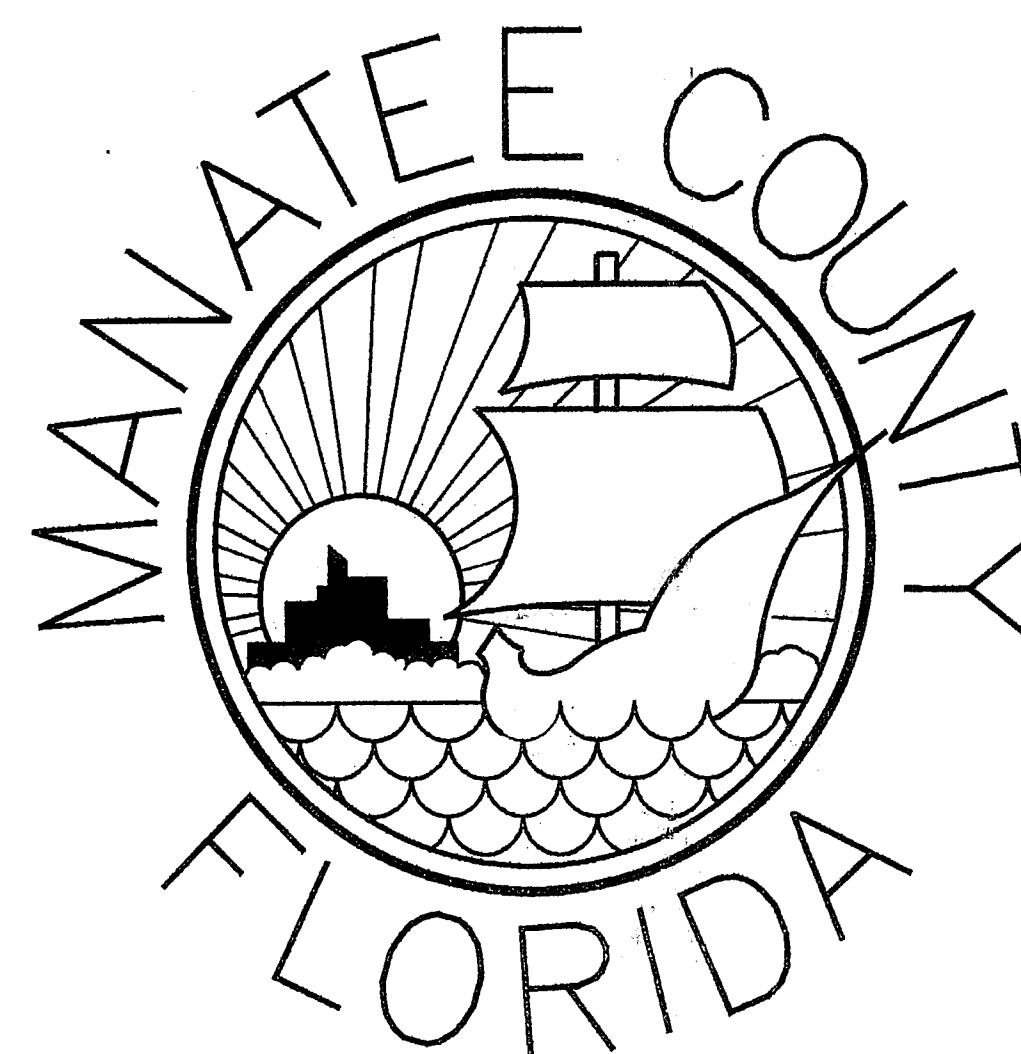


CONSTRUCTION PLANS FOR LENA ROAD LANDFILL STORMWATER SYSTEM IMPROVEMENTS

PREPARED FOR:



MANATEE COUNTY
PROJECT MANAGEMENT
DEPARTMENT

1026 26th AVENUE EAST
BRADENTON, FLORIDA 34208

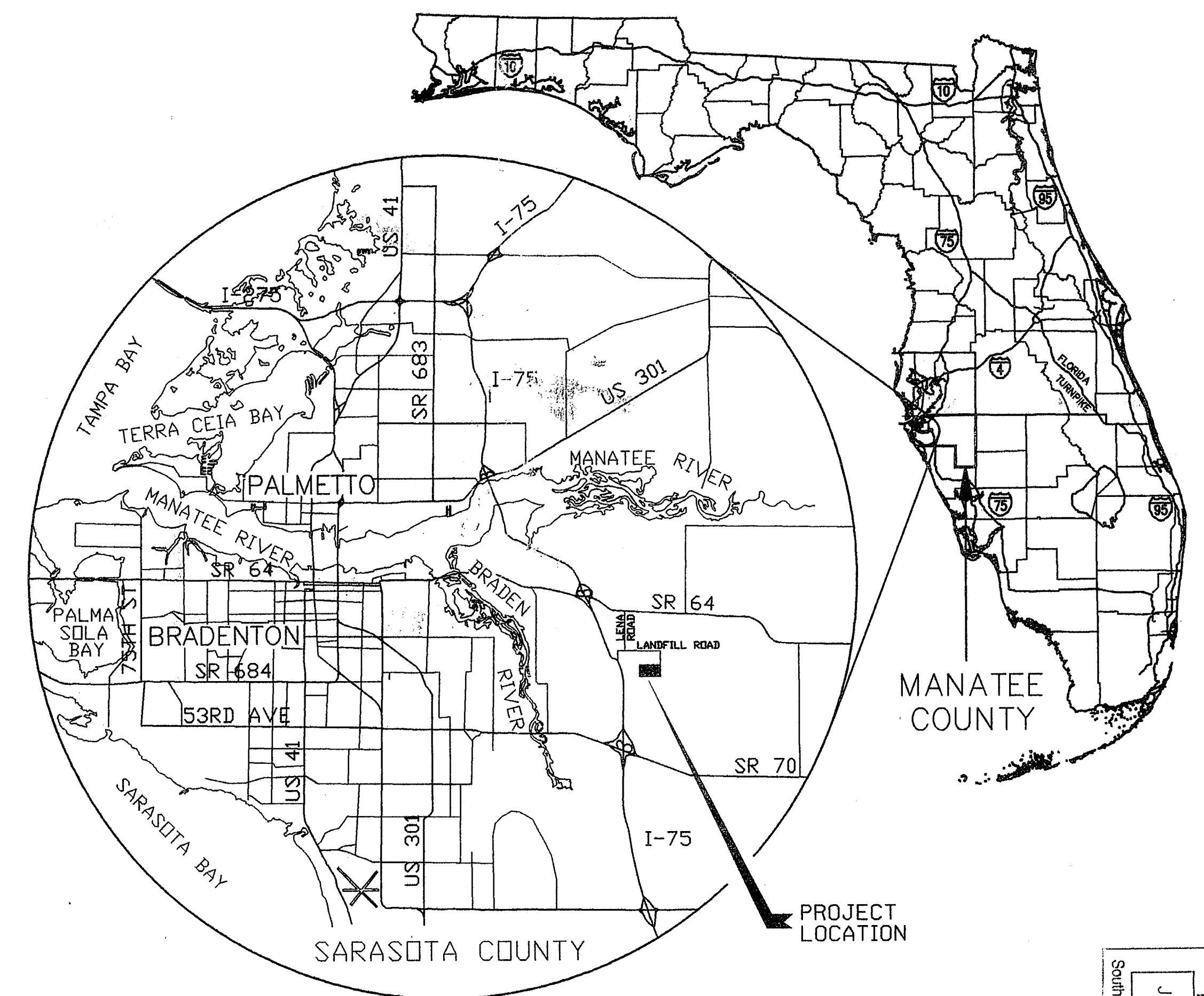
PREPARED BY:

POST, BUCKLEY, SCHUH & JERNIGAN, INC., D/B/A/

PBS&J
PRINCIPAL ADDRESS:
2001 NW 107th AVENUE
MIAMI, FL 33172-2507
FBPR CERT. OF AUTH. No. 24
PRODUCTION ADDRESS:
2803 FRUITVILLE ROAD, STE 130
SARASOTA, FLORIDA 34237
Ph. (941) 954-4036

SHEET	DESCRIPTION
1	COVER
2	GENERAL NOTES, LEGEND & ABBREVIATIONS
3	KEY SHEET
4	PLAN & CROSS SECTIONS A, B & C
5	PLAN & CROSS SECTIONS D, E, F & G
6	PLAN & CROSS SECTIONS H, I & J
7	PLAN & CROSS SECTIONS K, L, M & N
8	PLAN & CROSS SECTIONS O, P & Q
9	PLAN & CROSS SECTION R
10	PLAN FILTER SYSTEM, FILTERED WATER LINE AND DETENTION POND
11	PLAN & PROFILE FILTERED WATER LINE, LEACHATE COLLECTION AND FM
12	PLAN & PROFILE FILTERED WATER LINE, LEACHATE COLLECTION AND FM
13	MISCELLANEOUS DETAILS
14	DETAILS
15	PLAN - AUTOMATIC DISK FILTER SYSTEM
16	SECTIONS - AUTOMATIC DISK FILTER SYSTEM
17	FILTER FEED PUMPS
18	DETAILS - FILTERS
19	STRUCTURAL - U-TYPE CONCRETE ENDWALL W/ BAFFLES
E-1	ELECTRICAL - FILTER SYSTEM PLAN
E-2	ELECTRICAL - AUTOMATIC DISK FILTER PLAN
E-3	ELECTRICAL - SITE PLAN

INDEX TO DRAWINGS



VICINITY MAP



SEPTEMBER, 2004

This set not approved
by Solid Waste Mgmt. for
Stormwater construction
only.

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES.
2. EXISTING UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN LOCATED FROM THE BEST AVAILABLE SURVEY DATA AND RECORDS AND THEIR LOCATIONS MUST ONLY BE CONSIDERED AS APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS AND ANY OTHER UTILITIES WHICH MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION. CALL FLORIDA SUNSHINE STATE ONE CALL CENTER AT 1-800-432-4770.
3. A HORIZONTAL SPACING OF 10 FEET OUTSIDE TO OUTSIDE SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND ANY SANITARY SEWER MAINS. IN THE CASE OF A CROSSING, A VERTICAL SEPARATION OF NOT LESS THAN 18" SHALL BE MAINTAINED.
4. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY AND SHALL PROVIDE ALL NECESSARY SHEETING, SHORING, AND BRACING NECESSARY TO PROTECT ADJACENT STRUCTURES, UTILITIES, AND PAVEMENT, OR TO MINIMIZE TRENCH WIDTH.
5. THE CONTRACTOR SHALL PROVIDE HAY BALES AND/OR SILT FENCES AROUND THE CONSTRUCTION ACTIVITY, AS NECESSARY, TO PREVENT THE TRANSPORTATION OF SEDIMENTS DOWNSTREAM INTO STREETS, STORM SEWERS, OPEN DITCHES, LAKES, RETENTION PONDS, PRIVATE PROPERTY, ETC., AND SHALL PERFORM ALL NECESSARY INSPECTIONS AND MAINTENANCE IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SPPP), AND FEDERAL, STATE, AND LOCAL GOVERNING AGENCY REQUIREMENTS.
6. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S CONSTRUCTION MANAGER REGARDING ANY CONFLICTS OR DISCREPANCIES ARISING DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES, STRUCTURES, OR UTILITIES CAUSED BY CONSTRUCTION OPERATIONS WHICH HAVE BEEN PREVIOUSLY LOCATED BY THEIR RESPECTIVE OWNERS.
8. CONNECTIONS TO EXISTING FACILITIES SHALL BE DONE IN THE PRESENCE OF THE UTILITY OWNER AND THE ENGINEER. THE CONTRACTOR SHALL GIVE AT LEAST 2 WEEKS NOTICE TO ALL PARTIES CONCERNED PRIOR TO BEGINNING WORK.
9. ALL SURPLUS EXCAVATION AND DEMOLITION MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA, EFFECTIVE OCTOBER 1, 1990, AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE, ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
11. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY DAMAGED ITEMS SUCH AS DRIVEWAYS, MAILBOXES, STREET SIGNS, FENCES, ETC., AS DEEMED NECESSARY BY THE COUNTY AND/OR ENGINEER.
13. ALL ELEVATIONS ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM, 1929.
14. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL APPLICABLE PERMITS.
15. ALL FITTINGS USED ON THIS PROJECT SHALL BE DUCTILE IRON UNLESS OTHERWISE SHOWN. ALL MECHANICAL JOINT FITTINGS AND VALVES ARE TO BE RESTRAINED USING THE "MEGA-LUG" SYSTEM OR EQUAL.
16. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER DUE TO RESIDENTIAL COMPLAINTS, INSTALL NOISE ABATEMENT BAFFELS POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.

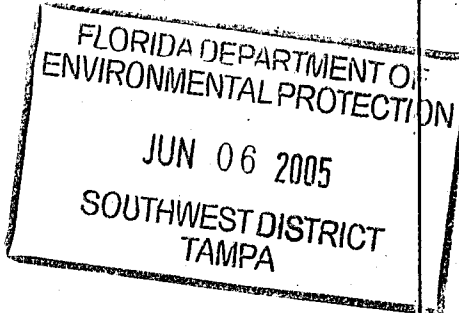
17. THE CONTRACTOR SHALL PROVIDE PROPER WARNING SIGNS, BARRICADES, TEMPORARY FENCING AND OTHER APPROPRIATE SAFETY DEVICES DURING THE EXECUTION OF THE WORK TO PROVIDE PUBLIC PROTECTION AND SAFETY.
18. MAINTENANCE OF TRAFFIC SIGNS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR DURING CONSTRUCTION AS REQUIRED BY THE F.D.O.T.
19. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL CLEARED VEGETATION WITHIN FIVE DAYS OF CLEARING AND GRUBBING WORK.
20. THE CONTRACTOR SHALL PROVIDE ACCESS FOR TRAFFIC AT ALL TIMES DURING CONSTRUCTION.

LEGEND

- RCP = REINFORCED CONCRETE PIPE
ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE
PVC = POLY VINYL CHLORIDE PIPE
IE = INVERT ELEVATION
ELEV = ELEVATION
W/ = WITH
TOS = TOP OF SLOPE
TOB = TOP OF BANK
ASPH = ASPHALT
CONC = CONCRETE
⊙ = MANHOLE
⊗ = SANITARY MANHOLE

ABBREVIATIONS

APPROX	APPROXIMATELY	LSB	LICENSED SURVEYOR BUSINESS
ALUM	ALUMINUM	LF	LINEAL FEET
ARV	AIR RELEASE VALVE (MANUAL)	LT	LEFT
AWWA	AMERICAN WATER WORKS ASSOC.	MAX	MAXIMUM
AVG	AVERAGE	MJ	MECHANICAL JOINT
℄	BASE LINE	MISC	MISCELLANEOUS
BOC	BACK OF CURB	MIN	MINIMUM
BWF	BARBED WIRE FENCE	NTS	NOT TO SCALE
BFV	BUTTERFLY VALVE	OCEW	ON CENTER EACH WAY
CLF	CHAIN LINK FENCE	OD	OUTSIDE DIAMETER
CF	CUBIC FEET	OH	OVERHEAD
℄	CENTERLINE	OHL	OVERHEAD LINES
CLR	CLEARANCE	PE	PLAIN END
CM	CONCRETE MONUMENT	PRM	PERMANENT REFERENCE MARKER
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
CONN	CONNECT	RCP	REINFORCED CONCRETE PIPE
CONT	CONTINUOUS	RDCR	REDUCER
COR	CORNER	REQ'D	REQUIRED
DFT	DRY FILM THICKNESS	RJ	RESTRAINED JOINT
DIA, d	DIAMETER	R/W	RIGHT-OF-WAY
DI, DIP	DUCTILE IRON PIPE	RWGV	RESILIENT WEDGE GATE VALVE W/ LOW ZINC STEM & NUT
D/W	DRIVEWAY	RT	RIGHT
E	EAST	SCHD	SCHEDULE
EL, ELEV	ELEVATION	SHT	SHEET
EOP	EDGE OF PAVEMENT	SQ.FT.	SQUARE FEET
ERC	EROSION CONTROL	SST, ST/STL	STAINLESS STEEL
EXIST/EX	EXISTING	STA	STATION
FL	FLANGED	STS	STORM SEWER
FM	FORCE MAIN	TOB	TOP OF BANK
FND	FOUND	TOS	TOE OF SLOPE
FPS	FEET PER SECOND	TYP.	TYPICAL
FT	FEET	W	WEST
FTB	FLOATING TURBIDITY BARRIER	W/	WITH
GAL	GALLONS	WM	POTABLE WATER MAIN
GV	GATE VALVE		
HDPE	HIGH DENSITY POLYETHYLENE		
HR	HOURLY		
ID	IDENTIFICATION		
INV	INVERT		
IR	IRON ROD		
LB	POUND		



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CLIENT
**MANATEE COUNTY
PROJECT MANAGEMENT
DEPARTMENT**
1026 26th AVENUE EAST
BRADENTON, FLORIDA 34208



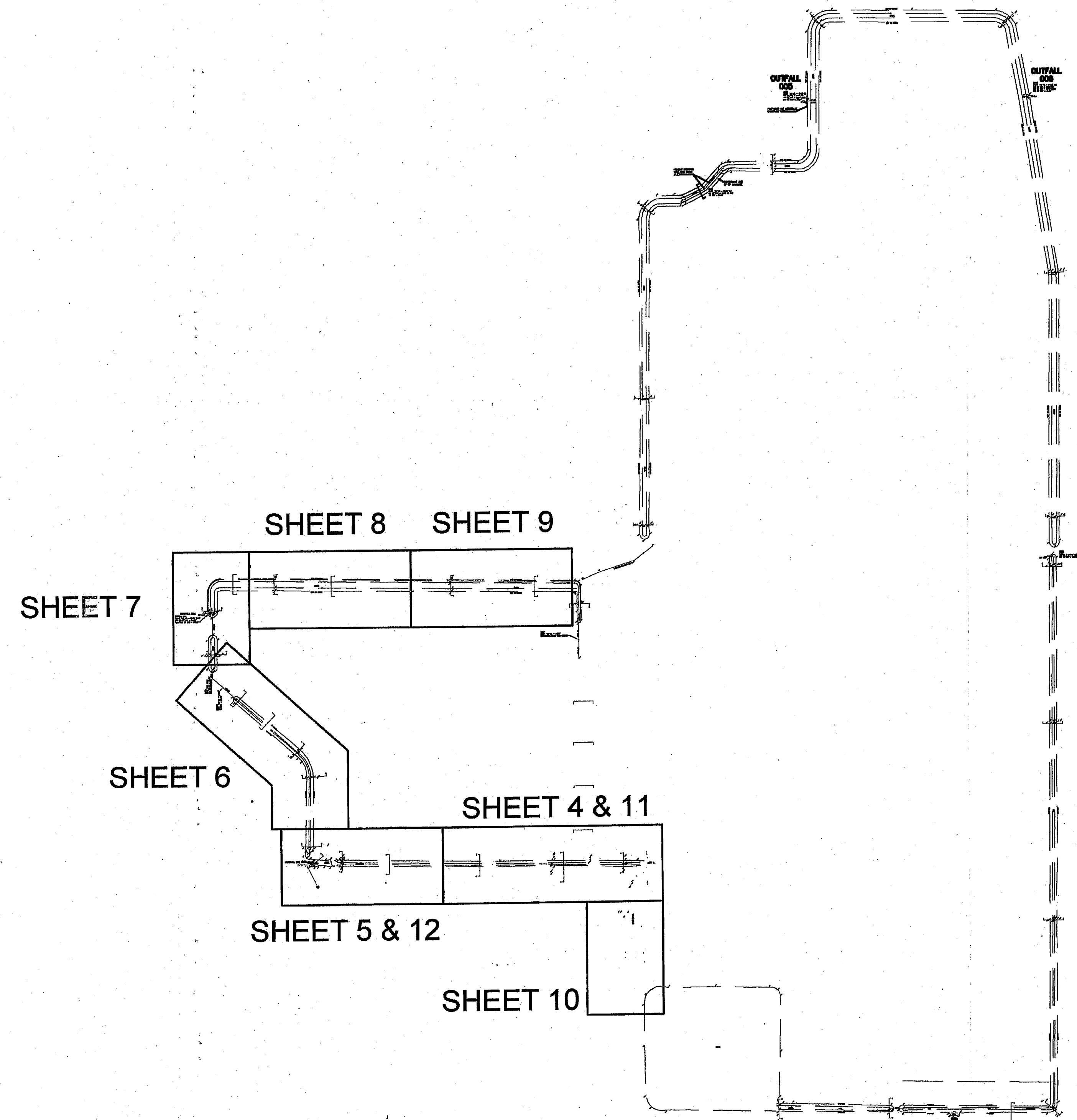
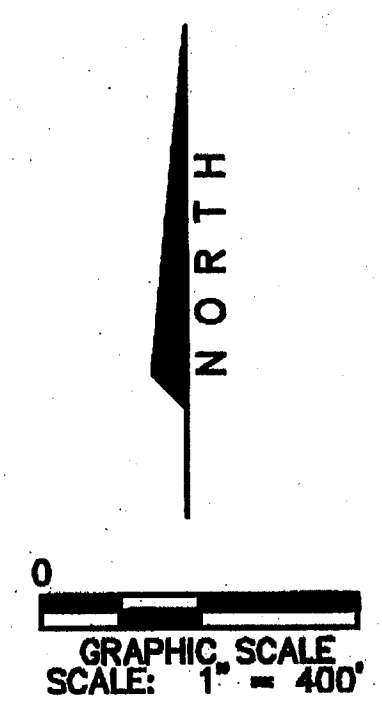
PROJECT
**LENA ROAD LANDFILL
STORMWATER SYSTEM IMPROVEMENTS**

TASK
**GENERAL NOTES, LEGEND
AND ABBREVIATIONS**

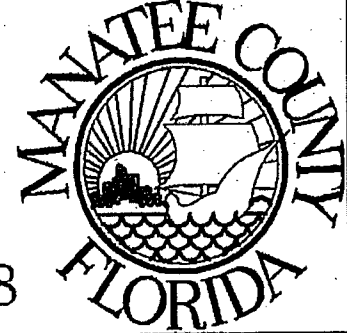
ORIGINAL: JUNE, 03
REVISIONS:
1 HIGH DENSITY POLYETHYLENE
2
3
4
5

ENGINEER:
REG. NO. 10111
JUN 06 2005
STATE OF FLORIDA
SOUTHWEST DISTRICT
TAMPA

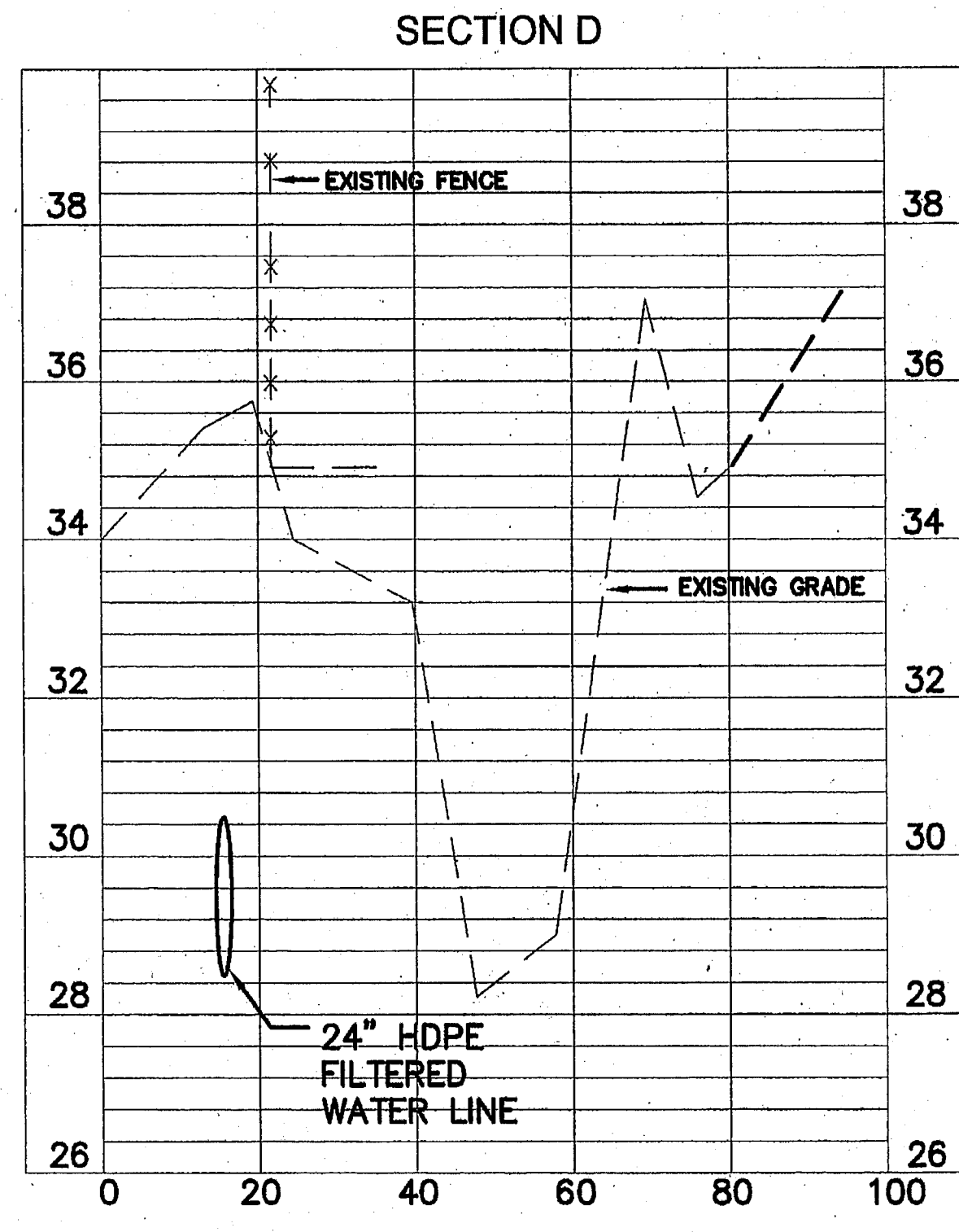
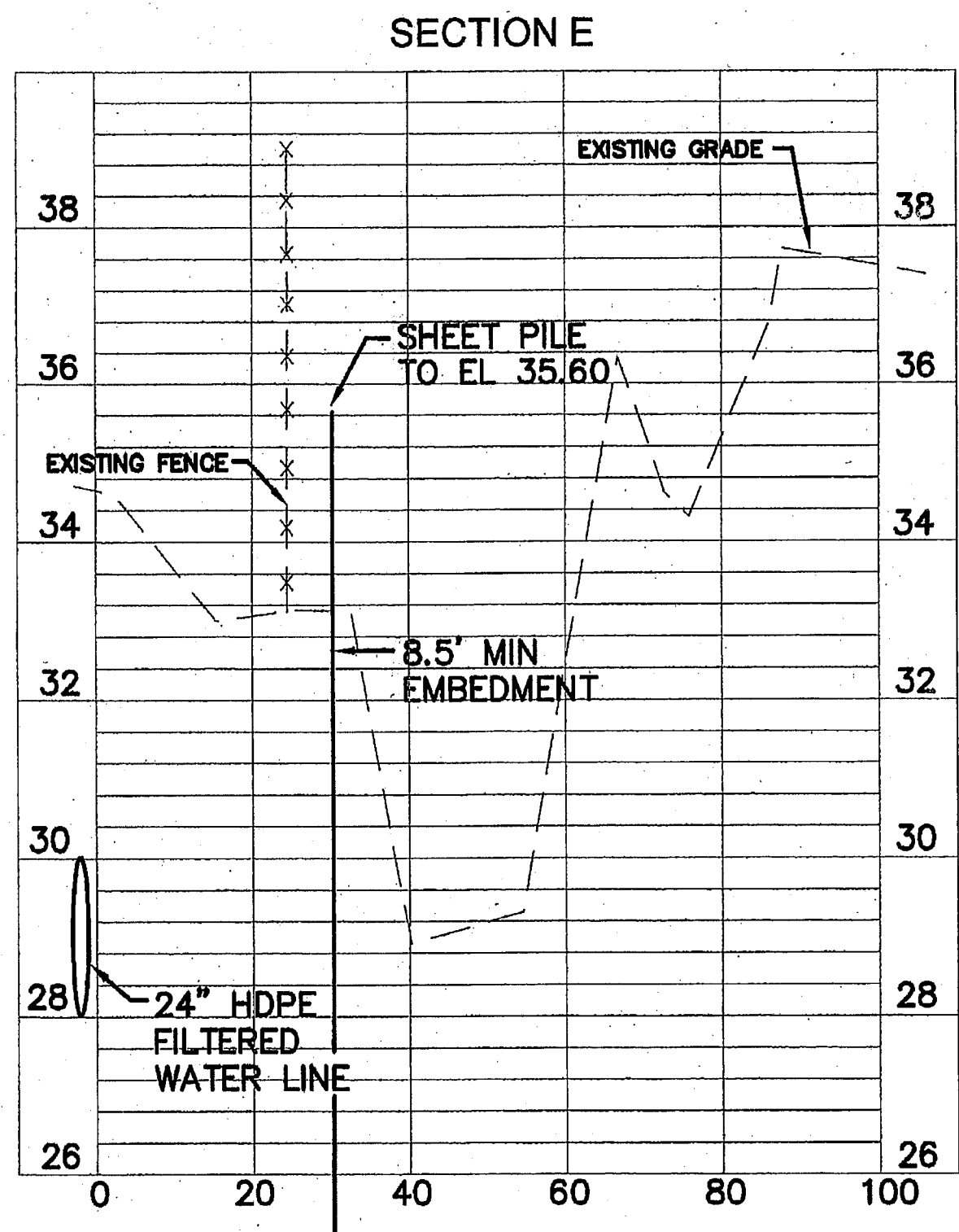
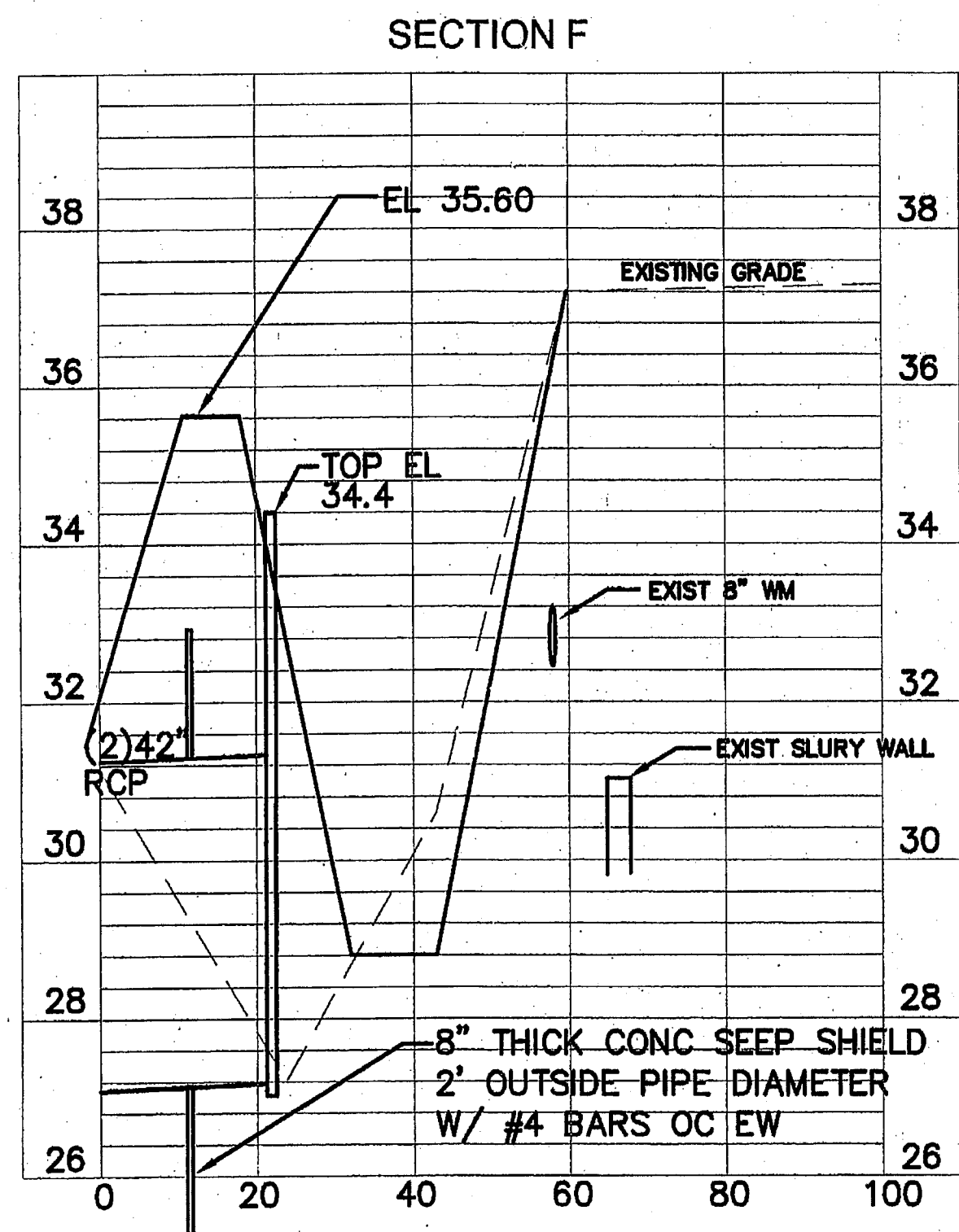
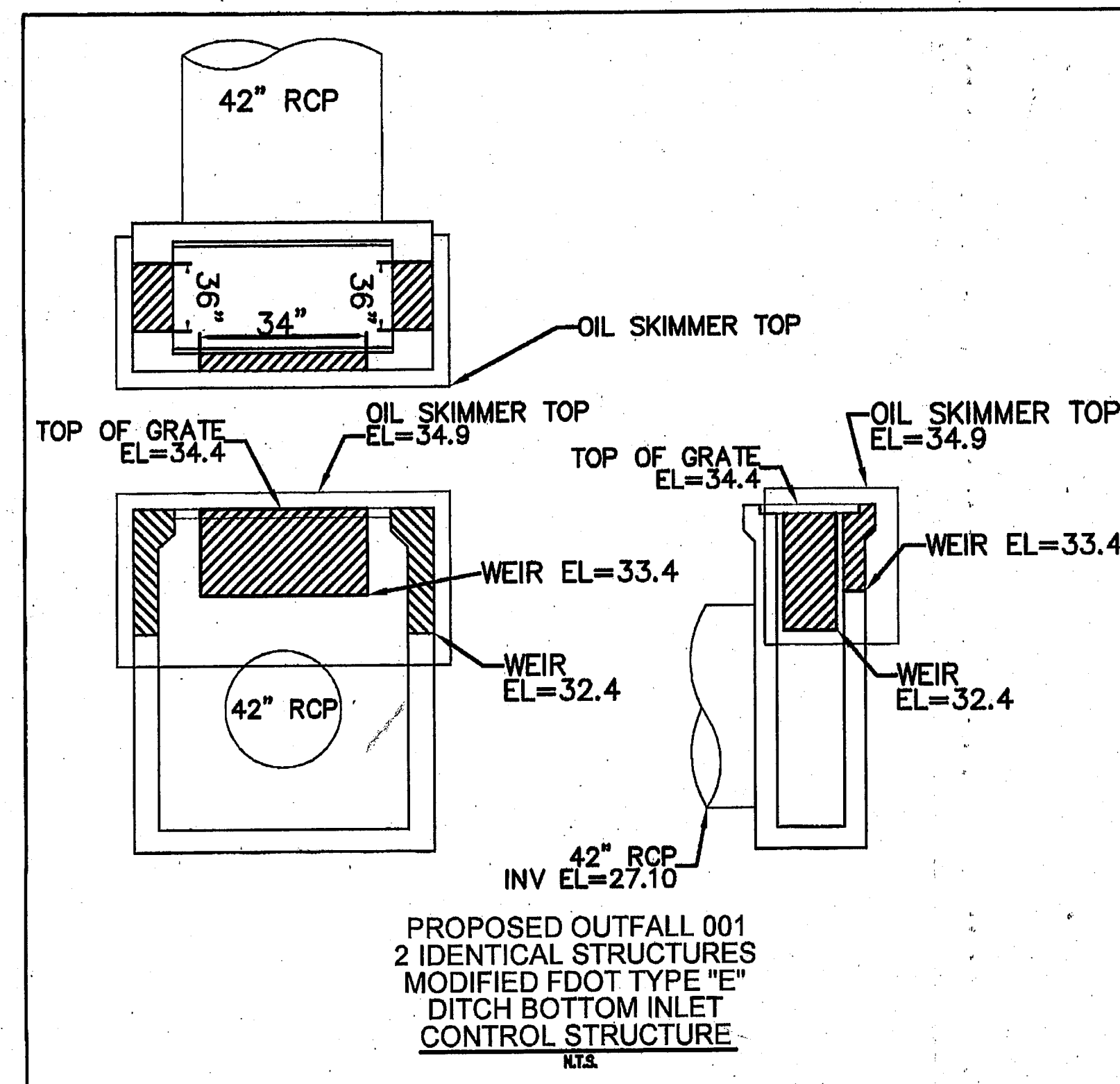
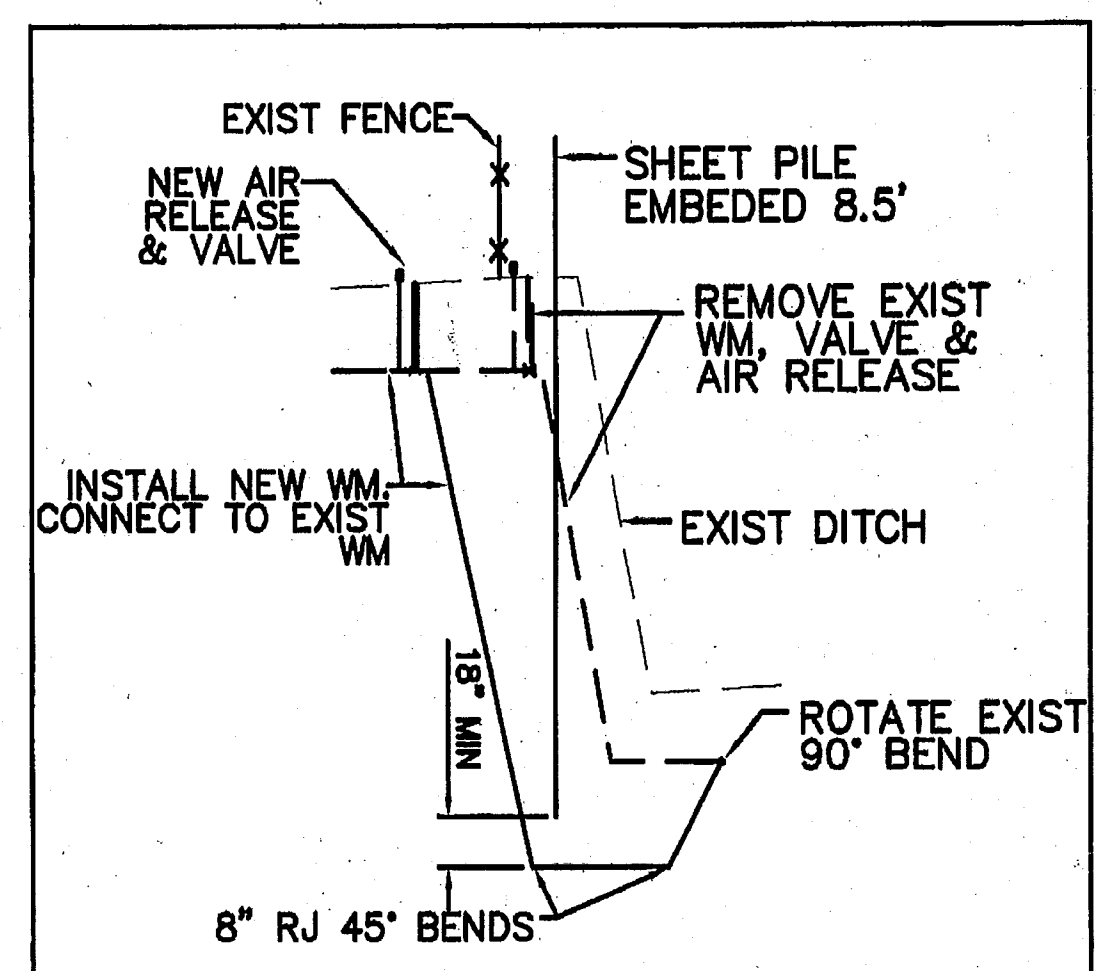
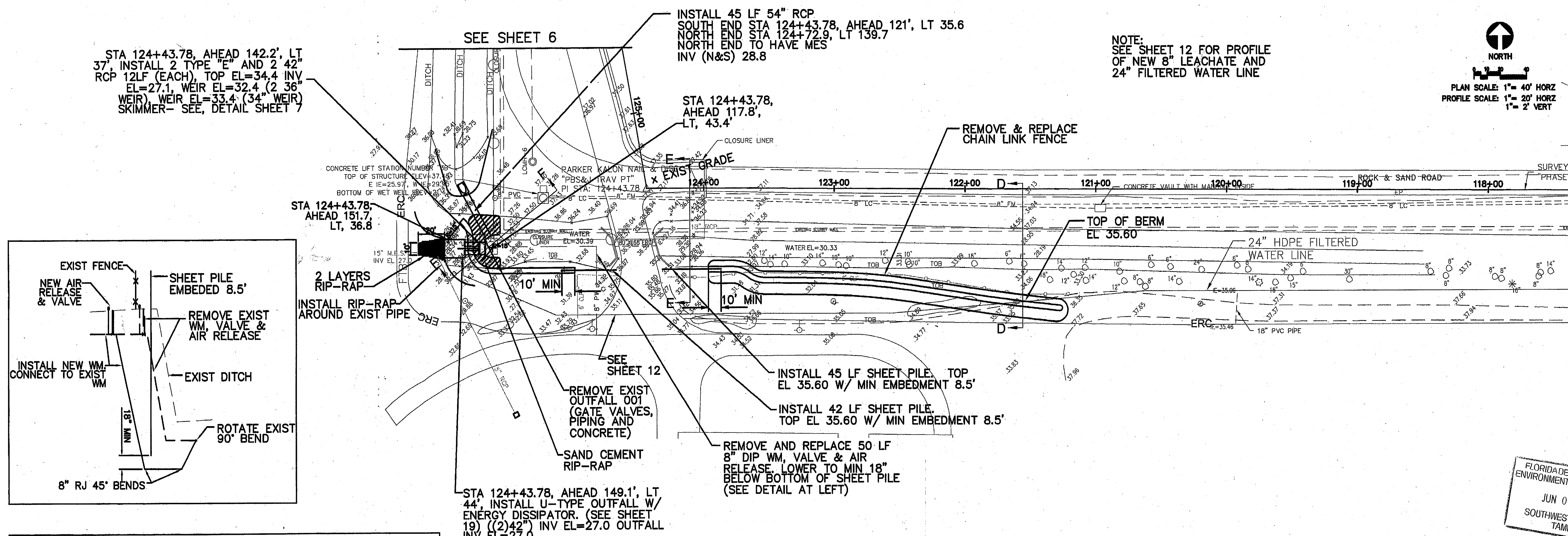
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DESIGNED JME
CHECKED JME
QC DAW
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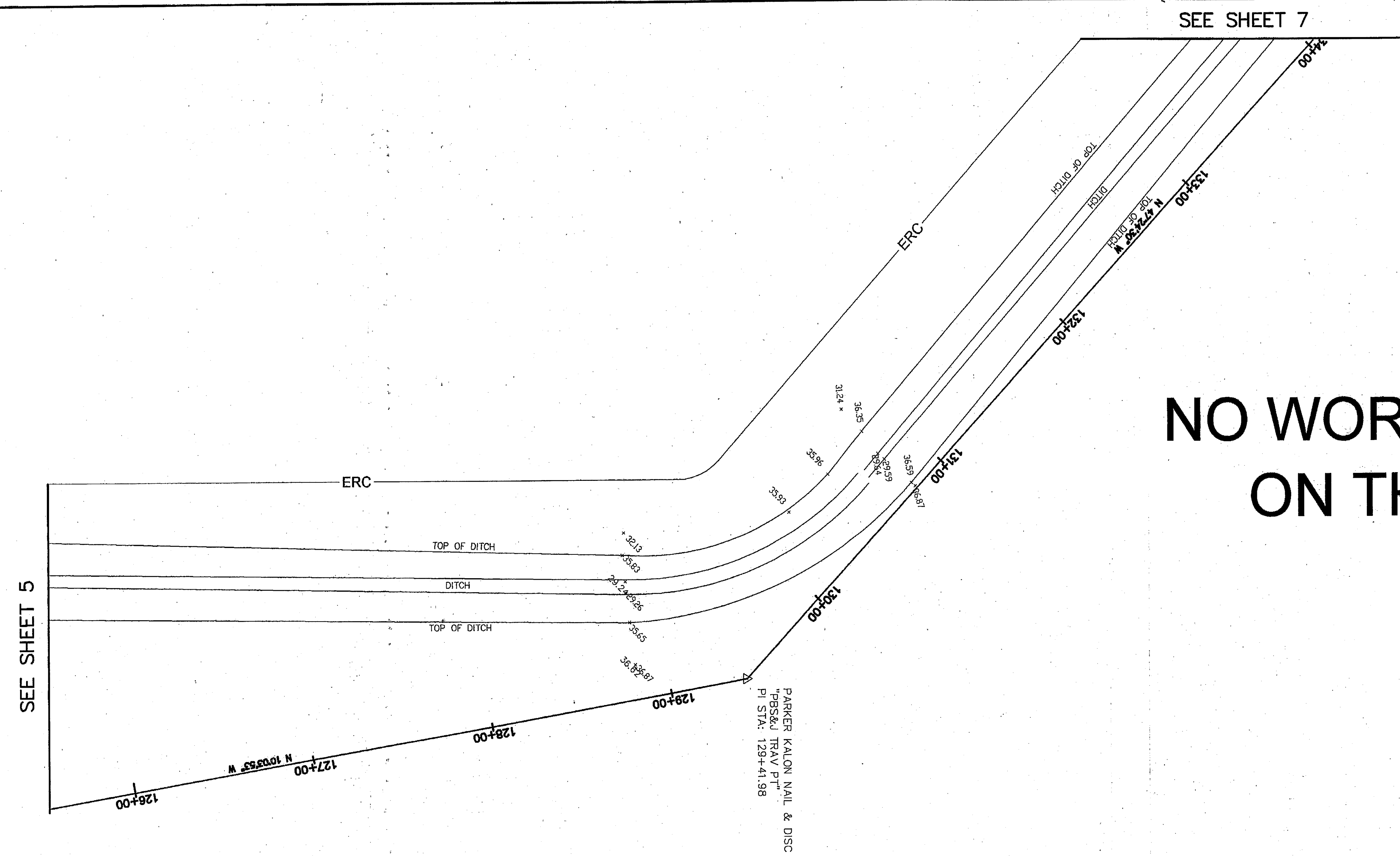
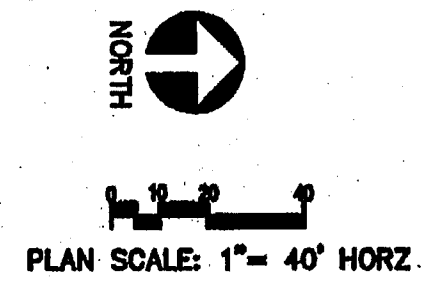
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JUN 06 2005
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TAMPA

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			LENA ROAD LANDFILL STORMWATER SYSTEM IMPROVEMENTS	KEY SHEET	REVISIONS: 1 2 3 4 5	DRAWN: JAS DESIGNED: JME CHECKED: JME QC: DAW SHEET 3	

NORTH
PLAN SCALE: 1"= 40' HORIZ
PROFILE SCALE: 1"= 20' HORIZ
1"= 2' VERT



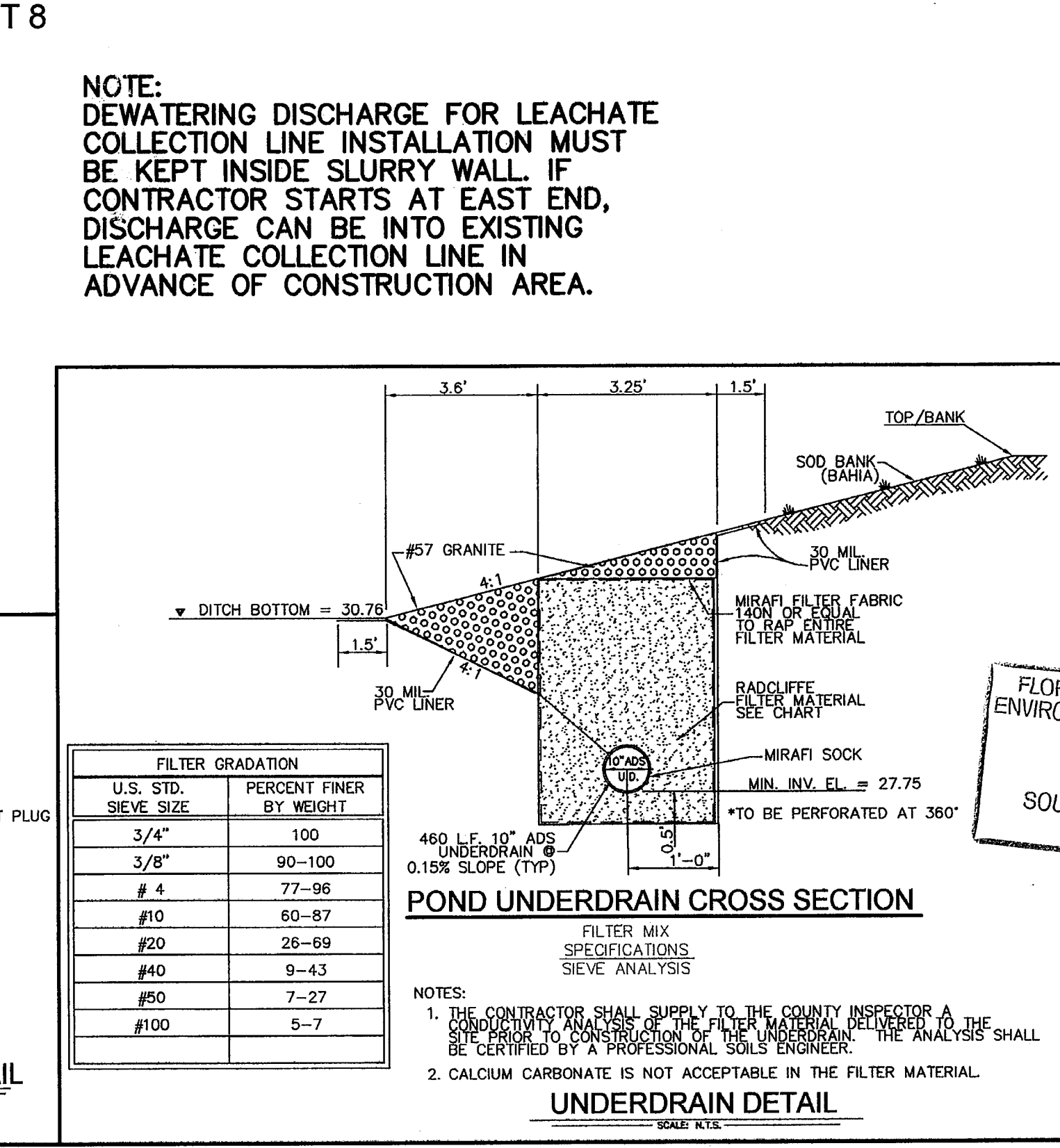
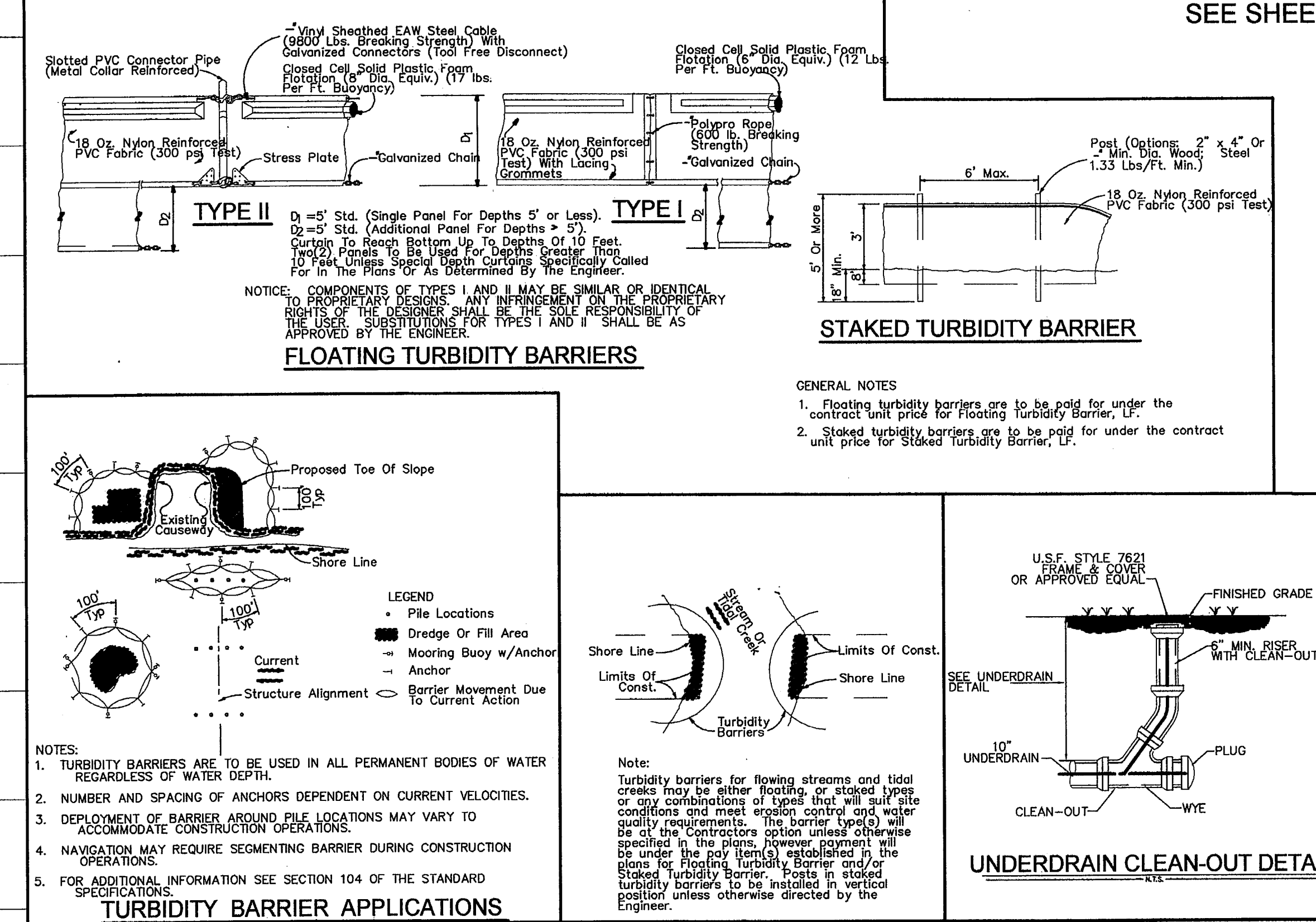
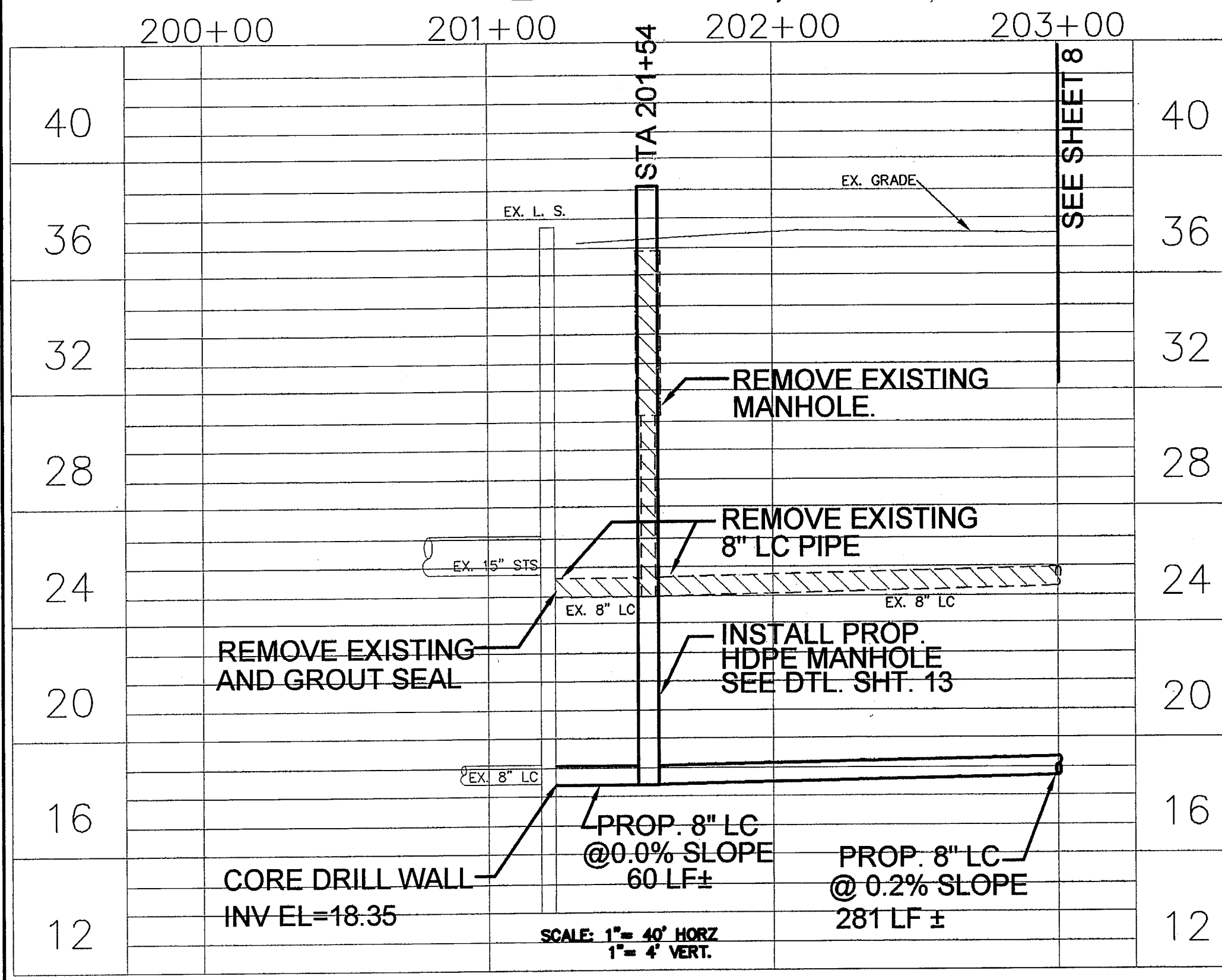
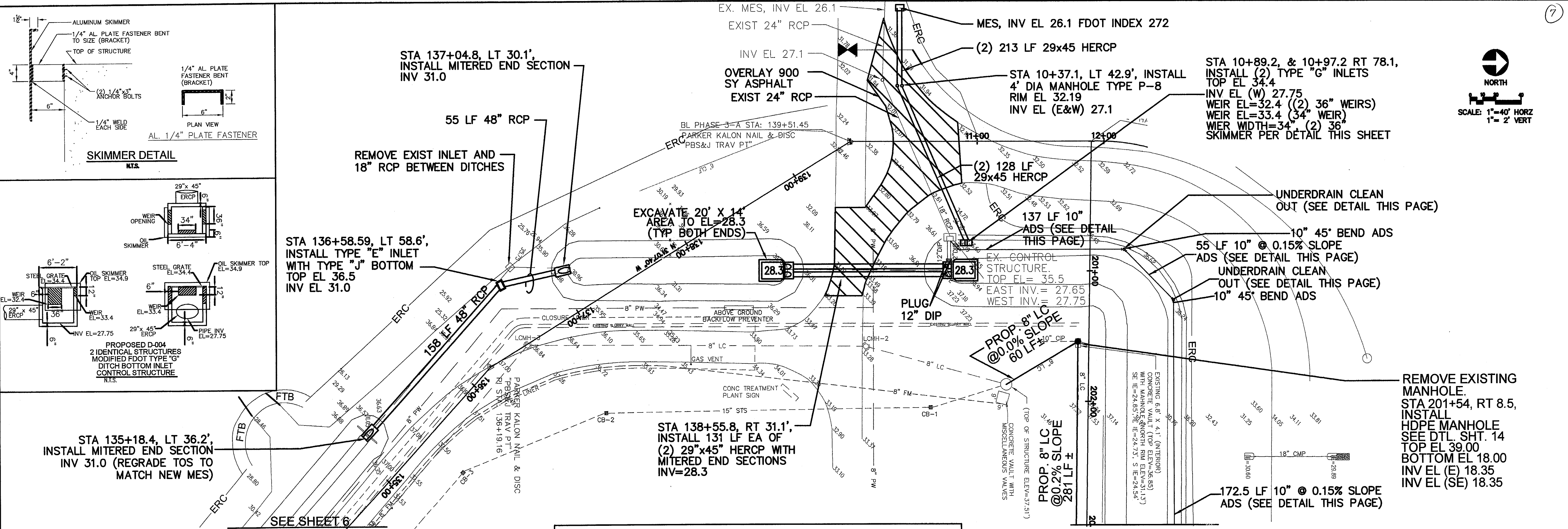
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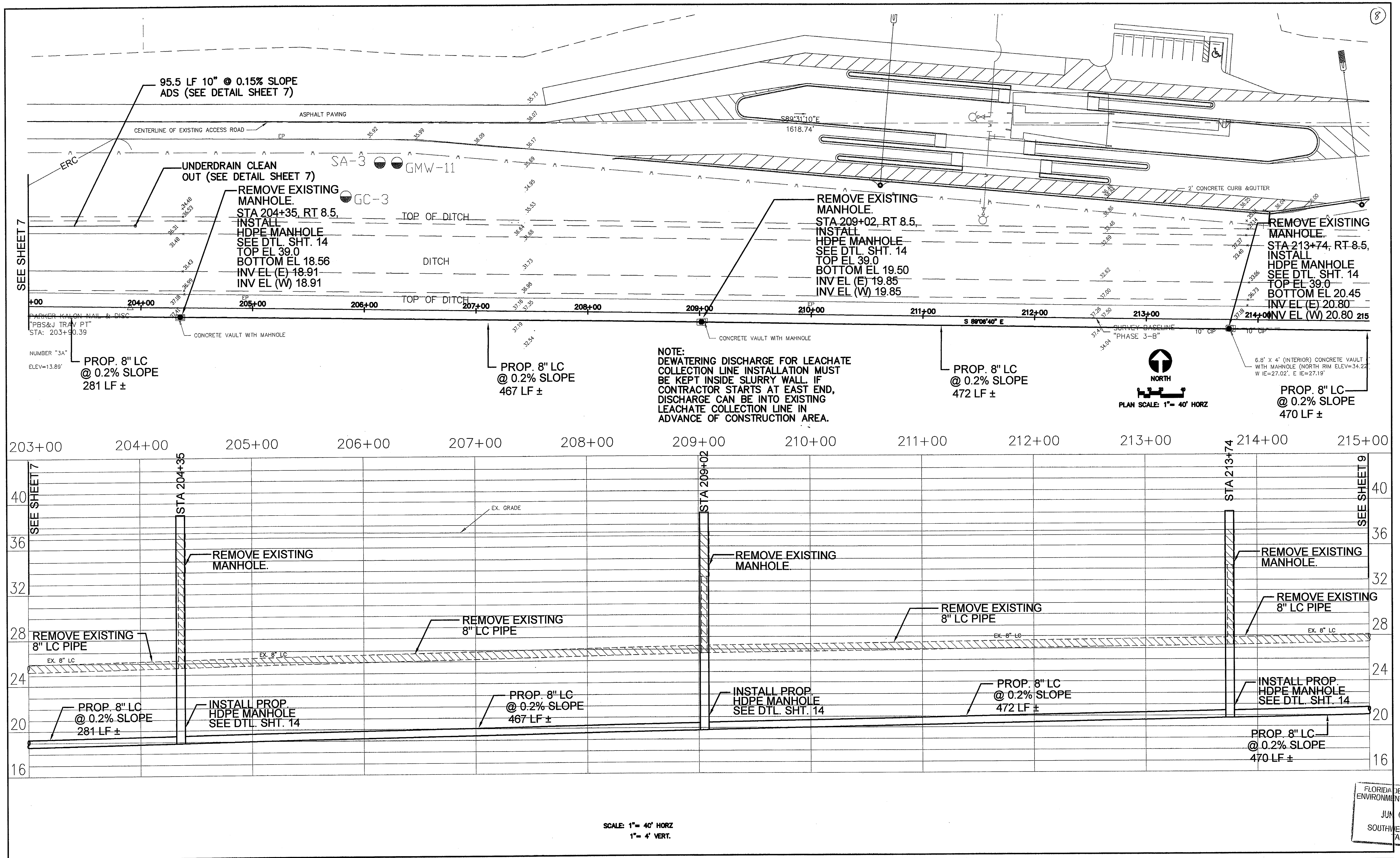
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ON THIS SHEET

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JUN 06 2005
SOUTHWEST DISTRICT
TAMPA

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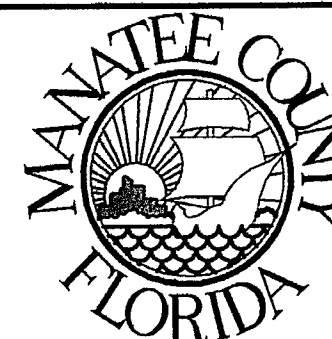


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CLIENT
 MANATEE COUNTY
 PROJECT MANAGEMENT
 DEPARTMENT
 1026 26th AVENUE EAST
 BRADENTON, FLORIDA 34208



PROJECT
 LENA ROAD LANDFILL
 STORMWATER SYSTEM IMPROVEMENTS

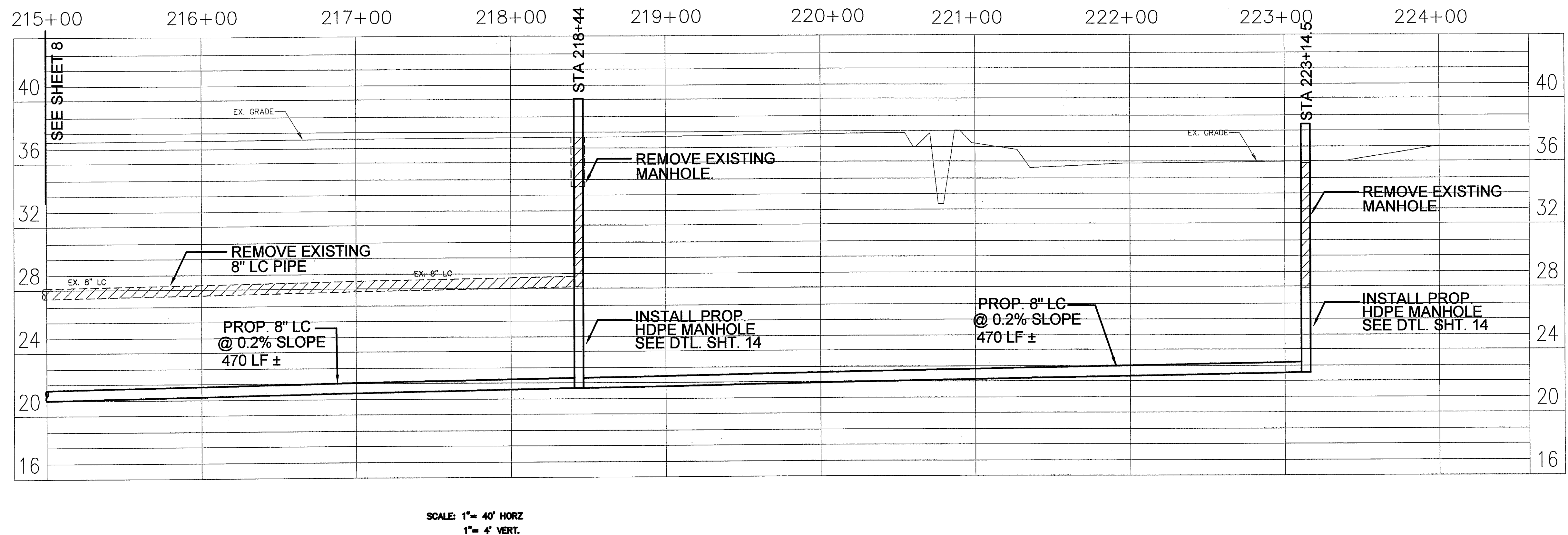
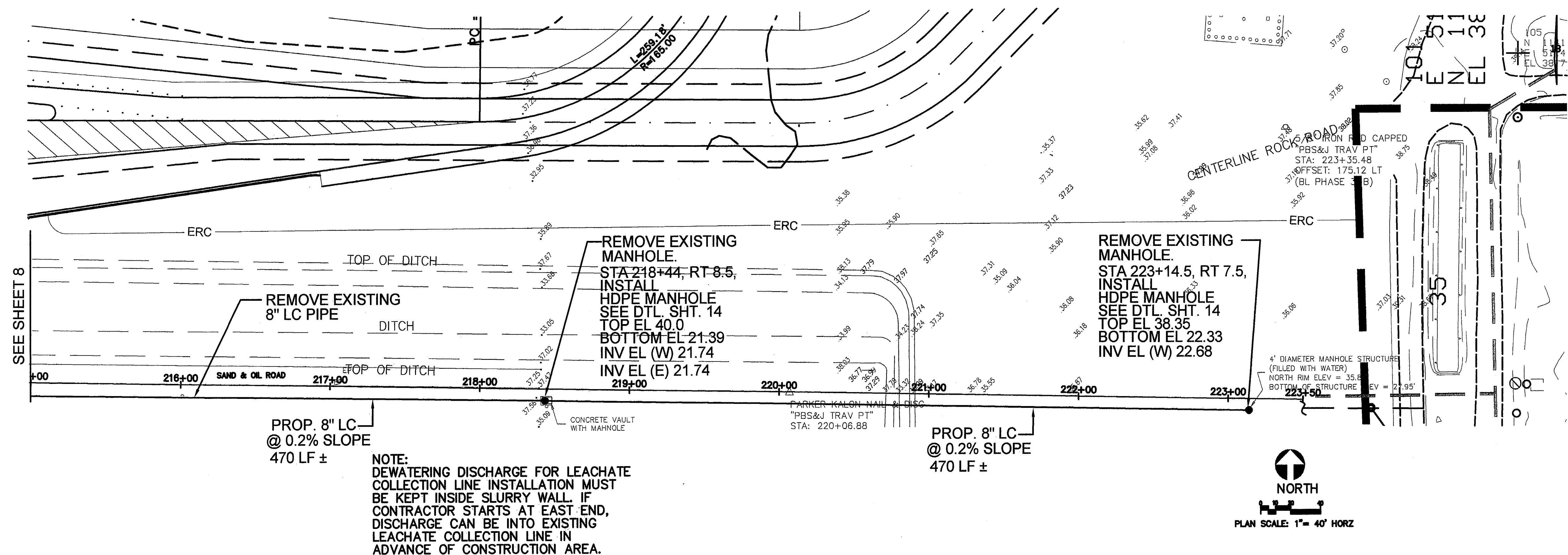
TASK
 STATION 203+00 TO 215+00

ORIGINAL: JUNE, 03
 REVISIONS:

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ENGINEER
 REG. NO. 120507.10
 JUN 06 2005
 SOUTH WEST DISTRICT
 AMPA

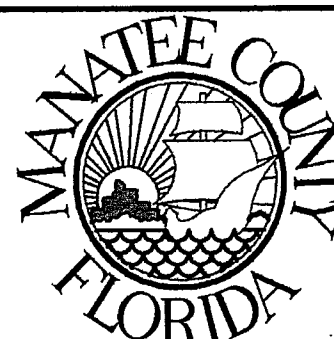
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 DESIGNED: JME
 CHECKED: JME
 DATE: DAW
 SHEET 8



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JUN 06 2005
SOUTHWEST DISTRICT
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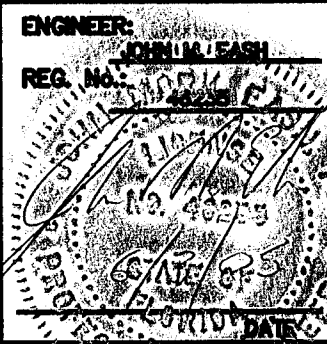


PROJECT
LENA ROAD LANDFILL
STORMWATER SYSTEM IMPROVEMENTS

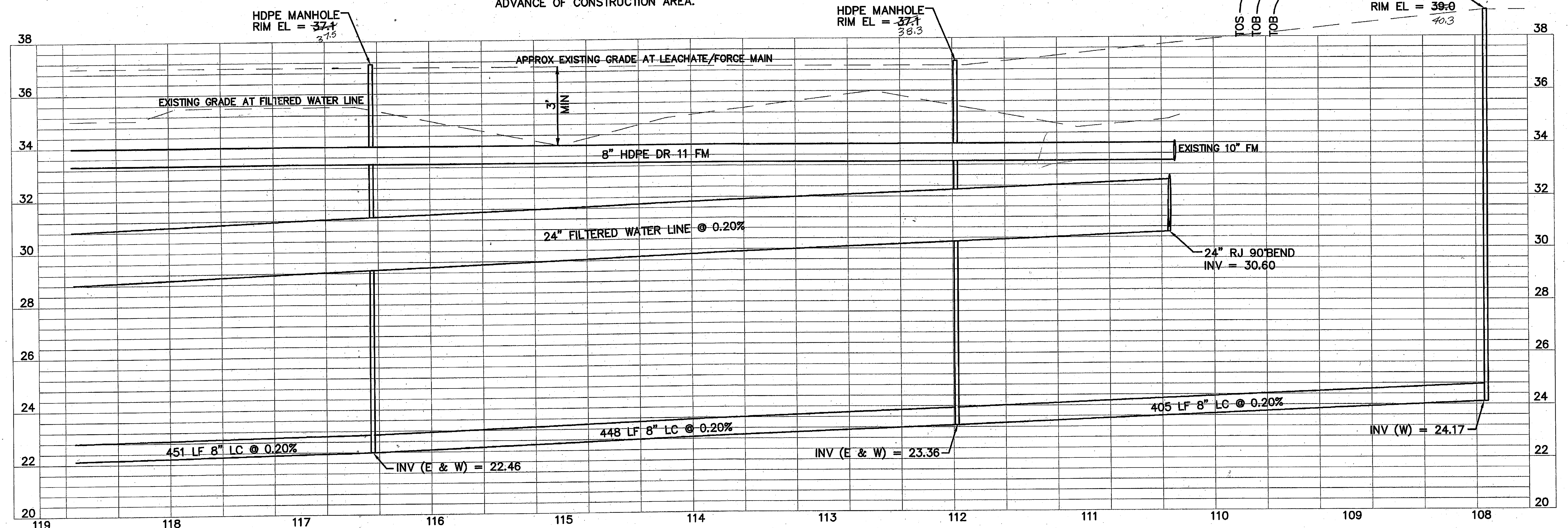
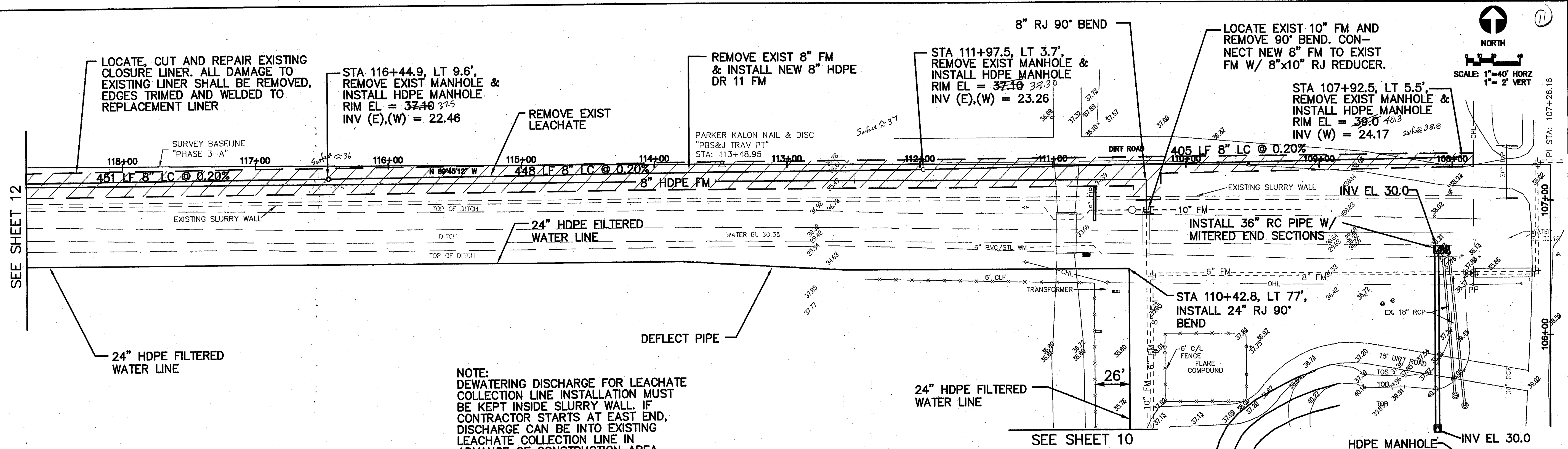
TASK
STATION 215+00 TO 221+00

ORIGINAL: JUNE, 03
REVISIONS:

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2
3
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JOB NO. 120507.10
DRAWN: JAS
DESIGNED: JME
CHECKED: JME
GC: DAW
SHEET 9



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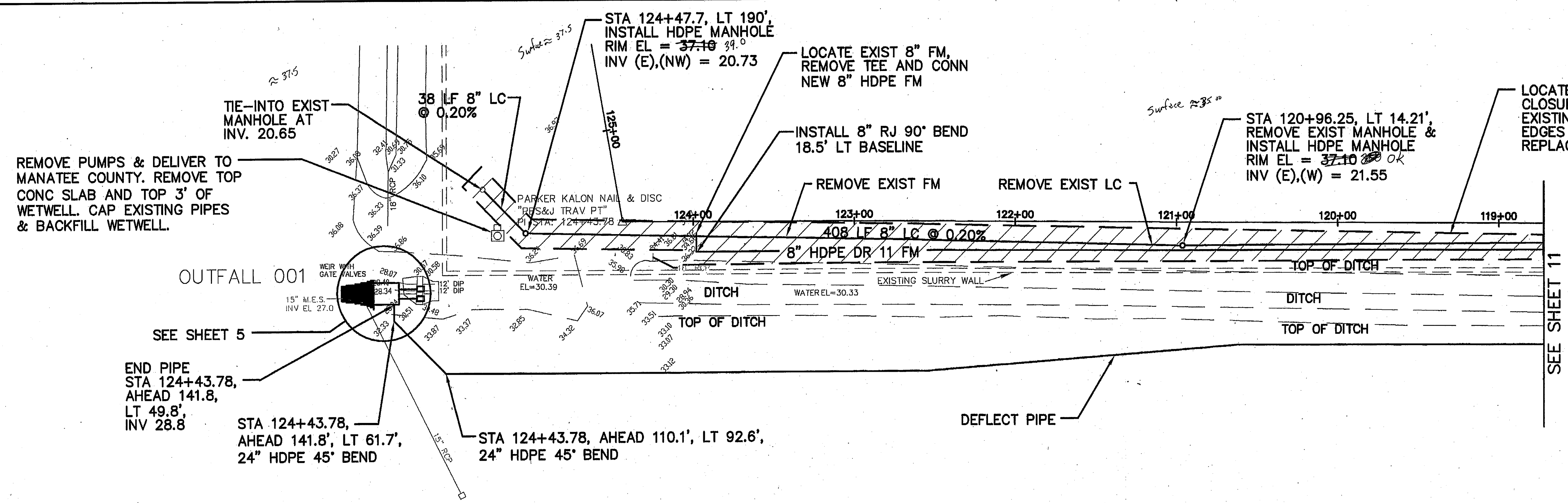
PROJECT
 LENA ROAD LANDFILL
 STORMWATER SYSTEM IMPROVEMENTS

TASK
 FILTERED WATER LINE, LEACHATE
 COLLECTION AND FM
 PLAN AND PROFILE

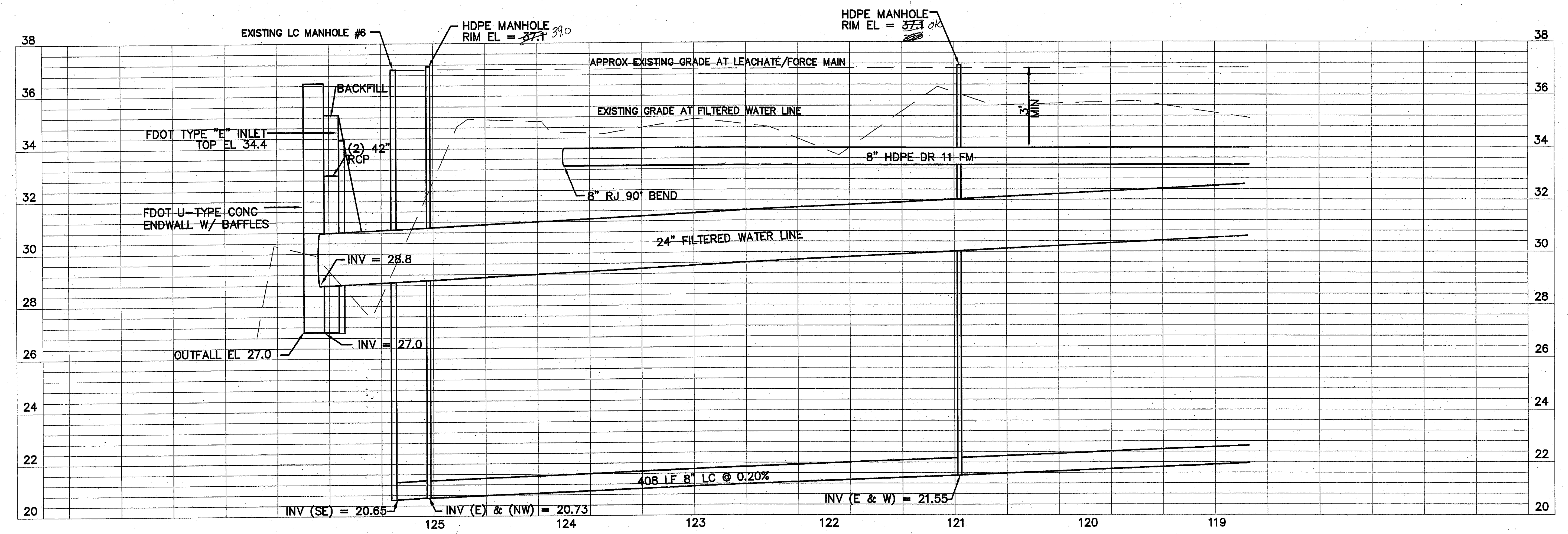
ORIGINAL: APRIL, 03
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 1 SEPTEMBER, 04-FDEP COMMENTS
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 3
 4
 5

ENGINEER:
 REG. NO. 10000
 JOB NO. 120507.10
 DRAWN: JAS
 DESIGNED: JME
 CHECKED: JME
 QC: DAW
 SHEET 11

FLORIDA DEPARTMENT OF
 ENVIRONMENTAL PROTECTION
 JUN 06 2005
 SOUTHWEST DISTRICT
 TAMPA



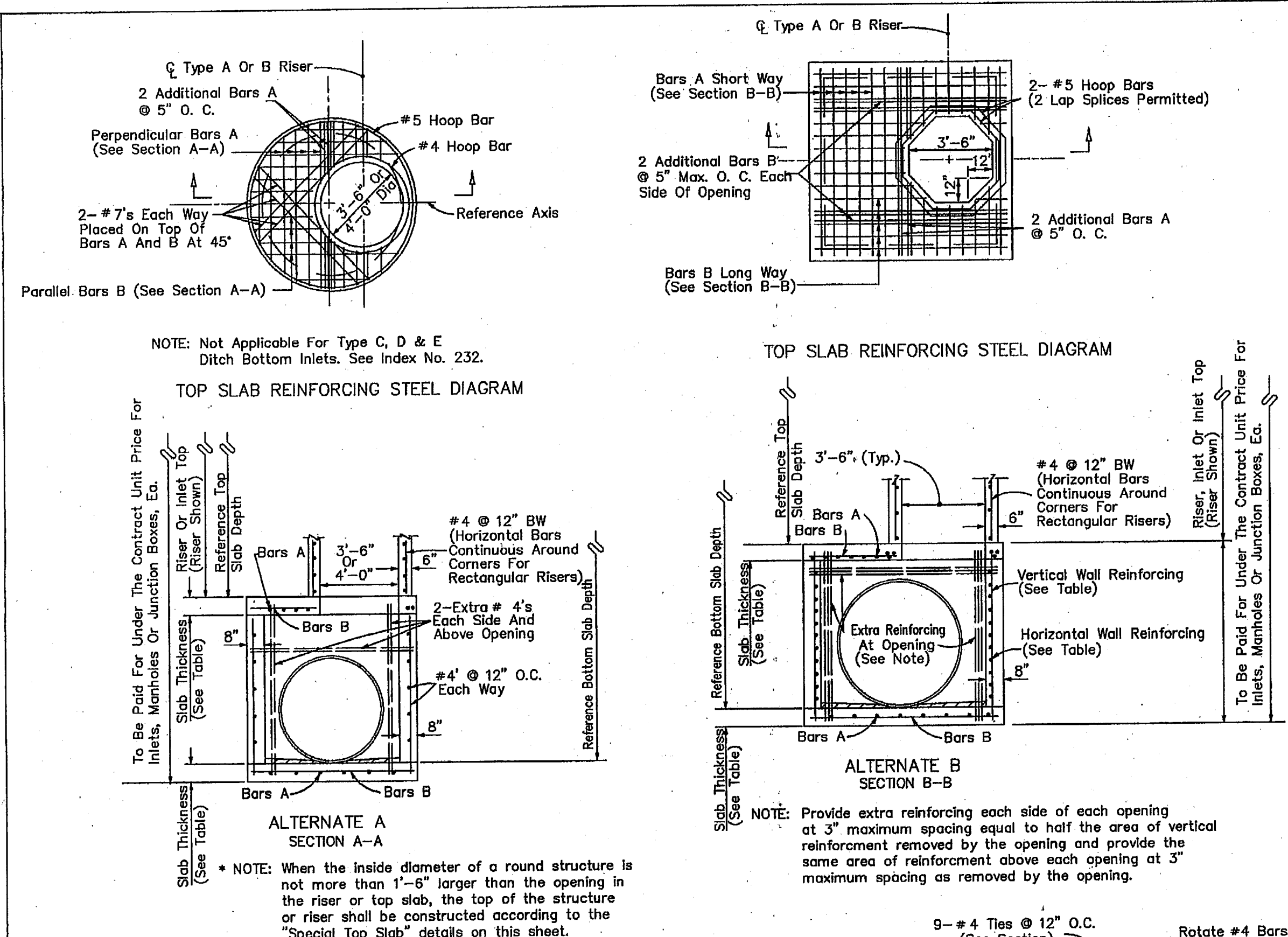
NOTE:
DEWATERING DISCHARGE FOR LEACHATE COLLECTION LINE INSTALLATION MUST BE KEPT INSIDE SLURRY WALL. IF CONTRACTOR STARTS AT EAST END, DISCHARGE CAN BE INTO EXISTING LEACHATE COLLECTION LINE IN ADVANCE OF CONSTRUCTION AREA.



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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 06 2005
SOUTHWEST DISTRICT
TAMPA

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUN 06 2005
SOUTHWEST DISTRICT
TAMPA

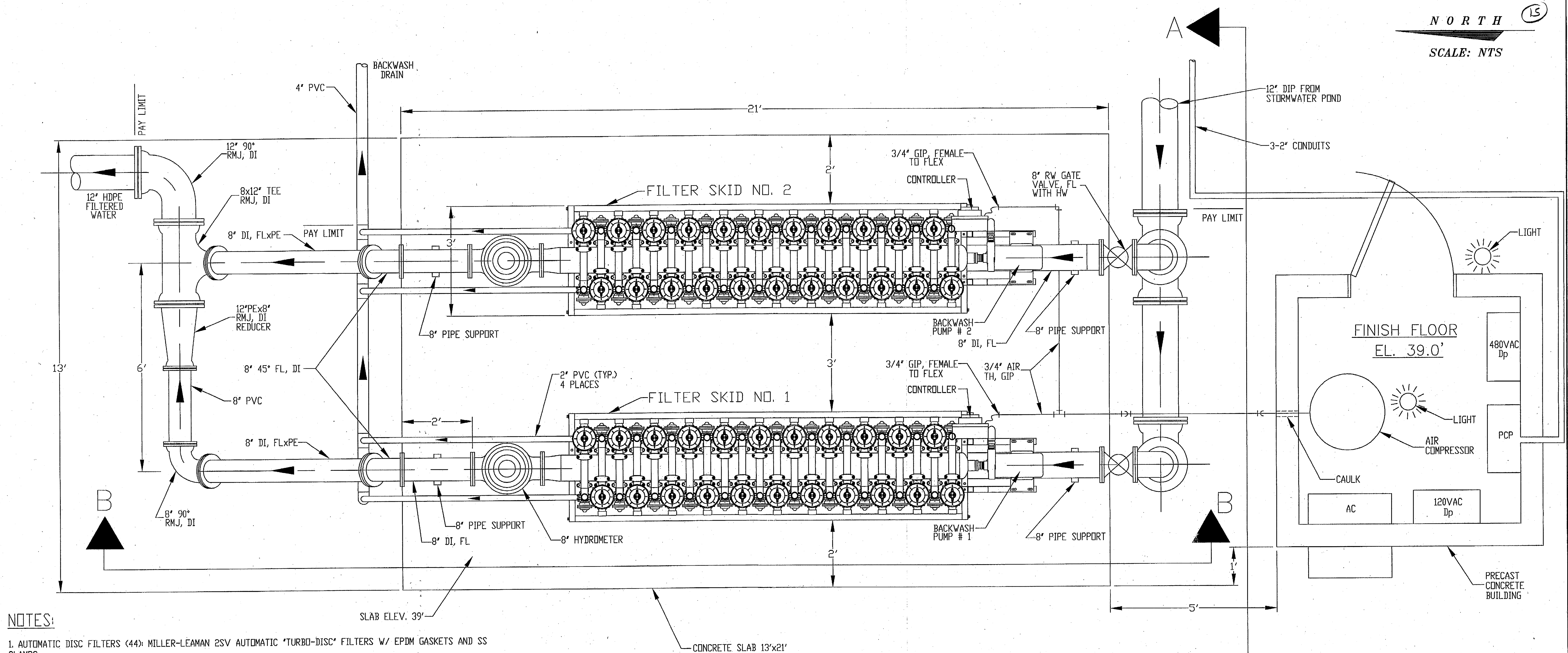


SLAB DESIGNS - SQUARE AND RECTANGULAR STRUCTURES
(ALL SLABS 8" THICK - REINFORCING PARALLEL TO SHORT WAY AND LONG WAY)

SHORT-WAY		LONG-WAY	
SLAB DEPTH	SCHEDULE	SLAB DEPTH	SCHEDULE
SIZE: 3'-6" x UNLIMITED			
≥ 0.5' < 3'	B	≥ 0.5' < 3'	B
3' < 4'	C	3' < 4'	C
4' < 5'	D	4' < 5'	D
5' < 6'	E	5' < 6'	E
6' < 7'	F	6' < 7'	F
7' < 8'	G	7' < 8'	G
8' < 9'	H	8' < 9'	H
9' < 10'	I	9' < 10'	I
10' < 11'	J	10' < 11'	J
11' < 12'	K	11' < 12'	K
12' < 13'	L	12' < 13'	L
13' < 14'	M	13' < 14'	M
14' < 15'	N	14' < 15'	N
15' < 16'	O	15' < 16'	O
16' < 17'	P	16' < 17'	P
17' < 18'	Q	17' < 18'	Q
18' < 19'	R	18' < 19'	R
19' < 20'	S	19' < 20'	S
20' < 21'	T	20' < 21'	T
21' < 22'	U	21' < 22'	U
22' < 23'	V	22' < 23'	V
23' < 24'	W	23' < 24'	W
24' < 25'	X	24' < 25'	X
25' < 26'	Y	25' < 26'	Y
26' < 27'	Z	26' < 27'	Z
27' < 28'	AA	27' < 28'	AA
28' < 29'	AB	28' < 29'	AB
29' < 30'	AC	29' < 30'	AC
30' < 31'	AD	30' < 31'	AD
31' < 32'	AE	31' < 32'	AE
32' < 33'	AF	32' < 33'	AF
33' < 34'	AG	33' < 34'	AG
34' < 35'	AH	34' < 35'	AH
35' < 36'	AI	35' < 36'	AI
36' < 37'	AJ	36' < 37'	AJ
37' < 38'	AK	37' < 38'	AK
38' < 39'	AL	38' < 39'	AL
39' < 40'	AM	39' < 40'	AM
40' < 41'	AN	40' < 41'	AN
41' < 42'	AO	41' < 42'	AO
42' < 43'	AP	42' < 43'	AP
43' < 44'	AQ	43' < 44'	AQ
44' < 45'	AR	44' < 45'	AR
45' < 46'	AS	45' < 46'	AS
46' < 47'	AT	46' < 47'	AT
47' < 48'	AU	47' < 48'	AU
48' < 49'	AV	48' < 49'	AV
49' < 50'	AW	49' < 50'	AW
50' < 51'	AX	50' < 51'	AX
51' < 52'	AY	51' < 52'	AY
52' < 53'	AZ	52' < 53'	AZ
53' < 54'	BA	53' < 54'	BA
54' < 55'	BB	54' < 55'	BB
55' < 56'	BC	55' < 56'	BC
56' < 57'	BD	56' < 57'	BD
57' < 58'	BE	57' < 58'	BE
58' < 59'	BF	58' < 59'	BF
59' < 60'	BG	59' < 60'	BG
60' < 61'	BH	60' < 61'	BH
61' < 62'	BI	61' < 62'	BI
62' < 63'	BJ	62' < 63'	BJ
63' < 64'	BK	63' < 64'	BK
64' < 65'	BL	64' < 65'	BL
65' < 66'	BM	65' < 66'	BM
66' < 67'	BN	66' < 67'	BN
67' < 68'	BO	67' < 68'	BO
68' < 69'	BP	68' < 69'	BP
69' < 70'	BQ	69' < 70'	BQ
70' < 71'	BR	70' < 71'	BR
71' < 72'	BS	71' < 72'	BS
72' < 73'	BT	72' < 73'	BT
73' < 74'	BU	73' < 74'	BU
74' < 75'	BV	74' < 75'	BV
75' < 76'	BW	75' < 76'	BW
76' < 77'	BX	76' < 77'	BX
77' < 78'	BY	77' < 78'	BY
78' < 79'	BZ	78' < 79'	BZ
79' < 80'	CA	79' < 80'	CA
80' < 81'	CB	80' < 81'	CB
81' < 82'	CC	81' < 82'	CC
82' < 83'	CD	82' < 83'	CD
83' < 84'	CE	83' < 84'	CE
84' < 85'	CF	84' < 85'	CF
85' < 86'	CG	85' < 86'	CG
86' < 87'	CH	86' < 87'	CH
87' < 88'	CI	87' < 88'	CI
88' < 89'	CJ	88' < 89'	CJ
89' < 90'	CK	89' < 90'	CK
90' < 91'	CL	90' < 91'	CL
91' < 92'	CM	91' < 92'	CM
92' < 93'	CN	92' < 93'	CN
93' < 94'	CO	93' < 94'	CO
94' < 95'	CP	94' < 95'	CP
95' < 96'	CQ	95' < 96'	CQ
96' < 97'	CR	96' < 97'	CR
97' < 98'	CS	97' < 98'	CS
98' < 99'	CT	98' < 99'	CT
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101' < 102'	CW	101' < 102'	CW
102' < 103'	CX	102' < 103'	CX
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163' < 164'	FG	163' < 164'	FG
164' < 165'	FH	164' < 165'	FH
165' < 166'	FI	165' < 166'	FI
166' < 167'	FJ	166' < 167'	FJ
167' < 168'	FK	167' < 168'	FK
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169' < 170'	FM	169' < 170'	FM
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172' < 173'	FP	172' < 173'	FP
173' < 174'	FQ	173' < 174'	FQ
174' < 175'	FR	174' < 175'	FR
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177' < 178'	FU	177' < 178'	FU
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193' < 194'	GK	193' < 194'	GK
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198' < 199'	GP	198' < 199'	GP
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201' < 202'	GS	201' < 202'	GS
202' < 203'	GT	202' < 203'	GT
203' < 204'	GU	203' < 204'	GU
204' < 205'	GV	204' < 205'	GV
205' < 206'	GW	205' < 206'	GW
206' < 207'	GX	206' < 207'	GX
207' < 208'	GY	207' < 208'	GY
208' < 209'	GZ	208' < 209'	GZ
209' < 210'	HA	209' < 210'	HA
210' < 211'	HB	210' < 211'	HB
211' < 212'	HC	211' < 212'	HC
212' < 213'	HD	212' < 213'	HD
213' < 214'	HE	213' < 214'	HE
214' < 215'	HF	214' < 215'	HF
215' < 216'	HG	215' <	

NORTH

SCALE: NTS



NOTES:

1. AUTOMATIC DISC FILTERS (44): MILLER-LEAMAN 2SV AUTOMATIC 'TURBO-DISC' FILTERS W/ EPDM GASKETS AND SS CLAMPS.
2. BACKWASH VALVES (88): BERMAID 2x2 350 SERIES FILTER BACKWASH VALVES, PNEUMATICALLY ACTIVATED.
3. 2 - 90GPM CENTRIFUGAL CLOSE-COUPLED PUMPS: (BACKWASH) BERKELY B1.5TPMS 90GPM @69PSI, 7.5HP, 3600RPM, 480VAC, 3 PHASE
4. MAGNETIC DRIVE HYDROMETER(2): BERMAID MODEL 910
5. BACKWASH CONTROLLER (2): MILLER-LEAMAN MILLENNIUM2 12/8 VERSION CONTROLLER, 115VAC INPUT, 24VDC OUTPUT
6. SOLENOIDS: BURKERT TYPE 5470 PNEUMATIC SOLENOIDS,
7. SYSTEM MAINLINE MANIFOLDS: 8" DIAMETER, SCHEDULE 10, T304 STAINLESS STEEL PIPE & FITTINGS 8. SKID FRAME: 2" SQUARE, SCHEDULE 10, T304 STAINLESS STEEL
9. AIR COMPRESSOR: 3HP, SAYLOR BEALL MODEL 730-60 VERTICAL COMPRESSOR, 480VAC, 60Hz, 3-PHASE
10. FLANGE ADAPTER: EBAA MEGAFLANGE, SERIES 2100, DI
11. PVC BELL RESTRAINT: EBAA SPLIT SERRATED RESTRAINT, SERIES 1600, DI
12. PVC RMJ RESTRAINT: EBAA SPLIT RESTRAINT SERIES 2000SV, DI
13. PIPE SUPPORTS: STANDON MODEL S92 SADDLE SUPPORT
14. PVC < 3' = SCHEDULE 80
15. PVC >= 3' = C900 DR25

FILTER SPECIFICATIONS:

1. FILTER REQUIRED: 2 SKIDS (22 FILTER PODS EACH)
2. MFG & MODEL NO: MILLER LEAMAN 2 SV
3. FILTER CAPACITY: 700 GPM EACH (1400 GPM TWO)

POST, BUCKLEY, SCHUH & JERNIGAN, INC., D/B/A/

PBS&J

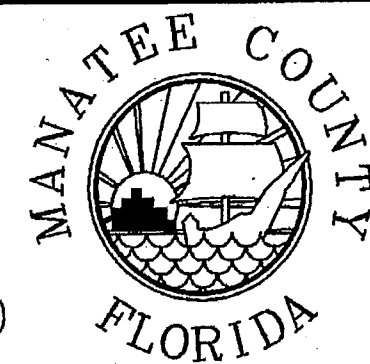
PRINCIPAL ADDRESS:
2001 MW 107th AVENUE
MIAMI, FL 33172-2507
FBRP CERT. OF AUTH. No. 24

PRODUCTION ADDRESS:
2803 FRUITVILLE ROAD, SUITE 130
SARASOTA, FLORIDA 34237
Ph. (941) 954-4036

CLIENT

MANATEE COUNTY
PROJECT MANAGEMENT
DEPARTMENT

4410 66TH STREET WEST
BRADENTON, FLORIDA 34210



PROJECT

LENA ROAD LANDFILL

STORMWATER SYSTEM IMPROVEMENTS

TASK

STORMWATER

AUTOMATIC DISC FILTER SYSTEM

PLAN

ORIGINAL: APR. 2003

REVISIONS:

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10 _____
11 _____
12 _____

ENGINEER:
DAVID A. WEBER
REG. NO. 29323

JOB NO. 100197.12

DRAWN BZ

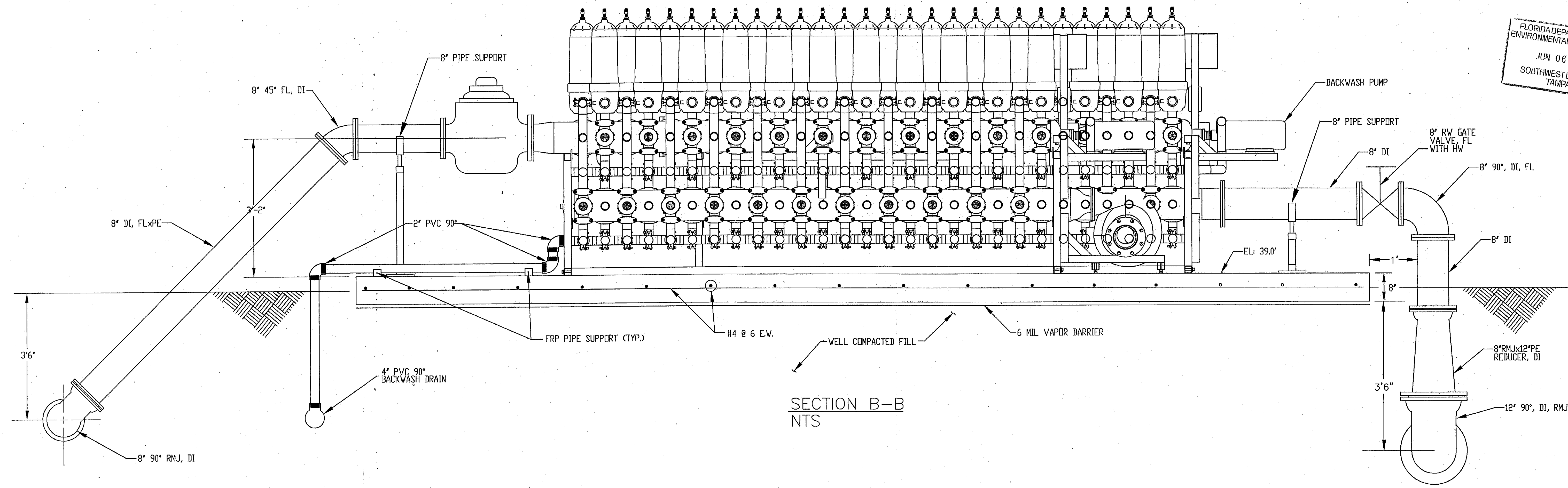
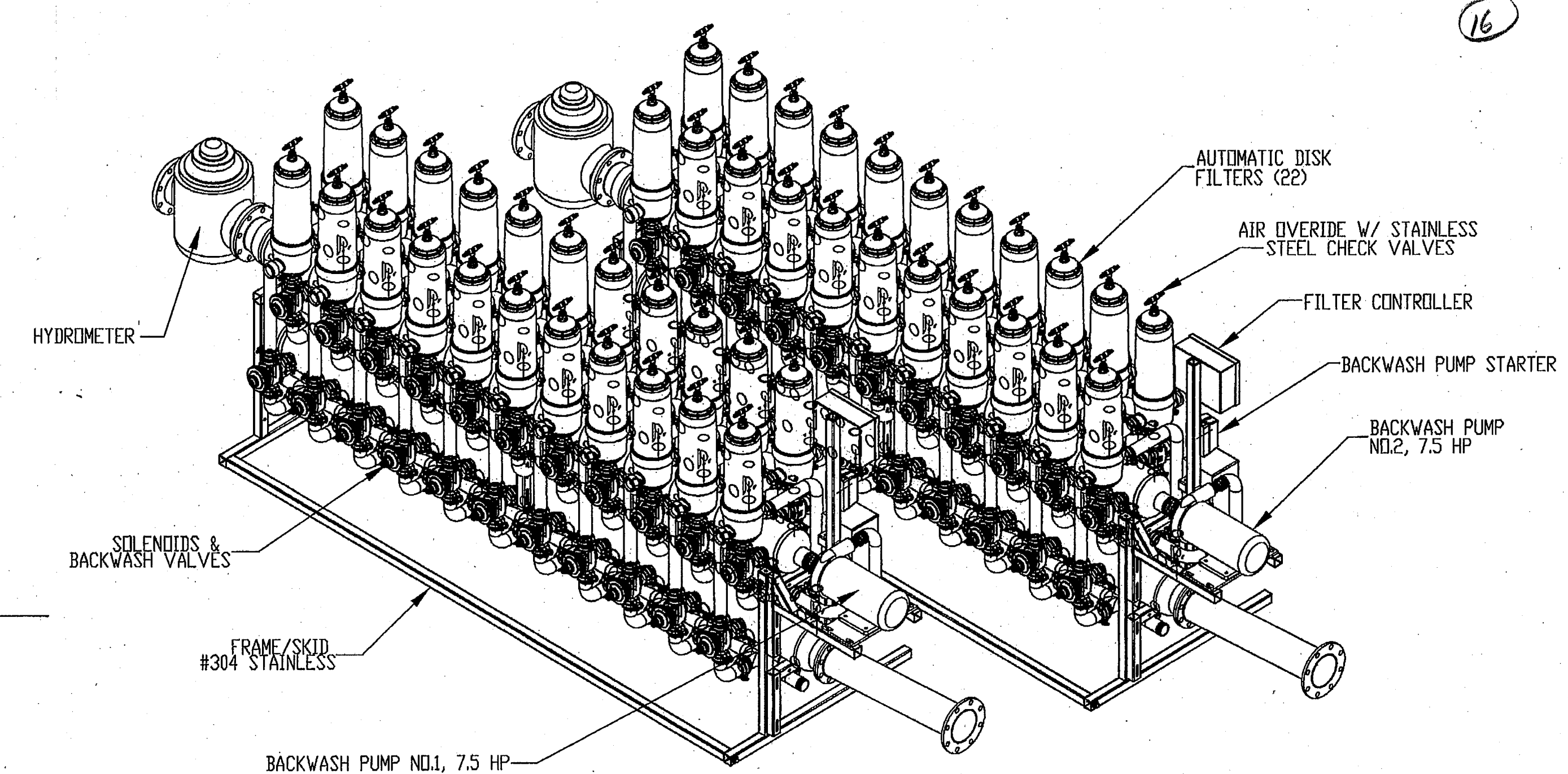
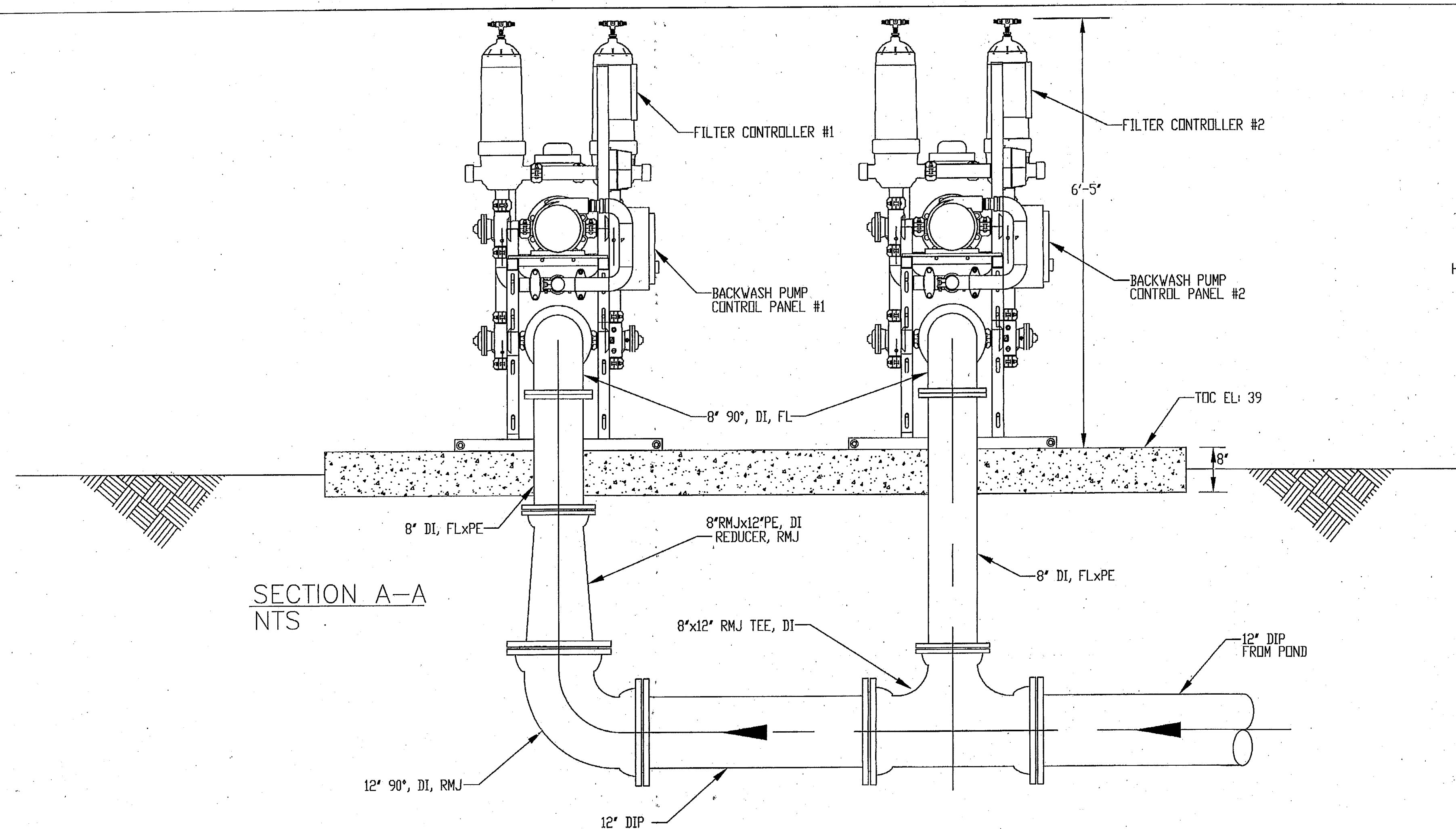
DESIGNED BZ

CHECKED BZ

QC DW

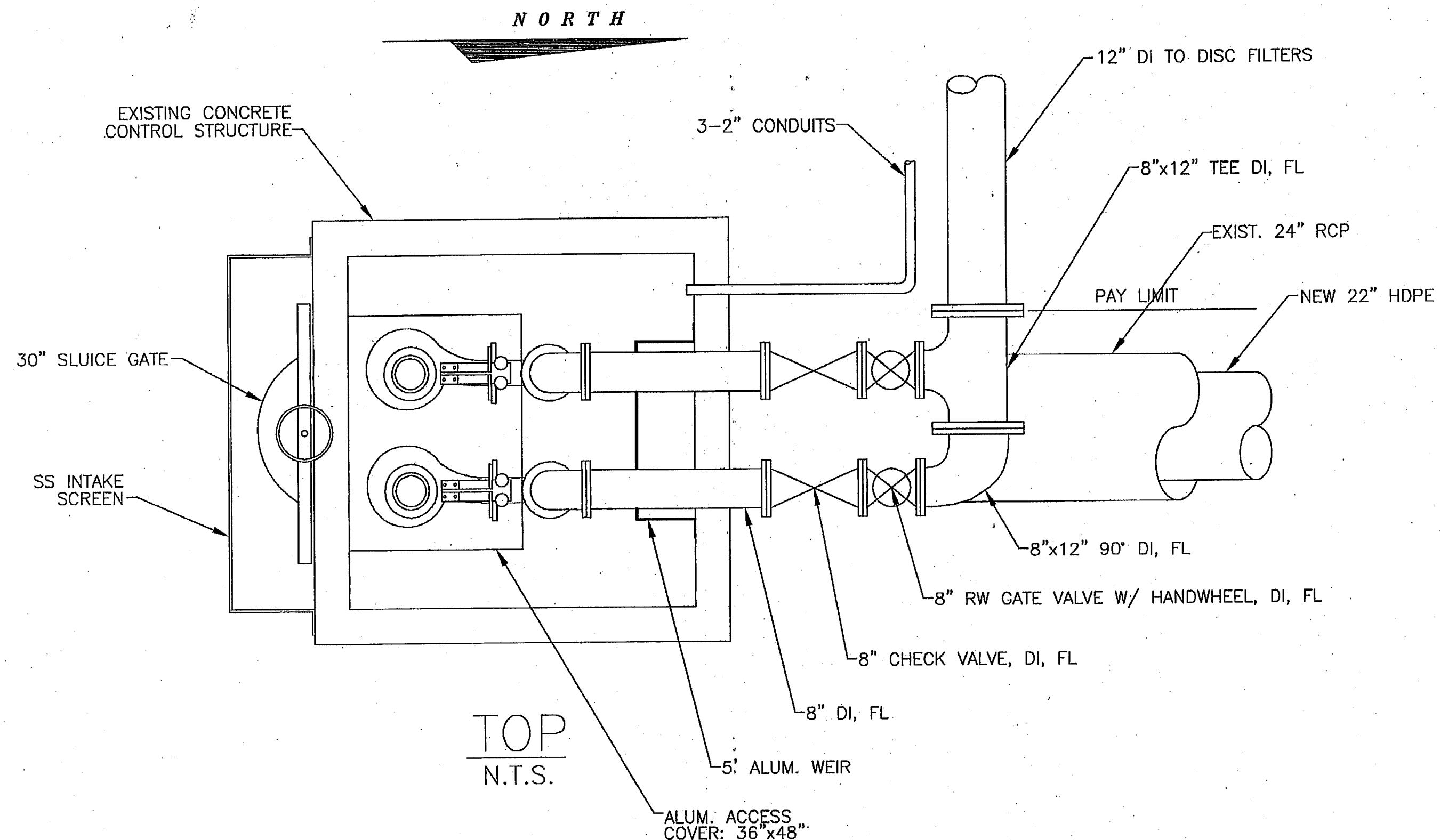
DATE

SHEET 15



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUN 06 2005
SOUTHWEST DISTRICT
TAMPA

POST, BUCKLEY, SCHUH & JERNIGAN, INC., D/B/A/ PBS&J	PRINCIPAL ADDRESS: 2001 MW 107th ANENUE MIAMI, FL. 33172-2507 FBRP CERT. OF AUTH. No. 24 PRODUCTION ADDRESS: 2803 FRUITVILLE ROAD, SUITE 130 SARASOTA, FLORIDA 34237 Ph. (941) 954-4036	CLIENT MANATEE COUNTY PROJECT MANAGEMENT DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210 MANATEE COUNTY FLORIDA	PROJECT LENA ROAD LANDFILL STORMWATER SYSTEM IMPROVEMENTS	TASK STORMWATER AUTOMATIC DISC FILTER SYSTEM SECTIONS	ORIGINAL: MAR. 2003 REVISIONS:		ENGINEER: DAVID A. WEBER REG. NO. 29323 DATE	JOB NO. 100197.06 DRAWN BZ DESIGNED BZ CHECKED BZ QC DW SHEET 16
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PUMP SPECIFICATIONS

PUMP REQUIRED	TWO
MFGR. & MODEL NO.	FLYGT C-3252
PUMP SIZE	6" DISCHARGE
PUMP CAPACITY	800 GPM
TOTAL HEAD	80 FT.
IMPELLER NO.	452
MOTOR REQUIREMENTS *	23 HP. MIN. 460 VOLT, 3 PHASE
SPEED	1750 R.P.M.
ELECTRICAL SERVICE	460 VOLTS, 3 PHASE, 60 HERTZ
* HP SHALL BE ADEQUATE THRU ALL POINTS ON THE PUMP CURVE	

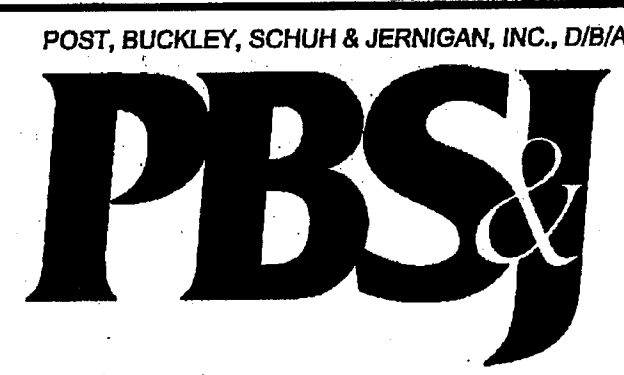
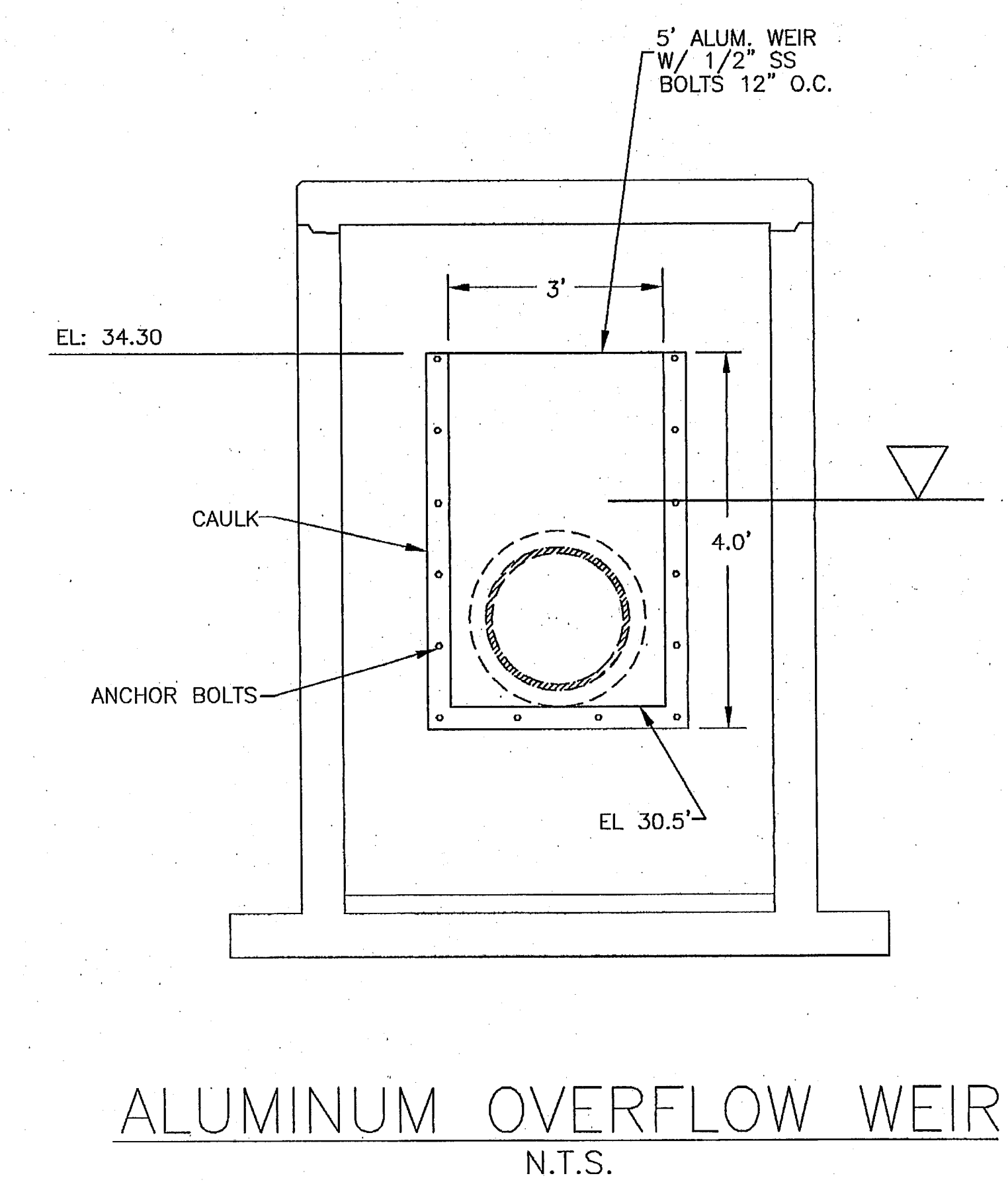
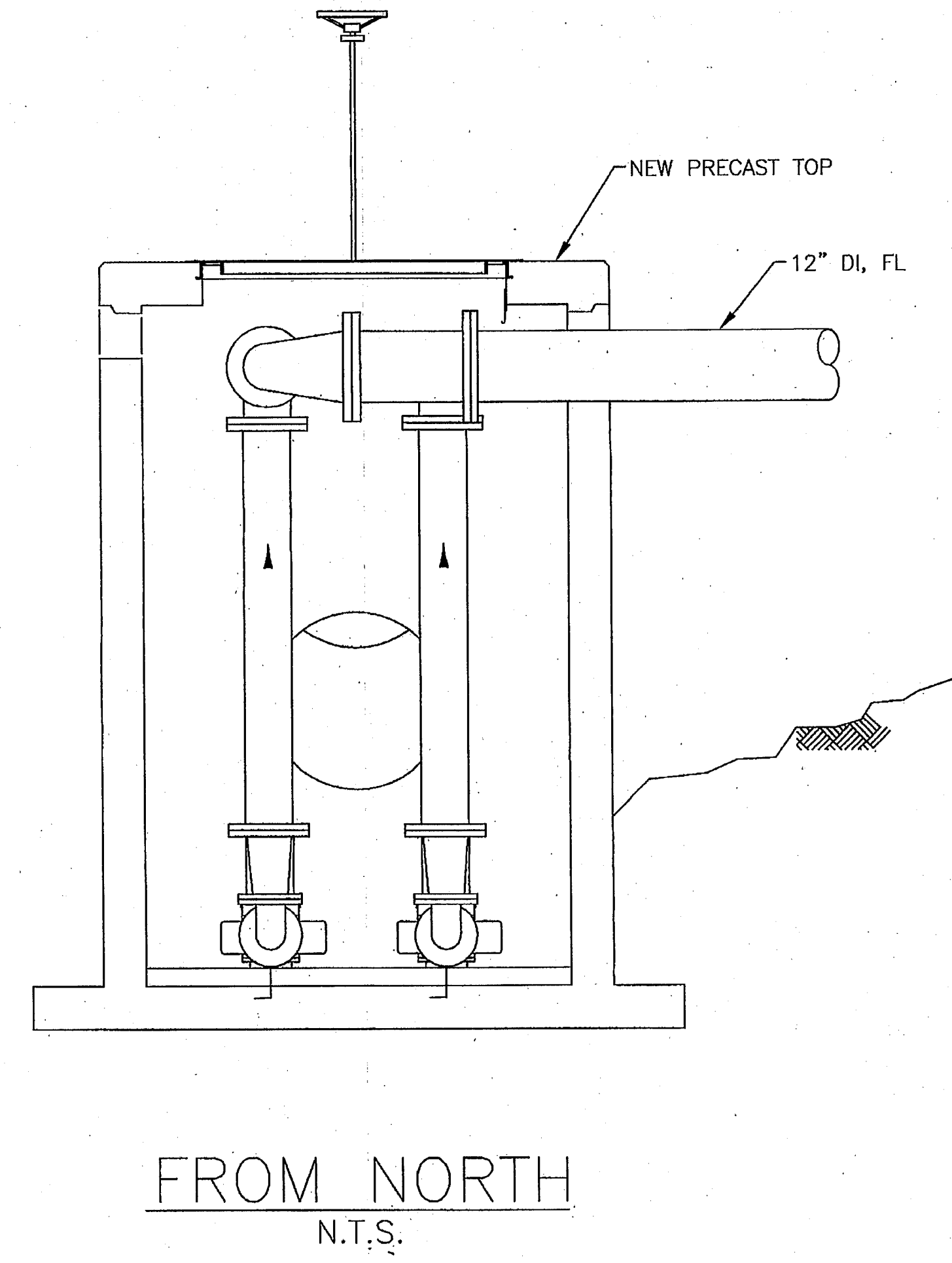
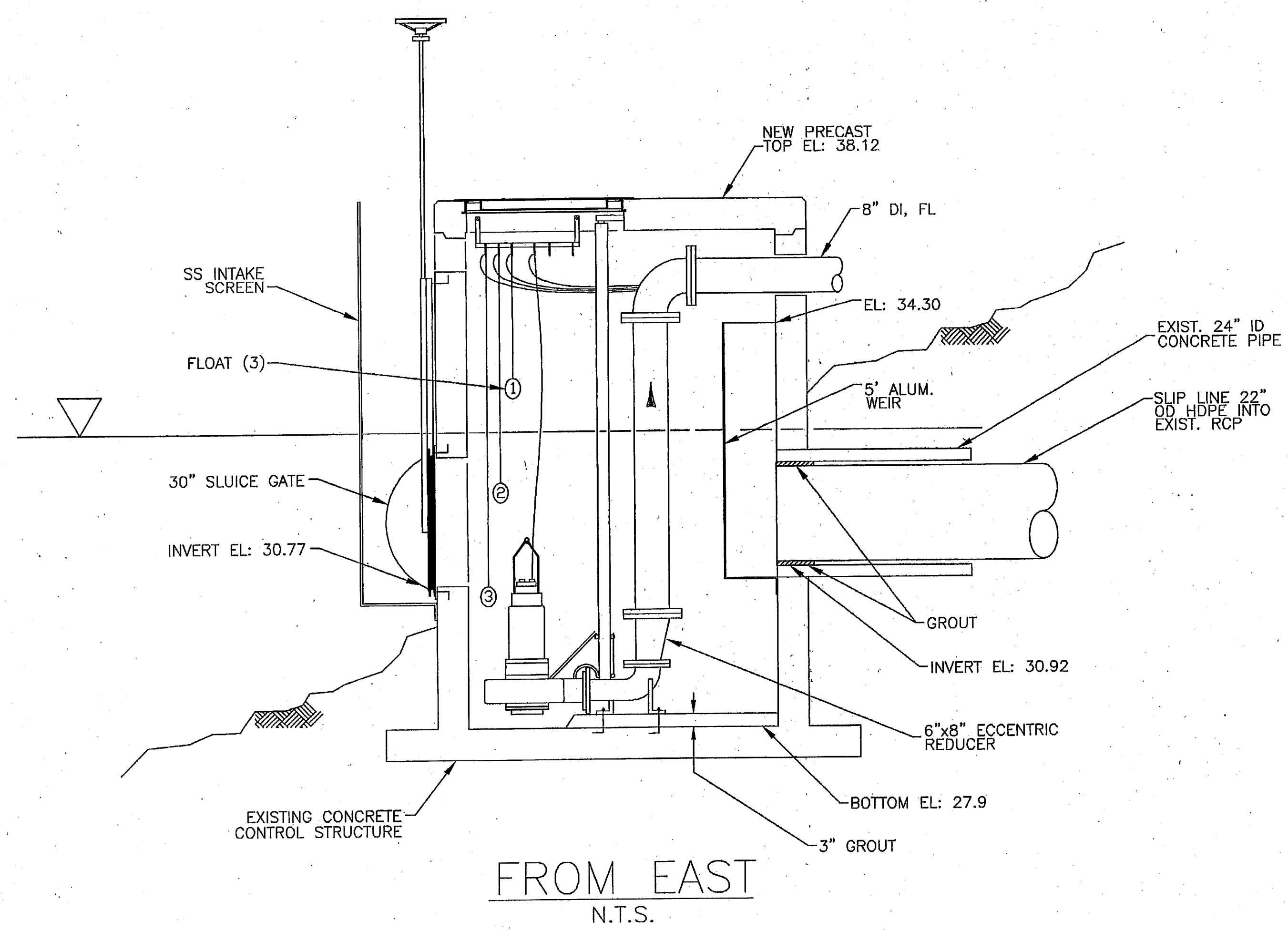
PUMP CONTROL LEVELS

▽ HIGH WATER ALARM	ELEV. 34.00
▽ LEAD PUMP No.1 ON	ELEV. 32.77
▽ ALL PUMPS OFF	ELEV. 30.77

STATION DESIGN

800 GPM (ONE PUMP)
1600 GPM (TWO PUMPS)

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUN 06 2005
SOUTHWEST DISTRICT
TAMPA



POST, BUCKLEY, SCHUH & JERNIGAN, INC., D/B/A/
PRINCIPAL ADDRESS:
2001 MW 107th AVENUE
MIAMI, FL 33172-2807
FBRP CERT. OF AUTH. No. 24
PRODUCTION ADDRESS:
2803 FRUITVILLE ROAD, SUITE 130
SARASOTA, FLORIDA 34237
Ph. (941) 954-4036

CLIENT
MANATEE COUNTY
PROJECT MANAGEMENT
DEPARTMENT
4410 66TH STREET WEST
BRADENTON, FLORIDA 34210



PROJECT
LENA ROAD LANDFILL
STORMWATER SYSTEM IMPROVEMENTS

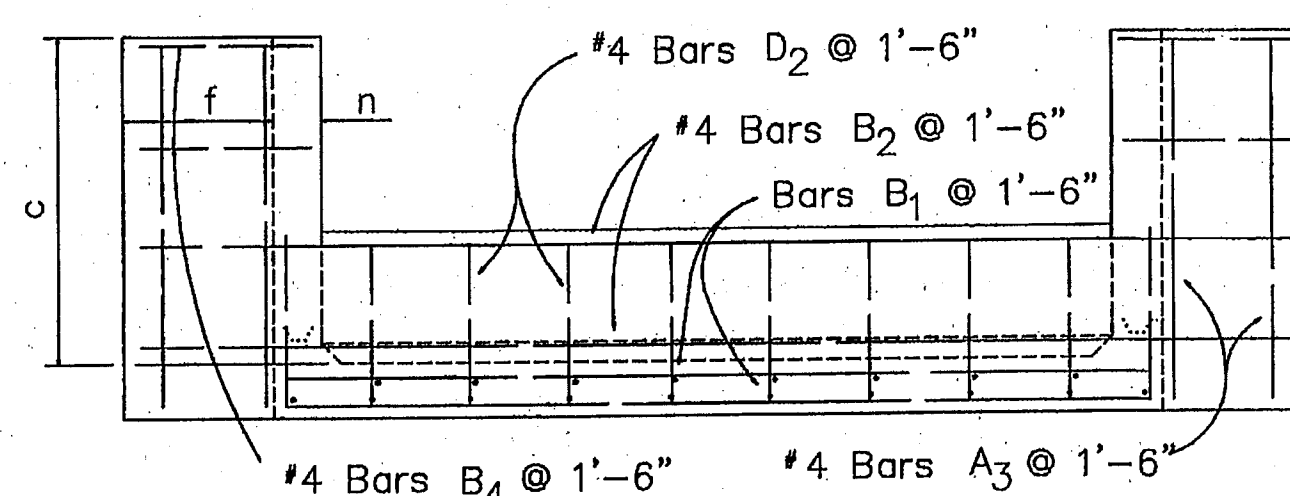
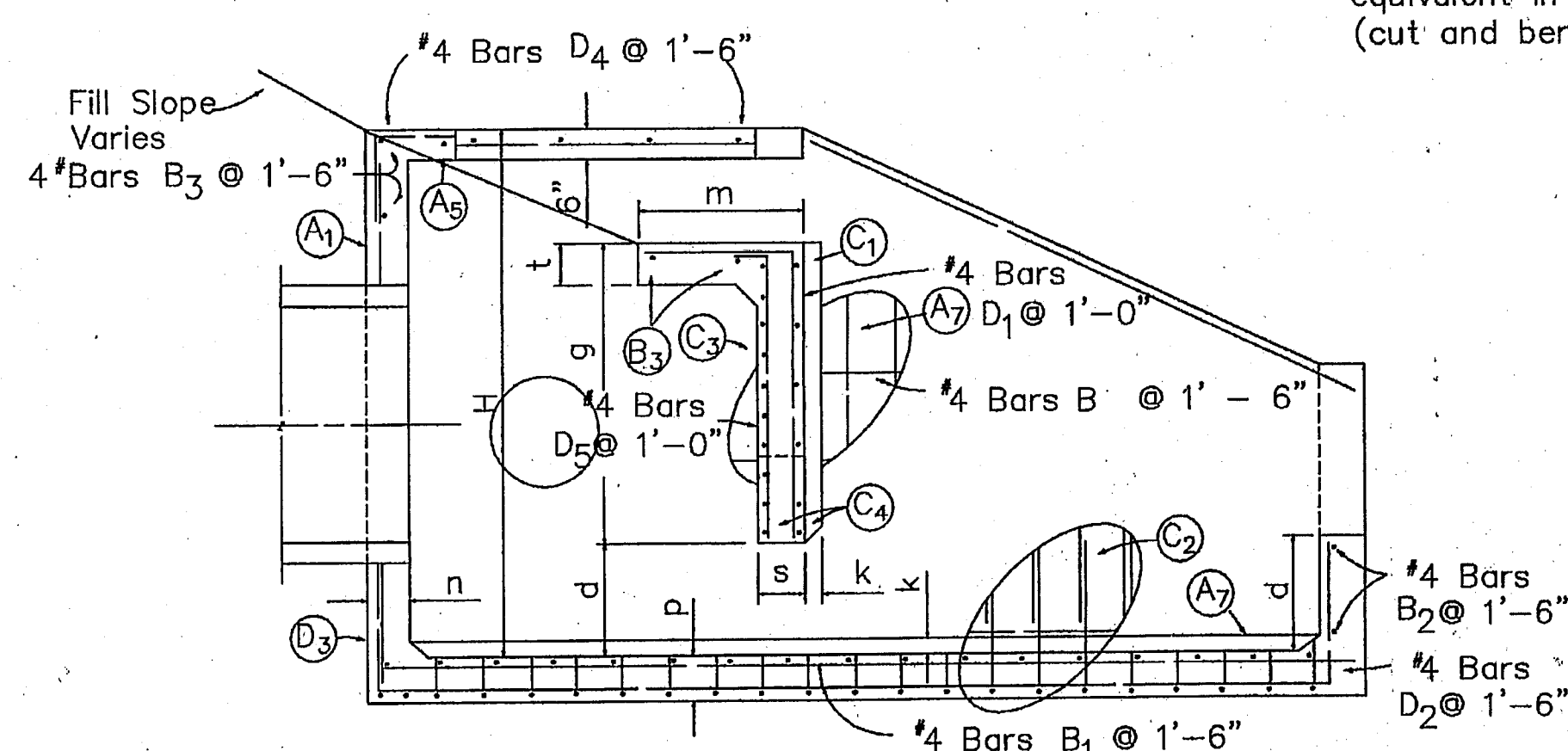
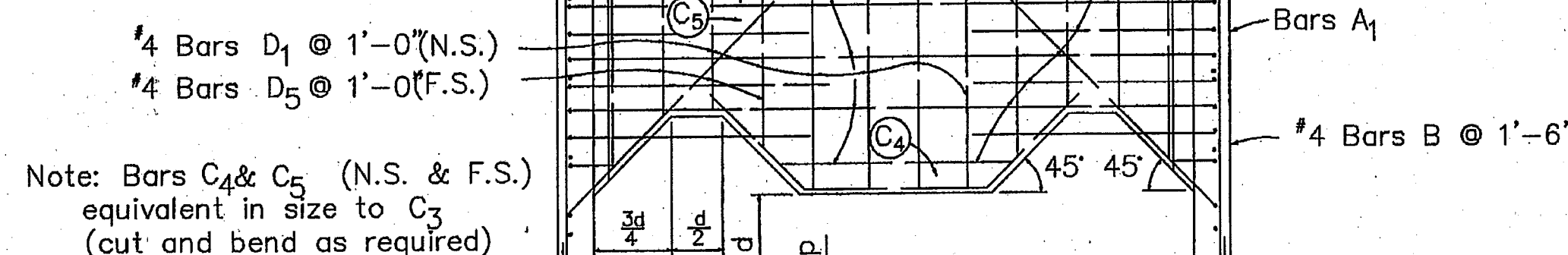
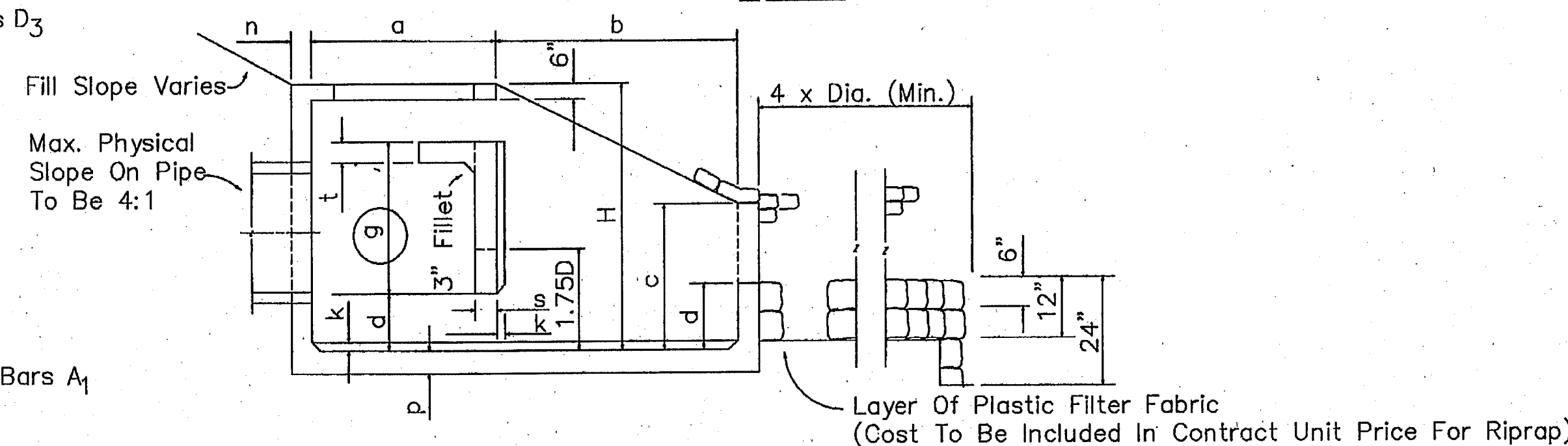
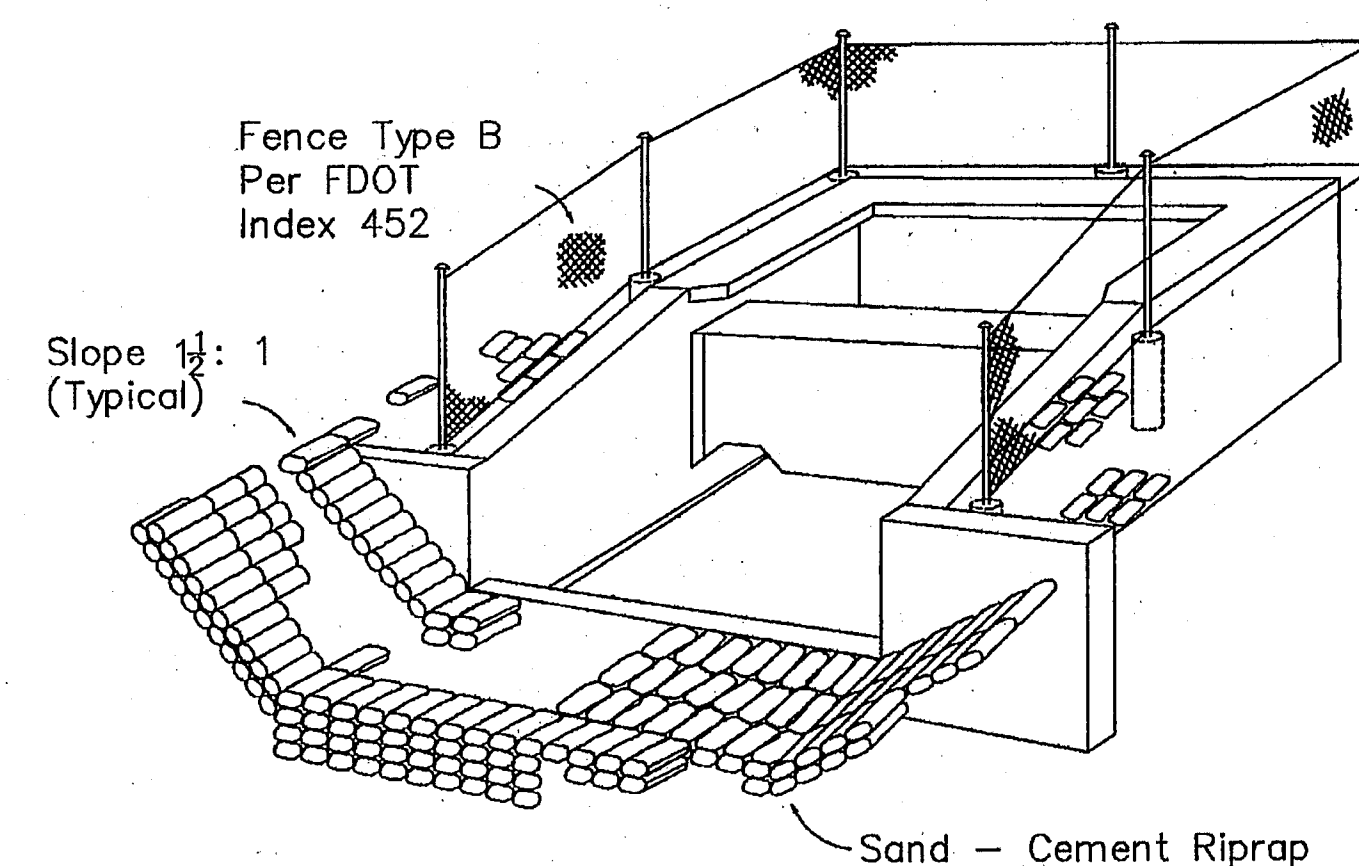
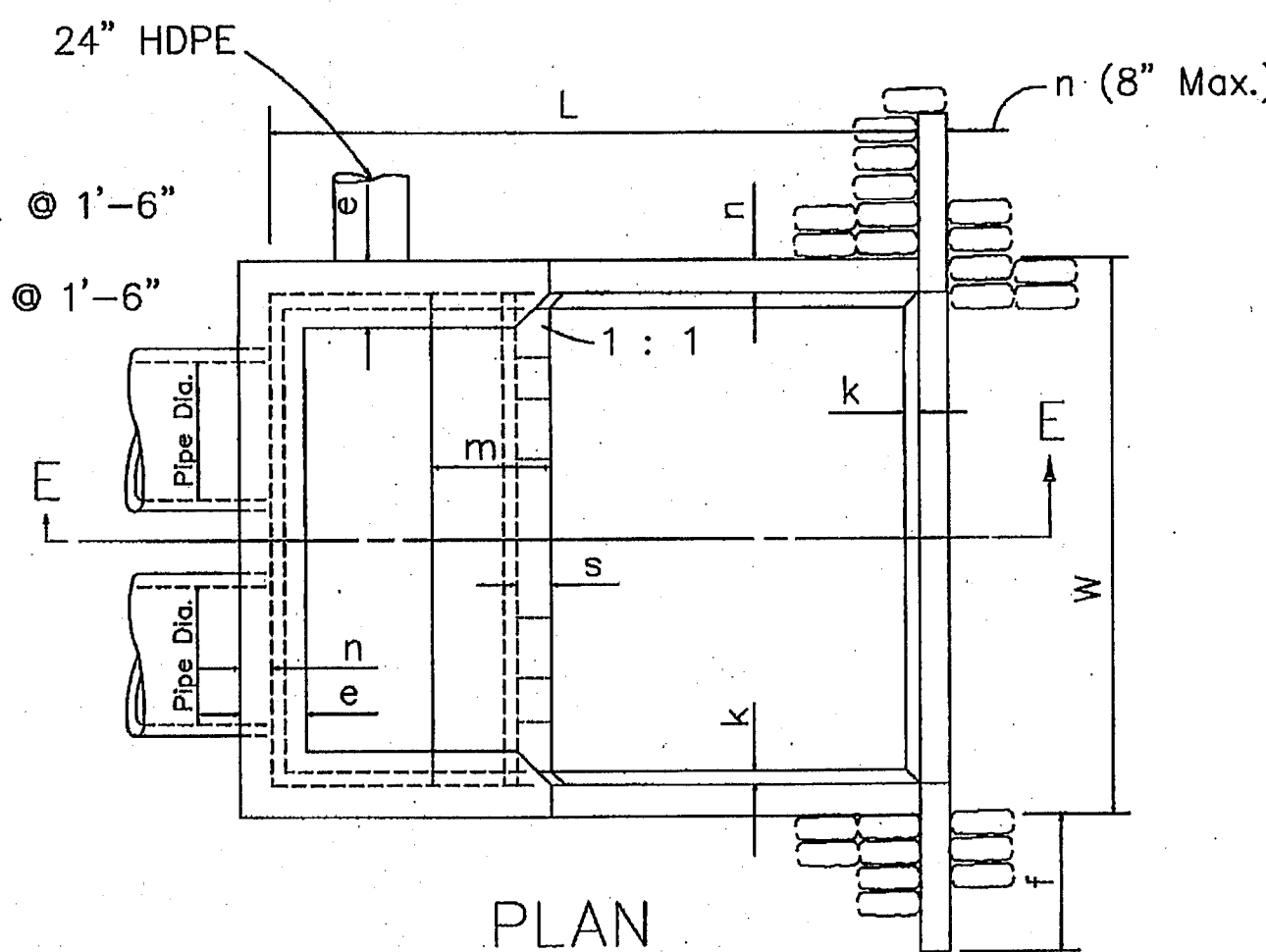
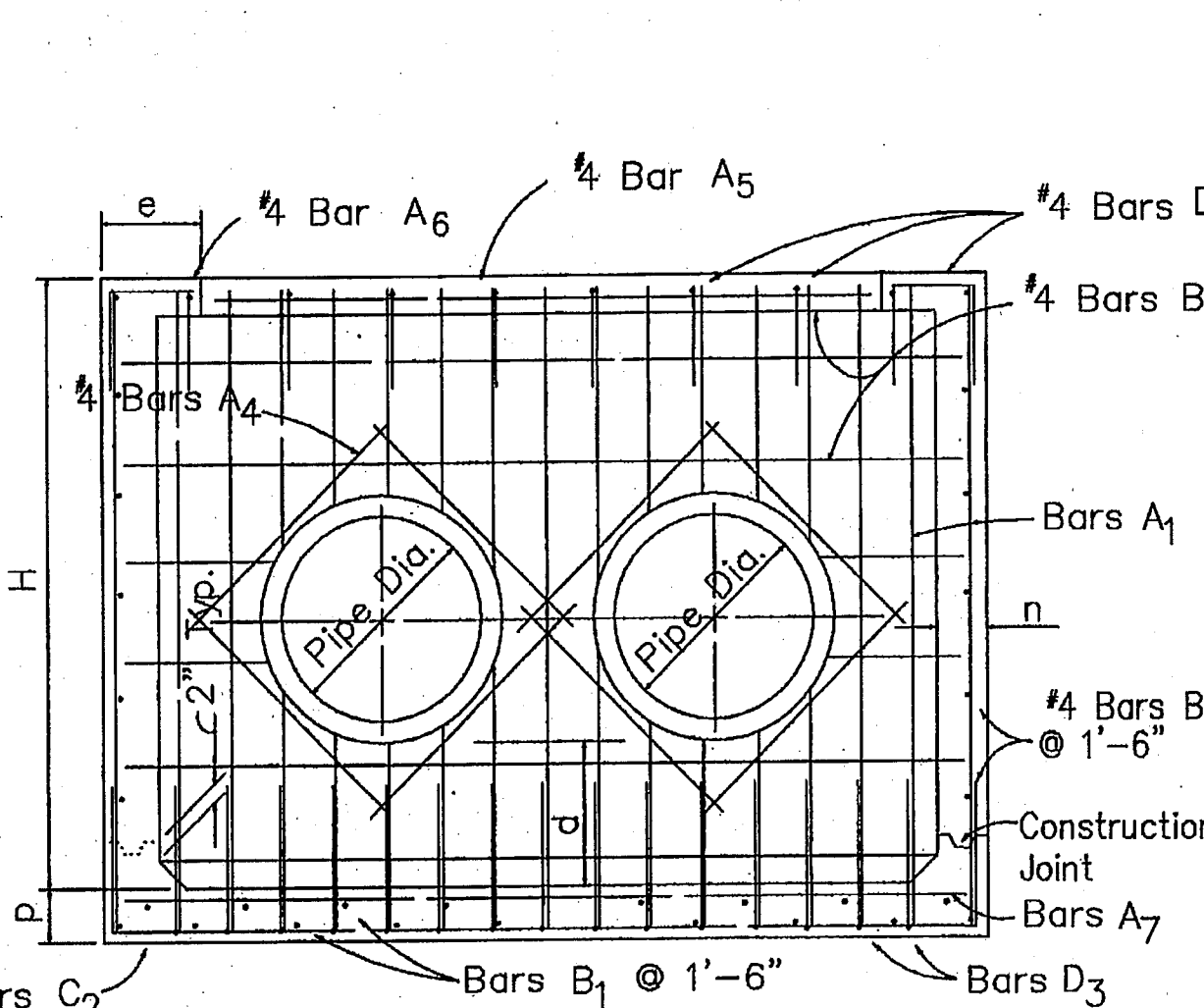
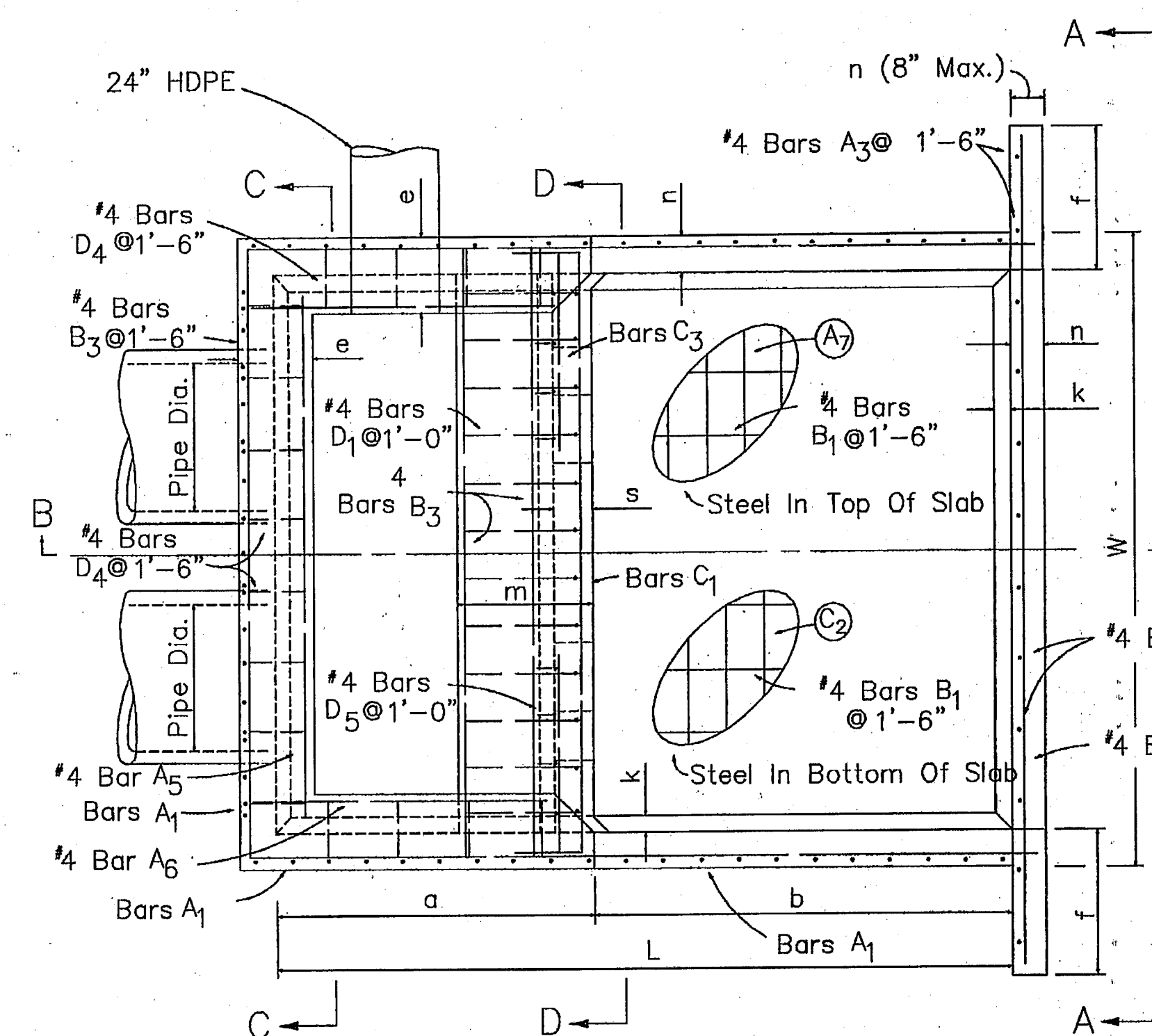
TASK
STORMWATER
AUTOMATIC DISK FILTER SYSTEM
FILTER FEED PUMPS

ORIGINAL: APR. 2003
REVISIONS:
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ENGINEER:
DAVID A. WEBER
REG. NO. 29323

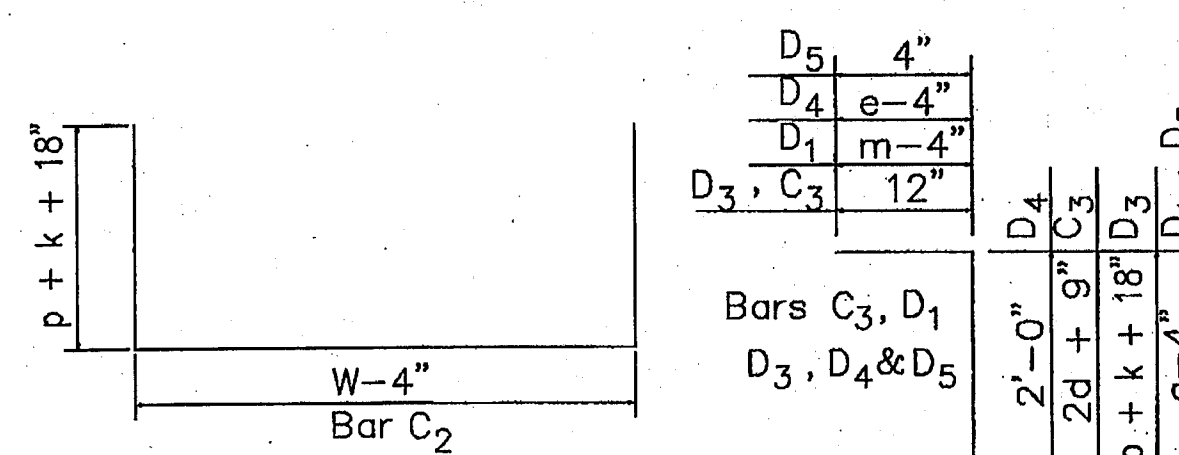
JOB NO. 100197.06
DRAWN BZ
DESIGNED BZ
CHECKED BZ
QC DW
DATE
SHEET 17



Pipe Size		Q (Max.) (cfs)	Dimensions																Sand Cement Riprap C.Y.(Nom.)
Dia. In.	Area S.F.		Ft. — In.												Inches				
			W	H	L	a	b	c	d	e	f	g	m	n	p	s	t	k	
(2)42"	19.24	231	18-6	9-7	22-0	9-3	12-9	6-11	2-9	2-3	3-0	6-2	3-9	12	12-1/2	12	8	6	44.5

- ### GENERAL NOTES
1. U-type concrete endwall energy dissipators are intended for use outside the clear zone.
 2. Chamfer all exposed edges 3/4"
 3. Concrete meeting the requirements of ASTM C-478 (4000 psi) may be used in lieu of Class 1 Concrete in precast items manufactured in plants which are under the Standard Operating Procedures for the inspection of precast drainage products.
 4. Reinforcing steel shall have 2" min. cover.

BARS												
Pipe Size	A ₁		A ₇		C ₁		C ₂		C ₃		D ₃	
	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)
(2) 42"	6	0-7½	5	0-10	7	0-10	6	0-7½	7	0-5	6	0-7½



Note : All bar dimensions are out to out.

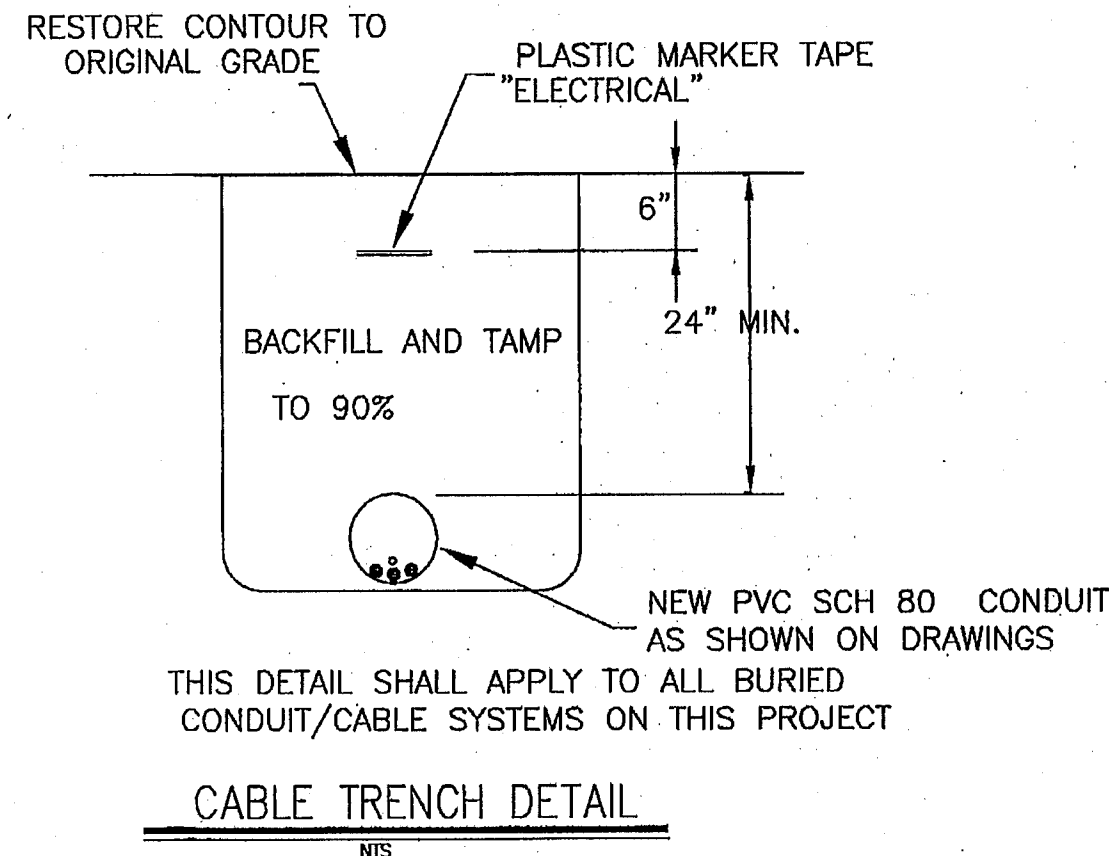
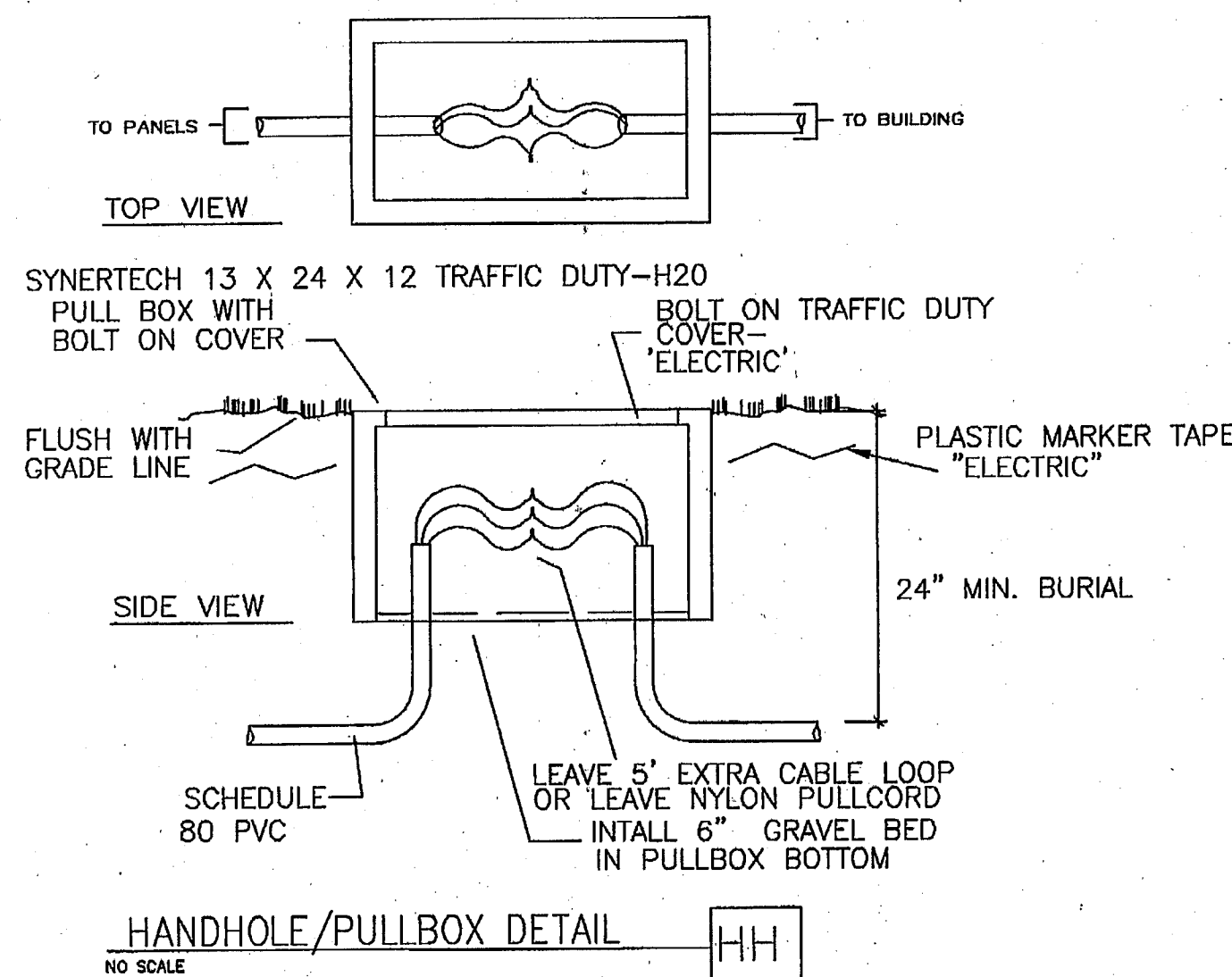
BENDING DIAGRAM

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

JUN 06 2005

SOUTHWEST DISTRICT
TAMPA

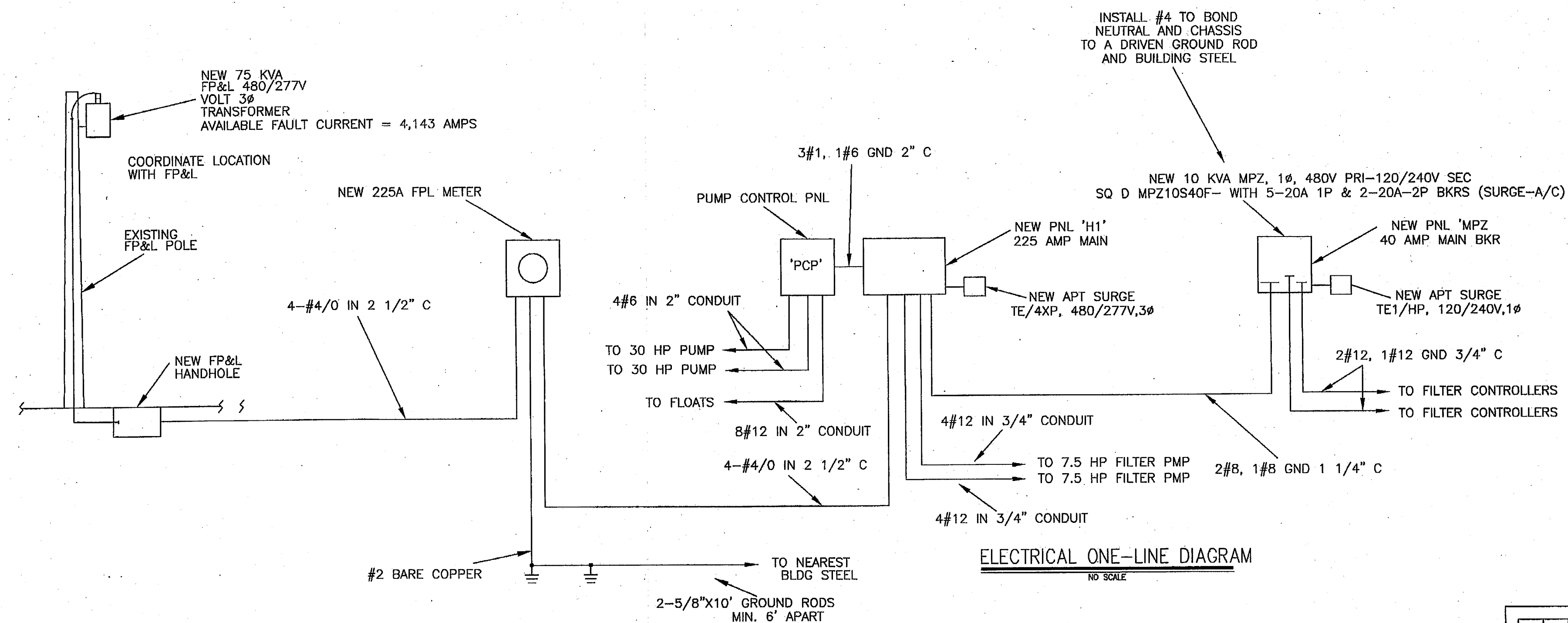
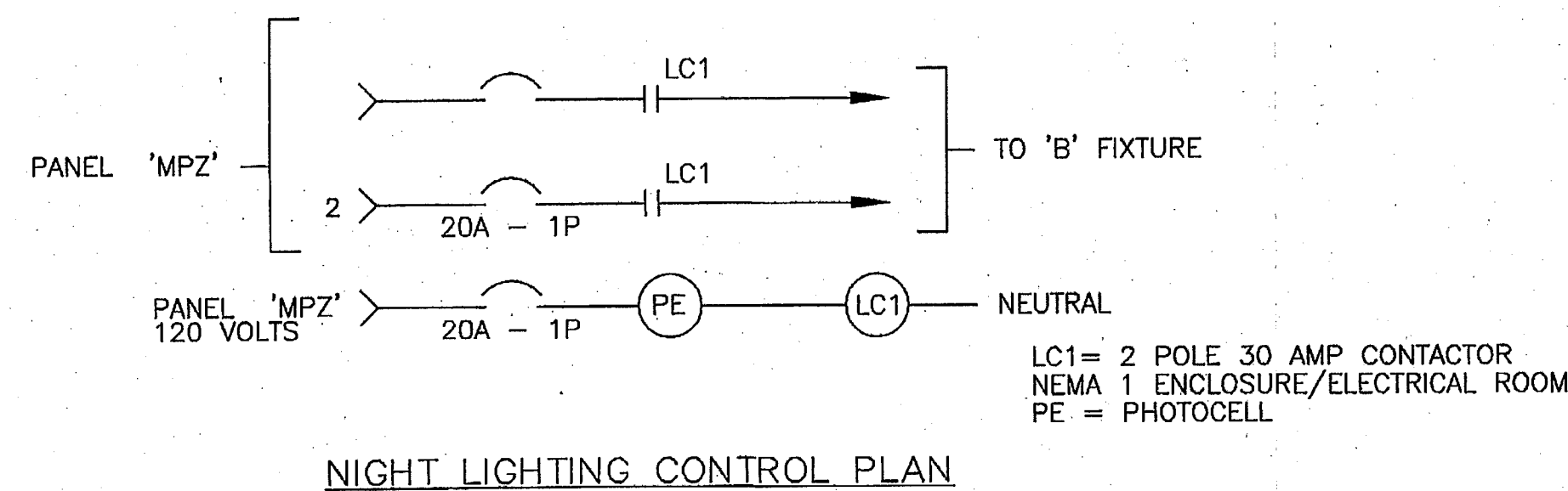
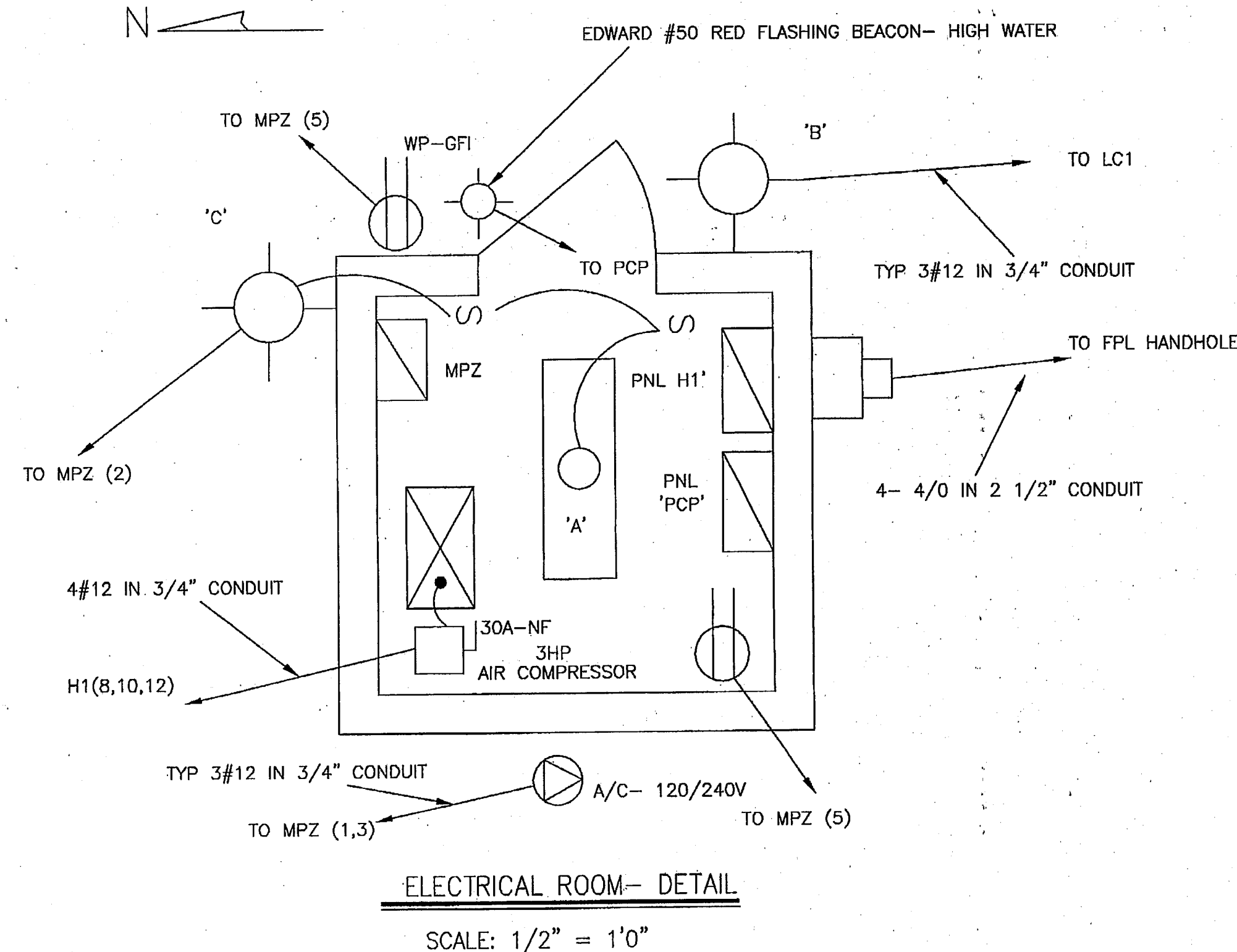
ANY SPLICES IN HANDHOLES AND PULLBOXES SHALL USE SPLIT BOLT CONNECTORS WITH TAPE AND W/ONE COAT SCOTCHCOTE AND ONE ADDITIONAL LAYER OF TAPE.



PANEL 'H1', 225 AMP MAIN, 480/277V, 3 PHASE, 4W, NEMA 1, SURFACE, 10,000 AIC RATED, 30 POLES-- ULSE RATED

CKT. NO.	WIRE SIZE	DESCRIPTION	BREAKERS POLE	AMPS.	A?	B?	C?	BREAKERS AMP.	POLE	DESCRIPTION	WIRE SIZE	CKT. NO.
1	8	TO 10KVA MPZ	2	40	30	-	-	125	3	TO PCP PNL	1	2
3	8	"	-	-	-	30	-	-	-	"- 60 HP	1	4
5	6	SURGE	3	50	-	-	30	-	-	"	1	6
7	6	"	-	-	-	-	-	15	3	AIR COMPR	12	8
9	6	"	-	-	-	-	-	-	-	"	12	10
11	12	TO 7.5-HP	3	20	-	-	-	-	-	"	12	12
13	12	"- FILTR #1	-	-	-	-	-	-	-	"	-	14
15	12	"	-	-	-	-	-	-	-	"	-	16
17	12	TO 7.5-HP	3	20	-	-	-	-	-	"	-	18
19	12	"- FILTR #2	-	-	-	-	-	-	-	"	-	20
21	12	"	-	-	-	-	-	-	-	"	-	22
23	-	-	-	-	-	-	-	-	-	-	-	24
25	-	-	-	-	-	-	-	-	-	-	-	26
27	-	-	-	-	-	-	-	-	-	-	-	28
29	-	-	-	-	-	-	-	-	-	-	-	30

LIGHTING FIXTURE SCHEDULE					
TYPE	DESCRIPTION	MANUFACTURES CAT. NO.	VOLTAGE	LAMPS	MOUNTING
A	CEILING MOUNT 4' 4 LAMP FL FIXTURE	LITHONIA VC432-120V- GEB	120V	4-32 W FL- T8	CEILING MOUNT ACRYLIC LENS LENS
B	OUTSIDE WALL LIGHT	LITHONIA TWR1-120	120V	70W HPS	WALL- 8" ABOVE GRADE PE CELL ON/OFF
C	OUTSIDE WALL LIGHT	LITHONIA TWR1-120	120V	150W HPS	WALL- 8" ABOVE GRADE SWITCH ON/OFF



NOTE: PROVIDE 3' 6" MIN. CLEARANCE IN FRONT OF PNL 'PCP' AND 'H1'

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

JUN 06 2005

SOUTHWEST DISTRICT TAMPA

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Consulting Engineers #3287

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Controls Energy

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POST, BUCKLEY, SCHUH & JERNIGAN, INC., D/B/A/

PBS&J

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Ph. (941) 954-4036

CLIENT

MANATEE COUNTY PROJECT MANAGEMENT DEPARTMENT

4410 66TH STREET WEST
BRADENTON, FLORIDA 34210



PROJECT

LENA ROAD LANDFILL

STORMWATER SYSTEM IMPROVEMENTS

TASK

STORMWATER

FILTER SYSTEM ELECTRICAL PLAN

ORIGINAL: FEB. 2003

REVISIONS:

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12 _____

ENGINEER:
EDWARD W. SMITH
REG. NO. 21074

JOB NO. 100197.12

DRAWN EWS

DESIGNED EWS

CHECKED EWS

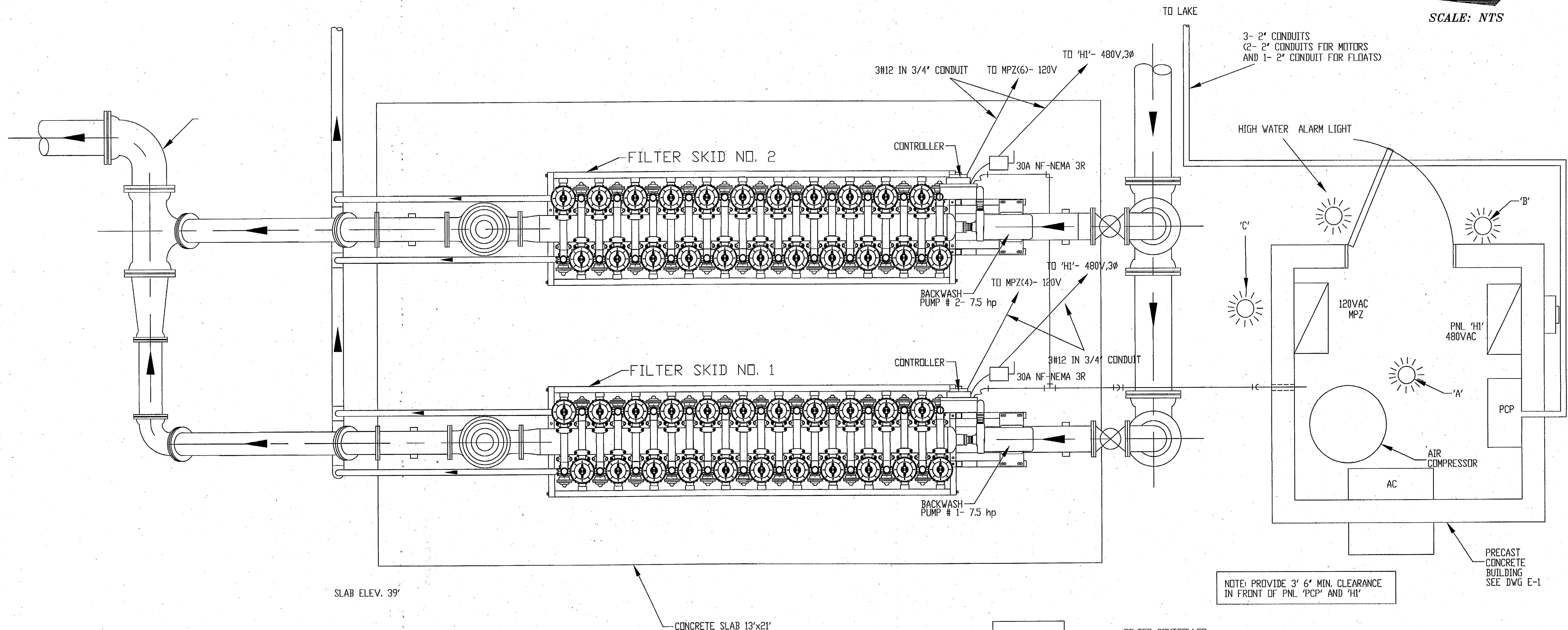
QC DW

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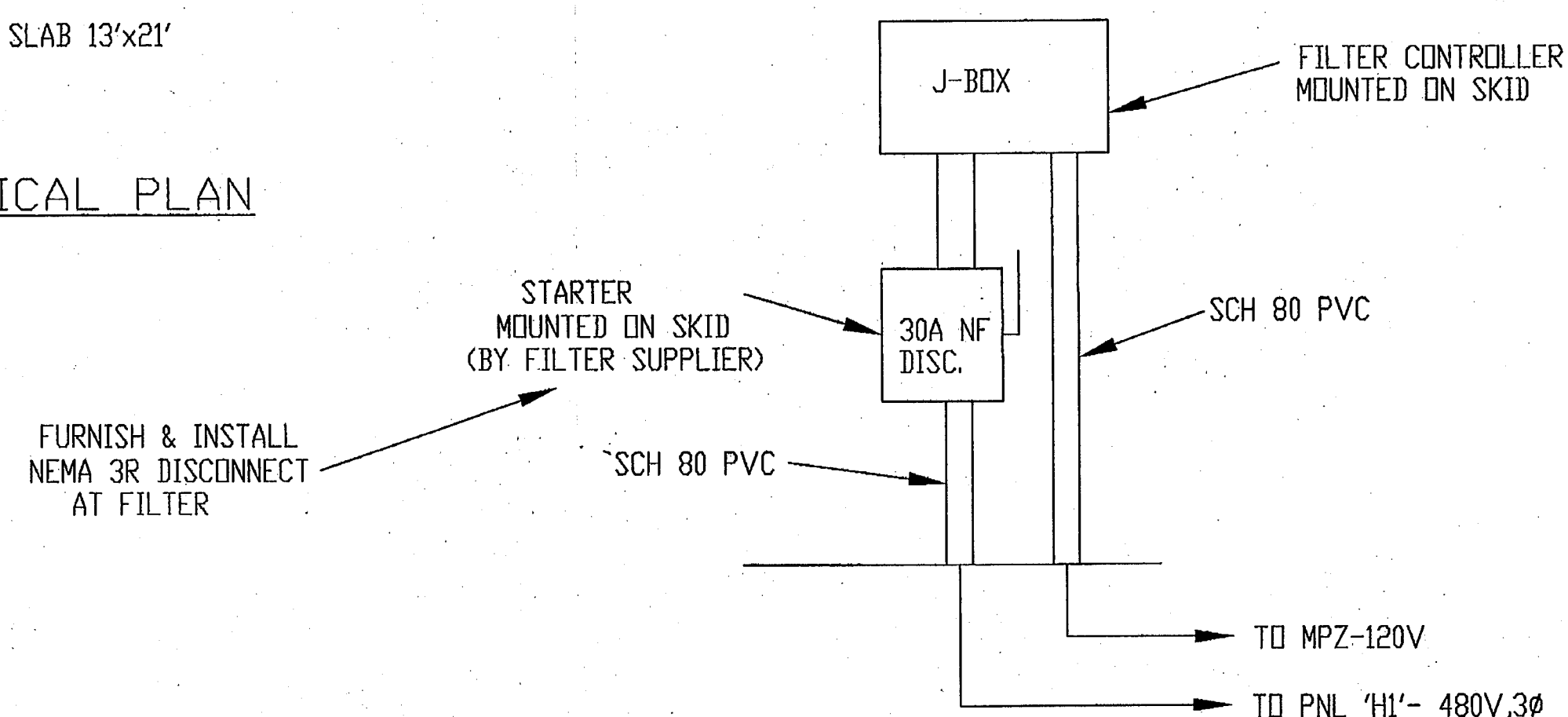
SHEET E-1

NORTH

SCALE: NTS



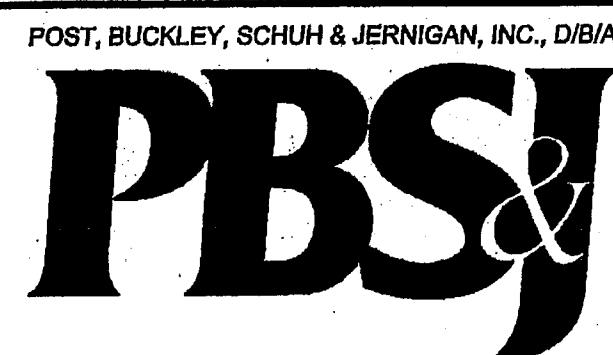
FILTER ELECTRICAL PLAN
NO SCALE



FILTER ELECTRICAL CONNECTIONS
NO SCALE

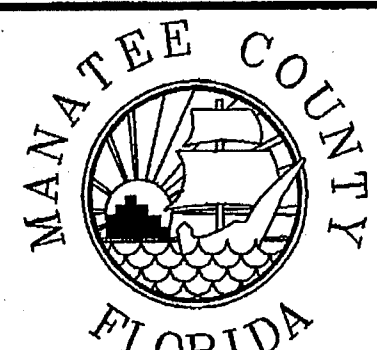
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PROJECT
**LENA ROAD LANDFILL
STORMWATER SYSTEM IMPROVEMENTS**

TASK
**STORMWATER
AUTOMATIC DISC FILTER SYSTEM
ELECTRICAL PLAN**

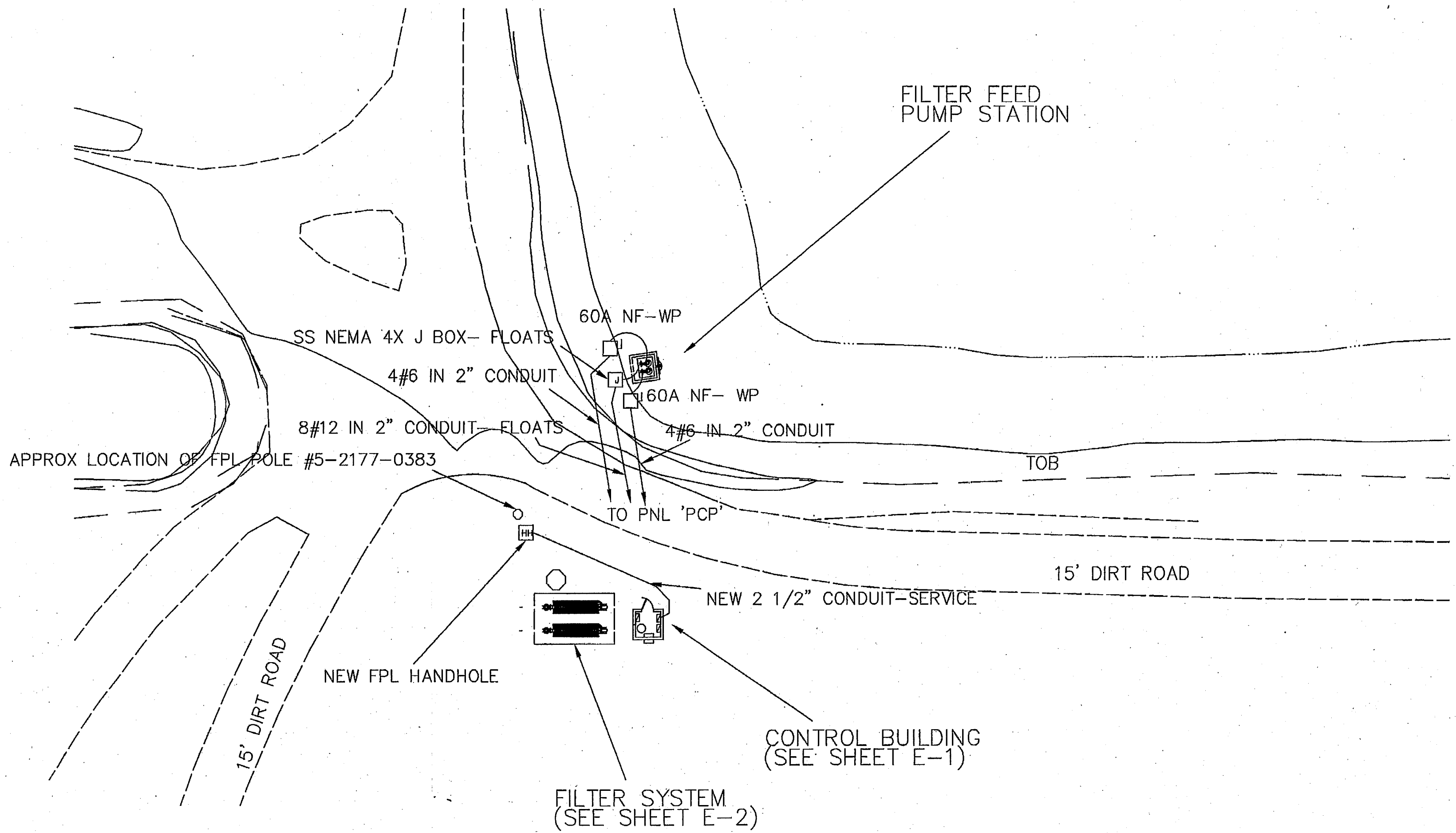
ORIGINAL: APR. 2003
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ENGINEER:
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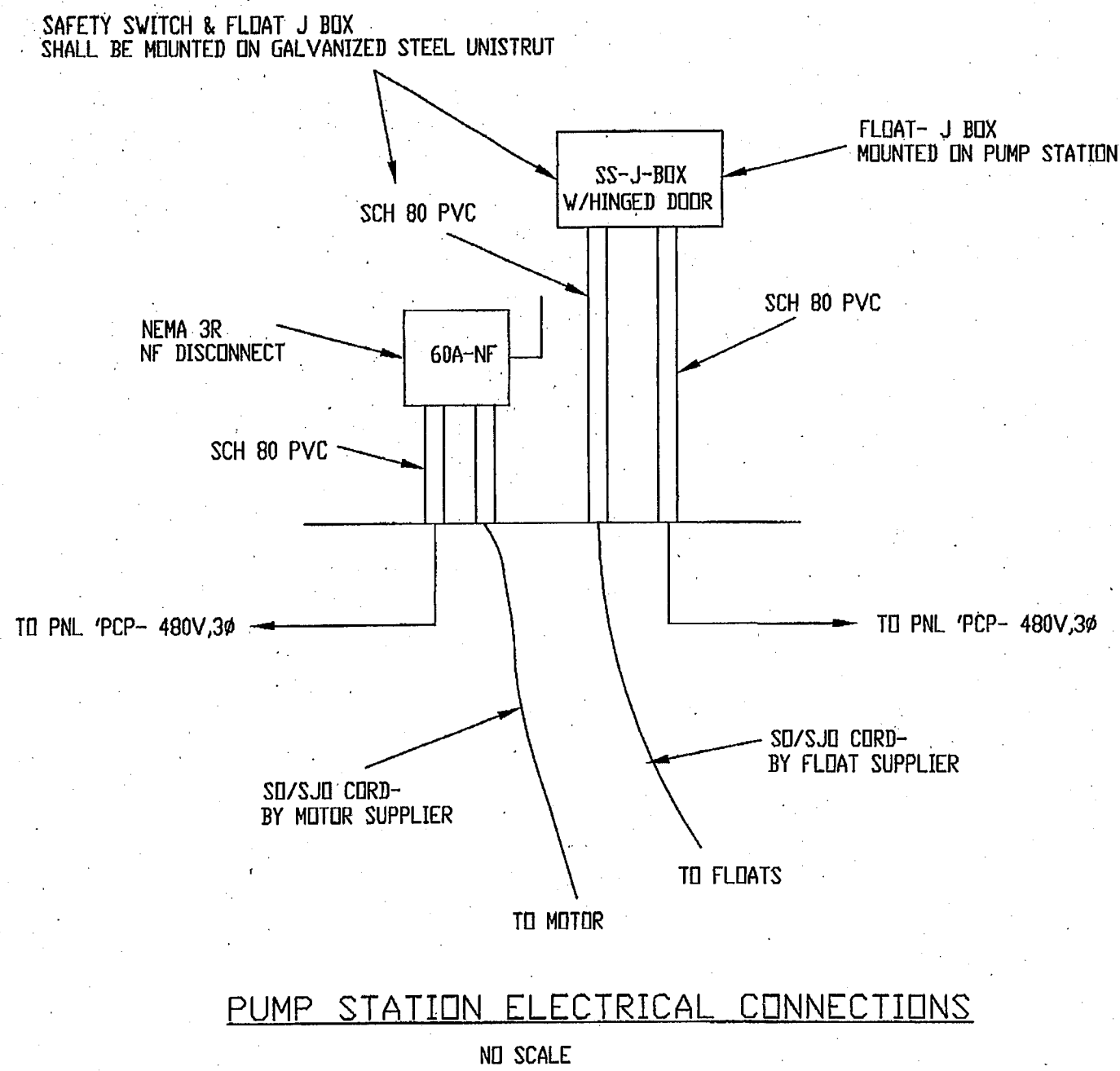
JOB NO. 100197.12
DRAWN EWS
DESIGNED EWS
CHECKED EWS
QC DW
DATE
SHEET E-2

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SINGLE GANG SWITCH, HUBBELL/ LEVITON/ PASS, AND SEYMOUR, SINGLE GANG, NYLON WHITE 42" A.F.F., NYLON IVORY COVER, SPEC. GRADE TYPE, 20 AMP
	THREE WAY SWITCH, HUBBELL/ LEVITON/ PASS, AND SEYMOUR, THREE WAY, 42" A.F.F., NYLON IVORY COVER, SPEC. GRADE TYPE, 20 AMP
	SIMPLEX OUTLET, HUBBELL/LEVITON/PASS, AND SEYMOUR, 4" SQUARE BOX, SPEC GRADE 16 AFF, NYLON IVORY COVER PLATE, 20 AMPS
	DUPLEX OUTLET, HUBBELL/LEVITON/PASS, AND SEYMOUR, 4" SQUARE BOX, SPEC GRADE 16 AFF, NYLON IVORY COVER PLATE, 20 AMPS
	DUPLEX OUTLET, HUBBELL/LEVITON/PASS, AND SEYMOUR, 4" SQUARE BOX, SPEC GRADE 42" A.F.F., NYLON IVORY COVER PLATE, 20 AMPS
	DUPLEX OUTLET GROUND FAULT- WP, HUBBELL/ LEVITON, /OUTLET, WEATHERPROOF COVER, SPEC GRADE, 16" A.F.F.
	DOUBLE GANG DUPLEX OUTLET- 16" A.F.F., NYLON IVORY COVER SPEC GRADE, 20 AMPS
	SAME AS ABOVE- EXCEPT 42" A.F.F.
	LIGHTING FIXTURE- SEE SCHEDULE
	PANEL BOARD - DESIGNATED, MOUNT AS SHOWN ON DRAWINGS
	MOTOR, LOAD-DESIGNATED, CONNECTION BY ELECTRICAL CONTRACTOR
	HOME RUN- SEE DRAWINGS
	HEAVY DUTY FUSED/NON FUSED SAFETY SWITCH DISCONNECT SIZE/FUSE SIZE AS REQUIRED
	2'x4' FIXTURE, 3 F-40 CW FLUORESCENT LAMPS, 120 V, GLR FUSING, STATIC, ELECTRONIC BALLAST, SEE SCHEDULE
	TELEPHONE - 4" SQ. BOX, TELEPHONE OUTLET FOR FUTURE AT & T 100 INSTRUMENT -3/4" CONDUIT TO 6" ABOVE CEILING, 2 #22 SHIELDED TO PANEL
	EXIT SIGN- SEE FIXTURE SCHEDULE
	EMERGENCY LIGHT W/BATTERY PACK
	SPECIAL OUTLET -SEE DRAWINGS FOR DETAILS
	MOTOR LOAD-SEE DRAWINGS
	HANDHOLE- SEE DRAWINGS



ELECTRICAL NOTES

- 1) ALL ELECTRICAL CONTRACTING WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE WITH LOCAL AMENDMENTS.
- 2) DO NOT SCALE DRAWINGS, VERIFY ALL DIMENSIONS ON CIVIL ENGINEERING DRAWINGS OR BY ACTUAL FIELD MEASUREMENT.
- 3) ELECTRICAL CONTRACTOR IS ENCOURAGED TO VISIT SITE TO BETTER ESTIMATE THE SCOPE OF WORK.
- 4) MINOR DETAILS, NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER OPERATION, CONSISTENT WITH GOOD WORKMANSHIP, SHALL BE INCLUDED IN ESTIMATE, THE SAME AS IF SHOWN ON DRAWINGS.
- 5) PRIOR TO ROUGH IN, OWNER/ENGINEER RESERVE THE RIGHT TO RELOCATE ANY OUTLET OR DEVICE 10' IN ANY DIRECTION WITHOUT ANY EXTRA CHARGES.
- 6) ALL ELECTRICAL CONTRACTING WORK SHALL BE GUARANTEED ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER.
- 7) COORDINATE ALL WORK WITH FLORIDA POWER AND LIGHT (KEN SAULS TELE. 941-739-3312).
- 8) ALL WIRE ON PROJECT SHALL BE COPPER - THHN/THWN
- 9) USE SCHEDULE 80 PVC FOR THE ENTIRE PROJECT- ABOVE & BELOW GROUND.
- 10) THESE DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE CONSULTANT HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

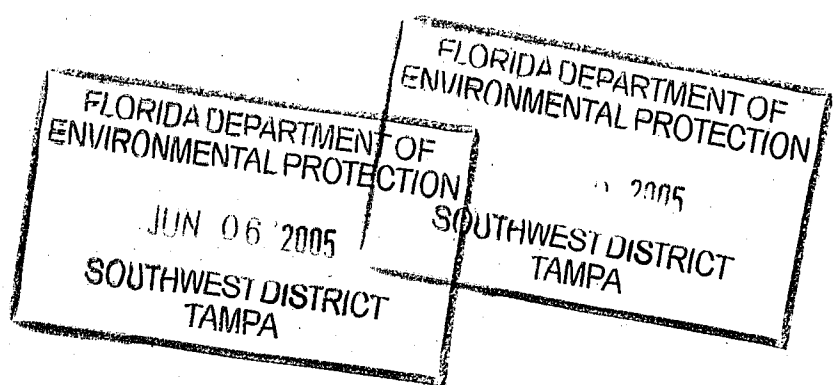


ELECTRICAL SITE PLAN SCALE- 1" = 20'

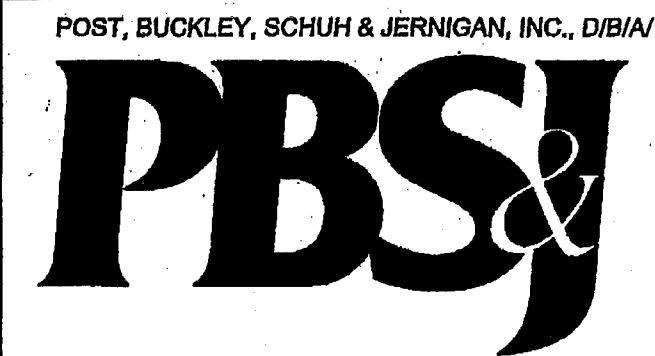
SERVICE LOAD CALCULATION

DESCRIPTION	AMPS
2-30 HP PUMPS @40 AMPS EA.- 480V	= 80
2- 7.5 HP FILTER PUMPS @ 11 AMPS EA.-480V	= 22
25% LARGEST LOAD-30 HP -40 AMPS X 0.25	= 10
TOTAL LOAD	112 AMPS

INSTALL 225 AMP FEEDER @ 480V, 3Ø



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PROJECT
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STORMWATER SYSTEM IMPROVEMENTS**

TASK
**STORMWATER
ELECTRICAL SITE PLAN**

ORIGINAL: FEB. 2003
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