



# CITY OF HALLANDALE BEACH

## COATINGS AND STUCCO REPAIRS WATER TREATMENT PLANT

### CITY COMMISSION

**JOY F. COOPER, Mayor**

**WILLIAM JULIAN, Vice Mayor**

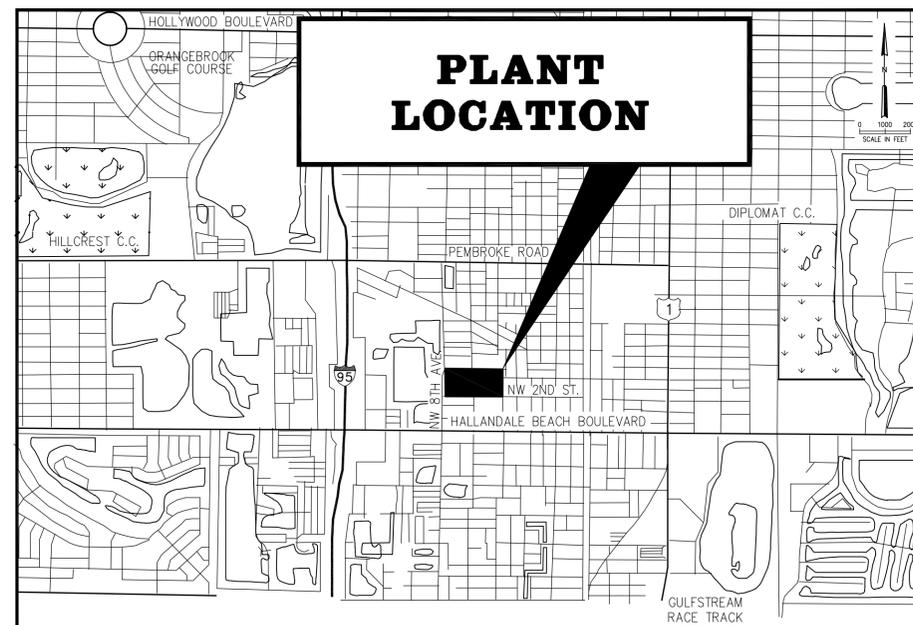
**ANTHONY SANDERS, Commissioner**

**KEITH LONDON, Commissioner**

**MICHELE LAZAROW, Commissioner**

**RENEE C. MILLER, City Manager**

**STEVEN PARKINSON, Director of Public Works**



**LOCATION MAP**

### **BID SET**

### **HAZEN AND SAWYER**

Environmental Engineers & Scientists

4000 Hollywood Boulevard, Suite 750N  
Hollywood, Florida 33021

Certificate of Authorization Number: 2771

**SEPTEMBER 2015  
VOLUME 2**

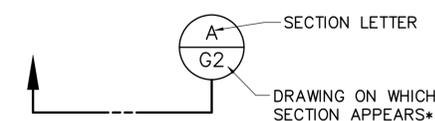
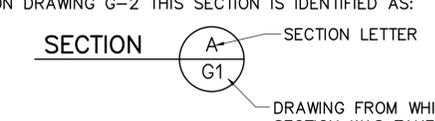
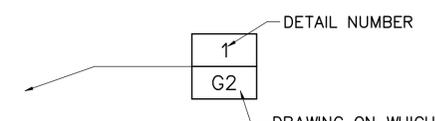
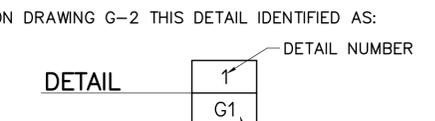
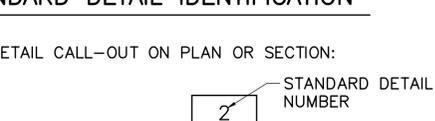
SHEET	DRAWING	TITLE
<b>GENERAL</b>		
1	G-01	COVER SHEET - TITLE AND LOCATION MAP
2	G-02	LIST OF DRAWINGS AND GENERAL NOTES
3	G-03	ABBREVIATIONS, SYMBOLS AND LEGEND
<b>ARCHITECTURAL</b>		
4	A-01	EXISTING WTP EXTERIOR PAINTING
5	A-02	MEMBRANE PLANT ELEVATIONS PHOTOS
6	A-03	GENERATOR BUILDING ELEVATIONS PHOTOS
7	A-04	DEGASIFIER STRUCTURE ELEVATIONS PHOTOS
8	A-05	HIGH SERVICE PUMP STATION ELEVATIONS PHOTOS
9	A-06	FILTER BUILDINGS 1 THRU 6 ELEVATIONS PHOTOS
11	A-08	WATER SOFTENING UNITS ELEVATIONS PHOTOS
12	A-09	CHEMICAL STORAGE CONTAINMENT AND LIME SILO ELEVATIONS PHOTOS
13	A-10	BACKWASH RETURN BASIN ELEVATIONS PHOTOS
14	A-11	EXTERIOR REPAIR DETAILS AND NOTES
15	A-12	EXISTING WTP PIPING AND EQUIPMENT PAINTING

PLOT DATE: 9/2/2015 10:22 AM BY: TBDCAS

		DESIGNED <u>E.G.A.</u>	 <p>4000 Hollywood Boulevard, Suite 750N Hollywood, Florida 33021 Certificate of Authorization Number: 2771</p>	NTS	CONTRACT: <u>          -</u>	 <p>CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT</p>	CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT		DATE: <u>SEPTEMBER 2015</u>
		DRAWN <u>L.M.S.</u>			CLIENTS PROJECT: <u>          </u>		COATING AND STUCCO REPAIR		SHEET: <u>2</u> OF <u>15</u>
		CHECKED <u>M.W.W.</u>			ENGINEERS PROJECT: <u>40620-002</u>		LIST OF DRAWINGS AND GENERAL NOTES		DRAWING: <u>G-02</u>
		PROJ. ENGR. <u>E.G.A.</u>			CAD REFERENCE: <u>40620-002-G02</u>		 <p>CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT</p>		
<u>2</u>	<u>09/15</u>	<u>BID SET</u>	<u>E.G.A.</u>	<u>ELIE G. ANDARY</u>	<u>P.E.</u>	<u>No. 67503</u>			
<u>1</u>	<u>03/15</u>	<u>REVIEW SUBMITTAL</u>	<u>E.G.A.</u>						
NO.	DATE	ISSUED FOR	BY						

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SYMBOLS		ABBREVIATIONS				SECTION AND DETAIL IDENTIFICATION	
 SOLENOID  MOTOR OPERATED  BALL VALVE  BUTTERFLY VALVE/DAMPER  CHECK VALVE  GATE VALVE  PLUG VALVE  THREE WAY VALVE  PRESSURE REDUCING/RELIEF VALVE  PRESSURE REGULATING VALVE  VENTURI METER  FLAME ARRESTER  HOSE BIBB (PLAN)  HOSE BIBB (ELEVATION)  MECHANICAL COUPLING  HARNESSED MECHANICAL COUPLING  GROOVED COUPLING  HARNESSED EXPANSION JOINT  EXPANSION JOINT  GAUGE  UNION  MAGNETIC METER  FIRE HYDRANT  MANHOLE  SEALED MANHOLE  PROPOSED PIPELINE/STRUCTURE  EXISTING UTILITIES/STRUCTURE  PROPOSED PIPELINE (DOUBLE LINE IF SCALE OF DRAWING PERMITS)  WELDED JOINT  FLANGED JOINT  MECHANICAL JOINT  PUSH-ON JOINT  THREADED JOINT  SOCKET WELDED JOINT  PROPOSED STRUCTURE OR FACILITY  REDUCER (SINGLE LINE)  REDUCER (DOUBLE LINE)  CONCRETE PIPE SUPPORT		<b>VALVES, FITTINGS, ETC.</b> ARV AIR RELIEF VALVE BV BALL VALVE BF BLIND FLANGE BFV BUTTERFLY VALVE CGV CHLORINE GAS VALVE UNDER VACUUM CV CHECK VALVE CPLG COUPLING ED EQUIPMENT DRAIN EXP JT EXPANSION JOINT FH FIRE HYDRANT FTG FITTING FLG FLANGE FD FLOOR DRAIN GV GATE VALVE HB HOSE BIBB LR LONG RADIUS MJ MECHANICAL JOINT MOV MOTOR OPERATED VALVE NPT NATIONAL PIPE THREAD PE PLAIN END PV PLUG VALVE PS PUMP STATION PRV PRESSURE RELIEF VALVE RD ROOF DRAIN SOV SOLENOID OPERATED VALVE THD THREADED VAC VACUUM  <b>PIPING</b> CU COPPER OR CUBIC DIP DUCTILE IRON PIPE FM FORCE MAIN GSP GALVANIZED STEEL PIPE IPS IRON PIPE SIZE PVC POLYVINYLCHLORIDE PCCP PRECAST CONCRETE CYLINDER PIPE  <b>GENERAL</b> A/C AIR CONDITIONER AL, ALUM ALUMINUM AB ANCHOR BOLT L ANGLE APPROX APPROXIMATE		AFF ABOVE FINISHED FLOOR ARCH ARCHITECTURAL AS ANTISCALANT BD BLOWDOWN BOTT BOTTOM BP BID PACKAGE BLDG BUILDING BSP BACTERIOLOGICAL SAMPLING POINT BWD BACKWASH DRAIN CB CATCH BASIN CA SODIUM HYDROXIDE (CAUSTIC) CC CENTER TO CENTER CHK'D CHECKERED CL CENTER LINE CLG CHLORINE GAS CLS CHLORINE SOLUTION CO CLEAN OUT CN CONCENTRATE WATER CLGV CHLORINE GAS - VACUUM CLR CLEAR COL COLUMN CO COMPANY CONC CONCRETE CONST CONSTRUCTION CONT CONTINUOUS CONTR CONTRACTOR CSD CLEANING SOLUTION DRAIN CSR CLEANING SOLUTION RETURN CS CHLORINE SOLUTION CSS CLEANING SOLUTION SUPPLY CW CONDITIONED WATER D DRAIN DET DETAIL DIAG DIAGONAL DIA DIAMETER DIM DIMENSION DISCH DISCHARGE DWL DOWEL DN DOWN DWG DRAWING EA EACH EE EACH END EF EACH FACE EW EACH WAY ECC ECCENTRIC EFF EFFLUENT ELEC ELECTRIC EL, ELEV ELEVATION EQUIP EQUIPMENT EXH EXHAUST EXIST, EX EXISTING  EXP EXPANSION EXT EXTERIOR FIN FINISH FE FIRE EXTINGUISHER FL FLOOR FF FINISH FLOOR FLG FLANGED FM FORCE MAIN FR FUEL RETURN FS FUEL SUPPLY FSS FLUSHING SOLUTION SUPPLY FTG FOOTING FW FINISHED WATER GALV GALVANIZED GC GROOVED COUPLING GC GROOVED CAP GD GRAVITY DRAIN GPM GALLONS PER MINUTE GR GRADE H HIGH HP HIGH POINT HWL HIGH WATER LEVEL HORIZ HORIZONTAL HWH HOT WATER HEATER INFL INFLUENT INJ INJECTION ID INSIDE DIAMETER IF INSIDE FACE INSUL INSULATION INT INTERIOR ISO ISOLATION INV INVERT JT JOINT LG LONG LN LINE LP LOW POINT LWL LOW WATER LEVEL MH MANHOLE MANUF MANUFACTURER MGD MILLION GALLONS PER DAY MO MASONRY OPENING MAX MAXIMUM MECH MECHANICAL MIN MINIMUM MJ MECHANICAL JOINT MOV MOTOR OPERATED VALVE NF NANOFILTRATION NPW NON POTABLE WATER NIC NOT IN CONTRACT NTS NOT TO SCALE NO NUMBER OC ON CENTER OPNG OPENING  OD OUTSIDE DIAMETER OF OUTSIDE FACE OF OVERFLOW PCSR PERMEATE CLEANING SOLUTION RETURN PM PERMEATE WATER PW POTABLE WATER LBS/FT POUNDS PER FOOT P/L PROPERTY LINE RAD, R RADIUS RCP REINFORCED CONCRETE PIPE RECIR RECIRCULATION RED REDUCING REHAB REHABILITATION REINF REINFORCING REQ'D REQUIRED RJ RESTRAINED JOINT RO REVERSE OSMOSIS ROT ROTATED R/W, ROW RIGHT OF WAY RW RAW WATER S SAMPLE SAN SANITARY SA SULFURIC ACID SECT SECTION SEQ SEQUESTRANT SH SODIUM HYPOCHLORITE SHT SHEET SI SCALE INHIBITOR SL SLUDGE SOF SOFTENED WATER SPD SUMP PUMP DISCHARGE SPEC SPECIFICATION SQ SQUARE SS SANITARY SEWER SST STAINLESS STEEL STL STEEL STRUC STRUCTURAL SYMM SYMMETRICAL TBD TO BE DETERMINED TEMP TEMPORARY THK THICK TI TEMPERATURE INDICATOR TO THROUGHOUT TOC TOP OF CONCRETE TOS TOP OF SLAB TYP TYPICAL VTR VENT THROUGH ROOF VERT VERTICAL WTR WATER W/L WATER LEVEL WWF WELDED WIRE FABRIC W WIDE W/ WITH		<b>SECTION IDENTIFICATION</b> (1) SECTION CUT ON DRAWING G-1:  (2) ON DRAWING G-2 THIS SECTION IS IDENTIFIED AS:   <b>DETAIL IDENTIFICATION</b> (1) DETAIL CALL-OUT ON DRAWING G-1 AS:  (2) ON DRAWING G-2 THIS DETAIL IDENTIFIED AS:   <b>STANDARD DETAIL IDENTIFICATION</b> (1) DETAIL CALL-OUT ON PLAN OR SECTION:  (2) ON DRAWING G-4 THIS DETAIL IDENTIFIED AS:   NOTE: IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACE BY A LINE.  NOTES: 1. ELECTRICAL SYMBOLS SHOWN ON ELECTRICAL SHEETS. 2. FOR WELDING SYMBOLS USE AMERICAN WELDING SOCIETY STANDARD SYMBOLS. SEE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL.	

PLOT DATE: 9/2/2015 10:22 AM BY: TBDCAS

DESIGNED	E.G.A.		
DRAWN	L.M.S.		
CHECKED	M.W.W.		
PROJ. ENGR.	E.G.A.		
NO.	DATE	ISSUED FOR	BY
2	09/15	BID SET	E.G.A.
1	03/15	REVIEW SUBMITTAL	E.G.A.

DESIGNED	E.G.A.	 <b>Hazen and Sawyer</b> Environmental Engineers & Scientists 4000 Hollywood Boulevard, Suite 750N Hollywood, Florida 33021 Certificate of Authorization Number: 2771	NTS
DRAWN	L.M.S.		
CHECKED	M.W.W.		
PROJ. ENGR.	E.G.A.		
DESIGNED	E.G.A.	ELIE G. ANDARY No. 67503	P.E.

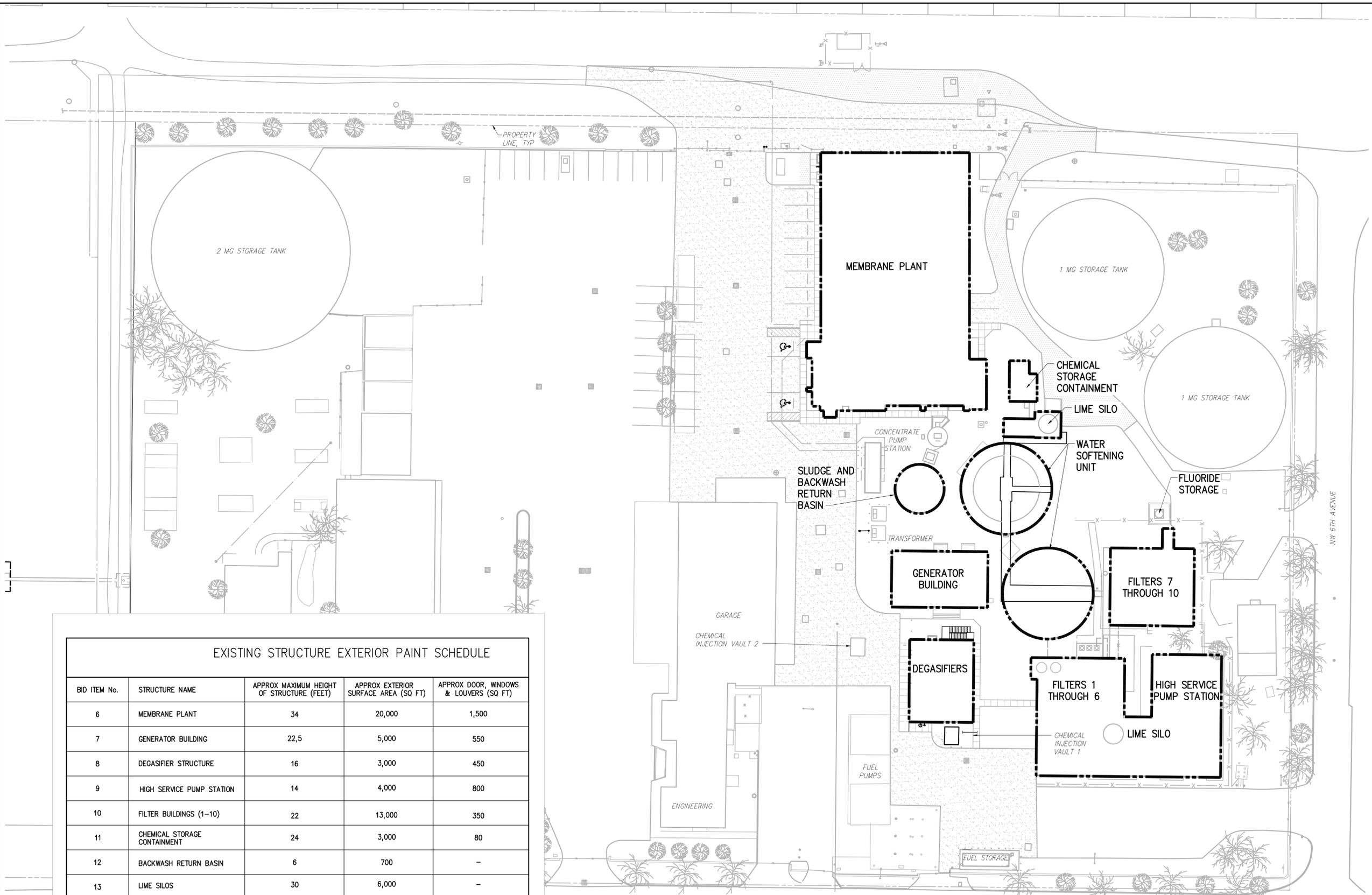
CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-G03



CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT	
COATING AND STUCCO REPAIR	
<b>ABBREVIATIONS, SYMBOLS AND LEGEND</b>	

DATE:	SEPTEMBER 2015
SHEET:	3 OF 15
DRAWING:	G-03



**LEGEND**

EXISTING

- [Solid line] BUILDING/STRUCTURE
- [Dashed line] CONCRETE CURB AND GUTTER
- [Dotted line] CONCRETE PAD/PAVING
- [Thin solid line] CONCRETE SIDEWALK
- [Line with '10'] CONTOUR
- [Line with '12.5 x'] SPOT ELEVATION
- [Dashed line] PROPERTY LINE
- [Dotted line] CONSTRUCTION LIMITS
- [Line with 'x x x'] FENCE
- [Circle with center dot] MANHOLE
- [Square with center dot] CATCH BASIN
- [Thick dashed line] APPROXIMATE STRUCTURE AREA

EXISTING STRUCTURE EXTERIOR PAINT SCHEDULE

BID ITEM No.	STRUCTURE NAME	APPROX MAXIMUM HEIGHT OF STRUCTURE (FEET)	APPROX EXTERIOR SURFACE AREA (SQ FT)	APPROX DOOR, WINDOWS & LOUVERS (SQ FT)
6	MEMBRANE PLANT	34	20,000	1,500
7	GENERATOR BUILDING	22.5	5,000	550
8	DEGASIFIER STRUCTURE	16	3,000	450
9	HIGH SERVICE PUMP STATION	14	4,000	800
10	FILTER BUILDINGS (1-10)	22	13,000	350
11	CHEMICAL STORAGE CONTAINMENT	24	3,000	80
12	BACKWASH RETURN BASIN	6	700	-
13	LIME SILOS	30	6,000	-
14	WATER SOFTENING UNITS	17	6,000	-
15	FLUORIDE STORAGE TANK	15	300	-

SITE PLAN

1"=30'

BM #5  
SEE TABLE #2, DRAWING C-5  
ELEV. = 11.08



PLOT DATE: 9/2/2015 10:21 AM BY: TBODAS

DESIGNED	E.G.A.
DRAWN	L.M.S.
CHECKED	M.W.W.
PROJ. ENGR.	E.G.A.

NO.	DATE	ISSUED FOR	BY
2	09/15	BID SET	E.G.A.
1	03/15	REVIEW SUBMITTAL	E.G.A.

**HAZEN AND SAWYER**  
Environmental Engineers & Scientists  
4000 Hollywood Boulevard, Suite 750N  
Hollywood, Florida 33021  
Certificate of Authorization Number: 2771

1"=30'

CONTRACT: -  
CLIENTS PROJECT:  
ENGINEERS PROJECT: 40620-002  
CAD REFERENCE: 40620-002-A01



CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR

EXISTING WTP EXTERIOR  
PAINTING

DATE: **SEPTEMBER 2015**  
SHEET: **4** OF **15**  
DRAWING: **A-01**

CONTRACTOR SHALL REMOVE EXISTING BUILDING SIGN. NEW BUILDING SIGN TO BE INSTALLED BY OWNER.



NORTH ELEVATION  
NTS



WEST ELEVATION  
NTS



SOUTH ELEVATION  
NTS



EAST ELEVATION  
NTS

PLOT DATE: 09/22/2015 10:22 AM BY: TBDCAS

NO.	DATE	ISSUED FOR	BY
2	09/15	BID SET	E.G.A.
1	03/15	REVIEW SUBMITTAL	E.G.A.

DESIGNED	E.G.A.
DRAWN	L.M.S.
CHECKED	M.W.W.
PROJ. ENGR.	E.G.A.

ELIE G. ANDARY	P.E.
No. 67503	

**HAZEN AND SAWYER**  
Environmental Engineers & Scientists  
4000 Hollywood Boulevard, Suite 750N  
Hollywood, Florida 33021  
Certificate of Authorization Number: 2771

NTS

CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A02

**Hallandale Beach**  
CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR

**MEMBRANE PLANT  
ELEVATIONS PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	5 OF 15
DRAWING:	A-02



NORTH ELEVATION  
NTS



WEST ELEVATION  
NTS



EAST ELEVATION  
NTS

PLOT DATE: 9/2/2015 10:23 AM BY: TBDCAS

NO.	DATE	ISSUED FOR	BY
2	09/15	BID SET	E.G.A.
1	03/15	REVIEW SUBMITTAL	E.G.A.

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CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A03

**Hallandale Beach**  
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PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**GENERATOR BUILDING  
ELEVATIONS PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	6 OF 15
DRAWING:	A-03



NORTH ELEVATION  
NTS



WEST ELEVATION  
NTS



SOUTH ELEVATION  
NTS

PLOT DATE: 9/2/2015 10:23 AM BY: TBDCAS

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4000 Hollywood Boulevard, Suite 750N  
Hollywood, Florida 33021  
Certificate of Authorization Number: 2771

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CONTRACT:	—
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A04

**Hallandale Beach**  
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PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR

**DEGASIFIER STRUCTURE  
ELEVATIONS PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	7 OF 15
DRAWING:	A-04



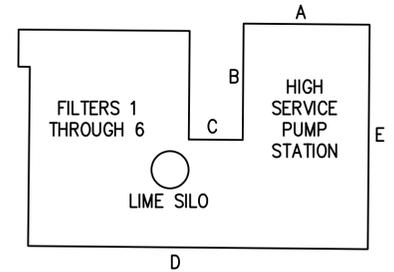
NORTH ELEVATION (EAST SIDE)  
NTS



WEST ELEVATION  
NTS



NORTH ELEVATION (WEST SIDE)  
NTS



KEY MAP  
NTS



SOUTH ELEVATION  
NTS



LIME SILO ELEVATION  
NTS



EAST ELEVATION  
NTS

PLOT DATE: 9/2/2015 10:23 AM BY: TBDCAS

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CONTRACT:	-
CLIENTS PROJECT:	
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CAD REFERENCE:	40620-002-A05

**Hallandale Beach**  
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PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**HIGH SERVICE PUMP  
STATION ELEVATIONS  
PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	8 OF 15
DRAWING:	A-05



NORTH ELEVATION  
NTS



EAST ELEVATION  
NTS



WEST ELEVATION  
NTS

PAINT INTERNAL WALLS AND CEILING

PAINT INTERNAL WALLS AND CEILING



SECOND FLOOR ELEVATION (SOUTH SIDE)  
NTS



SECOND FLOOR ELEVATION (NORTH WEST SIDE)  
NTS

PAINT HANDRAIL

PLOT DATE: 9/2/2015 10:24 AM BY: TBDCS

DESIGNED	E.G.A.		
DRAWN	L.M.S.		
CHECKED	M.W.W.		
PROJ. ENGR.	E.G.A.		
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1	03/15	REVIEW SUBMITTAL	E.G.A.

<b>HAZEN AND SAWYER</b> Environmental Engineers & Scientists 4000 Hollywood Boulevard, Suite 750N Hollywood, Florida 33021 Certificate of Authorization Number: 2771	NTS ELIE G. ANDARY No. 67503 P.E.
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CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A06

 CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT	CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT COATING AND STUCCO REPAIR
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DATE: <b>SEPTEMBER 2015</b> SHEET: <b>9</b> OF <b>15</b> DRAWING: <b>A-06</b>
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<b>FILTER BUILDINGS 1 THRU 6</b> <b>ELEVATIONS PHOTOS</b>
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NORTH ELEVATION  
NTS



PAINT INTERNAL  
WALLS AND CEILING

WEST ELEVATION  
NTS



SOUTH ELEVATION  
NTS

PLOT DATE: 9/2/2015 10:24 AM BY: TBDCAS

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NTS

CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A07

**Hallandale Beach**  
CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**FILTER BUILDINGS 7 THRU 10  
ELEVATIONS PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	10 OF 15
DRAWING:	A-07



WATER SOFTENING UNIT ELEVATION  
NTS



WATER SOFTENING UNIT ELEVATION  
NTS



WALKWAY HANDRAIL AND EQUIPMENT ON WATER SOFTENING UNIT  
NTS

PAINT HANDRAIL, CHECKER PLATES,  
LIGHT POLE, MOTOR, HOIST FRAME  
AND MISCELLANEOUS EQUIPMENT.  
  
DO NOT PAINT INTERIOR/SUBMERGED  
SURFACES OF WATER SOFTENING  
UNITS.

PLOT DATE: 9/2/2015 10:24 AM BY: TBDCAS

DESIGNED	E.G.A.		
DRAWN	L.M.S.		
CHECKED	M.W.W.		
PROJ. ENGR.	E.G.A.		
NO.	DATE	ISSUED FOR	BY
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CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A08

**Hallandale Beach**  
CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT  
PROGRESS. INNOVATION. OPPORTUNITY.

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**WATER SOFTENING UNITS  
ELEVATIONS PHOTOS**

DATE: **SEPTEMBER 2015**  
SHEET: **11** OF **15**  
DRAWING: **A-08**



NORTH ELEVATION  
NTS



WEST ELEVATION  
NTS



SOUTH ELEVATION  
NTS



EAST ELEVATION  
NTS

PLOT DATE: 9/2/2015 10:25 AM BY: TBDCAS

DESIGNED	E.G.A.		
DRAWN	L.M.S.		
CHECKED	M.W.W.		
PROJ. ENGR.	E.G.A.		
NO.	DATE	ISSUED FOR	BY
2	09/15	BID SET	E.G.A.
1	03/15	REVIEW SUBMITTAL	E.G.A.

DESIGNED	E.G.A.	
DRAWN	L.M.S.	
CHECKED	M.W.W.	
PROJ. ENGR.	E.G.A.	
DESIGNED BY	ELIE G. ANDARY	P.E.
NO.	67503	

**HAZEN AND SAWYER**  
Environmental Engineers & Scientists  
4000 Hollywood Boulevard, Suite 750N  
Hollywood, Florida 33021  
Certificate of Authorization Number: 2771

NTS

CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A09

**Hallandale Beach**  
CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**CHEMICAL STORAGE  
CONTAINMENT AND LIME SILO  
ELEVATIONS PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	12 OF 15
DRAWING:	A-09



NORTH ELEVATION  
NTS



WEST ELEVATION  
NTS

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No. 67503 P.E.

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NTS

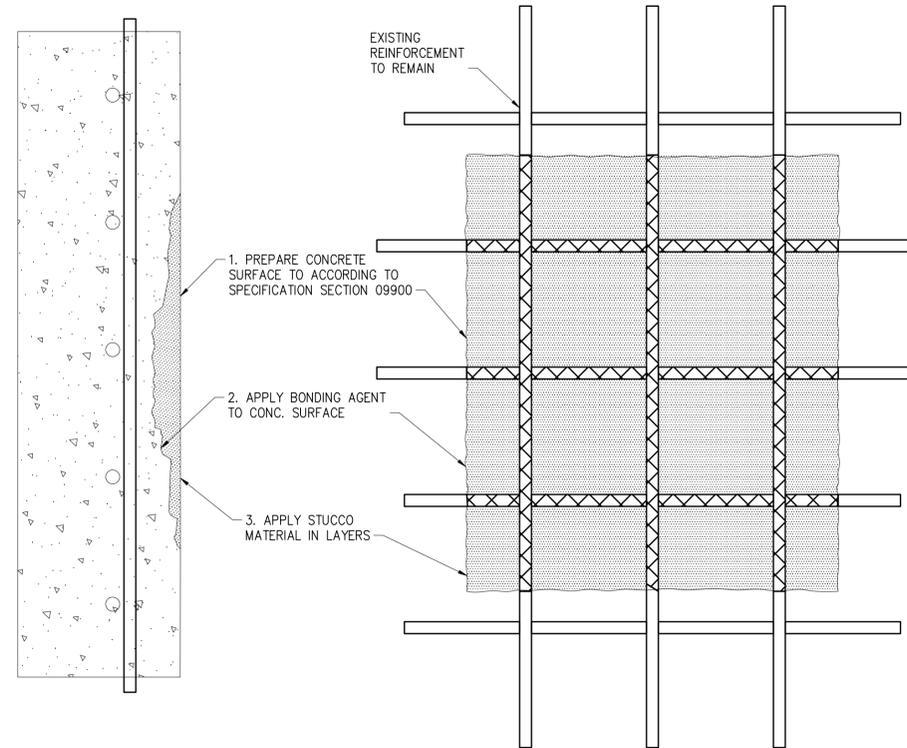
CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A10

**Hallandale Beach**  
CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR

**BACKWASH RETURN BASIN  
ELEVATIONS PHOTOS**

DATE:	SEPTEMBER 2015
SHEET:	13 OF 15
DRAWING:	A-10



STUCCO REPAIR DETAIL

DETAIL	1
NTS	A-11

**NOTES:**

1. THE ENGINEER/CITY WILL REVIEW THE SCOPE FOR STUCCO REPAIRS WITH THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
2. SEE SECTION 09210 FOR REPAIRS. PAYMENT WILL BE BASED UPON THE MEASURED SQUARE FEET OF REPAIRED STUCCO.

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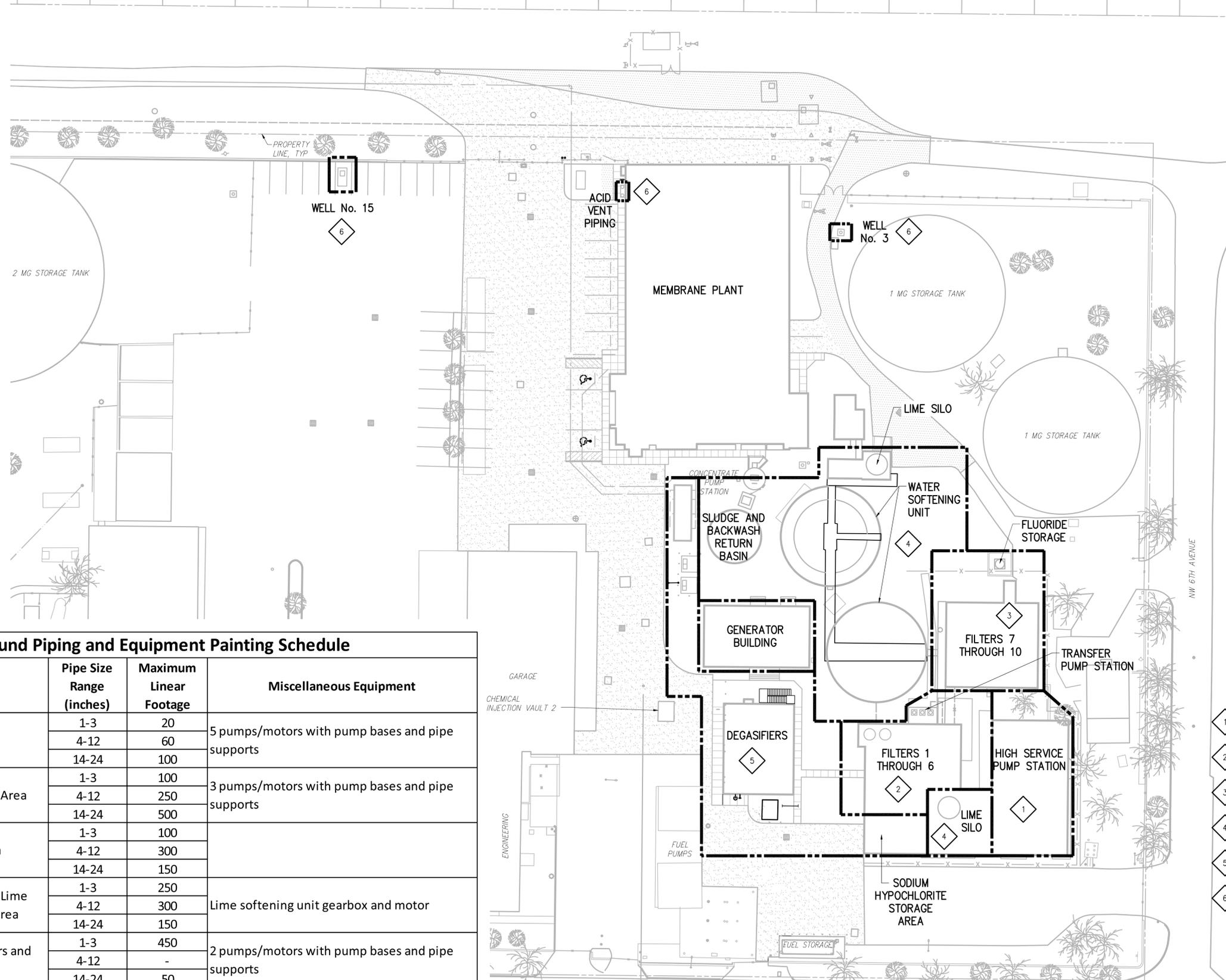
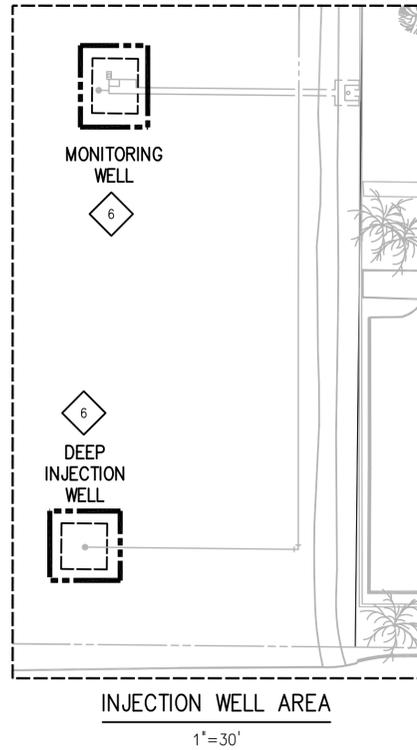
CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A11

CONTRACT:	-
CLIENTS PROJECT:	
ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A11

**Hallandale Beach**  
CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT  
PROGRESS. INNOVATION. OPPORTUNITY.

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**EXTERIOR REPAIR DETAILS  
AND NOTES**

DATE:	SEPTEMBER 2015
SHEET:	14 OF 15
DRAWING:	A-11



**LEGEND**

EXISTING

- BUILDING/STRUCTURE
- CONCRETE CURB AND GUTTER
- CONCRETE PAD/PAVING
- CONCRETE SIDEWALK
- CONTOUR
- SPOT ELEVATION
- PROPERTY LINE
- CONSTRUCTION LIMITS
- FENCE
- MANHOLE
- CATCH BASIN

- KEY NOTES:**
- 1 HIGH SERVICE PUMP STATION AREA
  - 2 FILTERS 1-6 AND TRANSFER PUMP STATION AREA
  - 3 FILTERS 7-10 AND FLUORIDE STORAGE AREA
  - 4 WATER SOFTENING UNITS, LIME STORAGE, LIME SLAKING, SLUDGE AND BACKWASH BASIN AREA
  - 5 CONCENTRATE PUMP STATION, DEGASIFIERS AND SODIUM HYPOCHLORITE STORAGE AREA
  - 6 WELL NO.3, WELL NO. 5, SULFURIC ACID VENTS, INJECTION WELL AND MONITORING WELL AREA

**Existing Aboveground Piping and Equipment Painting Schedule**

Bid Item No.	Item Name	Pipe Size Range (inches)	Maximum Linear Footage	Miscellaneous Equipment
16	High Service Pump Station Area	1-3	20	5 pumps/motors with pump bases and pipe supports
		4-12	60	
		14-24	100	
17	Filters 1-6 and Transfer Pump Station Area	1-3	100	3 pumps/motors with pump bases and pipe supports
		4-12	250	
		14-24	500	
18	Filters 7-10 and Fluoride Storage Area	1-3	100	
		4-12	300	
		14-24	150	
19	Water Softening Units, Lime Storage, Lime Slaking, Sludge and Backwash Basin Area	1-3	250	Lime softening unit gearbox and motor
		4-12	300	
		14-24	150	
20	Concentrate Pump Station, Degasifiers and Sodium Hypochlorite Storage Area	1-3	450	2 pumps/motors with pump bases and pipe supports
		4-12	-	
		14-24	50	
21	Well No.3, Well No. 5, Sulfuric Acid Vents, Injection Well and Monitoring Well Area	1-3	50	2 pumps/motors with pump bases and pipe supports
		4-12	50	
		14-24	50	

HALLANDALE BEACH WTP



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DATE	03/15	REVIEW SUBMITTAL	E.G.A.
NO.	1	ISSUED FOR	BY

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ENGINEERS PROJECT:	40620-002
CAD REFERENCE:	40620-002-A12

CITY OF HALLANDALE BEACH  
PUBLIC WORKS DEPARTMENT

CITY OF HALLANDALE BEACH PUBLIC WORKS DEPARTMENT  
COATING AND STUCCO REPAIR  
**EXISTING WTP PIPING AND EQUIPMENT PAINTING**

DATE:	SEPTEMBER 2015
SHEET:	15 OF 15
DRAWING:	A-12