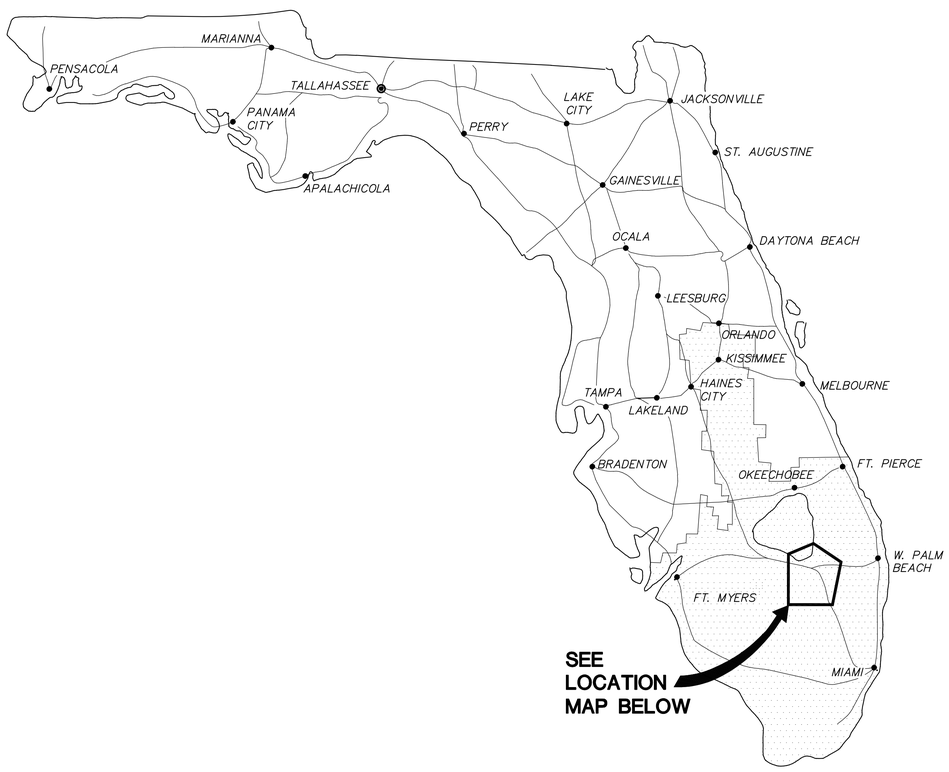
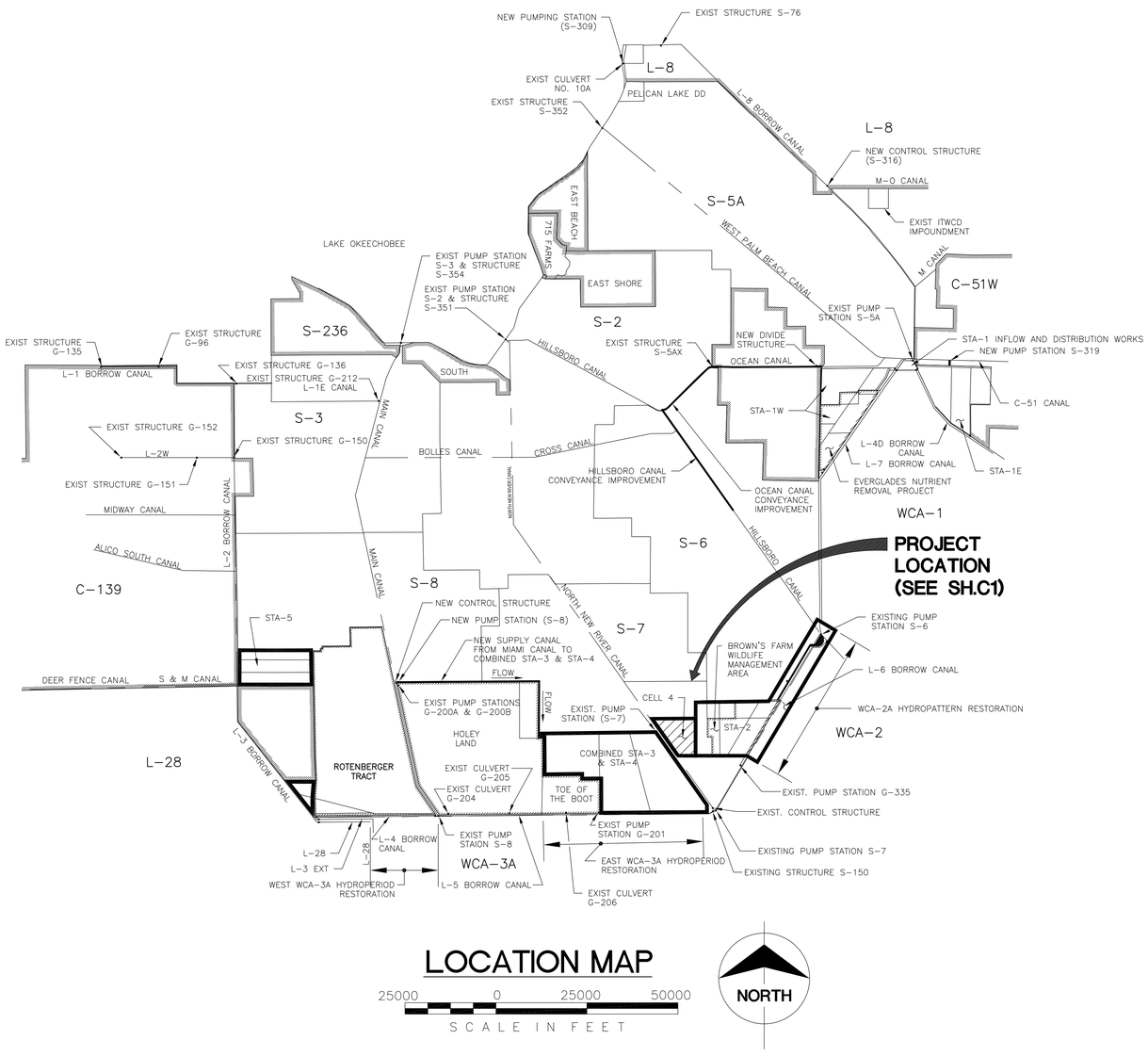


VICINITY MAP



LOCATION MAP

BROWN AND CALDWELL

DATE	DRAWN	REV. #	REVISION DESCRIPTION

ENGINEER: JO
DRAWN: KG
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

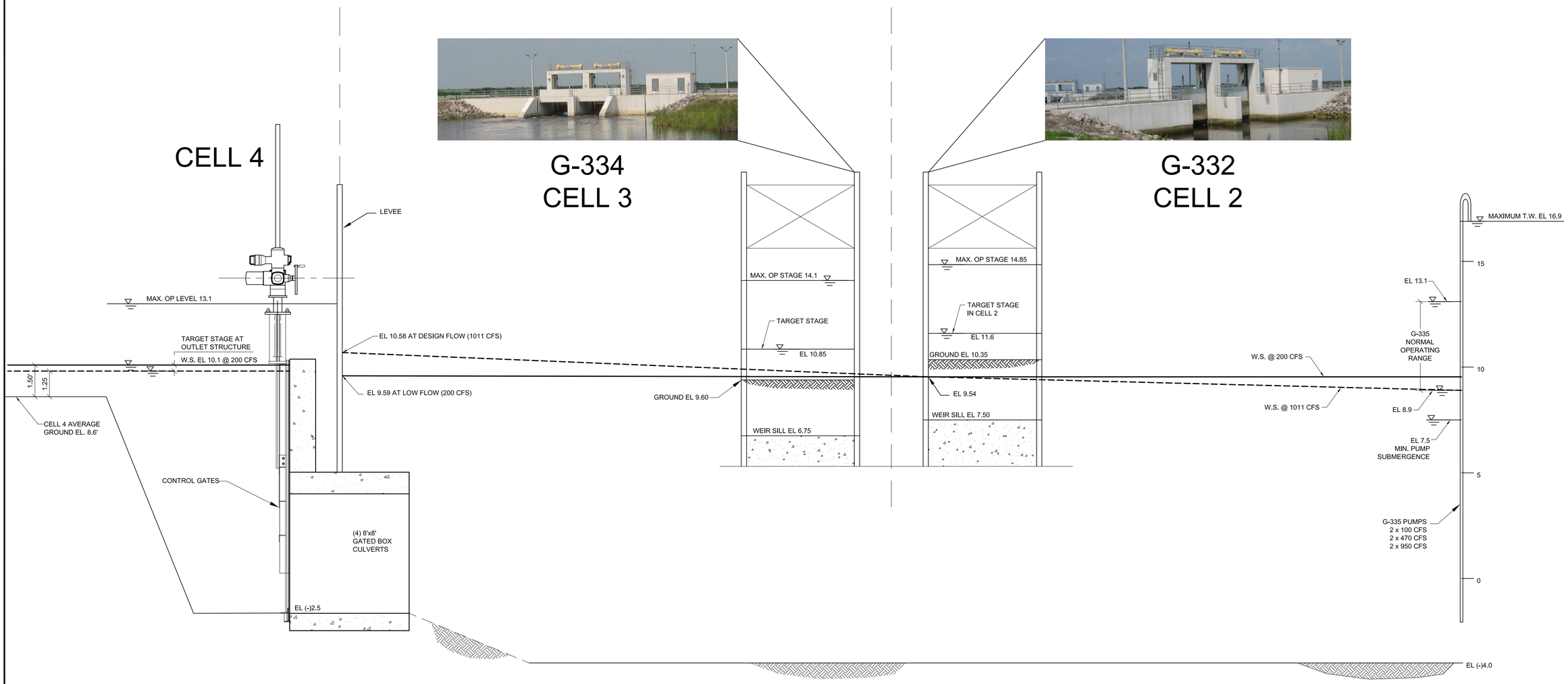
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
LOCATION MAP

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
G1 OF X

J:\Land Projects R2\97030.02\dwg\G1.dwg 3/18/2005 10:52:14 AM EST



CONTROL GATES

Q (CFS)	OPERATING BARRELS	GATE OPENING (%)	VELOCITY (FPS)	CELL STAGE (FT)
200	1	100	3.1	9.85
		60	5.2	10.10
1011	4	100	3.9	10.75
		37	7.5	13.10

G-334 DISCHARGE PER GATE

CELL 3 TARGET STAGE (FT)	GATE OPENING (FT)	DISCHARGE (CFS)	VELOCITY (FPS)
10.85	0.50	97	11.8
	1.0	113	6.9
	1.8	200	6.9
	2.7	301	6.9

G-332 DISCHARGE PER GATE

CELL 2 TARGET STAGE (FT)	GATE OPENING (FT)	DISCHARGE (CFS)	VELOCITY (FPS)
11.60	0.5	97	11.8
	1.0	142	8.6
	1.4	200	8.6
	2.7	378	8.6

PRELIMINARY

DATE	DRAWN	REV. #	REVISION DESCRIPTION

BROWN AND CALDWELL

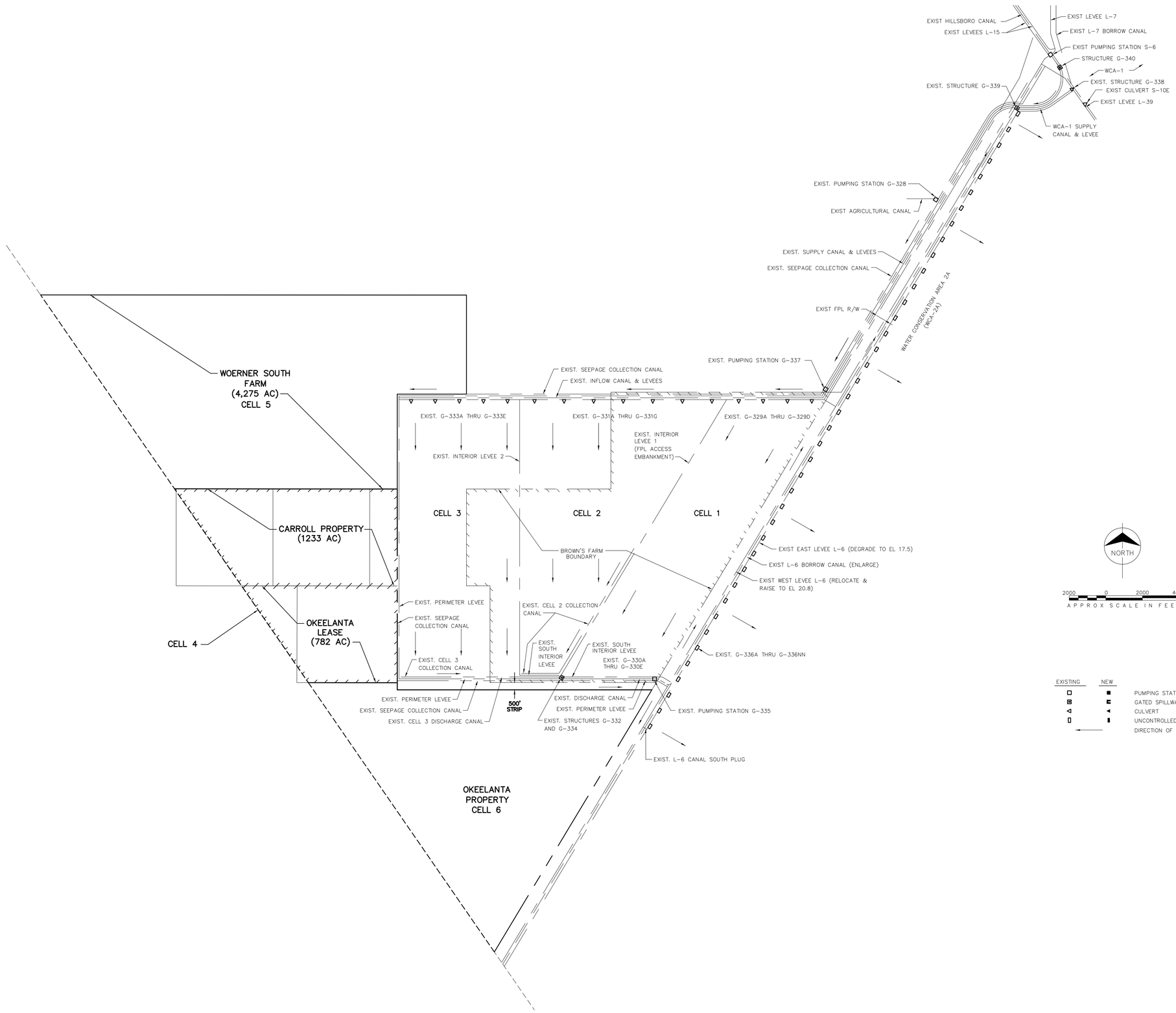
ENGINEER: JD
DRAWN: KG
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
HYDRAULIC SCHEMATIC

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
G2 OF X



DATE	DRAWN	REV. #	REVISION DESCRIPTION

BROWN AND CALDWELL

ENGINEER: JD
DRAWN: KG
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

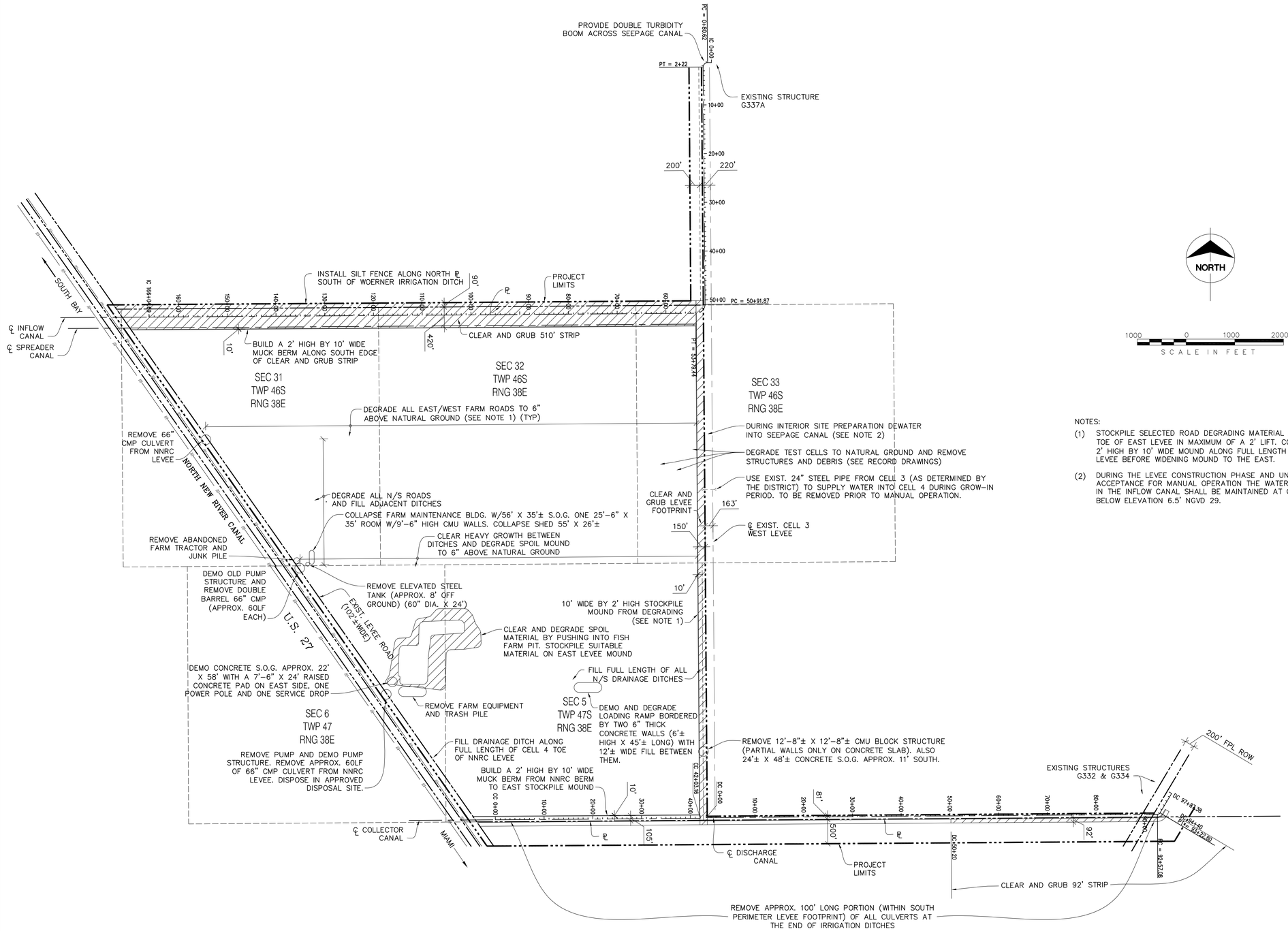
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
OVERALL SITE PLAN

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
C1 OF X

J:\Land Projects R2\97030.02\dwg\C1.dwg 3/18/2005 1:47:36 PM EST



NOTES:

(1) STOCKPILE SELECTED ROAD DEGRADING MATERIAL ALONG WEST TOE OF EAST LEVEE IN MAXIMUM OF A 2' LIFT. COMPLETE FIRST 2' HIGH BY 10' WIDE MOUND ALONG FULL LENGTH OF EAST LEVEE BEFORE WIDENING MOUND TO THE EAST.

(2) DURING THE LEVEE CONSTRUCTION PHASE AND UNTIL ACCEPTANCE FOR MANUAL OPERATION THE WATER LEVEL IN THE INFLOW CANAL SHALL BE MAINTAINED AT OR BELOW ELEVATION 6.5' NGVD 29.

DATE	REV.#	REVISION DESCRIPTION

BROWN AND CALDWELL

ENGINEER: JD
DRAWN: KG
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

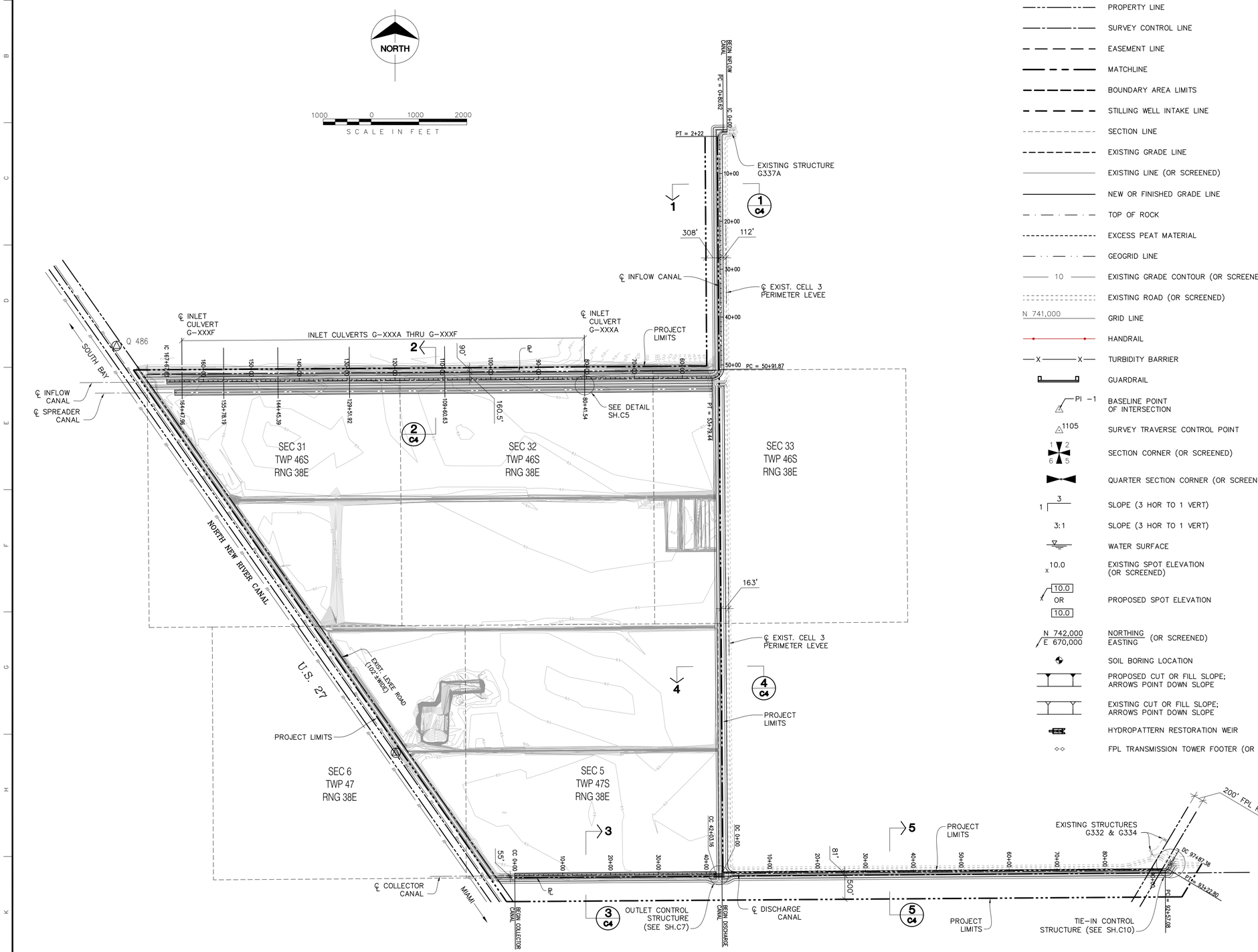
STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION

INTERIOR WORKS

CONTRACT NO.
DRAWING NO.

SHEET C2 OF X

J:\Land Projects R2\97030.02\dwg\C2.dwg 3/18/2005 10:30:42 AM EST



GENERAL SYMBOLS

- PROJECT LIMITS IN CONTRACT
- L6 205+00 — BASELINE STATION
- CANAL OR LEVEE CENTERLINE
- RIGHT OF WAY LINE
- PROPERTY LINE
- SURVEY CONTROL LINE
- EASEMENT LINE
- MATCHLINE
- BOUNDARY AREA LIMITS
- STILLING WELL INTAKE LINE
- SECTION LINE
- EXISTING GRADE LINE
- EXISTING LINE (OR SCREENED)
- NEW OR FINISHED GRADE LINE
- TOP OF ROCK
- EXCESS PEAT MATERIAL
- GEOGRID LINE
- 10 — EXISTING GRADE CONTOUR (OR SCREENED)
- EXISTING ROAD (OR SCREENED)
- N 741,000 — GRID LINE
- HANDRAIL
- X — X — TURBIDITY BARRIER
- GUARDRAIL
- PI -1 — BASELINE POINT OF INTERSECTION
- 1105 — SURVEY TRAVERSE CONTROL POINT
- 1 2 6 5 — SECTION CORNER (OR SCREENED)
- QUARTER SECTION CORNER (OR SCREENED)
- 1 3 — SLOPE (3 HOR TO 1 VERT)
- 3:1 — SLOPE (3 HOR TO 1 VERT)
- WATER SURFACE
- x 10.0 — EXISTING SPOT ELEVATION (OR SCREENED)
- 10.0 OR 10.0 — PROPOSED SPOT ELEVATION
- N 742,000 / E 670,000 — NORTHING / EASTING (OR SCREENED)
- SOIL BORING LOCATION
- PROPOSED CUT OR FILL SLOPE; ARROWS POINT DOWN SLOPE
- EXISTING CUT OR FILL SLOPE; ARROWS POINT DOWN SLOPE
- HYDROPATTERN RESTORATION WEIR
- FPL TRANSMISSION TOWER FOOTER (OR SCREENED)
- PALM BEACH COUNTY 1ST ORDER PUBLISHED CONTROL STATION
- FLORIDA ORDER "B" PUBLISHED PUBLISHED CONTROL STATION
- EXISTING CMP CULVERT (OR SCREENED)
- NOT IN CONTRACT
- ARTICULATED CONCRETE BLOCK SLOPE PROTECTION
- REGRADE BERMS/FILL AGRICULTURAL CANALS
- CANAL PLUGS
- CONCRETE
- REINFORCEMENT IN SECTION
- PRECAST CONCRETE
- GRATING SPAN
- STEEL OR STAINLESS STEEL
- ALUMINUM
- CHECKER PLATE
- RIPRAP
- WOOD
- FDOT NO 89 STONE
- FDOT NO 357 STONE
- GROUT / FLOWABLE FILL
- NATURAL GROUND OR GRADE
- ROCK OR LIMEROCK
- @ — AT
- & — AND
- Ø — ROUND, DIAMETER
- ∠, ∡ — ANGLE
- ℄ — CENTER LINE
- ℙ — PROPERTY LINE, PLATE
- W/ — WITH
- W/O — WITHOUT
- # — NUMBER, POUND
- PROPOSED CULVERT
- IC 500+00 — INFLOW CANAL BASELINE STATION
- CC 100+00 — COLLECTOR CANAL BASELINE STATION
- DC 100+00 — DISCHARGE CANAL BASELINE STATION

DATE	REV #	REVISION DESCRIPTION

BROWN AND CALDWELL

ENGINEER: JD
DRAWN: KG
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

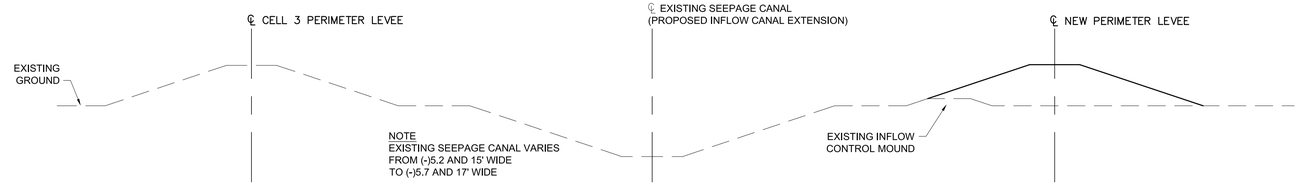
STORMWATER TREATMENT AREA 2 CELL 4 EXPANSION

PROJECT SITE PLAN

CONTRACT NO. - - - - - -
DRAWING NO. - - - - - -

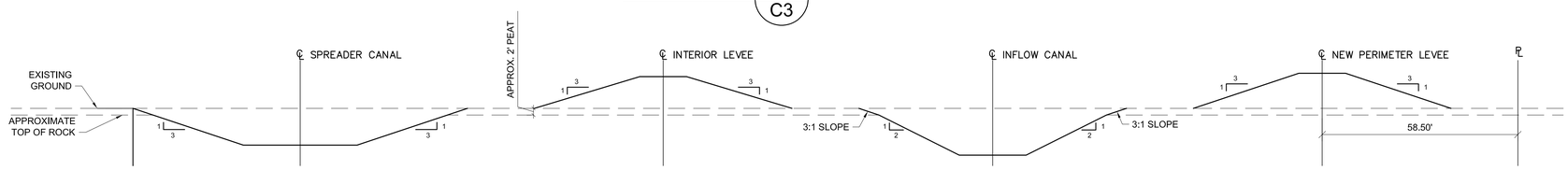
SHEET C3 OF X

EXISTING ELEVATIONS (1)	8.5	-5.7	-5.7	(-)5.7	8.5	8.5	10.5	10.5	8.5
EXISTING DISTANCES (2)	51	8.5	0	8.5	51	71	77	89	95



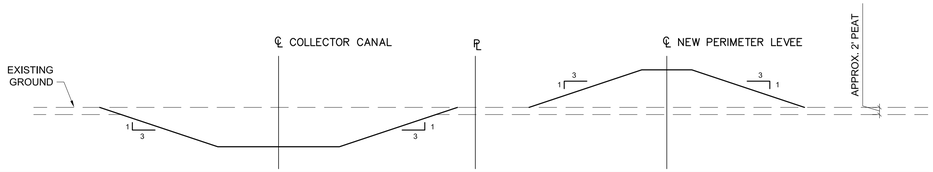
PROPOSED ELEVATIONS (1)	8.5	19.8	19.8	8.5	8.5	20	20	8.5
PROPOSED DISTANCES (2)	153.5	119	105	71	71	105.5	119.5	154

SECTION 1 / C3



PROPOSED ELEVATIONS (1)	8.5	(-)2.5	(-)2.5	(-)2.5	8.5	8.5	19.0	19.0	19.0	8.5	8.5	6.5	(-)5.5	(-)5.5	(-)5.5	6.5	8.5	8.5	19.0	19.0	19.0	8.5	8.5
PROPOSED DISTANCES (2)	421	388	371	354	321	301	269.5	262.5	255.5	224	204	198	174	160.5	147	123	117	97	65.5	58.5	51.5	20	0

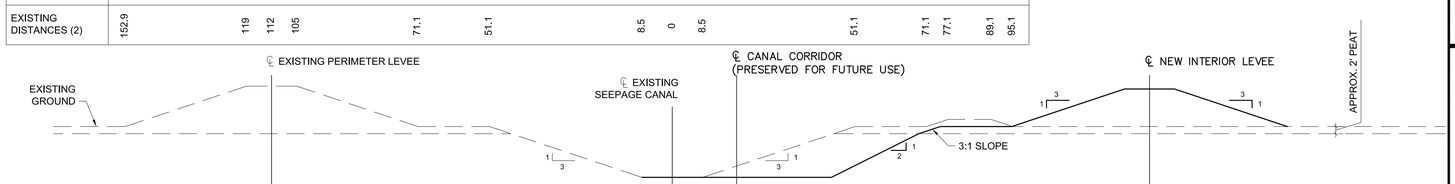
SECTION 2 / C3



PROPOSED ELEVATIONS (1)	8.5	(-)2.5	(-)2.5	(-)2.5	8.5	8.5	8.5	19.0	19.0	19.0	8.5
PROPOSED DISTANCES (2)	105	72	55	38	5	0	15	46.5	53.5	60.5	92

SECTION 3 / C3

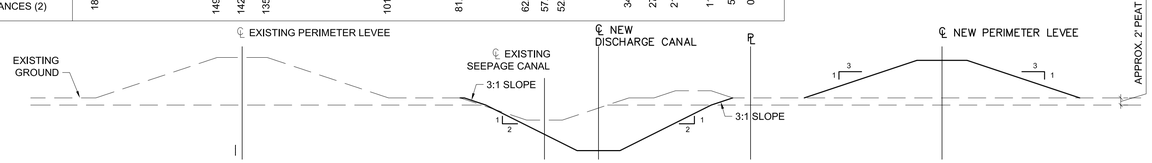
EXISTING ELEVATIONS (1)	8.5	19.8	19.8	19.8	8.5	8.5	(-)5.7	(-)5.7	(-)5.7	8.5	8.5	10.5	8.5	8.5
EXISTING DISTANCES (2)	152.9	119	112	105	71.1	51.1	8.5	0	8.5	51.1	71.1	77.1	89.1	95.1



PROPOSED ELEVATIONS (1)	(-)5.7	6.5	8.5	8.5	19.0	19.0	19.0	8.5
PROPOSED DISTANCES (2)	63.5	87.9	93.9	113.9	145.4	152.4	159.4	190.9

SECTION 4 / C3

EXISTING ELEVATIONS (1)	8.5	19.8	19.8	19.8	8.5	8.5	2.3	2.3	2.3	8.5	8.5	10.5	10.5	8.5	8.5
EXISTING DISTANCES (2)	183	149.1	142.1	135.1	101.2	81.2	62.6	57.6	52.6	34	27	21	11	5	0



PROPOSED ELEVATIONS (1)	(-)2.5	8.5	6.5	(-)6.25	(-)6.25	(-)6.25	6.5	8.5	8.5	19.0	19.0	19.0	8.5
PROPOSED DISTANCES (2)	55	80	74	48.5	42.5	36.5	11	5	15	46.5	53.5	60.5	92

SECTION 5 / C3

NOTES
1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1929 (NGVD 1929) AND EXPRESSED IN FEET.
2. DISTANCES SHOWN MEASURED FROM SECTION LINES. CONTRACTOR SHALL VERIFY EXACT LOCATION OF SECTION LINES/PROPERTY LINES.

DATE	REV. #	REVISION DESCRIPTION

BROWN AND CALDWELL

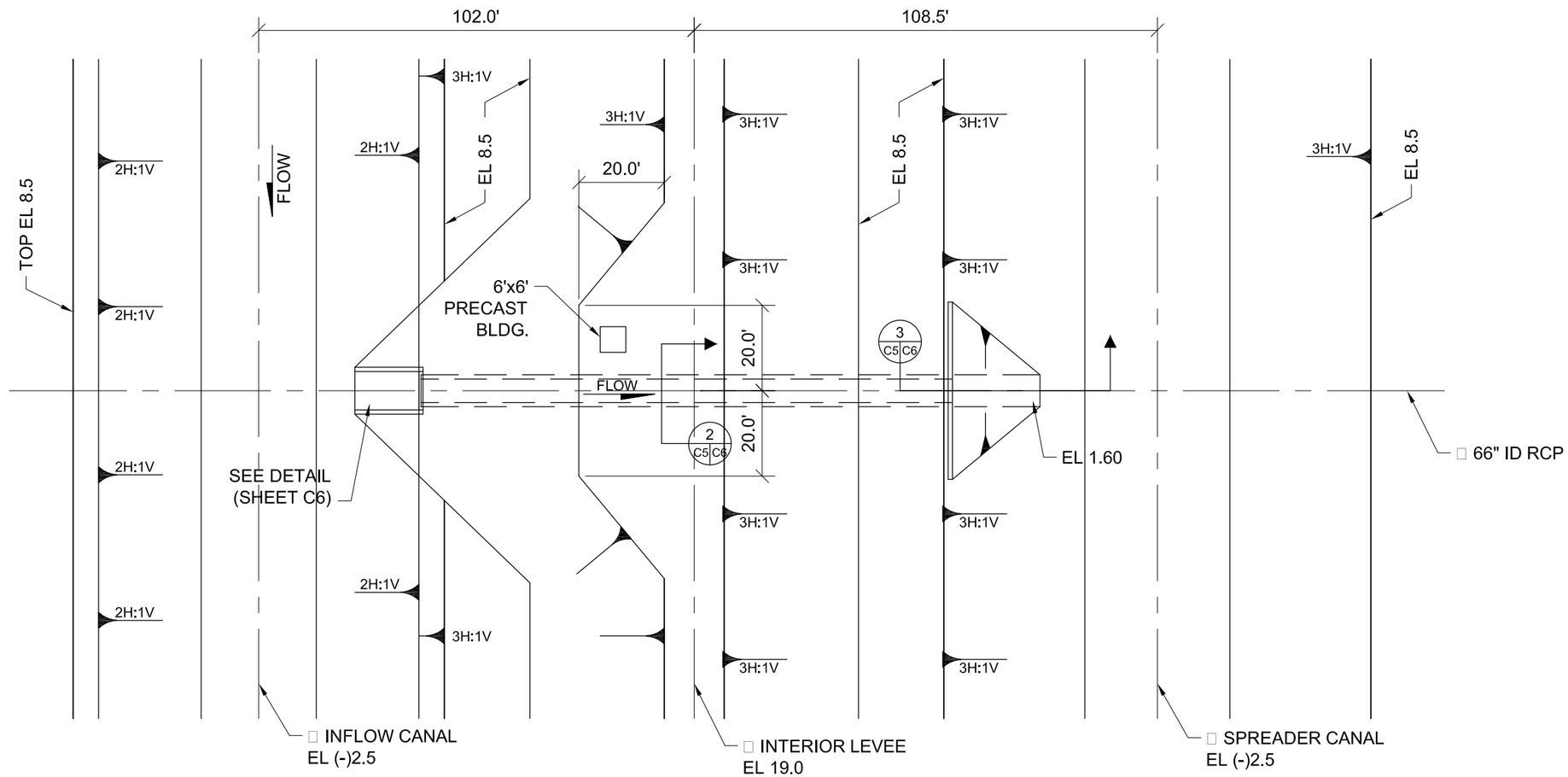
ENGINEER: JES
DRAWN: MWH
CHECKED:
DATE: MARCH 2005
SCALE: 1" = 20'

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
TYPICAL LEVEE/CANAL SECTIONS

CONTRACT NO. XXXXXXXXXXXXX
DRAWING NO. XXXXXXX

SHEET C4 OF X



DATE	DRAWN	REV.#	REVISION DESCRIPTION

BROWN AND CALDWELL

ENGINEER: JD
DRAWN: MH
CHECKED: JS
DATE: MARCH 2005
SCALE: 1" = 30'

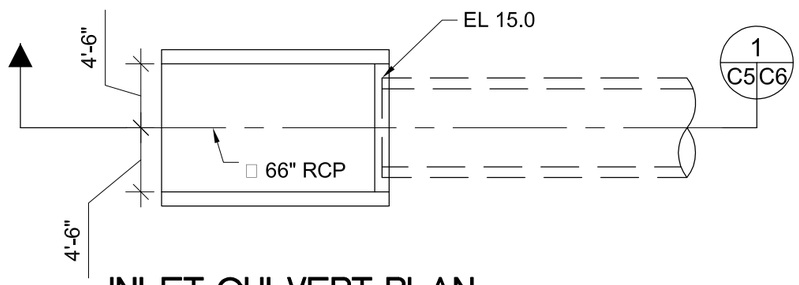
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION

INLET CULVERT PLAN

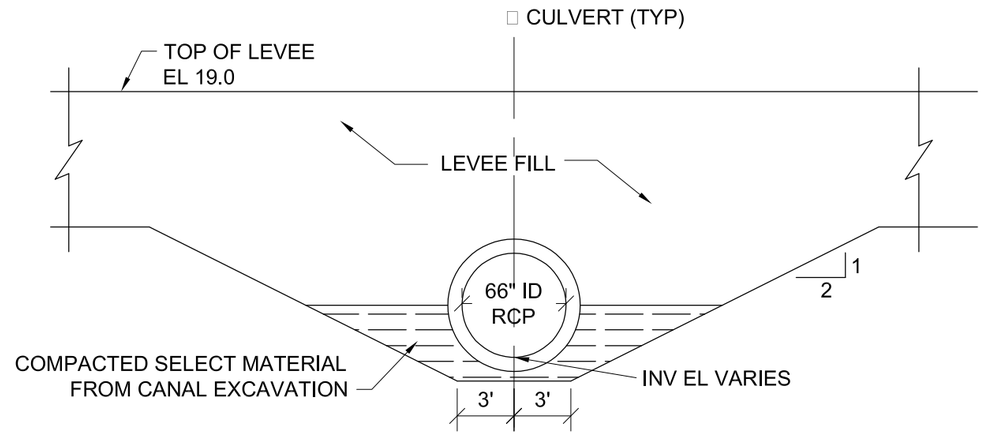
CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
C5 OF X



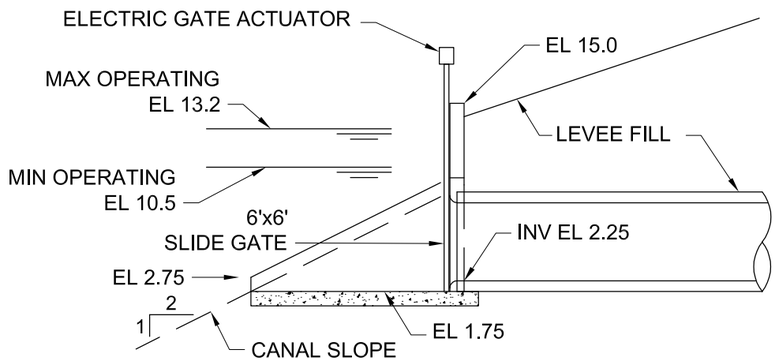
INLET CULVERT PLAN

SCALE:3/32" = 1'-0"



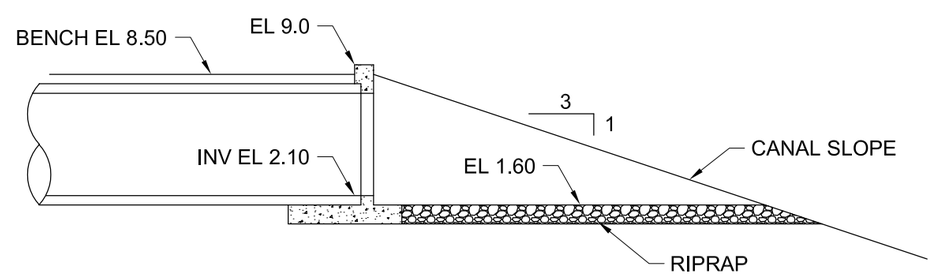
SECTION 2 (C5 C6)

SCALE:1/8" = 1'-0"



SECTION 1 (C6 C6)

SCALE:3/32" = 1'-0"



SECTION 3 (C5 C6)

SCALE:1/8" = 1'-0"

DATE	DRAWN	REV.#	REVISION DESCRIPTION

P:\GIS\Ref_Data\BC_1Ba_S_P.bmp

ENGINEER: JD
DRAWN: MH
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

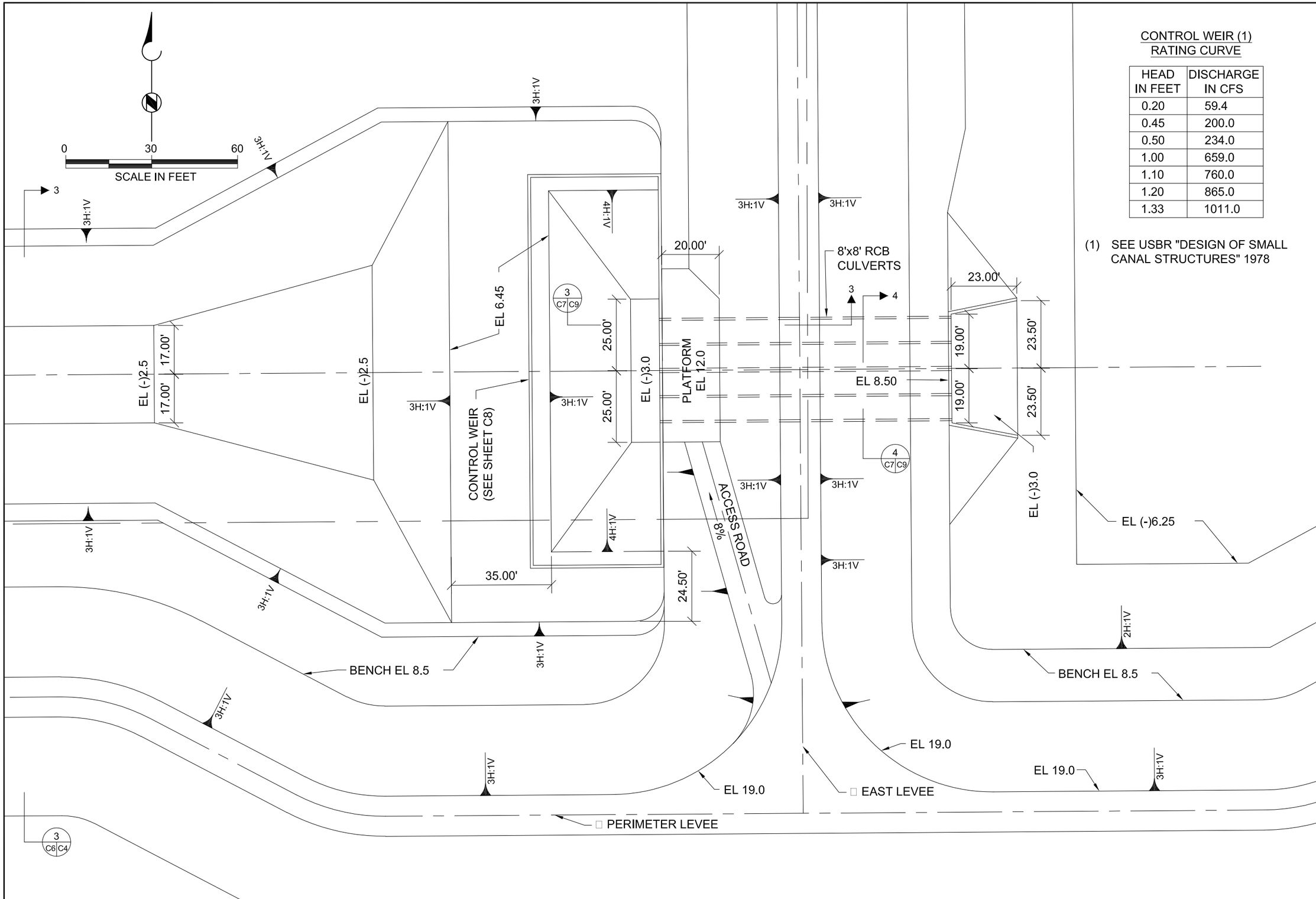
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION

INLET CULVERT SECTIONS

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
C6 OF X



CONTROL WEIR (1)
RATING CURVE

HEAD IN FEET	DISCHARGE IN CFS
0.20	59.4
0.45	200.0
0.50	234.0
1.00	659.0
1.10	760.0
1.20	865.0
1.33	1011.0

(1) SEE USBR "DESIGN OF SMALL CANAL STRUCTURES" 1978

DATE	DRAWN	REV.#	REVISION DESCRIPTION

BROWN AND CALDWELL

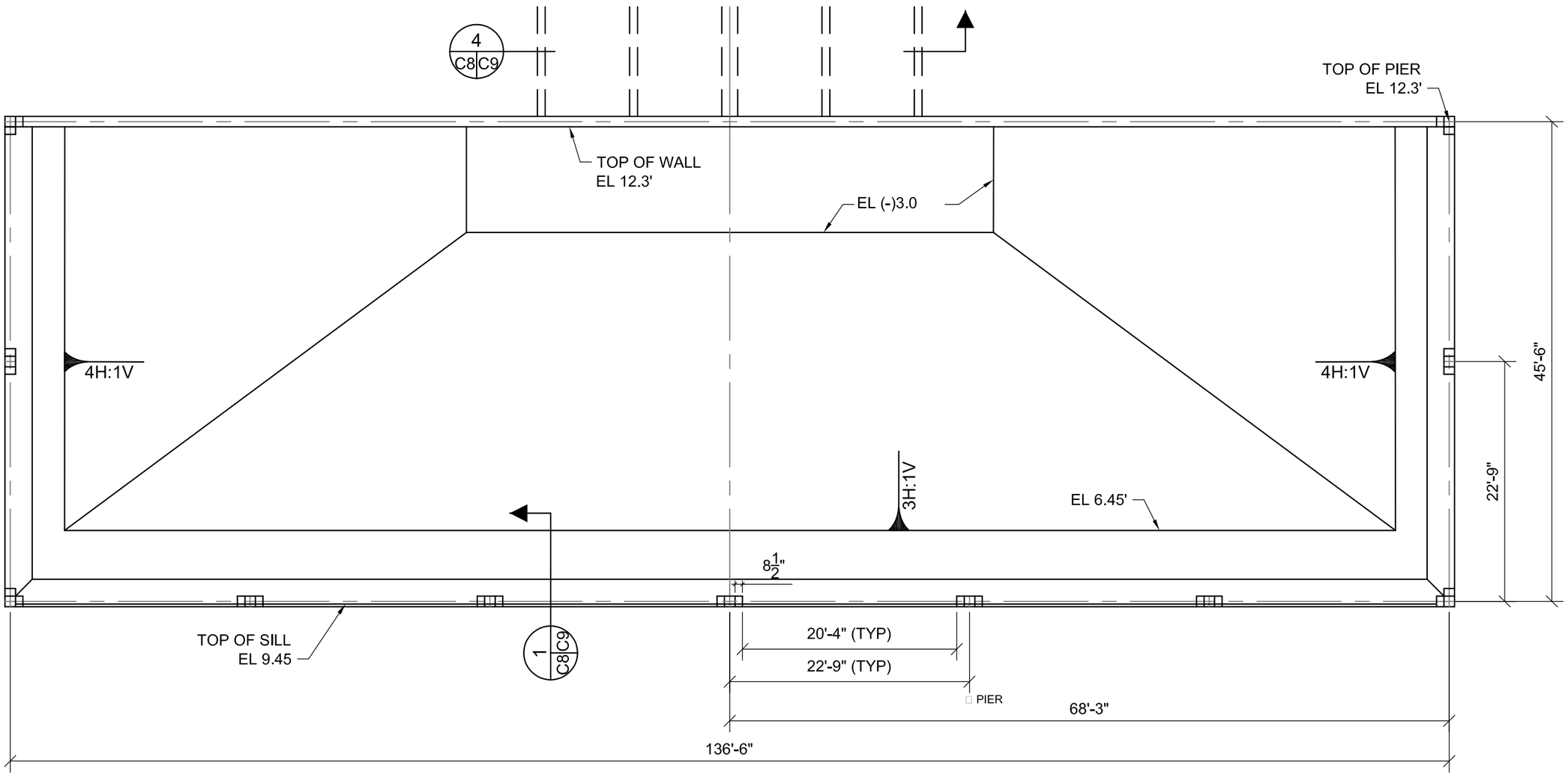
ENGINEER: JD
DRAWN: MH
CHECKED: JS
DATE: MARCH 2005
SCALE: 1" = 30'

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
OUTLET CONTROL
STRUCTURE SITE PLAN

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
C7 OF X



DATE	DRAWN	REV #	REVISION DESCRIPTION

BROWN AND CALDWELL

ENGINEER: JD
DRAWN: MH
CHECKED: JS
DATE: MARCH 2005
SCALE: 3/32" = 1'

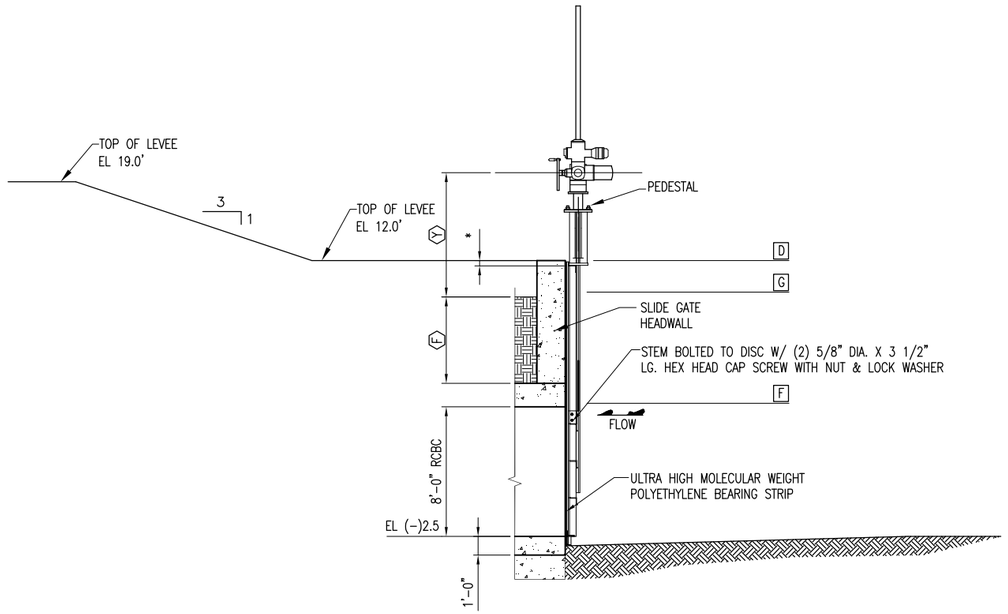
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION

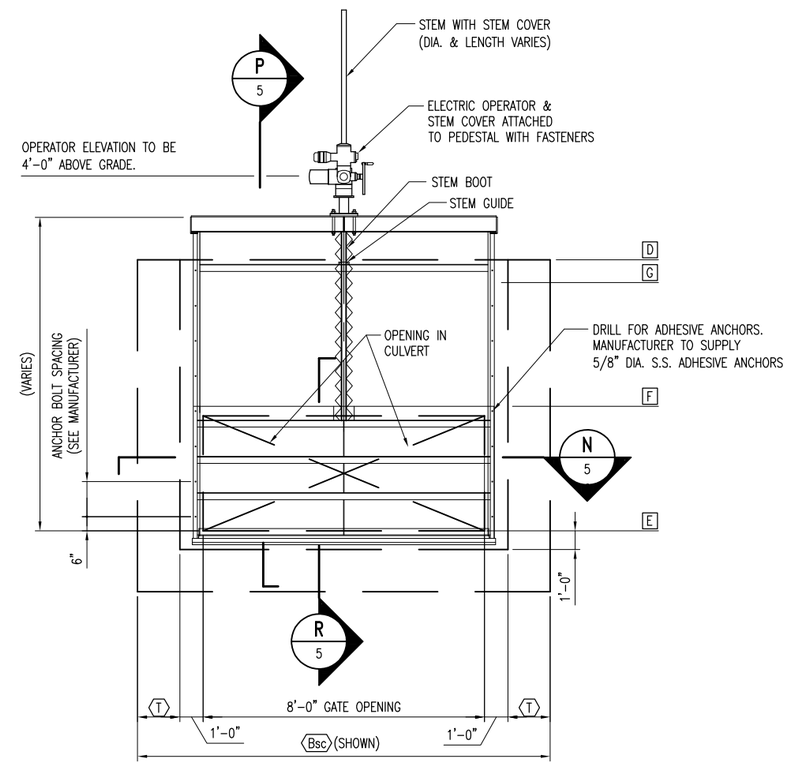
PLAN CONTROL WEIR

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

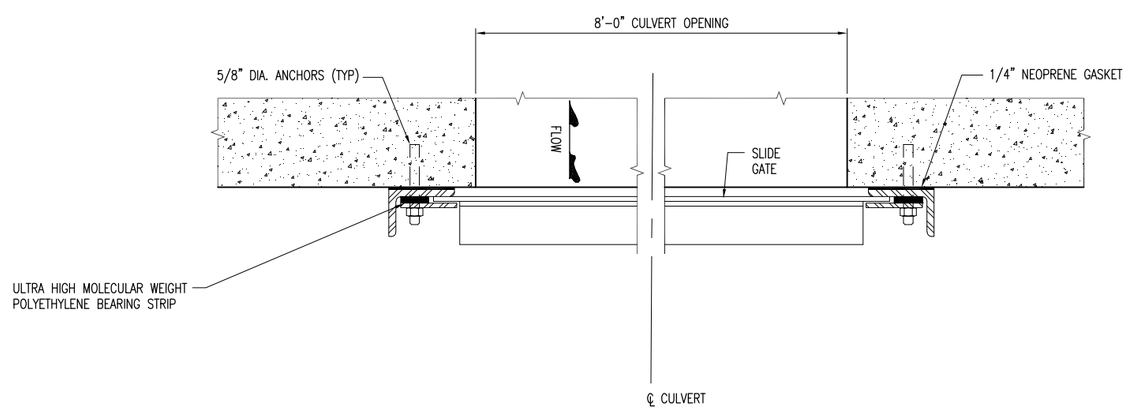
SHEET
C8 OF X



SECTION P/5
SLIDE GATE



ELEVATION
SLIDE GATE



SECTION N/5
GATE PLAN

DATE	DRAWN	REV.#	REVISION DESCRIPTION

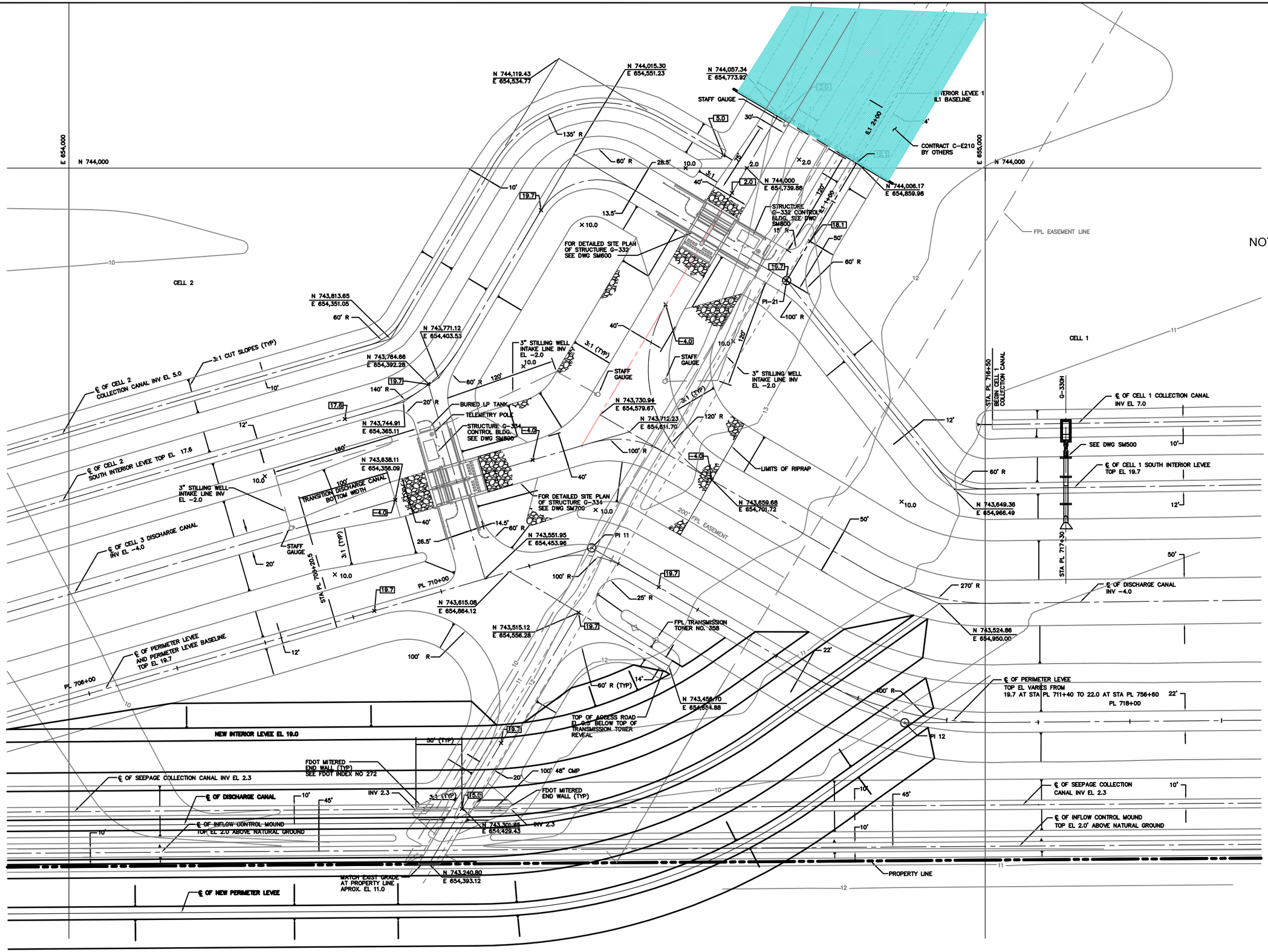
BROWN AND CALDWELL

ENGINEER: JD
DRAWN: MH
CHECKED: JS
DATE: MARCH 2005
SCALE: AS SHOWN

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
SECTIONS

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX



DATE	DRAWN	REV.#	REVISION DESCRIPTION

BROWN AND CALDWELL

ENGINEER: JD
DRAWN: MH
CHECKED: JS
DATE: MARCH 2005
SCALE: 1" = 100'

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENGINEERING & CONSTRUCTION DEPARTMENT
PHONE: 561-686-8800
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33406

STORMWATER TREATMENT AREA 2
CELL 4 EXPANSION
DISCHARGE CANAL
TIE-IN PLAN

CONTRACT NO.
XXXXXXX
DRAWING NO.
XXXXXXX

SHEET
C10 OF X