

## **ADDENDUM #2**

### **45th to 52nd Avenue Drainage Improvements City of Isle of Palms, SC RFP 2017.03**

**June 30, 2017**

Bidders and other interested parties are informed that the Project Manual and Contract Documents and the Construction Drawings for the above referenced project are revised, changed and supplemented as set forth below:

To Prospective Bidders:

This Addendum forms a part of the Contract Documents and modifies the Project Manual and Contract Documents and Construction Drawings.

Acknowledge receipt of this addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

Below are changes, additions, and/or clarifications to the documents for this project.

#### **PROJECT MANUAL AND CONTRACT DOCUMENTS**

1. Bid Form - Replace Bid Form sheets 1-4 with the attached revised Bid Form (4 sheets, Revised 6-30-2017).

Note revisions to the form as follows:

- a. Page 2 - Under Unit Price Work added items "1a. 14"x23" Elliptical RCP"; "4b. 42" RCP"
- b. Page 2 - Under Unit Price Work changed item 10 from '10" Waterline Deflection' to '2" Waterline Deflection'
- c. Page 2 - Under Unit Price Work changed item 15 from '6" Forcemain Deflection' to '2" Forcemain Deflection'
- d. Page 2 - Removed "Quantity" column from Unit Prices Chart
- e. Page 3 - Item 3 under "Agreements" added "- including a detailed schedule of values -"

2. Golf Course Restoration Bid Form sheet 1 - Renamed Golf Course Restoration Pricing Sheet (1 sheet Revised 6-30-2017)

Note revisions as follows:

- a. Renamed as Golf Course Restoration Pricing Sheet
- b. Removed "Irrigation Allowance" and "Contingency Allowance" references. Replaced with "Irrigation Repairs" item.

## **CONSTRUCTION DRAWINGS**

1. Sheet C200 - Revisions to Pipe Chart and Structure Chart to resolve pipe length and size and structure type discrepancies with Drainage and Erosion Control Plan sheets. Reference to JB23, JB29, JB30, JB31 removed from Pipe Chart as they are not included in plans.
2. Sheets C300, C301, C302 - Revisions to profiles to resolve pipe length and size and structure id number discrepancies with Drainage and Erosion Control Plan sheets
3. Sheet CD-2 - Added Temporary Cart Path Detail

## **CONTRACTOR QUESTIONS**

Question 1: "Can a CAD file be provided for ease and accuracy of takeoff."

**Answer 1: No CAD file will be provided for bid purposes.**

Question 2: "Are daytime lane closures allowed on Palm Blvd for pipe crossing or is this going to be night work?"

**Answer 2: Daytime lane closures for pipe crossing will be allowed. All permit conditions and work restrictions listed in contract documents should be followed.**

Question 3: "Are temporary facilities required?"

**Answer 3: The only temporary facility required is the temporary cart path indicated on plans to allow for golf cart access through golf course.**

Question 4: "Who is responsible for relocating the following utilities: a. ATT&T b. Cable c. Fiber Optic?"

**Answer 4: Contractor shall be responsible for coordinating with respective utilities for necessary relocations.**

Question 5: "Who is responsible for any cost of relocating the utilities addressed above [in question 4]?"

**Answer 5: City will be responsible for the cost of relocating utilities with the exception of water and sewer utilities as outlined in the construction plans the cost of which should be included in the contractor's bid.**

Question 6: "If contractor is delayed due to the utility provider's negligence will the contractor be entitled to an extension in contract time?"

**Answer 6: Contractor shall be entitled to an extension in contract time if utility providers cause a delay to the contractor's work.**

Question 7: "Is overlay limited to the limits of disturbance? In other words, we will not be responsible for overlaying outside of the LOD on Palm Blvd, Morgan cove and the Avenues?"

**Answer 7: Overlay areas are to include any areas of pavement damaged or removed during construction. For the intersections of the Avenues (45th-52nd) and Palm Blvd, pavement replacement will include any pavement between the edge of travel lane of Palm Blvd and the edge of the disturbed area for the drainage crossing. If necessary, undisturbed pavement between the drainage crossing and the edge of travel lane of Palm Blvd should be milled and overlaid.**

Question 8: "Section 017300-2 states the contractor is responsible for providing a survey of all underground utilities that may be in conflict. The contractor has no knowledge of any potential conflicts if an existing survey has not been provided. Therefore, is it the owners intent that the contractor is responsible for verifying and surveying all utility crossing prior to construction at his or hers own expense?"

**Answer 8: Existing survey information is provided in construction drawings. Prior to commencing any particular portion of the work, the contractor shall be responsible for having the route staked, calling in locates for underground utilities to have said utilities marked, physically verify (horizontally and vertically) any conflicts indicated on plans and conduct a walkthrough of the portion of the route with the Engineer.**

Question 9: "Regarding the easement along Sundial Circle and from JB6-JB7. Due to the size of equipment needed to install large storm drain pipe, the proposed temporary easement does not allow for enough space to safely install pipe. Can the width of the easement be increased?"

**Answer 9: Contractors shall determine means and methods to install pipe within the allotted easement widths.**

Question 10: "Please provide a detail and dimensions for Flapgate to be installed"

**Answer 10: Flapgate is a replacement of an existing flapgate that is installed on the end of a 36" corrugated metal pipe extending from the bulkhead at the Marina.**

**Contractor will be responsible for verifying existing mounting dimensions prior to ordering gate. The replacement gate shall allow free outflow and prevent backflow for a maximum seating head of 20 feet and should be constructed of stainless steel - or approved marine grade material - as manufactured by Waterman or approved equal. Photos of existing gate are attached for reference purposes.**

Question 11: "Do you intend to use beveled end sections at the Lakes?"

**Answer 11: No. Beveled end section will not be used.**

Question 12: " I noticed that the plan pages show different pipe sizes/shapes (round & elliptical) and quantities compared to what the profiles show in many cases. Which quantities and sizes should we be using; the plan page or the profile page? Also, are all the JBØ, GIØ, CsØ going to be removed and/or replaced? Some of the GIØ are labelled as JBØ as well, or vice versa."

**Answer 12: Grading and Erosion Control Plan sheets (C201-C207 of Construction Drawings) show correct quantities and sizes. Revised pipe and structure charts and plans & profiles are included as part of this addendum. All existing junction boxes, grate inlets and curb inlets indicated on plans as "remove/replace " are intended to be removed and replaced with new structures to accommodate increased pipe sizes that will be connected to an existing system.**

Question 13: "The Bid form is stated as a lump sum and unit prices will be utilized to add or deduct the work. But there is no summary of the cost of all items to establish the basis of the contract. Please provide an updated summary"

**Answer 13: For clarity the bid form has been revised to remove the quantity column. Unit prices are to indicate the amount to be added to or deducted from the Contract Sum for each item-unit combination.**

Question 14: "In the specifications for Golf Course Restoration there is a bid form. Can these items be added to the bid form that is to be turned in on Bid Day. Also, in the Golf Course Restoration Spec you are asking for us to include an Irrigation Allowance and a Contingency Allowance. Please provide these dollar amounts that we are to include for allowances."

**Answer 14: The form included in the Golf Course Restoration specifications was mislabeled as a bid form and was intended to provide guidance in pricing golf course specific repair work to be done to those areas of the golf course disturbed as part of the drainage work. As noted in the "Project Manual and Contract Documents" section above, the sheet has been renamed and the irrigation and contingency allowance references removed. The costs associated with the repairs to the golf course should be included in the base bid price.**

Question 15: Please provide detail for temporary cart path.

**Answer 15: Temporary Cart Path Detail added to revised Detail Sheet CD-2**

## City of Isle of Palms Bid Form

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BID SUBMITTED BY:      Name:  
   Address:

FOR PROJECT:            45<sup>th</sup> to 52<sup>nd</sup> Avenue Drainage Improvements

### OFFER

1. In response to the response to the *Invitation for Construction Bids*, and in compliance with the *Instructions to Bidders* for the above-named Project, the undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into a Contract with the City of Isle of Palms ("Owner") in the form included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

2. BIDDER has submitted Bid Security as follows in the amount and form requested by the Bidding Documents:

\_\_\_ Bid Bond with Power of Attorney    \_\_\_ Cashier's Check

3. BIDDER, by submitting this Bid, affirms that it has carefully examined the Bidding Documents and the other related data identified in the Bidding Documents, has visited the actual location of the Work, has satisfied itself as to all conditions and understands that, in signing this Bid Form it waives all rights to plead any misunderstanding regarding same and agrees to be bound by the provisions of said Bidding Documents and all statements made therein.

4. BIDDER acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into its Bid:  
ADDENDUM No.(s) \_\_\_\_\_

5. BIDDER accepts all terms and conditions of the Invitation for Construction Bids, including, without limitation, those dealing with the dispositions of Bid Security. BIDDER agrees that this Bid, including all Bid Alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of 60 days following the Bid Date, or for such longer period of time that BIDDER may agree to in writing upon request from the OWNER. BIDDER understands that Bid Alternates that are not accepted in an initial award shall remain open for acceptance for the entire period set above and for such longer period as requested by OWNER and agreed to by BIDDER.

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City of Isle of Palms, SC**

6. BIDDER herewith submits its offer to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the construction work in accordance with the Bidding Documents.

6.1 BASE BID: \$ \_\_\_\_\_ Written: \_\_\_\_\_

6.2 ALLOWANCES (as indicated in the Bidding Documents and generally described as follows):  
The Base Bid indicated above includes the total sum for Allowances as described in Division 1 Section "Allowances" and applicable Sections of the Project Manual. Should installed cost Vary from the Allowances listed, the Contract Sum shall be adjusted based on the actual Installed cost.

**6.3 UNIT PRICE WORK**

BIDDER offers for the Owner's consideration and use the following UNIT PRICES. The UNIT PRICES offered by BIDDER indicate the amount to be added to or deducted from the Contract Sum for each item-unit combination. UNIT PRICES include all costs to the Owner, including those for materials, labor, equipment, tools of trade, fees, taxes, insurance, bonding, overhead, profit, etc. The Owner reserves the right to include or not to include any of the following UNIT PRICES in the Contract and to negotiate the UNIT PRICES with BIDDER.

NO.	ITEM	UNIT	UNIT PRICE
Storm Drainage Pipe			
1	18" RCP	LF	
1a.	14"x23" Elliptical RCP	LF	
2	24" RCP	LF	
3	30" RCP	LF	
4	36" RCP	LF	
4b.	42" RCP	LF	
5	48" RCP	LF	
6	54" RCP	LF	
Drainage Structures			
7	SCDOT Type 16 Curb Inlet	EA	
8	Junction Box	EA	
9	Grate Inlet	EA	
Water & Sewer			
10	2" Waterline Deflection	EA	
11	8" Waterline Deflection	EA	
12	6" Waterline Deflection	EA	
13	10" Forcemain Deflection	EA	
14	8" Forcemain Deflection	EA	
15	2" Forcemain Deflection	EA	
16	4" Forcemain Deflection	EA	
Miscellaneous			
17	Siltfence	LF	
18	Asphalt Pavement Patch	SQ YD	
19	Concrete Curb	LF	
20	Asphalt Sidewalk	SQ YD	
21	Concrete Sidewalk	SQ YD	
22	Pavement Mill/Overlay	SQ YD	

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Note:

- 1) All installed items will include any dewatering/well pointing, surveying, testing, traffic control and any other costs associated with installation.
- 2) Payment will be based on installed items.

AGREEMENTS

By submitting this Bid, BIDDER hereby agrees to the following terms and conditions:

1. An incomplete Bid or information not requested that is written on or attached to this Bid Form that could be considered a qualification of the Bid, may be cause for rejection of the Bid.
2. Unless otherwise provided in the Bidding Documents, BIDDER will provide Performance and Payment Bonds, each in the amount equal to 100% of the Contract Award, as a condition of execution of the Contract. Failure to supply such bonds as required by the Contract Documents shall result in forfeiture of the Bid Bond.
3. BIDDER agrees to provide all information requested by the OWNER - including a detailed schedule of values - to support the OWNER'S evaluation and determination of the BIDDER'S responsibility. Failure by BIDDER to supply requested information with respect to responsibility may be grounds for a determination of non-responsibility.
4. The BIDDER certifies that it will provide a "Drug-Free Workplace" as that term is defined in Section 44-107-30 of the SC Code of Laws, and shall comply with the requirements set forth in Title 44, Chapter 107.
5. The BIDDER certifies that it will comply with the applicable requirements of the SC Illegal Immigration Reform Act in Title 8, Chapter 14 of the SC Code of Laws.
6. At any time prior to the issuance of the Notice to Proceed for this Project, this Contract may be cancelled for the convenience of the Owner.
7. Neither the Owner nor any of its employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project cancelled for any reason prior to the issuance of the Notice to Proceed.

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BIDDER'S TAXPAYER IDENTIFICATION

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER: \_\_\_\_\_

OR

SOCIAL SECURITY NUMBER: \_\_\_\_\_

CONTRACTOR'S CLASSIFICATIONS AND SUBCLASSIFICATIONS WITH LIMITATIONS

\_\_\_\_\_  
*(Classification)*

\_\_\_\_\_  
*(Subclassification)*

\_\_\_\_\_  
*(Limitations)*

\_\_\_\_\_  
*(SC Contractor's License Number)*

SIGNATURE

\_\_\_\_\_  
*(Legal Name of Person, Firm or Corporation Submitting Bid)*

BY \_\_\_\_\_  
*(Signature)*

\_\_\_\_\_  
*(Date)*

\_\_\_\_\_  
*(Title)*

\_\_\_\_\_  
*(Phone)*

**Golf Course Restoration Contractor  
 Golf Course Restoration Pricing Sheet  
 Harbor Golf Course, Wild Dunes Resort**

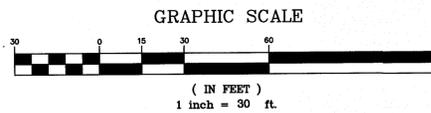
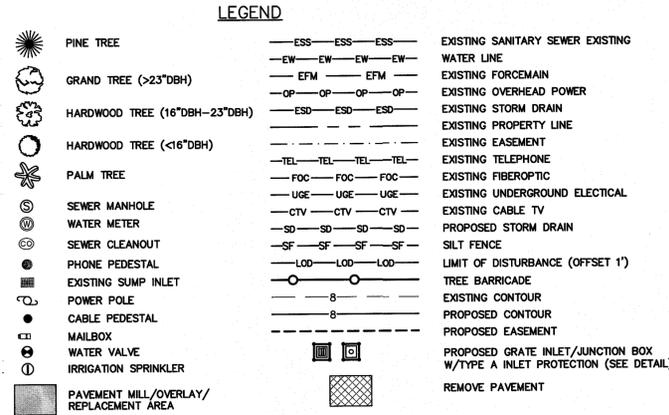
Item	Unit	Quantity	Unit Cost (\$)	Total
Mobilization	LS	1		
Shaping/Coring	LS	1		
Tee Laser Leveling	SQ FT	6000		
Sod Installed (See Sod Specifications)	SQ FT	25,500		
Irrigation Repairs	LS	1		

Golf Course Restoration Total \_\_\_\_\_

See Plans and Specifications for additional information.

PIPE CHART									
FROM	TO	LENGTH (FT)	DIAMETER (IN)	TYPE	SLOPE %	I.E. (FT)	O.E. (FT)	10 YR VEL.	
JB81	JB80	26	36	D-RCP	0.27%	1.97	2.04	5.37	
JB80	JB79	58	36	D-RCP	0.30%	2.04	2.21	3.50	
JB79	JB78	46	36	D-RCP	1.48%	2.21	2.34	3.27	
JB78	JB77	72	36	D-RCP	0.29%	2.86	3.00	3.50	
JB77	CS76	108	36	D-RCP	0.37%	3.00	3.40	4.41	
LAKE3	JB75	112	54	D-RCP	0.28%	2.50	2.15	1.74	
JB75	LAKE1	169	54	D-RCP	0.30%	2.15	1.69	1.42	
LAKE2	JB73	137	42	D-RCP	0.28%	3.00	2.62	4.95	
JB73	JB74	85	42	D-RCP	0.30%	2.62	2.34	3.48	
JB74	LAKE3	215	42	D-RCP	0.29%	2.34	1.68	2.93	
LAKE5	LAKE6	80	36	D-RCP	0.50%	3.00	2.60	0.72	
LAKE2	GI1	80	54	D-RCP	0.30%	0.56	0.80	2.75	
GI1	JB2	240	54	D-RCP	0.10%	0.80	1.04	2.75	
JB2	GI3	17	48	D-RCP	1.10%	1.04	1.24	3.48	
GI3	GI4	55	48	D-RCP	0.09%	1.73	1.78	3.40	
GI4	CI5	112	48	D-RCP	0.10%	1.78	1.89	2.82	
CI5	JB6	131	48	D-RCP	0.08%	1.89	2.02	2.87	
JB6	JB7	185	48	D-RCP	0.11%	2.02	2.20	2.61	
JB7	JB13	44	48	D-RCP	0.11%	2.20	2.25	2.55	
JB13	JB14	65	48	D-RCP	0.31%	2.25	2.45	2.60	
JB14	JB28	247	48	D-RCP	0.10%	2.45	2.69	2.44	
JB28	GI41	217	48	D-RCP	0.08%	2.69	2.87	2.25	
GI41	JB42	118	48	D-RCP	0.05%	2.87	2.93	2.28	
JB42	GI43	159	48	D-RCP	0.05%	2.93	3.01	2.13	
GI43	GI44	145	42	D-RCP	0.11%	3.22	3.37	2.07	
GI44	GI45	200	42	D-RCP	0.05%	3.37	3.47	1.83	
GI45	GI46	198	42	D-RCP	0.05%	3.47	3.57	1.75	
GI46	JB51	35	42	D-RCP	0.05%	3.57	3.60	1.66	
JB51	GI52	231	42	D-RCP	0.05%	3.60	3.68	1.52	
GI52	JB53	58	42	D-RCP	0.05%	3.68	3.72	1.60	
JB53	JB61A	323	36	D-RCP	0.05%	3.72	3.87	1.07	
JB61A	GI61	61	36	D-RCP	0.05%	3.87	3.90	1.07	
GI61	JB62	318	30	D-RCP	0.05%	3.90	4.08	0.57	
<b>45TH AVE</b>									
JB14	GI16	42	24	D-RCP	0.20%	3.82	3.89	2.85	
GI16	GI18	153	24	D-RCP	0.20%	3.89	4.22	2.30	
GI18	GI19	26	18	D-RCP	0.19%	4.22	4.27	0.37	
GI19	GI20	103	24	D-RCP	0.20%	4.22	4.43	2.21	
GI20	GI21	25	18	D-RCP	0.16%	4.43	4.47	0.41	
GI20	GI22	130	18	D-RCP	0.17%	4.47	4.67	2.30	
GI22	GI24	30	14x23	ELLIP. RCP	0.10%	4.69	4.75	0.82	
GI22	GI25	27	14x23	ELLIP. RCP	0.20%	4.67	4.75	0.80	
GI25	GI26	31	14x23	ELLIP. RCP	0.32%	4.75	4.85	1.41	
GI26	GI27	23	14x23	ELLIP. RCP	0.22%	4.85	4.90	1.59	
<b>46TH AVE</b>									
JB28	GI32	107	24	D-RCP	0.25%	3.71	3.98	2.14	
GI32	GI33	98	24	D-RCP	0.20%	3.98	4.18	2.38	
GI33	GI34	32	18	D-RCP	0.21%	4.18	4.25	0.66	
GI33	GI35	36	24	D-RCP	0.21%	4.18	4.38	2.13	
GI35	GI36	33	18	D-RCP	0.20%	4.38	4.45	0.57	
GI35	GI37	31	18	D-RCP	0.19%	4.38	4.56	2.03	
GI37	GI38	22	14x23	ELLIP. RCP	0.23%	4.56	4.62	0.46	
GI37	GI39	66	14x23	ELLIP. RCP	0.21%	4.56	4.70	1.20	
GI39	GI40	22	14x23	ELLIP. RCP	0.23%	4.70	4.75	0.78	
<b>49TH AVE</b>									
JB51	GI47	198	24	D-RCP	1.90%	3.60	4.03	1.66	
GI47	GI47A	239	24	D-RCP	0.20%	4.03	4.44	1.56	
GI47A	GI48	35	18	D-RCP	0.17%	4.44	4.50	2.47	
GI48	GI49	113	14x23	ELLIP. RCP	0.17%	4.50	4.69	2.18	
GI49	GI50	36	14x23	ELLIP. RCP	0.17%	4.69	4.75	0.89	
<b>50TH AVE</b>									
JB53	GI54	227	24	D-RCP	0.18%	3.72	4.14	0.97	
GI54	GI55	136	24	D-RCP	0.16%	4.14	4.36	1.68	
GI55	GI56	23	18	D-RCP	0.30%	4.36	4.43	0.94	
GI55	GI57	78	18	D-RCP	0.17%	4.36	4.49	0.94	
GI57	GI58	25	18	D-RCP	0.16%	4.49	4.53	0.75	
GI58	GI59	114	14x23	ELLIP. RCP	0.16%	4.53	4.71	1.44	
GI59	GI60	23	14x23	ELLIP. RCP	0.17%	4.71	4.75	0.84	
<b>51ST AVE</b>									
JB61A	GI63	157	24	D-RCP	0.24%	3.90	4.24	1.49	
GI63	GI65	290	18	D-RCP	0.18%	4.24	4.75	0.87	
GI65	GI64	26	14x23	ELLIP. RCP	0.20%	4.87	4.81	0.87	
GI64	GI66	54	14x23	ELLIP. RCP	0.18%	4.81	4.91	1.12	
<b>52ND AVE</b>									
JB62	GI68	200	24	D-RCP	0.10%	4.08	4.29	0.57	
GI68	GI68A	182	18	D-RCP	0.12%	4.29	4.47	1.82	
GI68A	GI69	25	14x23	ELLIP. RCP	0.20%	4.47	4.52	1.70	
GI69	GI70	22	14x23	ELLIP. RCP	0.18%	4.52	4.57	0.75	
GI69	GI71	67	14x23	ELLIP. RCP	0.13%	4.52	4.6	0.47	
GI71	GI72	28	14x23	ELLIP. RCP	0.14%	4.61	4.65	0.39	

STRUCTURE CHART			
NUMBER	RIM	I.E.	TYPE
GI1	8.00	0.80	GRATE INLET
JB2	8.75	1.04	JUNCTION BOX
GI3	8.70	1.24	GRATE INLET
GI4	8.50	1.78	GRATE INLET
CI5	9.66	1.89	CURB INLET
JB6	12.78	2.02	JUNCTION BOX
JB7	12.16	2.20	JUNCTION BOX
JB13	9.90	2.25	JUNCTION BOX
JB14	8.90	2.45	JUNCTION BOX
GI16	9.30	3.89	GRATE INLET
GI18	8.10	4.22	GRATE INLET
GI19	8.10	4.27	GRATE INLET
GI20	8.00	4.43	GRATE INLET
GI21	8.00	4.47	GRATE INLET
GI22	7.50	4.67	GRATE INLET
GI24	7.20	4.75	GRATE INLET
GI25	7.50	4.75	GRATE INLET
GI26	7.40	4.85	GRATE INLET
GI27	7.40	4.90	GRATE INLET
JB28	9.00	2.69	JUNCTION BOX
GI32	8.30	3.98	GRATE INLET
GI33	7.75	4.18	GRATE INLET
GI34	7.40	4.25	GRATE INLET
GI35	7.50	4.38	GRATE INLET
GI36	7.50	4.45	GRATE INLET
GI37	7.10	4.56	GRATE INLET
GI38	7.10	4.62	GRATE INLET
GI39	7.10	4.70	GRATE INLET
GI40	7.10	4.75	GRATE INLET
GI41	8.63	2.87	GRATE INLET
JB42	9.10	2.93	JUNCTION BOX
GI43	8.80	3.01	GRATE INLET
GI44	8.80	3.37	GRATE INLET
GI45	9.25	3.47	GRATE INLET
GI46	9.25	3.57	GRATE INLET
GI47	8.50	4.03	GRATE INLET
GI47A	7.50	4.44	GRATE INLET
GI48	7.50	4.50	GRATE INLET
GI49	7.10	4.69	GRATE INLET
GI50	7.10	4.75	GRATE INLET
JB51	9.27	3.60	JUNCTION BOX
GI52	9.27	3.68	GRATE INLET
JB53	9.75	3.72	JUNCTION BOX
GI54	8.40	4.14	GRATE INLET
GI55	7.50	4.36	GRATE INLET
GI56	7.50	4.43	GRATE INLET
GI57	7.10	4.49	GRATE INLET
GI59	7.10	4.53	GRATE INLET
GI59	7.00	4.71	GRATE INLET
GI60	7.00	4.75	GRATE INLET
GI61	9.40	3.90	GRATE INLET
JB61A	9.40	3.87	JUNCTION BOX
JB62	9.90	4.08	JUNCTION BOX
GI63	8.80	4.24	GRATE INLET
GI64	7.25	4.81	GRATE INLET
GI65	7.25	4.76	GRATE INLET
GI66	7.10	4.91	GRATE INLET
GI68	8.90	4.29	GRATE INLET
GI69A	8.00	4.47	GRATE INLET
GI69	7.10	4.52	GRATE INLET
GI70	7.10	4.57	GRATE INLET
GI71	7.00	4.61	GRATE INLET
GI72	7.00	4.65	GRATE INLET
JB73	10.50	2.62	JUNCTION BOX
JB74	9.50	2.34	JUNCTION BOX
JB75	8.50	2.15	JUNCTION BOX
CS76	6.50	3.40	CONTROL STRUCTURE
JB77	10.40	3.10	JUNCTION BOX
JB78	7.25	2.86	JUNCTION BOX
JB79	6.75	2.21	JUNCTION BOX
JB80	6.50	2.04	JUNCTION BOX
JB81	7.00	1.97	JUNCTION BOX

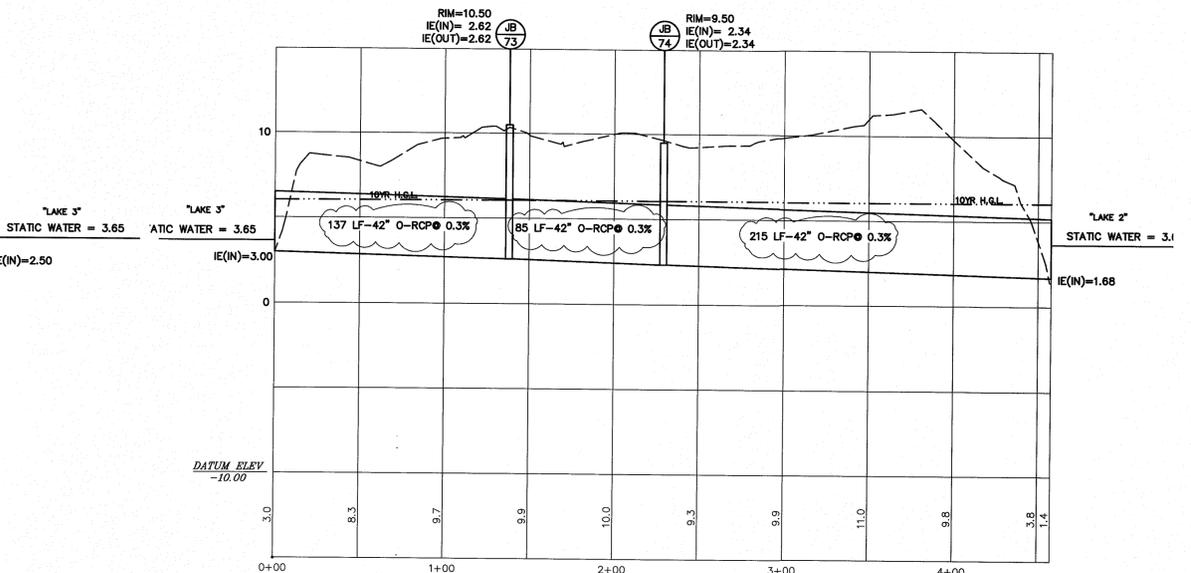
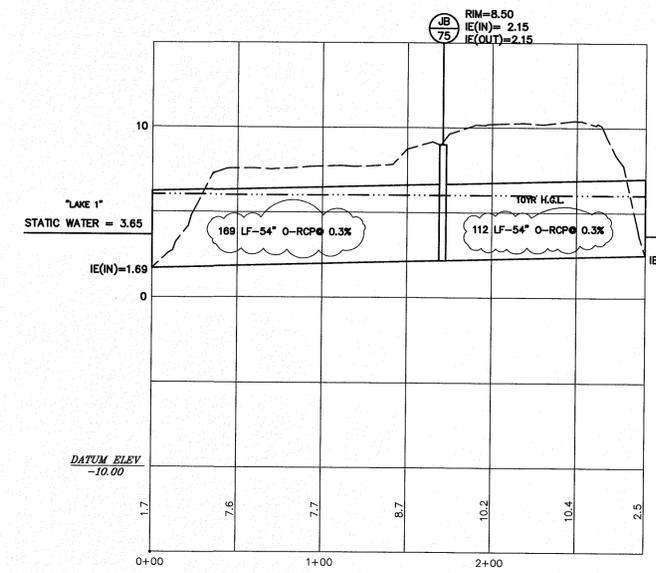
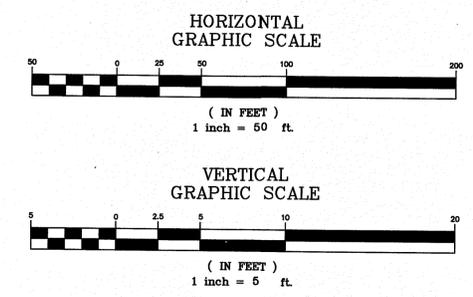
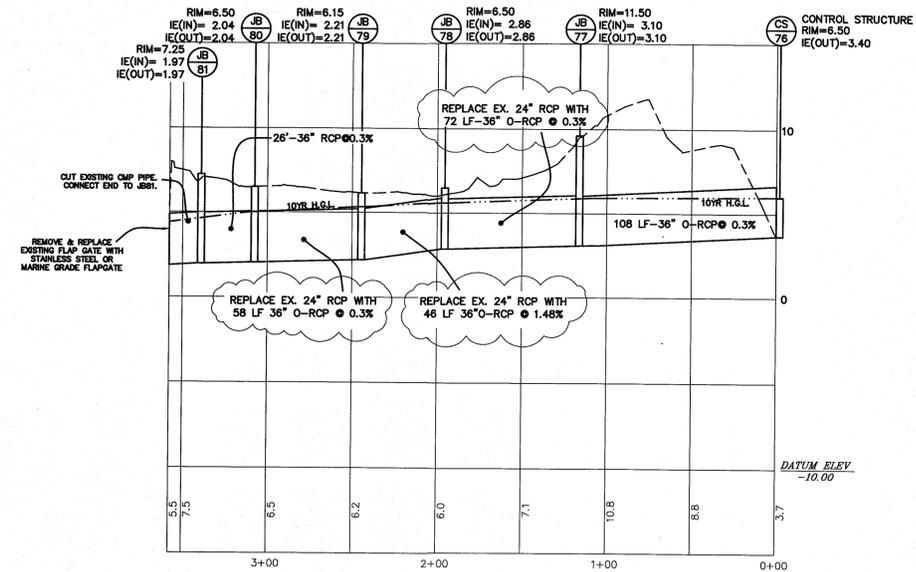


**SEQUENCE OF EVENTS**

- 1) PRECONSTRUCTION MEETING
- 2) INSTALL EROSION CONTROL & TREE PROTECTION
- 3) INSTALL STORM DRAINAGE LINES
- 4) LANDSCAPE/STABILIZE ALL DISTURBED AREAS AS LINEAR WORK IS COMPLETED
- 5) REMOVE EROSION CONTROLS ONCE STABILIZED
- 6) SUBMIT NOTICE OF TERMINATION (NOT)

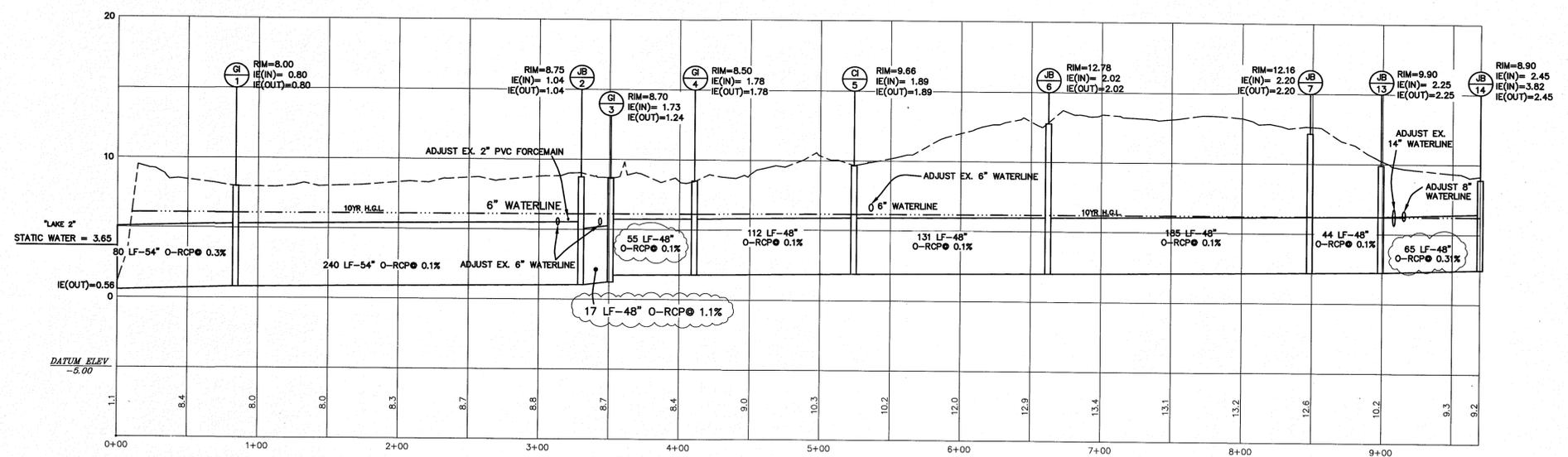
**GENERAL PROJECT NOTES**

1. SURVEYING INFORMATION SUPPLIED BY OTHERS. THIS INFORMATION HAS NOT BEEN INDEPENDENTLY VERIFIED BY CSE.
2. ALL ELEVATIONS REFER TO NGVD 29 DATUM.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY CSE. THE OWNER OR ITS REPRESENTATIVE. EFFORTS HAVE BEEN MADE TO SHOW LOCATIONS OF UNDERGROUND UTILITIES ON THESE PLANS, HOWEVER THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
4. THE CONTRACTOR WILL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL.
5. ALL PAVING, GRADING AND DRAINAGE MATERIALS SHALL BE IN ACCORDANCE WITH SCDOT CURRENT STANDARDS. ALL WORK PERTAINING TO WATER AND SEWER FACILITIES SHALL BE IN ACCORDANCE WITH ISLE OF PALMS WATER AND SEWER COMMISSION CURRENT STANDARDS AND SPECIFICATIONS.
6. NO CONSTRUCTION SHALL TAKE PLACE WITHIN WETLANDS UNLESS A PERMIT HAS BEEN PREVIOUSLY OBTAINED.
7. ALL STORM PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) CONFORMING TO ASTM C-76 CLASS III. JOINTS SHALL BE WATER TIGHT FLEXIBLE RUBBER GASKET AND SHALL MEET ASTM C-443 AND AASHTO M-198. PIPE JOINTS SHALL BE WRAPPED WITH NON-WOVEN GEOTEXTILE FABRIC.
8. RIP-RAP WILL BE PLACED AS INDICATED ON PLANS IMMEDIATELY AFTER INSTALLATION OF STORM PIPE TO REDUCE SEDIMENTATION AND EROSION DOWNSTREAM.
9. CONTRACTOR IS TO INSTALL SILT FENCE ALONG WETLANDS, WHERE INDICATED ON THE PLANS, SPECIFIED BY THE ENGINEER AND WHERE DISTURBED AREAS MAY CAUSE SILTATION OF THE WETLAND AND/OR ADJACENT PROPERTY. SILT FENCE SHALL BE INSTALLED AROUND ALL DRAINAGE INLETS (CURB INLETS, GRATE INLETS, ETC.) DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS OBTAINED AROUND STRUCTURE (ASPHALT OR GRASS) SEE DETAIL.
10. THIS PROJECT IS SITUATED IN FLOOD ZONE VE(16), AE(16), AE(15), AE(14) FROM COMMUNITY PANEL #45019C 0561J EFFECTIVE DATE NOVEMBER 17, 2004.
11. OVERLAY AREAS FOR INTERSECTIONS WILL CONTINUE TO TAISE POINTS ON INTERSECTION RADI UNLESS OTHERWISE NOTED. OVERLAY SHALL MEET CURRENT SCDOT STANDARDS.
12. TRIMMING/LIMBING OF TREES MAY BE REQUIRED. REMOVAL OF TREES GREATER THAN 7"DBH WILL REQUIRE PERMIT. CONTRACTOR TO CONTACT ENGINEER IF TREE REMOVALS NOT INDICATED ON PLANS WILL BE NECESSARY. CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST TO PERFORM ANY NECESSARY TRIMMING, LIMBING, OR RELOCATION OF EXISTING TREES. IF ROOTS ARE ENCOUNTERED DURING CONSTRUCTION THEY SHALL BE CLEANLY CUT TO THE MINIMUM EXTENT NECESSARY POSSIBLE AND ADDITIONAL TREATMENT AS RECOMMENDED BY ARBORIST SHALL BE UNDERTAKEN.
13. CONTRACTOR SHALL COORDINATE ALL WATER AND GRAVITY SEWER LINE CROSSINGS WITH IOPWSC. WATER AND SEWER SERVICE LINE LOCATIONS ARE APPROXIMATE; CONTRACTOR SHALL FIELD VERIFY DURING EXCAVATION. WHERE NEW DRAINAGE PIPE CROSSES EXISTING WATER SERVICES, CONTRACTOR SHALL FIELD ADJUST SERVICE LINE AS REQUIRED PER IOPWSC SPECIFICATIONS. IN COORDINATION WITH IOPWSC, CONTRACTOR SHALL RELOCATE ANY WATER METER WHERE EXISTING LOCATIONS CONFLICT WITH PROPOSED IMPROVEMENTS. EXISTING SEWER SERVICE LATERALS OR CLEANOUT CONFLICTS SHALL BE ADJUSTED BY CONTRACTOR AS PER SEWER SERVICE CONFLICT DETAIL. CONTRACTOR SHALL DETERMINE CONFLICTS AND MAKE ADJUSTMENTS AS PRACTICAL PRIOR TO START OF DRAINAGE INSTALLATION.
14. EXISTING PAVEMENTS SHALL BE SAWCUT AS NECESSARY FOR DRAINAGE PIPE INSTALLATION. CONTRACTOR SHALL MILL & OVERLAY ROADWAYS AND REPAIR CART PATHS AS SHOWN ON THE PLANS AND DETAILS AND PER SCDOT SPECIFICATIONS. CONTRACTOR SHALL REPAIR AND RESTORE DRIVEWAYS WITH SAME MATERIALS OR APPROVED ALTERNATIVE AS PER MANUFACTURER'S RECOMMENDATIONS AND SCDOT REQUIREMENTS. ALTERNATIVES MUST BE APPROVED BY ENGINEER PRIOR TO INSTALLATION. PAVING RESTORATION LIMITS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY PAVEMENT, CURBING, SIDEWALKS OR CART PATHS DAMAGED DURING WORK ASSOCIATED WITH THIS PROJECT.
15. PIPE BACKFILL SHALL BE FREE OF ORGANIC MATERIALS AND BE COMPACTED TO 95% MODIFIED PROCTOR. CONTRACTOR SHALL PROVIDE APPROPRIATE COMPACTION TESTING IN ACCORDANCE WITH SCDOT SPECIFICATIONS.
16. FOR ANY NECESSARY DEWATERING, CONTRACTOR SHALL PROVIDE TREATMENT TO REMOVE SEDIMENT PRIOR TO DISCHARGE OF WATER FROM TRENCHES. DISCHARGES FROM PUMPS USED FOR ANY SITE DEWATERING SHALL BE ROUTED THROUGH ONSITE BMPS FOR TREATMENT PRIOR TO DISCHARGE TO ANY WETLAND, WATERWAY OR OTHER SURFACE WATER/CONVEYANCE. IF FILTER BAGS ARE TO BE USED ON PUMP DISCHARGE PIPES THE BAGS SHALL BE APPROPRIATELY SIZED FOR PUMP DISCHARGE RATE (PER MANUFACTURER GUIDELINES) AND SHALL BE SECURED TO END OF OUTLET PIPE PER MANUFACTURER SPECIFICATIONS. BAGS SHALL BE PLACED ON IMPERVIOUS LINER AND IN LOCATIONS WHERE THEY WILL NOT BE DISTURBED BY CONSTRUCTION OR OTHER TRAFFIC. SHALL BE POSITIONED SO AS NOT TO CREATE THE POTENTIAL FOR ADDITIONAL EROSION, AND SHALL BE PLACED SUCH THAT DISCHARGE FROM THE BAGS WILL RUN ACROSS UNDISTURBED BUFFER AREAS PRIOR TO IT REACHING ANY WATERWAY OR WETLAND. FILTER BAGS SHALL BE CHECKED DAILY DURING THEIR USE TO MAKE SURE SEDIMENT CAPACITY HAS NOT BEEN EXCEEDED (PER MANUFACTURER SPECIFICATIONS) AND REPLACED AS NECESSARY. BAGS SHALL BE DISPOSED OF PROPERLY AND TRAPPED SEDIMENT WITHIN THE BAG REMOVED FROM SITE OR, IF PLACED BACK ON SITE, SHALL BE SPREAD IN APPROPRIATELY PROTECTED AREAS AND STABILIZED PER OS-SWPPP REQUIREMENTS.
17. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS WHEN OPEN TRENCHING TO PRESERVE PUBLIC SAFETY.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT, RESTORATION OR REPAIR OF ANY SIDEWALKS, MAILBOXES, ENCLOSURES, FENCES, LANDSCAPING, BOLLARDS OR ANY OTHER EXISTING APPURTENANCES THAT ARE DAMAGED OR REMOVED FOR INSTALLATION OF DRAINAGE SYSTEM. THESE ITEMS SHALL BE RESTORED TO EXISTING LOCATION AND GRADE UNLESS OTHERWISE NOTED. PRIOR TO CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING & CATALOGING EXISTING FACILITIES FOR USE IN POST CONSTRUCTION RESTORATION PROCESS.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL MEASURES AND SHALL COMPLY WITH ALL SCDOT STANDARDS. IF ANY ROAD CLOSURES BECOME NECESSARY DURING CONSTRUCTION, THE TIMING AND DURATION OF THE CLOSURE WILL COMPLY WITH SCDOT PERMIT CONDITIONS AND BE COORDINATED WITH SCDOT AND CITY OF ISLE OF PALMS PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING NECESSARY TRAFFIC CONTROL PLAN PRIOR TO LANE CLOSURE AND SHALL SUPPLY ALL PERSONNEL AND MATERIALS NECESSARY FOR LANE CLOSURES.
20. HOURS OF WORK SHALL COMPLY WITH SCDOT PERMIT CONDITIONS (IF ANY), ANY AND ALL REGULATIONS AND ORDINANCES OF THE CITY OF ISLE OF PALMS, AND THOSE HOURS STIPULATED WITHIN PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT THE MORE RESTRICTIVE WORK HOURS SHALL GOVERN. ANY AND ALL APPLICABLE NOISE ORDINANCES SHALL BE ADHERED TO.
21. DRAINAGE STRUCTURE ELEVATIONS SHOW ON PLAN REPRESENT RIM ELEVATIONS UNLESS OTHERWISE NOTED. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING RIM ELEVATIONS TO FINISHED GRADE AT NO ADDITIONAL COST. IF PREFABRICATED BOXES ARE USED THEY SHOULD BE CONSTRUCTED 6" SHORTER THAN NECESSARY AND BROUGHT TO FINISHED GRADE WITH LEVELING BRICKS. CONTRACTOR SHALL GRADE AREA IMMEDIATELY ADJACENT TO GRATE INLETS TO PROVIDE POSITIVE DRAINAGE TO INLET UNLESS OTHERWISE NOTED ON PLANS.
22. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER 48 HRS PRIOR TO REQUIRED TESTING & INSPECTION. CONTRACTOR SHALL PROVIDE NOTIFICATIONS TO SCDOT PER STIPULATIONS OF ENCROACHMENT PERMITS OR AS REQUIRED BY CURRENT SCDOT STANDARDS AND SPECIFICATIONS.
23. ROADWAYS SHALL BE CLEANED DAILY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF ANY EXCAVATIONS, CONSTRUCTION DEBRIS OR OTHER MATERIALS. IN NO CASE ARE PRIVATE LOTS TO BE USED FOR STOCKPILING OF MATERIALS OR CONSTRUCTION DEBRIS.
24. ANY FIELD CHANGES WITHIN SCDOT R/W OR CHANGES THAT WOULD IMPACT SCDOT R/W (E.G. DRAINAGE, GRADING, ACCESS



LAKE 3 TO LAKE 1

LAKE 2 TO LAKE 3



JB14 TO LAKE 2

REVISIONS:  
 1) REV 8/23/13 PER LOWE WILD DUNES SCDOT, OPENSC COMMENTS/INFO  
 2) REV 7/16/14 PER SCDOT COMMENTS  
 3) REV 5/31/17 CONSTRUCTION BID SET  
 4) REV 6/30/17 RESOLVED DISCREPANCIES BETWEEN PLAN & PROFILES

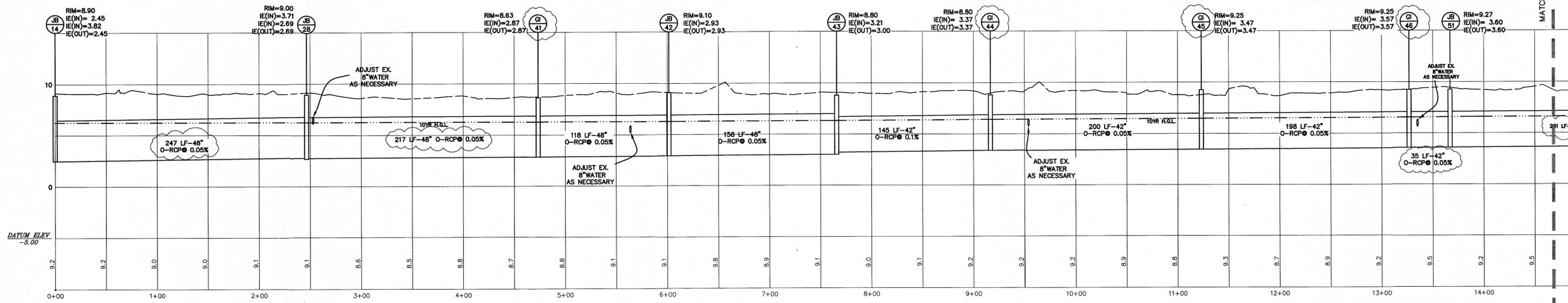
PROJECT: 45TH TO 52ND AVE DRAINAGE IMPROVEMENTS  
 TITLE: PIPE PROFILES  
 FOR: CITY OF ISLE OF PALMS

DRAWN BY: JCM  
 FILE: 920-PH2-C300  
 SCALE: AS NOTED  
 DATE: 6-28-13

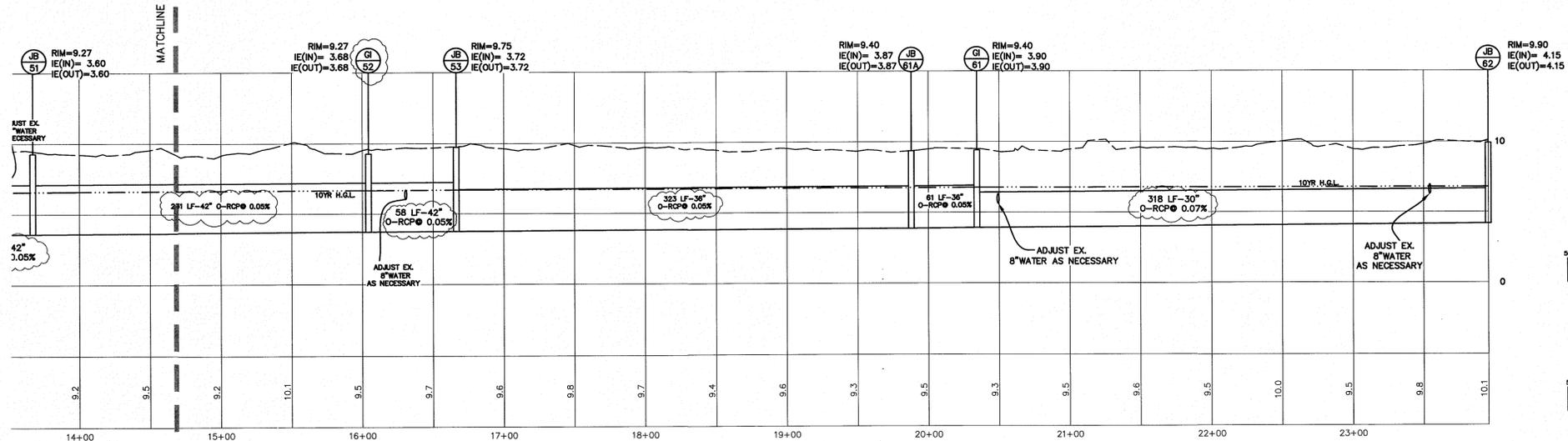


688 MARINA DRIVE  
 SUITE B-1  
 CHARLESTON, S.C. 29492  
 PHONE: (843) 849-8945  
 FAX: (843) 849-8974  
 EMAIL: CSE@CIVILSITEENV.COM

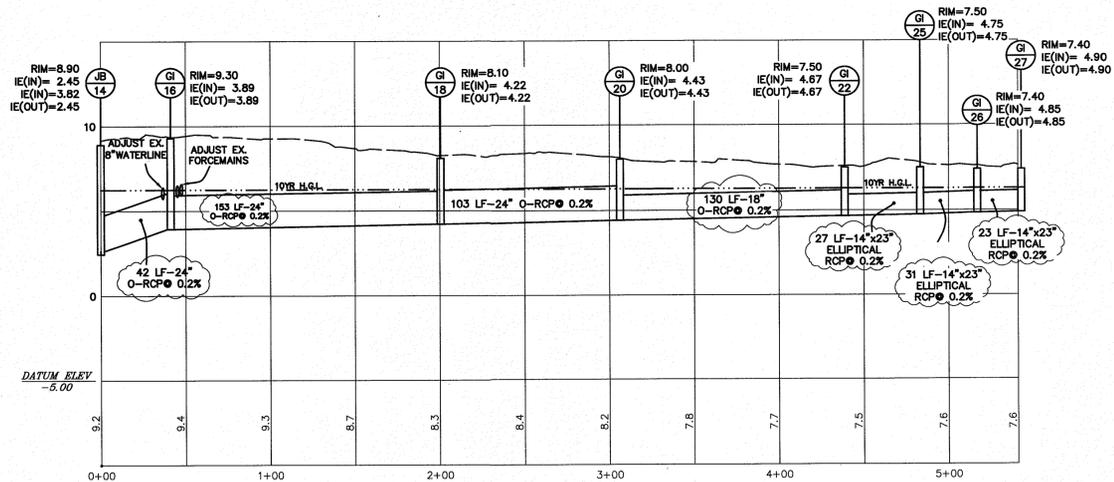
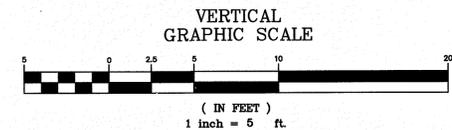
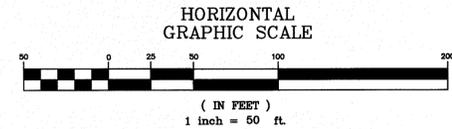
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**920-PH2**  
 SHEET NUMBER  
**C300**



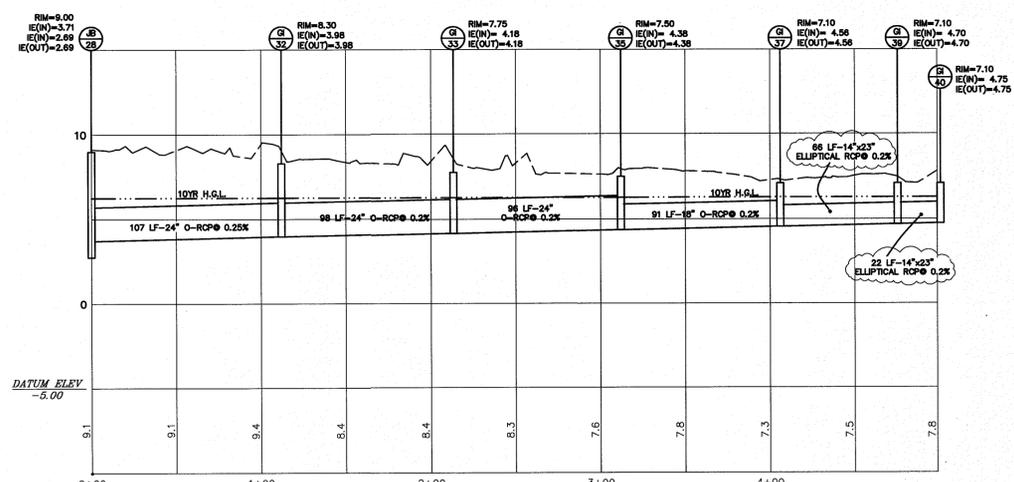
PALM BLVD.



PALM BLVD.



45TH AVE



46TH AVE

REVISIONS:  
 1) REV 8/23/13 PER LOWE WILD DUNES, SCOOT, DPWSC COMMENTS/INVO  
 2) REV 7/16/14 PER SCOOT COMMENTS  
 3) REV 5/23/17 CONSTRUCTION BID SEE  
 4) REV 6/30/17 RESOLVED DISCREPANCIES BETWEEN PLAN & PROFILES

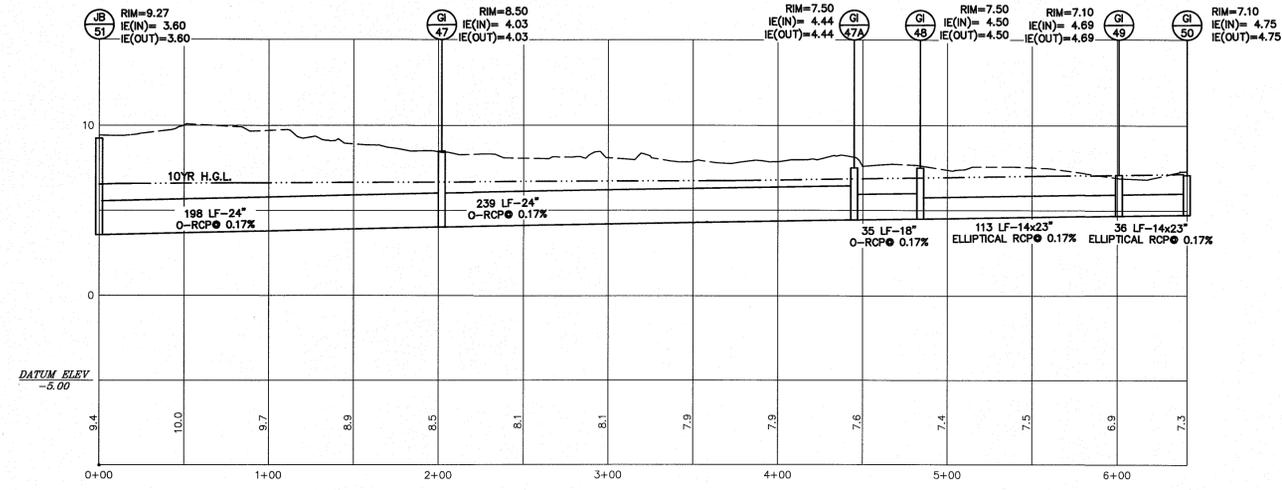
PROJECT: 45TH TO 52ND AVE DRAINAGE IMPROVEMENTS  
 TITLE: PIPE PROFILES  
 FOR: CITY OF ISLE OF PALMS

DRAWN BY: JCM  
 FILE: 920-PH2-C300  
 SCALE: AS NOTED  
 DATE: 6-28-13

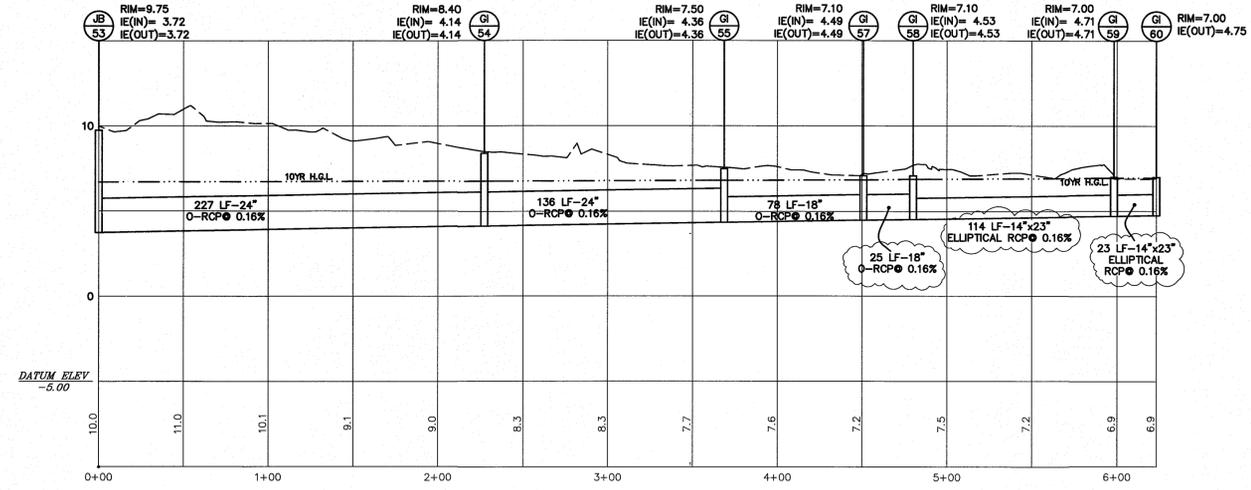


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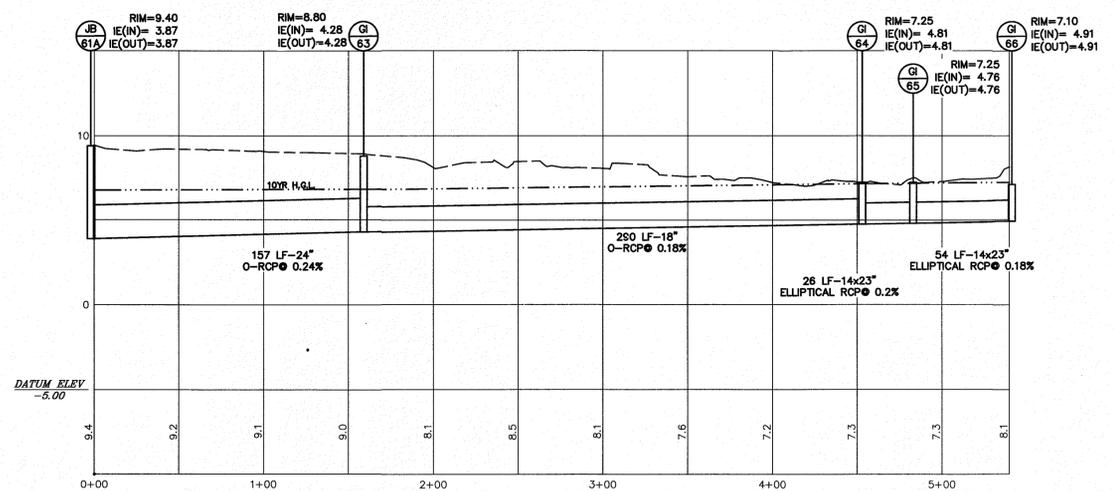
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 SHEET NUMBER  
**C301**



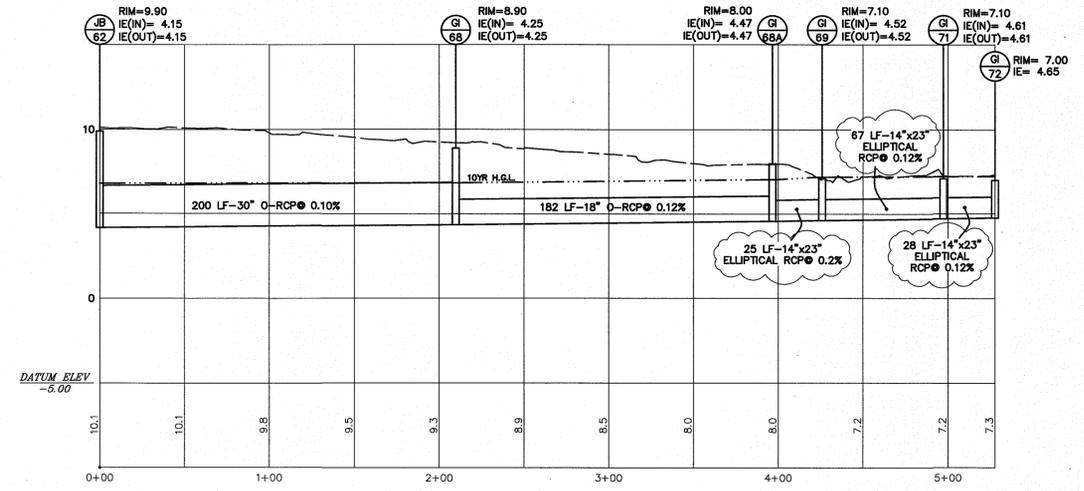
49TH AVE



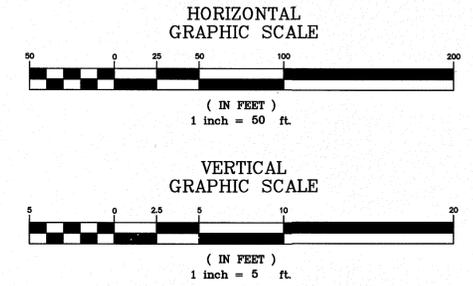
50TH AVE



51ST AVE



52ND AVE



REVISIONS:  
 1) REV 8/23/13 PER LOWE WILD DUNES SCOOT. DPWSC COMMENTS/INFO  
 2) REV 7/16/14 PER SDOT COMMENTS  
 3) REV 5/31/17 CONSTRUCTION BID SET  
 4) REV 6/26/17 RESOLVED DISCREPANCIES BETWEEN PLAN & PROFILES

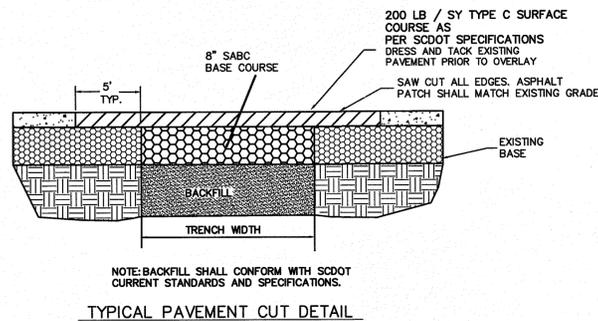
PROJECT: 45TH TO 52ND AVE DRAINAGE IMPROVEMENTS  
 TITLE: PIPE PROFILES  
 FOR: CITY OF ISLE OF PALMS

DRAWN BY: JCM  
 FILE: 920-PH2-C300  
 SCALE: AS NOTED  
 DATE: 6-28-13

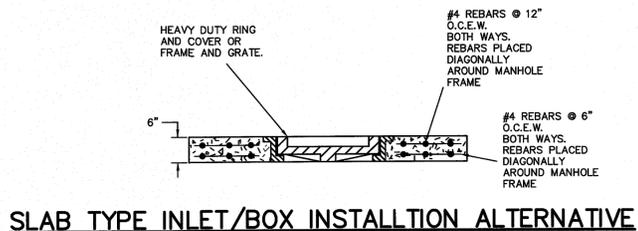


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CSE JOB NUMBER  
**920-PH2**  
 SHEET NUMBER  
**C302**

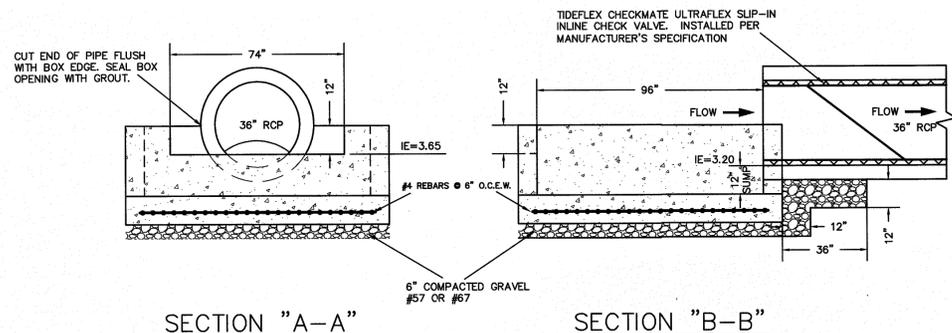


TYPICAL PAVEMENT CUT DETAIL  
NTS



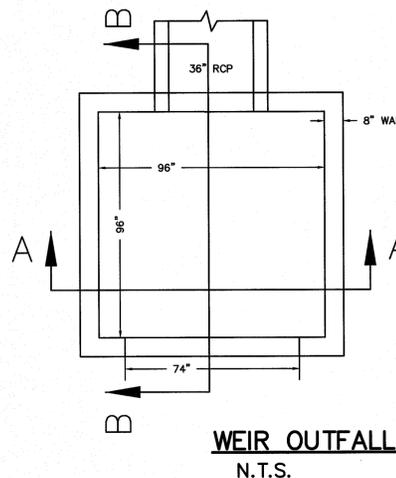
SLAB TYPE INLET/BOX INSTALLTION ALTERNATIVE

NOTE: WORK WITHIN SCDOT RIGHT-OF-WAYS SHALL COMPLY WITH CURRENT SCDOT STANDARD DRAWINGS AND SPECIFICATIONS.

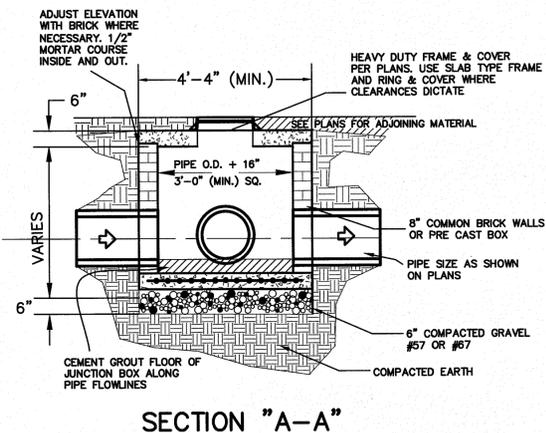


SECTION "A-A"

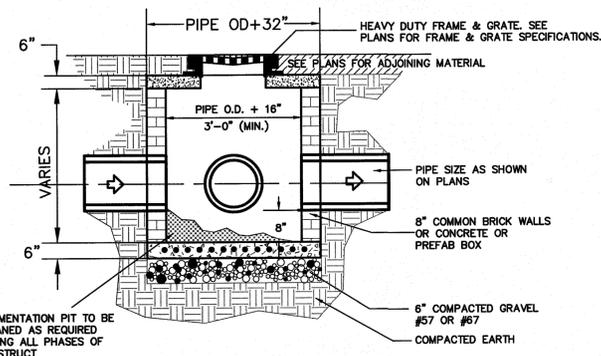
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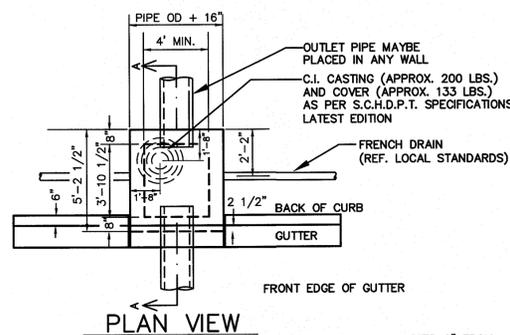
WEIR OUTFALL STRUCTURE  
N.T.S.



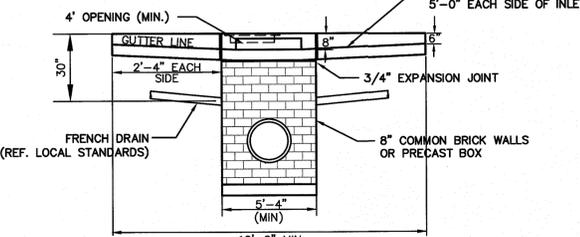
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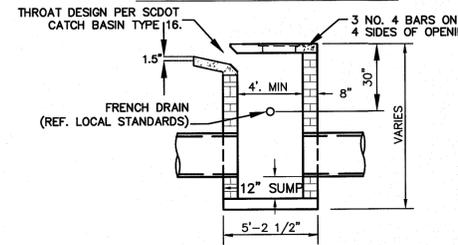
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PLAN VIEW



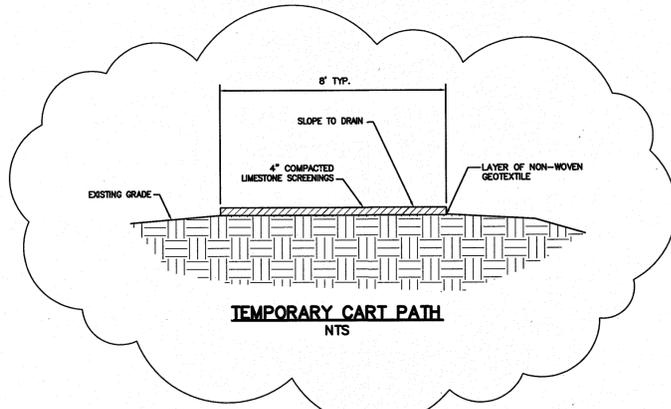
FRONT ELEVATION



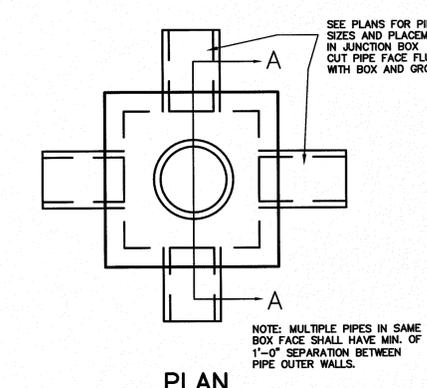
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NOTE: CURB INLET THROAT DIMENSIONS AND REINFORCEMENT SHALL CONFORM TO S.C.D.O.T. CATCH BASIN TYPE 16 AS SHOWN ON S.C.D.O.T. STANDARD DWG NO 719-016-01 & 719-016-02

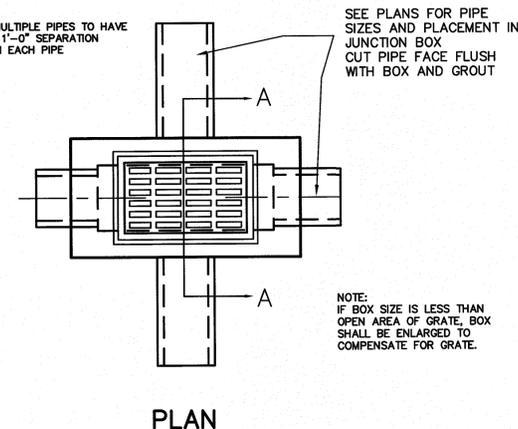
CI TYPE 16 CURB INLET DETAIL  
NTS



TEMPORARY CART PATH  
NTS



PLAN



PLAN

NOTE:  
1) RIM ELEVATIONS ON PLANS ARE APPROXIMATE AND MAY REQUIRE FIELD ADJUSTMENT. IF PRECAST CONCRETE BOXES ARE USED, BOX HEIGHT SHALL BE 6" LOWER WITH FINAL RIM ELEVATION ACHIEVED THROUGH THE USE OF LEVELING BRICKS AND MORTAR.  
2) REINFORCEMENT, CONSTRUCTION & MATERIALS TO COMPLY WITH SCDOT STANDARD DRAWINGS 719-305-00, 719-505-02 THRU 719-505-04 AND 719-550-00

NOTE:  
1) RIM ELEVATIONS ON PLANS ARE APPROXIMATE AND MAY REQUIRE FIELD ADJUSTMENT. IF PRECAST CONCRETE BOXES ARE USED, BOX HEIGHT SHALL BE 6" LOWER WITH FINAL RIM ELEVATION ACHIEVED THROUGH THE USE OF LEVELING BRICKS AND MORTAR.  
2) REINFORCEMENT, CONSTRUCTION & MATERIALS TO COMPLY WITH SCDOT STANDARD DRAWINGS 719-110-01 & 719-305-00

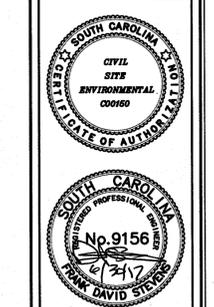
JUNCTION BOX DETAIL  
N.T.S.

TYPICAL GRATE INLET WITH SUMP DETAIL  
N.T.S.

REVISIONS:  
1) REVISED 7/16/14 PER SCDOT COMMENTS  
2) REVISED 5/21/17 ADDED CHECK VALVE NOTE  
3) REVISED 6/20/17 ADDED TEMPORARY CART PATH DETAIL

PROJECT: 45TH TO 52ND AVE DRAINAGE IMPROVEMENTS  
TITLE: CONSTRUCTION DETAILS  
FOR: CITY OF ISLE OF PALMS

DRAWN BY: JCM  
FILE: 920-C400  
SCALE: NONE  
DATE: 6-28-13



666 MARINA DRIVE  
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CSE JOB NUMBER  
920-PH2  
SHEET NUMBER  
CD-2



45th to 52nd Ave Drainage Improvements  
Existing Flapgate at IOP Marina



45th to 52nd Ave Drainage Improvements  
Existing Flapgate at IOP Marina