



AGENDA ITEM MEMORADUM

Item No. 3a

AGENDA ITEM MEMORADUM

Town Manager

Connie Hoffmann

Department

Department Director

COMMISSION MEETING DATE (*) - 6:00 PM	Deadline to Town Clerk
<input checked="" type="checkbox"/> June 19, 2012	June 16
<input type="checkbox"/> June 26, 2012	June 22
<input type="checkbox"/> July 24, 2012	July 13

*Subject to Change

- Presentation Reports Consent Ordinance
 Resolution Quasi-Judicial Old Business New Business

FY2012 DESIGNATED HIGH PRIORITY ITEM - PRIORITY TOPIC: EAST COMMERCIAL STREETScape PROJECT

SUBJECT TITLE: EAST COMMERCIAL STREETScape PROJECT SCHEMATIC DESIGN

EXPLANATION: The contract with the designers of this project calls for them to present the schematic design to the Commission before proceeding to final design. The schematic design drawings were sent to most of the property owners and commercial tenants by email in the affected area on Tuesday, June 12th. (We do not have email addresses for some of the tenants, although we have requested them.) We have answered questions Aruba Beach Café submitted about the plans and we have discussed with Dave Gadsby his concerns that the landscape called for on the sidewalk south of the Village Grille would preclude his ability to gain additional outdoor dining space. I've spoken with Steve Fett about a solution to that and he will present an option to address it on Tuesday evening.

The designers will present the schematic plans on Tuesday evening and will review with the Commission alternatives for the materials to be used in construction of the two plazas, go over the landscape plan, and offer alternatives for lighting and street furniture.

The Fire Chief has determined that it is not necessary to upgrade the water main in the project area after all. He concluded that the water flows would be adequate to fight a fire because the entire water system in the area is looped and he can draw on water and pressure from the entire downtown area. I had concerns about the water capability if the existing structures redeveloped to their potential height under the Charter, but the Fire Chief pointed out they would have to put in fire sprinklers if they did expand significantly and that the water requirements to a sprinkler system are far, far less than the demand for fighting a fully-engaged fire. We will make some adjustments to the design contract to reflect the elimination of design of the water main.

We also had the Fire Chief review the schematic design and he has advised in writing that it gives the VFD adequate space to respond safely to a fire. The day the designers were here meeting with the Chief we actually asked him to take the ladder truck (the biggest truck) down to the site and set up so they could measure the distance between the stabilizers that truck requires when raising the ladder to certain heights and angles. The design can accommodate the width of the truck with the stabilizers set in place, with the understanding that some plant materials would be crushed if they actually had to respond to a significant fire at Aruba Café or the Pier.

The Commission will be asked on Tuesday night to give direction on the material to be used in the center of the plaza the designers are calling the Beach Plaza in the schematics. That is the plaza that would front El Mar Drive. That plaza is proposed to have a slightly elevated (18") stage with an outdoor terrazzo finish. That stage can be used for entertainment during special events and as a seating or dining area during other times. The plaza would be surrounded on the north & south by a landscaped sidewalk made out of seashell aggregate concrete, and



have seating walls inside the respective sidewalks. Three options are being presented for the center of the plaza – a hardscape finish of seashell aggregate concrete, a softer but firm Bermuda grass lawn (the type of grass used on a putting green), or a sand base. Each of the three options would provide a distinctly different character to the entire plaza from the other options and the designers will discuss that from the standpoint of design impact.

The preliminary cost estimates for the project are also included in the exhibits and indicate the project can be constructed within the \$2 million budget for it. There are some high estimates in the cost projections for lighting and street furniture that will likely come down when we select the actual bollard lighting and street furniture. The costs projected for street lights are about what we expected. The sea turtle protection lighting requirements and the salty air and windy environment really limits our choice of lighting options.

The cost estimates reflect the most costly of the street furniture and lighting options (to ensure the budget is adequate if we select them). The cost of each of the three plaza options is provided. The costs include drainage improvements, removing the large concrete power pole that currently sits in front of Anglin Plaza and burying the electric lines from that pole underground.

To answer the many questions we have received about the memorial bricks currently in Anglin Plaza, they will be moved to another location in the plaza, as the terrazzo stage will cover their existing location. The designers are still considering where would be an appropriate place to place the Anglin memorial. (At some point, the Town will need to determine the names of the two plazas. We have been hesitant to use the Anglin Plaza monikor for the plaza that fronts on El Mar out of respect to the Anglin family descendents who have voiced opposition to that plaza.)

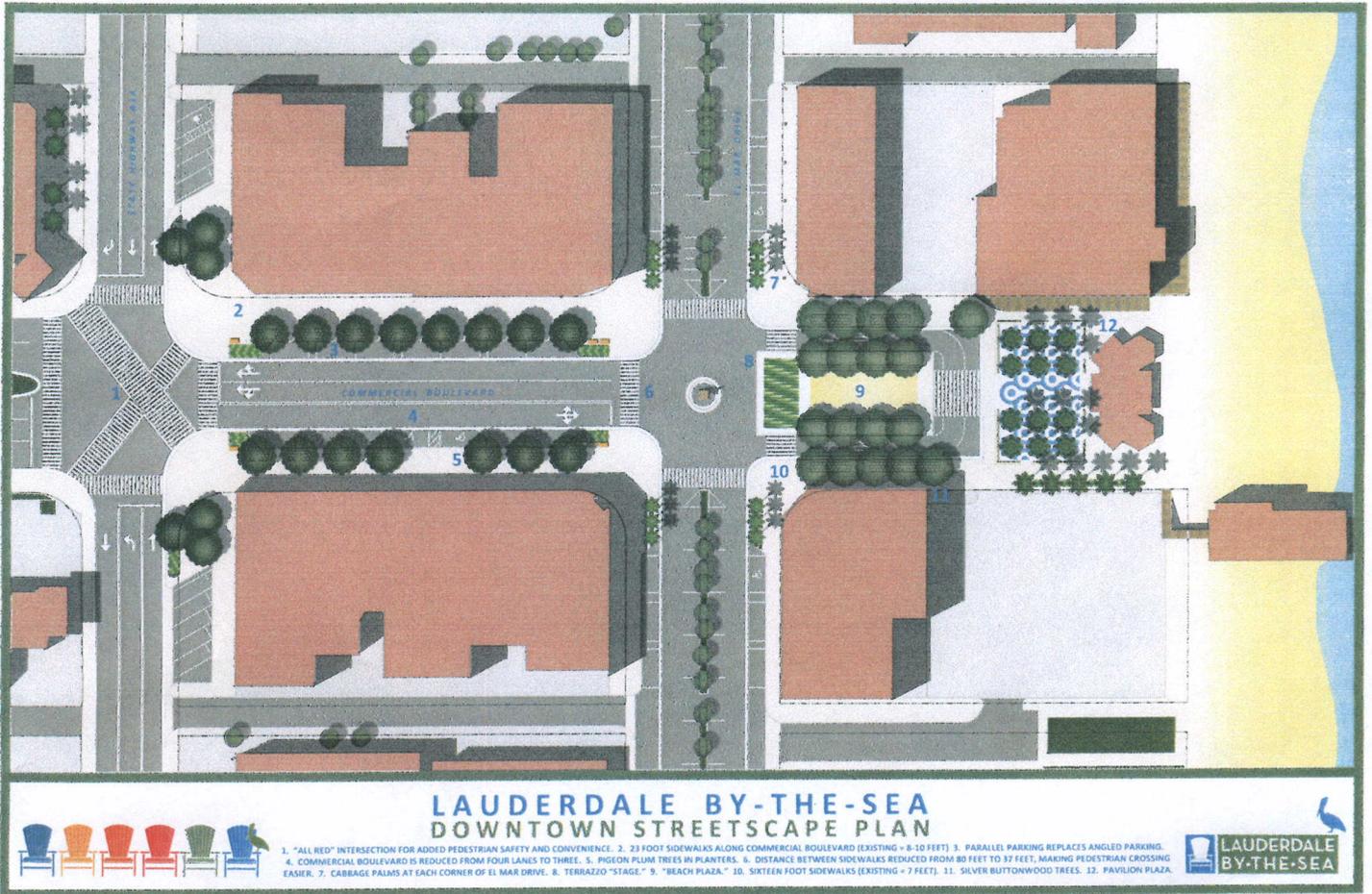
EXPECTED OUTCOME: Direction from the Commission on elements of the design required in order to proceed to final design drawings.

EXHIBITS: Packet of drawings, cost estimates, various meeting summaries, and emails from the Fire Chief regarding the water main and the adequacy of the design for firefighting capability.

Reviewed by Town Attorney

Yes No

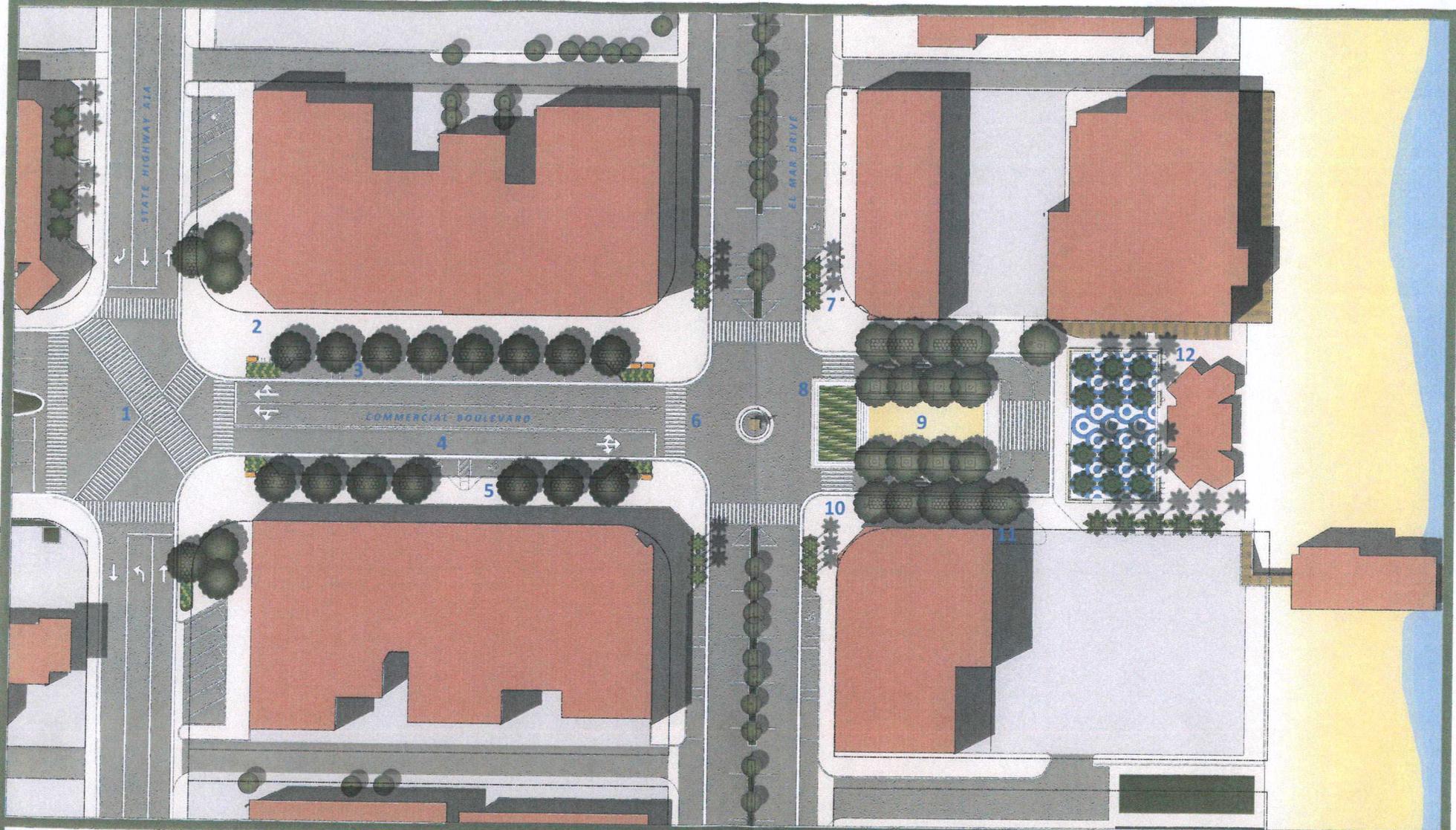
Town Manager Initials *BS*



PROJECT BINDER

June 19, 2012

PREPARED BY:
JAIME CORREA AND ASSOCIATES
&
STEVEN FETT ARCHITECTURE



SCALE: 1"=20'

LAUDERDALE BY-THE-SEA DOWNTOWN STREETScape PLAN

JUNE 17, 2012

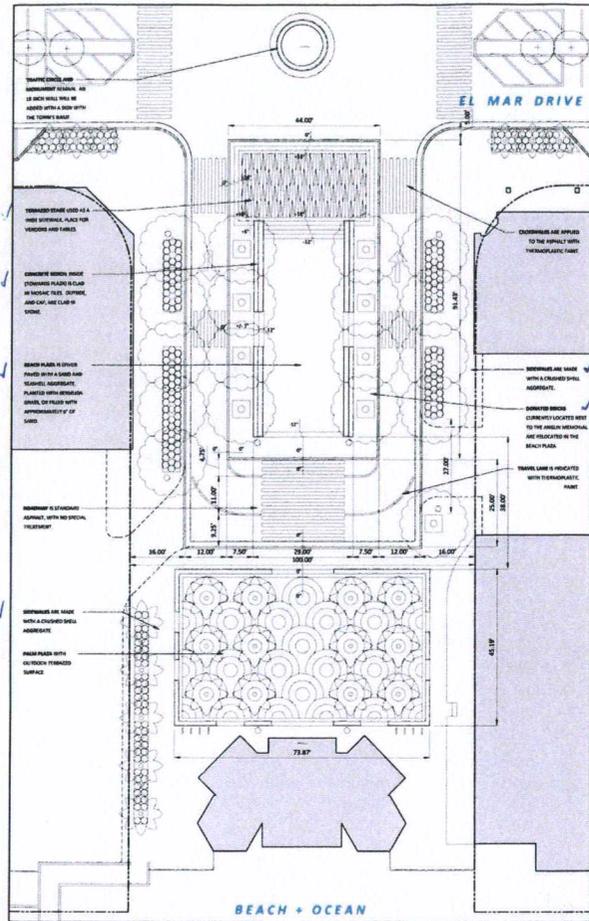


1. "ALL RED" INTERSECTION FOR ADDED PEDESTRIAN SAFETY AND CONVENIENCE.
2. 23 FOOT SIDEWALKS ALONG COMMERCIAL BOULEVARD (EXISTING = 8-10 FEET)
3. PARALLEL PARKING REPLACES ANGLED PARKING.
4. COMMERCIAL BOULEVARD IS REDUCED FROM FOUR LANES TO THREE.
5. PIGEON PLUM TREES IN PLANTERS.
6. DISTANCE BETWEEN SIDEWALKS REDUCED FROM 80 FEET TO 37 FEET, MAKING PEDESTRIAN CROSSING EASIER.
7. CABBAGE PALMS AT EACH CORNER OF EL MAR DRIVE.
8. TERRAZZO "STAGE."
9. "BEACH PLAZA."
10. SIXTEEN FOOT SIDEWALKS (EXISTING = 7 FEET).
11. SILVER BUTTONWOOD TREES.
12. PAVILION PLAZA.

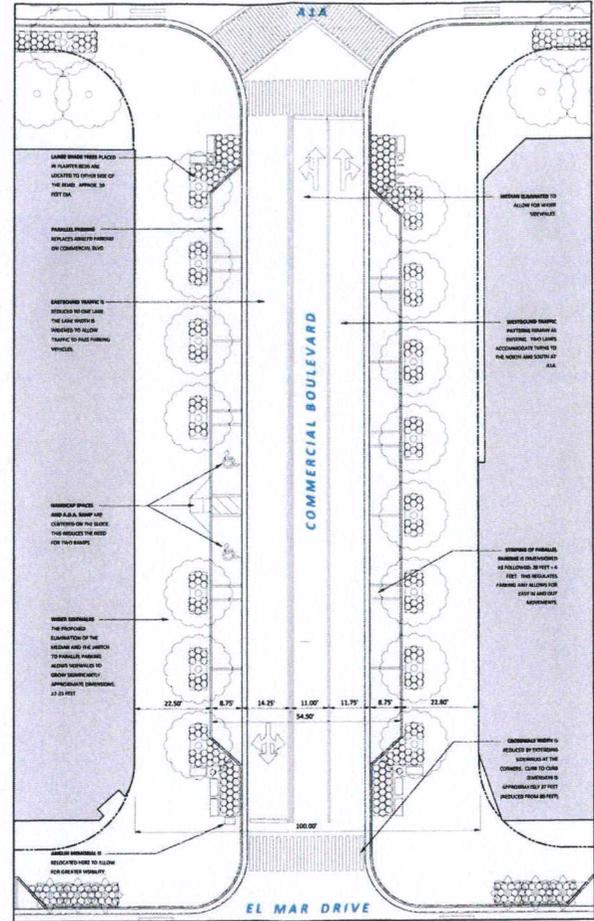


LAUDERDALE
BY-THE-SEA

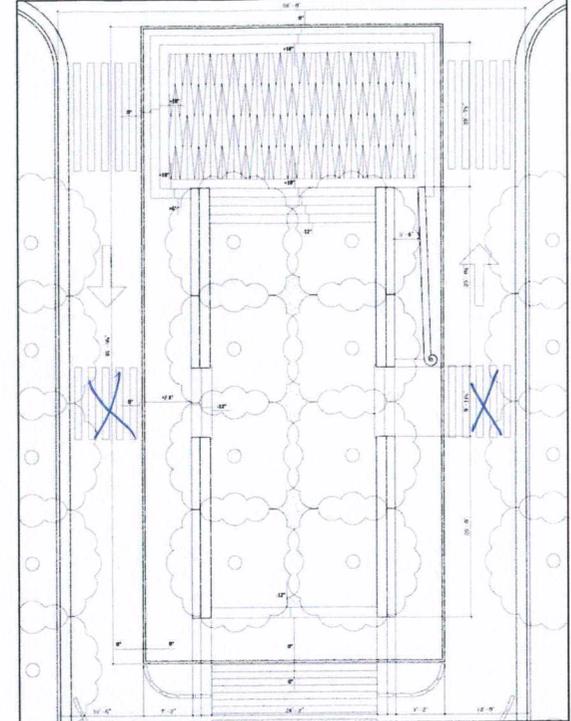




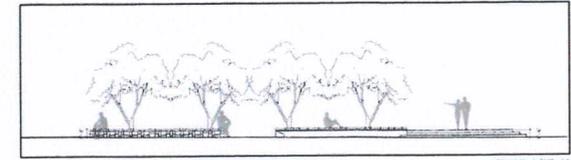
1 PLAN OF "COMMERCIAL BLVD. (EL MAR - BEACH)" SCALE: 1/16"=1'



2 PLAN OF COMMERCIAL BOULEVARD. (A1A- EL MAR) SCALE: 1/16"=1'

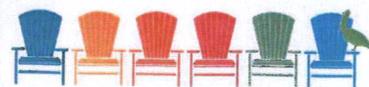


3 ALTERNATE A.D.A. PLAN OF "BEACH PLAZA" SCALE: 1/8"=1'



4 DETAILED SECTION OF "BEACH PLAZA" SCALE: 1/8"=1'

SCALE: 1"=20'



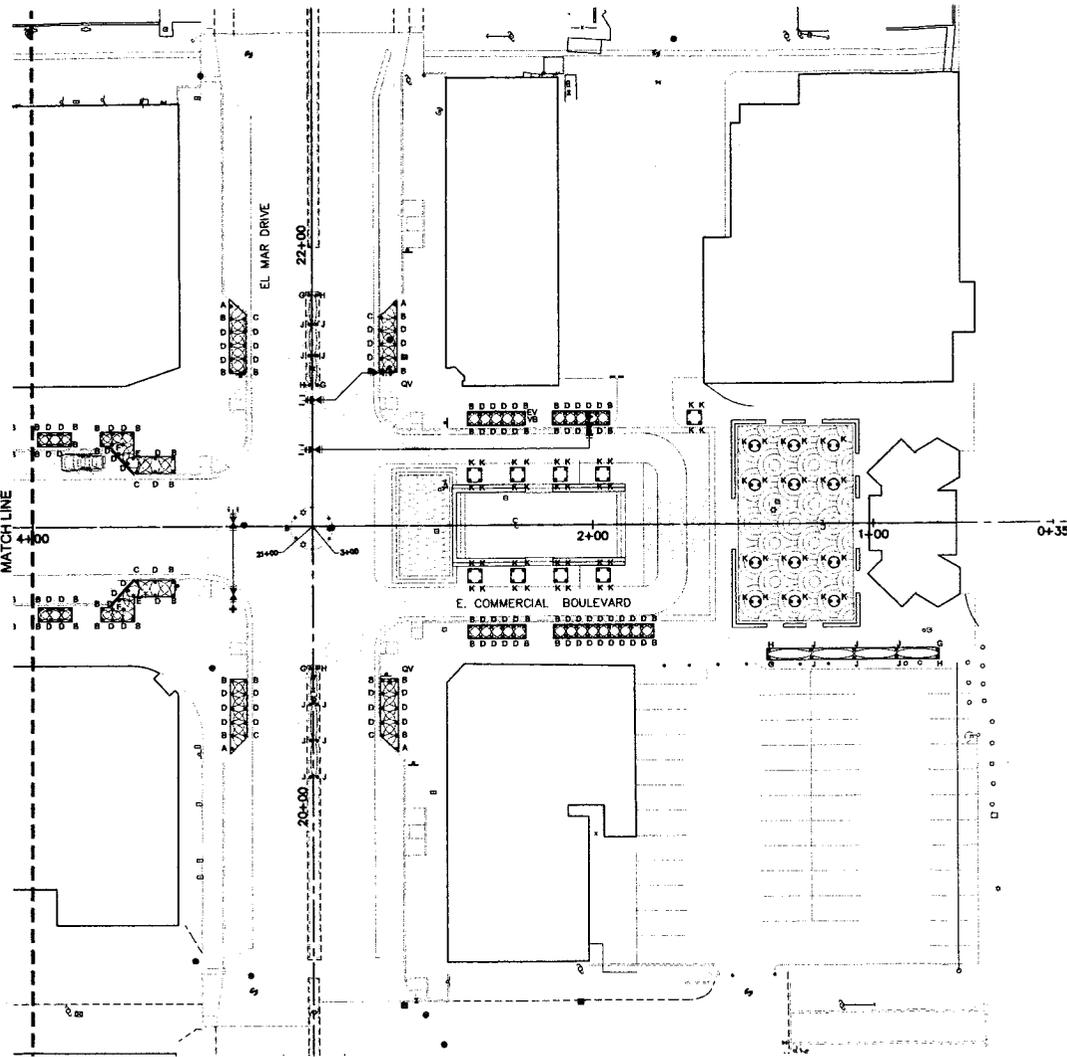
LAUDERDALE BY-THE-SEA DOWNTOWN STREETSCAPE PLAN

JUNE 19, 2012



1. DIMENSIONED PLAN (SCALE: 1/16"=1') WITH SUMMARY NOTES OF PLAZA AREAS BETWEEN EL MAR DRIVE AND THE BEACH. 2. DIMENSIONED PLAN (SCALE 1/16"=1') WITH SUMMARY NOTES OF PLAZA AREAS BETWEEN EL MAR DRIVE AND FLORIDA STATE HIGHWAY A1A. 3. DETAILED PLAN (SCALE: 1/8" = 1') OF "BEACH PLAZA" SHOWING AN ALTERNATE PLAN ALLOWING DISABLED ACCESS TO THE STAGE AREA BY MEANS OF A RAMP (SLOPE 1:18) TO THE NORTH SIDE OF THE PLAZA. 4. ELEVATION DRAWING (SCALE: 1/8"=1') OF THE "BEACH PLAZA." THIS SECTION CORRESPONDS TO THE ACCESSIBLE PLAN ABOVE. DASHED LINES REPRESENT THE DESIGNED SLOPE OF THE RAMP AS WELL AS THE LEVEL OF THE PLAZA BELOW.





IRRIGATION PLAN

1" = 20'-0"

IRRIGATION LEGEND	
SYMBOL/KEY	DESCRIPTION
	SPRINKLER AND WATER PATTERN. REFER TO SPRINKLER SCHEDULE.
	IRRIGATION STATION PIPING.
	IRRIGATION MAIN PIPING.
	IRRIGATION STATION PIPING IN SLEEVE.
	IRRIGATION MAIN PIPING IN SLEEVE.
	AUTOMATIC ELECTRIC VALVE IN VALVE BOX. REFER TO STATION AND EQUIPMENT SCHEDULES.
	MANUAL VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
	CHECK VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
	GATE VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
	QUICK COUPLER VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
	STATION NUMBER AND FLOW IN GPM. REFER TO IRRIGATION SYSTEM DIAGRAM AND STATION SCHEDULE.
	AUTOMATIC CONTROLLER. REFER TO EQUIPMENT SCHEDULE.
	RAIN SENSOR SWITCH. REFER TO EQUIPMENT SCHEDULE.
	WATER METER. REFER TO ENGINEERING DRAWINGS.
	BACKFLOW PREVENTER. REFER TO ENGINEERING DRAWINGS.
	HOSE. REFER TO ENGINEERING DRAWINGS.
	PRECIPITATION RATE.

SPRINKLER SCHEDULE										
KEY	EQPT	MNFR	BODY	NOZZLE	BASE	PSI	GPM	PRC	PATTERN	RANGE
A	HEAD	HUNTER	PROB-04	SA	1/2" NPT	30	3.19	3.95	45°	4.5'-0"
B	HEAD	HUNTER	PROB-04	SA	1/2" NPT	30	0.37	3.98	90°	4.5'-0"
C	HEAD	HUNTER	PROB-04	SA	1/2" NPT	30	0.44	3.83	120°	4.5'-0"
D	HEAD	HUNTER	PROB-04	SA	1/2" NPT	30	0.60	3.24	180°	4.5'-0"
E	HEAD	HUNTER	PROB-04	SA	1/2" NPT	30	1.10	3.62	370°	4.5'-0"
F	HEAD	HUNTER	PROB-04	SA	1/2" NPT	30	1.36	3.37	380°	4.5'-0"
G	HEAD	HUNTER	PROB-04	LCB-015	1/2" NPT	30	0.85		RECT	8' x 10'
H	HEAD	HUNTER	PROB-04	PCB-015	1/2" NPT	30	0.88		RECT	8' x 10'
J	HEAD	HUNTER	PROB-04	SB-030	1/2" NPT	30	1.30		RECT	8' x 30'
K	HEAD	HUNTER	PROB-04	PCB-25	1/2" NPT	30	0.25		TRISCALE	BUBBLER

PIPING SCHEDULE				
PIPING	MATERIAL	PIPE	FITTINGS	JOINT
IRRIGATION MAIN	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1785 SCHEDULE 80	ASTM D 2487 SCH 80, SOCKET	ASTM D 2984 SOLVENT CEMENT
IRRIGATION STATION	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1785 SCHEDULE 80	ASTM D 2487 SCH 80, SOCKET	ASTM D 2984 SOLVENT CEMENT
IRRIGATION SLEEVE	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1785 SCHEDULE 80	ASTM D 2487 SCH 80, SOCKET	ASTM D 2984 SOLVENT CEMENT
SPRINKLER HEAD SWING JOINT	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1785 SCHEDULE 80	ASTM D 2487 SCH 80, THREAD	TAPE OR LIQUID LUBRICANT

EQUIPMENT SCHEDULE				
KEY	EQUIPMENT	MANUFACTURER	NUMBER	SIZE DETAIL
AC	AUTOMATIC CONTROLLER	RAINBRD	ESP-L0A-SM8	STATION
RS	RAIN SENSOR SWITCH	HUNTER	MINI-CLICK-C-8PSW	POLE
EV	AUTOMATIC ELECTRIC VALVE	RAINBRD	150-PEB-PRS-D	INCH 1.2
GV	GATE VALVE	NBCO	T-113	INCH 1.1
VB	VALVE BOX AND COVER	QUAZTE	PG13348818, PG1324CA00	1.1, 1.2

STATION SCHEDULE						
STATION	GPM	STATION PIPE SIZE	VALVE SIZE	VALVE KEY	MAIN PIPE SIZE	WATER SOURCE
2		INCH	INCH	EV	INCH	SERVICE
3		INCH	INCH	EV	INCH	SERVICE
4		INCH	INCH	EV	INCH	SERVICE
5		INCH	INCH	EV	INCH	SERVICE
6		INCH	INCH	EV	INCH	SERVICE
7		INCH	INCH	EV	INCH	SERVICE
8		INCH	INCH	EV	INCH	SERVICE
9		INCH	INCH	EV	INCH	SERVICE
10		INCH	INCH	EV	INCH	SERVICE

NOTES
 1. LATERAL PIPING WITH NO SIZE INDICATION IS 3/4-INCH MINIMUM SIZE.
 2. LOCATE PART-CIRCLE SPRINKLER HEADS TO MAINTAIN A MINIMUM OF 4 INCHES FROM PAVEMENTS AND OTHER BOUNDARIES.

Project:
 STREETScape AND DRAINAGE IMPROVEMENTS ALONG
EAST COMMERCIAL BOULEVARD
 IN THE TOWN OF LAUDERDALE-BY-TH-SEA, FLA.

Design Team:
 Urban Response
JAIME CORREA AND ASSOCIATES
 5733 SW 48TH ST., MIAMI, FL 33155
 T. 305.740.8226 F. 305.740.8979

Architect:
STEVEN FETT ARCHITECTURE
 163 SE 1ST STREET, MIAMI, FL 33131
 T. 305.373.9833 OFFICE@STEVENFETT.COM

Landscape Architect:
FALCÓN+BUENO
 2850 Le Jeune Road, Suite 118, Coral Gables, Florida 33134
 T. 305.443.7378 FB@FALCONBUENO.COM

Engineer:
HUGHES HUGHES INC.
 729 SW 4 Place, Suite 100 FL, Lauderhill, FL 33112-2953

Consultant:
CHEN-MORSE LANDSCAPES
 1444 University Blvd., Suite 204, Miami, Florida 33132
 T. 786.497.1000 F. 786.497.2300

LANDSCAPE ARCHITECT OF RECORD

18ALGH1+MFCOM 15.RLC NO. 14000843

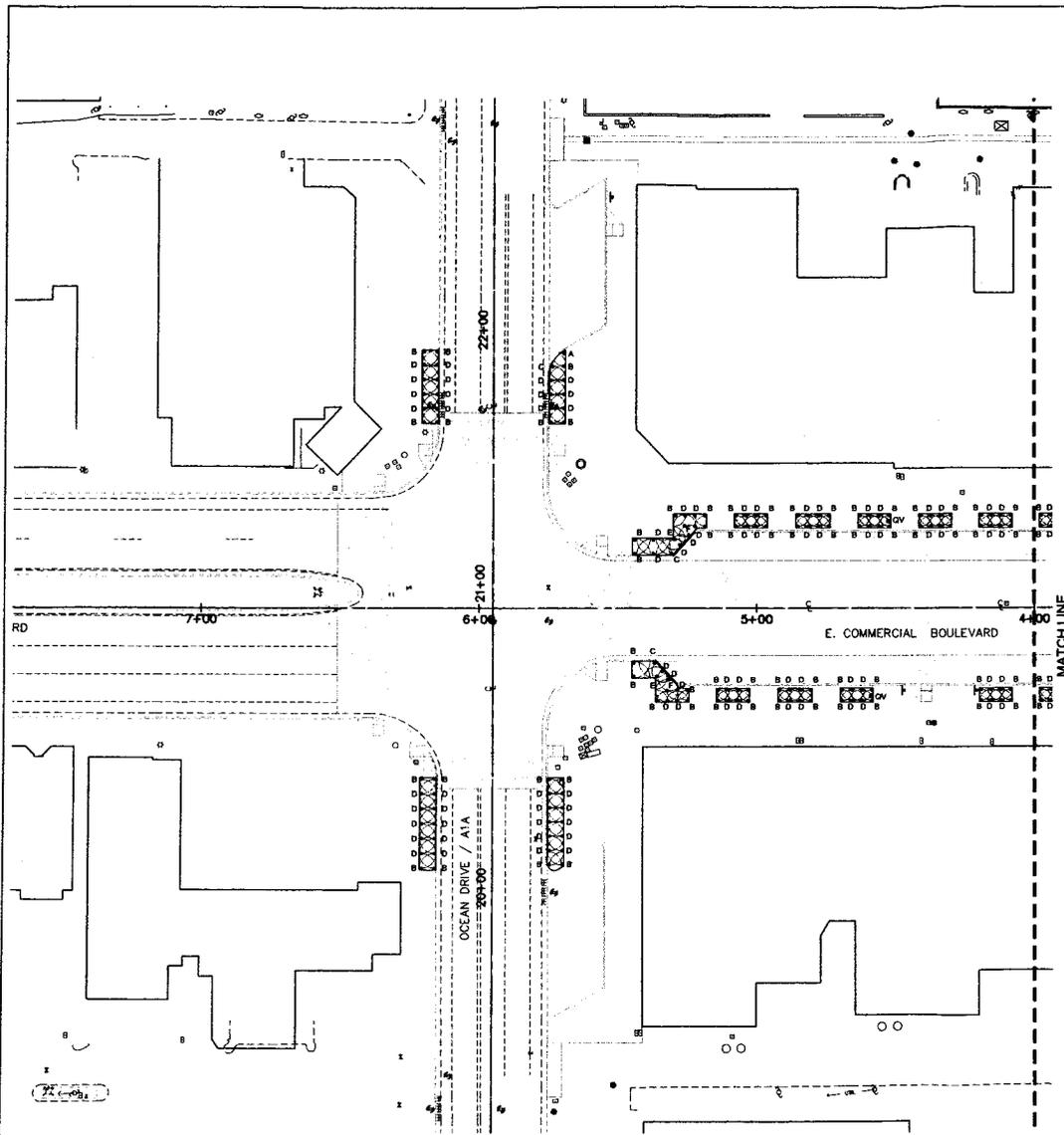
Revisions:

DESIGNERS:	DRAWN BY:	CHECKED:
F+B	F+B	F+B

Drawing:
IRRIGATION

DATE: 6/2/2012 DRAWING NUMBER: **LA-1.1**

PROGRESS SET



IRRIGATION PLAN

1" = 20'-0"

IRRIGATION LEGEND

SYMBOL/KEY	DESCRIPTION
	SPRINKLER AND WATER PATTERN. REFER TO SPRINKLER SCHEDULE.
	IRRIGATION STATION PIPING.
	IRRIGATION MAIN PIPING.
	IRRIGATION STATION PIPING IN SLEEVE.
	IRRIGATION MAIN PIPING IN SLEEVE.
EV	AUTOMATIC ELECTRIC VALVE IN VALVE BOX. REFER TO STATION AND EQUIPMENT SCHEDULES.
VS	MANUAL VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
CV	CHECK VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
GV	GATE VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
QV	QUICK COUPLER VALVE IN VALVE BOX. REFER TO EQUIPMENT SCHEDULE.
I	STATION NUMBER AND FLOW IN GPM. REFER TO IRRIGATION SYSTEM DIAGRAM AND STATION SCHEDULE.
AC	AUTOMATIC CONTROLLER. REFER TO EQUIPMENT SCHEDULE.
RS	RAIN SENSOR SWITCH. REFER TO EQUIPMENT SCHEDULE.
M	WATER METER. REFER TO ENGINEERING DRAWINGS.
BP	BACKFLOW PREVENTER. REFER TO ENGINEERING DRAWINGS.
HB	HOSEBIB. REFER TO ENGINEERING DRAWINGS.
PRC	PRECIPITATION RATE.

SPRINKLER SCHEDULE

KEY	EQPT	MANFR	BODY	NOZZLE	BASE	PSI	GPM	PRC	PATTERN	RANGE
A	HEAD	HUNTER	PROS-64	6A	1/2" NPT	30	0.18	3.85	45°	4.5'-0"
B	HEAD	HUNTER	PROS-64	6A	1/2" NPT	30	0.37	3.96	90°	4.5'-0"
C	HEAD	HUNTER	PROS-64	6A	1/2" NPT	30	0.44	3.93	135°	4.5'-0"
D	HEAD	HUNTER	PROS-64	6A	1/2" NPT	30	0.60	3.24	180°	4.5'-0"
E	HEAD	HUNTER	PROS-64	6A	1/2" NPT	30	1.10	3.62	270°	4.5'-0"
F	HEAD	HUNTER	PROS-64	6A	1/2" NPT	30	1.26	3.37	360°	4.5'-0"
G	HEAD	HUNTER	PROS-64	LC3-615	1/2" NPT	30	0.85	-	RECT	8' x 18'
H	HEAD	HUNTER	PROS-64	RC5-615	1/2" NPT	30	0.85	-	RECT	8' x 18'
J	HEAD	HUNTER	PROS-64	SB-330	1/2" NPT	30	1.30	-	RECT	2' x 30'
K	HEAD	HUNTER	PROS-64	PC3-26	1/2" NPT	30	0.25	-	TRISOLE	BUBBLER

PIPING SCHEDULE

PIPING	MATERIAL	PIPE	FITTINGS	JOINT
IRRIGATION MAIN	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1784 SCHEDULE 80	ASTM D 2487 SCH 80, SOCKET	ASTM D 2954 SOLVENT CEMENT
IRRIGATION STATION	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1784 SCHEDULE 40	ASTM D 2487 SCH 40, SOCKET	ASTM D 2954 SOLVENT CEMENT
IRRIGATION SLEEVE	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1784 SCHEDULE 80	ASTM D 2487 SCH 80, SOCKET	ASTM D 2954 SOLVENT CEMENT
SPRINKLER HEAD SWING JOINT	POLYVINYL CHLORIDE (PVC) PLASTIC PIPE & FITTINGS	ASTM D 1784 SCHEDULE 80	ASTM D 2484 SCH 80, THREAD	TAPE OR LIQUID LUBRICANT

EQUIPMENT SCHEDULE

KEY	EQUIPMENT	MANUFACTURER	NUMBER	SIZE	DETAIL
AC	AUTOMATIC CONTROLLER	RANBRD	ESP-L304-SMB	STATION	
RS	RAIN SENSOR SWITCH	HUNTER	MN-CLICK-C-BPSW	POLE	
EV	AUTOMATIC ELECTRIC VALVE	RANBRD	150-PEB-PRG-D	INCH	1.2
GV	GATE VALVE	INSCO	T-113	INCH	1.1
VB	VALVE BOX AND COVER	QUAZITE	PG13248B16, PG1324C40	INCH	1.1, 1.2

STATION SCHEDULE

STATION	GPM	STATION PIPE SIZE	VALVE SIZE	VALVE KEY	MAIN PIPE SIZE	WATER SOURCE
1		INCH	INCH	EV	INCH	SERVICE
2		INCH	INCH	EV	INCH	SERVICE
3		INCH	INCH	EV	INCH	SERVICE
4		INCH	INCH	EV	INCH	SERVICE
5		INCH	INCH	EV	INCH	SERVICE
6		INCH	INCH	EV	INCH	SERVICE
7		INCH	INCH	EV	INCH	SERVICE
8		INCH	INCH	EV	INCH	SERVICE
9		INCH	INCH	EV	INCH	SERVICE
10		INCH	INCH	EV	INCH	SERVICE

- ### NOTES
- LATERAL PIPING WITH NO SIZE INDICATION IS 3/4-INCH MINIMUM SIZE.
 - LOCATE PART-CIRCLE SPRINKLER HEADS TO MAINTAIN A MINIMUM OF 4 INCHES FROM PAVEMENTS AND OTHER BOUNDARIES.

Project:

STREETSCAPE AND DRAINAGE
IMPROVEMENTS ALONG

EAST COMMERCIAL BOULEVARD

IN THE TOWN OF:
LAUDERDALE-BY-SEA, FLA

Design Team:

Urban Designer:
JAIME CORREA AND ASSOCIATES
5735 SW 48TH ST., MIAMI FL 33155
T. 305.740.8226 F. 305.740.8575

Arch:
STEVEN FETT ARCHITECTURE
168 SE 1ST STREET, MIAMI FL 33131
T. 305.374.9833 F. 305.374.9833

Landscape Architect:

FALCÓN+BUENO
2855 La Jolla Road, Suite 318, Coral Gables, Florida 33134
T. 305.445.7518 F. 305.445.7518

Staff Engineer:

HUGHES HUGHES INC.
729 SW 4 Pkwy, Suite 103 Ft. Lauderdale, FL 33312-2295

Civil Engineer:

CHEN+MORE ASSOCIATES
1444 Biscayne Blvd., Suite 204
Miami, Florida 33132
T. 786.461.1900
F. 786.497.2300

I. LANDSCAPE ARCHITECT OF RECORD

(LICENSED ARCHITECT) (FL REG. NO. LA000064)

Revisions:

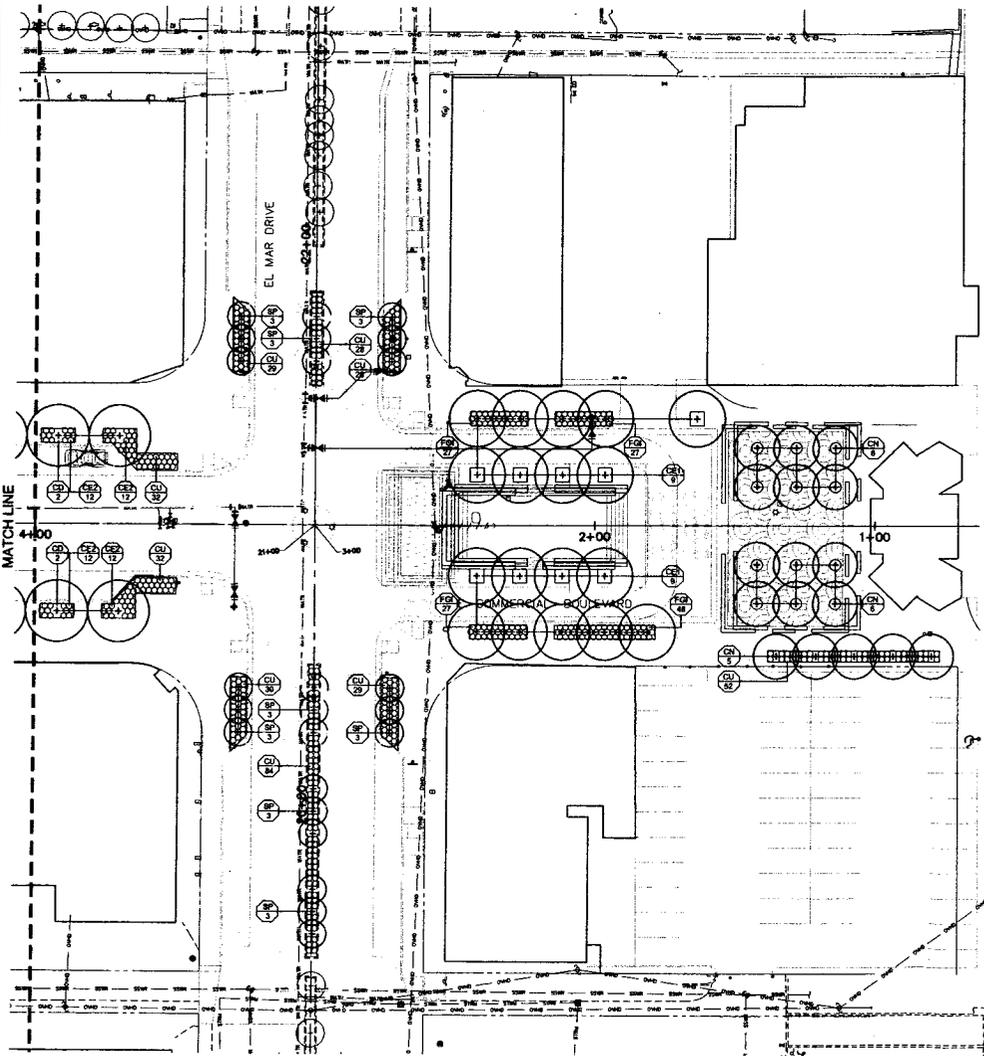
DESIGNER:	DRAWN BY:	CHECKED:
T-F	F-B	F-B

Drawing:

IRRIGATION

DATE: 6/2/2012	DRAWING NUMBER: LA-1.2
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PROGRESS SET



PLANTING PLAN

1" = 20'-0"



LEGEND

SYMBOL	DESCRIPTION
(+)	PROTECTED VEGETATION
(+)	TRANSPLANTED VEGETATION
(+)	PROPOSED VEGETATION

ABBREVIATIONS

KEY	DESCRIPTION	KEY	DESCRIPTION
AC	ACRE	LB	LINEAR FOOT
AH	AVERAGE HEIGHT	M	METER
AS	AVERAGE SPREAD	MT	METRIC TON
BS	BALLED & BURLAPPED	MTCH	MATCHED
BSW	BALLED & BURLAPPED & WIRED	NCD	NOMINAL CONTAINER DIAMETER
BP	BALLED & POTTED	NST	NURSERY STOCK
BR	BARE ROOT	OC	ON CENTER
CF	CLUMP FOOT	PLST	PLANTATION STOCK
CLPR	COLLECTED STOCK	QTY	QUANTITY
CM	CANE	RCTD	ROOTED CUTTING
CT	CLEAR TRUNK	RN	RUNNER
CLTR	CLEAR TRUNK	RF	SQUARE FOOT
CW	CLEAR WOOD	SHRD	SHEARED
CV	CLUMP YARD	SP	SPECIES
DBH	DIAMETER AT BREAST HEIGHT	SPCM	SPECIMEN
EPR	EXISTING TO BE PROTECTED	ST	STEM
ERV	EXISTING TO BE REMOVED	STWD	STANDARD
ETR	EXISTING TO BE TRANSPLANTED	STST	SITE STOCK
ESPL	ESPALER	SY	SQUARE YARD
G	GALLON	T	TON
GRFT	GRAFTED	TB	TUBER
HA	HECTARE	TH	TOTAL HEIGHT
KG	KILOGRAM	TK	TRUNK
L	LITER	TRPY	TRUNKY
LB	POUND	TB	TOTAL SPREAD
LF	LINEAR FOOT		

NURSERY STOCK SCHEDULE

KEY	DESCRIPTION	QTY	DETAIL
CO	COCOCOLOBA DIVERSIFOLIA PRISON PALM 18" TH 11" DBH 1" CT 4" CLPR BS	4	MTCH
CE1	CONOCARPUS ERECTUS BERCEUS SILVER BUTTWOOD 18" TH 12" DBH 1" CT 3" TK 2 1/2" CLPR EACH TK BS	18	MTCH
CE2	CONOCARPUS ERECTUS BERCEUS SILVER BUTTWOOD 30" AH 24" AS 10" NCD 24" OC	48	
CN	COCOS NUCIFERA COCONUT PALM 20" DBH CV BS	17	MTCH
CU	COCOCOLOBA UNIFERA SEA GRAPE 24" AH 24" AS 10" NCD 24" OC	344	
FGI	FIGUS CV GREEN ISLAND DWARF FIG 18" AH 18" AS 10" NCD 18" OC	120	
SP	SABAL PALMETTO CARABEA PALMETTO 18" DBH 12" CV BS	24	MTCH

FERTILIZER SCHEDULE

VEGETATION	MEDIUM	ANALYSIS	NPKR	PKG
PALMS	GROUND	06-04-12	AFEC	6878
TREES/SHRUBS	GROUND	06-06-06	AFEC	1631

NOTES

- TOWN OF LAUDERDALE BY THE SEA TRIANGLE OF VISIBILITY. MAINTAIN CROSS-VISIBILITY BETWEEN 2'-6" AND 8'-0" IN ELEVATION ABOVE GROUND AND PAVEMENT.
- FOOT TRIANGLE OF VISIBILITY. MAINTAIN CROSS-VISIBILITY BETWEEN 5'-0" ABOVE AND 1'-0" BELOW BUCKET LINE DATUM (5'-0" ABOVE RESPECTIVE PAVEMENTS). REFER TO FOOT DESIGN STANDARDS.

Project:

STREET/LANE AND DRAINAGE IMPROVEMENTS ALONG

EAST COMMERCIAL BOULEVARD

IN THE TOWN OF LAUDERDALE-BY-THE-SEA, FL.

Design Team:

Urban Designer:

JAIMÉ CORREA AND ASSOCIATES
5735 SW 43RD ST., MIAMI, FL 33150
T. 305.740.8226 F. 305.740.8979

Architect:

STEVEN FETT ARCHITECTURE
106 SE 87 STREET, MIAMI, FL 33139
T. 305.446.7875 F. 305.446.7875

Landscape Architect:

FALCÓN+BUENO
2850 Le Jeune Road, Suite 318, Coral Gables, Florida 33134
T. 305.446.7875 F. 305.446.7875

Staff Designer:

HHI HUGHES HUGHES INC.
728 SW 4 Place, Suite 101 Ft. Lauderdale, FL 33312-2293

Soil Designer:

DMN
1444 Brickway Blvd., Suite 204, Miami, Florida 33132
T. 786.497.1900 F. 786.497.2200

LANDSCAPE ARCHITECT OF RECORD:

FALCÓN+BUENO

Revisions:

NO.	DESCRIPTION

DESIGNERS

F+B

DRAWN BY:

F+B

CHECKED:

F+B

Drawing:

PLANTING

DATE:

6/12/2012

DRAWING NUMBER:

LA-2.1

DATE:

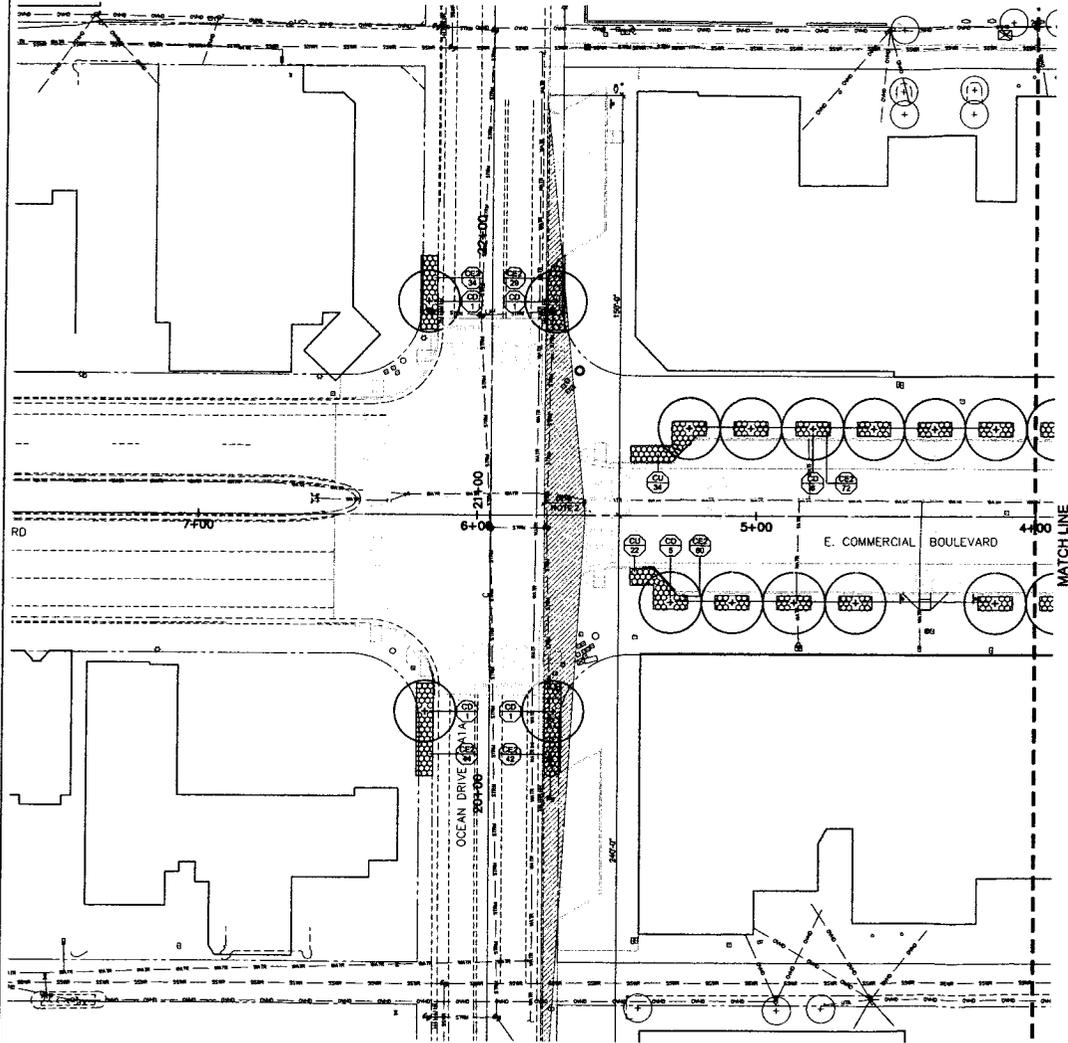
6/12/2012

DRAWING NUMBER:

LA-2.1



PROGRESS SET



PLANTING PLAN

1" = 20'-0"

LEGEND	
⊕	PROTECTED VEGETATION
⊕	TRANSPLANTED VEGETATION
⊕	PROPOSED VEGETATION

ABBREVIATIONS			
KEY	DESCRIPTION	KEY	DESCRIPTION
AC	ACRE	LS	LUMP SUM
AH	AVERAGE HEIGHT	M	METER
AS	AVERAGE SPREAD	MT	METRIC TON
BBW	BALLED & BURLAPPED	MTCH	MATCHED
BB	BALLED & BURLAPPED & WIRED	NCD	NOMINAL CONTAINER DIAMETER
BP	BALLED & POTTED	NRST	NURSERY STOCK
BR	BARE ROOT	OC	ON CENTER
CF	CUBIC FOOT	PLST	PLANTATION STOCK
CLPR	CLIPPER	PLC	PLANTS PER CONTAINER
CLST	COLLECTED STOCK	QTY	QUANTITY
CN	CANE	RC	ROOTED CUTTING
CT	CLEAR TRUNK	RN	RUNNER
CV	CULTIVAR	SF	SQUARE FOOT
CW	CLEAR WOOD	SHRD	SHARED
CY	CUBIC YARD	SP	SPECIES
DBH	DIAMETER AT BREAST HEIGHT	SPCM	SPECIMEN
EPK	EXISTING TO BE PROTECTED	ST	STEM
ERV	EXISTING TO BE REMOVED	STND	STANDARD
ETK	EXISTING TO BE TRANSPLANTED	STST	SITE STOCK
ESPL	ESPALIER	SY	SQUARE YARD
G	GALLON	TN	TON
GRFT	GRAFTED	TS	TUBER
HA	HECTARE	TH	TOTAL HEIGHT
HO	HOLIDAY	TK	TRUNK
L	LITER	TPRY	TOPHAT
LB	POUND	TS	TOTAL SPREAD
LF	LINEAR FOOT		

NURSERY STOCK SCHEDULE			
KEY	DESCRIPTION	QTY	DETAIL
CD	COCCOLOBA OVEVERIFOLIA PICOCH PLUM 14TH 10CSD PCT 4"CLPR BB	15	MTCH
CE1	CONOCARPUS ERECTUS SERICEUS SILVER BUTTWOOD 18" TH 12" CBD 8" CT 3TK 2 1/2" CLPR EACH TK BB	0	
CE2	CONOCARPUS ERECTUS SERICEUS SILVER BUTTWOOD 30" AH 24" AS 10" NCD 24" OC	281	
CH	COCOS HUICHERA COCONUT PALM 28" OH 8" CW BB	0	
CU	COCCOLOBA UNIFERA SEA GRUPE 24" AH 24" AS 10" NCD 24" OC	56	
FGI	FIGUS OV GREEN ISLAND DWARF FIG 18" AH 18" AS 10" NCD 18" OC	0	
SP	SABAL PALMETTO CABBAGE PALMETTO 18" OH 12" CW BB	0	

FERTILIZER SCHEDULE				
VEGETATION	MEDIUM	ANALYSIS	SMRR	MOX
PALMS	GROUND	06-04-12	APEC	8878
TREES/SHRUBS	GROUND	06-06-06	APEC	1831

NOTES

- TOWN OF LAUDERDALE BY THE SEA TRIANGLE OF VISIBILITY, MAINTAIN CROSS-VISIBILITY BETWEEN 2'-6" AND 8'-0" IN ELEVATION ABOVE GROUND AND PAVEMENT.
- FOOT TRIANGLE OF VISIBILITY, MAINTAIN CROSS-VISIBILITY BETWEEN 5'-0" ABOVE AND 1'-0" BELOW BRIGHT LINE DATUM (8'-6" ABOVE RESPECTIVE PAVEMENTS), REFER TO FOOT DESIGN STANDARDS.

Project:
STREETCAPE AND DRAINAGE IMPROVEMENTS ALONG
EAST COMMERCIAL BOULEVARD
IN THE TOWN OF LAUDERDALE-BY-THE-SEA, FL

Design Team:
Urban Designer:
JAIME CORREA AND ASSOCIATES
3735 SW 48TH ST. MIAMI, FL 33155
T. 305.740.8226 F. 305.740.8979

Architect:
STEVEN FETT ARCHITECTURE
1835E 87 STREET, MIAMI, FL 33188
T. 305.570.8242 F. 305.570.8273

Landscape Architect:
FALCON+BUENO
2855 La Jove Road, Suite 318, Coral Gables, Florida 33134
T. 305.445.7275 F. 305.445.7276

Traffic Engineer:
HUGHES HUGHES INC.
728 SW 4th Place, Suite 103 Ft. Lauderdale, FL 33312-2199

Soil Engineer:
CHEN-MOORE
1444 Biscayne Blvd., Suite 204, Miami, Florida 33132
T. 786.487.1900 F. 786.487.2900

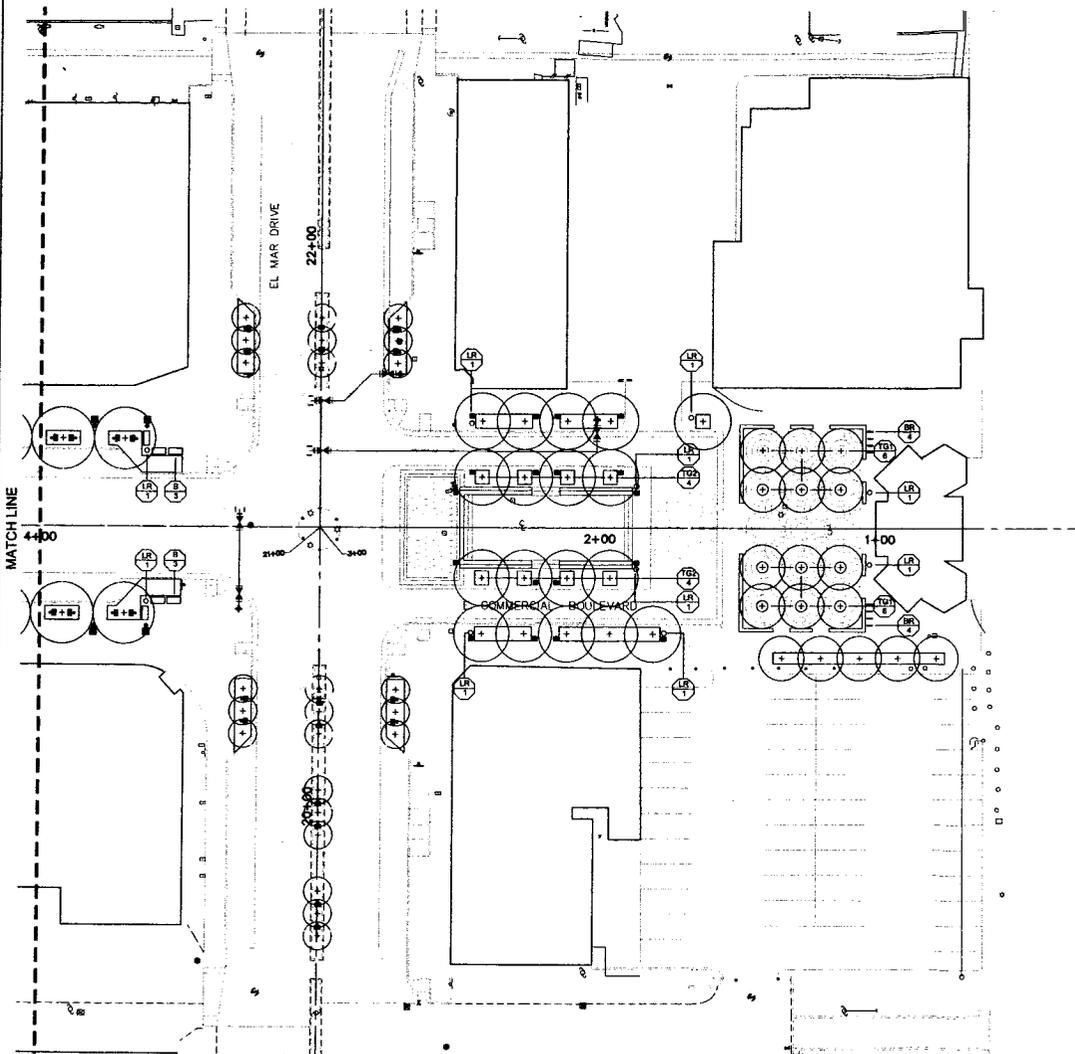
LANDSCAPE ARCHITECT OF RECORD:
IRLISHA FALCON FL REG. NO. LA000843

Revisions:

Designing:
PLANTING

DATE: 6/2/2012 DRAWING NUMBER: LA-2.2

PROGRESS SET



FURNISHINGS PLAN

1" = 20'-0" 

FURNISHINGS LEGEND	
SYMBOL	DESCRIPTION
○	LITTER RECEPTACLE
□	BENCH
— —	BIKE RACK
○	TREE GRATE
□	TREE GRATE

FURNISHINGS SCHEDULE						
KEY	MANUFACTURER	DESCRIPTION	SIZE	MOUNTING	FRESH	QTY
B	LANDSCAPE FORMS	BENCH	47 1/4" x 23 1/2" x 36 1/2"	SURFACE		6
BR	LANDSCAPE FORMS	BIKE RACK	1 1/2" x 25" x 27"	SURFACE		8
LR	LANDSCAPE FORMS	LITTER RECEPTACLE	20" x 33"	SURFACE		10

LUMINAIRE LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊥	POLE LIGHT	○	PATH LIGHT	⊥	SPOT LIGHT
■	BOLLARD LIGHT	■	STEP LIGHT	⊥	FLOOD LIGHT
⊥	TREE CANOPY LIGHT	■	WALL LIGHT	⊥	SIGN LIGHT
○		○		○	WELL LIGHT
○		○		○	FOUNTAIN LIGHT
○		○		○	POOL LIGHT

NOTE: REFER TO ENGINEERING DRAWINGS.

Project:
STREETSCAPE AND DRAINAGE
IMPROVEMENTS ALONG
**EAST
COMMERCIAL
BOULEVARD**

IN THE TOWN OF
LAUDERDALE-BY-THE-SEA, FL.

Design Team:
Urban Design:
JAIME CORREA AND ASSOCIATES
5725 SW 44TH ST., MIAMI, FL 33155
T: 305.749.8226 F: 305.749.8979

Architect:
STEVEN FETT ARCHITECTURE
88 SE 1ST STREET, MIAMI, FL 33139
T: 305.375.9633 OFX: 305.375.9677

Landscape Architect:
FALCON+BUENO
2655 La Jolla Road, Suite 218, Coral Gables, Florida 33134
T: 305.444.7475 FB@FALCONBUENO.COM

Traffic Engineer:
HUGHES HUGHES INC.
723 SW 4 Place, Suite 101 Ft. Lauderdale, FL 33312-2393

Steel Engineer:
CHEN+MOORE
1444 Michigan Street, Suite 204,
Miami, Florida 33132
T: 786.497.1500
F: 786.497.2200

LANDSCAPE ARCHITECT OF RECORD:

TERESA FALCON, P.L. REG. NO. LA000693

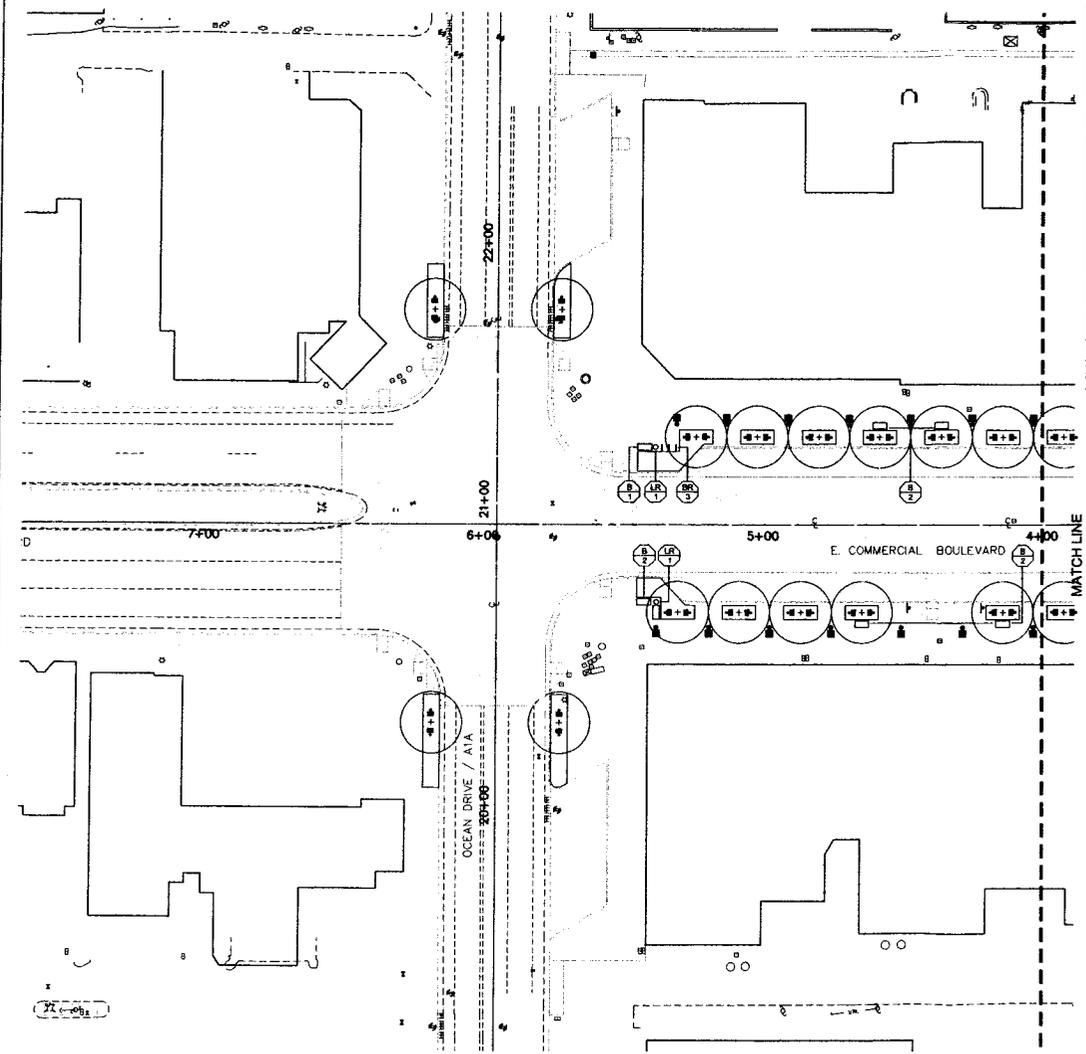
Revisions:

DESIGNER:	DRAWN BY:	CHECKED:
F+H	F+H	F+H

Drawing:
FURNISHINGS
STA 0+35.00 TO STA: 4+00.00

DATE: 6/12/2002	DRAWING NUMBER: LA-3.1
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PROGRESS SET



FURNISHINGS LEGEND	
SYMBOL	DESCRIPTION
○	LITTER RECEPTACLE
□	BENCH
—	BIKE RACK
○	TREE GRATE
□	TREE GRATE

FURNISHINGS SCHEDULE						
KEY	MANUFACTURER	DESCRIPTION	SIZE	MOUNTING	FINISH	QTY
B	LANDSCAPE FORMS	BENCH	47 1/4" X 23 1/2" X 38 1/2"	SURFACE		7
BR	LANDSCAPE FORMS	BIKE RACK	1 1/2" X 25" X 27"	SURFACE		3
LR	LANDSCAPE FORMS	LITTER RECEPTACLE	20" X 33"	SURFACE		2

LUMINAIRE LEGEND							
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⬇	POLE LIGHT	⬆	PATH LIGHT	⬆	SPOT LIGHT	●	WELL LIGHT
⬆	WALL LIGHT	⬆	STEP LIGHT	⬆	FLOOD LIGHT	●	FOUNTAIN LIGHT
⬆	TREE CANOPY LIGHT	⬆	WALL LIGHT	⬆	BUSH LIGHT	—	POOL LIGHT

NOTE: REFER TO ENGINEERING DRAWINGS.

Project:
 STREETCARE AND DRAINAGE
 IMPROVEMENTS ALONG
**EAST
 COMMERCIAL
 BOULEVARD**
 IN THE TOWN OF
 LAUDERDALE-BY-THE-SEA, FL.

Design Team:
 Urban Designer:
JAIME CORREA AND ASSOCIATES
 5735 SW 48TH ST., MIAMI, FL 33155
 T. 305.374.0303 FAX. 305.374.0374
 - s i a -
STEVEN FETT ARCHITECTURE
 806 SE 53rd STREET, MIAMI, FL 33134
 T. 305.374.0303 FAX. 305.374.0374

Landscape Architect:
FALCON+BUENO
 2855 Le Jeune Road, Suite 218, Coral Gables, Florida 33134
 T. 305.445.7575

Supply Engineer:
HUGHES HUGHES INC.
 128 SW 4th Place, Suite 103 Ft. Lauderdale, FL 33311-2905

Steel Engineer:
CHEN-MOORE ASSOCIATES
 1444 Macayra Blvd., Suite 204,
 Miami, Florida 33132
 T. 786.497.1500
 F. 786.497.2300

LANDSCAPE ARCHITECT OF RECORD:

 11XLS141414.COM\H. R.L.C. NO. 14200943

Revisions:

DESIGNERS: FAB	DRAWN BY: FAB	CHECKED: FAB
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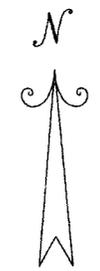
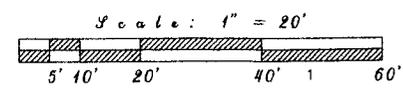
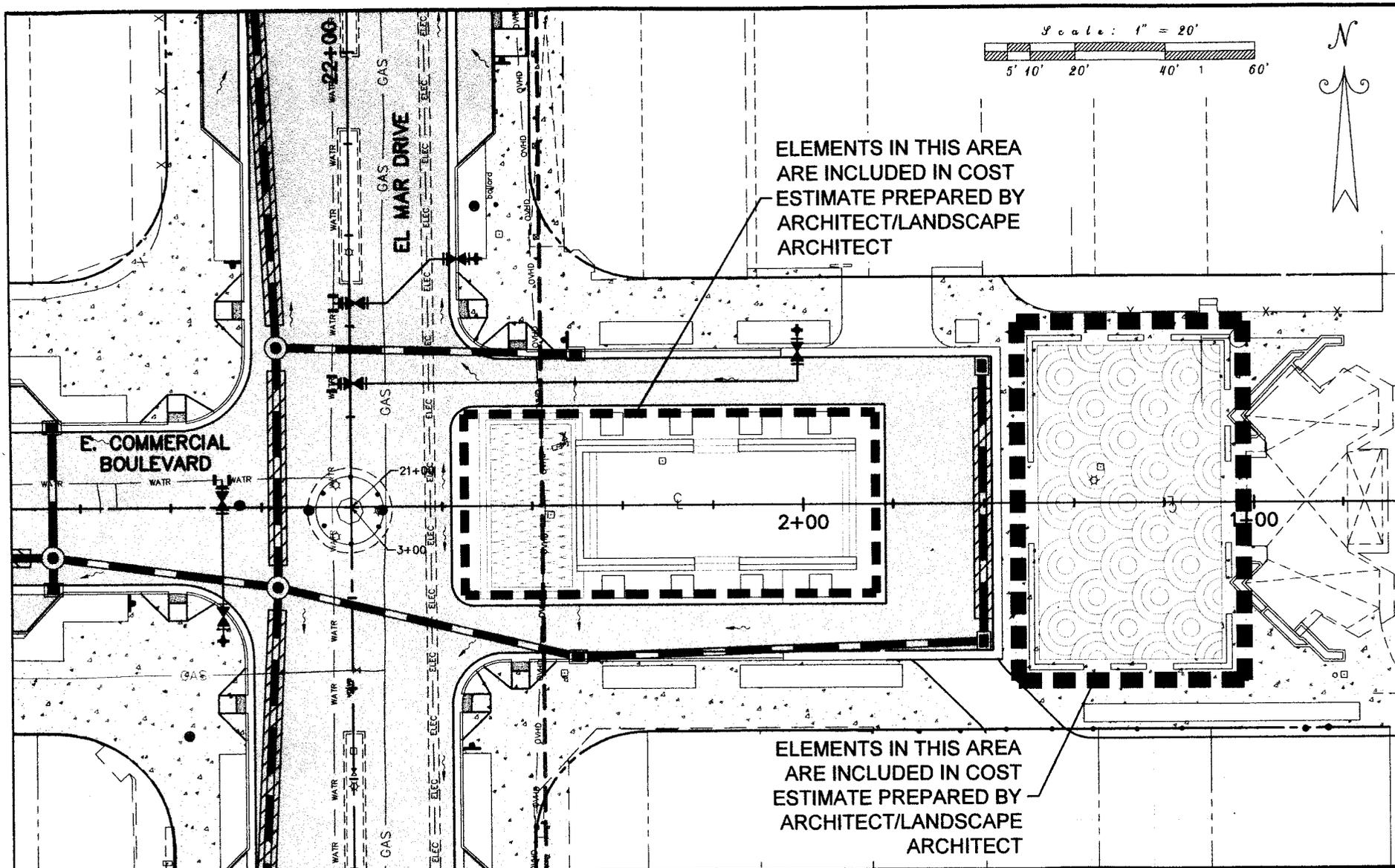
Drawing:
FURNISHINGS

DATE: 6/2/2012	DRAWING NUMBER: LA-3.2
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FURNISHINGS PLAN

1" = 20'-0"

PROGRESS SET



CHEN-MOORE
 & ASSOCIATES

1444 Biscayne Boulevard - Suite 204
 Miami, FL - 33132
 (786) 497-1500 - Fax: (786) 497-2300
 www.chenmoore.com

**EAST COMMERCIAL BOULEVARD
 LAUDERDALE-BY-THE-SEA, FLORIDA**

EXH-01
 COST ESTIMATE EXCLUSIONS
 May 11, 2012

Commercial Boulevard Improvements
SCHEMATIC DESIGN - PRELIMINARY BUDGET (Estimates of Cost)

Note: Preliminary budget excludes landscape and lighting costs (Falcon + Bueno and Norman Bray)
Last Revision: 06/04/12

Section	Description	Quantity	Unit	Unit Price	Total Price
PAVILION PLAZA	WALL FOUNDATION + PAD				
	Foundation Piles	162	LF	\$ 35.00	\$ 5,670.00
	Set-up Cost	1	Units	\$ 6,000.00	\$ 6,000.00
	Concrete Slab Finishing and Reinforcement	3050	SF	\$ 1.75	\$ 5,337.50
	Reinforced Concrete Slab/Pad	112.96	CY	\$ 97.00	\$ 10,957.41
	Total Cost				\$ 27,964.91
PAVILION PLAZA	WALL				
	Linear Feet of Wall	162	LF		
	Height of Wall	2	FT		
	Width of Wall	15	IN		
	Area of Wall	392	CF		
	Concrete Block (Alternative #1)	800	Units	\$ 6.50	\$ 5,200.00
	Total Cost Alternative #1: Concrete Block Wall				\$ 5,200.00
	Concrete Reinforcement and Formwork (Alternative #2)	196	SF	\$ 7.00	\$ 1,372.00
	Poured Concrete (Alternative #2)	43.56	CY	\$ 97.00	\$ 4,224.89
	Total Cost Alternative #2: Poured Concrete Wall				\$ 5,596.89
	Preferred Alternative # 2 Total Cost				\$ 5,596.89
PAVILION PLAZA	WALL FINISHING				
	Stucco (Alternative #1)	520	SF	\$ 12.00	\$ 6,240.00
	Total Cost Alternative #1: Stucco Wall Finishing				\$ 6,240.00
	Coral Stone (Alternative #2)	520	SF	\$ 60.00	\$ 31,200.00
	Total Cost Alternative #2: Coral Stone Finishing				\$ 31,200.00
	Coral Stone Cap (Alternative #3)	196	SF	\$ 60.00	\$ 11,760.00
	Stucco in Coral Stone Cap Option (Alternative #3)	324	SF	\$ 12.00	\$ 3,888.00
	Total Cost Alternative #3: Coral Stone Cap and Stucco Finishing				\$ 15,648.00
	Preferred Alternative #2 Total Cost				\$ 31,200.00
PAVILION PLAZA	FLOOR				
	Floor Area	3050	SF		
	Limerock Base	112.96	CY	\$ 14.00	\$ 1,581.48
	Stained Concrete (Alternative #1)	3050	SF	\$ 25.00	\$ 76,250.00
	Total Cost Alternative #1: Stained Concrete				\$ 77,831.48
	Colored Outdoor Terrazzo (Alternative #2)	3050	SF	\$ 35.00	\$ 106,750.00
	Total Cost Alternative #2: Outdoor Terrazzo				\$ 108,331.48
	Preferred Alternative #2 Total Cost				\$ 108,331.48
PAVILION PLAZA	Total Extreme Cost				\$ 173,093.28

Commercial Boulevard Improvements
SCHEMATIC DESIGN - PRELIMINARY BUDGET (Estimates of Cost)

Note: Preliminary budget excludes landscape and lighting costs (Falcon + Bueno and Norman Bray)
Last Revision: 06/04/12

BEACH PLAZA		FOUNDATION					
	Foundation Piles	110	LF	\$ 35.00	\$	3,850.00	
	Set-up Cost	1	Units	\$ 6,000.00	\$	6,000.00	
	Concrete Slab Finishing and Reinforcement	1050	SF	\$ 1.75	\$	1,837.50	
	Reinforced Concrete Slab/Pad	38.89	CY	\$ 97.00	\$	3,772.22	
						Total Cost	\$ 15,459.72
BEACH PLAZA		GRANITE CURB					
	Granite Curbing	270	LF	\$ 9.50	\$	2,565.00	
						Total Cost	\$ 2,565.00
BEACH PLAZA		STEPS					
	Stained Concrete Steps (Alternative #1)	462	SF	\$ 25.00	\$	11,550.00	
						Total Cost Alternative #1: Stained Concrete	\$ 11,550.00
	Stone Steps (Alternative #2)	462	SF	\$ 60.00	\$	27,720.00	
						Total Cost Alternative #2: Stone Steps	\$ 27,720.00
						Preferred Alternative #2 Total Cost	\$ 27,720.00
BEACH PLAZA		CENTRAL AREA					
	Area	1300	SF				
	Limerock Base	48.15	CY	\$ 14.00	\$	674.07	
	Beach/Silica Sand (Alternative #1)	48.15	CY	\$ 55.00	\$	2,648.15	
						Total Cost Alternative #1: Beach/Silica Sand	\$ 3,322.22
	Bermuda Sod + Sprinklers (Alternative #2)	1300	SF	\$ 2.75	\$	3,575.00	
						Total Cost Alternative #2: Bermuda Sod	\$ 4,249.07
	Tanned Shell Aggregates (Alternative #3)	1300	SF	\$ 37.00	\$	48,100.00	
						Total Cost Alternative #1: Tanned Shell Aggregates	\$ 48,774.07
						Preferred Alternative #1 Total Cost	\$ 3,322.22
BEACH PLAZA		BENCH					
	Concrete Reinforcement and Formwork	860	SF	\$ 14.00	\$	12,040.00	
	Poured Concrete	25.51	CY	\$ 97.00	\$	2,474.47	
	Front Tile Mosaic	520	SF	\$ 45.00	\$	23,400.00	
	Back and Top in Coral Stone	338	SF	\$ 60.00	\$	20,280.00	
						Total Cost	\$ 58,194.47
BEACH PLAZA		SIDEWALKS					
	Shell Aggregates (Alternative #1)	1100	SF	\$ 37.00	\$	40,700.00	
						Total Cost Alternative #1: Shell Aggregates	\$ 40,700.00
	Stained Concrete (Alternative #2)	1100	SF	\$ 25.00	\$	27,500.00	
						Total Cost Alternative #2: Stained Concrete	\$ 27,500.00
						Preferred Alternative #1 Total Cost	\$ 40,700.00
BEACH PLAZA		STAGE FLOOR					
	Stage Area Area	648	SF				
	Limerock Base	24	CY	\$ 14.00	\$	336.00	
	Stained Concrete (Alternative #1)	648	SF	\$ 18.00	\$	11,664.00	
						Total Cost Alternative #1: Stained Concrete	\$ 12,000.00
	Colored Outdoor Terrazzo (Alternative #2)	648	SF	\$ 35.00	\$	22,680.00	
						Total Cost Alternative #2: Outdoor Terrazzo	\$ 23,016.00
						Preferred Alternative #2: Outdoor Terrazzo	\$ 23,016.00
						Total Extreme Cost	\$ 170,977.41

Commercial Boulevard Improvements
SCHEMATIC DESIGN - PRELIMINARY BUDGET (Estimates of Cost)

Note: Preliminary budget excludes landscape and lighting costs (Falcon + Bueno and Norman Bray)
Last Revision: 06/04/12

CIRCLE	WALL				
	Foundation Piling	36	LF	\$ 35.00	\$ 1,260.00
	Concrete Reinforcement and Formwork	52	SF	\$ 14.00	\$ 728.00
	Reinforced Concrete Wall	3	CY	\$ 97.00	\$ 291.00
	Metal Sign	1	Unit	\$ 1,000.00	\$ 1,000.00
				Total Cost	\$ 3,279.00
CIRCLE				Total Cost	\$ 3,279.00

Summary			
Pavilion Plaza		\$	173,093.28
Beach Plaza		\$	170,977.41
Circle		\$	3,279.00
Contingency (15%)		\$	52,102.45
	Total Lump Sum	\$	399,452.15

East Commercial Boulevard

Preliminary construction cost estimate | 4 may 12

Section	item	size	unit	quantity	unit price	extension
02810	Automatic controller		ea	1	1,370.00	1,370.00
02810	Automatic valves & boxes		ea	9	275.00	2,475.00
02810	Sprinkler heads		ea	341	18.00	6,138.00
02870	Tree grates with two lights	5'x5'	ea	9	2,590.00	23,310.00
02870	Tree grates with two lights	4' dia	ea	12	1,950.00	23,400.00
02870	Benches		ea	9	3,150.00	28,350.00
02870	Litter receptacles		ea	12	1,725.00	20,700.00
02870	Bike racks		ea	12	510.00	6,120.00
02930	Coconut palms	8' cw	ea	17	1,320.00	22,440.00
02930	Cabbage palms	18' oa	ea	12	345.00	4,140.00
02930	Pigeon plums	14' oa	ea	17	480.00	8,160.00
02930	Silver buttonwoods	16' oa	ea	18	335.00	6,030.00
02930	Seagrapes	10" ncd	ea	272	12.00	3,264.00
02930	Silver buttonwoods	10" ncd	ea	258	12.00	3,096.00
02930	Green island tropical figs	10" ncd	ea	129	12.00	1,548.00
16000	Tree uplights		ea	42	455.00	19,110.00
16000	Sidewalk pole lights		ea	8	6,440.00	51,520.00
16000	Plaza & sidewalk bollards		ea	24	4,340.00	104,160.00
	Subtotal					335,331.00
	Contingency 15%					50,299.65
	Total					385,630.65

PRELIMINARY COST ESTIMATE: RECONSTRUCTION OF COMMERCIAL BLVD. FROM PAVILLION TO A1A, INCLUDING EL MAR DR. B/W ALLEYWAYS					
PROJECT:		COMMERCIAL BLVD. STREETScape PROJECT			
SUMMARY					
DIVISION 1 - GENERAL CONDITIONS (ASSUMED 10%)					\$ 71,225
DIVISION 2 - SITEWORK					\$ 712,251
CONTINGENCY (ASSUMED 15%)					\$ 117,521
TOTAL LUMP SUM BASE BID AMOUNT					\$ 900,997
PERMIT FEES					\$ 15,000
DIV.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
DIVISION 2 - SITEWORK					
EXISTING UTILITIES					
	REMOVE EXISTING DRAINAGE PIPE	LF	1143	\$ 15.00	\$ 17,145
	ADJUST EXISTING SEWER MANHOLE RIMS	EA	3	\$ 350.00	\$ 1,050
	ADJUST EXISTING STORM MANHOLE RIMS	EA	3	\$ 350.00	\$ 1,050
	ADJUST EXISTING UTILITY BOXES	EA	28	\$ 260.00	\$ 7,280
	REMOVE EXISTING DRAINAGE STRUCTURE	EA	22	\$ 530.00	\$ 11,660
DRAINAGE STRUCTURES					
	INLETS	EA	14	\$ 3,000.00	\$ 42,000
	MANHOLES	EA	5	\$ 3,500.00	\$ 17,500
DRAINAGE PIPING					
	PIPE CULVERT	LF	584	\$ 50.00	\$ 29,200
	FRENCH DRAIN	LF	621	\$ 100.00	\$ 62,100
SUBTOTAL STORMWATER:					\$ 188,985
WATER IMPROVEMENTS					
	6-IN DUCTILE IRON PIPE (DIP)	LF	182	\$ 42.00	\$ 7,644
	6-IN VALVES	EA	3	\$ 1,350.00	\$ 4,050
	FURNISH & INSTALL FIRE HYDRANT ASSEMBLY	EA	3	\$ 3,500.00	\$ 10,500
	FURNISH & INSTALL TAPPING SLEEVES AND VALVES	EA	3	\$ 8,000.00	\$ 24,000
SUBTOTAL UTILITY WORK - WATER:					\$ 46,194
STREETScape IMPROVEMENTS					
DEMOLITION					
	REMOVE SOD	SY	249	\$ 0.85	\$ 212
	REMOVE ASPHALT PAVEMENT	SY	6,777	\$ 3.00	\$ 20,331
	REMOVE LIMEROCK BASE COURSE	SY	6,777	\$ 1.50	\$ 10,166
	REMOVE PAVERS	SY	1,414	\$ 3.00	\$ 4,242
	REMOVE CONCRETE SIDEWALK	SY	819	\$ 11.50	\$ 9,419
	REMOVE CONCRETE CURB	LF	1,990	\$ 6.00	\$ 11,940
ROADWAY AND SIDEWALK					
	TYPE B STABILIZATION (LBR 40: 12-IN THICK)	SY	5,677	\$ 7.00	\$ 39,739
	LIMEROCK BASE (12-IN LIFTS, DOUBLE COURSE PRIMED)	SY	5,677	\$ 14.00	\$ 79,478
	TYPE S-III ASPHALTIC CONCRETE PAVEMENT (2-IN, 2 LIFTS)	SY	5,677	\$ 15.00	\$ 85,155
	LOOP ASSEMBLIES (TYPE A)	EA	9	\$ 935.00	\$ 8,415
	FURNISH & INSTALL DETECTABLE WARNINGS	EA	19	\$ 265.00	\$ 5,035
	FURNISH & INSTALL 4" THICK SIDEWALK	SY	3,225	\$ 37.00	\$ 119,325
CURB AND GUTTER					
	CONCRETE CURB AND GUTTER (TYPE F)	LF	638	\$ 18.50	\$ 11,803
	CONCRETE CURB (TYPE D)	LF	1,194	\$ 18.00	\$ 21,492
	CONCRETE VALLEY GUTTER	LF	1,296	\$ 25.00	\$ 32,400
SIGNAGE AND PAVEMENT MARKINGS (ITEMIZE BY TYPE)					
	FURNISH AND INSTALL SIGNS	EA	21	\$ 150.00	\$ 3,150
	REMOVE EXISTING SIGNS	EA	11	\$ 65.00	\$ 715
	FURNISH & INSTALL 6" THERMOPLASTIC (YELLOW)	LF	650	\$ 0.75	\$ 488
	FURNISH & INSTALL 6" THERMOPLASTIC (10' SKIP 30")	LF	10	\$ 1.00	\$ 10
	FURNISH & INSTALL 6" THERMOPLASTIC (2' SKIP 4")	LF	195	\$ 1.12	\$ 218
	FURNISH & INSTALL 6" THERMOPLASTIC (SOLID WHITE)	LF	2,105	\$ 2.35	\$ 4,947
	FURNISH & INSTALL 18" THERMOPLASTIC (SOLID YELLOW)	LF	80	\$ 2.40	\$ 192
	FURNISH & INSTALL 18" THERMOPLASTIC (SOLID WHITE)	LF	40	\$ 3.60	\$ 144
	FURNISH & INSTALL 12" THERMOPLASTIC (CROSSWALKS)	LF	675	\$ 2.25	\$ 1,519
	FURNISH & INSTALL 24" THERMOPLASTIC (SOLID)	LF	706	\$ 4.95	\$ 3,495
	FURNISH & INSTALL THERMOPLASTIC DIRECTIONAL ARROW	EA	2	\$ 72.00	\$ 144
	FURNISH & INSTALL REFLECTIVE PAVEMENT MARKERS (RPM)	EA	100	\$ 7.50	\$ 750
	FURNISH & INSTALL THERMOPLASTIC ADA PARKING SYMBOL	EA	5	\$ 430.00	\$ 2,150
SUBTOTAL STREETScape:					\$ 477,072
DIVISION 2 - SITEWORK TOTAL:					712,251
TOTAL LUMP SUM BASE BID AMOUNT (Division 2):					\$ 712,251

BASIS OF ESTIMATE:

- General Conditions above consider Civil Engineering stormwater components only.
- Component of plazas as depicted in Exhibit EXH-01 are considered under Architectural Plans, Landscape Architecture Plans and their corresponding cost estimates.
- Removal/replacement of electrical poles, undergrounding of utilities, roadway lighting, parking meter relocations, electrical service points, and other electrical items are part of Electrical Engineering component.
- Irrigation components including backflow preventer, meter, connection to water supply, structural soil, tree relocations, and street furnishings, are considered under Landscape Architecture/Irrigation Plans and cost estimates.
- No traffic signal relocations or signalization changes are considered.
- Existing WM, WM boxes, WM valve boxes to be adjusted but not replaced.
- Existing utilities to remain.
- Southeast alley is providing adequate stormwater LOS.
- Decorative, way-finding, and business signs are not included.
- Town related permit/review fees will be waived.
- FDOT permit fees will be waived for Town.
- Assumes removal and reinstallation of parking meters to be done by Town forces.
- Concrete price provided for standard gray concrete. See Landscape Architecture/Architect details and cost estimates for additional cost of additives

EAST COMMERCIAL BOULEVARD STREETScape AND DRAINAGE PROJECT

PRELIMINARY PERMIT LIST – MAY 2012

The following permits / reviews are anticipated as part of the **storm water / roadway design** components of the project:

- Florida Department of Transportation (FDOT):
 - Access Permit
 - Maintenance Agreement (**Town of Lauderdale By The Sea**)
 - Lease Agreement (**Town of Lauderdale By The Sea**)
 - Public Easement (**Town of Lauderdale By The Sea**)

- Broward-County Environmental Protection & Growth Management Department (EPGMD):
 - Surface Water Management Permit

- FDEP – Stormwater Pollution Prevention Permit (NPDES):
 - [Notice of Intent to be submitted by Contractor]

- Broward County Health Department:
 - Fire Hydrant connections

- City of Fort Lauderdale:
 - Fire Hydrant connections

- Broward County Traffic Engineering Division:
 - Plan review

- Lauderdale-By-The-Sea Fire Department:
 - Plan review

EAST COMMERCIAL BOULEVARD STREETScape AND DRAINAGE PROJECT

Meeting with Florida Department of Transportation (FDOT) – District 4

Date\Time: Wednesday, May 9, 2012 @ 2:30 PM

Attendees: Stan Williams Florida Department of Transportation (FDOT)
Michael Buick, P.E. Chen Moore & Associates (CMA)
Angela Baron, E.I. Chen Moore & Associates (CMA)

Chen Moore and Associates (CMA) met with Stan Williams from the Florida Department of Transportation (FDOT) to coordinate the East Commercial Boulevard Streetscape and Drainage Project in the Town of Lauderdale-By-The-Sea. The following items were discussed:

- FDOT offered that six (6) copies of the design plans and a copy of supporting information could be submitted for Conceptual Review. During Conceptual Review, FDOT would provide feedback on the proposed design within their right-of-way limits.
- The different FDOT Departments that would review the plans during the Conceptual Review are:
 - Traffic Operations Department for the signal timing and phases at the intersection of A1A and East Commercial Blvd.
 - Landscape Department for all landscape and irrigation components within FDOT right-of-way.
 - Traffic Design Department for reconfiguration and realignment of traffic along east Commercial Blvd. at the intersection with A1A.
 - Drainage Department for any additional impervious area being proposed and/or any impacts or changes in the FDOT drainage system.
 - Roadway Design Department and Right-of-Way Department for all hardscape and overall improvements within FDOT right-of way.
- Any hardscape, lighting, landscaping, etc. within FDOT right-of-way that is considered not to be maintainable by the Department will require a Maintenance Agreement from the Town. It will be the Town's responsibility to maintain any of these improvements.
- All proposed improvements shall meet ADA requirements.
- Any active Maintenance Agreements between the Town and FDOT need to be confirmed. If there is an active Maintenance Agreement, an amendment could be developed in order to include the proposed improvements rather than obtaining a new agreement.
- A Public Easement will be required from Town of Lauderdale-By-The-Sea for the public sidewalks located within Town property along A1A between the north and south alleys.
- Metered parking for the parking spaces within Town property along A1A between the north and south alleys may require a Lease Agreement with FDOT.
- FDOT noted that an all-red pedestrian phase at the intersection of A1A and East Commercial Blvd. will require justification (pedestrian counts, a traffic study, etc.).
- A thermoplastic pavement marked diagonal crosswalk corresponding to the all-red pedestrian phase was not anticipated to be approved. As an alternative, the Department suggested stamped asphalt delineation could be submitted. No determination of whether it would be approved was provided, however it was not initially indicated it would be approved.
- An FDOT Access Permit was noted as the best alternative to permit all components of the improvements. A pre-application meeting was suggested prior to submittal. FDOT noted they would waive the permit fee for the Town (government entity).

The above reflects the understanding of the author during the meeting. If there are any additions, deletions and/or corrections to the above notes, please contact Angela Baron at abaroon@chenmoore.com within two (2) business days for reflection in the notes.

EAST COMMERCIAL BOULEVARD STREETScape AND DRAINAGE PROJECT

Meeting with Broward County Traffic Engineering

Date\Time: Monday, February 13, 2012 @ 3:00 PM

Location: Broward County Traffic Engineering – 2300 W. Commercial Blvd., Fort Lauderdale

Attendees:

Andrew Sebo	Broward County Traffic Engineering
John Kleinedler	Broward County Traffic Engineering
Greg Spencer	Broward County Traffic Engineering
Molly Hughes	LBTS Traffic Consultant
Michael Buick	Chen Moore & Associates

A meeting was held with Broward County Traffic Engineering regarding the E. Commercial Boulevard Streetscape and Drainage Project. The following items were discussed:

- The current concept plan was discussed with Broward County Traffic Engineering (BCTE) staff. It was noted that it is intended that Block 1 and Block 2 will be completely reconstructed. Block 3 is currently proposed to have landscape updates only. Future plans consider complete reconstruction of Block 3 with the removal of the median and the widening of the sidewalks.
- General overview of the current concept presented had no objections from BCTE staff. Staff noted that BCTE will provide review of the project once full project plans are developed. The review provided by BCTE will consider two (2) scenarios: (1) Elements BCTE will approve and maintain; (2) Elements BCTE will approve but the Town will be required to maintain. Full project plans are to be submitted to BCTE for Andrew and Greg's review. Although review times vary depending on current workload, currently an approximate 4-6 week review time is anticipated.
- A 25 MPH speed limit was discussed within the project area. BCTE had no objection.
- The all-red condition at A1A & E. Commercial Blvd was discussed. It was noted that the condition was considered during the weekend only with approximate times Friday from 6 pm to Sunday at 9 pm. BCTE had no specific objection, although noted that times of the all-red condition would need to be determined and may differ from the current proposed times.
- BCTE staff noted that pedestrian counts at the A1A and E. Commercial Blvd intersection during the noted times would be needed to support the all-red condition.
- BCTE staff noted that although there was no overall objection to the all-red condition, this condition must be coordinated as soon as possible with FDOT to confirm they would approve it at this location.
- BCTE staff noted that the current controller could handle the signalization requirements. It is anticipated that within one (1) year, this intersection will be on the new County software which will allow for the all-red signalization.
- BCTE suggested that during the initial implementation of the all-red condition that police presence be on hand to strictly enforce the signal condition both for pedestrians and for motorists.
- BCTE noted that with the new phasing at the intersection of A1A and E. Commercial Blvd, there was no specific objection to the proposed alignment. It was noted however, that opportunities to improve alignment at this intersection would be beneficial for/in the future and would allow for reconsideration of phasing in the future if required.
- BCTE noted that if the project proposes decorative street signs that they will need to be maintained by the Town and conform to breakaway requirements.
- It was noted that the intersection of El Mar & E. Commercial Blvd would remain as an all-way stop controlled intersection.
- The intersection of El Mar & E. Commercial Blvd was discussed. BCTE noted that there is a change in the roadway alignment at this intersection and a number of options were discussed for improvement. BCTE along with design team staff noted that reconfiguration of the existing traffic circle to improve alignment yet



1444 Biscayne Blvd. Suite 204
Miami, FL 33132
Phone: (786) 497-1500
Fax: (786) 497-2300
www.chenmoore.com

continue to facilitate traffic movements would be appropriate. This will be reviewed and incorporated into the project plans.

- BCTE noted that the east west crosswalk on the east side of Block 1 would not be striped. BCTE noted that advance warning signage of pedestrian crossing be proposed for this crossing.
- BCTE noted that loading zone signage and striping for the pick-up drop-off area at the east side of Block 1 would need to be included in the project plans although currently not shown on the concept plans.
- BCTE noted the parking configuration at the intersection of El Mar and E. Commercial Blvd and asked that it be reviewed to ensure access/maneuvering into the parking spaces immediately adjacent to the intersection can be accommodated.

The above reflects the understanding of the author during the meeting. If there are any additions, deletions and/or corrections to the above notes, please contact Michael Buick at mbuick@chenmoore.com within two (2) business days for reflection in the notes.

Connie Hoffmann

From: Cheryl Louvaris <Cheryl.Louvaris@lbtsfire.com>
Sent: Tuesday, June 12, 2012 2:38 PM
To: Connie Hoffmann
Subject: RE: Towns Water Supply & Hydrants

TO: Connie Hoffmann, Town Manager

RE: Town's Water Supply & Fire Hydrants

After careful review of the towns water system; which includes the downtown area, Commercial Blvd., El Mar Drive and El Mar Drive North & South, it has been determined that the towns water system is on a loop system from Fort Lauderdale and that it is adequate now and will meet future needs and growth of the downtown area.

The hydrants were flown & tested and met the normal documented gallons per minutes.

It is in my professional opinion the water supply meets all requirements.

Sincerely,

Stephen A. Paine
Fire Marshal for the town of Lauderdale by the Sea

/cdl

Connie Hoffmann

From: Cheryl Louvaris <Cheryl.Louvaris@lbtsfire.com>
Sent: Tuesday, June 12, 2012 2:38 PM
To: Connie Hoffmann
Subject: E. Commercial Blvd. Downtown Project

TO: Connie Hoffmann, Town Manager

RE: The East Commercial Blvd. Downtown Project

On June 7th, 2012, a meeting was held with the Jamie Correa & Associates. I have reviewed the current drawings showing the town square, the new hydrant locations, and the turning radius. It was determined during that meeting that no hazards or problems were noted on the drawings. It was also discussed that the landscaping area in front of Aruba Beach Cafe and the commercial area across the street were approved with the understanding that the landscape may be destroyed due to the necessity of an emergency vehicle being staged in front of Aruba or on the south side of Commercial Blvd. or immediate area.

Sincerely,

Stephen A. Paine
Fire Marshal for Town of Lauderdale by the Sea

/cdl

EAST COMMERCIAL BOULEVARD STREETScape AND DRAINAGE PROJECT

Meeting with Lauderdale By The Sea (LBTS) - Fire Department (FD)

Date\Time: Monday January 23, 2012 @ 3:00 PM

Attendees:

Steve Paine, Fire Chief	LBTS Fire Department (LBTS-FD)
Daniel Chavez	LBTS Fire Department (LBTS-FD)
Michael Buick, P.E.	Chen Moore & Associates (CMA)
Angela Baron, E.I.	Chen Moore & Associates (CMA)

Chen Moore and Associates (CMA) met with the staff from the LBTS Fire Department (LBTS-FD) to coordinate the East Commercial Boulevard Streetscape and Drainage Project. The following items were discussed:

- LBTS-FD noted that their main concern in the project area is the emergency access to Aruba Beach Café because it is a wooden structure that is currently not sprinklered. If a fire occurred at this location it could also pose a hazard to the neighboring properties.
- LBTS-FD requested to accommodate fire vehicle access on Commercial Blvd. east of El Mar Dr. to provide emergency service to this area.
- LBTS-FD requested median cuts on El Mar Dr. at the north and south alleyways to enhance emergency response in the area.
- CMA and LBTS-FD also reviewed the existing water lines servicing the project area. LBTS-FD suggested providing a 10-inch water line on Commercial Blvd. between El Mar Dr. and N. Ocean Dr.
- CMA noted that the median along Commercial Blvd. between El Mar Dr. and Bougainvillea Dr. will be removed as part of this project, and that the existing fire hydrant will be relocated. LBTS-FD suggested to relocate it to the south sidewalk and expressed the need to provide an additional fire hydrant on the median north of Commercial Blvd. along El Mar Dr.
- LBTS-FD requested beach access through the alleyway north of Commercial Blvd. and/or past the pavilion in case of an emergency on the beach near the pavilion. LBTS-FD noted that having access at the alleyway and/or beach pavilion could reduce response times by approximately three minutes.
- CMA requested the specifications of emergency response vehicles that would service the area in order to simulate turning movements and access. The following general values were provided:
 - Average truck length is 33 feet
 - Ladder truck length is 51 feet
 - Turning radius for their biggest truck is approximately 45°
- LBTS-FD noted for CMA to follow-up with them to obtain detailed specifications of the equipment for use in the simulations.
- A follow-up meeting will be scheduled to review and discuss the final proposed plan.

The above reflects the understanding of the author during the meeting. If there are any additions, deletions and/or corrections to the above notes, please contact Angela Baron at abaroon@chenmoore.com within two (2) business days for reflection in the notes.