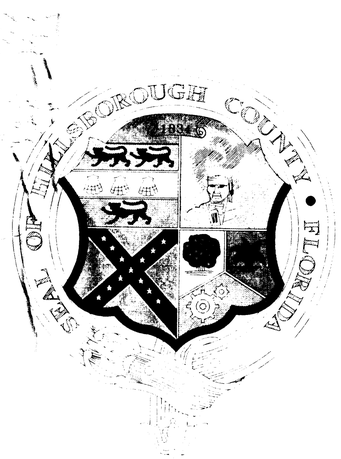
WACS #41193

SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES CONSTRUCTION DRAWINGS

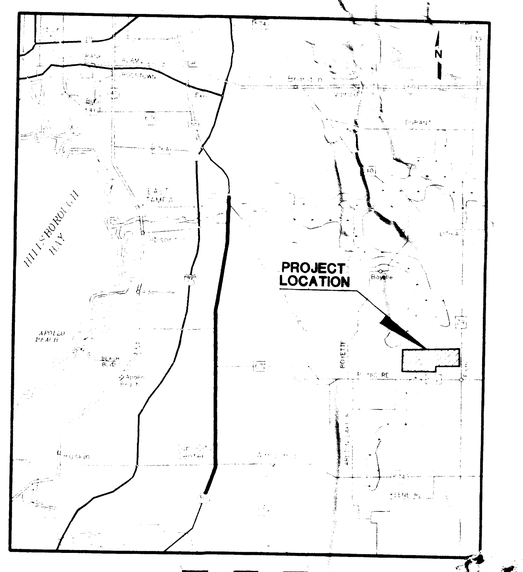
COUNTY OF HILLSBOROUGH, FLORIDA
DEPARTMENT OF SOLID WASTE

TAMPA, FLORIDA



BOARD OF COUNTY COMMISSIONERS

SYLVIA KIMBELL, Chairman
ED TURANCHIK, Vice-Chairman
PAM IORIO, Commissioner
PHYLLIS BUSANSKY, Commissioner
JAN PLATT, Commissioner
JAMES SELVEY, Commissioner
JOE CHILLURA, Commissioner



LOCATION MAP

D.E.P.
APR 04 1995
SOUTHWEST DISTRICT
TAMPA

AS-BUILT

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
3012 U.S. HWY. 301 N. SUITE 700
TAMPA, FLORIDA 33619
(813) 621-0080

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

ELECTRICAL LEGEND AND SYMBOLS

-U-U-	UNDERGROUND CONDUIT
	BRANCH CIRCUIT CONDUIT HOMERUN TO PANELBOARD INDICATED. ARROW INDICATES NUMBER OF CIRCUITS, NUMERALS INDICATE CIRCUIT NUMBER.
	20 AMP DUPLEX RECEPTACLE MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED
GFI	20 AMP DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPT MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED
	WALL MOUNTED TELEPHONE OUTLET
30/2/10	DISCONNECT SWITCH. FIRST NUMBER INDICATES AMPERE RATING, SECOND NUMBER INDICATES POLES, AND THIRD NUMBER INDICATES FUSE SIZE.
J	JUNCTION BOX SIZED AS REQUIRED BY NEC 370-18
M	KILOWATT HOUR METER
M	MANHOLE
PC	PHOTO CELL
S	SINGLE POLE TOGGLE SWITCH
S_3	THREE WAY SWITCH
	EXIT LIGHT
	UTILITY FIXTURE
	2'x4' FLOURESCENT FIXTURE
	2'x4' FLOURESCENT FIXTURE WITH INVERTER BALLAST
	2'x2' FLOURESCENT LIGHT
	1'X8' FLOURESCENT INDUSTRIAL STRIP LIGHT WITH INVERTER BALLAST
	1'X8' FLOURESCENT INDUSTRIAL STRIP LIGHT
	CONTACTS (NORMALLY OPEN)
	CONTACTS (NORMALLY CLOSED)
	RELAY COIL
FS	FLOAT SWITCH

ABBREVIATIONS

AMP	AMPS, AMPERE
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AM	AMP METER
C	CONDUIT
CB	CIRCUIT BREAKER
EDH	ELECTRIC DUCT HEATER
ELECT	ELECTRICAL
EMT	ELAPSED METER TIMER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LOGS ONLY
MTS	MANUAL TRANSFER SWITCH
ø	PHASE
PNL	PANEL
RECPT	RECEPTACLE
RM	ROOM
TECO	TAMPA ELECTRIC COMPANY
VM	VOLT METER
W	WATTS, WIRE
W/	WITH
WP	WATERPROOF
XFMER	TRANSFORMER

PLUMBING LEGEND AND SYMBOLS

℄	CENTER LINE
	CHECK VALVE OR BACKWATER VALVE
	COLD WATER (CW)
D.I.	DUCTILE IRON
C.I.	CAST IRON
	GATE VALVE
	PIPE TURNING DOWN
	PIPE TURNING UP
S	SANITARY DRAIN
⌀	SQUARE FEET
C	TRAP PRIMER
	VENT (V)

ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECTURAL
CLG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUATION
CW	COLD WATER
DFU	DRAINAGE FIXTURE UNITS
DN	DOWN
EA	EACH
ELEC	ELECTRICAL
FCO	FLOOR CLEAN-OUT
FF	FINISHED FLOOR
FLD	FLOOR DRAIN
HB	HOSE BIB
INV ELEV.	INVERT ELEVATION
LAV	LAVATORY
MECH	MECHANICAL
NIC	NOT IN CONTRACT
PLBG	PLUMBING
RM	ROOM
SA	SHOCK ABSORBER
SAN	SANITARY
TYP	TYPICAL
V	VENT
VTR	VENT-THRU-ROOF
W/	WITH
WCO	WALL CLEAN-OUT

HVAC LEGEND AND SYMBOLS

	CEILING DIFFUSER
	FLEXIBLE DUCTWORK
	LIGHTING FIXTURE FOR CEILING COORDINATION
	RIGID DUCTWORK
	SOUNDLINED DUCTWORK
	SIDEWALL PROPELLER FAN
T	THERMOSTAT

ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT
AD	AIR DEVICE
AHU	AIR HANDLING UNIT
AMB	AMBIENT
ARCH	ARCHITECTURAL
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
CONTR	CONTROL
DWGS	DRAWINGS
DX	DIRECT EXPANSION
EDB	ENTERING DRY BULB
EDC	ELECTRIC DUCT COIL
EWB	ENTERING WET BULB
ELEC	ELECTRICAL
ESP"	EXTERNAL STATIC PRESSURE IN INCHES OF WATER GAUGE
FLA	FULL LOAD AMPS
LB/FT	POUNDS PER FOOT
LDB	LEAVING DRY BULB
MAX	MAXIMUM
MHP	MOTOR HORSEPOWER
MIN	MINIMUM
NOM	NOMINAL
OA	OUTSIDE AIR
RPM	REVOLUTIONS PER MINUTE
SENS	SENSIBLE BTUH
SP	STATIC PRESSURE IN INCHES OF WATER GAUGE
TEMP	TEMPERATURE

MECHANICAL LEGEND AND ABBREVIATIONS

	AIR OPERATED VALVE WITH TIMER
	BACK FLOW PREVENTER
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
C.O.	CLEANOUT
⌀	DIAMETER
	FIRE HYDRANT ASSEMBLY
	FLOOR DRAIN
	FLOW CONTROL VALVE
F	FLOW INDICATOR RECORDER
	GATE VALVE
	GLOBE VALVE
	INDICATES DIRECTION OF PIPE SLOPE
LAH	LEVEL ALARM HIGH
LAL	LEVEL ALARM LOW
L	LEVEL GAUGE
M	METER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NIC	NOT IN CONTRACT
	PLUG VALVE
	POST INDICATOR VALVE
W1	POTABLE WATER
	PRESSURE GAUGE
	PRESSURE REDUCING VALVE
	RELIEF VALVE
SD	SANITARY DRAIN
	SOLENOID VALVE
	STRAINER
	UNION
	WALL CLEAN OUT

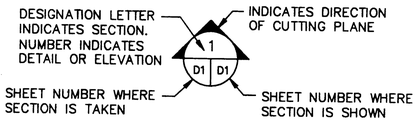
CIVIL LEGEND AND ABBREVIATIONS

B.F.E.	BOTTTOM OF FOOTING ELEVATION
BVC	BEGIN VERTICAL CURVE
C.J.	CONSTRUCTION JOINT
CTRD	CENTERED
⟹	FORCE MAIN FLOW DIRECTION
~→	DRAINAGE FLOW DIRECTION
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
EVC	END VERTICAL CURVE
EW	EACH WAY
	EXIST. CONTOURS
EXP. JT.	EXPANSION JOINT
G.L.E.	GUTTER LINE ELEVATION
I.E.	INVERT ELEVATION
LF	LINEAR FEET
LT	LEFT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
RT	RIGHT
△	CONC. THRUST BLOCK
T.O.C.	TOP OF CONCRETE ELEVATION
TYP	TYPICAL
	VEGETATION
VC	VERTICAL CURVE

INDEX OF DRAWINGS

SHEET NUMBER	DESCRIPTION
C1	COVER SHEET
C2	INDEX, LEGENDS AND GENERAL NOTES
C3	MASTER SITE PLAN
C4	FACILITY SITE PLAN
C5	FACILITY GRADING PLAN
C6	FACILITY SECTIONS
C7	PUMP STATION SITE PLAN
C8	CIVIL DETAILS 1
C9	CIVIL DETAILS 2
C10	PLAN AND PROFILE STA. 1+00 TO 10+00
C11	PLAN AND PROFILE STA. 10+00 TO 22+00
C12	PLAN AND PROFILE STA. 22+00 TO 31+00
C13	CROSS SECTIONS STA. 8+00 TO 20+00
C14	CROSS SECTIONS STA. 22+00 TO 30+00
C15	SOIL BORINGS AND LEGEND
A1	ARCHITECTURAL BUILDING PLAN AND ELEVATIONS
A2	ARCHITECTURAL DETAILS
S1	STRUCTURAL FOUNDATION PLAN
S2	STRUCTURAL DETAILS 1
S3	STRUCTURAL DETAILS 2
S4	STRUCTURAL DETAILS 3
S5	STRUCTURAL DETAILS 4
M1	LEACHATE TREATMENT PROCESS FLOW SCHEMATIC
M2	PROCESS CONTROL PLAN 1
M3	PROCESS CONTROL PLAN 2
M4	PROCESS CONTROL SECTIONS AND DETAILS
M5	PUMP STATION PLAN
M6	PUMP STATION SECTIONS
M7	MECHANICAL DETAILS 1
M8	MECHANICAL DETAILS 2
M9	MECHANICAL DETAILS 3
H1	BUILDING HVAC PLAN, SECTION AND SCHEDULES
H2	HVAC DETAILS
P1	BUILDING PLUMBING PLAN AND ELEVATIONS
P2	PLUMBING DETAILS
E1	ELECTRICAL SCHEDULES AND RISERS
E2	ELECTRICAL SITE PLAN
E3	FACILITY ELECTRICAL SITE PLAN
E4	FACILITY BUILDING LIGHTING PLAN
E5	FACILITY POWER PLAN
E6	PUMP STATION ELECTRICAL SITE PLAN
E7	ELECTRICAL CONTROL DIAGRAMS
E8	ELECTRICAL CONTROL DIAGRAMS

GENERAL LEGEND



SECTION AND DETAIL DESIGNATION

FUTURE — WORK THAT IS PLANNED BUT WILL BE DESIGNED AND BUILT UNDER ANOTHER CONTRACT.

EXIST. — ITEMS ALREADY IN PLACE PRIOR TO THE PROJECT.

D.E.P.
APR 04 1995
SOUTHWEST DISTRICT TAMPA

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV | DATE | DESCRIPTION | CK BY

DRAWING TITLE: INDEX, LEGENDS AND GENERAL NOTES

PROJECT TITLE: SOUTHEAST COUNTY FACILITY
LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY
DEPARTMENT OF SOLID WASTE
TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

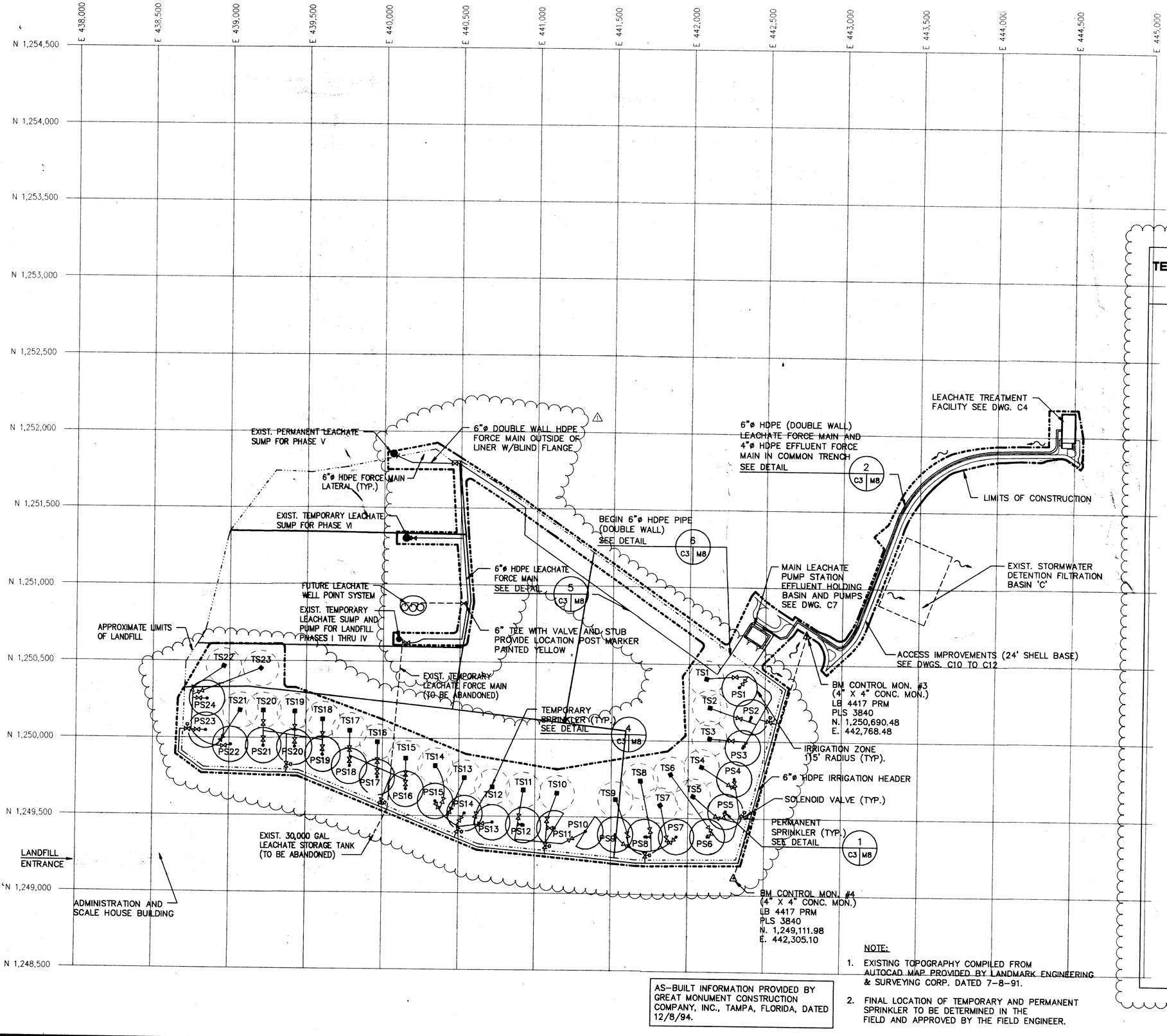
PROJ. NO. 0930018.42 | DSN BY: LER/RAS | DWG BY: BLJ/VDR | CHK BY: SMH/LER | D/A RVW BY: ERC | APP BY: RBG

CADD FILE: LEGEND

DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

DRAWING NO. C2 of 15



N

300 0 300 600
SCALE IN FEET

TEMPORARY SPRINKLER HEAD LOCATIONS (SEE NOTE 2)		PERMANENT SPRINKLER HEAD LOCATIONS (SEE NOTE 2)	
TS1	N. 1250406 E. 442114	PS1	N. 1250354 E. 442331
TS2	N. 1250219 E. 442138	PS2	N. 1250161 E. 442410
TS3	N. 1250019 E. 442137	PS3	N. 1249960 E. 442356
TS4	N. 1249831 E. 442086	PS4	N. 1249757 E. 442301
TS5	N. 1249608 E. 442026	PS5	N. 1249380 E. 442129
TS6	N. 1249781 E. 441886	PS6	N. 1249544 E. 442245
TS7	N. 1249582 E. 441815	PS7	N. 1249376 E. 441924
TS8	N. 1249736 E. 441688	PS8	N. 1249373 E. 441721
TS9	N. 1249615 E. 441528	PS9	N. 1249387 E. 442245
TS10	N. 1249649 E. 441144	PS10	N. 1249413 E. 441518
TS11	N. 1249670 E. 440924	PS11	N. 1249423 E. 441134
TS12	N. 1249689 E. 440721	PS12	N. 1249441 E. 440924
TS13	N. 1249746 E. 440538	PS13	N. 1249460 E. 440719
TS14	N. 1249823 E. 440347	PS14	N. 1249518 E. 440537
TS15	N. 1249870 E. 440153	PS15	N. 1249593 E. 440347
TS16	N. 1249976 E. 439967	PS16	N. 1249674 E. 440153
TS17	N. 1250049 E. 439785	PS17	N. 1249748 E. 439967
TS18	N. 1250119 E. 439608	PS18	N. 1249820 E. 439785
TS19	N. 1250172 E. 439426	PS19	N. 1249891 E. 439609
TS20	N. 1250178 E. 439224	PS20	N. 1249943 E. 439426
TS21	N. 1250178 E. 439076	PS21	N. 1249949 E. 439223
TS22	N. 1250451 E. 439205	PS22	N. 1249955 E. 439009
TS23	N. 1250462 E. 438962	PS23	N. 1250048 E. 438845
		PS24	N. 1250252 E. 438854

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

NOTE:

1. EXISTING TOPOGRAPHY COMPILED FROM AUTOCAD MAP PROVIDED BY LANDMARK ENGINEERING & SURVEYING CORP. DATED 7-8-91.
2. FINAL LOCATION OF TEMPORARY AND PERMANENT SPRINKLER TO BE DETERMINED IN THE FIELD AND APPROVED BY THE FIELD ENGINEER.

REV	DATE	DESCRIPTION	CK. BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: MASTER SITE PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3030 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 622-6757

D/A P/A BY: ERC
DSN BY: RBG
DWN BY: LER/LER
CHK: RAS/SMH
PROJ. NO. 09901842
DISK: SRK/LER

CADD FILE: SITE

DATE: APRIL 27, 1992

SCALE: 1" = 300'

DRAWING NO. C3 of 15

CURVE DATA

CURVE NO. ③		CURVE NO. ④	
Δ	= 35°20'26"	Δ	= 32°49'33"
R	= 100.00'	R	= 35.00'
T	= 31.86'	T	= 10.31'
L	= 61.68'	L	= 20.05'

N. 1,252,155.28
E. 444,416

N. 1,252,155.28
E. 444,500

84'-0"
42'-0" 42'-0"

8' HIGH CONCRETE WALL, SEE DWGS. S1 & S3

STA. 28+58, 229' LT. END SWALE

LIMITS OF CONSTRUCTION

APPROXIMATE LIMITS OF PHOSPHATIC CLAY EXCAVATION

STA. 28+56, 101' LT. BEGIN SWALE TRANSITION INTO DITCH

TH-23 TH-22 TH-21 TH-20 TH-19

SEE DWG. M3

70'-0"ø 50'-0"ø 15'-0"ø

6' CONCRETE SIDEWALK

185'-0" 75'-0" 10'-0" 20'-0" 41'-0" 19'-0" 35'-6"

27'-0" 34'-0" 15'-6" 35'-6" 33'-0" 15'-0" 25'-0" 13'-0" 12'-0"

ASPHALT

SEE DWGS. M2 & M3 FOR YARD PIPING

PROCESS CONTROL AND OFFICE BUILDING (SEE DWG'S. A1 AND M2)

N. 1,251,970.28
E. 444,416

67'-0" 6'-0" 18'-0" 2'R (TYP.) 50'R 56'-0" 32'-0" 36'-0"

ACU SEE DWG. A1

DUKE NORTH 88.06' ASPHALT PAVEMENT

4" WATER WELL AND HOLDING TANK
N. 1252004.42
E. 444541.01
SEE DETAIL 5 C4 M9

40 LF OF 6' CHAIN LINK FENCE TYPE "B" FDOT INDEX 452 WITH TWO 3' WIDE SWING GATES @ NORTH SIDE

EXIST. MONITORING WELL (TO BE MODIFIED) SEE DETAIL 2 C4 C9

GUARDRAIL STA. 29+79, 65' LT. TO STA. 30+20, 15' LT.

PLUG EXIST. DBL. STEEL PIPES WITH 4000 PSI CONCRETE

PIPES INSTALLED IN COMMON TRENCH SEE DETAIL 2 C4 M8

6"ø HDPE (DOUBLE WALL) LEACHATE FORCE MAIN SEE DETAIL 1 C4 M7

4"ø HDPE EFFLUENT FORCE MAIN

℄ DITCH FOR ALIGNMENT SEE DWGS. C11 TO C12

℄ STA. 28+34, 36'LT.

FOR CONTINUATION SEE DWG. C12

27+00 SHELL BASE ROAD SEE DWG. C10 TO C12

N 89°05'14" E

29+00

ASPHALT PAVEMENT SEE DETAIL 2 C4 C8

PROPOSED BASIN AREA SEE DWG. C5 5'R 35'R

GUARDRAIL LINE (TYP.) STA. 28+84, 3' RT. TO STA. 30+20, 3' RT. SEE DETAIL 5 C4 C8

STA. 28+00 BEGIN ASPHALT PAVEMENT

PC = 29+83.68

PI = 29+45.36

PI = 29+73.42

GUARDRAIL STA. 29+16. 37' LT. TO STA. 29+58. 43' LT.

S 55°34'20" E 28.05

S 55°34'20" E 46.05

N 32°49'33" E 57.29

STA. 30+19.47 END ASPHALT PAVEMENT MATCH EXIST. GRADE

FIRE HYDRANT ASSEMBLY STA. 28+07, 22' RT. WITH 120 LF OF 6" D.I. PIPE (FIELD VERIFY) SEE DETAIL 1 C4 C9

N 1,252,000

E 444,250

E 444,500

E 444,750

N 1,251,750

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

NOTE:

EXISTING TOPOGRAPHY COMPILED FROM AUTOCAD MAP PROVIDED BY LANDMARK ENGINEERING & SURVEYING CORP. DATED 7-8-91 AND FIELD SURVEY DATA FROM HEIDT & ASSOCIATES, INC. DATED 10-16-91.

20 0 20 40
SCALE IN FEET

LEGEND

1. 1ST STAGE AERATION TANK
2. 1ST STAGE CLARIFIER
3. ANOXIC TANK
4. 2ND STAGE AERATION TANK
5. 2ND STAGE CLARIFIER
6. AERATED SLUDGE STORAGE TANK
7. STAIR-ACCESS BRIDGE
8. METHANOL STORAGE TANK
9. 500,000 GALLON RAW LEACHATE HOLDING TANK
10. ACCESS STAIR, SEE DETAIL 1, DWG. S2
11. STORMWATER DRAINAGE SUMP, SEE DWG. S1
12. 6" HDPE PIPE WITH NORMALLY CLOSED D.I. 6" GATE VALVE AND POST INDICATOR
13. BY-PASS CONC. TRUCK LOADING STAND
14. LEACHATE SPILL DRAINAGE TRENCH SEE DETAIL 7, DWG. S2
15. SIDEWALK RAMP, SEE DETAIL 6, DWG. C8
16. 12"X18" ERCP, SEE DWG. C5
17. EFFLUENT STORAGE TANK
18. FILTRATE SUMP
19. PARKING AREA, 4 SPACES REQUIRED, SEE DETAIL 1, DWG. C8
20. 6'X6' CHLORINATION ROOM, SEE DWG. M3
21. 1-1/2"ø WATER SUPPLY LINE
22. BOLLARDS (TYP.) SEE DETAIL 4, DWG. C8

NOTE: ITEMS (1) THRU (8) TO BE MANUFACTURED BY ZIMPRO UNDER PACT® SYSTEM.

REV.	DATE	DESCRIPTION	CK BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: FACILITY SITE PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

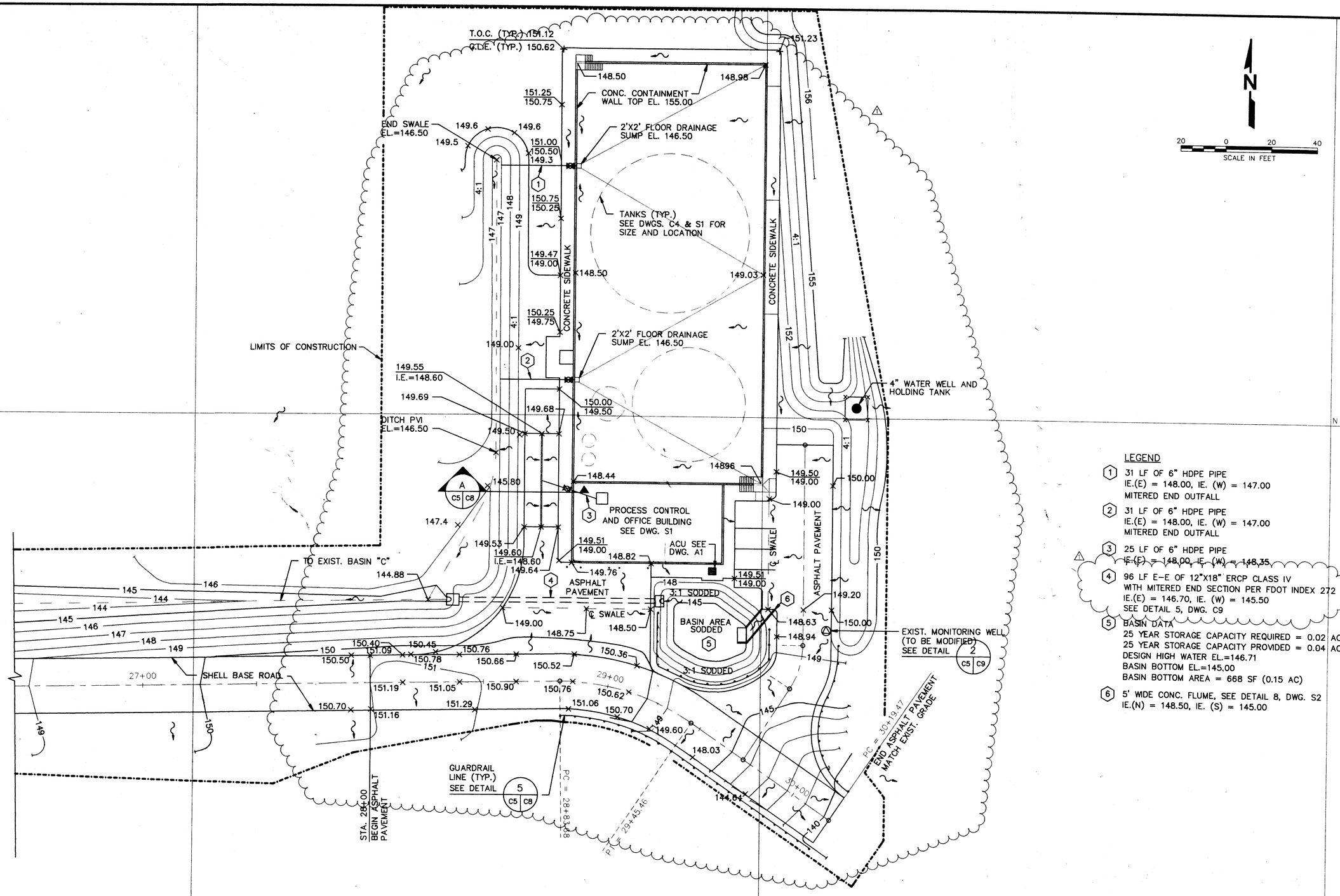
PROJ. NO. 0990018.42 | DWN. BY: BLJ/VDR | CHK. BY: RAS/SMH | Q/A PER. BY: ERC | DES. BY: RBG

CADD FILE: CPLPLAN

DATE: APRIL 27, 1992

SCALE: 1"=20'

DRAWING NO: C4 of 15



LEGEND

1. 31 LF OF 6" HDPE PIPE
   IE.(E) = 148.00, IE. (W) = 147.00
   MITERED END OUTFALL
2. 31 LF OF 6" HDPE PIPE
   IE.(E) = 148.00, IE. (W) = 147.00
   MITERED END OUTFALL
3. 25 LF OF 6" HDPE PIPE
   IE.(E) = 148.00, IE. (W) = 148.35
4. 96 LF E-E OF 12"X18" ERCP CLASS IV
   WITH MITERED END SECTION PER FDOT INDEX 272
   IE.(E) = 146.70, IE. (W) = 145.50
   SEE DETAIL 5, DWG. C9
5. BASIN DATA
   25 YEAR STORAGE CAPACITY REQUIRED = 0.02 AC-FT
   25 YEAR STORAGE CAPACITY PROVIDED = 0.04 AC-FT
   DESIGN HIGH WATER EL.=146.71
   BASIN BOTTOM EL.=145.00
   BASIN BOTTOM AREA = 668 SF (0.15 AC)
6. 5' WIDE CONC. FLUME, SEE DETAIL 8, DWG. S2
   IE.(N) = 148.50, IE. (S) = 145.00

NOTES:

1- PROPOSED ELEVATIONS SHOWN, REPRESENT FINISH ELEVATIONS AFTER PLACEMENT OF ALL FILL MATERIALS AND SOD.

2- EXISTING TOPOGRAPHY COMPILED FROM AUTOCAD MAP PROVIDED BY LANDMARK ENGINEERING & SURVEYING CORP. DATED 7-8-91 AND FIELD SURVEY DATA FROM HEIDT & ASSOCIATES, INC. DATED 10-16-91.

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

20 0 20 40
SCALE IN FEET

REV	DATE	DESCRIPTION	CK BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: FACILITY GRADING PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL. 33619
PH (813) 621-0080 FAX NO. (813) 623-9757

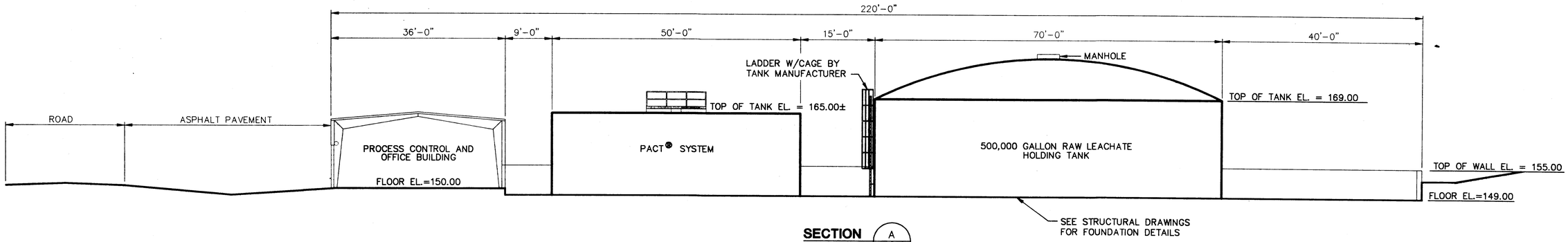
PROJ. NO. 0990018.42 | DSN. BY: LER | DWN. BY: BJJ/VDR | CHK. BY: RAS/SMH | Q/A BY: ERC | APP. BY: RBG

CADD FILE: CPLGRD

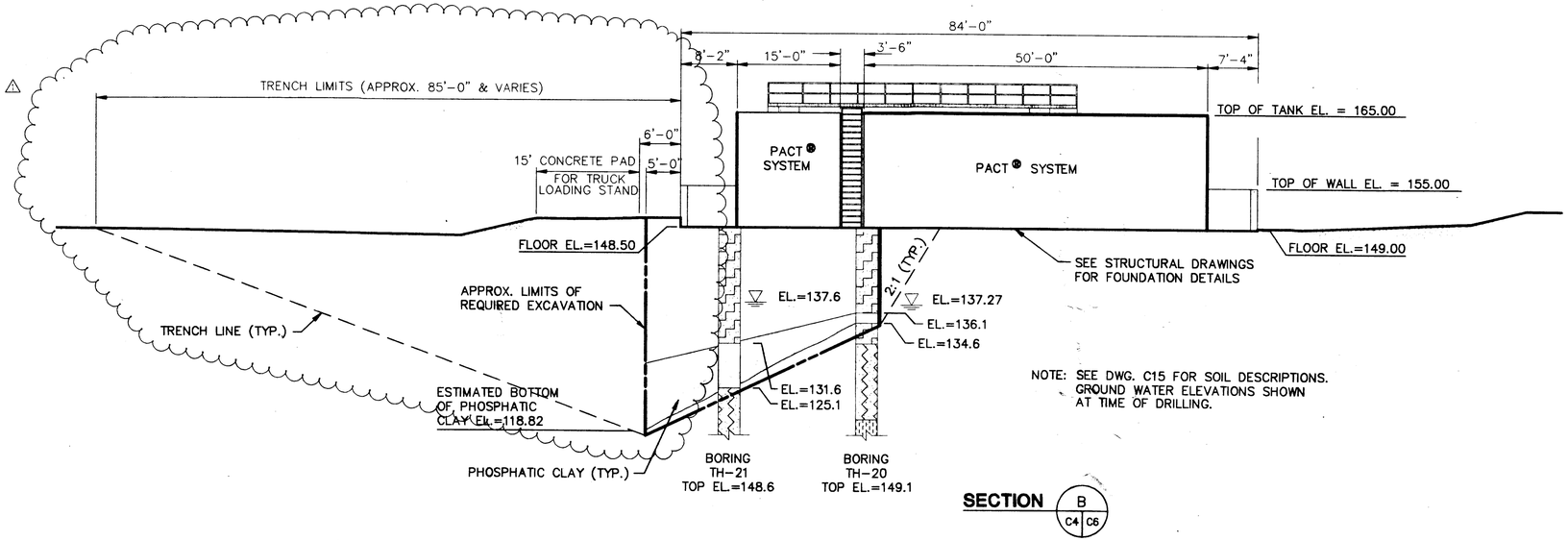
DATE: APRIL 27, 1992

SCALE: 1"=20'

DRAWING NO. C5 of 15

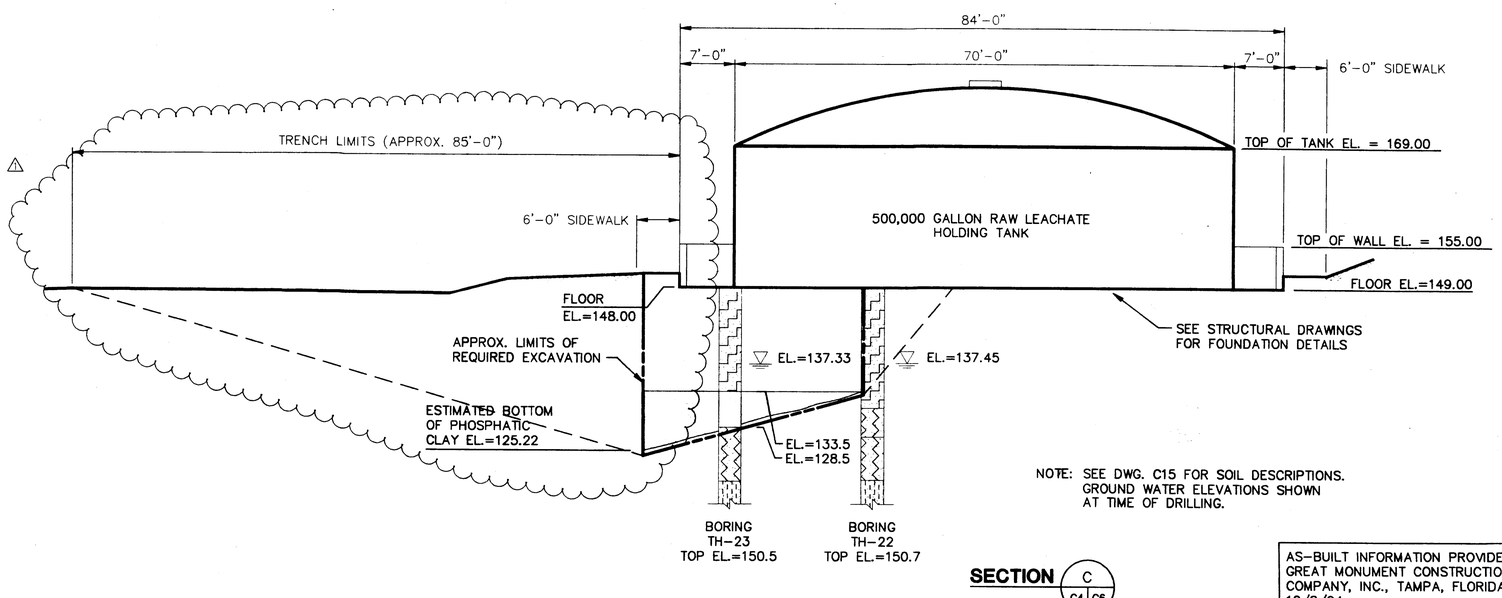


SECTION A (C4 | C6)



NOTE: SEE DWG. C15 FOR SOIL DESCRIPTIONS. GROUND WATER ELEVATIONS SHOWN AT TIME OF DRILLING.

SECTION B (C4 | C6)



NOTE: SEE DWG. C15 FOR SOIL DESCRIPTIONS. GROUND WATER ELEVATIONS SHOWN AT TIME OF DRILLING.

SECTION C (C4 | C6)

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: **FACILITY SECTIONS**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-0757

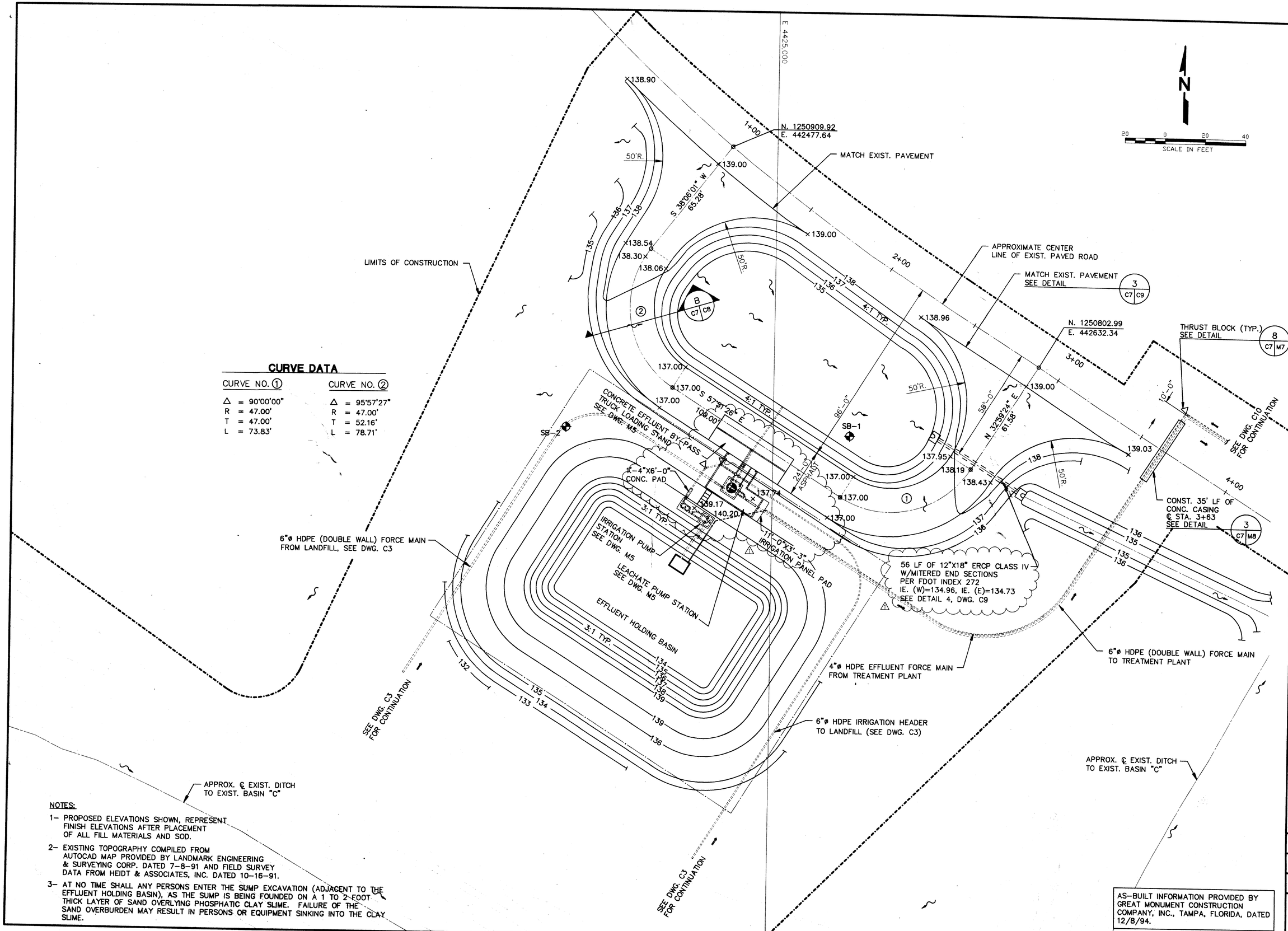
PROJ. NO.	DSN. BY	DWN. BY	CHK. BY	QA/QC BY	APP. BY
0990018.42	DEP/LER	BLJ/VDR	RAS/SMH	ERC	RBG

CADD FILE: CPLSECT

DATE: APRIL 27, 1992

SCALE: 1"=10'

DRAWING NO. **C6** of **15**



CURVE DATA

CURVE NO. ①	CURVE NO. ②
Δ = 90°00'00"	Δ = 95°57'27"
R = 47.00'	R = 47.00'
T = 47.00'	T = 52.16'
L = 73.83'	L = 78.71'

NOTES:

1- PROPOSED ELEVATIONS SHOWN, REPRESENT FINISH ELEVATIONS AFTER PLACEMENT OF ALL FILL MATERIALS AND SOD.

2- EXISTING TOPOGRAPHY COMPILED FROM AUTOCAD MAP PROVIDED BY LANDMARK ENGINEERING & SURVEYING CORP. DATED 7-8-91 AND FIELD SURVEY DATA FROM HEIDT & ASSOCIATES, INC. DATED 10-16-91.

3- AT NO TIME SHALL ANY PERSONS ENTER THE SUMP EXCAVATION (ADJACENT TO THE EFFLUENT HOLDING BASIN), AS THE SUMP IS BEING FOUNDED ON A 1 TO 2 FOOT THICK LAYER OF SAND OVERLYING PHOSPHATIC CLAY SLIME. FAILURE OF THE SAND OVERBURDEN MAY RESULT IN PERSONS OR EQUIPMENT SINKING INTO THE CLAY SLIME.

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV.	DATE	DESCRIPTION	Ck. BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: PUMP STATION SITE PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY
LEACHATE TREATMENT AND
RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY
DEPARTMENT OF SOLID WASTE
TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 622-6757

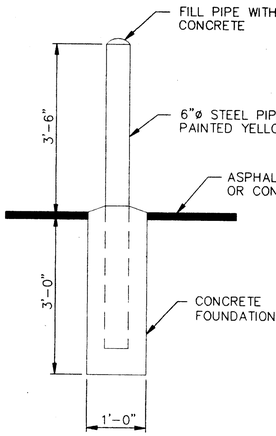
PROJECT NO.	DWN. BY	CHK. BY	D/A RVW. BY:
0900018.42	LER/RAS/VDR	LER/SMH	ERC
DOSS. BY	LER/RAS		DSR BY: RBG

CADD FILE: CSPSITE

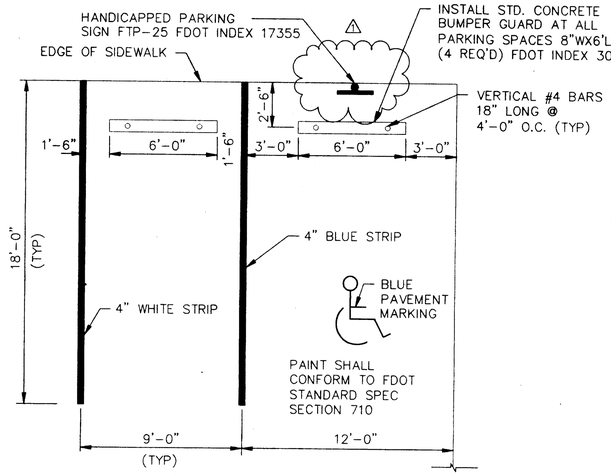
DATE: APRIL 27, 1992

SCALE: 1"=20'

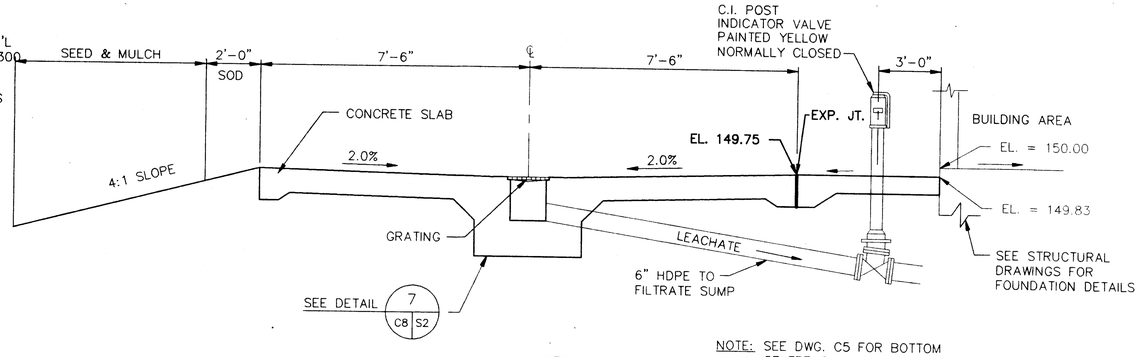
DRAWING NO. C7 of 15



BOLLARD DETAIL 4 / C8 — C4,A1

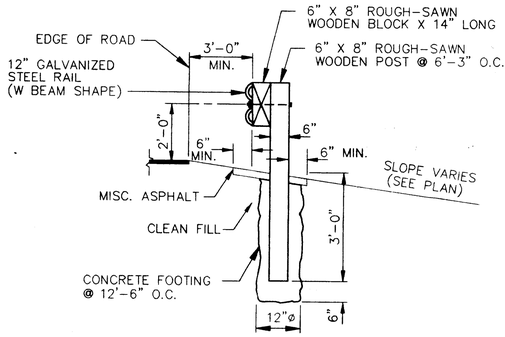


TYPICAL PARKING LOT SPACE AND STRIPING 1 / C4 C8



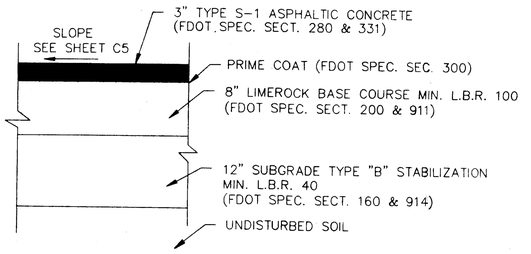
SECTION A / C5 C8

NOTE: SEE DWG. C5 FOR BOTTOM OF TRENCH ELEVATIONS.

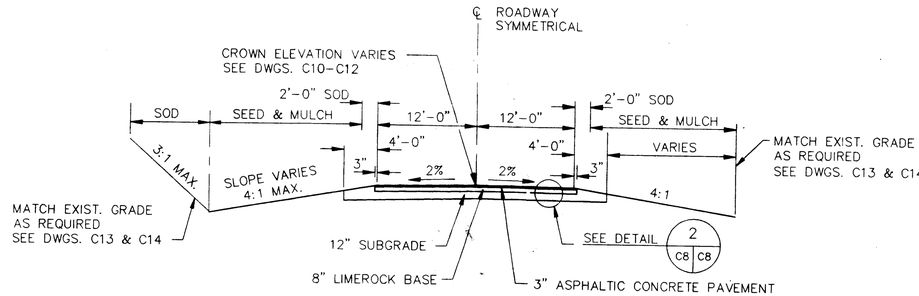


GUARDRAIL DETAIL 5 / C8 — C4,C5

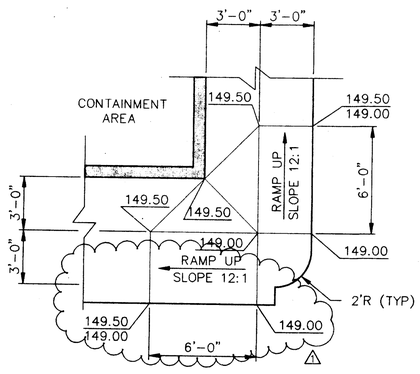
NOTE: SEE FDOT INDEX 400 FOR ADDITIONAL DETAILS



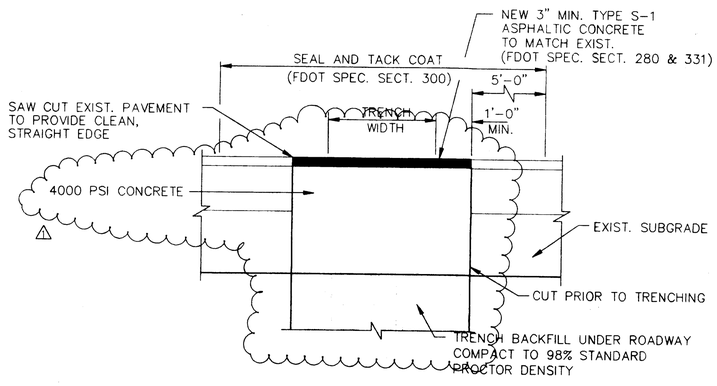
ASPHALT PAVEMENT DETAIL 2 / C8 — C4,C8



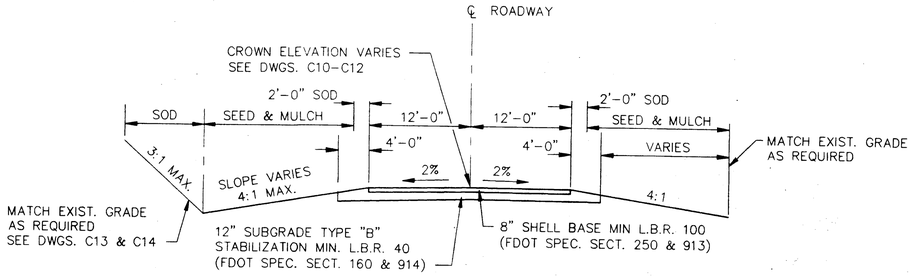
TYPICAL ASPHALT ROADWAY CROSS SECTION B / C8 — C7,C12



SIDEWALK RAMP DETAIL 6 / C4 C8



ASPHALT PAVEMENT RESTORATION DETAIL 3 / M8 C8



TYPICAL SHELL ROADWAY CROSS SECTION C / C10 C8

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV.	DATE	DESCRIPTION	CK. BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: **CIVIL DETAILS 1**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3002 U.S. HWY 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-0757

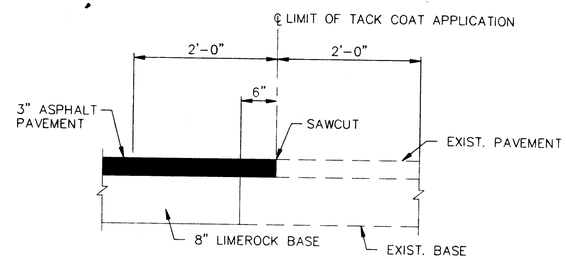
PROJ NO.	DWN. BY	CHK. BY	D/A DWN BY	APP. BY
0900018.42	BLJ/VDR	LKW/SMH	ERC	RBG
DSN. BY	DET. BY			
LER/RAS				

CADD FILE: CDET1

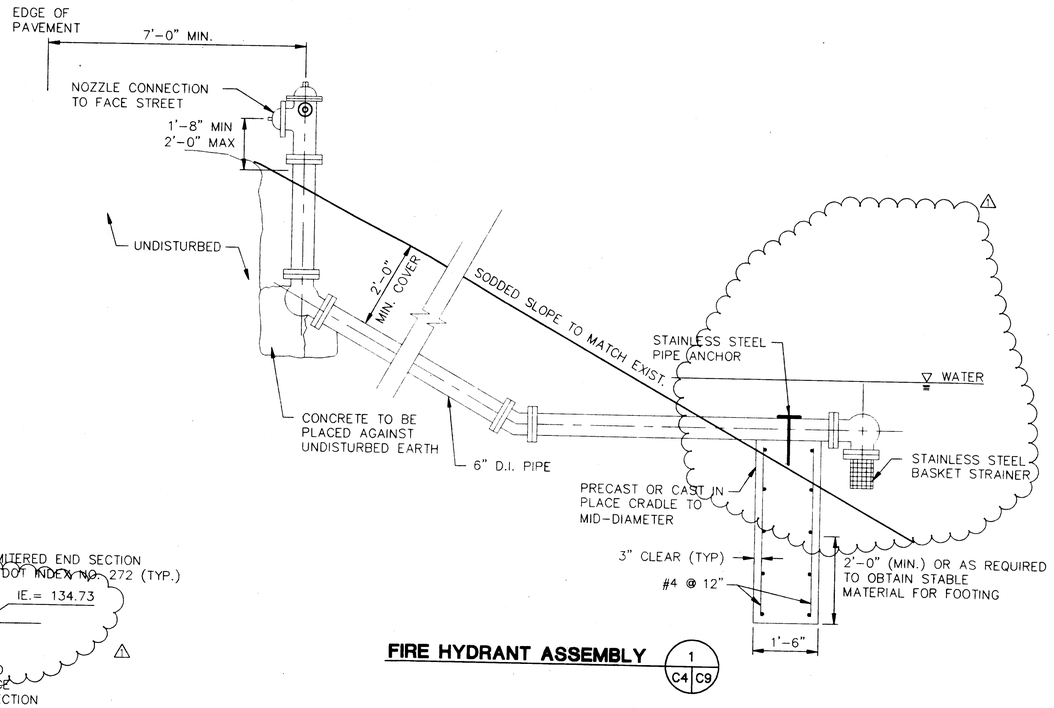
DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

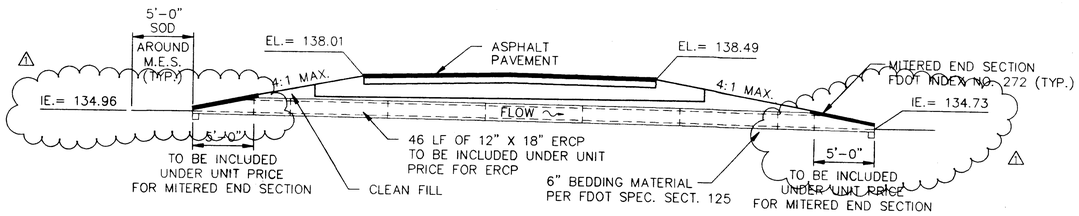
DRAWING NO. **C8** of **15**



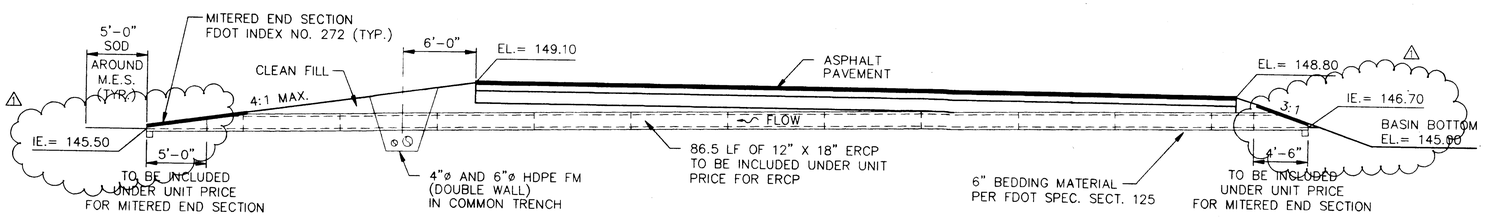
ASPHALT PAVEMENT CONNECTION DETAIL 3 (C7 | C9)



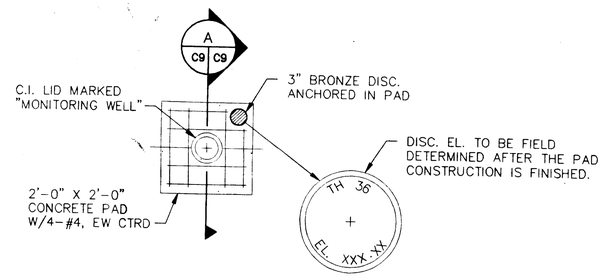
FIRE HYDRANT ASSEMBLY 1 (C4 | C9)



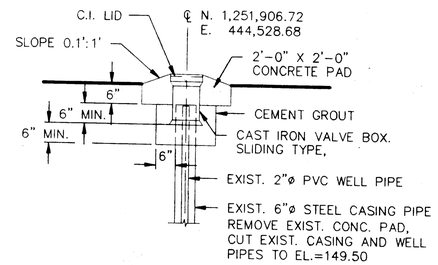
DETAIL 4 (C7 | C9)



DETAIL 5 (C5 | C9)



MONITORING WELL #36 TRAFFIC BOX DETAIL 2 (C4,C5 | C9)



SECTION A (C9 | C9)

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK. BY
1	12/7/94	As-Built	RAS

DRAWING TITLE: CIVIL DETAILS 2

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO.	DWN. BY	CK'A CHK BY	APP. BY
0930018.42	BLJ/VDR	ERC	RBG
TASK NO.	CHK.		
LER/RAS	LER/SMH		

CADD FILE: CDET2

DATE: APRIL 26, 1992

SCALE: NOT TO SCALE

DRAWING NO. C9 of 15

E. 442,500

N. 1,251,000

E. 443,000

E. 443,500

N. 1,250,500

MATCH LINE
STA. 10+00
SEE DWG. C11

6" HDPE (DBL. WALL)
AND 4" HDPE FORCE MAINS

LIMITS OF CONSTRUCTION

PT = 9+35.18

SEE TYPICAL SECTION C (C10 | C8)

SPEED SIGN
(25 MPH)

CURVE NO. ①
Δ = 26°19'03"
R = 400.00'
T = 93.52'
L = 183.73'

BEGIN STATIONING
N. 1250909.92
E. 442477.64

THRUST BLOCK (TYP.)
SEE DETAIL 8 (C10 | M8)

EXISTING 48" X 76" RCP
TO REMAIN
I.E. (S) = 131.91
I.E. (N) = 131.67

BEGIN CONSTRUCTION OF SHELL ROAD AND CONNECT TO EXISTING PAVEMENT
STA. 5+84.79
N. 1250644.45
E. 442882.87

10'-0" TYP.

EDGE OF SHELL ROAD (TYP.)

STA. 3+62.77, 19' LT.
90° BEND

STOP SIGN

PC = 7+51.45

35' R.

N 46°39'58" E
37.94'

S 58°23'00" E
128.71'

PI = 7+11.97

EDGE OF SHELL ROAD

SEE DWG. C7 FOR
DRIVEWAY ℄ DATA

STA. 6+79, 22' LT.
BEND LONG RADIUS
SEED AND MULCH

S 46°39'58" W
119.94'

STOP SIGN

CONNECT TO
EXISTING PAVEMENT

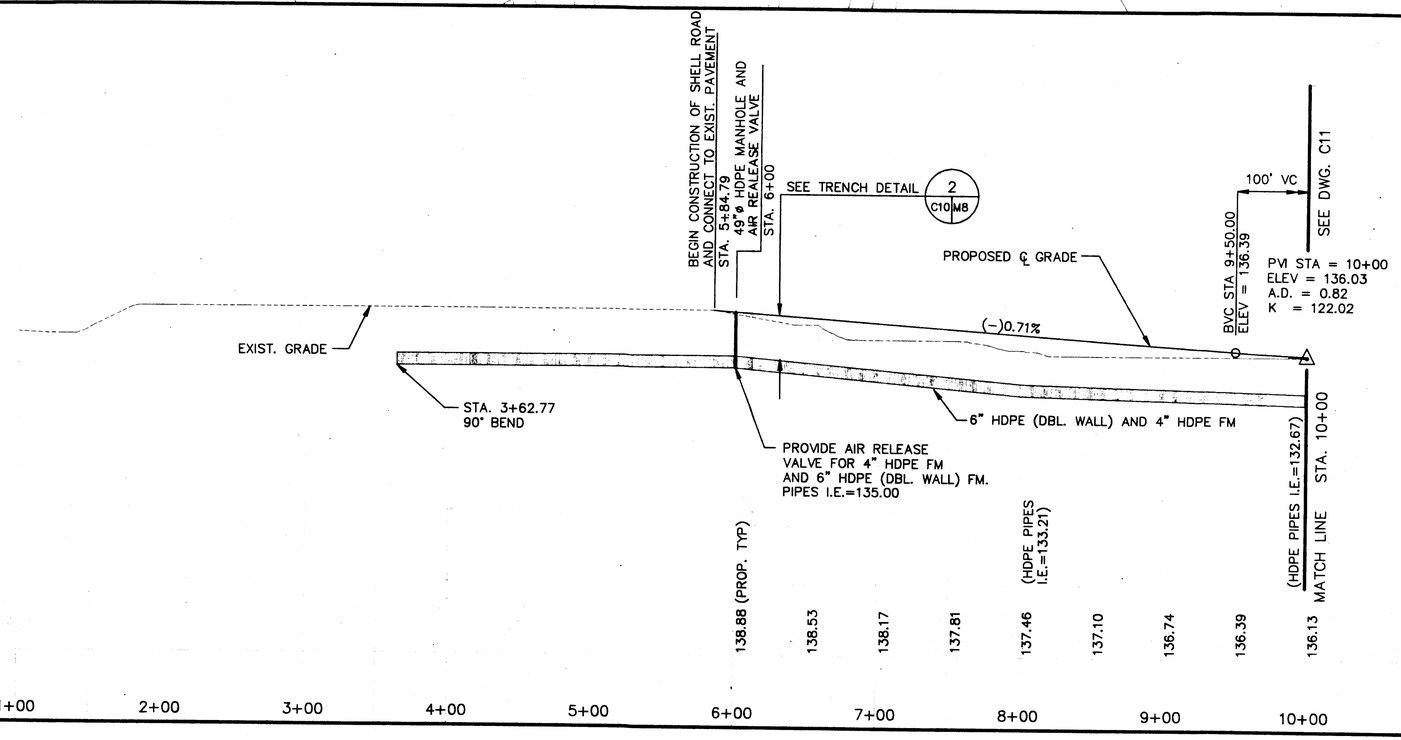
N. 1250494.67
E. 442905.24

SEE DWG. C7 FOR CONNECTION
TO PUMP STATION AND EFFLUENT BASIN

INSTRUCTIONAL SIGN
← TIRE SHREADING FACILITY
↑ LEACHATE TREATMENT FACILITY

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

SCALE: 1"=50' HORIZ.
1"=5' VERT.



NO. | REVISION | DATE

SHEET TITLE: PLAN AND PROFILE STA. 1+00 TO 10+00

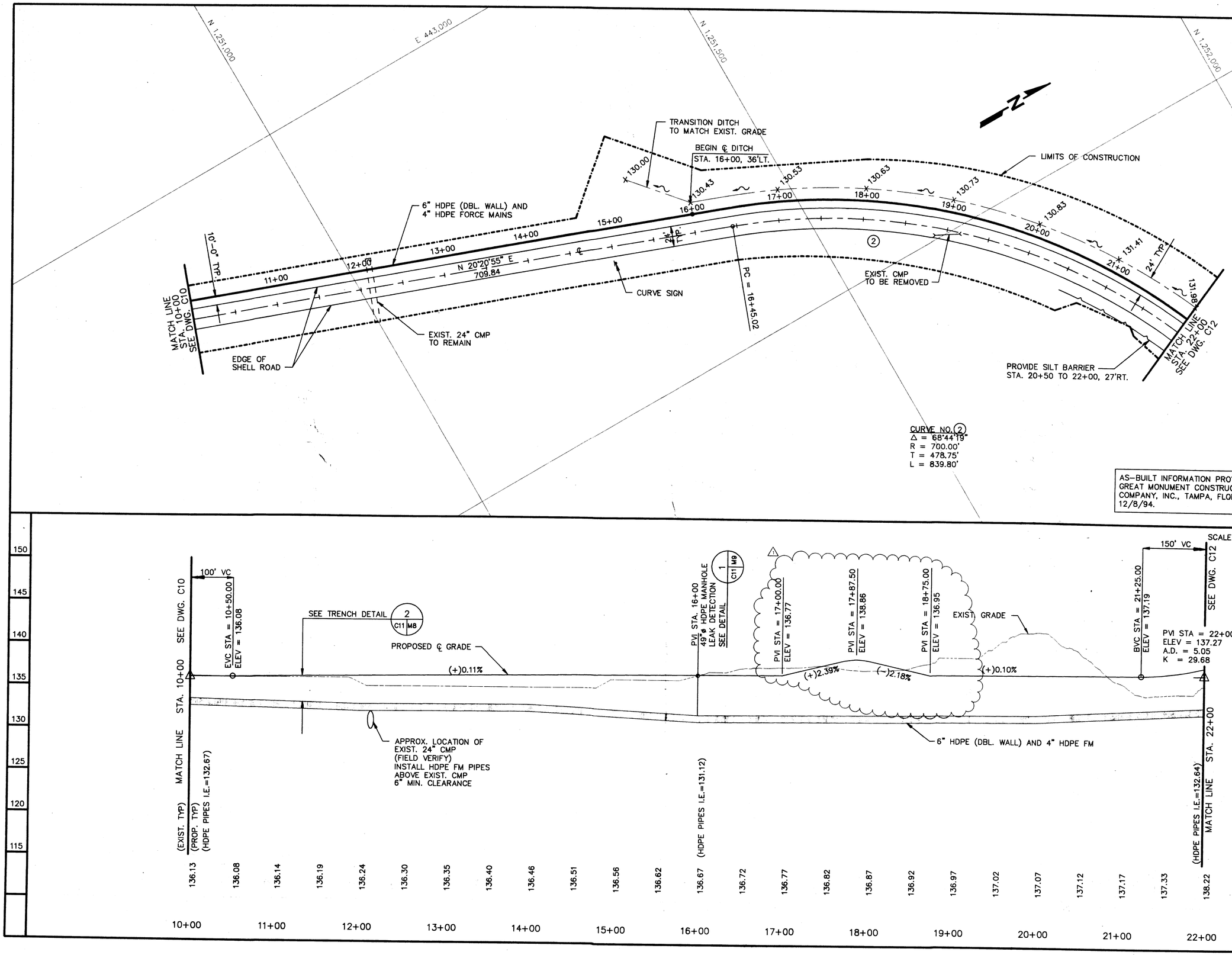
PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

HILLSBOROUGH COUNTY
DEPARTMENT OF SOLID WASTE
TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO. 0990018.42
DSN. BY: LER/RAS
DWN. BY: RAS
CHK. BY: LER/SMH
Q/A REVIEW: ERC
APP. BY: RBG

CAD FILE: CPP1
DATE: APRIL 27, 1992
SCALE: AS SHOWN
DRAWING NO. C10 of 15



REV.	DATE	REVISION	CK BY
	12/7/94	As-Built	RAS

SHEET TITLE: **PLAN AND PROFILE STA. 10+00 TO 22+00**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE

TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO.	DWN. BY	CK'D BY	APP. BY
0990018.42	RAS	ERC	RBC
DSN. BY	CHK. BY		
ERC/RAS	ERC/SMH		

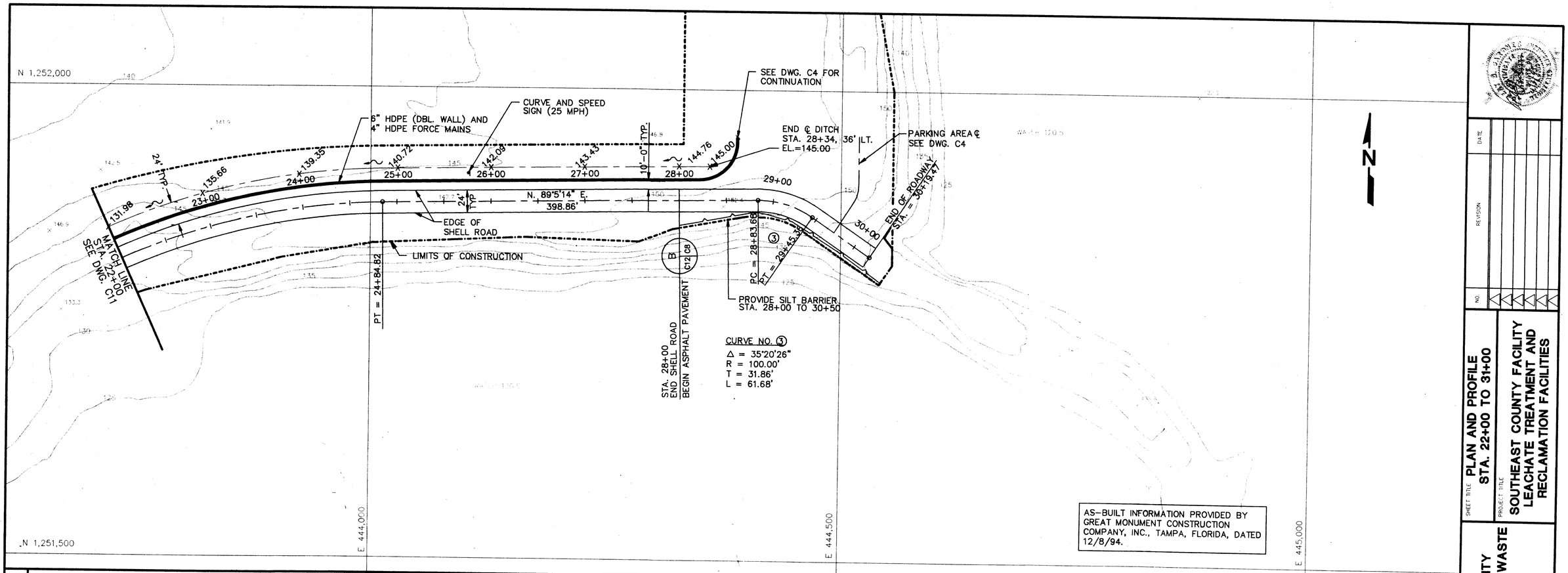
CAD FILE: CPP2

DATE: APRIL 27, 1992

SCALE: AS SHOWN

DRAWING NO.

C11 of 15



SHEET TITLE: PLAN AND PROFILE STA. 22+00 TO 31+00

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

NO. | REVISION | DATE

HILLSBOROUGH COUNTY
DEPARTMENT OF SOLID WASTE
TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

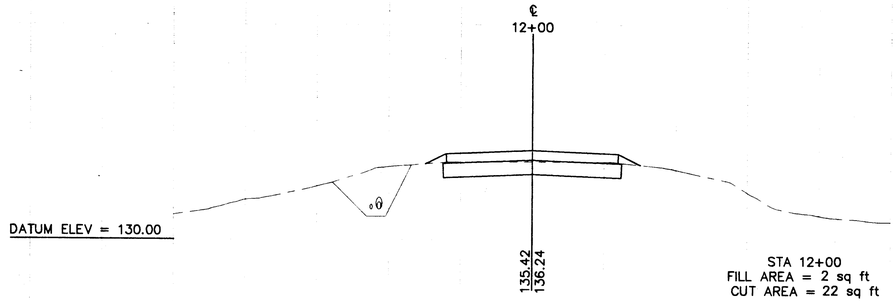
PROJ. NO. 09900018.42
DSN. BY: LER/RAS
DWN. BY: RAS
CHK. BY: LER/SMH
D/A RVW BY: ERC
APP. BY: RBG

CAD FILE: CPP3

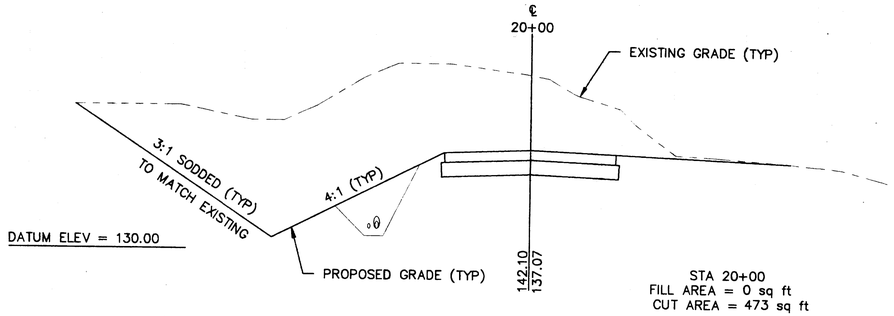
DATE: APRIL 27, 1992

SCALE: AS SHOWN

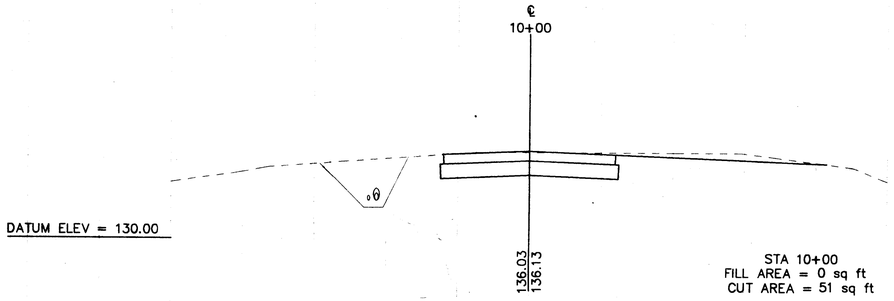
DRAWING NO. C12 of 15



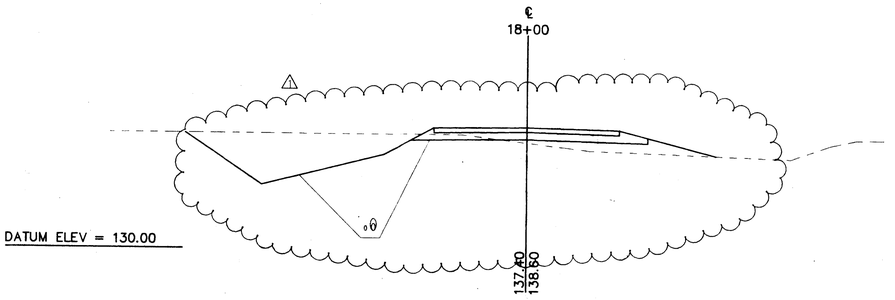
STA 12+00
FILL AREA = 2 sq ft
CUT AREA = 22 sq ft

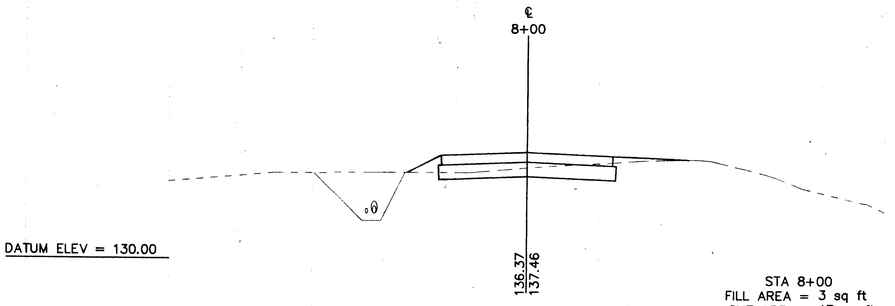


STA 20+00
FILL AREA = 0 sq ft
CUT AREA = 473 sq ft

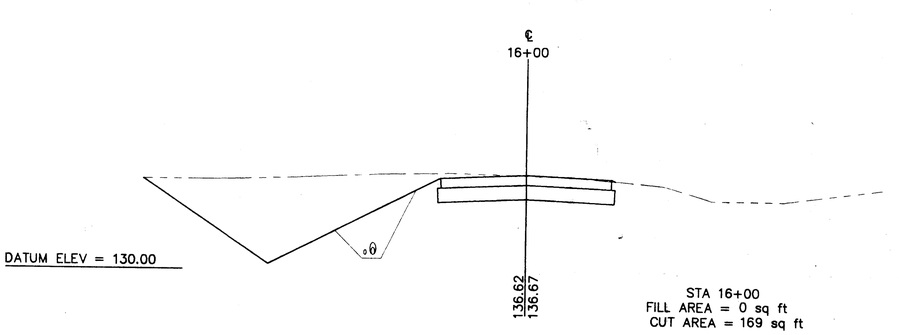


STA 10+00
FILL AREA = 0 sq ft
CUT AREA = 51 sq ft

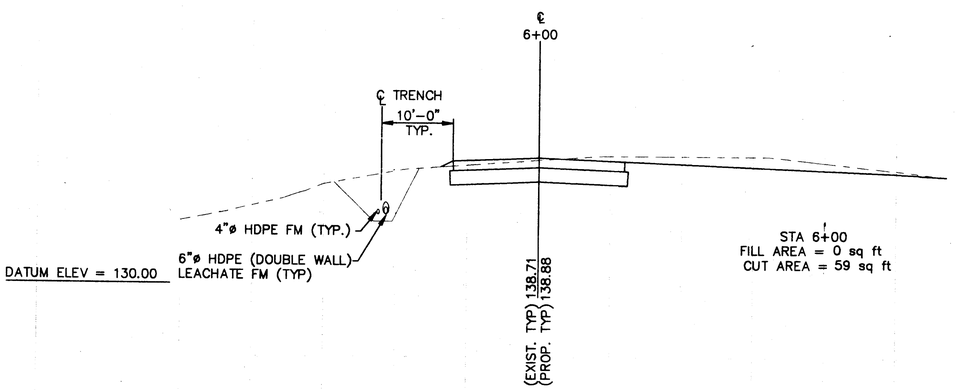




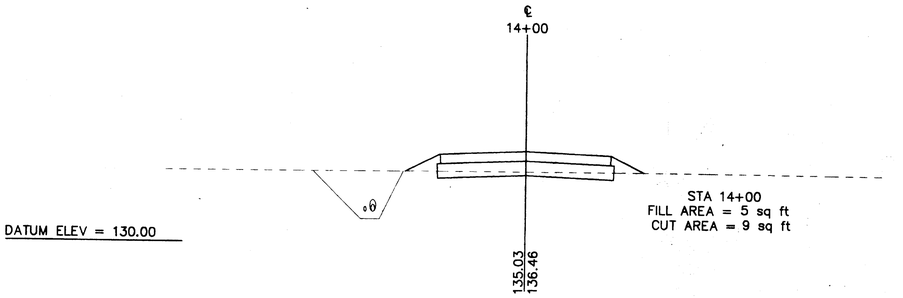
STA 8+00
FILL AREA = 3 sq ft
CUT AREA = 17 sq ft



STA 16+00
FILL AREA = 0 sq ft
CUT AREA = 169 sq ft



STA 6+00
FILL AREA = 0 sq ft
CUT AREA = 59 sq ft



STA 14+00
FILL AREA = 5 sq ft
CUT AREA = 9 sq ft

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

SCALE : 1" = 10' HORIZ.
1" = 5' VERT.

REV	DATE	DESCRIPTION	CK. BY
1	12/8/94	As-Built	RAS

DRAWING TITLE
CROSS SECTIONS STA. 8+00 TO 20+00

PROJECT TITLE
SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT
HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

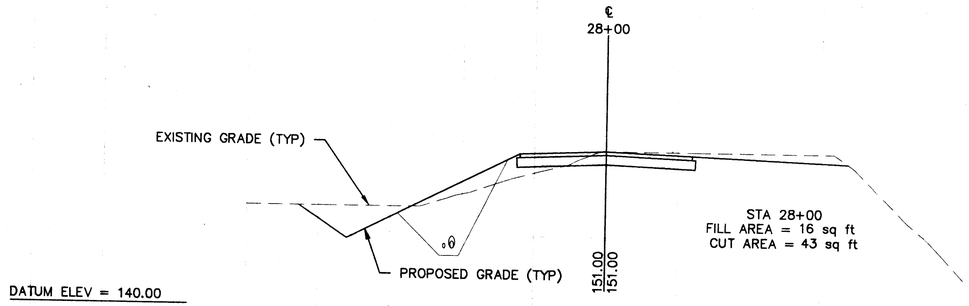
PROJECT NO. 0990018.42
DSN. BY: RAS
DWN. BY: RAS
CHK. BY: LER/SMH
Q/A REVIEW BY: LER
APP. BY: RBG

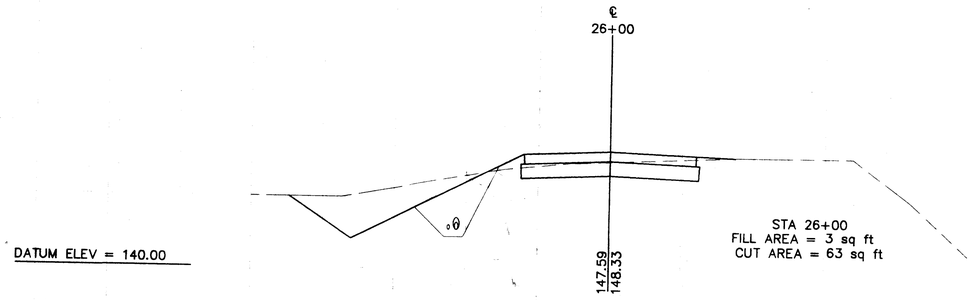
CADD FILE: CSECT1

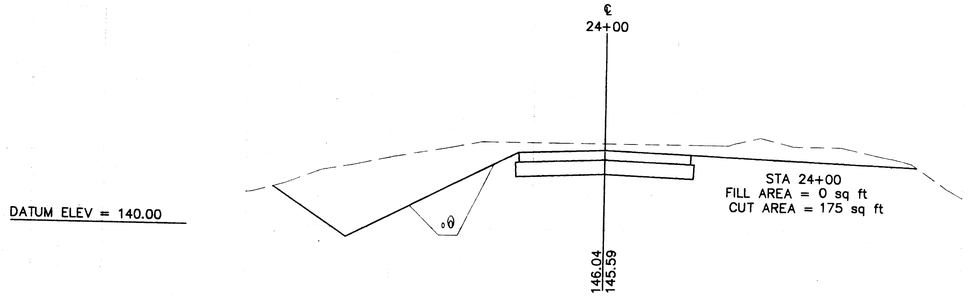
DATE: APRIL 27, 1992

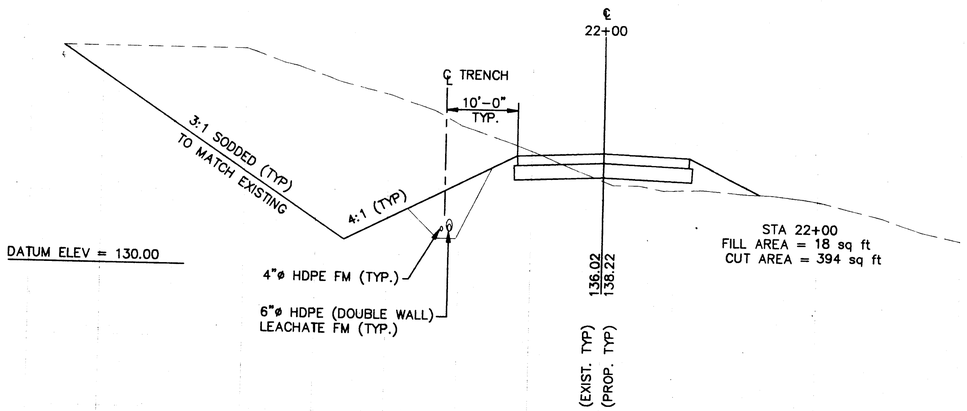
SCALE: AS SHOWN

DRAWING NO.
C13 of 15

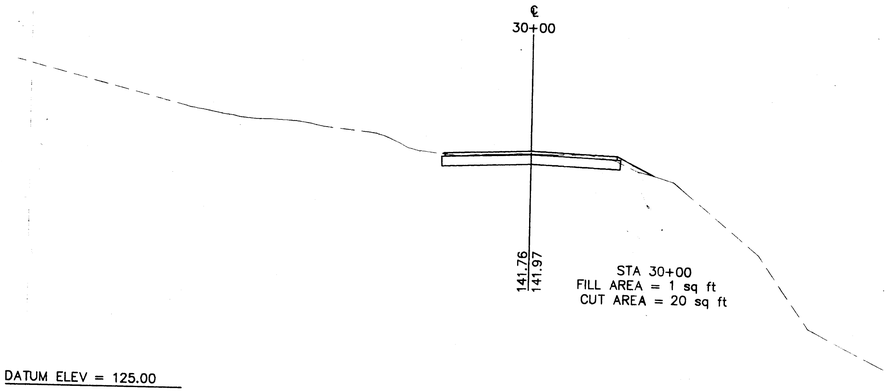


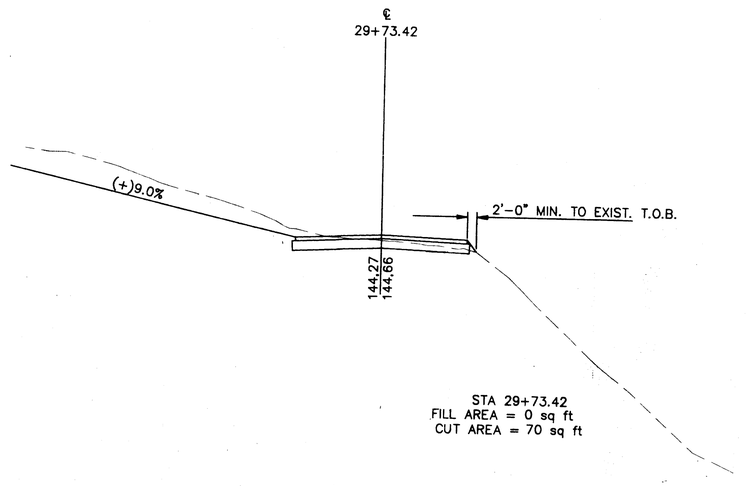






STATION	AREAS in SQ FT		VOLUMES in CU. YDS.	
	CUT	FILL	CUT	FILL
6+00	59	0		
8+00	17	3	280	12
10+00	51	0	252	11
12+00	22	2	274	8
14+00	9	5	116	26
16+00	169	0	658	18
18+00	248	0	1546	0
20+00	473	0	2673	0
22+00	394	18	3212	68
24+00	175	0	2106	68
26+00	63	3	881	10
28+00	43	16	393	68
29+73.42	70	0	365	50
30+00	20	1	45	1
			12800	340





AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

SCALE: 1" = 10' HORIZ.
1" = 5' VERT.

REV | DATE | DESCRIPTION | CK. BY

DRAWING TITLE: CROSS SECTIONS STA. 22+00 TO 30+00

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO. 09900018.42 | DWN. BY RAS | CHK. BY LER/SMH | QA REVIEW BY RBG | DES. BY RAS

CADD FILE: CSECT2

DATE: APRIL 27, 1992

SCALE: AS SHOWN

DRAWING NO. C14 of 15

LEGEND

SP,SP–SM: FINE SAND AND SLIGHTLY SILTY FINE SAND (TAILINGS)

SP: FINE SAND WITH ROCK FRAGMENTS, SHELL OR CEMENTED SAND (TAILINGS)

MH–CH: GREENISH–GREYISH PHOSPHATIC CLAY (SLIME), TRACE SAND

SP,SP–SM: FINE SAND AND SLIGHTLY SILTY FINE SAND

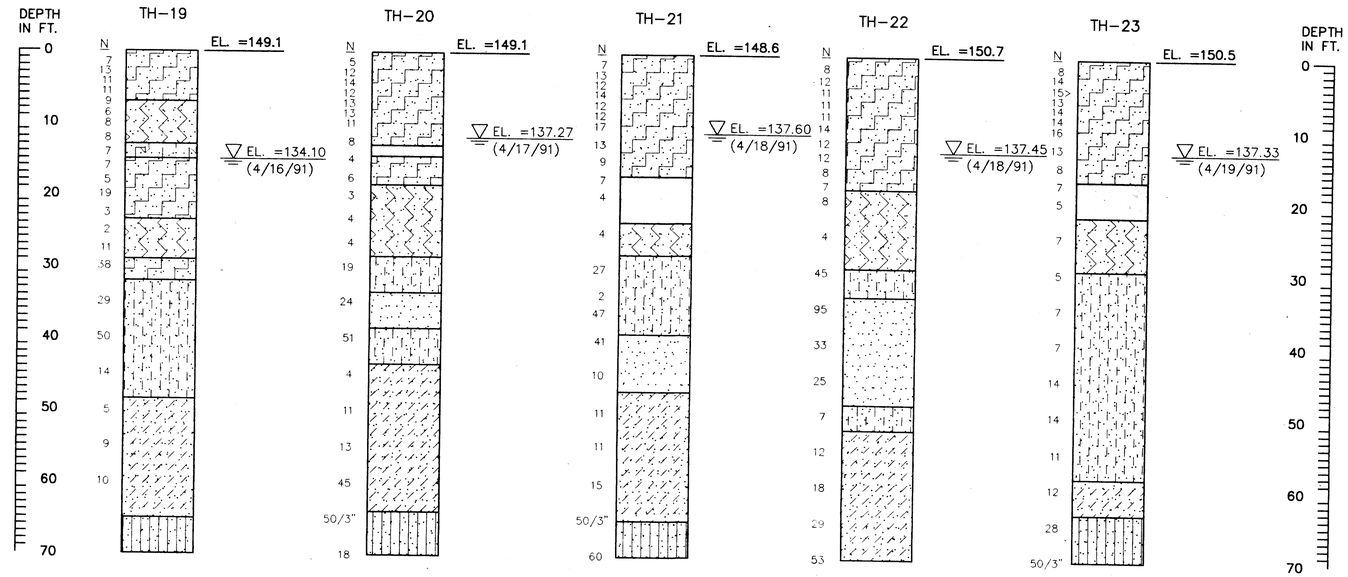
SM: SLIGHTLY SILTY TO SILTY FINE SAND ▽ EL. =134.1 (4/16/91) GROUND WATER ELEVATION (DATE OF DRILLING)

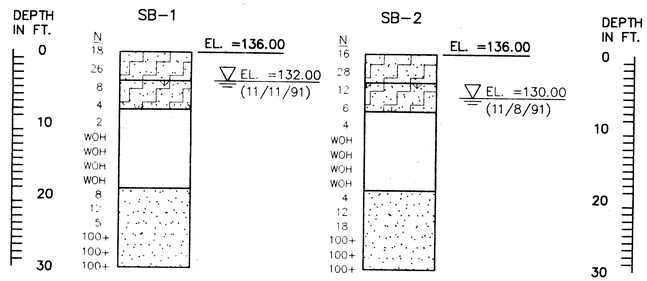
MH: CLAYEY SILT WITH SAND AND PHOSPHATE

SC: CLAYEY SAND, CLAYEY SAND WITH PHOSPHATE

CH: SANDY CLAY

SC–SM: CLAYEY SAND OR SILTY SAND, OCCASIONAL PHOSPHATE (FILL)





NOTE:

BORINGS COMPILED FROM FIELD REPORT BY ARDAMAN AND ASSOCIATES, INC. DATED 5–2–91 AND ATLANTA TESTING AND ENGINEERING DATED 11–26–91. N VALVES DERIVED FROM STANDARD PENETRATION TESTING (SPT) EQUALS NUMBER OF 140 LB. HAMMER FALLING 30 INCHES REQ'D TO DRIVE 1.4 INCH I.D. SAMPLER 1 FOOT.

AS–BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV | DATE | DESCRIPTION | CK BY

DRAWING TITLE: SOIL BORINGS AND LEGEND

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 US HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-0757

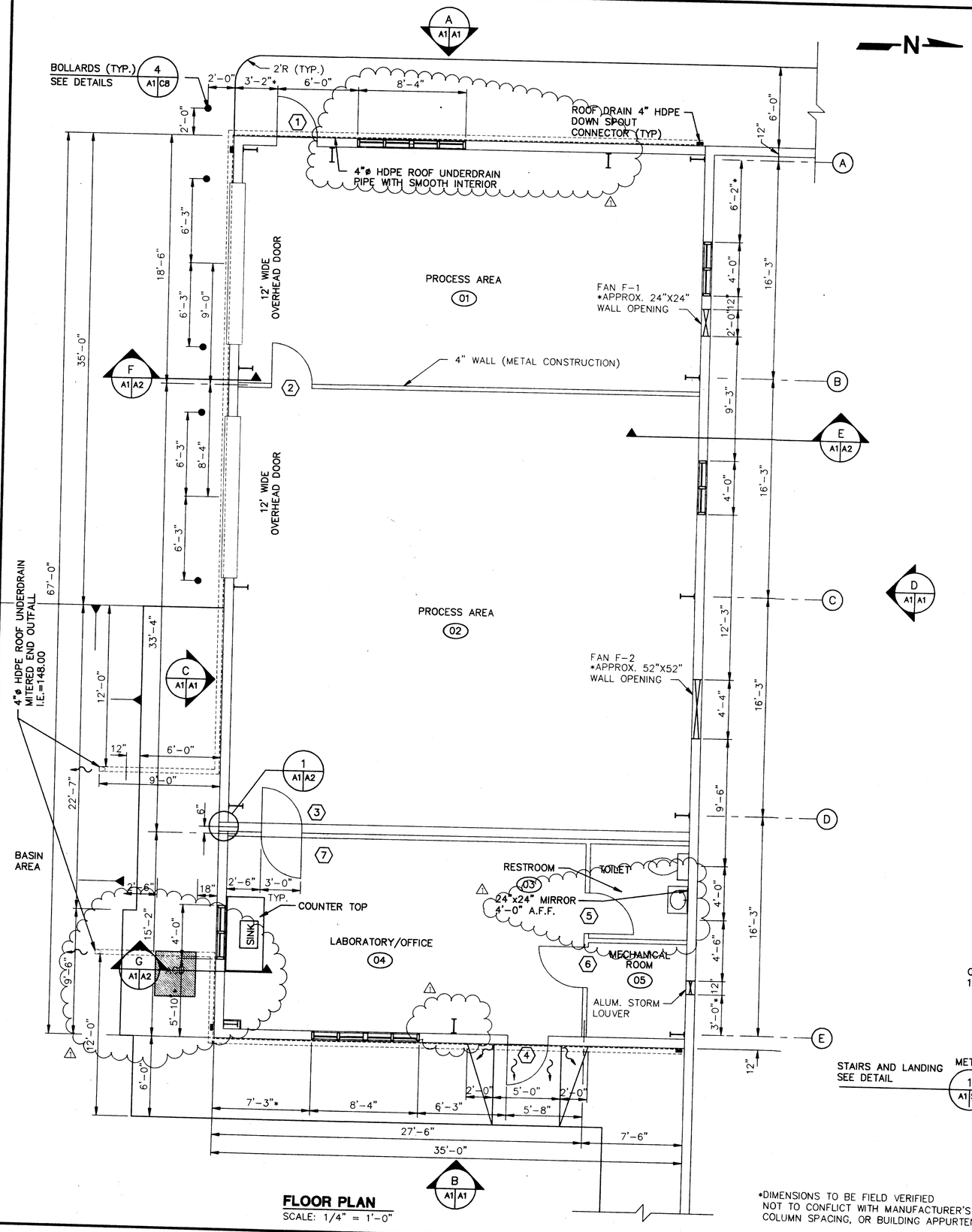
PROJ. NO. 09J0018.42 | DSN BY: DEP | DWN. BY: BLJ | CHK. BY: LER/SMH | O/A DWG BY: ERC | APP. BY: RBG

CADD FILE: CBORPROF

DATE: APRIL 27, 1992

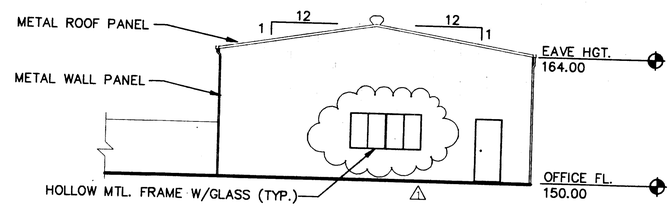
SCALE: NOT TO SCALE

DRAWING NO. C15 of 15

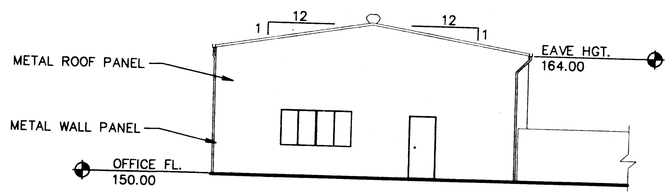


FLOOR PLAN
SCALE: 1/4" = 1'-0"

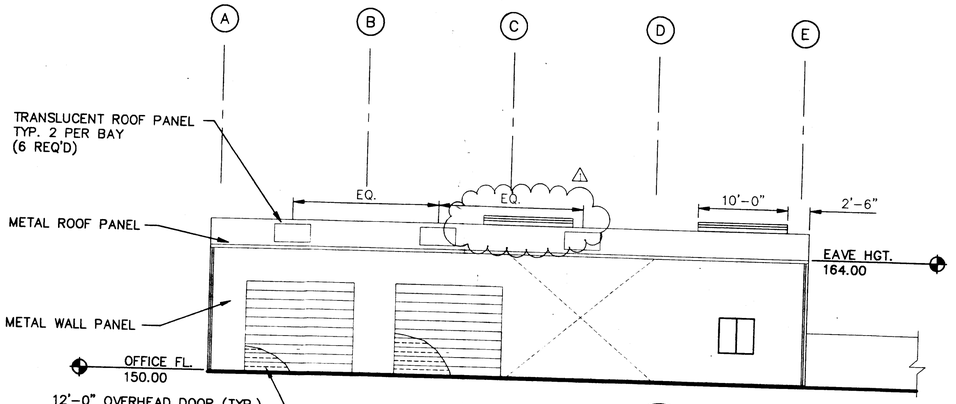
*DIMENSIONS TO BE FIELD VERIFIED NOT TO CONFLICT WITH MANUFACTURER'S COLUMN SPACING, OR BUILDING APPURTENANCES.



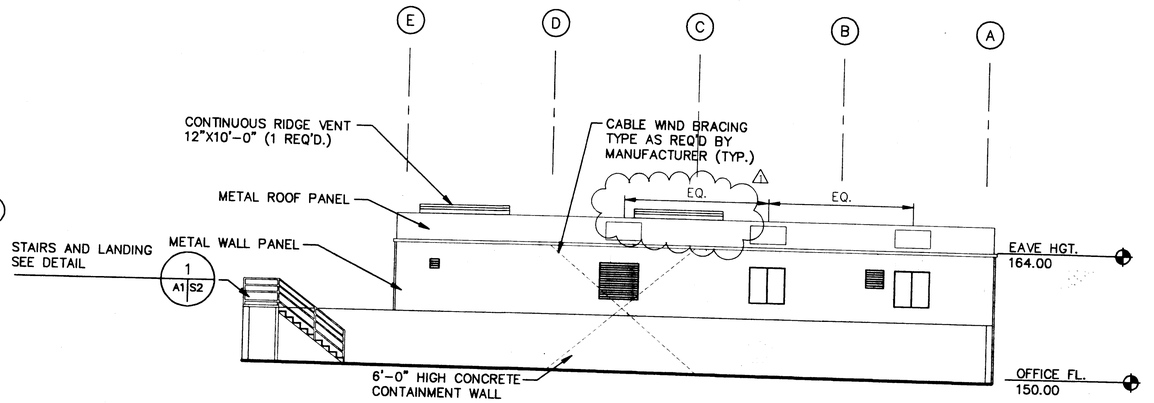
WEST ELEVATION A A1 A1
SCALE: 1/8" = 1'-0"



EAST ELEVATION B A1 A1
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION C A1 A1
SCALE: 1/8" = 1'-0"



NORTH ELEVATION D A1 A1
SCALE: 1/8" = 1'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK. BY
1	12/8/94	As-Built	RAS

DRAWING TITLE: **ARCHITECTURAL BUILDING PLAN AND ELEVATIONS**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL. 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

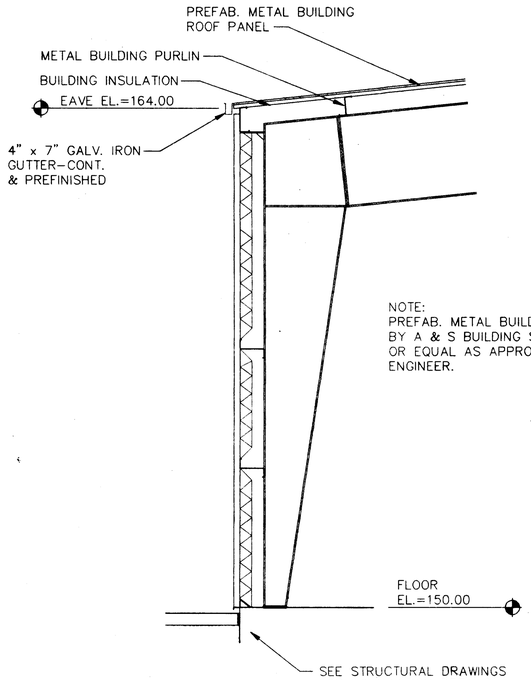
PROJ. NO.	DSN. BY	CHK. BY	S/A PWR BY
0990018.42	BLJ/RAS	ERC	
DSN. BY	DRW. BY	CHK. BY	APP. BY
LER/RAS	LER/SMH	RBG	

CADD FILE: AOFFPLAN

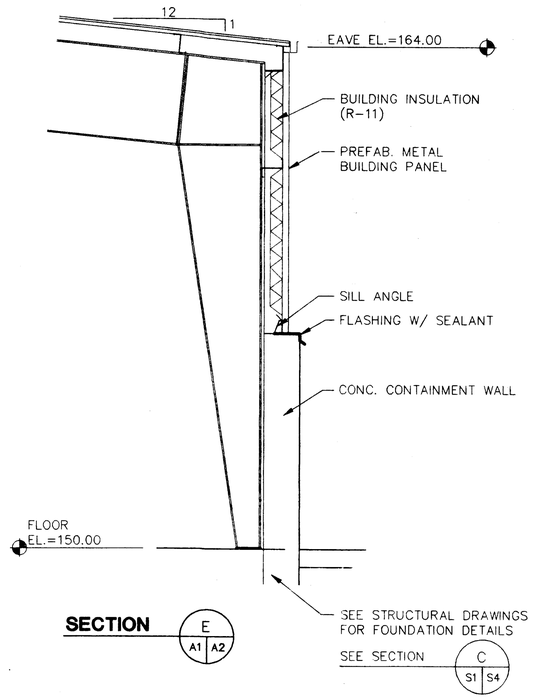
DATE: APRIL 27 1992

SCALE: AS SHOWN

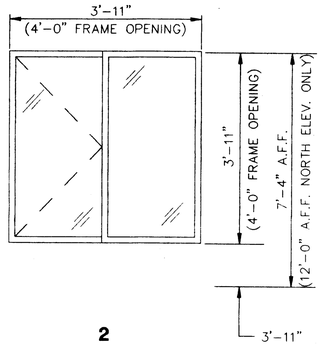
DRAWING NO. **A1** of 2



SECTION F (A1 | A2)



SECTION E (A1 | A2)



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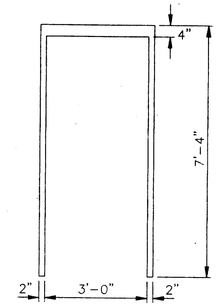

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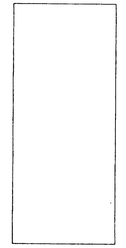
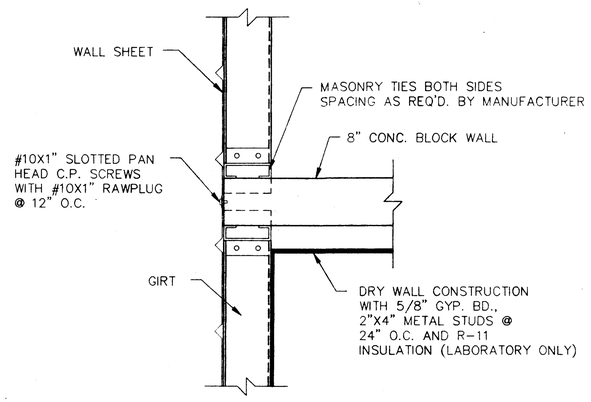
TYP. FRAMES TYPES



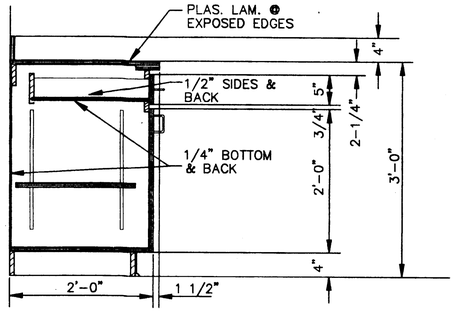
A

HOLLOW METAL (H.M.)/SOLID CORE (S.C.) METAL DOOR

TYP. DOOR



CONCRETE WALL CONNECTION DETAIL 1 (A1 | A2)



CASEWORK SECTION G (A1 | A2)

SCALE: 1"=1'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

FINISH SCHEDULE

NO.	NAME	ROOM	FLOOR MAT	FLOOR FIN	FLOOR COL	BASE MAT	BASE FIN	BASE COL	WALLS NORTH MAT	NORTH FIN	NORTH COL	NORTH TRM COL	WALLS SOUTH MAT	SOUTH FIN	SOUTH COL	SOUTH TRM COL	WALLS EAST MAT	EAST FIN	EAST COL	EAST TRM COL	WALLS WEST MAT	WEST FIN	WEST COL	WEST TRM COL	CEILING MAT	CEILING FIN	CEILING COL	CEILING HGT	NOTES
01	PROCESS AREA		1	SL	F	4	NO	F	3	PT	A	A	3	PT	A	A	3	PT	A	A	3	PT	A	A		NO	E	OPEN	
02	PROCESS AREA		1	SL	F	4	NO	F	3	PT	A	A	3	PT	A	A	3	PT	A	A	3	PT	A	A		NO	E	OPEN	
03	RESTROOM		1	VCT	D	VCT	RB	G	2	PT	B	C	2	PT	B	C	2	PT	B	C	2	PT	B	C		LT	E	8'-0"	
04	LABORATORY/OFFICE		1	VCT	D	VCT	RB	G	2	PT	B	C	2	PT	B	C	2	PT	B	C	2	PT	B	C		LT	E	8'-0"	
05	MECHANICAL		1	SL	D	4	NO	G	2	PT	B	C	2	PT	B	C	2	PT	B	C	2	PT	B	C		NO	E	OPEN	

DOOR SCHEDULE

NO.	FUNCTION	DOOR SIZE	DOOR TYPE	DOOR MAT.	DOOR COLOR	FRAME TYPE	FRAME MAT.	FRAME COLOR	NOTES
01	EXTERIOR	3'-0" x 7'-0" x 1 3/4"	A S.C.	3	A	1	3	A	W/THRESHOLD
02	INTERIOR	3'-0" x 7'-0" x 1 3/4"	A H.H.	3	B	1	3	A	
03	INTERIOR	3'-0" x 7'-0" x 1 3/4"	A S.C.	3	B	1	3	B	W/THRESHOLD
04	EXTERIOR	3'-0" x 7'-0" x 1 3/4"	A S.C.	3	A	1	3	A	W/THRESHOLD
05	INTERIOR	3'-0" x 7'-0" x 1 3/4"	A H.H.	3	B	1	3	B	
06	INTERIOR	3'-0" x 7'-0" x 1 3/4"	A H.H.	3	B	1	3	B	
07	INTERIOR	3'-0" x 7'-0" x 1 3/4"	A S.C.	3	B	1	3	B	W/THRESHOLD

FINISH SCHEDULE NOTES

MATERIAL
1 CONCRETE
2 GYPSUM BOARD
3 METAL
4 NONE

FINISH
VCT VINYL COMPOSITION TILE
SL SEALER (BROOM FINISH)
PT PAINT
LT LAY-IN CEILING TILE
RB COVE BASE
MT METAL PANELS
NO NONE

COLOR
A VISTACOLOR 20 BIRCH WHITE OR EQUAL
B ACRYLIC LIGHT GRAY FLAT
C ACRYLIC LIGHT GRAY GLOSS
D TARKETT MINERAL GRAY OR EQUAL
E STANDARD WHITE
F NONE
G GRAY

NOTES
1. ALL EXTERIOR DOORS SHALL HAVE WEATHERSTRIPPING AND SWEEPS.
2. PROVIDE DOOR CLOSER.

REV | DATE | DESCRIPTION | CK. BY

DRAWING TITLE: **ARCHITECTURAL DETAILS**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3621 HIGHWY 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

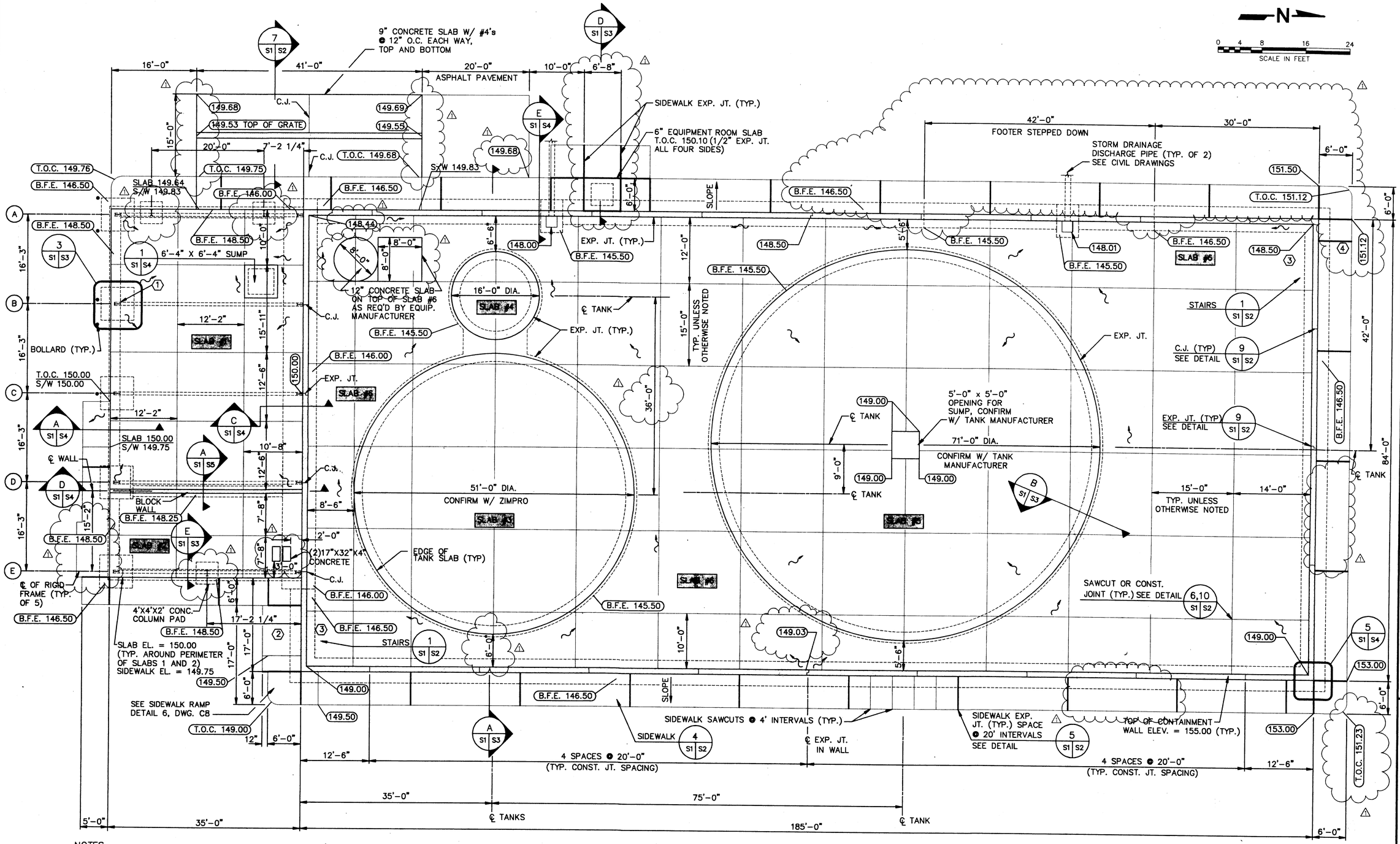
PROJ NO 09190018.42 | DWN BY RAS/ADR | CHK BY LER/SMH | 2/A REV BY ERC | APP BY RBG

CADD FILE: ADET1

DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

DRAWING NO. **A2** of 2



NOTES

1. 2 #6 BARS CONTINUOUS AND WRAPPED AROUND ANCHOR BOLTS. (TYPICAL OF 5 PLACES AT EACH RIGID FRAME).
2. STEEL STAIRS W/ 8 THREADS @ 9" AND 9 RISERS @ 8" MAX. TOP OF CONCRETE LANDING EL. 149.58
3. STEEL STAIRS W/ 9 THREADS @ 9" AND 10 RISERS @ 8" MAX. TOP OF CONCRETE LANDING EL. 148.91
4. STEEL STAIRS WITH 5 THREADS @ 9" AND 6 RISERS @ 8" MAX. TOP OF CONCRETE LANDING EL. 151.58

SEE STRUCTURAL NOTES ON DRAWING S5.

CONCRETE SLAB DATA

- SLAB #1: 9" CONCRETE SLAB W/ #4's @ 12" O.C. TOP AND BOTTOM, EACH WAY, fc' = 4000 P.S.I., T.O.C. VARIES
- SLAB #2: 6" CONCRETE SLAB W/ #3's @ 12" O.C. EACH WAY, fc' = 4000 P.S.I., T.O.C. 150.00
- SLAB #3: 6" CONCRETE SLAB W/ #4'S @ 12" O.C. EACH WAY, fc' = 4000 P.S.I., T.O.C. = 149.25
- SLAB #4: 6" CONCRETE SLAB W/ #4'S @ 12" O.C. EACH WAY, fc' = 4000 P.S.I., T.O.C. = 149.25
- SLAB #5: 6" CONCRETE SLAB W/ #4'S @ 12" O.C. EACH WAY, fc' = 4000 P.S.I., T.O.C. = 149.25 @ PERIMETER
- SLAB #6: 6" CONCRETE SLAB W/ #4's @ 12" O.C. EACH WAY, fc' = 4000 P.S.I., T.O.C. VARIES

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

AYRES ASSOCIATES
3901 Coconut Palm Dr. Suite 100
Tampa, Florida 33619
Phone (813) 628-0742
Fax (813) 628-0939

REV	DATE	DESCRIPTION	CK. BY
1	12/8/94	As-Built	RAS

DRAWING TITLE: STRUCTURAL FOUNDATION PLAN

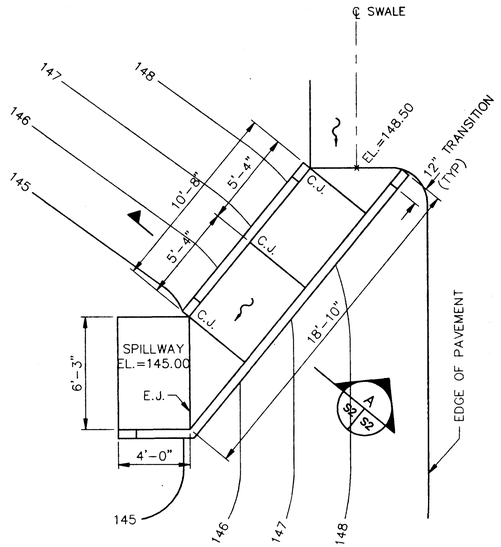
PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-0757

C/A REVW BY: ERC
APP. BY: RBC
DWN. BY: BLL/VDR
CHK. BY: NJ
PROJ. NO. 0950018.42
DSN. BY: NJ/RAS

CADD FILE: S1FOUND
DATE: APRIL 27, 1992
SCALE: 1/8"=1'-0"
DRAWING NO. S1 of 5



CONCRETE FLUME DETAIL 8 (C5 | S2)
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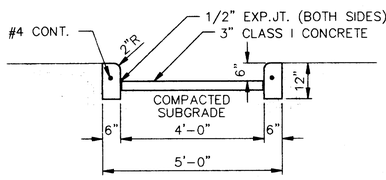
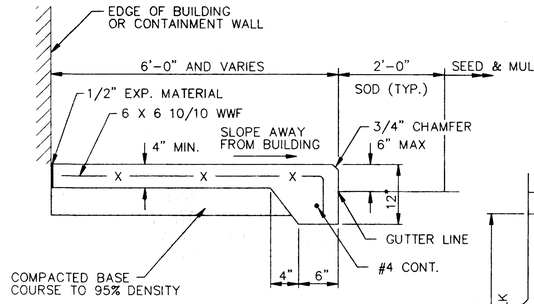
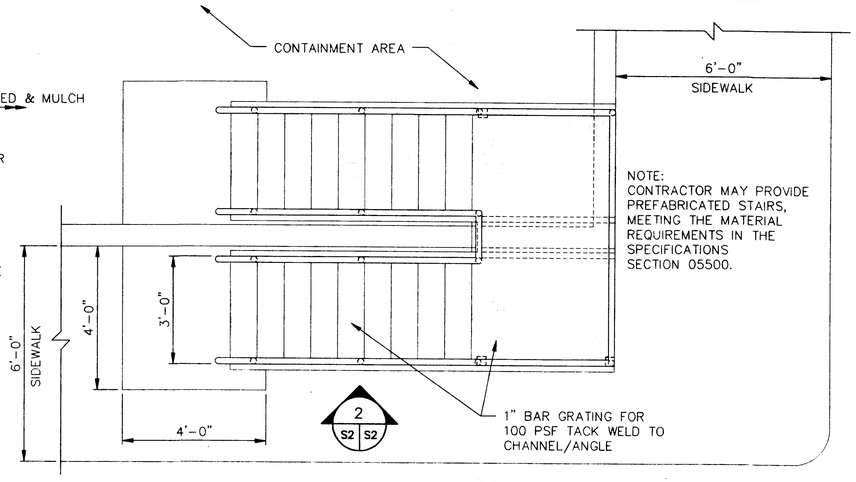


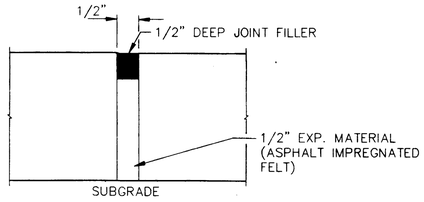
SECTION A (S2 | S2)
SCALE: 1/2"=1'-0"



SIDEWALK DETAIL 4 (S1 | S2)
NOT TO SCALE



ACCESS STAIRS PLAN 1 (S2 | A1,C4,S1)
SCALE: 1/2"=1'-0"



STANDARD EXPANSION JOINT DETAIL 5 (S1 | S2)
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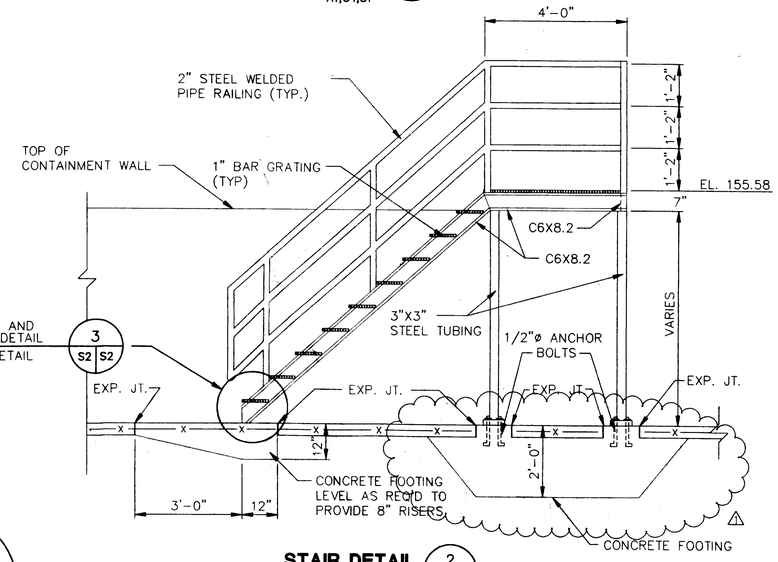

STAIR DETAIL 2 (S2 | S2)
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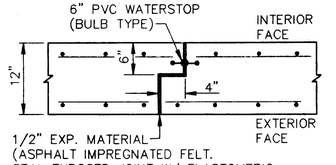
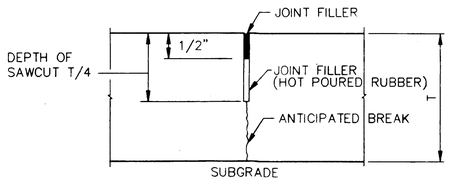


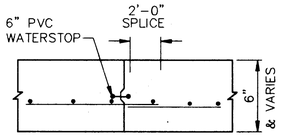
CONSTRUCTION JOINT

EXPANSION JOINT



STANDARD SAWCUT JOINT DETAIL 6 (S1 | S2)
NOT TO SCALE

CONTAINMENT WALL JOINT DETAILS 9 (S1 | S2)
NOT TO SCALE



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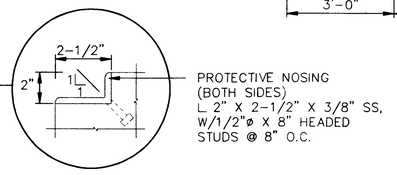

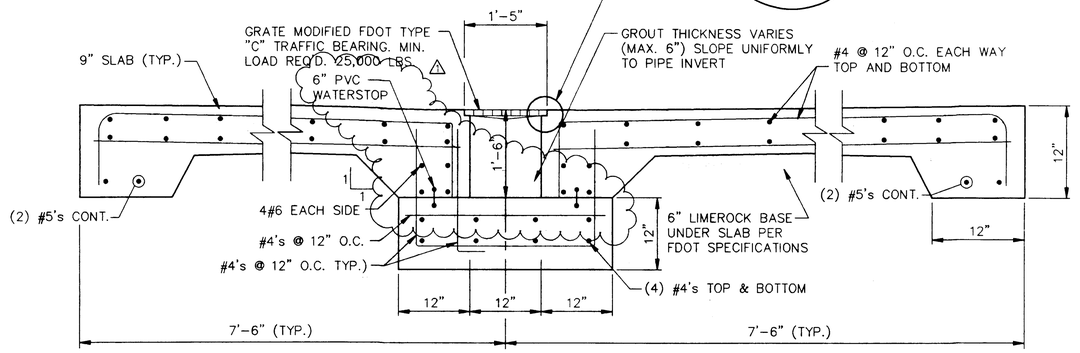

TRENCH DRAIN DETAIL 7 (S2 | C4,C8,M6,S1)
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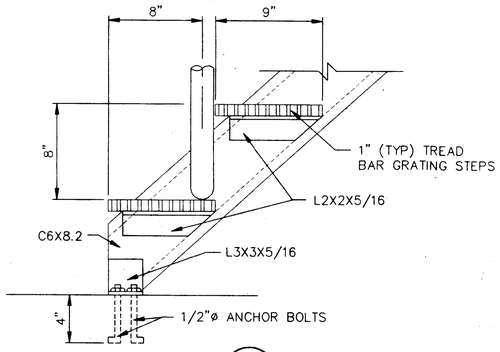

DETAIL 3 (S2 | S2)
NOT TO SCALE

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV.	DATE	DESCRIPTION	CK. BY
1	12/8/94	As-Built	PAS

DRAWING TITLE: **STRUCTURAL DETAILS 1**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-4757

PROJ. NO.	DWN. BY	CHK. BY	QA/QC REVW BY:	APP. BY
0990018.42	BLJ/VDR	NJ	ERC	RBG
DSN. BY: LER/RAS				

CADD FILE: SDET2

DATE: APRIL 27, 1992

SCALE: AS SHOWN

DRAWING NO. **S2** of **5**

AYRES ASSOCIATES
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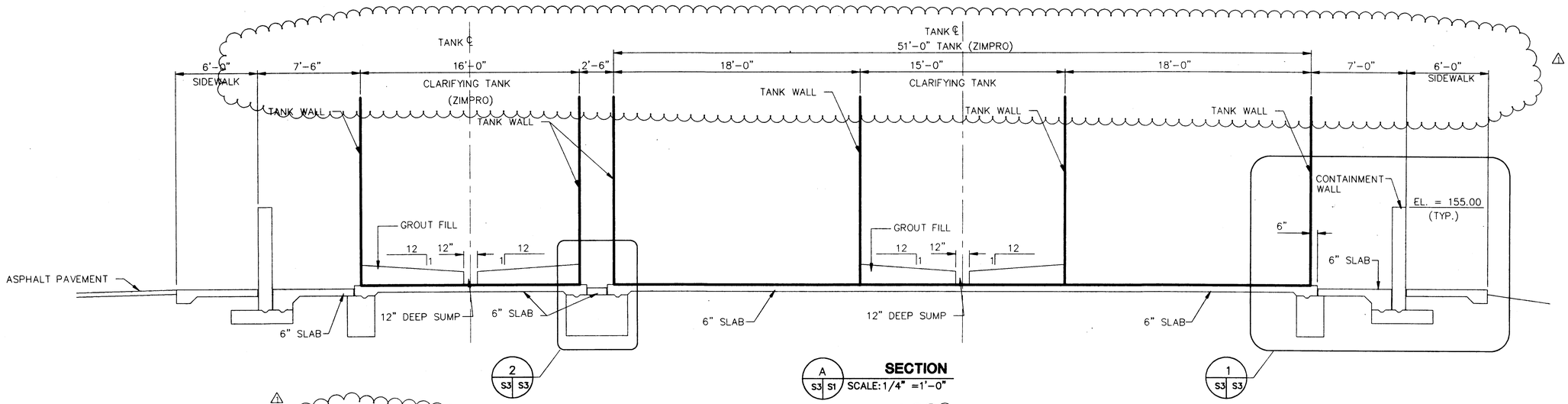
Fax (813) 628-0939



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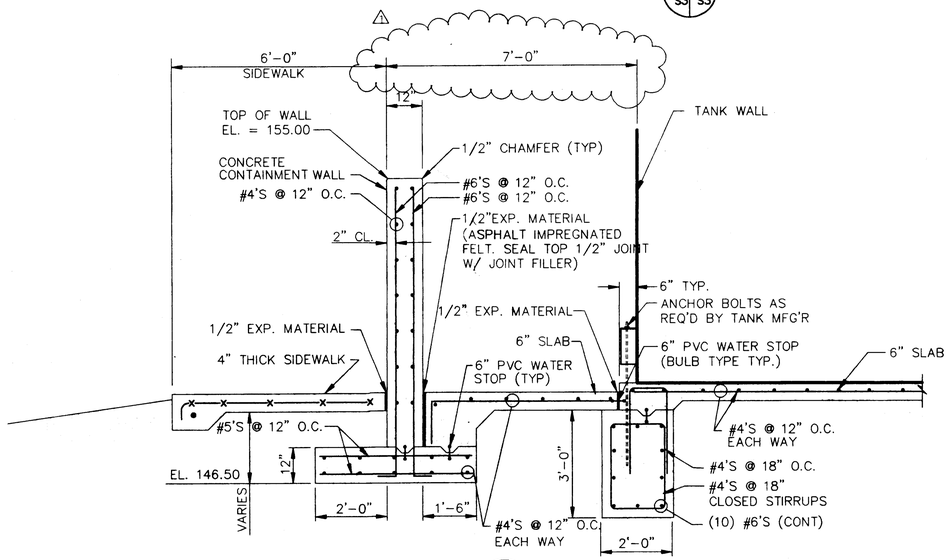

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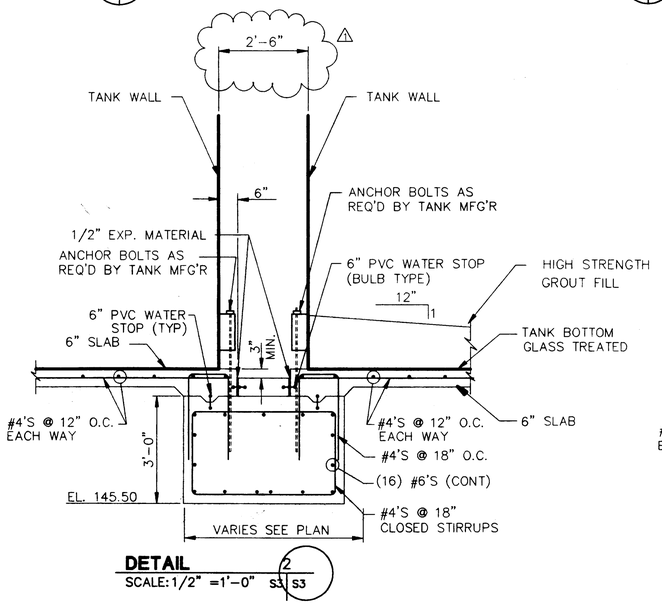

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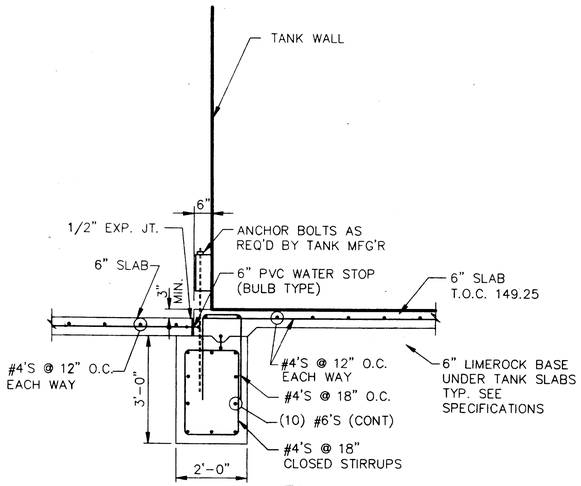

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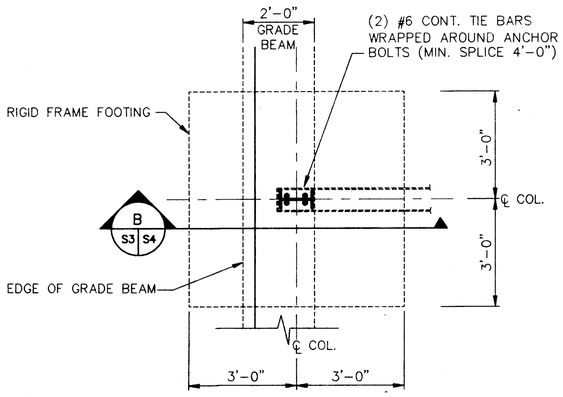

FOOTING DETAIL 3 (S1 | S3)
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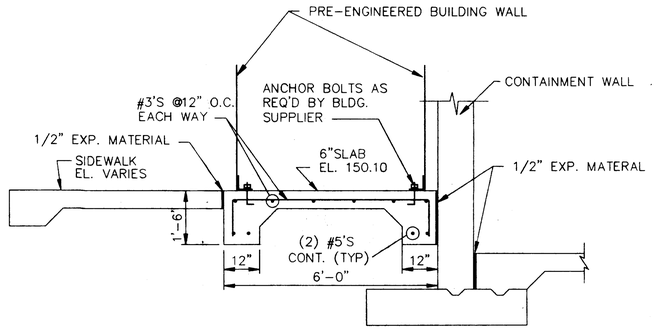

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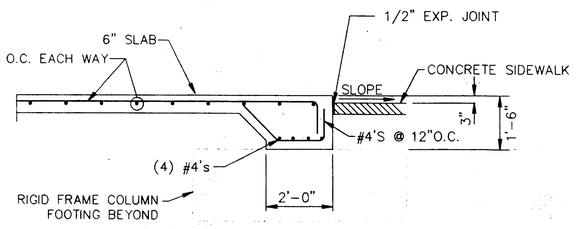

SECTION E (S1 | S3)
SCALE: 1/2" =1'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK BY
1	3/1/95	As-Built	RAS

DRAWING TITLE
STRUCTURAL DETAILS 2

PROJECT TITLE
SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT
HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJECT NO. 09900018.42
DWN. BY: BLJ/VOR
CHK. BY: NJ
QA MGR: ERC
25% BY: RBG
75% BY: WAB/RAS

CADD FILE: SDET3

DATE: APRIL 27, 1992

SCALE: AS SHOWN

DRAWING NO.
S3 of **5**

AYRES ASSOCIATES
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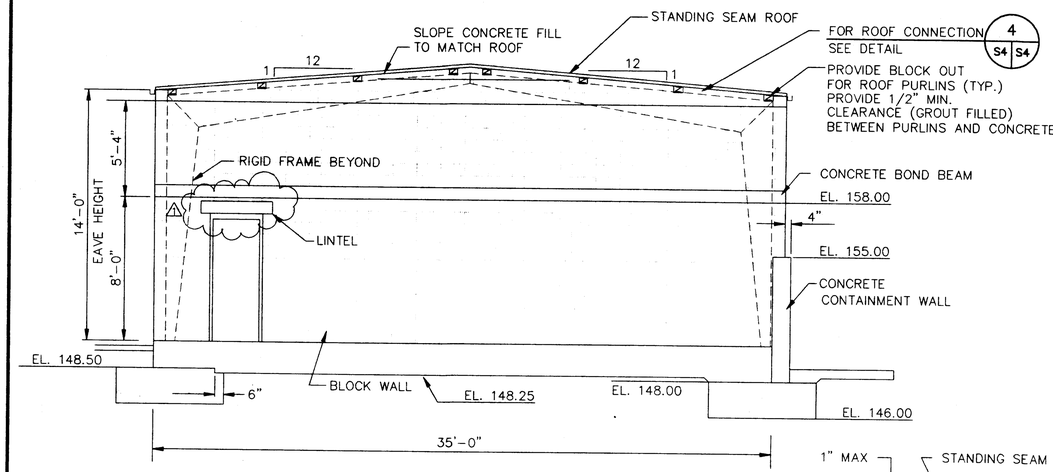
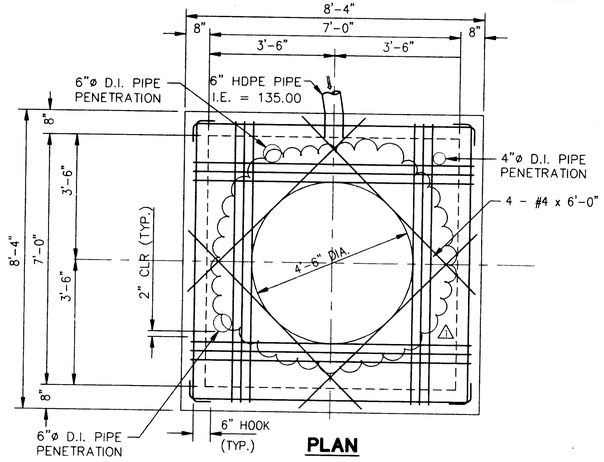
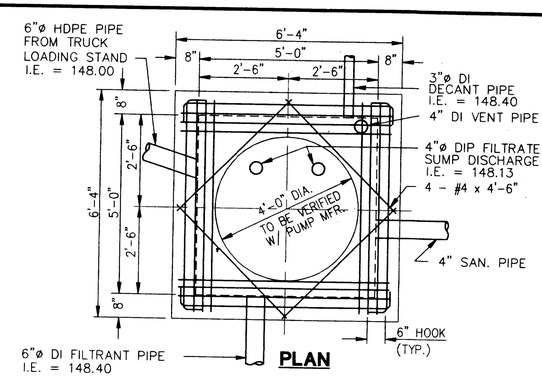


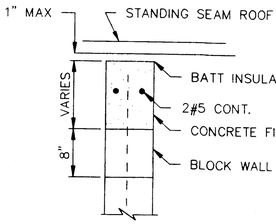
SECTION D
SCALE: 1/4"=1'-0" S1 S4



PLAN



PLAN



DETAIL 4
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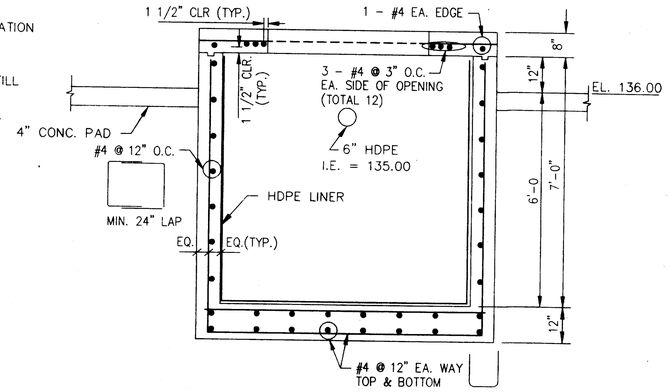
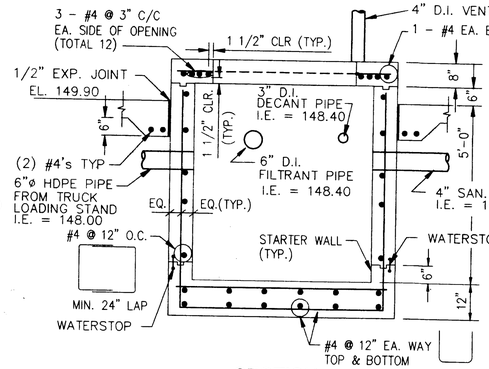
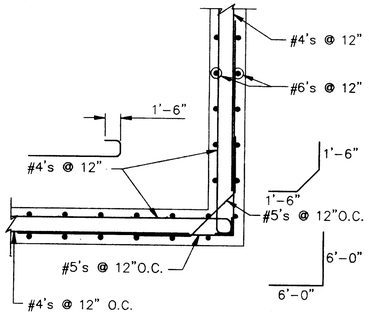


SECTION
MAIN LEACHATE SUMP DETAIL 3
SCALE: 1/2"=1'-0" M5 S4

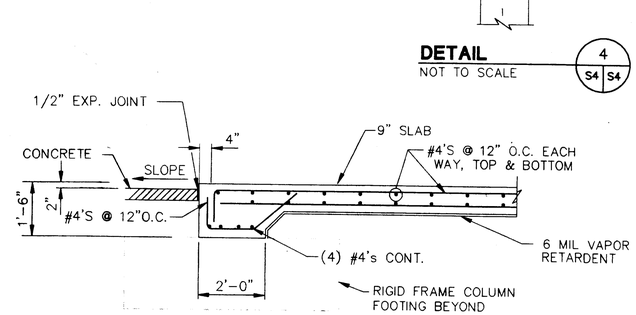


SECTION
FILTRATE SUMP DETAIL 1
SCALE: 1/2"=1'-0" S1 S4

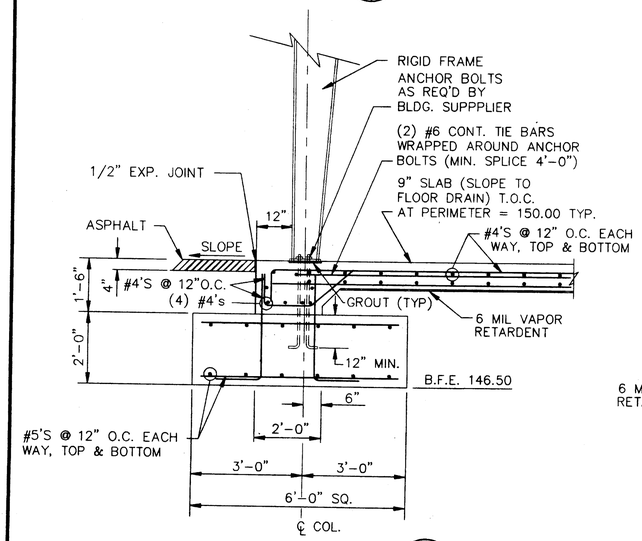
PLAN



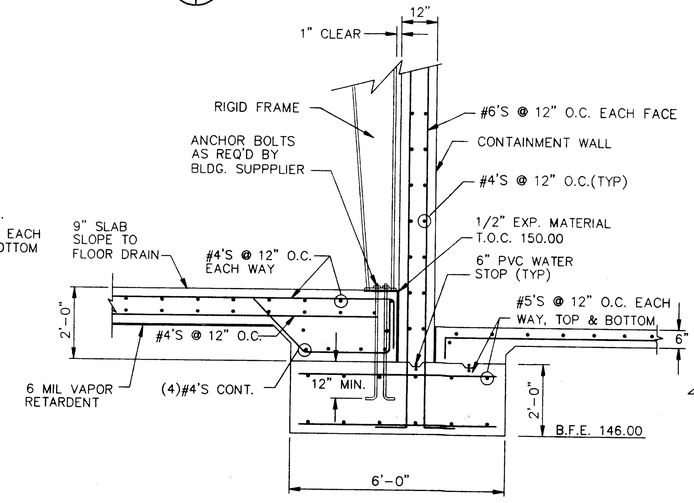
CONTAINMENT WALL CORNER DETAIL 5
SCALE: 1/2"=1'-0" S1 S4



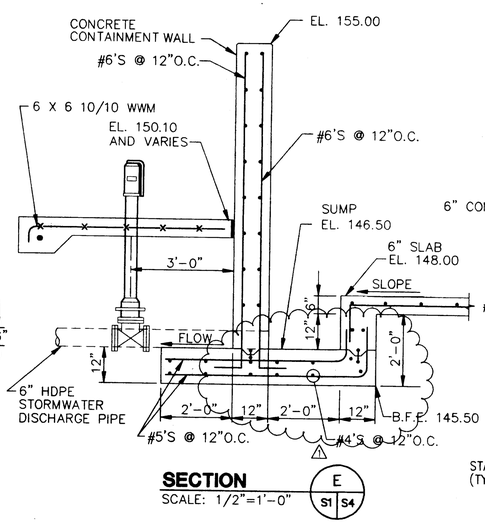
SECTION
SECTION A
SCALE: 1/2"=1'-0". S1 S4



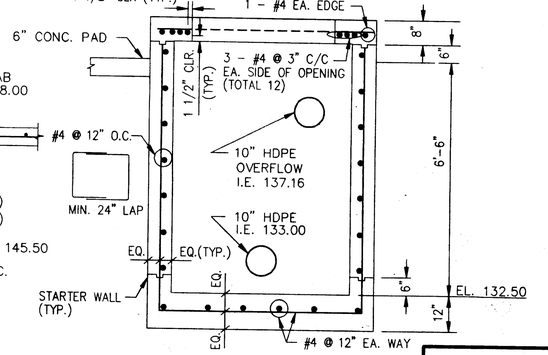
SECTION
SECTION B
SCALE: 1/2"=1'-0" S3 S4



SECTION
SECTION C
SCALE: 1/2"=1'-0" S1 S4



SECTION
SECTION E
SCALE: 1/2"=1'-0" S1 S4



SECTION
IRRIGATION SUMP DETAIL 2
SCALE: 1/2"=1'-0" M5 S4

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

AYRES ASSOCIATES
3901 Coconut Palm Dr. Suite 100
Tampa, Florida 33619
Phone (813) 628-0742
Fax (813) 628-0939

REV.	DATE	DESCRIPTION	CK. BY
1	12/8/94	As-Built	RAS

DRAWING TITLE: **STRUCTURAL DETAILS 3**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 / FAX NO. (813) 623-6757

D/A R/W BY: ERC
APP. BY: RBG
PROJ. NO: 093008.42
DSN. BY: NJ/RAS
DWN. BY: WAB\VDR
CHK. BY: NJ

CADD FILE: SDET1

DATE: APRIL 27, 1992

SCALE: AS SHOWN

DRAWING NO.
S4 of 5

STRUCTURAL NOTES

GENERAL

1. THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE DRAWINGS AND SHOULD BE STUDIED BEFORE PROCEEDING WITH ANY WORK.
2. CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS FOR SUCCESSFUL COMPLETION OF THIS PROJECT WHETHER SUCH ARE DETAILED ON THE DRAWINGS.
3. CONTRACTOR SHALL VERIFY CONDITIONS AND DIMENSIONS AT THE SITE BEFORE FABRICATING ANY WORK, AND SHALL REPORT ANY DISCREPANCIES AT ONCE.
4. SHOP DRAWINGS PREPARED BY SUPPLIERS AND SUBCONTRACTORS SHALL BE APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO ENGINEER. NO WORK SHALL BE STARTED WITHOUT SUCH APPROVAL.
5. ALL DETAILS, SECTIONS AND NOTES ON THE DRAWINGS ARE INTENDED TO BE TYPICAL FOR SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE NOTED. FOR DETAILS AND DIMENSIONS NOT GIVEN, SEE ARCHITECTURAL DRAWINGS.
6. OPENING SIZES AND LOCATIONS FOR PIPES, DUCT, ETC., WHEN SHOWN, ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED WITH MECHANICAL DRAWINGS.
7. NO PIPES OR SLEEVES FOR MECHANICAL TRADES SHALL PASS THROUGH STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.
8. ELECTRICAL CONDUITS AND PIPES SHALL BE PLACED BETWEEN TOP AND BOTTOM LAYERS OF BARS AND CAN NOT BE LARGER IN OUTSIDE DIAMETER THAN ONE-THIRD OF SLAB THICKNESS; SPACING MUST BE AT MINIMUM THREE TIMES SLAB THICKNESS.
9. THE SPECIFICATIONS AND STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND, UNLESS OTHERWISE NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.

FOUNDATIONS/GEOTECHNICAL

1. THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT GEOTECHNICAL CONSULTANT TO CONDUCT FIELD AND LABORATORY TESTING AS REQUIRED IN SPECIFICATION SECTION 02220. THE COST OF THESE SERVICES SHALL BE INCLUDED IN THE CONTRACT PRICE. RESULTS OF ALL TESTS SHALL BE REPORTED TO THE RESIDENT ENGINEER.
2. BRACE, SHORE OR OTHERWISE SUPPORT CONCRETE PERIMETER WALLS AS REQUIRED DURING BACKFILLING OPERATIONS UNTIL AFTER SLAB HAS BEEN POURED AND REACHED IT'S 28-DAY STRENGTH.
3. CONTRACTOR SHALL PREPARE AND SUBMIT AN EXCAVATION, DEWATERING AND BACKFILLING PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA, FOR REMOVAL OF THE PHOSPHATIC CLAY SLIMES UNDERLYING THE LEACHATE FACILITY SITE. EXCAVATION, DEWATERING AND BACKFILLING ACIVITIES SHALL BE PERFORMED IN STRICT CONFORMANCE TO THE APPROVED EXCAVATION AND BACKFILLING PLAN.
4. EXCAVATED SOILS MEETING THE SPECIFICATION REQUIREMENTS SHALL BE USED AS BACKFILL. MATERIALS NOT MEETING THE SPECIFICATION REQUIREMENTS SHALL BE DISPOSED OF AS DIRECTED BY THE RESIDENT ENGINEER.
5. SOILS FOR THE BACKFILLING SHALL BE BORROWED FROM ON-SITE AREAS AS DIRECTED BY THE RESIDENT ENGINEER.
6. BACKFILL SOILS UNDER STRUCTURES AND SLABS ON GRADE, AND SCARIFIED EXISTING SUBGRADE UNDER FILL MATERIAL SHALL BE COMPACTED TO 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. BERM AREAS, AND AREAS OF GENERAL FILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. MOISTURE CONTENT OF BACKFILL SOILS SHALL BE ADJUSTED TO ±3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST.

REINFORCEMENT

1. REINFORCING BARS SHALL CONFORM TO ASTM SPECIFICATION A615. GRADE 60 DEFORMED.
2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM SPECIFICATION A185.
3. DETAILING AND ACCESSORIES SHALL CONFORM TO THE ACI DETAILING MANUAL AND TO THE CRSI MANUAL OF STANDARD PRACTICE, CURRENT EDITIONS, UNLESS OTHERWISE NOTED HERE ON DRAWINGS, OR IN SPECIFICATIONS.
4. ALL SPLICES WHEN NOT DIMENSIONED ON DRAWINGS SHALL BE CLASS "C". ALL HOOKS SHALL BE "STANDARD".

DESIGN DATA

1. DESIGN CODES (ALL LATEST EDITIONS, UNLESS NOTED)
   STANDARD BUILDING CODE (SBC)
   AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
   AMERICAN CONCRETE INSTITUTE (ACI)
   NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
   OCCUPATIONAL SAFETY AND HEALTH ACT FEDERAL REGULATIONS (OSHA)
   AMERICAN WELDING SOCIETY (AWS)

2. DESIGN UNIT STRESSES
   MIN. SOIL BEARING PRESSURE: 2,500 PSF
   STRUCTURAL STEEL: ROLLED SHAPES ASTM A36 (FY = 36,000 PSI)
   TUBING: ASTM A500, GRADE B
   CONCRETE: F'C = 4,000 PSI @ 28 DAYS FOR ALL CONCRETE
   FOUNDATION SETTLEMENT: ASSUMED NEGLIGIBLE (BASED ON GEOTECHNICAL REPORT)

   REINFORCING STEEL: ASTM A615 – GRADE 60 (FY = 60,000 PSI)
   CONCRETE BLOCK: F'M = 1,800 PSI (TYPE S MORTAR)
   BOLTS: A325 HIGH STRENGTH, MINIMUM 2 BOLTS PER CONNECTION
   WELDING: E70XX
   STUDS: SHALL BE AS MANUFACTURED BY THE NELSON STUD WELDING DIVISION OF GREGORY INDUSTRIES, INC., OR AN APPROVED EQUAL
   EXPANSION BOLTS: SHALL BE SELF-DRILLING SUCH AS MANUFACTURED BY REDHEAD OR EQUAL

3. DESIGN LOADS
   A. PREENGINEERED METAL BUILDING
      DEAD LOAD: DEAD WEIGHT OF STRUCTURE
      LIVE LOAD: 20 PSF
      COLLATERAL: 10 PSF
      WIND: 100 MPH

STRUCTURAL STEEL

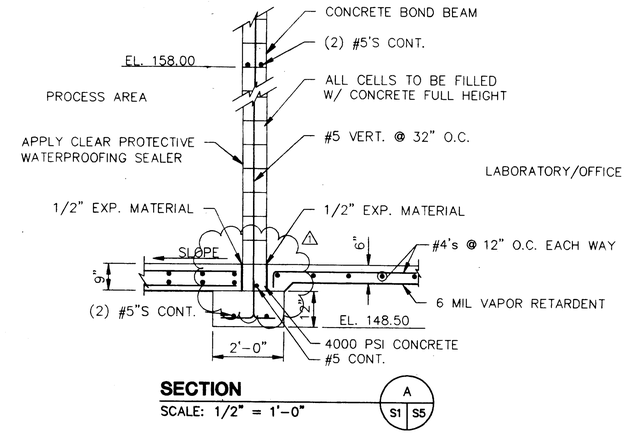
1. ALL DESIGN, DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO AISC MANUAL OF STEEL CONSTRUCTION, LATEST EDITION. IT SHALL FURTHER CONFORM TO APPLICABLE LOCAL BUILDING CODES.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE APPROPRIATE REQUIREMENTS OF ASTM FOR THE TYPE OF MATERIAL BEING USED.
3. ALL SHOP AND FIELD CONNECTIONS SHALL BE BOLTED OR WELDED.
4. ALL HIGH STRENGTH BOLTS (INCLUDING WASHERS AND NUTS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 OR A490.
5. ALL WELDING SHALL BE PERFORMED BY PREQUALIFIED WELDERS, AND SHALL CONFORM TO THE REQUIREMENTS OF THE "STRUCTURAL WELDING CODE", ANSI/AWS D1.1. LATEST EDITION.
6. ALL WELDING ELECTRODES SHALL BE E70XX.
7. THE CONTRACTOR SHALL SUBMIT CHECKED SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. THE DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, FRAMING PLANS, SHOP AND FIELD CONNECTION DETAILS, ERECTION, SEQUENCES, ETC.
8. WHENEVER THE CONSTRUCTION SCHEDULING REQUIRED THE ERECTION OF STRUCTURAL MEMBERS WHICH, BY THEMSELVES, WOULD BE CONSIDERED LATERALLY UNSTABLE, ADEQUATE TEMPORARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR. ALL SUCH STEEL BRACING SHALL BE REMOVED BY THE CONTRACTOR, UNLESS THE INCLUSION OF THE TEMPORARY BRACING MEMBERS IS APPROVED AT NO COST TO THE OWNER.
9. BEAMS SHALL BE FABRICATED WITH SUFFICIENT CAMBER TO ACCOUNT FOR ALL DEAD LOADS.
10. ALL CUTS, HOLES, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS. FIELD CUTTING OR BURNING SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
11. PAINTING REQUIREMENTS FOR BOTH PRIME AND FINISH COATS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

CONCRETE

1. CONCRETE WORK SHALL CONFORM TO THE CURRENTLY ADOPTED:
   ACI 318 – STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
   ACI 301 – SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
   ACI 302 – RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
2. AIR ENTRAINED CONCRETE SHALL BE USED FOR ALL CONCRETE EXPOSED TO WEATHER, EXCEPT AS NOTED ON THE DRAWINGS.
3. PRINCIPAL REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE PROTECTION:
   SURFACES NOT FORMED. . . . . 3.0 INCHES
   FORMED SURFACES IN CONTACT WITH SOIL OR TO WEATHER. . . . . 2.0 INCHES
   ALL OTHER SURFACES. . . . . 1.5 INCHES
4. CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE MIXES.
5. MAXIMUM SLUMP 3", MAXIMUM W/C RATIO 0.4, AIR ENTRAINMENT 4% MIN.

CONSTRUCTION AND SAFETY

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL LAWS, INCLUDING SAFETY REGULATIONS ADOPTED PURSUANT THERETO.
2. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT WORKMEN OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES, ETC.
3. CONTRACTOR, AT HIS OWN EXPENSE, SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURE SHALL BE USED AND INSPECT SAME IN THE FIELD.
4. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
5. ALL FIELD WORK PERFORMED BY ELECTRICAL AND MECHANICAL TRADES AND OTHER SUBCONTRACTORS SHALL BE COORDINATED AND CONTINUOUSLY SUPERVISED BY THE GENERAL CONTRACTOR.



SECTION
SCALE: 1/2" = 1'-0"

A
S1 | S5

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

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3901 Coconut Palm Dr. Suite 100
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REV.	DATE	DESCRIPTION	CK BY
1	12/8/94	As-Built	RAS

DRAWING TITLE: STRUCTURAL DETAILS 4

PROJECT TITLE: SOUTHEAST COUNTY FACILITY
LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY
DEPARTMENT OF SOLID WASTE
TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO. 0990018.42
DSN. BY: BLJ/VDR
DRF. BY: NJ
D/A RVW BY: ERC
APP. BY: RBG
CHK. BY: NJ/RAS

CADD FILE: SDET4
DATE: APRIL 27, 1992
SCALE: AS SHOWN
DRAWING NO. S5 of 5

HILLSBOROUGH HEIGHTS LANDFILL AND TAYLOR ROAD LANDFILL INFLUENT LOADING FROM TANKER TRUCKS

BLIND FLANGE

6" HDPE DOUBLE WALL PIPE OUSIDE OF LINER

PERMANENT LEACHATE FORCE MAIN

LEACHATE FORCE MAIN LATERAL (TYP.)

INFLUENT HOLDING SUMP AND PUMPS

EXIST. PERMANENT LEACHATE SUMP AND PUMP FOR LANDFILL PHASE V

BLIND FLANGE

EXIST. TEMPORARY LEACHATE SUMP AND PUMP FOR LANDFILL PHASE VI

LEACHATE FORCE MAIN

FUTURE PERMANENT LEACHATE FORCE MAIN (N.I.C.)

TEE WITH VALVE AND STUB FOR FUTURE CONNECTION

WELL PUMP (TYP.)

PERMANENT LEACHATE WELL POINT SYSTEM FOR LANDFILL PHASES I TO VI (N.I.C.)

EXIST. TEMPORARY LEACHATE SUMP AND PUMP FOR LANDFILL PHASES I TO IV

MAIN LEACHATE PUMP STATION

LEACHATE FORCE MAIN

FILTRATE

500,000 GAL. RAW LEACHATE HOLDING TANK

LAH

LAL

TRUCK FILL STAND PUMP

LOADING ARM TRUCK LOADING STAND

INFLUENT PUMPS

FLOW CONTROL VALVE

FLOW INDICATOR RECORDER

FLOOR DRAINS, AND TRUCK LOADING STAND SPILLAGE

FILTRATE SUMP AND PUMPS

NUTRIENT

NUTRIENT STORAGE

NUTRIENT METERING PUMP

WAND

BULK CARBON

1000 LB. ACTIVATED POWDER CARBON BOX

MECHANICAL MIXER

PROCESS WATER FROM EFFLUENT PUMPS

VACUUM PUMP

CARBON SLURRY TANK

CARBON SLURRY PUMP

N.C.

N.O.

METHANOL STORAGE

METHANOL PUMPS

AIR FILTER (TYP.)

AIR BLOWERS

AIR LINE

MECHANICAL MIXER

WELL WATER

POLYMER ACTIVATION TANK

TO DAY TANK

N.C.

POLYMER METERING PUMPS

CLARIFIER DRIVE

FIRST STAGE AERATION TANK

1ST STAGE CLARIFIER

MECHANICAL MIXER

ANOXIC MIXING TANK

SECOND STAGE AERATION TANK (POLISHING)

CLARIFIER DRIVE

2ND STAGE CLARIFIER

1st STAGE RETURN SLUDGE

2nd STAGE WASTE SLUDGE

2nd STAGE RETURN SLUDGE

WASTE SLUDGE

N.C.

SLUDGE RECYCLE PUMPS

DECANT LINE (GRAVITY DRAIN)

AEROBIC SLUDGE STORAGE

WASTE SLUDGE

OPTIONAL POLYMER INFLUENT

MECHANICAL MIXER

FILTER PRESS

N.C.

LAH

SLUDGE

BALL CHECK VALVE INTEGRAL WITH PUMP

FILTER PRESS DAY TANK

SLUDGE TRANSFER PUMP

N.C.

BYPASS

BALL CHECK VALVE INTEGRAL WITH PUMP

FILTER PRESS FEED PUMP

SLUDGE CAKE TO LANDFILL FOR DISPOSAL

PLANT EFFLUENT

NOTE:
ALL UNITS AND PUMPS SHOWN WITHIN ENCLOSED AREA (——) ARE MANUFACTURED AND INSTALLED BY ZIMPRO UNDER THEIR PACT® SYSTEM; ZIMPRO WILL ALSO FURNISH THE FILTRATE SUMP PUMPS AND THE EFFLUENT PUMPS. THE GENERAL CONTRACTOR SHALL RETAIN ZIMPRO, INC. AS A SUBCONTRACTOR.

TEMPORARY SPRINKLER HEADS (TYP.)

PERMANENT SPRINKLER HEADS (TYP.)

SOLENOID VALVE (TYP.)

FLOW INDICATOR RECORDER

SPRAY IRRIGATION SYSTEM

EFFLUENT TRUCK LOADING STAND

IRRIGATION SUMP AND PUMPS

120,000 GALLON HOLDING BASIN

CHLORINATOR

PROCESS WATER TO CARBON SLURRY TANK

500,000 GAL. RAW LEACHATE HOLDING TANK

EFFLUENT FORCE MAIN

N.C.

N.O.

EFFLUENT TANK

LAH

LAL

EFFLUENT PUMPS

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK. BY
1	12/6/94	As-Built	RAS

DRAWING TITLE: LEACHATE TREATMENT PROCESS FLOW SCHEMATIC

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
302 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

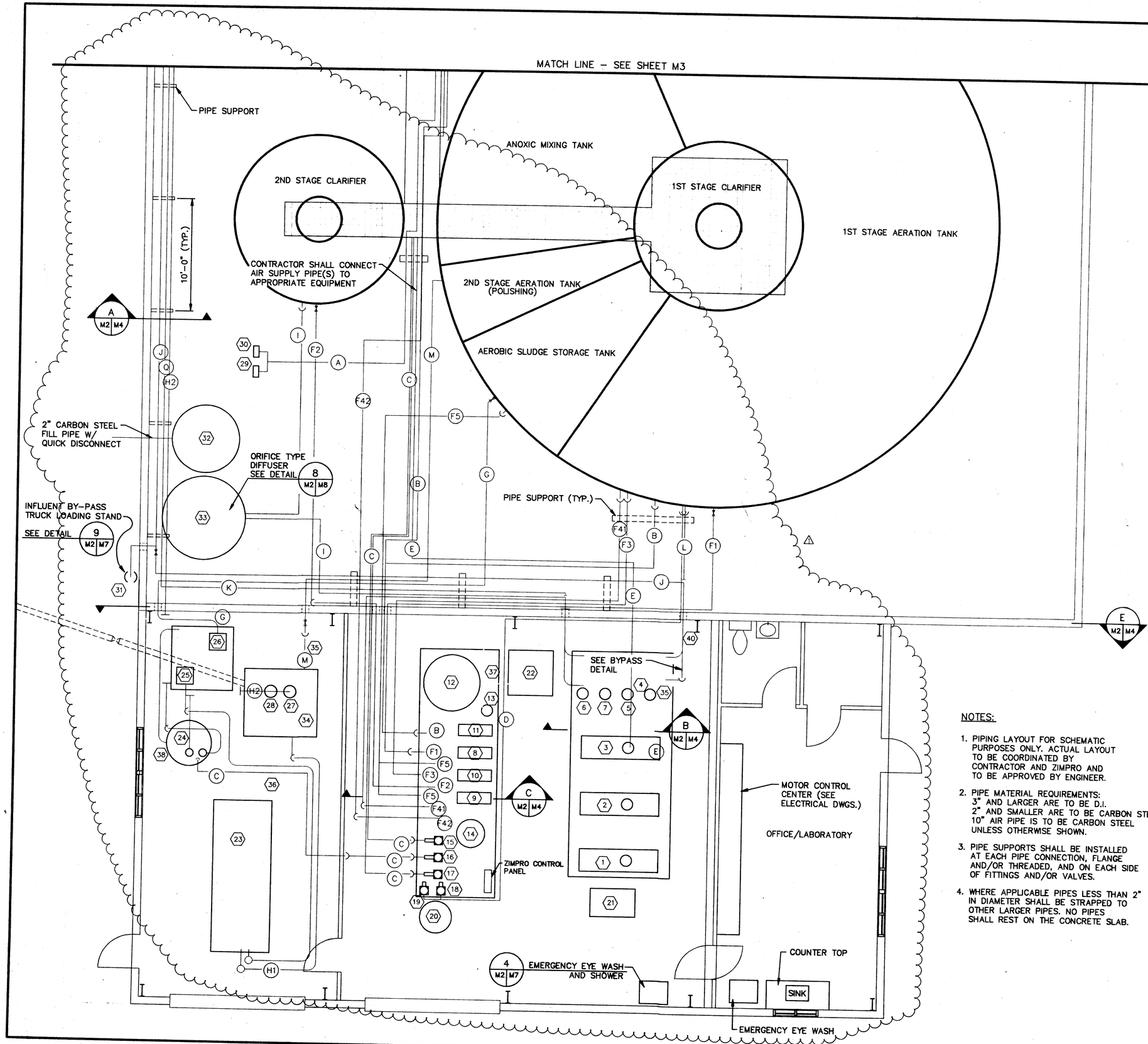
PROJ. NO. 0990018.42
DSN. BY: BLJ/LRP
DWN. BY: LKW/ZSMH
CHK. BY: LKW/ZSRK
QA REVIEW: ERC
APP. BY: RBG

CADD FILE: MPROCESS

DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

DRAWING NO.: M1 of 9



EQUIPMENT LEGEND

1. AERATION BLOWER NO. 1
2. AERATION BLOWER NO. 2
3. AERATION BLOWER NO. 3
4. INFLUENT PUMP NO. 1
5. INFLUENT PUMP NO. 2
6. EFFLUENT PUMP NO. 1
7. EFFLUENT PUMP NO. 2
8. RECYCLE PUMP NO. 2
9. RECYCLE PUMP NO. 1
10. RECYCLE PUMP NO. 3
11. CARBON SLURRY TRANSFER PUMP
12. CARBON SLURRY TANK
13. VACUUM ASSEMBLY PUMP
14. POLYMER ACTIVATION TANK
15. POLYMER METERING PUMP NO. 1
16. POLYMER METERING PUMP NO. 2
17. POLYMER METERING PUMP NO. 3
18. SULFURIC ACID PUMP NO. 1
19. NUTRIENT METERING PUMP NO. 1
20. NUTRIENT STORAGE TANK
21. INSTRUMENT AIR COMPRESSOR/REFRIGERANT DRYER
22. 1000 LB. ACTIVATED POWDER CARBON BOX
23. FILTER PRESS
24. FILTER PRESS DAY TANK
25. SLUDGE TRANSFER PUMP
26. FILTER PRESS FEED PUMP
27. FILTRATE PUMP NO. 1
28. FILTRATE PUMP NO. 2
29. METHANOL ADDITION PUMP NO. 1
30. METHANOL ADDITION PUMP NO. 2
31. TRUCK FILL STAND PUMP
32. METHANOL STORAGE TANK
33. EFFLUENT STORAGE TANK 1865 GAL CAPACITY
34. FILTRATE SUMP
35. AIR OPERATED VALVE, NORMALLY OPEN
36. FLOW RECORDER
37. SHIFTER MOTOR
38. CARBON SLURRY MIXER
39. FILTER PRESS DAY TANK MIXER
40. FLOW CONTROL VALVE

PIPE LEGEND

- A – 1"ø METHANOL FEED PIPE
- B – 2"ø POWDERED ACTIVATED CARBON SLURRY FEED PIPE
- C – 1"ø POLYMER FEED PIPE (STAINLESS STEEL)
- D – 1"ø NUTRIENT FEED PIPE (STAINLESS STEEL)
- E – 10"ø AIR PIPE
- F_1 – 4"ø SLUDGE SUCTION PIPE (1ST STAGE)
- F_2 – 4"ø SLUDGE SUCTION PIPE (2ND STAGE)
- F_3 – 4"ø SLUDGE DISCHARGE PIPE (1ST STAGE)
- F_4 – 4"ø SLUDGE DISCHARGE PIPE (2ND STAGE)
- F_5 – 4"ø SLUDGE WASTE PIPE
- G – 4"ø THICKENED SLUDGE PIPE
- H_1 – 6"ø FILTRATE PIPE
- H_2 – 4"ø FILTRATE SUMP DISCHARGE PIPE
- I – 4"ø EFFLUENT SUCTION PIPE
- J – 4"ø EFFLUENT FORCE MAIN
- K – 4"ø INFLUENT SUCTION PIPE
- L – 4"ø INFLUENT DISCHARGE PIPE
- M – 4"ø AERATED SLUDGE STORAGE DECANT PIPE
- N – 2"ø PROCESS WATER PIPE
- O – 6"ø TRUCK FILL STAND INFLUENT PIPE
- P – 1"ø INSTRUMENT AIR PIPE
- Q – 6"ø INFLUENT SUCTION PIPE
- R – 6"ø HDPE EFFLUENT SPILLAGE PIPE FROM TRUCK LOADING STAND
- S – 4"ø FILTRATE SUMP VENT TO ROOF
- V – 3/4"ø S.S. CHLORINE SOLUTION LINE

NOTES:

1. PIPING LAYOUT FOR SCHEMATIC PURPOSES ONLY. ACTUAL LAYOUT TO BE COORDINATED BY CONTRACTOR AND ZIMPRO AND TO BE APPROVED BY ENGINEER.
2. PIPE MATERIAL REQUIREMENTS: 3" AND LARGER ARE TO BE D.I. 2" AND SMALLER ARE TO BE CARBON STEEL 10" AIR PIPE IS TO BE CARBON STEEL UNLESS OTHERWISE SHOWN.
3. PIPE SUPPORTS SHALL BE INSTALLED AT EACH PIPE CONNECTION, FLANGE AND/OR THREADED, AND ON EACH SIDE OF FITTINGS AND/OR VALVES.
4. WHERE APPLICABLE PIPES LESS THAN 2" IN DIAMETER SHALL BE STRAPPED TO OTHER LARGER PIPES. NO PIPES SHALL REST ON THE CONCRETE SLAB.

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

N

0 2 4 8 12
SCALE IN FEET

REV.	DATE	DESCRIPTION	CK BY
1	1/4/95	As-Built	RAS

DRAWING TITLE: PROCESS CONTROL PLAN 1

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 US. HWY. 301 NORTH, SUITE 700, TAMPA, FL. 33619
PH. (813) 621-0080 FAX NO. (813) 623-6757

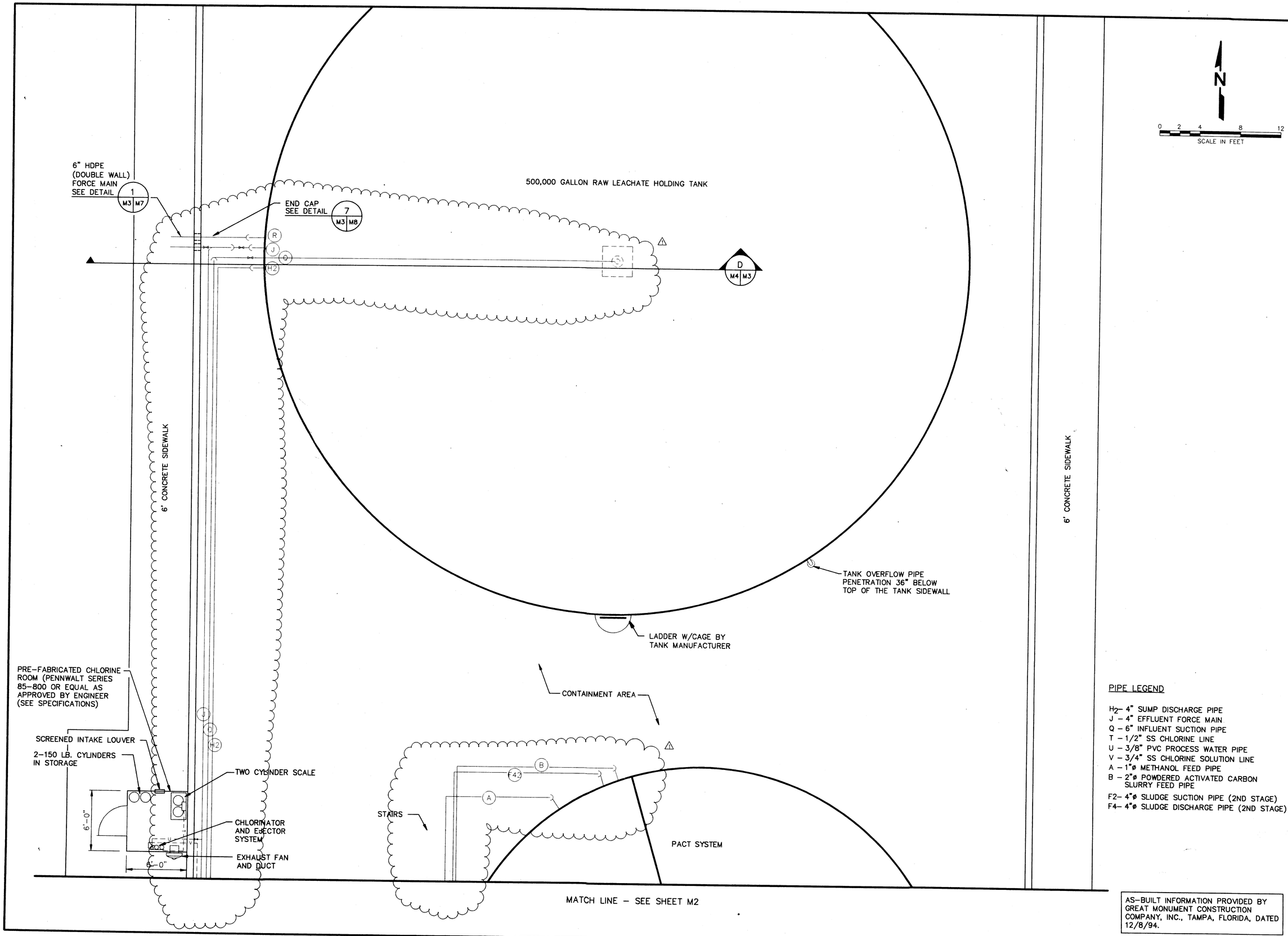
PROJ. NO. 09900018.42 | DWN. BY: RAS | D/A RVW BY: ERC
DSN. BY: RAS/SRK | CHK. BY: LKW/SMH | APP. BY: RBG

CADD FILE: MPLLAY

DATE: APRIL 27, 1992

SCALE: 1/4" = 1'-0"

DRAWING NO. M2 of 9



PIPE LEGEND

H_2 – 4" SUMP DISCHARGE PIPE
J – 4" EFFLUENT FORCE MAIN
Q – 6" INFLUENT SUCTION PIPE
T – 1/2" SS CHLORINE LINE
U – 3/8" PVC PROCESS WATER PIPE
V – 3/4" SS CHLORINE SOLUTION LINE
A – 1"ø METHANOL FEED PIPE
B – 2"ø POWDERED ACTIVATED CARBON SLURRY FEED PIPE
F2– 4"ø SLUDGE SUCTION PIPE (2ND STAGE)
F4– 4"ø SLUDGE DISCHARGE PIPE (2ND STAGE)

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK. BY
1	1/3/95	As-Built	RAS

DRAWING TITLE: **PROCESS CONTROL PLAN 2**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
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PH (813) 621-0080 FAX NO. (813) 623-6757

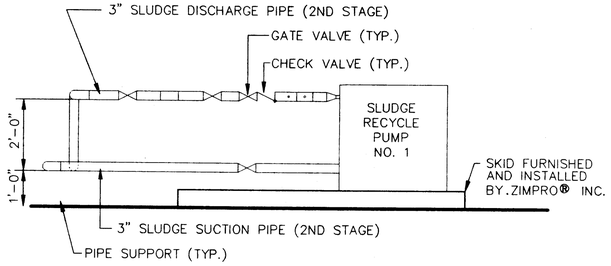
PROJ. NO. 0990018.42 | DWN. BY: RAS | D/A REVIEW: FJC | APP. BY: RBG
DSN. BY: RAS/SRK | CHK. BY: LKW/SMH

CADD FILE: MPLLAY2

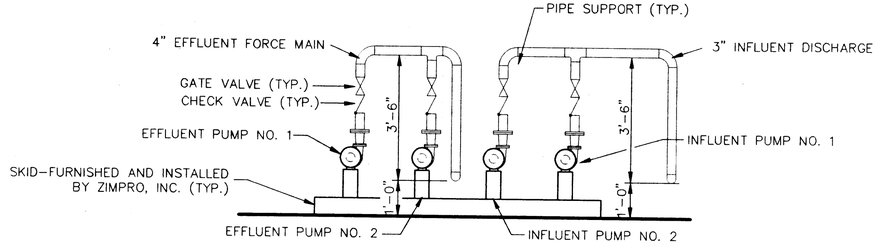
DATE: APRIL 27, 1992

SCALE: 1/4" = 1'-0"

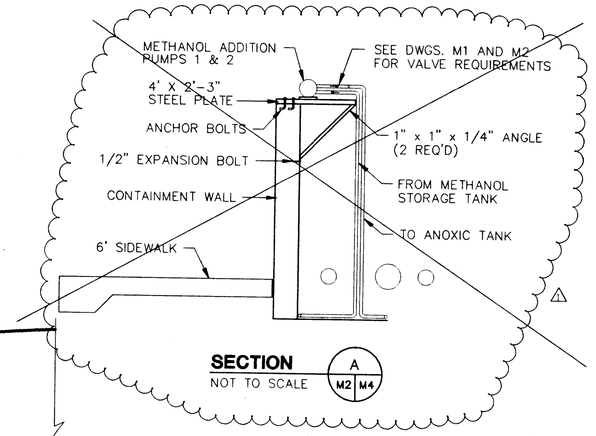
DRAWING NO. **M3** of **9**



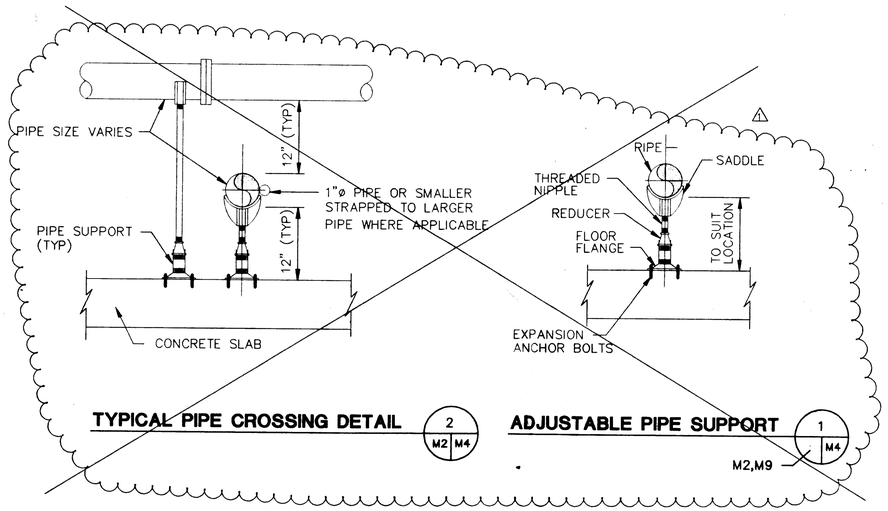
SECTION C (M2 | M4)
SCALE: 1/2" = 1'-0"



SECTION B (M2 | M4)
SCALE: 1/2" = 1'-0"

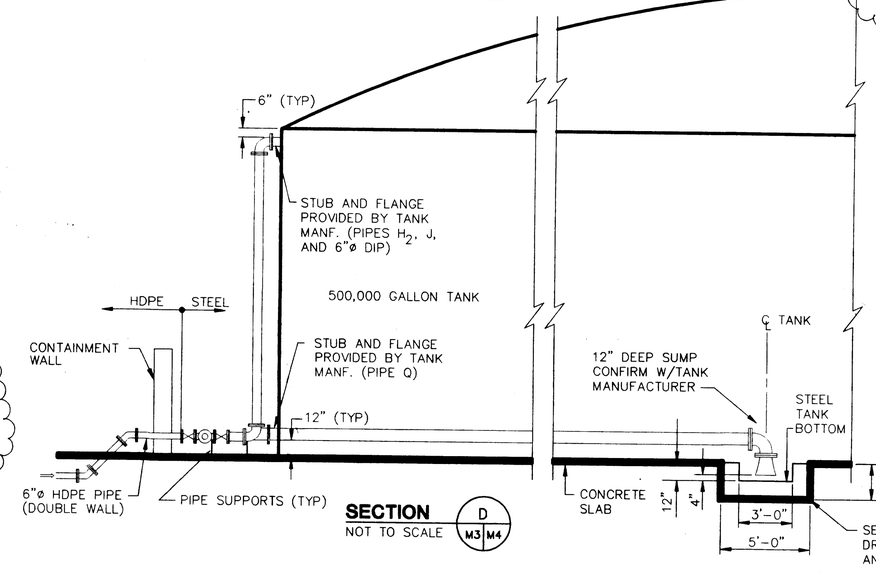


SECTION A (M2 | M4)
NOT TO SCALE



TYPICAL PIPE CROSSING DETAIL 2 (M2 | M4)

ADJUSTABLE PIPE SUPPORT 1 (M4)
M2,M9

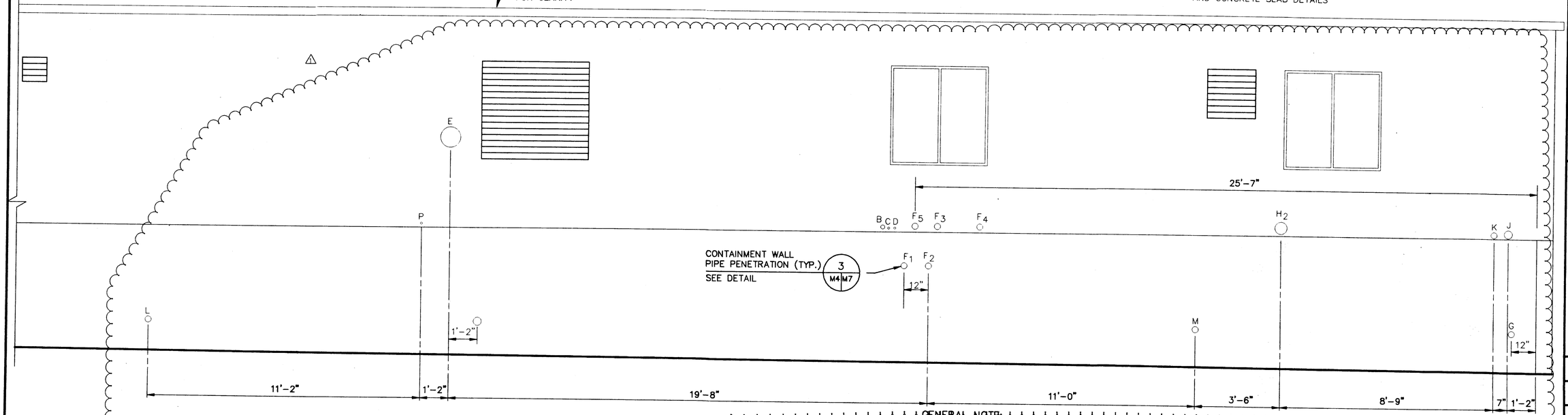


SECTION D (M3 | M4)
NOT TO SCALE

PIPE LEGEND

B – 2"ø POWERED ACTIVATED CARBON SLURRY FEED PIPE INV. EL.=151.00
C – 1"ø POLYMER FEED PIPE (STAINLESS STEEL) INV. EL.=155.10
D – 1"ø NUTRIENT FEED PIPE (STAINLESS STEEL) INV. EL.=155.10
E – 10"ø AIR PIPE INV. EL.=158.25
F_1 – 4"ø SLUDGE SUCTION PIPE (1ST STAGE) INV. EL.=151.00
F_2 – 4"ø SLUDGE SUCTION PIPE (2ND STAGE) INV. EL.=151.00
F_3 – 4"ø SLUDGE DISCHARGE PIPE (1ST STAGE) INV. EL.=151.00
F_4 – 4"ø SLUDGE DISCHARGE PIPE (2ND STAGE) INV. EL.=151.00
F_5 – 4"ø SLUDGE WASTE PIPE INV. EL.=151.00
G – 4"ø THICKENED SLUDGE PIPE INV. EL.=151.00
H_2 – 4"ø FILTRATE SUMP DISCHARGE PIPE INV. EL.=151.00
I – 4"ø EFFLUENT SUCTION PIPE INV. EL.=151.00
J – 4"ø EFFLUENT FORCE MAIN INV. EL.=152.00
K – 4"ø INFLUENT SUCTION PIPE INV. EL.=152.00
L – 4"ø INFLUENT DISCHARGE PIPE INV. EL.=151.00
M – 4"ø AERATED SLUDGE STORAGE DECANT PIPE INV. EL.=151.00
P – 1"ø INSTRUMENT AIR PIPE INV. EL.=155.10
Q – 6"ø INFLUENT SUCTION PIPE

ROOF NOT SHOWN FOR CLARITY



SECTION E (M2 | M4)
SCALE: 1/2" = 1'-0"

GENERAL NOTE:
PIPING LAYOUT, INCLUDING DIMENSIONS AND ELEVATIONS FOR PIPE PENETRATIONS THROUGH THE CONTAINMENT WALL, IS SCHEMATIC AND IS PROVIDED TO DEMONSTRATE THE FUNCTION OF THE SYSTEM. THE CONTRACTOR MAY SELECT ALTERNATE PIPING LAYOUTS, INCLUDING VERTICAL STACKING OF PIPES, TO FACILITATE PIPING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF EQUIPMENT PLACEMENT, PIPE SUPPORTS, AND STRUCTURAL PENETRATIONS.

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK. BY
1	2/22/95	As-Built	

DRAWING TITLE: PROCESS CONTROL SECTIONS AND DETAILS

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
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PH (813) 621-0080 FAX NO. (813) 623-6757

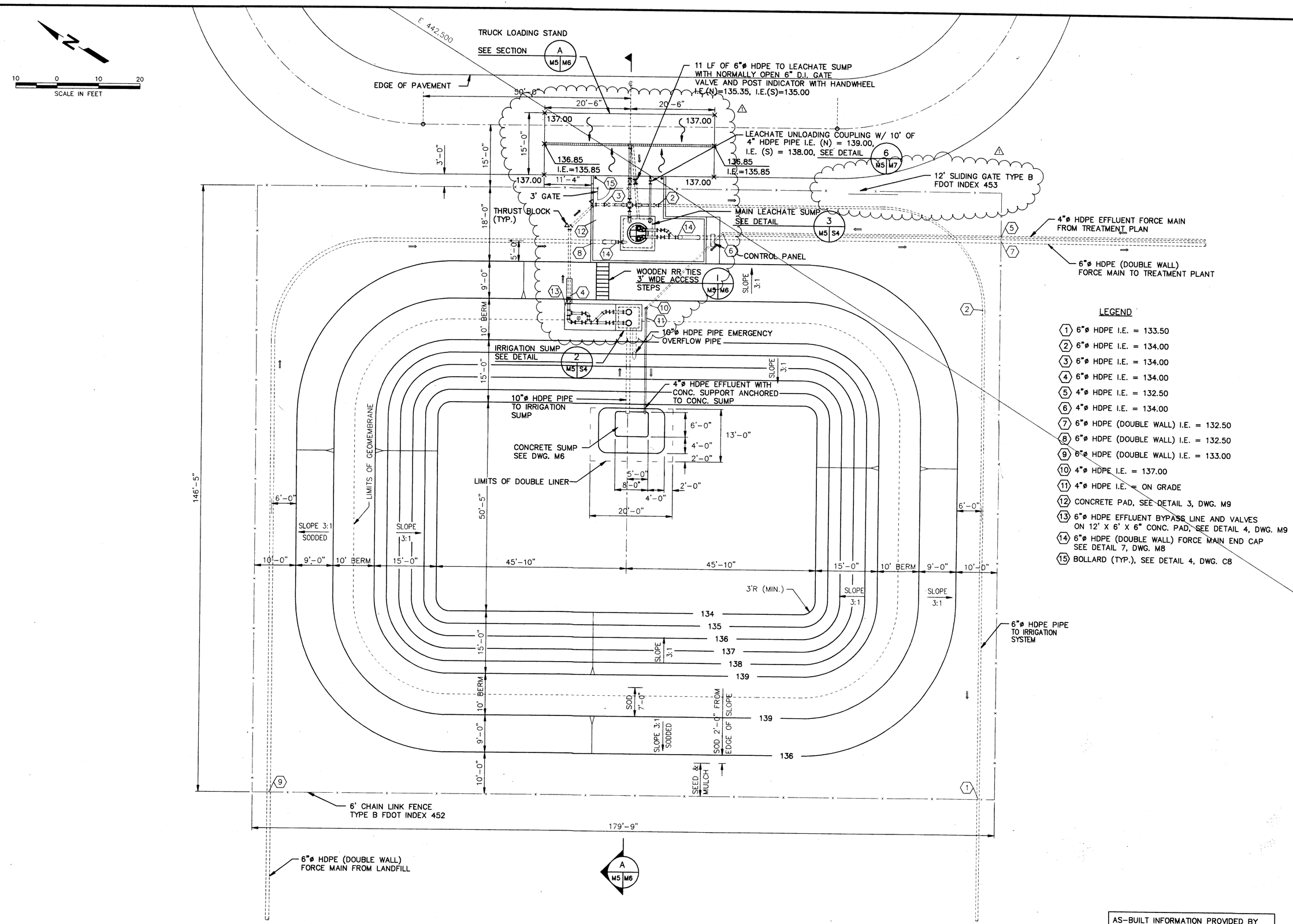
PROJECT NO: 0390018.42 | DWN. BY: RAS | D/A REVIEW BY: REC | JOB BY: RBG
DSGN. BY: LKW/RAS | CHK. BY: LKW/SMH

CADD FILE: MPIPSECT

DATE: APRIL 27, 1992

SCALE: AS SHOWN

DRAWING NO. M4 of 9



LEGEND

1. 6"ø HDPE I.E. = 133.50
2. 6"ø HDPE I.E. = 134.00
3. 6"ø HDPE I.E. = 134.00
4. 6"ø HDPE I.E. = 134.00
5. 4"ø HDPE I.E. = 132.50
6. 4"ø HDPE I.E. = 134.00
7. 6"ø HDPE (DOUBLE WALL) I.E. = 132.50
8. 6"ø HDPE (DOUBLE WALL) I.E. = 132.50
9. 6"ø HDPE (DOUBLE WALL) I.E. = 133.00
10. 4"ø HDPE I.E. = 137.00
11. 4"ø HDPE I.E. = ON GRADE
12. CONCRETE PAD, SEE DETAIL 3, DWG. M9
13. 6"ø HDPE EFFLUENT BYPASS LINE AND VALVES ON 12' X 6' X 6" CONC. PAD, SEE DETAIL 4, DWG. M9
14. 6"ø HDPE (DOUBLE WALL) FORCE MAIN END CAP SEE DETAIL 7, DWG. M8
15. BOLLARD (TYP.), SEE DETAIL 4, DWG. C8

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK BY
1	1/4/95	As-Built	RAS

DRAWING TITLE: PUMP STATION PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
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PROJ. NO. 0390018.42 | DWN BY: BLJ/VDR | CHK BY: LER/SMH | QA/QC BY: ERC | APP. BY: RBG

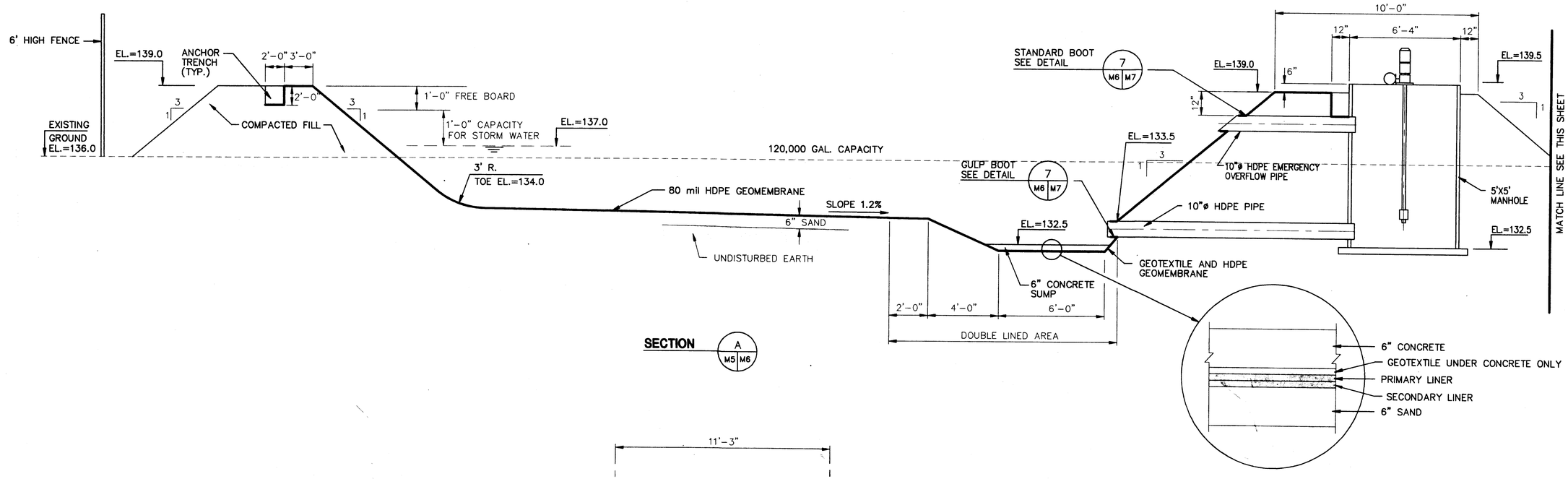
TASK NO. KKS/LKW

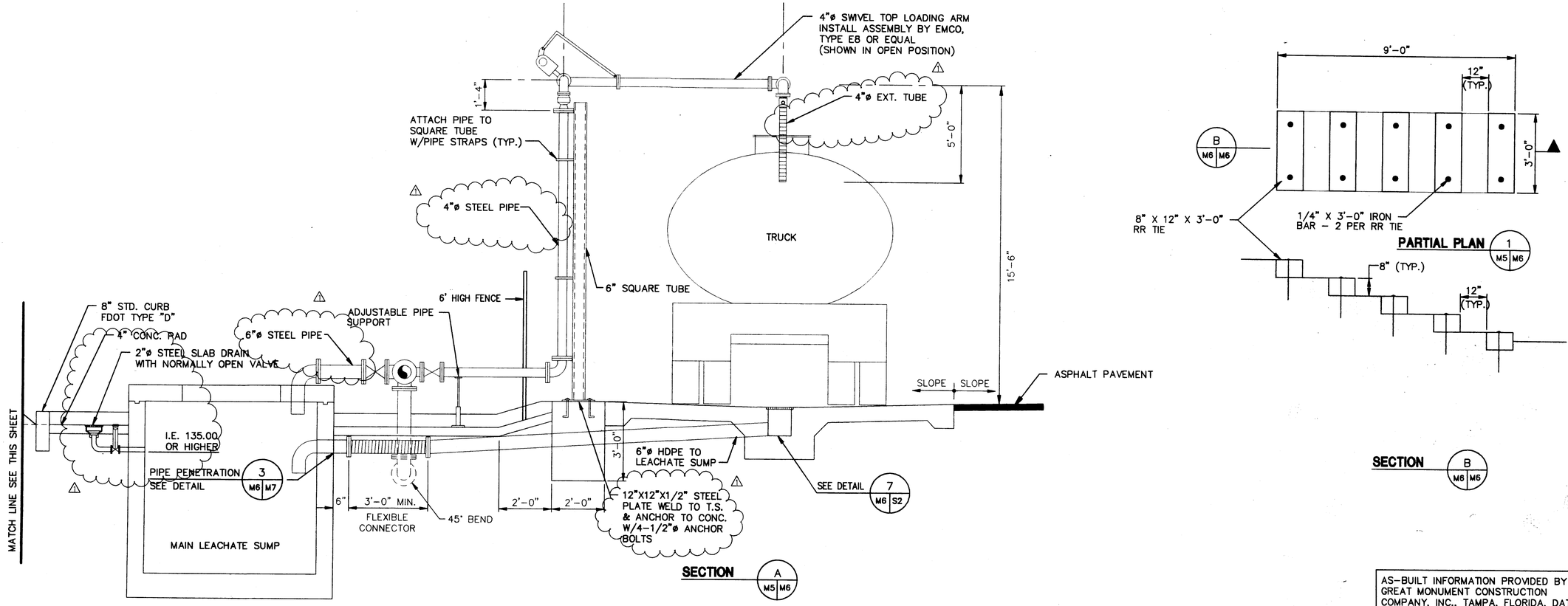
CADD FILE: MSPPLAN

DATE: APRIL 27, 1992

SCALE: 1"=10'

DRAWING NO. M5 of 9





AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV.	DATE	DESCRIPTION	CK. BY
1	1/15/95	As-Built	RAS

DRAWING TITLE: **PUMP STATION SECTIONS**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

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501 N. RIVER DR. PH. NO. (813) 621-0080 FAX NO. (813) 623-0107

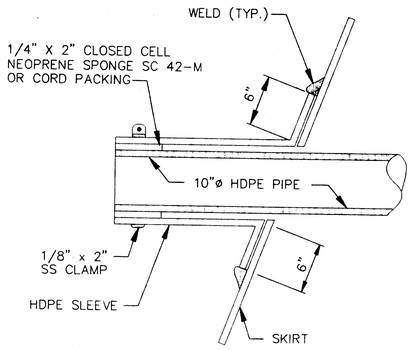
D/A REVIEW BY: ERC	DSP BY: RBG
DWN. BY: BLJ/VDR	CHK. BY: LKW/LER
PROJ. NO. 090018.42	DSN. BY: KKS/LKW

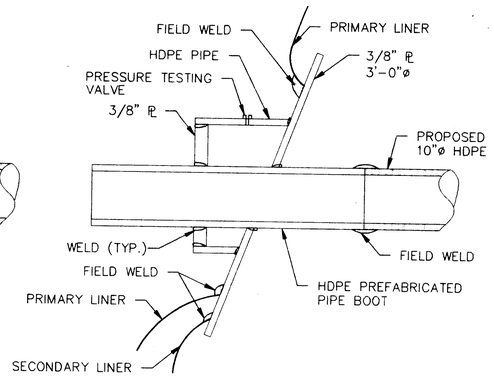
CADD FILE: MDET1

DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

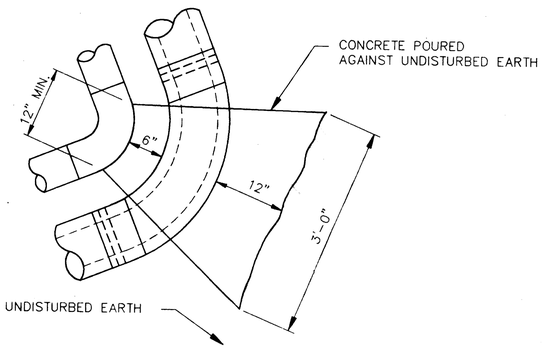
DRAWING NO. **M6** of 9



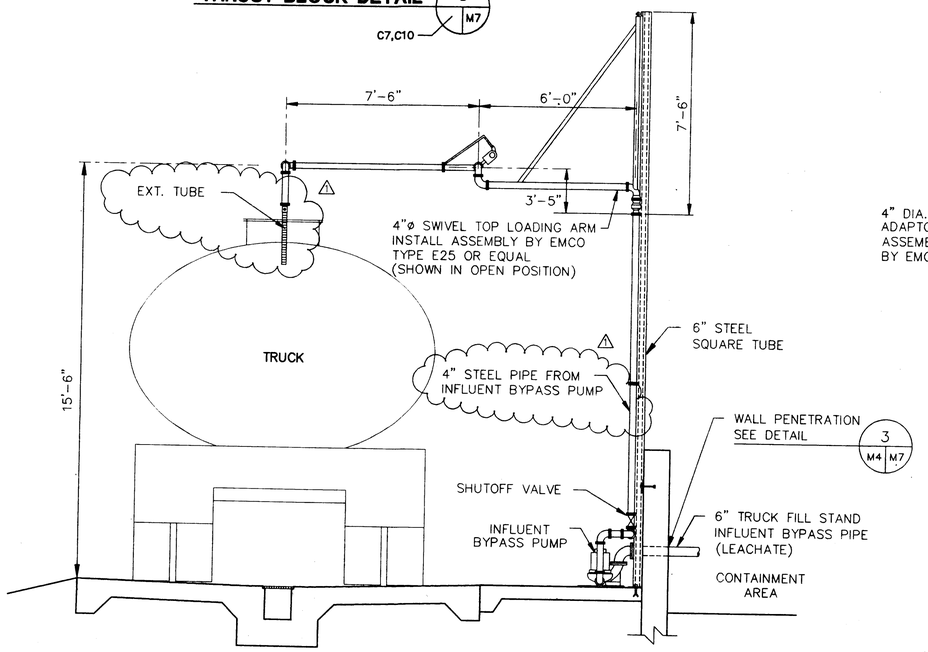


STANDARD **GULP**

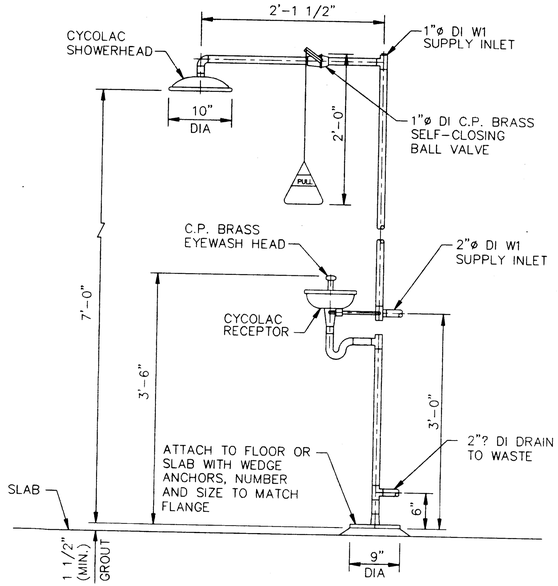
PIPE LINER PENETRATION DETAILS 7 (M6 | M7)



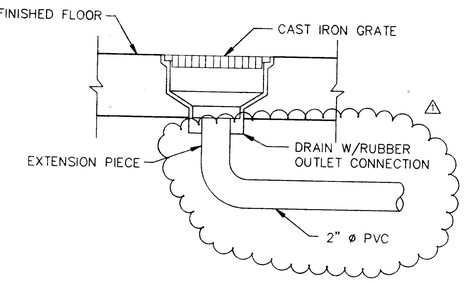
THRUST BLOCK DETAIL 8 (M7) — C7,C10



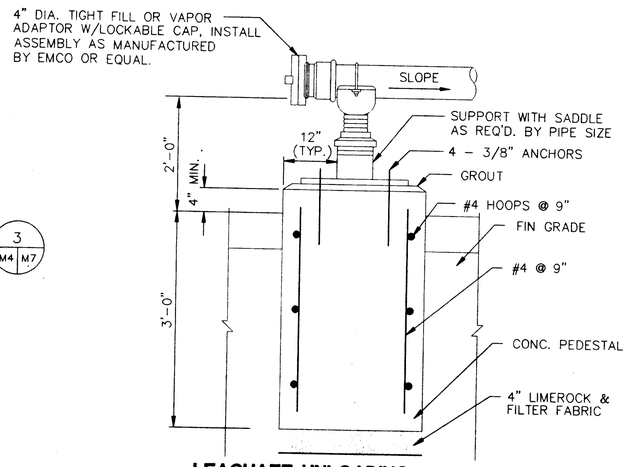
TRUCK LOADING STAND DETAIL 9 (M2 | M7)



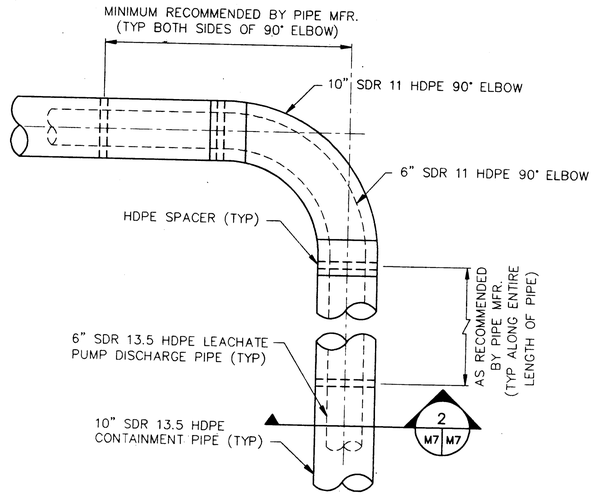
EMERGENCY EYEWASH AND SHOWER 4 (M7) — M2,P1



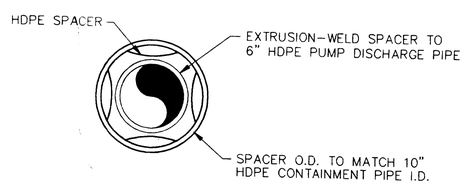
FLOOR DRAIN DETAIL 5 (P1 | M7)



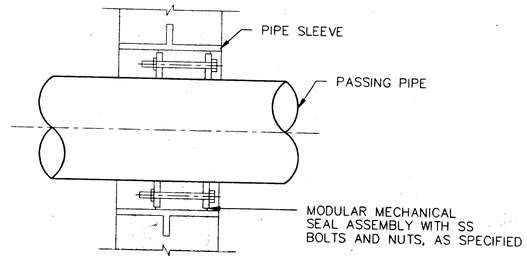
LEACHATE UNLOADING COUPLING DETAIL 6 (M5 | M7)



HDPE DOUBLE WALL PIPE DETAIL 1 (M7) — C4,M3



SECTION 2 (M7 | M7)



WALL PENETRATION SEAL DETAIL 3 (M7) — M4,M6,P2

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK BY
1	1/5/99	As-Built	RAS

DRAWING TITLE: **MECHANICAL DETAILS 1**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 620-0787

PROJ NO	DWN BY	CHK BY	DATE BY
0918.42	BLJ/VDR	LKW/SMH	RBG
0918.42	LKW/RAS		

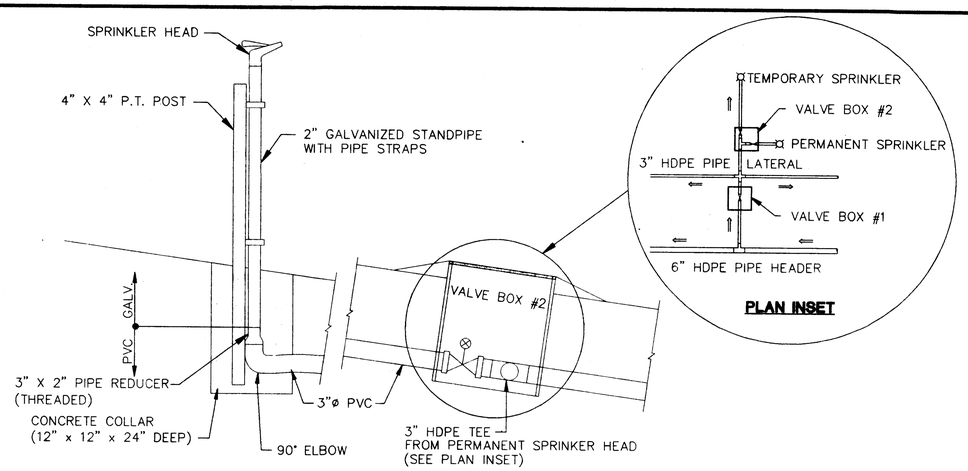
O/A RVW BY: ERC

CADD FILE: MDET2

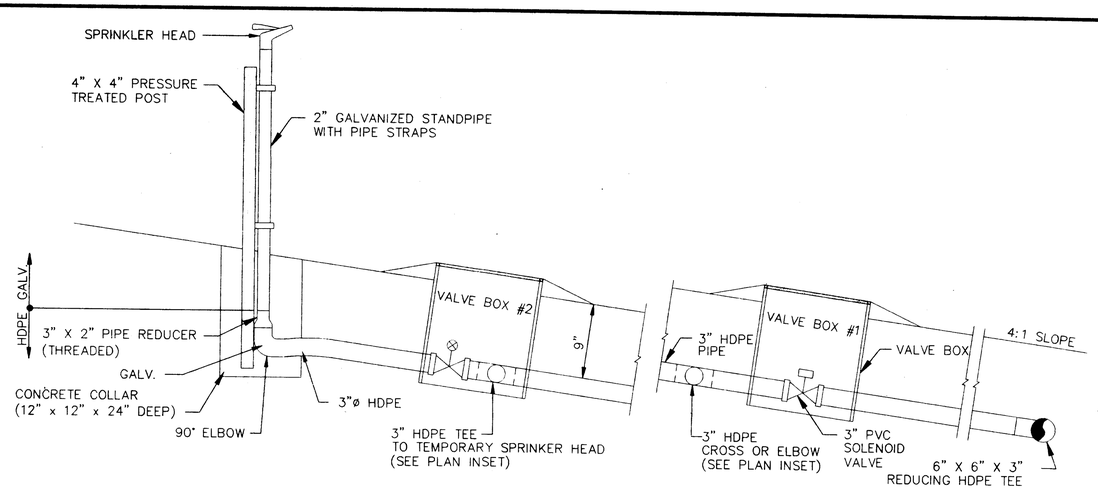
DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

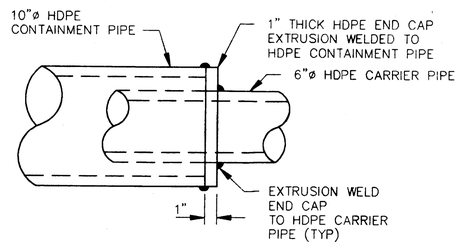
DRAWING NO. **M7** of 9



TEMPORARY SPRINKLER DETAIL 4 C3 M8

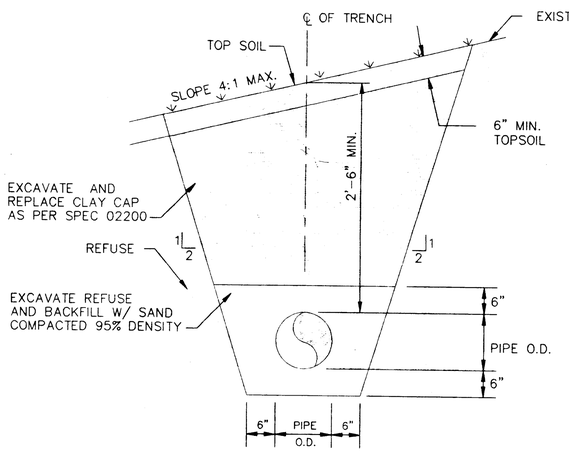


PERMANENT SPRINKLER DETAIL 1 C3 M8

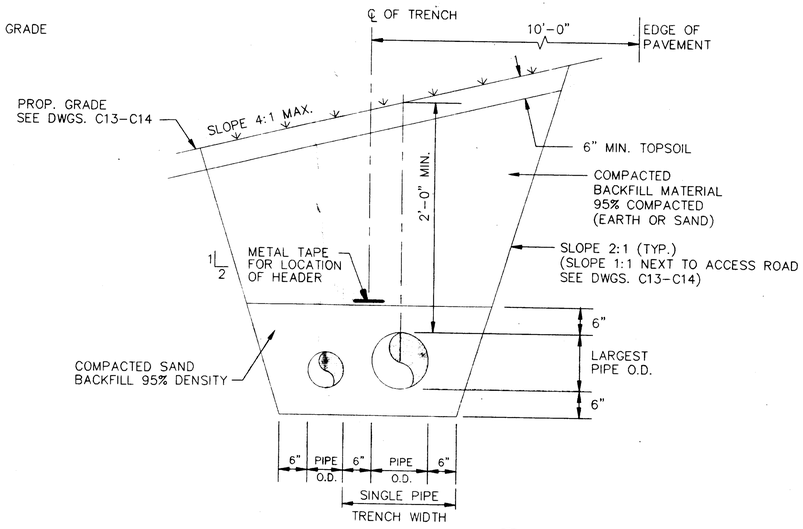


END CAP DETAIL 7 M8

M3,M5,M8

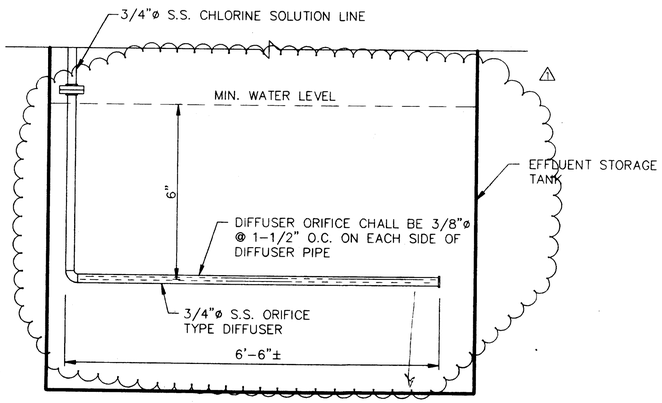


LANDFILL TRENCH DETAIL 5 C3 M8

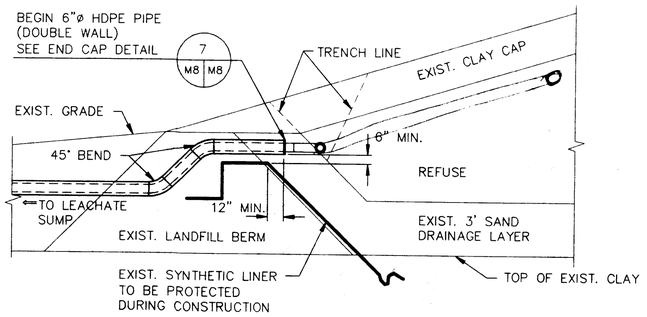


TYPICAL TRENCH DETAIL 2 M8

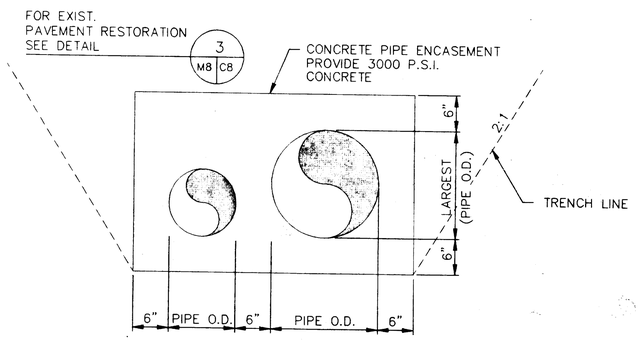
C3,C4,C10-C13



ORIFICE TYPE DIFFUSER DETAIL 8 M2 M8



LANDFILL BERM DETAIL 6 C3 M8



ENCASEMENT DETAIL 3 C7 M8

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV.	DATE	DESCRIPTION	CK. BY
1	1/5/95	As-Built	RAS

DRAWING TITLE: MECHANICAL DETAILS 2

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH: (813) 621-0080 FAX NO. (813) 623-6757

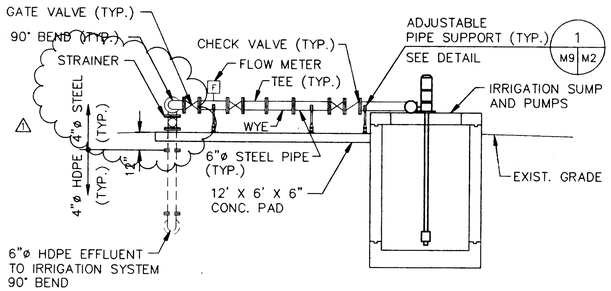
PROJ. NO.	DWN. BY	CHK BY	APP. BY
0990018.42	BLJ/VDR	ERC	RBG
DSN. BY	CHK. BY		
LER/LKW	LKW/SMH		

CADD FILE: MDET3

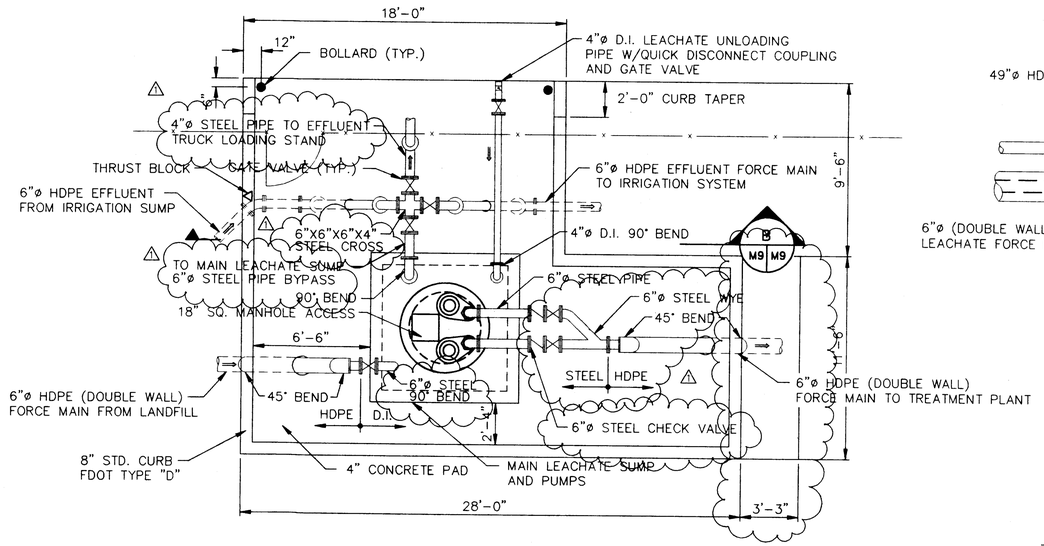
DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

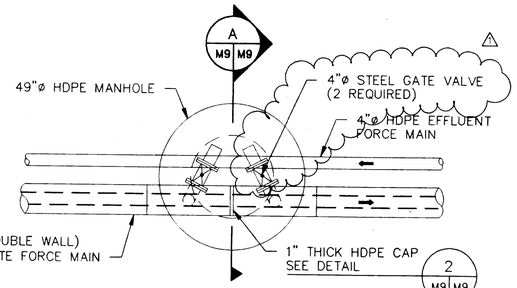
DRAWING NO.: M8 of 9



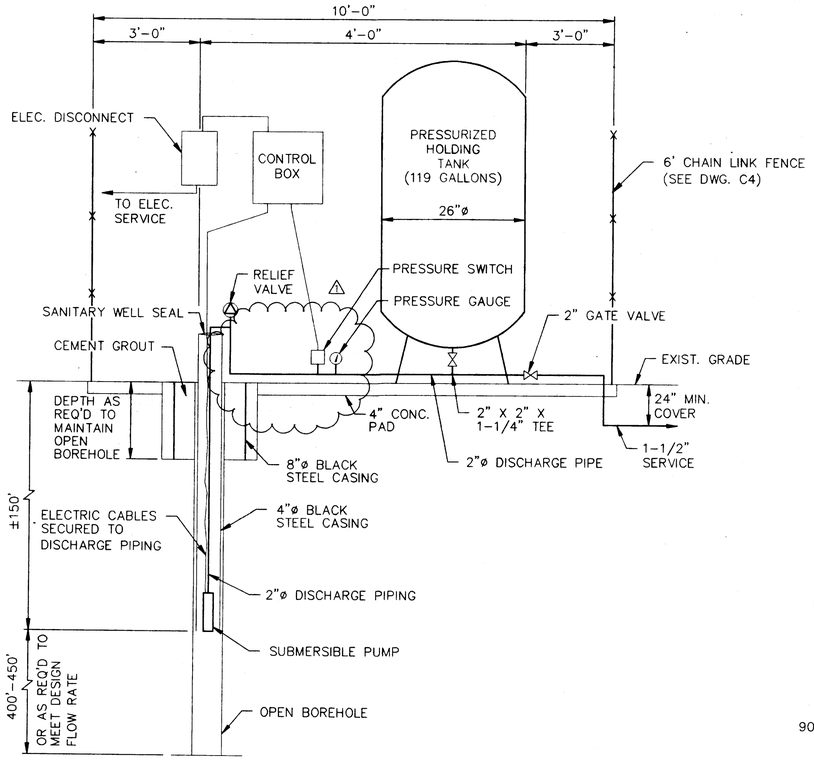
SECTION C M9 M9



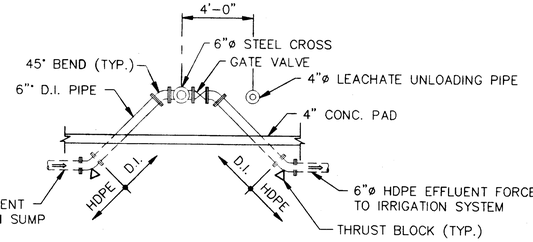
DETAIL 3 M5 M9



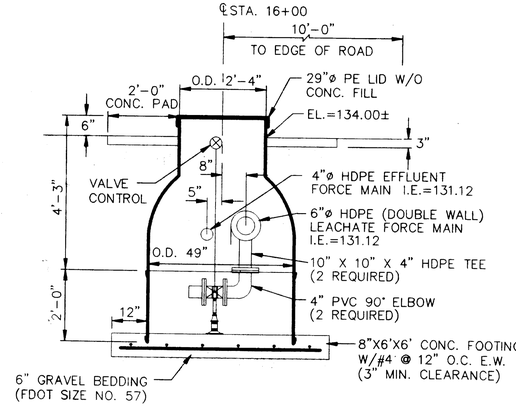
LEAK DETECTION HDPE MANHOLE DETAIL 1 C11 M9



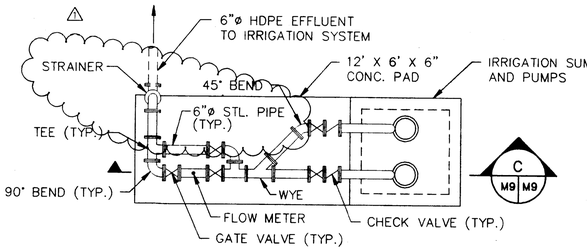
WATER WELL DETAIL 5 C4 M9



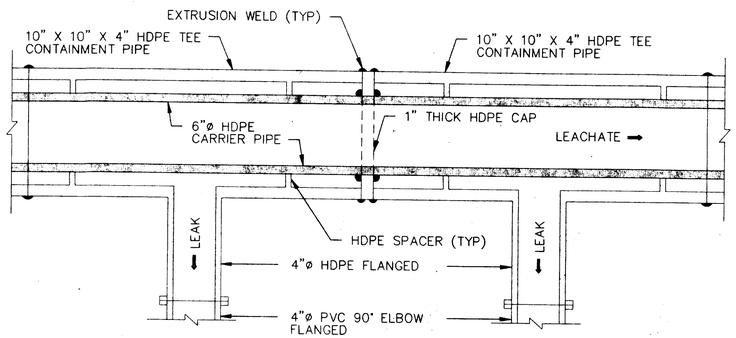
SECTION B M9 M9



SECTION A M9 M9



DETAIL 4 M5 M9



LEAK DETECTION HDPE TEE CONNECTION DETAIL 2 M9 M9

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

REV	DATE	DESCRIPTION	CK. BY
1	1/5/95	As-Built	RAS

DRAWING TITLE: **MECHANICAL DETAILS 3**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO.	DWN. BY:	CK'A D'W'N BY:	APP. BY:
0950018.42	BLJ/VDR	ERC	RBG
DSN. BY:	CHK. BY:		
LER/RAS	LER/SMH		

CADD FILE: MDET4

DATE: APRIL 27, 1992

SCALE: NOT TO SCALE

DRAWING NO.: **M9** of 9

FILTER SCHEDULE

AHU NO.		AHU-1
CFM		1950
PRE-FILTER	MIN. EFFICIENCY	PROVIDED WITH AHU-1
	INITIAL SP.	
	NOM.-SIZE (HxWxD)	
	MANUFACTURER	
	MODEL NO.	
	TYPE	
AFTER FILTER	MIN. EFFICIENCY	30%
	INITIAL SP.	.28
	NOM.-SIZE (HxWxD)	24x24x2
	MANUFACTURER	FARR
	MODEL NO.	30/30
	TYPE	PLEATED MEDIA
	TEST METHOD	ASHRAE 52-76

AIR DEVICE SCHEDULE

MARK	TYPE	SERVICE	MIN NECK SIZE INCHES	OVERALL FACE DIMENSIONS	MAX SP (INCHES)	BASIS OF DESIGN
AD-A	LOUVERED	SUPPLY	12x6	12x6	0.1	CARNES RNSAH
AD-B	PERFORATED	SUPPLY	14"ø	24x24	0.1	CARNES SPAB
AD-C	PERFORATED	RETURN	22x22	24x24	0.1	CARNES SPJB

NOTE : 1. PROVIDE A SQUARE TO ROUND TRANSITION FOR AD-A.

SPLIT TYPE AC SYSTEM

SYST. NO.	AIR HANDLING UNIT												AIR COOLED CONDENSING UNIT							
	AHU MARK	TYPE	FAN DATA					COOLING COIL				BASIS OF DESIGN	ACCU MARK	COMP		COND FAN		VOLTS/ø	AMB. TEMP.	BASIS OF DESIGN
			CFM	OA CFM	ESP*	MHP	VOLTS/ø	EDB	EWB	TOTAL	SENS.	TRANE		NO.	FLA	NO.	FLA			TRANE
1	AHU-1	VERTICAL	1950	200	1.5	1.0	460/3ø	80	67	56,700	42,200	TWE090A	ACCU-1	1	9.1	1	1.0	460/3	95	TTA060C

NOTE : 1. ESP INCLUDES DIRTY AFTER FILTER.
2. UNIT SHALL BE CONTROLLED BY THE HEAT/COOL/OFF THERMOSTAT.

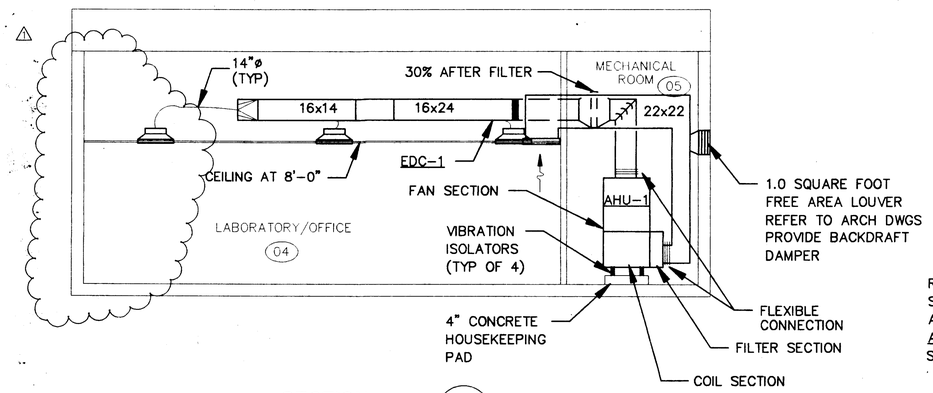
FAN SCHEDULE

FAN MARK	SERVICE	TYPE	CFM	S.P. (IN.)	RPM	BHP	ELECTRICAL DATA MHP	VOLTS	PHASE	DRIVE	BASIS OF DESIGN
F-1	EXHAUST	SIDEWALL PROP	1200	0.2	–	–	1/6	120	1	DIRECT	GREENHECK SDE-16-32-B
F-2	EXHAUST	SIDEWALL PROP	10000	0.2	–	–	3/4	460	3	BELT	GREENHECK SPF 42

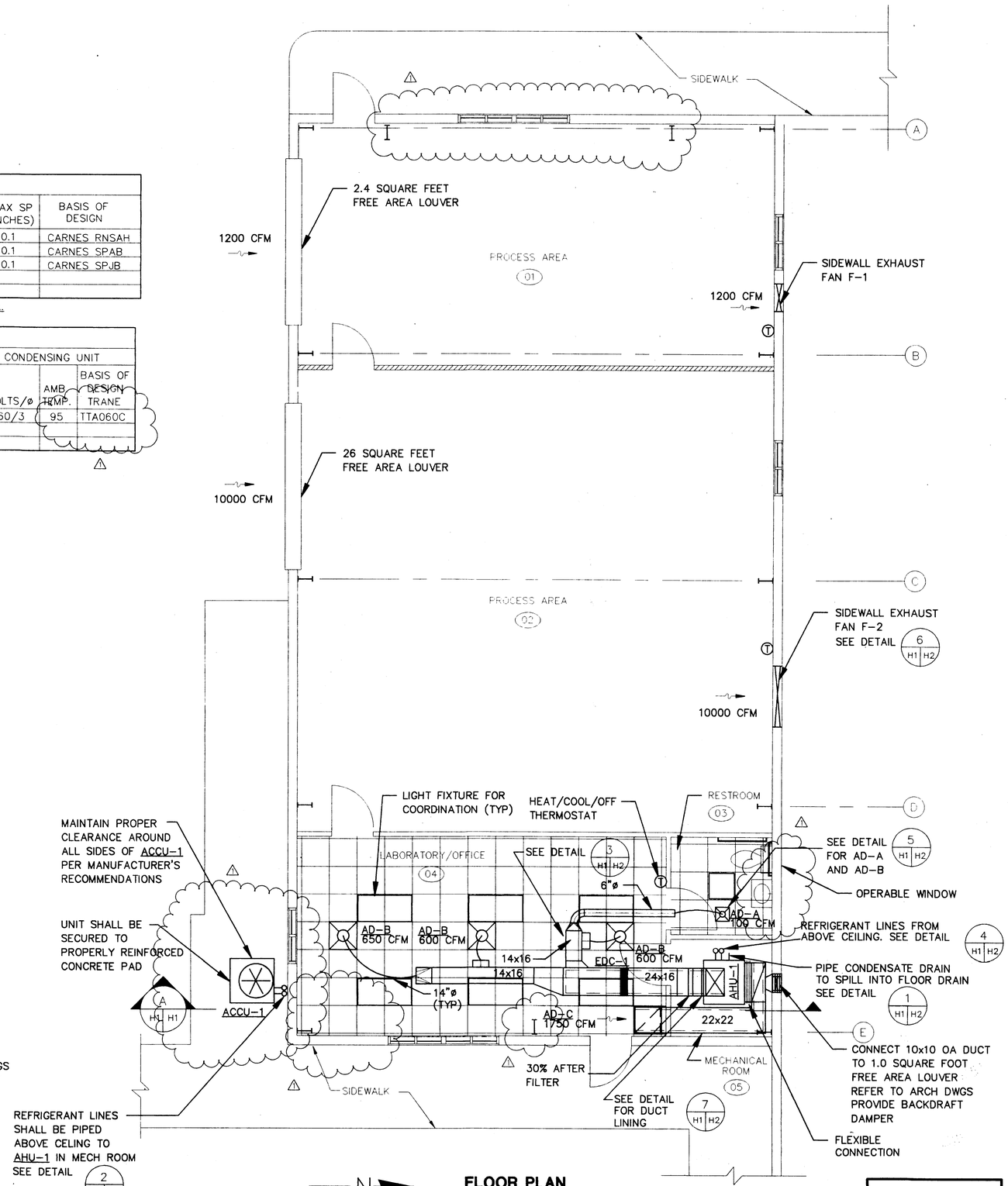
ELECTRICAL DUCT COIL SCHEDULE

NO.	SERVICE	LOCATION	SIZE	AIR DATA			ELEC. DATA			CONTR. STAGES
				CFM	EDB	LDB	kW	VOLT	ø	
EDC-1	LAB/OFFICE	DUCT	24x16	1950	72	78	5.0	460	3	1

NOTE : 1 HEATER SHALL BE INTERLOCKED WITH ACCU-1 COMPRESSOR TO ENSURE THAT OPERATION WILL NOT BE SIMULTANEOUS.
2. UNIT SHALL BE CONTROLLED BY THE HEAT/COOL/OFF THERMOSTAT.



SECTION A (H1 | H1)
SCALE: 1/4" = 1'-0"



FLOOR PLAN
SCALE: 1/4" = 1'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
SUITE 210
TAMPA, FLORIDA 33606
(813) 254-8899

REV.	DATE	DESCRIPTION	CK. BY
1	12/8/94	As-Built	RAS

DRAWING TITLE: BUILDING HVAC PLAN, SECTION AND SCHEDULES

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

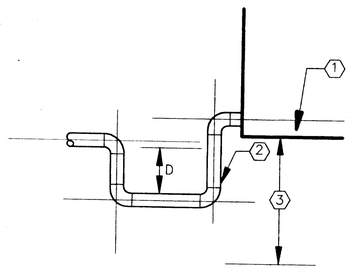
PROJ. NO.	DWN. BY	CHK. BY	APP. BY
0990018.42	BP	BP	JRP

CADD FILE: 5121H1

DATE: MAR. 27, 1992

SCALE: AS SHOWN

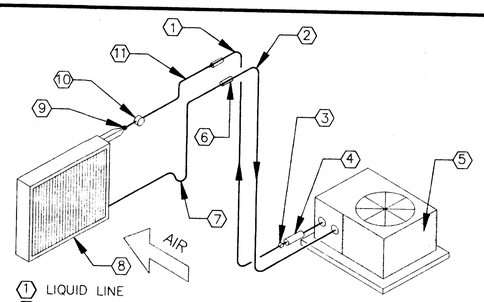
DRAWING NO. H1 of 2



1. AHU CONDENSATE DRAIN PAN.
2. EXTEND CONDENSATE LINE FULL SIZE FROM AHU COND. DRAIN PAN WHERE INDICATED ON DWGS.
3. UNIT SHALL BE SUPPORTED HIGH ENOUGH TO ACCOMMODATE PIPING ARRANGEMENT.
4. D = MINIMUM 2x EXTERNAL STATIC PRESSURE IN INCHES WATER COLUMN.

CONDENSATE DRAIN TRAP DETAIL

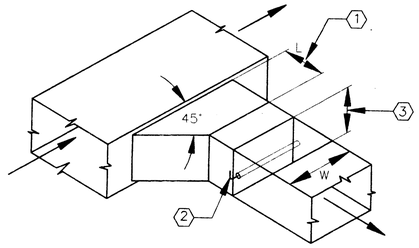
1 / H1 H2



1. LIQUID LINE
2. SUCTION LINE, INSULATED WITH ARMAFLEX OR EQUAL
3. SIGHT GLASS
4. FILTER/DRYER
5. AIR COOLED CONDENSING UNIT
6. PIPE SLEEVES THROUGH WALL
7. SUCTION TRAP
8. DIRECT EXPANSION EVAPORATOR COIL
9. COIL CONNECTOR
10. THERMOSTATIC EXPANSION VALVE
11. SLOPE LIQUID AND SUCTION LINES DOWN TOWARDS CONDENSING UNIT

TYPICAL DX SYSTEM INSTALLATION

2 / H1 H2

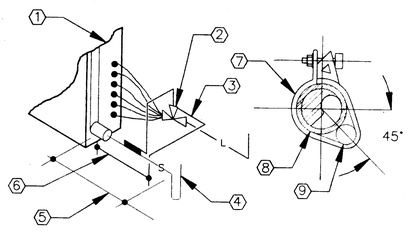


1. L=0.25xW(4" MIN.)
2. VOLUME CONTROL DAMPER WITH LOCKING NUT
3. OVER 12" HIGH USE MULTIPLE BLADES

NOTE: EXHAUST AND RETURN TAKE OFF IS SIMILAR

BRANCH DUCT-TAKE OFF DETAIL

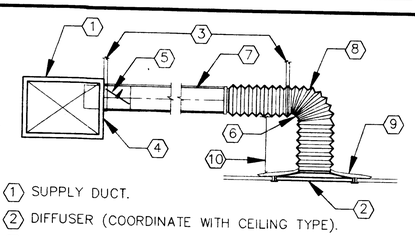
3 / H1 H2



1. DIRECT EXPANSION EVAPORATOR COIL
2. THERMOSTATIC EXPANSION VALVE
3. EQUALIZING LINE
4. TRAP
5. 4" MINIMUM
6. EQUALIZING LINE SHALL BE CONNECTED IN STRAIGHT SECTION OF SUCTION LINE AFTER THERMAL BULB. (NOT PERMITTED ON VERTICAL LINES.)
7. CLAMP
8. SUCTION LINE
9. THERMAL BULB LOCATION
10. THERMOSTATIC BULB TO BE AS CLOSE TO COIL AS POSSIBLE

REFRIGERANT COIL CONNECTION

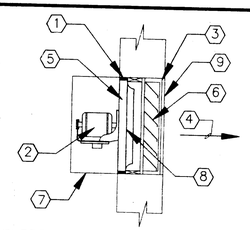
4 / H1 H2



1. SUPPLY DUCT.
2. DIFFUSER (COORDINATE WITH CEILING TYPE).
3. 1" HANGER STRAPS MAX. 10' SPACING.
4. WRAP INSULATION SECURE ON 18" SPACING WITH SCREWS.
5. TAKE-OFF W/DAMPER AT 45°, TAKE-OFF AT 90° W/AIR EXTRACTOR, OR SPIN-IN FITTING W/DAMPER AND SCOOP.
6. MINIMUM RADIUS EQUAL TO DUCT DIAMETER OR PROVIDE AN AIR STRAIGHTENING GRID.
7. METAL COLLAR WITH BAND CLAMP, SCREWED (3) PLACES AND TAPED TYPICAL BOTH ENDS OF FLEX DUCT.
8. INSULATED FLEXIBLE DUCT, MAXIMUM 12' LENGTH.
9. 2" DUCT WRAP OVER DIFFUSER. SEAL ENDS OF INSULATION.
10. PROVIDE 2 DUCT DIAMETERS VERTICAL RUN ABOVE DIFFUSER OR PROVIDE AN AIR STRAIGHTENING GRID.

SUPPLY DIFFUSER FLEX RUN-OUT DETAIL

5 / H1 H2

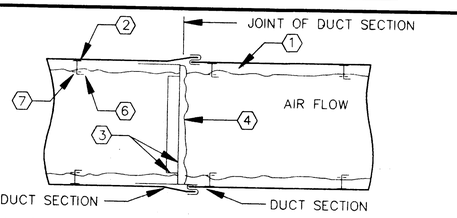


1. RUBBER IN SHEAR VIBRATION ELIMINATION PADS AT ALL FOUR CORNERS.
2. PROVIDE ELECTRICAL CONNECTION W/FLEXIBLE METAL CONDUIT TO MOTOR.
3. FACTORY SUPPLIED WALL COLLAR
4. AIR FLOW DIRECTION
5. FAN FRAME
6. GRAVITY DAMPER
7. OSHA APPROVED WIRE GUARD
8. ORIFICE RING
9. DAMPER GUARD

NOTE: REFER TO ARCHITECTURAL DRAWINGS A1 AND A2 FOR WALL CONSTRUCTION AND FAN MOUNTING HEIGHT.

PROPELLER FAN DETAIL

6 / H1 H2



1. UNLESS OTHERWISE NOTED, INTERNAL ACOUSTIC LINING SHALL BE 1" THICK (1.5LB/FT) MATT FACED FIBERGLASS CEMENTED TO DUCT WITH CEMENT (SIMILAR TO BENJAMIN-FOSTER 85-20) AND FASTENING PINS
2. SPOT WELD GALVANIZED FASTENING PINS 16" ON CENTER TO DUCT SIDES. UTILIZE WASHERS AND BEND PINS FOR DUCT LINING RETENTION.
3. 24 GAUGE GALVANIZED "U" SHAPE SHEET METAL NOSING SPOT-WELDED TO FOUR SIDES OF DUCT. THIS ALLEVIATES AIR FLOW BLOW-OFF OF LINING.
4. RAW END OF LINING SHALL NOT BE EXPOSED TO IMPACTING AIR FLOW. COAT ALL EDGES WITH NEOPRENE SPRAY.
5. DIMENSIONS OF ACOUSTIC LINED DUCTS INDICATED THROUGHOUT DRAWINGS ARE INSIDE CLEAR DIMENSION. DUCTWORK SHALL BE INCREASED TO ACCOMMODATE INTERIOR ACOUSTIC DUCT LINING.
6. FASTENING PIN (BENT)
7. PIN WASHER

ACOUSTIC DUCT LINING

7 / H1 H2

DRAWING NOTES

1. THESE DRAWINGS SHALL BE CONSIDERED AS BEING DIAGRAMMATIC AND FOR BIDDING PURPOSES ONLY. THESE DRAWINGS ARE GENERALLY TO SCALE AND ARE MADE AS ACCURATELY AS THE SCALE WILL PERMIT. HOWEVER, ALL IMPORTANT DIMENSIONS SHALL BE DETERMINED IN THE FIELD. THE DRAWINGS SHALL NOT BE CONSIDERED AS ERECTION DRAWINGS. THEY DO NOT INDICATE EVERY FITTING, ELBOW, OFFSET, VALVE, ETC. WHICH IS REQUIRED TO COMPLETE THE JOB. THE CONTRACTOR SHALL PREPARE FIELD ERECTION DRAWINGS FOR THE USE OF HIS MECHANICS TO ENSURE PROPER INSTALLATION.
2. CONTRACTOR IS RESPONSIBLE FOR READING THE ENTIRE CONTENTS OF THE PROGRAM MANUAL AND SPECIFICATION PORTION OF THIS CONTRACT DOCUMENT SET.
3. ALL DUCTWORK SIZES INDICATED THROUGHOUT THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
SUITE 210
TAMPA, FLORIDA 33606
(813) 254-8899

REV | DATE | DESCRIPTION | CK. BY

DRAWING TITLE: HVAC DETAILS

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3192 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

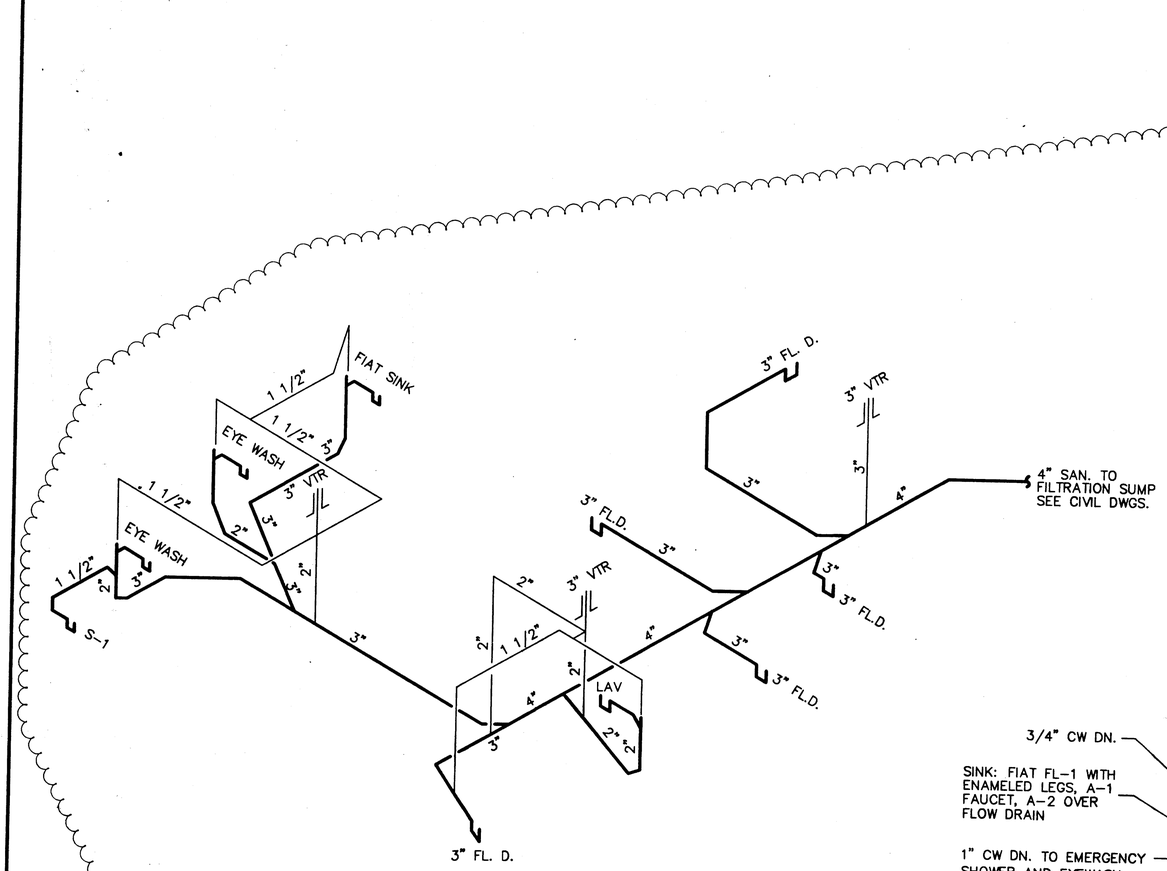
PROJECT NO. 90018.42 | DSN. BY: BP | DWN. BY: BP | CHK. BY: JRP | D/A REW BY: JRP | JRP BY: JRP

CADD FILE: 5121H2

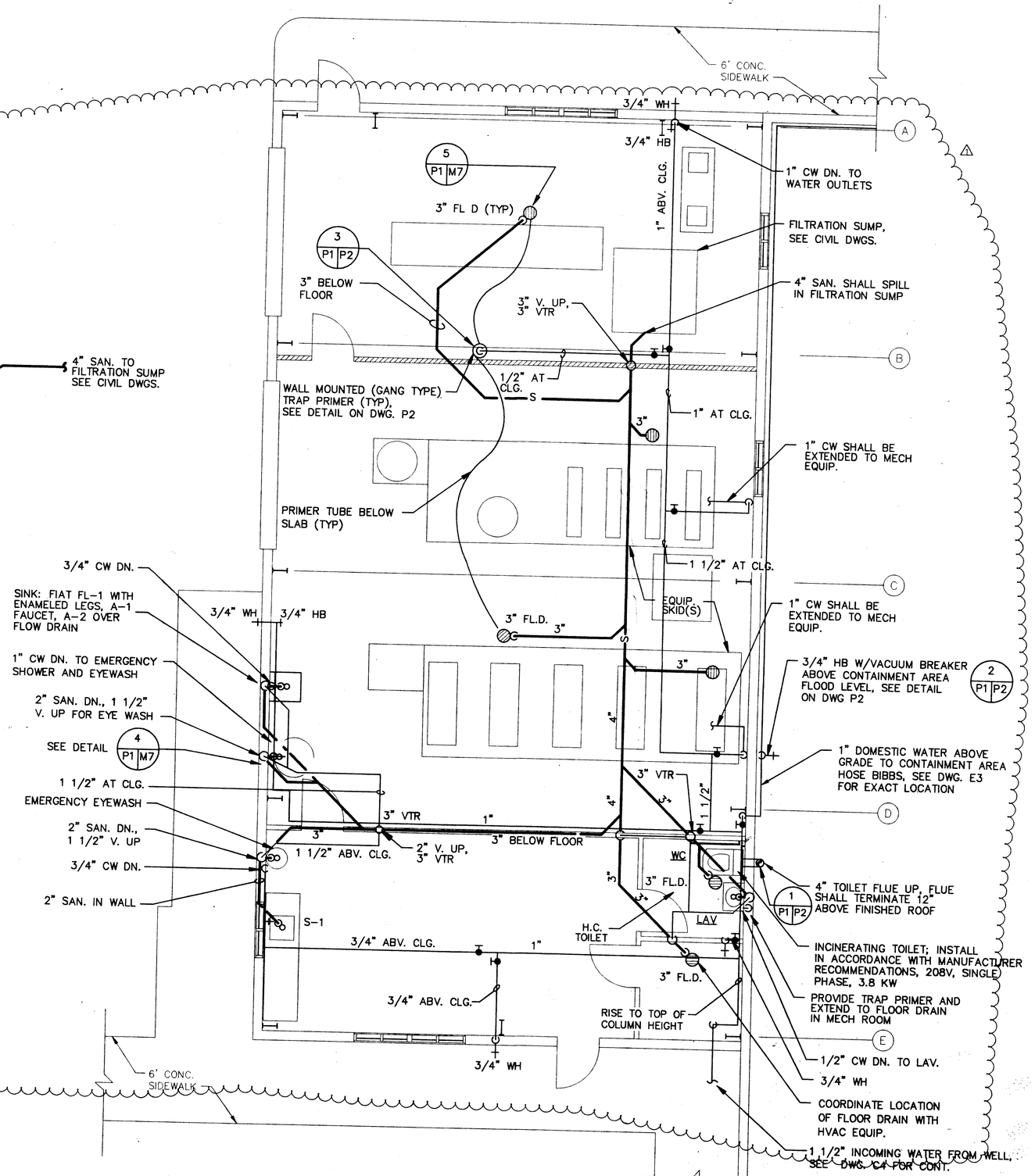
DATE: MAR. 12, 1992

SCALE: NOT TO SCALE

DRAWING NO. H2 of 2



SANITARY ISOMETRIC RISER DIAGRAM
NOT TO SCALE



FLOOR PLAN - PLUMBING
SCALE: 1/4" = 1'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
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TAMPA, FLORIDA 33606
(813) 254-5899

REV.	DATE	DESCRIPTION	CK BY
1	3/22/95	As-Built	RAS

DRAWING TITLE: BUILDING PLUMBING PLAN AND ELEVATIONS

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO. 099018.42
DSN. BY: JRP
DWN. BY: JCF
CHK. BY: JRP
QA/A ENW BY:
APP. BY:

CADD FILE: 5121P1

DATE: MARCH 12, 1992

SCALE: AS SHOWN

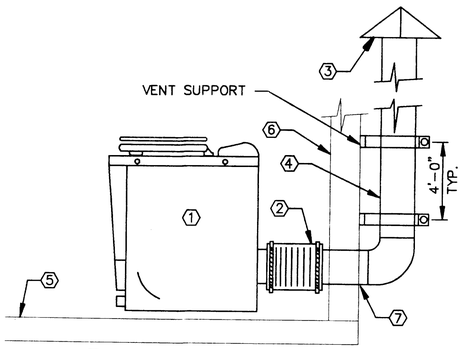
DRAWING NO. P1 of 2

FIXTURE CONNECTION SCHEDULE

FIXTURE	MOUNTING	BRANCH SIZE				DESCRIPTION	BASIS OF DESIGN
		DRAINAGE		WATER			
		WASTE	VENT	COLD	HOT		
WATER CLOSET (WC)	FLOOR	---	---	---	---	ELECTRIC INCINERATION TYPE TOILET, FLOOR MOUNTED, BACK VENT OUTLET, 4" VENT SHALL RUN VERTICAL TO 12" ABOVE FINISHED ROOF–INSTALL RAIN CAP, WALL MOUNT BOWL LINER DISPENSER, 3.8KW, 208V, 1 PHASE	INCINOLET MODEL TR
LAVATORY (LAV–1)	COUNTER	1 1/2"	1 1/2"	1/2"	---	COUNTER MOUNTED, ENAMELED CAST IRON, FRONT OVERFLOW, 4" CENTERS, LEVER TYPE HANDLES, POP–UP DRAIN	REFER TO O&M
LAB SINK (S–1)	COUNTER	1 1/2"	1 1/2"	1/2"		22x25x10 DEEP, STAINLESS STEEL, SELF–RIMMING, DEEP SINK, 20 GAUGE, 8" CENTERS, 4" WRIST BLADE HANDLES, SWING GOOSENECK SPOUT, GRID STRAINER, 1 COMPARTMENT	REFER TO O&M
EMERGENCY SHOWER/EYE WASH	FLOOR	SEE DWGS.	SEE DWGS.	1"	---	EMERGENCY SHOWER AND EYE WASH, ONE PIECE UNIT, GREEN ABS SHOWER HEAD, STAY OPEN BRASS BALL VALVE, STAINLESS STEEL EYE WASH BOWL W/ANTI SURGE SPRAY HEADS AND BRASS STAY OPEN VALVE, FOOT OPERATED SHOWER VALVE	HAWS: 8300
EMERGENCY EYE WASH	WALL	1 1/2"	1 1/2"	3/4"	---	WALL MOUNTED, STAINLESS STEEL, ANTI–SURGE SPRAY HEADS W/DUST COVERS, PUSH TYPE STAY OPEN BALL VALVE	HAWS: 7460BT

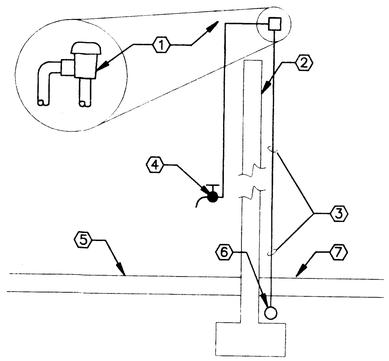
GENERAL NOTES

1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION.
2. DRAINAGE PIPING 2 1/2" AND LARGER SHALL SLOPE AT 1/8" FALL PER FOOT; PIPING 2" AND SMALLER SHALL SLOPE AT 1/4" FALL PER FOOT UNLESS OTHERWISE NOTED.
3. ALL FIXTURES SHALL BE PROVIDED WITH BELOW COUNTER SHUT–OFF VALVES.
4. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES INVOLVED.



1. INCINERATOR TOILET
2. MANUFACTURER SUPPLIED INSTALLATION KIT
3. RAIN CAP (AS PART OF INSTALLATION KIT) SHALL BE 12" ABOVE FINISHED ROOF
4. 4" SCH. 40 PVC VENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS
5. FINISHED FLOOR
6. EXTERIOR WALL
7. SEE DETAIL 3 ON DWG M7

ELECTRIC WATER CLOSET DETAIL 1 P1 P2

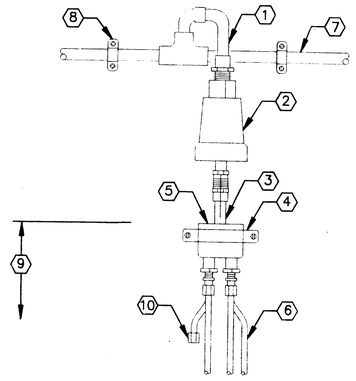


1. VACUUM BREAKER (MIN. 3" ABOVE CONTAINMENT WALL)
2. CONTAINMENT WALL
3. 3/4" WATER SUPPLY PIPE FOR HOSE BIBBS
4. HOSE BIBB (36" ABOVE FIN. SLAB)
5. CONTAINMENT AREA SLAB
6. HOSE BIBB(S) WATER SUPPLY PIPE BELOW SLAB
7. PROCESS AREA 02

NOTES:

1. PROVIDE STANDARD PIPE STRAPS AT 24" CENTERS AND SECURE TO WALL WITH CONCRETE INSERTS
2. SEE DWG. E–3 AND P–1 FOR LOCATION

HOSE BIBB DETAIL 2 P1 P2



1. 1/2" INLET
2. TRAP PRIMER VALVE
3. 1/2" OUTLET
4. MOUNTING BRACKET
5. FLOOR DRAIN TRAP PRIMER DISTRIBUTION UNIT
6. PRIMER TUBE(S) TO DRAIN TRAPS
7. DOMESTIC COLD WATER PIPE
8. PIPE MOUNTING BRACKET (TYPICAL)
9. HEIGHT SHALL BE 7'–0" ABVOVE FINISHED FLOOR
10. CAP UNUSED PRIMER TUBE(S)

TRAP PRIMER DISTRIBUTION UNITS DETAIL 3 P1 P2

AS–BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
SUITE 210
TAMPA, FLORIDA 33606
(813) 254–8899

REV.	DATE	DESCRIPTION	CK. BY
1	12/13/94	As–Built	RAS

DRAWING TITLE: **PLUMBING DETAILS**

PROJECT TITLE: **SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES**

CLIENT: **HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-8757

PROJ. NO. 0990018.42 | DSN. BY: JRP | DWN. BY: JCF | CHK. BY: JRP | 12/A R/W BY: | APP. BY:

CADD FILE: 5121P2

DATE: MARCH 12, 1992

SCALE: NOT TO SCALE

DRAWING NO. P2 of 2

PANEL: LP
VOLTAGE: 120/240v

PHASE: 10
BUSSING: 150 A MCB

MOUNTED: in MCC

LOAD	ØA	ØB	BKR	CKT			CKT	BKR	ØA	ØB	LOAD
Recept ❶ Filter Press	750		20/1	1	¥		2	20/1	1080		Lights @ Lab
Recept ❶ Process Area		960	20/1	3		¥	4	20/1		1680	Lights @ Process Room
Recept ❶ Lab/Office	720		20/1	5	¥		6	20/1	1080		Lights @ Filter Press
Spare			20/1	7		¥	8	20/2		0	Spare
Spare	0		20/1	9	¥		10	—	0		Spare
Annunciator Panel		120	20/1	11		¥	12	20/1			Spare
Spare	0		20/1	13	¥		14	20/1	0		Spare
Spare		0	20/1	15		¥	16	20/1		1640	Nutrient Meter #1 & #2
Meth Pump Control Panel	1680		20/1	17	¥		18	20/1	840		Polymer Mixer #1
Recept ❶ Outside		720	20/1	19		¥	20	20/1		840	Polymer Pump #1
Mcc Section 1 Controls	180		20/1	21	¥		22	20/1	840		Polymer Pump #2
Mcc Section 2 Controls		180	20/1	23		¥	24	20/1		840	Polymer Pump #3
Mcc Section 3 Controls	180		20/1	25	¥		26	20/1	360		Influent Flow Recorder
Mcc Section 4 Controls		180	20/1	27		¥	28	20/1			Spare
Mcc Section 5 Controls	180		20/1	29	¥		30	20/1	600		Filter Press Mixer
Mcc Section 6 Controls		180	20/1	31		¥	32	20/1		360	Flow Recorder
Spare	0		20/1	33	¥		34	20/2	1200		Electric Toilet
Chlorinator Room		3240	50/1	35		¥	36	—		1200	
TOTALS	3660	5580							6000	6560	TOTALS

Elan Electric Ent., Inc.
PO Box 818
Odessa, FL. 33556
813-920-8734

ØA: 9.660
ØB: 12,140
TOTAL LOAD (KVA): 21.80
PHASE LOAD (A/Ø): 80.50

NOTES: 10,000 AIC Breaker ratings

PANELBOARD "HP" SCHEDULE

WIRE & CONDUIT	BUS AMPS A	B	C	LOAD	CIRCUIT BREAKERS AMP/POLES	BUS			LOAD	BUS AMPS A	B	C	WIRE & CONDUIT
3#12,1#12G,3/4"C.	6			ELECTRIC DUCT HEATER	20/3	1	A	2	20/3 ACU	13			3#12,1#12G,3/4"C.
		6				3	B	4			13		
			6			5	C	6				13	
3#12,1#12G,3/4"C.	2			AHU-1	20/3	7	A	8	•20/3 EXHAUST FAN #2	2			3#12,1#12G,3/4"C.
		2				9	B	10			2		
			2			11	C	12				2	
2#12,1#12G,3/4"C.	13			LEACHATE SITE LIGHTS	20/1	13	C	14	20/1 SPARE				
				SPARE	20/1	15	A	16	20/3 WELL PUMP	6			4#10,1#10G,3/4"C.
				SPACE		17	B	18			6		
				SPACE		19	C	20				6	

TOTAL CONNECTED AMPS:	42	BUS A.	29	BUS B.	29	BUS C.
RECEPTACLE DEMAND AMPS:						
MOTOR DEMAND AMPS:	3		3		3	
CONTINUOUS LOAD DEMAND AMPS:	3					
MISC. DEMAND AMPS:						
NONCOINCIDENT DEMAND AMP:						
TOTAL DEMAND AMPS:	48		32		32	

CONNECTED KVA AT 1.0 PF =
NEC 90 220-13
NEC 90 430-24
NEC 90 220-10
NEC 90 220-21
NEC 90 220-10

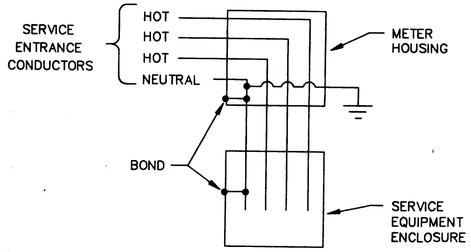
RATE VOLTAGE: 480/277, 3ø PHASE, 4W WIRE
PANEL CAPACITY: 20 POLES
RATED AMPS OF: BUSING 100 MLO _____ MCB _____ FEED
RATED BREAKER ISC 14 K AIC SYMM.
PANEL: MANUFACTURER CHALLENGER (OR EQUAL) _____ MOUNTED
LOCATION: LEACHATE TREATMENT FACILITY - LAB.

•CIRCUIT BREAKER SHALL BE LOCKABLE TYPE

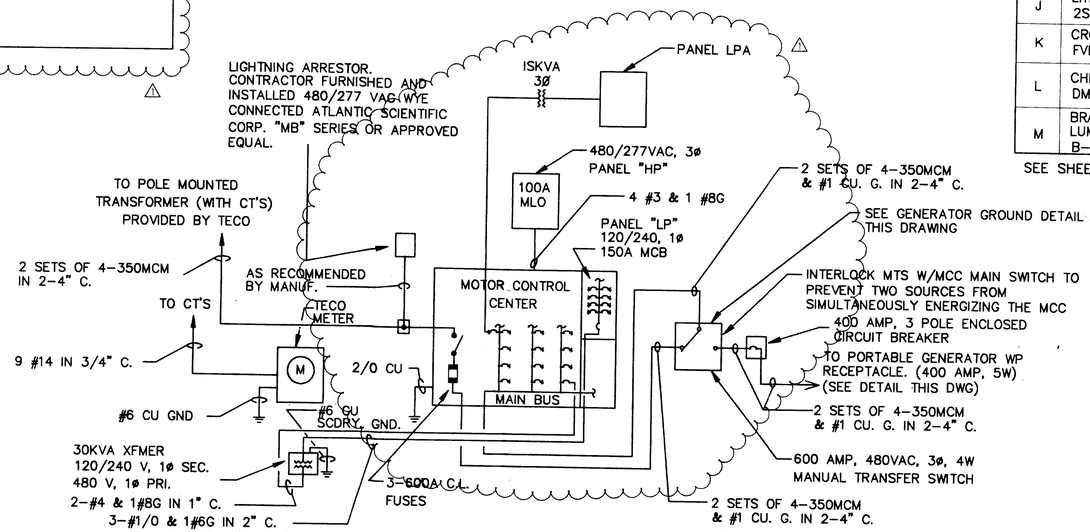
LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER CATALOG NO.	LAMPS	VOLT	MOUNTING	REMARKS
A	HOLOPHANE RPAK400HP27SLN	400W HPS	277	POLE	
B	HOLOPHANE IF2A400HP27WBLK	400W HPS	277	POLE	
C1	HOLOPHANE WP2A070HP12GR	70W HPS	120	WALL MOUNT	
C2	HOLOPHANE WP2A070HP12GR	70W HPS	277	WALL MOUNT	
D	LEVITON 9716-C	60WA19	120	WALL MOUNT	UTILITY LAMPHOLDER
E	LITHONIA MSEL	(2) 20T	120	TOP MOUNT	EXIT LIGHT STENCIL FACE
F	LITHONIA L296120ES	(2) 75W T12	120	CHAIN	
G	LITHONIA L296120EL	(2) 75W T12	120	CHAIN	SELF CONTAINED EMER. LTNG.
H	LITHONIA 2SPG340A12.125ES	(3) 40W	120	LAY-IN GRID	
I	LITHONIA 2SPG340A12.125EL	(3) 40W	120	LAY-IN GRID	SELF CONTAINED EMER. LTNG.
J	LITHONIA 2SPG2U40A12.125ES	(2) 40W	120	LAY-IN GRID	
K	CROUSE-HINDS FVN4240CG/TW	(2) 40W	120	CHAIN	LISTED FOR CLASS 1, DIV. 2 LOCATIONS
L	CHLORIDE SYSTEMS DM2F125-1Q2	(2) 8W	120	CHAIN	LISTED FOR CLASS 1, DIV. 2 LOCATIONS
M	BRANDHURST CORP. LUMINEXIT B-100N15EMB	NONE	NONE	WALL MOUNT	NO BATTERY NO ELECTRICITY

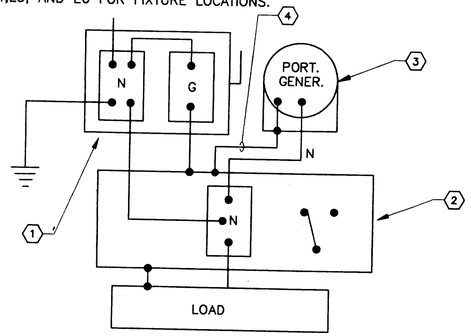
SEE SHEET E4,E5, AND E6 FOR FIXTURE LOCATIONS.



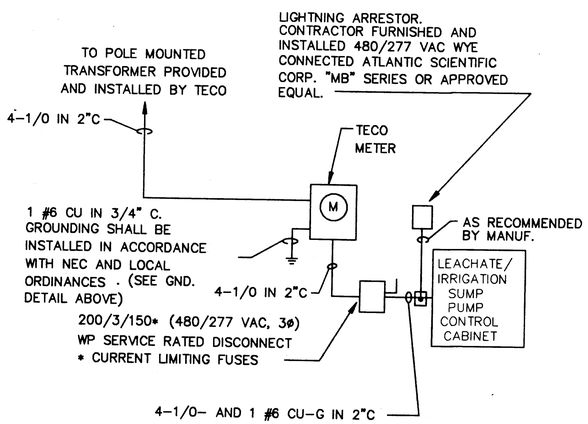
MAIN PUMPING STATION
SERVICE EQUIPMENT GROUNDING DETAIL (MPS) 1 / E6 E1
NOT TO SCALE



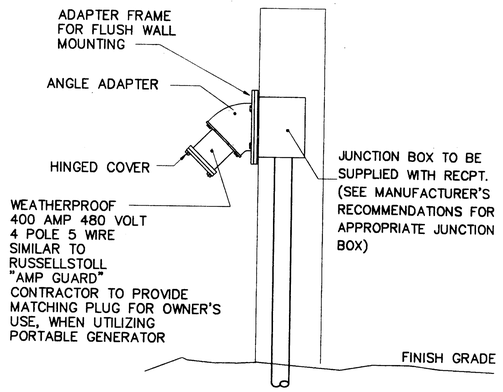
ELECTRICAL RISER - LEACHATE TREATMENT FACILITY 2 / E3 E1
NOT TO SCALE



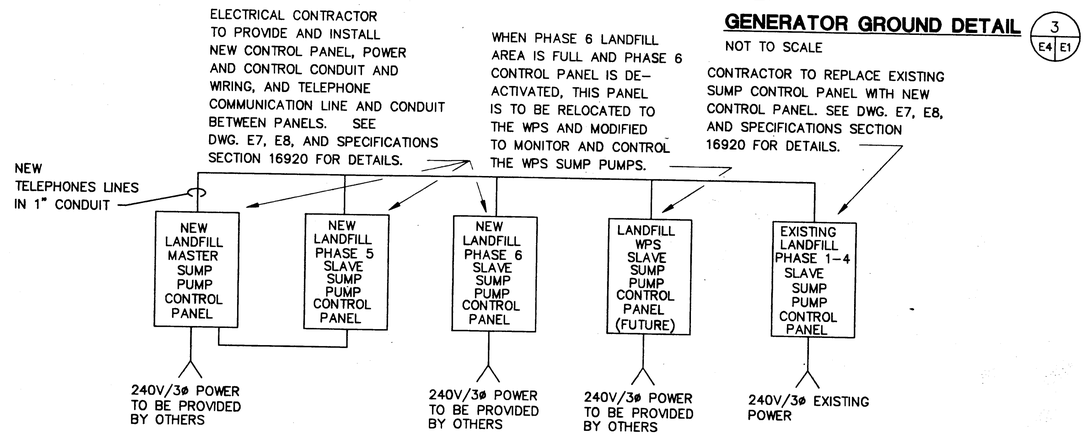
GENERATOR GROUND DETAIL 3 / E4 E1
NOT TO SCALE



ELECTRICAL RISER - MAIN PUMP STATION 4 / E6 E1
NOT TO SCALE



LEACHATE TREATMENT FACILITY PORTABLE GENERATOR RECEPTACLE DETAIL 5 / E4 E1
NOT TO SCALE



ELECTRICAL RISER - LANDFILL SUMP PUMPS 6 / E7 E1
NOT TO SCALE

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
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REV | DATE | DESCRIPTION | CK. BY
△1 | 12/19/94 | As-Built | RAS

DRAWING TITLE: ELECTRICAL SCHEDULES AND RISERS
PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
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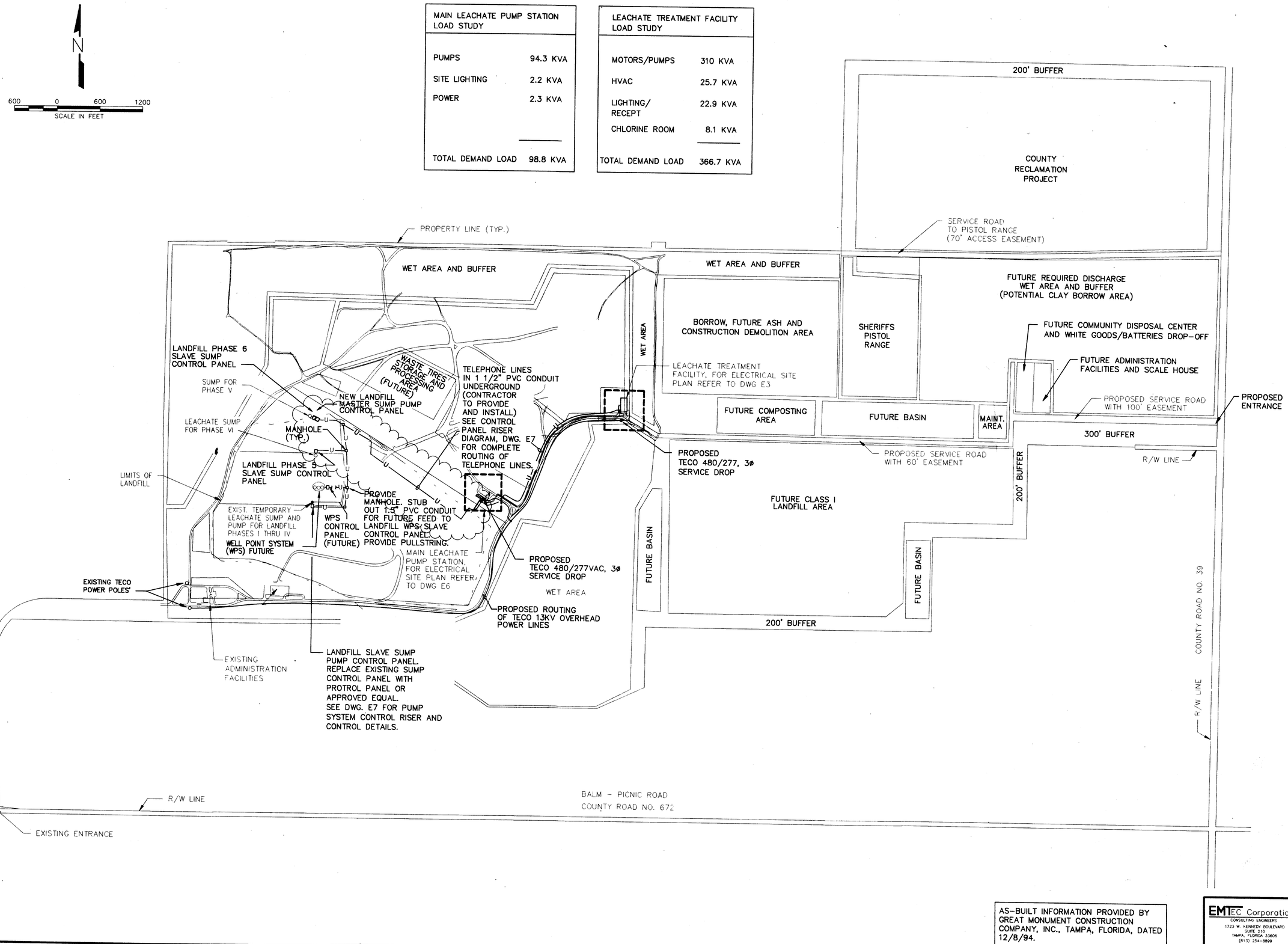
PROJ. NO. 0950018.42 | DWG. BY: DJM | CHK. BY: RAR | QA/A RVW BY: ? | APP. BY: RRS

CADD FILE: 5121E1
DATE: MAR. 27, 1992
SCALE: NOT TO SCALE
DRAWING NO. E1 of 8

MAIN LEACHATE PUMP STATION LOAD STUDY	
PUMPS	94.3 KVA
SITE LIGHTING	2.2 KVA
POWER	2.3 KVA
TOTAL DEMAND LOAD	98.8 KVA

LEACHATE TREATMENT FACILITY LOAD STUDY	
MOTORS/PUMPS	310 KVA
HVAC	25.7 KVA
LIGHTING/ RECEPT	22.9 KVA
CHLORINE ROOM	8.1 KVA
TOTAL DEMAND LOAD	366.7 KVA



AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
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TAMPA, FLORIDA 33606
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REV	DATE	DESCRIPTION	CK BY
1	12/14/94	AS-Built	RASK

DRAWING TITLE: ELECTRICAL SITE PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
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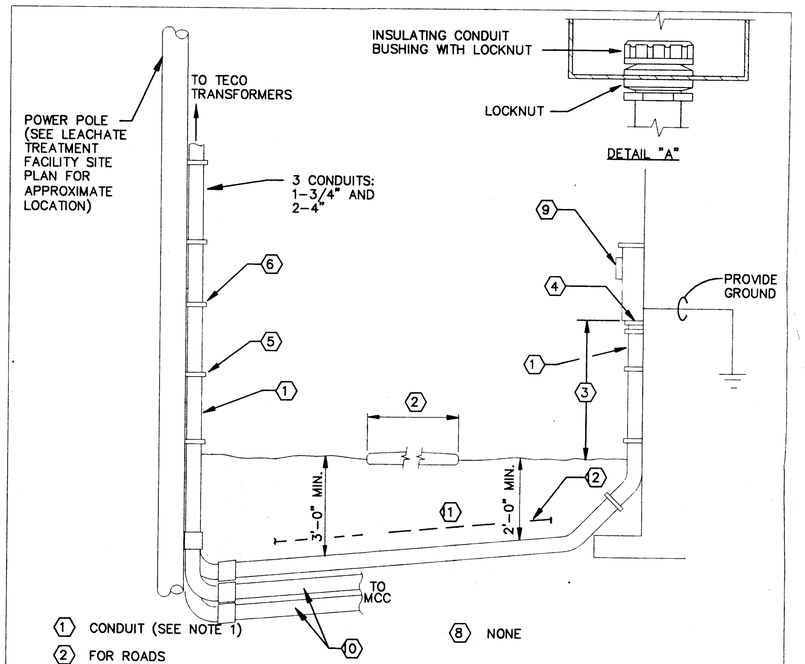
PROJ. NO.	DWN. BY	Q/A RVW BY	
0900018.42	DJM	?	
TSK. NO.	CHK. BY	APP. BY	
RAR	RAR	RRS	

CADD FILE: 5121E2

DATE: MAR. 27, 1992

SCALE: AS SHOWN

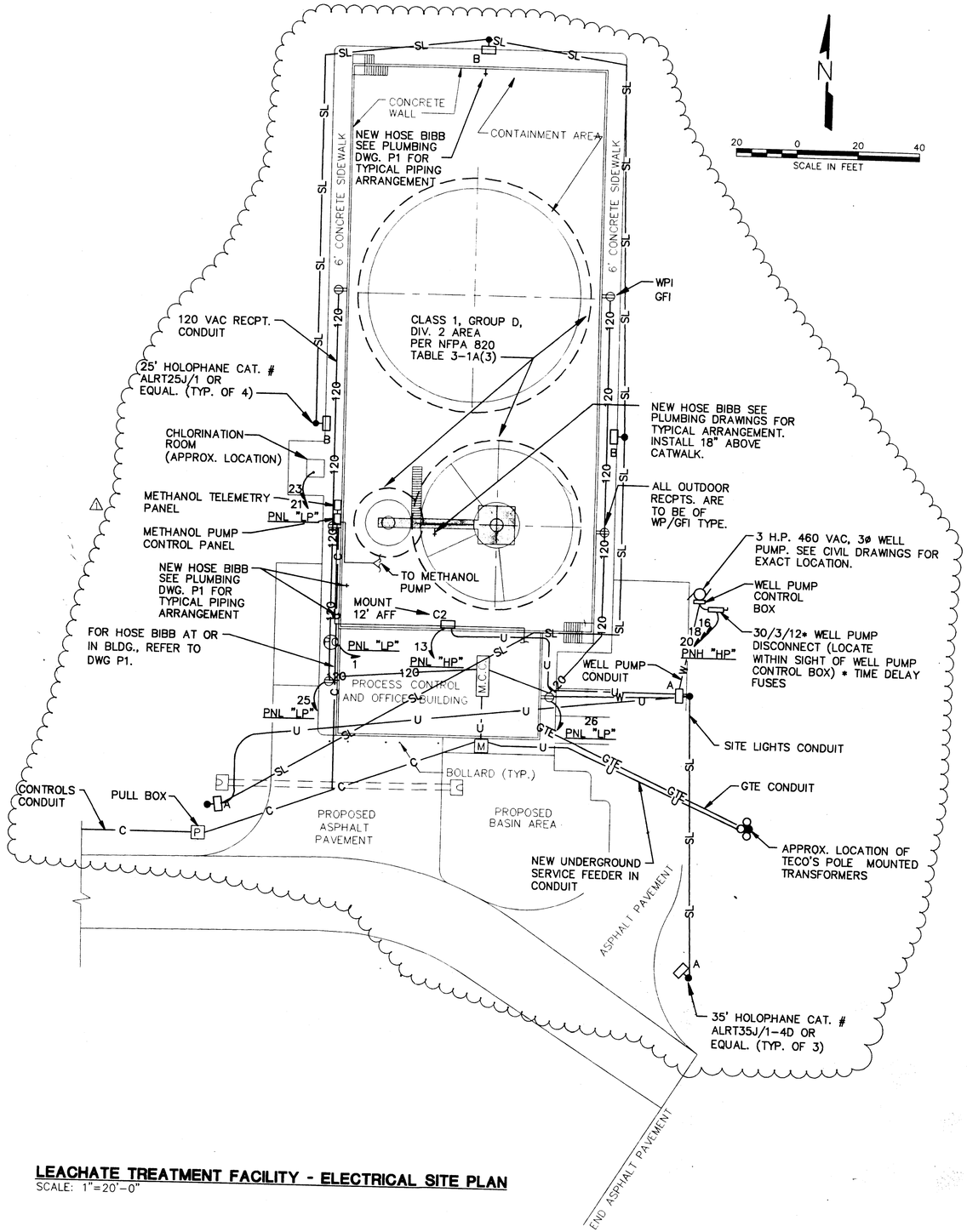
DRAWING NO. E2 of 8



1. CONDUIT (SEE NOTE 1)
2. FOR ROADS
3. 5'-0" TO FOOTER TOP
4. SEE DETAIL "A"
5. GROUND CONDUIT
6. PIPE STRAPS MAX. OF 2'-0" APART
7. NONE
8. NONE
9. METER SOCKET SUPPLIED BY TAMPA ELECTRIC CO. AND INSTALLED BY CONTRACTOR.
10. TECO TO PROVIDE SERVICE LATERAL CONDUCTORS (IN CONDUIT)
11. CONTRACTOR TO PROVIDE AND INSTALL CONDUITS WITH PULLWIRE . SEE RISER FOR SIZE.
12. 6" WIDE WARNING TAPE READING "CAUTION ELECTRIC LINE BURIED BELOW". GRAYBAR CAT. #HTU6Y-E OR EQUAL. LOCATE 1' ABOVE SERVICE LATERAL CONDUIT FOR ENTIRE BURIAL LENGTH. (TYPICAL FOR ALL SERVICE LATERALS.)

NOTES:
1. CONDUIT LESS THAN 10 FEET ABOVE GRADE SHALL BE RIGID GALVANIZED AND GROUNDED.
2. LIGHTNING ARRESTOR TO BE INSTALLED BY CONTRACTOR IN M.C.C. WHEN REQUIRED BY LOCAL ORDINANCE.

UNDERGROUND ELECT. SERVICE REQUIREMENTS
NOT TO SCALE (LEACHATE TREATMENT FACILITY)



LEACHATE TREATMENT FACILITY - ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
SUITE 210
TAMPA, FLORIDA 33606
(813) 254-8899

REV	DATE	DESCRIPTION	CK. BY
1	2/23/95	As-Built	RAS

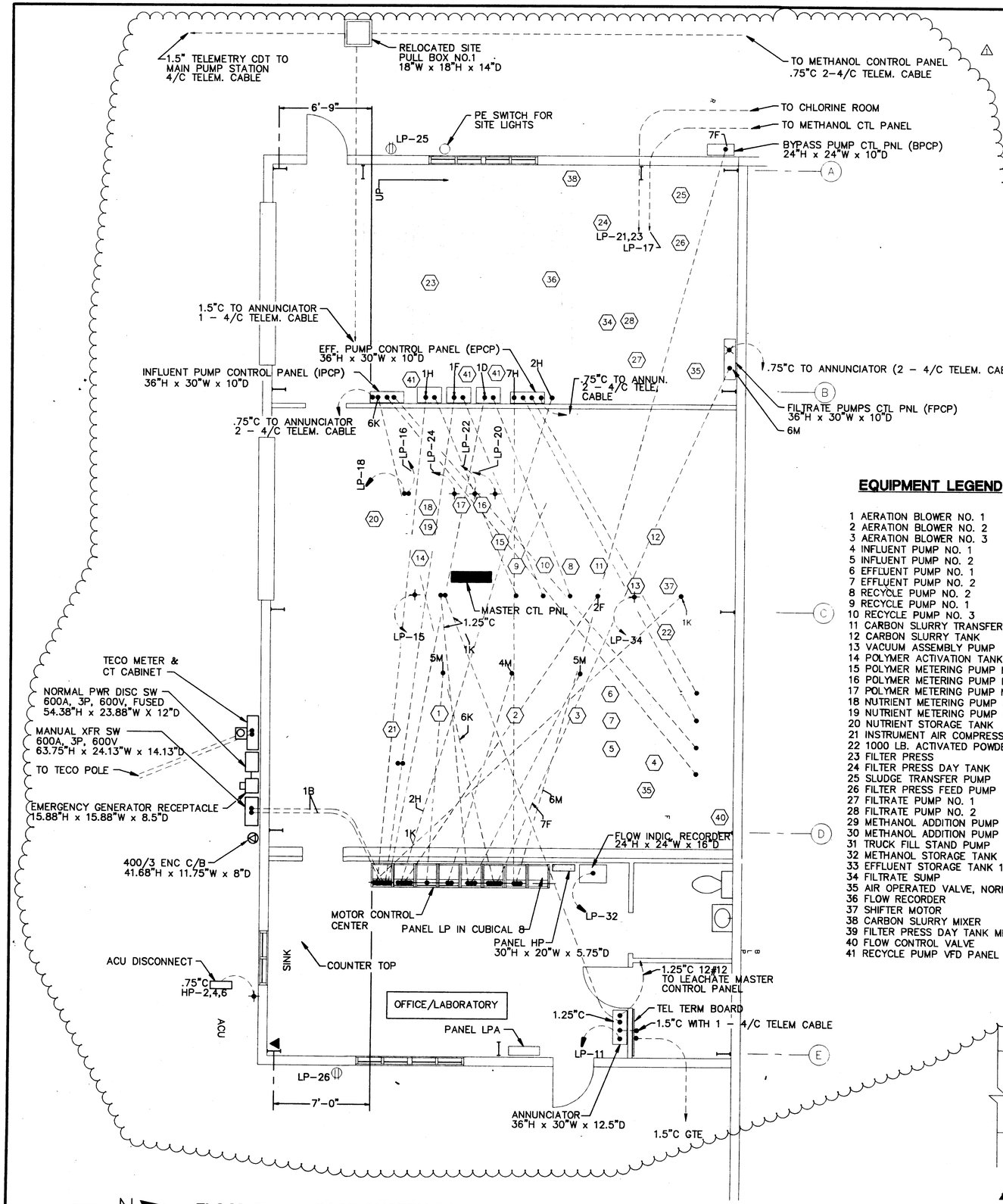
DRAWING TITLE: FACILITY ELECTRICAL SITE PLAN
PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

PROJ. NO. 09900018.42 | DWN. BY: DJM | D/A CHK BY: ? | CHK. BY: RAR | APP. BY: RRS | DSN. BY: RAR

CADD FILE: 5121E3
DATE: MAR. 23, 1992
SCALE: AS SHOWN
DRAWING NO. E3 of 8



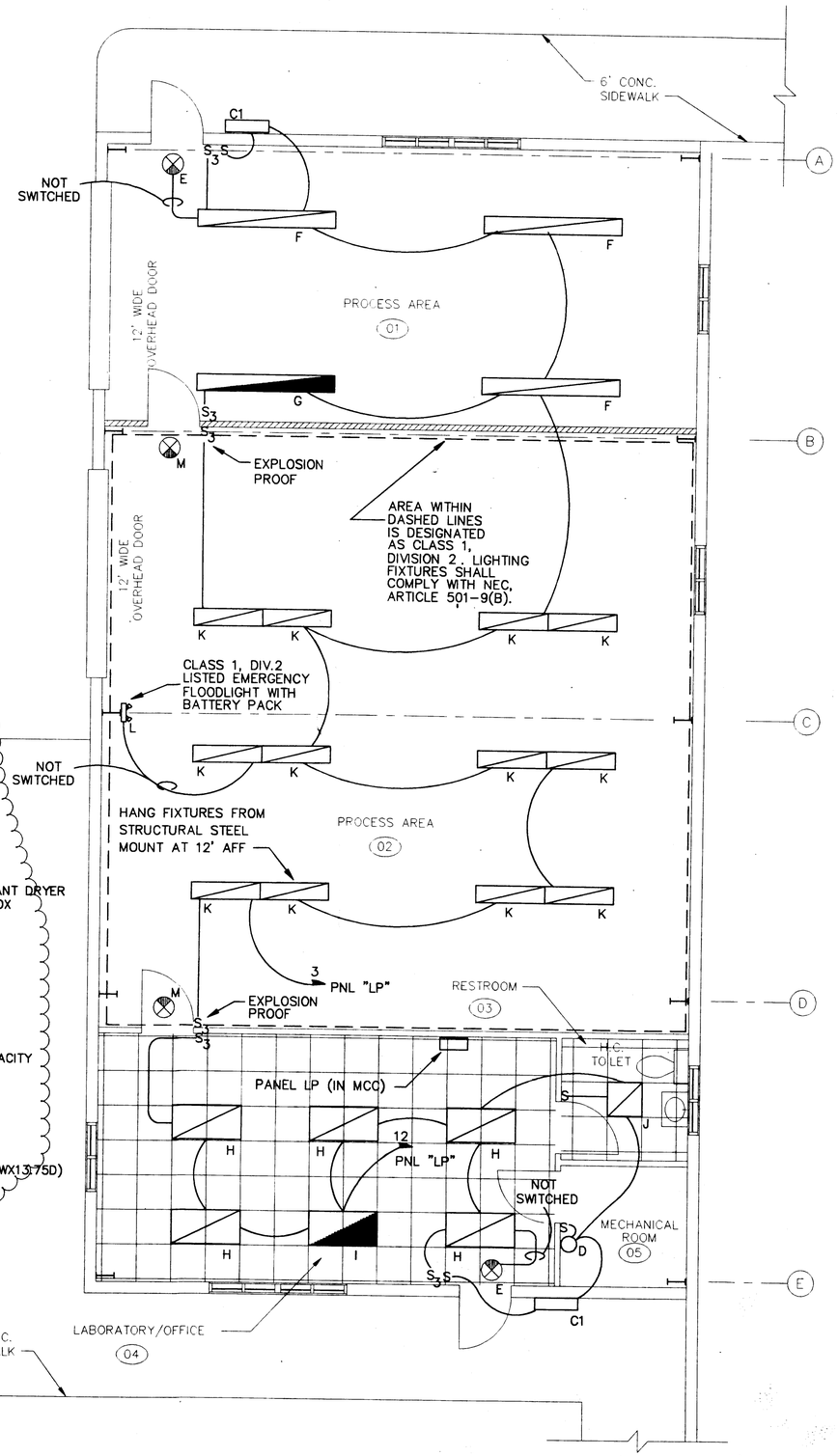
EQUIPMENT LEGEND

1 AERATION BLOWER NO. 1
2 AERATION BLOWER NO. 2
3 AERATION BLOWER NO. 3
4 INFLUENT PUMP NO. 1
5 INFLUENT PUMP NO. 2
6 EFFLUENT PUMP NO. 1
7 EFFLUENT PUMP NO. 2
8 RECYCLE PUMP NO. 2
9 RECYCLE PUMP NO. 1
10 RECYCLE PUMP NO. 3
11 CARBON SLURRY TRANSFER PUMP
12 CARBON SLURRY TANK
13 VACUUM ASSEMBLY PUMP
14 POLYMER ACTIVATION TANK
15 POLYMER METERING PUMP NO. 1
16 POLYMER METERING PUMP NO. 2
17 POLYMER METERING PUMP NO. 3
18 NUTRIENT METERING PUMP NO. 1
19 NUTRIENT METERING PUMP NO. 2
20 NUTRIENT STORAGE TANK
21 INSTRUMENT AIR COMPRESSOR/REFRIGERANT DRYER
22 1000 LB. ACTIVATED POWDER CARBON BOX
23 FILTER PRESS
24 FILTER PRESS DAY TANK
25 SLUDGE TRANSFER PUMP
26 FILTER PRESS FEED PUMP
27 FILTRATE PUMP NO. 1
28 FILTRATE PUMP NO. 2
29 METHANOL ADDITION PUMP NO. 1
30 METHANOL ADDITION PUMP NO. 2
31 TRUCK FILL STAND PUMP
32 METHANOL STORAGE TANK
33 EFFLUENT STORAGE TANK 1865 GAL CAPACITY
34 FILTRATE SUMP
35 AIR OPERATED VALVE, NORMALLY OPEN
36 FLOW RECORDER
37 SHIFTER MOTOR
38 CARBON SLURRY MIXER
39 FILTER PRESS DAY TANK MIXER
40 FLOW CONTROL VALVE
41 RECYCLE PUMP VFD PANEL (27.5"HX21.5"WX13.75D)

N

FLOOR PLAN - PACT SYSTEM POWER DISTRIBUTION PLAN

SCALE: 1/4" = 1'-0"



N

FLOOR PLAN - LIGHTING

SCALE: 1/4" = 1'-0"

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
SUITE 210
TAMPA, FLORIDA 33606
(813) 254-8899

REV.	DATE	DESCRIPTION	CK. BY
	12/19/94	As-Built	RAS

DRAWING TITLE: FACILITY BUILDING LIGHTING PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3030 U.S. HWY. 19 N., SUITE 200, TAMPA, FL 33609
PH: (813) 621-0080 FAX NO. (813) 626-6707

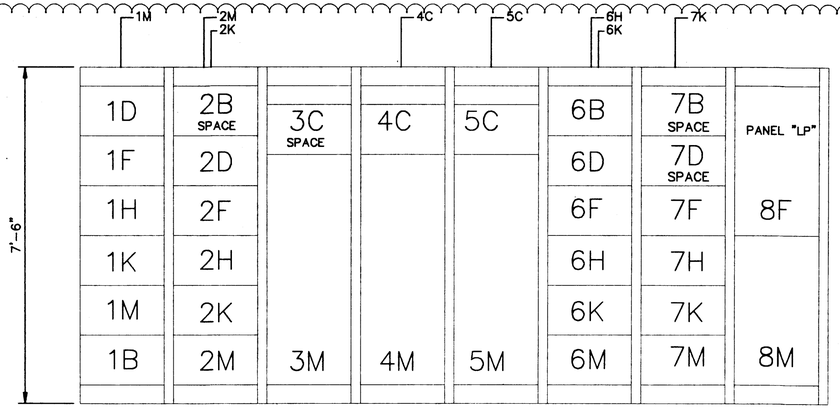
PROJ. NO.	DWN. BY	CHK. BY	QA/A RVW BY?	APP. BY
0590018.42	DJM	RAR		RRS

CADD FILE: 5121E4

DATE: MAR. 27, 1992

SCALE: AS SHOWN

DRAWING NO. E4 of 8



CHALLENGER MODEL NO. 2100 OR APPROVED EQUAL, 480/277 VAC, 3 ø, 4 WIRE MOTOR CONTROL CENTER WITH 50% RATED NEUTRAL, GROUND BAR, NEMA 1 ENCLOSURE, 21" DEEP, BUS BRACED FOR 65,000 AMPS . INTERRUPTING CAPACITY = 65,000 A 600 A CU MAIN BUS.

NOTE: THESE CONDUITS ARE TO BE INSTALLED EXPOSED, OVERHEAD

MOTOR CONTROL CENTER ELEVATION

NOT TO SCALE

MOTOR CONTROL CENTER ELEVATION

UNIT	DESCRIPTION	SIZE	AMPS	HP	START-STOPP	H-O-A	GREEN (STOPPED)	RED (RUN)	NAMEPLATE ID.	CDT	WIRE
1B	INCOMING		600 MLO							2-4:C	4#350 MCM
1D	A206	1	7	1.5	X	X	X	X	RECYCLE PUMP #1	.5"C	3#12, 1#12G
1F	A206	1	7	1.5	X	X	X	X	RECYCLE PUMP #2	.5"C	3#12, 1#12G
1H	A206	1	7	1.5	X	X	X	X	RECYCLE PUMP #3	.5"C	3#12, 1#12G
1K	A206	1	7	.75	X	X	X	X	SHIFTER MOTOR	.5"C	3#12, 1#12G
1M	A206	1	7	1.0	X	X	X	X	FROTH SPRAY MOTOR	.5"C	3#12, 1#12G
2B	SPACE								SPACE		
2D	A206	1	3	1.0	X	X	X	X	CARBON SLURRY MIXER	.5"C	3#12, 1#12G
2F	A206	1	3	1.0	X	X	X	X	CARBON SLURRY XFR PUMP	.5"C	3#12, 1#12G
2H	A206	1	3	.87	X	X	X	X	FILTER PRESS DAY TANK MIXER	.5"C	3#12, 1#12G
2K	A206	1	3	.5	X	X	X	X	CLARIFIER #1	.5"C	3#12, 1#12G
2M	A206	1	3	.5	X	X	X	X	CLARIFIER #2	.5"C	3#12, 1#12G
3C	SPACE								SPACE		
3D	A606	4	125	25	X	X	X	X	AERATION BLOWER #1	2"C	4#3/0, 1#6G
4C	A206	1	15	5	X	X	X	X	ANOXIC MIXER #1	.5"C	3#12, 1#12G
4M	A606	4	125	25	X	X	X	X	AERATION BLOWER #2	2"C	4#3/0, 1#6G
5C	A206	1	15	5	X	X	X	X	ANOXIC MIXER #2	.5"C	3#12, 1#12G
5M	A606	4	125	25	X	X	X	X	AERATION BLOWER #3	2"C	4#3/0, 1#6G
6B	A206	2	50	20	X	X	X	X	DUPLEX AIR COMPRESSOR	.75"C	3#8, 1#10G
6D	A206	2	50	20	X	X	X	X	DUPLEX AIR COMPRESSOR	.75"C	3#8, 1#10G
6F	A206	1	3	.5	X	X	X	X	SCUM PUMP #1	.5"C	3#12, 1#12G
6H	A206	1	3	.5	X	X	X	X	SCUM PUMP #2	.5"C	3#12, 1#12G
6K	FEEDER		20A HFD						INFLUENT PUMP CTL PANEL	.5"C	3#12, 1#12G
6M	FEEDER		30A HFD						FILTRATE PUMP CTL PANEL	.5"C	3#10, 1#10G
7B	SPACE								SPACE		
7D	SPACE								SPACE		
7F	FEEDER		30A HFD						BYPASS PUMP	.5"C	3#10, 1#10G
7H	FEEDER		20A HFD						EFFLUENT PUMP CTL PANEL	.5"C	3#12, 1#12G
7K	A206	2	50	15	X	X	X	X	AIR DRYER	1"C	3#6, 1#8G
7M	FEEDER		30A HFD						PANEL HP	1.25"C	4#3, 1#8G
8F	PANEL LP								PANEL LP		WIRED IN MCC
8M	XFMR								30 KVA XFMR		WIRED IN MCC

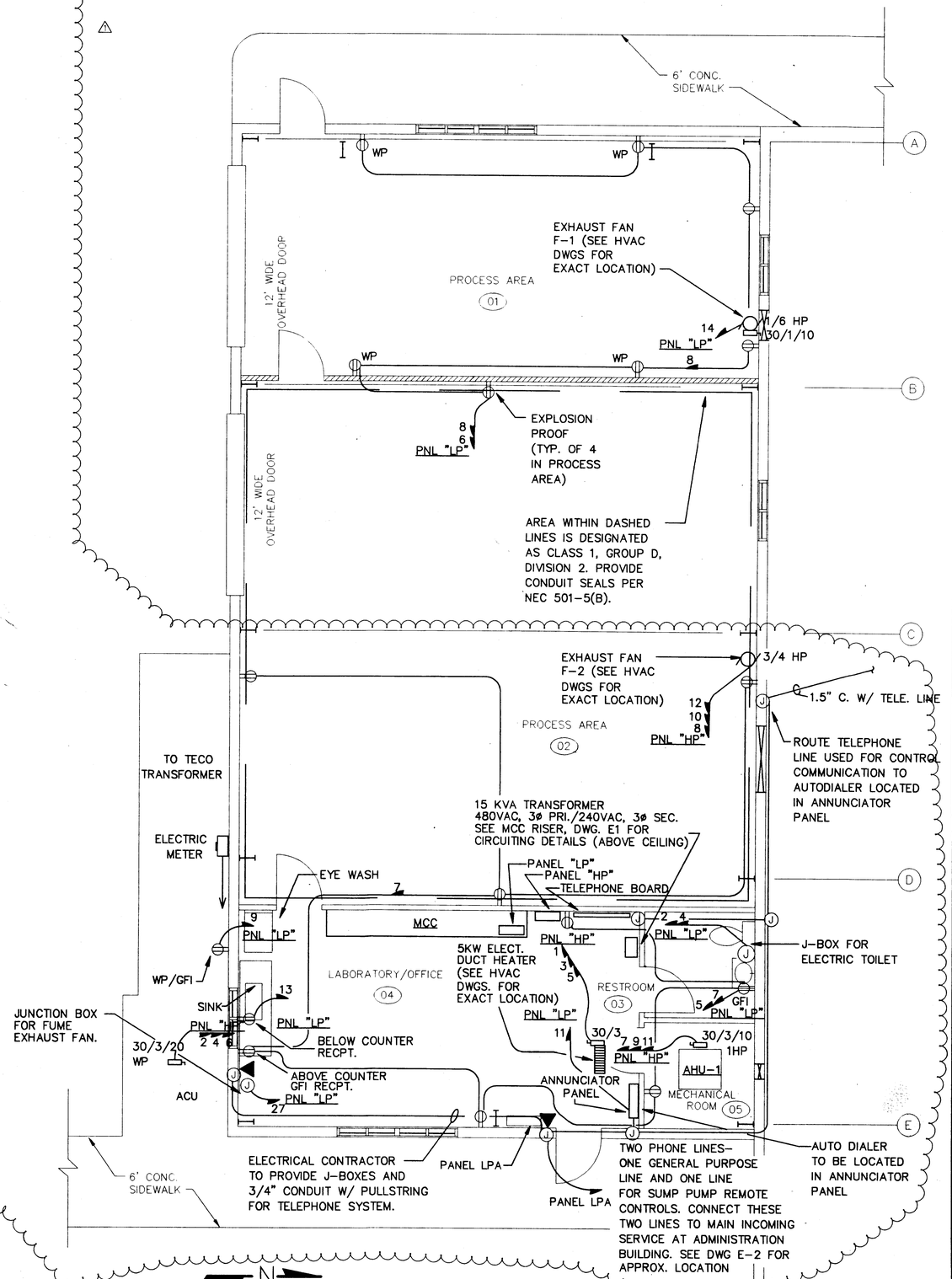
NOTE:

1. ALL CB'S ARE TO BE LOCKABLE (OPEN) TYPE
2. SEE SPECIFICATIONS FOR MOTOR WIRE AND CONDUIT SIZE
3. PACT SYSTEM INSTALLATION CONTRACTOR TO PROVIDE AND INSTALL CONTROL TRANSFORMERS AND RELAYS, CONTROL CONDUIT AND WIRING, AND INDIVIDUALLY MOUNTED MOTOR CONTROLLERS REQUIRED FOR PACT SYSTEM EQUIPMENT.
4. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL MOTOR OVERLOAD HEATERS TO MATCH MOTOR HP SIZE.

* ADJUST CB MAGNETIC TRIP SETTING AT TEN TIMES MOTOR NAMEPLATE FULL LOAD AMPS.

** WESTINGHOUSE SERIES "C", TYPE "FD" MOLDED CASE CIRCUIT BREAKER (OR EQUAL). FIRST NUMBER INDICATES AMP RATING OF CIRCUIT BREAKER.

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.



FLOOR PLAN - POWER

SCALE: 1/4" = 1'-0"

REV	DATE	DESCRIPTION	CK BY
1	12/19/94	As-Built	RAS

DRAWING TITLE: FACILITY POWER PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
302 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-4757

PROJ. NO.	DSN. BY:	CHK. BY:	Q/A REVIEW BY:	APP. BY:
090018.42	DJM	RAR	?	RRS

CADD FILE: 5121E5

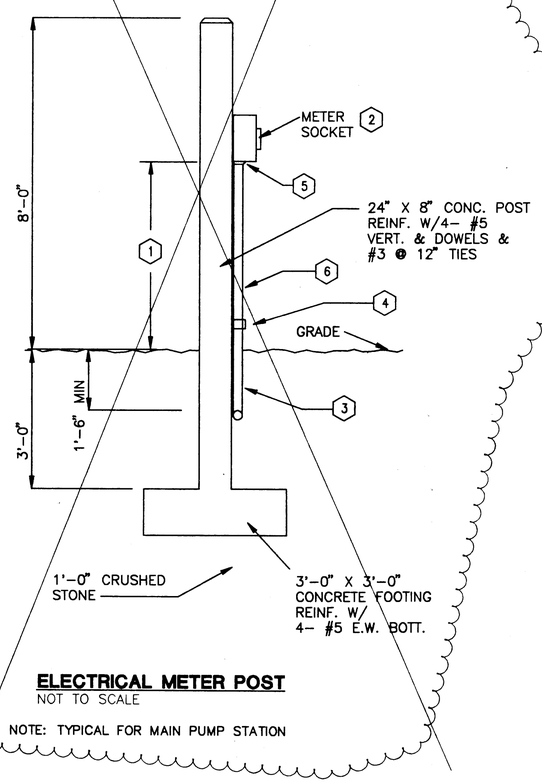
DATE: MAR. 27, 1992

SCALE: AS SHOWN

DRAWING NO. E5 OF 8

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD SUITE 210

1. 5'-0" TO TOP OF GRADE
2. METER SOCKET SUPPLIED BY TECO AND INSTALLED BY CONTRACTOR
3. CONTRACTOR TO PROVIDE AND INSTALL 2 1\2" SERVICE LATERAL CONDUIT WITH PULLWIRE. TECO TO PROVIDE AND INSTALL SERVICE LATERAL CONDUCTORS.
4. PIPE STRAPS MAX. OF 2'-0" APART
5. SEE DETAIL "A", SHEET E3.
6. CONDUIT LESS THAN 10 FEET ABOVE GRADE SHALL BE RIGID GALVANIZED AND GROUNDED



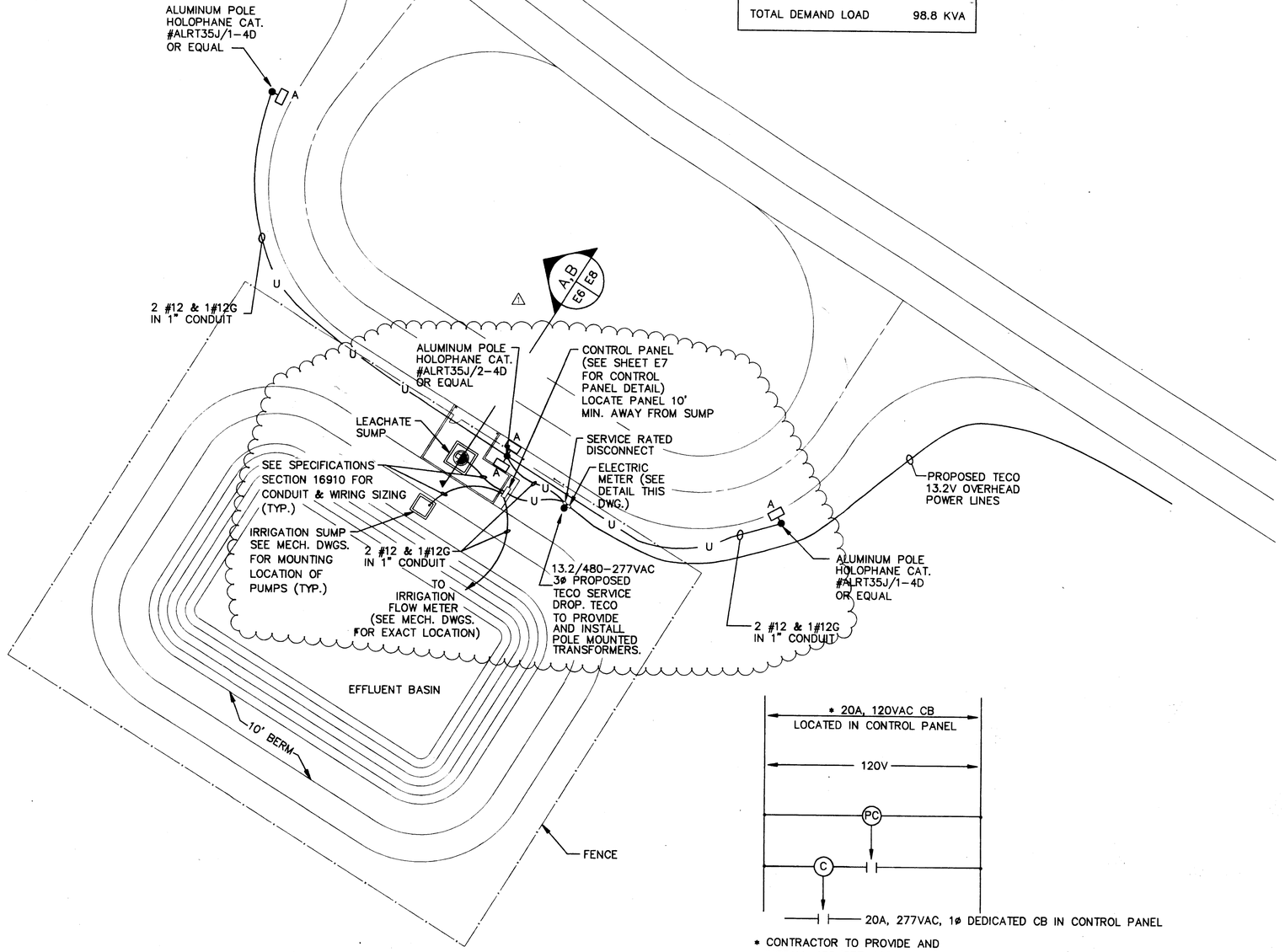
ELECTRICAL METER POST
NOT TO SCALE

NOTE: TYPICAL FOR MAIN PUMP STATION

MAIN LEACHATE PUMP STATION LOAD STUDY	
PUMPS: (2-25HP IRR. PUMPS & 2-15HP LEACH. PUMPS)	94.3 KVA
SITE LIGHTING:	2.2 KVA
POWER:	2.3 KVA
TOTAL DEMAND LOAD	98.8 KVA

N

20 0 20 40
SCALE IN FEET



MAIN LEACHATE PUMP STATION - ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

* CONTRACTOR TO PROVIDE AND INSTALL 480/277-120V, 1ø, 3KVA TRANSFORMER FOR 120VAC CIRCUITS.

SITE LIGHTING CONTROL CIRCUIT
NOT TO SCALE

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
SUITE 210
TAMPA, FLORIDA 33606
(813) 254-3892

REV.	DATE	DESCRIPTION	CK. BY
1	12/19/94	As-Built	RAS

DRAWING TITLE: PUMP STATION ELECTRICAL SITE PLAN

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 623-6757

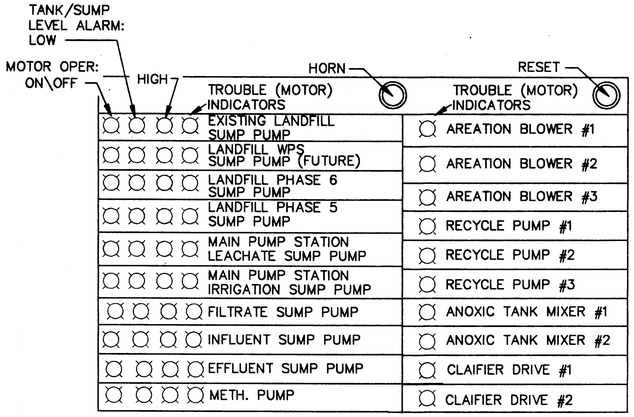
PROJ. NO. 0990018.42 | DWN. BY DJM | CHK. BY RAR | QA/QC BY RRS | DSN. BY RAR

CADD FILE: 5121E6

DATE: APRIL 27, 1992

SCALE: 1"=20'

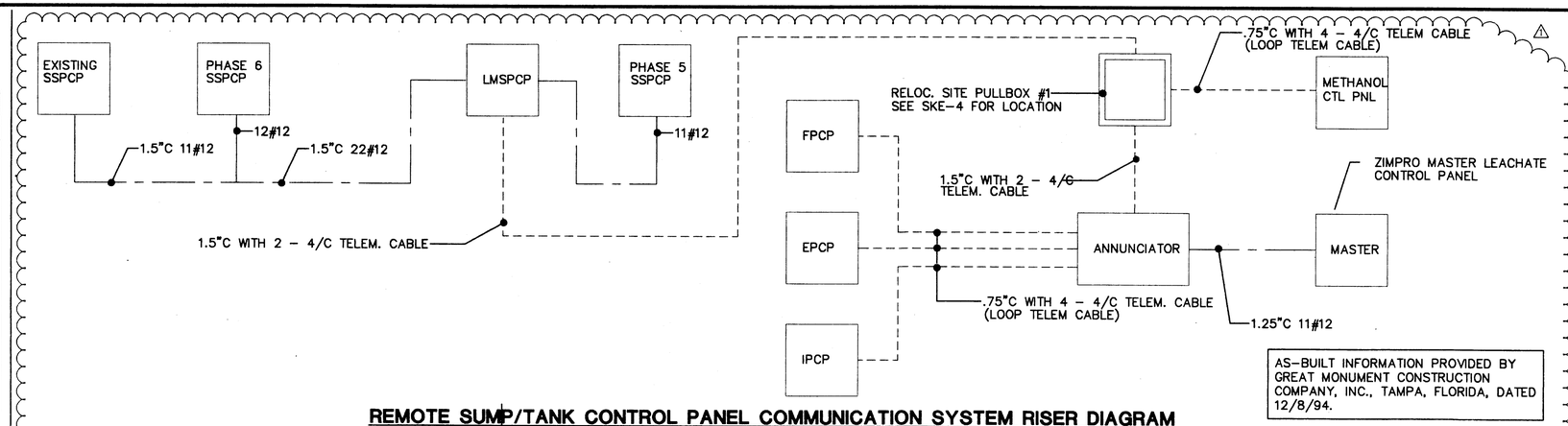
DRAWING NO. E6 of 8



NOTE: ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ANNUNCIATOR PANEL AND A MONITORING CIRCUIT TO EACH MOTOR TO BE BE WIRED IN SERIES WITH ANY NORMALLY CLOSED DEVICES (SEAL CHAMBER MOISTURE SENSOR, MOTOR WINDING HEAT SENSORS, ETC.) TO ILLUMINATE CORRESPONDING TROUBLE INDICATORS WHEN ANY OF THESE SENSOR DEVICES BECOME OPEN CIRCUITED. MONITORING CIRCUITS (INCLUDING RELAYS, CONDUITS, & CONDUCTORS) TO BE PROVIDED & INSTALLED BY ELECTRICAL CONTRACTOR FOR INDICATING "LOW","HIGH","ON" AND "OFF", CONDITIONS OF CORRESPONDING EQUIPMENT SHOWN. LOCATE AUTO DIALER IN ANNUNCIATOR PANEL.

EXTERIOR

ANNUNCIATOR PANEL IN LABORATORY

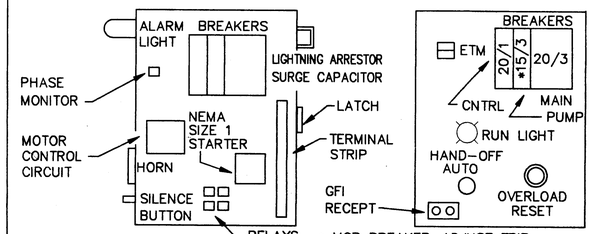


REMOTE SUMP/TANK CONTROL PANEL COMMUNICATION SYSTEM RISER DIAGRAM

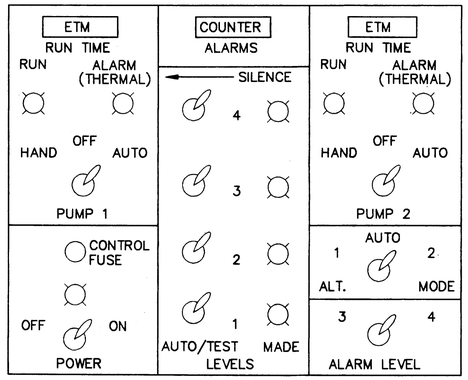
PARTIAL PUMP CONT. & ALARM SEQUENCE: (SEE SPECIFICATIONS SECTION 16920 FOR COMPLETE PUMP ALARM SEQUENCE)

PUMP #	DESCRIPTION	PUMP CONTROL SEQUENCE
1	EXISTING LANDFILL SUMP PUMPS	LL SHUTS DOWN PUMPS #1
2	MAIN PUMP STATION (LEACHATE SUMP)	HL SHUTS DOWN PUMPS #1 LL SHUTS DOWN PUMPS #2
3	INFLUENT PUMPS (500,000 GAL. HOLDING TANK)	HL SHUTS DOWN PUMPS #2 & #4 LL SHUTS DOWN PUMPS #3
4	FILTRATE SUMP PUMPS (FILTRATE SUMP)	LL SHUTS DOWN PUMPS #4
5	EFFLUENT PUMPS (EFFLUENT TANK)	HL SHUTS DOWN PUMPS #3 LL SHUTS DOWN PUMPS #5
*6	IRRIGATION PUMPS (IRRIGATION SUMP)	HL SHUTS DOWN PUMPS #5 LL SHUTS DOWN PUMPS #6

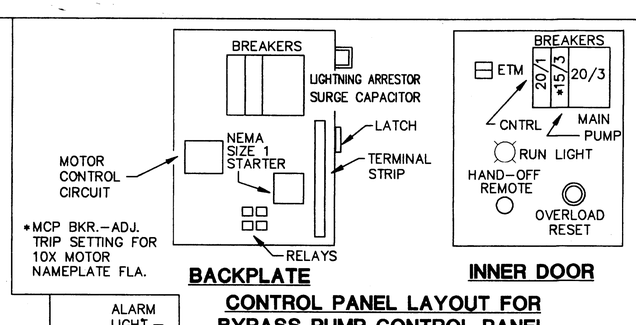
NOTE: HL=HIGH LEVEL, LL=LOW LEVEL
* LOW LEVEL CUT-OFF OVERRIDES TIMER
TIMER TO START/STOP PUMPS, DURATION OF PUMP RUNTIME FIELD ADJUSTABLE
PUMP WILL SHUT OFF EITHER AT LOW LEVEL CUT OFF OR AT PRE-SET PUMPING DURATION WHICHEVER COMES FIRST.



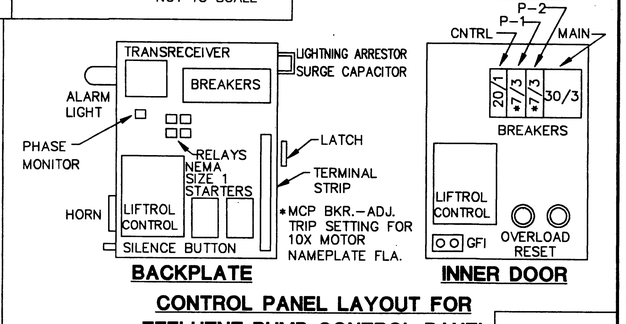
CONTROL PANEL LAYOUT FOR LANDFILL SLAVE SUMP CONTROL PANEL (TYP.)
NOT TO SCALE



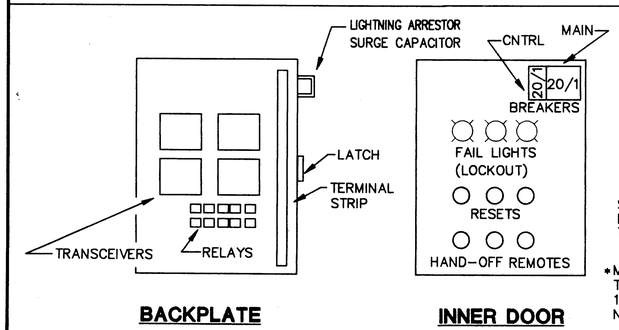
LIFTROL CONTROL PANEL LAYOUT (TYP.)
NOT TO SCALE



CONTROL PANEL LAYOUT FOR BYPASS PUMP CONTROL PANEL
NOT TO SCALE

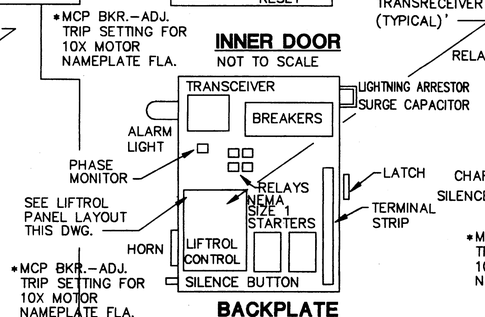


CONTROL PANEL LAYOUT FOR EFFLUENT PUMP CONTROL PANEL
NOT TO SCALE

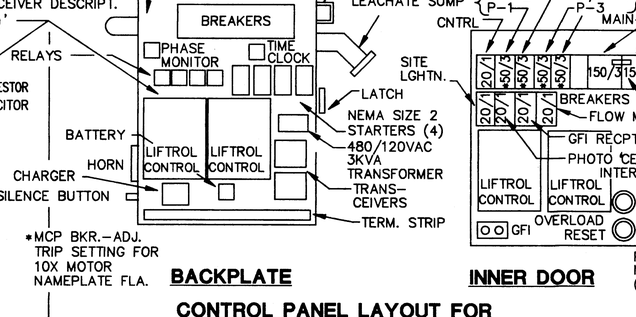


CONTROL PANEL LAYOUT FOR LANDFILL MASTER CONTROL PANEL
NOT TO SCALE

NOTE: SEE SPECIFICATIONS SECT. 16920 FOR PANEL CONTROL AND MONITORING POINTS.

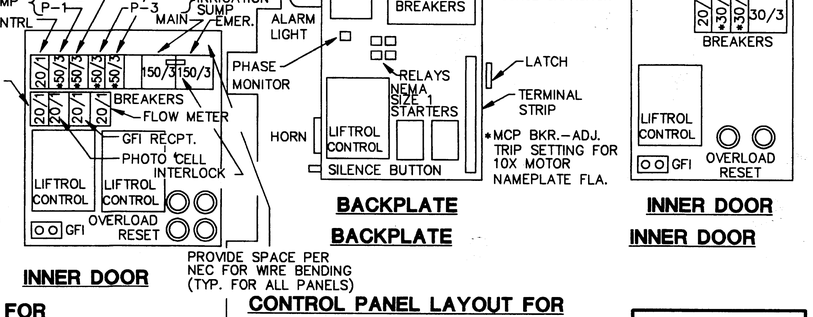


CONTROL PANEL LAYOUT FOR INFLUENT PUMP CONTROL PANEL
NOT TO SCALE



CONTROL PANEL LAYOUT FOR LEACHATE/ IRRIGATION PUMP CONTROL PANEL
NOT TO SCALE

NOTE: SEE SPECIFICATION SECTION 16920 FOR PUMP CONTROL PANEL COMPONENT DESCRIPTIONS. ALL PUMP CONTROL PANELS & COMPONENTS TO BE SUPPLIED AND INSTALLED BY ELECT. CONTRACTOR.



CONTROL PANEL LAYOUT FOR FILTRATE PUMP CONTROL PANEL
NOT TO SCALE

REV	DATE	DESCRIPTION	CK. BY
1	12/20/94	As-Built	RAS

DRAWING TITLE: ELECTRICAL CONTROL DIAGRAMS

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
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3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
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PROJ. NO.	DWN. BY	CHK. BY	QA BY: ?
0930018.42	DJM	RAR	DES. BY: RRS
			DSN. BY: RAR

CADD FILE: 5121E7

DATE: MAR. 27, 1992

SCALE: NOT TO SCALE

DRAWING NO. E7 of 8

EMTEC Corporation
CONSULTING ENGINEERS
1723 W. KENNEDY BOULEVARD
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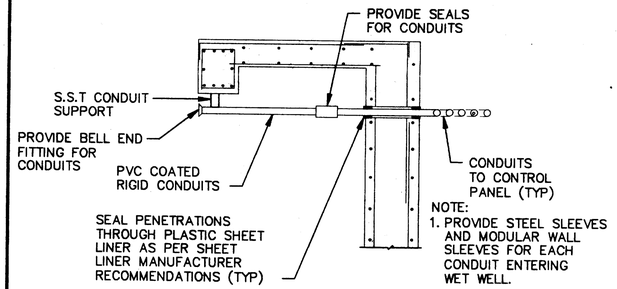
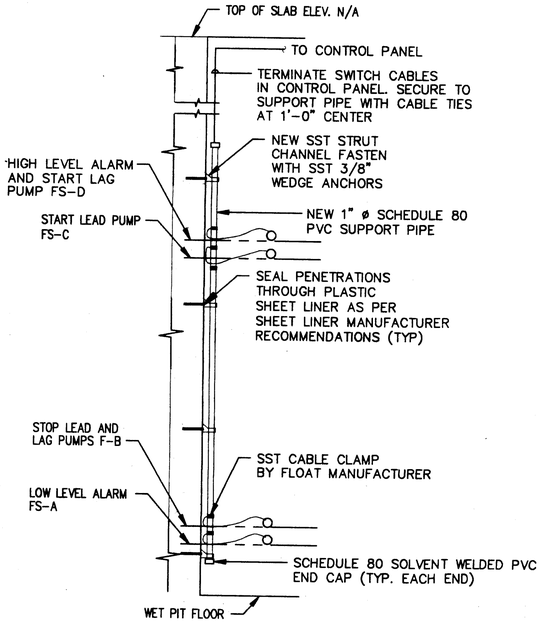
TAMPA, FLORIDA 33606
(813) 254-8899



TYP. TOP OF SUMP/TANK

APPLIES TO ALL NEW SUMP/TANK INSTALLATIONS

B | E6 | E8



TYPICAL FLOAT SWITCH MOUTING DETAIL AND LEVEL CONTROL SEQUENCE

A | E6 | E8

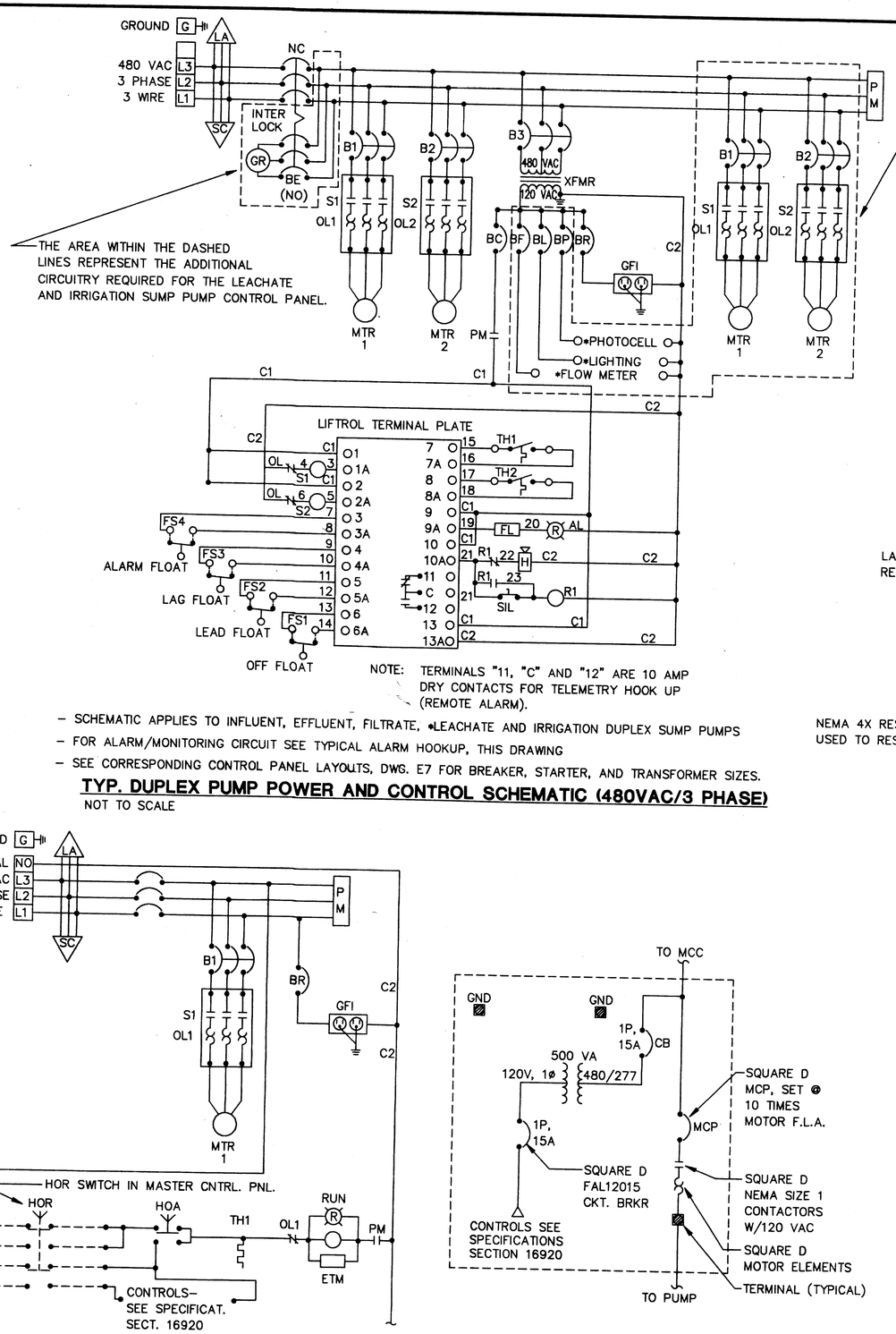
NOTES

1. ALL ELECTRICAL COMPONENTS SHALL BE U.L. LISTED
2. ALL ELECTRICAL WORK SHALL CONFORM TO LATEST N.E.C. CODES
3. ALL CONTROL WIRING SHALL BE MINIMUM AWG NO.14 STRANDED THHN COPPER AND SHALL HAVE LUG TERMINATIONS.
5. SEE SPECIFICATIONS FOR COMPLETE PUMP CONTROL EQUIPMENT DESCRIPTION AND OPERATION SEQUENCE FOR EACH PANEL.

SUMP FLOAT SWITCH ELEVATION SCHEDULE

SUMP/TANK	FS-A	FS-B	FS-C	FS-D
MAIN PUMP STATION SUMP	1'-0" B	2'-0" B	4'-0" B	4'-6" B
FILTRATE SUMP	1'-0" B	2'-0" B	4'-6" B	5'-0" B
IRRIGATION SUMP	0'-4" B	2'-0" B	X	5'-6" B
500,000 GAL. HOLDING TANK	0'-6" P	1'-0" P	3'-0" P	1'-0" T
EFFLUENT TANK	0'-6" P	1'-0" P	7'-0" P	2'-0" T
METHANOL TANK	1'-0" B	X	X	7'-0" B

B=DISTANCE MEASURED FROM BOTTOM OF SUMP/TANK
T=DISTANCE MEASURED FROM TOP OF SUMP/TANK
P=DISTANCE MEASURED FROM THE TOP OF THE PIPE EXITING AT THE BOTTOM OF THE TANK

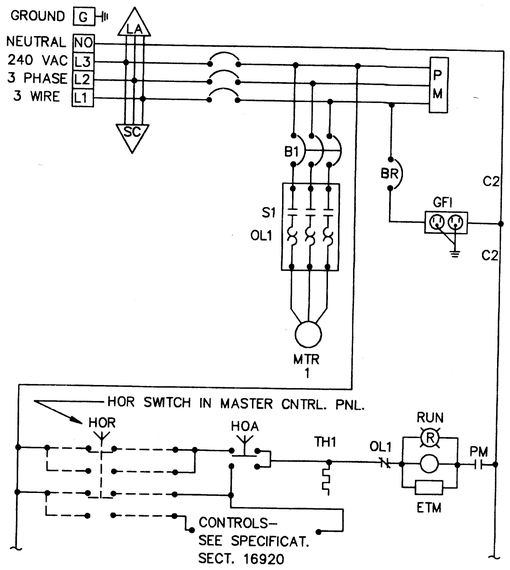


NOTE: TERMINALS "11, "C" AND "12" ARE 10 AMP DRY CONTACTS FOR TELEMETRY HOOK UP (REMOTE ALARM).

- SCHEMATIC APPLIES TO INFLUENT, EFFLUENT, FILTRATE, *LEACHATE AND IRRIGATION DUPLEX SUMP PUMPS
- FOR ALARM/MONITORING CIRCUIT SEE TYPICAL ALARM HOOKUP, THIS DRAWING
- SEE CORRESPONDING CONTROL PANEL LAYOUTS, DWG. E7 FOR BREAKER, STARTER, AND TRANSFORMER SIZES.

TYP. DUPLEX PUMP POWER AND CONTROL SCHEMATIC (480VAC/3 PHASE)

NOT TO SCALE



LAND FILL SLAVE SIMPLEX SUMP PUMP POWER CONTROL DIAGRAM (TYP OF 3)

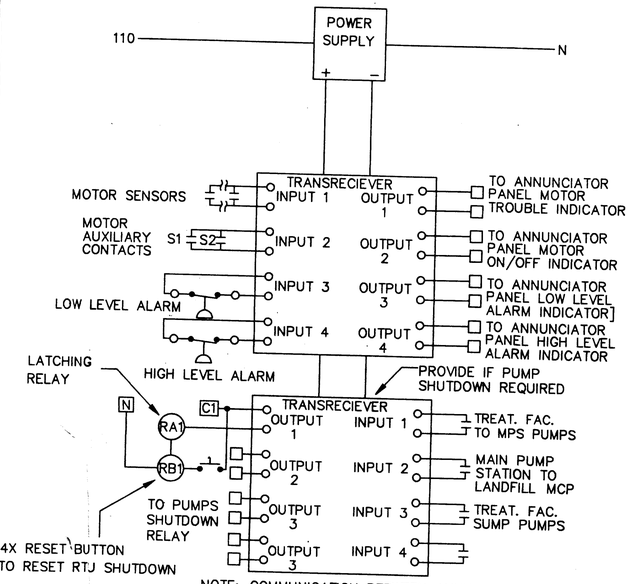
NOT TO SCALE

BYPASS CONTROL PANEL ONE-LINE POWER WIRING

NOT TO SCALE

NOTE: SEE SPECIFICATION SECTION SECTION 16920 FOR DETAILED LIST OF INDIVIDUAL CONTROL PANEL COMPONENTS.

THE AREA WITHIN THE DASHED LINES REPRESENT THE ADDITIONAL CIRCUITRY REQUIRED FOR THE LEACHATE AND IRRIGATION SUMP PUMP CONTROL PANEL.



NOTE: COMMUNICATION BETWEEN ANNUNCIATOR PANEL AND REMOTE SUMP CONTROL PANELS IS ESTABLISHED VIA TWO TWISTED PAIR OF TELEPHONE LINES (TWO INPUT AND TWO OUTPUT DEDICATED LINES) INTERCONNECTED TO THE TRANCEIVERS LOCATED IN EACH CONTROL PANEL.

TYPICAL ALARM HOOKUP

NOT TO SCALE

SCHEMATIC LEGEND:

B1	MOTOR BREAKER
BR	RECEPTACLE BREAKER
BC	CONTROL BREAKER
BL	LIGHTING BREAKER
BP	PHOTOCELL BREAKER
BE	EMERGENCY BREAKER
SX	MOTOR STARTER(S)
OLX	MOTOR OVERLOAD PROTECTION
TH	MOTOR THERMAL PROTECTION
MTR	MOTOR
PH	PHASE MONITOR
MCP	MOTOR CIRCUIT PROTECTOR
GND	GROUND
SIL	SILENCE DEVICE
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
GR	EMERGENCY PORTABLE GENERATOR RECPT.
LA	LIGHTNING ARRESTOR
SC	SURGE ARRESTOR
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HOR	HAND-OFF-AUTO SELECTOR SWITCH

AS-BUILT INFORMATION PROVIDED BY GREAT MONUMENT CONSTRUCTION COMPANY, INC., TAMPA, FLORIDA, DATED 12/8/94.

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REV.	DATE	DESCRIPTION	CK. BY

DRAWING TITLE: ELECTRICAL CONTROL DIAGRAMS

PROJECT TITLE: SOUTHEAST COUNTY FACILITY LEACHATE TREATMENT AND RECLAMATION FACILITIES

CLIENT: HILLSBOROUGH COUNTY DEPARTMENT OF SOLID WASTE TAMPA, FLORIDA

SCS ENGINEERS
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QA BY:
APP. BY: RRS

CADD FILE: 5121E8

DATE: MAR. 27, 1992

SCALE: NOT TO SCALE

DRAWING NO: E8 of 8