CITY OF MIAMI

CAPITAL IMPROVEMENTS PROGRAM

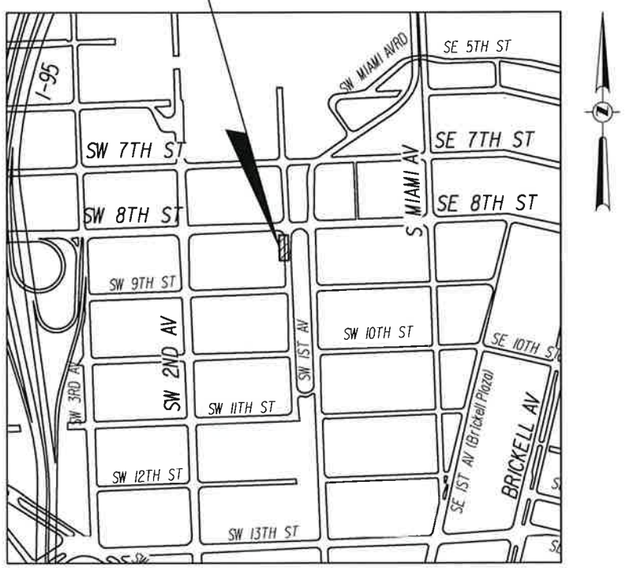
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION

SW 1st AVENUE BETWEEN SW 8th STREET AND SW 9th STREET

CITY OF MIAMI PROJECT NUMBER: B-30637

NOVEMBER 14, 2014

PROJECT LOCATION



LOCATION MAP

COMMISSION

MAYOR:	TOMAS P. REGALADO
COMMISSIONERS:	WIFREDO GORT MARC SARNOFF FRANK CAROLLO FRANCIS SUAREZ KEON HARDEMON
CITY MANAGER:	DANIEL J. ALFONSO
CIP DIRECTOR:	MARK SPANIOLI

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	170	0.03
BRIDGES	-	-
NET LENGTH OF PROJECT	170	0.03
EXCEPTIONS	-	-
GROSS LENGTH OF PROJECT	170	0.03

CITY OF MIAMI PROJECT MANAGER: JOSE LAGO, P.E.

INDEX OF ROADWAY PLANS

PLANS PREPARED BY:

T·Y·LIN INTERNATIONAL

EB00000407
201 Alhambra Circle Suite 900
Coral Gables, Florida. 33134
Phone: 305/567-1888 Fax: 305/567-1771

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA REGISTERED ENGINEER
SEALED
DATE
FRANCISCO J. ALONSO, P.E.
CIVIL ENGINEER P.E. NO. 66918
201 ALHAMBRA CIRCLE SUITE 900
CORAL GABLES, FLORIDA 33134

FOR CONSTRUCTION 100% PLANS

GENERAL NOTES

1. GENERAL NOTES ON THE PROJECT PLANS AND DRAWINGS ARE SOLELY TO AID AND ASSIST THE CONTRACTOR WITH THE FIELD OPERATIONS FOR THE PROJECT. SAID GENERAL NOTES MAY NOT FULLY DESCRIBE ALL OF THE REQUIREMENTS FOR AN ITEM. THEREFORE, THE CONTRACTOR SHALL READ AND VERIFY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE PLANS, SPECIFICATIONS, GENERAL TERMS AND CONDITIONS, AND THE SUPPLEMENTAL TERMS AND CONDITIONS TO FULLY UNDERSTAND AND COMPLY WITH ALL THE REQUIREMENTS THEREIN.

2. ALL ELEVATIONS REFER TO THE CITY OF MIAMI VERTICAL DATUM.

3. ALL PUBLIC LAND CORNERS AND PRIMARY NETWORK CONTROL SURVEY MONUMENTS ARE TO BE PROTECTED BY THE CONTRACTOR. CORNERS AND MONUMENTS WITHIN THE WORK ZONE AND IN DANGER OF BEING DAMAGED, DESTROYED OR COVERED SHALL BE PROPERLY REFERENCED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYOR PRIOR TO THE BEGINNING OF WORK. UPON PROJECT COMPLETION THE CONTRACTOR SHALL RESTORE ALL SUCH CORNERS AND MONUMENTS AND SHALL FURNISH TO THE DISTRICT LOCATION SURVEYOR A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWING. INCLUDE ALL COST OF REFERENCING, RESTORING AND PRESERVING CORNERS AND MONUMENTS IN THE BID PRICE FOR ITEM 101-1 MOBILIZATION.

4. ALL EXCESS MATERIAL AS DESIGNATED BY THE ENGINEER IS TO BE DISPOSED BY THE CONTRACTOR IN AREAS PROVIDED BY HIM WITHIN 24 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.

5. STOCKPILING OF EXCESS EXCAVATION MATERIAL SHALL NOT BE PERMITTED IN THE RIGHT OF WAY AND SHALL BE REMOVED AND OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

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. COMMERCIAL MATERIAL INCLUDED FOR DRIVEWAY MAINTENANCE AND SAFE ACCESS TO RESIDENTIAL AND BUSINESS PROPERTIES AFFECTED BY CONSTRUCTION SHALL BE PAID ONLY ONCE PER ACCESS. IF THE MATERIAL IS REMOVED DURING SUBSEQUENT CONSTRUCTION OPERATIONS, IT SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. THIS WORK IS INCLUDED IN THE MAINTENANCE OF TRAFFIC PAY ITEM AND MAY BE INCREASED, DECREASED OR OMITTED AS DIRECTED BY THE CITY.

8. LARGE CHUNKS OF EXCAVATED MATERIAL SHALL BE REPLACED WITH SUITABLE MATERIAL OR PROCESSED TO MAKE THEM SUITABLE FOR BACKFILLING OR EMBANKMENT CONSTRUCTION. COST TO BE INCLUDED IN RELATED BID ITEMS.

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

10. THE CONTRACTOR SHALL PERFORM SELECTIVE CLEARING AND GRUBBING FOR THE WORK BEING DONE. THIS SHALL INCLUDE ALL LANDSCAPE AND SIDEWALK, COST TO BE INCLUDED IN 110-1-1, CLEARING AND GRUBBING.

11. SAW CUTTING OF THE EXISTING SIDEWALKS SHALL BE MADE ONLY AT THE NEAREST FLAG JOINTS.

12. INSTALLATIONS OF NEW PULL BOXES SHALL BE PERFORMED BY QUALIFIED ELECTRICAL CONTRACTOR. WHEN NEW PULL BOX IS REPLACING EXISTING PULL BOX, THE CONTRACTOR SHALL ADJUST CONDUITS AND CABLES TO FIT THE NEW PULL BOX ELEVATION. COST OF ADJUSTMENTS AND NEW PULL IS INCIDENTAL TO TOTAL PROJECT COST.

13. ALL SIDEWALKS, CURB & GUTTERS, PAVEMENT, DRIVEWAYS AND SWALES DAMAGED BY THE CONTRACTOR SHALL BE RESTORED IN KIND AT NO ADDITIONAL COST.

14. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO COMMENCING CONSTRUCTION.

15. THE PROJECT AREA IS WITHIN A CITY OF MIAMI ARCHAEOLOGICAL ZONE. ALL GROUND-DISTURBING ACTIVITY BELOW THE ASPHALT WILL REQUIRE MONITORING BY AN ARCHEOLOGIST WHO WILL DOCUMENT ANY ARTIFACTS OR FEATURES THAT MAY BE UNCOVERED. THE CONTRACTOR WILL BE REQUIRED TO RESPOND TO THE MONITORING ARCHEOLOGIST TO ALLOW FOR REQUIRED DOCUMENTATION IF SIGNIFICANT CULTURAL DEPOSITS ARE ENCOUNTERED. IT IS NOT ANTICIPATED THAT WORK PROGRESS OR SCHEDULES WILL BE SIGNIFICANTLY AFFECTED BY THIS REQUIREMENT EXCEPT IN THE UNLIKELY EVENT THAT HUMAN REMAINS ARE UNCOVERED.

16. ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED FOR THE ACTIVITIES OF EXCAVATION, PLACING EMBANKMENT AND GRADING SHALL BE INCIDENTAL TO THE ASSOCIATED PAY ITEM.

17. THE PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MIAMI PUBLIC WORKS STANDARDS AND, WHERE NOTED, THE FDOT DESIGN STANDARDS INDEX 2010

DRAINAGE NOTES:

1. EXISTING STORM SEWERS (PIPES, FRENCH DRAINS, INLETS, MANHOLES AND/OR SLAB COVERED TRENCHES) TO BE ABANDONED IN PLACE SHALL BE FILLED WITH FLOWABLE FILL (UNLESS OTHERWISE NOTED) IF NOT IN CONFLICT WITH PROPOSED CONSTRUCTION. PLUG OPEN ENDS WHERE NEEDED WITH MISCELLANEOUS CONCRETE. COST TO BE INCLUDED IN PAY ITEM 110-1-1 CLEARING & GRUBBING, UNLESS OTHERWISE STATED ON PLANS.

2. THERE SHALL BE NO MORE THAN THREE LATERAL DRAINAGE INSTALLATIONS WITHOUT BACKFILLING. BACKFILLING OF LATERAL DRAINAGE SHALL NOT LAG MORE THAN 24 HOURS BEHIND THE START OF EXCAVATION.

3. ELEVATIONS AND OFFSETS FOR CURB INLETS ARE GIVEN AT THE EDGE OF PAVEMENT AND FOR DITCH BOTTOM INLETS AT THE CENTER OF THE STRUCTURE

4. FOR PROPOSED STORM SEWER STRUCTURES REFER TO CITY OF MIAMI STANDARDS INDEX 35-86-XX AND THE FDOT DESIGN STANDARDS INDEX 2010

5. PROPOSED STORM SEWER PIPE SHALL BE CLASS III RCP FOR GRAVITY LINES, AND CLASS 350 DIP POLY WRAPPED FOR THE FORCE MAIN.

6. ALL MANHOLE LIDS SHALL BE CAST WITH THE CITY OF MIAMI LOGO.

7. ALL MECHANICAL COMPONENTS SHALL BE PROVIDED WITH EPOXY COATED POLY WRAPPED DUCTILE IRON OR APPROVED EQUAL PARTS SUITABLE FOR USE IN BRACKISH CONDITIONS. ALL HARDWARE SHALL BE STAINLESS STEEL.

UTILITIES NOTES:

1. FOR UTILITY ADJUSTMENT SYMBOLS, SEE FDOT STANDARD INDEX No. 002.

2. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED. EXERCISE EXTREME CAUTION DURING EXCAVATION AND INSTALLATION OF PROPOSED DRAINAGE.

3. PRE-TRENCHING IN THE ALIGMENT AND GRADE OF PROPOSED PIPES STRUCTURES, FRENCH DRAINS, SLAB COVERED TRENCHES, CONDUITS, POLE FOUNDATIONS AND/OR SUB-GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF ITS CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE UNDERGROUND UTILITY OWNERS AND THE CITY OF MIAMI PROJECT MANAGER WITH A SEVEN DAYS ADVANCE NOTICE OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND POSSIBLE CONFLICTS. PAYMENT FOR PRE-TRENCHING, SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.

4. CONTRACTOR TO EXERCISE EXTREME CAUTION DURING EXCAVATION AND INSTALLATION OF PROPOSED DRAINAGE STRUCTURES AND TRENCH. ADJUSTMENT TO EXIST. VALVE BOXES AND MANHOLES TOPS TO FINISHED GRADE SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.

5. UTILITY OWNERS:

FDOT DISTRICT 6	THOMAS MILLER	305-491-4391
COMCAST CABLE	LEONARD MAXWELL-NEWBOLD	954-447-8405
MIAMI-DADE COUNTY PUBLIC WORKS	AURELIO DEL VALLE	305-592-8925 EXT.258
FLORIDA POWER AND LIGHT-DADE	KAREN LUND	305-442-5290
MIAMI-DADE WATER AND SEWER	PATRICK CHONG	786-268-5255
ATT/DISTRIBUITION	RICHARD RENFROW	305-260-8243
FLORIDA POWER AND LIGHT-FIBERNET	DANNY MASKETT	305-552-2931
LEVEL 3 COMMUNICATIONS	JUDY HENRY	720-888-2061
MIAMI DADE ETSD	AUGUSTO MALAVE	305-275-7948
MCI	INVESTIGATIONS	972-729-6016
QUEST COMMUNICATIONS	MIKE FITZGERALD	941-661-7557
TECO PEOPLES GAS	ALEX ROCHE	954-453-0811
TIME WARNER TELECOM	WILLIE ZAUHERY	954-761-2730

6. UNDERGROUND UTILITY PAINT SHALL BE LOW IMPACT IN CONFORMANCE WITH FLORIDA STATUTES. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL UTILITY MARKINGS ONES THE WORK IS COMPLETED. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN REMOVING THE UTILITY MARKINGS. THE REMOVAL METHOD NEEDS TO BE SUCH THAT IT DOES NOT DAMAGE THE SURFACES OF THE EXISTING WORK ALREADY IN PLACE. IF WATER -BLASTING OLDER ASPHALT PAVEMENT, CARE NEEDS TO BE TAKEN TO NOT DISCOLOR THE ASPHALT OR POLISH THE AGGREGATE IF THE REMOVALS ARE ON OLDER CONCRETE SURFACES, THE ENTIRE SURFACE OF THE PANEL OR SECTION NEEDS TO BE BLASTED TO SHOW UNIFORM COLOR THROUGHOUT THAT SAME PANEL SECTION. IN ANY CASE (ASPHALT OR CONCRETE SURFACE) THE METHOD NEEDS TO BE SUCH THAT A SLICK SURFACE IS NOT LEFT BEHIND. FINAL PAVEMENT TO THE CONTRACTOR MAY BE WITHHELD UNTIL UTILITY MARKS ARE PROPERLY REMOVED.

7. ALL NEW OR RELOCATED STRUCTURES, INCLUDING BUT NOT LIMITED TO DRAIANGE STRUCTURES, LIGHTING AND TRAFFIC SIGNAL POLES, GUARDRAILS, AND PILES OR OTHER FOUNDATIONS, SHOULD BE INSTALLED WITH A MINIMUM HORIZONTAL SEPERATION OF 3 FT. (OUTER FACE TO OUTER FACE) FROM ANY MD-WASD UTILITY. IF HORIZONTAL SEPERATION CANNOT BE MAINTAINED, AN ALTERNATIVE MEANS OF PROTECTING THE UTILITY SHALL BE IMPLEMENTED. EXPOSED UTILITIES SHALL BE PROTECTED AT ALL TIMES.

8. ALL NEW OR RELOCATED STORM SEWER THAT MUST CROSS, OR RUN PARALLEL, TO AN EXISTING MD-WASD WATER MAIN SHALL MEET ALL APPLICABLE REQUIREMENTS SET FORTH IN F.A.C. RULE 62-555.314.

SIGNING AND PAVEMENT MARKING NOTES:

1. ALL SIGNING AND PAVEMENT MARKINGS INSTALLED AS PART OF THESE PLANS SHALL CONFORM TO THE CURRENT EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS, AND FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS. ALL SIGN PANELS SHALL BE FABRICATED TO COMPLY WITH THE MOST RECENT EDITION OF THE FEDERAL HIGHWAY AND ADMINISTRATION STANDARD HIGHWAY SIGNS.

2. MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND THE END OF THE PROJECT AND AT ALL SIDE STREETS WITHOUT JOGS AND OFFSETS.

3. 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. EXTREME LOCATION CHANGES MUST BE APPROVED BY MIAMI-DADE COUNTY TRAFFIC DIVISION.

4. INCORRECTLY PLACED (THERMOPLASTIC OR) PAINT MARKINGS OVER ASPHALT WILL BE REMOVED BY MILLING AND REPLACING THE ASPHALT A MINIMUM WIDTH OF 0.5 METERS (18 IN) AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY APPROVE AN ALTERNATIVE METHOD IF IT CAN BE DEMONSTRATED TO COMPLETELY REMOVE THE MARKINGS WITHOUT DAMAGING THE ASPHALT.

5. THE CONTRACTOR SHALL RELOCATE ALL EXISTING POST-MOUNTED STREET NAME AND STOP SIGNS TO A VISIBLE AREA UNDISTURBED BY THE CONSTRUCTION SO AS TO MINIMIZE DAMAGE TO THE SIGNS DURING CONSTRUCTION. THE STREET NAME SHALL BE REATTACHED TO THE TOP OF THE NEW STOP SIGNS ON MINOR SIDE STREETS AT THE END OF CONSTRUCTION. THE NEW STOP SIGN POST SHALL HAVE ADEQUATE LENGTH TO ACCOMMODATE THE EXISTING STREET NAMES AT THE TOP. COST OF RELOCATION AND REATTACHMENT OF STREET NAME SIGN SHALL BE PAID FOR UNDER PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

6. EXTRUDED ALUMINUM SIGN SUPPORT CLAMPS ARE NOT ACCEPTABLE. ALL RELOCATED SIGNS MUST COMPLY WITH THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND ROADWAY DESIGN AND TRAFFIC STANDARDS AS IF THEY WERE NEW SIGNS. IF EXISTING CLAMPS, BRACKETS, POLES, ETC. NEED TO BE REPLACED THE COST SHALL BE INCIDENTAL TO THE TOTAL PROJECT COST.

7. THE CONTRACTOR SHALL SUBMIT A LIST OF THE EXISTING SIGNS TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION CONFERENCE. ANY SIGNS LOST OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT NO ADDITIONAL COST. COST OF MAINTAINING OF EXISTING SIGNS TO BE INCLUDED IN ITEM 102-1, MAINTENANCE OF TRAFFIC.

8. STOP BARS SHALL BE PLACED AT LEAST FIVE FEET FROM CROSSWALKS IF TRAFFIC SIGNAL LOOPS ARE INSTALLED.

9. THE CONTRACTOR SHALL PROVIDE PERMANENT FIVE FOOT DEEP CASING FOR ALL DRILLED SHAFTS. COST OF CASINGS TO BE INCLUDED IN THE SIGNS PAY ITEMS.

MIAMI-DADE COUNTY TRAFFIC SIGNALS & SIGNS DIVISION
7100 N.W. 36TH STREET
MIAMI, FLORIDA 33166

RECEIPTS MUST BE OBTAINED FROM THE ABOVE AGENCY AND SUBMITTED TO THE PROJECT ENGINEER TO RECEIVE PAYMENT FOR REMOVAL ITEMS.

10. SIGNING AND PAVEMENT MARKING ALONG S.W. 1ST AVENUE TO BE REPLACED IN KIND. COST SHALL BE INCIDENTAL TO THE TOTAL PROJECT COST.

11. CONTRACTOR TO COORDINATE REMOVAL OF THE EXISTING PARKING METERS IN CONFLICT WITH CONSTRUCTION WITH THE CITY OF MIAMI PARKING AUTHORITY.

ABBREVIATIONS

R	Arc Length
A/C	Air Conditioner Pad
ASPH.	Asphalt
B.M.	Benchmark
C.B.S.	Concrete Block Structure
C.G.	Curb & Gutter.
COL.	Column
℄	Center Line
℘	Base Line
CONC.	Concrete
C.S.	Concrete Slab
D.W.	Driveway
DPC.	Depressed Curb.
E.T.P.	Electric Transformer Pad
F.F.E.	Finished Floor Elevation
F.I.P.	Found Iron Pipe
F.N.D.	Found Nail & Disc
F.R.	Found Rebar
I.D.	Identification
INV.	Inverts
L.F.E.	Lowest Floor Elevation
M.L.	Monument Line
P.B.	Plat Book
P.C.P.	Permanent Control Point
PG.	Page
PL.	Planter
P.L.	Property Line
P.R.M.	Permanent Reference Monument
R/W	Right-of-Way Line
SWK.	Sidewalk
T.B.R.	Temporary Benchmark
V.G.	Valley Gutter

TREE LEGEND

SYMBOL	COMMON NAME
	Tree (Species unknown)
	Gumbo Limbo
	Black Olive
	Palm Tree
	Black Olive
	Oak Tree
	Pine Tree
	Coconut Palm
	Royal Poinciana
	Ficus
	Areca
	Avocado Tree
	Mango Tree
	Trumpet Tree

LEGEND

Concrete Light Pole	15-15-17 Diameter-Height-Spread
Metal Light Pole	Right-of-Way Lines
Guy Wire	Property Corner
Utility Power Pole	Traffic Sign
Fire Hydrant	Existing Catch Basin
Water Meter	New Catch Basin
Electric Box	Existing Drainage Manhole
Telephone Box	New Drainage Manhole
Sewer Manhole	Wood Fence
Overhead Utility Lines	Iron Fence
Light Pole	C.B.S. Wall
Gas Valve	Clean Out
Water Valve	Guard Pole
Water Manhole	Chain Link Fence
Telephone Manhole	Proposed Storm Pipe
Monitoring Well	Proposed Exfiltration Trench
Parking Meter	Existing French Drain
Unknown Manhole	Existing Sanitary Sewer
Sewer Valve	Existing Water Main
Mail Box	Existing Buried Telephone
Spot Elevation	Existing Buried Communications
Temporary Benchmark	Existing Buried Electrical

PAY ITEM	PAY ITEM DESCRIPTION	UNIT	PLAN QTY	FINAL QTY
101-1	Mobilization	LS	1	
102-1	Maintenance of Traffic (includes spotter for MDT guideway)	LS	1	
102-14	Traffic Control Officer	MH	960	
110-1-1	Clearing and Grubbing	LS	1	
285-711	Optional Base Group 11 (12" Limerock LBR 100)	SY	64	
327-70-19	Milling Existing Asphalt Pavement (1" Average)	SY	465	
334-1-13	Superpave Asphaltic Concrete, Traffic C (1100lbs/sy.sh., 1" min. excludes roadway and parking lanes)	TN	29	
400-3-1	Concrete Class III, Culverts (36"x58" box culverts)	CY	6	
415-1-6	Reinforcing Steel - Miscellaneous (-36"x58" box culvert)	LB	550	
425-2-71	Manholes, J-7 >19' (refer to plans for dimensions)	EA	4	
425-2-101	Manholes, Special <10' (includes structures S-1 and S-4 and external components, per plans)	EA	2	
425-2-102	Manholes, Special >10' (includes GMP structure)	EA	1	
430-175-124	Pipe Culvert, D.I.P., Round Shape 24" S/CD (D.I.P. for frame/riser, excludes fittings)	LF	103	
430-175-130	Pipe Culvert, Optional Material, Round Shape 30" S/CD	LF	17	
430-175-142	Pipe Culvert, D.I.P., Round Shape 42" S/CD (D.I.P. for frame/riser, excludes fittings)	LF	28	
430-175-154	Pipe Culvert, Optional Material, Round Shape 54" S/CD	LF	30	
440-70-1	Deep Well - Open Hole 24"	LF	30	
440-70-2	Deep Well - Casing 24"	LF	100	
446-3	Pumping Station (includes furnishing, installing, and testing of the wet well structure, valve vault, and all piping and external components in accordance with manufacturer's specifications and details on the plans. Bid item shall include the complete pumping station in place ready for service, including excavation, dewatering, shoring, or bracing, flow altering, disposing of excess or unsuitable fill material, all structural concrete, trench doors, submersible pumps, cables, float switches, lifting chains, base elbows, control panel, electrical service, all pipe supports, a rather jewel and sound attenuated standby generator, complete valve boxes, connection and hose bib, all discharge piping, external drain piping, all valves, all electrical	LS	1	
520-1-10	Concrete Curb Type "F"	LF	134	
522-1	Sidewalk Concrete, 4" Thick	SY	124	
550-10-1026	Fencing, Special Type, 5-1/4.0' Special Features (refer to plan details)	LF	55	
550-00-911	Gate Only, Special Type: Single: 0-6.0' Opening (refer to plan details)	EA	1	
550-00-922	Gate Only, Special Type, Double: 6-12.0' Opening (refer to plan details)	EA	1	
580-1-2	Landscaping Complete	LS	1	
	Contingency (Do Not Bid)	LS	1	
	Permit Allowance (Do Not Bid)	LS	1	
	Archeologist Oversite Allowance (Do Not Bid)	LS	1	

FOR CONSTRUCTION 100% PLANS

FRANCISCO J. PEDROSO LICENSE NO. 66911 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

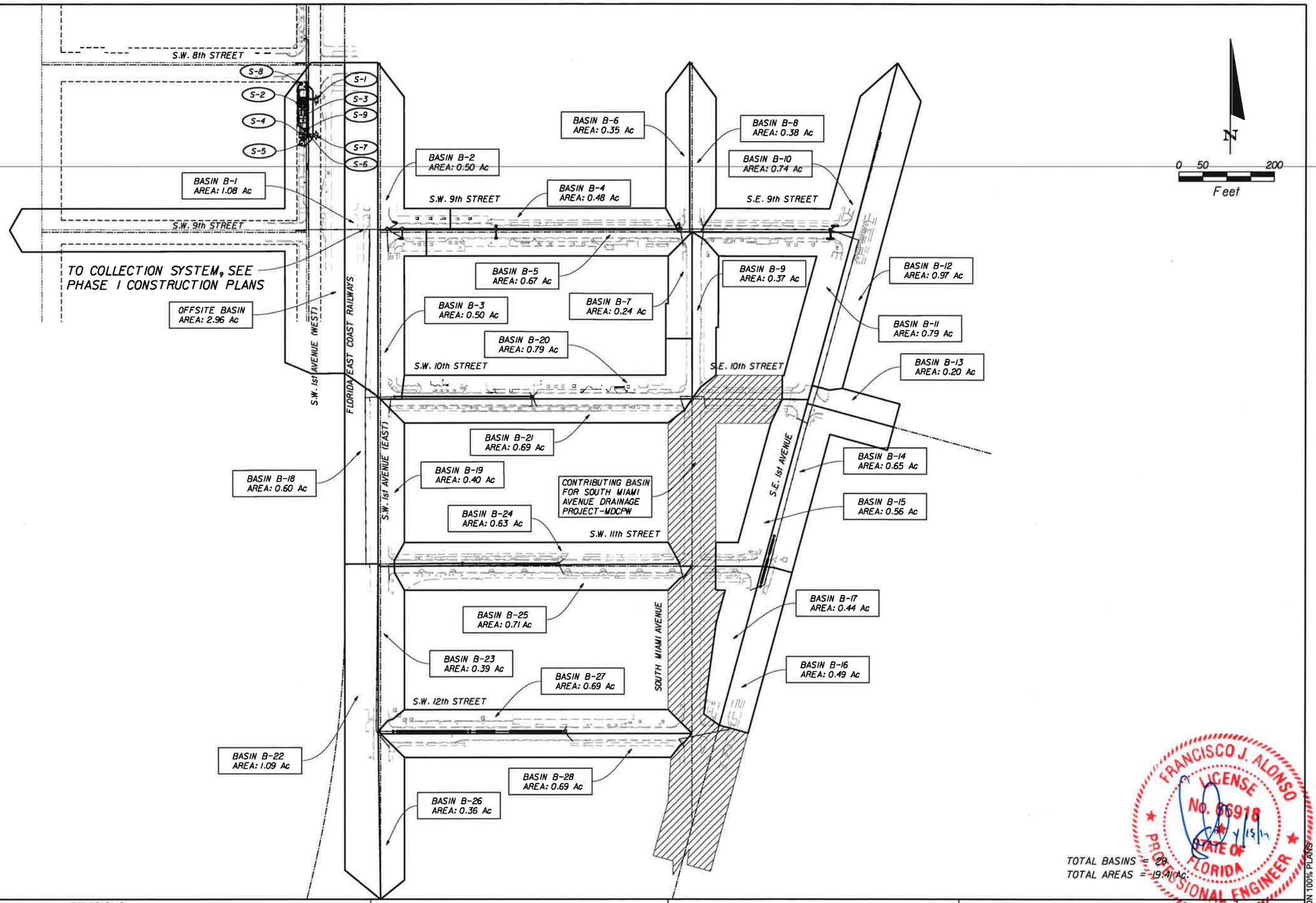
T·Y·LIN INTERNATIONAL
201 ALHAMBRA CIRCLE SUITE 900
Coral Gables, Florida. 33134
Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

GENERAL NOTES, LEGEND AND ABBREVIATIONS

SHEET NO. 2

MPupo 4/14/2015 2:21:56 PM \\Mia-svr-file\k\Projects\550860.15_CM Mary Brickell Village\Phase-II - Option 2\roadway\GNNTRD01.DGN



TOTAL BASINS = 29
TOTAL AREAS = 19.41 Ac.

FRANCISCO J. ALONSO
LICENSE
NO. 66918
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

T·Y·LIN INTERNATIONAL
201 ALHAMBRA CIRCLE SUITE 900
Coral Gables, Florida. 33134
Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI

MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION

SW 8th STREET AND SW 1st AVENUE

CITY OF MIAMI PROJECT NUMBER: 0-30637

DRAINAGE MAP

SHEET NO. 3

FOR CONSTRUCTION 100% PLANS

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24" 60° -DIP BEND
STA. 12+18.93, 16.79' LT

STA. 12+32.60, 14.93' LT

PUMP STATION WET WELL STRUCTURE

CONST. 101.00 LF OF 24" DIP PIPE

RELOCATED EXIST. POWER POLE

STA. 12+64.33, 13.93' LT

PUMP STATION VALVE VAULT

PRUNE EXIST. TREE

42"x24" REDUCER

CONST. 30 LF OF 54" PIPE

PROPOSED POWER POLE LOCATION

PROPOSED INJECTION WELL
STA. 12+09.97, 2.12' LT

MANHOLE DIVERSION STRUCTURE W/ WEIR
STA. 11+95.07, 11.10' LT

CONST. 8 LF OF 30" PIPE

CONST. 9 LF OF 30" PIPE

MATCH EXISTING ELEVATION (5.02)
PC STA. 11+84.60, 4.58' LT

SPECIAL MANHOLE STRUCTURE (TREATMENT UNIT) STA. 11+81.79, 9.07' LT

S.W. 8th STREET

12" SAN

MONUMENT LINE

HOSE BIBB ASSEMBLY 3'X3'
CONC. PAD SEE DETAIL

24" 45° DIP BEND
STA. 13+00.56, 16.79' LT

PRUNE EXIST. TREES

STA. 13+06.42, 11.44' LT
PROPOSED INJECTION WELL

WATER SERVICE METER AND BOX PER MD-WASD STANDARD DETAIL WS 2.10

STA. 13+00.00, 3.71' RT
ELEV. 7.35

CONNECT TO EXIST WATERMAIN (CONTRACTOR TO COORDINATE W/MD-WASD)

MATCH EXISTING ELEVATION
STA. 13+11.92, 3.71' RT
ELEV. 7.61

10" SAN

CONST. 130 LF OF CURB & GUTTER TYPE "F"

R/W

N 0° 00' 20" W

PCC STA. 11+88.65
(2.51' LT)

S.W. 1st AVENUE (WEST)

CONST. 8 LF OF 3'x5' PIPE

STA. 12+59.33,
0.80' RT

STA. 12+00.00, 3.69' RT
ELEV. 5.47

PT STA. 12+00.81
(3.71' RT)

STA. 12+25.00, 3.71' RT
ELEV. 5.91

CONST. 28 LF OF
42" DIP PIPE

PROPOSED WATER LINE (RELOCATED BY OTHERS)

MANHOLE TYPE J-7 (4'x7')
STA. 11+98.47, 6.15' RT

CONST. 8 LF OF 3'x5' PIPE

STA. 12+50.00, 3.71' RT
ELEV. 6.81

STA. 12+78.07, 0.20' LT

STA. 12+75.00, 3.71' RT
ELEV. 6.81

MANHOLE TYPE J-7 (12'x7')
STA. 12+82.07, 21.40' RT

LIMITS OF MILLING AND RESURFACING
STA. 13+11.90

3x5 BOX CULVERT SECTIONS, SEE DETAIL ON SHEET 10 (TYP.)

MANHOLE TYPE J-7 (8'x7')
STA. 11+98.47, 21.29' RT

8" SAN

USE EXTREME CAUTION WHEN INSTALLING S-1 & S-7 NEAR EXIST. 4" GAS TRANSMISSION LINE

NOTE:

1. CONNECT STRUCTURES S-1 AND S-7 TO EXIST. 36"X60" STORM SEWER. (SEE SHEET 10 FOR DETAIL)

2. REFER TO PAGE 15 FOR FENCING DETAILS

FLORIDA EAST COAST RAILWAYS

S-1 S-2 S-3 S-4 S-5 S-6 S-7 S-8 S-9

A B C

5' R 15' R

60x36STM

WAT GAS SAN E

0 5 20
Feet

FRANCISCO J. ALONSO
LICENSE
No. 66918
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/14/15

FOR CONSTRUCTION 100% PLANS

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Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI

MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION

SW 8th STREET AND SW 1st AVENUE

CITY OF MIAMI PROJECT NUMBER: B-30837

PUMP STATION SITE PLAN

SHEET NO. 4

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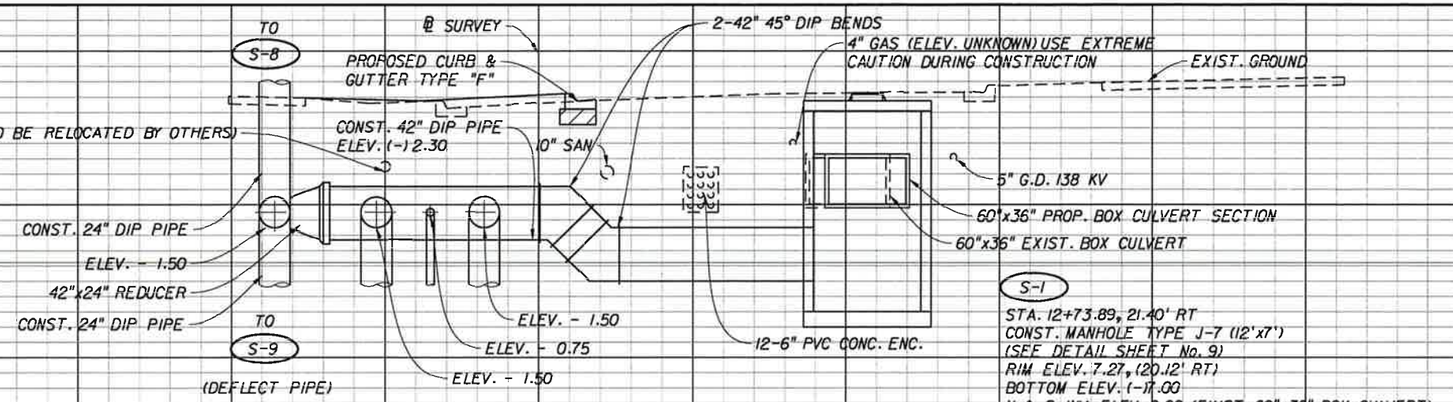
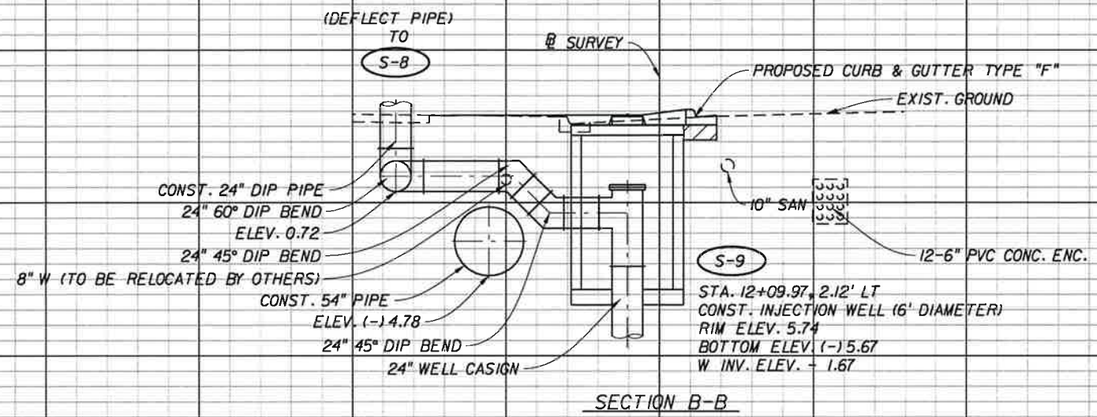
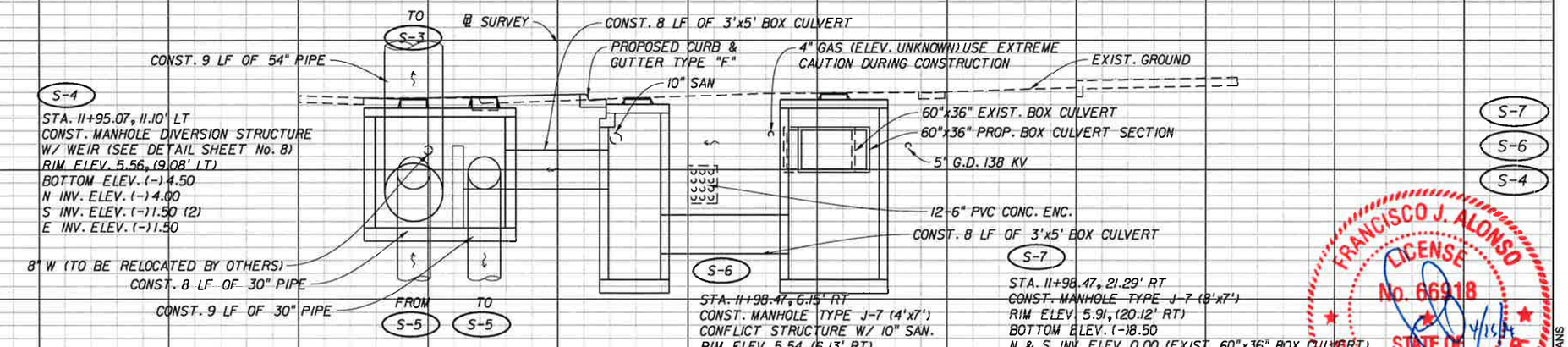


SECTION C-C



SECTION B-B



SECTION A-A

S-1 S-9 S-7 S-6 S-4

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Scale: 1"=10' Horizontal
1"=10' Vertical

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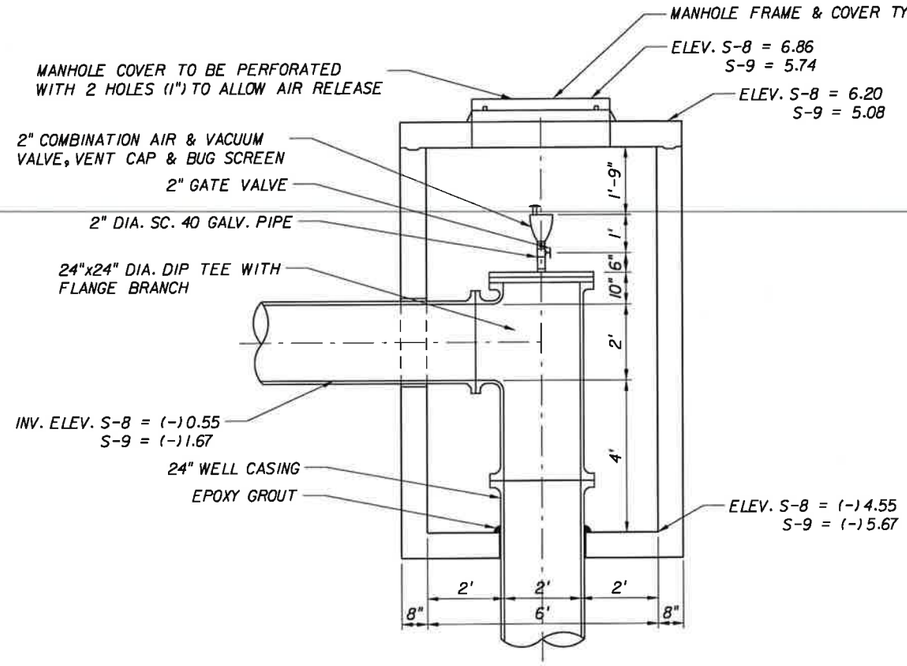
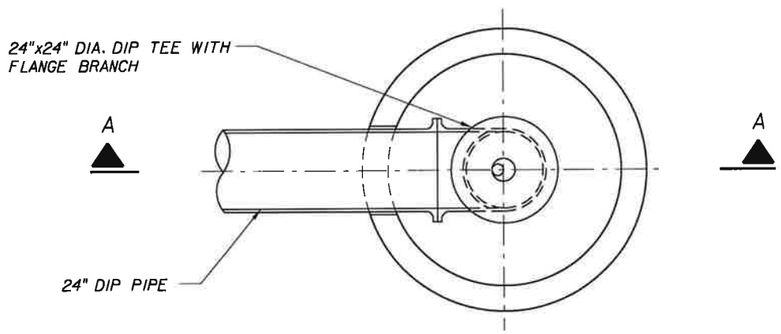
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

PUMP STATION DRAINAGE STRUCTURES

SHEET NO. 5



SECTION A-A
NTS

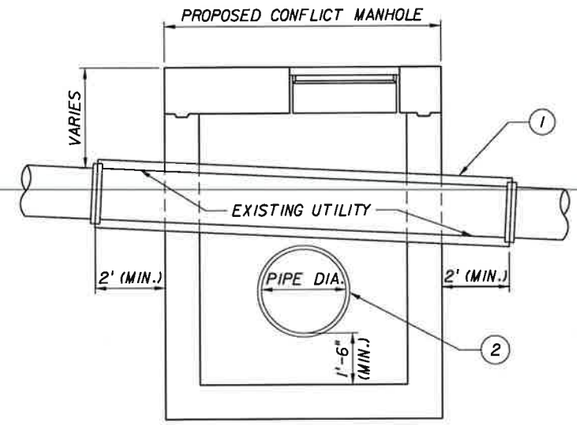


PLAN VIEW
NTS

NOTE:

1. WELL CASING SHALL BE SOLID (NO PERFORATIONS) TO A DEPTH OF 70 FT BELOW SURFACE GRADE AT EACH WELL LOCATION. OPEN HOLE CONSTRUCTION SHALL EXTEND 20 FT BELOW END OF CASING PIPE. NO WELDS ARE ALLOWED IN THE TOP 15 FEET OF THE WELL CASING. MINIMUM DISCHARGE CAPACITY SHALL BE 600 GPM/FT OF HEAD.
2. THE COST OF ALL MATERIALS AND LABOR FOR THE CONSTRUCTION OF STRUCTURES S-8 AND S-9 SHALL BE INCLUDED IN PAY ITEM 425-2-71

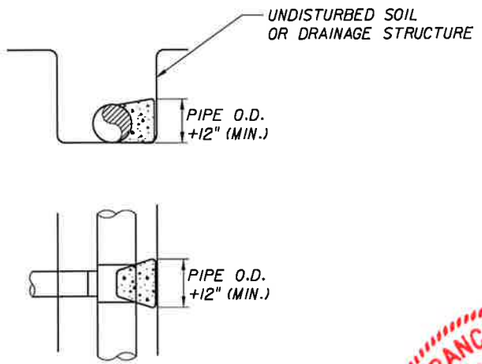
INJECTION WELL STRUCTURES S-8 & S-9
SPECIAL MANHOLE TYPE J-7 (6'DIA.)
NTS



NOTES:

1. EXISTING UTILITY SHALL BE ENCASED IN A CONTINUOUS DIP SLEEVE EXTENDING 2' MINIMUM FROM BOTHSIDES OF THE ANHOLE. REFER TO PLANS FOR SIZE OF DIP SLEEVE.
2. DRAINAGE PIPE.
3. COST OF SLEEVE TO BE INCLUDED IN THE UNIT BID ITEM PRICE FOR THE STRUCTURE.

UTILITY THRU CONFLICT STRUCTURE DETAIL
NTS



CONCRETE THRUST BLOCK DETAIL
NTS

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SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

DRAINAGE DETAILS

SHEET NO. 6

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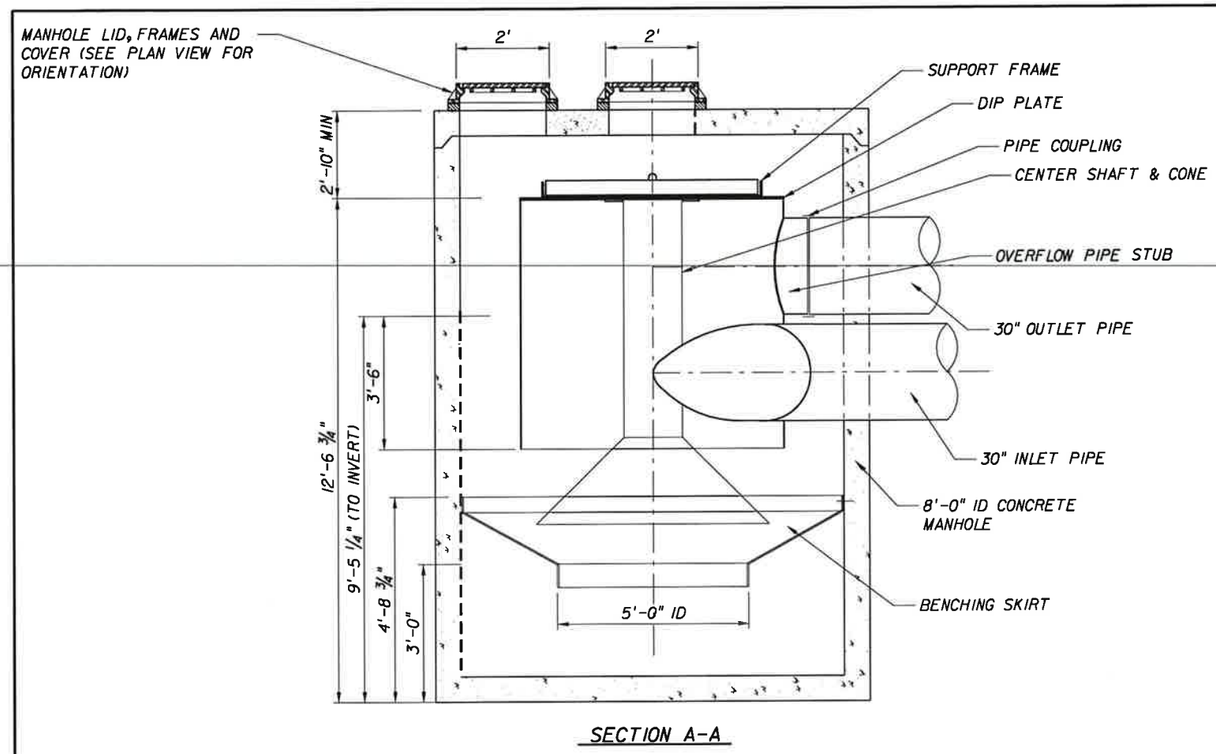
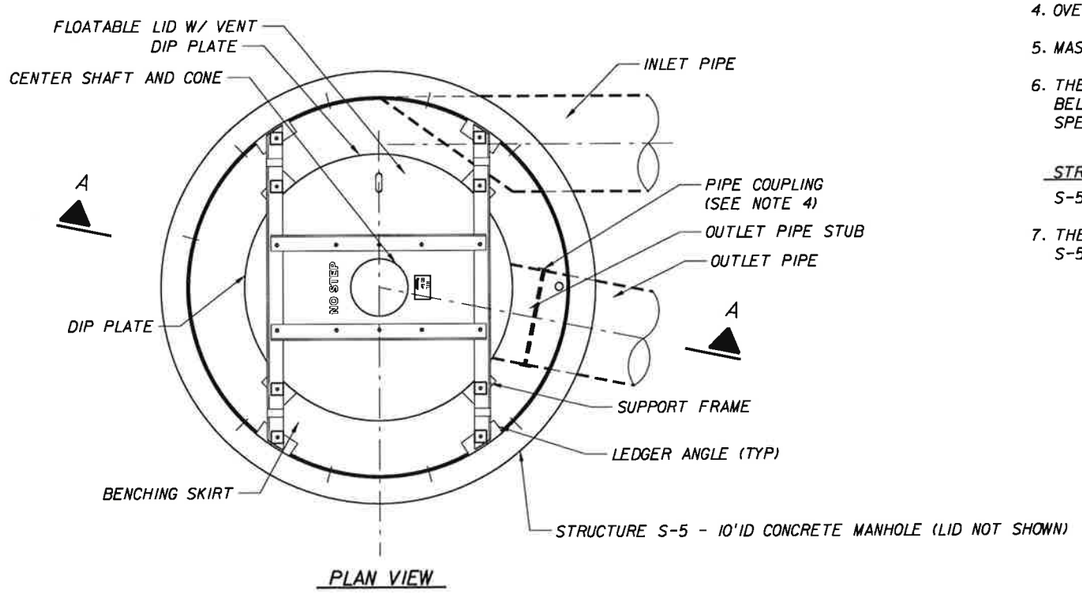


SECTION A-A



PLAN VIEW

SPECIAL MANHOLE STRUCTURES S-5

WATER QUALITY TREATMENT UNIT NTS

NOTES:

1. THIS SPECIAL MANHOLE FOR WATER QUALITY TREATMENT IS BASED UPON THE DOWNSTREAM DEFENDER UNIT BY HYDRO INTERNATIONAL. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR PROPOSED TREATMENT UNIT (DOWNSTREAM DEFENDER OR APPROVED EQUAL), COMPLETE, INCLUDING MANHOLE STRUCTURE, MANHOLE FRAME AND COVERS, AND ALL INTERNAL COMPONENTS.
2. PROPOSED CONFIGURATION AND DIMENSIONS ARE GENERAL AND INTENDED FOR GUIDANCE ONLY. SEE SITE PLAN FOR UNIT ORIENTATION.
3. THE ORIENTATION OF THE INLET PIPE AND OUTLET PIPE CAN BE ADJUSTED DUE TO SITE REQUIREMENTS. FOR DOWNSTREAM DEFENDER UNITS, INLET PIPE MUST BE TANGENT TO PRECAST MANHOLE INSIDE DIAMETER AS SHOWN. CONTRACTOR SHALL COORDINATE COMPLETE INSTALLATION OF TREATMENT UNIT WITH MANUFACTURER.
4. OVERFLOW PIPE STUB MATCHES SDR35 PIPES.
5. MASONRY FIXING BOLTS TO BE SUPPLIED BY THE CONCRETE SUPPLIER.
6. THE SPECIAL MANHOLES FOR WATER QUALITY TREATMENT SHALL BE SELECTED TO PROCESS DESIGN FLOW RATES SHOWN BELOW AND TO REMOVE FLOATABLES, DEBRIS, OILS AS WELL AS 90% REMOVAL OF TOTAL SUSPENDED SOLIDS WITH A SPECIFIC GRAVITY OF 2.65 DOWN TO 150 MICRONS IN SIZE.

STRUCTURE	DESIGN FLOW RATE (cfs)
S-5	18.7

7. THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION OF DRAINAGE STRUCTURES S-4 AND S-5 SHALL BE INCLUDED IN PAY ITEM 425-2-102

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SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

DRAINAGE DETAILS

SHEET NO. 7

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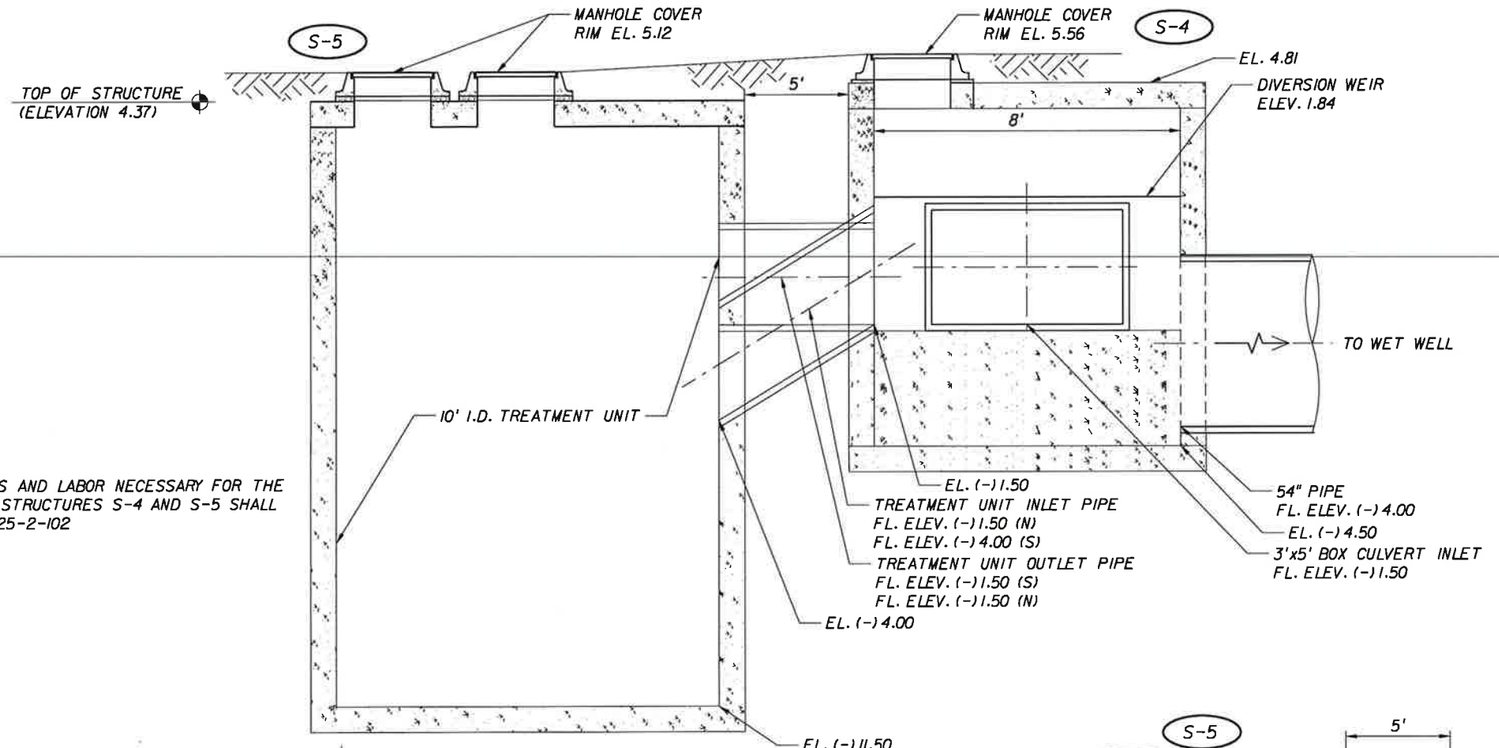
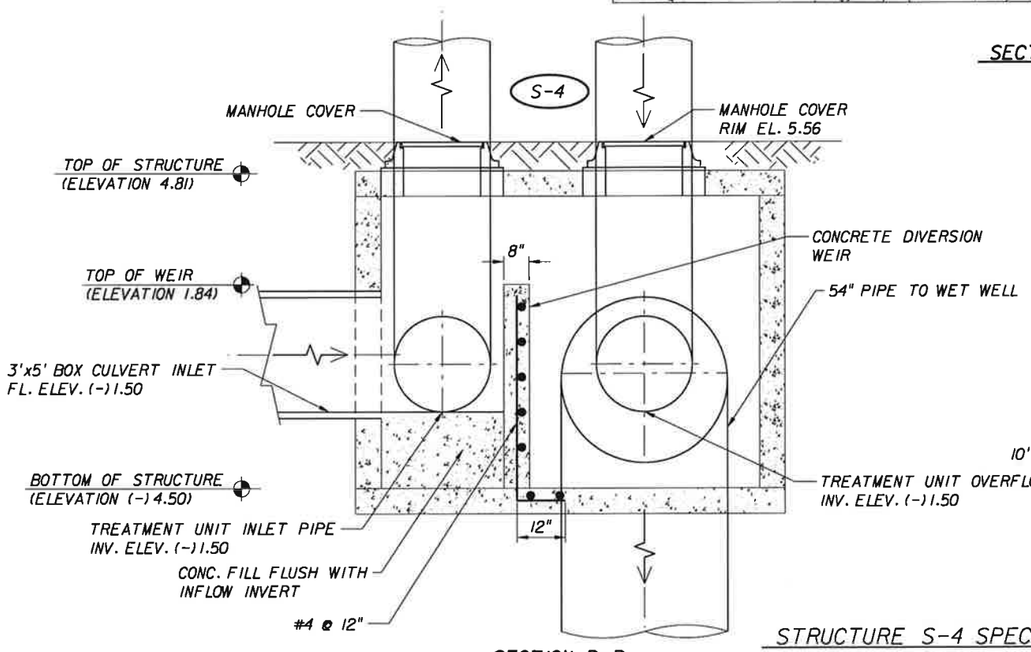


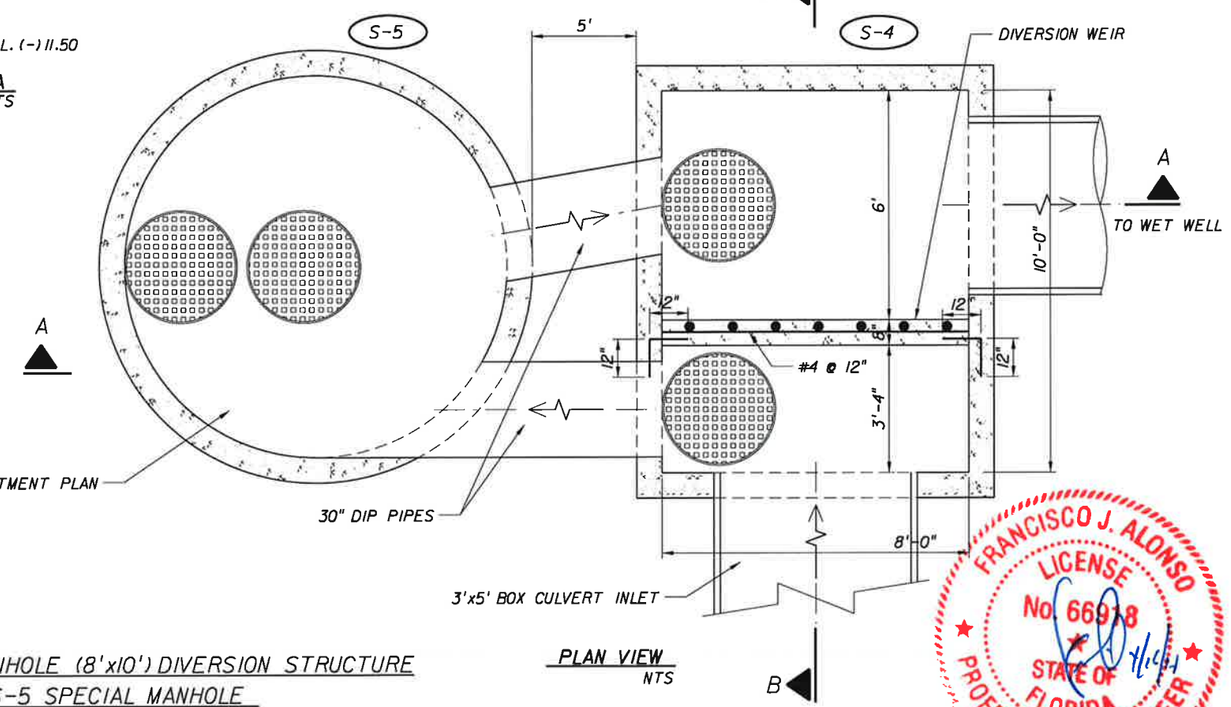
SECTION A-A
NTS

NOTE:

1. THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION OF DRAINAGE STRUCTURES S-4 AND S-5 SHALL BE INCLUDED IN PAY ITEM 425-2-102



SECTION B-B
NTS



PLAN VIEW
NTS

STRUCTURE S-4 SPECIAL MANHOLE (8'x10') DIVERSION STRUCTURE
& STRUCTURE S-5 SPECIAL MANHOLE
NTS

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DRAINAGE DETAILS

SHEET NO. 8

FOR CONSTRUCTION 100% PLANS

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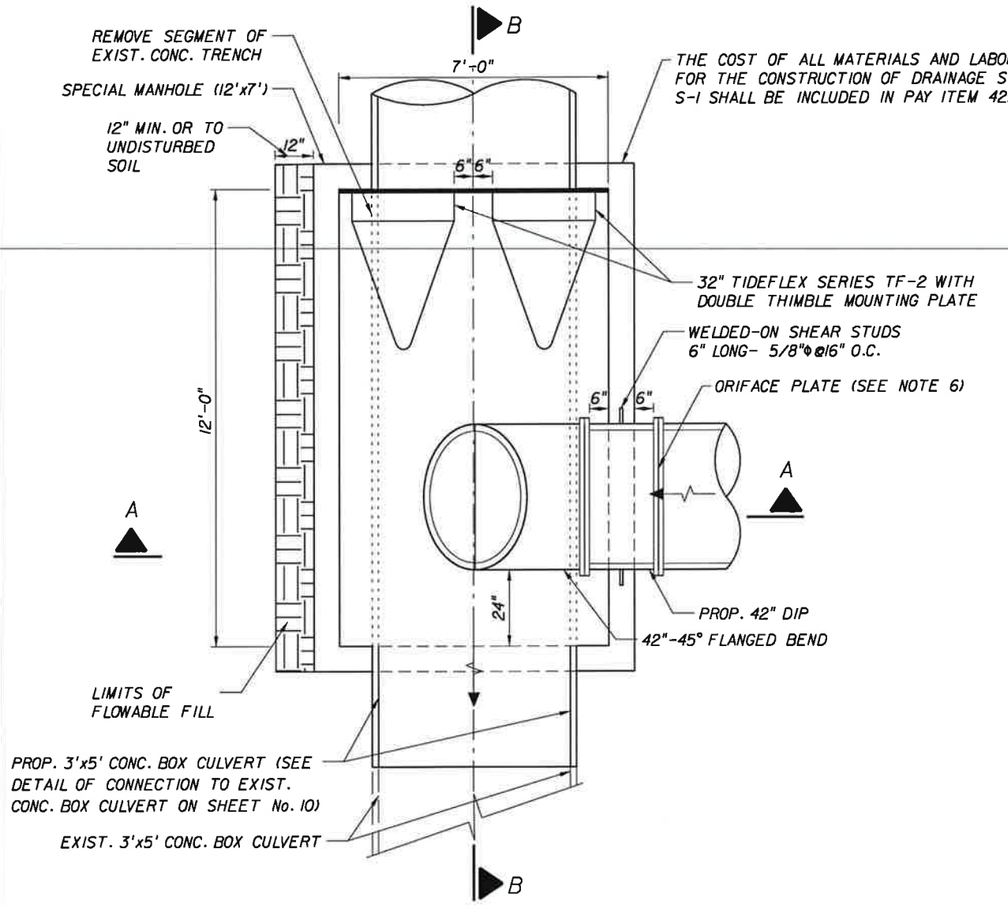
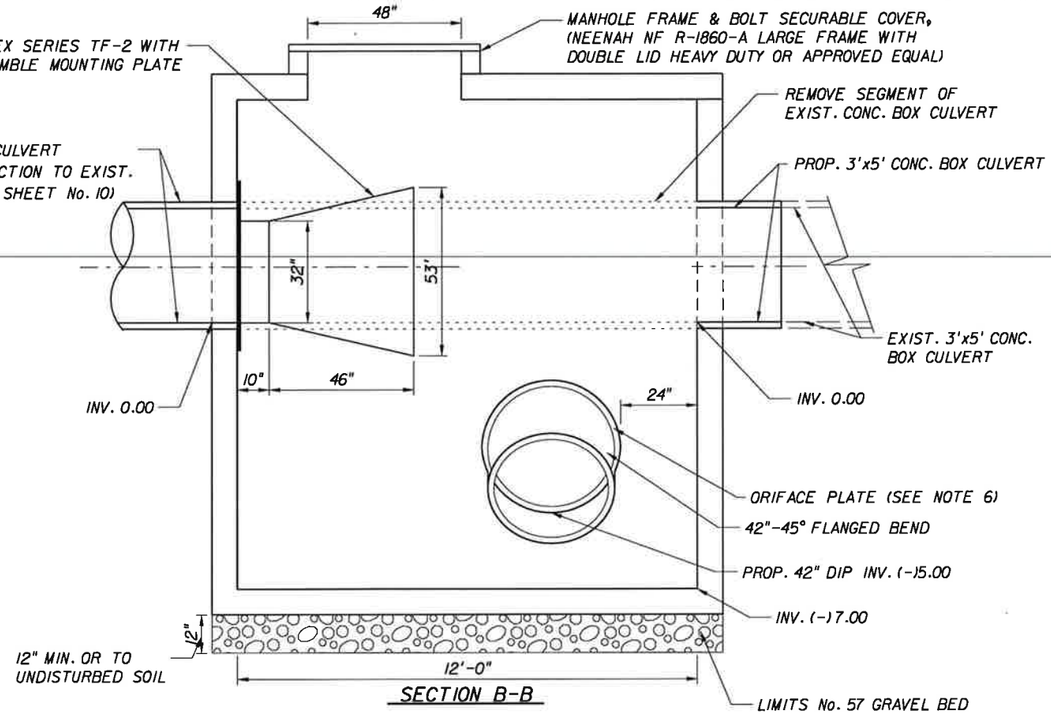


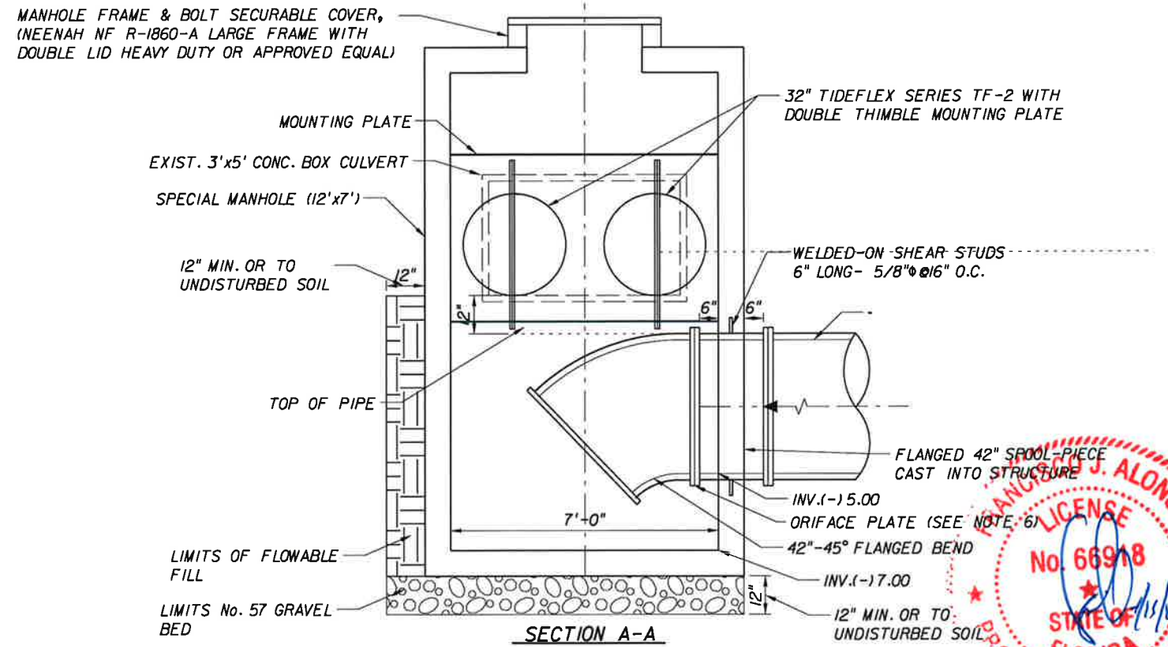
PLAN VIEW

CHECK VALVE STRUCTURE S-I

NTS



SECTION B-B



SECTION A-A

NOTES:

1. ARROWS INDICATE DIRECTION OF FLOW.
2. CHECK VALVE SHALL BE TIDEFLEX SERIES TF-2 OR APPROVED EQUAL.
3. CHECK VALVE AND THIMBLE PLATE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S INSTALLATION INSTRUCTIONS.
4. ANCHOR BOLTS FOR MOUNTING CHECK VALVE THIMBLE PLATE ON WALL SHALL BE PER MANUFACTURER'S INSTRUCTIONS OR AT A MINIMUM 5/8"x6" LONG STAINLESS STEEL "J" BOLTS 12" O.C.
5. THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION OF DRAINAGE STRUCTURES S-I SHALL BE INCLUDED IN PAY ITEM 425-2-102.
6. ORIFICE PLATE SHALL BE 1/4" THICK STAINLESS AND BOLTED BETWEEN FLANGES OF 42" DIAMETER MECHANICAL JOINT DIP PIPES, PLATE SHALL HAVE 32.4" DIAMETER ORIFICE CENTERED WITHIN PLATE.

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CITY OF MIAMI

MARY BRICKELL VILLAGE
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STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
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DRAINAGE DETAILS

SHEET NO. 9

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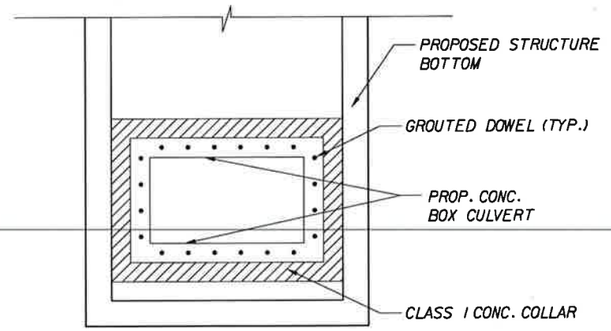
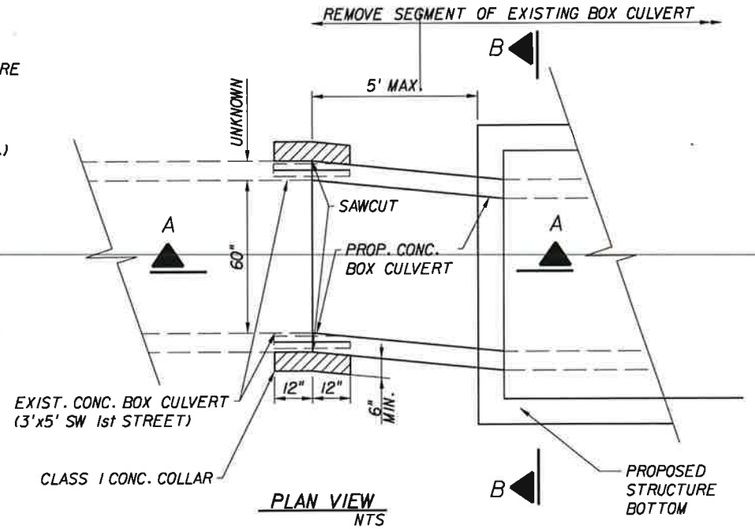
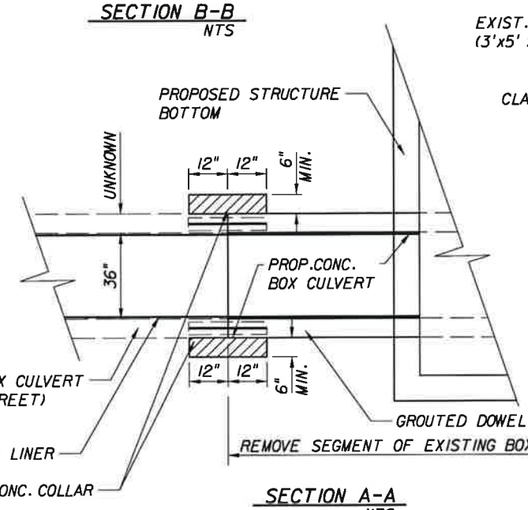


SECTION B-B
NTS



PLAN VIEW
NTS

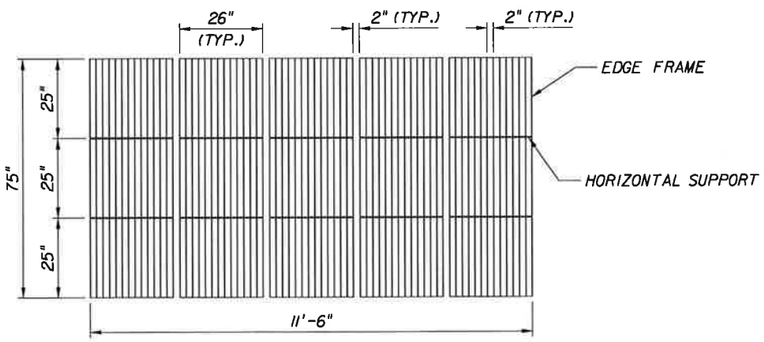
CONNECTIONS TO EXISTING CONC. BOX CULVERTS
(STRUCTURES S-1 & S-7) NTS



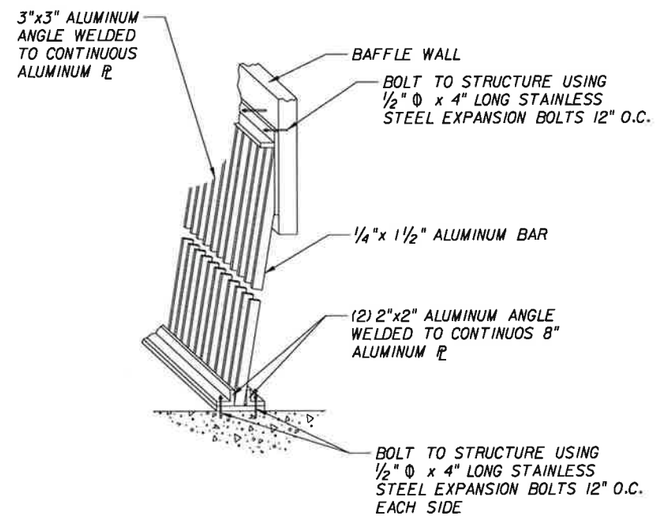
SECTION A-A
NTS

NOTES:

1. PROP. BOX CULVERT SHOULD BE FDOT STANDARD PRECAST PER INDEX 291 AND 292 FOR DESIGN EARTH COVER 3'-<5'.
2. GROUTED DOWELS SHALL BE No. 5 BARS INSTALLED AT 12' O.C. SIDE TOP AND BOTTOM JOINTS OF EXISTING AND PROP. BOX CULVERTS.
3. COST OF BOX CULVERT CONNECTION SHALL BE INCIDENTAL TO THE UNIT PRICE OF THE PROPOSED DRAINAGE STRUCTURE BEING CONNECTED. CONTRACTOR SHOP DRAWINGS OF PROPOSED DRAINAGE STRUCTURES SHALL INCLUDE BOX CULVERT CONNECTION.



ALUMINUM BAR GRATE DETAIL
NTS



ALUMINUM GRATE SUPPORT DETAIL
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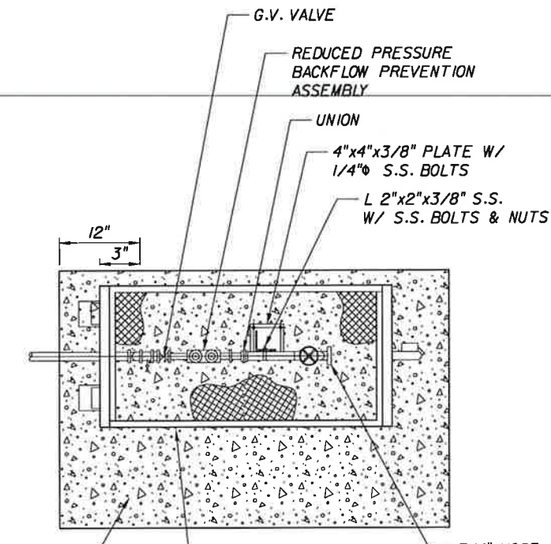
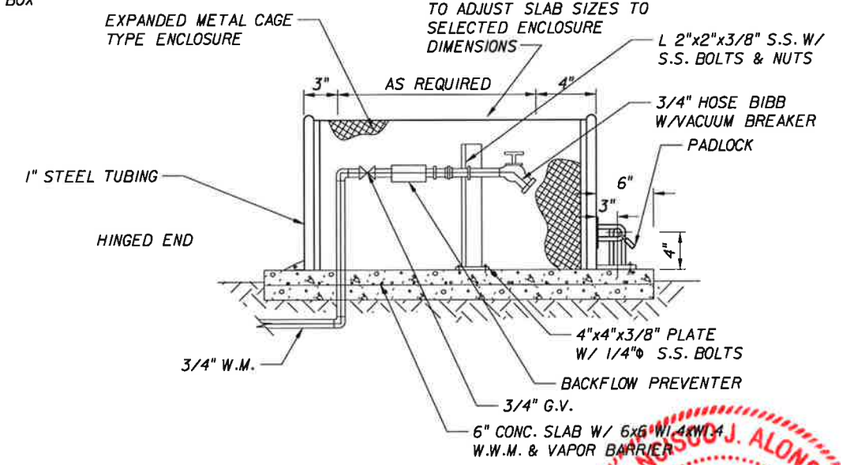


PLAN
NTS



BACKFLOW PREVENTER WITH HOSE BIBB
NTS

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DRAINAGE DETAILS

SHEET NO. 10

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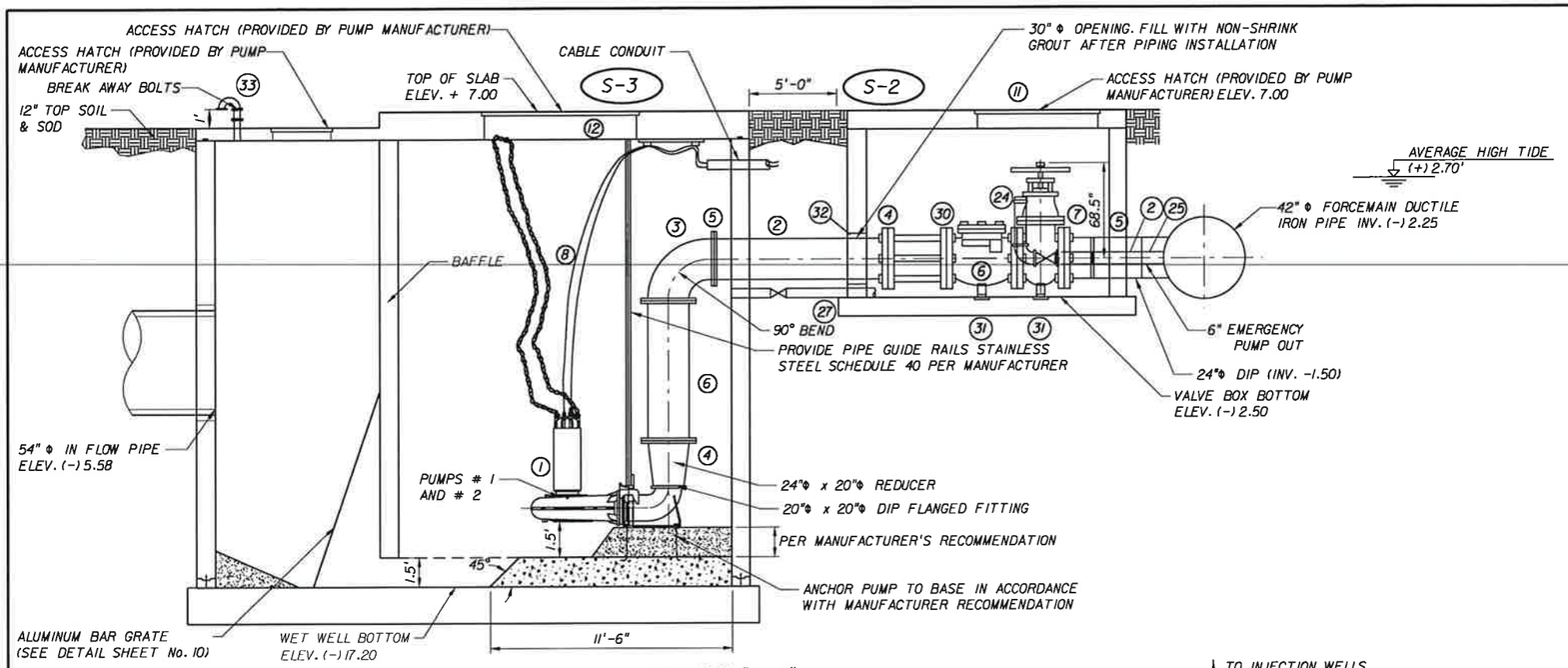
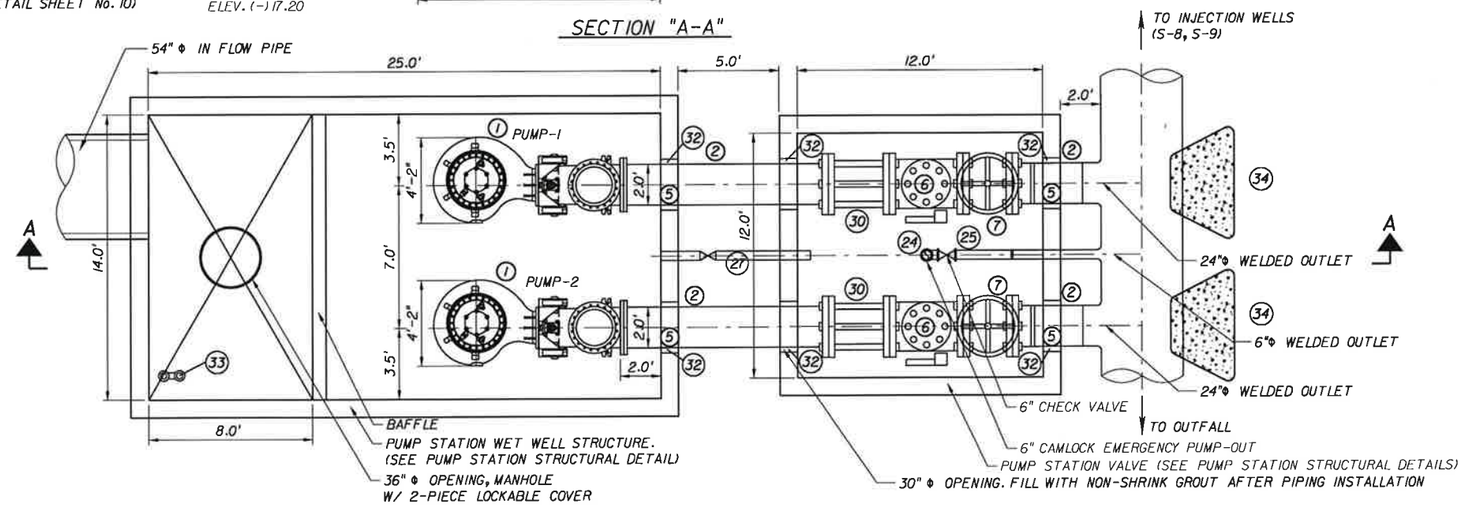


SECTION "A-A"



FLOOR PLAN
PUMP STATION DETAIL
N.T.S.

PUMP STATION DATA TABLE		
PUMP #1 CAPACITY	G.P.M.	14362
PUMP #2 CAPACITY	G.P.M.	14362
STATIC HEAD (MINIMUM)	FEET	1.00
STATIC HEAD (MAXIMUM)	FEET	13.80
TDH (BOTH PUMPS ON, MINIMUM)	FEET	16.20
TDH (BOTH PUMPS ON, MAXIMUM)	FEET	27.20
MOTOR RATED POWER	HORSEPOWER	130
MOTOR SPEED	R.P.M.	505
PUMP CYCLE TIME	MINUTES	2.5
WET WELL DIMENSIONS (INSIDE)	FEET	14' x 25' x 24'-2"
MINIMUM PUMP EFFICIENCY @ DUTY POINT	--	84 %
TOP OF SLAB	ELEV.	7.00
PUMP DISCHARGE PIPE DIAMETER	INCH	20
DISCHARGE PIPE INVERT	ELEV.	-1.50
INFLUENT PIPE INVERT	ELEV.	-2.50
HIGH LEVEL ALARM	ELEV.	2.60
LAG PUMP ON	ELEV.	2.10
LEAD PUMP ON	ELEV.	1.60
ALL PUMPS OFF	ELEV.	-11.20
PUMP OFF (FAIL SAFE)	ELEV.	-11.50
WET WELL BOTTOM	ELEV.	-17.20
VALVE BOX BOTTOM	ELEV.	-2.50
ELECTRICAL SERVICE	--	480/3ϕ/60
PEAK FLOW (BOTH PUMPS ON)	G.P.M.	28724

NOTES:

1. DESIGN IS BASED ON FLYGT CP3531/805 130HP PUMPS MFG. TO INCLUDE NEMA 4X DUPLEX CONTROL PANEL AND CATHODIC PROTECTION.
2. REFERENCES ARE MADE TO SPECIFIC PUMPS TO ESTABLISH QUALITY STANDARDS. EQUAL EQUIPMENT BY OTHERS MAY BE SUBMITTED FOR APPROVAL AT NO ADDITIONAL COST TO THE PROJECT.
3. ALL HARDWARE SHALL BE STAINLESS STEEL
4. ALL PIPING NOTED DIP SHALL BE DUCTILE IRON CLASS 350.
5. THE ACCESS HATCHES SHALL BE TYPE AHD AS MANUFACTURED BY U.S.F. FABRICATION OR APPROVED EQUAL WITH A CLEAR OPEN SIZE AS RECOMMENDED BY THE MANUFACTURER. DOOR LEAFS SHALL BE 1#4" THICK ALUMINUM. FLOOR PLATE REINFORCED TO A H-20 WHEEL LOAD. (ACCESS DOOR ARE DESIGNED FOR OFF STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.) THE FRAME SHALL BE AN EXTRUDED GALVANIZED CHANNEL SECTION WITH AN ANCHOR FLANGE AND CONTINUOSLY WELDED SEAT FOR THE REINFORCING. THE ENTIRE FRAME INCLUDING THE SEAT ON WHICH THE REINFORCING REST SHALL BE SUPPORTED BY CONCRETE OR OTHER MATERIAL DESIGNED TO SUPPORT COVER LOADING. THE FRAME SHALL DRAIN WATER OUT THROUGH A 1½" PIPE COUPLING. THE ACCESS DOOR SHALL BE EQUIPPED WITH A FLUSH STEEL DROP HANDLE WHICH DOES NOT PROTRUDE ABOVE THE COVER AND AN AUTOMATIC HOLD OPEN ARM. HINGES SHALL BE ALL STAINLESS STEEL WITH TAMPER PROOF STAINLESS STEEL BOLTS AND NUTS, AND BE REMOVABLE FOR MAINTENANCE AFTER THE ACCESS DOOR IS CAST IN PLACE. THE ACCESS DOOR SHALL HAVE A WATERTIGHT STAINLESS STEEL SLAMLOCK BY A REMOVABLE HANDLE FROM THE OUTSIDE AND FIXED HANDLE INSIDE. ACCESS DOOR SHALL BE FURNISHED WITH MILL FINISH. PROVIDE SHOP DRAWINGS AND CALCULATIONS OF ACCESS HATCH TO THE ENGINEER FOR APPROVAL.
5. 448-73 PUMPING STATION, LUMP SUMP, INCLUDES FURNISHING, INSTALLING, AND TESTING OF THE WET WELL STRUCTURE, VALVE VAULT, AND ALL INTERNAL AND EXTERNAL COMPONENTS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND DETAILS ON THE PLANS. BID PRICE SHALL INCLUDE THE COMPLETE PUMPING STATION IN PLACE READY FOR SERVICE, INCLUDING EXCAVATION, SHEETING, SHORING, OR BRACING, DEWATERING, DISPOSING OF EXCESS OR UNSUITABLE FILL MATERIAL, ALL STRUCTURAL ANCHORS, HATCH DOORS, SUBMERSIBLE PUMPS, CABLES, FLOAT SWITCHES, LIFTING CHAINS, BASE ELBOWS, CONTROL PANEL, CATHODIC PROTECTION, ALL PIPE CONNECTIONS, STANDBY GENERATOR, ALL DISCHARGE PIPING, INTERNAL DRAIN PIPING, ALL VALVES, ALL ELECTRICAL EQUIPMENT, CLEANING AND TESTING.

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER

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CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

PUMP STATION DETAIL

SHEET NO. 11

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PAY ITEM 448-73 PUMP STATION
LIST OF MATERIALS

No.	DESCRIPTION	UNIT	QT.
	450 kW 480Y/277V GENERATOR	EA	1
(1)	SUBMERSIBLE PUMP, MODEL ITT-FLYGT CP 3531/801 OR APPROVED EQUAL. INCLUDES: 130 HP ELECTRIC MOTOR, 75FT OF SUBMERSIBLE CABLE, MATING CAST IRON DISCHARGE CONNECTION, PUMP SUPPORT, LIFTING CHAIN, CATHODIC PROTECTION AND ALL OTHER ITEMS INCLUDED IN PUMP REQUIREMENTS.	EA	2
(2)	DUCTILE IRON 24" Ø POLYWRAPPED PIPE, FLANGED.	EA	4
(3)	DUCTILE IRON 24" Ø, 90° SHORT RADIUS ELBOW, FLANGED.	EA	2
(4)	DUCTILE IRON 20"x 24" Ø, REDUCER, FLANGED.	EA	1
(5)	DUCTILE IRON 24" Ø, WALL PIPE COLLAR, FLANGED AND PLAIN END.	EA	2
(6)	HORIZONTAL SWING CHECK VALVE, 24" Ø, FLANGED. (DESIGN BASED ON D.I. EPOXY COATED MUELLER MODEL 8001 OR APPROVED EQUAL)	EA	2
(7)	RESILIENT WEDGE GATE VALVE, 24" Ø (DESIGN BASED ON D.I. EPOXY COATED MUELLER MODEL A-2361 OR APPROVED EQUAL.	EA	2
(8)	CHAIN, STAINLESS STEEL	EA	1
(11)	ANGLE FRAME, HEAVY DUTY, DOOR, GALVANIZED STEEL SLAB OPENING, H-20 LOADING, US FOUNDRY TYPE AHD, OR APPROVED EQUAL, (ON S-2)	EA	2
(12)	ANGLE FRAME, HEAVY DUTY, DOOR, GALVANIZED STEEL SLAB OPENING (10'-9" x 7'), H-20 LOADING, US FOUNDRY TYPE AHD, OR APPROVED EQUAL, (ON S-3)	EA	2
(24)	6" CAM LOCK EMERGENCY PUMP OUT.	EA	1
(25)	6" DIP. WITH CHECK VALVE EPOXY COATED	EA	1
(27)	6" PVC DRAIN WITH CHECK VALVE SLOPE TO WET WELL.	EA	1
(30)	24" DIA. COUPLING GLAND JOINTS, BARREL STEEL TRANSITION, 'ROMAC' STYLE 501 OR APPROVED EQUAL.	EA	2
(31)	STEEL SADDLE SUPPORT "STANDON" MODEL S-92 OR APPROVED EQUAL.	EA	4
(32)	30" Ø OPENING	EA	2
(33)	DUCTILE IRON 4" Ø VENT WITH S.S. INSECT SCREEN	EA	1
(34)	CONCRETE TRUST BLOCK	EA	2

M.J.= MECHANICAL JOINT

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVISIONS			
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CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

PUMP STATON BILL OF MATERIALS

SHEET NO. 12

FOR CONSTRUCTION 100% PLANS

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
2. ALL ELECTRICAL WORK SHALL BE INCLUDED IN AND/OR INCIDENTAL TO THE COST OF THE PUMP STATION
3. THE CONTRACTOR SHALL EXAMINE THE JOB SITE AND DETERMINE EXISTING CONDITIONS, PRIOR TO SUBMISSION OF BID.
4. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ANY PERMITS, CERTIFICATES OF INSPECTION, AND ANY OTHER FEES.
5. SUBSTITUTE MATERIALS, EQUIPMENT OR METHODS SHALL NOT BE MADE WITHOUT APPROVAL OF THE ENGINEER. IF THE USE OF A SUBSTITUTE REQUIRES ANY CHANGE IN WORK, THE NECESSITY FOR SUCH CHANGE WILL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, AND IF APPROVED, SHALL BE MADE AT NO COST TO THE OWNER.
6. CLEAN UP TRASH AND DEBRIS GENERATED BY THE WORK AND LEAVE COMPLETED WORK IN A CLEAN, UNDAMAGED, AND FINISHED CONDITION READY TO RECEIVE WITHOUT FURTHER PREPARATION, UNLESS SO SPECIFIED IN OTHER SECTIONS, ANY ADJACENT OR ABUTTING WORK TO BE PERFORMED BY OTHERS.
7. MATERIALS, APPLIANCES, DEVICES AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF UNDERWRITERS' LABORATORIES (UL) AND SHALL BE NEW AND THE LATEST STANDARD PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF THE ITEM, UNLESS OTHERWISE INDICATED. LIKE ITEMS SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER.
8. ALL CONDUCTORS SHALL BE COPPER AND RUN IN CONDUIT. WIRE SIZE SHALL BE #12 AWG MIN., THWN, UNLESS OTHERWISE NOTED ON PLANS. PROVIDE GROUND CONDUCTOR PER NEC 250-95. DO NOT SHARE NEUTRALS, RUN A NEUTRAL WIRE FOR EACH CIRCUIT.
9. PROVIDE TYPE WRITTEN SCHEDULES FOR ALL PANELBOARDS. PROVIDE NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT.
10. THE INTENT OF THESE PLANS IS TO PROVIDE A COMPLETE AND USABLE PROJECT. THESE PLANS ARE DIAGRAMMATIC IN CHARACTER AND ANY ITEMS WHICH ARE CLEARLY NECESSARY FOR THE COMPLETION OF THE WORK SHALL BE CONSIDERED A PORTION OF THE WORK EVEN THOUGH NOT DIRECTLY SPECIFIED OR SHOWN ON THIS DRAWING AND SHALL BE PROVIDED. AT NO ADDITIONAL COST.
11. ELECTRICAL INSTALLER OR SUBCONTRACTOR SHALL VERIFY THE EXACT LOCATION AND CONNECTION TO ALL EQUIPMENT FURNISHED BY OTHERS, PRIOR TO INSTALLING THE ELECTRICAL SYSTEM.
12. ELECTRICAL INSTALLER OR SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FULL COORDINATION OF HIS WORK WITH GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS.
13. PUMP CONTROLLER INCLUDING POWER AND CONTROL/MONITORING CABLES FROM CONTROL CABINET TO PUMP AND SENSORS IS TO BE COORDINATED, PROVIDED AND APPROVED BY PUMP MANUFACTURER TO ASSURE FULL OPERATIONAL COMPATABILITY. INSTALLATION AND TESTING TO BE PERFORMED AS PER PUMP MANUFACTURE'S INSTRUCTIONS.
14. PUMP CONTROLLER AND TELEMETRY SYSTEM SHALL BE CELLUNETICS M3 PUMP CONTROLLER OR APPROVED EQUAL. COST OF TELEMETRY SYSTEM IS INCIDENTAL TO THE COST OF THE PUMP STATION
15. FINAL CONNECTIONS TO EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS.
16. SUBMIT SHOP DRAWINGS OF ALL ELECTRICAL EQUIPMENT TO ENGINEER.
17. INCLUDED CONTROL PANELS AND GENERATORS, ELECTRICAL DRAWINGS ARE BASED ON THE SPECIFIED SIZE PUMPS AS SHOWN ON THE MECHANICAL DRAWINGS. CONTRACTOR SUBMITTING DIFFERENT PUMP CHARACTERISTICS SHALL SUBMIT AN ELECTRIC PACKAGE, SIGNED AND SEALED, TO MATCH THEIR REQUIREMENTS, AT NO COST TO THE OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE THE NECESSARY PERMITS IF REQUIRED BY THE AUTHORITIES. ANY CHANGES IN SIZE OF EQUIPMENT, WIRING/CONDUIT, AND/OR STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR AT NO COST TO THE OWNER.

POWER EQUIPMENT LEGEND

- M — ELECTRICAL METER
- J — CAST JUNCTION BOX.
- 3 20/30 480 — FUSED SAFETY SWITCH-3POLE,30AMP FRAME, 20 AMP FUSE INDICATED, -0 FUSE SIZE INDICATES NON-FUSED, -* FUSE SIZE INDICATES FUSE BY MANUF., 480 VOLTS INDICATED
- SIZE-0 — STARTER, SIZE INDICATED
- 50 — MOTOR-H.P. INDICATED
- T — TRANSFORMER-DESIGNATION SHOWN
- TVSS — TRANSIENT VOLTAGE SUPPRESSOR
- PB — PULL BOX
- ELECTRICAL EQUIPMENT. AS ON PLANS DESCRIBED.
- DUPLEX RECEPTACLE
- FLEXIBLE CONDUIT
- CONCEALED CONDUIT
- EXPOSED CONDUIT
- UNDERGROUND CONDUIT
- GROUNDING WIRE.
- CAPPED CONDUIT
- GROUND CONNECTION

WIRING DIAGRAMS LEGEND

- MCB — CONTROL PANEL MAIN CIRCUIT BREAKER
- F1 — FUSE
- 480V / 120V — TRANSFORMER
- CB — CIRCUIT BREAKER
- PUSH BUTTON
- RELAY COIL/CONTACTOR
- PILOT LIGHT (G=GREEN, R=RED & Y=YELLOW)
- FSI — FLOAT SWITCH
- RIA — SOFT START CONTROLLER TERMINAL
- TERMINAL CONNECTION
- TIME DELAY RELAY
- THERMAL — TEMPERATURE ACTUATED SWITCH (THERMAL OVELOADS)
- H O A — 3-POSITION (HAND-OFF-AUTO) SWITCH
- SA — SURGE ARRESTOR
- PM — PHASE MONITOR
- STOP, RUN, S2, PL; L1 L2 L3, SS2, T1 T2 T3 — SOFT START STARTER
- 6, 3, 8, 1, ALT, 2, 7 — ALTERNATOR

ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY
AIC	AMPERES INTERRUPTING CURRENT	EW	EXOTHERMIC WELD
ATS	AUTOMATIC TRANSFER SWITCH	EXIST	EXISTING
C	CONDUIT	FS	FLOAT SWITCH
CB	CIRCUIT BREAKER	GFI	GROUND FAULT INTERRUPTER
CKT	CIRCUIT	GND	GROUND
CONN	CONNECT OR CONNECTION	GRS	GALVANIZED RIGID STEEL
CU	COPPER	HOA	HAND-OFF-AUTOMATIC
DISC	DISCONNECT	T	TRANSFORMER
EC	EMPTY CONDUIT	V	VOLT
ELEC	ELECTRICAL	UG	UNDER GROUND
HP	HORSE POWER	VA	VOLT-AMPERE
JB	JUNCTION BOX	WP	WEATHER PROOF
KVA	KILO VOLT-AMPERE	NEUT	NEUTRAL
MCC	MOTOR CONTROL CENTER	OCPD	OVER CURRENT PROTECTIVE DEVICE
MH	MANHOLE	PB	PUSH BUTTON,PULLBOX
MTD	MOUNTED	PE	PHOTOELECTRIC CELL
		PH	PHASE
		PL	PILOT LIGHT
		PNL	PANEL
		SW	SWITCH
		SFWM	SOUTH FLORIDA WATER MANAGEMENT

TYPICAL CONTROLLER LEGEND

ENC	ENCLOSURE, STAINLESS STEEL	CUSTOM EQUIPMENT, 72X60X12 W/3PT. LATCH
MCB	MAIN CIRCUIT BREAKER	SQ.D
PCB	PUMP CIRCUIT BREAKERS	SQ.D
CCB	CONTROL CIRCUIT BREAKER	SQ.D, QOU110
GFICB	GFI CIRCUIT BREAKER	SQ.D, QOU115
F	FUSE	FERRAZ, ATQ & TRM
XFMR1	TRANSFORMER 480V/120V	SQ.D, 9070 T2000 D1
XFMR2	TRANSFORMER 120V/24V	MICRON, B100LP7JK
AL	ALARM LIGHT	INGRAM, LRXB-40
ASB	ALARM SILENCE BUTTON	SQ.D, 9001 SKRIBH5
ASR	ALARM SILENCE RELAY	OMRON, MJN3C-AC120
ST	120V CONTROL RELAY	OMRON, MJN3C-AC120
R	CONTROL RELAY	OMRON, MJN3C-AC24
ALT	ALTERNATOR	DIVERSIFIED, ARA-120-ACA
SS	SOFT STARTER	SQ.D, ATS48C14Y
HOA	HAND-OFF-AUTO SWITCH	SQ.D, 9001 SKS43BH13
TD	TIME DELAY RELAY	DIVERSIFIED, TBC-120-ABA
TDR	ADJUSTABLE TIME DELAY RELAY	DIVERSIFIED, XXXXX
ETM	ELAPSED TIME METER	PSA, T50B259
RL	RUN LIGHT	BACO, S20SA20 GREEN
SFM	SEAL FAIL MODULE	SSAC, LLC54BA
IL	INDICATING LIGHT	BACO, S20SA10 RED
SA	SURGE ARRESSTOR	DITEK, DTK-480-3CM
GFI	GFI RECEPTACLE	LEVITON, 6898-I
PM	PHASE MONITOR	DIVERSIFIED, SLA-420-ASA
SCA	SHORTING CONTACTOR & PILOT RELAY	

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STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

ELECTRICAL NOTES, LEGEND AND ABBREVIATIONS

SHEET NO. 13

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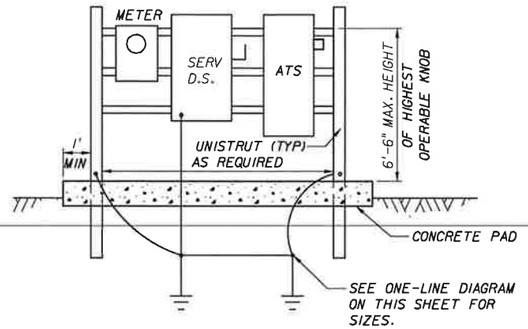
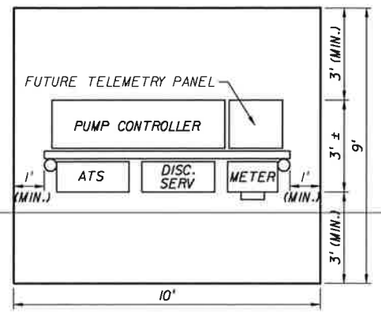
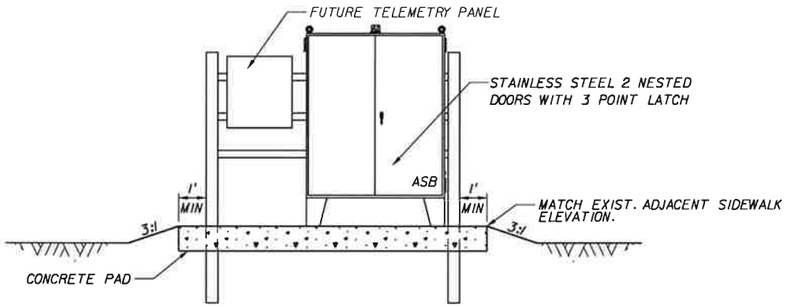


FRONT VIEW
NTS



PLAN VIEW
NTS

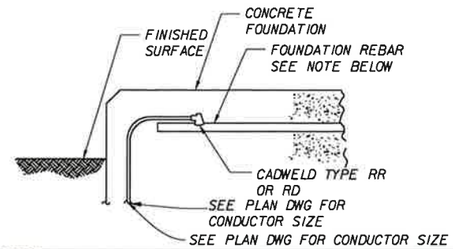


REAR VIEW

CONTROLLER RACK DETAIL
(SEE NOTES 4 & 5) NTS

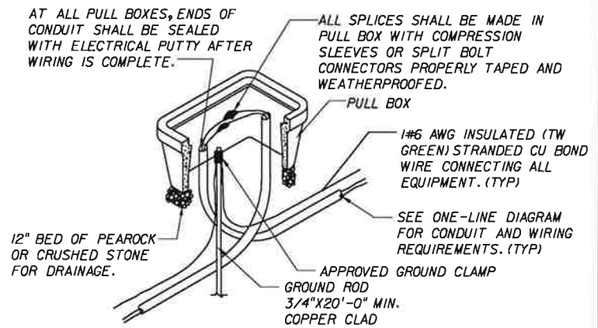
NOTES:

1. COORDINATE ELECTRIC SERVICE REQUIREMENTS WITH FPL AREA REPRESENTATIVE:
   MISS. LESLEY FOX
   PHONE NUMBER: (305) 337-6202
2. PUMP CONTROLLER, INCLUDING POWER AND CONTROL/MONITORING CABLES FROM CONTROL CABINET TO PUMP IS TO BE PROVIDED BY PUMP MANUFACTURER AND INSTALLED BY ELECTRICAL SUBCONTRACTOR. SUBCONTRACTOR TO PERFORM INSTALLATION AS PER PUMP MANUFACTURES INSTRUCTIONS.
3. GENERATOR IS A NON-SEPARATELY DERIVED TYPE.
4. RACK DETAILS SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, FURNISH AND INSTALL RACK AND FOUNDATIONS OF SUFFICIENT DESIGN TO SUPPORT THE ELECTRIC PANELS BASED ON ACCEPTED DESIGN FACTORS.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF RACK FOR APPROVAL. DRAWINGS SHALL CONTAIN A STATEMENT, SIGNATURE, AND A SEAL OF A PROFESSIONAL ENGINEER LICENSE IN THE STATE OF FLORIDA CERTIFYING THAT THE DESIGN IS SUFFICIENT FOR THE PROPOSED INSTALLATION.
6. ADJUST SOFT START TO LIMIT STARTING CURRENT TO A MAXIMUM OF 200% OF THE NOMINAL FULL LOAD CURRENT.
7. WIRING DIAGRAM SHOWN FOR ILLUSTRATION PURPOSE. CONTRACTOR SHALL SUBMIT PUMP CONTROLLER MANUFACTURER SHOP DRAWINGS COMPLYING WITH THE SCHEME SHOWN ON THESE PLANS FOR ENGINEER'S REVIEW.
8. PER THE FPL REP. LESLEY FOX, THE MAXIMUM AVAILABLE FAULT CURRENT AT THE TRANSFORMER SECONDARY TERMINALS IS ESTIMATED TO BE 20525 SYMMETRICAL AMPERES AT 277/48 VOLTS.
9. ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED AND LOCKABLE NEMA 4X ENCLOSURE

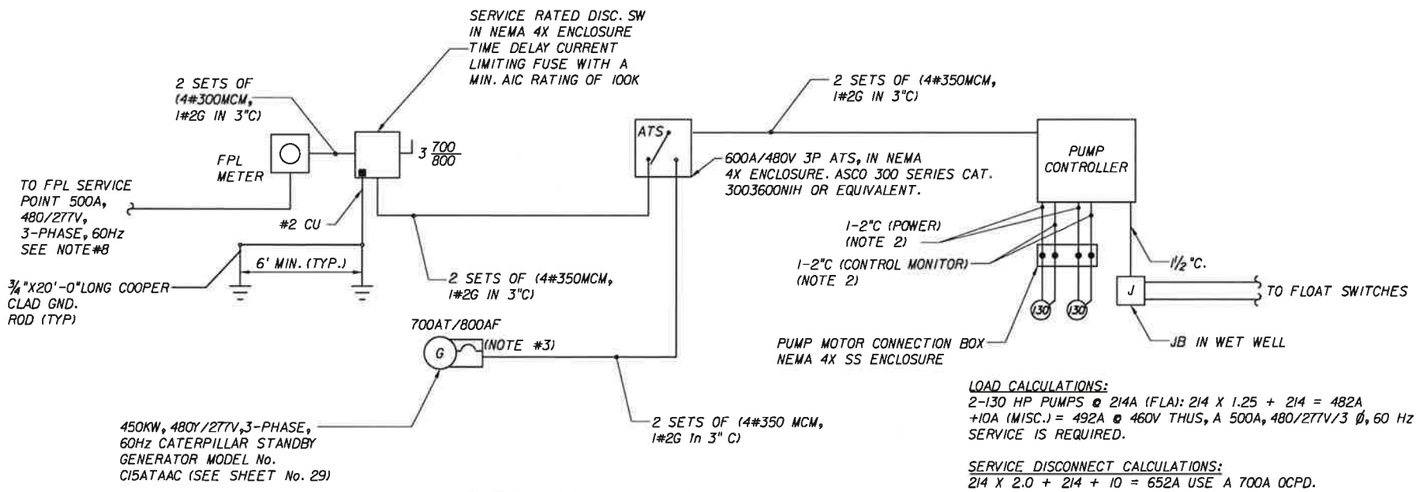


NOTE:
ALL REBARS SHALL BE BONDED TOGETHER WITH TIE WIRES.

TYPICAL FOUNDATION REBAR-GROUND CONNECTION
N.T.S.



PULL BOX WIRING DETAIL
N.T.S.



PUMP STATION ONE - LINE DIAGRAM
N.T.S

LOAD CALCULATIONS:
2-130 HP PUMPS @ 214A (FLA): 214 X 1.25 + 214 = 482A
+10A (MISC.) = 492A @ 460V THUS, A 500A, 480/277V/3 Ø, 60 Hz SERVICE IS REQUIRED.

SERVICE DISCONNECT CALCULATIONS:
214 X 2.0 + 214 + 10 = 652A USE A 700A OCPD.

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER

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STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30837

ELECTRICAL DETAILS

SHEET NO. 14

FOR CONSTRUCTION 100% PLANS

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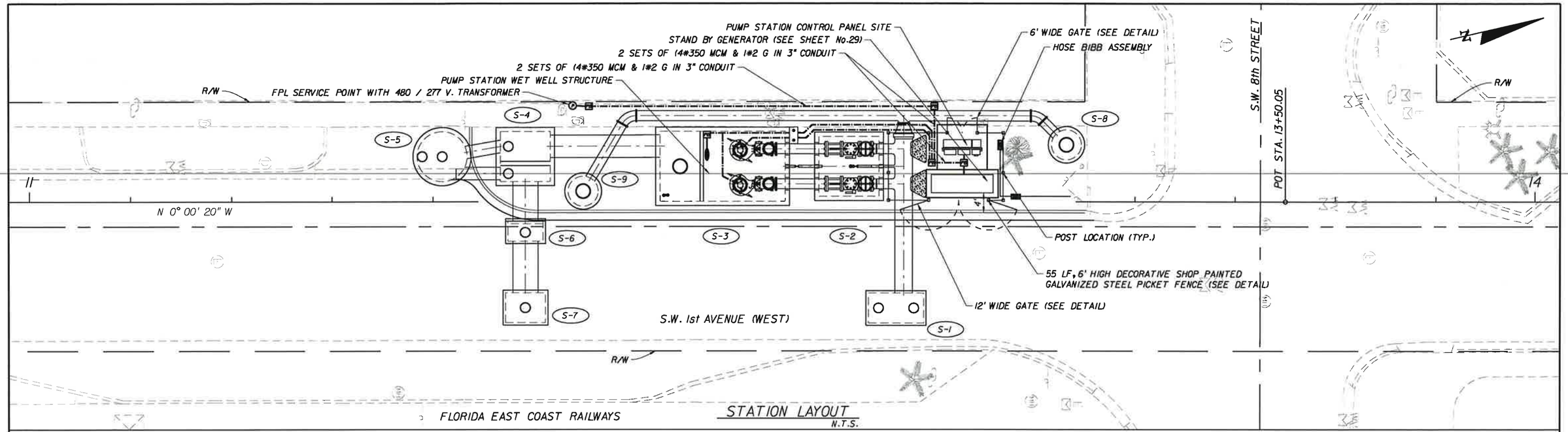
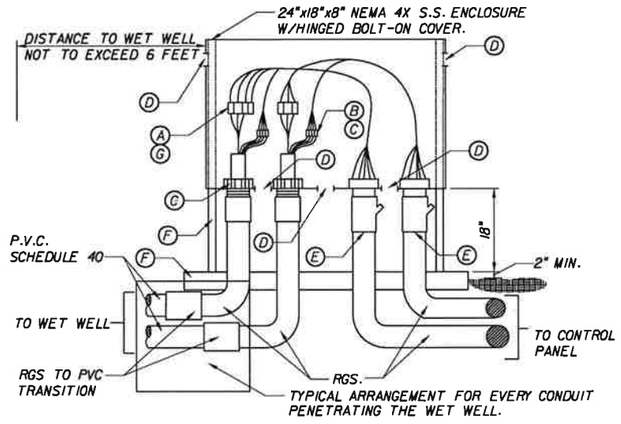


STATION LAYOUT
N.T.S.



PUMPS MOTOR CONNECTION BOX
(USE IN SUBMERSIBLE WET WELL APPLICATIONS ONLY)

Ⓐ 6 - POLE POWER INSULATED TERM BLOCK PANEL MOUNT ALLEN BRADLEY BULLETIN 1492 SIZED AS REQUIRED.

Ⓑ 6 - CIRCUIT CONTROL INSULATED TERM BLOCK PANEL MOUNT ALLEN BRADLEY BULLETIN 1492

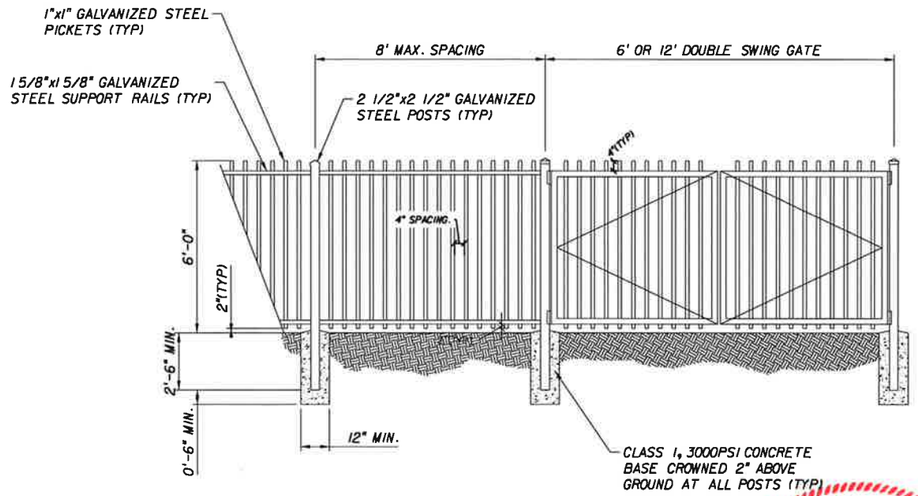
Ⓒ GLAND NUT AND NEOPREME BUSHING EQUAL TO CROUSE HINDS CGK SIZE AS REQUIRED FOR CABLE O.D.

Ⓓ 1/4" DRAIN AND VENTILATION HOLES.

Ⓔ CONDUIT SEAL.

Ⓕ 3' x 3' x 6" CONCRETE SLAB AND 15/8" x 15/8" S.S. UNISTRUT SUPPORT FOR ENCLOSURE.

Ⓖ COAT WITH CLEAR URETHANE SEAL ELECTRICAL-ELECTRONIC INSULATOR AS CRC 'U' 02049



6' HIGH DECORATIVE SHOP PAINTED
GALVANIZED STEEL PICKET FENCE
N.T.S.

FENCE NOTES:

1. BEFORE STARTING FABRICATION OF FENCE, THE CONTRACTOR SHALL SUBMIT TO THE CITY FOR APPROVAL:

1.1. SUBMIT TO CITY FOR APPROVAL, SIX (6) COMPLETE SETS OF SHOP DRAWINGS REFLECTING WELDING, FABRICATION AND INSTALLATION OF FENCE INCLUDING ALL PLANS, TYPICAL ELEVATIONS, SECTIONS, DETAILS OF COMPONENTS, ANCHOR DETAILS AND SAMPLES OF MANUFACTURERS STANDARD COLOR CHART.

1.2. MANUFACTURER'S SPECIFICATIONS AND INSTALLATION DETAIL FOR ALL COMPONENT PARTS.

2. NO WORK SHALL COMMENCE NOR WILL IT BE ACCEPTED WITHOUT PRIOR APPROVAL OF THE SHOP DRAWINGS.

3. PICKETS, RAILS, AND POSTS SHALL BE SHOP PAINTED GALVANIZED STEEL

4. FASTENERS SHALL BE STAINLESS STEEL PAINTED TO MATCH COLOR

5. THE FENCE SHALL BE INSTALLED IN ACCORDANCE WITH THE PREVIOUSLY PREPARED AND APPROVED SHOP DRAWINGS AND THE MANUFACTURER'S DETAILED INSTRUCTIONS FOR FENCE INSTALLATION. ERECTION OF FENCING SHALL BE DONE BY SKILLED WORKMEN. A FENCE LINE SHALL BE ESTABLISHED PRIOR TO THE INSTALLATION OF THE FENCING. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT THE FENCE LINE IS FREE OF ALL VEGETATION AND OBSTACLES. THE GRADE SHALL BE SUCH THAT A CLEARANCE OF APPROXIMATELY 2" BETWEEN THE PICKETS AND THE GROUND SHALL BE HELD ALONG THE LINE OF THE FENCE.

6. POST FOOTINGS SHALL BE 12" DIAMETER X 36"DEEP. SOIL AT EXCAVATION SHALL BE THOROUGHLY COMPACTED. CARE SHALL BE TAKEN TO INSURE PROPER ALIGNMENT AND PLUM INSTALLATION. POST SHALL BE PLACE AT INTERVALS NOT TO EXCEED 8 FOOT CENTER TO CENTER. POST SHALL BE SET IN 3000 PSI CONCRETE. ALL POST WILL BE SET IN CONCRETE FOOTINGS WITH ALLOWANCE FOR A MINIMUM OF 6" OF CONCRETE BETWEEN BOTTOM OF POST AND BOTTOM OF CONCRETE FOOTING. ALL FOOTING SHALL EXTEND 2" ABOVE FINISHED GRADE AND SHALL BE CROWNED TO SHED WATER. SPATTERED CONCRETE WILL BE REMOVED FROM ALL FENCE MATERIAL. WASTE MATERIAL FROM EXCAVATION SHALL BE SPREAD AS DIRECTED ON SITE, OR REMOVED AS DIRECTED BY THE OWNER.

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER

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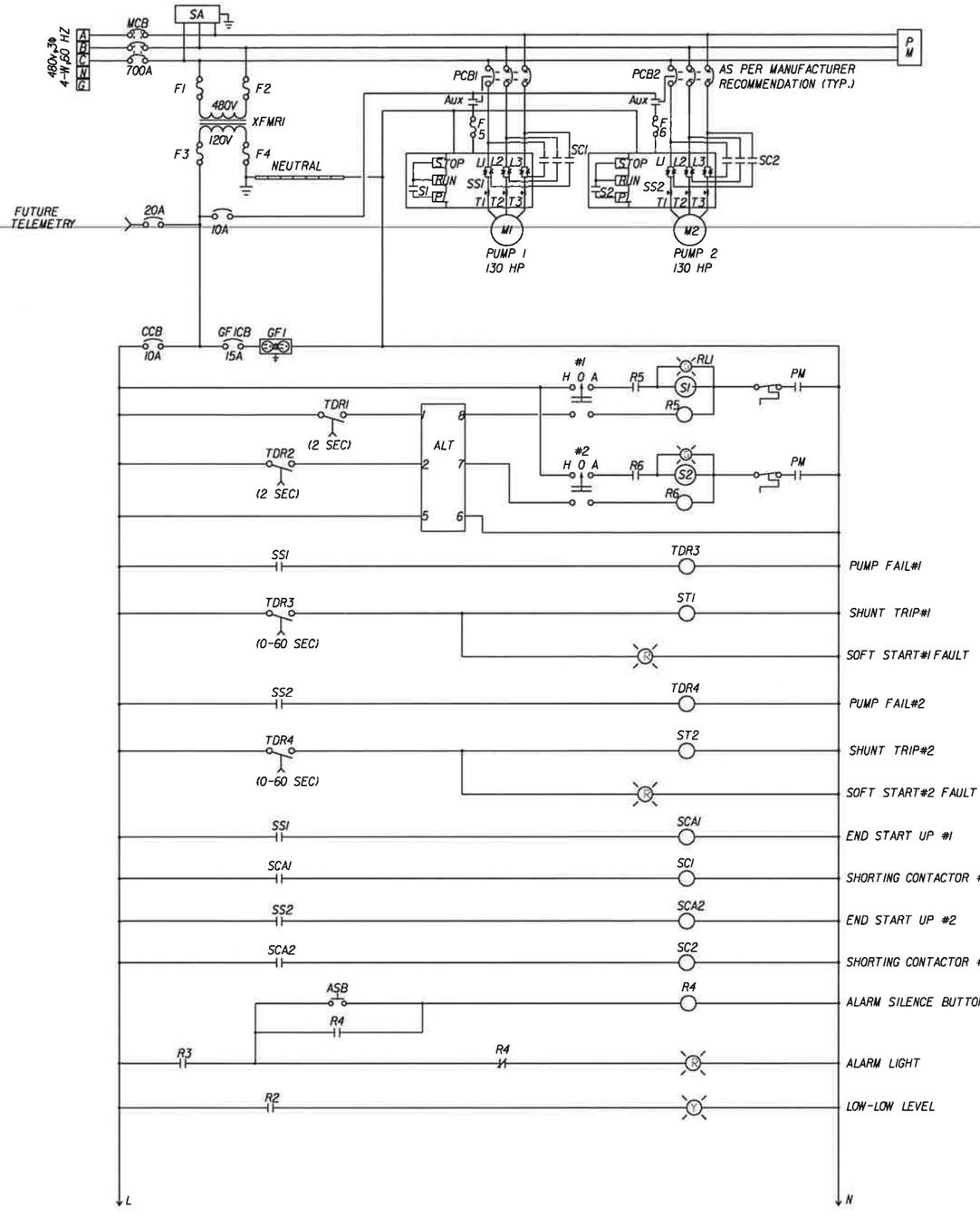
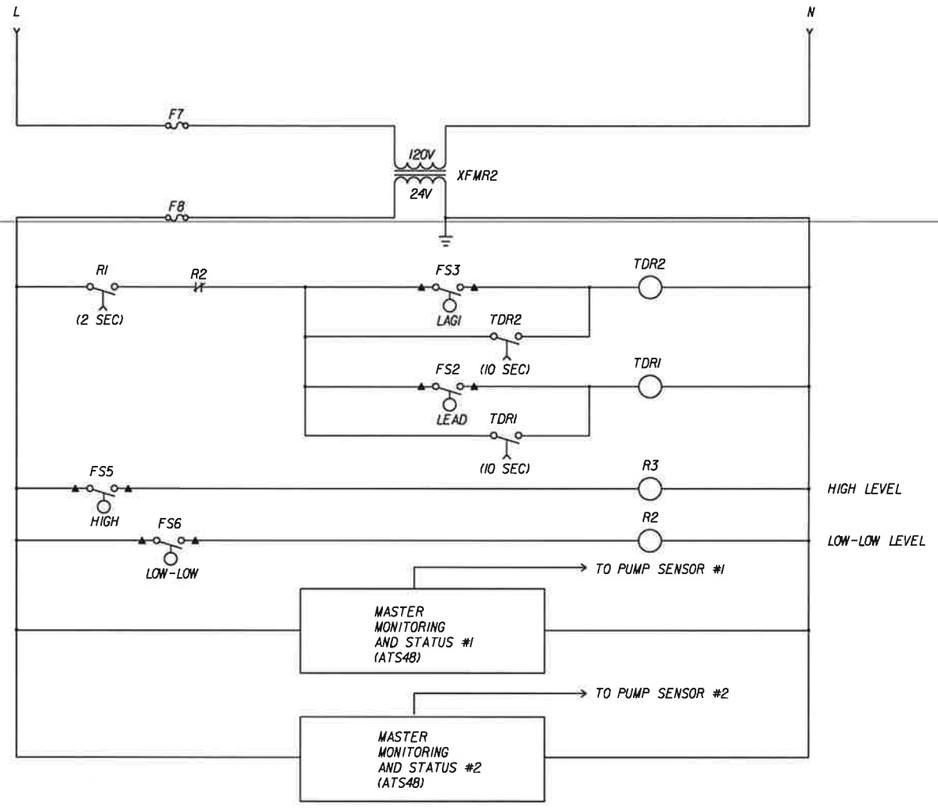
ELECTRICAL DETAILS

SHEET NO. 15

FOR CONSTRUCTION 100% PLANS





SEQUENCE OF OPERATIONS:

1. WHEN WATER LEVEL RISES ABOVE LEAD FLOAT SWITCH THE LEAD PUMP, AS DETERMINED BY ALTERNATOR, WILL START.
2. IF WATER LEVEL CONTINUES TO RISES ABOVE THE LAG FLOAT SWITCH THE LAG PUMP, AS DETERMINED BY ALTERNATOR, WILL START.
3. ALL RUNNING PUMPS WILL SHUT OFF SIMULTANEOUSLY AS THE LOW LEVEL FALLS BELOW THE LOW LEVEL FLOAT SWITCH.
4. THE LOW-LOW LEVEL FLOAT SWITCH WILL SHUT-OFF THE PUMPS IF THE LOW LEVEL SWITCH WERE TO FAIL (STUCK CLOSED).
5. ADJUSTABLE LAG DELAY RELAYS WOULD PREVENT ALL PUMPS TO RE-START SIMULATEOUSLY FOLLOWING A TEMPORARY LOSS OF POWER WITH THE WATER LEVEL PAST THE LEAD FLOAT SWITCH.
6. ADDITIONAL SYSTEM PROTECTION PROVIDED INCLUDES THERMAL OVERLOAD PROTECTION, SEAL FAILURE INDICATION, AND SOLID STATE SOFT STARTER ARE SHUNTED OUT IN CASE OF A STARTER FAILURE.

PUMP STATION WIRING DIAGRAM
(FOR ILLUSTRATIVE PURPOSES ONLY)

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER 4/15/14

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Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI

MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

ELECTRICAL WIRING DIAGRAM

SHEET NO. 16

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GENERAL NOTES:

A. GENERAL NOTES

1. THE STRUCTURAL DRAWINGS COMPLY WITH THE APPICABLE REQUIREMENTS OF THE FLORIDA BUILDING CODE, DADE COUNTY EDITION AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, STANDARDS, REGULATION AND LAWS.

2. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, DADE COUNTY EDITION, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, STANDARDS, REGULATIONS AND LAWS.

3. SAFETY AND COMPLIANCE WITH OSHA AND LABOR LAWS IS THE ABSOLUTE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THOSE CONSULTANTS HE HIRES TO ADDRESS THESE MATTERS.

4. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING CONSTRUCTION.

5. THE CONTRACTOR SHALL COMPLY WITH THE DRAWINGS. ANY DEVIATIONS MUST BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL.

6. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITIES FROM ALL DAMAGE.

7. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH CIVIL, MECHANICAL, AND ELECTRICAL DRAWINGS. CONTRACTOR TO COORDINATE ALL PIPE AND CONDUIT LOCATIONS THRU CONCRETE. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

8. THE STRUCTURES SHOWN ON THESE DRAWINGS ARE STRUCTURALLY SOUND ONLY IN THEIR COMPLETED FORM. THE CONTRACTOR SHALL USE ADEQUATE TEMPORARY SHORING AND BRACING TO SUPPORT FORMS, CONCRETE, STEEL, WOOD, AND MANSORY, TO BE ABLE TO RESIST ALL GRAVITY, EARTH, WIND, AND CONSTRUCTION LOADS DURING CONSTRUCTION. GENERAL NOTES 2 AND 3 ABOVE SHALL ALSO APPLY TO SHORING AND BRACING. ALL SHORING AND BRACING SHALL BE INSPECTED AND APPROVE BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

9. CONTRACTOR SHALL SUBMIT FOR APPROVAL SHOP DRAWINGS FOR ALL PUMP STATIONS AND CONTROL VALVE VAULTS SHOWING ALL REINFORCING BARS INDICATING SIZE AND SPACING.

10. NOTED AND COMPUTED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.

11. HATCHES FOR PUMP STATIONS AND CONTROL VALVE VAULTS SHALL HAVE THE REQUIRED CLEAR OPENINGS SHOWN IN THE DRAWINGS. HATCHES SHALL BE BY U.S.F. FABRICATION, INC. OR APPROVED EQUAL. HATCHES SHALL BE EQUIPPED WITH RECESSED PADLOCK BOX AND SPRINGS FOR EASY OPENING. HATCHES SHALL BE DESIGNED FOR HS 20 LOAD. CONTRACTOR SHALL PROVIDE DESIGN CALCULATIONS AND SHOP DRAWINGS FOR EACH TYPE OF HATCH. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.

12. IN THE EVENT THAT THE SUPPLIED HATCHES REQUIRE DIFFERENT CLEAR OPENINGS THAN SHOWN ON THESE PLANS, THE CONTRACTOR SHALL INCLUDE THE REDESIGN OF THE CONCRETE BOX TOP SLABS IN THE SHOP DRAWINGS FOR THE PUMP STATIONS. THE TOP SLABS SHALL BE RE-DESIGNED FOR HS 20 LOAD AND THE HATCHES SHALL BE LOCATED IN SUCH A WAY TO ALLOW THE REMOVAL OF ALL EQUIPMENT. REVISED SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.

13. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT FLOTATION OF THE STRUCTURES UNTIL COMPLETED AND AFTER ALL BACKFILL IS IN PLACE AND HAS BEEN COMPACTED.

14. CONTRACTOR MAY PROPOSE PRECAST ALTERNATES TO CAST-IN-PLACE STRUCTURES. DESIGN CALCULATIONS AND SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL.

15. BACKFILL AROUND BOXES SHALL BE PLACED IN UNIFORM LIFTS OF 6" MAX. AROUND THE STRUCTURE AND EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED BY AASHTO T-180. COMPACTION SHALL BE PERFORMED USING HAND OPERATED MECHANICAL COMPACTORS ALLOWING THE LIFT TO WATER SETTLE. THE SITE SHALL CONTINUE TO BE DEWATERED UNTIL BACKFILLING IS COMPLETE.

B. CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318 AND FLORIDA BUILDING CODE REQUIREMENTS.

2. ALL REINFORCED CONCRETE SHALL HAVE A MINIMUM DESIGN COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.

3. ALL CONCRETE EXPOSED SURFACE SHALL RECEIVE A CLASS 5 FINISH.

4. ALL STRUCTURAL CONCRETE MUST BE AIR ENTRAINED. PROVIDE AN AIR CONTENT OF 4% TO 6% BY VOLUME. AIR ENTRAINING ADMIXTURE SHALL COMFORM TO A.S.T.M. C-260.

5. CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CHLORIDE SALTS ARE NOT PERMITTED IN CONCRETE.

6. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4-INCH AND ALL CONCRETE SHALL BE PROPERLY MOIST CURED IMMEDIATELY AFTER FINISHING.

7. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4 INCH.

C. REINFORCING

1. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. MINIMUM LAP SPLICES SHALL BE 40 BARS DIAMETERS UNLESS NOTED OTHERWISE (U.N.O.).

2. PLACING OF REINFORCEMENT SHALL COMPLY WITH REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODE FOR STRUCTURAL CONCRETE, ACI-318.

3. ALL BAR BENDS AND HOOKS SHALL COMPLY WITH REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODE FOR STRUCTURAL CONCRETE, ACI-318.

4. CONCRETE REINFORCEMENT COVER SHALL BE AS FOLLOWS U.N.O.:

   CONCRETE CAST AGAINST THE GROUND: 3"
   FORMED CONCRETE IN CONTACT WITH GROUND: 2"
   SLABS ON GRADE (TOP): 1 1/2"
   SLABS ON GRADE (BOTTOM): 2"
   BEAMS AND COLUMNS: 1 1/2"

D. ALUMINUM

1. ALUMINUM EMBEDDED IN CONCRETE MUST BE PAINTED WITH ONE SHOP COAT OF ZINC CHROMATE FOLLOWED BY ONE HEAVY COAT OF ALUMINUM PIGMENTED ASPHALT PAINT.

2. ALUMINUM SHAPES IN CONTACT WITH CONCRETE MUST BE SEPARATED BY A 1/32" THICK NEOPRENE GASKET. IN ANY CASE WHERE TWO DIFFERENT METALS ARE TO BE IN CONTACT, A NEOPRENE GASKET MUST BE PROVIDED.

E. CONSTRUCTION JOINTS

1. CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT LOCATIONS INDICATED IN THESE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATION TO THOSE SHOWN IN THESE PLANS SHALL REQUIRE APPROVAL OF THE ENGINEER.

F. DESIGN CRITERIA AND LOADING REFERENCES

1. ACI 350 R ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES.
   ACI 318-08 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
   FLORIDA BUILDING CODE.
   DESIGN LIVE LOADS: HS 20 LOAD IN ACCORDANCE WITH THE 17th EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS BRIDGES (LFD, 2002).

FRANCISCO J. ALONSO LICENSE NO. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER 4/15/14

REVISIONS			
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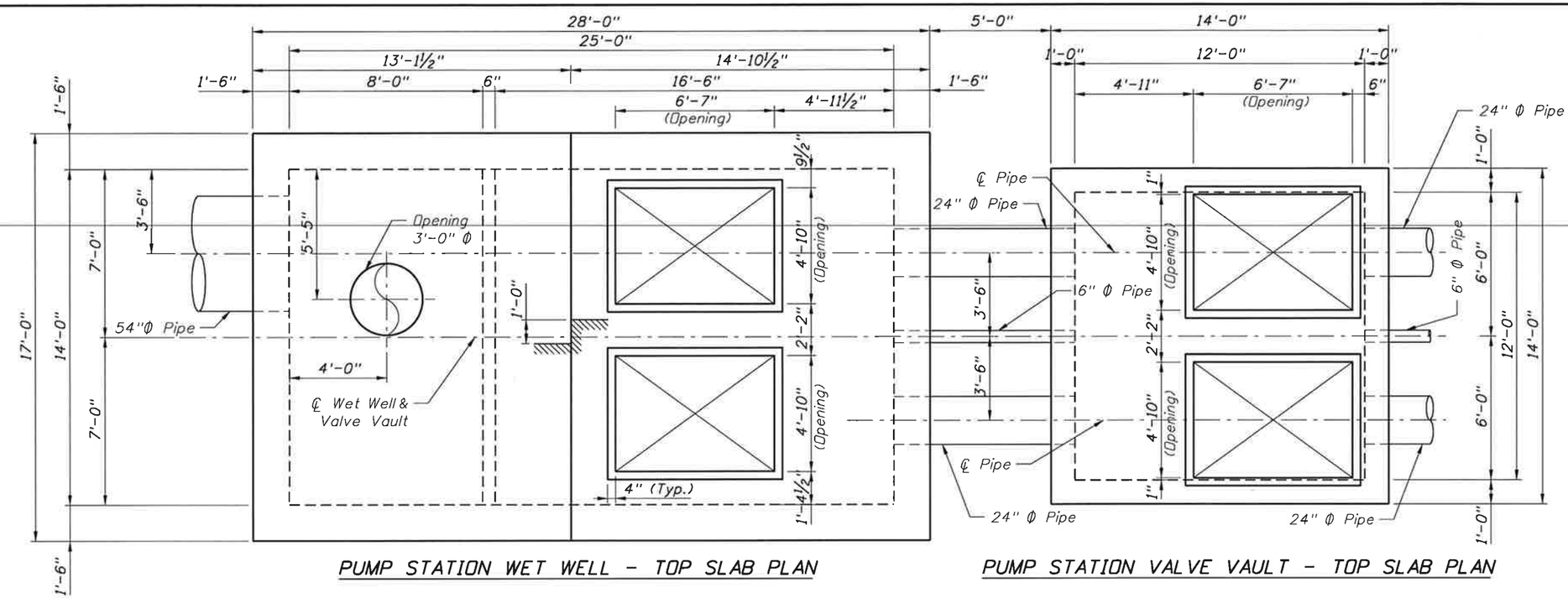
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30837

GENERAL STRUCTURAL NOTES

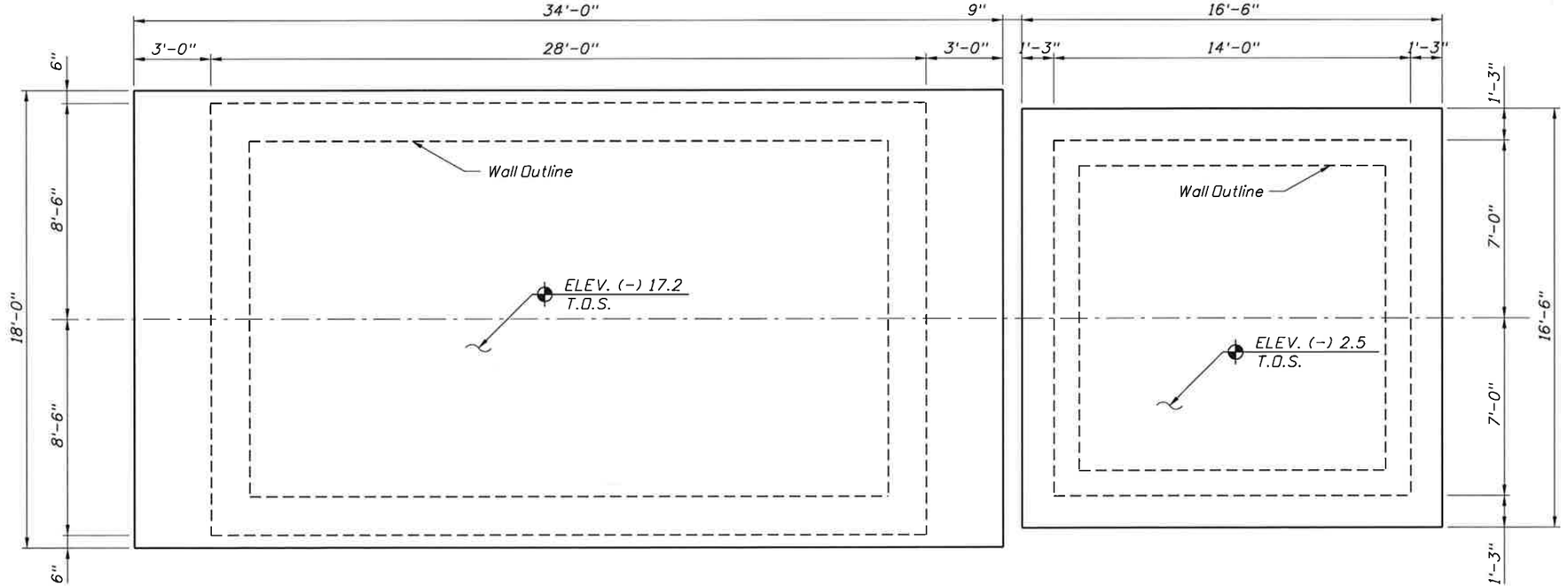
SHEET NO. 17

FOR CONSTRUCTION 100% PLANS



PUMP STATION WET WELL - TOP SLAB PLAN

PUMP STATION VALVE VAULT - TOP SLAB PLAN



PUMP STATION WET WELL - BOTTOM SLAB PLAN

PUMP STATION VALVE VAULT - BOTTOM SLAB PLAN

FRANCISCO J. ALONSO
LICENSE
No. 66918
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

NOTES:

1. For General Notes, see Sheet No. 17
2. For Typical Details, see Sheet No. 24

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STORMWATER PUMP STATION

SW 8th STREET AND SW 1st AVENUE

CITY OF MIAMI PROJECT NUMBER: B-30637

PUMP STATION STRUCTURAL DETAILS

SHEET NO. 18

FOR CONSTRUCTION 100% PLANS

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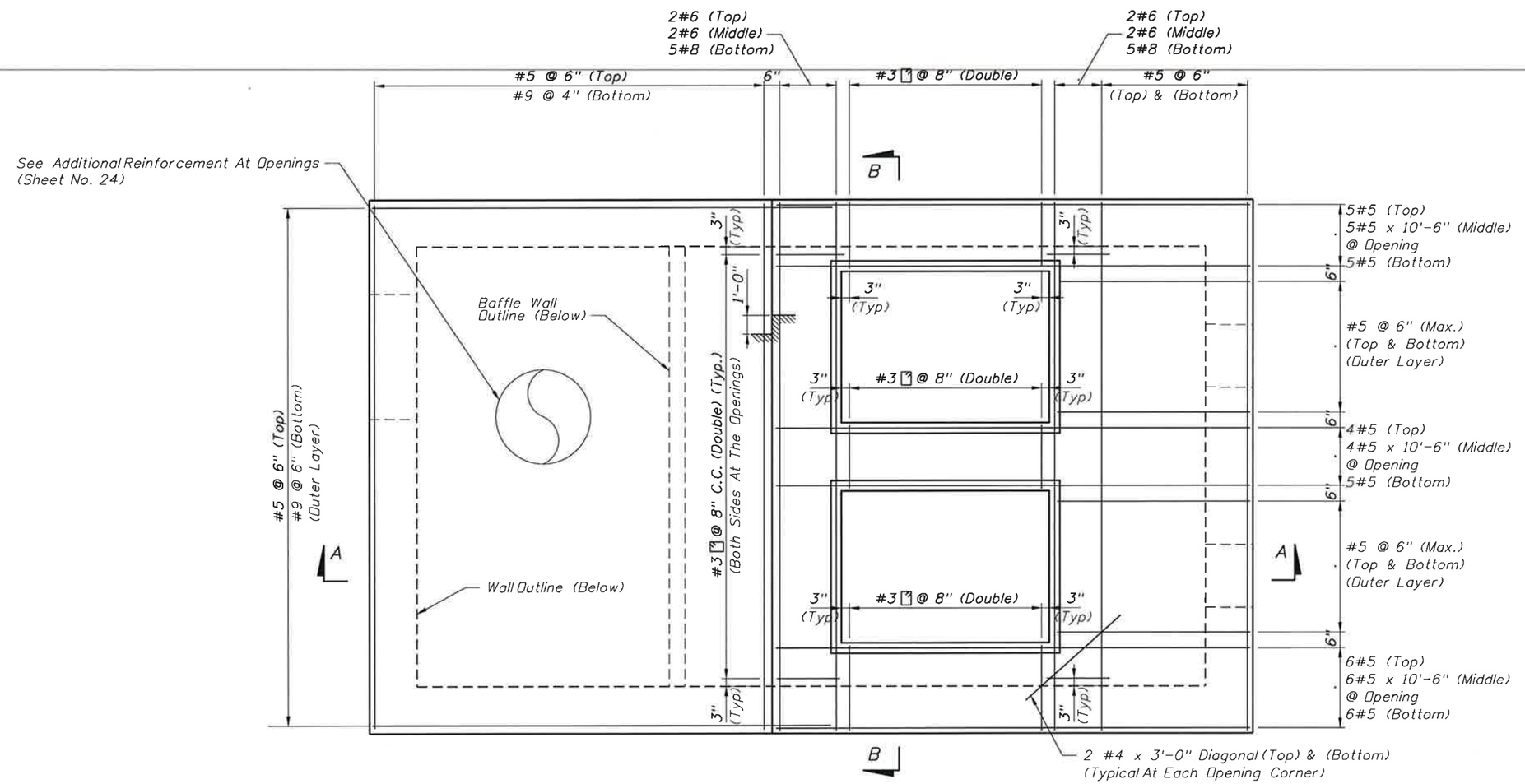

PUMP STATION WET WELL - TOP SLAB PLAN REINFORCEMENT

NOTES:

1. For General Notes, see Sheet No. 17
2. For Typical Details, see Sheet No. 24
3. For Section A-A, see Sheet No. 21
4. For Section B-B, see Sheet No. 22

FRANCISCO J. ALONSO
LICENSE
No. 66918
4/13/14
STATE OF
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PUMP STATION STRUCTURAL DETAILS

SHEET NO. 19

FOR CONSTRUCTION 100% PLANS

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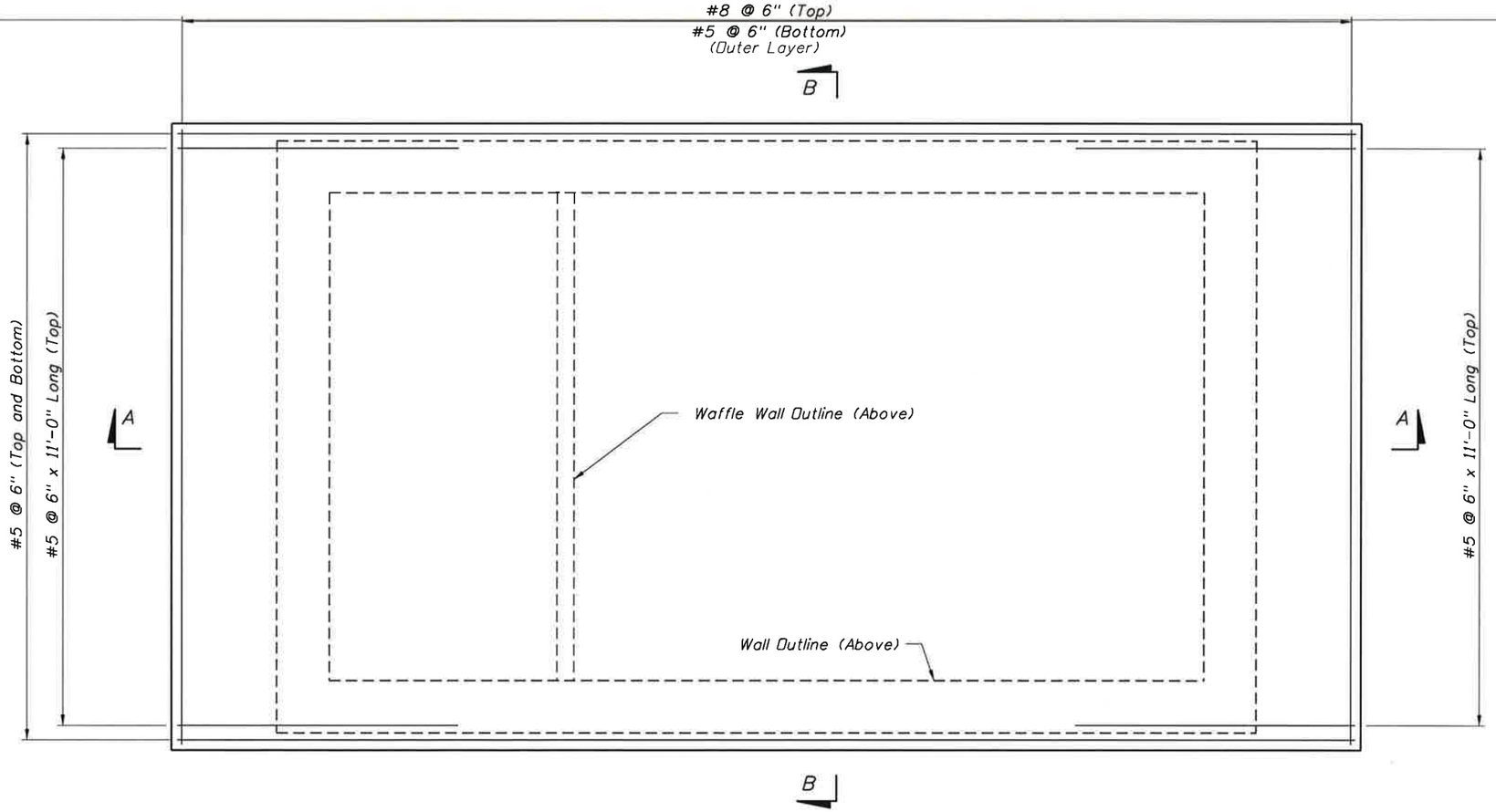

PUMP STATION WET WELL - BOTTOM SLAB PLAN
REINFORCEMENT

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER 4/15/14

NOTES:

1. For General Notes, see Sheet No. 17
2. For Typical Details, see Sheet No. 24
3. For Section A-A, see Sheet No. 21
4. For Section B-B, see Sheet No. 22

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PUMP STATION STRUCTURAL DETAILS

SHEET NO. 20

FOR CONSTRUCTION 100% PLANS

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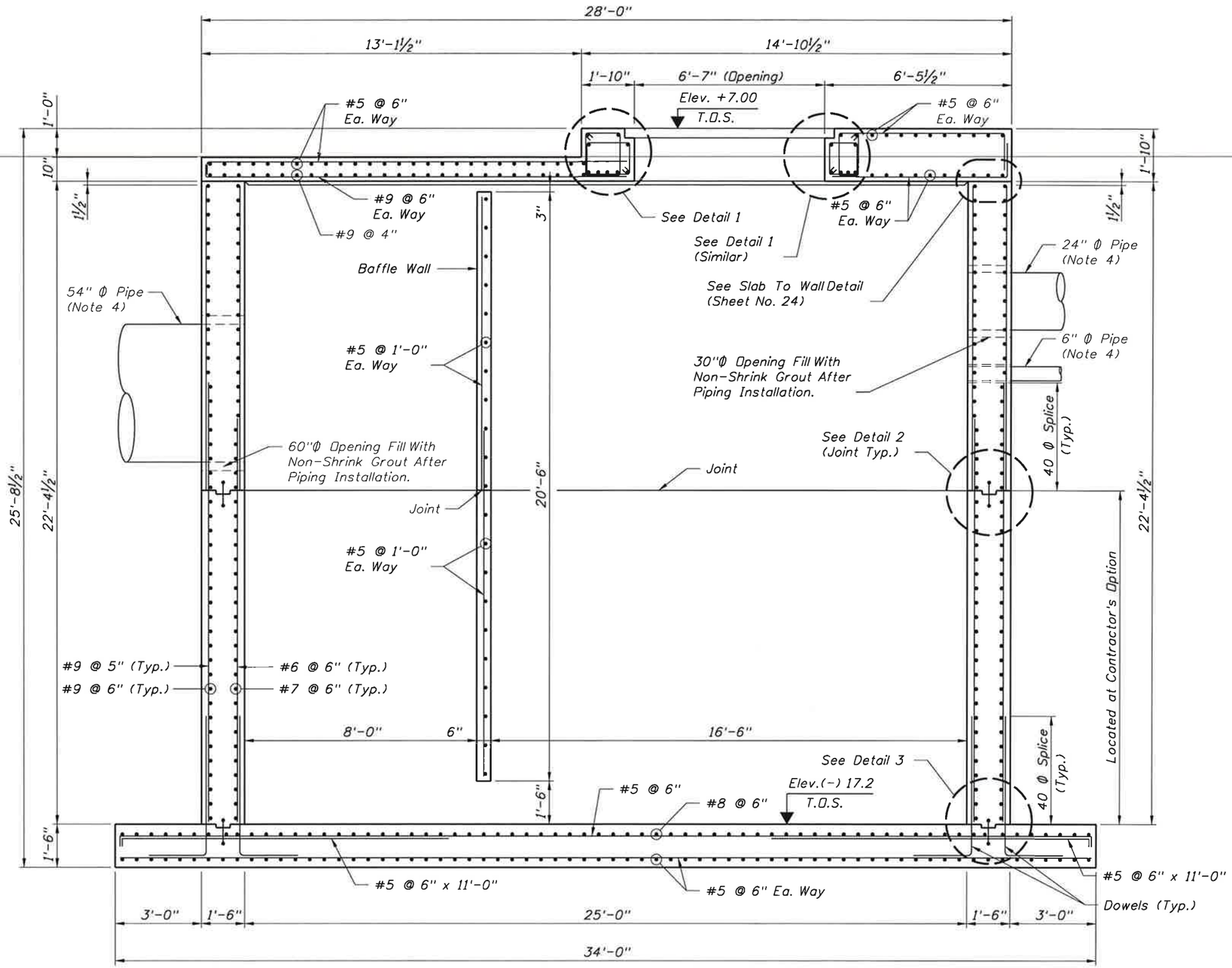
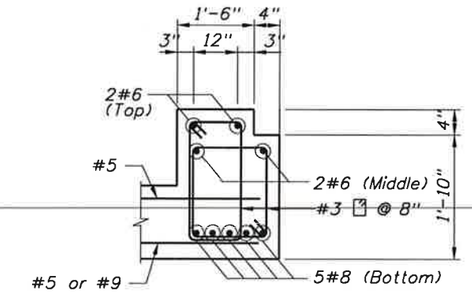
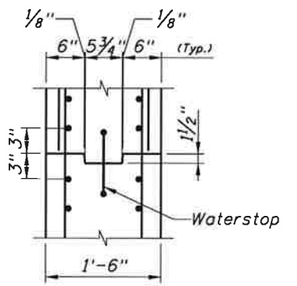


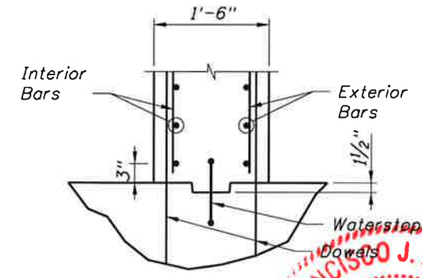
SECTION A-A



DETAIL 1



DETAIL 2
Key (Wall)



DETAIL 3
Key (Wall Base)

NOTES:

1. For General Notes, see Sheet No. 17
2. For Typical Details, see Sheet No. 24
3. For location of Section A-A, see Sheets No. 19 and 21
4. The Pipe Location Shall Be Coordinated With The Civil Drawings.

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER 4/14/15

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PUMP STATION STRUCTURAL DETAILS

SHEET NO. 21

FOR CONSTRUCTION 100% PLANS

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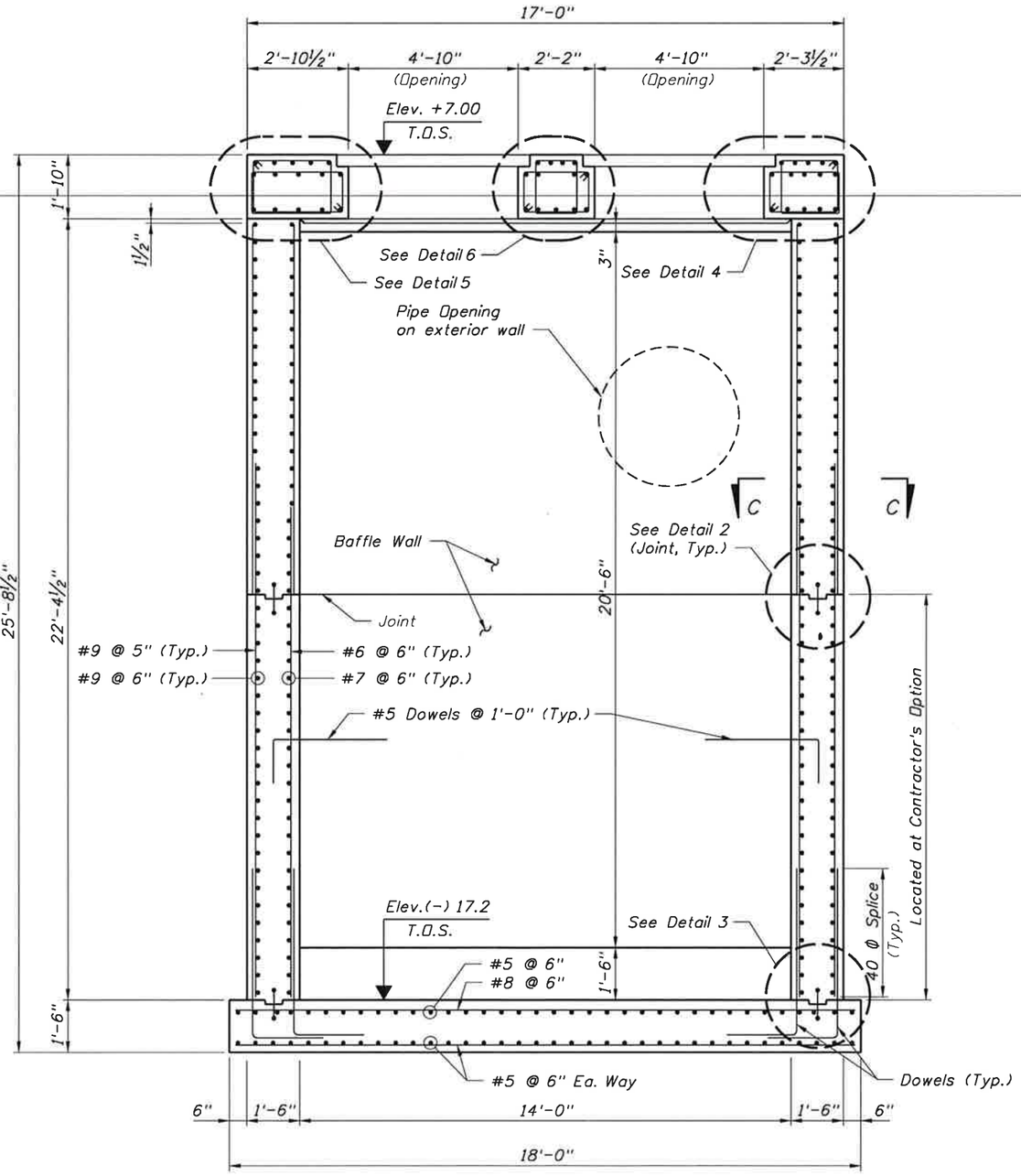
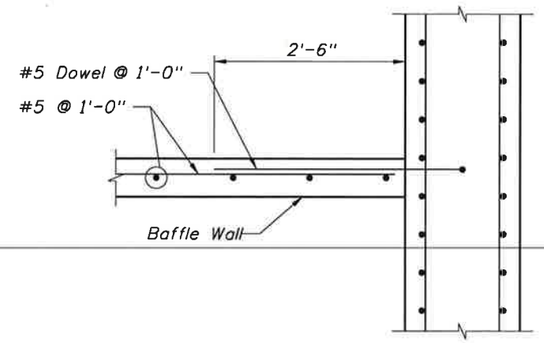
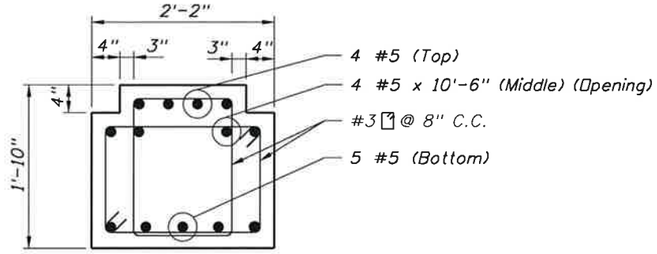


SECTION B-B



SECTION C-C



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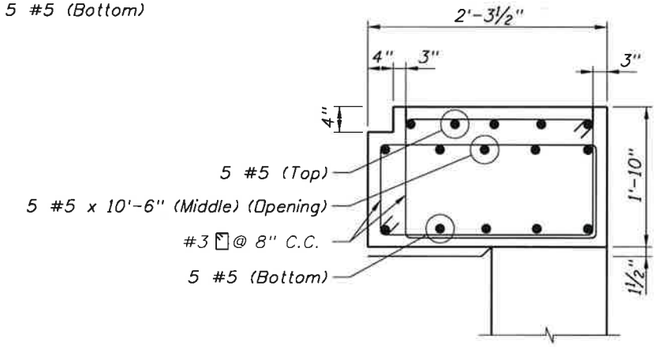
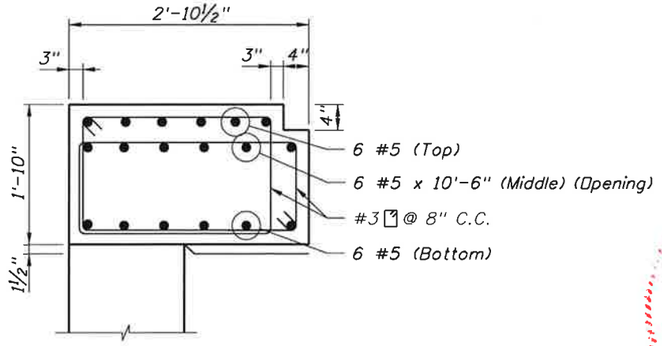


DETAIL 4



DETAIL 5

FRANCISCO J. ALONSO
LICENSE
No. 66918
STATE OF FLORIDA
PROFESSIONAL ENGINEER
10/13/15

NOTES:

1. For General Notes, see Sheet No. 17
2. For Typical Details, see Sheet No. 24
3. For Details 2 and 3, see Sheet No. 21
4. For Location Of Section B-B, see Sheet No. 19 and 20

REVISIONS			
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SW 8th STREET AND SW 1st AVENUE
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PUMP STATION STRUCTURAL DETAILS

SHEET NO. 22

FOR CONSTRUCTION 100% PLANS

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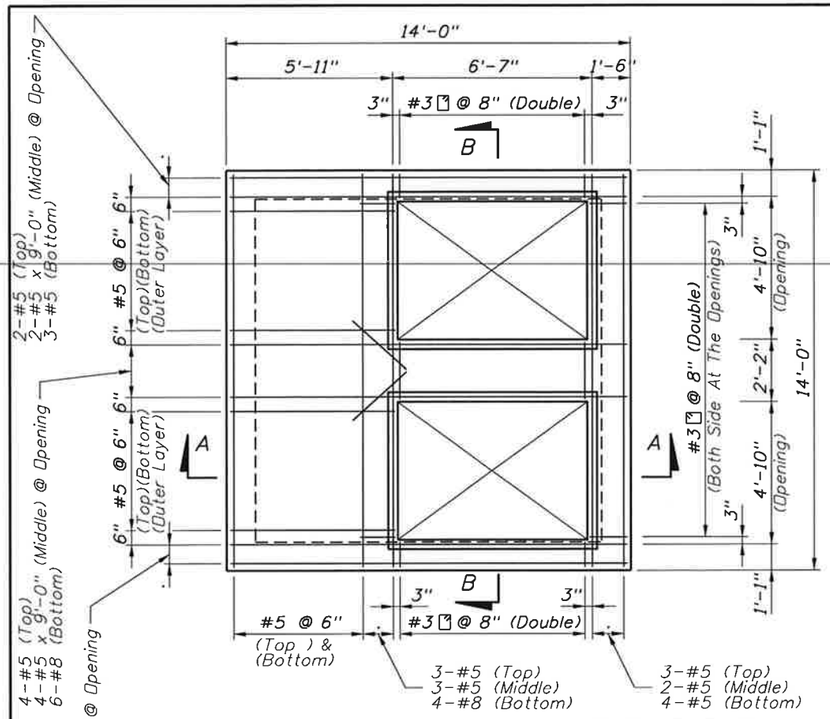
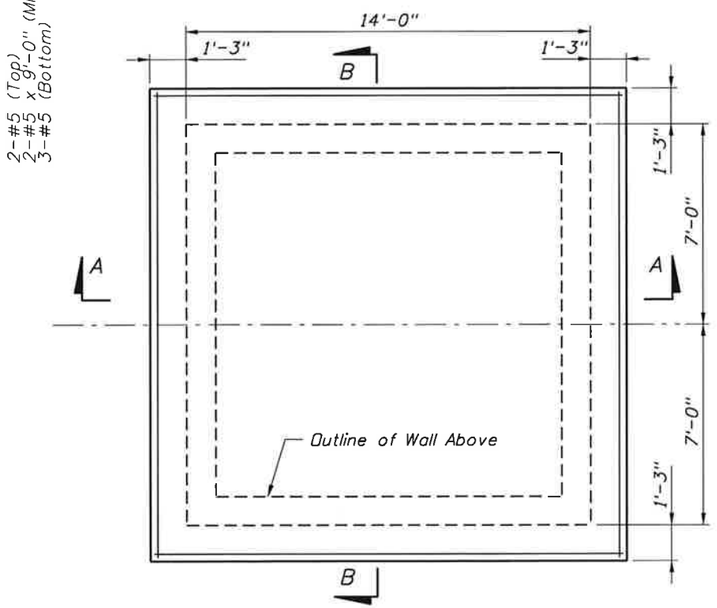
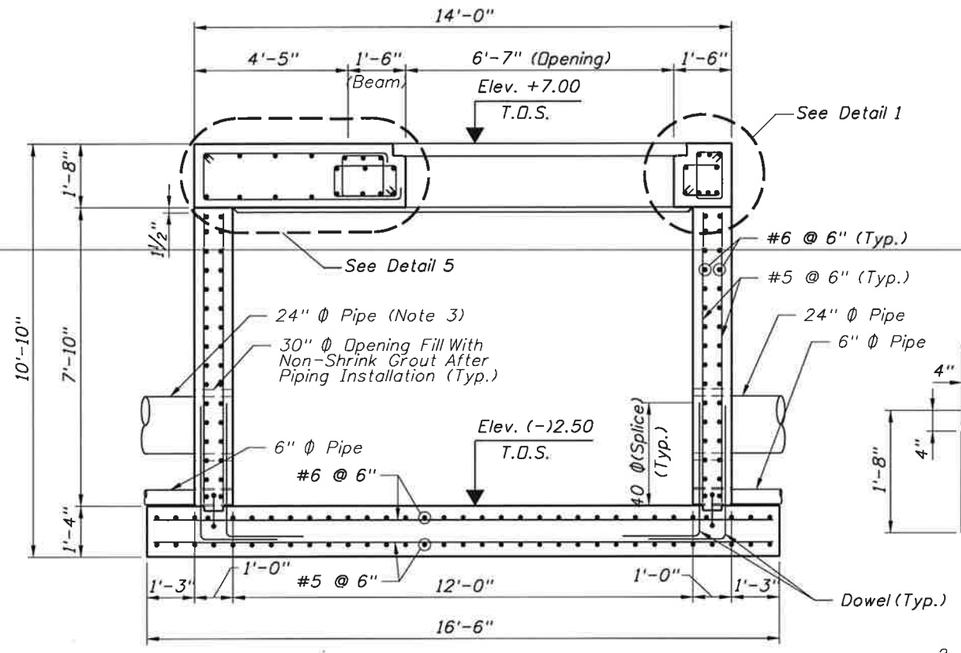


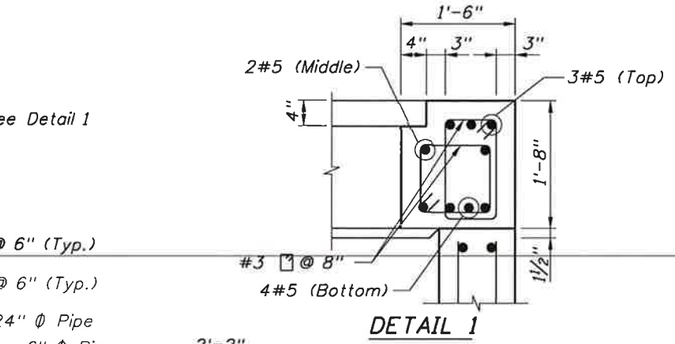
PUMP STATION VALVE VAULT - TOP SLAB PLAN



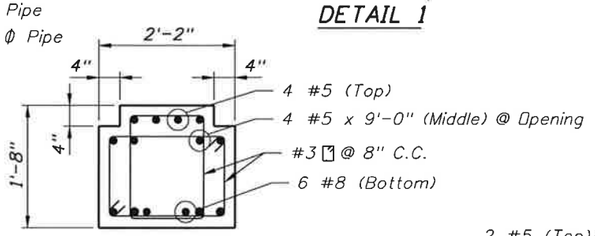
PUMP STATION VALVE VAULT - BOTTOM SLAB PLAN



SECTION A-A



DETAIL 1



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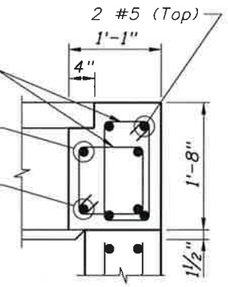
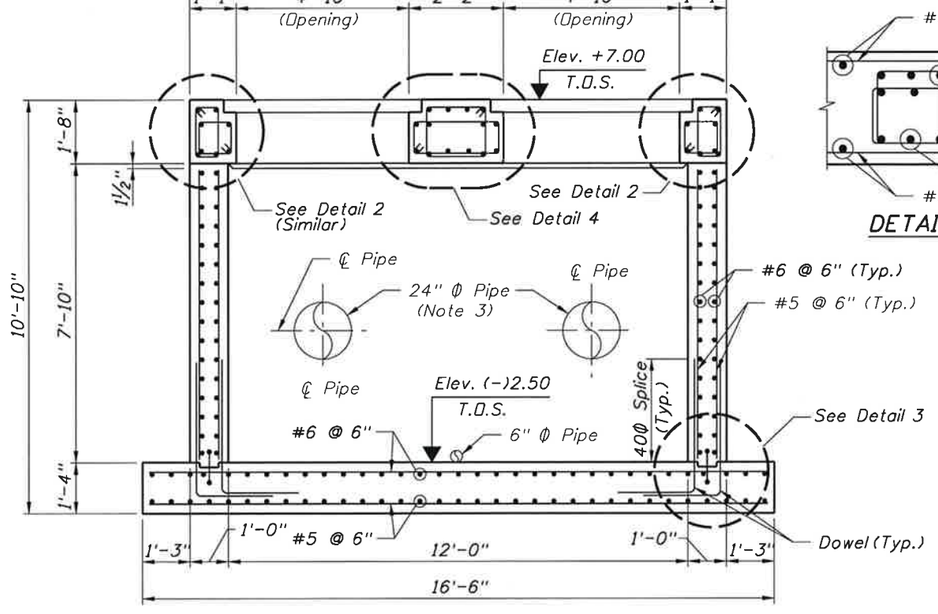
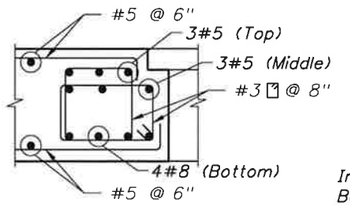


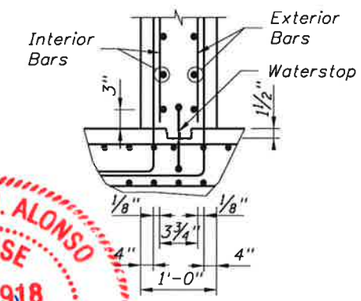
DETAIL 2



SECTION B-B



DETAIL 5



DETAIL 3

FRANCISCO J. ALONSO
LICENSE
No. 66918
4/15/15
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

NOTES:

1. For General Notes, see Sheet No. 17
2. For Typical Details, see Sheet No. 24
3. The Pipes Location Shall Be Coordinated With The Civil Drawings.

REVISIONS			
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CITY OF MIAMI PROJECT NUMBER: B-30637

PUMP STATION STRUCTURAL DETAILS

SHEET NO. 23

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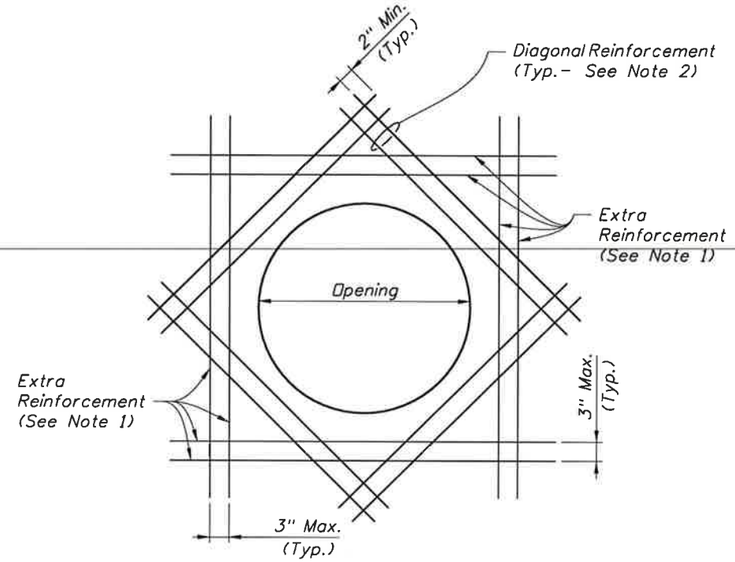
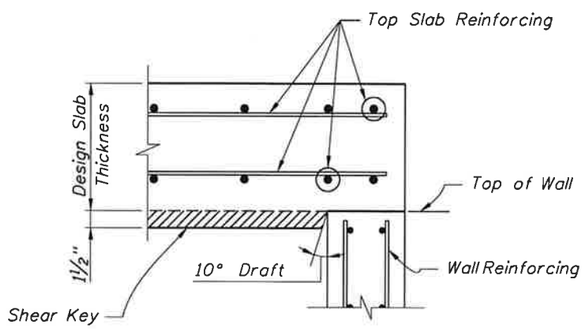
FOR CONSTRUCTION 100% PLANS



ADDITIONAL REINFORCEMENT AT OPENINGS

(Typical for All Drainage Structures)

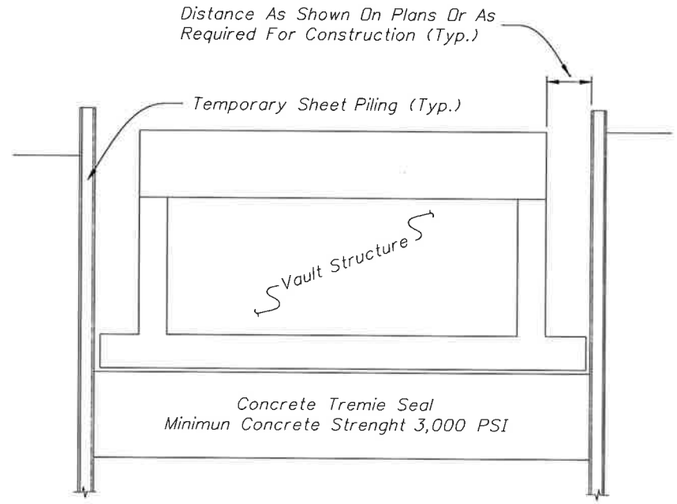
1. Provide Extra Reinforcement each side of each opening at 3" maximum spacing equal to half the area of the Reinforcement removed by the Opening, as shown in the Detail.
2. Provide Diagonal Reinforcement in the form of 2#5 bars at 3" maximum spacing on each side of opening as shown in the Detail.
3. This Detail applies to Wall and Top slab openings.



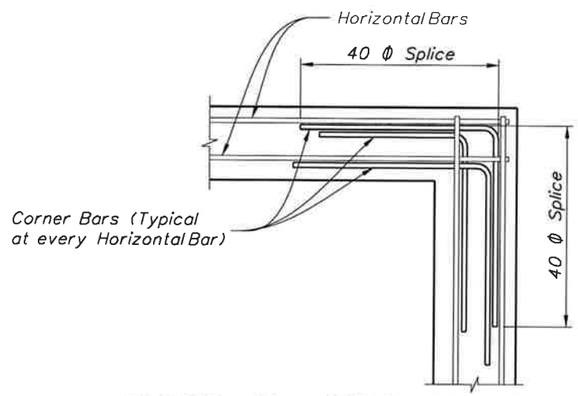
SLAB TO WALL DETAIL

CONSTRUCTION NOTES:

1. The Typical Section During Construction Shown Below Is Provided For Illustration Purposes Only.
2. The Contractor Shall Submit To The Engineer For His Approval Method Of Placement Of Temporary Sheet Piling, Including Placing Sequence, Piling Type, Section, Depth Of Penetration, Depth Of Tremie Concrete And Calculations Which Demostrate Stability Of Sheeting, Signed And Sealed By A Professional Engineer Licenced In The State Of Florida.
3. For Porposes Of Design The Water Table Shall Be Assumed To Be At Elevation + 1.50, The Contractor Shall Determine The Existing Water Table At The Time Of Construction And Take Whatever Measures Are Required If A Higher Water Table Exists At No Increase To The Contract Cost.



TYPICAL SECTION DURING CONSTRUCTION



TYPICAL WALL CORNER DETAIL

(Vertical Reinforcement Not Shown)

FRANCISCO J. ALONSO LICENSE No. 66818 STATE OF FLORIDA PROFESSIONAL ENGINEER 9/15/14

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

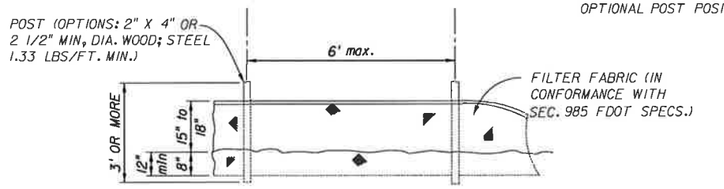
T·Y·LIN INTERNATIONAL
201 ALHAMBRA CIRCLE SUITE 900
Coral Gables, Florida. 33134
Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30837

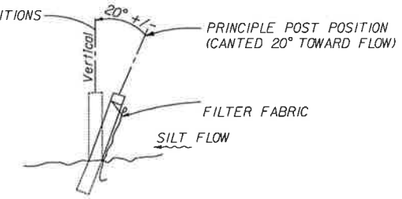
PUMP STATION STRUCTURAL DETAILS

SHEET NO. 24

FOR CONSTRUCTION 100% PLANS

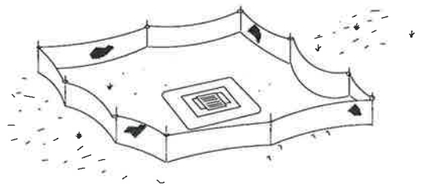


ELEVATION



SECTION

SILT FENCE DETAIL
N.T.S.



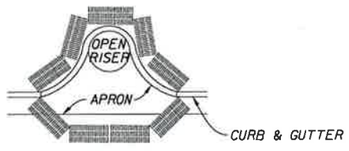
TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

NOTE:
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

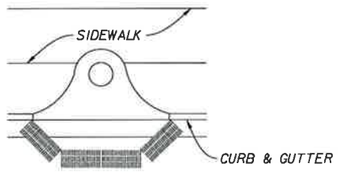
TYPE III SILT FENCE

NOTE:
SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART 1, SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3 PER INDEX 102

SILT FENCE APPLICATIONS
N.T.S.

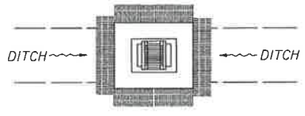


PARTIAL INLET



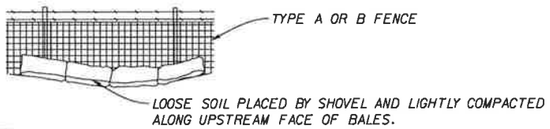
COMPLETED INLET

ANCHOR BALES WITH 2 - 2"x2"x4' STAKES PER BALE.



DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
N.T.S.



NOTE:
BALES TO BE STAKED AT THE DIRECTION OF THE ENGINEER.

STORM WATER POLLUTION PREVENTION PRACTICES: (FOR PROJECTS OF 1 ACRE OR MORE)

1. TREE PROTECTION AND PRUNING SHALL BE ACCOMPLISHED AS DETAILED IN SPECIAL PROVISIONS, THE CONSTRUCTION PLANS, AND OR PER TREE ORDINANCE 12636.
2. THE STORM WATER POLLUTION PREVENTION PLAN, SWPPP, SUBMITTED TO PUBLIC WORKS, SHALL DESCRIBE IN DETAIL HOW THE CONSTRUCTION EFFORT WILL BE PHASED WITH REGARDS TO MINIMIZING EROSION PROBLEMS BY THE USE OF TEMPORARY AND PERMANENT EROSION CONTROL MEASURES, FOR THE VARIOUS SEQUENCES OF CONSTRUCTION OPERATIONS. ANY MODIFICATIONS MUST BE APPROVED BY THE CITY OF MIAMI - NPDES SECTION, DEPARTMENT OF PUBLIC WORKS.
3. ENVIRONMENTAL CONTROL FEATURES AS PROVIDED IN THE SWPPP, ARE TO BE INSTALLED AT ALL AREAS OF EXCAVATION OR FILL FOR DRAINAGE SYSTEM, OR STRUCTURE CONSTRUCTION PRIOR TO SUCH EXCAVATION OR FILL. INLET ENTRANCES ARE ALSO TO BE PROTECTED FROM SILTATION AS DETAILED ON SHEET 2 OF 4 OF MISC. 35-89-6.
4. ALL ENVIRONMENTAL CONTROL FEATURES ARE TO BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT IN ACCORDANCE WITH N.P.D.E.S. REQUIREMENTS. THE CONTRACTOR MUST INSURE THAT ALL EROSION CONTROL FEATURES FUNCTION PROPERLY AT ALL TIMES.
5. ALL EROSION AND MATERIAL DEPOSITS MUST BE CONTAINED WITHIN THE PROJECT LIMITS.
6. ANY DAMAGED OR INEFFECTIVE ROCK BAGS ARE TO BE REPLACED WITH NEW ONES. THE LOCATION OF ROCK BAGS INSTALLATION IS AS MENTIONED IN THE SWPPP PLANS. THE PROJECT ENGINEER MAY SPECIFY OTHER AREAS AS NECESSARY.
7. DITCH BOTTOM INLETS SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL PROJECT IS COMPLETE. ELEVATION OF GROUND OUTSIDE INLET TOP SHALL NOT BE HIGHER THAN INLET TOP. ROCK BAGS SHALL BE INSTALLED AROUND INLET TOP. COMPLETED INLETS IN PAVED AREAS SHALL ALSO BE PROTECTED WITH ROCK BAGS TO PREVENT SEDIMENT INTAKE.
8. CURB INLETS ALSO SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL THE PROJECT IS COMPLETE. ALL EXPOSED SLOPED MATERIAL ADJACENT TO INLET, SHALL BE COVERED WITH EROSION CONTROL MATTING WITH OUTER LIMITS PROTECTED BY ROCK BAGS.
9. STOCKPILED MATERIAL SHALL NOT BE LEFT IN EROSION PRONE AREAS UNLESS PROTECTED BY COVER OR ROCK BAGS.
10. INSPECTION OF EROSION CONTROL MEASURES AND CONDITION OF ADJACENT PROPERTIES, SHALL BE PERFORMED DAILY BY THE CONTRACTOR'S REPRESENTATIVE AND THE PROJECT ENGINEER. DEFICIENCIES SHALL BE NOTED AND CORRECTED.
11. ANY OFFSITE SEDIMENT DISCHARGE TO A MUNICIPAL SEPARATE STORM WATER SYSTEM ARISING FROM THE CONTRACTOR'S ACTIVITIES IS NOT ALLOWED. REFER TO PUBLIC WORKS DEPARTMENT BULLETIN No. 25.
12. THE USE OF SANITARY SEWERS, FRENCH DRAINS, COVER DITCHES AND/OR ROCK DRAINS FOR THE DISPOSAL OF WASTEWATER IS EXPRESSLY PROHIBITED.
13. REFER TO PUBLIC WORKS DEPARTMENT BULLETIN No. 25. * NPDES - NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM.
14. STORM WATER, EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY'S MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT. THE CONTRACTOR SHALL REQUEST THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) PERMIT AND/OR A NATIONAL POLLUTANT AND DISCHARGE ELIMINATION SYSTEM (NPDES) BEFORE CONSTRUCTION.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

EROSION & SEDIMENT CONTROL STABILIZATION PRACTICES:

___ TEMPORARY SODDING
___ TEMPORARY GRASSING
___ PERMANENT PLANTING, SEEDING OR SEED & MULCH
___ TEMPORARY MULCHING
___ ARTIFICIAL COVERING
___ BUFFER ZONES
___ PRESERVATION OF NATURAL RESOURCES
___ OTHER

STRUCTURAL PRACTICES:

___ SAND BAGGING

OTHER CONTROLS: OFFSITE VEHICLE TRACKING:

___ HAUL ROADS DAMPENED FOR DUST CONTROL
___ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN, OR APPROVED EQUAL.
___ EXCESS DIRT ON ROAD REMOVED DAILY
___ STABILIZED CONSTRUCTION ENTRANCE
___ CONCRETE TRUCK WASH AREA
___ OTHER TREATMENT OF STORM WATER TO MEET WATER QUALITY:
___ DEEP WELLS
___ CULVERTS FOR EMERGENCY OVERFLOW
___ POLLUTION CONTROL STRUCTURES
___ OTHER

GENERAL

1. APPROVED STATE, LOCAL PLANS OR STORM WATER PERMITS.
2. ALL OF THE CONTROLS SHALL BE MAINTAINED AT ALL TIMES.
3. ALL CONTROLS SHALL BE INSPECTED DAILY.
4. APPLY FERTILIZERS AND PESTICIDES ACCORDING TO STANDARD SPECIFICATIONS, DESIGN AND SPECIAL PROVISIONS.
5. REPORT NON-STORM WATER DISCHARGE (INCLUDING SPILL) (305) 416-1200.
6. VISIT www.dep.state.fl.us/water/stormwater/npdes/

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

T·Y·LIN INTERNATIONAL
201 ALHAMBRA CIRCLE SUITE 900
Coral Gables, Florida. 33134
Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO. 25

FOR CONSTRUCTION 100% PLANS

THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN CONTAINS REFERENCES TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE FIRST SHEET OF THE CONSTRUCTION PLANS KEY SHEET CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN REQUIRED BY SPECIFICATION SECTION 104, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

A. THE FOLLOWING NARRATIVE AND REFERENCED DOCUMENTS,
B. THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN REQUIRED BY SPECIFICATION SECTION 104, CITY OF MIAMI PW BULLETIN No. 25 AND CITY ORDINANCE No. 13081,
C. REPORT OF INSPECTIONS MADE DURING CONSTRUCTION.

1.0 SITE DESCRIPTION

1.A. NATURE OF CONSTRUCTION ACTIVITY:

THE PLAN DELINEATED IN THIS SWPPP IS FOR CONSTRUCTION ACTIVITIES WITHIN SW 1ST AVE. BETWEEN SW 8TH ST. AND SW 9TH ST. THE PROJECT INCLUDES INSTALLATION OF A NEW STORM WATER PUMP STATION SYSTEM, DRAINAGE IMPROVEMENTS AND ROADWAY RESTORATION.

1.B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE SECTION 104 EROSION & SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAIL SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS THE EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER.

INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE CLEARING AND GRUBBING OTHER AREAS OF THE SITE.
1. CLEARING AND GRUBBING.
2. ASPHALT MILLING AND RESURFACING

1.C. AREA ESTIMATES

TOTAL PROJECT AREA: *.** ACRES
TOTAL AREA TO BE DISTURBED: *.** ACRES

1.D. RUNOFF DATA

Runoff Coefficients:

Before Construction: 0.90
During Construction: 0.90
After Construction: 0.90

1.E. SITE MAP

THE SHEETS CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLANS REFERENCED IN THIS SECTION ARE IDENTIFIED ON THE KEY SHEET OF THE PLANS.

* DRAINAGE PATTERNS: THE DRAINAGE BASIN DIVIDES AND FLOW DIRECTIONS ARE SHOWN ON THE DRAINAGE MAP (INCLUDED IN THE DRAINAGE REPORT). THE FLOW ARROWS REPRESENT THE FLOW DIRECTION.
* APPROXIMATE SLOPES: THE PLANS MAINTAINS A 2% TYPICAL CROSS SLOPE AS INDICATED ON THE TYPICAL SECTION.
* AREAS OF SOIL DISTURBANCE: THE LIMITS OF SOIL DISTURBANCE ARE SHOWN ON THE TYPICAL SECTION SHEETS AND PLANS SHEETS.
* AREAS NOT TO BE DISTURBED: ENTIRE PROJECT AREA TO BE DISTURBED.
* LOCATIONS OF TEMPORARY CONTROLS: ROCK BAGS WILL BE LOCATED AROUND ALL EXISTING AND PROPOSED INLETS; TURBIDITY BARRIERS WILL BE LOCATED AT ANY BODIES OF WATER AFFECTED BY THIS PROJECT.
* LOCATIONS OF PERMANENT CONTROLS: PERMANENT FEATURES ARE SHOWN ON THE CONSTRUCTION PLANS, WHICH GENERALLY CONSIST OF SOD, ASPHALT, CONCRETE, AND DRAINAGE STRUCTURES.
* SURFACE WATERS: NONE
* WETLAND AREAS: NONE
* AREAS TO BE STABILIZED: NONE

2.0 CONTROLS

2.A. EROSION AND SEDIMENT CONTROLS:

IN THE SECTION 104 EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THE CONTRACTOR'S TRAFFIC CONTROL PLAN. THE FOLLOWING RECOMMENDED GUIDELINES ARE BASED ON THE TRAFFIC CONTROL PLAN (TCP) OUTLINED IN THESE CONSTRUCTION PLANS. THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE SECTION 104 EROSION CONTROL PLAN, SUBJECT TO APPROVAL OF THE ENGINEER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES AND THE NEED FOR BETTER PRACTICES. TO LIMIT THE TRANSPORT OF SEDIMENT FROM THE CONSTRUCTION AREA, THE CONTRACTOR, SHALL MINIMIZE THE SOIL AREAS EXPOSED AT ANY GIVEN TIME AND SHALL STABILIZE AREAS THAT WILL REMAIN IDLE FOR MORE THAN 7 DAYS. THE CONTRACTOR SHALL UTILIZE GRADING TECHNIQUES TO DIRECT RUNOFF TO AREAS WITH THE PROPER EROSION CONTROL FEATURES INSTALLED AND AWAY FROM OPEN WATER OR OTHER SENSITIVE AREAS ADJACENT TO THE WORK SITE.

2.A.1 STABILIZATION PRACTICES:

IN THE SECTION 104 EROSION & SEDIMENT CONTROL PLANS, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 14 DAYS. IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED THE STABILIZATION PRACTICES PROPOSED BY THE CONTRACTOR SHALL INCLUDE AT LEAST THE FOLLOWING:
PERMANENT:
* ASPHALT OR CONCRETE SURFACE.
* SOD IN ACCORDANCE WITH ORDINANCE 12636.

2.A.2 STRUCTURAL PRACTICES:

IN THE SECTION 104 EROSION & SEDIMENT CONTROL PLANS, THE CONTRACTOR SHALL DESCRIBE THE STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. ALL SEDIMENTS CONTROLS SHALL BE IN PLACE BEFORE ANY SOIL DISTURBING ACTIVITY UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES PROPOSED BY THE CONTRACTOR SHALL INCLUDE AT LEAST THE FOLLOWING:
TEMPORARY:
* ROCK BAGS IN ACCORDANCE WITH DESIGN STANDARD 102 AND SPECIFICATION SECTION 104.
* TURBIDITY BARRIER IN ACCORDANCE WITH DESIGN STANDARD 103 AND SPECIFICATION SECTION 104
PERMANENT:
* CURB AND GUTTER
* DRAINAGE STRUCTURES
* SOD

2.B. STORM WATER MANAGEMENT:

DRAINAGE PATTERNS AND DIVIDES ARE INCLUDED ON THE DRAINAGE MAP INCLUDED IN THE DRAINAGE REPORT. STORM WATER IS CAPTURE BY PROPOSED INLETS AND RETAIN IN INFILTRATION TRENCHES

2.C. OTHER CONTROLS:

THE CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING BY INSTITUTING A CLEAN, ORDERLY CONSTRUCTION SITE; THE FOLLOWING CONTROLS SHALL BE IMPLEMENTED TO FURTHER REDUCE POLLUTION AT THE PROJECT SITE:

2.C.1. DISCHARGE OF MATERIAL TO SURFACE WATERS:

NO CONSTRUCTION MATERIAL SHALL BE DISCHARGE TO WATERS OF THE STATE UNLESS AUTHORIZED BY SECTION 40. PERMIT AND/OR CONSTRUCTION DEBRIS SHALL BE DISPOSED OF IN AN APPROVED UPLAND LOCATION. BUILDING MATERIAL SHALL NOT BE DISPOSED OF IN WETLANDS OR BURIED ON-SITE. IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIAL. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

* PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT LIMITS DURING CONSTRUCTION ACTIVITIES.
* DISPOSE OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
* DISPOSE OF SOLID MATERIALS INCLUDING BUILDING AND CONSTRUCTION MATERIALS OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS OR WETLANDS.

2.C.2. OFF-SITE VEHICLE TRACKING AND DUST CONTROL:

THE CONTRACTOR SHALL TAKE MEASURES TO INSURE THE CLEANUP OF THE SEDIMENTS THAT HAVE BEEN TRACKED BY VEHICLES OR HAVE BEEN TRANSPORTED BY WIND OR STORM WATER ABOUT THE SITE OR ONTO NEARBY ROADWAYS.
STABILIZED CONSTRUCTION ENTRANCES AND CONSTRUCTION ROADS, IF APPROPRIATE, SHALL BE IMPLEMENTED IN ORDER TO REDUCE OFF-SITE TRACKING. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULIN. EXCESS DIRT ON THE ROAD SHALL BE REMOVED DAILY. PROVIDE A STREET SWEEPING PLAN TO THE CITY INSPECTOR.
IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING UNLESS OTHERWISE APPROVED BY THE ENGINEER.

* COVER LOADED HAUL TRUCKS WITH TARPAULINS.
* REMOVE EXCESS DIRT FROM ROADS DAILY.
* STABILIZE CONSTRUCTION ENTRANCES ACCORDING TO DESIGN STANDARDS 106. (CONSTRUCTION ENTRANCES ARE ALREADY STABILIZED FOR THIS PROJECT)

2.C.3. WASTE DISPOSAL, SANITARY SEWER OR SEPTIC TANK REGULATIONS:

THE CONTRACTOR SHALL DEMONSTRATE THE PROPER DISPOSAL OF ALL CONSTRUCTION WASTE GENERATED WITHIN THE PROJECT LIMITS. WASTE MAY INCLUDE, BUT NOT LIMITED TO, VEGETATION FROM CLEANING AND GRUBBING ACTIVITIES, PACKAGING MATERIAL, SCRAP BUILDING MATERIAL, LITTER FROM TRAVELING PUBLIC, SEWAGE FROM SANITARY FACILITIES, HERBICIDES AND PESTICIDES AND THEIR CONTAINERS, AND HYDROCARBON PRODUCTS SHALL BE DESIGNATE A WASTE COLLATION AREA ON SITE AND DELINEATE THE AREA ON THE SWPPP SITE MAP.
SANITARY SEPTIC FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A NEAT AND SANITARY CONDITION, FOR THE USE OF THE CONTRACTOR'S EMPLOYEES AS NECESSARY TO COMPLY WITH THE REQUIREMENTS AND REGULATIONS OF THE STATE AND LOCAL BOARDS OF HEALTH. A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY THE STATE REGULATIONS WILL COLLECT ALL SANITARY WASTE FROM PORTABLE UNITS.
THE CONTRACTOR WILL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT LIMITS DURING CONSTRUCTION ACTIVITIES. CONTRACTOR WILL PROVIDE AN ADEQUATE NUMBER OF LITTER CONTAINERS WITH LLDS AT THIS STAGING STOCKPILE AND FIELD OFFICE AREAS. WASTE COLLECTION WILL BE SCHEDULED SO THAT CONTAINERS ARE EMPTIED PRIOR TO OVERFLOW. SPILLED LITTER CONTAINERS WILL BE CLEANED UP IMMEDIATELY.

FRANCISCO J. ALONSO
LICENSE
No. 66918
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
4/15/15

FOR CONSTRUCTION 100% PLANS

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

T·Y·LIN INTERNATIONAL
201 ALHAMBRA CIRCLE SUITE 900
Coral Gables, Florida. 33134
Phone: 305 / 567-1888 Fax: 305 / 567-1771

CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30537

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO. 26

MPupo 4/14/2015 1:58:01 PM \\Mia-svr-file\k\Projects\550860.15_CM Mary Brickell Village\Phase-II - Option 2\roadway\SWPPP- 2.dgn

2.C.4. FERTILIZERS AND PESTICIDES:
THE APPLICATION AND HANDLING OF HERBICIDES AND PESTICIDES SHALL BE IN COMPLIANCE WITH THE MANUFACTURES RECOMMENDED METHOD AND IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION FOR ROADS AND BRIDGE CONSTRUCTION. HERBICIDES AND PESTICIDES SHALL BE ON SITE IN THEIR ORIGINAL CONTAINERS WITH PRODUCT LABEL INTACT.

2.C.5 TOXIC/HAZARDOUS MATERIAL HANDLING

CONTRACTOR SHALL PROVIDE EQUIPMENT NECESSARY TO CONTAIN AND CLEAN UP SPILLS OF HAZARDOUS MATERIAL AFTER THEY OCCUR. SPILLED MATERIAL AND THE EQUIPMENT USED TO CLEAN UP THE SPILL SHALL NOT COME IN CONTACT WITH SURFACE WATERS OR BE INTRODUCED INTO STORM WATER. DISPOSAL OF SURPLUS PRODUCT WILL BE DONE ACCORDING TO MANUFACTURE RECOMMENDED METHOD.

CONTRACTOR SHALL PROVIDE A PROJECT SPECIFIC HAZARDOUS MATERIAL SPILL CONTROL PLAN TO ADDRESS THE HANDLING OF HYDROCARBON AND HAZARDOUS MATERIALS.
PETROLEUM PRODUCTS SHALL BE STORED IN COVERED AREAS WITH SECONDARY CONTAINMENT SURROUNDING CONTAINER.

TOXIC/HAZARDOUS MATERIAL EXPOSED DURING CONSTRUCTION ACTIVITIES SHALL BE HANDLE AS PER THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2.D STATE AND LOCAL PERMITS TO BE APPLIED FOR:

* CLASS II FROM THE DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT.
* NPDES FROM THE CITY OF MIAMI PUBLIC WORKS DEPARTMENT
* FDEP CLASS V INJECTION WELL PERMIT
* CITY OF MIAMI BUILDING PERMIT

3.0 MAINTENANCE

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR. IF A CONTROL NEEDS REPAIR OR REPLACEMENT, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT AND RECORDED ON THE INSPECTION FORMS. MAINTENANCE SHALL CONTINUE UNTIL ALL ERODIBLE SOILS WITHIN THE CONTRIBUTING AREA HAVE BEEN STABILIZED. AT THIS POINT, THE CONTRACTOR SHALL REMOVE EXCESS SILT AT THE CONTROLS AND REMOVE THE TEMPORARY DEVICES. THE MAINTENANCE PLAN SHALL AT MINIMUM, COMPLY WITH THE FOLLOWING:

* INLET PROTECTION (ROCK BAGS): THE CONTRACTOR SHALL INSPECT THE PROTECTED INLETS EVERY TWO WEEKS AND REPLACE THE ROCK BAGS IF NECESSARY OR WHEN EXCESSIVE POUNDING OCCURS; ELIMINATE BREACHES IN THE PROTECTION.
* TURBIDITY BARRIER: MAINTAIN AS PER SECTION 104 OF THE SPECIFICATIONS.
* STREET SWEEPING: DAILY CONTROL AND DUST PREVENTION WITH WATER TRUCK.
* GRASSED AREAS: NEWLY SODDED AREAS AND ADJACENT AREAS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED AND MAINTAINED, WATERING AND MOWING AS NEEDED OR REQUIRED IN THE FDOT STANDARD SPECIFICATIONS.

4.0 INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT ALL THE CONTROL FEATURES AT LEAST ONE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY WEEK. THE CONTRACTOR SHALL ALSO ENSURE THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE FOLLOWING ITEMS WILL BE INSPECTED:

* POINTS OF DISCHARGE TO SURFACE WATERS OR WETLANDS: INSPECT TO DETERMINE IF CONTROLS ARE EFFECTIVE IN PREVENTING OR MINIMIZING THE DISCHARGE OF POLLUTANTS.
* POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM SEWER SYSTEMS (INLETS, ETC.): INSPECT TO DETERMINE IF CONTROLS ARE EFFECTIVE IN PREVENTING OR MINIMIZING THE DISCHARGE OF POLLUTANTS.
* DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED: INSPECT FOR EVIDENCE OF POTENTIAL FOR DISCHARGING POLLUTANTS INTO SURFACE WATERS OR STORMWATER SYSTEMS.
* AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION: INSPECT FOR EVIDENCE OF POTENTIAL FOR DISCHARGING POLLUTANTS INTO SURFACE WATERS OR STORMWATER SYSTEMS.
* STRUCTURAL CONTROLS: INSPECT FOR PROPER INSTALLATION AND OPERATION.
* STORMWATER MANAGEMENT SYSTEMS: INSPECT FOR PROPER OPERATION, EVIDENCE OF FLOODING DUE TO SEDIMENTATION OR CONTROLS REQUIRING MAINTENANCE.
* LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE: INSPECT FOR EVIDENCE OF OFFSITE TRACKING.

THE CONTRACTOR SHALL INITIATE WITHIN 24 HOURS OF INSPECTION THAT INDICATES ITEMS ARE NOT IN GOOD WORKING ORDER BASED ON THE RESULTS OF THE INSPECTION, ALL MAINTENANCE OPERATIONS NEEDED TO ASSURE PROPER OPERATION OF ALL CONTROLS, BMPS OR MEASURES IDENTIFIED IN THIS SWPPP SHALL BE DONE IN A TIMELY MANNER, BUT NO LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION. IF NEEDED, POLLUTION PREVENTION CONTROLS SHALL BE REVISED AS APPROPRIATE IF FAILURES IN THE PLAN ARE NOTED; THESE REVISIONS SHALL BE IMPLEMENTED NO LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.

A REPORT (USE FDOT FORM 650-040-03) SUMMARIZING THE SCOPE OF THE INSPECTION SHALL INCLUDE THE INSPECTOR'S NAME, QUALIFICATIONS, DATE, RAINFALL DATA, OBSERVATIONS RELATING TO THE SWPPP, AND ACTIONS TAKEN SINCE THE LAST REPORT. THE REPORT SHALL IDENTIFY ALL INCIDENTS OF NON-COMPLIANCE.

IF THERE ARE NO INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT. THE REPORT SHALL BE SIGNED AND FILED AS REQUIRED BY THE GENERIC PERMIT.

THE CONTRACTOR SHALL MAINTAIN A FILE CONTAINING THE CURRENT SWPPP, NOI SUBMITTAL, CERTIFICATIONS AND ALL THE SIGNED INSPECTION REPORTS; THE NOTICE OF INTENT SUBMITTED AS REQUIRED BY CHAPTER 62-621, FAC, MUST BE POSTED AT THE SITE.

5.0 NON-STORM WATER DISCHARGES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORM WATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES) SUCH AS THOSE LISTED BELOW. THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION FROM THESE NON-STORM WATER DISCHARGES.
IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR IS TO CEASE OPERATIONS IN THAT AREA. THE CONTRACTOR SHALL CONTACT THE CITY OF MIAMI PROJECT MANAGER.
A DEWATERING PERMIT IS REQUIRED TO REMOVED GROUNDWATER FROM THE CONSTRUCTION SITE.

* CULVERT INSTALLATION METHODS
* SLURRY DISPOSAL
* DUST CONTROL
* EQUIPMENT WASHOUT
* PIPE DESILTING ACTIVITIES
* IRRIGATION

6.0 CONTRACTOR SUBMITTAL:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP AN EROSION CONTROL PLAN THAT PROVIDES A DETAILED DESCRIPTION OF ALL EROSION AND SEDIMENT CONTROLS, BMP'S AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE FOR EACH ACTIVITY IDENTIFIED IN SECTION I.B SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TIME FRAMES IN WHICH THE CONTROLS WILL BE IMPLEMENTED, MAINTAINED AND REMOVED. THIS INFORMATION SHALL BE CONSIDERED IN COMPLIANCE WITH THE FDEP GENERIC PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION SITES.

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE FOLLOWING ITEMS ARE ON SITE:
1. COPY OF THE SWPPP WITH THE ORIGINAL CERTIFICATION SIGNATURES.
2. COPY OF THE CONTRACTOR'S EROSION CONTROL PLAN.
3. HAZARDOUS SPILL CONTROL PLAN WITH GUIDELINES ON CONTACTING THE 24-HOUR EMERGENCY RESPONSE PROGRAM FOR HAZARDOUS MATERIAL SPILLS. THIS SHALL INCLUDE COPIES OF DISCHARGE NOTIFICATIONS THAT HAVE OCCURRED WITHIN THE PROJECT LIMITS.
4. COMPLETE INSPECTION FORMS.

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER 4/15/15

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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CITY OF MIAMI
MARY BRICKELL VILLAGE
DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO. 27

FOR CONSTRUCTION 100% PLANS

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MAINTENANCE OF TRAFFIC NOTES:

GENERAL NOTES:

1. 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.

2. REGULATORY SPEED ESTABLISHED WITHIN WORK ZONE TRAVEL WAYS SHALL BE THE EXISTING POSTED SPEED.

3. 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 INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

4. 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 COVERING OR REMOVING\RELOCATING AND RESTORING THE SIGNS SHALL BE INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

5. EACH EXISTING STREET NAME AND STOP SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE LOCATION FOR THE DURATION OF THE PROJECT. 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 INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORMWATER FROM ROADWAYS UTILIZED FOR MAINTAINING TRAFFIC THRU THE WORK ZONE IN A MANNER APPROVED BY THE ENGINEER. COST FOR REMOVING THE WATER SHALL BE DEEMED INCIDENTAL TO THE PROJECT COST.

7. THE TRAFFIC CONTROL PLAN SHALL COMPLY WITH FDOT INDEX 600 SERIES.

8. ALL WORK SHALL BE PERFORMED DURING DAYTIME ONLY 8:00AM TO 8:00PM; NO INTERRUPTION OF TRAFFIC IS PERMITTED.

9. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO CLOSURE, DETOUR OR MOT PHASE CHANGE BY SUBMITTING THE REQUIRED LANE CLOSURE FORM, SKETCHES, CALCULATIONS, AND OTHER DATA THROUGH THE ENGINEER TO THE CITY OF MIAMI.

10. CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AND FIRE PROTECTION SERVICES TWENTY-FOUR (24) HOURS IN ADVANCE OF ANY DETOURS, IN ACCORDANCE WITH SECTION 336.07 OF FLORIDA STATUTES.

11. AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSURE CAUSES EXTENDED CONGESTION OR DELAY, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME THAT THE TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.

12. CONTRACTOR MUST PROVIDE FLASHER ARROW BOARD FOR ANY LANE THAT IS CLOSED OR DIVERTED.

13. CONTRACTOR SHALL PROVIDE SIGNS AND BARRICADES AS REQUIRED, AS WELL AS ALL OTHER TRAFFIC CONTROL DEVICES USED ON THIS PROJECT AND SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS. ALL COST, AS WELL AS COST ASSOCIATED WITH VANDALISM AND/OR THEFT PF SIGNS OR BARRICADES SHALL BE INCLUDED IN PAY ITEM 102-1, "MAINTENANCE OF TRAFFIC".

14. CONTRACTOR SHALL CONTACT MIAMI DADE TRANSIT (MDT) AND REQUEST A SPOTTER FOR ANY WORK WITHIN 30' OF ANY MDT FACILITY. THE COST OF THIS SHALL BE INCLUDED IN PAY ITEM 102-1, "MAINTENANCE OF TRAFFIC".

15. CONTRACTOR SHALL HAVE A TRAFFIC CONTROL OFFICER ON-SITE DURING ALL CONSTRUCTION ACTIVITIES. COST OF THIS SHALL BE INCLUDED IN THE PAY ITEM 102-14, "TRAFFIC CONTROL OFFICER".

DROP OFFS:

9. THE CONTRACTOR SHALL PROTECT THE WORK ZONE WITH DEVICES APPROVED BY THE CITY OF MIAMI FIELD ENGINEER WHEN DROP OFFS EXCEED 3" ADJACENT TO TRAVEL WAYS.

MARKINGS:

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 DESIGNATED BY THE ENGINEER. PAVEMENT MARKINGS SHALL BE REPLACED AT THE TIME TRAFFIC CONTROL PLANS ARE NO LONGER AFFECTED BY THEIR PLACEMENT. COST OF REMOVAL AND REPLACEMENT OF PAVEMENT MARKINGS SHALL BE INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED.

SIGNALS:

11. CONTRACTOR SHALL NOTIFY MIAMI DADE COUNTY SIGNS AND SIGNALS DIVISION LOCATED AT 7100 N.W. 36TH STREET MIAMI, FLORIDA 33166 AND PHONE NO. (305) 592-3470, 48 HOURS PRIOR TO ANY MODIFICATION OF AN EXISTING TRAFFIC SIGNAL SYSTEM. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE MAINTENANCE OF THE EXISTING OR TEMPORARY TRAFFIC SIGNAL(S) WITHIN THE PROJECT LIMITS. COST OF RELOCATING TRAFFIC SIGNAL HEADS, PROVIDING AND REMOVING TEMPORARY SIGNALS AND CONTROLLERS, AND MAINTAINING THE EXISTING OR TEMPORARY TRAFFIC SIGNALS AND CONTROLLERS SHALL BE INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

12. THE CONTRACTOR SHALL MAINTAIN ONLINE COMMUNICATION OF EXISTING OR TEMPORARY SIGNALIZATION VIA INTERCONNECT OR PHONE LINE DURING CONSTRUCTION. CONTRACTORS SHALL PROVIDE TEMPORARY LINES AND CONNECTIONS IF NECESSARY. COST OF MAINTAINING COMMUNICATION, INCLUDING TEMPORARY LINES AND CONNECTIONS SHALL BE INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

WORK ZONE LIMITS:

13. THE LENGTH OF AN OPEN TRENCH SHALL NOT EXCEED 500 FEET. PROPERTY ACCESS SHALL BE MAINTAINED AT ALL TIMES.

PEDESTRIANS, BICYCLES, AND WHEELCHAIRS:

14. AT THE END OF EACH WORK DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROP OFF ADJACENT TO THE PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAVEL PATHS SHALL BE BACKFILLED FLUSH WITH THE SAID PATHS OR PROTECTED WITH BARRICADES, TEMPORARY CONCRETE BARRIER WALL, OR APPROVED HANDRAIL. COST OF BACKFILLING DROP OFF SHALL BE INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

15. PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAFFIC SHALL BE MAINTAINED AND GUIDED USING APPROVED WARNING LIGHTS, SIGNING, AND CHANNELIZATION 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 FEET 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 INCIDENTAL TO THE PROJECT AT NO ADDITIONAL COST TO THE CONTRACT.

FRANCISCO J. ALONSO
LICENSE
NO. 66918
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/14/15

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CITY OF MIAMI
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DRAINAGE AND ROADWAY IMPROVEMENTS - PHASE II
STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30637

TRAFFIC CONTROL NOTES

SHEET NO. 28

FOR CONSTRUCTION 100% PLANS

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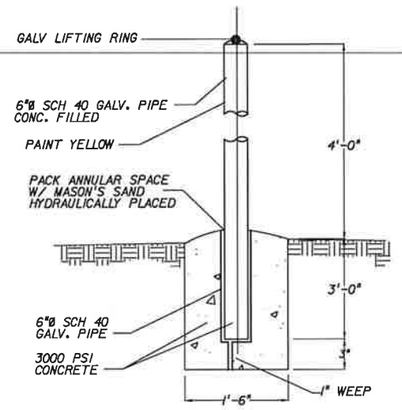

TYPICAL PIPE BOLLARD DETAIL

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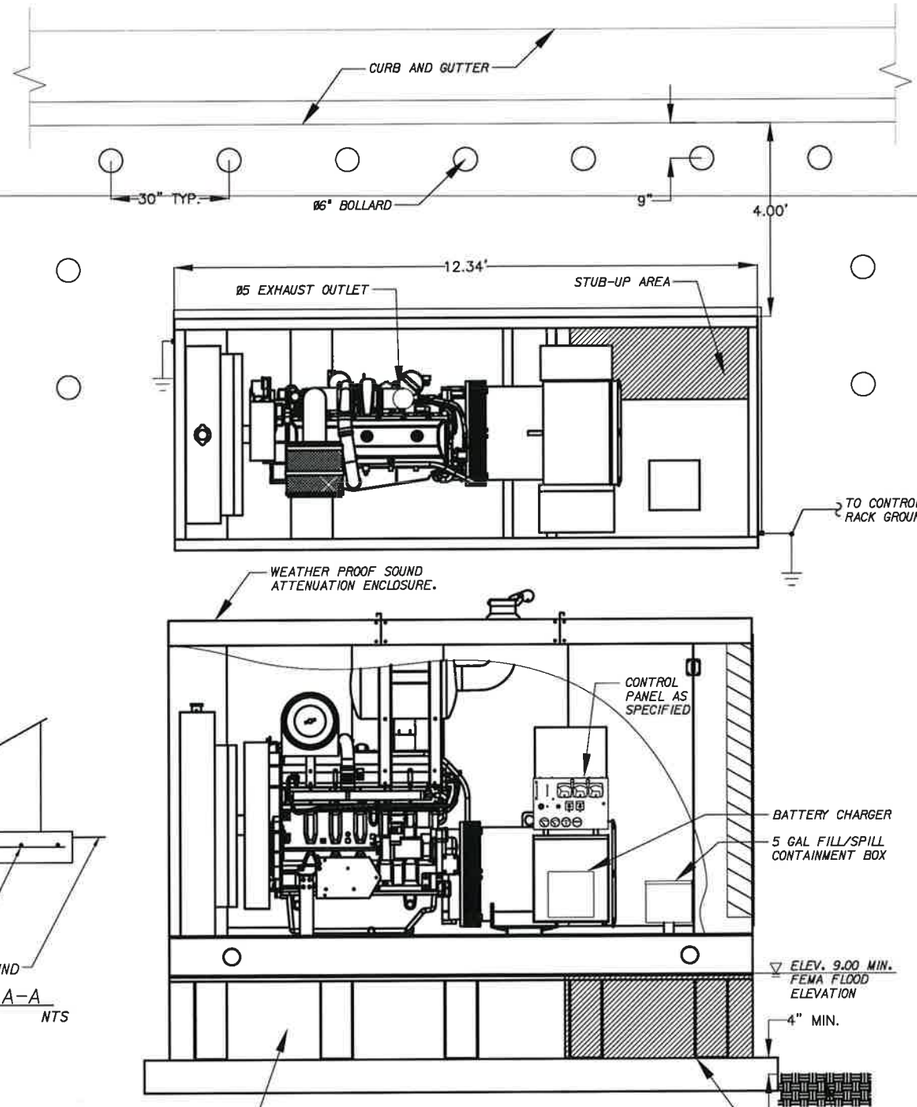


GENERATOR NOTES:

- GENERATOR SHALL BE MODEL 450KW CATERPILLAR STANDBY MODEL No. C15ATAAC OR APPROVED EQUAL
- GENERATOR MUFFLER SHALL BE RESIDENTIAL CRITICAL GRADE.
- GENERATOR ENCLOSURE SHALL BE WEATHER PROOF AND SOUND ATTENUATED TO THE HIGHEST LEVEL POSSIBLE. (i.e. LEVEL 2 OR BETTER)
- ENCLOSURE, MUFFLER, AND ALL COMPONENTS AFFECTING NOISE LEVELS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

GENERATOR FUEL TANK NOTES:

-450 GAL. MAX FLORIDA DERM DOUBLE WALLED, UL LISTED SUB-BASE FUEL TANK W/ ELECTRICAL STUB-UP

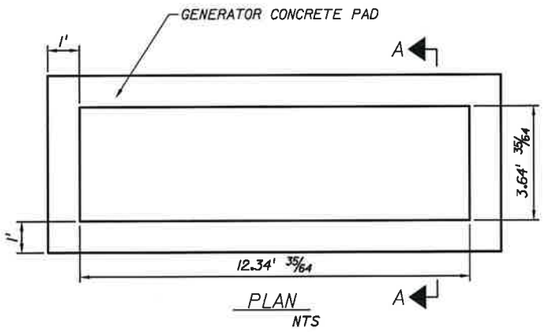
-FUEL TANK REQUIRES THE INSTALLATION OF AN OVERFILL AND OVERSPILL PROTECTION DEVICE.

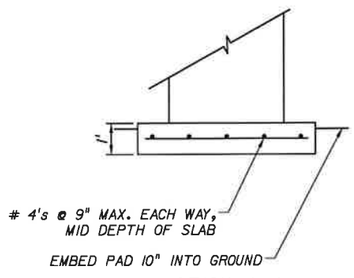
-FUEL TANK INTERSTITIAL LEAK DETECTORS ARE REQUIRED FOR A DW RIGID MODULAR DESIGN.

-FUEL TANK VENT SHALL BE A MINIMUM OF 12-FEET ABOVE GROUND.

GENERATOR DETAIL

N.T.S





STAND BY GENERATOR

NOTES:

1. CONCRETE SHALL HAVE fc = 4,000 PSI. REINFORCING IS ASTM 615, GRADE 60.
2. COVER IS 3" ON SIDES.
3. PLACE PAD ON COMPACTED SUBGRADE.
4. ANCHOR GENERATOR TO PAD WITH 5#8" DIA. THREADED RODS EMBEDDED IN 6" DEEP 3#4" HOLES USING TYPE J EPOXY FROM THE FDOT QPL. RODS TO BE ASTM A 193 B8 CLASS 1 OR II (STANDARD STREET AISI 304)
   NUTS: A194 GRADE B.W.
   WASHER: SS 304

FRANCISCO J. ALONSO LICENSE No. 66918 STATE OF FLORIDA PROFESSIONAL ENGINEER 7/11/14

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CITY OF MIAMI

MARY BRICKELL VILLAGE
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STORMWATER PUMP STATION
SW 8th STREET AND SW 1st AVENUE
CITY OF MIAMI PROJECT NUMBER: B-30837

GENERATOR DETAIL

SHEET NO. 29

FOR CONSTRUCTION 100% PLANS

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