLY A TEMPORARY ONE UNTIL THE NEW LIGHTING SYSTEM CAN BE ACTIVATED IF THE EXISTING LIGHTING SYSTEM IS OWNED BY FLORIDA POWER AND LIGHT COMPANY. SEE SPECIFICATION FOR ROADWAY LIGHTING SPECIAL PROVISIONS, SECTION 715

H) ALL MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE UNDERWRITER'S LABORATORY APPROVED.

I) POLES, BRACKET ARMS AND TRANSFORMER BASES SHALL BE ALUMINUM AND DESIGNED IN ACCORDANCE WITH LOCAL DESIGN CRITERIA USING THE APPLICABLE EQUATIONS FOUND IN "STANDARD SPECIFICATIONS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS" PUBLISHED BY A.A.S.H.T.O. SECTION 7

J) THE WIRES AT THE PULL BOXES SHALL BE LOOPED UP IN THE POLE AND PULL BOXES WITH SUFFICIENT LENGTH TO COMPLETELY REMOVE CONNECTORS TO THE OUTSIDE, TO MAKE THEM ACCESSIBLE FOR CHANGING FUSES AND TROUBLE SHOOTING THE SYSTEM.

K) THE LUMINARIES MANUFACTURER SHALL PLACE A PERMANENT TAG ON THE LUMINAIRE HOUSING ON WHICH IS IMPRINTED THE FOLLOWING INFORMATION. WATTAGE, BALLAST TYPE, LAMP SHOWN ON DESIGN PLANS, LAMP SETTING (POSITION IN LUMINARIES) IES LIGHT DISTRIBUTION WITH THE LAMP IN THE POSITION SPECIFIED INPUT VOLTAGE AND POWER FACTOR LUMINARIES PHOTO METRIC SUBMITTALS REQUIRED

L) GROUND RODS SHALL HAVE A RESISTANCE TO GROUND NOT TO EXCEEDED 25 OHMS WHERE THE RESISTANCE IS NOT AS LOW AS 25 OHMS, TWO OR MORE GROUND RODS CONNECTED IN PARALLEL SHALL BE USED

M) THESE MATERIALS ARE TO BE FURNISHED BY THE CONTRACTOR AND DEPOSITED AT A SITE DESIGNATED BY THE TOWN, WHERE THEY SHALL BE INSPECTED AS TO THEIR ACCEPTANCE BY THE TOWN OF GOLDEN BEACH

LIGHTING PLANS
SUMMARY OF QUANTITIES

REVISIONS

DESCRIPTION	DATE
1	
2	
3	
4	

APPROVED BY:

DATE

MANUEL J. CARBONELL, P.E.
FLORIDA REGISTRATION No. 65584

CORJO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS·ARCHITECTS·PLANNERS
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CORAL GABLES, FLORIDA 33134
MIAMI (305)-446-7800 FLORIDA (800)-140-0721
FL REGISTRATIONS: EB0003022 AA0003143

DATE:	01/08/2009
DRAWN	RM
DESIGNED:	MJC
CHECKED	RC
QC:	RC
CADD FILE:	00734-03

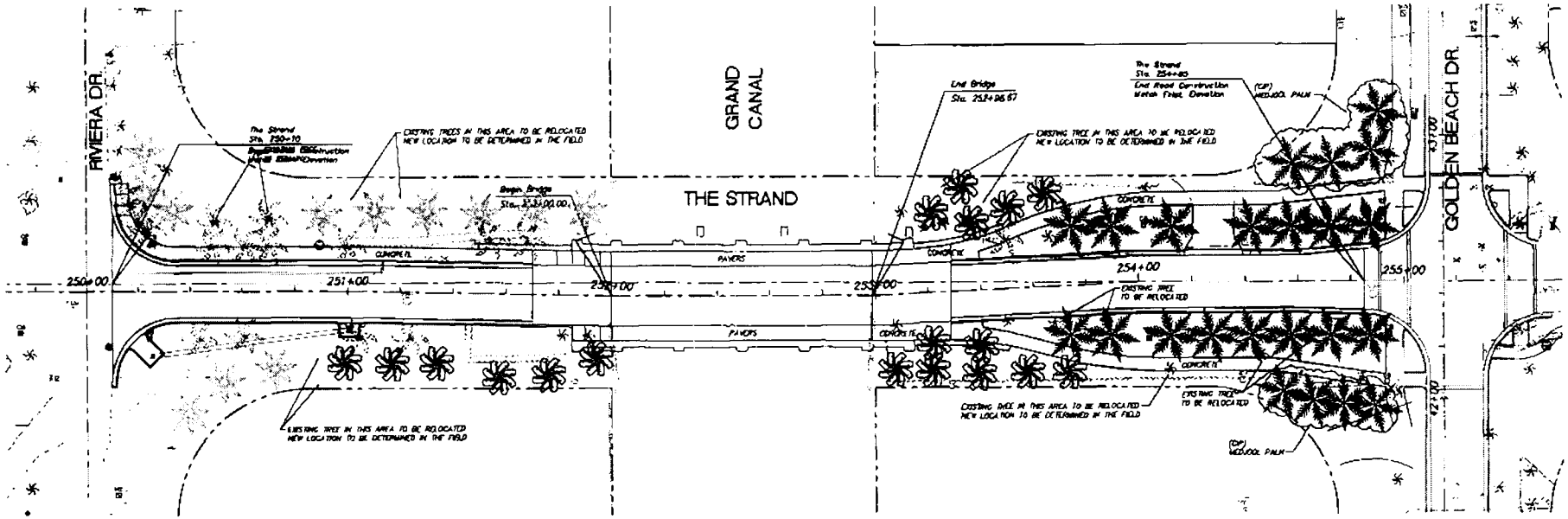
TOWN OF GOLDEN BEACH

THE STRAND BRIDGE REPLACEMENT

00734-03

SHEET NO. **E4**

38



THE STRAND PLAN LIST

KEY	COMMON NAME	BOTANICAL NAME	QUANTITIES	SIZE
	COCONUT	COCOS NUCIFERA	18 EA	25'-26' TOTAL OVERALL 14' MIN. CT
	WEDDEL PALM	PHOENIX DACTYLIFERA	15 EA	25 TALL OVERALL MATCHED CLASSIC CUT
	RELOCATED TREE	RELOCATED TREE	12 EA	RELOCATED TREE

LANDSCAPE PLAN

REVISIONS		
DESCRIPTION	DATE	
1		
2		
3		
4		

APPROVED BY

DATE

CARLOS M. MERODOCIA, P.E.
FLORIDA REGISTRATION No. 47660

CMS

DATE	01/08/2009
DRAWN:	RW
DESIGNED:	CH
CHECKED:	RC
QC:	RC
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

THE STRAND
BRIDGE REPLACEMENT

00734-03

SHEET 3

LA

GENERAL NOTES

GENERAL SPECIFICATIONS: Florida Department of Transportation Standard Specifications for Road and Bridge Construction (2007 edition), as amended by contract documents.

DESIGN SPECIFICATIONS: American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications (2007 edition) FDOT Structures Manual (January, 2009 edition).

DESIGN METHOD: Load and Resistance Factor Design (LRFD) Method

DESIGN LOADING: Live Load HL-93 with impact
Future wearing surface Design includes allowance for 15 psf

Thermal Forces
Temperature Range for Design
Temp. Mean 70°F
Temp. High 105°F
Temp. Low 35°F

Thermal Coefficient:
0.000006 per F°

Wind Loads: Wind Loads are in accordance with AASHTO Section 3.8 and modified as per the FDOT Design Guidelines, Section 2.4

Earthquake: Forces are in accordance with Section 2.3 the FDOT Structures Design Guidelines and the applicable AASHTO Standard Specifications for Highway Bridges.

CONCRETE: All concrete shall conform with Section 346

	Min 28-day Compressive Strength (psi)	Modulus of Elasticity Strength (ksi)	Location
Class II (Bridge Deck)	4500	3474	Approach Slabs
Class IV	5500	3841	Cast-in-place concrete structural topping, edge beams bridge sidewalk, pilasters
Class IV (Drilled Shaft)	4000	3276	Drilled Shafts
Class V	6500	4176	Prestressed slab units
Class V Special	6000	3841	Substructure

REINFORCING STEEL: All reinforcing steel shall be ASTM A615-96a, Grade 60.

ENVIRONMENT: Superstructure: Extremely Aggressive
Substructure: Extremely Aggressive
Resistivity = 25 OHM-CM, PH = 6.60,
Chlorides = 18,000 ppm, Sulfates = 3,800 ppm
Location Coastal

CONCRETE COVER: Concrete cover shown in the plans does not include reinforcement placement and fabrication tolerances unless shown as "minimum cover". See FDOT Standard Specifications for allowable reinforcement placement tolerance. Unless otherwise shown on the plans the following concrete covers shall be used:

LOCATION	COVER (in)	DESCRIPTION
Superstructure Approach Slabs Precast	2	All External Surfaces and Internal Surfaces (except top surfaces)
Superstructure Cast-In-Place	2	Top deck surfaces and all external and internal surfaces
Substructure Cast-In-Place	4 ½	External Surfaces cast against earth and surfaces in water
Substructure Cast-In-Place	4	External Formed Surfaces, and internal surfaces
Substructure	6	Drilled Shafts
Substructure Precast	4	Precast Bulkhead Panels

CHAMFER: All exposed edges and corners of concrete shall be chamfered ¾" unless otherwise noted.

CONCRETE SURFACE FINISH: A Class 5 finish coating (see details on this sheet), shall be applied to the following exposed concrete surfaces:
- Outside faces and Concrete Pilasters
- The vertical edge and all exposed surfaces of End Bents and Piers above ground line (except top of caps).

ELEVATIONS: All elevations are referred to the National Geodetic Vertical Datum (NGVD) of 1929.

SCREEDING DECK SLABS: The riding surface of the bridge deck shall be screeded to the Finish Grade Elevations, which already include allowance for permanent camber.

BRIDGE FLOOR GROOVING: Deck slab shall be grooved according to the Standard Specifications, Section 400-15.2.5, Class 4 Deck Finish

NEOPRENE BEARING PADS: Composite Neoprene Bearing Pads as designated in the plans shall be furnished and installed by the Contractor

DISPOSAL OF DEBRIS: Construction debris shall be disposed of properly by the Contractor, outside of the Right of Way as approved by the Engineer

UTILITIES: The utilities shown in the Bridge Plans are at approximate locations. For additional information, refer to the Utilities Plan. The Contractor shall notify all utility companies and verify exact location of all utilities prior to performing any excavation, drilled shaft installation or construction and shall be responsible for making its own determination as may be necessary to avoid damages. Relocation of existing utilities shall be done by the Utility owner. Contractor shall assure that active utilities within the project limits are properly maintained during construction.

ENVIRONMENTAL PROTECTION: See Roadway Pay Item Notes for details.

DRILLED SHAFTS: For shaft loads, size and additional notes, see Foundation Layout Drawing and Drilled Shaft Details Sheet. All drilled shafts shall be installed according to the Drilled Shaft Data Table in the Drilled Shaft Details Sheet

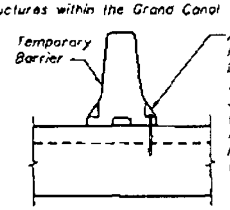
MAINTENANCE OF TRAFFIC: For additional maintenance of traffic details see Roadway plans.

NOISE RESTRICTIONS: The Contractor shall strictly adhere to all local noise ordinances. All construction operations shall be limited to the hours of 7:00 A.M. to 6:00 P.M., Monday thru Friday. Methods of maintaining construction noise levels may include but not be limited to enclosures for equipment, mufflers, etc. There will be no separate payment for any of these measures.

VIBRATION: The Contractor shall provide surveys of existing damage and settlement and vibration monitoring of existing structures adjacent to construction in all four quadrants in accordance with FDOT Standard Specifications. For the purposes of Section 455, the augercast pile diameter shall mean the same as the drilled shaft diameter. The maximum vibration speed velocity allowed shall be 0.25 in/sec. The cost of all existing structure survey and monitoring shall be paid for under Item No. 455-18, Protection of Existing Structures

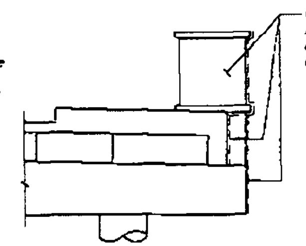
EXISTING STRUCTURE: The Contractor shall not use any part of the existing bridge for heavy equipment staging or to support falsework or trestles. Where necessary to move construction equipment over the existing bridge, the contractor shall submit computations indicating the existing structure capacity to support the proposed load to the Engineer for approval. Computations shall be signed and sealed by a Florida Registered Engineer

TEMPORARY STRUCTURES: The Contractor shall not construct temporary support structures within the Grand Canal



TEMPORARY BARRIER ANCHORAGE DETAIL

(To Existing & Proposed Deck)



SURFACE FINISH DETAIL

PROTECTION OF EXISTING STRUCTURES: In accordance with Section 455 of the FDOT Standard Specification for Roadway and Bridge Construction, the contractor shall provide settlement/vibration monitoring of the existing structure.

BID ITEM NOTES

1- Payment for incidental items, not specifically covered in the individual Bid items, shall be included in the Contractor Unit Price for Bid Items

2- Bid Item No. 400-7, Bridge Floor Grooving. The total quantity includes Approach Slab grooving areas.

3- The Contract Unit Price for Class IV Concrete shall include the cost and installation of Premoulded Expansion Materials and joint sealants

4- Item 110-3, Structures Removal of Existing, includes removal and disposal of existing Structures. This work shall include 2943 sf of bridge structure, removing the existing piles as specified in note 3 on sheet B-9 and portion of existing bulkhead indicated on plans. Those quantities are for information only. Bidders shall visit the site prior to submitting bids to ascertain the full extent of the removal and disposal of the existing structure

5- The Contractor shall be responsible for maintaining the stability of the End Bent embankment and the existing bulkhead during construction. This includes providing the Soil Stabilization System as shown. Associated cost shall be included with the cost of the substructure concrete, unless noted otherwise.

6- For Traffic Control Notes, see Roadway Plans

7- The Approach Slab sheets are included with the Bridge Plans. All quantities, that are associated with the individual Approach Slabs are included with the quantities for their respective bridges, except for the asphalt overlay quantities. They are included in the Roadway quantities.

INDEX OF SHEETS

B-1 GENERAL NOTES, INDEX OF BRIDGE SHEETS AND BID ITEM NOTES
B-2 STANDARD BAR BENDING DETAILS
B-3 PLAN AND ELEVATION
* B-4 BRIDGE HYDRAULIC RECOMMENDATIONS
B-5 CONSTRUCTION SEQUENCE
B-6 REPORT OF CORE BORINGS (1 OF 3)
B-7 REPORT OF CORE BORINGS (2 OF 3)
B-8 REPORT OF CORE BORINGS (3 OF 3)
B-9 FOUNDATION LAYOUT
B-10 DRILLED SHAFT DETAILS (1 OF 2)
B-11 DRILLED SHAFT DETAILS (2 OF 2)
B-12 END BENT NO. 1
B-13 END BENT NO 3
B-14 END BENT DETAILS (1 OF 2)
B-15 END BENT DETAILS (2 OF 2)
B-16 INTERMEDIATE BENT NO 2
B-17 FINISH GRADE ELEVATIONS
B-18 SUPERSTRUCTURE
B-19 SUPERSTRUCTURE DETAILS (1 OF 4)
B-20 SUPERSTRUCTURE DETAILS (2 OF 4)
B-21 SUPERSTRUCTURE DETAILS (3 OF 4)
B-22 SUPERSTRUCTURE DETAILS (4 OF 4)
B-23 PRESTRESSED SLAB UNITS (1 OF 2)
B-24 PRESTRESSED SLAB UNITS (2 OF 2)
B-25 APPROACH SLABS
B-26 APPROACH SLAB DETAILS
B-27 REINFORCING BAR LIST (1 OF 5)
B-28 REINFORCING BAR LIST (2 OF 5)
B-29 REINFORCING BAR LIST (3 OF 5)
B-30 REINFORCING BAR LIST (4 OF 5)
B-31 REINFORCING BAR LIST (5 OF 5)
B-32 LOAD RATING
BX-1 AND BX-2 EXISTING BRIDGE PLANS

* Reserve for future use

REVISIONS		
DESCRIPTION	DATE	
1.		
2.		
3.		
4.		

APPROVED BY
MANUEL A. SOLAUN P.E.
FLORIDA REGISTRATION No 43418
DATE: 10/06/2009

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS

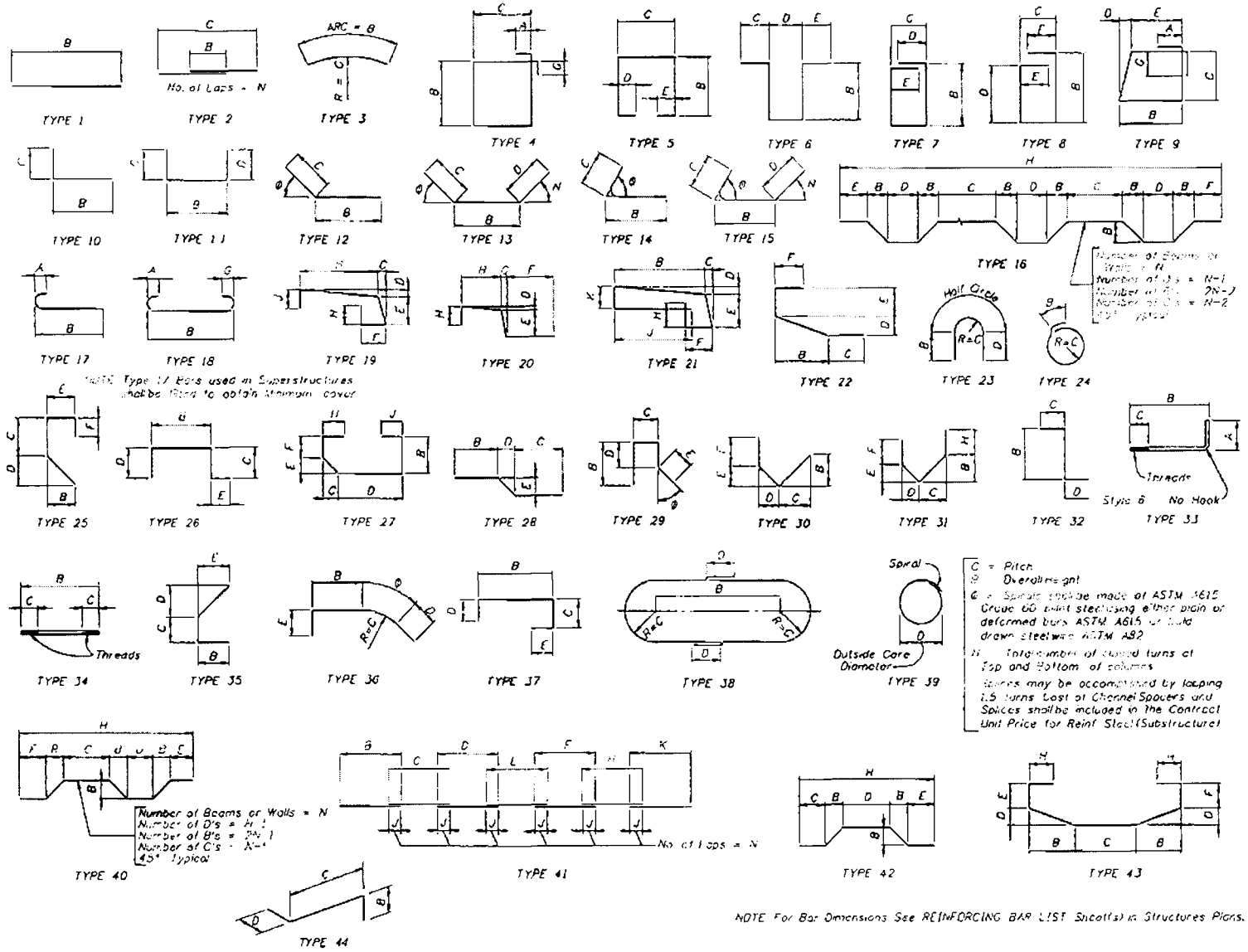
DATE	10/06/2009
DRAWN	RH/ AF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
GENERAL NOTES, INDEX OF BRIDGE SHEETS & BID ITEM NOTES

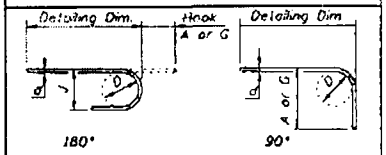
00734-03

SHEET NO
B-1

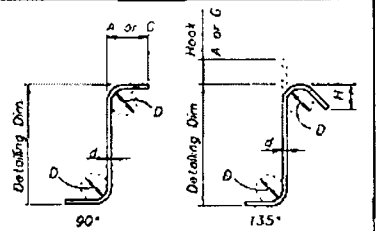


NOTE For Bar Dimensions See REINFORCING BAR LIST Sheet(s) in Structures Plans.

HOOK DETAILS



BAR SIZE	D	180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2½"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	1'-0"
#7	5¼"	10"	7"	1'-2"
#8	6"	11"	8"	1'-4"
#9	9½"	1'-3"	11¾"	1'-7"
#10	10¾"	1'-5"	1'-1¼"	1'-10"
#11	12"	1'-7"	1'-2¾"	2'-0"
#14	18¼"	2'-3"	1'-9¾"	2'-7"
#18	24"	3'-0"	2'-4½"	3'-5"
STYLE		1		3



STIRRUPS (TIES SIMILAR)

RECOMMENDED STIRRUP & TIE HOOK DIMENSIONS

BAR SIZE	D	90° HOOKS A or G	135° HOOKS A or G	135° HOOKS H*
#3	1½"	4"	4"	2½"
#4	2"	4½"	4½"	3"
#5	2½"	6"	5½"	3¾"
#6	4½"	1'-0"	8"	4½"
#7	5¼"	1'-2"	9"	5¼"
#8	6"	1'-4"	10½"	6"
STYLE		4	5	

STYLE 6 = NO HOOK

* Dimension is approximate

Hook Styles Detailed on this sheet are for Illustration Only.

Actual Hook Style for any particular bar will be shown under A or G Heading on REINFORCING BAR LIST sheet(s) in Structures Plans.

All Dimensions are out-to-out.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/09/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

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FL CERTIFICATION: 27000003 AAC002147

DATE:	10/09/2008
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DESIGNED:	AV
CHECKED:	MG
QC:	MAS
CADD FILE:	00734-03

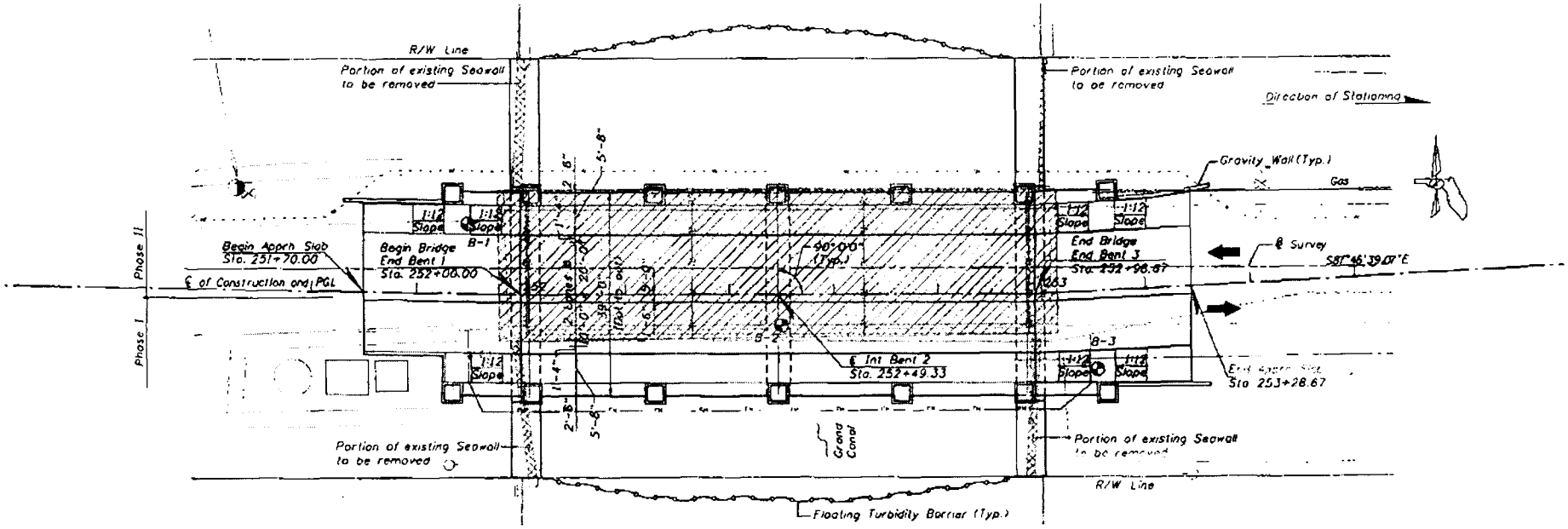
TOWN OF GOLDEN BEACH

THE STRAND AVE BRIDGE REPLACEMENT

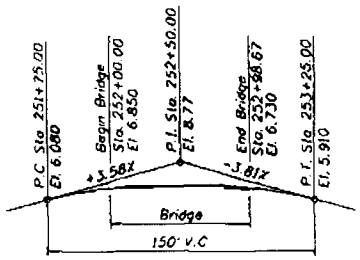
STANDARD BAR BENDING DETAILS

00734-03

SHEET NO. B-2



PLAN



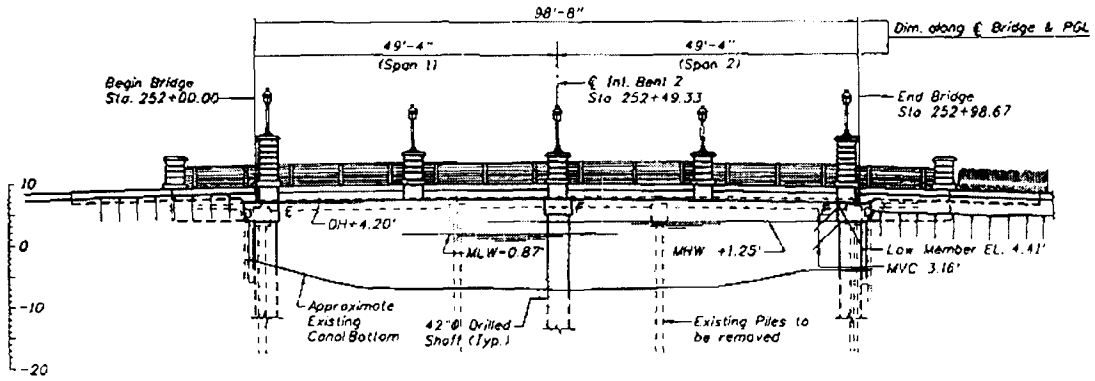
VERTICAL CURVE DATA

TRAFFIC DATA STRAND AVENUE

Design Speed 25 MPH

ADT 2001 = 500
2003 = 500
2023 = 500

K = 9.2% D = 50.8% T24 = 2.3%

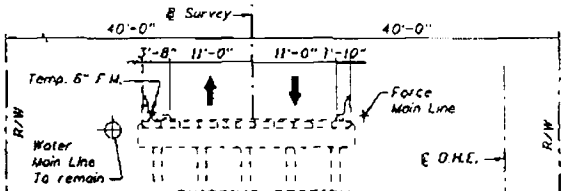


ELEVATION

LEGEND

DH	Design Flood Elevation
MHW	Mean High Water
MLW	Mean Low Water
MVC	Minimum Vertical Clearance
⊕	Soil Boring
PGL	Profile Grade Line
E	Expansion Bearing
F	Fixed Bearing
— · —	Exist Structure
———	Proposed Structure
▨	Existing Bridge to be removed

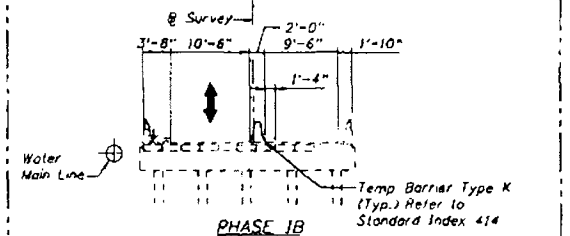
REVISIONS		APPROVED BY:	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS & ARCHITECTS PLANNERS	DATE: 10/09/2008	TOWN OF GOLDEN BEACH	THE STRAND AVE BRIDGE REPLACEMENT PLAN AND ELEVATION	SHEET NO
DESCRIPTION	DATE	DATE: 10/09/2008		DRAWN: RM/RF			B-3
1.		MANUEL A. SOLMAN P.E.		DESIGNED: AV			
2.		FLORIDA REGISTRATION No. 43418		CHECKED: MG			
3.				QC: MAS			
4.				CADD FILE: 00734-03			00734-03



EXISTING SECTION

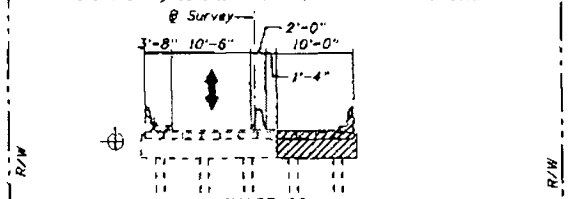
PHASE 1A

Relocate existing 6" F.M. to temporary location shown



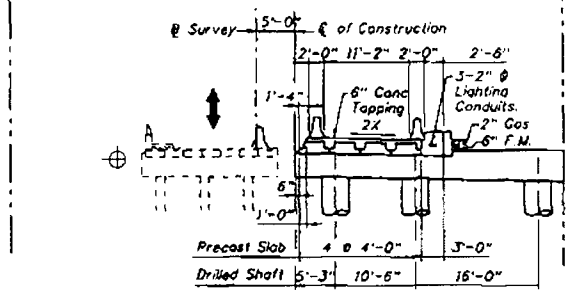
PHASE 1B

Install temporary barrier and shift traffic to the one lane-two way scheme on the north side on the structure.



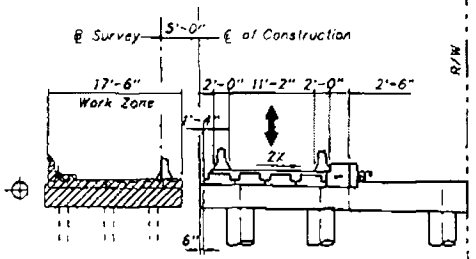
PHASE 1C

Remove the south portion of existing bridge.



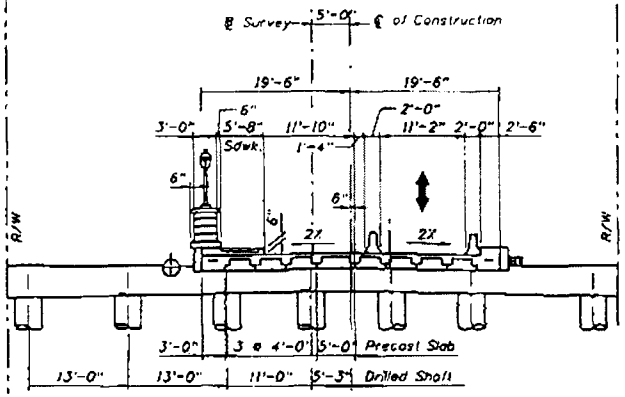
PHASE 1D

Build the southern part of the proposed structure except the Sidewalk, Railings and Pilasters Install temporary barriers on the newly built portion of the proposed bridge Relocate 6" F.M. & 2" Gas to Permanent Location



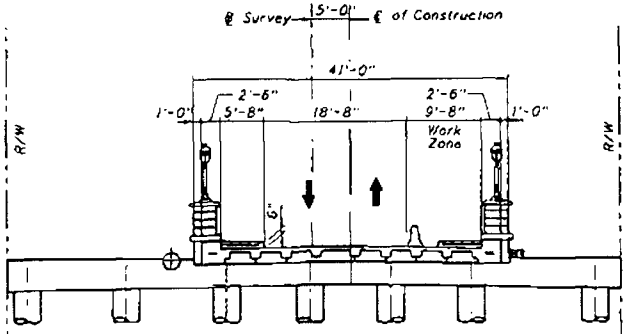
PHASE IIA

Shift traffic to one lane-two way scheme on the new portion of the proposed bridge.



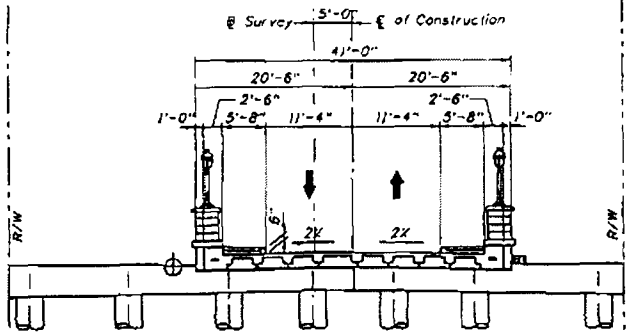
PHASE IIB

Remove the northern portion of existing structure and construct the remaining north section of proposed structure including Sidewalk, Railings and decorative Pilasters.



PHASE IIIA

Relocate temporary barrier and shift traffic to two lane-two way scheme. Construct the south sidewalk railing and pilasters of the proposed structure



PHASE IIIB

Remove Temporary Barrier
Open Bridge to Traffic

FINAL TYPICAL SECTION

NOTES:

1. Temporary Barrier shall be anchored to the bridge deck during all phases
2. Coordinate this construction Staging Plan with maintenance of traffic in Roadway Plans

LEGEND:

- - - Existing Structure
—— Proposed Structure
▨ Existing Structure to be removed

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/09/2003

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No 43416

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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(305) 446-8900 FLORIDA (800) 46-0333
FL REGISTRATION: 8800002 AA0001148

DATE:	10/09/2003
DRAWN:	RM/RF
DESIGNED:	AV
CHECKED:	MG
QC:	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
CONSTRUCTION SEQUENCE

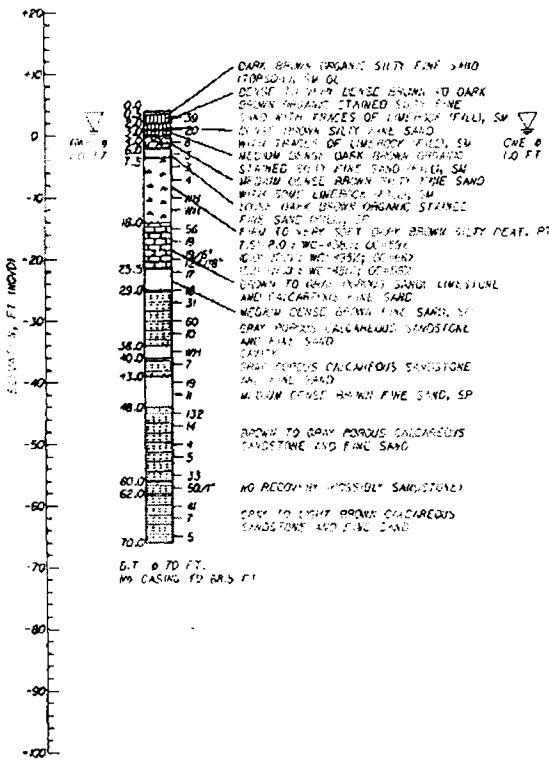
00734-03

SHEET NO
B-5

B-1

NORTHING: 35465.943
EASTING: 24[illegible]
STATION: [illegible]
OFFSET: [illegible]
ELEVATION: [illegible] FT
DATE: 12/29/08

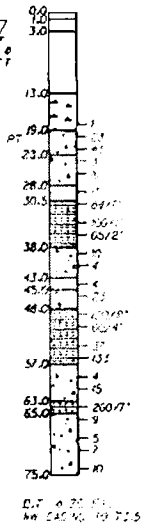
DEPTH, FT N



B-2

NORTHING: 35414.[illegible]
EASTING: 24475.56
STATION: 25+50
OFFSET: [illegible]
ELEVATION: 5.0 FT
DATE: 12/30/08

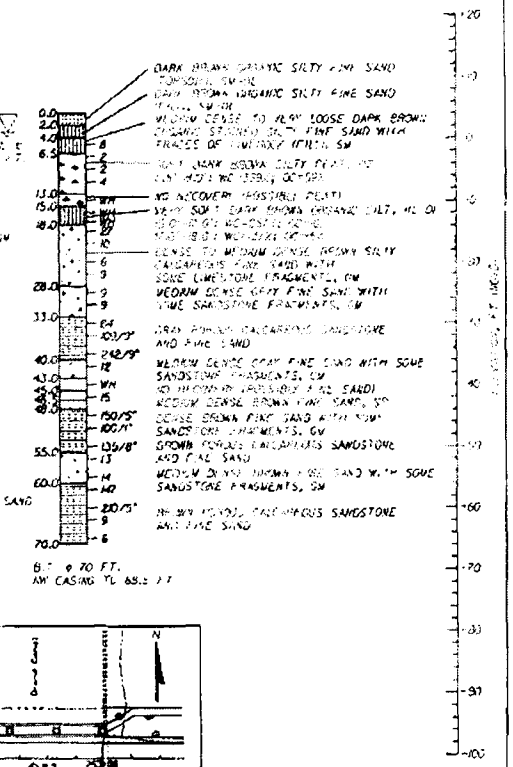
DEPTH, FT. N

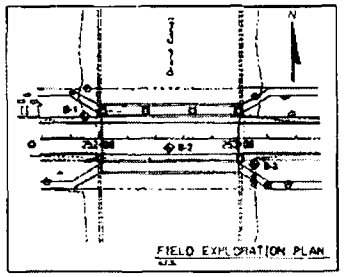


B-3

NORTHING: [illegible]
EASTING: [illegible]
STATION: [illegible]
OFFSET: 15.0 FT
ELEVATION: 4.5 FT
DATE: 12/30/08

DEPTH, FT N





FIELD EXPLORATION PLAN

VERTICAL SCALE: 0 5 20
HORIZONTAL SCALE: N.T.S

LEGEND:

- TOPSOIL
- LIMEROCK FILL
- PEAT
- FINE SAND
- FINE SAND WITH SOME LIMESTONE FRAGMENTS
- SANDY SILT
- SILTY SAND
- LIMESTONE WITH SOME FINE SAND OR AND FINE SAND
- SANDSTONE WITH SOME FINE SAND OR AND FINE SAND

GROUND WATER LEVEL AT BORING COMPLETION

B.T. BORING TERMINATED

N: SPT VALUE FOR A 12 INCH PENETRATION (AUTOMATIC HAMMER)

WH: WEIGHT OF HAMMER

O.C. ORGANIC CONTENT

W.C. WATER CONTENT

HAMMER WEIGHT = 140 LB

HAMMER HEIGHT = 30 IN

THE TEST BORINGS WERE PERFORMED BY HRES USING A CME 55 TRUCK MOUNTED RIG

GRANULAR MATERIALS:

RELATIVE DENSITY	SPT N-VALUE (BLOWS/FOOT)
VERY LOOSE	<2
LOOSE	3-4
MEDIUM DENSE	5-24
DENSE	24-40
VERY DENSE	>40

SILTS AND CLAYS:

CONSISTENCY	SPT N-VALUE (BLOWS/FOOT)
VERY SOFT	<1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	>24

ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

Resistivity (Ohm-cm)	pH	Sulfates (ppm)	Chlorides (ppm)
21.5 to 23.6	7.4 to 7.9	2,370 to 2,670	20,300 to 22,200

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

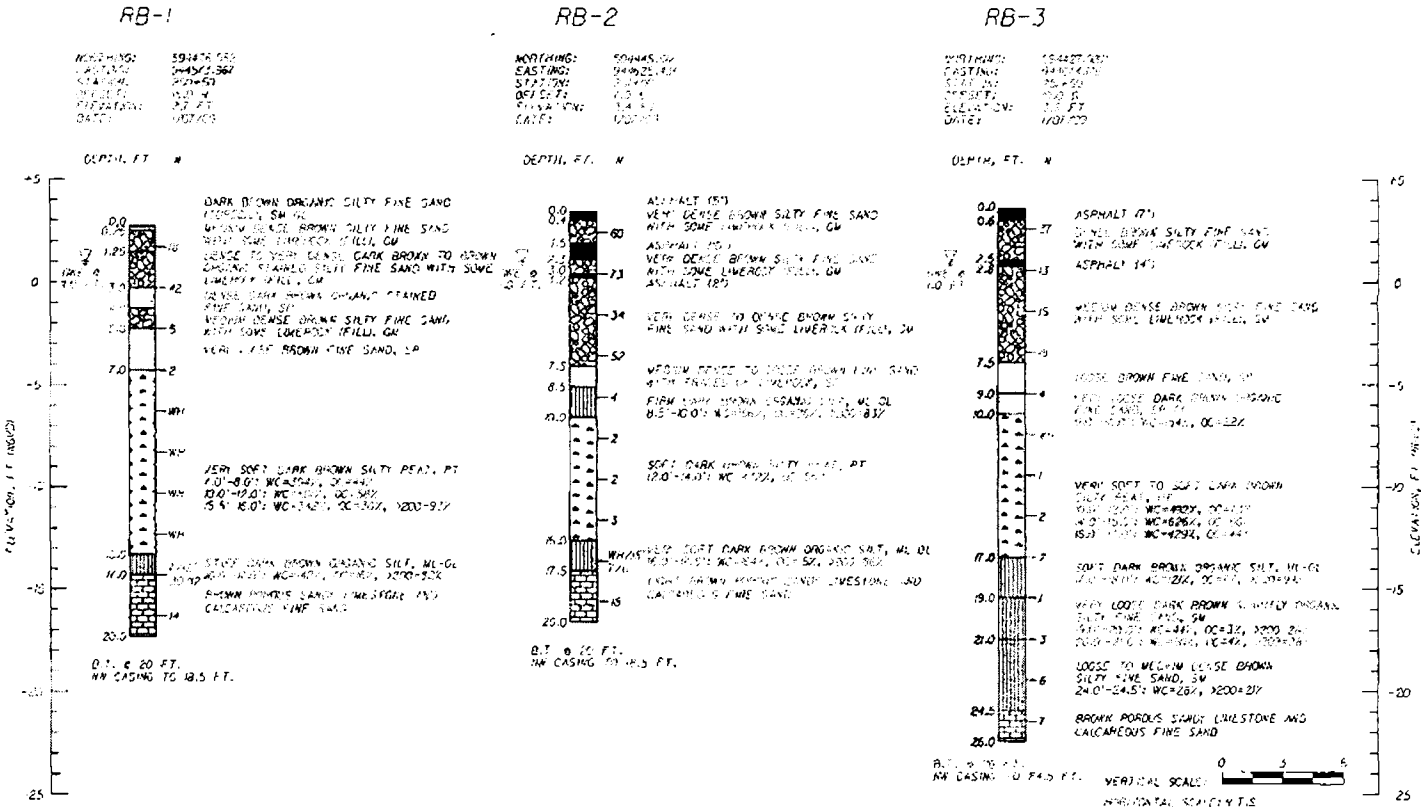
Fernando R. Ramos
P.E. License No. 43046
HR ENGINEERING SERVICES, INC
7815 NW 72nd Avenue
Medley, Florida 33166
Phone: (305) 888-8880
Fax: (305) 888-8770
Cert. of Authorization No. 7991

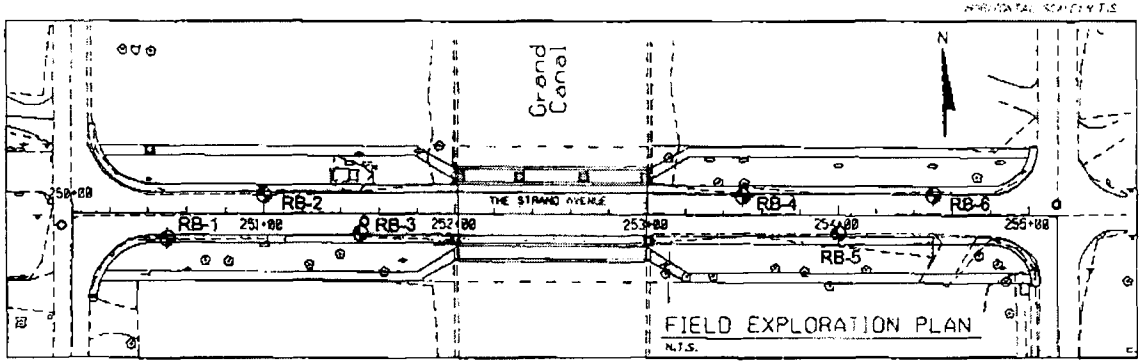
CITY OF GOLDEN BEACH		
ROAD NO	COUNTY	FINANCIAL PROJECT ID
-	MIAMI-DADE	-

REPORT OF CORE BORINGS (1 OF 3)

SHEET NO. B-6

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 60G5-23.001, F.A.C.





LEGEND:

- TOPSOIL
- ASPHALT
- LIMEROCK FILL
- PEAT
- FINE SAND
- SANDY SILT
- SILTY SAND
- LIMESTONE WITH SOME LOOSE SAND OR AND FINE SAND

GROUND WATER (FWE) AT BORING COMPLETION

B.T. BORING TERMINATED

N: SPT BLOWS FOR 1.4" (NON-PENETRATING) AUTOMATIC HAMMER

WH: WEIGHT OF HAMMER

>200: PERCENT PASSING #200 SIEVE

O.C. ORGANIC CONTENT

W.C. WATER CONTENT

HAMMER WEIGHT = 140 LB

DROP HEIGHT = 30 IN

THE TEST BORINGS WERE PERFORMED BY HRS USING A CME-55 TRUCK MOUNTED RIG

GRANULAR MATERIALS:

RELATIVE DENSITY	SPT N-VALUE (BLOWS/FOOT)
VERY LOOSE	<3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	>40

SILTS AND CLAYS:

CONSISTENCY	SPT N-VALUE (BLOWS/FOOT)
VERY SOFT	<1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	>24

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

Resistivity Ohm-cm	pH	Sulfates ppm	Chlorides ppm
23.6 to 23.6	7.4 to 7.9	2,370 to 2,670	[illegible] to 22,700

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Hernando R. Ramos
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HR ENGINEERING SERVICES, INC.
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CITY OF GOLDEN BEACH		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
-	MIAMI-DADE	-

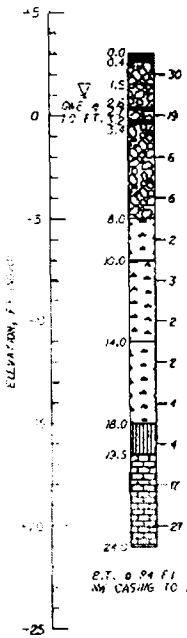
REPORT OF CORE BORINGS (2 OF 3)

SHEET NO. B-7

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 5J-17.003, F.A.C.

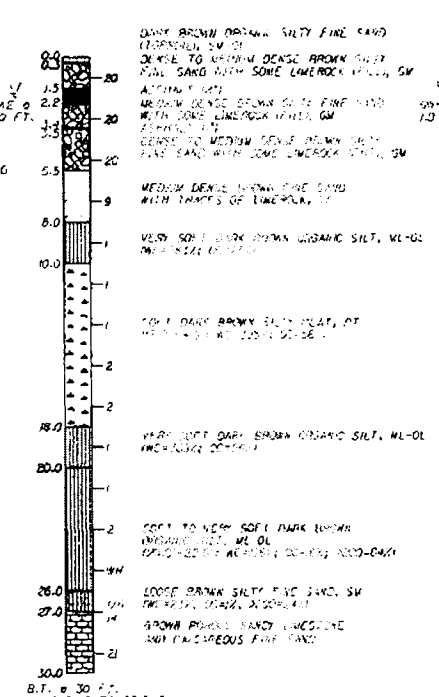
RB-4

NORTHING: [illegible]
EASTING: 944[illegible]
STATION: 251+00
OFFSET: 30.0 L
ELEVATION: [illegible]
DATE: [illegible]



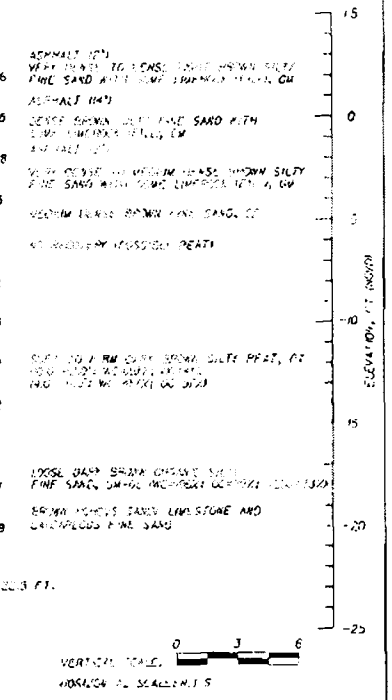
RB-5

NORTHING: 594420.563
EASTING: 944[illegible]
STATION: 254+00
OFFSET: 0.0 R
ELEVATION: [illegible]
DATE: 1/28/09

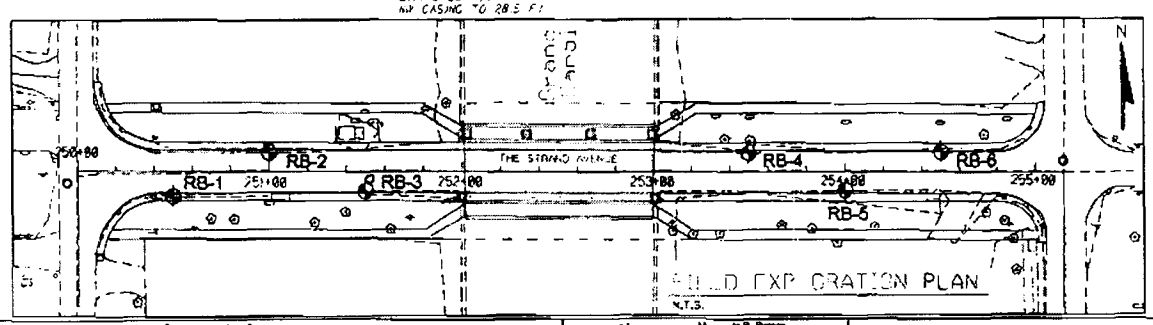


RB-6

NORTHING: 5[illegible]
EASTING: 944[illegible]
STATION: 254+00
OFFSET: 8.0 L
ELEVATION: [illegible] FT
DATE: 1/28/09



VERTICAL SCALE: 0 3 6
HORIZONTAL SCALE: N.T.S.



FIELD EXPLORATION PLAN
N.T.S.

LEGEND:

- TOPSOIL
- ASPHALT
- LIMEROCK FILL
- PEAT
- FINE SAND
- SANDY FILL
- SILTY SAND
- LIMESTONE WITH SOME LIMEROCK, SANDY OR AND FINE SAND

GROUND WATER LEVEL AT DRILLING COMPLETION

SL: BORING TERMINATED

N: SPT VALUE (BLOWS PER 12-INCH PENETRATION USING AUTOMATIC HAMMER)

WH: WEIGHT OF HAMMER

>200: PERCENT PASSING #200 SIEVE

O.C: ORGANIC CONTENT

W: WATER CONTENT

HAMMER ALIGNMENT [illegible]

DRILL HEIGHT [illegible]

THE TEST BORINGS WERE PERFORMED BY HRCS USING A CME 55 TRUCK MOUNTED RIG

GRANULAR MATERIALS

RELATIVE DENSITY	SPT N-VALUE (BLOWS/12 INCHES)
VERY LOOSE	<3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	>40

SILTS AND CLAYS

CONSISTENCY	SPT N-VALUE (BLOWS/12 INCHES)
VERY SOFT	<1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	>24

ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

Resistivity Ohms-cm	pH	Sulfates ppm	Chlorides ppm
21.6 to 23.6	7.4 to 7.9	2,370 to 2,670	20,300 to 22,700

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Phone: (305) 888-8840
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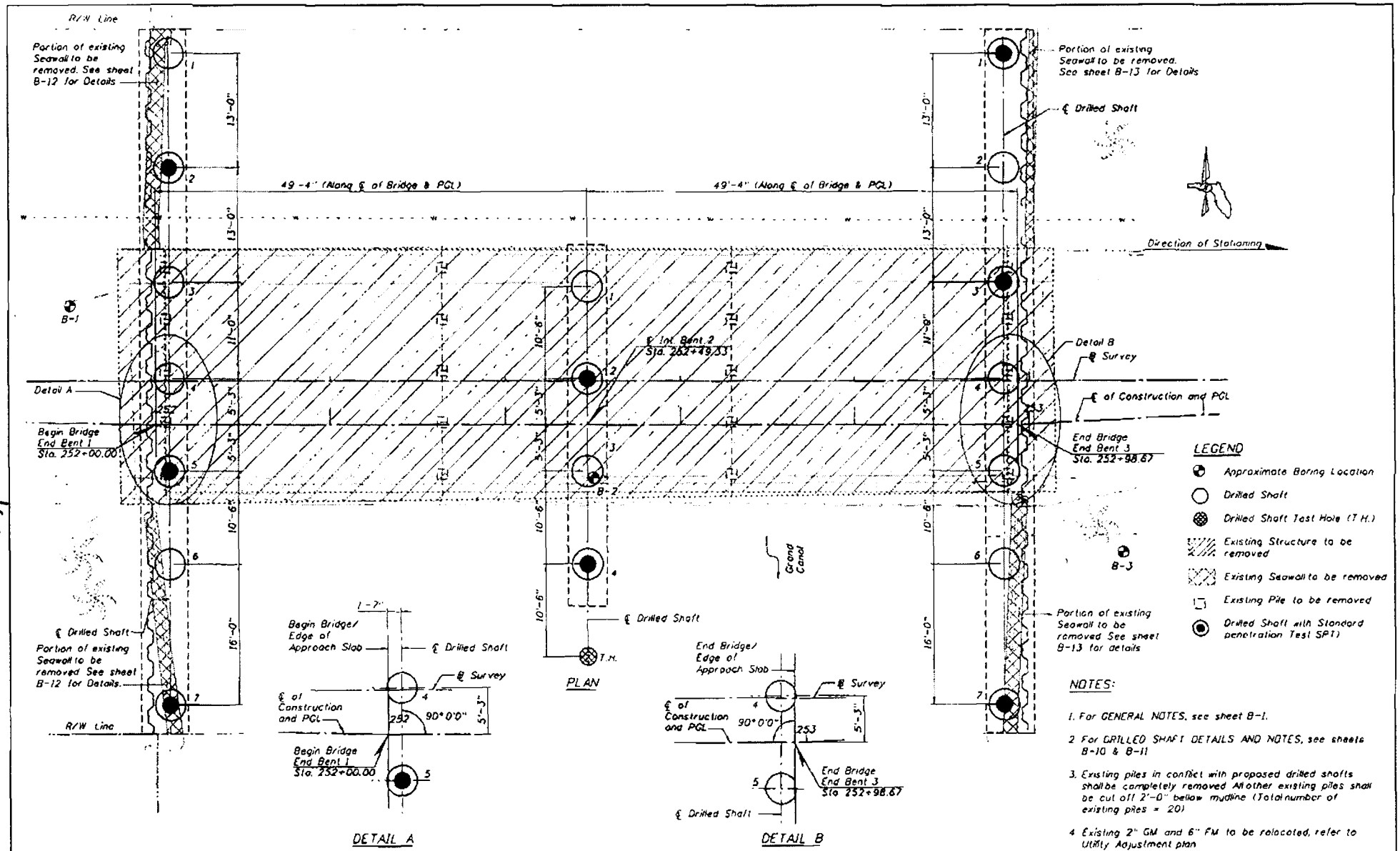
CITY OF GOLDEN BEACH		
ROAD NO	COUNTY	FINANCIAL PROJECT ID
-	MIAMI-DADE	-

REPORT OF CORE BORINGS (3 OF 3)

SHEET NO. 8-8

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



NOTES:

1. For GENERAL NOTES, see sheet B-1.
2. For DRILLED SHAFT DETAILS AND NOTES, see sheets B-10 & B-11
3. Existing piles in conflict with proposed drilled shafts shall be completely removed. All other existing piles shall be cut off 2'-0" bellow mudline (Total number of existing piles = 20)
4. Existing 2" GM and 6" FM to be relocated, refer to Utility Adjustment plan

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:
DATE: 10/08/2008
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
851 PRINCE DE LEON NAVAL, SUITE 200
CORAL GABLES, FLORIDA 33134
MIAMI (305) 446-8888 FLORIDA (800) 446-0337
FL REGISTRATIONS: EB000043 AA00001148

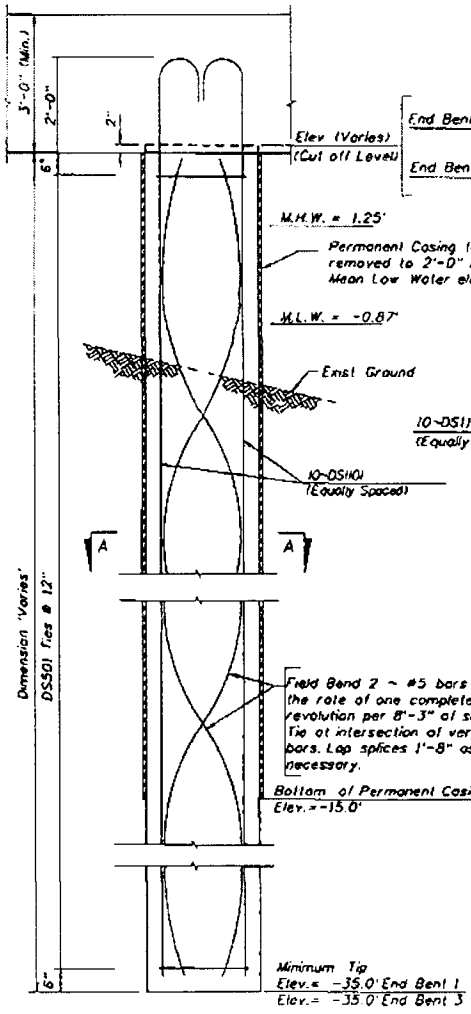
DATE	10/08/2008
DRAWN	RK/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

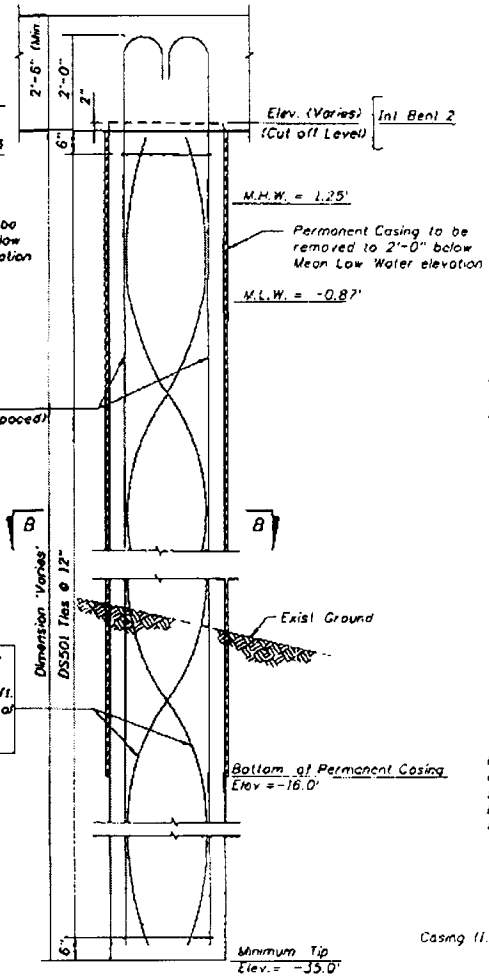
THE STRAND AVE BRIDGE REPLACEMENT
FOUNDATION LAYOUT

00734-03

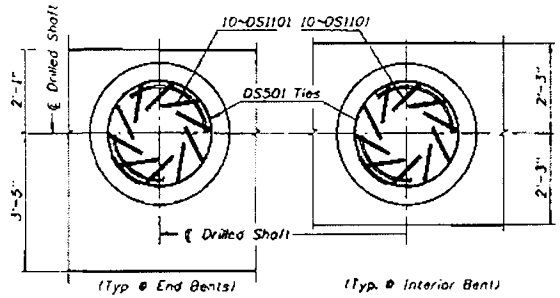
SHEET NO
B-9



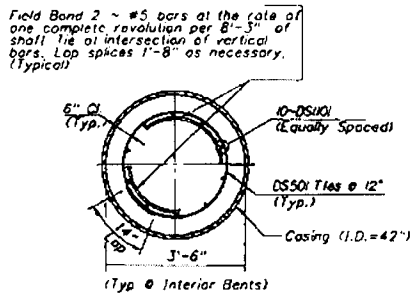
DRILLED SHAFT ELEVATION
END BENTS



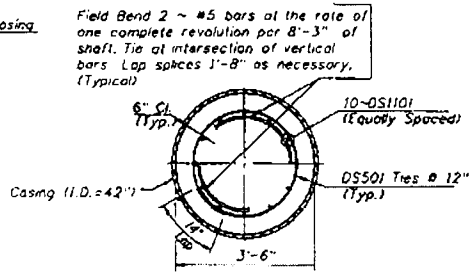
DRILLED SHAFT ELEVATION
INTERMEDIATE BENTS



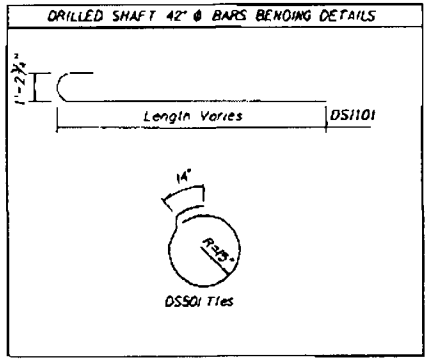
DRILLED SHAFT PLAN VIEW



(Typ @ Interior Bents)
SECTION B-B



(Typ. @ End Bents)
SECTION A-A



NOTE:

1. See sheet B-11 for notes, quantities and drilled Shaft Data Table
2. Laps to be Staggered for 50% of Vertical Bars, if required

REVISIONS		APPROVED BY	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS ARCHITECTS PLANNERS	DATE: 10/08/2008	TOWN OF GOLDEN BEACH	THE STRAND AVE BRIDGE REPLACEMENT	SHEET NO
DESCRIPTION	DATE	DATE:	CORAL GABLES FLORIDA	DRAWN: RN/RF		DRILLED SHAFT DETAILS (1 OF 2)	B-10
1.		MANUEL A. SOLAUN, P.E.		DESIGNED: AV		007.24.03	
2.		FLORIDA REGISTRATION No. 43418		CHECKED: MG			
3.				QC: M&S			
4.				CADD FILE: 007.24-03			

DRILLED SHAFT DATA TABLE									
BENT	SHAFT SIZE (ft)	ULTIMATE CAPACITY (Kips)	TIP ELEV. (ft)	MINIMUM TIP ELEV. (ft)	MIN. ROCK SOCKET LENGTH (ft) *	FACTORED DESIGN LOAD (Kips)	DOWN DRAG (Kips)	100-YEAR SCOUR ELEV. (ft)	Φ
End Bent 1	3.5'	700	-35.0	-35.0	11.0	420	N/A	-15.0	0.60
Int. Bent 2	3.5'	917	-35.0	-35.0	16.0	550	N/A	-15.5	0.60
End Bent 3	3.5'	700	-35.0	-35.0	11.0	420	N/A	-15.0	0.60

* Only rock with a standard penetration resistance equal or greater than 15 shall be counted when measuring the rock socket length.

ESTIMATED QUANTITIES (42" Φ)					
PAY ITEM NO.	ITEM	UNIT	QUANTITY		
			PHASE I	PHASE II	TOTAL
455-88-4	Drilled Shaft (42" Φ)	L.F	335	371	706
455-107-4	Drilled Shaft Casing (42" Φ)	L.F.	158	173	331
455-111	Core (Shaft Excavation)	L.F	45	50	95
455-122-4	Excavation Unclassified Shaft (42" Φ)	L.F.	470	520	990

NOTES:

1. Min Tip Elevation is the highest elevation that the shaft tip may be constructed.
2. Drilled Shaft Sidewall over-reaming, if necessary, shall be authorized by the Engineer.
3. Perform "Standard Penetration Test (SPT) borings at the locations indicated in the plans to a depth of 20 feet below the minimum tip elevation indicated in the plans Split spoon samples and Standard Penetration Test will be performed according to ASTMD-1586 procedures, except that the frequency of the samples would be one sample and SPT test every 2.5 feet throughout the depth of the boring Cost to be included in Pay Item 455-111 Core (Shaft Excavation).
4. Design Tip Elevation will be determined by the Geotechnical Engineer of Record after reviewing results of SPT test The Contractor shall submit test results at least three weeks prior to fabricating steel cages and beginning of unclassified shaft excavation. Tip Elevation will be determined based on rock socket length
5. Unclassified Shaft Excavation (Item 455-122-4) quantity is based on the elevations shown in the plans, and includes an additional 15 LF for Unclassified Extra Depth Excavation
6. Perform one 42" Φ Drilled Shaft test hole located out of permanent position at the location indicated on the plans. The test shaft shall not be reinforced. Remove all test shaft construction items after testing All cost shall be included in Item 455-88-4 Drilled Shaft (42" Φ)
7. All Drilled Shafts shall be constructed using permanent casing The Cost of the use of permanent casing shall be included on Pay Item NO 455-107-4
8. In each Drilled Shaft provide 4 Cross-Hole Sonic Logging tubes in accordance with Section 455-16.4 of the Standard Specifications Perform CSL testing in accordance with Section 455-17.6 of the Standard Specifications at a minimum of 6 Drilled Shafts selected by the Engineer of Record At his/her discretion, the Engineer of Record may increase the number of shafts tested as deemed necessary

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
901 PONCE DE LEON BLVD. SUITE 900
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MIAMI (305)-445-2900 FLORIDA (800)-345-0377
FL REGISTRATIONS: ENGINEERING AAC002743

DATE	10/08/2008
DRAWN	AN/RF
DESIGNED	AY
CHECKED	MG
QC	MAS
CADD FILE	00786-03

TOWN OF GOLDEN BEACH

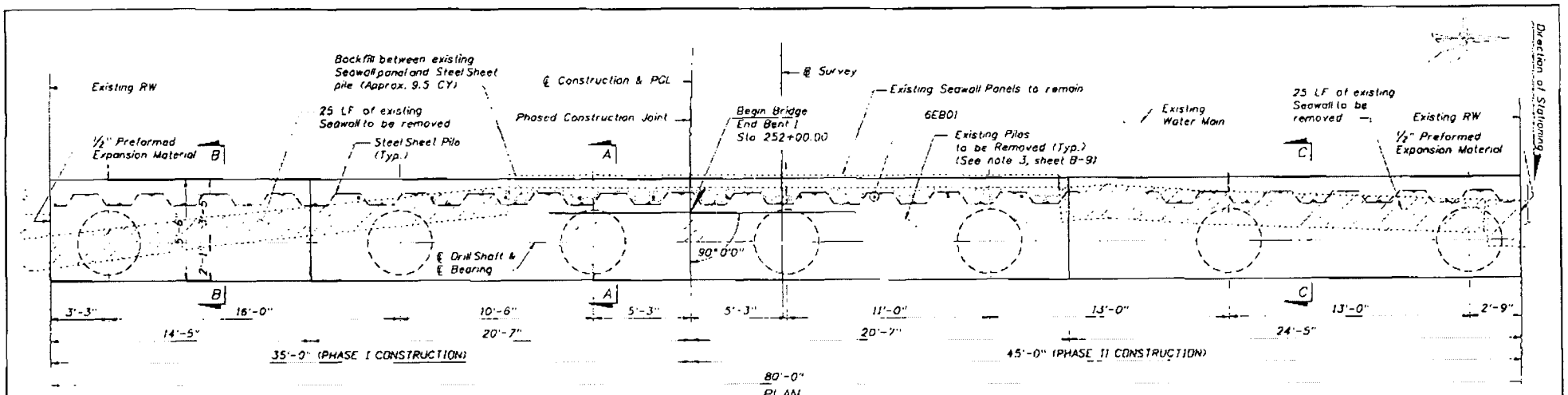
THE STRAND AVE
BRIDGE REPLACEMENT
DRILLED SHAFT DETAILS (2 OF 2)

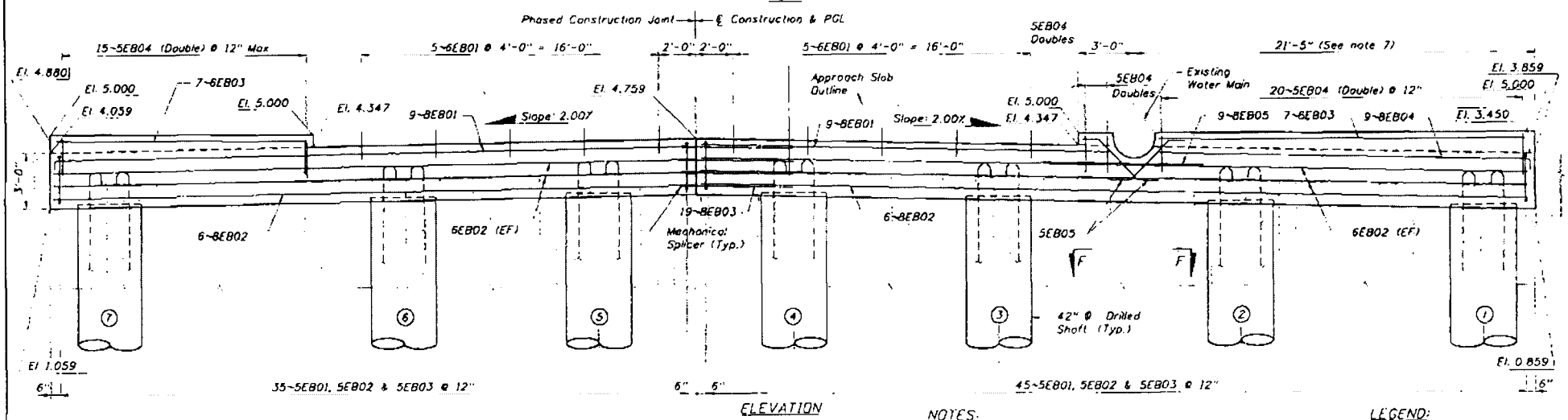
00734-03

SHEET NO
B-11

99

W





TOP OF SHAFT ELEVATIONS							
SHAFT NO	1	2	3	4	5	6	7
ELEVATION	1.116	1.375	1.636	1.856	1.856	1.646	1.326

NOTES:

1. For General Notes see sheet B-1.
2. For sections and details refer to sheets B-14 & B-15
3. For Standard Bar Bending Details see sheet B-2.
4. For Drilled Shafts, see FOUNDATION LAYOUT, sheet B-9 and Drilled Shaft Details, sheets B-10 & B-11.
5. For Construction Sequence see TRAFFIC CONTROL PLAN, sheet B-5
6. Mechanical Splicers shall provide 125% of the specified reinforcement yield strength.
7. Contractor shall field verify exact location of Existing Water Main Pipe prior ordering the reinforcing steel of Cap.

LEGEND:

EF	Each Face
El. X.XXX'	Existing Elevation to be Field Verified
	Existing Structure to be Removed
	Backfill

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY
DATE: 10/09/2008
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
851 PONCE DE LEON BLVD., SUITE 950
CORAL GABLES, FLORIDA 33134
MIAMI (305)446-8860 FLORIDA (800)446-0857
FL REGISTRATIONS AAC002142

DATE	10/09/2008
DRAWN	RM/RF
DESIGNED	AY
CHECKED	MG
QC	MAS
CADD FILE	00734-03

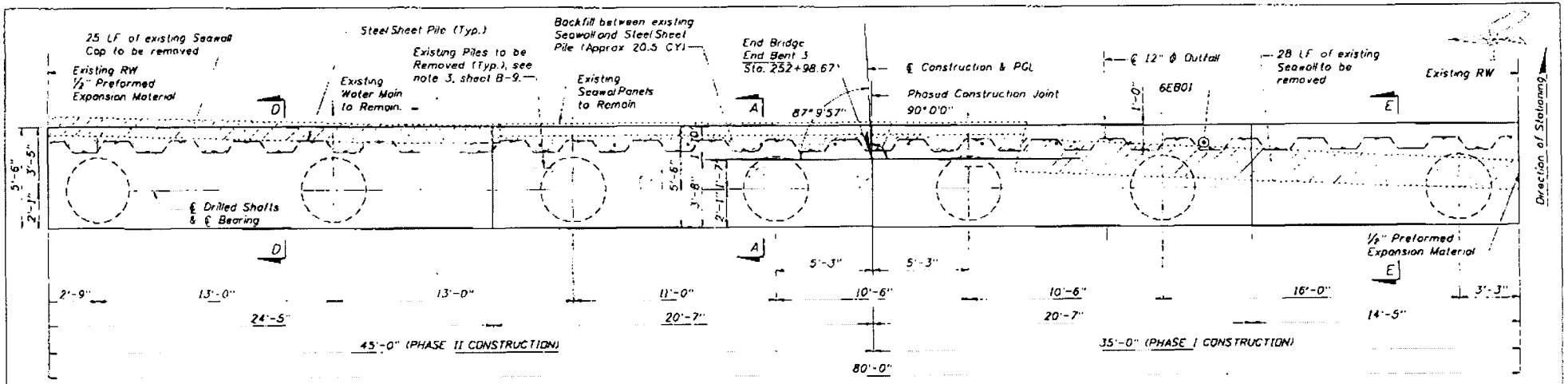
TOWN OF GOLDEN BEACH

THE STRAND AVE BRIDGE REPLACEMENT
END BENT NO. 1

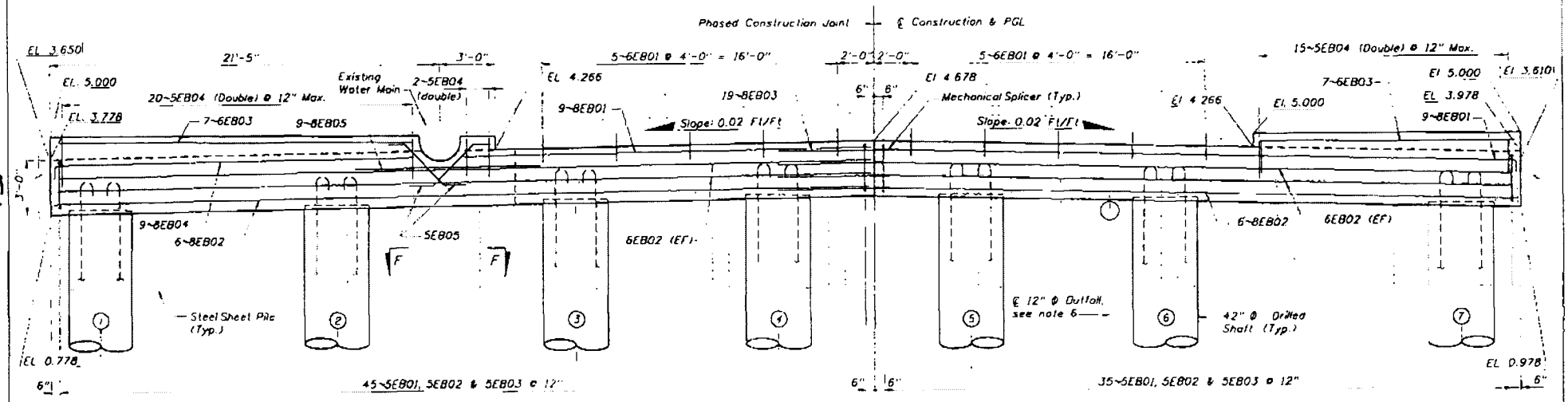
00734-03

SHEET NO.
B-12

50



PLAN



ELEVATION

TOP OF SHAFT ELEVATIONS							
SHAFT NO.	1	2	3	4	5	6	7
ELEVATION	1.035	1.295	1.555	1.775	1.775	1.565	1.245

NOTES:

1. For General Notes see sheet B-1
2. For sections and details refer to sheets B-14 & B-15.
3. For Drilled Shafts, see FOUNDATION LAYOUT, sheet B-9 and Drilled Shaft Details, sheets B-10 & B-11
4. For Construction Sequence see TRAFFIC CONTROL PLAN, sheet B-5
5. Mechanical Splicers shall provide 125% of the specified reinforcement yield strength
6. Contractor shall field verify the diameter and exact location of the 12" Ø outfall pipe. Extend 12" Ø pipe to the new bulkhead as required with same diameter and material of the existing. The cost for the installation of the new pipe and all incidental work shall be included in the Pay Item 455-133-3, Steel Sheet Piling

LEGEND:

EF	Each Face
EL X.XXX	Existing Elevation to be Field Verified
	Existing Structure to be Removed
	Backfill

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY
DATE: 10/09/2009
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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851 PONCE DE LEON BLVD. SUITE 1000
CORAL GABLES, FLORIDA 33134
MIAMI (305)445-2000 FLORIDA (800)445-8977
FL REGISTRATION 00000023 AA0001142

DATE	10/09/2009
DRAWN	RR/RF
DESIGNED	AV
CHECKED	MB
QC	MAS
CADD FILE	00734-08

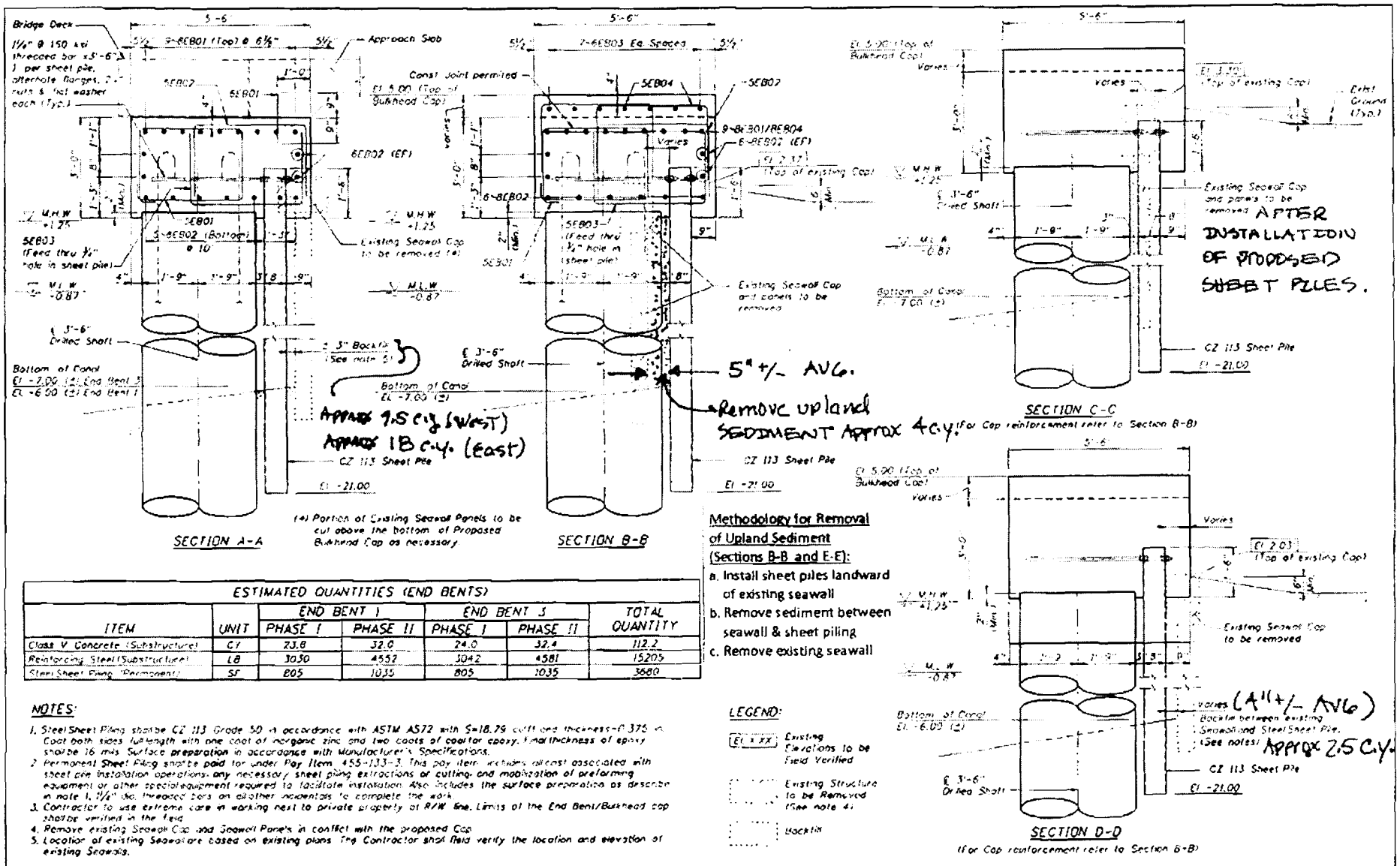
TOWN OF GOLDEN BEACH

THE STRAND AVE BRIDGE REPLACEMENT
END BENT NO. 3

00734-03

SHEET NO. B-13

51



Methodology for Removal of Upland Sediment (Sections B-B and E-E):

a. Install sheet piles landward of existing seawall
b. Remove sediment between seawall & sheet piling
c. Remove existing seawall

ESTIMATED QUANTITIES (END BENTS)						
		END BENT 1		END BENT 3		
ITEM	UNIT	PHASE I	PHASE II	PHASE I	PHASE II	TOTAL QUANTITY
Class V Concrete (Substructure)	CY	23.8	32.0	24.0	32.4	112.2
Reinforcing Steel (Substructure)	LB	3030	4552	3042	4581	15205
Steel Sheet Piling "Permanent"	SF	805	1035	805	1035	3680

NOTES:

1. Steel Sheet Piling shall be CZ 113 Grade 50 in accordance with ASTM A572 with S=18.79 cu/in and thickness=0.375 in. Coat both sides full length with one coat of inorganic zinc and two coats of coal tar epoxy. Final thickness of epoxy shall be 16 mils. Surface preparation in accordance with Manufacturer's Specifications.
2. Permanent Sheet Piling shall be paid for under Pay Item 455-133-3. This pay item includes all cost associated with sheet pile installation operations, any necessary sheet piling extractions or cutting, and mobilization of pile driving equipment or other special equipment required to facilitate installation. Also includes the surface preparation as described in note 1, 1 1/4" dia. threaded bars and all other incidentals to complete the work.
3. Contractor to use extreme care in working next to private property at R/W line. Limits of the End Bent/Bulkhead cap shall be verified in the field.
4. Remove existing Seawall Cap and Seawall Panels in conflict with the proposed Cap.
5. Location of existing Seawall are based on existing plans. The Contractor shall field verify the location and elevation of existing Seawalls.

LEGEND:

- El. x.xx — Existing Elevations to be Field Verified
- Existing Structure to be Removed (See note 4)
- Backfill

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY: DATE:
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION NO. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS

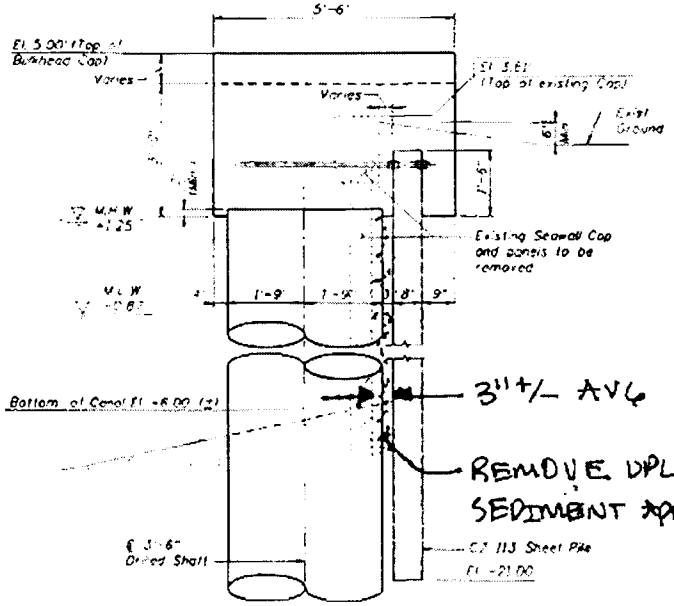
DATE: 10/07/2004
DRAWN: RDL/ RF
DESIGNED: AV
CHECKED: MS
QC: MAS
CADD FILE: 04154-03

TOWN OF GOLDEN BEACH

THE STRAND AVE BRIDGE REPLACEMENT
END BENT DETAILS (1 OF 2)

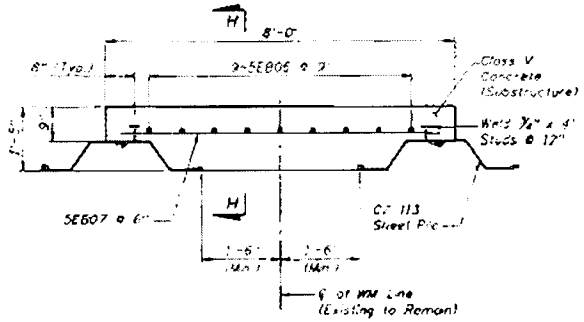
007 34-03

SHEET NO. B-14

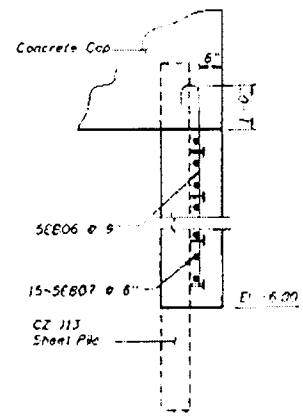


SECTION E-E

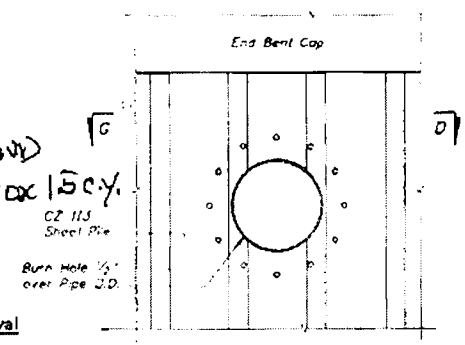
(For Cap reinforcement refer to Section B-B on END BENT DETAILS (1 OF 2) sheet)



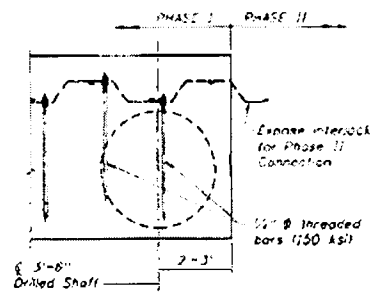
SECTION F-F



SECTION H-H



DETAIL AT END BENT OUTFALL



PARTIAL PLAN AT PHASE LINE

(End Bent 1 shown)

Methodology for Removal of Upland Sediment (Sections B-B and E-E):

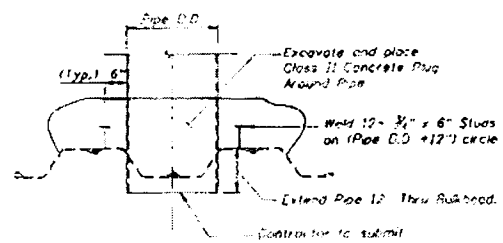
a. Install sheet piles landward of existing seawall
b. Remove sediment between seawall & sheet piling
c. Remove existing seawall

LEGEND:

- [El. X.XX] Existing Elevations to be Field Verified
- Existing Structure to be Removed (See note)

NOTES:

1. Remove existing Seawall Cap and Seawall Panels in conflict with the proposed Cap
2. Location of existing seawall are based on existing plans. The Contractor shall field verify the location and elevation of existing Seawalls.



SECTION G-G

REVISIONS		
DESCRIPTION	DATE	
1.		
2.		
3.		
4.		

APPROVED BY:

DATE:

MANUEL A. SOLANA, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS

DATE	10/ 06/ 2006
DRAWN	MM/ RF
DESIGNED	AY
CHECKED	SS
QC	MAB
CADD FILE	04734-03

TOWN OF GOLDEN BEACH

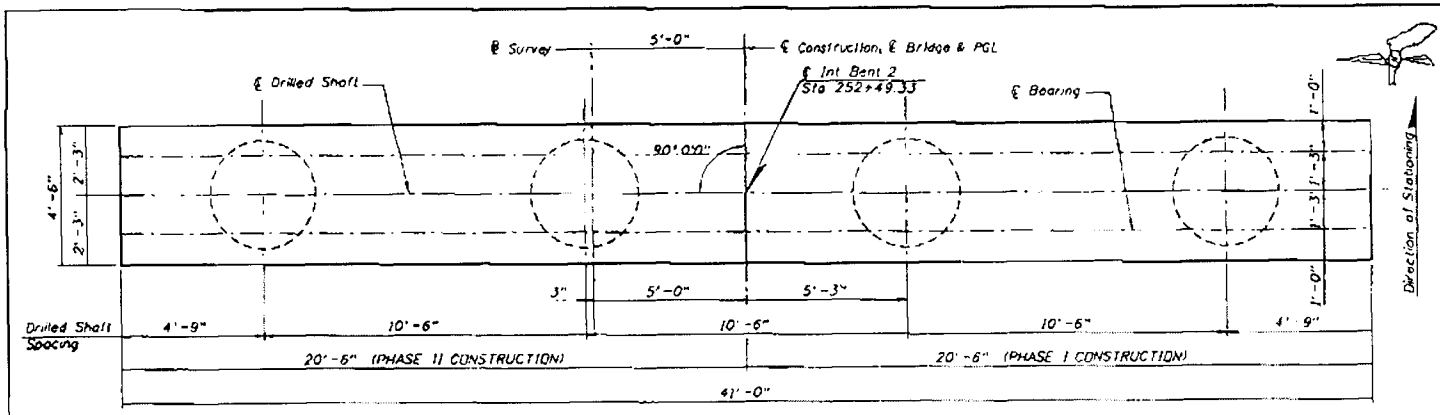
THE STRAND AVE BRIDGE REPLACEMENT

END BENT DETAILS (2 OF 2)

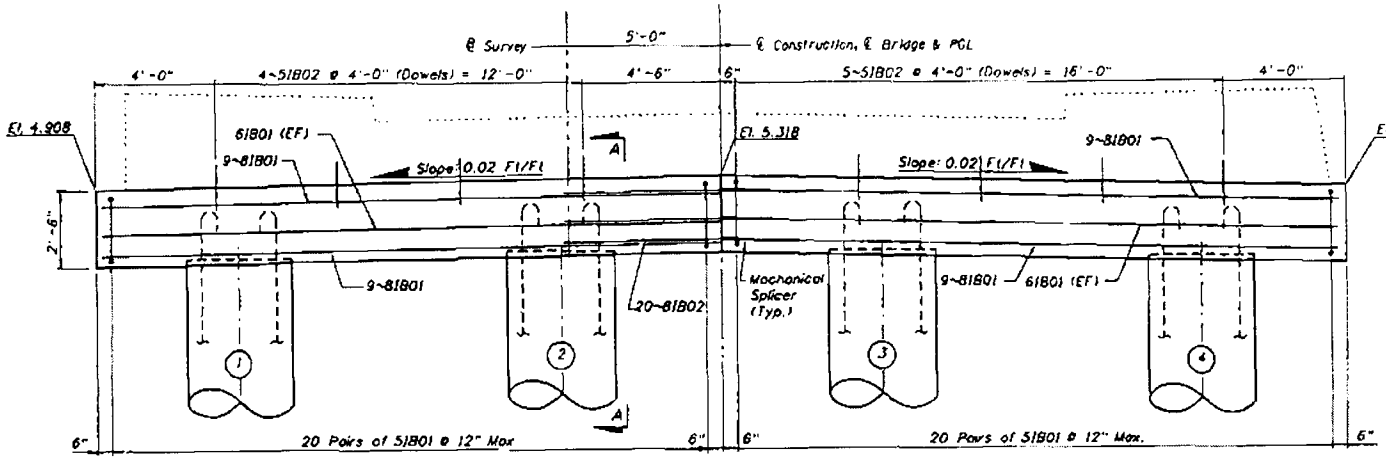
007 34-03

SHEET NO. B-15

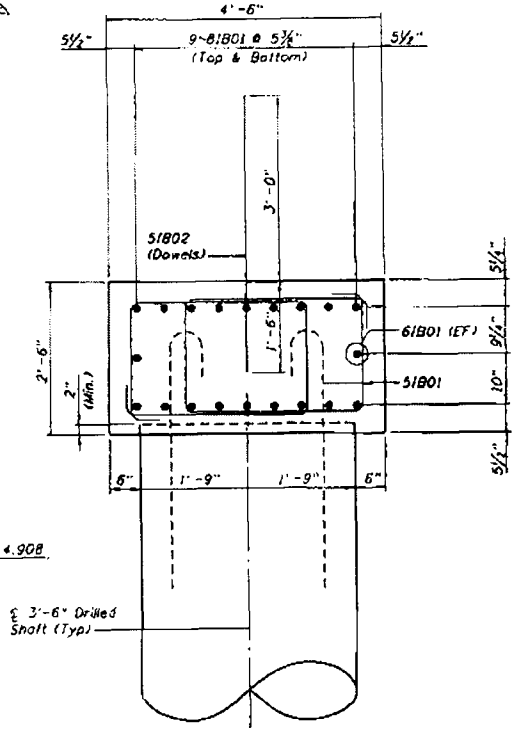
53



PLAN



ELEVATION



SECTION A-A
AT INT. BENT

ESTIMATED QUANTITIES			
ITEM	UNIT	PHASE I	PHASE II
Class V Concrete (Substructure)	CY	8.6	8.6
Reinforcing Steel (Substructure)	LB	1495	1722

TOP OF SHAFT ELEVATIONS				
SHAFT NO.	1	2	3	4
ELEVATION	2.705	2.915	2.915	2.705

LEGEND:

EF = Each Face

NOTES:

1. For General Notes see sheet B-1
2. For Standard Bar Bending Details see sheet B-2.
3. For Finish Grade Elevations see sheet B-17.
4. For Drilled Shafts, see FOUNDATION LAYOUT, sheet B-9 and Drilled Shaft Details, sheets B-10 & B-11
5. For Construction Sequence see TRAFFIC CONTROL PLAN, sheet B-5.
6. Mechanical Splicer shall provide 125% of the specified reinforcement yield strength.

REVISIONS	
DESCRIPTION	DATE
1	
2	
3	
4	

APPROVED BY:
DATE: 10/08/2004
MANUEL A. SOLAUN P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
901 PONCE DE LEON BLVD. SUITE 900
CORAL GABLES FLORIDA 33134
MIAMI (305) 445-2500 FLORIDA (800) 445-0727
FL REGISTRATIONS EC0026029 AA0001143

DATE	10/08/2004
DRAWN	RN/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

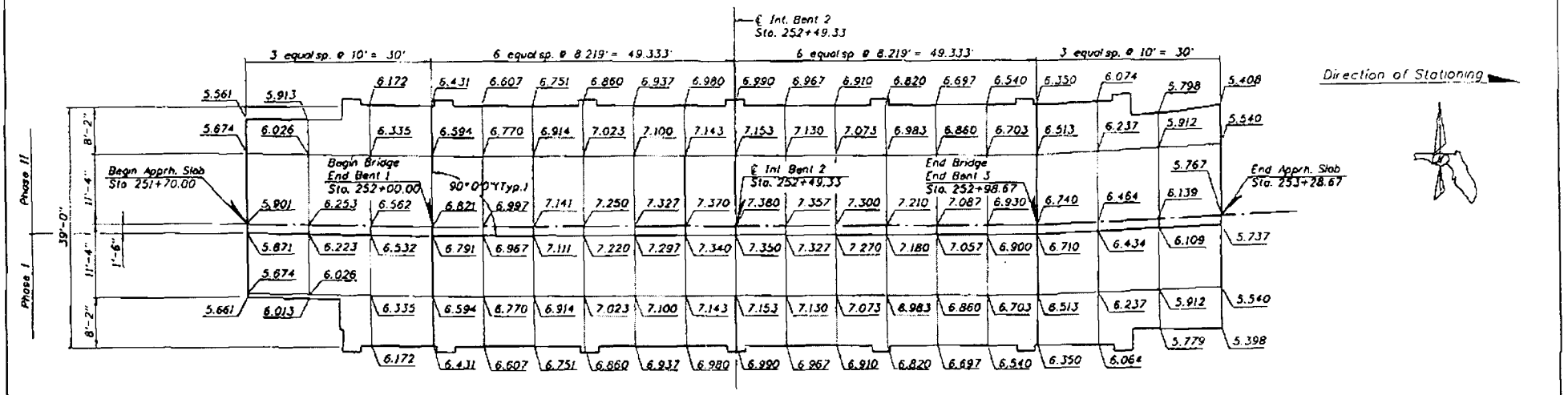
TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
INTERMEDIATE BENT NO. 2

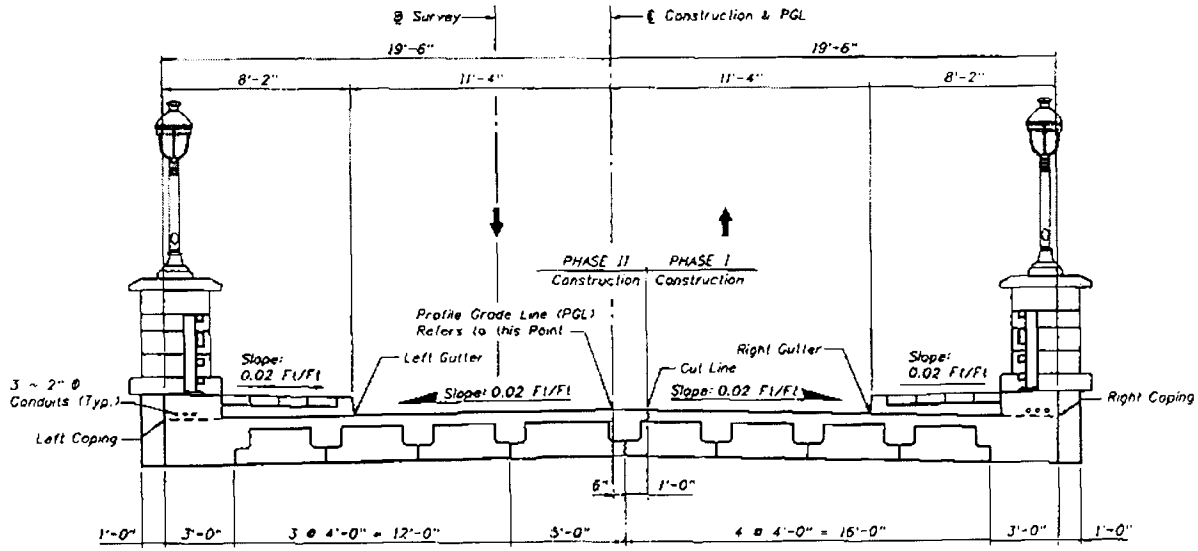
00734.03

SHEET NO.
B-16

54



PLAN



SECTION SHOWING ELEVATIONS POINTS

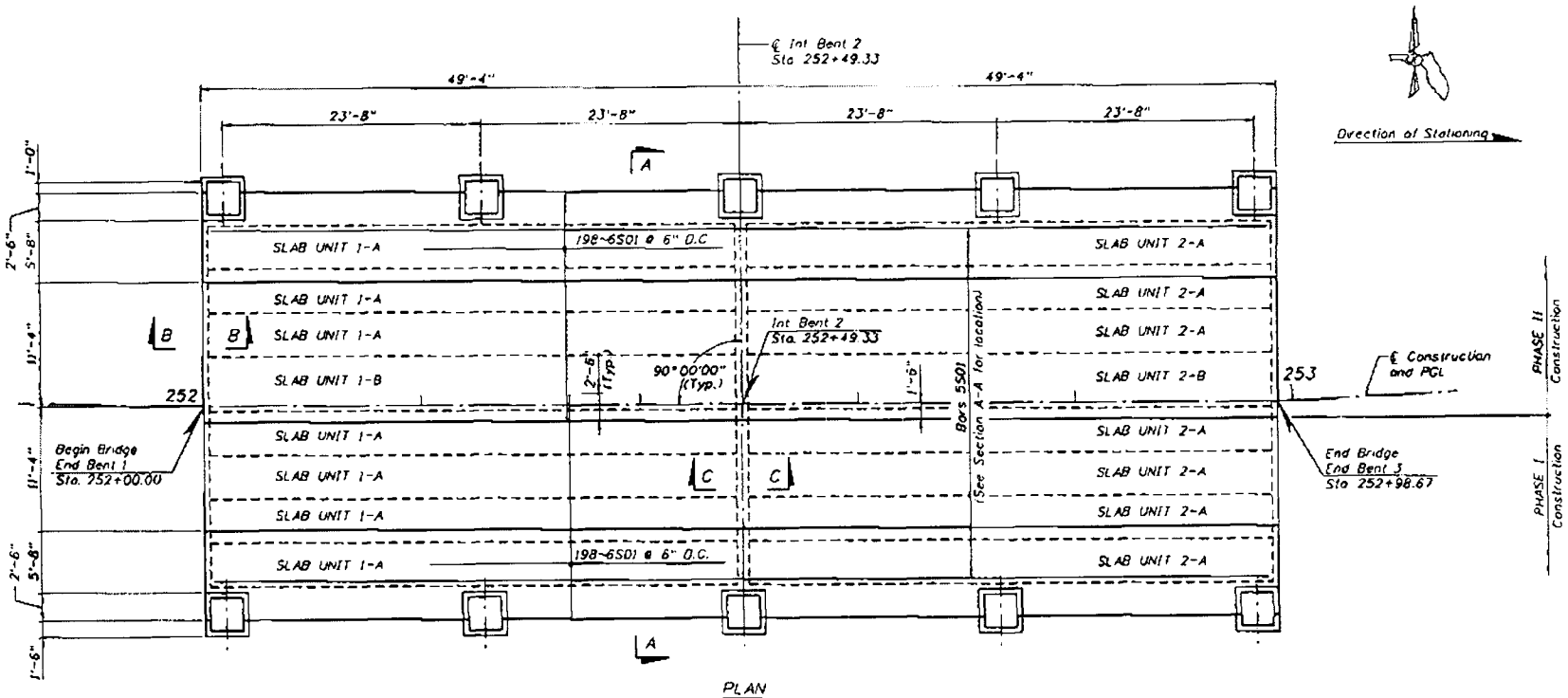
LEGEND:

X.XXX Finish Grade Elevation

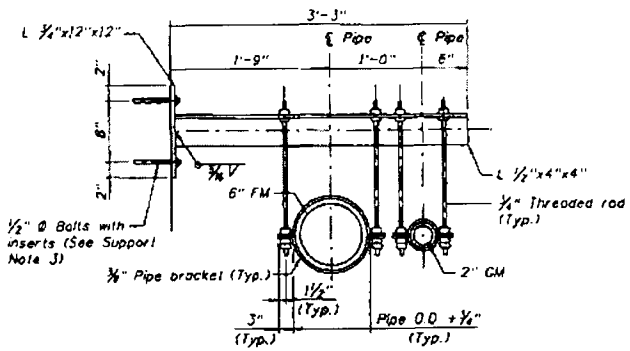
55

REVISIONS		APPROVED BY					
DESCRIPTION	DATE	DATE: 10/08/2008	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS ARCHITECTS PLANNERS 901 PONCE DE LEON BLVD. SUITE 900 CORAL GABLES, FLORIDA 33134	DATE	10/08/2008	TOWN OF GOLDEN BEACH	THE STRAND AVE BRIDGE REPLACEMENT FINISH GRADE ELEVATIONS
1		MANUEL A. SOLAUN, P.E.		DRAWN	RN/RF		
2		FLORIDA REGISTRATION No. 43415		DESIGNED	AY		
3				CHECKED	MG		
4				QC	MAS		
				CADD FILE	00734-03		

00734-03 SHEET NO. B-17



PLAN



TYPICAL UTILITY SUPPORT

(Max. Spacing = 8'-3")

SUPPORT NOTES:

1. All Steel shall be ASTM A709 Grade 36 and shall be hot deep galvanized following ASTM A123, in accordance with Standard Specification 962-7
2. Attachment bolts and threaded inserts shall have a minimum tensile capacity of 2400 lbs
3. Insert embedment into edge beam shall be as required to develop required capacity
4. All cost for utility support shall be included in Pay Item 460-98-1, Pipe Hanger (Carbon).

NOTES:

1. For Section A-A refer to sheet B-19
2. For Sections B-B and C-C refer to sheet B-20.
3. For Prestressed Slab Units refer to sheets B-23 and B-24

REVISIONS		
DESCRIPTION	DATE	
1		
2		
3		
4		

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD. SUITE 800
CORAL GABLES, FLORIDA 33134
MIAMI (305)448-8882 FLORIDA (800)-10-0267
FL REGISTRATION# 00000903 AAC002140

DATE	10/08/2008
DRAWN	RN/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	007334-03

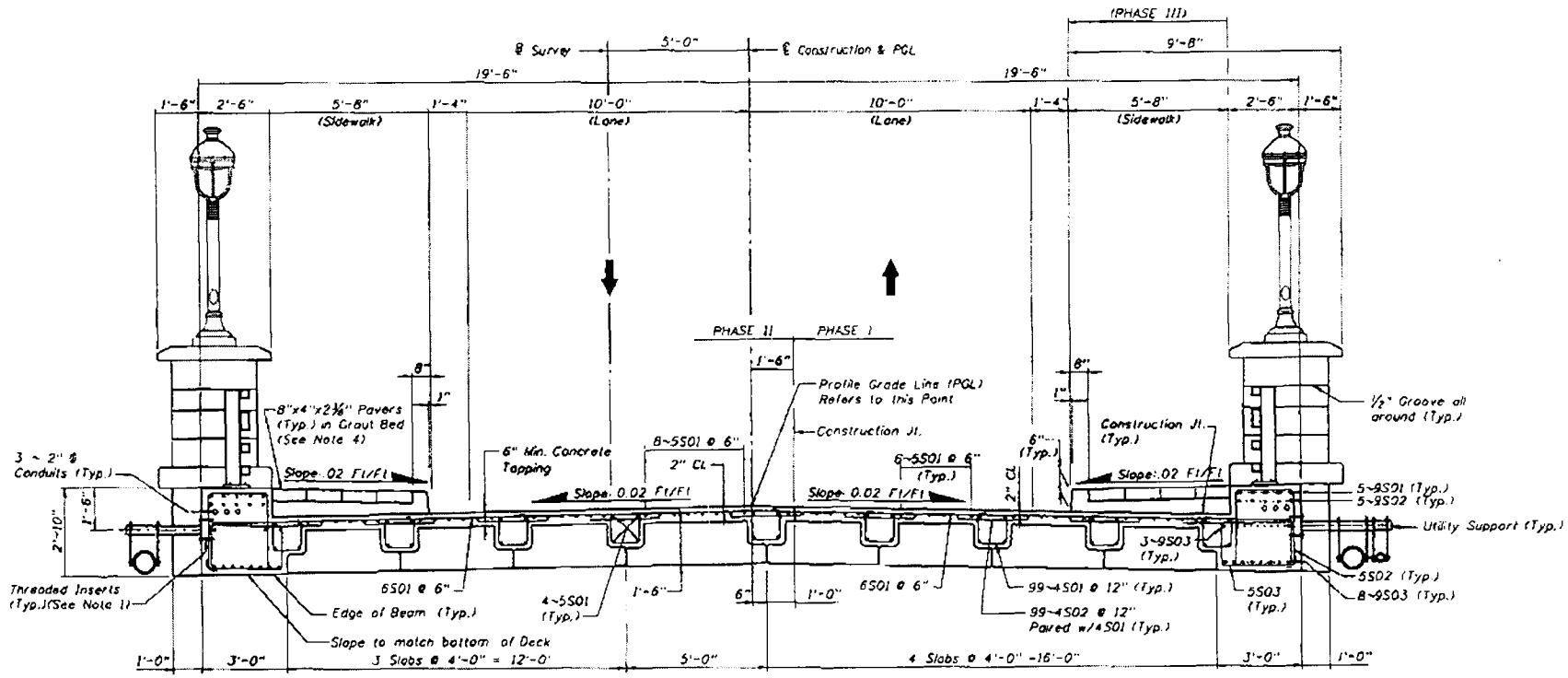
TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
SUPERSTRUCTURE (1 OF 2)

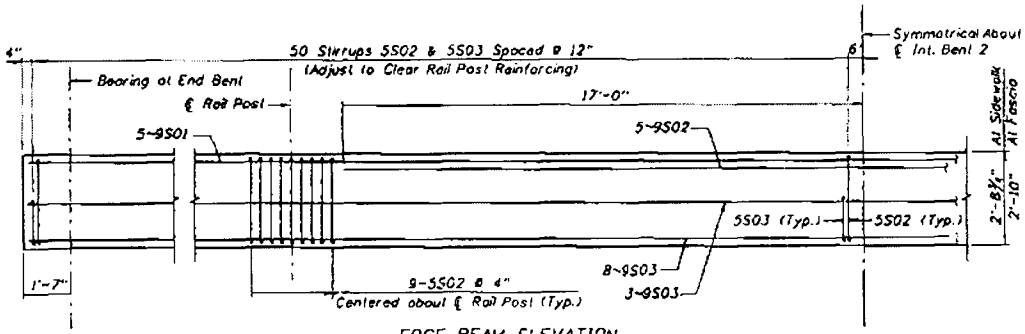
007334-03

SHEET NO.
B-18

56



SECTION A-A

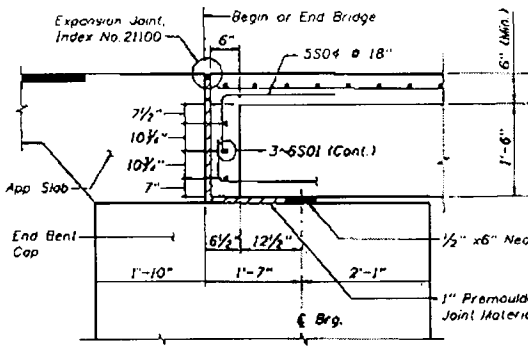


EDGE BEAM ELEVATION

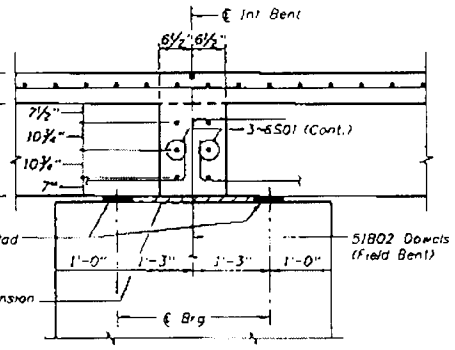
NOTES:

1. For Superstructure Plan and Utility Support Details refer to sheet B-18
2. For Superstructure details refer to sheets B-20, B-21 and B-22.
3. For Sidewalk Reinforcing see Sheet B-22.
4. Sidewalk pavers are to be paid under Item 526-1-2, Pavers, Architectural (Sidewalk)

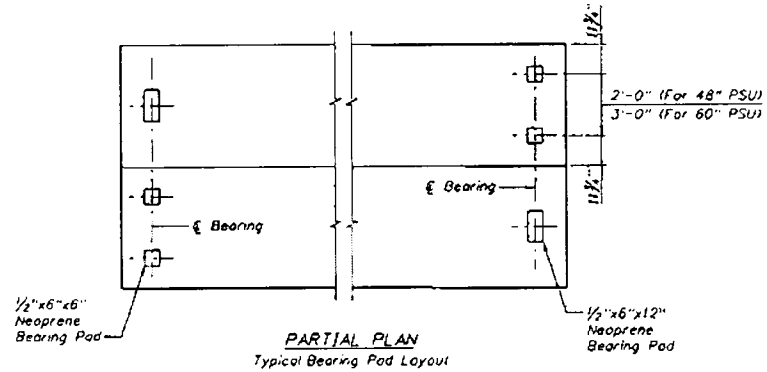
REVISIONS		APPROVED BY:						
DESCRIPTION	DATE	DATE: 10/09/2008	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS ARCHITECTS PLANNERS	DATE: 10/09/2008	TOWN OF GOLDEN BEACH	THE STRAND AVE BRIDGE REPLACEMENT	00734-03	SHEET NO
1.		MANUEL A. SOLAUN, P.E.	801 PONCE DE LEON BLVD., SUITE 800	DRAWN: RN/RF		SUPERSTRUCTURE DETAILS (1 OF 4)		B-19
2.		FLORIDA REGISTRATION No. 43418	CORAL GABLES, FLORIDA 33134	DESIGNED: AY				
3.			MIAMI (305) 444-7900 FLORIDA (800) 444-8327	CHECKED: MG				
4.			FL REGISTRATION #00000029 AA0001143	QC: MAS				
				CADD FILE: 00734-03				



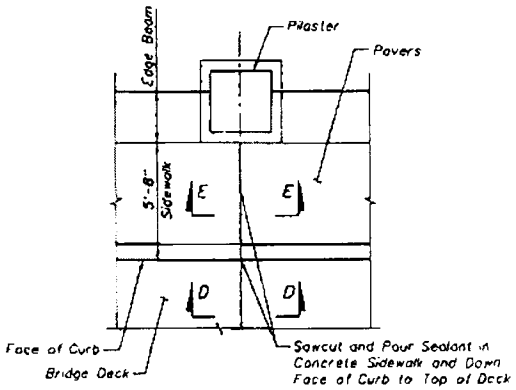
SECTION B-B
(Typical at End Bents)



SECTION C-C
(Typical at Int. Bent)



PARTIAL PLAN
Typical Bearing Pad Layout

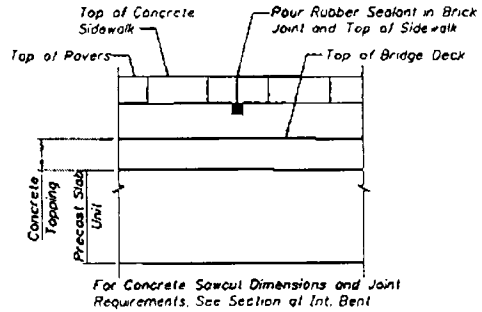


SIDEWALK PLAN AT INT. BENT

BUILD-UP & DEFLECTION DATA TABLE FOR PRESTRESSED SLAB UNITS							
LOCATION		REQUIRED THEORETICAL BUILD-UP OVER ℄ SLAB UNIT			NET BEAM CAMBER (PRESTRESS - DEAD LOAD OF SLAB UNIT) @ 120 DAYS	DEAD LOAD DEFLECTION DURING OVERLAY POUR @ 120 DAYS DIM "A"	BUILD-UP CASE NO
SPAN NO.	SLAB UNIT NO.	AT BEGIN SPAN DIM "B"	AT ℄ SPAN DIM "C"	AT END SPAN DIM "D"			
1	1-A	¼"	1⅛"	¼"	1⅝"	⅝"	4
1	1-B	¼"	¾"	¼"	1⅞"	½"	4
2	1-A	¼"	1⅛"	¼"	1⅝"	⅝"	4
2	1-B	¼"	¾"	¼"	1⅞"	½"	4

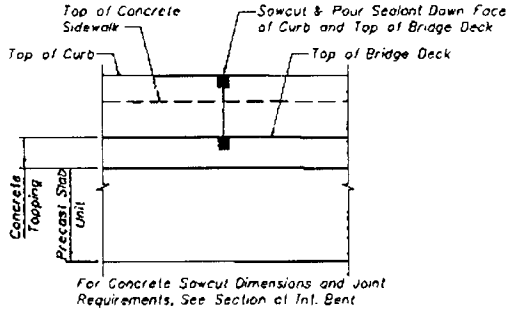
POURED EXPANSION JOINT DATA TABLE INDEX NO. 21110			
LOCATION	DIM. "A" @ 70°	TOTAL DESIGN MOVEMENT	DIM. "A" ADJUSTMENT PER 10°F
End Bents	½"	0.25"	0.036

NOTE:
Dim. "A" adjustment per 10°F shown is measured perpendicular to ℄ Expansion Joint. Work this table with Design Standards Index No. 21110.



For Concrete Sawcut Dimensions and Joint Requirements, See Section at Int. Bent

SECTION E-E



For Concrete Sawcut Dimensions and Joint Requirements, See Section at Int. Bent

SECTION D-D

NOTES:

1. The Contractor shall submit shop drawings showing all expansion joint materials including joint manufacturer, joint model number or type, joint movement range and proposed method of installation.

2. The joint manufacturer chosen shall supply all components for the joint system. A representative from the manufacturer shall be on site to instruct the Contractor's personnel as to proper installation procedures.

3. The cost of all labor and materials required for construction and installation of the expansion joint shall be paid for in Bid Item No. 458-1-11 Bridge Deck Expansion Joint.

4. Estimated length Phase I = 32 LF
Phase II = 50 LF

5. The cost of all labor and materials required for Construction and Installation of Neoprene Bearing Pads shall included and paid for in Bid Item No. 400-4-4 Class IV Concrete (Superstructure). The total quantity is 0.64 CF

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY		
		PHASE I & III	PHASE II	TOTAL
Class IV Concrete (Superstructure)	CY	98	108	206
Reinforcing Steel (Superstructure)	LB	25107	26278	51385
Prestressed Slab Units (48"x18")	LF	387	290	677
Prestressed Slab Units (60"x18")	LF	-	97	97
Bridge Floor Grooving	SY	112	146	258

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:
DATE: 10/08/2008
MANUEL A. SOLANO, P.E.
FLORIDA REGISTRATION NO. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD. SUITE 800
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445-2900 FLORIDA (800) 445-0337
FL RELAY SYSTEMS 800 955 8771 AA-0031148

DATE	10/08/2008
DRAWN	RN/RF
DESIGNED	AY
CHECKED	MG
QC	MAS
CADD FILE	00734-03

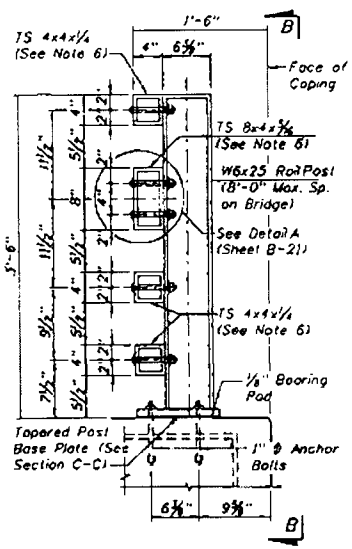
TOWN OF GOLDEN BEACH

THE STRAND AVE BRIDGE REPLACEMENT
SUPERSTRUCTURE DETAILS (2 OF 4)

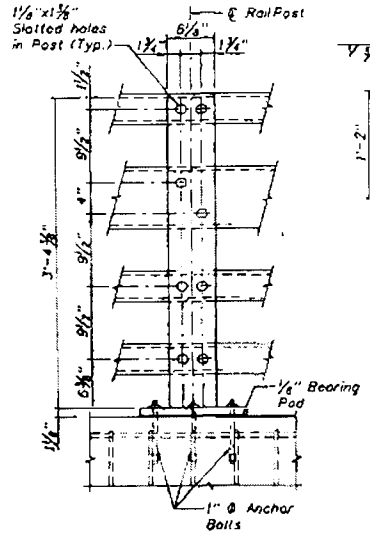
00734-03

SHEET NO.
B-20

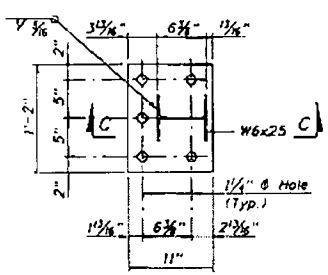
58



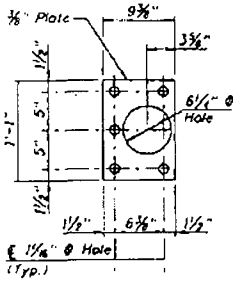
SECTION A-A



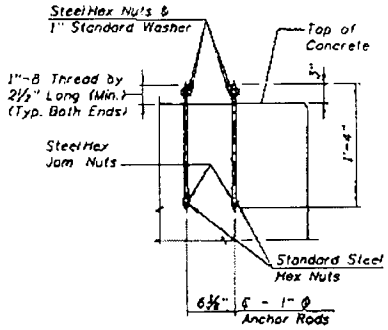
VIEW B-B



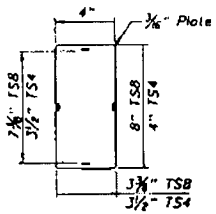
POST BASE PLATE



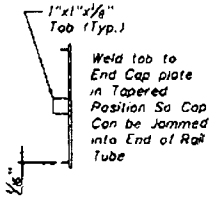
ANCHOR PLATE

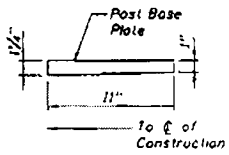


POST ANCHOR ASSEMBLY

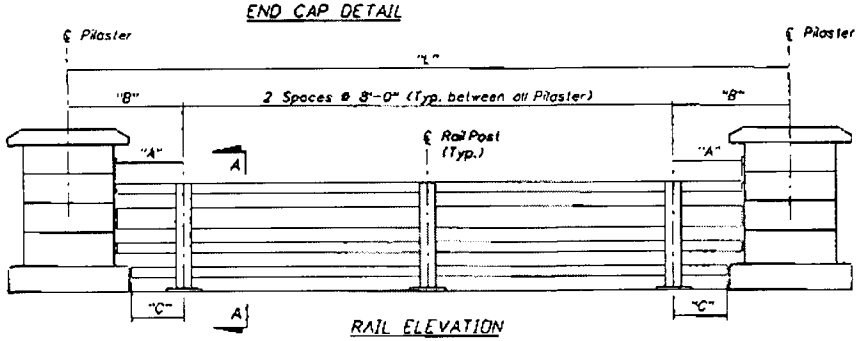


END CAP DETAIL





SECTION C-C



RAIL ELEVATION

RAIL DIMENSIONS		"L"	"A"	"B"	"C"
Bridge		23'-8"	2'-3"	3'-10"	1'-9"
Apprh Slab 1	Rt.	14'-8 1/8"	2'-0"	3'-7"	1'-6"
	Lt.	14'-5 3/8"	1'-10 3/4"	3'-5 3/4"	1'-4 3/4"
Apprh. Slab 3	Rt.	15'-6"	2'-5"	4'-0"	1'-11"
	Lt.	15'-4 3/4"	2'-4 1/2"	3'-11 1/2"	1'-10 1/2"

NOTES:

1. Item 515-1-1, Pipe Handrail (steel), shall include posts, base plates, anchor rods, preformed pads, rail assembly bolts, nuts, washers, studs, structural tubing, splice bars, pipe spacers, all appurtenances, galvanizing and painting. The total quantity is 212 LF of handrail.
2. Bridge railposts shall be set normal (90 degrees) to the profile grade, except on grades over 5% where posts shall be set vertical.
3. Ends of rail tube sections shall be sawed or milled and shall be true and smooth. All cut edges of all material shall be ground smooth.
4. Bolt holes shall be drilled or punched. Flame cutting may be used to finish slotted holes if mechanically guided.
5. Mill or shop transverse welds shall not be permitted on any rail element. Rail elements used on curves shall be 1/8" wall tubes and shall be shop formed to the required curvature.
6. No punching, drilling, cutting or welding shall be permitted after galvanizing, except Detail A or B. Damaged areas of galvanizing shall be thoroughly cleaned, pretreated and painted with two coats of organic zinc-rich galvanizing repair paint, having min 65% zinc by weight, to a thickness equal to the original coating according to the standard specifications and ASTM A780.
7. Nuts for 1" ϕ threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional 1/6 turn.
8. Threads for anchor rods may be rolled or cut. If cut threads are used bolt diameter shall not be less than nominal diameter. If rolled threads are used, rod diameter shall not be less than root diameter of threads.
9. All bridge rail components shall be painted black to match lighting fixtures.

MATERIAL NOTES:

1. Structural tubing shall conform to the requirements of ASTM A500, Grade B, structural steel tubing. Rail tubing shall meet the longitudinal charpy v-notch requirements of 15 fps, at 0°F. For ASTM A500, Grade B, the test samples shall be taken after forming the tubes. Charpy v-notch is not required for splices tubes.
2. Railposts and base plates shall conform to the requirements of ASTM A572 Grade 50, except anchor plates may be ASTM A36.
3. Threaded studs and matching nuts for rail-to-post attachment (Detail A) shall conform to ASTM A276 Type 304, stainless steel, and shall be torque tested per AWS D1.5, 7.7.1. all other bolts and nuts shall conform to ASTM A307 and ASTM 563 Grade A respectively or better. Anchor rods shall conform to ASTM A449 except that ASTM A307 nuts may be used on the bottom of anchor assembly. Washers shall be hardened steel commercial type a plain wide washers and shall meet the dimensional requirements of A.N.S.I. B18.22.
4. All steel components (except stainless) shall be galvanized after fabrication in conformance to AASHTO M232 (ASTM A153) and AASHTO M111 (ASTM A123). The galvanizing kettle shall have 0.05 to 0.09 percent nickel. Galvanized surfaces shall have a uniform appearance and galvanized material shall be properly stored. Painting shall be applied in the shop within 14 days of galvanizing and 8 hours of pretreatment (see special provision for paint requirements).
5. Detail A studs shall be welded on after tubes are galvanized by (1) spot grinding off galvanizing, (2) welding on studs, then (3) touch up galvanizing per note 7 above. (See sheet B-22 for Detail A).
6. Preformed bearing pads (1/8" thick) shall conform to AASHTO M251.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/06/2006

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD. SUITE 555
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445-2500 FLORIDA (800) 432-0277
FL REGISTRATIONS ENGINEERING AAC002142

DATE	10/06/2006
DRAWN	RN/RF
DESIGNED	AV
CHECKED	MQ
QC	MAS
CADD FILE	00734-03

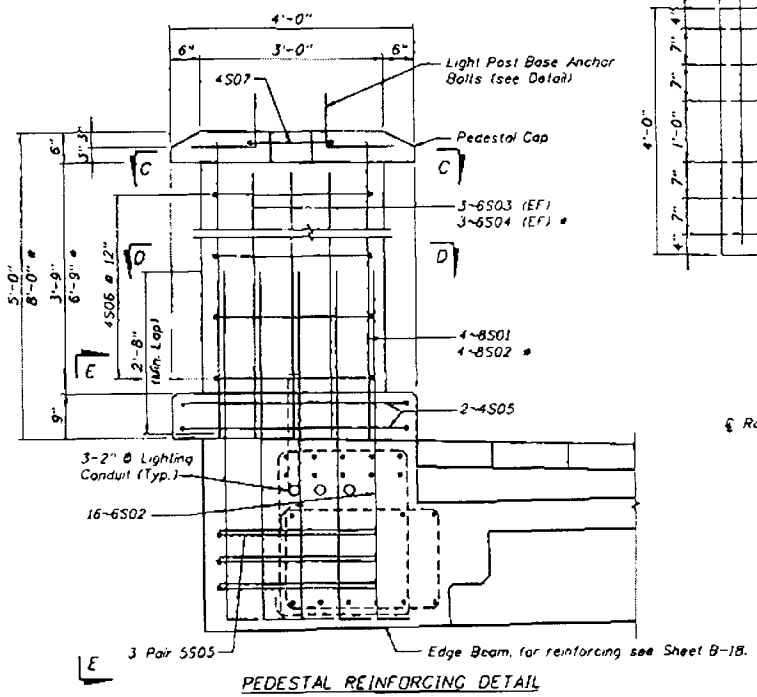
TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
SUPERSTRUCTURE DETAILS (3 OF 4)

00734-03

SHEET NO
B-21

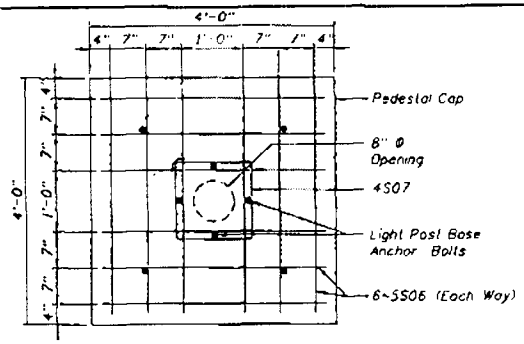
59



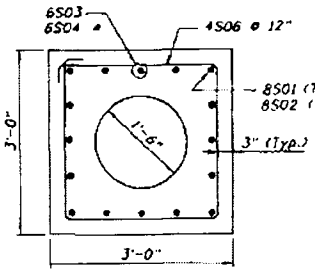
PEDESTAL REINFORCING DETAIL

(Pedestal Cap Reinforcing Not Shown)

* Pilasters at Begin and End Bridge

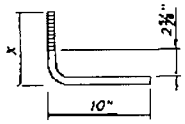


SECTION C-C



SECTION D-D

* Pilasters at Begin and End Bridge

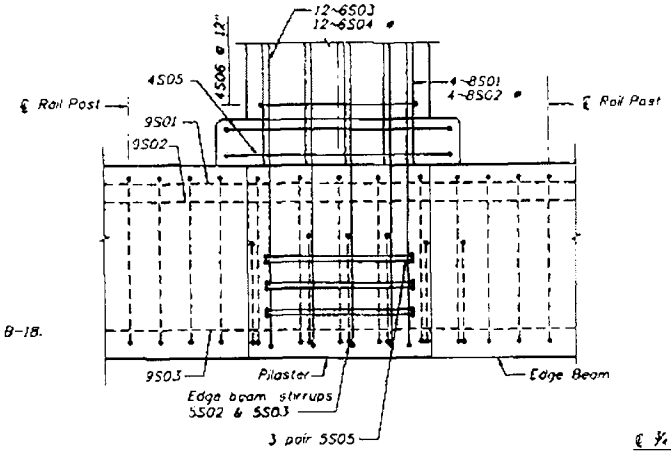


X = Grout Pad Thickness Plus Cast Aluminum Anchor Plate Thickness Plus Standard Washer/Nut Thickness Plus ¼"

Anchor Bolts with Threaded Ends, Nuts and Washers shall be provided by Pole manufacturer. Contractor shall bend and cut to length as shown.

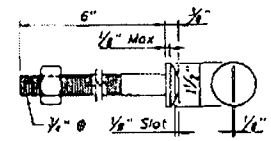
Place below #5 Top bars in pedestal Cap

LIGHT POST BASE ANCHOR BOLT DETAIL

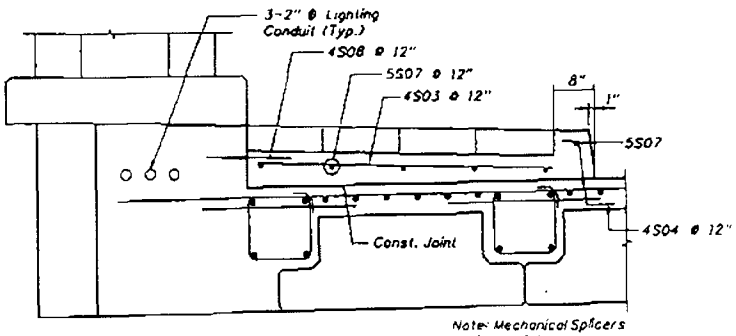


VIEW E-E

* Pilasters at Begin and End Bridge



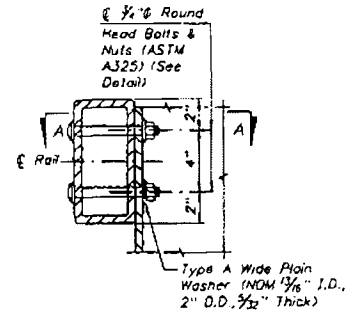
A325 ROUND HEAD BOLT DETAIL



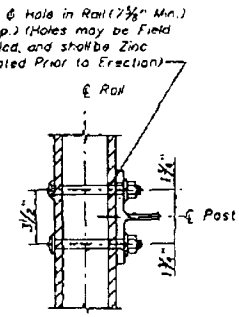
Note: Mechanical Splicers at South Sidewalk only

SIDEWALK REINFORCING DETAIL

(Edge Beam reinforcement not shown for clarity)



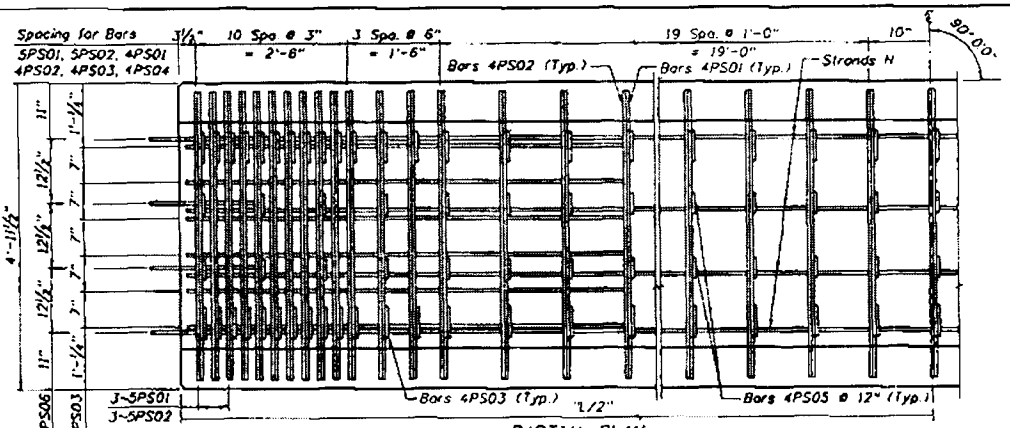
DETAIL A



SECTION A-A

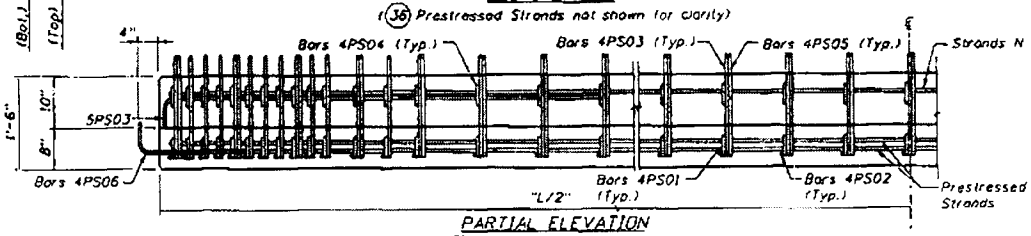
REVISIONS		APPROVED BY:	CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A. ENGINEERS ARCHITECTS PLANNERS 861 PONCE DE LEON BLVD., SUITE 600 CORAL GABLES, FLORIDA 33134	DATE: 10/09/2008	TOWN OF GOLDEN BEACH	THE STRAND AVE BRIDGE REPLACEMENT	SHEET NO
DESCRIPTION	DATE	DATE: 10/09/2008		DRAWN: RN/RF		SUPERSTRUCTURE DETAILS (4 OF 4)	B-22
1.		MANUEL A. SOLAUN, P.E.		DESIGNED: AY			
2.		FLORIDA REGISTRATION No. 43418		CHECKED: MG			
3.				QC: MAS			
4.				CADD FILE 00734-03			

60

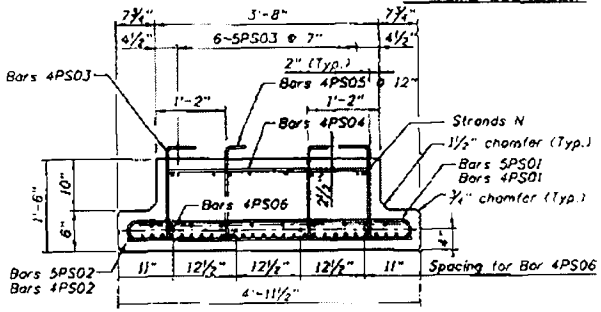


PARTIAL PLAN

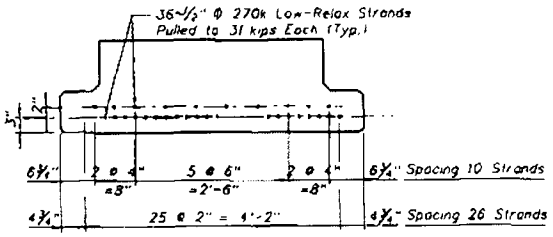
(36) Prestressed Strands not shown for clarity)



PARTIAL ELEVATION

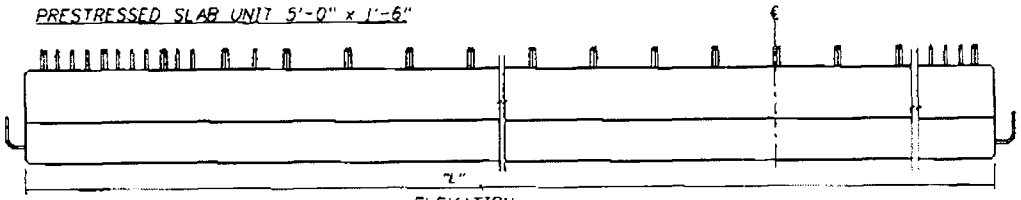


PRESTRESSED SLAB UNIT 5'-0" x 1'-6"



(36) PRESTRESSED STRANDS

• - Fully Bonded Strands



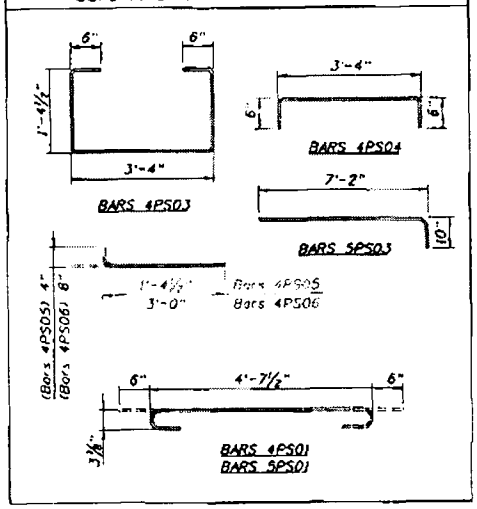
ELEVATION

PRESTRESSED SLAB 5'-0" x 1'-6"		
UNIT	"L"	QUANTITY
1-8	48'-3"	1
2-8	48'-3"	1

BILL OF REINFORCING STEEL
FOR ONE SLAB UNIT ONLY

MARK	SIZE	NUMBER REQUIRED	LENGTH (NOTE 1)
5PS01	5	6	5'-7½"
5PS02	5	6	4'-7½" (Straight)
5PS03	5	12	8'-0"
4PS01	4	61	5'-7½"
4PS02	4	61	4'-7½" (Straight)
4PS03	4	67	7'-1"
4PS04	4	67	4'-4"
4PS05	4	98	1'-8½"
4PS06	4	8	3'-8"

BENDING DIAGRAMS (SEE NOTE 1)



PRESTRESSED SLAB NOTES:

1. All bar dimensions are cut-to-out.
2. Bars G shall be bent prior to the beam leaving the prestressing yard
3. Unless otherwise noted, the minimum concrete cover for reinforcing steel shall be 2"
4. Use ½" Φ 270k Low-Relax strands pulled to 31.0 kips each Area per strand equals 0.153 sq. in.
5. Concrete Class V minimum release strength 4500 psi minimum 28 day compression strength 6500 psi, with calcium nitrate.
6. Bars may be adjusted to accommodate for prestressed strands.
7. Strands N shall be ASTM A416, Grade 250 or 270, ⅜" Φ or longer, stressed to 10,000 lbs. each
8. Top surface of the slab units shall be raked transversely to provide a roughened surface with ¼" amplitude For proper bonding of the deck overlay, clean the top surface of the Prestressed Slab Units and thoroughly soak with potable water for a minimum of 4 hrs. then remove all excess surface water immediately prior to placement of the overlay

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE:

MANUEL A. SOLAIN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD. SUITE 800
CORAL GABLES, FLORIDA 33134
MIAMI (305) 446-2800 FLORIDA (800) 446-7277
FL REGISTRATIONS EB0000197 AA0001143

DATE	10/08/2009
DRAWN	RN/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

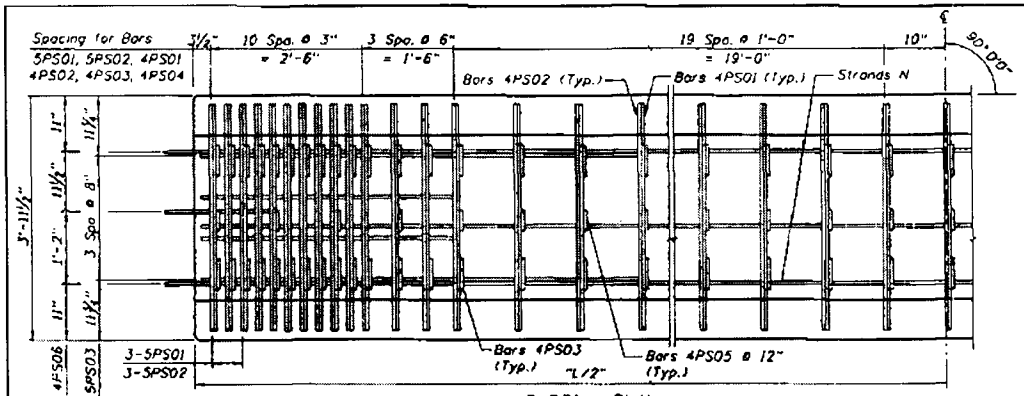
TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
PRESTRESSED SLAB UNIT (5'-0"x1'-6")

00734-03

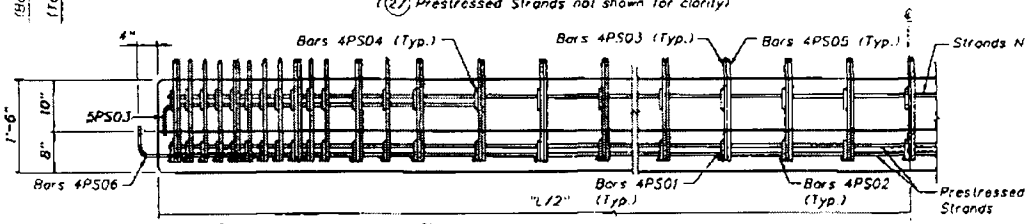
SHEET NO
B-23

19

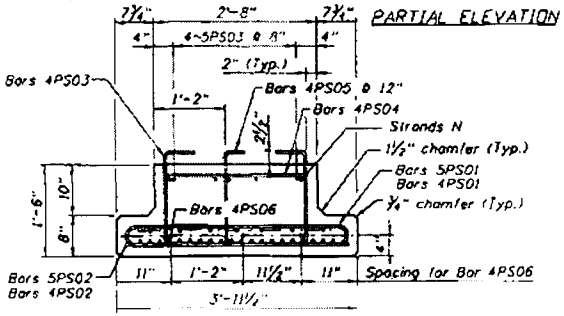


PARTIAL PLAN

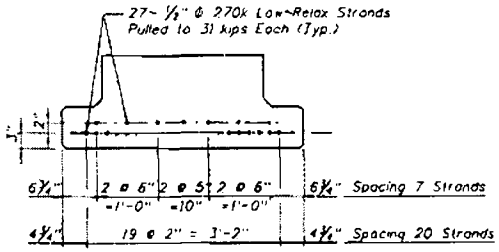
(27) Prestressed Strands not shown for clarity)



PARTIAL ELEVATION

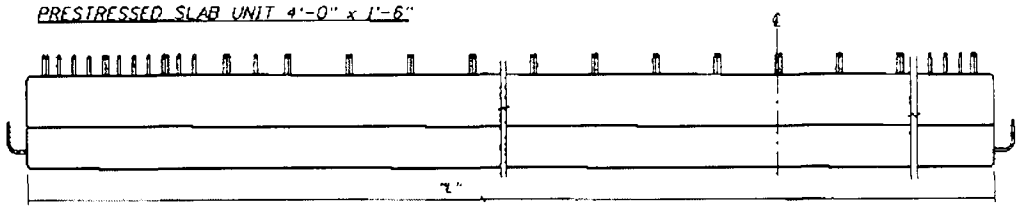


PRESTRESSED SLAB UNIT 4'-0" x 1'-6"



(27) PRESTRESSED STRANDS

• = Fully Bonded Strands



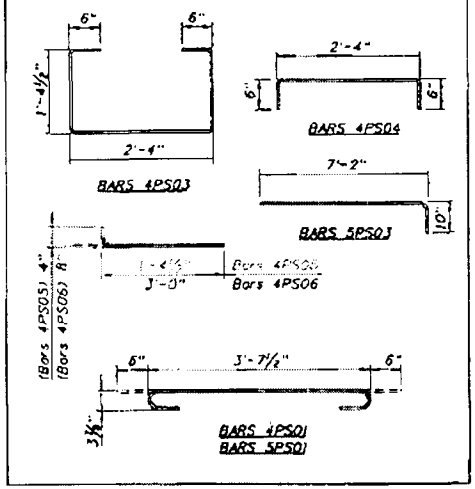
ELEVATION

PRESTRESSED SLAB 4'-0"x 1'-6"		
UNIT	"L"	QUANTITY
1-A	48'-3"	7
2-A	48'-3"	7

BILL OF REINFORCING STEEL FOR ONE SLAB UNIT ONLY

MARK	SIZE	NUMBER REQUIRED	LENGTH (NOTE 1)
5PS01	5	6	4'-7½"
5PS02	5	6	3'-7½" (Straight)
5PS03	5	8	8'-0"
4PS01	4	61	4'-7½"
4PS02	4	61	3'-7½" (Straight)
4PS03	4	67	6'-1"
4PS04	4	67	3'-4"
4PS05	4	49	1'-8½"
4PS06	4	6	3'-8"

BENDING DIAGRAMS (SEE NOTE 1)



PRESTRESSED SLAB NOTES:

1. All bar dimensions are out-to-out
2. Bars G shall be bent prior to the beam leaving the prestressing yard
3. Unless otherwise noted, the minimum concrete cover for reinforcing steel shall be 2".
4. Use ½" Φ 270k Low-Relax strands pulled to 31.0 kips each. Area per strand equals 0.153 sq in
5. Concrete Class V minimum release strength 4500 psi minimum 28 day compression strength 6500 psi, with calcium nitrate.
6. Bars may be adjusted to accommodate for prestressed strands.
7. Strands N shall be ASTM A416, Grade 250 or 270, ⅜" Φ or longer, stressed to 10,000 lbs each.
8. Top surface of the slab units shall be raked transversely to provide a roughened surface with ¼" amplitude. For proper bonding of the deck overlay, clean the top surface of the Prestressed Slab Units and thoroughly soak with potable water for a minimum of 4 hrs. then remove all excess surface water immediately prior to placement of the overlay.

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE 10/06/2000

MANUEL A. SOLAUK, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD., SUITE 400
CORAL GABLES, FLORIDA 33134
MIAMI (305) 443-3900 FLORIDA (800) 432-0231
FL REGISTRATION: ENGINEERING AA26001143

DATE	10/06/2000
DRAWN	RN/RS
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00784-03

TOWN OF GOLDEN BEACH

THE STRAND AVE BRIDGE REPLACEMENT

PRESTRESSED SLAB UNIT (4'-0"x1'-6")

0073403

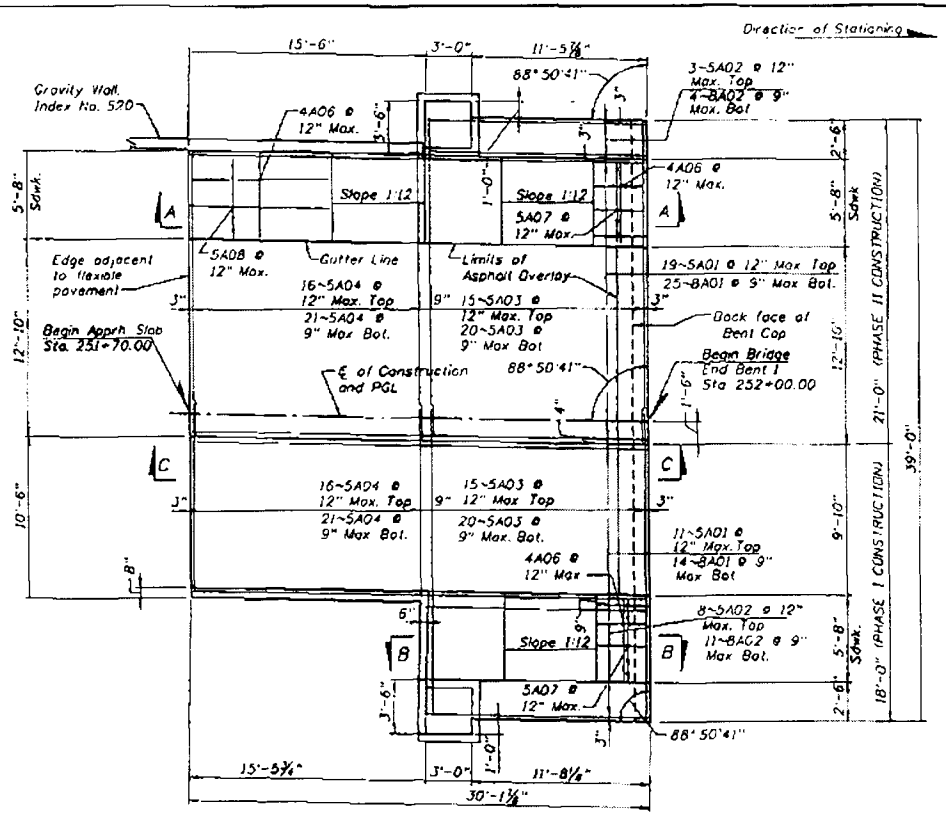
SHEET NO

B-24

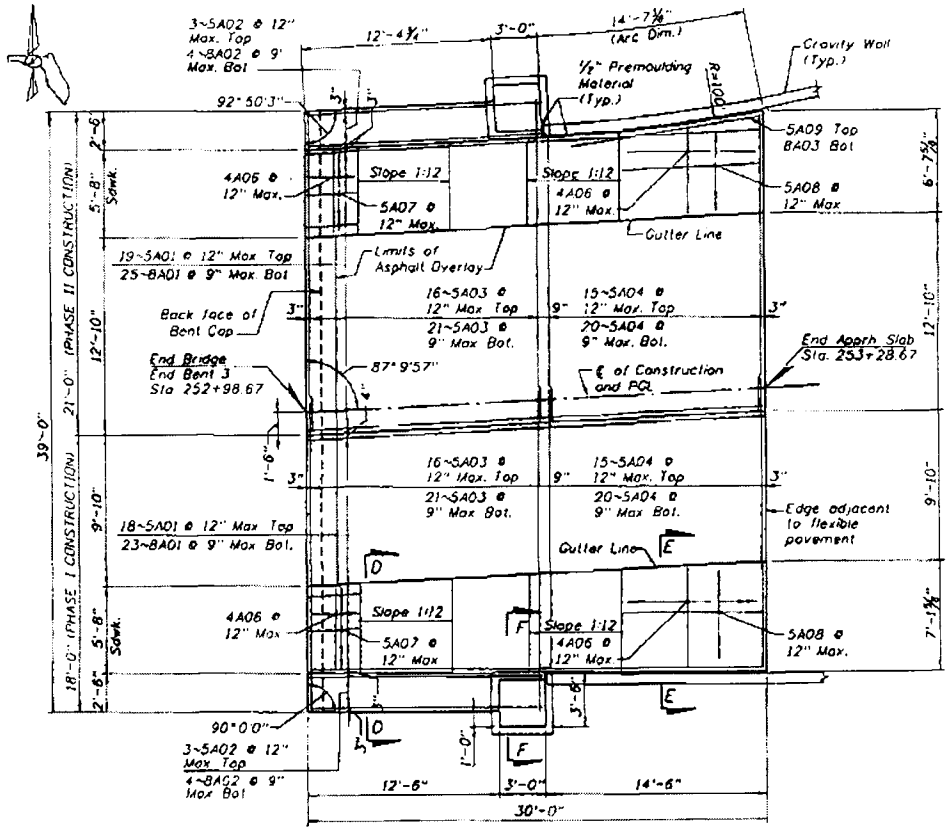
1/26/2000 5:30pm PM

T:\GOLD 34-003 Town of Golden Beach - Strand Ave\Structural\Prestressed Slab\PRESTSLB-B24.DGN

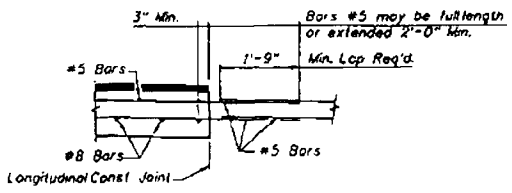
69



PLAN
(APPROACH SLAB 1)



PLAN
(APPROACH SLAB 3)



LONGITUDINAL CONSTRUCTION JOINT DETAIL

GENERAL NOTES:

1. SURFACE TREATMENT. As an option to Bridge Floor Grooving per Section 400 a hand tined or heavy broomed finish may be permitted on the concrete portion of the riding surface. Sidewalk areas shall receive a broomed finish. The top surface of the concrete beneath the asphalt overlay shall be raked.
2. UTILITIES: If required, see Utility Conduit Detail Sheets for details.
3. When a longitudinal construction joint is necessary or allowed by the Engineer, the transverse steel shall be extended as shown in the Longitudinal Construction Joint Detail.
4. Raised sidewalks shall be provided as shown in the plans. Payment shall be included in the pay items for approach slab concrete and reinforcement.
5. ASPHALT OVERLAY: Payment for asphalt overlay items are to be included in Roadway Pay Items. Friction course shall be carried over the approach slab and match the friction course type used on the Roadway. If FC-6 is used, it shall be placed 1.5" thick. If FC-5 is used, the final structural course shall be tapered to a uniform 0.75" thickness and the FC-5 placed 0.75" thick over the structural layer

NOTE:
For Sections A-A, B-B, C-C, D-D, E-E and F-F see APPROACH SLAB DETAILS Sheet.

ESTIMATED QUANTITIES

ITEM	UNIT	APPRH SLAB 1		APPRH SLAB 3	
		PHASE I & III	PHASE II	PHASE I & III	PHASE II
Class II Concrete	CY	18.5	35.9	25.8	35.2
Reinforcing Steel	LB	4116	5102	4688	5571

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY
DATE: 10/08/2009
MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43416

CORZO CASTELLA CARBALLO THOMPSON SALAUN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 BRICKELL AVENUE, SUITE 2100
CORAL GABLES, FLORIDA 33131
MIAMI (305) 444-5200 FLORIDA (800) 432-7227
F.L. REGISTRATION CB0000628 AA0002147

DATE	10/08/2009
DRAWN	RN/RF
DESIGNED	KV
CHECKED	MG
QC	MAS
CADD FILE	00784-03

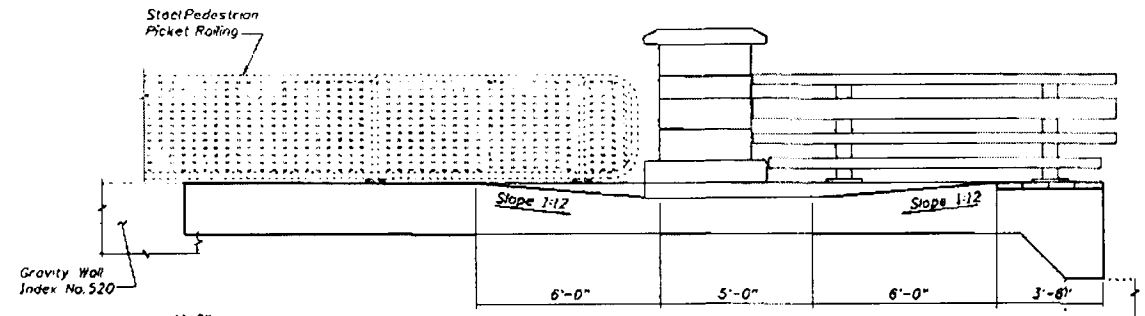
TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
APPROACH SLABS

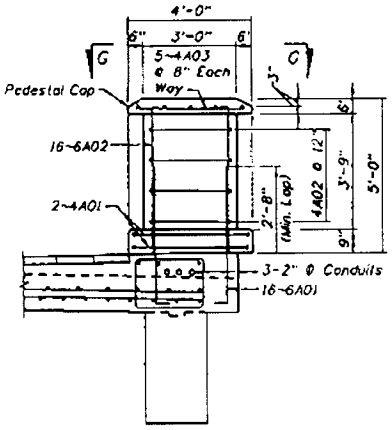
00734-03

SHEET NO
B-25

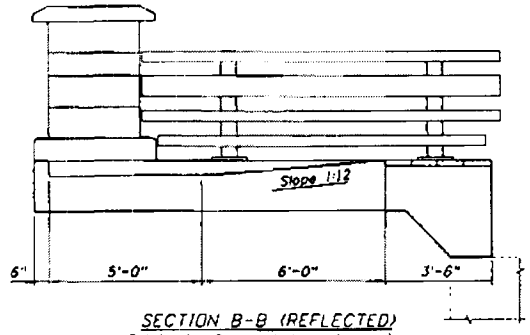
63



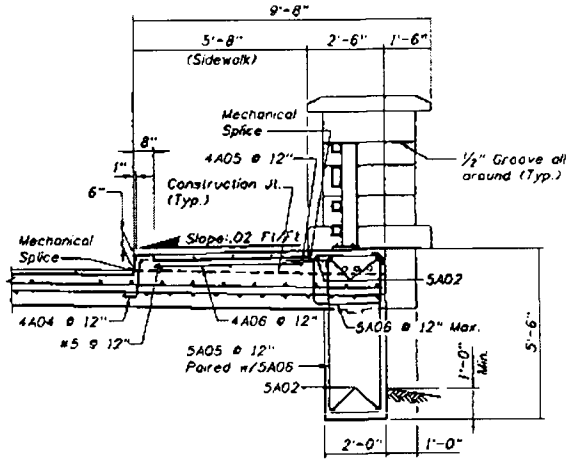
SECTION A-A
(Reinforcing not shown for clarity)



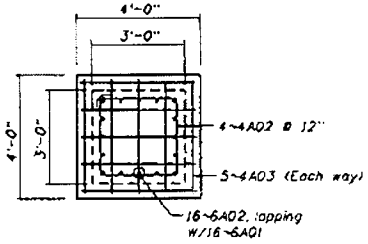
SECTION F-F



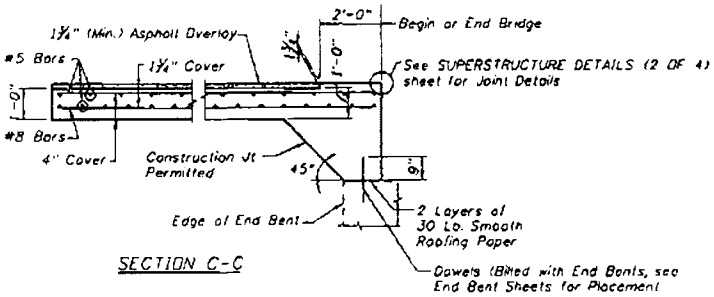
SECTION B-B (REFLECTED)
(Reinforcing Steel not shown for clarity)



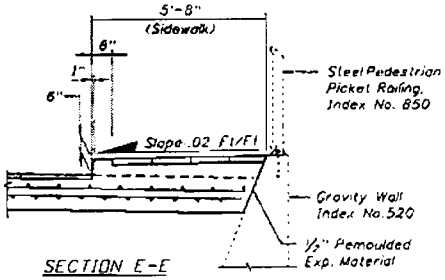
SECTION D-D
NOTE: Mechanical splices at South Sidewalk only



SECTION G-G



SECTION C-C



SECTION E-E

REVISIONS		
DESCRIPTION	DATE	
1		
2		
3		
4		

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS ARCHITECTS PLANNERS
801 PONCE DE LEON BLVD., SUITE 500
CORAL GABLES, FLORIDA 33134
MIAMI (305) 445-7900 FLORIDA (800) 432-0317
FLA REGISTRATIONS E00005033 AA0001143

DATE	10/08/2008
DRAWN	RN/RF
DESIGNED	AY
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QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
APPROACH SLAB DETAILS

00734-03

SHEET NO
B-26

64

	MARK SIZE	MARK DES	LENGTH FT	LENGTH IN	NO BARS	TYP BAR	STY A	STY C	B FT	B IN	B FR	C FT	C IN	C FR	D FT	D IN	D FR	E FT	E IN	E FR	F FT	F IN	F FR	H FT	H IN	H FR	J FT	J IN	J FR	K FT	K IN	K FR	N NO	Ø ANG
	LOCATION END BENT 1 PHASE I																				NO. REQUIRED = 1													
	5	EB01	11	11	35	4	4	4	2	3 1/2		3	2																					
	5	EB02	7	9	35	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB03	7	9	35	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB04	7	2	30	11			3	2		2	0		2	0																		
	6	EB01	1	6	5	1			1	6																								
Mechanical Splice	6	EB02	34	8	4	1			34	8																								
	6	EB03	15	8	7	10			13	8		2	0																					
Mechanical Splice	8	EB01	36	0	9	17	3		34	8																								
Mechanical Splice	8	EB02	34	8	6	1			34	8																								
	LOCATION END BENT 1 PHASE II																				NO. REQUIRED = 1													
	5	EB01	11	11	45	4	4	4	2	3 1/2		3	2																					
	5	EB02	7	9	45	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB03	7	9	45	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB04	7	2	44	11			3	2		2	0		2	0																		
	5	EB05	4	11	14	28			0	11		0	11		2	2		2	2															
	5	EB06	9	1	9	17	1		8	6																								
	5	EB07	7	6	15	1			7	6																								
	6	EB01	1	6	5	1			1	6																								
	6	EB02	44	6	4	1			44	6																								
	6	EB03	19	8	7	1			19	8																								
	8	EB01	21	5	9	17	3		20	1																								
	8	EB02	44	6	6	1			44	6																								
	8	EB03	4	6	19	33	6		4	6		0	6																					
	8	EB04	21	0	9	17	3		19	8																								
	8	EB05	9	0	9	1			9	0																								
	LOCATION END BENT 3 PHASE I																				NO. REQUIRED = 1													
	5	EB01	11	11	35	4	4	4	2	3 1/2		3	2																					
	5	EB02	7	9	35	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB03	7	9	35	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB04	7	6	30	11			3	2		2	2		2	2																		
	6	EB01	1	6	5	1			1	6																								
Mechanical Splice	6	EB02	34	8	4	1			34	8																								
	6	EB03	15	10	7	10			13	8		2	2																					
Mechanical Splice	8	EB01	36	0	9	17	3		34	8																								
Mechanical Splice	8	EB02	34	8	6	1			34	8																								
	LOCATION END BENT 3 PHASE II																				NO. REQUIRED = 1													
	5	EB01	11	11	45	4	4	4	2	3 1/2		3	2																					
	5	EB02	7	9	45	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB03	7	9	45	11			3	2		2	3 1/2		2	3 1/2																		
	5	EB04	7	6	44	11			3	2		2	2		2	2																		
	5	EB05	4	11	14	28			0	11		0	11		2	2		2	2															
	5	EB06	9	1	9	17	1		8	6																								
	5	EB07	7	6	15	1			7	6																								
	6	EB01	1	6	5	1			1	6																								

REVISIONS	
DESCRIPTION	DATE
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APPROVED BY:

DATE: 10/09/2006

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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MIAMI (305) 444-7400 FLORIDA (800)-[illegible]
TELECOMMUNICATIONS [illegible]

DATE	10/09/2006
DRAWN	MN/RF
DESIGNED	AY
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (1 OF 5)

00734-03

SHEET NO.
B-27

	MARK		LENGTH	NO	TYP	STY		B	C	D	E	F	H	J	K	N	θ
	SIZE	DES	FT IN	BARS	BAR	A	G	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	FT IN FR	NO	ANG
	5	EBG2	44- 6	4	1			44- 6									
	6	EBG3	19- 8	7	1			19- 8									
	8	EB01	21- 5	9	17	3		20- 1									
	8	EB02	44- 6	6	1			44- 6									
	8	EB03	4- 6	19	33	6		4- 6	0- 6								
	8	EB04	20- 6	9	17	1		19- 7									
	8	EB05	10- 1	9	1	1		10- 1									
	LOCATION INT. BENT 2 PHASE I											NO. REQUIRED = 1					
	5	EB01	10- 7	40	4	4	4	1- 9 1/2	3- 0								
	5	EB02	4- 6	5	1			4- 6									
Mechanical Splice	6	EB01	20- 2	2	1			20- 2									
Mechanical Splice	8	EB01	20- 2	18	1			20- 2									
	LOCATION INT. BENT 2 PHASE II											NO. REQUIRED = 1					
	5	EB01	10- 7	40	4	4	4	1- 9 1/2	3- 0								
	5	EB02	4- 6	4	1			4- 6									
	6	EB01	20- 0	2	1			20- 0									
	8	EB01	20- 0	18	1			20- 0									
	8	EB02	4- 6	20	33	6		4- 6	0- 6								
	LOCATION SUPERSTRUCTURE PHASE I											NO. REQUIRED = 1					
	4	S01	4- 9	396	4	4	4	1- 0	1- 0								
	4	S02	2- 6	396	1			2- 6									
	4	S04	1- 8	99	28			0- 4	0- 9	0- 1	0- 7						
	4	S08	2- 6	99	1			2- 6									
	5	S01	101- 8	39	2			3- 4	98- 4							1	
	5	S02	10- 0	172	4	4	4	2- 4	2- 2								
	5	S03	9- 2	100	4	4	4	1- 5	2- 8								
	5	S04	4- 0	22	10			2- 6	1- 6								
	5	S05	7- 6	30	11			2- 6	2- 6	2- 6							
	6	S01	20- 6	210	1			20- 6									
	6	S02	6- 8	80	10			3- 8	1- 0								
	9	S01	103- 4	5	41			60- 0	43- 4					5- 0		1	
	9	S02	34- 0	5	1			34- 0									
	9	S03	50- 6	22	1			50- 6									
	LOCATION SUPERSTRUCTURE PHASE II											NO. REQUIRED = 1					
	4	S01	4- 9	495	4	4	4	1- 0	1- 0								
	4	S02	2- 6	495	1			2- 6									
	5	S01	101- 8	47	2			3- 4	98- 4							1	
	5	S02	10- 0	172	4	4	4	2- 4	2- 2								
	5	S03	9- 2	100	4	4	4	1- 5	2- 8								
	5	S04	4- 0	26	10			2- 6	1- 6								
	6	S01	20- 7	210	1			20- 7									

REVISIONS	
DESCRIPTION	DATE
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DATE 10/09/2008

MANUEL A. SOLAUN, P.E.
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CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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MIAMI (305) 445-2900 FLORIDA (800) 432-8331
FL REGISTRATIONS COGOUGUW AAC001144

DATE	10/09/2008
DRAWN	RN/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (2 OF 5)

00734-03

SHEET NO
B-28

99

MARK SIZE	MARK DES	LENGTH FT IN	NO BARS	TYP BAR	STY A	STY C	B FT IN FR	C FT IN FR	D FT IN FR	E FT IN FR	F FT IN FR	H FT IN FR	J FT IN FR	K FT IN FR	N NO	ANG
9	S01	103- 4	5	41			60- 0	43- 4					2- 0		1	
9	S02	34- 0	5	1			34- 0									
9	S03	50- 6	22	1			50- 6									
SIDEWALK & CONCRETE PILASTERS																
4	S03	5- 4	99	1			5- 4									
4	S04	1- 8	99	28			0- 4	0- 9	0- 1	0- 7						
4	S05	14- 9	10	4	4	4	3- 6	3- 6								
4	S06	10- 9	26	4	4	4	2- 6	2- 6								
4	S07	5- 9	5	4	4	4	1- 3	1- 3								
4	S08	2- 6	99	1			2- 6									
5	S05	7- 6	30	11			2- 6	2- 6	2- 6							
5	S06	3- 6	60	1			3- 6									
5	S07	101 10	6	2			1- 9	98- 4							2	
6	S02	6- 8	80	10			5- 8	1- 0								
6	S03	4- 3	36	1			4- 3									
6	S04	7- 3	24	1			7- 3									
8	S01	4- 9	12	1			4- 9									
8	S02	7- 9	8	1			7- 9									
LOCATION SUPERSTRUCTURE PHASE III											NO. REQUIRED = 1					
SIDEWALK & CONCRETE PILASTERS																
4	S03	5- 4	99	1			5- 4									
4	S05	14- 9	10	4	4	4	3- 6	3- 6								
4	S06	10- 9	26	4	4	4	2- 6	2- 6								
4	S07	5- 9	5	4	4	4	1- 3	1- 3								
5	S06	3- 6	60	1			3- 6									
5	S07	101-10	6	2			1- 9	98- 4							2	
6	S03	4- 3	36	1			4- 3									
6	S04	7- 3	24	1			7- 3									
8	S01	4- 9	12	1			4- 9									
8	S02	7- 9	8	1			7- 9									
LOCATION APPROACH SLAB 1 PHASE I											NO REQUIRED = 1					
Mechanical Splice	A04	1- 8	4	28			0- 4	0- 9	0- 1	0- 7						
Mechanical Splice	A05	2- 6	4	1			2- 6									
5	A01	29- 6	11	1			29- 6									
5	A02	14-10	13	1			14-10									
5	A03	19-10	35	1			19-10									
5	A04	12- 4	37	1			12- 4									
5	A05	13- 6	15	4	4	4	4-11	1- 4								
5	A06	7- 0	15	4	4	4	1- 2	1-10								
6	A01	5- 3	16	10	4	4	4- 3	1- 0								
8	A01	29- 6	14	1			29- 6									
8	A02	14-10	11	1			14-10									
LOCATION APPROACH SLAB 1 PHASE II											NO REQUIRED = 1					
5	A01	29- 6	19	1			29- 6									

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DATE: 10/08/2008

MANUEL A. SOLAUN, P.E
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAK, P.A.
ENGINEERS ARCHITECTS PLANNERS
601 PONCE DE LEON BLVD. SUITE 100
CORAL GABLES, FLORIDA 33134
PHONE (305) 443-3900 FLORIDA LICENSE NO. EB0000609
FLORIDA REGISTRATIONS: EB0000609 AA0001117

DATE	10/08/2008
DRAWN	RW/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (3 OF 5)

00734-03

SHEET NO
B-29

67

MARK SIZE	MARK DES	LENGTH FT IN	NO BARS	TYP BAR	STY A	STY C	B FT IN FR	C FT IN FR	D FT IN FR	E FT IN FR	F FT IN FR	H FT IN FR	J FT IN FR	K FT IN FR	N NO	∅ ANG
5	A02	14- 7	8	1			14- 7									
5	A03	20- 8	35	1			20- 8									
5	A04	18- 2	37	1			18- 2									
5	A05	13- 6	15	4	4	4	4-11	1- 4								
5	A06	7- 0	15	4	4	4	1- 2	1-10								
8	A01	29- 6	25	1			29- 6									
8	A02	14- 7	4	1			14- 7									
SIDEWALK & CONCRETE PILASTER (PHASE II)																
4	A01	14- 3	2	4	4	4	3- 6	3- 6								
4	A02	10- 9	4	4	4	4	2- 6	2- 6								
4	A03	3- 6	10	1			3- 6									
4	A04	1- 8	14	28			0- 4	0- 9	0- 1	0- 7						
4	A05	2- 6	14	1			2- 6									
4	A06	5- 4	14	1			5- 4									
5	A07	3- 2	6	1			3- 2									
5	A08	9- 2	6	1			9- 2									
6	A01	5- 3	16	10			4- 3	1- 0								
6	A02	5- 5	16	10			4- 9	0- 8								
LOCATION APPROACH SLAB 1 PHASE III											NO. REQUIRED - 1					
SIDEWALK & CONCRETE PILASTER																
4	A01	14- 9	2	4	4	4	3- 6	3- 6								
4	A02	10- 9	4	4	4	4	2- 6	2- 6								
4	A03	3- 6	10	1			3- 6									
4	A06	5- 4	4	1			5- 4									
5	A07	3- 2	6	1			3- 2									
6	A01	6- 0	16	10			5- 0	1- 0								
6	A02	5- 5	16	10			4- 9	0- 8								
LOCATION APPROACH SLAB 3 PHASE I											NO. REQUIRED = 1					
Mechanical Splice — 4	A04	1- 8	14	28			0- 4	0- 9	0- 1	0- 7						
Mechanical Splice — 4	A05	2- 6	14	1			2- 6									
5	A01	29- 8	18	1			29- 8									
5	A02	15- 8	8	1			15- 8									
5	A03	VARY	37	1			15- 9									
		15- 6	0	1			15- 2									
5	A04	VARY	35	1			16- 7									
		16- 2	0	1			15- 9									
5	A05	13- 6	16	4	4	4	4-11	1- 4								
5	A06	7- 0	16	4	4	4	1- 2	1-10								
8	A01	29- 8	23	1			29- 8									
8	A02	15 8	4	1			15- 8									
LOCATION APPROACH SLAB 3 PHASE II											NO. REQUIRED = 1					
5	A01	29- 8	19	1			29- 8									
5	A02	15- 6	8	1			15- 6									
5	A03	20- 8	37	1			20- 8									
5	A04	VARY	35	1			19- 0									
		18- 7	0	1			18- 2									

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DATE: 10/08/2008

MANUEL A. SOLAUN, P.E.
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FL REGISTRATION EB3005-003 AA26001-18

DATE:	10/09/2008
DRAWN	RK/RF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (4 OF 5)

CONTRACT 00734-03

SHEET NO
B-30

MARK		LENGTH		NO	TYP	STY		B			C			D			E			F			H			J			K			N	O
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
5	A05	13-	6	16	4	4	4	4-	11		1-	4																					
5	A06	7-	0	16	4	4	4	1-	2		1-	10																					
8	A01	29-	8	25	1			29-	8																								
8	A02	15-	6	4	1			15-	6																								
8	A03	13-	0	11	1			13-	0																								
SIDEWALK & CONCRETE PILASTER (PHASE II)																																	
4	A01	14-	9	2	4	4	4	3-	6		3-	6																					
4	A02	10-	9	4	4	4	4	2-	6		2-	6																					
4	A03	3-	6	10	1			3-	6																								
4	A04	1-	8	14	28			0-	4		0-	9		0-	1		0-	7															
4	A05	2-	6	14	1			2-	6																								
4	A06	5-	4	14	1			5-	4																								
5	A07	3-	2	6	1			3-	2																								
5	A08	9-	2	6	1			9-	2																								
5	A09	13-	0	1	1			13-	0																								
6	A01	5-	3	16	10			4-	3		1-	0																					
6	A02	5-	5	16	10			4-	9		0-	8																					
LOCATION APPROACH SLAB 3 PHASE III																				NO. REQUIRED = 1													
SIDEWALK & CONCRETE PILASTER																																	
4	A01	14-	9	2	4	4	4	3-	6		3-	6																					
4	A02	10-	9	4	4	4	4	2-	6		2-	6																					
4	A03	3-	6	10	1			3-	6																								
4	A06	5-	4	14	1			5-	4																								
5	A07	3-	2	6	1			3-	2																								
5	A08	9-	2	6	1			9-	2																								
6	A01	4-	9	16	10			3-	9		1-	0																					
6	A02	5-	5	16	10			4-	9		0-	8																					

END OF LIST

REVISIONS	
DESCRIPTION	DATE
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DATE: 10/09/2008

MANUEL A. SOLIJAN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
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CORAL GABLES, FLORIDA 33134
WWW.CCCTS.COM FLORIDA (305)446-0827
EL ARQUITECTONICA PROGRAMA AAC009142

DATE	10/09/2008
DRAWN	JW/BF
DESIGNED	AV
CHECKED	MG
QC	MAS
CADD FILE	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
REINFORCING BAR LIST (5 OF 5)

00734-03

SHEET NO.
B-31

69

Load Rating Summary Details for Prestressed Concrete Bridges (Prestressed Concrete Slab Units with Concrete Topping)

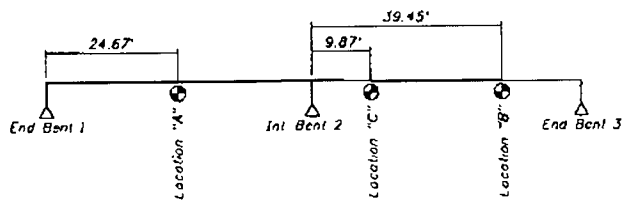
Issue Date 01-01-07

Table 2 – LRFR w/o Appendix D 6 (LFD)

Level	Limit State	Vehicle	Weight (tons)	Load Factors			Moment (Strength) or Stress (Service)					Shear (Strength)					Comments: Interior/exterior beam DF method if other than LRFD Other appropriate comments
				LL	DC	DW	Distribution Factor (DF)	Rating Factor	Tons	Location	Dimension	Distribution Factor (DF)	Rating Factor	Tons	Location	Dimension	
Design Load Rating	Strength I (Inv)	HL-93	N/A	1.75	1.25	1.50	0.60	1.45	N/A	A	24.67'	0.60	5.56	N/A	B	39.45'	Interior Prestressed Concrete Slab Unit C (5' Wide)
	Strength I (Op)	HL-93	N/A	1.35	1.25	1.50	0.60	1.87	N/A	A	24.67'	0.60	7.20	N/A	B	39.45'	
	Service III (Inv)	HL-93	N/A	0.80	1.00	1.00	0.60	1.07	N/A	A	24.67'	N/A	N/A	N/A	N/A	N/A	
	Service III (Op)	HL-93	N/A	0.80	1.00	1.00	0.60	1.46	N/A	A	24.67'	N/A	N/A	N/A	N/A	N/A	
Legal Load Rating	Strength I	SU4	35.0	1.35	1.25	1.50											
	Strength I	C5	40.0	1.35	1.25	1.50											
	Strength I	ST5	40.0	1.35	1.25	1.50											
	Service III	SU4	35.0	0.80	1.00	1.00						N/A	N/A	N/A	N/A	N/A	
	Service III	C5	40.0	0.80	1.00	1.00						N/A	N/A	N/A	N/A	N/A	
	Service III	ST5	40.0	0.80	1.00	1.00						N/A	N/A	N/A	N/A	N/A	
Permit Load Rating	Strength II	FL120	60.0	1.35	1.25	1.50	0.60	1.39	83.2	A	24.67'	0.60	4.87	292.18	C	9.87'	
	Service III	FL120	60.0	0.70	1.00	1.00	0.60	1.24	74.2	A	24.67'	N/A	N/A	N/A	N/A	N/A	

General Notes:
1. This table is based on the requirements established in the January 2xxx "Structures Manual"

Table 2 Notes:
1. Permit capacity is determined by using the permit vehicle in all lanes
2. If the Design Operating Load Rating is greater than 1, Load Rating using Legal Vehicles SU4, C5, and ST5 is not required
3. Service III Design Inventory tensile stress limits = 3•f'c or 6•f'c. Service III Design Operating, Legal, and Permit tensile stress limits = 7.5•f'c.
4. Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? ☒ Yes ☐ No



RATING LOCATIONS

Abbreviations

Inv – Inventory

Op – Operating

Controlling Load Rating			
Limit State	Vehicle	Weight (Tons)	Rating Factor
Service III (Inv.)	HL-93	72	1.07

REVISIONS	
DESCRIPTION	DATE
1.	
2.	
3.	
4.	

APPROVED BY:

DATE: 10/08/2008

MANUEL A. SOLAUN, P.E.
FLORIDA REGISTRATION No. 43418

CORZO CASTELLA CARBALLO THOMPSON SALMAR, P.A.
ENGINEERS ARCHITECTS PLANNERS
851 PONCE DE LEON BLVD. SUITE 800
CORAL GABLES FLORIDA 33134
WWW.(305)-445-2900 FLORIDA (800)-446-8377
FL REGISTRATIONS 8600080 AA26001143

DATE:	10/08/2008
DRAWN:	RN/RF
DESIGNED:	AV
CHECKED:	MG
QC:	MAS
CADD FILE:	00734-03

TOWN OF GOLDEN BEACH

THE STRAND AVE
BRIDGE REPLACEMENT
LOAD RATING

00734-03

SHEET NO.
B-32

Attachment C

Zoning Memorandum

Memorandum

MIAMI-DADE COUNTY

Date: August 24, 2010

To: Lisa Spadafina, Manager
Coastal Resources
Environmental Resources Management

From: Nicole Fresard, Biologist II
Coastal Resources
Environmental Resources Management

Subject: Class I Permit Application by the Town of Golden Beach for the Replacement of The Strand Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

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Pursuant to Section 24-48.2(II)(A)(7), Code of Miami-Dade County, Florida, a substantiating letter shall be submitted by the applicant stating that the proposed project does not violate any zoning laws. Said letter will be submitted after approval by the Miami-Dade County Board of County Commissioners and prior to issuance of the Class I permit.

Attachment D

Names and Addresses of Owners of All Riparian or Wetland Property within Three Hundred (300) Feet of the Proposed Work

STRAND

John and Karleen Halliwell
495 Center Island Drive
Golden Beach, FL 33160

Robert A. Snyder & W. April
487 Center Island Drive
Golden Beach, FL 33160

Talia Harel
405 Centre Island Drive
Golden Beach FL 33160

Patricia A Riley &
Francis X Riley &W Helen
447 Center Island
Golden Beach Fl 33160

Laurent Groll
4820 NW 128 St
Opa Locka, FL 33054-5133

Paul Groll
369 Center Island Drive
Golden Beach, FL 33160

Matrix Enterprises Group Ltd
c/o Jorge Gaviria
9769 S Dixie Hwy Suite 101
Miami Fl 33156-5600

Stanley Kassal &W Louise R
393 Center Island
Golden Beach FL, 33160

Boris Motovich
385 Center Island
Golden Beach, FL 33160

Gino & Phyllis Voltapetti
400 Golden Beach Drive
Golden Beach, Fl 33160

Barbara A. Shaheen
416 Golden Beach Drive
Golden Beach, FL 33160

VVF Group LLC
403 Golden Beach Drive
Golden Beach, FL 33160

Julian Kheel Trust
Julian & Joelle Kheel (Ben)
407 Golden Beach Dr
Golden Beach, FL 33160

Hilda Nazzaro
301 Center Island Dr
Golden Beach, Fl 33160

Braintree Ltd c/o Pablo Naves
398 Golden Beach Drive
Golden Beach, FL 33160

Wendy Grey
390 Golden Beach Dr
Golden Beach, FL 33160

Mario L Echevarria &W Roselia R
399 Golden Beach Dr
Golden Beach, FL 33160

Joseph Repassy &W Agnes
395 Golden Beach Dr
Golden Beach, FL 33160

Volodymyr Symonenko &W
Oksana Kirpenko
386 Golden Beach Dr
Golden Beach, FL 33160

Attachment E

DERM Project Report

PROJECT REPORT
CLASS I PERMIT APPLICATION NO. 2009-CLI -PER-00059

Class I Permit Application by the Town of Golden Beach for the Replacement of The Strand Avenue Two-Lane Bridge Spanning the Grand Canal in the Town of Golden Beach

Date: August 12, 2010

Staff's recommendation of approval for the above-referenced permit application is based on the applicable evaluation factors under Section 24-48.3 of the Code of Miami-Dade County (Code), Florida. The following is a summary of the proposed project with respect to each applicable evaluation factor:

1. **Potential Adverse Environmental Impact** – The potential adverse environmental impacts from the removal of the existing bridge and installation of the proposed bridge are minimal. A benthic survey conducted by biologists from the Department of Environmental Resources Management (DERM) revealed that no significant benthic resources were located within the project footprint; therefore, the work associated with the bridge and seawall replacement and the filling of tidal waters is not expected to result in impacts to benthic resources. However, the project will result in minor temporary water quality impacts associated with the demolition and construction of the two-lane bridge and associated seawalls, to the surrounding area. To mitigate for these impacts, the applicant has agreed to provide a contribution to the Biscayne Bay Environmental Enhancement Trust Fund (BBEETF) in the amount of $ 9,309.00 that will be used for the creation of marine habitat.

   The proposed project is located within an area identified by the Miami-Dade County Manatee Protection Plan (MDCMPP) as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

2. **Potential Cumulative Adverse Environmental Impact** – The proposed project is not reasonably expected to result in potential cumulative adverse environmental impacts.

3. **Hydrology** - The proposed project is not reasonably expected to adversely affect surface water drainage or retention of stormwater. The project as designed will provide adequate surface water drainage, flood damage protection, water storage and surface flow. The proposed project, including the alignment of the new seawalls will not adversely affect the existing patterns or volumes of flow in the Grand Canal or the surrounding area.

4. **Water Quality** – The proposed project may temporarily affect surface water quality during construction operations. However, impacts will be minimized by the implementation of proper turbidity control devices. To mitigate for these impacts, the applicant has agreed to provide a contribution to the Biscayne Bay Environmental Enhancement Trust Fund (BBEETF) in the amount of $ 9,309.00 that will be used for the creation of marine habitat.

5. **Wellfields** – Not applicable.

6. **Water Supply** – Not applicable.

7. **Aquifer Recharge** – Not applicable.

8. **Aesthetics** – The proposed project is not reasonably expected to have negative aesthetic impacts. The proposed project is designed to be aesthetically compatible with the surrounding area, and will be aesthetically similar to the existing bridge. However, during the construction process there may be temporary aesthetic impacts related to the presence of machinery and equipment associated with the construction activities.

9. **Navigation** – The proposed project is not reasonably expected to adversely affect navigation of the Grand Canal. The Intracoastal Waterway can be accessed from both the north and south sides of the bridge; therefore, access to said waterway will not be impacted by the new bridge. Additionally, in order to provide navigational access and maintain sufficient clearance, the proposed bridge has been designed to yield a minimum of 5 feet over water clearance, which is the same over water clearance provided by the existing bridge.

10. **Public Health** - The proposed project is not reasonably expected to adversely affect public health.

11. **Historic Values** - The proposed project is not reasonably expected to adversely affect historic values.

12. **Archaeological Values** - The proposed project is not reasonably expected to adversely affect archaeological values.

13. **Air Quality** – The proposed project is not reasonably expected to adversely affect air quality.

14. **Marine and Wildlife Habitats** – The proposed project is not reasonably expected to adversely affect marine and wildlife habitats. A benthic survey conducted by biologists from the Department of Environmental Resources Management (DERM) revealed that no significant benthic resources were located within the project footprint; therefore, the work associated with the bridge and seawall replacement and the filling of tidal waters is not expected to result in impacts to benthic resources. However, the project will result in minor temporary water quality impacts associated with the demolition and construction of the two-lane bridge and associated seawalls, to the surrounding area. To mitigate for these impacts, the applicant has agreed to provide a contribution to the BBEETF in the amount of $ 9,309.00 that will be used for the creation of marine habitat.

    The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

15. **Wetland Soils Suitable for Habitat** – The proposed project is not reasonably expected to adversely affect wetland soils suitable for habitat since there are no wetland soils in the footprint of the proposed work.

16. **Floral Values** – A benthic survey conducted by biologists from DERM revealed that the area within the project site does not currently support benthic resources. Therefore, the proposed project is not reasonably expected to adversely affect marine flora.

17. **Fauna Values** – The proposed project is not reasonably expected to adversely affect faunal values. Although the soils may support limited numbers of marine infauna (e.g. benthic fauna living within the substrate), the soils do not support any significant marine resources. In addition, the proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

18. **Rare, Threatened and Endangered Species** – The proposed project is not reasonably expected to adversely affect any endangered species. The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

19. **Natural Flood Damage Protection** - The proposed project is not reasonably expected to adversely affect surface water drainage or retention of stormwater.

20. **Wetland Values** – The proposed project does not involve dredging or filling of wetlands.

21. **Land Use Classification** – The proposed project will occur in the Town of Golden Beach, Florida. Pursuant to Section 24-48.2(II)(A)(7), of the Code of Miami-Dade County, Florida, a substantiating letter shall be submitted stating that the proposed project does not violate any zoning laws. Said letter will be submitted after the approval by the Board of County Commissioners and prior to the issuance of the Class I permit.

22. **Recreation** - The proposed project does not conflict with the recreation element of the Miami-Dade County Comprehensive Development Master Plan.

23. **Other Environmental Values Affecting the Public Interest** - The proposed project is not reasonably expected to adversely affect other environmental values affecting the public interest. The proposed project will occur on lands owned entirely by the applicant.

24. **Conformance with Standard Construction Procedures and Practices and Design and Performance Standards** – The proposed project complies with the standard construction procedures and practices and design and performance standards of the following:

    a) Miami-Dade County Public Works Manual
    b) Chapter 33B of the Code of Miami-Dade County

25. **Comprehensive Environmental Impact Statement (CEIS)** – In the opinion of the Director, the proposed project will result in only minimal adverse environmental impacts and is not reasonably expected to result in cumulative adverse environmental impacts. Therefore, a CEIS was not required by DERM to evaluate the project.

26. **Conformance with All Applicable Federal, State and Local Laws and Regulations** - The proposed project is in conformance with the following applicable State, Federal and local laws and regulations:

    a) Chapter 24 of the Code of Miami-Dade County
    b) Rules of the South Florida Water Management District (SFWMD permit has been obtained)
    c) United States Clean Water Act (US Army Corps of Engineers Permit is required)

27. **Conformance with the Miami-Dade County Comprehensive Development Master Plan (CDMP)** - In the opinion of DERM, the proposed project is in conformance with the CDMP. The following is a summary of the proposed project as it relates to the CDMP:

LAND USE ELEMENT I:

Objective 2/Policy 2A - Level of Service. The proposed project does not involve new or significant expansion of existing urban land uses.

Objective 3/Policies 3A, 3B, 3C - Protection of natural resources and systems. – The proposed project is consistent with the Conservation and Coastal Management Elements of the CDMP. The project is not located within Biscayne Bay and does not involve development in the Big Cypress area of Critical State concern or the East Everglades.

TRANSPORTATION ELEMENT II

Aviation Subelement/Objective 9 - Aviation System Expansion - There is no aviation element to the proposed project.

Port of Miami River Subelement/Objective 3 - Minimization of impacts to estuarine water quality and marine resources. The proposed project will not take place within the tidal waters of the Miami River.

CONSERVATION, AQUIFER RECHARGES AND DRAINAGE ELEMENT IV:

Objective 3/Policies 3A, 3B, 3D - Wellfield protection area protection. - The proposed project is not located within a wellfield protection area.

Objective 3/Policy 3E - Limestone mining within the area bounded by the Florida Turnpike, the Miami-Dade/Broward Levee, N.W. 12 Street and Okeechobee Road. - The proposed project is not located within this area.

Objective 4/Policies 4A, 4B, 4C - Water storage, aquifer recharge potential and maintenance of natural surface water drainage. - The proposed project is not reasonably expected to adversely affect water storage, aquifer recharge potential or natural surface water drainage.

Objective 5/Policies 5A, 5B, 5F - Flood protection and cut and fill criteria. – The proposed project does not compromise flood protection, and is consistent with all relevant criteria related to cut and fill activities.

Objective 6/Policy 6A - Areas of highest suitability for mineral extraction. - The proposed project is not located in an area proposed or suitable for mineral extraction.

Objective 6/Policy 6B - Guidelines for rock quarries for the re-establishment of native flora and fauna. - The proposed project is not located in a rock quarry.

Objective 6/Policy 6D - Suitable fill material for the support of development. – The proposed project does not involve the removal of suitable fill to support development.

Objective 7/Policy 7A - No net loss of high quality, relatively unstressed wetlands. - The proposed project will not result in a net loss of any such wetlands.

Objective 9/Policies 9A, 9B, 9C – Protection of habitat critical to Federal or State-designated endangered, threatened, or rare species – The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

COASTAL MANAGEMENT ELEMENT VII:

Objective 1/Policy 1A - Tidally connected mangroves in mangrove protection areas. – The project is not located within a designated "Mangrove Protection Area."

Objective 1/ Policy 1B - Natural surface flow into and through coastal wetlands. – The project will not affect natural surface flow into and through coastal wetlands.

Objective 1/ Policy 1C - Elevated boardwalk access through mangroves. – The proposed project does not involve the installation of an elevated boardwalk to provide access through mangroves.

Objective 1/Policy 1D - Protection and maintenance of mangrove forests and related natural vegetational communities. - The proposed project does not involve work in mangrove forests, coastal hammock, or other natural vegetational communities.

Objective 1/Policy 1E - Mitigation for the degradation and destruction of coastal wetlands. Monitoring and maintenance of mitigation areas. – The proposed project does not involve the degradation and destruction of coastal wetlands and therefore does not involve monitoring of mitigation for impacts to coastal wetlands.

Objective 1/Policy 1G - Prohibition on dredging or filling of grass/algal flats, hard bottom or other viable benthic communities, except as provided for in Chapter 24 of the Code of Miami-Dade County, Florida. – The project does not involve the dredging or filling of grass/algal flats, hard bottom or other viable benthic communities.

Objective 2/Policies 2A, 2B - Beach restoration and renourishment objectives. - The proposed project does not involve beach restoration or renourishment.

Objective 3/Policy 3E, 3F - Location of new cut and spoil areas for proper stabilization and minimization of damages. - The proposed project does not involve the development or identification of new cut or spoil areas.

Objective 4/Policy 4A, 4C, 4E, 4F – Protection of endangered or threatened animal species. - The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

Objective 5/Policy 5B - Existing and new areas for water-dependent uses. - The proposed project does not involve the use of new areas for water-dependent uses.

Objective 5/Policy 5D - Consistency with Chapter 33D, Miami-Dade County Code (shoreline access, environmental compatibility of shoreline development) – The Shoreline Development Review Committee has evaluated the proposed project and determined that the thresholds for review under the Shoreline Ordinance do not apply and the proposed project is not subject to shoreline development review.

Objective 5/Policy 5F - The siting of water dependent facilities. - The proposed project does not involve the creation of any new water dependent facilities.

28. **Conformance with Chapter 33B, Code of Miami-Dade County** (East Everglades Zoning Overlay Ordinance) – The proposed project is not located within the East Everglades Area.

29. **Conformance with Miami-Dade County Ordinance 81-19** (Biscayne Bay Management Plan Sections 33D-1 through 33D-4 of the Code of Miami-Dade County) - The proposed project is not located within Biscayne Bay.

30. **Conformance with the Miami-Dade County Manatee Protection Plan – Protection of endangered or threatened animal species.** - The proposed project is located within an area identified by the MDCMPP as essential manatee habitat for the West Indian Manatee (*Trichechus manatus*). Therefore, the Class I permit will require that all standard manatee construction permit conditions shall be followed during all in-water construction operations.

31. **Consistency with Miami-Dade County Criteria for Lake Excavation** – The proposed project does not involve lake excavation.

32. **Municipality Recommendation** – Pursuant to Section 24-48.2(II)(A)(7), Code of Miami-Dade County, Florida, a substantiating letter shall be submitted stating that the proposed project does not violate any zoning laws. Said letter will be submitted after the approval by the Board of County Commissioners and prior to the issuance of the Class I permit.

33. **Coastal Resources Management Line** - A coastal resources management line was not required for the proposed project, pursuant to Section 24-48.2(II)(A)(10)(b) of the Code of Miami-Dade County, Florida.

34. **Maximum Protection of a Wetland's Hydrological and Biological Functions** – The proposed project is not reasonably expected to impact wetland hydrological and biological functions.

35. **Class I Permit Applications Proposing to Exceed the Boundaries Described in Section D-5.03(2)(a) of the Miami-Dade County Public Works Manual** – DERM has considered the following factors:

    i. **Whether the proposed exceedance is the minimum necessary to avoid seagrasses or other valuable environmental resources** – Not applicable.
    ii. **Whether the proposed exceedance is the minimum necessary to achieve adequate water depth for mooring of a vessel** – Not applicable
    iii. **Whether the applicant has provided notarized letters of consent to DERM from adjoining riparian property owners** – Not applicable.
    iv. **Whether any letters of objection from adjoining riparian property owners were received by DERM** – Not applicable.

The proposed project was also evaluated for compliance with the standards contained in Section 24-48.3(2), (3), and (4) of the Code of Miami-Dade County, Florida. The following is a summary of how the standards relate to the proposed project:

24-48.3 (2) Dredging and Filling for Class I Permit - The proposed project complies with the following criteria listed in Section 24-48.3(2) of the Code of Miami-Dade County:

(a) Minimum dredging and spoiling for public navigation or public necessity.
(f) A physical modification necessary to protect public or private property.

24-48.3 (3) Minimum Water Depth Required for Boat Slips Created by the Construction or Placement of Fixed or Floating Docks and Piers, Piles and Other Structures Requiring a Permit Under Article IV, Division 1 of Chapter 24 of the Code of Miami-Dade County – The proposed project does not involve the creation of a boat slip.

24-48.3 (4) Clean Fill in Wetlands – The proposed project does not involve placing clean fill in wetlands.

BASED ON THE FOREGOING, IT IS RECOMMENDED THAT A CLASS I PERMIT BE APPROVED.

Lisa Spadafina, Manager
Coastal Resources Section

Nicole Fresard, Biologist II
Coastal Resources Section