

VILLAGE OF SUNBURY, OHIO WASTEWATER TREATMENT PLANT IMPROVEMENTS CONTRACT NO. 2002-02 2004

LEONARD R. WEATHERBY
MAYOR

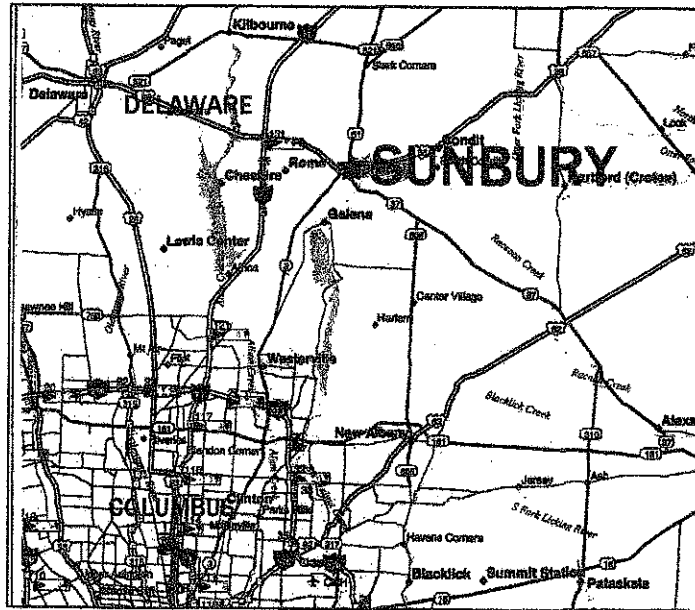
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MARVIN JONES
UTILITIES COORDINATOR

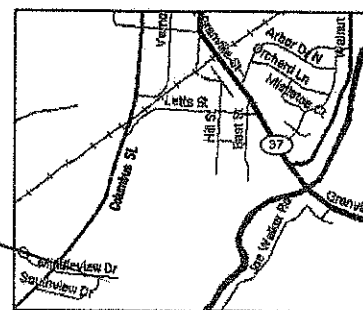
DATE _____

KATHY HIXON
ADMINISTRATOR

DATE _____



VICINITY MAP
NO SCALE



SITE MAP
NO SCALE

ADMINISTRATION

LEONARD R. WEATHERBY
KATHY HIXON
DAVID BREHM
MARVIN JONES

MAYOR
ADMINISTRATOR
SOLICITOR
UTILITIES COORDINATOR

COUNCIL

ROB GLAZE
EUGENE JENNY
AUSTIN SLATTERY
DENNIS BELL
JEANNETTE CURREN
DAN SHAW

PRESIDENT

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WELLAND CONSULTING SERVICE
VILLAGE REVIEWING ENGINEER



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MARATHON ASHLAND PIPE LINE CO. (419) 228-4406
SPRINT LOCAL (419) 947-2380
TIME WARNER CABLE (614) 481-5000

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE: 1-800-362-2764
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

FLOYD BROWNE ASSOCIATES, FBA INC.

* Contact Office

*Marion, Ohio 740.383.2187
Sidney, Ohio 937.492.7636
Delaware, Ohio 740.363.6792

NOTE:
THE PROJECT SITE IS LISTED BY THE POWER COMPANY AS 971 SOUTH OLD 3C ROAD.

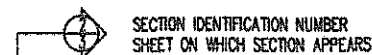
MATERIAL SYMBOLS

	NEW CONCRETE, ARCHITECTURAL, PROCESS & STRUCTURAL, PLANS AND SECTIONS ONLY		EXISTING CONCRETE, ARCHITECTURAL, PROCESS OR STRUCTURAL SECTIONS ONLY
	REINFORCING STEEL IN NEW CONCRETE STRUCTURES, PLANS & SECTIONS		STEEL
	CONCRETE TOPPING OR FILLET		ALUMINUM
	CONCRETE BLOCK		INSULATION
	BRICK MASONRY		EXISTING EQUIPMENT, PIPING OR STRUCTURE TO BE REMOVED OR ABANDONED
	TILE-STRUCTURAL GLAZED		EXISTING CONCRETE OR MASONRY
	WOOD		STONE OR COMPACTED AGGREGATE
	SAND		ACOUSTICAL CONCRETE BLOCK

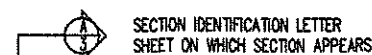
ABBREVIATIONS

ACP	ASBESTOS CEMENT PIPE	LWL	LOW WATER LEVEL
ALUM.	ALUMINUM	MFR.	MANUFACTURER
AWL	AVERAGE WATER LEVEL	MJ	MECHANICAL JOINT
BLDG.	BUILDING	ML	MIXED LIQUOR
BF	BLIND FLANGE	Na2S	SODIUM SULFIDE
CISP	CAST IRON SOIL PIPE	NTS	NOT TO SCALE
CL2	CHLORINE	OXD.	OXIDIZED
CMP	CORRUGATED METAL PIPE	PCP	PLAIN CONCRETE PIPE
CACI2	CALCIUM CHLORIDE	PE	PLANT EFFLUENT
CO	CLEAN OUT	PLA.	PLACE(S)
CONC.	CONCRETE	POT.	POTABLE
CONC. RED.	CONCENTRIC REDUCER	PRESS.	PRESSURE
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE	PRI.	PRIMARY
DIG. SL.	DIGESTED SLUDGE	PRI. SL.	PRIMARY SLUDGE
DIP	DUCTILE IRON PIPE	PVC	POLYVINYL CHLORIDE PIPE
ECC. RED.	ECCENTRIC REDUCER	PVDF	POLYVINYLIDENE FLORIDE PIPE
EFF.	EFFLUENT	RAS	RETURN ACTIVATED SLUDGE
EL.	ELEVATION	RCP	REINF CONC PIPE
FD	FLOOR DRAIN	RCCP	REINF CONC PRESS PIPE
FE	FLOW METER ELEMENT	REINF.	REINFORCED
FeCl3	FERRIC CHLORIDE	ROFC	RATE OF FLOW CONTROL
FH	FIRE HYDRANT	SAH.	SANITARY
FIN.FL.	FINISHED FLOOR	SEC.	SECONDARY
FL.	FLOOR	SL.	SLUDGE
FLG.	FLANGE	SPD	SUMP PUMP DISCHARGE
FRP	FIBERGLASS REINFORCED PLASTIC	SS	STAINLESS STEEL
G	GAS	STD.	STANDARD
GALV.	GALVANIZED	STL.	STEEL
GLDIP	GLASS LINED DUCTILE IRON PIPE	SUP.	SUPERNATANT
H2SO4	SULFURIC ACID	TD	TRENCH DRAIN
H2SIF6	HYDROFLUORSULIC ACID	TERT.	TERTIARY
HB	HOSE BIBB	THK.	THICK
HCL	HYDROCHLORIC ACID	THKD.	THICKENED
HDPE	HIGH DENSITY POLYETHYLENE	TYP.	TYPICAL
HIPT.	HIGH POINT	VCP	VITRIFIED CLAY PIPE
HNO3	NITRIC ACID	VSP	VITRIFIED SOIL PIPE
HWL	HIGH WATER LEVEL	W	WATER
INF.	INFLUENT	WAS	WASTE ACTIVATED SLUDGE
INV.	INVERT	WC	WALL CASTING OR WALL SEAL
KMNO4	POTASSIUM PERMANGANATE	WL	WATER LEVEL
LOPT.	LOW POINT	YH	YARD HYDRANT
		YOL	YOLOY STEEL PIPE

**SECTION DESIGNATION
ARCHITECTURAL, PROCESS, HEATING,
VENTILATING, PLUMBING AND ELECTRICAL SHEETS**



STRUCTURAL SHEETS

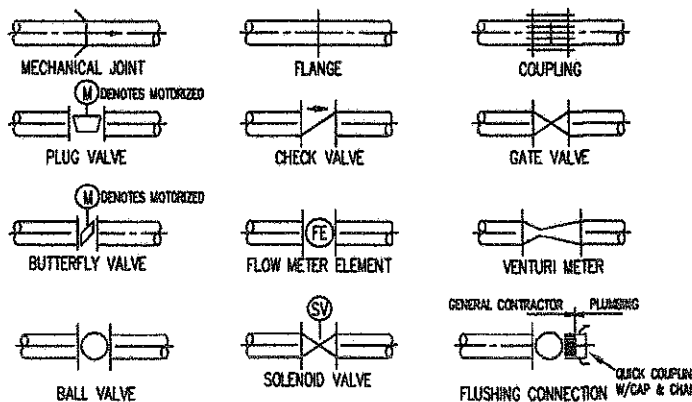


LEGEND-YARD GRADING AND PIPING

	B/L	BASELINE		SIDEWALK (NEW)
	C/L	CENTERLINE		SIDEWALK (EXISTING)
	P/L	PROPERTY LINE		MANHOLE (NEW)
	R/W	RIGHT-OF-WAY LINE		MANHOLE (EXISTING)
		CORPORATION LINE		INLET (NEW)
	W	WATER LINE (NEW)		INLET (EXISTING)
	W	WATER LINE (EXISTING)		STRUCTURES (NEW)
	G	GAS LINE (NEW)		STRUCTURES (EXISTING)
	G	GAS LINE (EXISTING)		FINISHED GRADE
	E	ELECTRIC (NEW)		EXISTING GRADE
	E	ELECTRIC (EXISTING)		ROCK
	T	TELEPHONE (NEW)		TEST BORING
	T	TELEPHONE (EXISTING)		STREAM
		LARGE DIA. PIPE (18"+) NEW		FINISHED GRADE CONTOURS
		LARGE DIA. PIPE (18"+) EXISTING		EXISTING GRADE CONTOURS
		SMALL DIA. PIPE (NEW)		EXISTING GRADE CONTOURS
		SMALL DIA. PIPE (EXISTING)		FENCE (NEW)
		NEW SLEEVE		FENCE (EXISTING)
		NEW HYDRANT		GUARDRAIL (NEW)
		EXISTING HYDRANT		GUARDRAIL (EXISTING)
		NEW REDUCER		RAILROAD
		EXISTING REDUCER		NEW ASPHALT CONCRETE PAVEMENT
		SIGN		TELEPHONE POLE
		MAILBOX		POWER POLE
		EVERGREEN		LIGHT POLE
		FLAG		RAILROAD CROSSING SIGN
		FLOW DIRECTION		TREE (NUMBER IS APPROX. TRUNK DIA)
				NEW AGGREGATE DRIVE OR WALK

PIPE FITTING SYMBOLS

EXISTING - SHOWN SOLID
NEW - SHOWN SOLID
FLOW DIRECTION



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1	PER RECORD PRINTS	9-2-06	WCS	

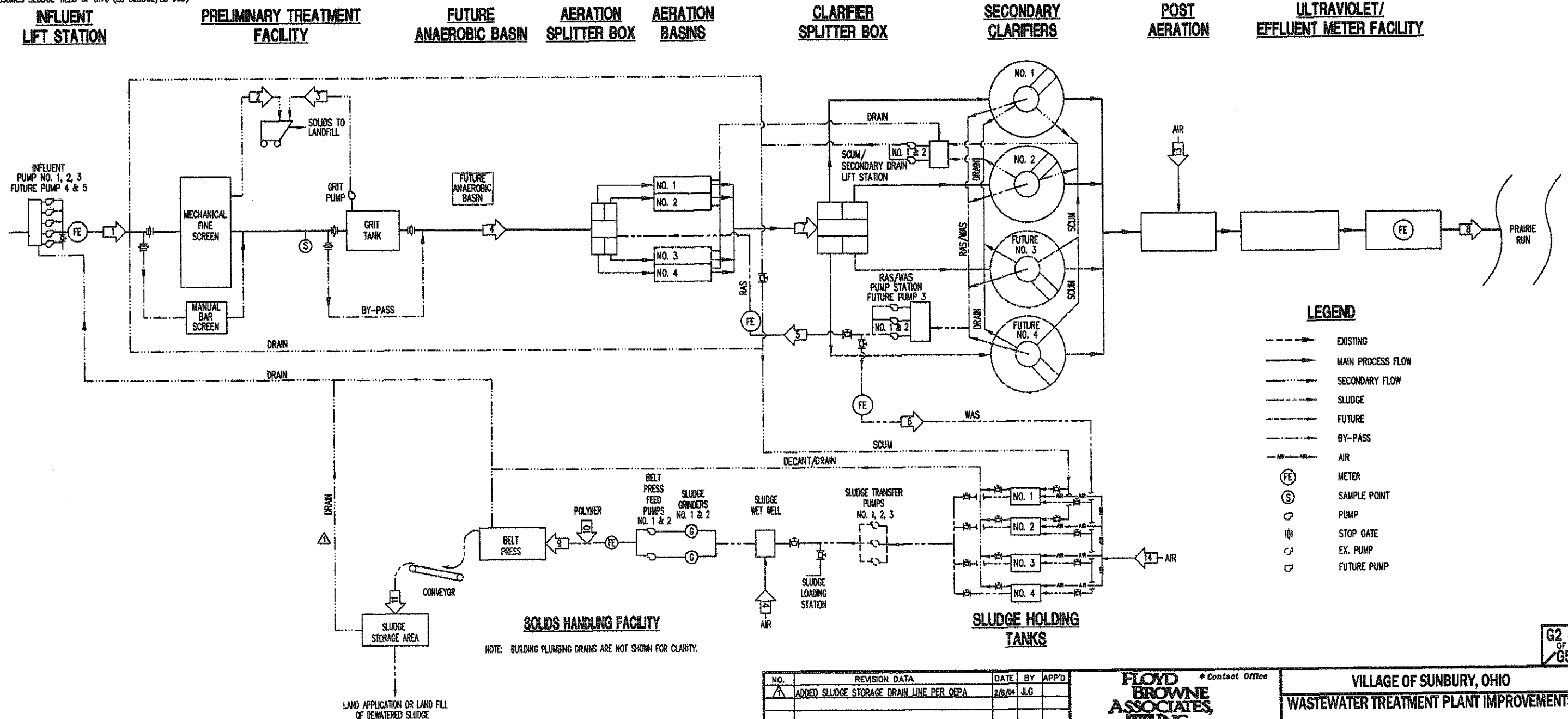
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 *Marion, Ohio 740.363.8187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.363.6782
 DATE: AUGUST 2002 CADD FILE INDEX
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
INDEX

TREATMENT PLANT PROCESS

FLOW NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
MINIMUM FLOW (AS NOTED)	0.562		0.562	391		1.125	0.562																											
AVERAGE FLOW (AS NOTED)	1.125	0.4	9.0	1.125	781	32,000	2.250	1.125	10,657	8-12	133					255	2,745																	
MAXIMUM FLOW (AS NOTED)	4.0	1.4	32.0	4.0	1,172		5.69	4.0																										
AVERAGE BOD (Mg/L - PPD)	200							10																										
AVERAGE SUSP. SOLIDS (Mg/L - PPD)	200							12																										
SLUDGE * (Mg/L - PPD)						5000		1.337																										

* ASSUMES SLUDGE YIELD OF 0.75 (LB SLUDGE/LB BOD)



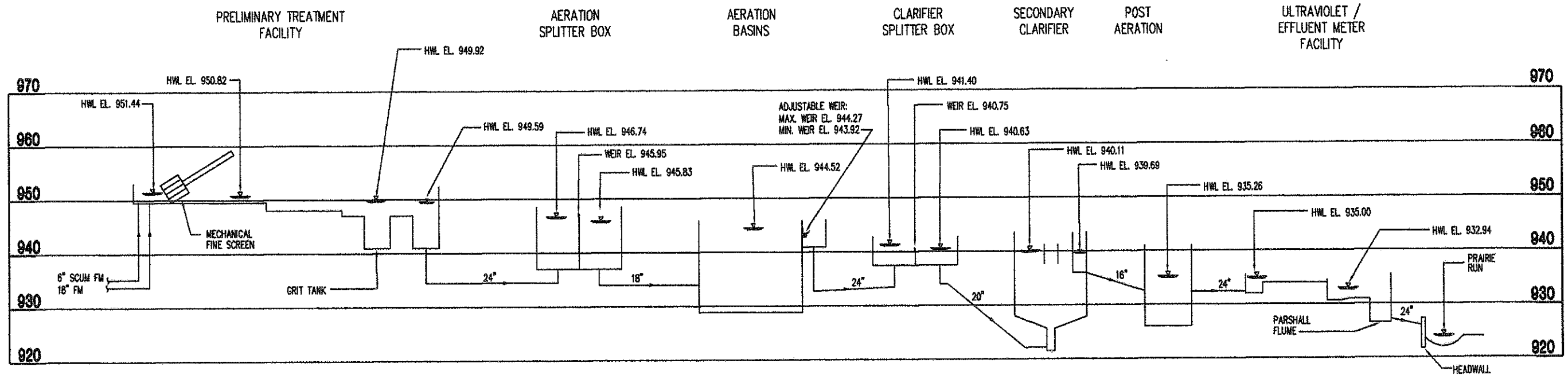
NOTE: BUILDING PLUMBING DRAINS ARE NOT SHOWN FOR CLARITY.

NO.	REVISION DATA	DATE	BY	APP'D
1	ADDED SLUDGE STORAGE DRAIN LINE PER OEPA	2/8/04	JLG	

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 JOB NO. 7400-07

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 PROCESS FLOW DIAGRAM

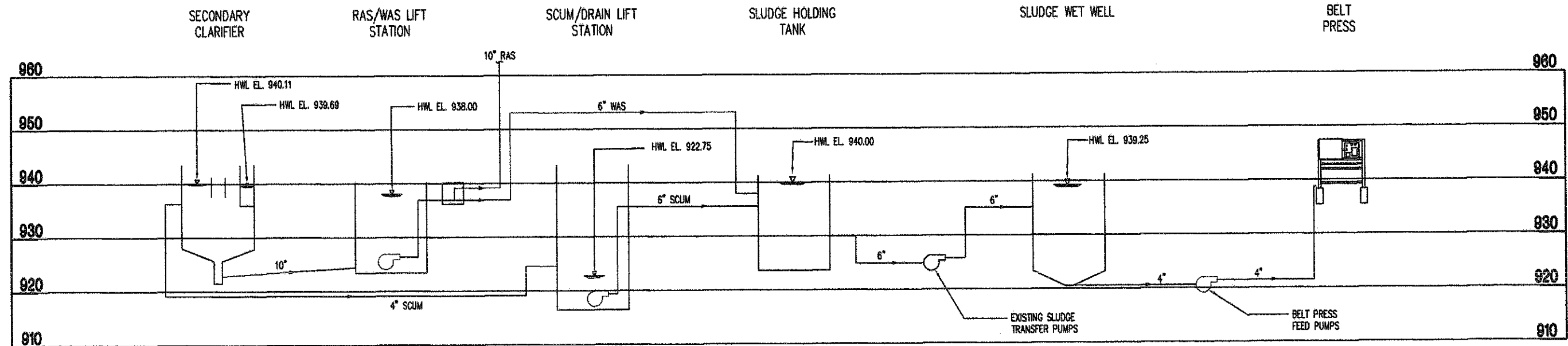
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PROCESS HYDRAULIC PROFILE

NOTE: 100 YEAR FLOOD ELEVATION = EL. 931.00 @ PRAIRIE RUN

V SCALE = 1" = 10'



SLUDGE HYDRAULIC PROFILE

V SCALE = 1" = 10'

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OF
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DATE: OCT 2022 CADD FILE: HYD1
JOB NO: 740-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
HYDRAULIC PROFILE
PROCESS

MUD DRAIN VALVES														LOCATION			
SIZE	OPERATOR					ACCESSORIES											
	LEVER & NUT	WORM GEAR & HANDWHEEL	WORM GEAR & CHAINWHEEL	MOTOR	NUT	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM	CHAIN	FLOOR STAND	FLOOR BOX		7" WRENCH LENGTH	STEM GUIDES	ADJ. VALVE BOX
4"					X	FLG		X					X				AERATION BASINS
6"					X	FLG	X	X	X				X		X		AERATION BASINS

PLUG VALVES														LOCATION			
SIZE	OPERATOR					ACCESSORIES											
	LEVER & NUT	WORM GEAR & HANDWHEEL	WORM GEAR & CHAINWHEEL	MOTOR	NUT	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM	CHAIN	FLOOR STAND	FLOOR BOX		STEM GUIDES	ADJ. VALVE BOX	
12"		X				FLG	X										INFLUENT LIFT STATION
4"	X					FLG	X										PRELIMINARY TREATMENT FACILITY
6"						MJ		X	X						X		PRELIMINARY TREATMENT FACILITY-YARD
2"	X					FLG	X										SECONDARY CLARIFIER-SOUM BOX
6"						MJ		X	X						X		SECONDARY CLARIFIER DRAIN-YARD
6"						MJ		X	X						X		SLUDGE HOLDING TANKS 1 & 2-YARD
6"						MJ		X	X						X		SLUDGE HOLDING TANKS 3 & 4-YARD
4"	X					FLG	X										SLUDGE TRANSPORT/ELECTRICAL BLDG.
4"	X					FLG	X										SOLIDS HANDLING FACILITY
6"					X	FLG	X										RAS/WAS LIFT STATION
6"	X					FLG	X										RAS/WAS LIFT STATION
10"					X	FLG	X										RAS/WAS LIFT STATION
10"					X	FLG	X	X	X			X	X				RAS/WAS LIFT STATION
10"					X	MJ		X	X			X					RAS BYPASS
10"	X					MJ		X	X	X		X					RAS BYPASS, OPEN & CLOSED LS'S
18"					X	MJ		X	X			X					AERATION SPLITTER BOX

BALL VALVES														LOCATION			
SIZE	OPERATOR					ACCESSORIES											
	LEVER & NUT	WORM GEAR & HANDWHEEL	WORM GEAR & CHAINWHEEL	MOTOR	NUT	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM	CHAIN	FLOOR STAND	FLOOR BOX		7" WRENCH LENGTH	STEM GUIDES	ADJ. VALVE BOX
4"	X					FLG	X										POST AERATION-AIR
2"	X					FLG	X										POST AERATION-AIR, CONDENSATE BLOWOFF
2"	X					FLG	X										SLUDGE WETWELL-AIR, CONDENSATE BLOWOFF
3"	X					FLG	X										SLUDGE WETWELL

GATE VALVES														LOCATION		
SIZE	OPERATOR					ACCESSORIES										
	LEVER & NUT	WORM GEAR & HANDWHEEL	WORM GEAR & CHAINWHEEL	MOTOR	NUT	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM	CHAIN	FLOOR STAND	FLOOR BOX		STEM GUIDES	ADJ. VALVE BOX

GLOBE VALVES														LOCATION				
SIZE	OPERATOR					ACCESSORIES												
	LEVER & NUT	WORM GEAR & HANDWHEEL	WORM GEAR & CHAINWHEEL	MOTOR	NUT	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM	CHAIN	FLOOR STAND	FLOOR BOX		STEM GUIDES	ADJ. VALVE BOX	NON-RISEING STEM	RISEING STEM
4"					X	FLG	X										X	POST AERATION-AIR

BUTTERFLY VALVES														LOCATION				
SIZE	OPERATOR					ACCESSORIES												
	LEVER & NUT	WORM GEAR & HANDWHEEL	WORM GEAR & CHAINWHEEL	MOTOR	NUT	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM	CHAIN	FLOOR STAND	FLOOR BOX		STEM GUIDES	ADJ. VALVE BOX		
4"						FLG	X											

CHECK VALVES														LOCATION				
SIZE	OPERATOR					ACCESSORIES												
	TILTING DISC	ELECTRIC CHECK	RUBBER FLAPPER	MOTOR	SWING CHECK	LEVER & WEIGHT	SPRING SWING	CENTER GUIDE	TYPE ENDS	NON-SUBMERGED	NON-RISEING STEM	RISEING STEM	EXTENSION STEM		CHAIN	FLOOR STAND	FLOOR BOX	STEM GUIDES
12"					X				FLG	X								INFLUENT LIFT STATION
2"									THR	X								INFLUENT LIFT STATION, VALVE BOX DRAIN
4"					X				FLG	X								PRELIMINARY TREATMENT FACILITY
4"					X				FLG	X								SLUDGE TRANSPORT/ELECTRICAL BLDG.
6"					X				FLG	X								RAS/WAS LIFT STATION

NOTE: QUANTITIES TO BE DETERMINED BY CONTRACTOR

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of
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NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-9-06	WCS	

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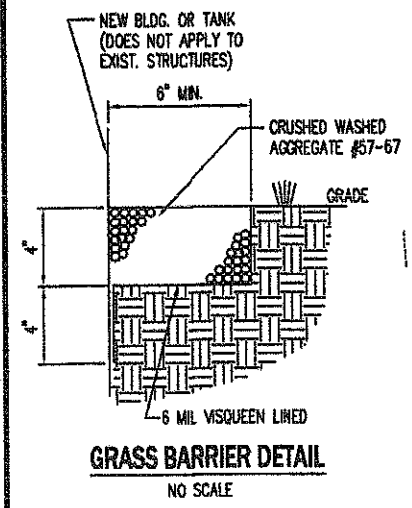
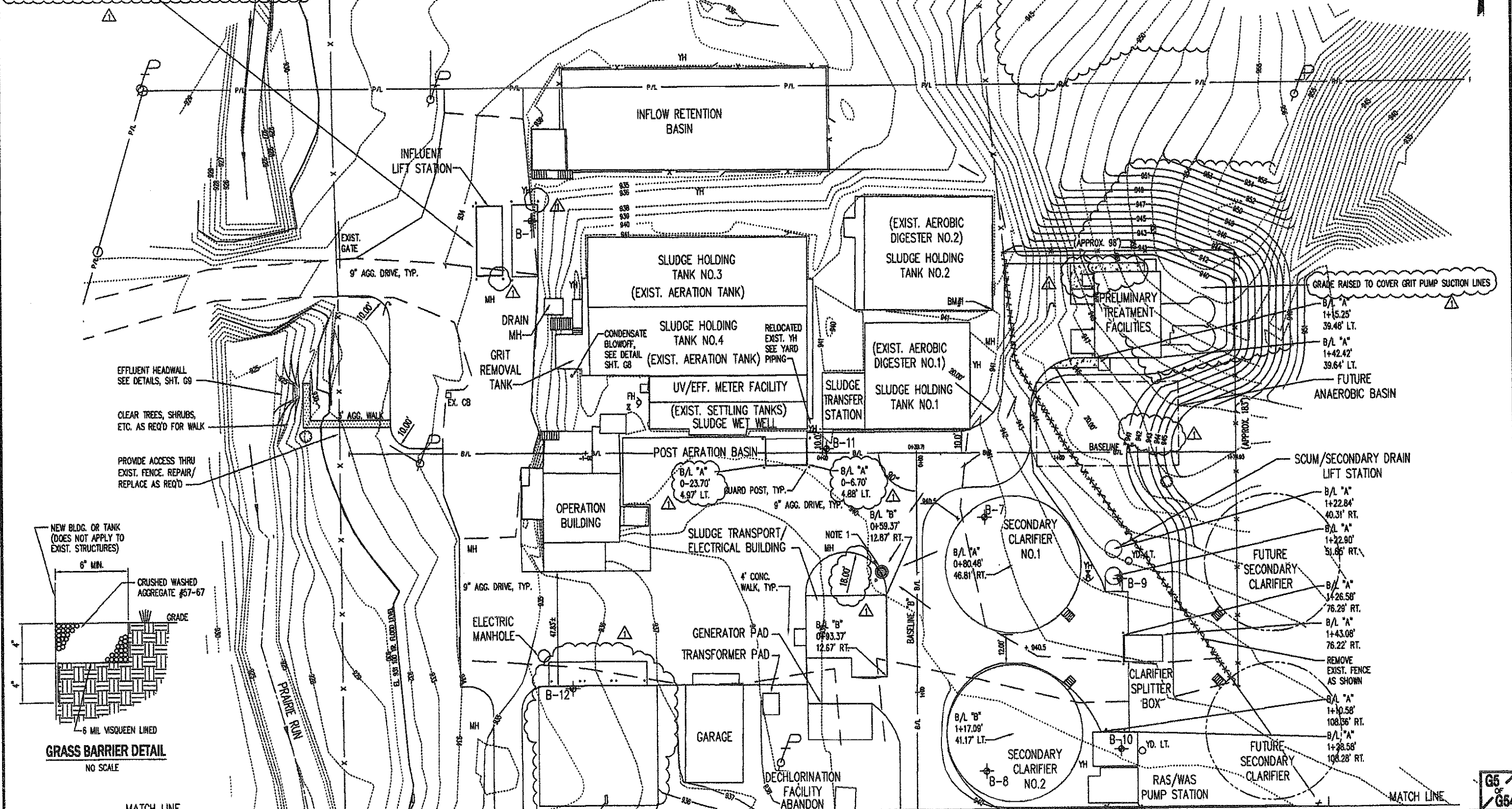
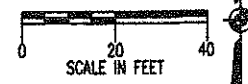
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DATE: OCT 2002
JOB NO. 7400-07

CADD FILE: MVS
APPROVED:

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
VALVE SCHEDULES

NOTE:
 INFLUENT LIFT STATION WETWELL SOUTHWEST CORNER: BL "A" 1-45.85, 74.24' RT
 INFLUENT LIFT STATION WETWELL SOUTHWEST CORNER: BL "A" 1-35.85, 74.35' RT
 INFLUENT LIFT STATION VALVE BOX SOUTHWEST CORNER: BL "A" 1-30.85, 73.87' RT
 INFLUENT LIFT STATION VALVE BOX SOUTHWEST CORNER: BL "A" 1-19.85, 73.94' RT



NOTE:
 1. FURNISH STORM GRATING ON EXISTING MANHOLE AND GRADE SITE TO INLET FOR SURFACE DRAINAGE AS REQUIRED.
 2. GRADE SURFACE TO INLET AT LOW ELEVATION POINTS TO ACCOMMODATE SURFACE DRAINAGE AS REQUIRED.

BENCHMARK
 BM#1 - TOP OF CONC. WALL, SOUTHWEST CORNER SLUDGE HOLDING TANK NO.2
 EL. 941.24

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

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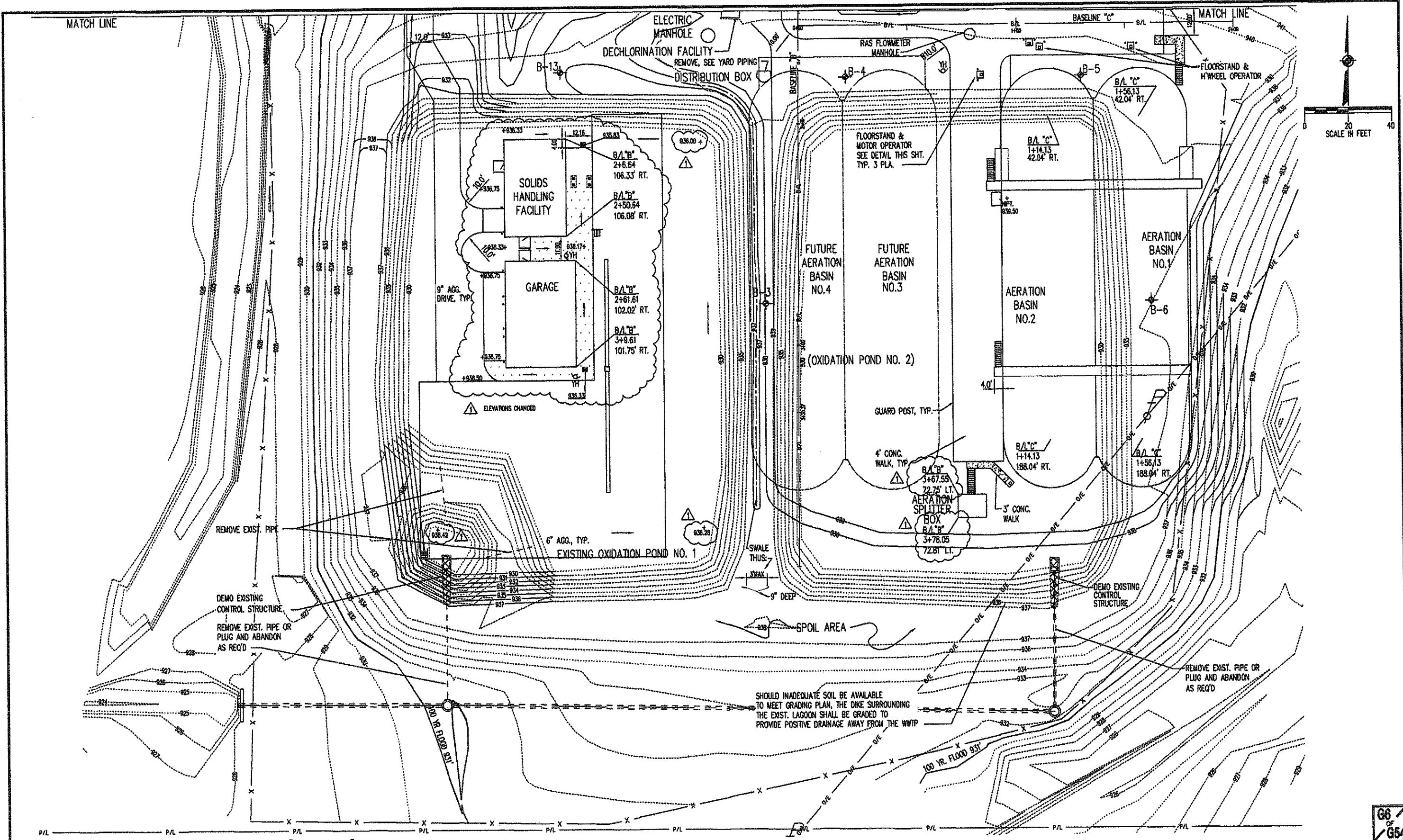
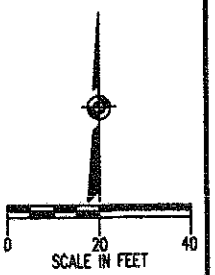
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VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
YARD GRADING

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MATCH LINE

MATCH LINE



REMOVE EXIST. PIPE

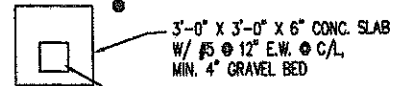
DEMO EXISTING CONTROL STRUCTURE
REMOVE EXIST. PIPE OR PLUG AND ABANDON AS REQ'D

ELEVATIONS CHANGED

SHOULD INADEQUATE SOIL BE AVAILABLE TO MEET GRADING PLAN, THE DIKE SURROUNDING THE EXIST. LAGOON SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE WWTP

REMOVE EXIST. PIPE OR PLUG AND ABANDON AS REQ'D

GUARD POST, AS REQ'D



FLOORSTAND W/ MOTOR OPERATOR
YARD DETAIL

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

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1	PER RECORD PRINTS	8-20-06	WCS	

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DATE: OCT 2002
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VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
YARD GRADING

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EROSION/SEDIMENT/DUST CONTROL PRACTICES

1. STOCKPILED TOPSOIL AND EXCAVATED MATERIAL IS TO BE PROTECTED THROUGH THE USE OF TEMPORARY SEEDING, OR COVERED WITH ANCHORED STRAW MULCH.
2. FINAL GRADING WILL BE CONSISTENT WITH PRE-CONSTRUCTION TOPOGRAPHY TO MAINTAIN DRAINAGE AND AESTHETICS.
3. REMOVE ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED TO PERMIT ACTUAL CONSTRUCTION. PROTECT THE REMAINING TO PRESERVE THEIR AESTHETIC AND EROSION CONTROL VALUE.
4. DISTURBED LAND SHALL BE TEMPORARILY STABILIZED BY SEEDING AND/OR MULCHING.
5. BACKFILL TRENCHES IMMEDIATELY AFTER COMPACTION. SEED AND MULCH TRENCHES WITHIN TWO WEEKS AFTER TRENCHES ARE OPENED.
6. SILT FROM CONSTRUCTION OPERATIONS SHALL NOT BE PERMITTED TO ENTER THE STORM DRAIN SYSTEM. CONSTRUCTION OCCURRING NEAR STORM DRAIN INLETS, EROSION CONTROL MEASURES, SUCH AS SILT FENCES, ROCK CHECKS, SEDIMENT BASINS, ETC., SHALL BE USED TO PREVENT SILT FROM ENTERING THE STORM DRAIN.
7. COMPLY WITH NPDES "GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" AND QDOT ITEM 207.

NOISE CONTROL PRACTICES

1. CONSTRUCTION ACTIVITY WILL BE LIMITED TO DAYTIME HOURS.
2. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS AS REQUIRED BY SAFETY STANDARDS.

PROHIBITED CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL NOT USE CONSTRUCTION PROCEDURES, ACTIVITIES OR OPERATIONS THAT MAY UNNECESSARILY IMPACT THE NATURAL ENVIRONMENT OR THE PUBLIC HEALTH AND SAFETY. PROHIBITED CONSTRUCTION PROCEDURES, ACTIVITIES OR OPERATIONS INCLUDE BUT ARE NOT LIMITED TO:

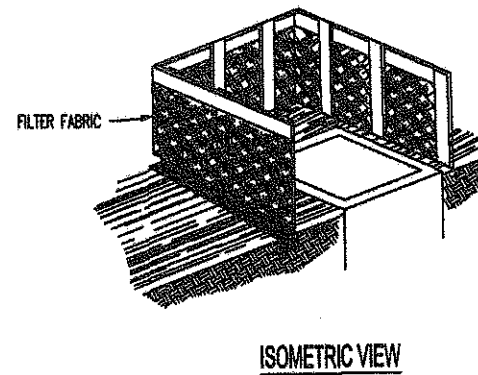
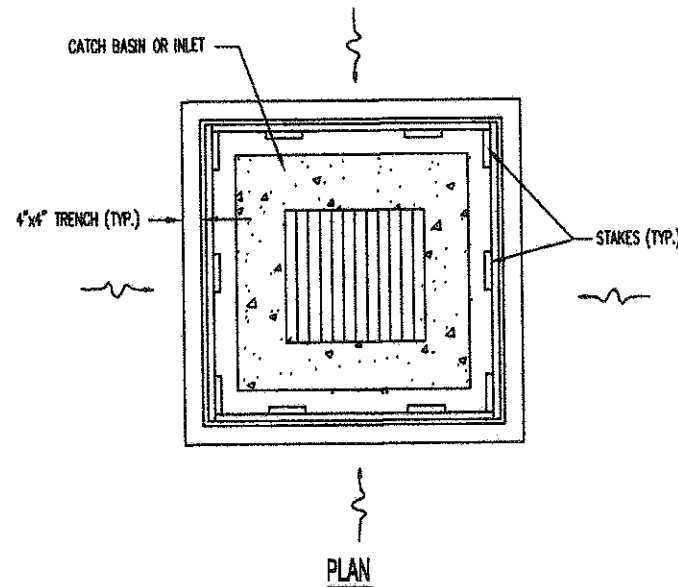
1. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER;
2. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS;
3. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS;
4. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO;
5. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF A STREAM
6. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA;
7. DISPOSAL OF TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS;
8. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT; AND
9. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED BY THE ENGINEER OF SAID PURPOSES.

TRANSPORTATION/SAFETY PRACTICES

1. ONE LANE TRAFFIC MUST BE MAINTAINED AT ALL TIMES ALONG THE TRAVEL ROUTE TO THE WASTEWATER TREATMENT PLANT.
2. ANY CONSTRUCTION EQUIPMENT OR EXCAVATIONS NEAR THE ROADS MUST BE MARKED WITH LIGHTS, REFLECTORS, OIL LANTERNS OR SNUDEPOTS.
3. PAVEMENT REPLACEMENT MUST MATCH EXISTING PAVEMENT STRUCTURE.
4. ACCESS MUST BE MAINTAINED FOR EMERGENCY VEHICLES AT ALL TIMES.

GENERAL NOTES TO CONTRACTOR

1. TREE REMOVAL AND PROTECTION:
 - A. NO FILL MATERIAL SHALL BE STORED AGAINST OR WITHIN THE DROP LINE OF THE TREES.
 - B. TREES REMOVED SHOULD BE FELLED SO AS NOT TO DAMAGE REMAINING TREES.
 - C. WHEN ROOTS ARE DAMAGED DURING EXCAVATION, THE ABOVE GROUND PORTION OF THE TREE WILL BE PRUNED TO COMPENSATE.
2. NO HEAVY EQUIPMENT SHALL ENTER THE STREAM DURING CONSTRUCTION OF THE HEADWALL UNLESS ABSOLUTELY NECESSARY AND IN ACCORDANCE WITH CORPS OF ENGINEERS PERMIT REQUIREMENTS.
3. ALL MATERIALS DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND FASHION. DISPOSING OF DEBRIS ON PRIVATE PROPERTY AND/OR ON AN UNAPPROVED LANDFILL IS NOT ACCEPTABLE.
4. PROVIDE SOIL EROSION BARRIERS AS REQUIRED FOR CONSTRUCTION, AS SPECIFIED AND AS DETAILED ON THIS SHEET.
5. CONTRACTOR SHALL REFRAIN FROM CLEARING AND GRUBBING UNTIL TWO WEEKS BEFORE CONSTRUCTION AND RESTORE SITE TWO WEEKS AFTER CONSTRUCTION.
6. ALL Dewatering FLOWS ARE TO BE KEPT FREE OF SILT, SEDIMENT, DEBRIS AND OTHER POLLUTANTS THROUGH APPROPRIATE MEANS (SETTLING BASINS, FILTERS, ETC.) AND THAT FOLLOWING THIS, THE FLOWS SHALL ONLY BE RELEASED DIRECTLY INTO STORM DRAINS, STREAM CHANNELS, OR OTHER STABILIZED DRAINAGE COURSES, AND NOT ONTO EXPOSED SOILS, STEEP SLOPES OR ANY OTHER SITE WHERE THE FLOWS COULD CAUSE EROSION.
7. WATER OR CALCIUM CHLORIDE WILL BE USED FOR DUST CONTROL.

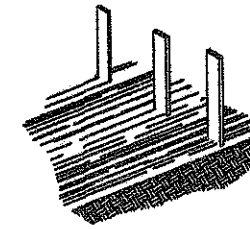


SILT FENCE INLET FILTER DETAIL
NO SCALE

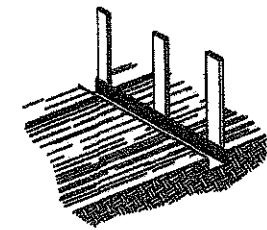
INSTALLATION NOTES:

SILT FENCES ARE TO BE INSTALLED AROUND ALL CONSTRUCTION ACTIVITIES IN ORDER TO CONTAIN SILT ON SITE. SILT FENCE LOCATIONS ARE TO BE APPROVED BY ENGINEER/PROJECT REPRESENTATIVE BEFORE INSTALLATION. SILT FENCES SHALL BE ERRECTED USING THE OUTLINED PROCEDURES BELOW UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

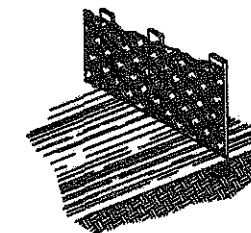
1. SET STAKES NO MORE THAN 3 FT. APART AND DRIVE THEM INTO THE GROUND AT LEAST 8".



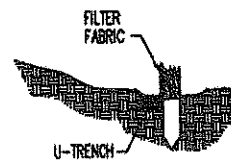
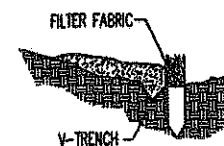
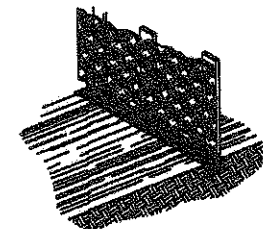
2. EXCAVATE A 4"x4" TRENCH UPSLOPE ALONG THE LINE OF THE STAKES.



3. STAPLE FILTER MATERIAL ON UPSLOPE SIDE OF STAKES AND EXTEND IT INTO THE TRENCH. WHEN JOINTS ARE NEEDED OVERLAP THE MATERIAL BETWEEN TWO STAKES AND FASTEN IT SECURELY.



4. BACKFILL AND COMPACT THE MATERIAL EXCAVATED FROM THE 4"x4" TRENCH.



SILT FENCES
NO SCALE

G7
OF
G64

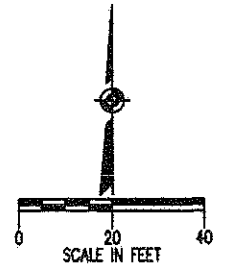
NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7938 Delaware, Ohio 740.363.6792
 DATE OCT 2002 CAD FILE SIL-04
 JOB NO. 740-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SOIL EROSION CONTROL DETAILS

PIPING NOTES

- ALL PIPING ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PIPING CONSTRUCTION: MAINTAIN 4"-6" MIN. COVER OVER ALL WATER LINES AND FORCE MAINS, UNLESS OTHERWISE NOTED.
 - GRAVITY LINES TAKE PRECEDENCE OVER FORCE MAINS.
 - SLUDGE LINES SHALL BE INSTALLED ON AS UNIFORM GRADE AS PRACTICAL TO CLEAR GRAVITY LINES.
 - PLANT EFFLUENT AND GAS LINES SHALL BE INSTALLED TO CLEAR CLEAR OTHER PIPING AS REQUIRED.
- ALL DUCTILE IRON PIPE IN YARD SHALL BE MIN. CLASS 51, MECH. JOINT.
- REF. PVC SDR-35 = GRAVITY PIPE SEE SPECIFICATION
REF. PVC SDR-26 = PRESSURE PIPE SEE SPECIFICATION
- PROVIDE ADJ. VALVE BOX, CAP, & EXTENSION STEM TO 4" FROM FIN. GRADE W/ 2" NUT, TYP. FOR ALL VALVES UNLESS NOTED.
- CUT EXISTING SANITARY SEWER AND BACK FILL TO ONE FOOT OVER PIPE AND INSIDE WITH 3" TO 4" COBBLE STONES FOR DRAINAGE.
- ALL NEW GAS LINES ARE 2".

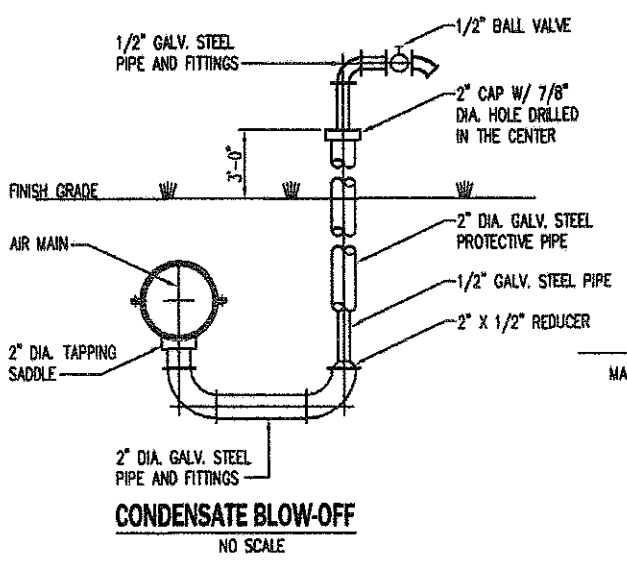
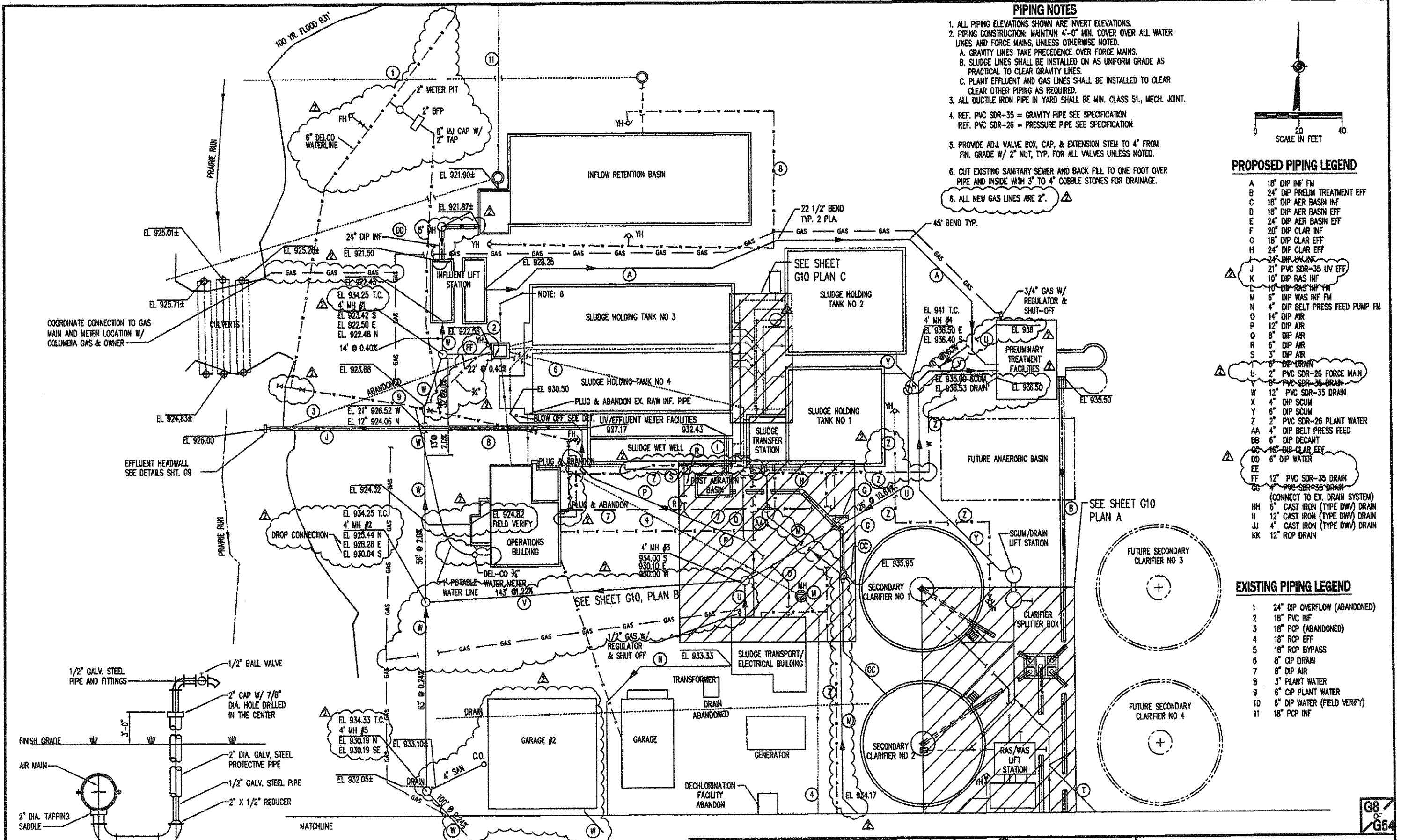


PROPOSED PIPING LEGEND

- A 18" DIP INF FM
- B 24" DIP PRELIM TREATMENT EFF
- C 18" DIP AER BASIN INF
- D 18" DIP AER BASIN EFF
- E 24" DIP AER BASIN EFF
- F 20" DIP CLAR INF
- G 18" DIP CLAR EFF
- H 24" DIP CLAR EFF
- I 24" DIP CLAR INF
- J 21" PVC SDR-35 UV EFF
- K 10" DIP RAS INF
- L 10" DIP RAS INF FM
- M 6" DIP WAS INF FM
- N 4" DIP BELT PRESS FEED PUMP FM
- O 14" DIP AIR
- P 12" DIP AIR
- Q 8" DIP AIR
- R 6" DIP AIR
- S 3" DIP AIR
- T 8" DIP DRAIN
- U 2" PVC SDR-26 FORCE MAIN
- V 8" PVC SDR-35 DRAIN
- W 12" PVC SDR-35 DRAIN
- X 4" DIP SCUM
- Y 6" DIP SCUM
- Z 2" PVC SDR-26 PLANT WATER
- AA 4" DIP BELT PRESS FEED
- BB 6" DIP DECANT
- CC 16" DIP CLAR EFF
- DD 6" DIP WATER
- EE FT
- FF 12" PVC SDR-35 DRAIN
- GG 12" PVC SDR-35 DRAIN (CONNECT TO EX. DRAIN SYSTEM)
- HH 6" CAST IRON (TYPE DWV) DRAIN
- II 12" CAST IRON (TYPE DWV) DRAIN
- JJ 4" CAST IRON (TYPE DWV) DRAIN
- KK 12" RCP DRAIN

EXISTING PIPING LEGEND

- 1 24" DIP OVERFLOW (ABANDONED)
- 2 18" PVC INF
- 3 18" PCP (ABANDONED)
- 4 18" RCP EFF
- 5 18" RCP BYPASS
- 6 8" CIP DRAIN
- 7 8" DIP AIR
- 8 3" PLANT WATER
- 9 6" CIP PLANT WATER
- 10 6" DIP WATER (FIELD VERIFY)
- 11 18" PCP INF



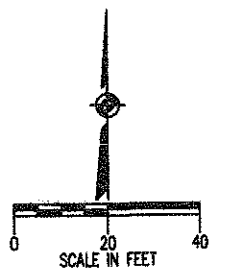
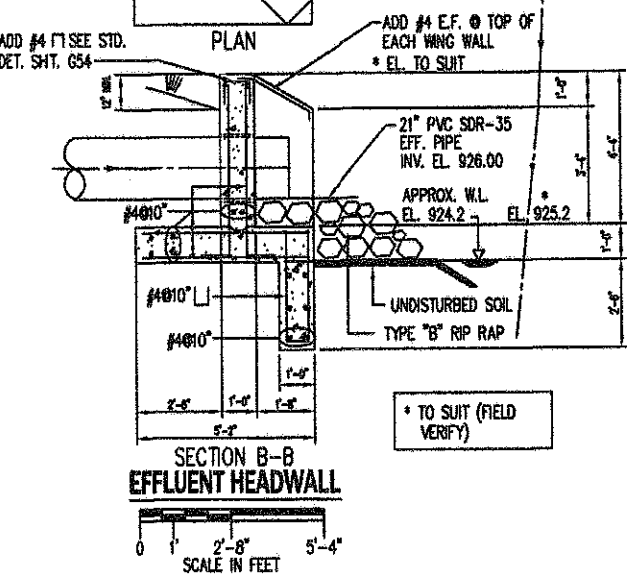
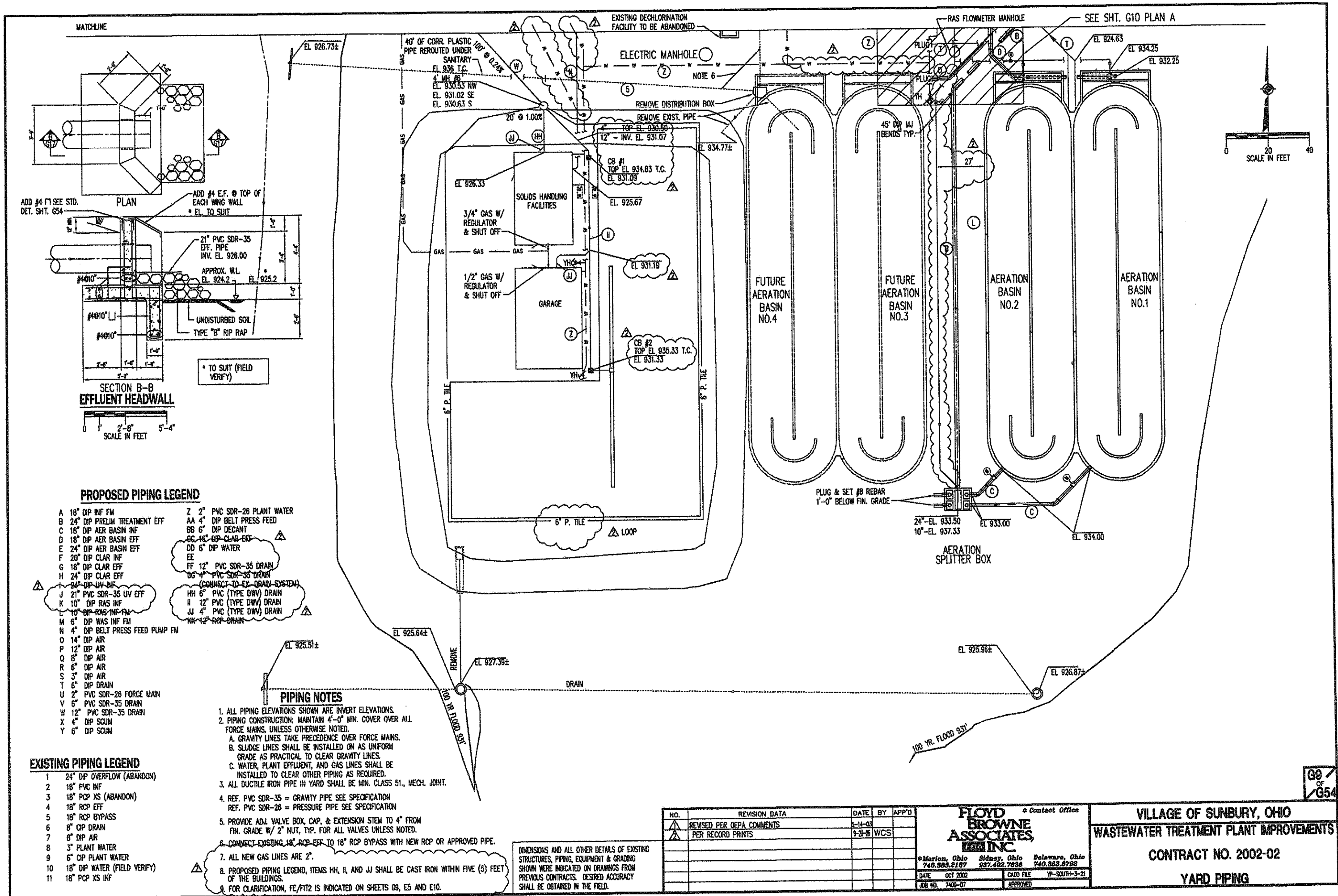
DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER DEPA COMMENTS	6-14-03		
2	PER RECORD PRINTS	8-20-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.
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 DATE: OCT 2002 CAD FILE: 1P-NORTH
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
YARD PIPING

G8 OF G54



PROPOSED PIPING LEGEND

- A 18" DIP INF FM
- B 24" DIP PRELIM TREATMENT EFF
- C 18" DIP AER BASIN INF
- D 18" DIP AER BASIN EFF
- E 24" DIP AER BASIN EFF
- F 20" DIP CLAR INF
- G 18" DIP CLAR EFF
- H 24" DIP CLAR EFF
- I 24" DIP UN-INF
- J 21" PVC SDR-35 UV EFF
- K 10" DIP RAS INF
- L 10" DIP RAS INF FM
- M 6" DIP WAS INF FM
- N 4" DIP BELT PRESS FEED PUMP FM
- O 14" DIP AIR
- P 12" DIP AIR
- Q 8" DIP AIR
- R 6" DIP AIR
- S 3" DIP AIR
- T 6" DIP DRAIN
- U 2" PVC SDR-26 FORCE MAIN
- V 6" PVC SDR-35 DRAIN
- W 12" PVC SDR-35 DRAIN
- X 4" DIP SCUM
- Y 6" DIP SCUM
- Z 2" PVC SDR-26 PLANT WATER
- AA 4" DIP BELT PRESS FEED
- BB 6" DIP DECANT
- CC 16" DIP CLAR EFF
- DD 6" DIP WATER
- EE
- FF 12" PVC SDR-35 DRAIN
- GG 4" PVC SDR-35 DRAIN
- HH 6" PVC (TYPE DWV) DRAIN
- II 12" PVC (TYPE DWV) DRAIN
- JJ 4" PVC (TYPE DWV) DRAIN
- KK 12" RCP DRAIN

EXISTING PIPING LEGEND

- 1 24" DIP OVERFLOW (ABANDON)
- 2 18" PVC INF
- 3 18" PCP XS (ABANDON)
- 4 18" RCP EFF
- 5 18" RCP BYPASS
- 6 8" DIP DRAIN
- 7 8" DIP AIR
- 8 3" PLANT WATER
- 9 6" DIP PLANT WATER
- 10 18" DIP WATER (FIELD VERIFY)
- 11 18" PCP XS INF

PIPING NOTES

1. ALL PIPING ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
2. PIPING CONSTRUCTION: MAINTAIN 4'-0" MIN. COVER OVER ALL FORCE MAINS, UNLESS OTHERWISE NOTED.
 - A. GRAVITY LINES TAKE PRECEDENCE OVER FORCE MAINS.
 - B. SLUDGE LINES SHALL BE INSTALLED ON AS UNIFORM GRADE AS PRACTICAL TO CLEAR GRAVITY LINES.
 - C. WATER, PLANT EFFLUENT, AND GAS LINES SHALL BE INSTALLED TO CLEAR OTHER PIPING AS REQUIRED.
3. ALL DUCTILE IRON PIPE IN YARD SHALL BE MIN. CLASS 51, MECH. JOINT.
4. REF. PVC SDR-35 = GRAVITY PIPE SEE SPECIFICATION
REF. PVC SDR-26 = PRESSURE PIPE SEE SPECIFICATION
5. PROVIDE ADJ. VALVE BOX, CAP, & EXTENSION STEM TO 4" FROM FIN. GRADE W/ 2" NUT, TYP. FOR ALL VALVES UNLESS NOTED.
6. CONNECT EXISTING 18" RCP EFF TO 18" RCP BYPASS WITH NEW RCP OR APPROVED PIPE.
7. ALL NEW GAS LINES ARE 2".
8. PROPOSED PIPING LEGEND, ITEMS HH, II, AND JJ SHALL BE CAST IRON WITHIN FIVE (5) FEET OF THE BUILDINGS.
9. FOR CLARIFICATION, FE/FT2 IS INDICATED ON SHEETS G9, E5 AND E10.

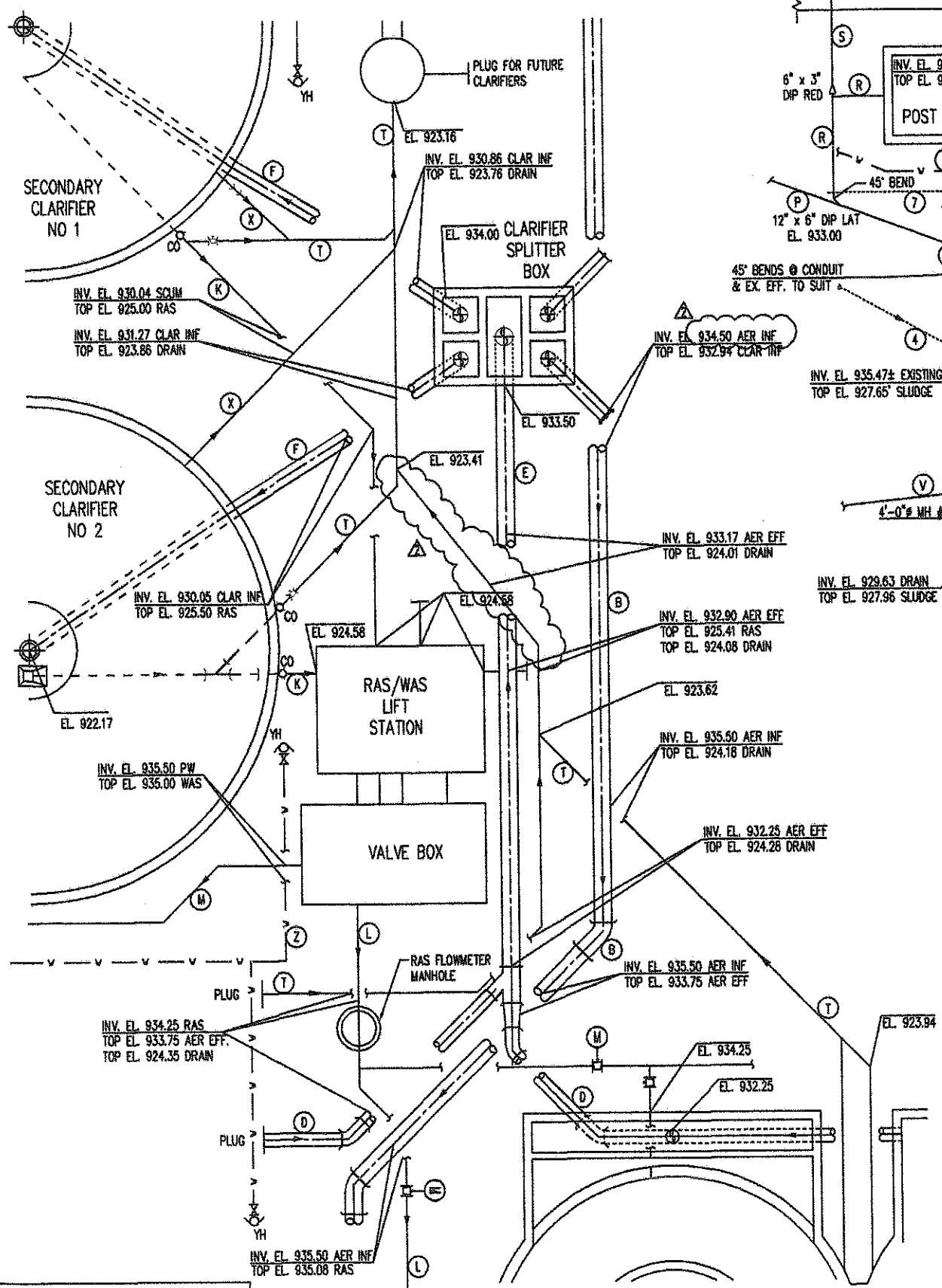
DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER O&P COMMENTS	5-16-03		
2	PER RECORD PRINTS	1-28-03	WCS	

FLOYD BROWNE ASSOCIATES, INC.
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 *Delaware, Ohio 740.383.8798
 DATE OCT 2002
 JOB NO. 7400-07

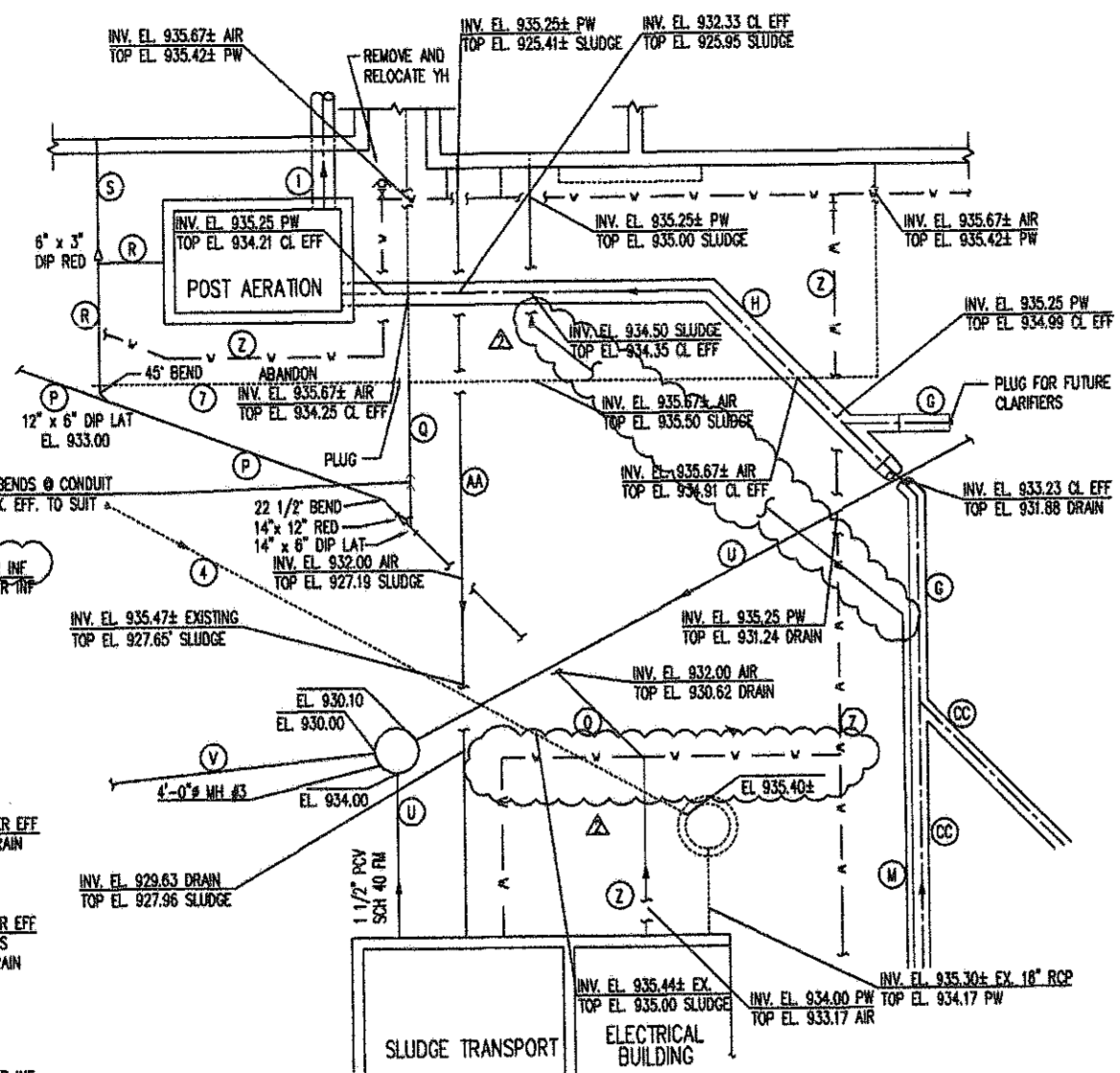
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
YARD PIPING

G9 OF G54

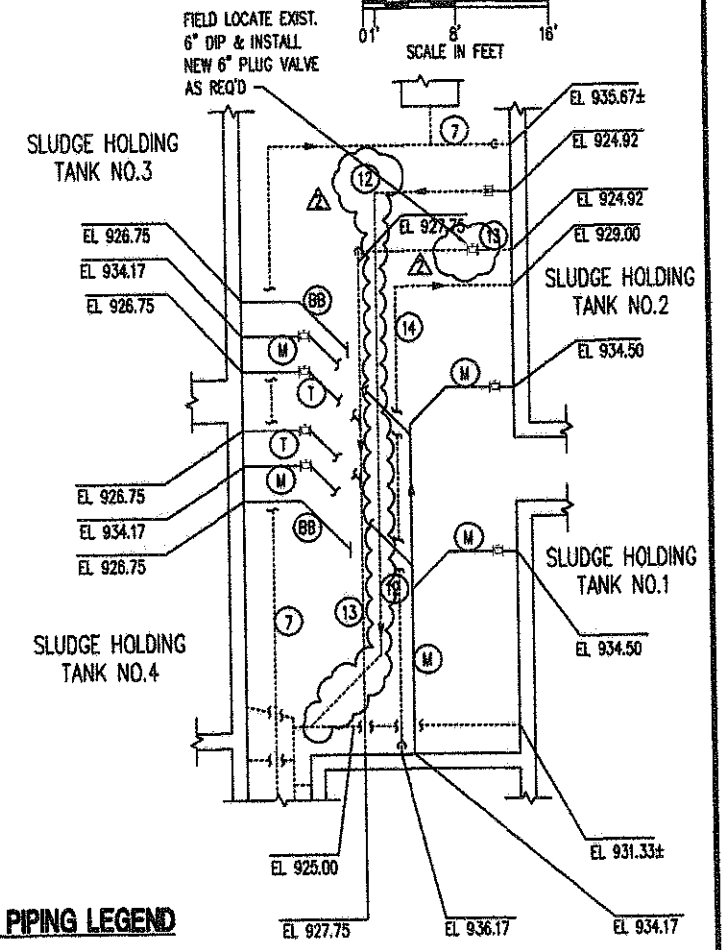


PARTIAL PIPING PLAN A

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.



PARTIAL PIPING PLAN B
SLUDGE TRANSFER TO SLUDGE TRANSPORT



PARTIAL PIPING PLAN C

EXISTING PIPING LEGEND

- 1 24" DIP OVERFLOW (ABANDONED)
- 2 18" PVC INF
- 3 18" PCP (ABANDONED)
- 4 18" RCP EFF
- 5 18" RCP BYPASS
- 6 8" CIP DRAIN
- 7 8" DIP AIR
- 8 3" PLANT WATER
- 9 6" CIP PLANT WATER
- 10 18" DIP WATER (FIELD VERIFY)
- 11 18" PCP INF
- 12 6" DIP DECANT
- 13 6" DIP DRAIN
- 14 6" WAS (ABANDONED)

PROPOSED PIPING LEGEND

- A 18" DIP INF FM
- B 24" DIP PRELIM TREATMENT EFF
- C 18" DIP AER BASIN INF
- D 18" DIP AER BASIN EFF
- E 24" DIP AER BASIN EFF
- F 20" DIP CLAR INF
- G 18" DIP CLAR EFF
- H 24" DIP CLAR EFF
- I 24" DIP UV INF
- J 24" DIP UV EFF
- K 10" DIP RAS INF
- L 10" DIP RAS INF FM
- M 6" DIP WAS INF FM
- N 4" DIP BELT PRESS FEED PUMP FM
- O 14" DIP AIR
- P 12" DIP AIR
- Q 8" DIP AIR
- R 6" DIP AIR
- S 3" DIP AIR
- T 6" DIP DRAIN
- U 4" PVC SDR-35 DRAIN
- V 6" PVC SDR-35 DRAIN
- W 6" PVC SDR-35 DRAIN
- X 4" DIP SCUM
- Y 6" DIP SCUM
- Z 2" PVC SDR-26 PLANT WATER
- AA 4" DIP BELT PRESS FEED
- BB 6" DIP DECANT
- CC 16" DIP CLAR EFF

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER DEPA COMMENTS	5-14-03		
2	PER RECORD PRINTS	8-28-06	WCS	

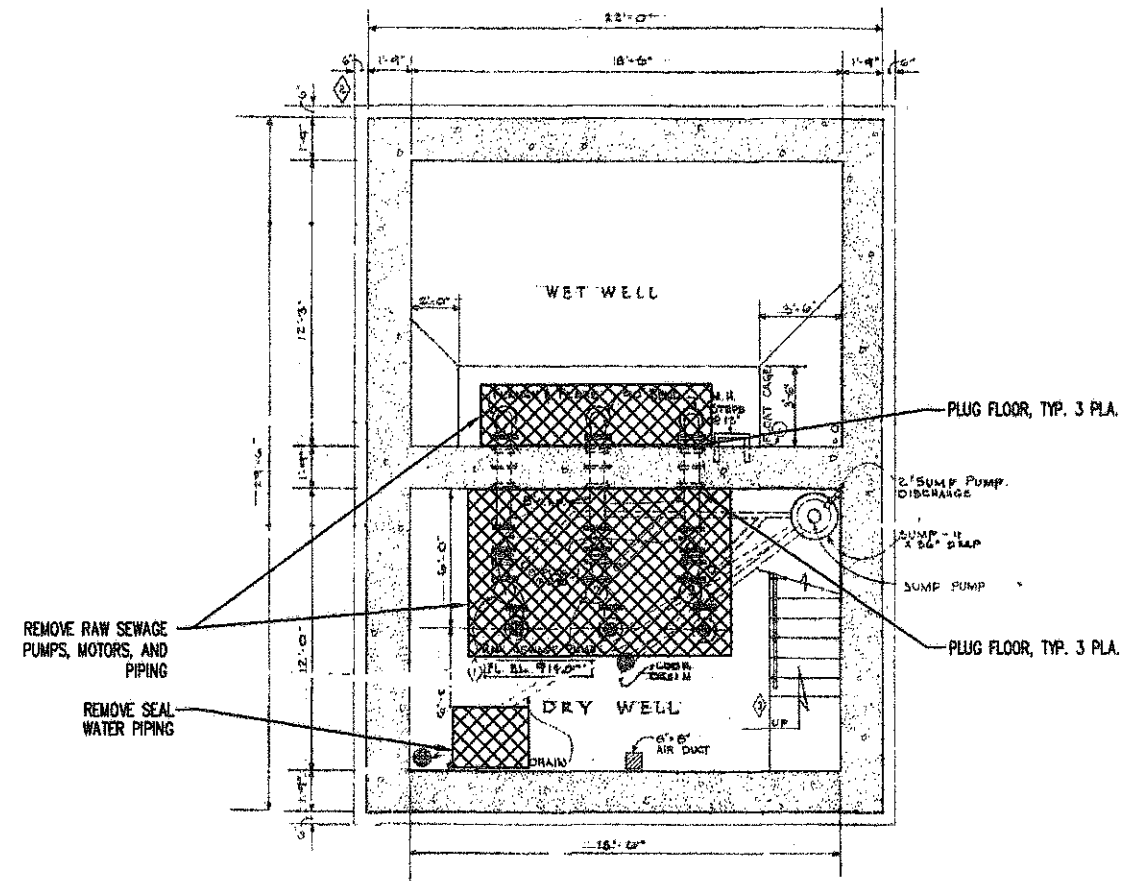
FLOYD BROWNE ASSOCIATES, INC.
 *Contact Office
 Marton, Ohio 740.383.8187 Sidney, Ohio 937.692.7838 Delaware, Ohio 740.383.8788
 DATE OCT 2002 CADD FILE YARD PIPING DETAILS
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
PLAN A - B - C
 YARD PIPING DETAILS

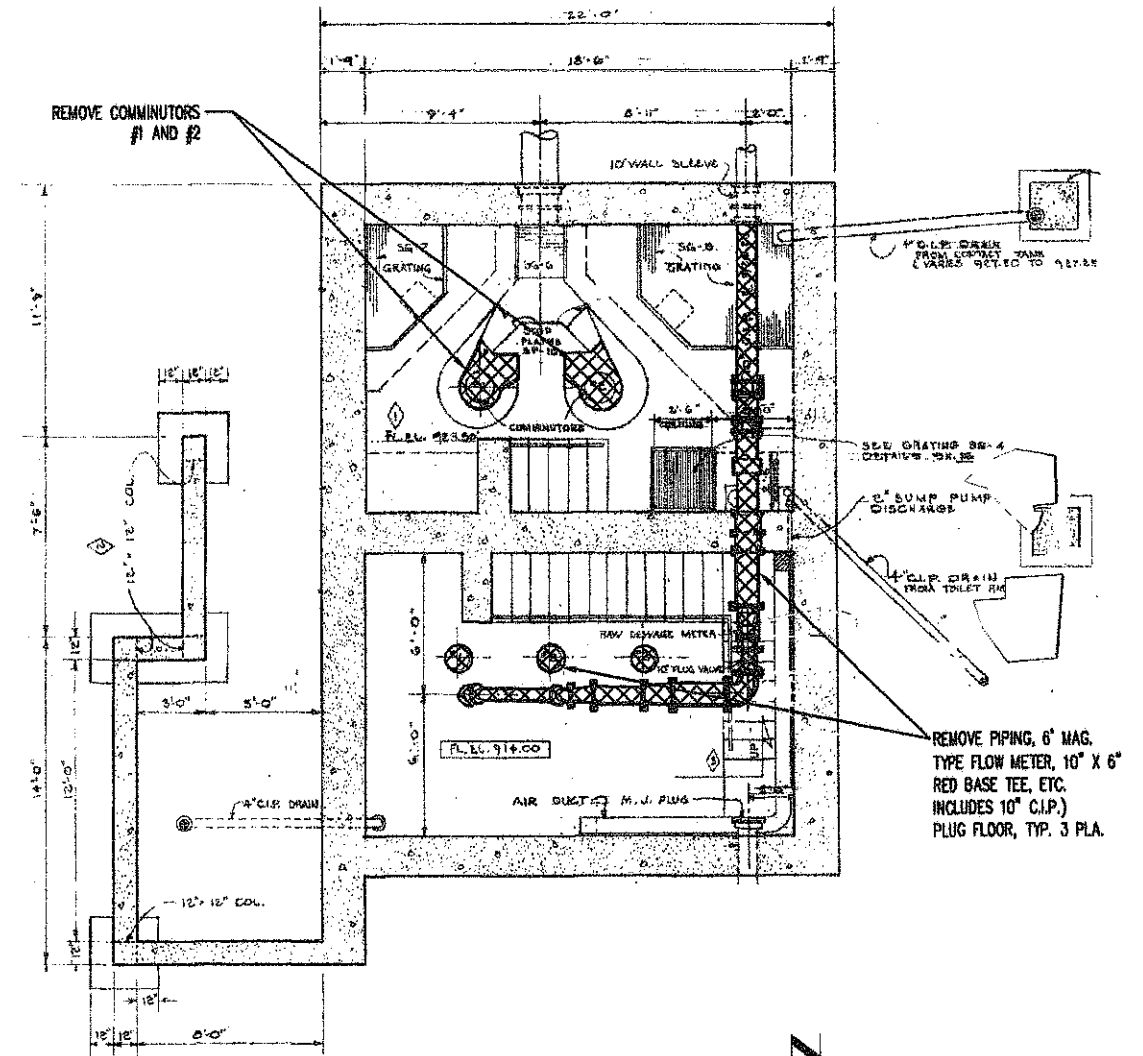
G10
OF
G54

DEMOLITION NOTE:

AN INDICATION OF REMOVAL OF PIPING INCLUDES PIPES
AND ALL ASSOCIATED SUPPORTS, FITTINGS, ETC.



PLAN - ELEV. 920.0
SCALE: 1/4" = 1'-0"



PLAN - ELEV. 929.0
SCALE: 1/4" = 1'-0"

G12
OF
G54

NO.	REVISION DATA	DATE	BY	APP'D

DATE: AUG 2002
JOB NO. 7400-07
CADD FILE: DEMO 2AS1
APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
OPERATIONS BUILDING
DEMOLITION

DEMOLITION NOTE:

AN INDICATION OF REMOVAL OF PIPING INCLUDES PIPES AND ALL ASSOCIATED SUPPORTS, FITTINGS, ETC. CONDUIT, WIRE AND SUPPORTS TO WALL OR CEILING

REMOVE EXISTING RAILING ON NORTH, EAST AND WEST SIDE OF CONTACT TANK. SEE POST REMOVAL DETAIL SHT. G11

REMOVE COMMUNICATORS #1 AND #2

FILL EXISTING CONTACT TANK AND CHANNELS WITH GRANULAR BACKFILL

REMOVE VALVE & PLUG

REMOVE CONTROL PUMP AND PIPING (INCLUDES 4" AND 12" C.I.P.)

PLUG

REMOVE COMMUNICATOR MOTORS AND ALL APPURTENANCES. PLUG FLOOR OPNG'S THUS:

FIELD MEASURE
EL. 940.75±
FIELD VERIFY

5#5 EA. WAY BOT.
CORRUGATED FORM LEFT IN PLACE.
GALV. L 5" X 3-1/2" X 5/16" @ 2 SIDES
(3) 5/8" X 5" GALV. ANCHOR BOLTS EA. SIDE

SECTION
NO SCALE
(TYP. 2 PLACES)

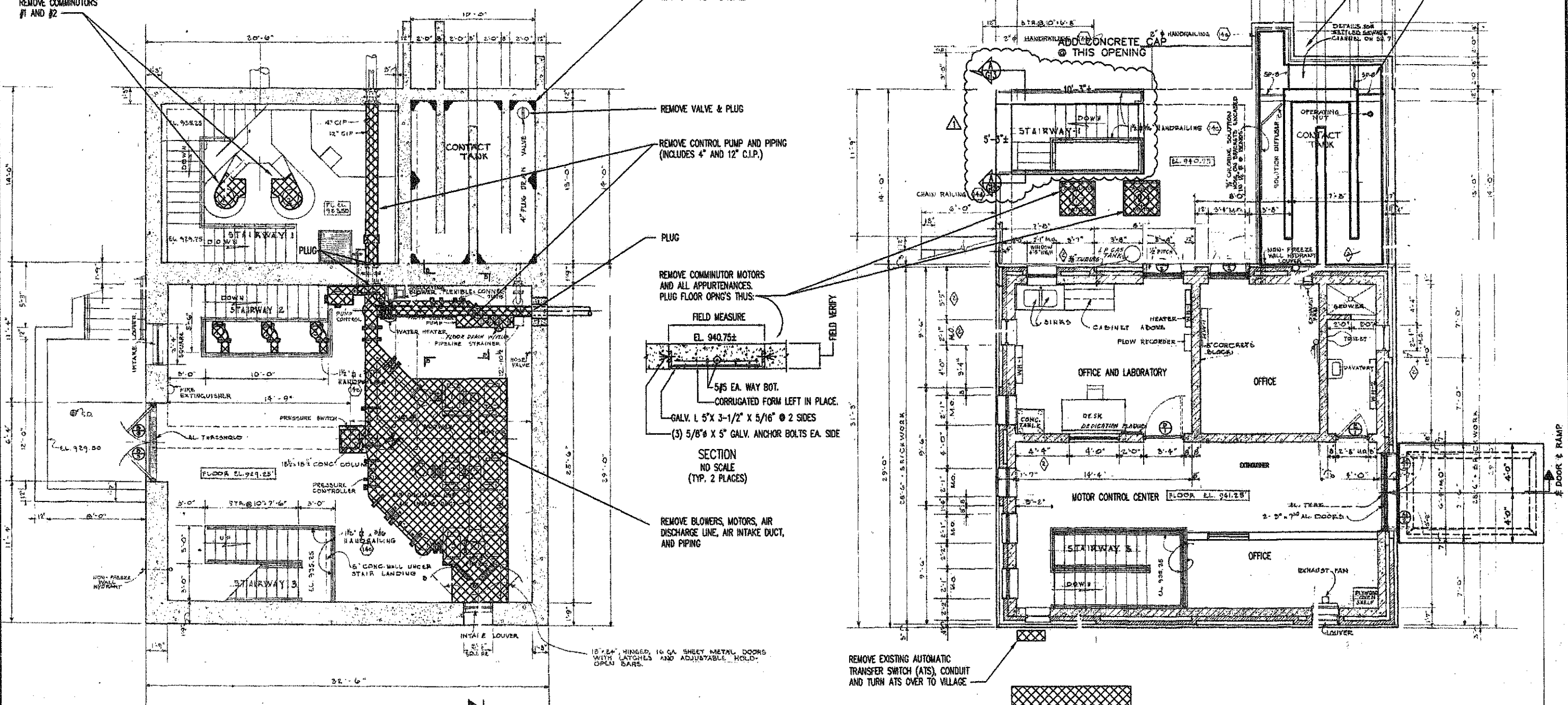
REMOVE BLOWERS, MOTORS, AIR DISCHARGE LINE, AIR INTAKE DUCT, AND PIPING

15' x 24" HINGED, 16 GA. SHEET METAL DOORS WITH LATCHES AND ADJUSTABLE HOLD-OPEN BARS.

REMOVE EXISTING AUTOMATIC TRANSFER SWITCH (ATS), CONDUIT AND TURN ATS OVER TO VILLAGE

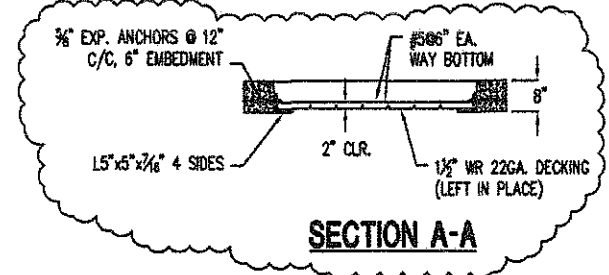
REMOVE EXISTING GENERATOR, FUEL TANK, BASE AND ALL APPURTENANCES, TURN OVER TO VILLAGE.

PROVIDE 6" SLAB W/ #5012' E.W. @ C/L



PLAN - ELEV. 936.0
SCALE: 1/4" = 1'-0"

PLAN - ELEV. 945.0
SCALE: 1/4" = 1'-0"



SECTION A-A

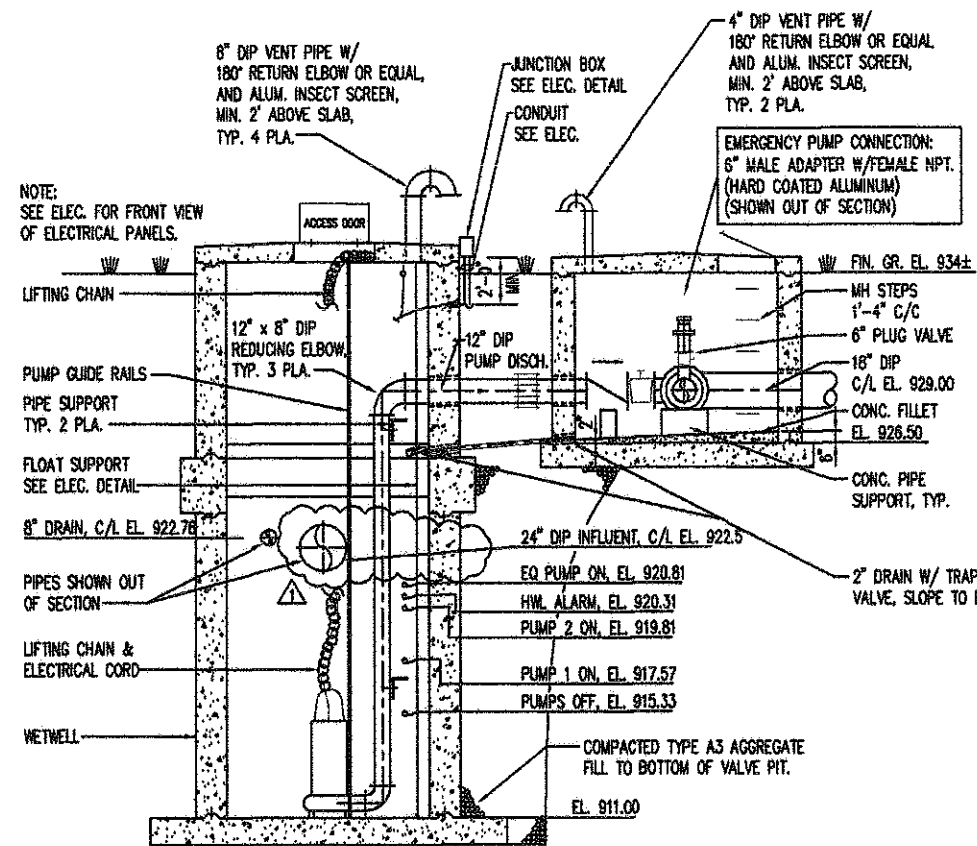
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office

*Marion, Ohio 740.363.2187 Sidney, Ohio 937.492.7698 Delaware, Ohio 740.363.6782
 DATE: OCT 2002 CADD FILE: DEMO 2AS2
 JOB NO: 7400-07 APPROVED:

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
OPERATIONS BUILDING
DEMOLITION

G18 OF G54

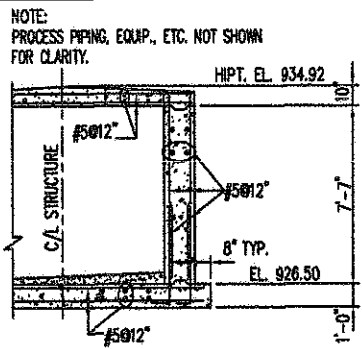


SECTION 1-1

CONTRACTOR SHALL PREVENT UP LIFT OF LIFT STATION DURING CONSTRUCTION BY PREVENTING WATER FROM ENTERING EXCAVATION UNTIL STRUCTURE IS STABILIZED

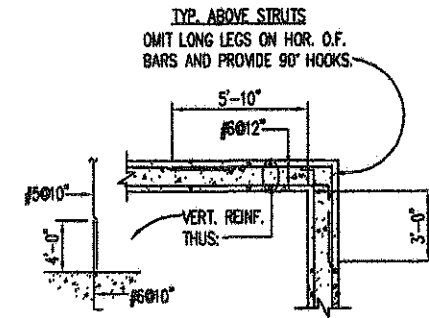
FOUNDATION MATERIAL NOTES

- OVER EXCAVATE SHALE 1.5 FEET BELOW BOTTOM OF SLAB.
- BEAR BASE SLAB ON K-KRETE PLACED ON SURFACE TREATED SHALE. EXTEND FILL MATERIAL TO SIDES OF EXCAVATION.
- FOR RE-USE OF SHALE, TREATMENTS OF SHALE SURFACES AND MATERIAL FOR TREATING SHALE SURFACES SEE GENERAL NOTES FOR SHALE, SHT. 27.

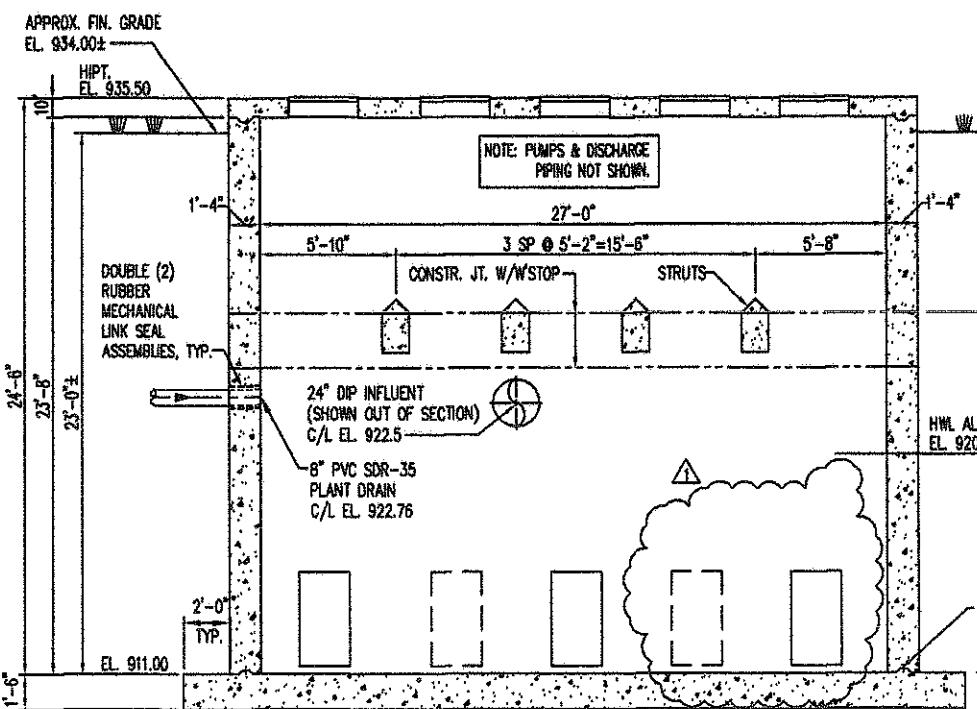


SECTION 4-4

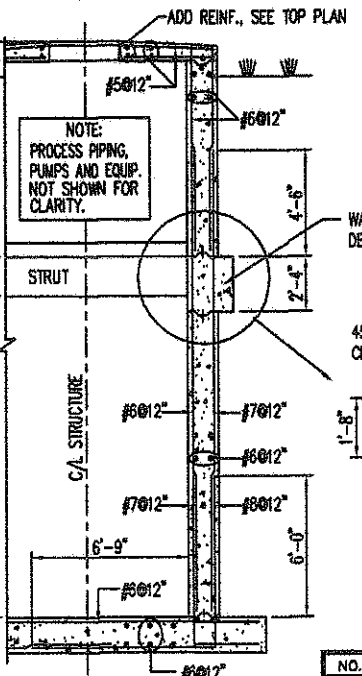
TYPICAL VALVE PIT REINFORCING, UNLESS NOTED.



**PLAN @ N.E. CORNER
TYP. HORIZ. ENDWALL REINF.
(BELOW STRUTS)**
(UNLESS NOTED)

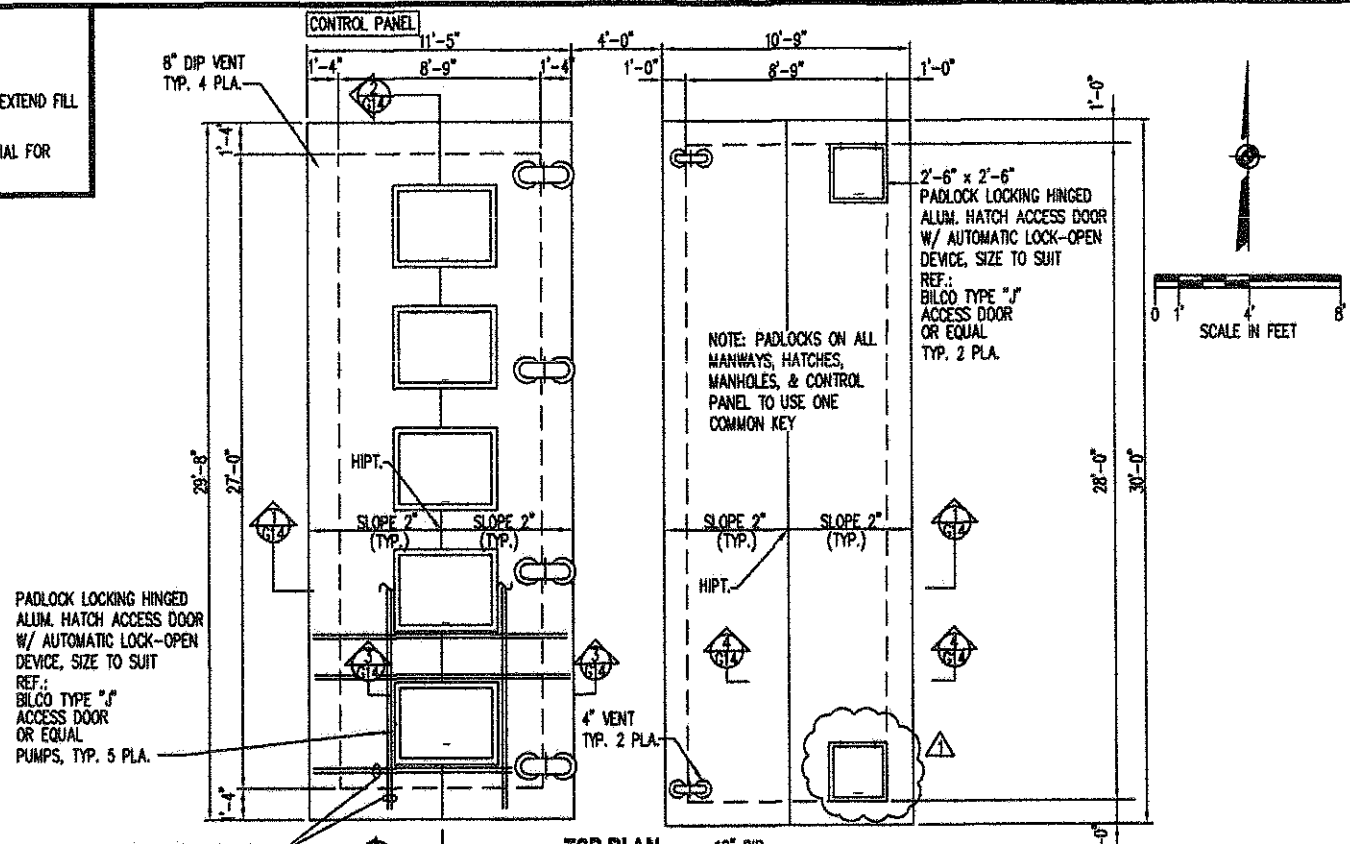


SECTION 2-2

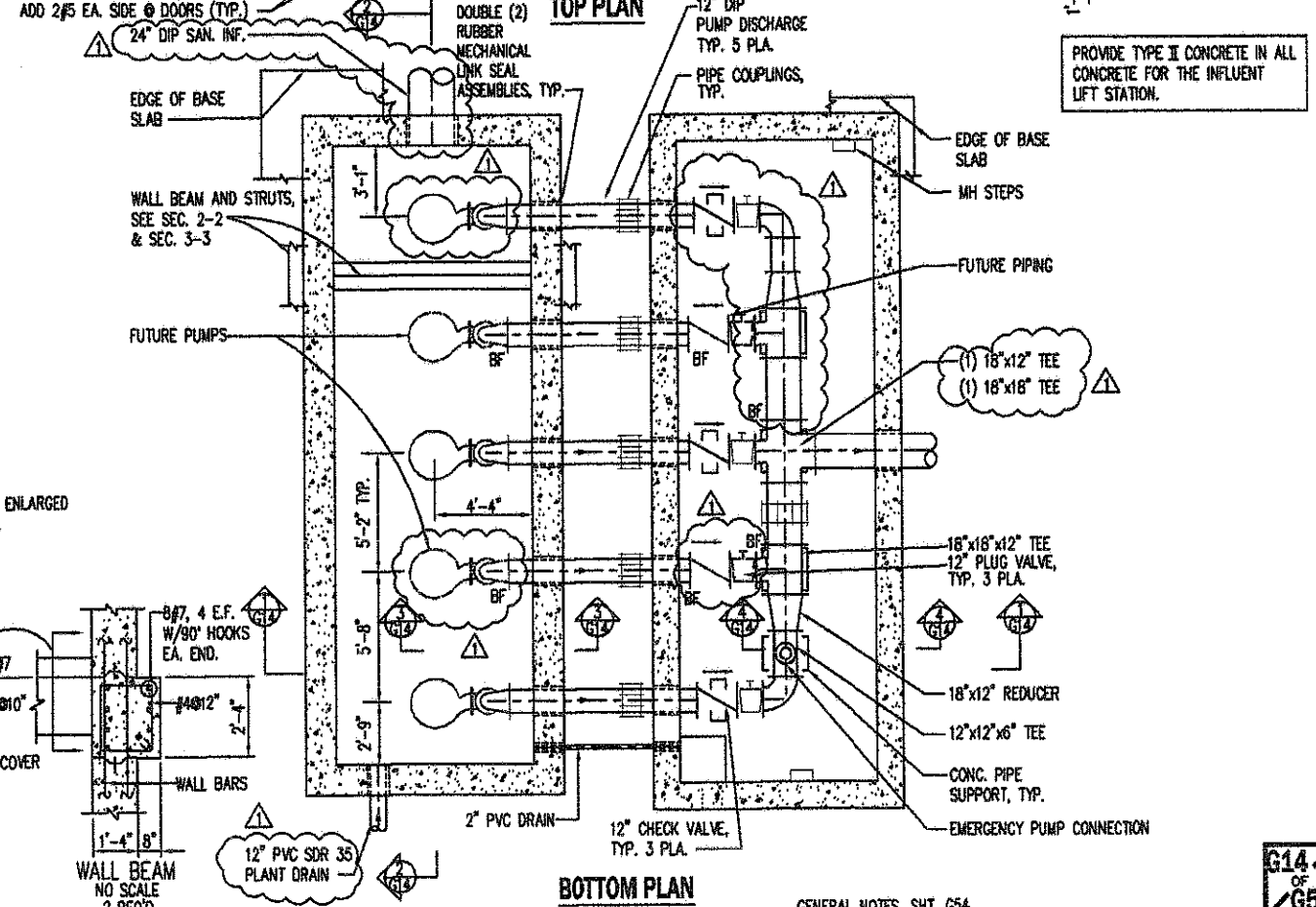


SECTION 3-3

TYPICAL LIFT STATION REINFORCING, UNLESS NOTED.



TOP PLAN



BOTTOM PLAN

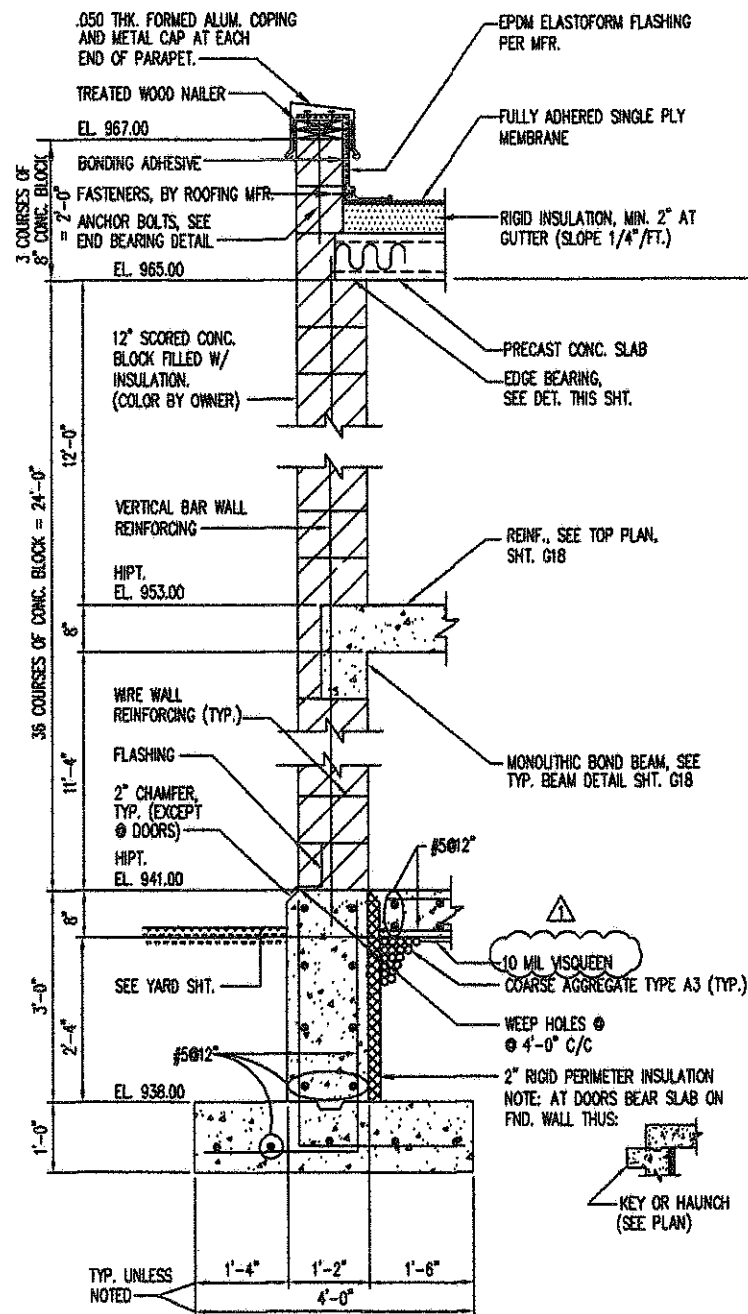
NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES, INC. * Contact Office

*Marian, Ohio 740.383.2187 Sidney, Ohio 637.468.7836 Delaware, Ohio 740.383.6792
 DATE OCT 2002 CAD FILE LIFT STATION
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT
 CONTRACT NO. 2002-02
 INFLUENT LIFT STATION
 PROCESS - STRUCTURAL

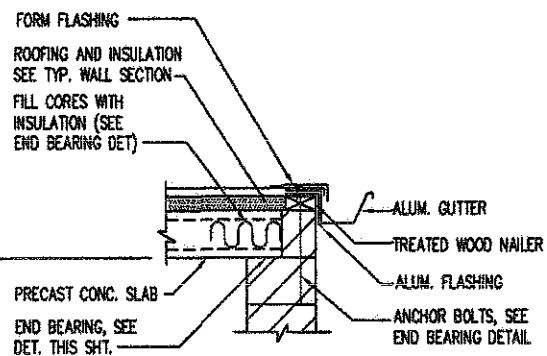
G14 OF G54



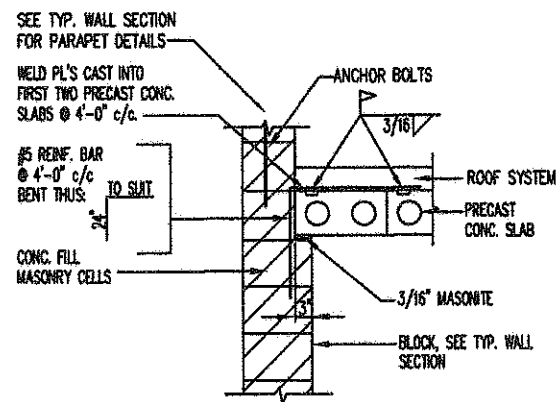
SECTION 1-1
TYPICAL EXTERIOR WALL SECTION



SEE GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES, SHT. 27

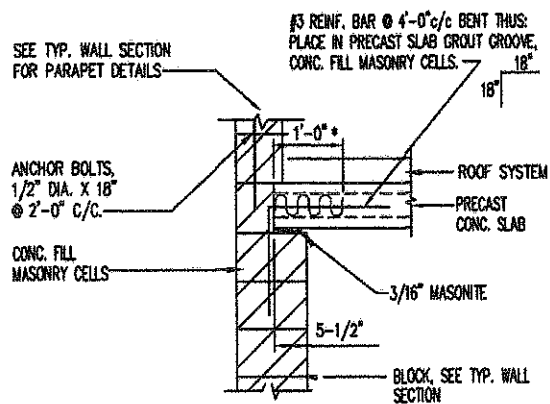


SECTION 2-2
TYPICAL ROOF GUTTER DETAIL



TYPICAL EDGE BEARING

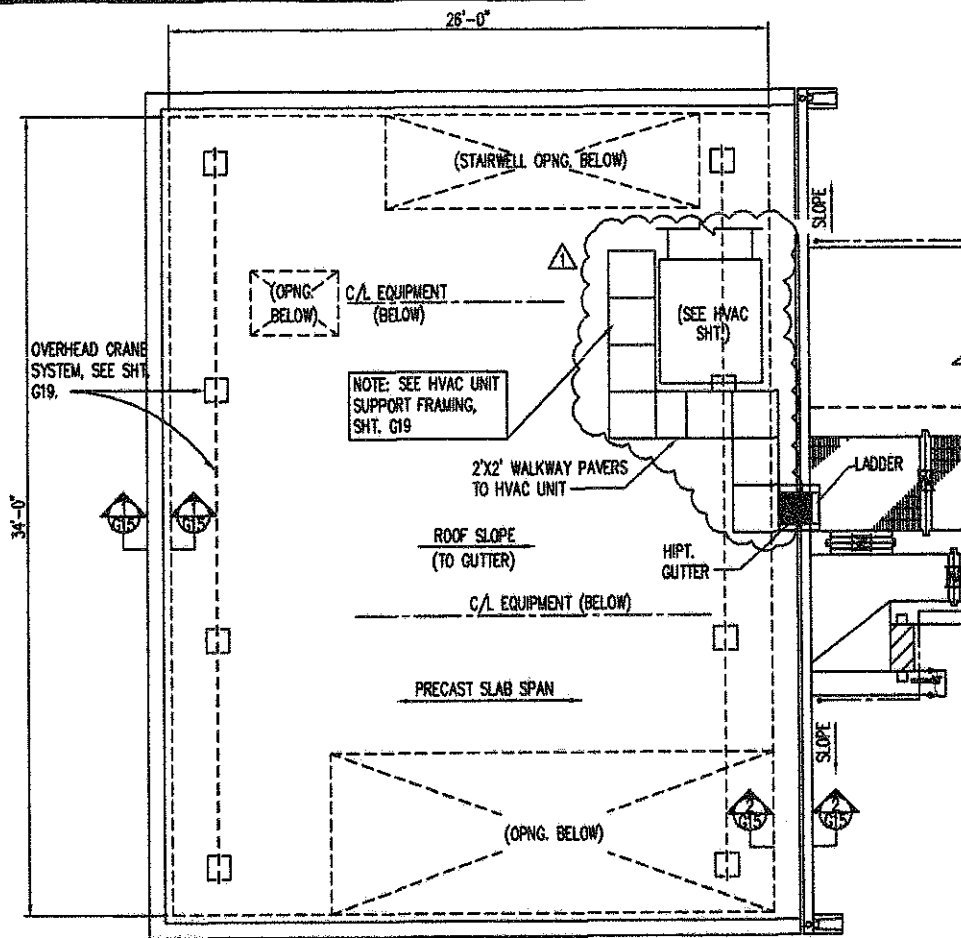
NO SCALE



TYPICAL END BEARING

NO SCALE

* PROVIDE FIBERGLASS INSULATION @ ENDS OF PRECAST SLAB



ROOF PLAN



2002 OBC, PLUS REVISIONS

USE GROUP.....F2
TYPE OF CONSTRUCTION.....III B
BUILDING AREA.....1975 S.F.
OCCUPANT LOAD:
MAXIMUM OF 3 OCCUPANTS

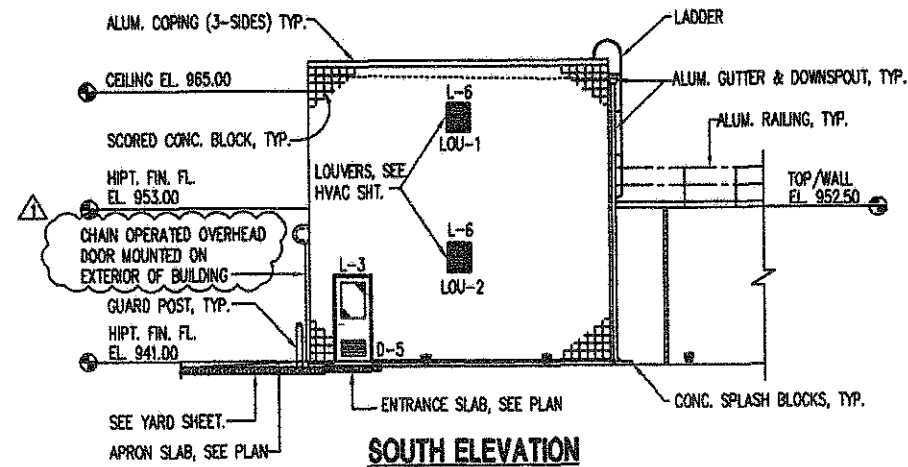
DESIGN LOADS

SOIL BEARING CAPACITY.....2200 PSF
SECOND FLOOR LIVE LOAD.....150 PSF
GROUND FLOOR LIVE LOAD.....300 PSF
ROOF LIVE LOAD.....30 PSF (INCL. HVAC UNIT)

SNOW LOADS:
GROUND SNOW LOAD.....20 PSF
FLAT ROOF SNOW LOAD.....14 PSF
SNOW EXPOSURE FACTOR.....1.0
SNOW LOAD IMPORTANCE FACTOR.....1.0
SNOW THERMAL FACTOR.....1.0

WIND LOADS:
BASIC WIND SPEED.....90 MPH
WIND IMPORTANCE FACTOR.....1.0
WIND EXPOSURE CLASSIFICATION....."C"

EARTHQUAKE DESIGN DATA:
SEISMIC USE GROUP I ; I_e = 1.0
S_{ds} = 6.38 ; S_{d1} = 3.84
SITE CLASS D
BASIC S-FORCE-RESISTING SYSTEM(S) : 1C , 1H
DESIGN BASE SHEAR 63.4 gK
ANAL. PROC. ASCE 7-98 (SEC. 9.5.3)



SOUTH ELEVATION



INTEL DETAILS, SHT. G47
LADDER DETAILS, SHT. G52
GENERAL NOTES, SHT. G54
STAIR & PLATFORM NOTES, SHT. G53

G15
OF
G54

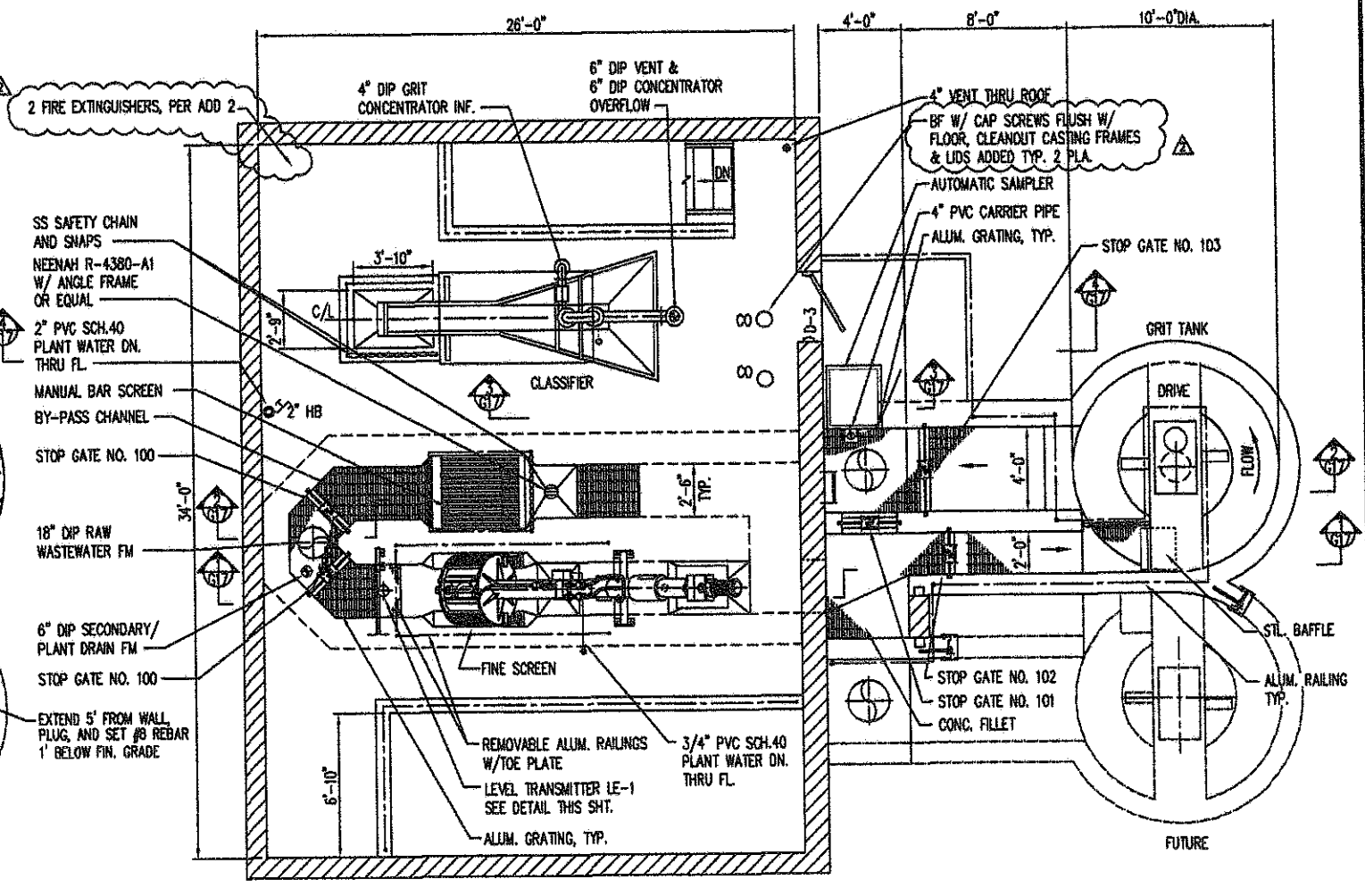
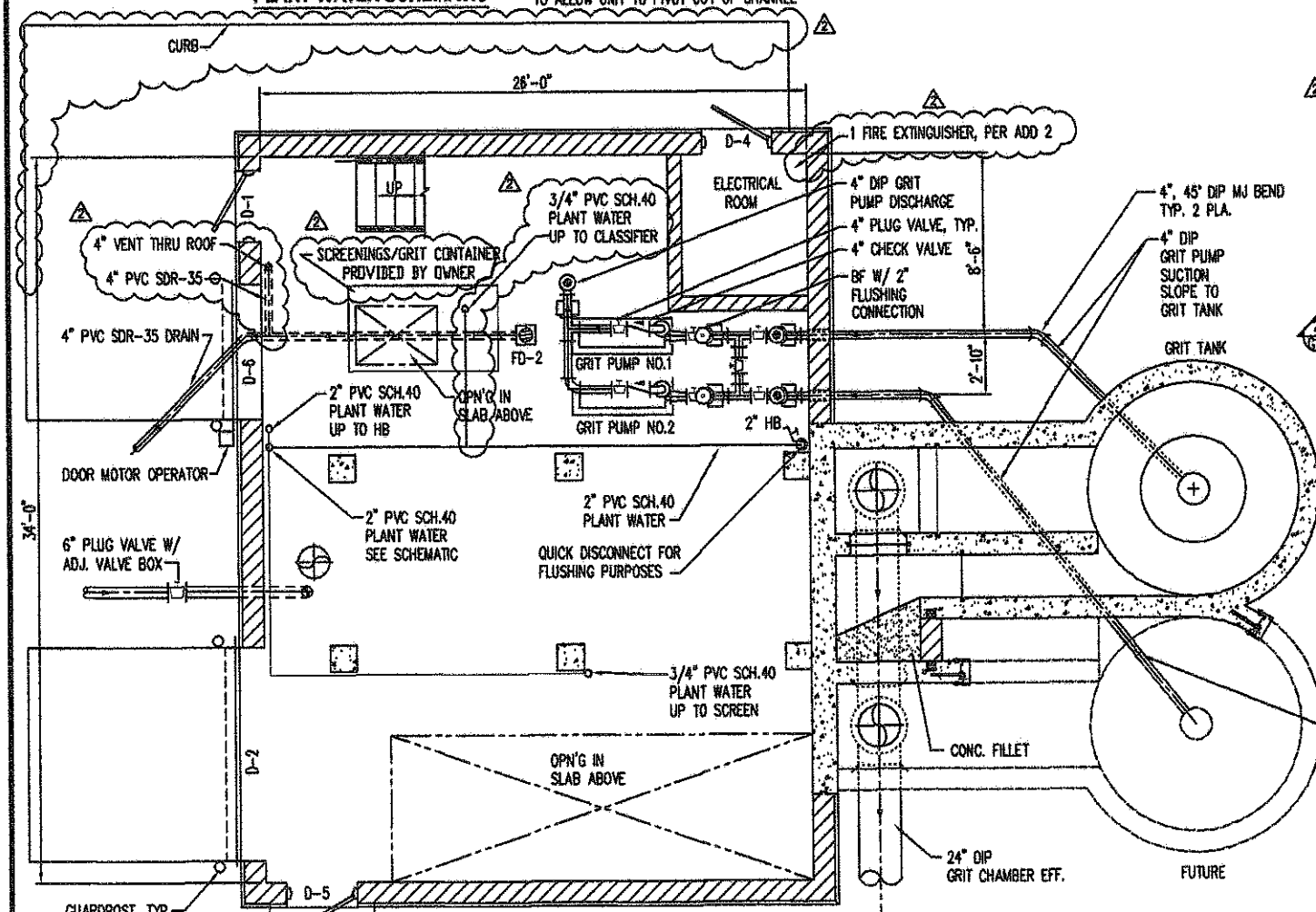
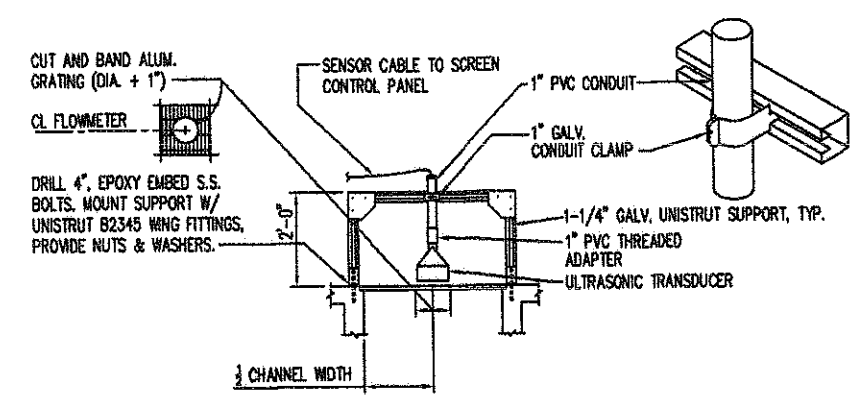
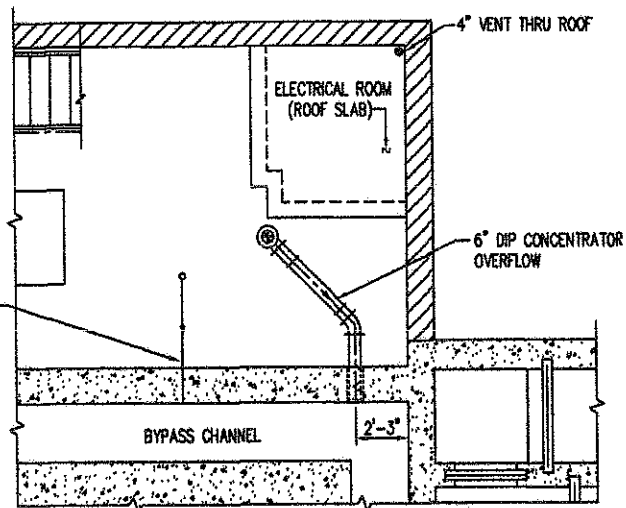
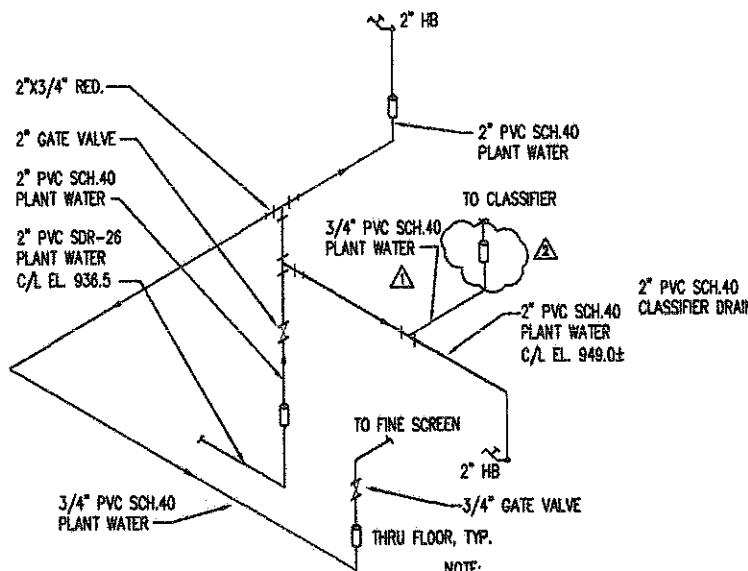
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-2-06	WCS	

FLOYD BROWNE ASSOCIATES INC. * Contact Office

Marion, Ohio 740.383.2187 Sidney, Ohio 937.402.7836 Delaware, Ohio 740.383.6782

DATE OCT 2002 CADD FILE A-SCRM-GRT
JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
PRELIMINARY TREATMENT FACILITY
PLAN-SECTIONS-ELEVATION
ARCHITECTURAL



NOTES:

1. WATER LINE CONNECTION TO FINE SCREEN TO BE FLEXIBLE OR QUICK DISCONNECT TYPE TO ALLOW UNIT TO PIVOT OUT OF CHANNEL
2. PROVIDE RAKE FOR REMOVAL OF SCREENINGS FROM MANUAL BAR SCREEN

NO.	REVISION DATA	DATE	BY	APP'D
1	ADD WATER LINE TO CLASSIFIER PER ADDENDUM NO.1	2-17-04	JG	
2	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.

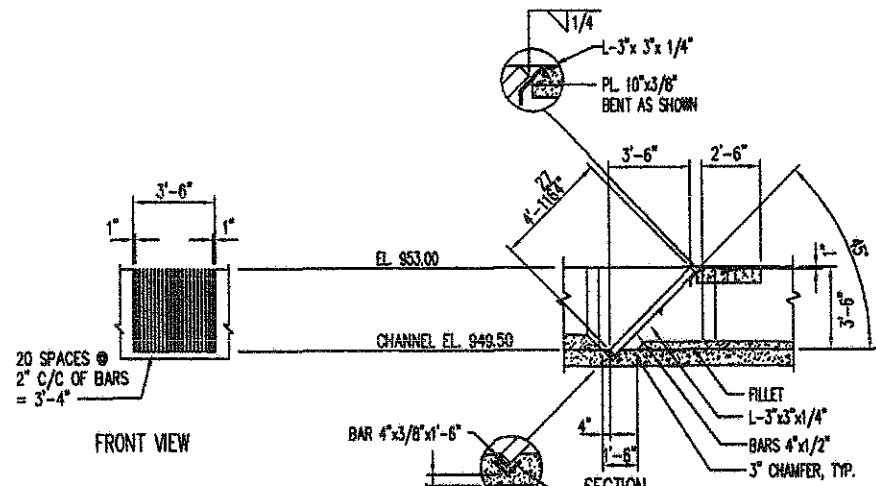
316 OF 654

Marion, Ohio 740.363.2187
Sidney, Ohio 937.492.7838
Delaware, Ohio 740.363.6728

DATE: OCT 2002
JOB NO: 7400-07

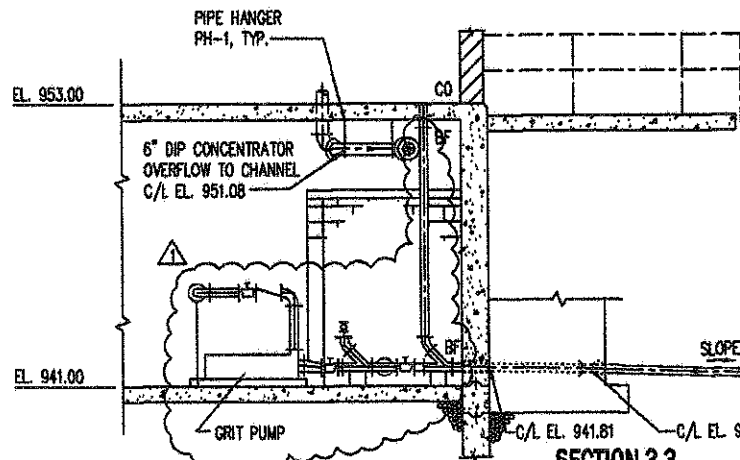
VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
PRELIMINARY TREATMENT FACILITY
PLANS
PROCESS

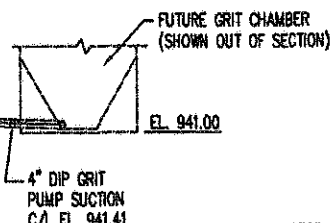


NOTE: ALL MATERIAL TO BE ALUMINUM UNLESS NOTED.

MANUAL BAR SCREEN DETAIL

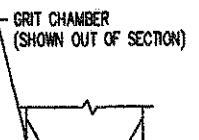


SECTION 3-3



FUTURE GRIT CHAMBER (SHOWN OUT OF SECTION)

4" DIP GRIT PUMP SUCTION C/L EL. 941.41



GRIT CHAMBER (SHOWN OUT OF SECTION)

4" DIP GRIT PUMP SUCTION C/L EL. 941.33

6" X 4" DIP ECC. RED.

4" X 4" DIP LATERAL TYP. 2 PLA.

MECHANICAL RUBBER LINK SEAL, TYP.

C/L EL. 942.00

C/L EL. 941.59

6" DIP CONCENTRATOR OVERFLOW TO CHANNEL

4" DIP GRIT PUMP DISCHARGE C/L EL. 945.00

BF W/ 1" FLUSHING CONNECTION PROVIDE HOSE AND CONNECTING PIECES AS REQ'D

4" DIP 45° ELBOW TYP. 2 PLA.

4" CHECK VALVE

4" PLUG VALVE, TYP.

ELECTRICAL ROOM (BEYOND)

SCREENINGS/GRIT CONTAINER 4'H X 5'W X 7'LG (APPROX 2 CU. YD.)

PLANT WATER SEE SCHEMATIC SHT. G16

SCREENINGS DISCHARGE CHUTE, 1/4" STL. PLATE, 18" SQ. X LENGTH TO SUIT CONTAINER, GALVANIZE AFTER FABRICATION.

SS ANCHORS AS REQ'D

ALUM. RAILING

2" PVC SDR-26 PLANT WATER C/L EL. 936.5

GRIT PUMP

CONC. EQUIP. PAD, TYP.

PIPE SUPPORT PS-1

2" PVC SCH.40 CLASSIFIER DRAIN TO CHANNEL

2" PLUG VALVE

6" DIP VENT

6" DIP CONCENTRATOR OVERFLOW TO CHANNEL

6" DIP GRIT PUMP DISCHARGE C/L EL. 945.00

BF W/ CAP SCREWS FLUSH W/ FLOOR TYP. 2 PLA.

CLASSIFIER: GRIT SCREW CONVEYOR GRIT CONCENTRATOR

ALUM. RAILING

EL. 953.00

EL. 941.00

FIN. GR. EL. 940.50

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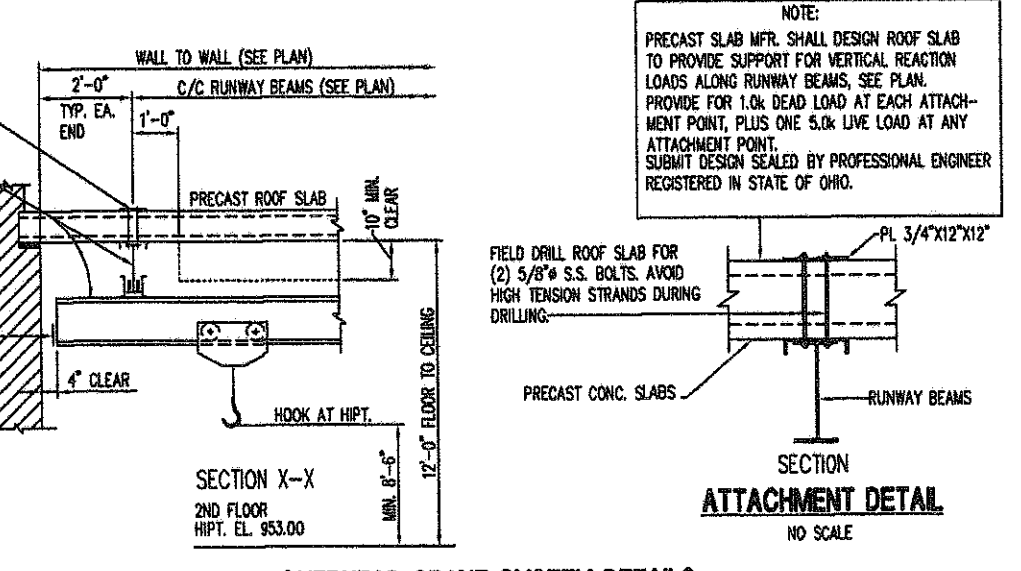
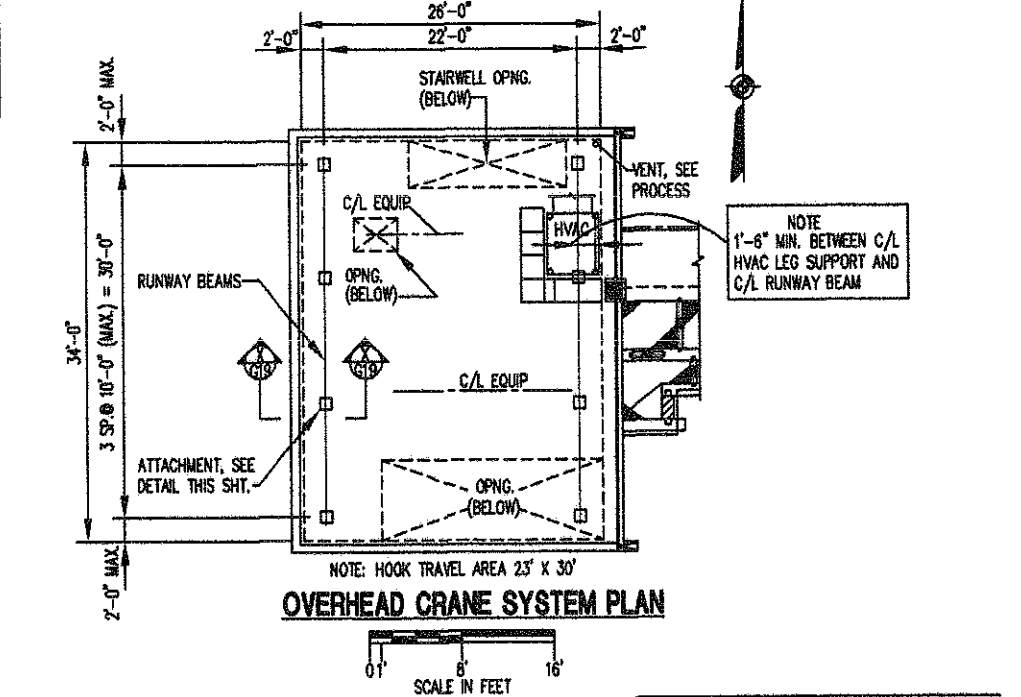
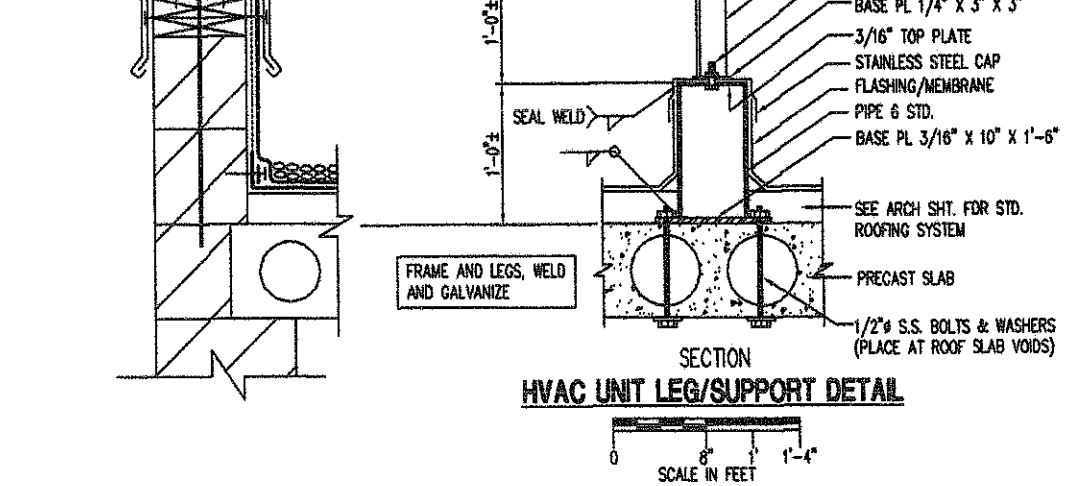
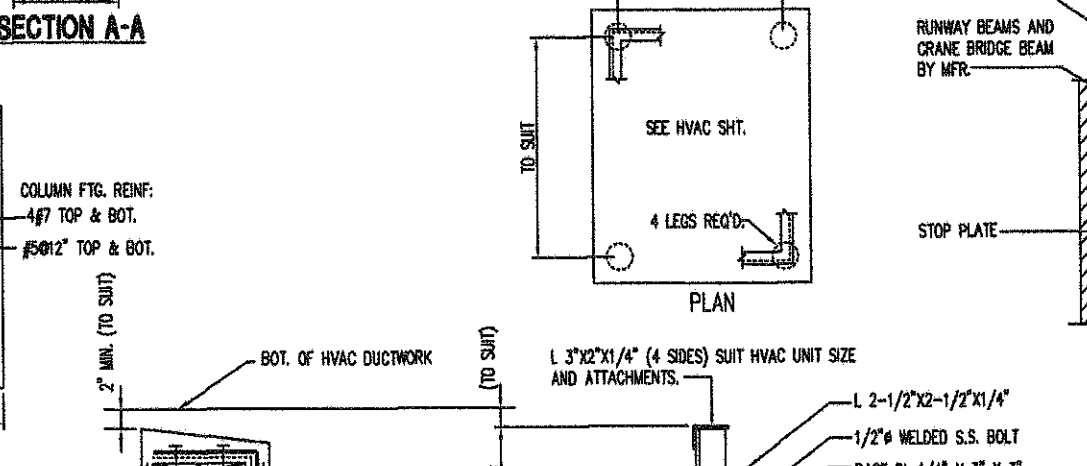
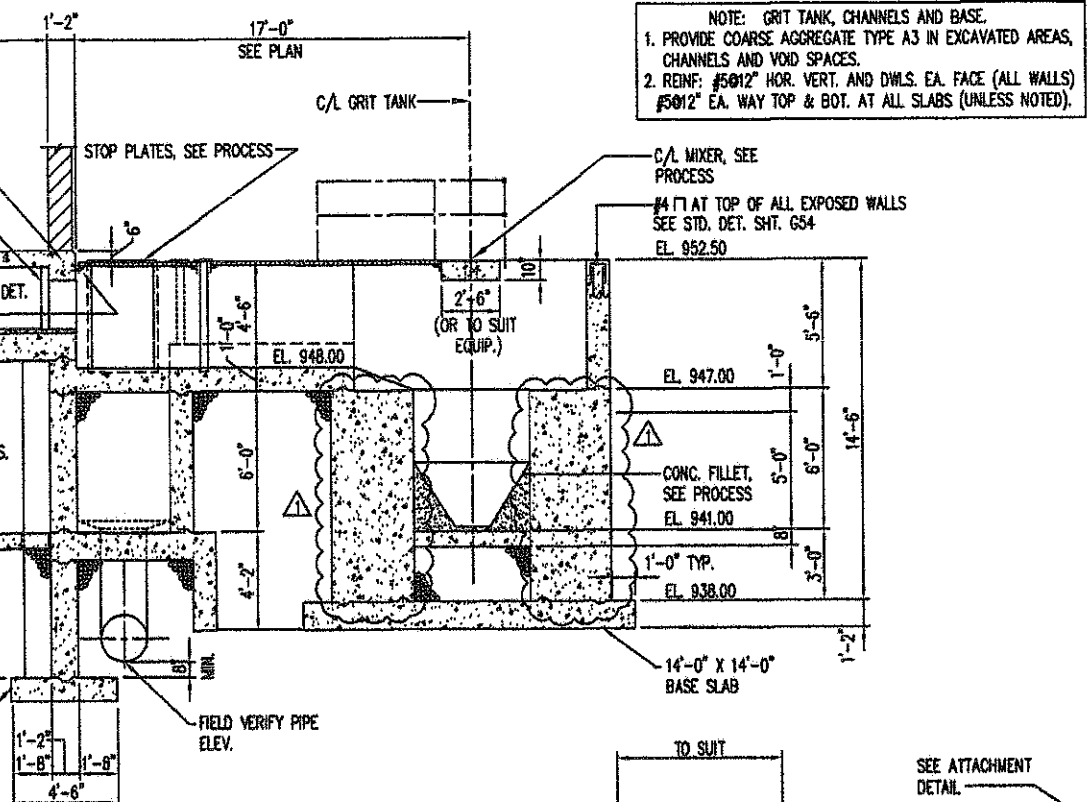
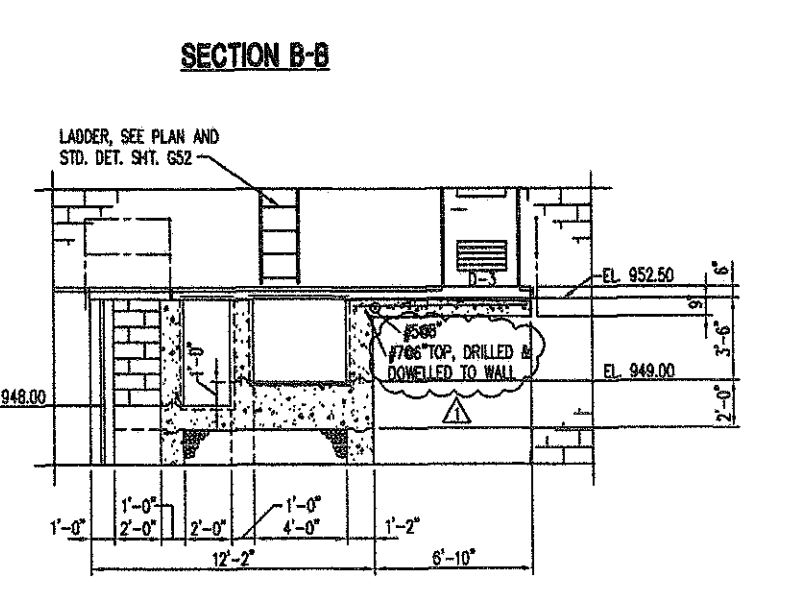
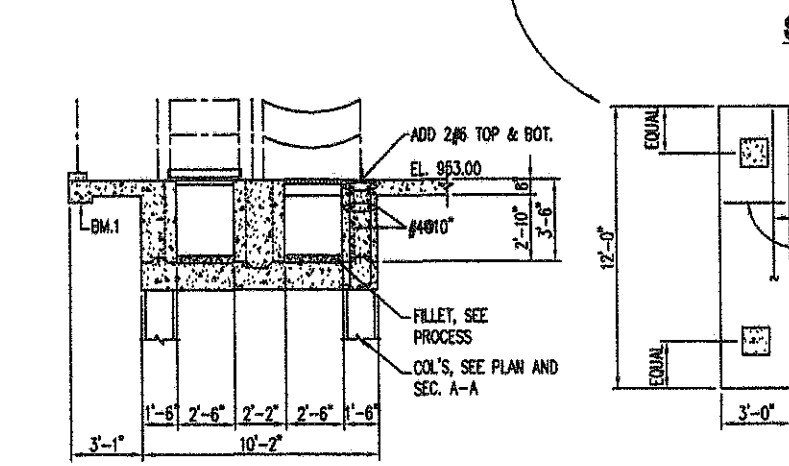
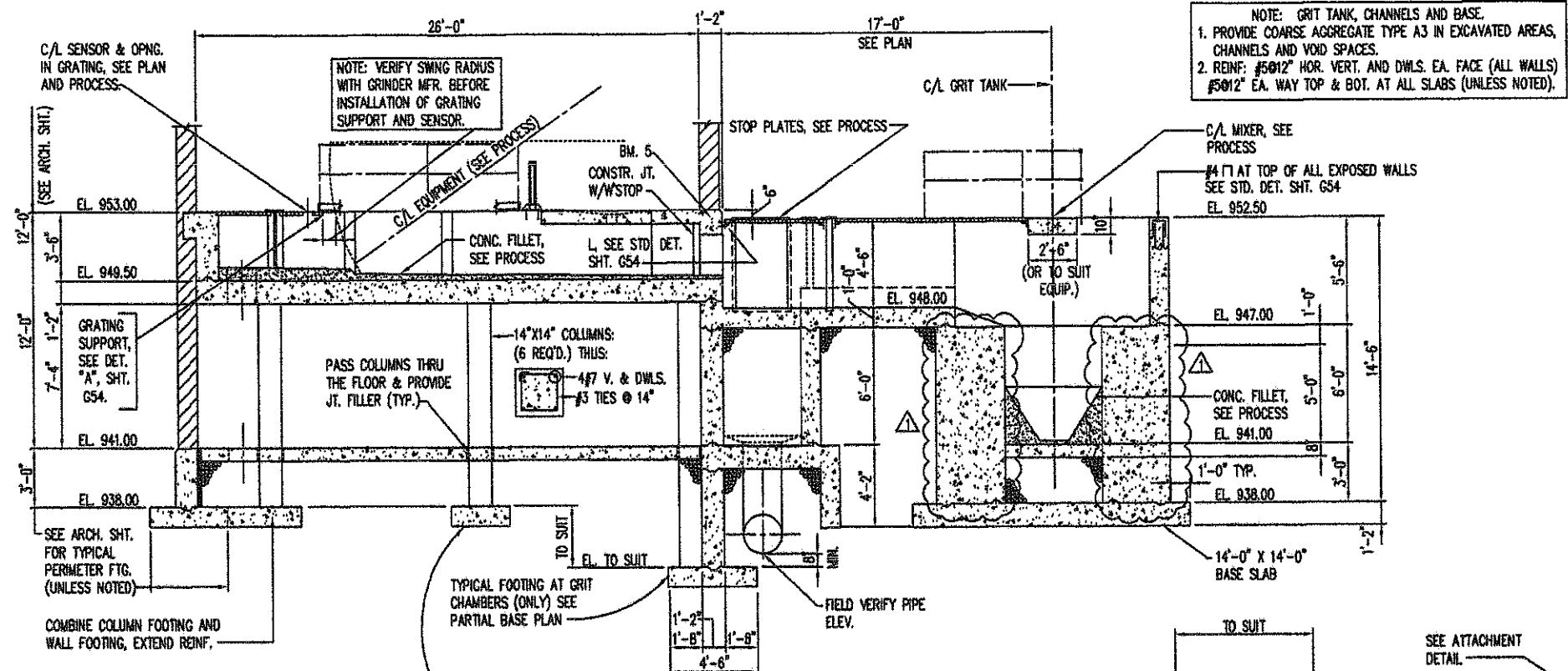
EL. 941.00

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OVERHEAD CRANE SYSTEM DETAILS

SCALE IN FEET

SCREEN ROOM CRANE SYSTEM:
 2 TON CAPACITY UNDERHUNG CRANE.
 HAND GEARED BRIDGE (CHAIN DROP 10 FEET)
 HAND GEARED TROLLEY (CHAIN DROP 9 FEET)
 MANUAL CHAIN HOIST (CHAIN DROP 9 FEET) PROVIDE CHAIN BUCKET (LIFT 22 FEET)
 PROVIDE SPARK RESISTANT CONSTRUCTION THROUGHOUT.

HOIST AND TROLLEY SPECIFICATIONS
 COMPLY WITH THE FOLLOWING STANDARDS:
 ANSI B30.11...MONORAIL SYSTEMS AND UNDERHUNG CRANES.
 ANSI B30.16...OVERHEAD HOISTS
 HMI 200...HAND OPERATED CHAIN HOISTS
 WMA...SPECIFICATIONS FOR UNDERHUNG CRANES AND MONORAIL SYSTEMS.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	1-2-06	WCS	

FLOYD BROWNE ASSOCIATES INC.

• Contact Office

• Marion, Ohio 740.363.8187 Sidney, Ohio 937.462.7638 Delaware, Ohio 740.363.6793

DATE: OCT 2002 CADD FILE: 5-SCRN-CRT-1

JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO

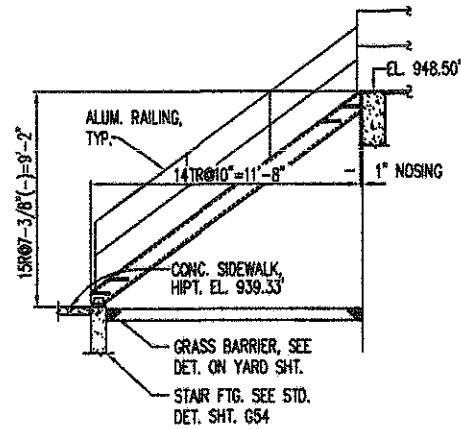
WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT NO. 2002-02

PRELIMINARY TREATMENT FACILITY

PLANS-SECTIONS-DETAILS

STRUCTURAL



STAIR 'B'

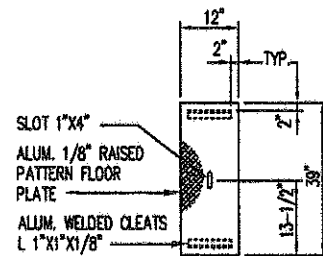
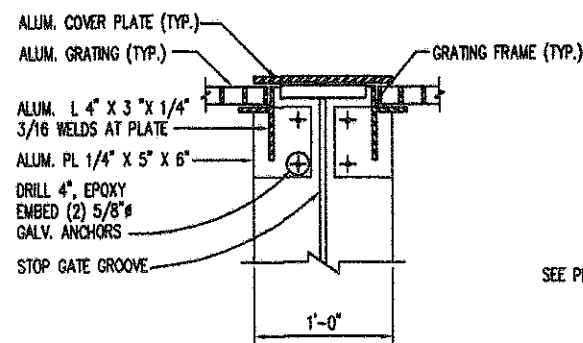
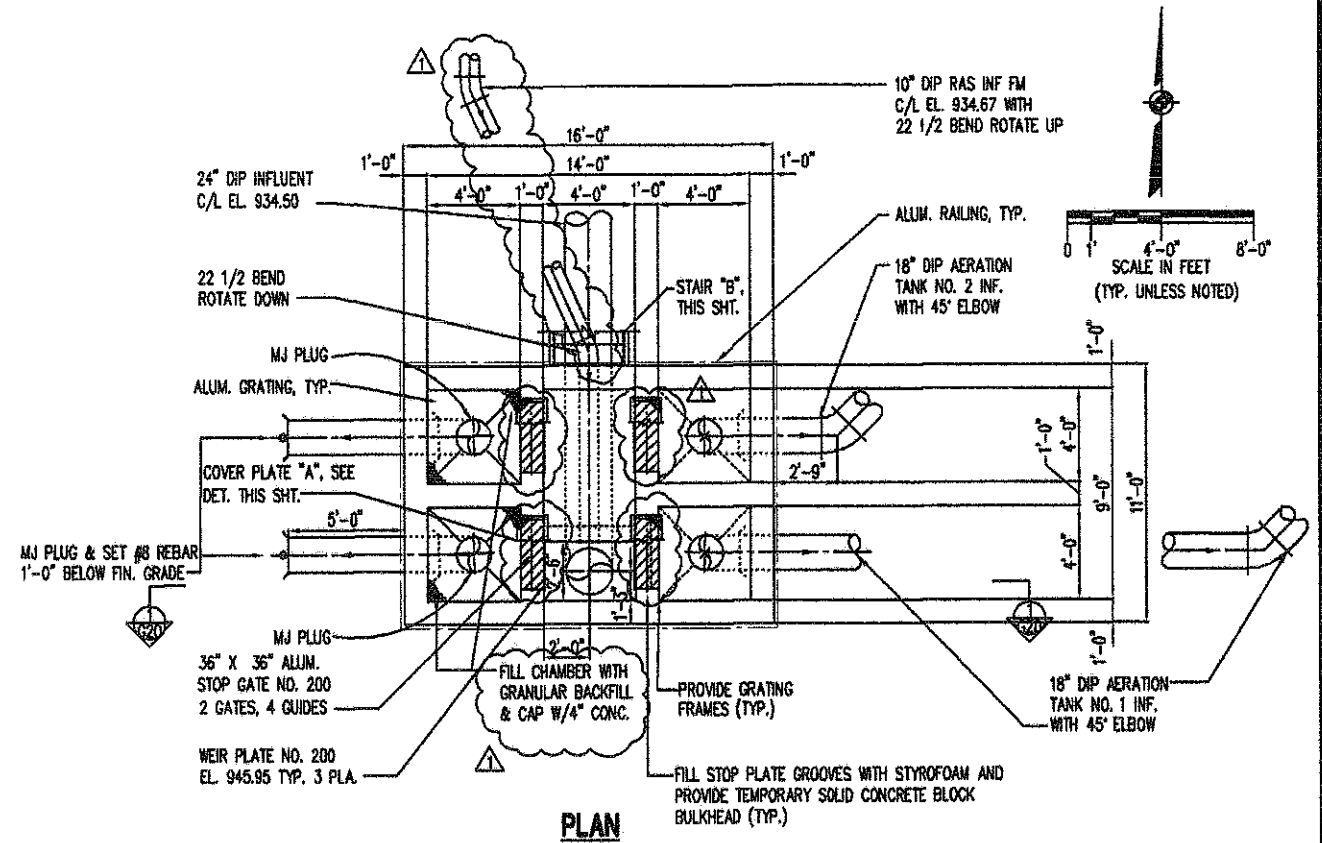


PLATE 'A'

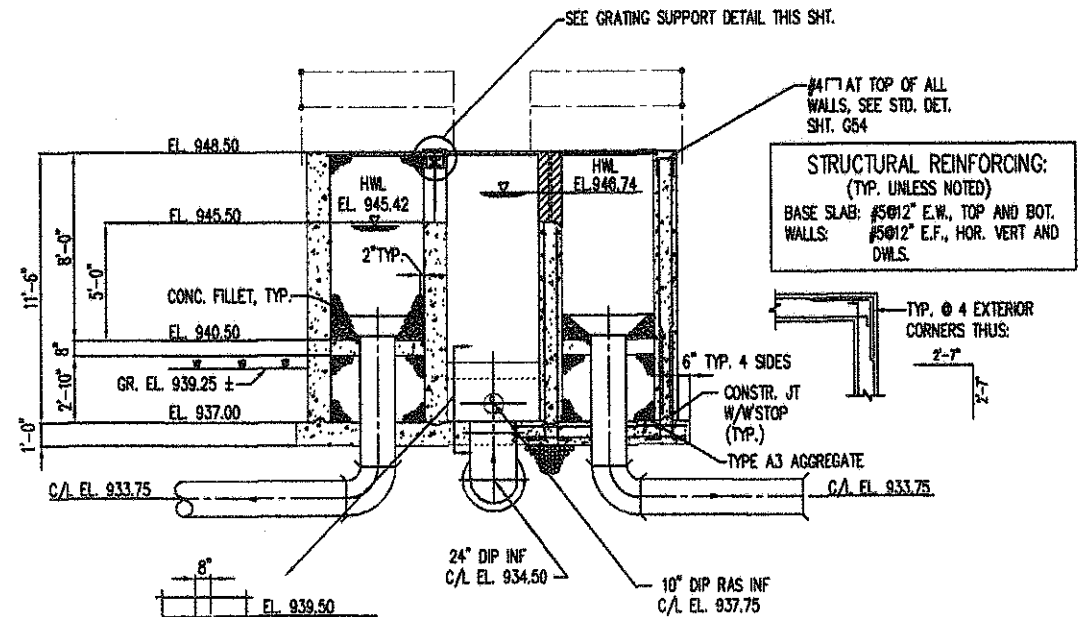
NO SCALE
3-REQ'D.



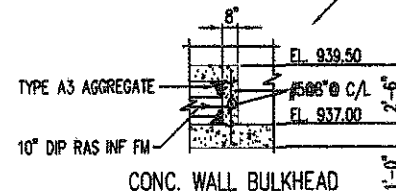
TYP. GRATING SUPPORT DETAIL @ GATES



PLAN



SECTION 1-1



PROVIDE TYPE II CEMENT IN ALL CONCRETE FOR THE AERATION SPLITTER BOX.

SEE GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES, SHT. 27

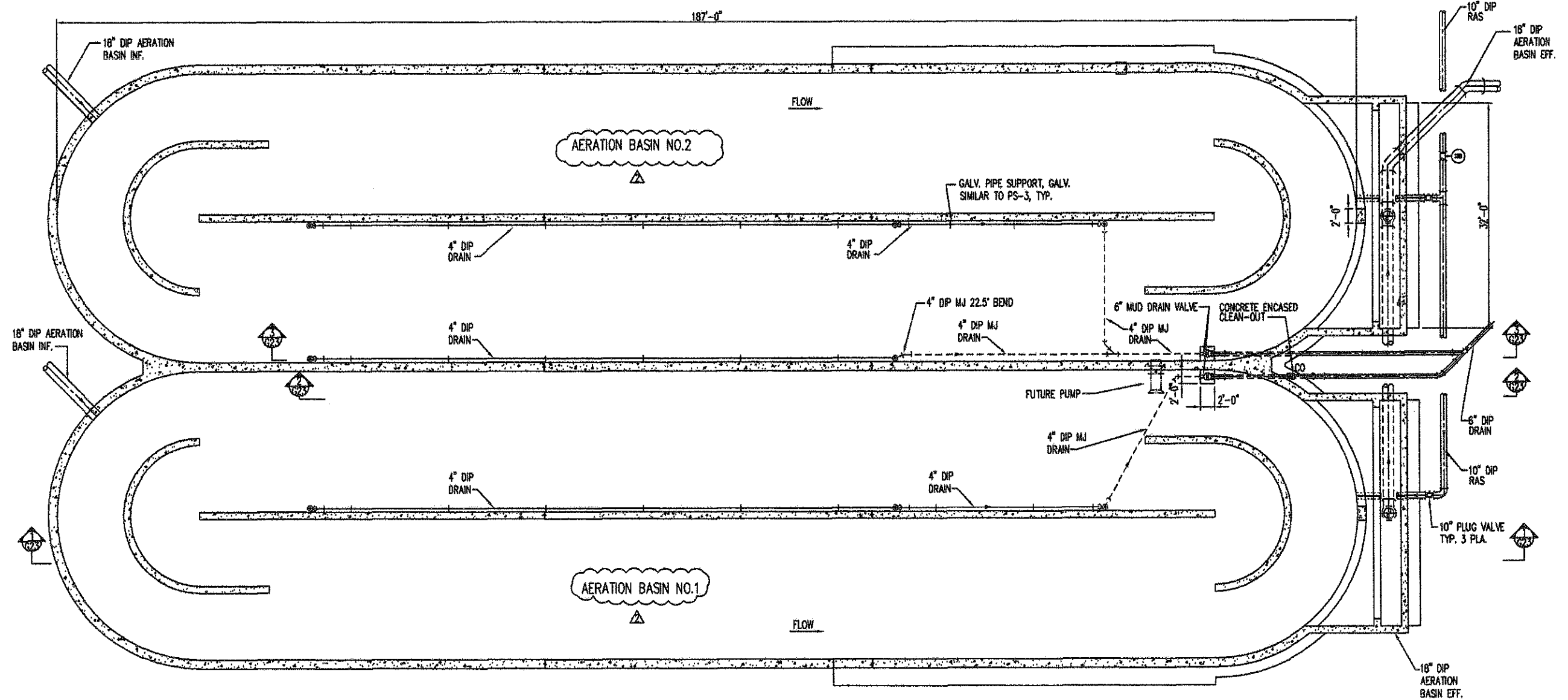
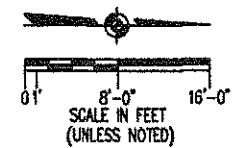
GENERAL NOTES, SHT. G54
STAIR & PLATFORM DETAILS, SHT. G53

G20
OF
G54

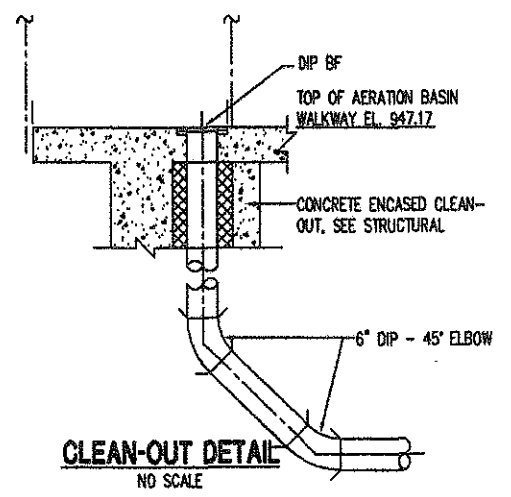
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-20-05	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 * Morton, Ohio 740.383.2187 * Sidney, Ohio 937.492.7636 * Delaware, Ohio 740.363.8792
 DATE: OCT 2002 CADD FILE: P-SPLIT-BOX-43R
 JOB NO. 7480-07 APPROVED: _____

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
AERATION - SPLITTER BOX
 PLANS-SECTIONS-DETAILS
 PROCESS-STRUCTURAL



BOTTOM PLAN



OPERATING NOTE:
4" MUD DRAIN VALVES MUST BE CLOSED
WHEN DRAINING AERATION BASIN!

G21
OF
G54

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER DEPA COMMENTS	5-14-03		
2	PER RECORD PRINTS	9-28-06	WCS	

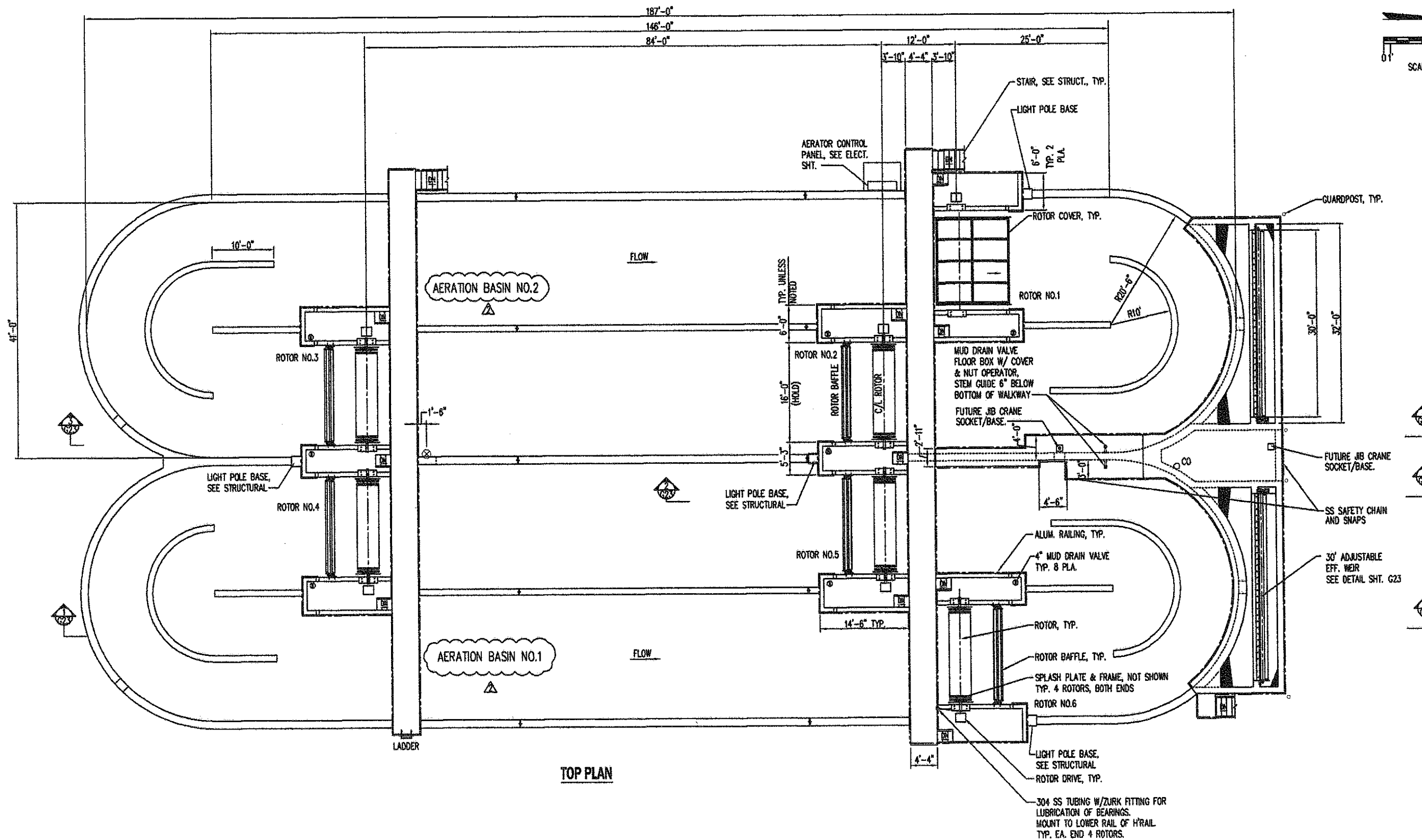
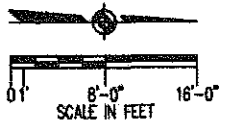
FLOYD BROWNE ASSOCIATES, INC. *Contact Office

*Marion, Ohio 740.383.2197 Sidney, Ohio 687.492.7839 Delaware, Ohio 740.383.8792

DATE OCT 2002 CADD FILE P-AER-BASIN-1-REV

JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 AERATION BASIN
 PLANS-NOTES-DETAILS
 PROCESS



OPERATING NOTE:
4" MUD DRAIN VALVES MUST BE CLOSED
WHEN DRAINING AERATION BASIN!

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER OEPA COMMENTS	5-11-03		
2	PER RECORD PRINTS	9-29-08	WCS	

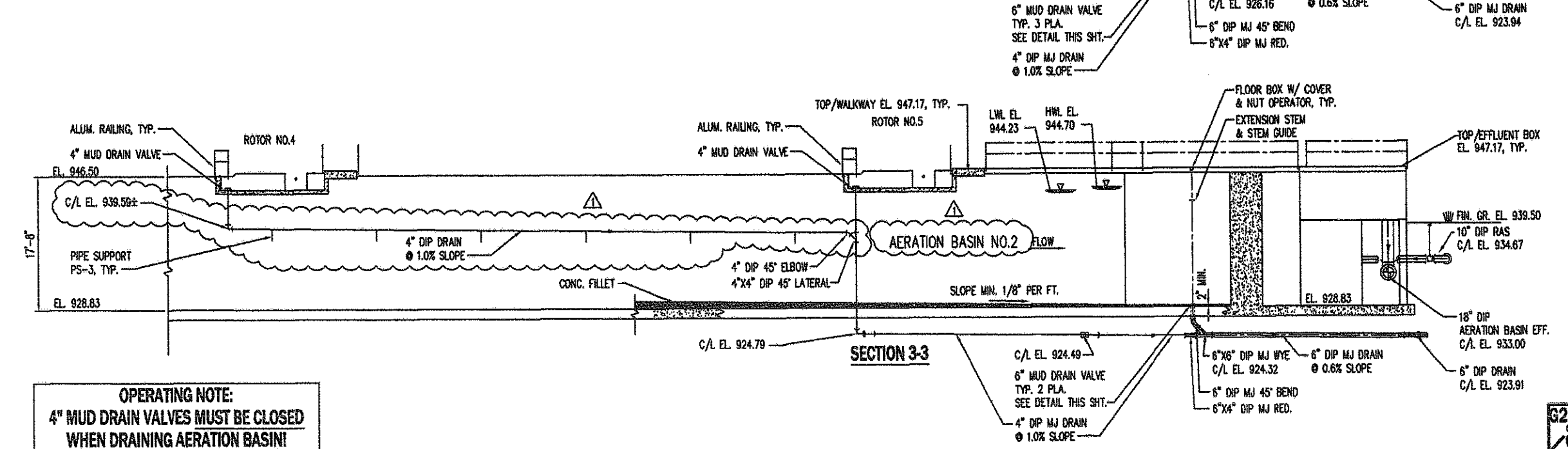
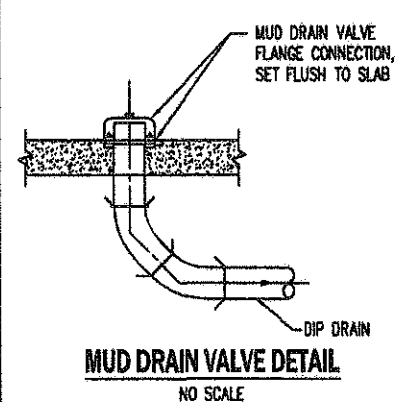
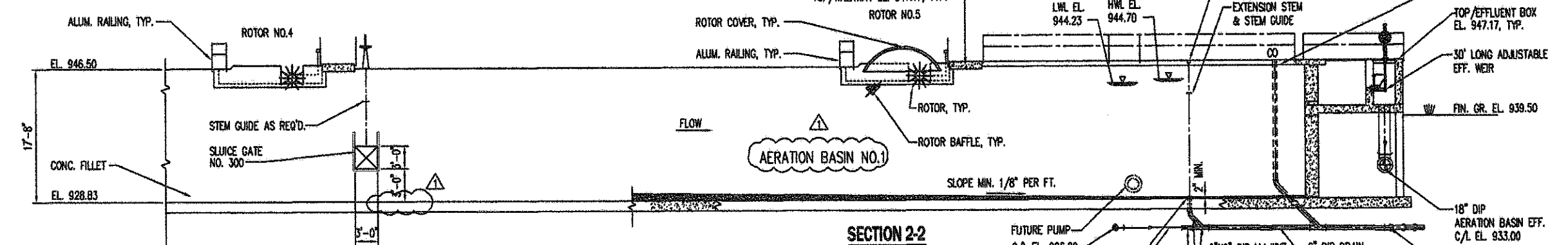
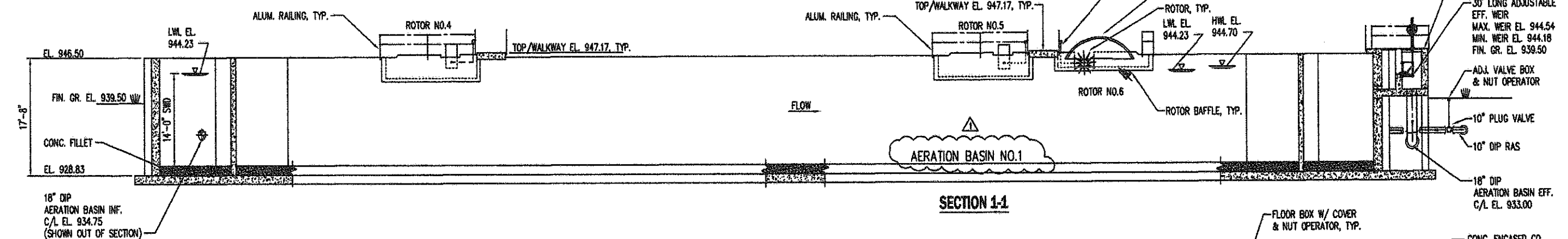
FLOYD BROWNE ASSOCIATES, INC. * Contact Office

Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7038 Delaware, Ohio 740.363.8792

DATE OCT 2002 CADD FILE P-AER-BASIN-REV JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 AERATION BASIN
 PLANS-NOTES-DETAILS
 PROCESS

G22
 OF
 G54



OPERATING NOTE:
4" MUD DRAIN VALVES MUST BE CLOSED WHEN DRAINING AERATION BASIN!

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES INC.

304 S. Main St., Suite 200, Sidney, Ohio 45383-2187
 740.383.8187

304 S. Main St., Suite 200, Sidney, Ohio 45383-2187
 937.492.7838

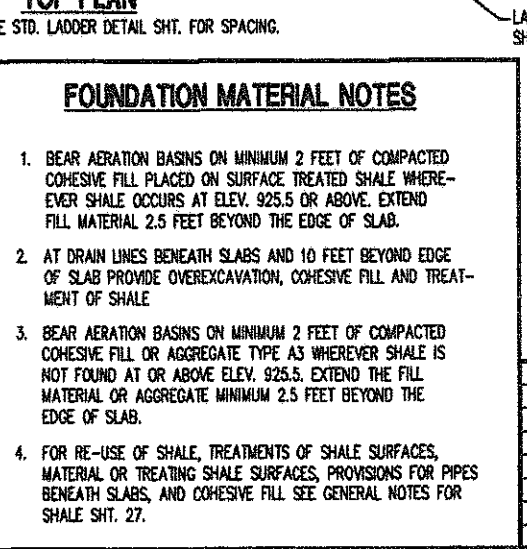
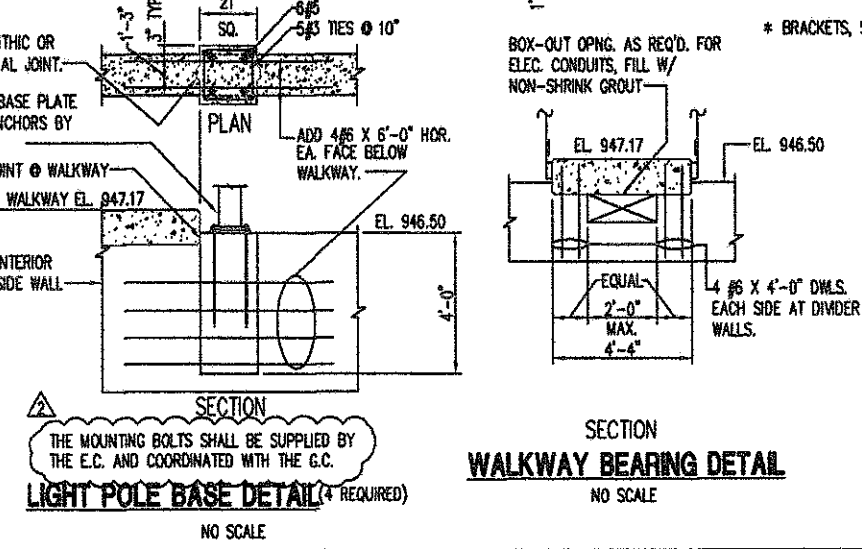
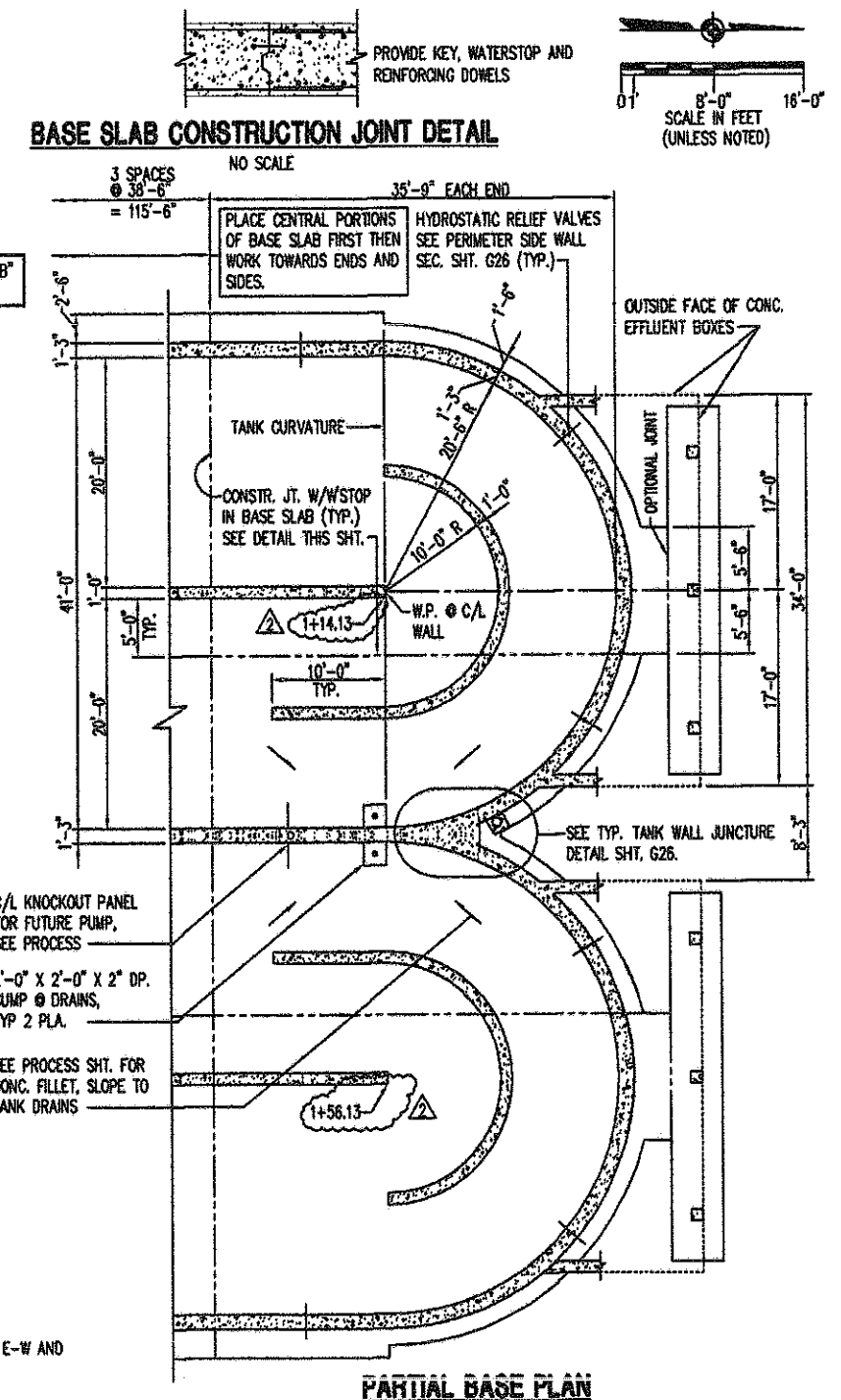
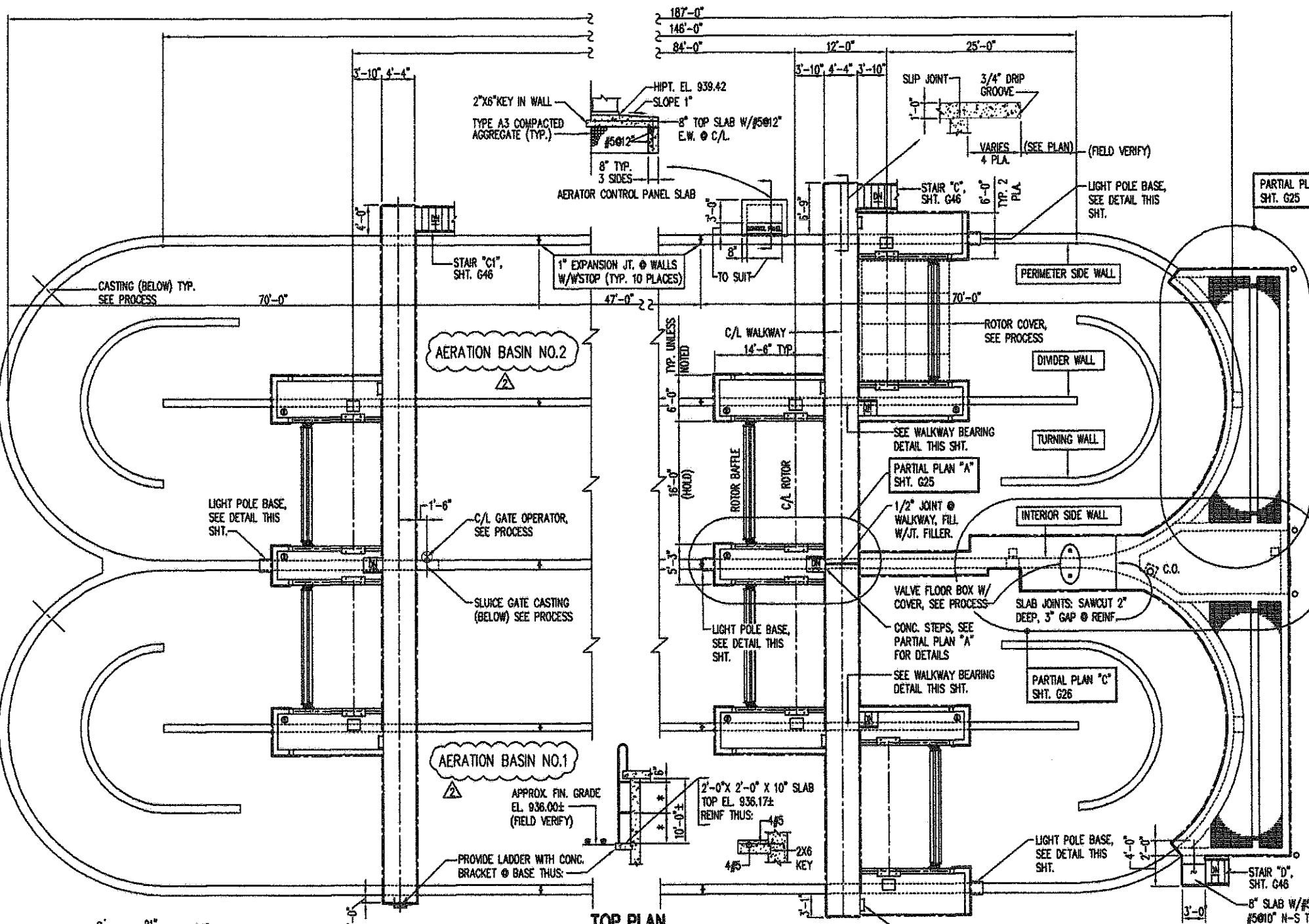
304 S. Main St., Suite 200, Sidney, Ohio 45383-2187
 740.383.6792

DATE: OCT 2002
 JOB NO: 7400-07

CAUD FILE P-RR-BASH-SI-REV
 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 AERATION BASIN SECTIONS-DETAILS PROCESS

923 OF 954



FOUNDATION MATERIAL NOTES

1. BEAR AERATION BASINS ON MINIMUM 2 FEET OF COMPACTED COHESIVE FILL PLACED ON SURFACE TREATED SHALE WHEREVER SHALE OCCURS AT ELEV. 925.5 OR ABOVE. EXTEND FILL MATERIAL 2.5 FEET BEYOND THE EDGE OF SLAB.
2. AT DRAIN LINES BENEATH SLABS AND 10 FEET BEYOND EDGE OF SLAB PROVIDE OVEREXCAVATION, COHESIVE FILL AND TREATMENT OF SHALE
3. BEAR AERATION BASINS ON MINIMUM 2 FEET OF COMPACTED COHESIVE FILL OR AGGREGATE TYPE A3 WHEREVER SHALE IS NOT FOUND AT OR ABOVE ELEV. 925.5. EXTEND THE FILL MATERIAL OR AGGREGATE MINIMUM 2.5 FEET BEYOND THE EDGE OF SLAB.
4. FOR RE-USE OF SHALE, TREATMENTS OF SHALE SURFACES, MATERIAL OR TREATING SHALE SURFACES, PROVISIONS FOR PIPES BENEATH SLABS, AND COHESIVE FILL SEE GENERAL NOTES FOR SHALE SHT. 27.

- TOP OF TANK WALLS EL. 946.50 (UNLESS NOTED). TOP OF WALKWAY SLAB AND EFFLUENT BOX TOP SLAB EL. 947.17 (UNLESS NOTED).
- TOP OF SLAB @ EQUIP. ACCESS, EL. TO SUIT EQUIP.
- PROVIDE TYPE F ADMIXTURE (SUPERPLASTICIZER) IN CONCRETE TANK PERIMETERS, ENDWALLS AND INTERIOR SIDEWALL.
- PROVIDE END BEARINGS FOR WALKWAY THUS: AT PERIMETER WALLS AND INTERIOR SIDEWALLS PROVIDE SLIP JOINTS (SMOOTH TROWEL WITH PAPER INTERFACE). AT DIVIDER WALLS PROVIDE KEY AND DOWELS AND BOX OUT AS REQ'D. FOR ELEC. CONDUITS, SEE DETAIL THIS SHT.

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER DEPA COMMENTS	5/14/03	WAM	
2	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.

315 N. Market Street, Suite 200, Dayton, Ohio 45402
 937.233.2187

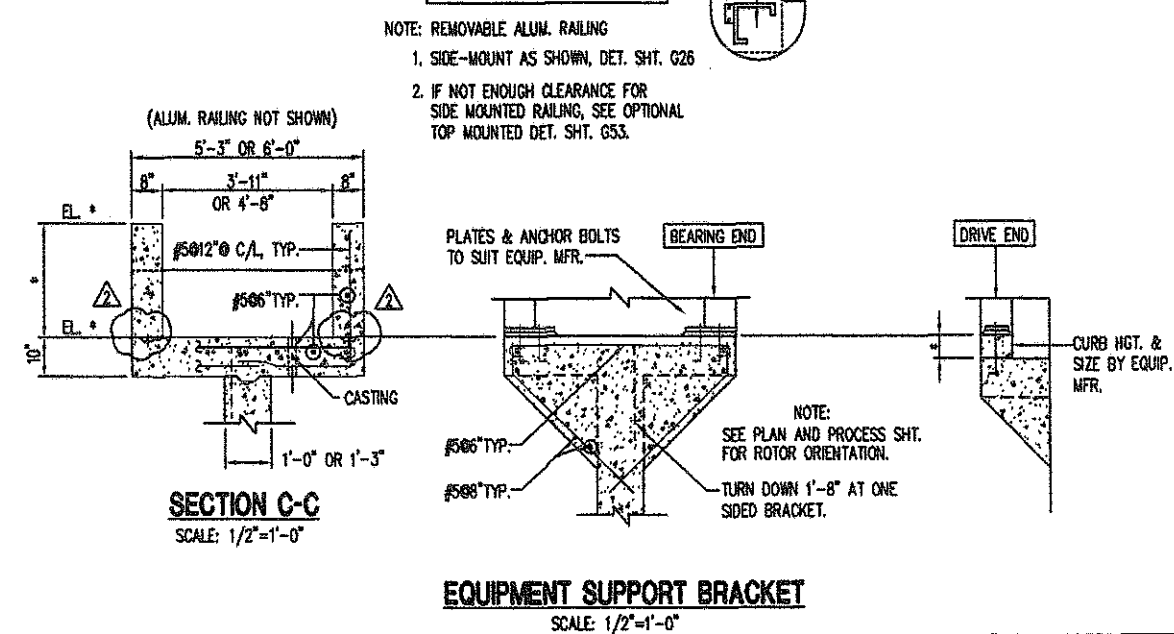
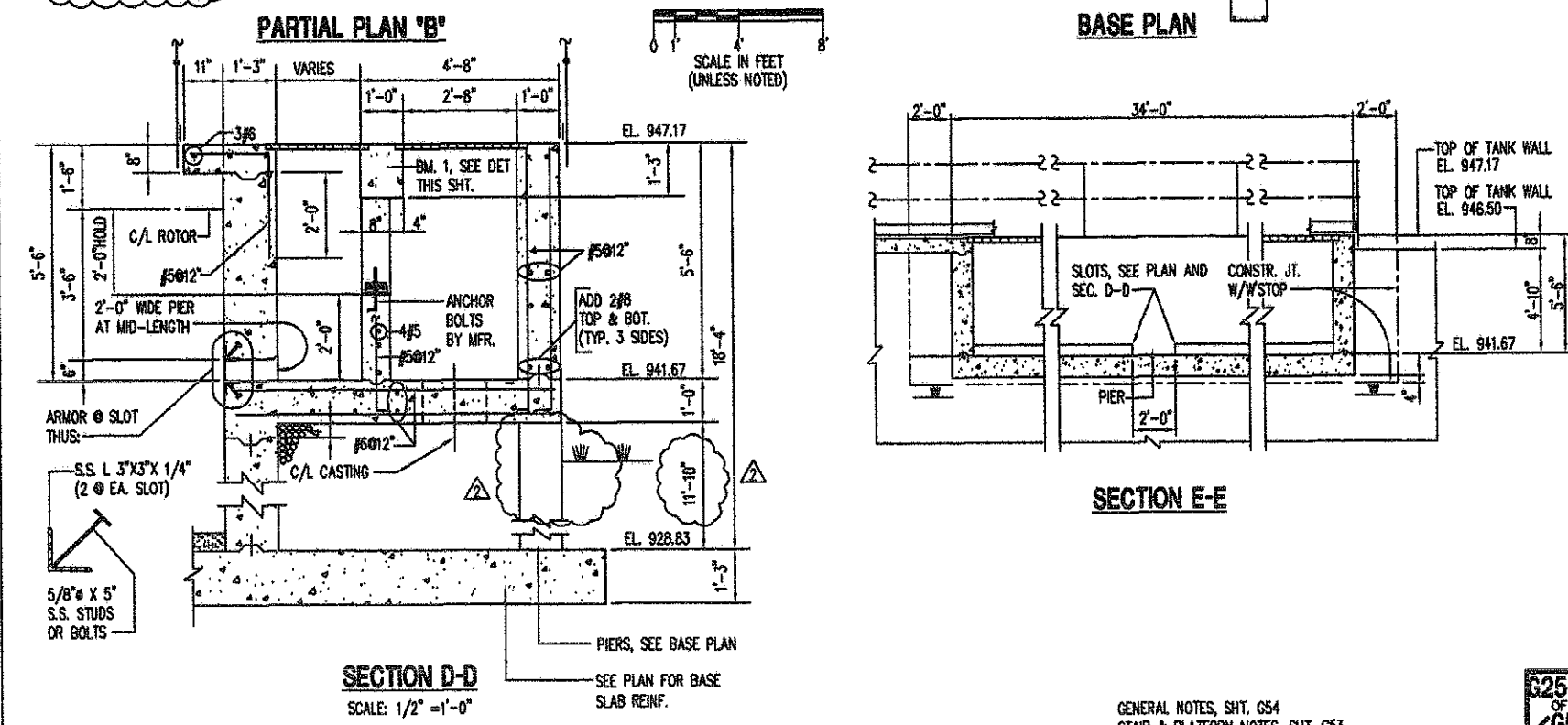
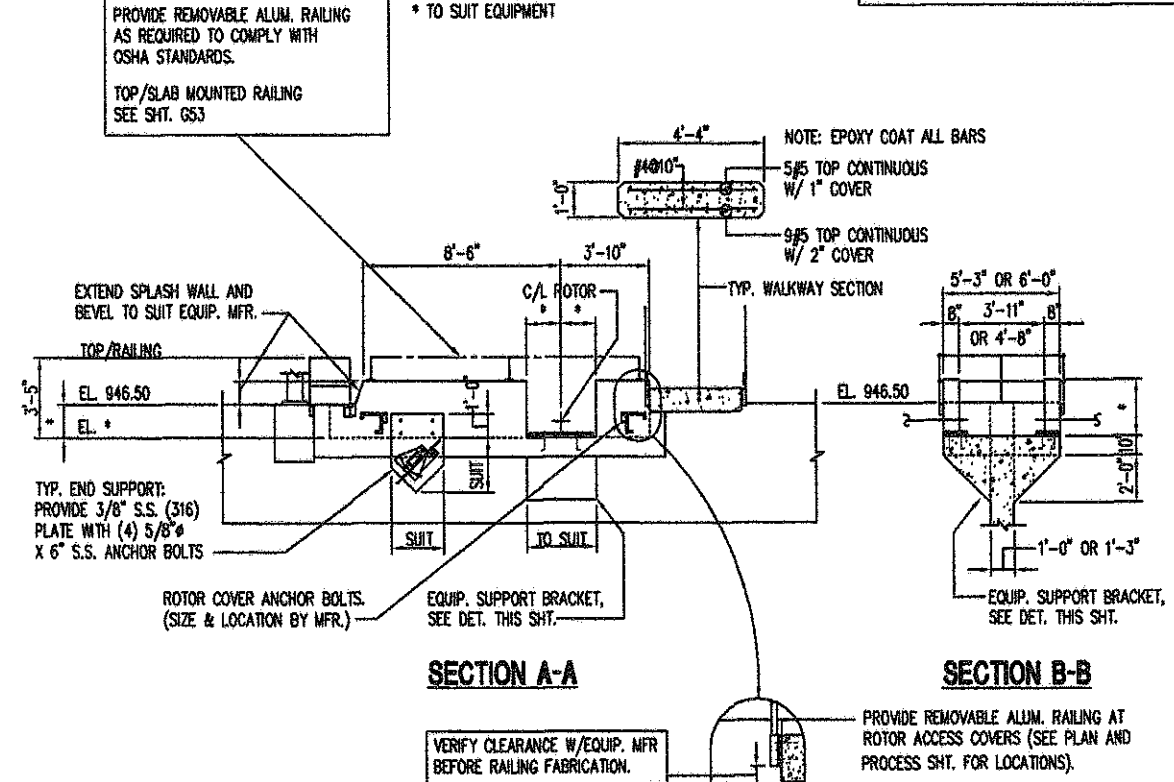
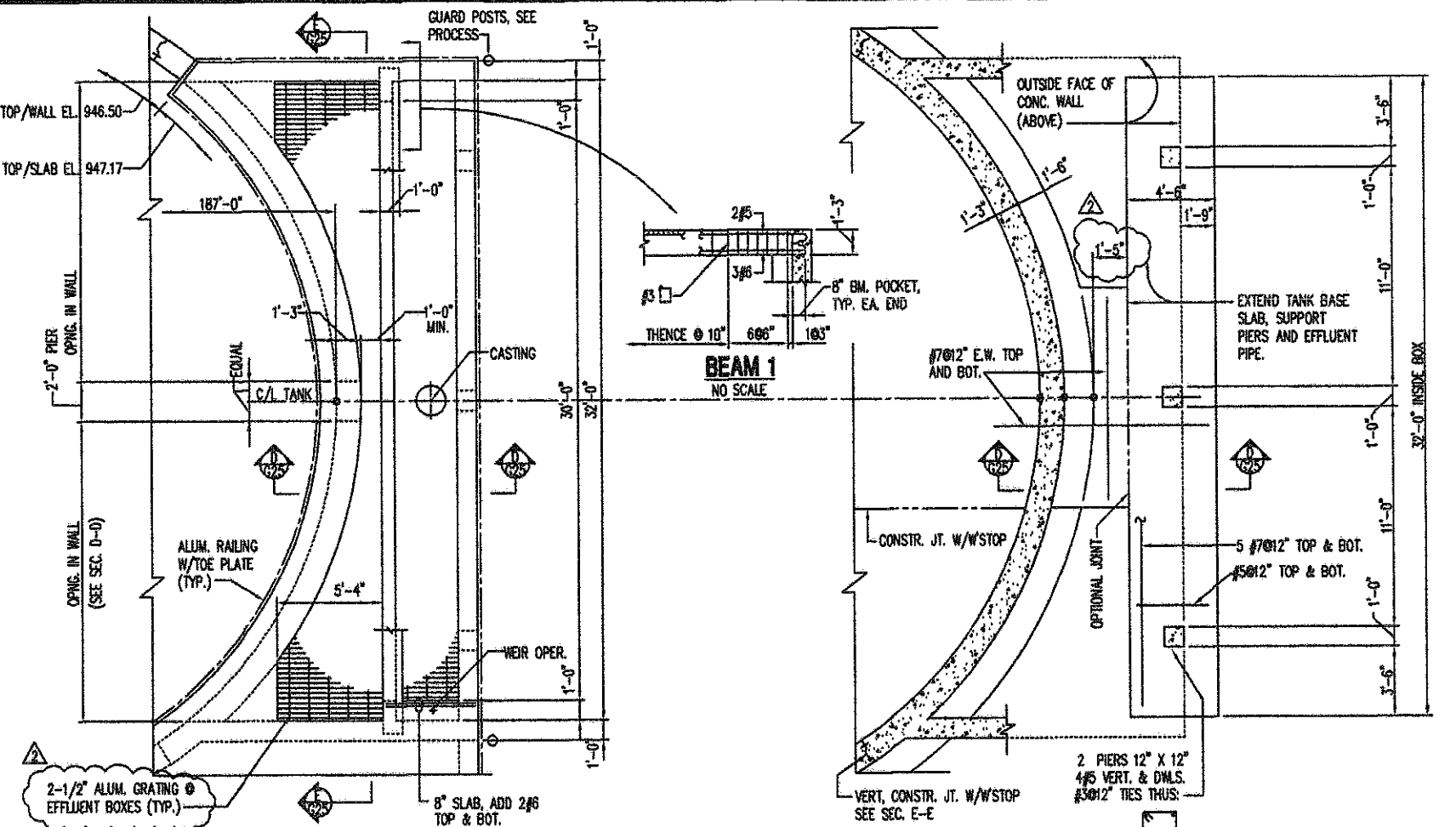
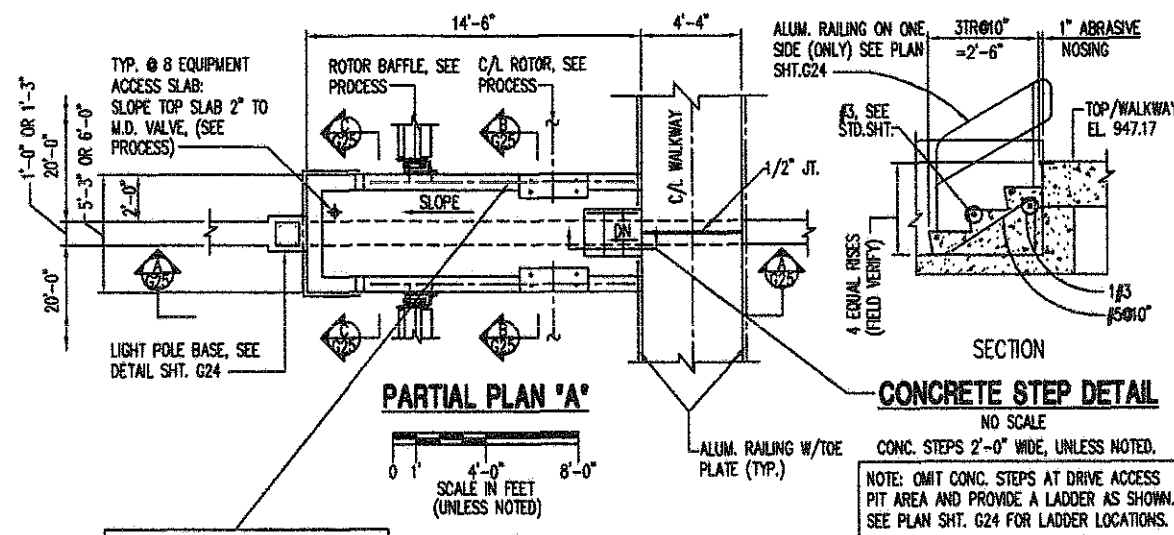
315 N. Market Street, Suite 200, Dayton, Ohio 45402
 937.492.7636

315 N. Market Street, Suite 200, Dayton, Ohio 45402
 937.563.0792

DATE: OCT 2002
 JOB NO. 7400-07
 CADD FILE: S-AER-BASIN-REV
 APPROVED: _____

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 AERATION BASIN
 PLANS-NOTES-DETAILS
 STRUCTURAL

G24
 OF
 G54



NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER O&PA COMMENTS	5/14/05	WAM	
2	PER RECORD PRINTS	9-29-06	WC	

FLOYD BROWNE ASSOCIATES, INC.

740.383.2187
937.492.7030
740.363.6768

DATE: OCT 2002
JOB NO: 7400-07

VILLAGE OF SUNBURY, OHIO

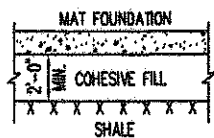
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
AERATION BASIN
PLAN-SECTIONS-DETAILS
STRUCTURAL

GENERAL NOTES, SHT. G54
STAR & PLATFORM NOTES, SHT. G53

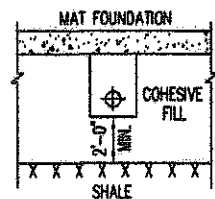
325 OF G54

GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES

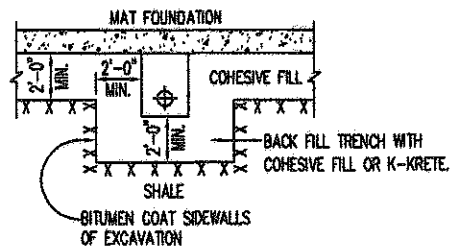
- BEAR BASE SLAB ON MINIMUM 2 FEET OF COMPACTED COHESIVE FILL PLACED ON SURFACE TREATED SHALE. EXTEND FILL 2 FEET BEYOND THE EDGE OF EDGE OF SLABS. SEE DETAIL 1, THIS SHEET.
- BEAR STRIP AND ISOLATED FOOTINGS ON 1.5 FEET OF FILL CONCRETE PLACED ON SURFACE TREATED SHALE.
- AT STRUCTURES WHERE PIPING OR PITS OCCUR BENEATH THE BASE SLABS PROVIDE OVER EXCAVATION, COHESIVE FILL AND TREATMENT OF SHALE. SEE RECOMMENDATIONS REGARDING SHALE FOR SUNBURY WWTP IMPROVEMENTS BY BIC&M ENGINEERING DATED JULY 15, 2003. EXTEND PROVISIONS FOR PIPES 10 FEET INTO THE YARD BEYOND EDGE OF SLAB. SEE DETAIL 1, 2, 3, THIS SHT.
- RE-USE OF SHALE, NO SHALE AS EXCAVATED OR PROCESSED SHALE BE USED AS BACKFILLING BENEATH STRUCTURES OR AT SIDEWALLS OF THE STRUCTURES.
- SHALE SHALL BE COATED WITH ODOT ITEM 702.01 ASPHALT BINDER.
- MATERIAL FOR TREATING SHALE SURFACES SHALL COMPLY WITH ODOT ITEM 702 FOR ASPHALT BINDERS. SUBMIT DOCUMENTATION SHOWING COMPLIANCE.
- COHESIVE FILL MATERIAL SHALL HAVE PLASTIC INDEX (P.I.) BETWEEN 5 AND 30. SUBMIT LABORATORY TEST REPORTS SHOWING COMPLIANCE WITH PLASTIC INDEX (P.I.) REQUIREMENTS. THE SOIL MATERIAL SHALL COMPLY WITH CONTRACT SPECIFICATION 2205 AND INSTALLATION SHALL COMPLY WITH SPECIFICATION 2223.
- SUBMIT K-KRETE MIX DESIGN AND 3 STRENGTH TESTS. TEST VALUES SHALL EACH EQUAL OR EXCEED 1000 PSI.



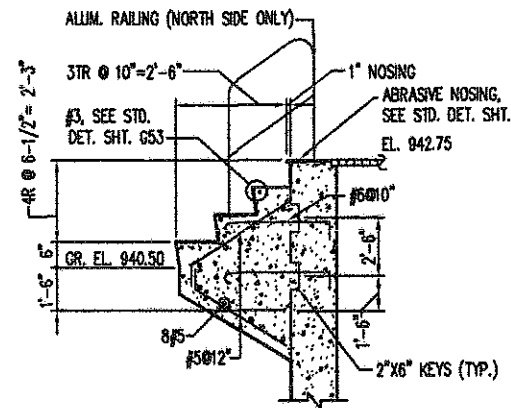
DETAIL NO. 1



DETAIL NO. 2



DETAIL NO. 3



SECTION CONCRETE STEPS
NO SCALE

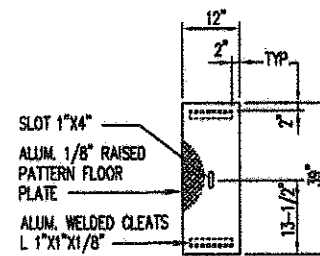
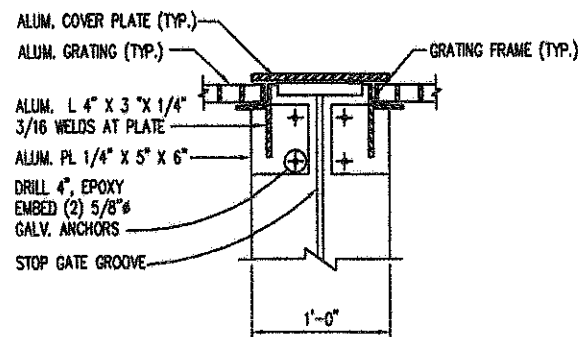
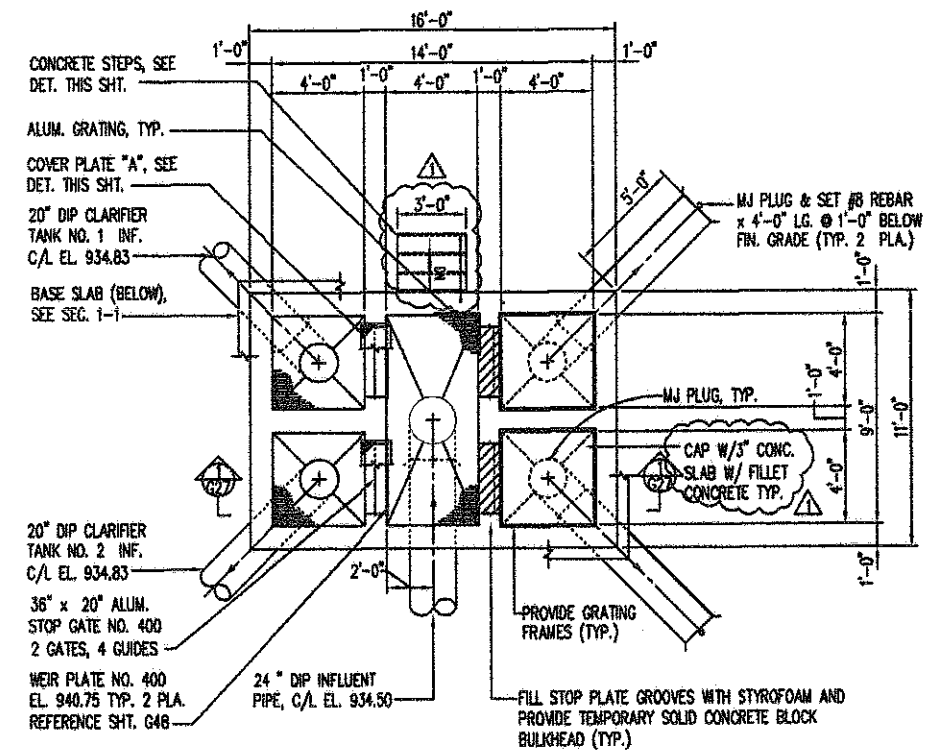


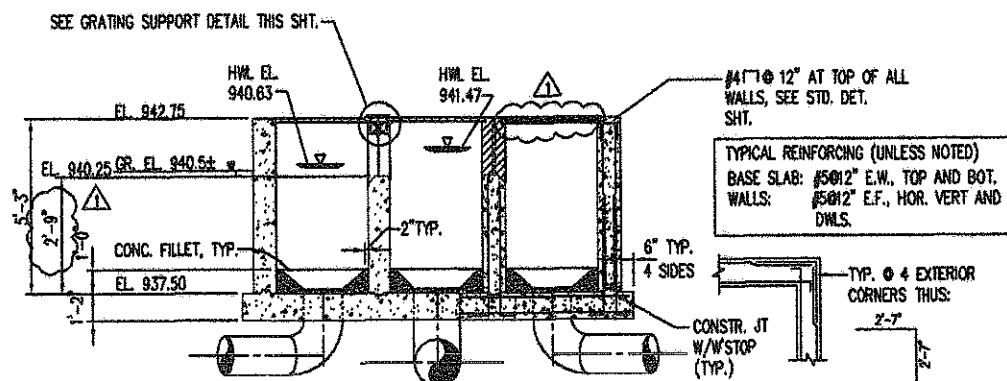
PLATE 'A'
NO SCALE
2-REQ'D.



TYP. GRATING SUPPORT DETAIL @ GATES



PLAN



SECTION 1-1

SEE GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES THIS SHT.

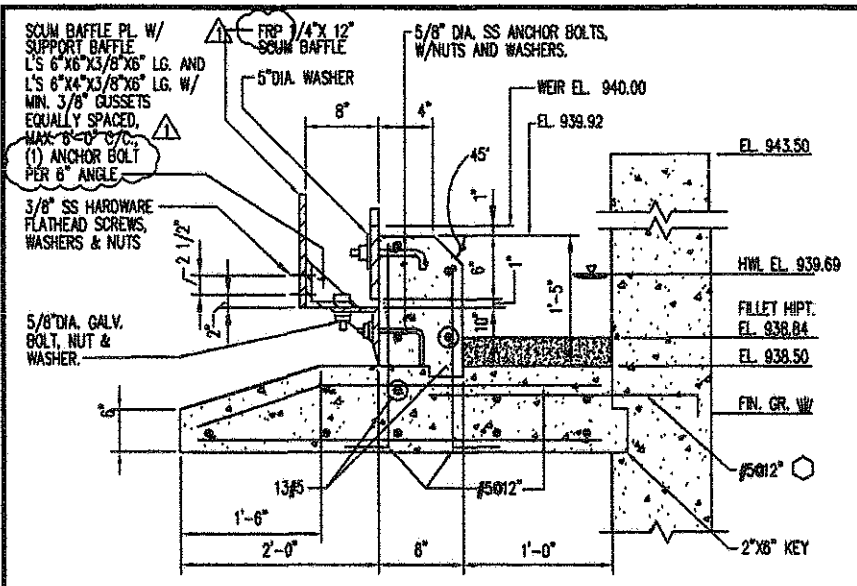
GENERAL NOTES, SHT. G54
STAIR & PLATFORM DETAILS, SHT. G53

G27
OF
G54

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

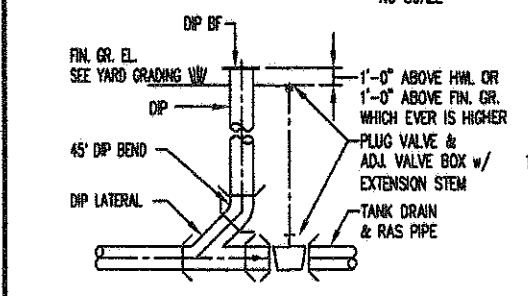
FLOYD BROWNE ASSOCIATES INC.
* Contact Office
Marion, Ohio 740.383.2187 Sidney, Ohio 937.462.7536 Delaware, Ohio 740.383.6792
DATE: OCT 2002 CADD FILE: F-SPLIT-BOX
JOB NO. 240-07 APPROVED:

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
CLARIFIER SPLITTER BOX
PLANS-SECTIONS-DETAILS
PROCESS-STRUCTURAL



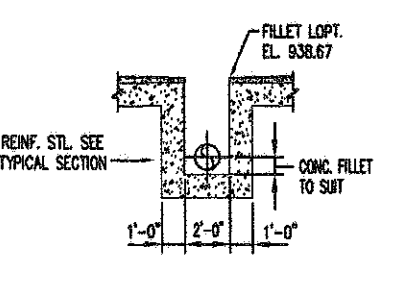
WEIR PLATE AND SCUM BAFFLE DETAIL

NO SCALE



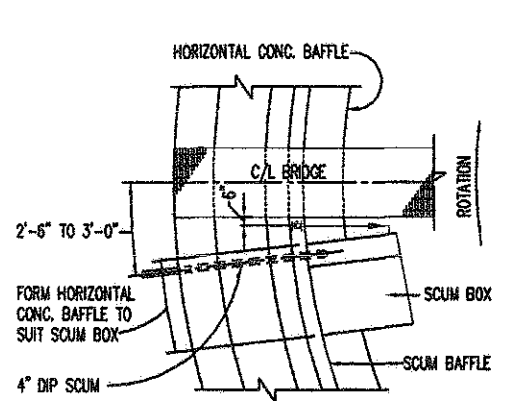
CLEAN-OUT DETAIL TYP.

NO SCALE



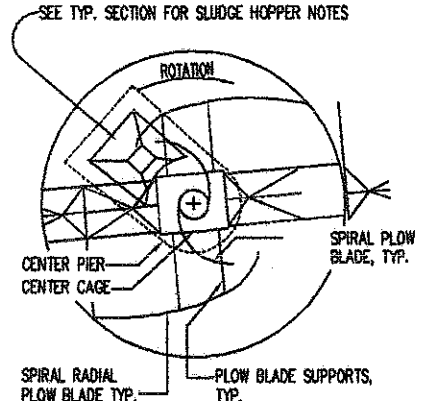
EFFLUENT DROP BOX DETAIL

NO SCALE



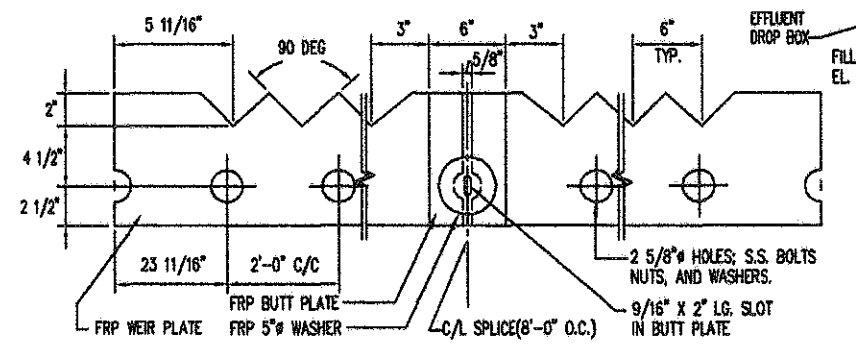
SCUM BOX LOCATION DETAIL

NO SCALE



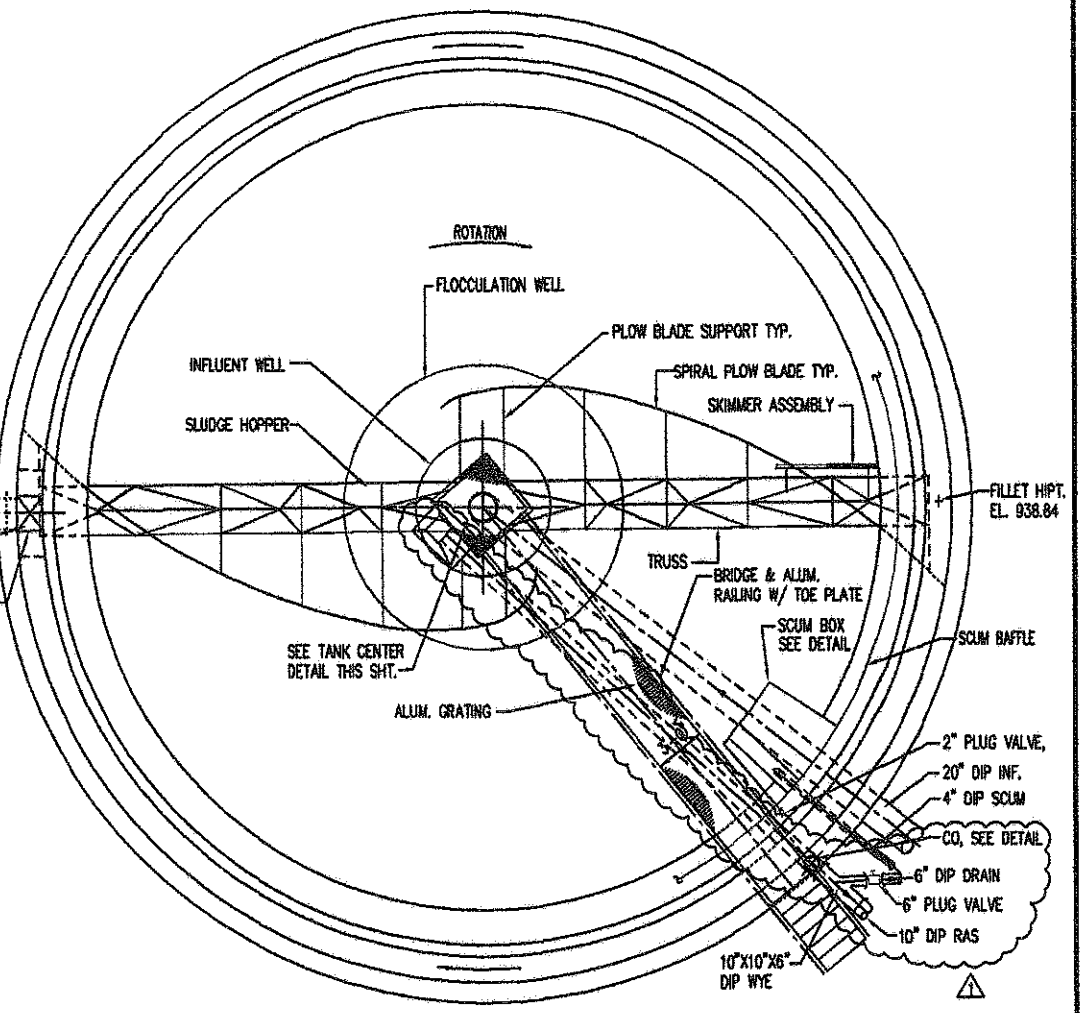
TYPICAL TANK CENTER DETAIL

NO SCALE

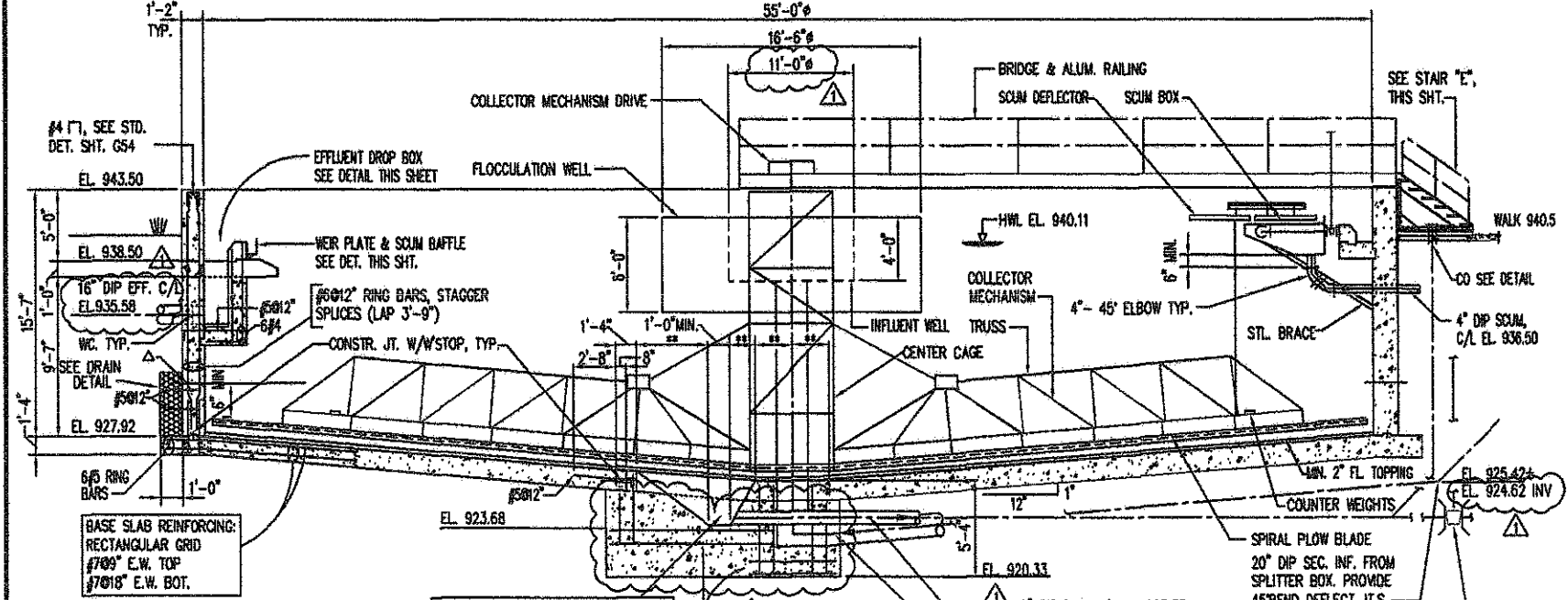


WEIR PLATE DETAIL

NO SCALE



SECONDARY CLARIFIER NO. 1 - PLAN



TYPICAL SECONDARY CLARIFIER SECTION

NO SCALE

BASE SLAB REINFORCING: RECTANGULAR GRID #709 E.W. TOP #7018 E.W. BOT.

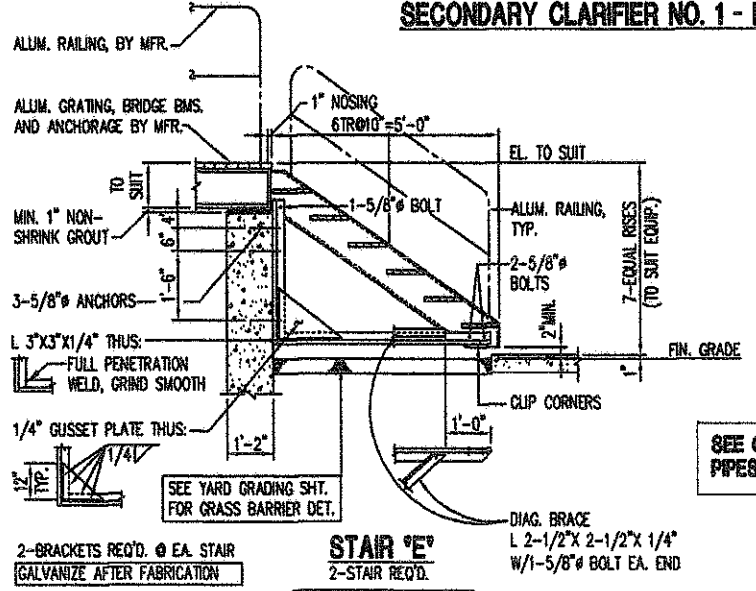
NOTES:

- ** TO SUIT EQUIPMENT
- △ PROVIDE HYDROSTATIC PRESSURE RELIEF VALVES AND CONTINUOUS DRAIN, 9 PER TANK EQUALLY SPACED.
- OPTIONAL #6012 MECHANICAL SPLICE DONELS MAY BE USED IN LIEU OF THE #5012 DONELS AT THE WEIR TROUGH AND EFFLUENT DROP BOX ONLY. THE MECHANICAL SPLICES SHALL DEVELOP AT LEAST 125% OF THE YIELD STRENGTH OF #5 BARS.
- PROVIDE 4 EQUALLY SPACED VERTICAL CONSTRUCTION JOINTS W/ WATER STOPS IN THE WALLS. EMBED WATERSTOPS IN THE BASE SLAB.

LOCATION DETAILS AND DIMENSIONS FOR SLUDGE HOPPER SHALL CONFORM TO APPROVED EQUIPMENT.

ALL REINFORCING AROUND SLUDGE HOPPER AND CENTER PIER SHALL BE #5012 (UNLESS NOTED)

GENERAL NOTES, SHT. G54
STAIR & PLATFORM, SHT. G53
SEE YARD GRADING & YARD PIPING SHTS.



STAIR 'E'

2-STAIR REQ'D.

SCALE IN FEET

SEE GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES, SHT. 27

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	3-20-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.

740.383.2187 837.492.7838 740.383.8792

DATE: OCT 2002 CADD FILE: Pst

JOB NO. 7400-07 APPROVED:

VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS

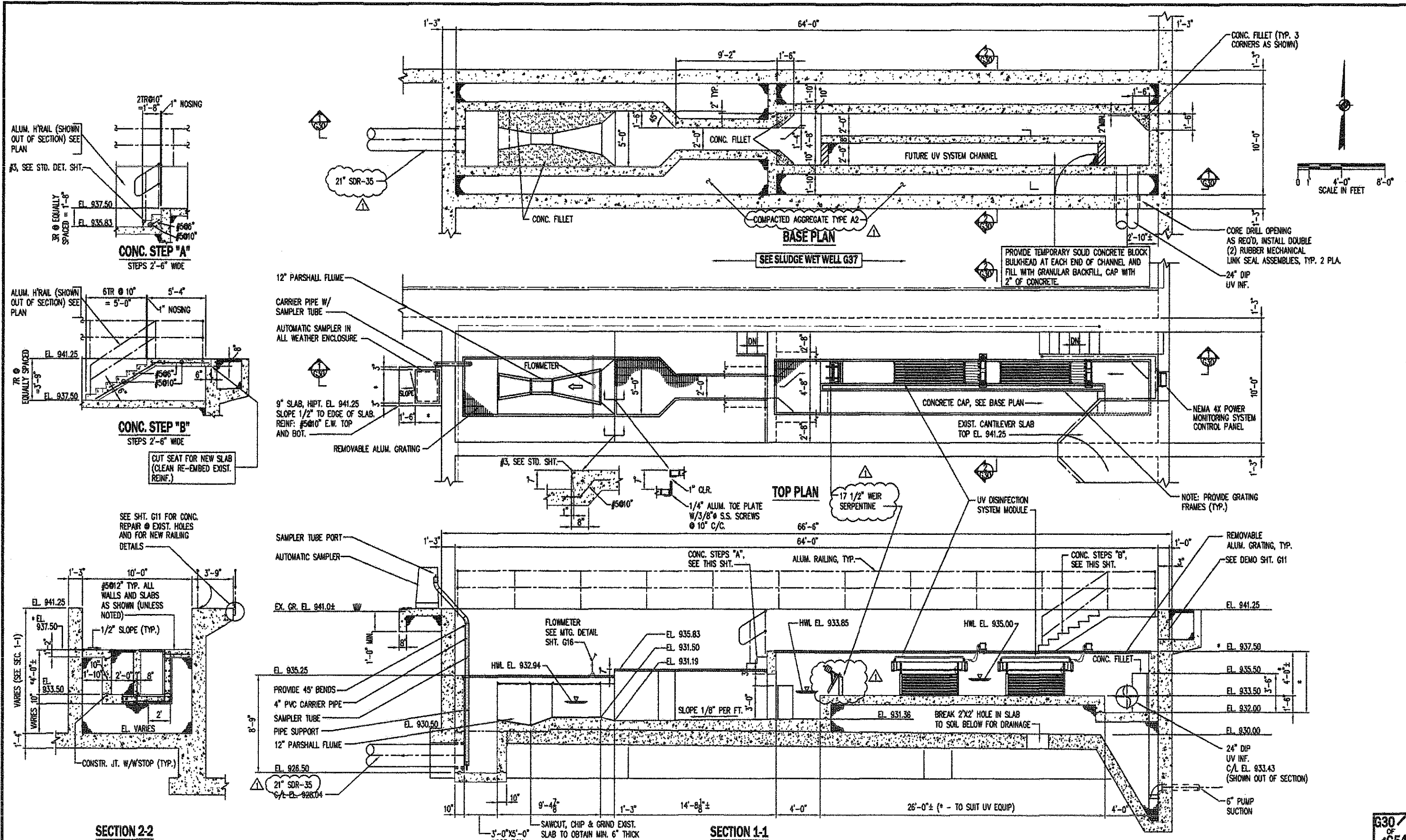
CONTRACT NO. 2002-02

SECONDARY CLARIFIER

PLAN-SECTIONS-DETAILS

PROCESS-STRUCTURAL

G28 OF G54



SECTION 2-2

SECTION 1-1

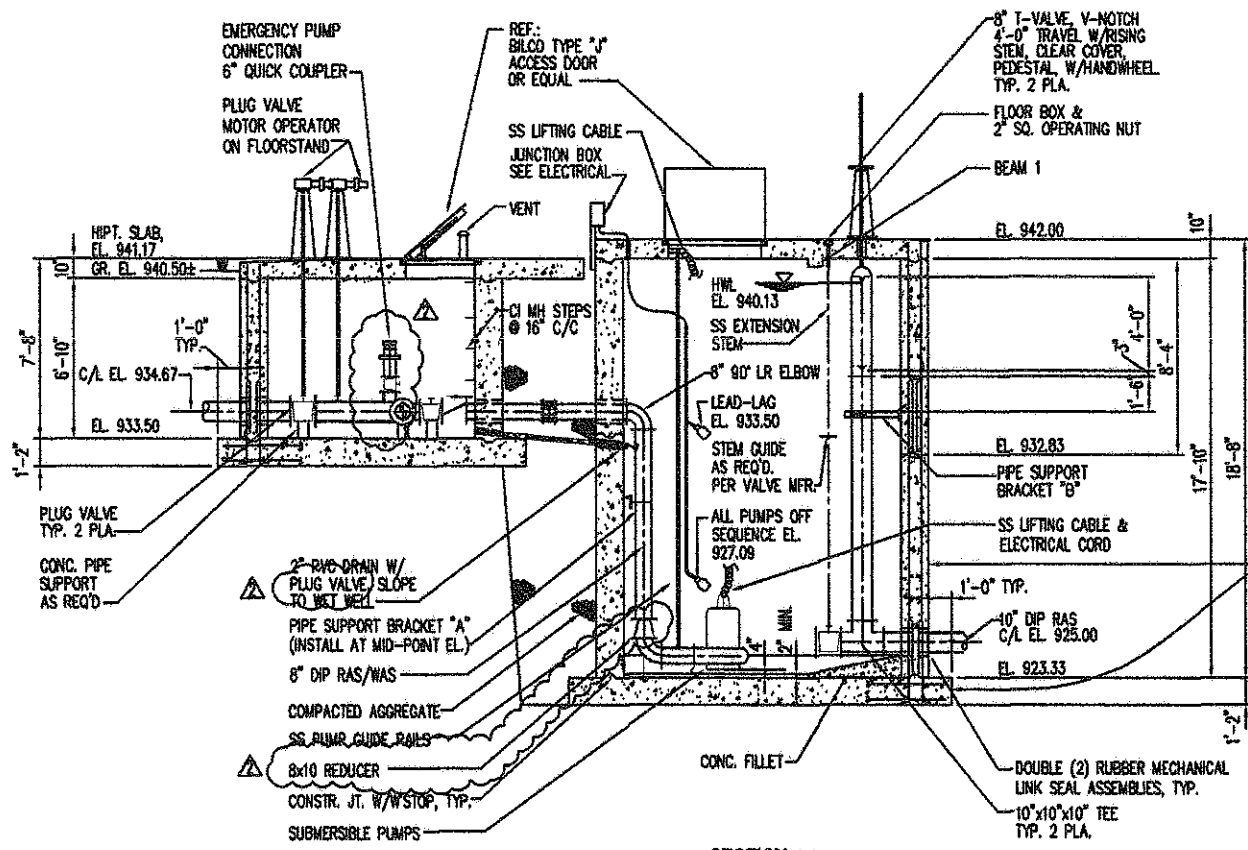
G30
OF
G54

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

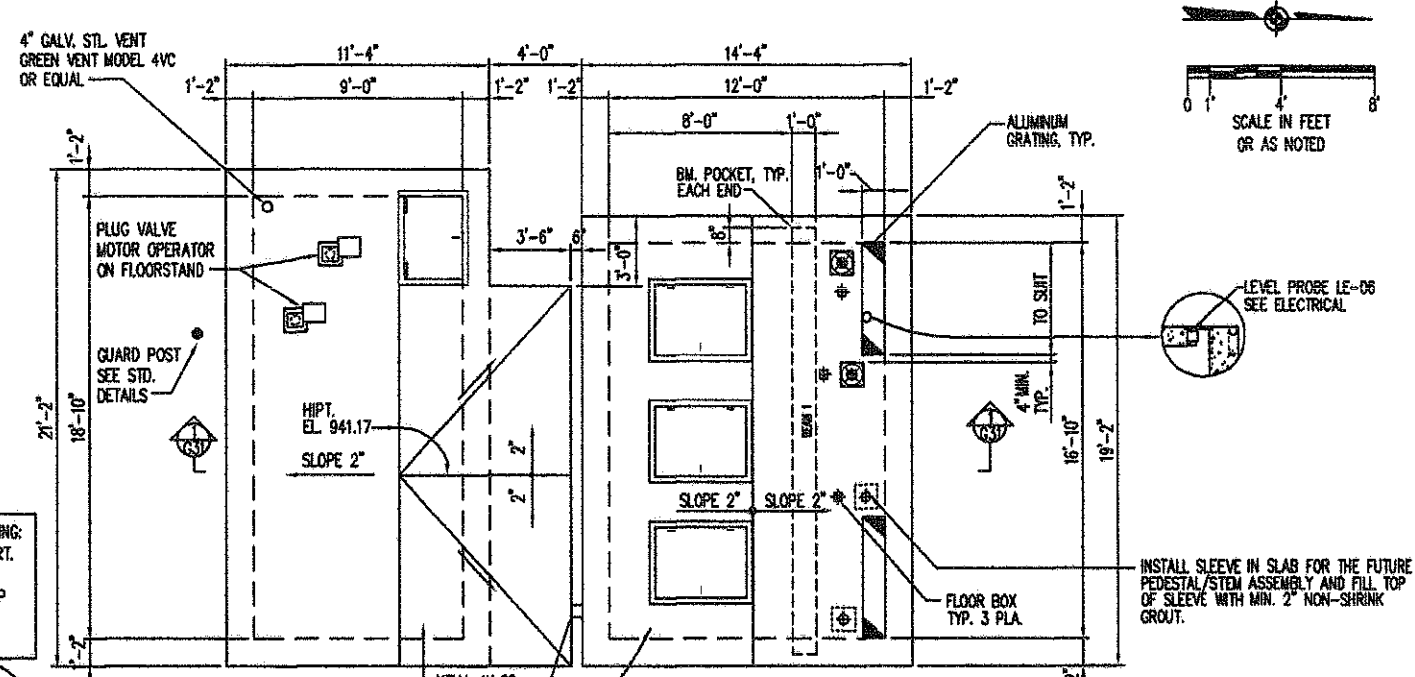
FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.363.8782
 DATE OCT 2002 JOB NO. 7400-07
 CAD FILE P-UV-METER APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 UV/EFFLUENT METER FACILITY
 PLANS SECTIONS
 PROCESS-STRUCTURAL



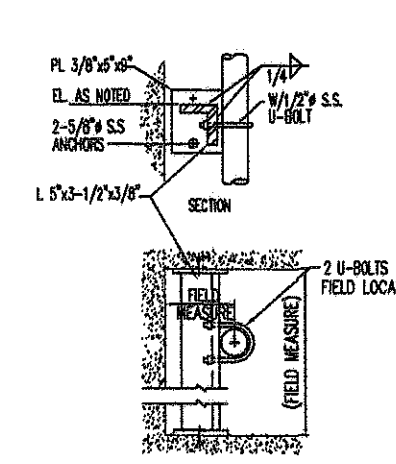
SECTION 1-1

WALL & BASE SLAB REINFORCING:
 ALL WALLS: #5@12" E.F. VERT. AND DIMS.
 BASE SLAB: #5@12" E.W. TOP AND BOT.
 (AS SHOWN)



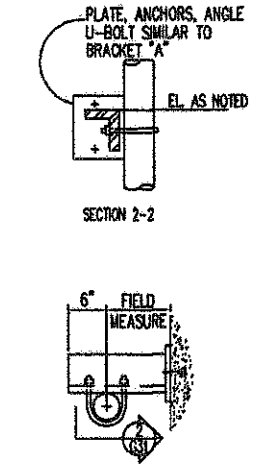
TOP PLAN

TOP SLAB REINFORCING:
 #5@15" EA. WAY TOP, (ADD #5@15"X8'-0" LG. TOP N-S AT CANTILEVER SLAB)
 #5@10" EA. WAY BOT.
 PLACE N-S BARS FIRST & LAST ADD 2#5 EA. SIDE @ DOORS



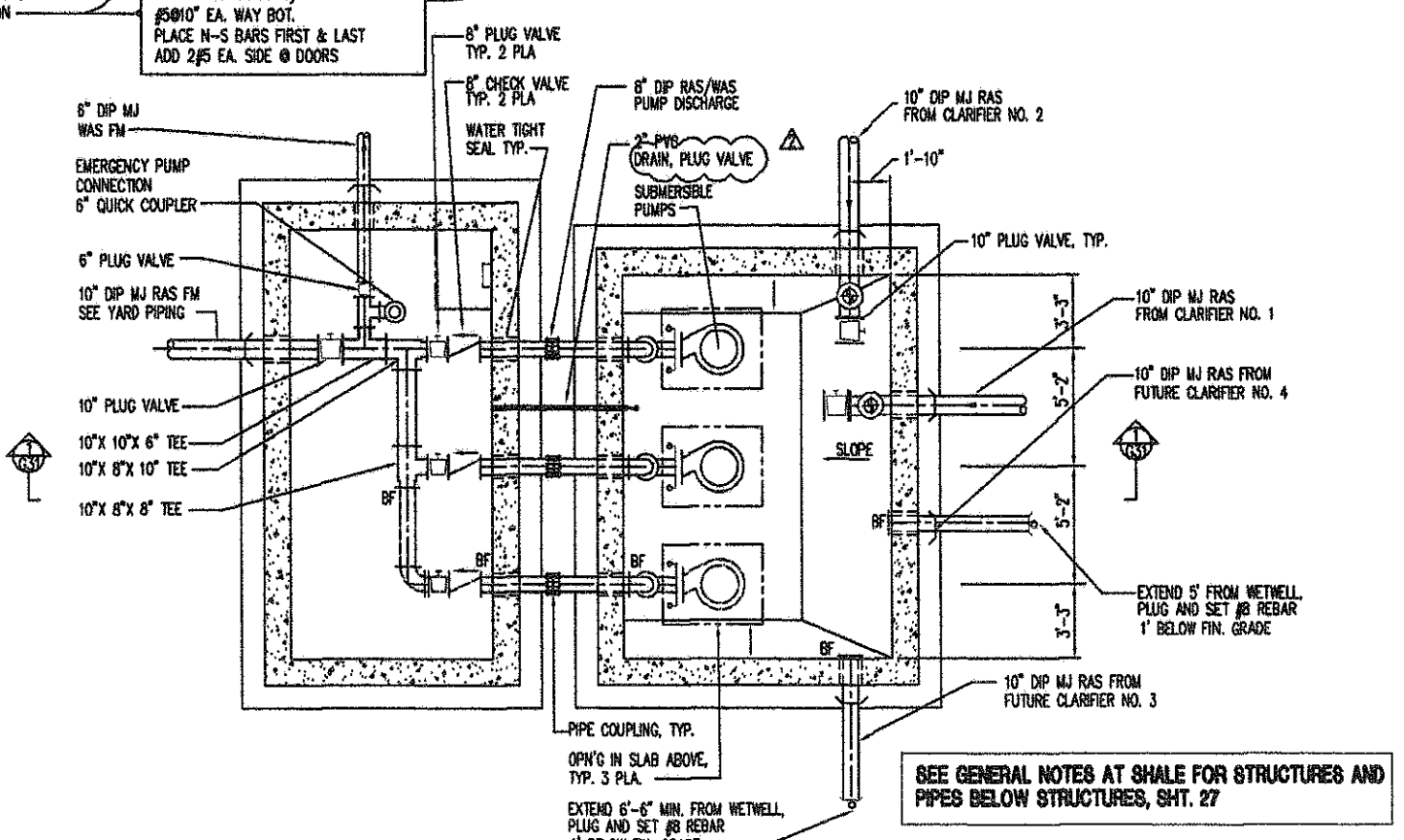
PIPE SUPPORT BRACKET 'A'

NO SCALE
1-REQ'D.



PIPE SUPPORT BRACKET 'B'

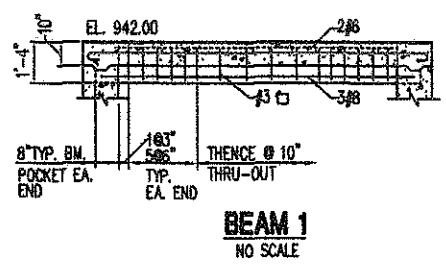
NO SCALE
2-REQ'D.



BASE PLAN

SEE GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES, SHT. 27

THINGS ARE LOOKING GOOD EXCEPT FOR ONE LAST PROBLEM, THE FLOYD BROWNE LOGO IS NOT SHOWING-UP IN THE TITLE BLOCKS.



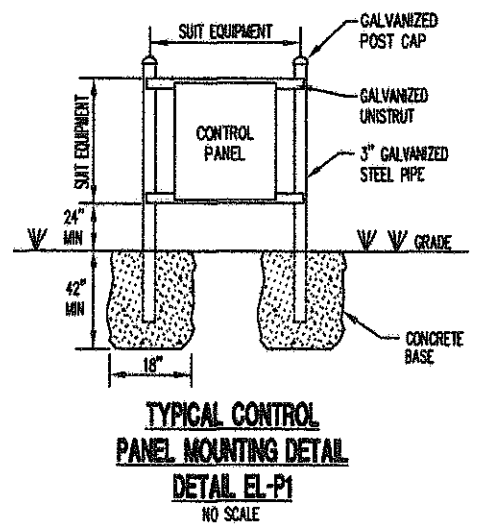
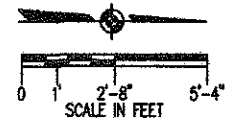
BEAM 1
NO SCALE

NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER DEPA COMMENTS	5-11-03		
2	PER RECORD PRINTS	9-20-04	WCS	

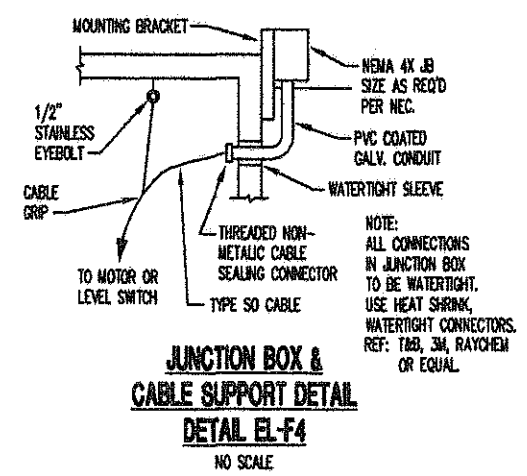
FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7839 Delaware, Ohio 740.363.6792
 DATE OCT 2002 CAD FILE P-RAS-WAS-LS
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
RAS/WAS PUMP STATION
 PLANS-SECTIONS-DETAILS
 PROCESS-STRUCTURAL

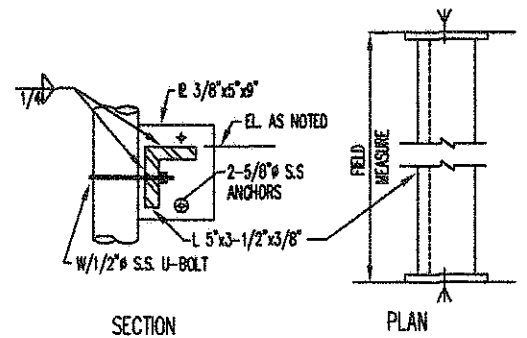
331 of 654



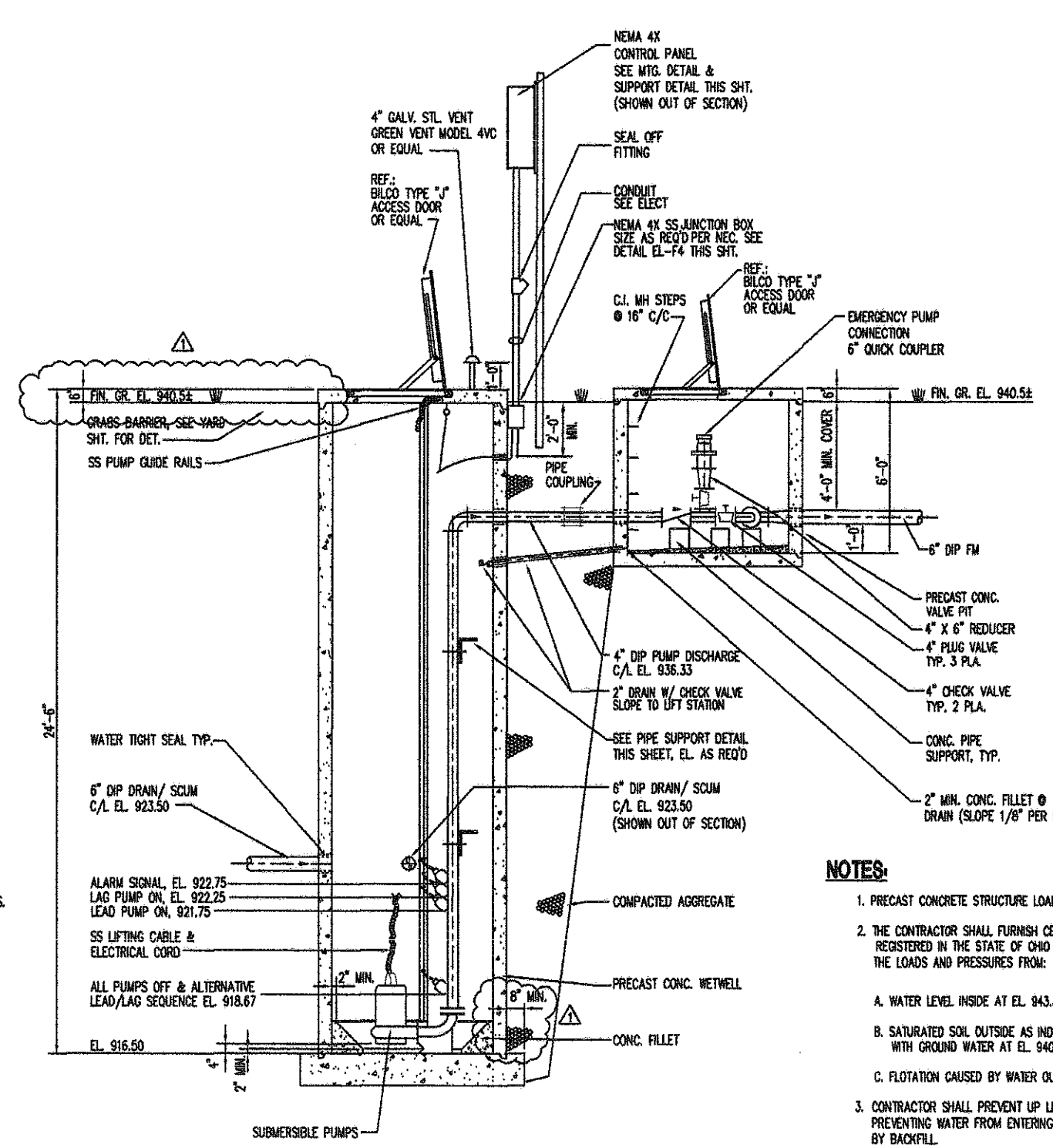
TYPICAL CONTROL PANEL MOUNTING DETAIL
DETAIL EL-P1
NO SCALE



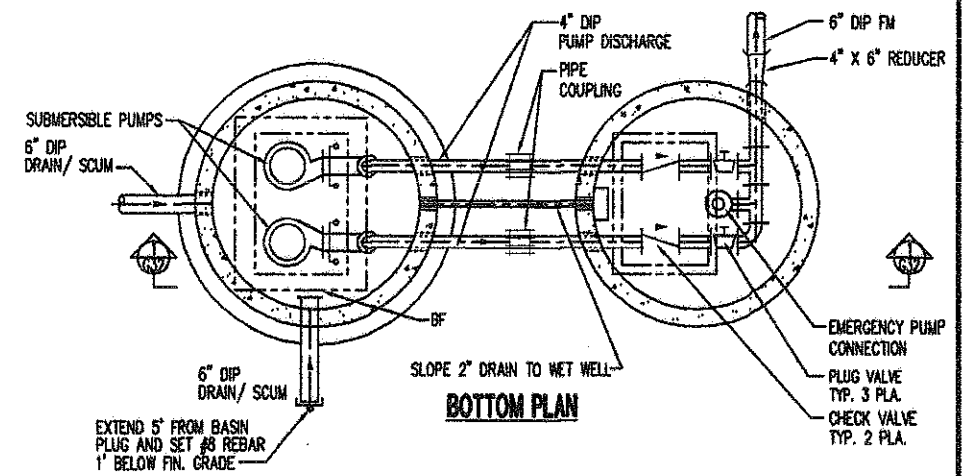
JUNCTION BOX & CABLE SUPPORT DETAIL
DETAIL EL-F4
NO SCALE



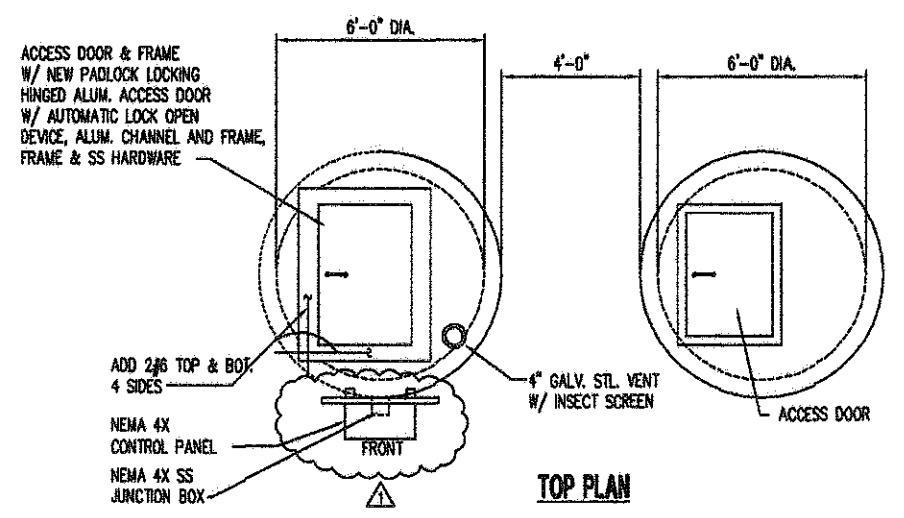
PIPE SUPPORT DETAIL
NO SCALE



SECTION 1-1



BOTTOM PLAN



TOP PLAN

NOTES:

1. PRECAST CONCRETE STRUCTURE LOADS AND FLOTATION RESISTANCE REQUIRED.
2. THE CONTRACTOR SHALL FURNISH CERTIFICATION BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO THAT THE STRUCTURE WILL WITHSTAND THE LOADS AND PRESSURES FROM:
 - A. WATER LEVEL INSIDE AT EL. 943.33
 - B. SATURATED SOIL OUTSIDE AS INDICATED ON THE DRAWINGS SIMULTANEOUSLY WITH GROUND WATER AT EL. 940.50 AND THE STRUCTURE EMPTY.
 - C. FLOTATION CAUSED BY WATER OUTSIDE AT EL. 940.50 AND THE STRUCTURE EMPTY.
3. CONTRACTOR SHALL PREVENT UP LIFT OF LIFT STATION DURING CONSTRUCTION BY PREVENTING WATER FROM ENTERING EXCAVATION UNTIL STRUCTURE IS STABILIZED BY BACKFILL.

SEE GENERAL NOTES AT SHALE FOR STRUCTURES AND PIPES BELOW STRUCTURES, SHT. 27

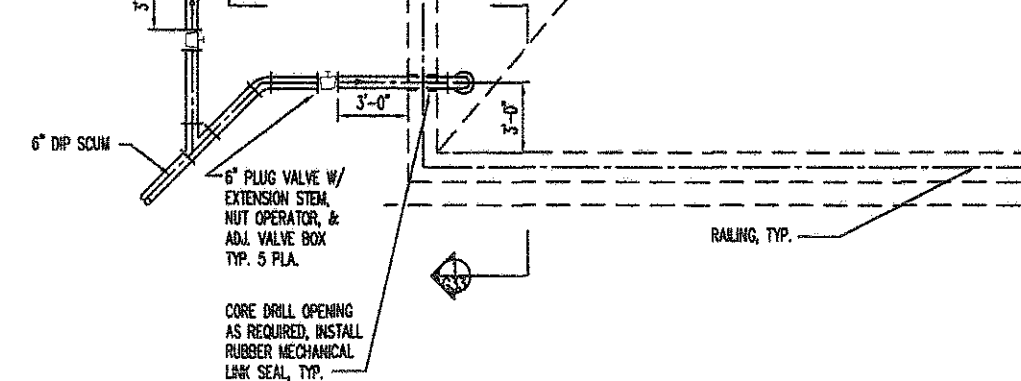
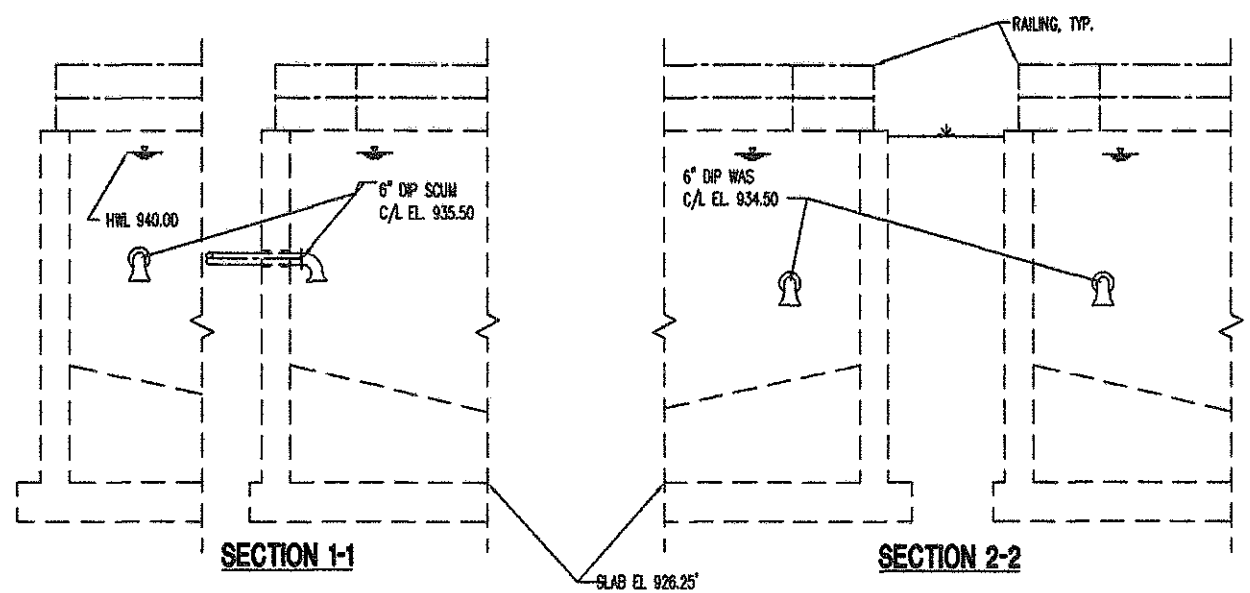
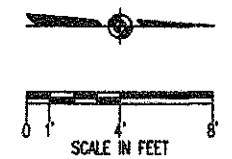
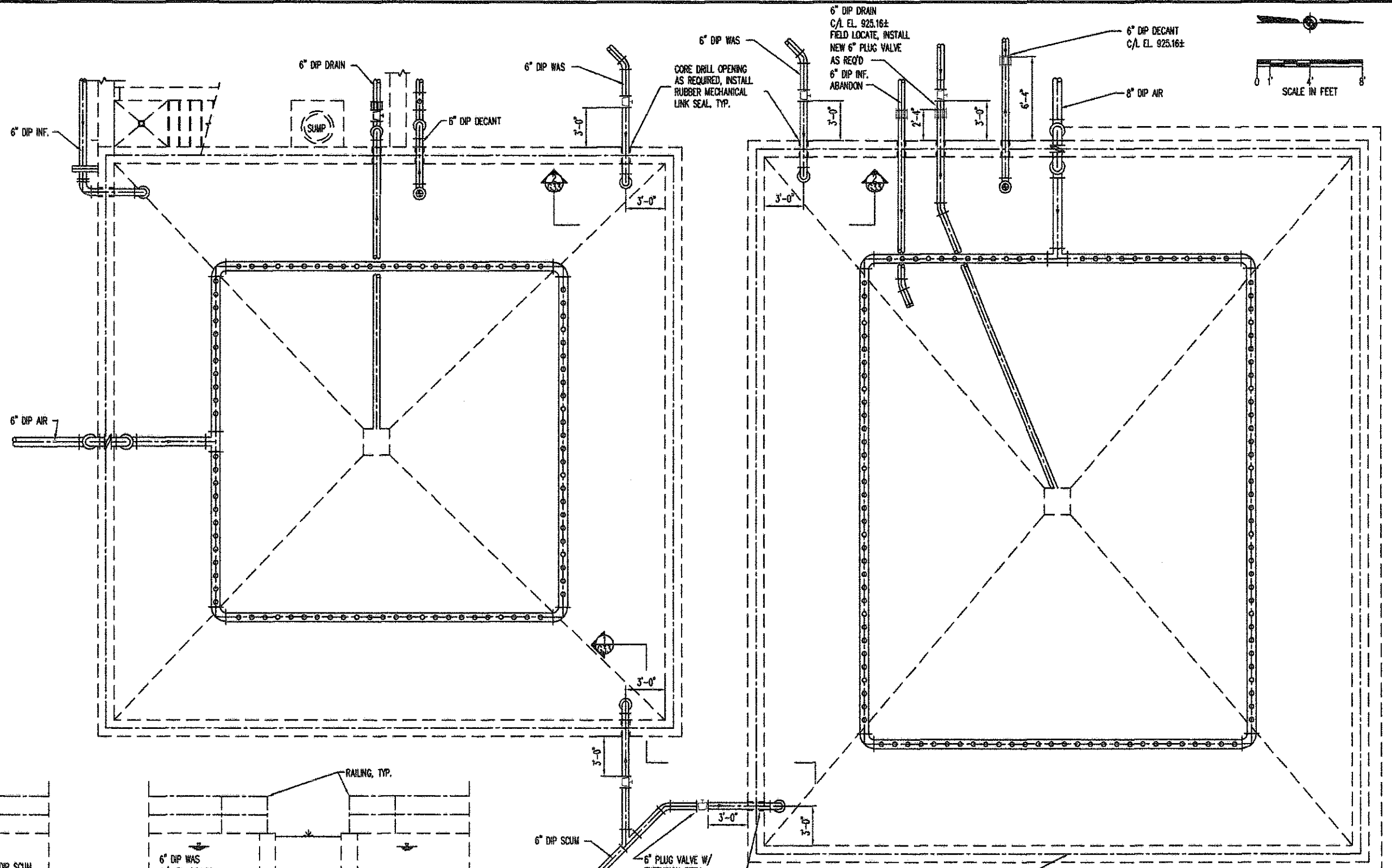
DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-16	WCS	

FLOYD BROWNE ASSOCIATES, INC.
 *Contact Office
 Marion, Ohio 740.383.8187
 Sidney, Ohio 937.492.7638
 Delaware, Ohio 740.365.6782
 DATE: OCT. 2002
 JOB NO. 7400-07
 CADD FILE: DRN-SCUM-1S
 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SCUM/SECONDARY DRAIN LIFT STATION
 PLANS/SECTIONS/DETAILS
 PROCESS/STRUCTURAL

G32 OF G54



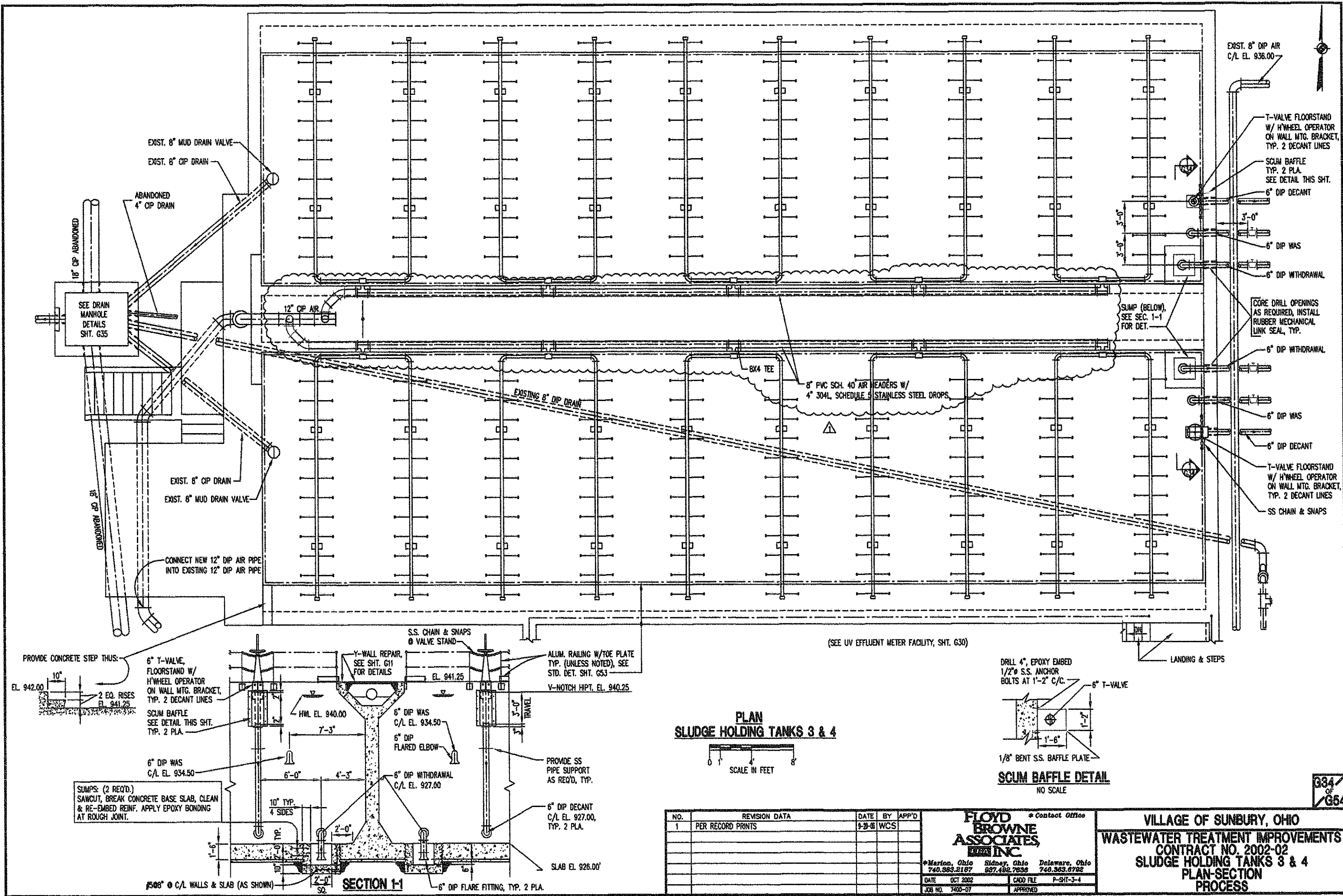
DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN HERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

333
OF
654

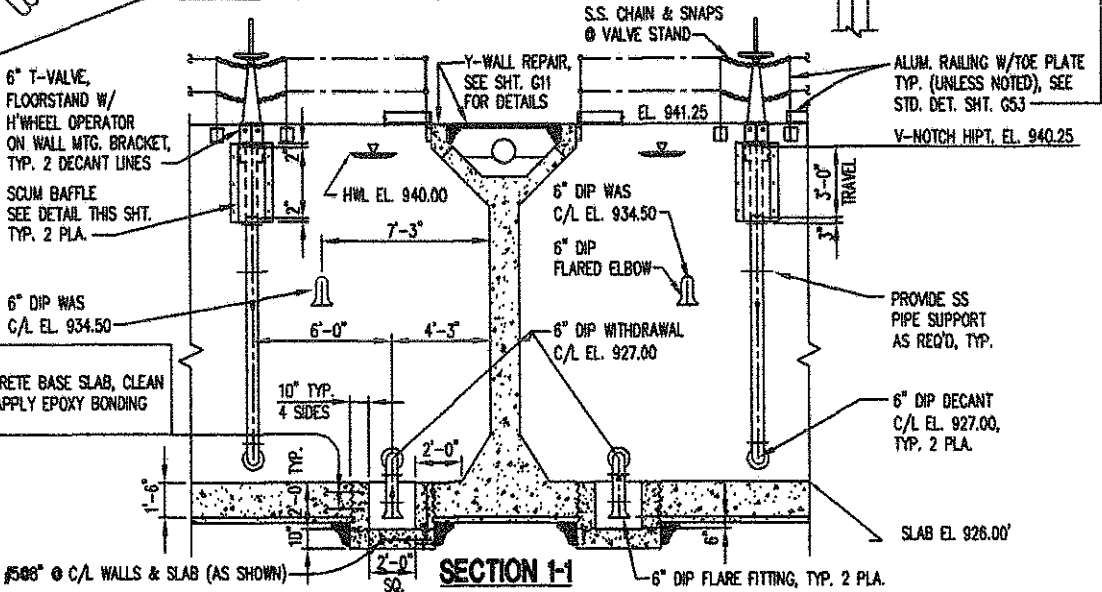
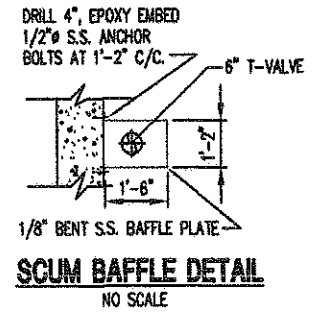
NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES, INC. *Contact Office
 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7838 Delaware, Ohio 740.383.6782
 DATE OCT 2002 CADD FILE P-SHT-1-2
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SLUDGE HOLDING TANKS 1 & 2
 PLAN - SECTION
 PROCESS



**PLAN
SLUDGE HOLDING TANKS 3 & 4**

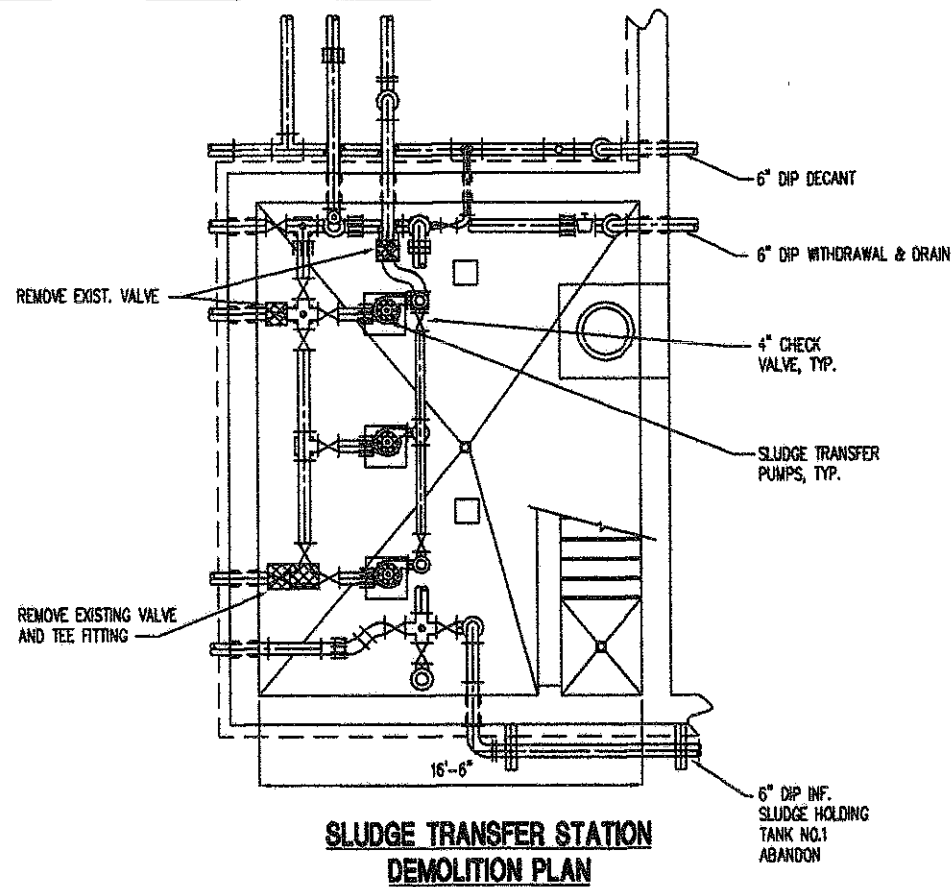


NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

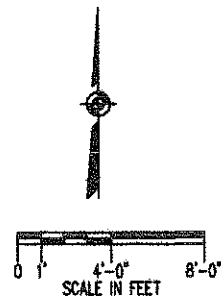
FLOYD BROWNE ASSOCIATES, INC. *Contact Office
 740.585.2187 857.492.7836 740.363.8722
 *Marion, Ohio Sidney, Ohio Delaware, Ohio
 DATE OCT 2002 CADD FILE P-SHT-3-4
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SLUDGE HOLDING TANKS 3 & 4
 PLAN-SECTION
 PROCESS

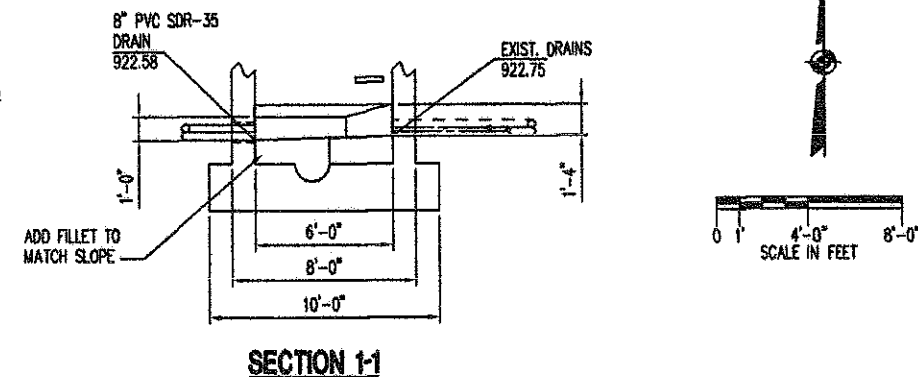
384 of 654



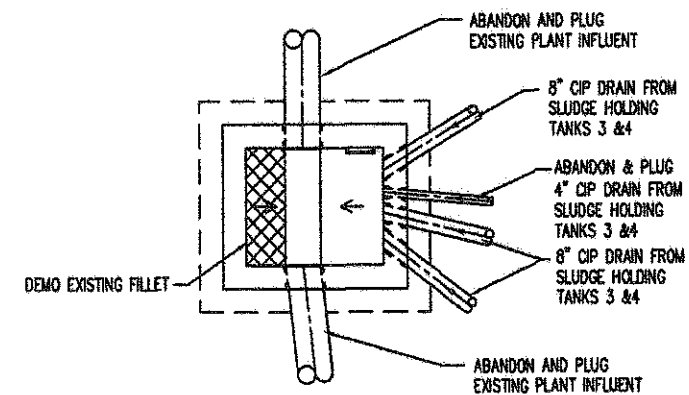
**SLUDGE TRANSFER STATION
DEMOLITION PLAN**



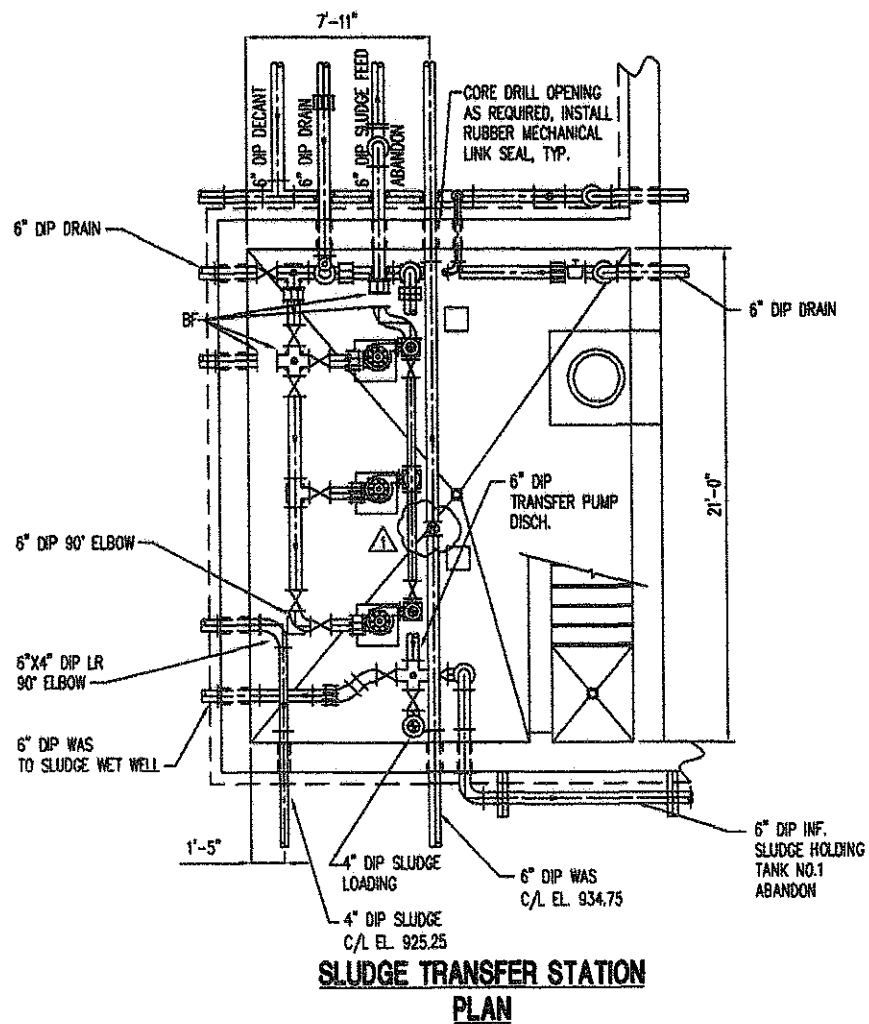
SECTION 2-2



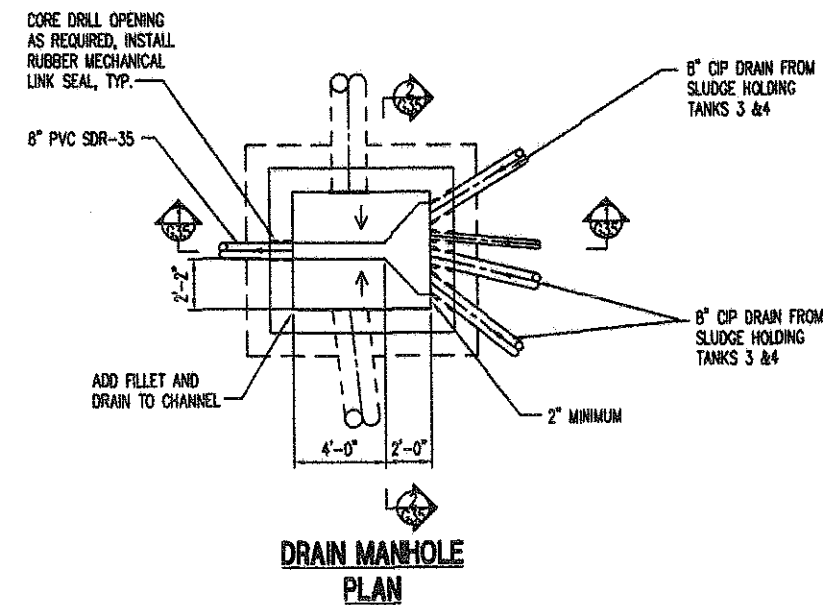
SECTION 1-1



**DRAIN MANHOLE
DEMOLITION PLAN**



**SLUDGE TRANSFER STATION
PLAN**



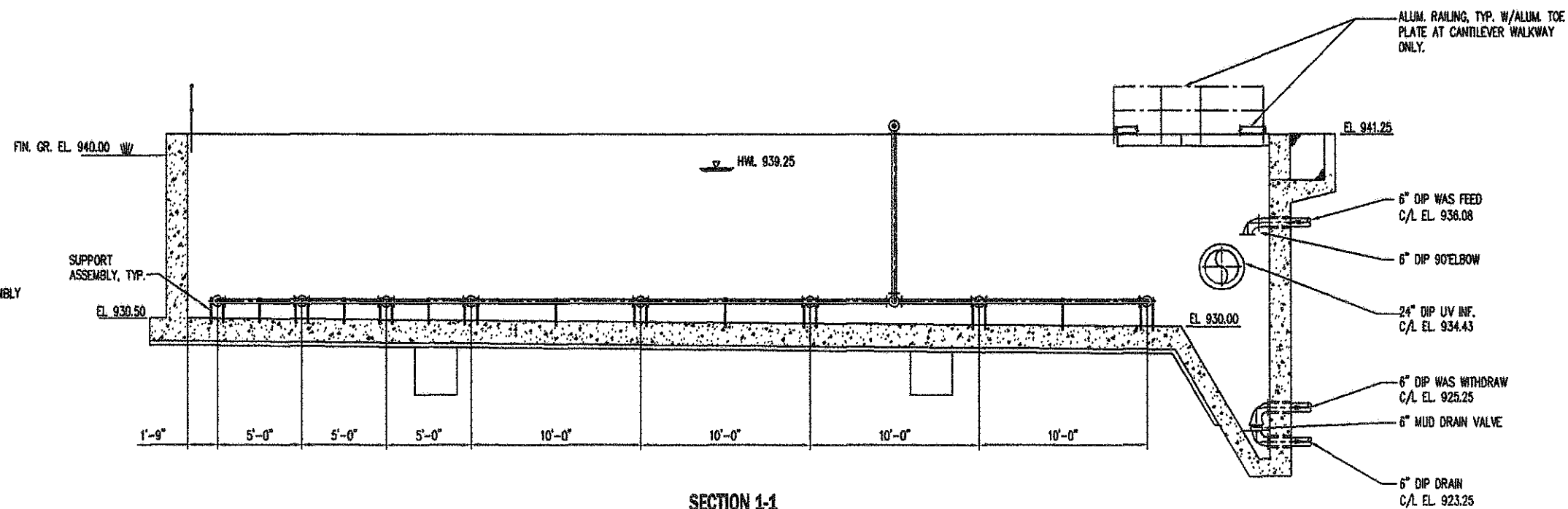
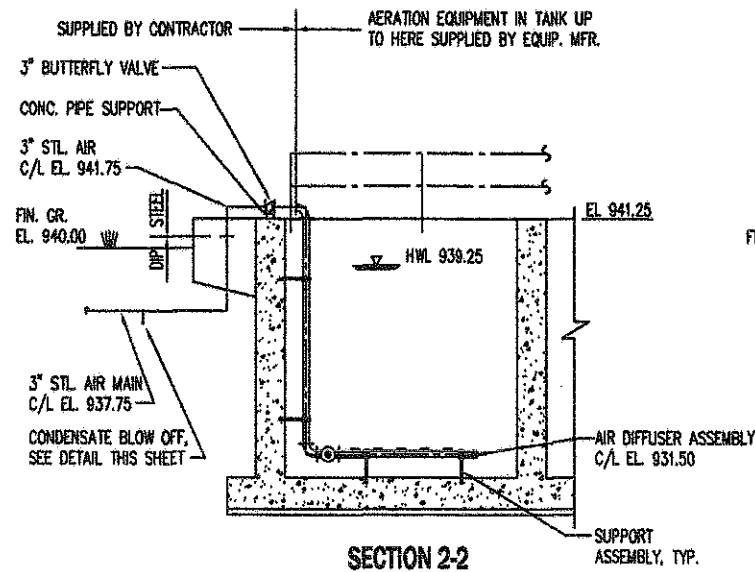
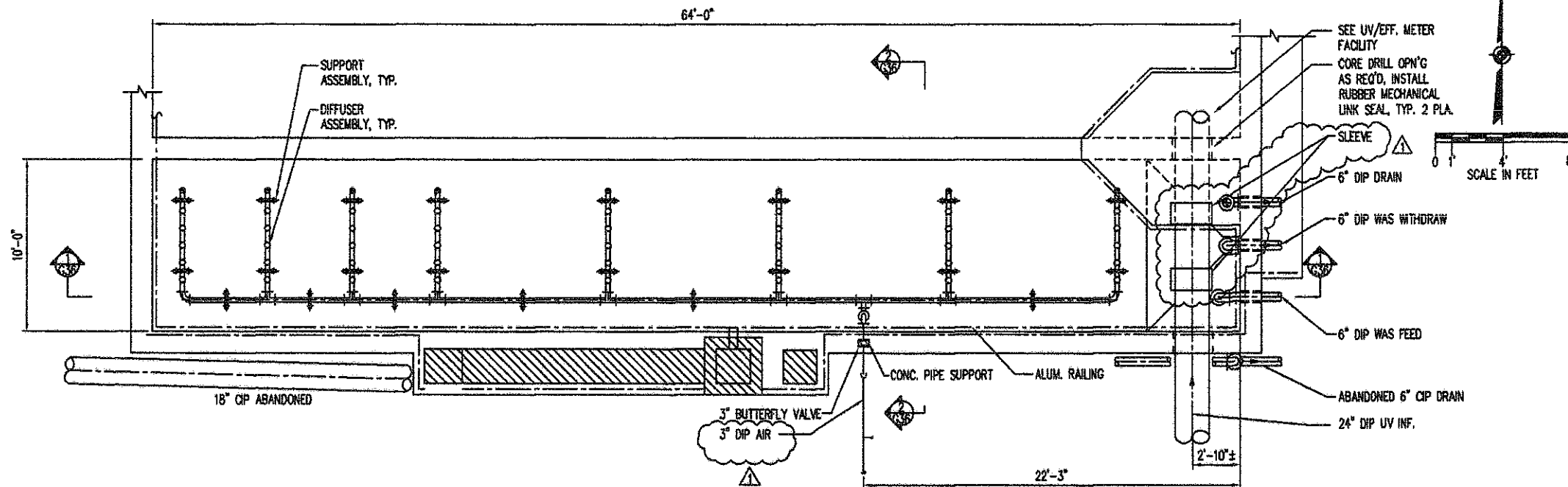
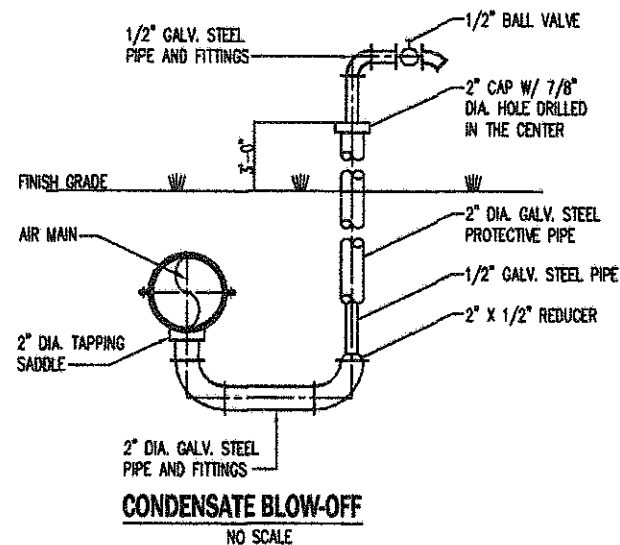
**DRAIN MANHOLE
PLAN**

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. *Contact Office
 *Marion, Ohio 740.363.3187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.363.6782
 DATE OCT 2002 CADD FILE P-481-SLS
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SLUDGE TRANSFER STATION / MANHOLE
 PLAN - SECTION - DEMO
 PROCESS



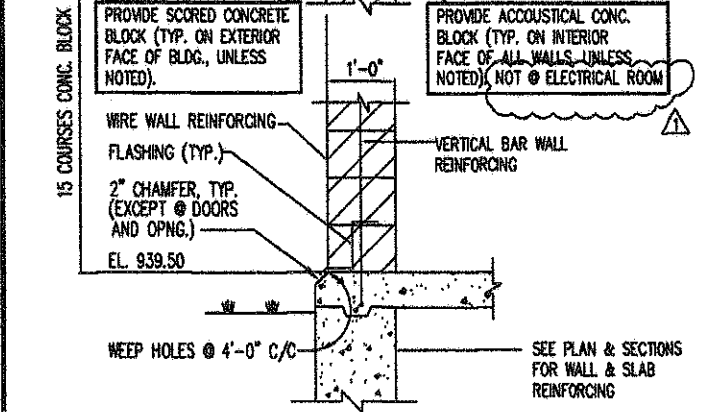
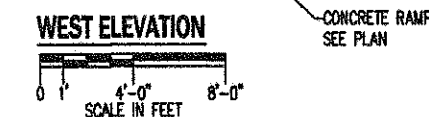
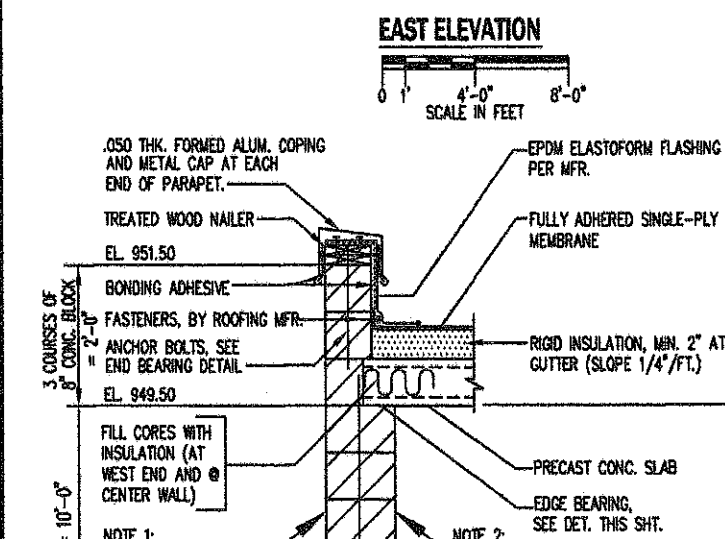
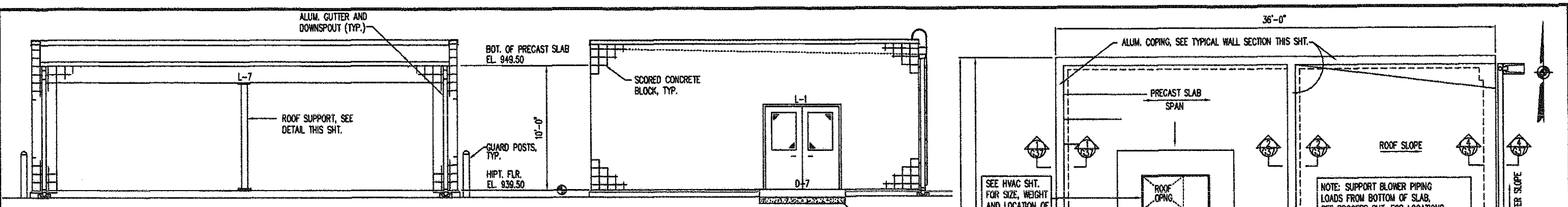
G36
OF
G54

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADINGS SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

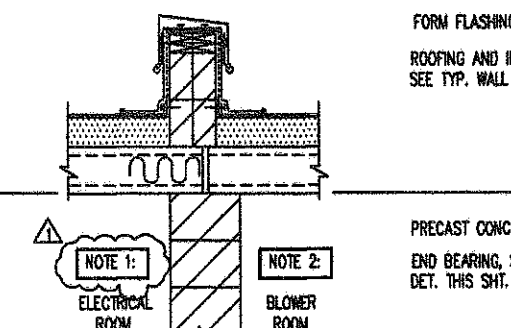
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	1-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. *Contact Office
 *Marion, Ohio 740.383.8187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.383.6782
 DATE OCT 2002 CADD FILE P-WW
 JOB NO. 7400-07 APPROVED

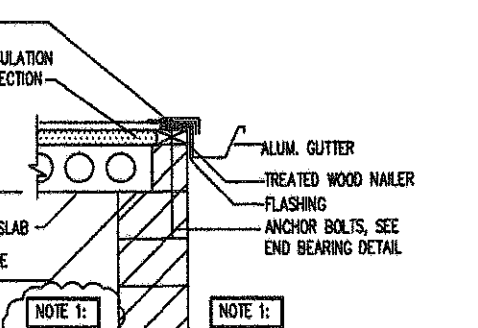
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
SLUDGE WET WELL
 PLAN - SECTIONS - DETAIL
 PROCESS



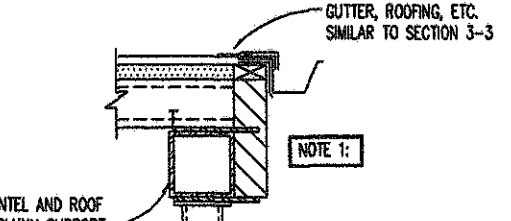
SECTION 1-1
TYPICAL WALL SECTION



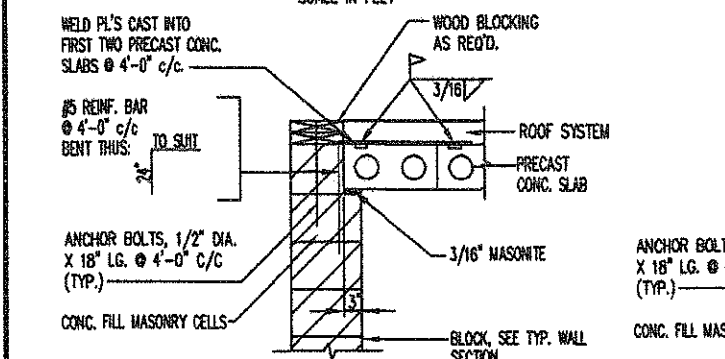
SECTION 2-2
TYPICAL CENTER WALL DETAIL



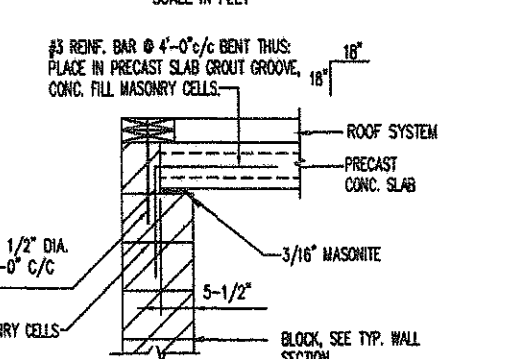
SECTION 3-3
TYPICAL ROOF GUTTER (@ ELECT. RM.)



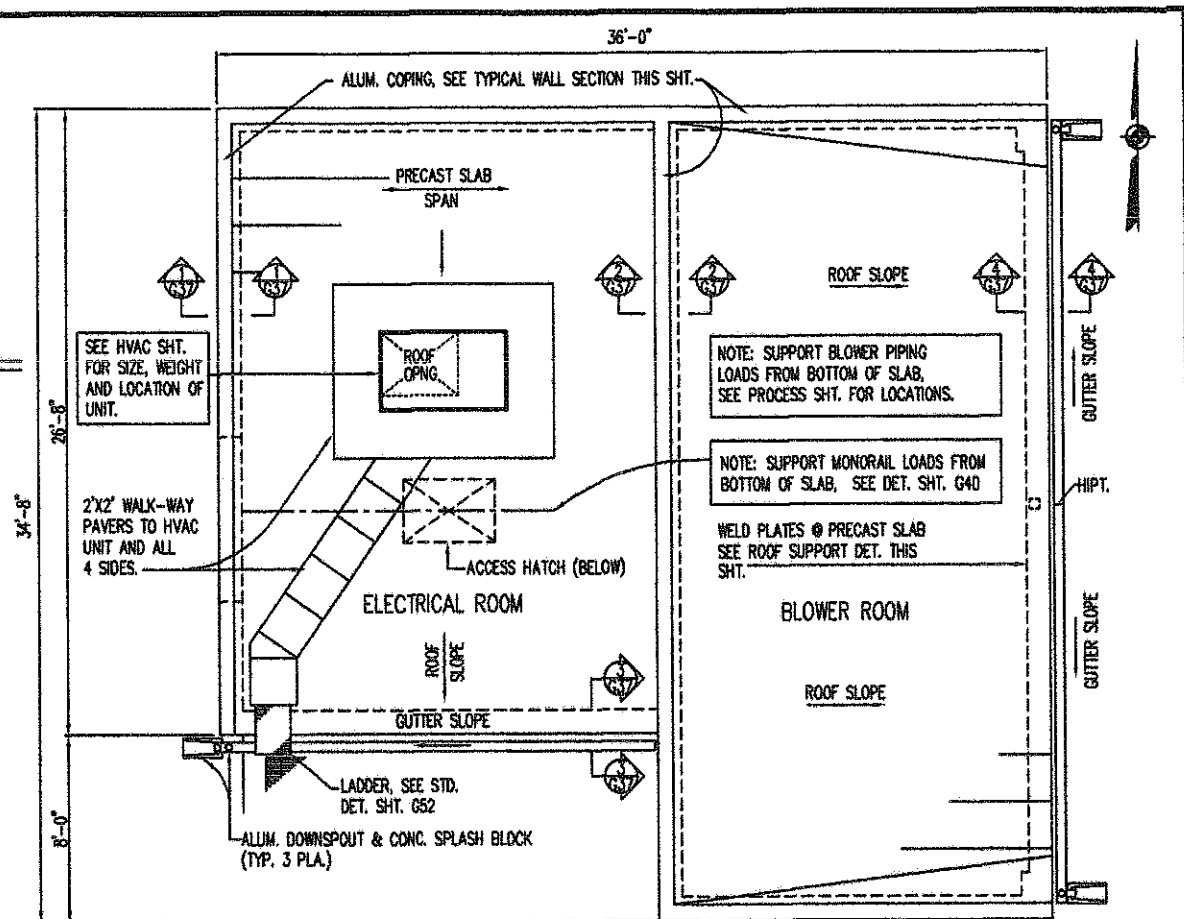
SECTION 4-4
TYPICAL ROOF GUTTER (@ BLOWER RM.)



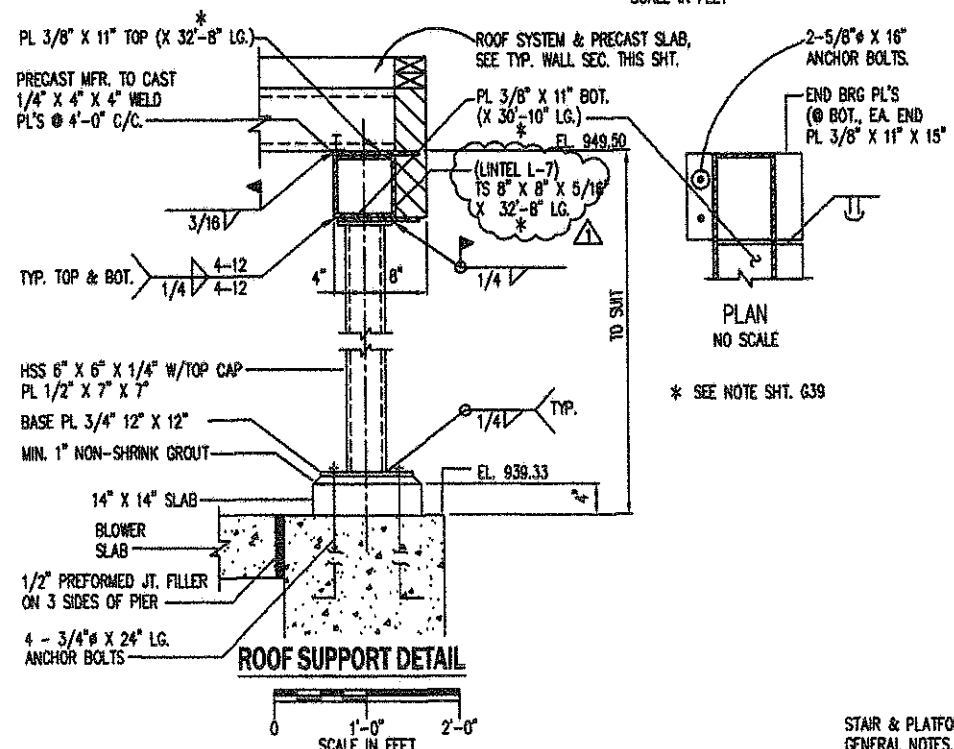
TYPICAL EDGE BEARING
NO SCALE



TYPICAL END BEARING
NO SCALE



ROOF PLAN
SCALE IN FEET



ROOF SUPPORT DETAIL
SCALE IN FEET

2002 OBC, PLUS REVISIONS

USE GROUP.....F2
 TYPE OF CONSTRUCTION.....III B
 BUILDING AREA.....1550 S.F.
 OCCUPANT LOAD:
 MAXIMUM OF 3 OCCUPANTS

DESIGN LOADS

SOIL BEARING CAPACITY.....2000 PSF
 FLOOR LIVE LOAD.....200 PSF
 ROOF LIVE LOAD.....30 PSF (INCL HVAC UNIT)

SNOW LOADS:
 GROUND SNOW LOAD.....20 PSF
 FLAT ROOF SNOW LOAD14 PSF
 SNOW EXPOSURE FACTOR.....1.0
 SNOW LOAD IMPORTANCE FACTOR.....1.0
 SNOW THERMAL FACTOR.....1.0

WIND LOADS:
 BASIC WIND SPEED.....90 MPH
 WIND IMPORTANCE FACTOR.....1.0
 WIND EXPOSURE CLASSIFICATION.....\"C\"

EARTHQUAKE DESIGN DATA:
 SEISMIC USE GROUP I ; I_e = 1.0
 S_{ds} = 6.36 ; S_{d1} = 3.84
 SITE CLASS D
 BASIC S-FORCE-RESISTING SYSTEM(S) : 1C
 DESIGN BASE SHEAR 36.1 k
 ANAL PROC ASCE 7-98 (SEC. 9.5.3)

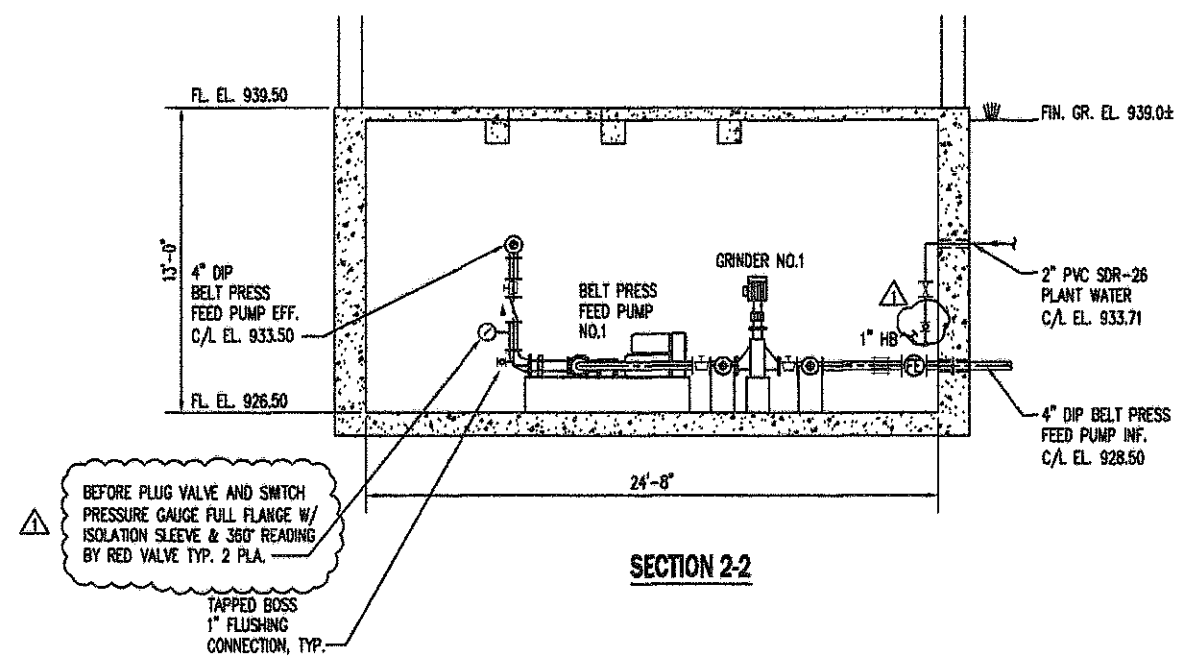
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-20-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.383.8187 Sidney, Ohio 740.482.7838 Delaware, Ohio 740.363.8788
 DATE OCT 2002 CAD FILE A-ELOW-BLD
 JOB NO. 7400-07 APPROVED

STAIR & PLATFORM SHT. G53
 GENERAL NOTES, SHT. G54

G37
 of
 G54

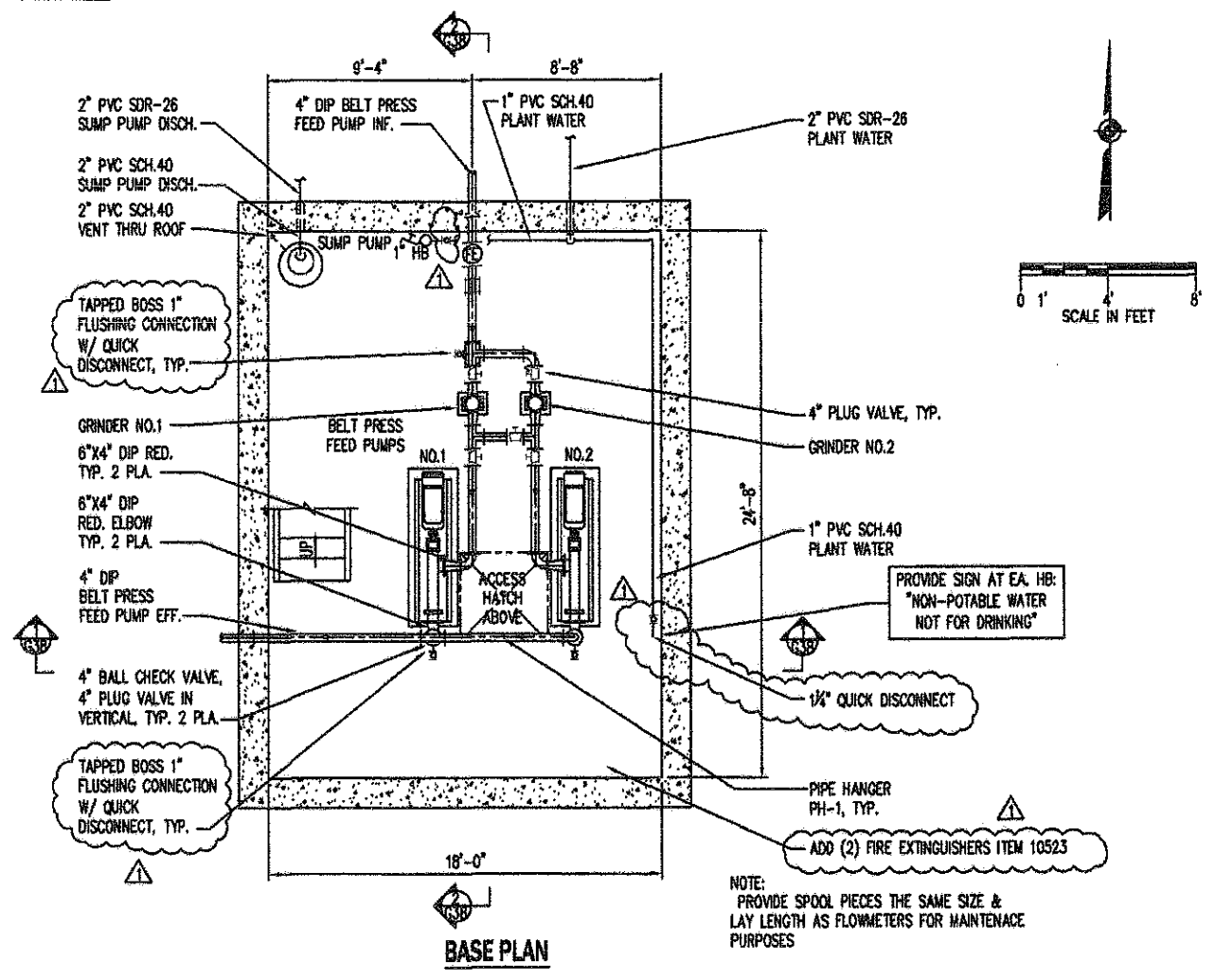
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
SLUDGE TRANSPORT/ELECTRICAL BUILDING
 PLAN-SECTIONS-DETAILS
 ARCHITECTURAL



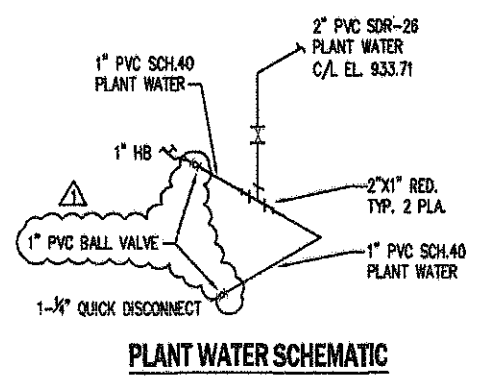
BEFORE PLUG VALVE AND SWITCH PRESSURE GAUGE FULL FLANGE W/ ISOLATION SLEEVE & 380° READING BY RED VALVE TYP. 2 PLA.

TAPPED BOSS 1" FLUSHING CONNECTION, TYP.

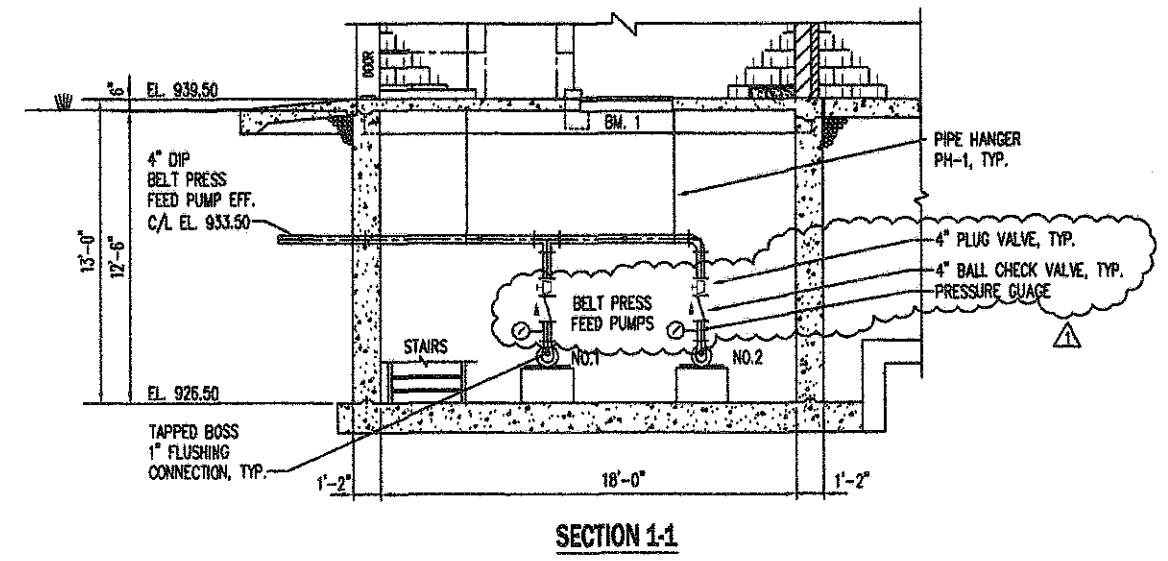
SECTION 2-2



BASE PLAN



PLANT WATER SCHEMATIC



SECTION 1-1

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. *Contact Office

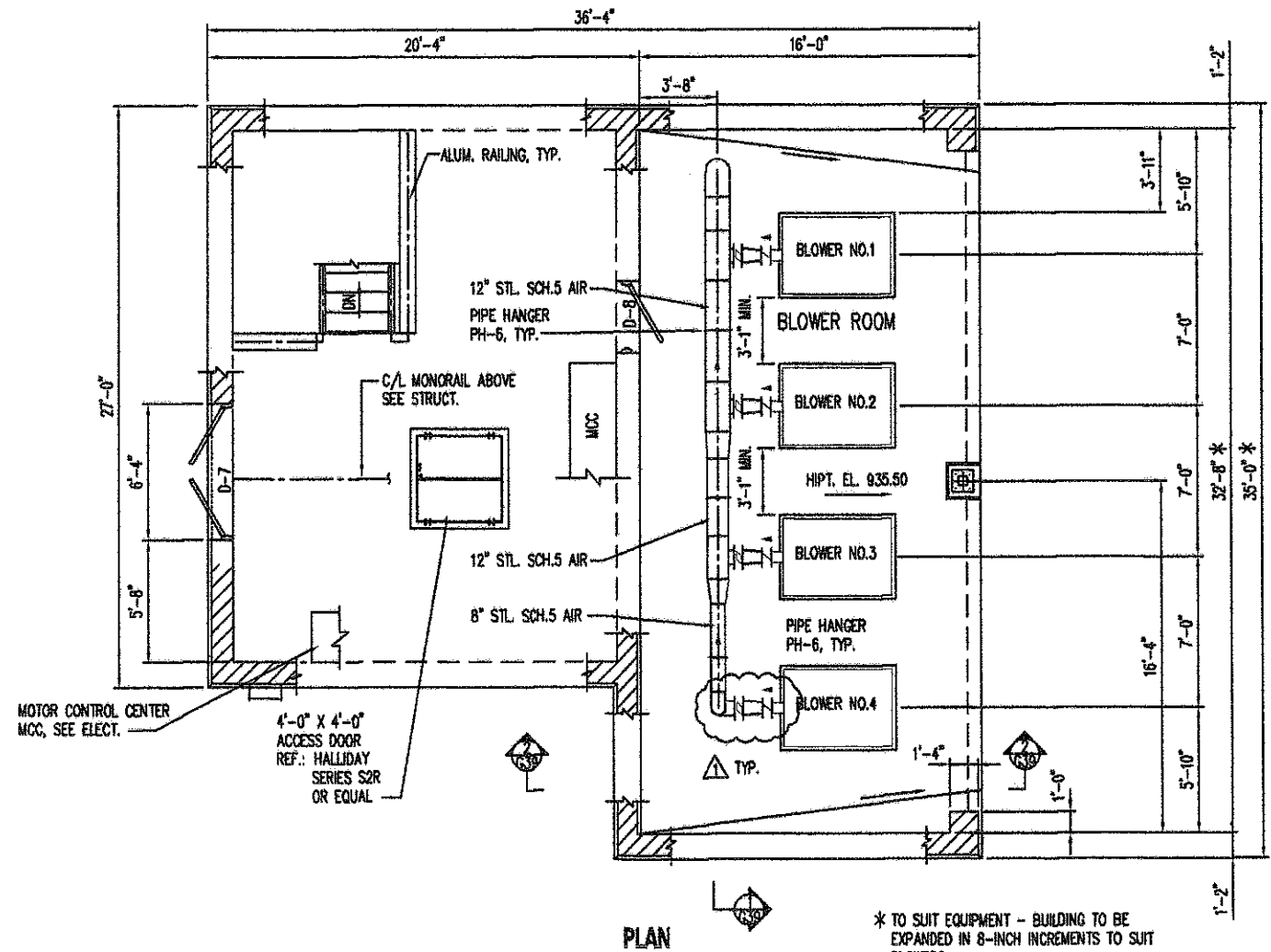
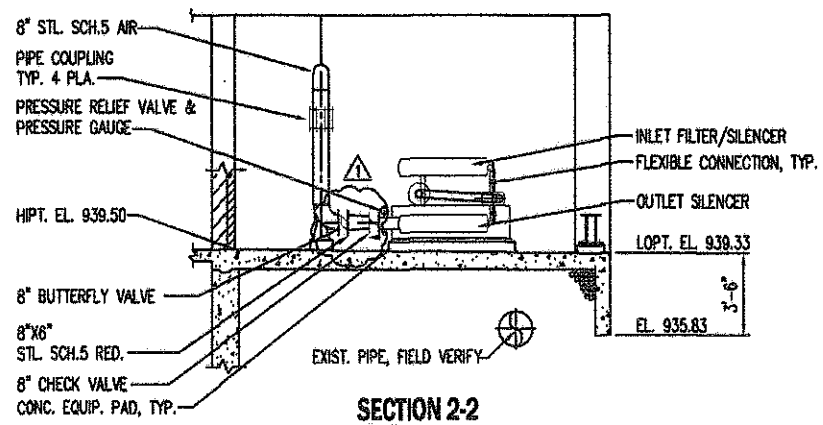
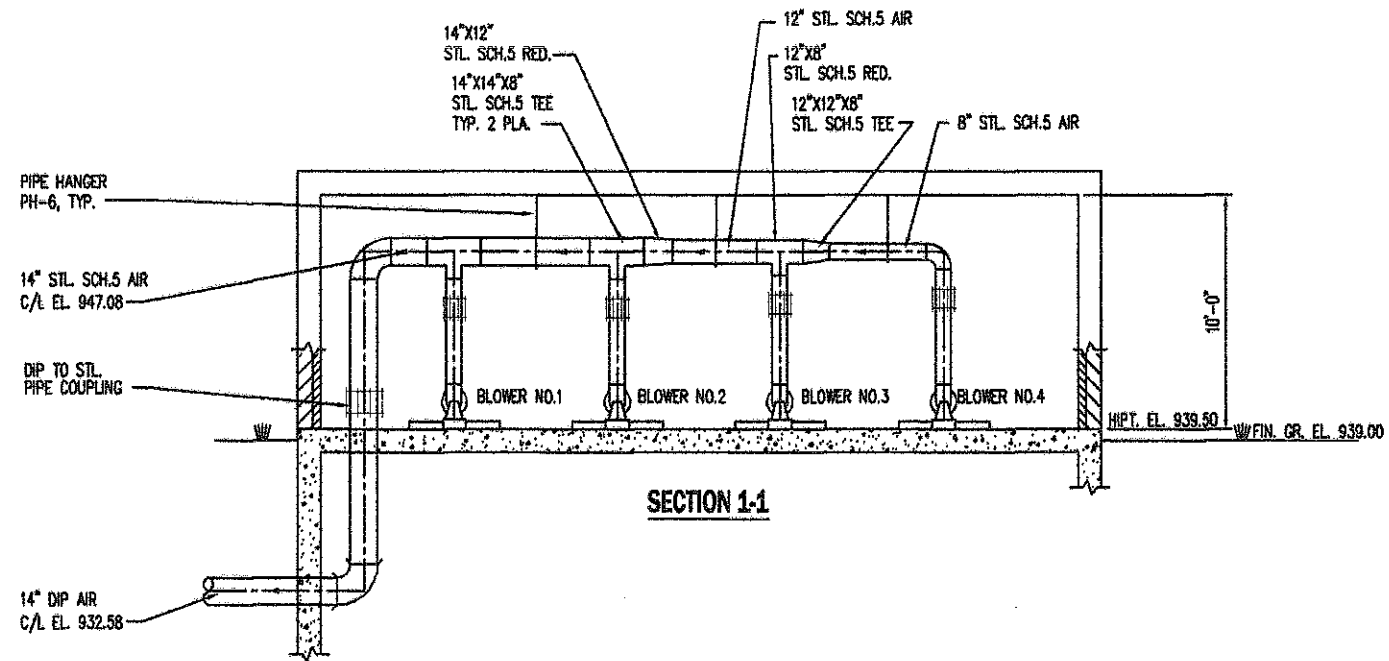
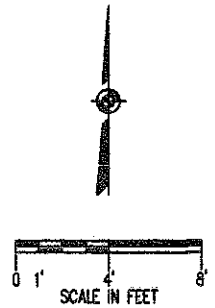
*Marion, Ohio 740.363.8187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.363.6792

DATE OCT 2002 CABO FILE P-SLUDGE TRANS/BLDG JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS CONTRACT NO. 2002-02

SLUDGE TRANSPORT/ELECTRICAL BUILDING BOTTOM LEVEL PLAN-SECTION PROCESS



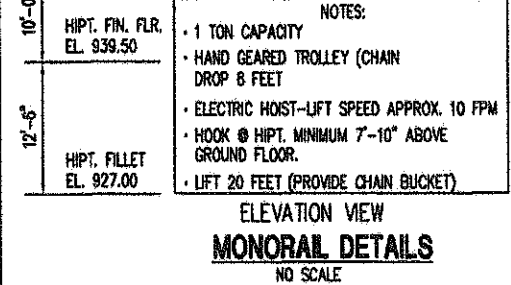
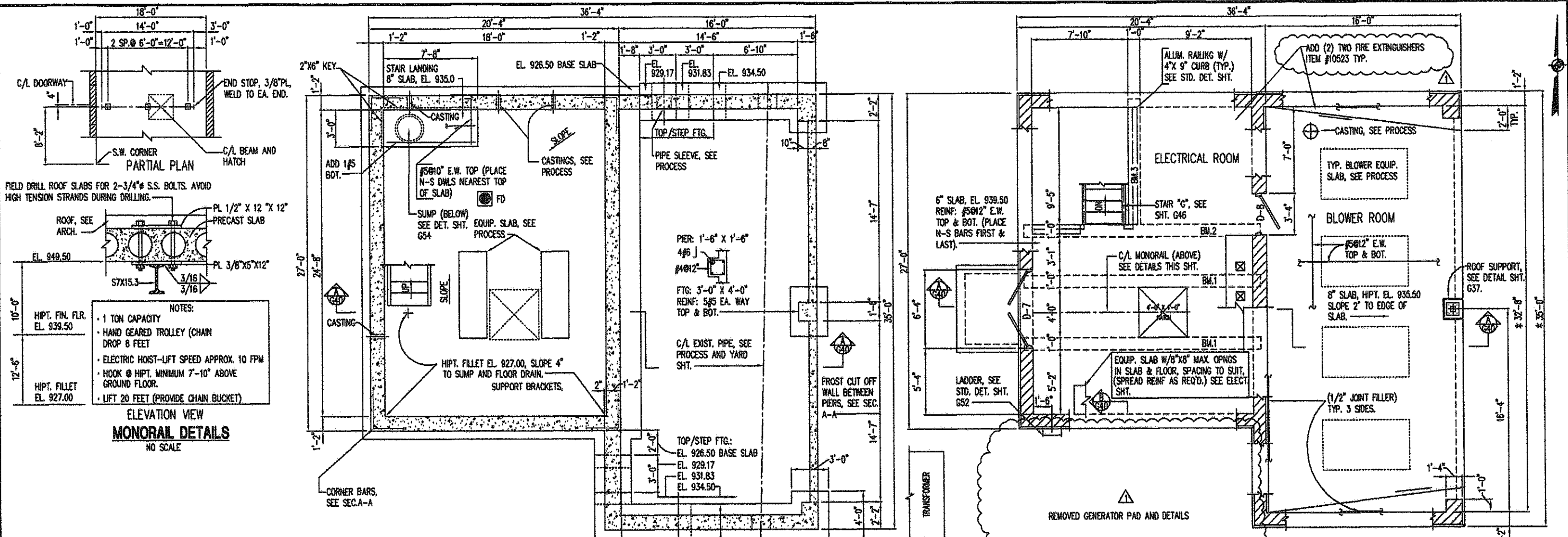
* TO SUIT EQUIPMENT - BUILDING TO BE EXPANDED IN 8-INCH INCREMENTS TO SUIT BLOWERS.

DIMENSIONS AND ALL OTHER DETAILS OF EXISTING STRUCTURES, PIPING, EQUIPMENT & GRADING SHOWN WERE INDICATED ON DRAWINGS FROM PREVIOUS CONTRACTS. DESIRED ACCURACY SHALL BE OBTAINED IN THE FIELD.

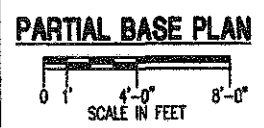
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	8-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.363.6788
 DATE OCT 2002 CADD FILE P-BLOWER BLDG
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SLUDGE TRANSPORT/ELECTRICAL BUILDING
 BLOWER AREA PLAN-SECTION
 PROCESS

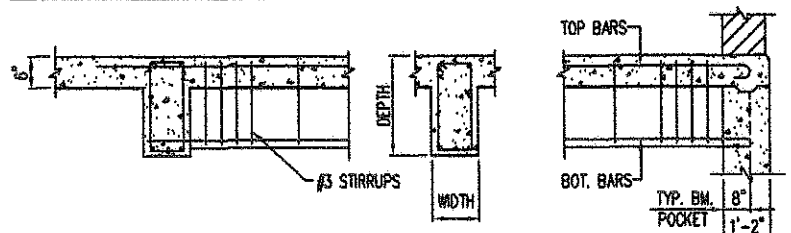


MONORAIL DETAILS
NO SCALE

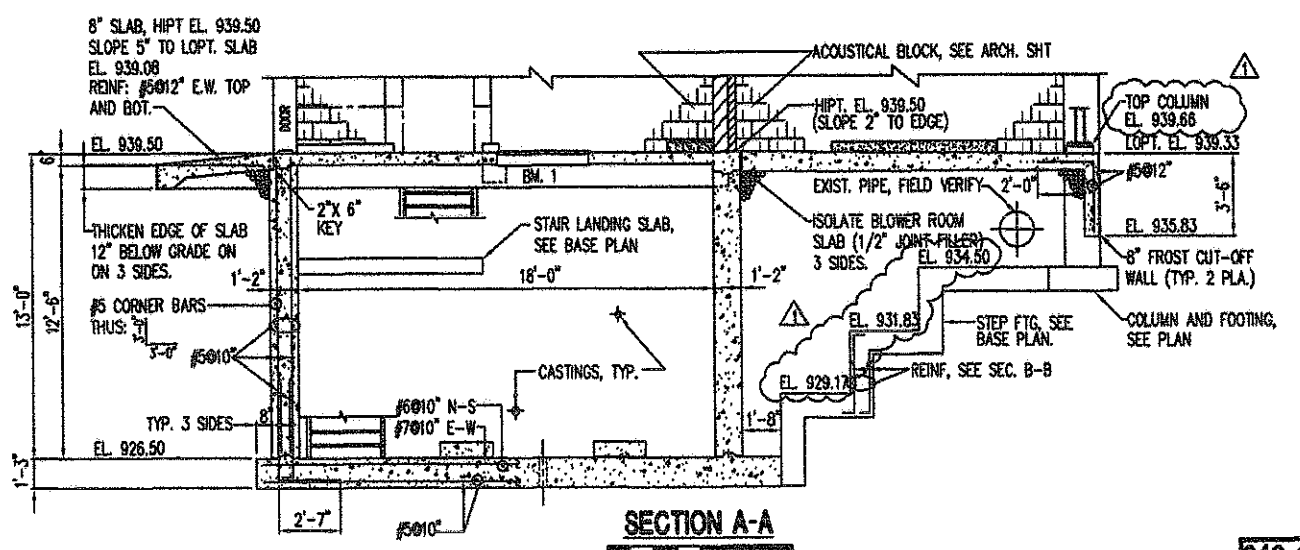


PARTIAL BASE PLAN
NO SCALE

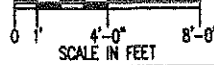
BEAM SCHEDULE						NOTES
BEAM	WIDTH	DEPTH	TOP BARS	BOT. BARS	STIRRUPS EA. END	
BM.1	12"	18"	2#6	3#7	1#3, 7#7, THENCE @ 15"	8" POCKET @ CONC. WALL (EA. END)
BM.2	12"	18"	2#6	1#9, 2#7	1#3, 3#5, 6#7, THENCE @ 15"	8" POCKET @ CONC. WALL (EA. END)
BM.3	12"	16"	2#6	3#6	1#4, 4#6, THENCE @ 12"	8" POCKET @ CONC. WALL (N. END)



TYPICAL BEAM DETAIL
NO SCALE



SECTION A-A



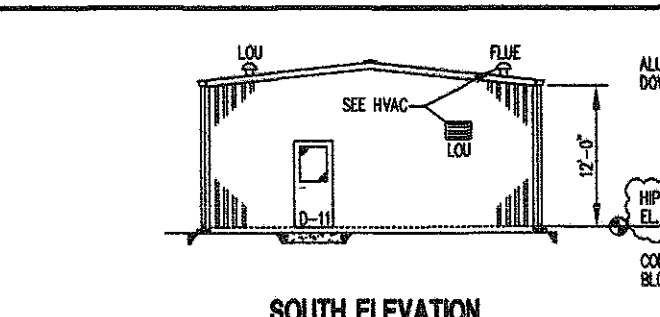
GENERAL NOTES, SHT. G54
STAIR & PLATFORM DETAILS, SHT. G53

G40
G54

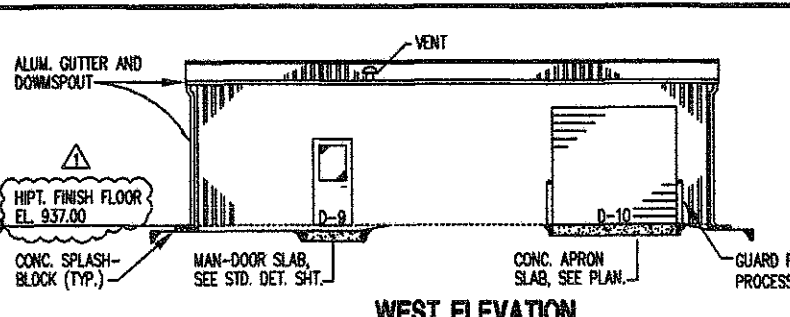
NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-04	WCS	

FLOYD BROWNE ASSOCIATES, INC.
*Contact Office
Marion, Ohio Sidney, Ohio Delaware, Ohio
740.383.2187 937.482.7638 740.383.8722
DATE OCT 2002 CADD FILE S-BLOW-BLD
JOB NO. 7400-07 APPROVED

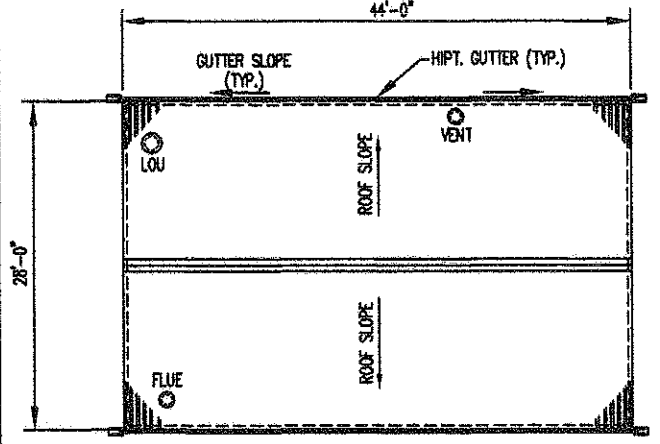
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
SLUDGE TRANSPORT/ELECTRICAL BUILDING
PLANS-SECTIONS-DETAILS
STRUCTURAL



SOUTH ELEVATION



WEST ELEVATION



ROOF PLAN



2002 OBC, PLUS REVISIONS

USE GROUP.....F2
 TYPE OF CONSTRUCTION.....VB
 BUILDING AREA.....1232 S.F.
 OCCUPANT LOAD:
 MAXIMUM OF 3 OCCUPANTS

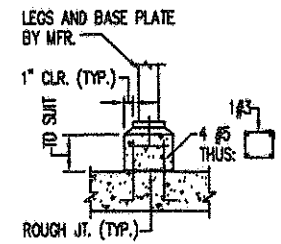
DESIGN LOADS

SOIL BEARING CAPACITY.....2000 PSF
 FLOOR LIVE LOAD.....200 PSF
 ROOF LIVE LOAD.....30 PSF

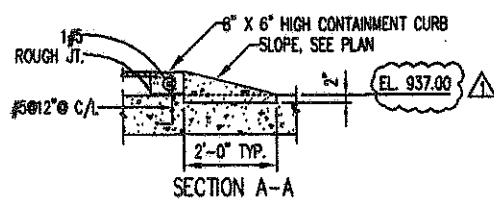
SNOW LOADS:
 GROUND SNOW LOAD.....20 PSF
 SLOPED ROOF SNOW LOAD.....13 PSF
 SNOW EXPOSURE FACTOR.....1.0
 SNOW LOAD IMPORTANCE FACTOR.....1.0
 SNOW THERMAL FACTOR.....1.0

WIND LOADS:
 BASIC WIND SPEED.....90 MPH
 WIND IMPORTANCE FACTOR.....1.0
 WIND EXPOSURE CLASSIFICATION....."C"

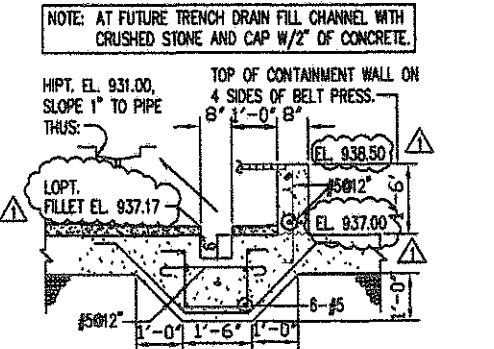
EARTHQUAKE DESIGN DATA:
 SEISMIC USE GROUP I ; I_a = 1.0
 S_{ds} = 0.36 ; S_{d1} = 3.84
 SITE CLASS D
 BASIC S-FORCE-RESISTING SYSTEM(S) : 1C, 1K
 DESIGN BASE SHEAR 11.1 k
 ANAL PROC ASCE 7-98 (SEC. 9.5.3)



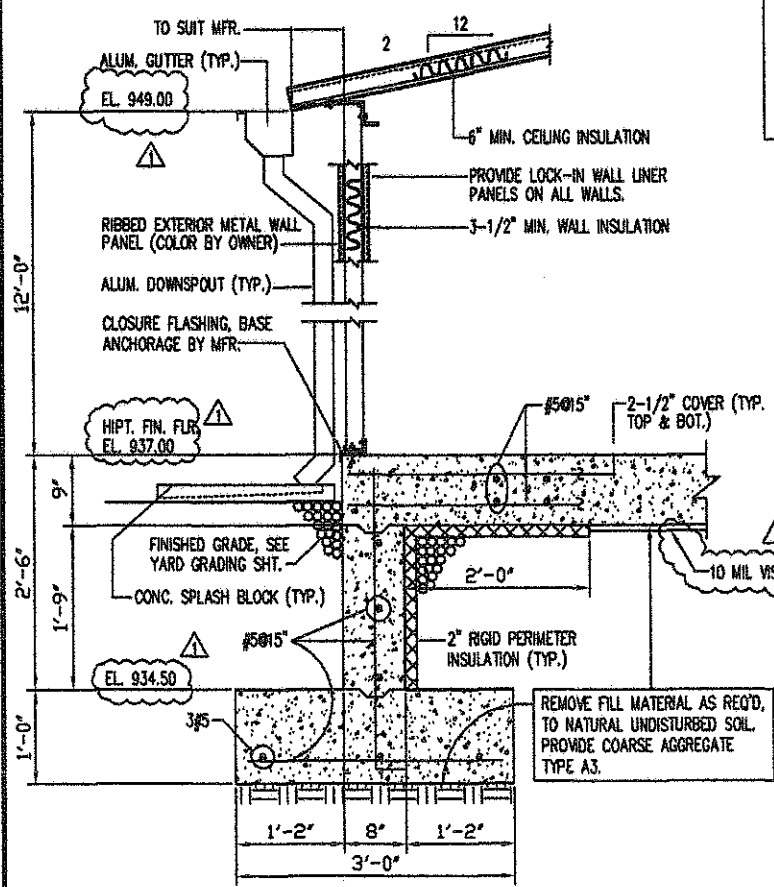
BELT PRESS PIER DETAILS



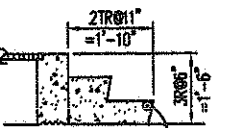
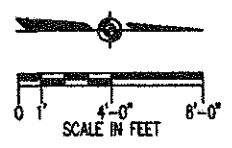
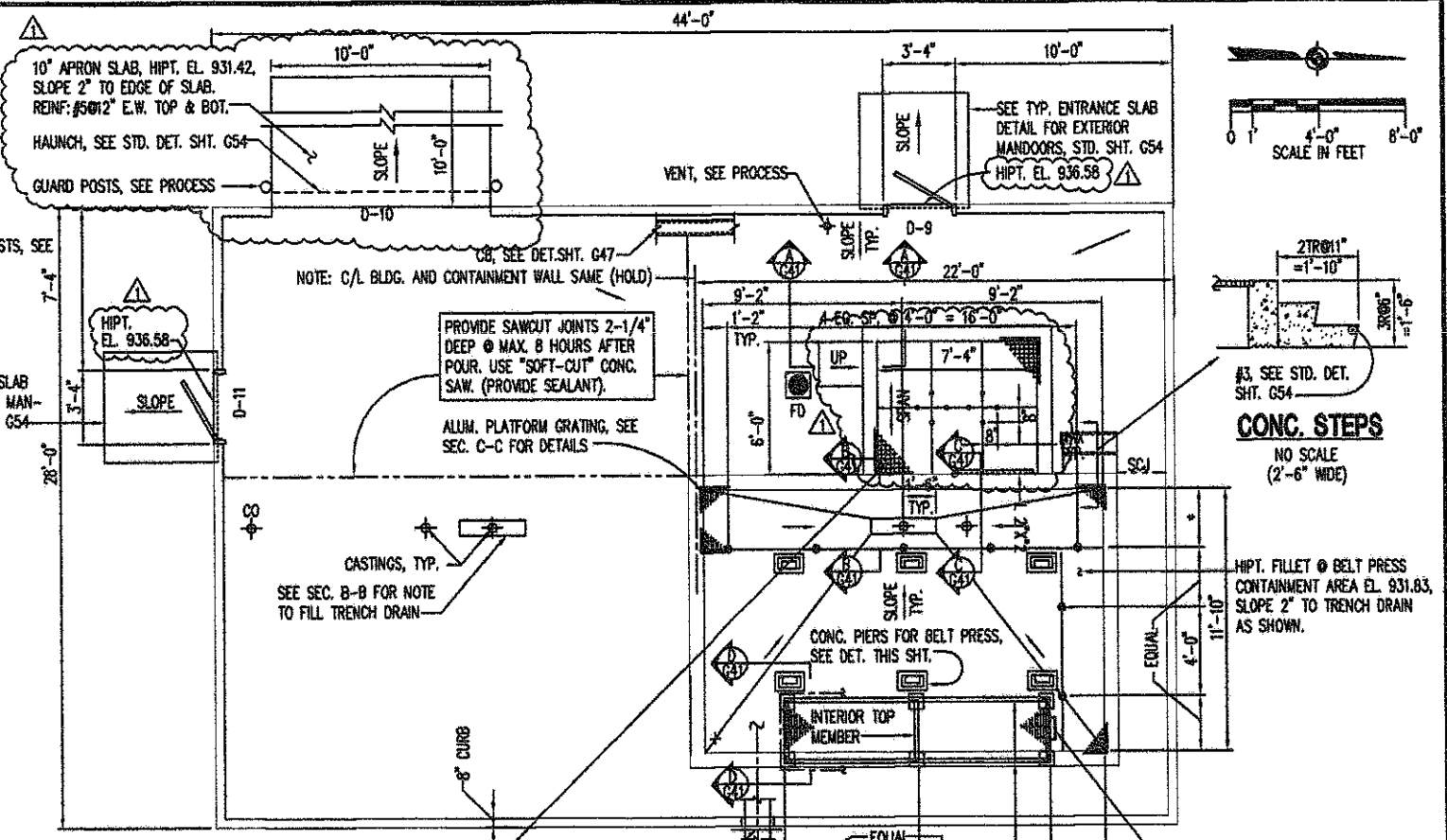
CONTAINMENT CURB AND RAMP DETAILS



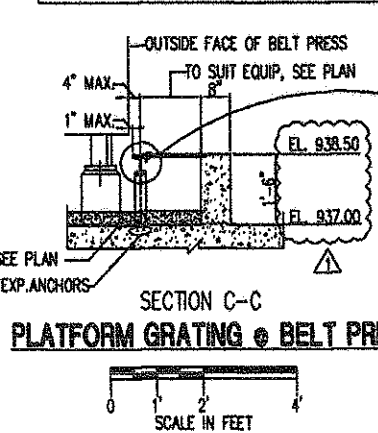
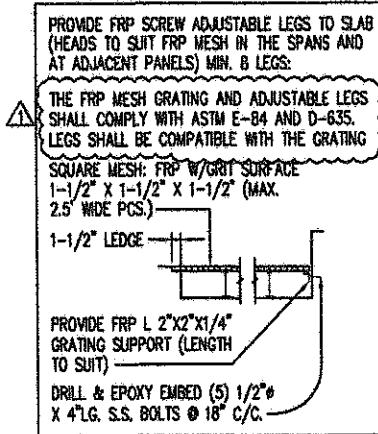
BELT PRESS TRENCH DRAIN AND CONTAINMENT WALL DETAIL



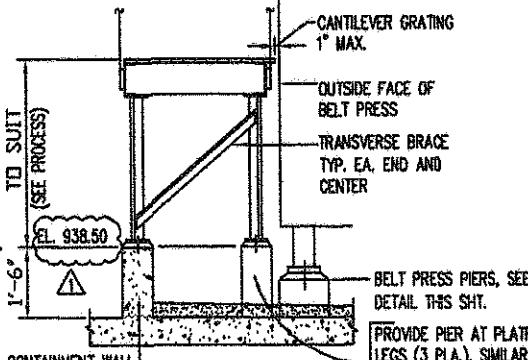
TYPICAL WALL SECTION



CONC. STEPS
NO SCALE (2'-6" WIDE)



PLATFORM GRATING & BELT PRESS



SECTION D-D ACCESS PLATFORM



GENERAL NOTES, SHT. G54
 STAIR & PLATFORM NOTES, SHT. G53

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-2-06	WCS	

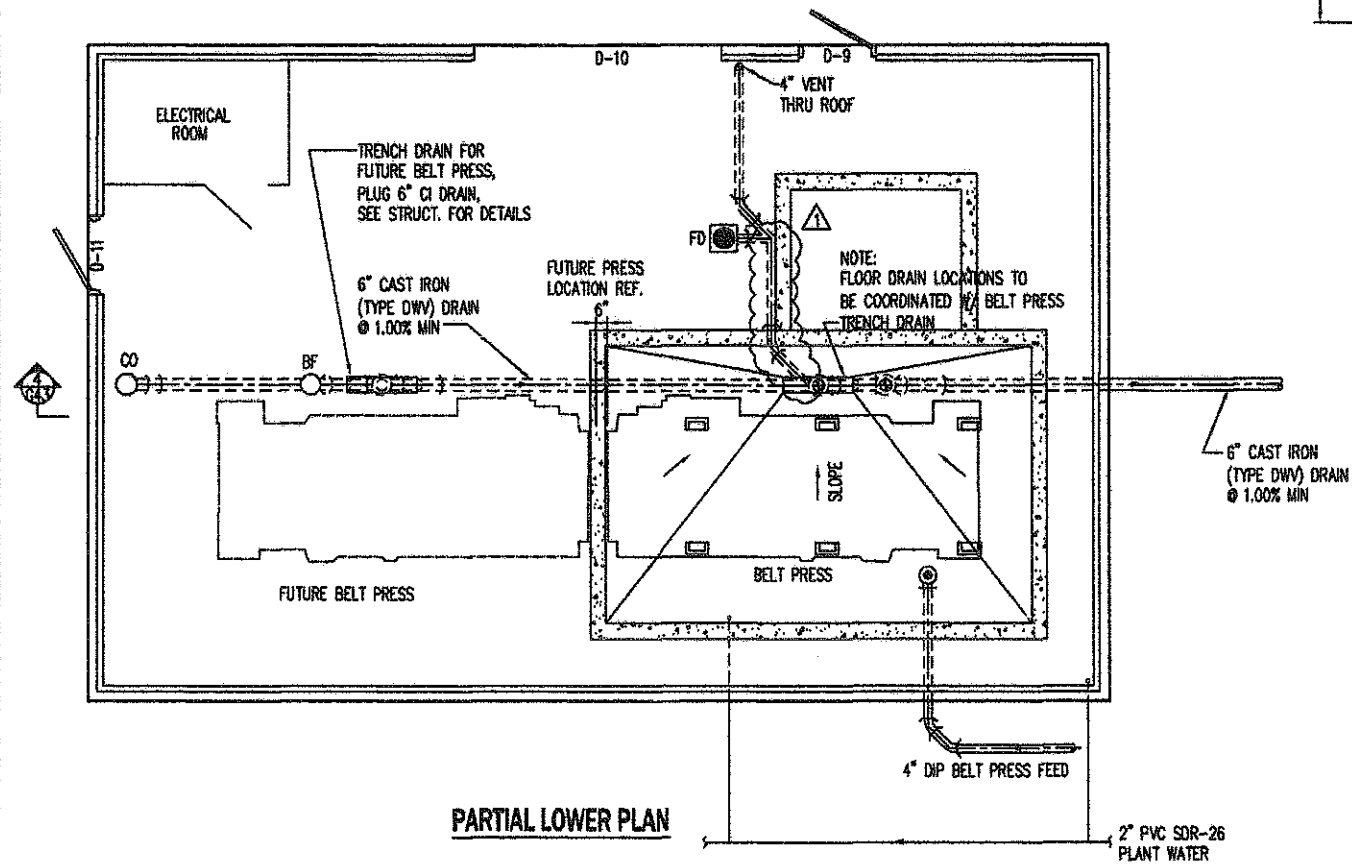
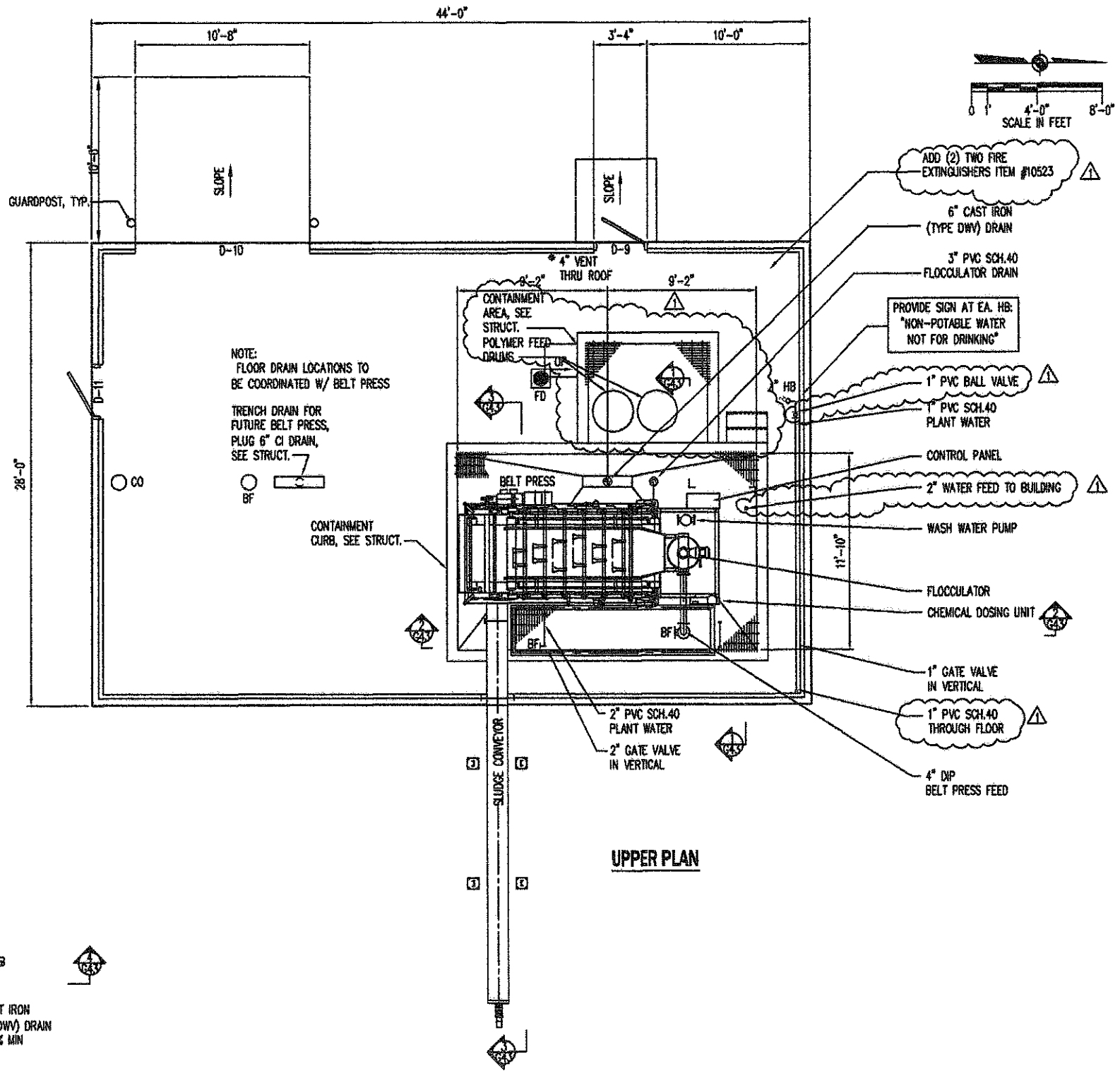
FLOYD BROWNE ASSOCIATES

4400 N. State St., Suite 100, Dayton, OH 45424
 937.233.8100

740.383.2187 937.492.7636 740.383.6762

DATE: OCT. 2002 CADD FILE: A-SH FACILITIES

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 SOLIDS HANDLING FACILITY
 PLAN-SECTIONS-DETAILS
 ARCHITECTURAL-STRUCTURAL



NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. *Contact Office

Marion, Ohio 740.383.2187 Sidney, Ohio 637.692.7636 Delaware, Ohio 740.383.6782

DATE: OCT-2002 CADD FILE: P-SHF FACILITIES JOB NO.: 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO

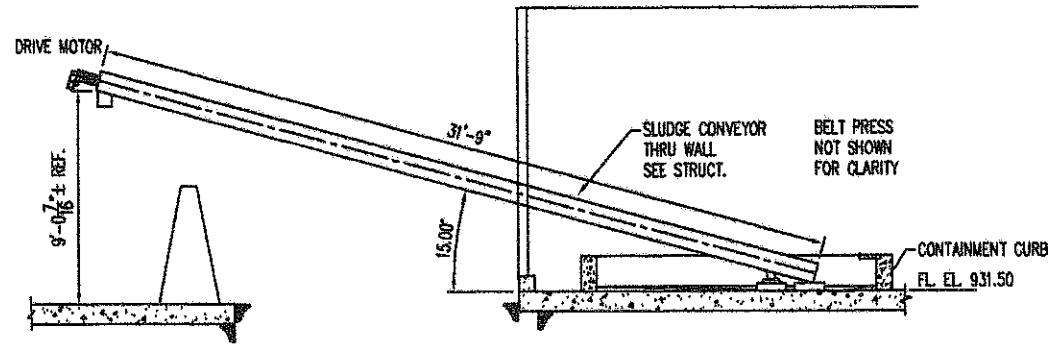
WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT NO. 2002-02

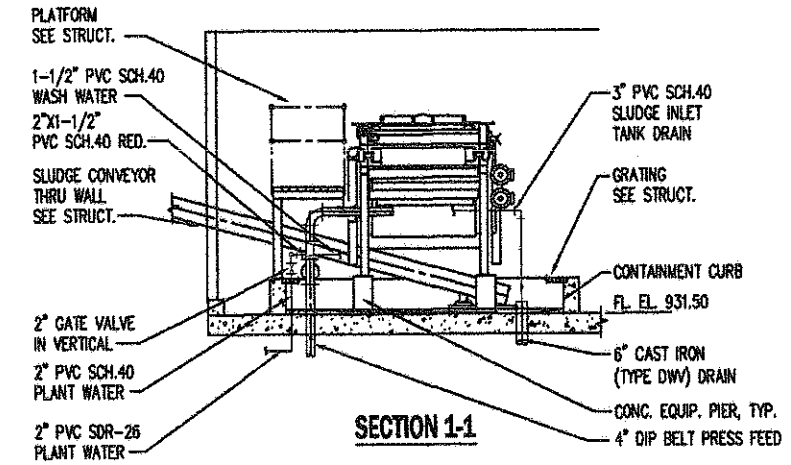
SOLIDS HANDLING FACILITY

PLAN VIEW

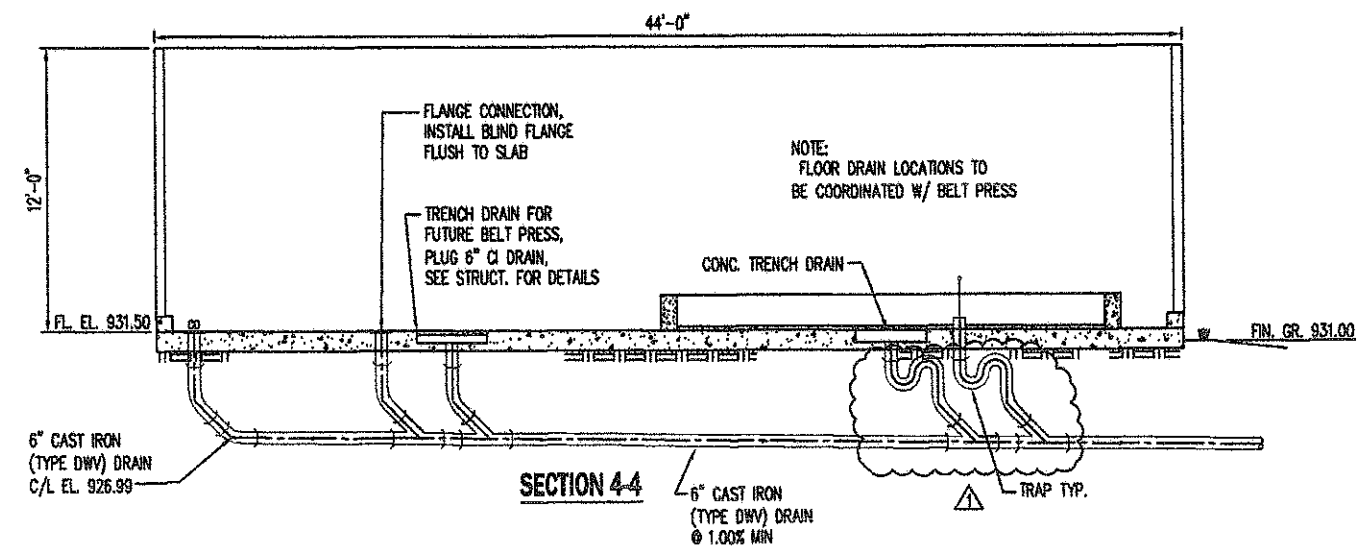
PROCESS



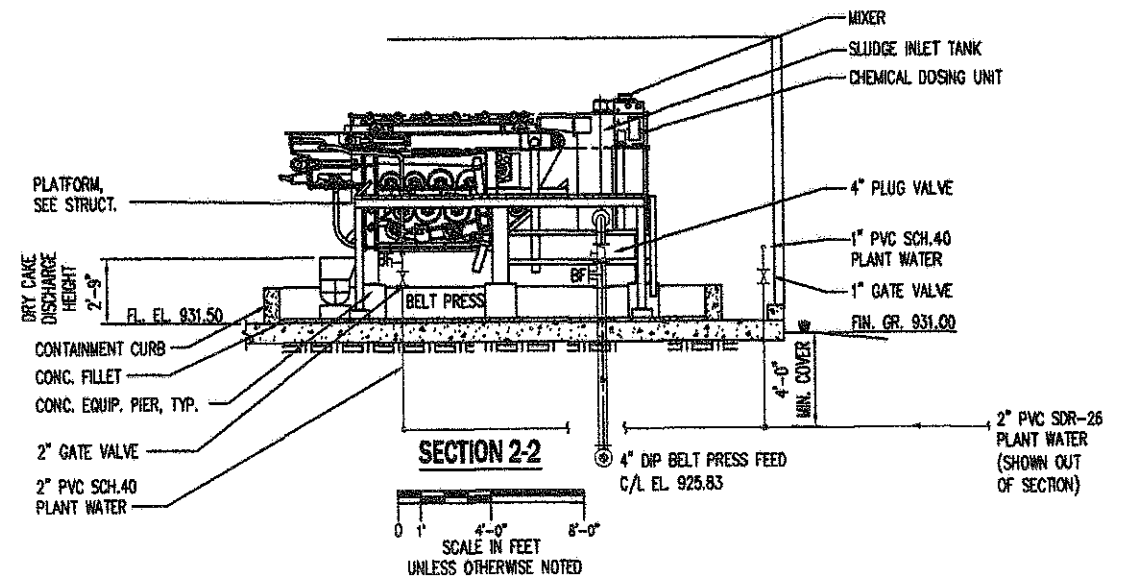
SECTION 3-3



SECTION 1-1



SECTION 4-4



SECTION 2-2

G43
OF
G54

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	5-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.

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DATE: OCT. 2002 CADD FILE: SHE-SECTION VIEWS

JOB NO. 7400-07 APPROVED

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VILLAGE OF SUNBURY

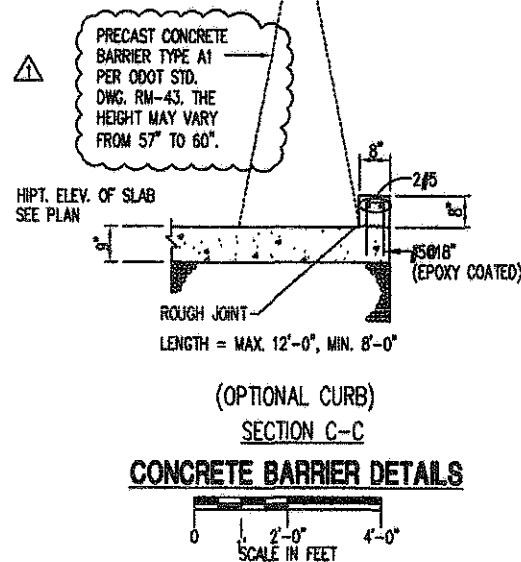
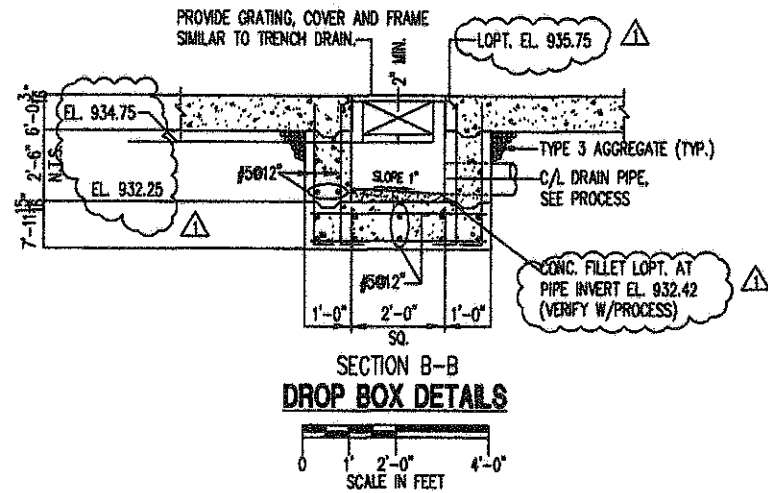
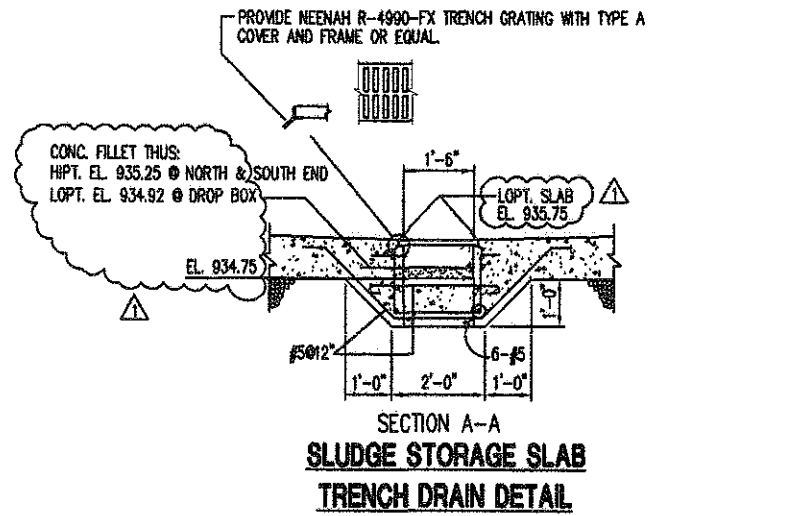
SOLIDS HANDLING IMPROVEMENTS

CONTRACT NO. 02-02

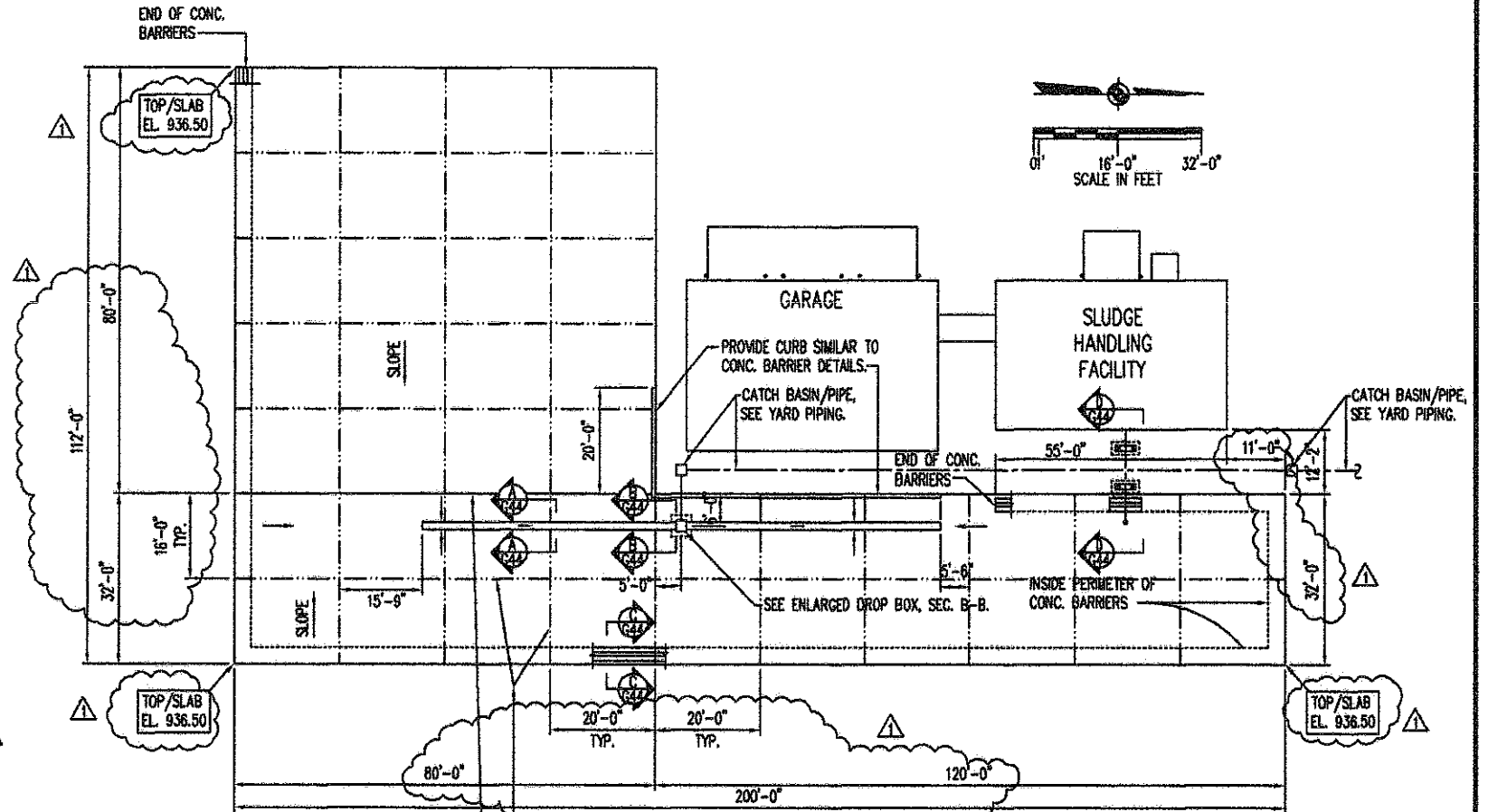
SOLIDS HANDLING FACILITY

SECTION VIEWS

PROCESS



- NOTES:
1. PROVIDE STANDARD DETAILS (INCLUDING REINFORCING, DOWELS, CONTRACTION JOINTS, SEALANT AS SHOWN ON ODOT STANDARD CONSTRUCTION DWGS. RM-4.3.
 2. A) PROVIDE CONTRACTION JOINTS AT MAX. 20' C/C, AND 3/4" PREFORMED FULL WIDTH AND HEIGHT FILLERS AND SEALANT AT MAX. 60 FT. C/C.
B) ALTERNATE OPTION: PROVIDE PRECAST SECTIONS WITH MAXIMUM LENGTH OF 12 FEET, MINIMUM LENGTH OF 8 FEET. CUT AND EPOXY COAT AT ALL LIFTING LUGS. PROVIDE SEALANT GROOVES 2 INCHES DEEP AT SIDES AND TOP. ANY BASE HANDLING GROOVES SHALL BE SEALED AT INSIDE FACE WITH CEMENT GROUT (4" PENETRATION).
 3. PROVIDE PAVEMENT DOWELS AT BASE OR A CONTINUOUS REINFORCED CURB AT THE EDGE OF SLAB (SEE DETAIL).
 4. PROVIDE SPECIAL PIER SECTIONS AT CORNERS TO MAINTAIN SLOPE AT INTERIOR FACES.

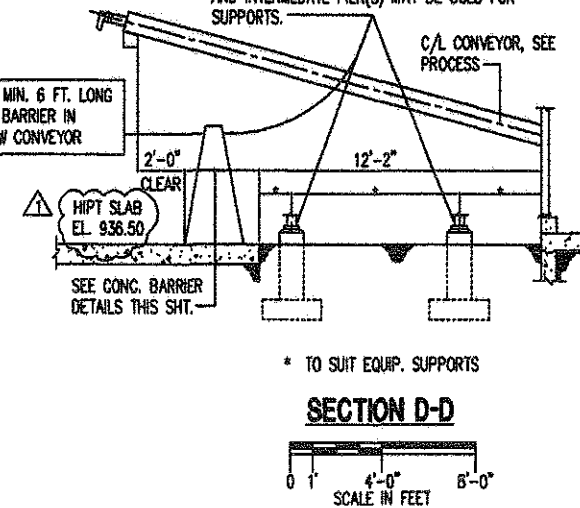
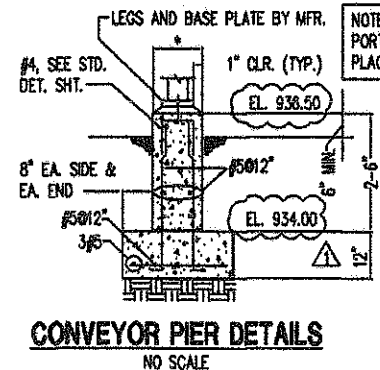


KEYED CONSTRUCTION JOINT
REINFORCING STEEL SHALL BE CONTINUOUS AT ALL JOINTS.
SAWCUT CONTRACTION JOINT 2-1/4" DEEP @ MAX. 8 HOURS AFTER POUR. USE "SOFT-CUT" CONCRETE SAW. (PROVIDE SEALANT)

PLAN
8" SLAB HPT. EL. 936.50 / SLOPE TO TRENCH DRAIN AS SHOWN (SEE PLAN)
REIN: #5015 EA. WAY TOP & BOT. PROVIDE 2-1/2" CONCRETE COVER ON TOP AND BOT. OF SLAB.

- NOTES:
1. PLACE INNERMOST SLAB AREAS FIRST, THEN WORK PROGRESSIVELY TO OUTWARD AREAS (DO NOT SKIP AREAS CHECKERBOARD FASHION).
 2. CONTRACTOR SHALL EXCAVATE A MIN. OF 18" BELOW THE BOTTOM OF THE SLUDGE DRYING SLAB AND REPLACE WITH TYPE A3 AGGREGATE.

SUPPORTS FOR CONVEYOR SHALL BE PROVIDED BY THE EQUIPMENT MFR. PROVIDE INSTALLATION AS INDICATED. CAST-IN-PLACE PORTION OF BARRIER AND INTERMEDIATE PIER(S) MAY BE USED FOR SUPPORTS.



* TO SUIT EQUIP. SUPPORTS

SECTION D-D

GENERAL NOTES, SHT. G54

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NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

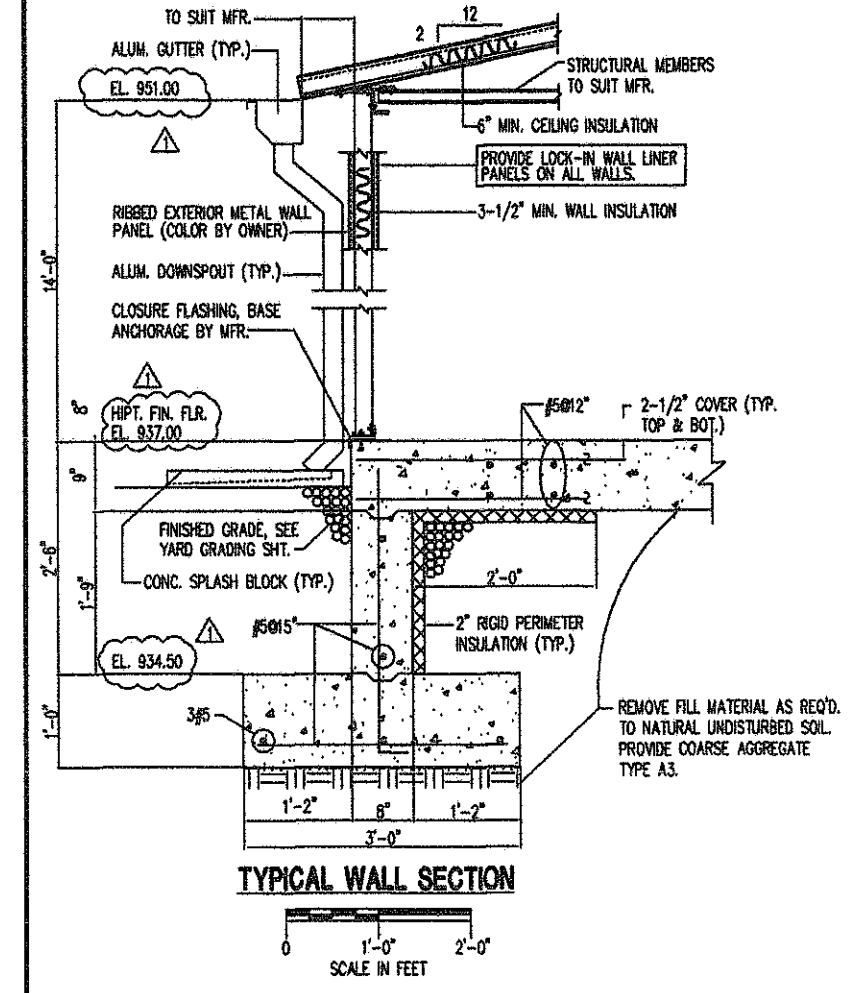
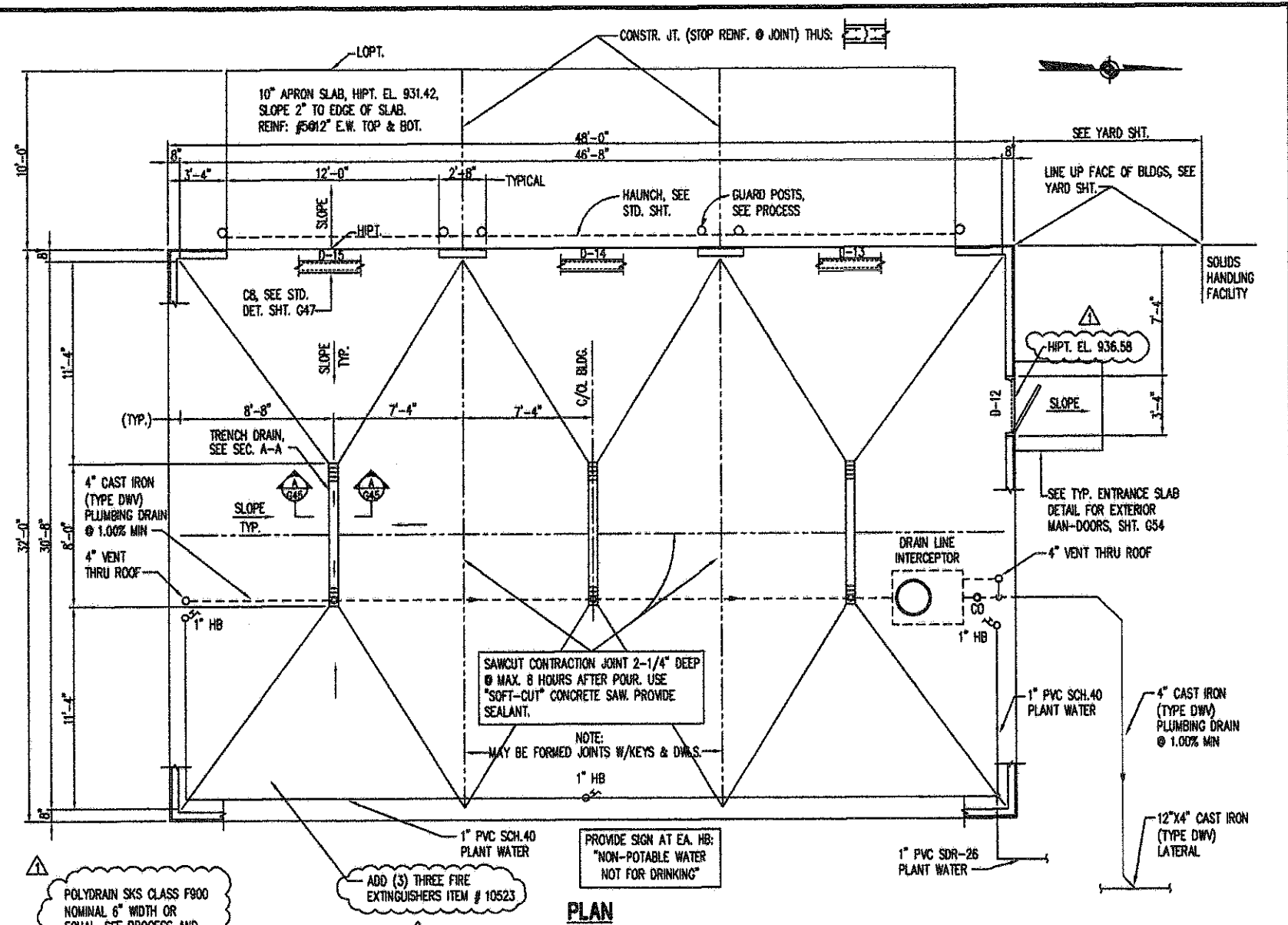
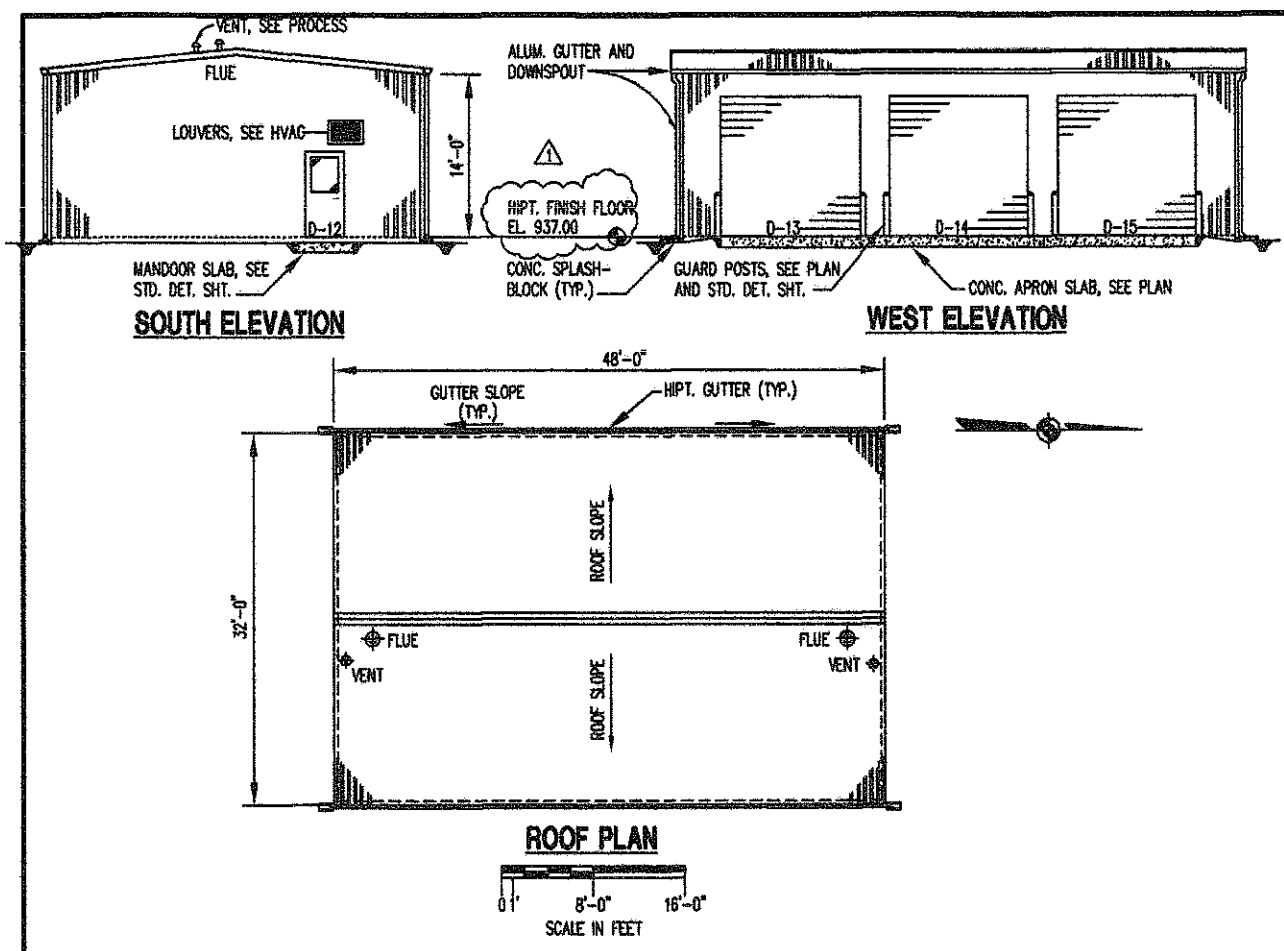
FLOYD BROWNE ASSOCIATES, INC. *Contact Office

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DATE OCT 2002 CADD FILE S-SL-SLAB

JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
SLUDGE DRYING SLAB
PLAN-SECTIONS-DETAILS
STRUCTURAL



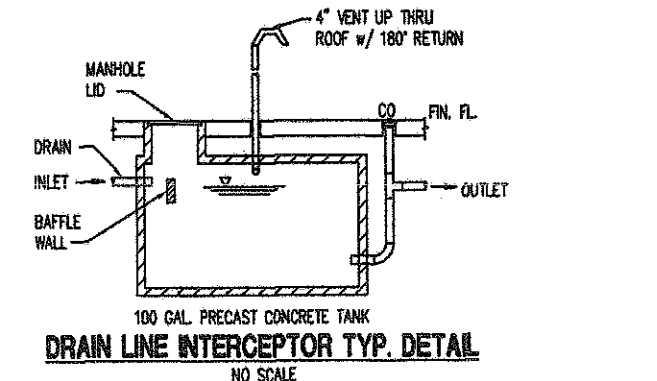
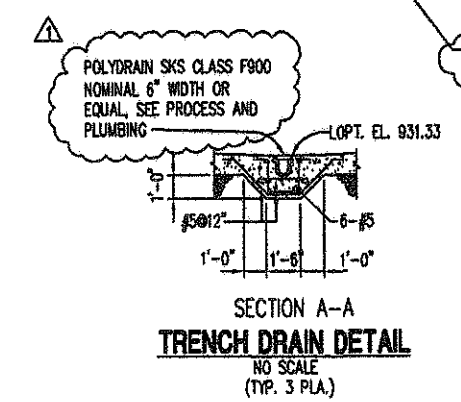
2002 OBC, PLUS REVISIONS
 USE GROUP.....S2
 TYPE OF CONSTRUCTION.....VB
 BUILDING AREA.....1536 S.F.
 OCCUPANT LOAD:
 MAXIMUM OF 3 OCCUPANTS

DESIGN LOADS
 SOIL BEARING CAPACITY.....2000 PSF
 FLOOR LIVE LOAD.....200 PSF
 ROOF LIVE LOAD.....30 PSF

SNOW LOADS:
 GROUND SNOW LOAD.....20 PSF
 SLOPED ROOF SNOW LOAD.....13 PSF
 SNOW EXPOSURE FACTOR.....1.0
 SNOW LOAD IMPORTANCE FACTOR.....1.0
 SNOW THERMAL FACTOR.....1.0

WIND LOADS:
 BASIC WIND SPEED.....90 MPH
 WIND IMPORTANCE FACTOR.....1.0
 WIND EXPOSURE CLASSIFICATION....."C"

EARTHQUAKE DESIGN DATA:
 SEISMIC USE GROUP I ; $I_a = 1.0$
 $S_{ds} = 6.36$; $S_{d1} = 3.84$
 SITE CLASS D
 BASIC S-FORCE-RESISTING SYSTEM(S) : 1C, 1K
 DESIGN BASE SHEAR 12.7 kK
 ANAL PROC ASCE 7-98 (SEC. 9.5.3)



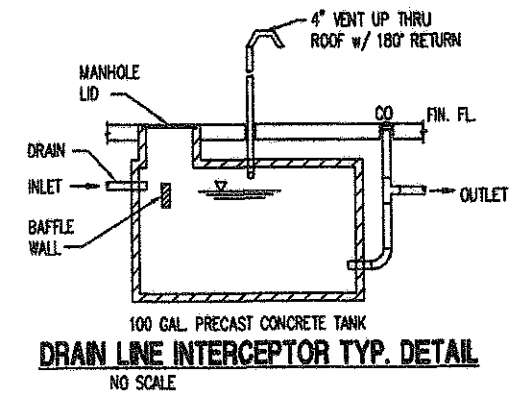
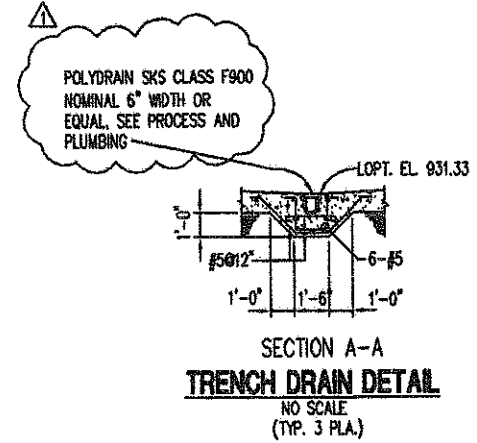
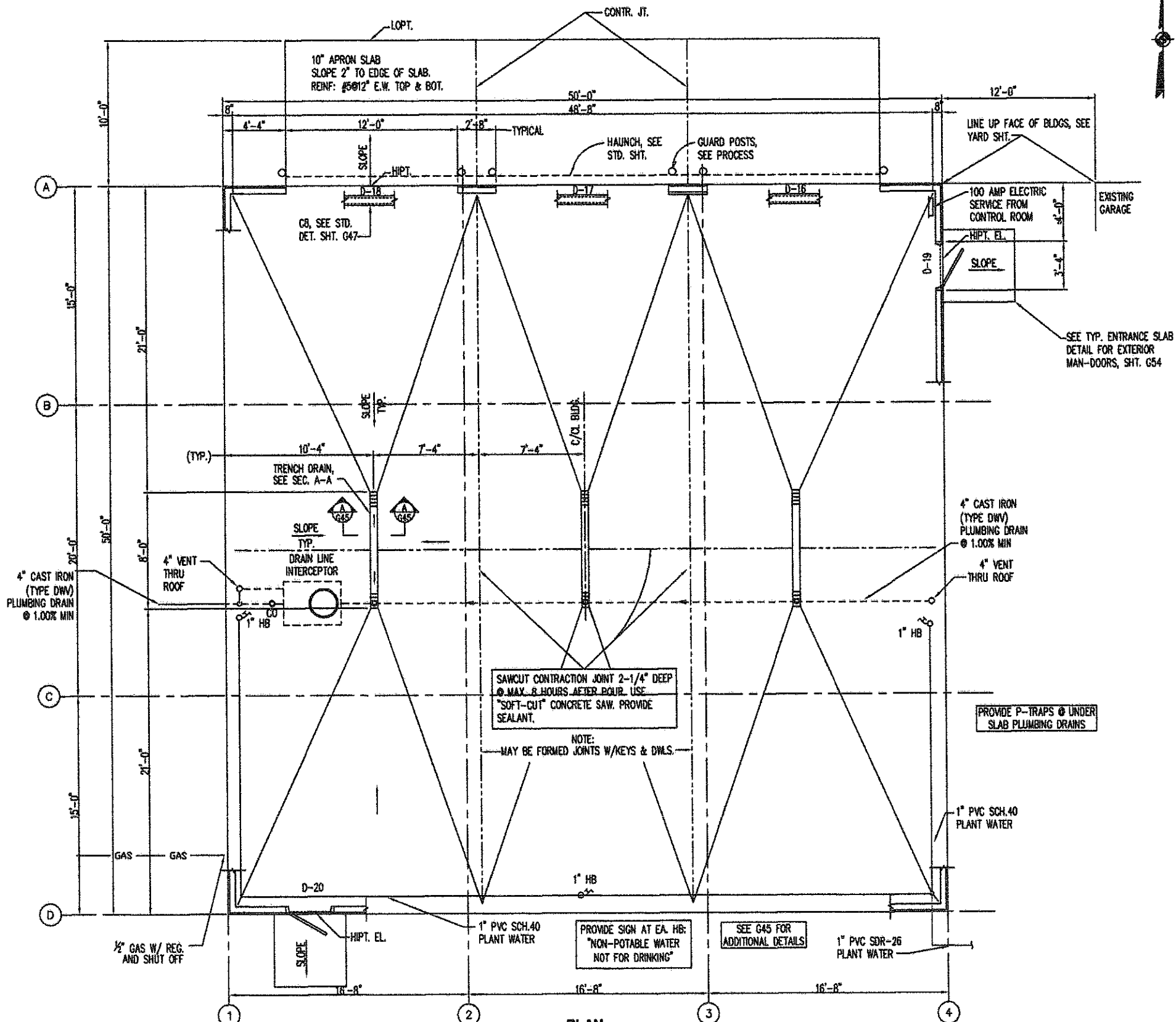
GENERAL NOTES, SHT. G54

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OF
G54

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-2-02	WCS	

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 * Contact Office
 #Marion, Ohio 740.383.2187
 #Sidney, Ohio 937.492.7836
 #Delaware, Ohio 740.363.6788
 DATE OCT 2002
 JOB NO. 7400-07
 CADD FILE A-GARAGE
 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 GARAGE BUILDING
 PLAN-SECTIONS-DETAILS
 ARCHITECTURAL/STRUCTURAL/PROCESS



PLAN
 7" SLAB, HIPT. EL. 937.50, SLOPE 2" TO TRENCH DRAIN.

NOTE:
 DETAILS FOR ELECTRIC, HVAC, MECHANICAL & UTILITIES
 OF THIS 50' X 50' X 16' PRE-ENGINEERED BUILDING ARE
 TO BE IDENTICAL TO THE 48' X 32' X 14' GARAGE AS
 SHOWN ON SHEET G45. SEE SHEET E13 AND H6.

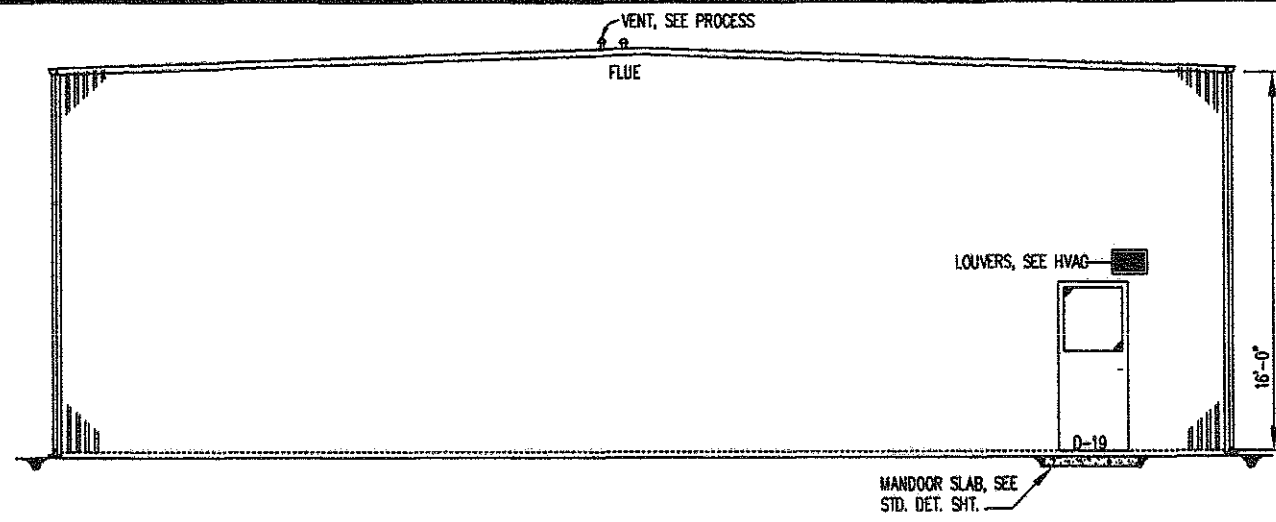
G45A
 OF
 G54

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-20-06	WCS	

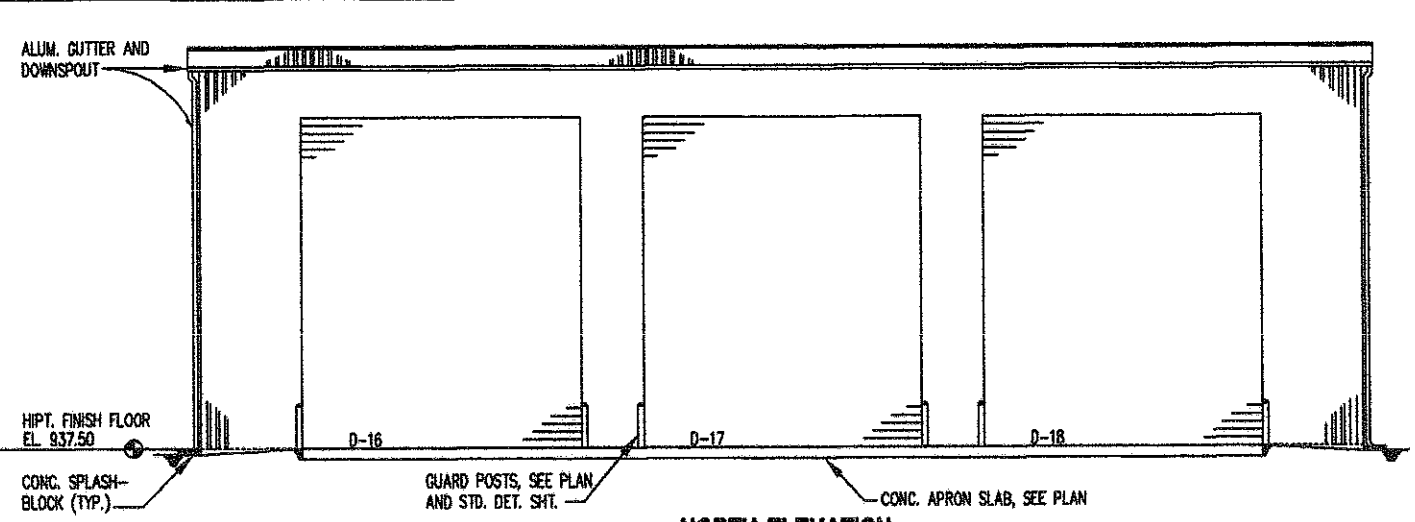
WCS
 Welland Consulting Services

DATE OCT 2002 CADD FILE A-GARAGE
 JOB NO. 7400-07 APPROVED

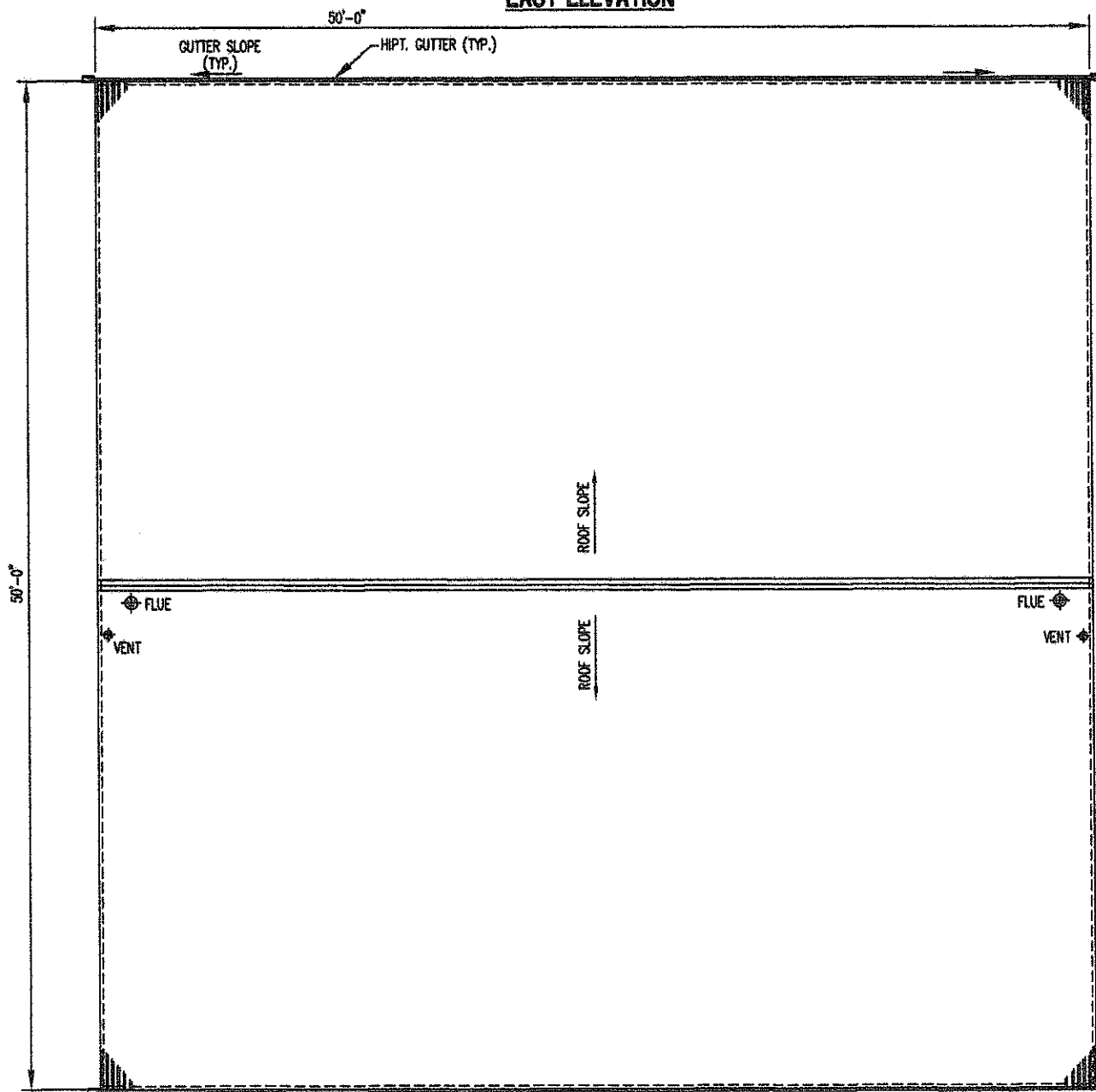
VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 GARAGE BUILDING NO. 2
 PLAN-SECTIONS-DETAILS
 ARCHITECTURAL/STRUCTURAL/PROCESS



EAST ELEVATION

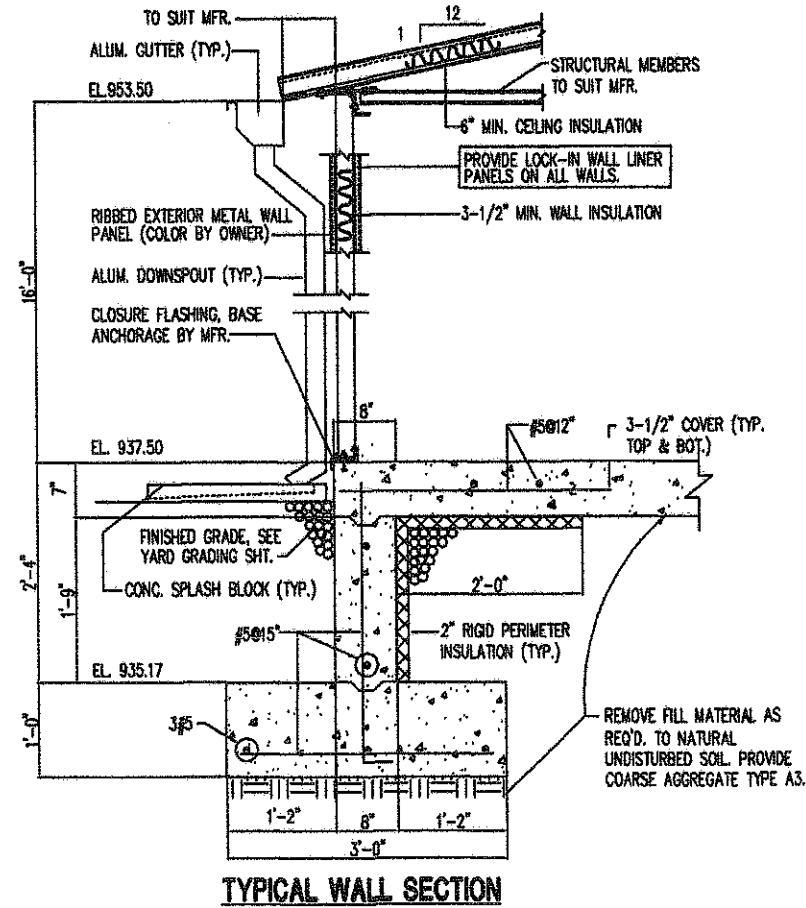


NORTH ELEVATION



ROOF PLAN
SCALE IN FEET

NOTE:
ALL ASPECTS OF THIS 50' X 50' X 16' PRE-ENGINEERED BUILDING ARE TO BE IDENTICAL TO THE 48' X 32' X 14' GARAGE. I.E. COLOR, INSULATION, PANELS, ROOF, SLOPE, TRIM, DOORS, LOUVERS, ETC.



TYPICAL WALL SECTION

SCALE IN FEET

2002 OBC, PLUS REVISIONS

USE GROUP.....S2
TYPE OF CONSTRUCTION.....VB
BUILDING AREA.....2500 S.F.
OCCUPANT LOAD:
MAXIMUM OF 3 OCCUPANTS

DESIGN LOADS

SOIL BEARING CAPACITY.....3000 PSF
FLOOR LIVE LOAD.....200 PSF
ROOF LIVE LOAD.....30 PSF
SNOW LOADS:
GROUND SNOW LOAD.....20 PSF
SLOPED ROOF SNOW LOAD.....13 PSF
SNOW EXPOSURE FACTOR.....1.0
SNOW LOAD IMPORTANCE FACTOR.....1.0
SNOW THERMAL FACTOR.....1.0
WIND LOADS:
BASIC WIND SPEED.....80 MPH
WIND IMPORTANCE FACTOR.....1.0
WIND EXPOSURE CLASSIFICATION....."C"

EARTHQUAKE DESIGN DATA:
SEISMIC USE GROUP I ; $I_e = 1.0$
 $S_{ds} = 6.36$; $S_{d1} = 3.84$
SITE CLASS D
BASIC S.-FORCE-RESISTING SYSTEM(S) : 1C, 1K
DESIGN BASE SHEAR 12.7 k
ANAL. PROC ASCE 7-98 (SEC. 9.5.3)

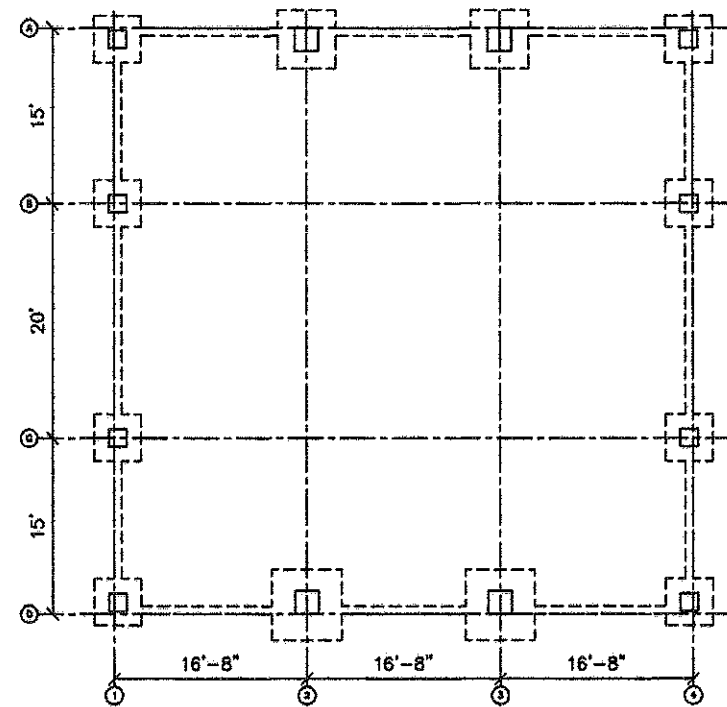
G45B
of
G54

NO.	REVISION DATA	DATE	BY	APP'D

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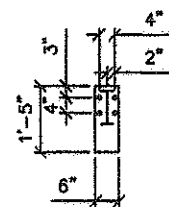
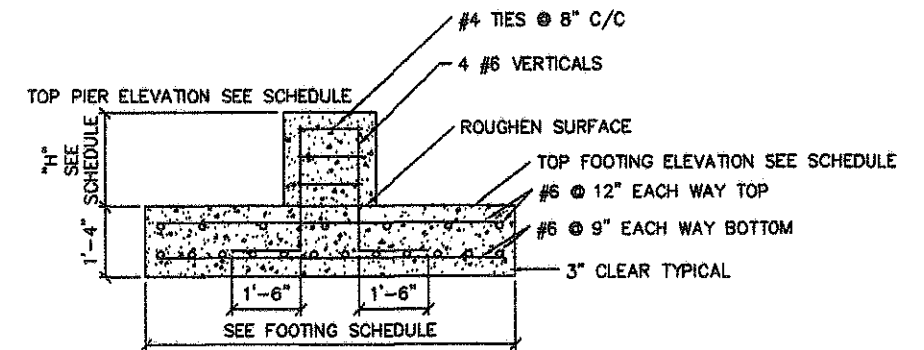
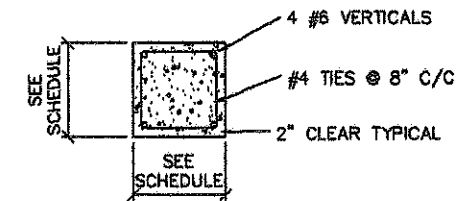
DATE OCT 2002 CADD FILE A-GARAGE
JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
GARAGE BUILDING NO. 2
PLAN-SECTIONS-DETAILS
ARCHITECTURAL/STRUCTURAL/PROCESS



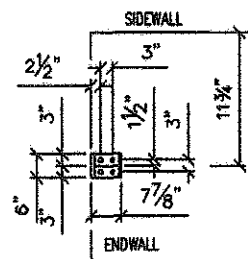
FOUNDATION PLAN

FOOTING & PIER SCHEDULE						
COLUMN MARKS	FOOTINGS		PIERS			ANCHOR BOLTS
	SIZE	TOP EL	SIZE	"H"	TOP EL	LAYOUT PLAN
A1, A4, D1, D4	4'-0" X 4'-0" X 16"	98'-0"	18" X 18"	2'-0"	100'-0"	B
B1, B4, C1, C4	4'-0" X 4'-0" X 16"	98'-0"	18" X 18"	2'-0"	100'-0"	C
A2, A3	5'-0" X 5'-0" X 16"	98'-0"	24" X 24"	2'-0"	100'-0"	A
D2, D3	6'-0" X 6'-0" X 16"	98'-0"	24" X 24"	2'-0"	100'-0"	A



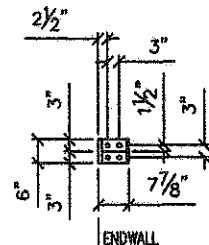
BASE PLATE TYPE "A"

Scale: 1" = 1'-0" (5/4" ANCHOR BOLTS)



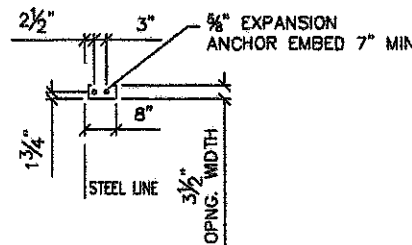
BASE PLATE TYPE "B"

Scale: 1" = 1'-0" (5/8" ANCHOR BOLTS)



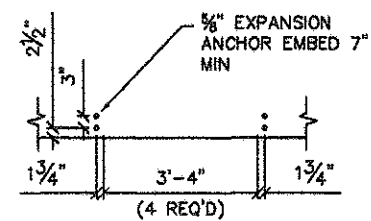
BASE PLATE TYPE "C"

Scale: 1" = 1'-0" (5/8" ANCHOR BOLTS)



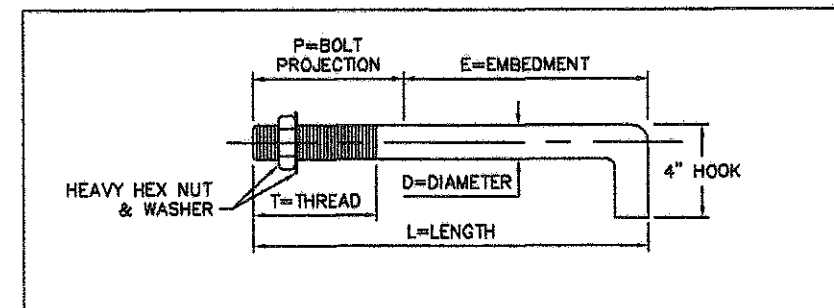
BASE PLATE TYPE "D"

Scale: 1" = 1'-0"



FIELD LOCATED FRAMED OPENING

Scale: 1" = 1'-0"



ANCHOR BOLT SCHEDULE

MARK	NO. REQD	DIMENSIONS					REMARKS
		D	T	L	E	P	
A	4	3/4"	3"	2'-0"	1'-6"	3"	1
B	2	5/8"	3"	2'-0"	1'-6"	3"	1
C	2	5/8"	3"	2'-0"	1'-6"	3"	1

1. VERIFY ALL ANCHOR BOLT REQUIREMENTS WITH METAL BUILDING SUPPLIER.
2. ANCHOR BOLTS SHALL BE ASTM A307 STEEL.

NOTE:
FOR ANCHOR BOLT LOCATION AND PLACEMENT SEE A&S
BUILDING SYSTEMS SHEET F1 OF 1 DATED 4-22-05

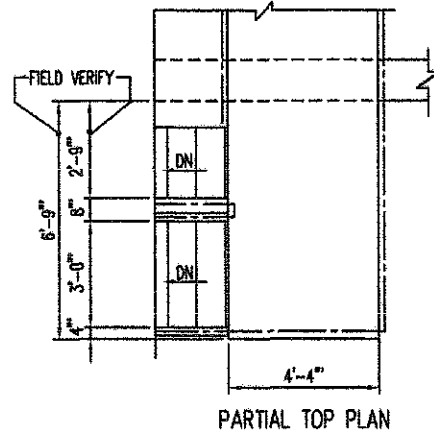
G45C
OF
G54

NO.	REVISION DATA	DATE	BY	APP'D

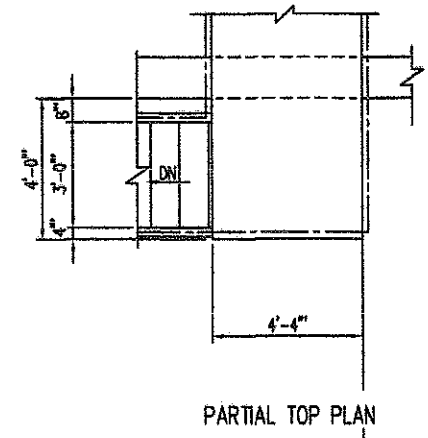
WCS
Welland Consulting Services

DATE: OCT 2002
JOB NO. 7400-07
CADD FILE: A-GARAGE
APPROVED

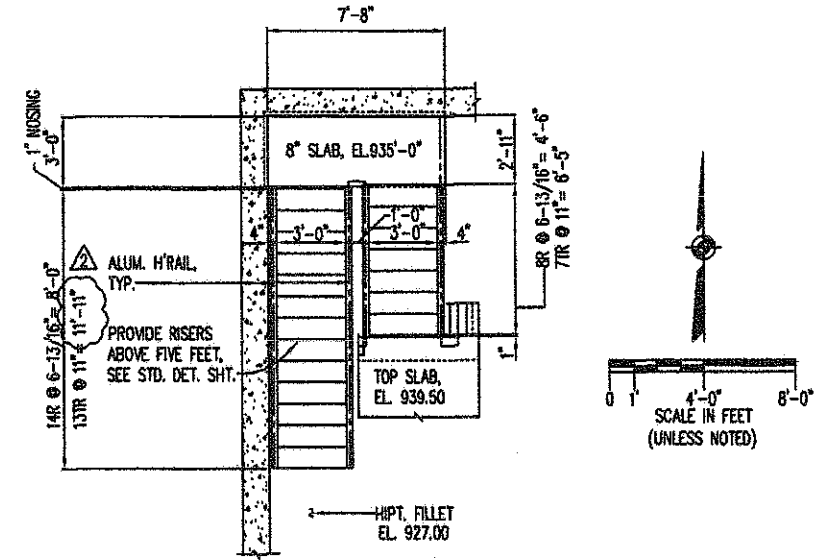
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
GARAGE BUILDING NO. 2
PLAN-SECTIONS-DETAILS
ARCHITECTURAL/STRUCTURAL/PROCESS



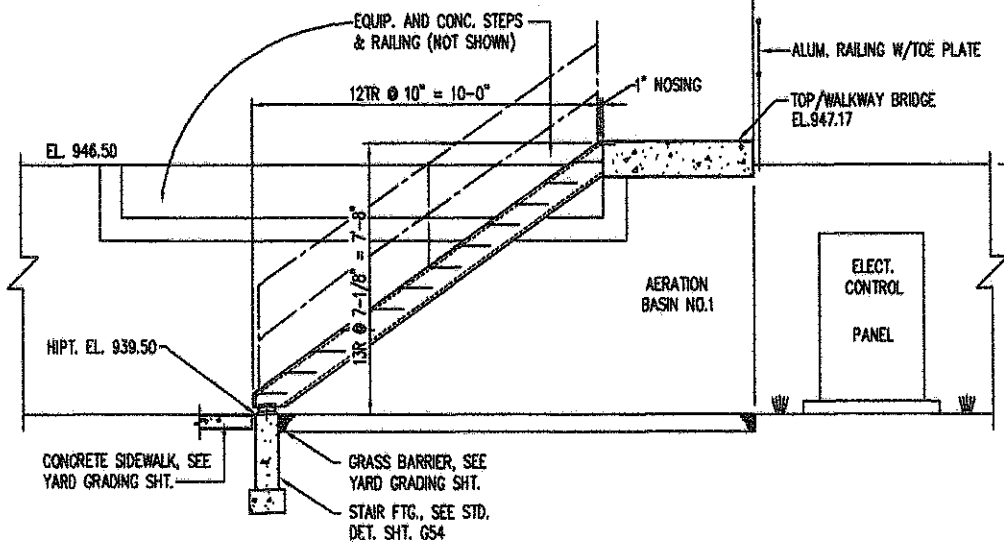
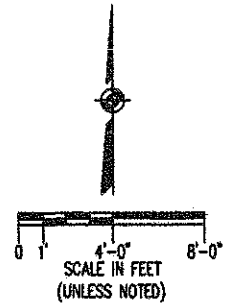
PARTIAL TOP PLAN



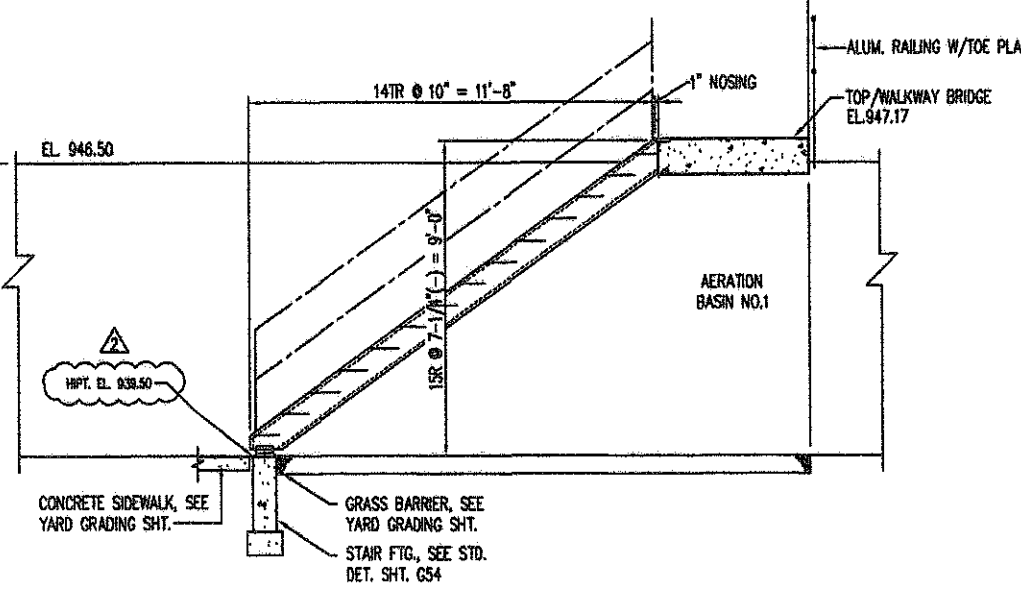
PARTIAL TOP PLAN



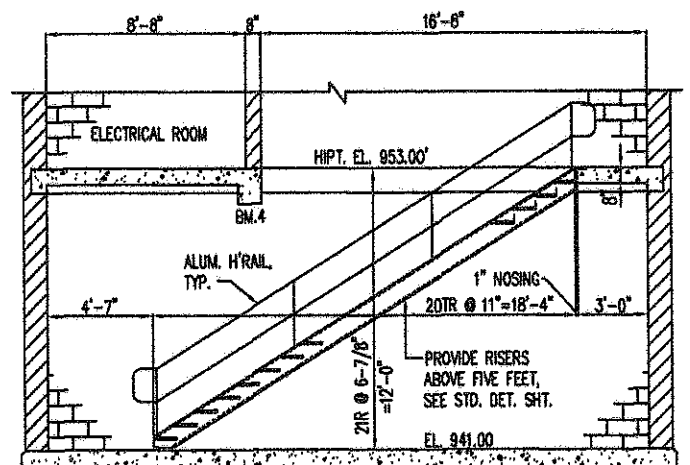
PLAN
STAIR 'G'
(SLUDGE TRANSPORT/ELECTRICAL BUILDING)



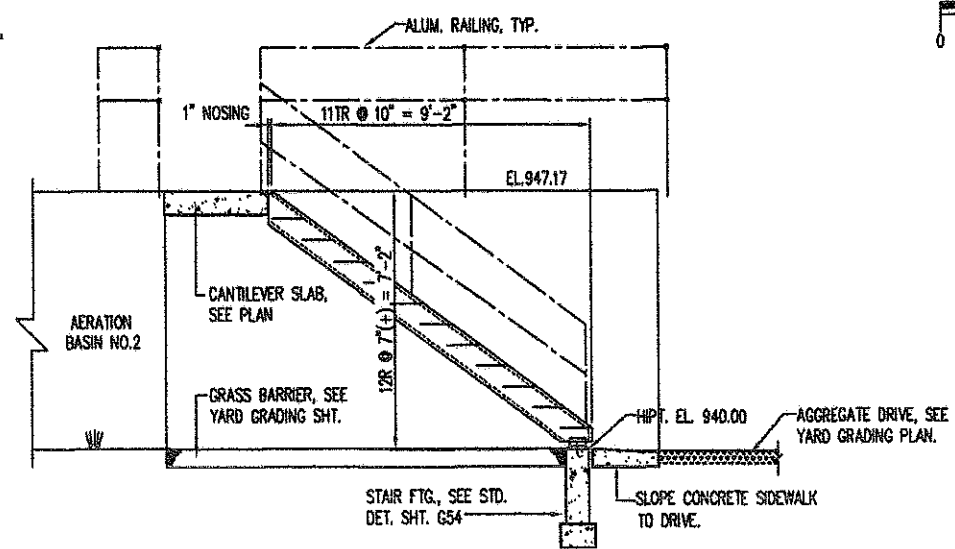
STAR 'C'
(WEST ELEVATION)



STAR 'C1'
(WEST ELEVATION)



SECTION @ NORTH WALL
STAIR 'A'
(PRELIMINARY TREATMENT BUILDING)



STAR 'D'
(EAST ELEVATION)



METAL STAIR AND PLATFORM:	METAL LADDER (LOCATION)
STAIR "A", THIS SHT.	SHT. G21 - EXTERIOR LADDER @ EAST WALL OF PRELIMINARY TREATMENT FACILITY.
STAIR "B", SEE SHT. G20	SHT. G26 - EXTERIOR LADDER AT SOUTH END WALKWAY @ EAST END OF AERATION BASIN NO. 2
STAIR "C", THIS SHT.	SHT. G41 - EXTERIOR LADDER @ SOUTH WALL OF SLUDGE TRANSPORT/ELECTRICAL BLDG.
STAIR "C1", THIS SHT.	SHT. G46 - INTERIOR LADDER @ ACCESS PLATFORM OF SOLIDS HANDLING FACILITY.
STAIR "D", THIS SHT.	
STAIR "E", SEE SHT. G28	
STAIR "F", SEE SHT. G32	
STAIR "G", THIS SHT.	

LADDER, SEE STD. DET. SHT. G52
STAIR AND PLATFORM NOTES, SHT. G53
SEE GENERAL NOTES, SHT. G54

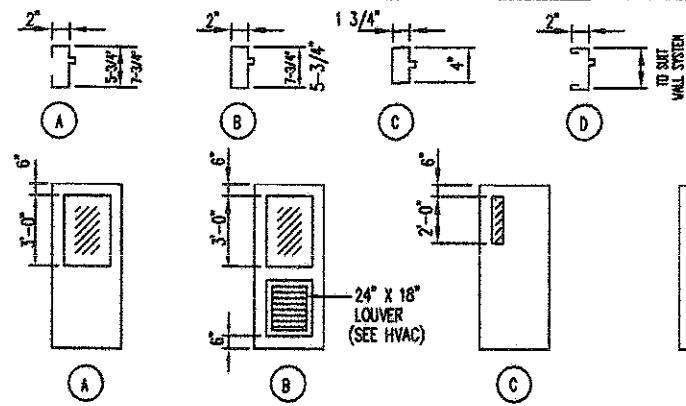
NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER CEPA COMMENTS	5/14/03	WMM	
2	PER RECORD PRINTS	8-28-06	WCS	

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 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7836 Delaware, Ohio 740.363.6798
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 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 MISCELLANEOUS METAL STAIRS
 STRUCTURAL

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OF
G54

DOOR AND FRAME SCHEDULE



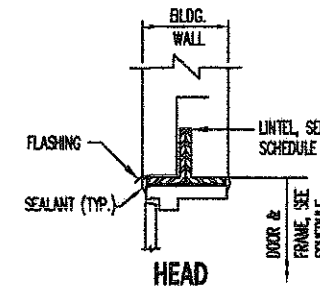
* AS REQUIRED, SEE SCHEDULE

SHT. NO.	MARK	LOCATION	DOORS			FRAMES			SWING	HARDWARE	THRESHOLD	LINTEL	REMARKS	FIRE LABEL
			TYPE	SIZES	MATL.	TYPE	SIZES	MATL.						
G18	D-1	PRELIMINARY TREATMENT BLDG.	B	3'-0" X 7'-2"	ALUM.	B	3'-4" X 7'-4"	ALUM.	LHR	1	5" ALUM. NON-SUP	L-3	-	-
G18	D-2	"	G	10'-0" X 10'-0"	STL.	SEE DET.	C12 X 20.7	STL.	ROLL-UP	BY DOOR MFR.	S.S. C6 X8.2	L-2	SEE ROLL-UP DOOR D-2 THIS SHT. CHAIN OPERATED	-
G18	D-3	"	B	3'-0" X 7'-2"	ALUM.	B	3'-4" X 7'-4"	ALUM.	RHR	1	5" ALUM. NON-SUP	L-3	-	-
G18	D-4	"	A	3'-0" X 7'-2"	ALUM.	B	3'-4" X 7'-4"	ALUM.	LHR	1	5" ALUM. NON-SUP	L-3	ELECTRICAL ROOM	-
G18	D-5	"	B	3'-0" X 7'-2"	ALUM.	B	3'-4" X 7'-4"	ALUM.	RHR	1	5" ALUM. NON-SUP	L-3	-	-
G18	D-6	PRELIMINARY TREATMENT BLDG.	G	6'-4" X 8'-0"	STL.	SEE DET.	C12 X 20.7	STL.	ROLL-UP	BY DOOR MFR.	S.S. C6 X8.2	L-1	SIMILAR TO ROLL-UP DOOR D-2 THIS SHT.	-
G40	D-7	SLUDGE TRANSPORT/ELECT. BLDG.	E	6'-0" X 7'-2"	ALUM.	B	6'-4" X 7'-4"	ALUM.	DL-RHRACT	5	SEE NOTE: 1	L-1	SEE NOTE 2 & 3	-
G40	D-8	SLUDGE TRANSPORT/ELECT. BLDG.	A	3'-0" X 7'-2"	ALUM.	B	3'-4" X 7'-4"	ALUM.	RHR	1	5" ALUM. NON-SUP	L-3	-	-
G42	D-9	SOLIDS HANDLING FACILITY	B	3'-0" X 7'-2"	ALUM.	A	3'-4" X 7'-4"	ALUM.	LHR	1	5" ALUM. NON-SUP	BY BLDG. MFR.	-	-
G42	D-10	"	F	10'-0" X 10'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	ROLL-UP	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	SEE ROLL-UP DOOR D-9 THIS SHT.	-
G42	D-11	SOLIDS HANDLING FACILITY	B	3'-0" X 7'-2"	ALUM.	A	3'-4" X 7'-4"	ALUM.	RHR	1	5" ALUM. NON-SUP	BY BLDG. MFR.	-	-
G45	D-12	GARAGE BUILDING	B	3'-0" X 7'-2"	ALUM.	A	3'-4" X 7'-4"	ALUM.	LHR	1	5" ALUM. NON-SUP	BY BLDG. MFR.	-	-
G45	D-13	"	F	12'-0" X 12'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	SECTIONAL	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	MOTOR OPERATED	-
G45	D-14	"	F	12'-0" X 12'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	SECTIONAL	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	MOTOR OPERATED	-
G45	D-15	GARAGE BUILDING	F	12'-0" X 12'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	SECTIONAL	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	MOTOR OPERATED	-
G45B	D-16	GARAGE BUILDING NO. 2	F	12'-0" X 14'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	SECTIONAL	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	-	-
G45B	D-17	GARAGE BUILDING NO. 2	F	12'-0" X 14'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	SECTIONAL	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	-	-
G45B	D-18	GARAGE BUILDING NO. 2	F	12'-0" X 14'-0"	STL.	SEE DET.	BY DOOR MFR.	STL.	SECTIONAL	BY DOOR MFR.	C8 X 11.5	BY BLDG. MFR.	-	-
G45B	D-19	GARAGE BUILDING NO. 2	A	3'-0" X 7'-2"	ALUM.	A	3'-4" X 7'-4"	ALUM.	LHR	1	5" ALUM. NON-SUP	BY BLDG. MFR.	-	-
G45B	D-20	GARAGE BUILDING NO. 2	A	3'-0" X 7'-2"	ALUM.	A	3'-4" X 7'-4"	ALUM.	LHR	1	5" ALUM. NON-SUP	BY BLDG. MFR.	-	-

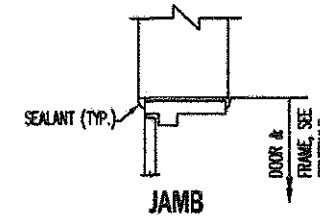
NOTE: 1. PROVIDE AUTOMATIC DOOR SWEEP.
 2. PROVIDE DOOR STOPS AT TOP & BOT. ON INACTIVE DOOR.
 3. LOUVERS REQ'D. - SIMILAR TO DOOR TYPE B

LINTEL SCHEDULE

MARK	SIZE	LENGTH	SECTION	NO. REQ'D	LOCATION/NOTES
L-1	3 Ls 5"X3-1/2"X5/16"	7'-8"	JLL	2	D-6, D-7
L-2	WBX2B, PL 1/4" X 11"	11'-4"	I	1	D-2 SEE DET. A
L-3	3 Ls 4"X3-1/2"X1/4"	4'-8"	JLL	5	D-1, D-3, D-4, D-5 D-8
-	-	-	-	-	-
L-5	3 Ls 4"X3-1/2"X1/4"	2'-10"	JLL	4	EF-1, EF-2 LOU-3, LOU-4
L-6	3 Ls 4"X3-1/2"X1/4"	3'-4"	JLL	2	LOU-1, LOU-2
L-7	TS 8" X 8" X 5/16"	31'-4"		1	ROOF SUPPORT DET. SHT. G38



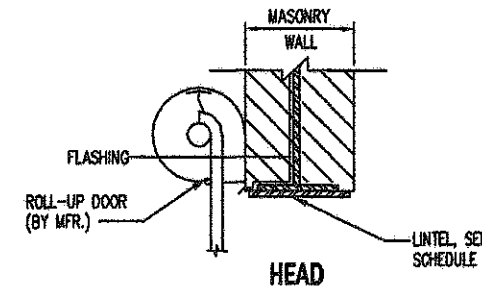
HEAD



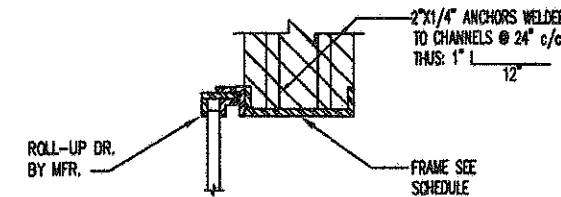
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MANDOOR DETAILS

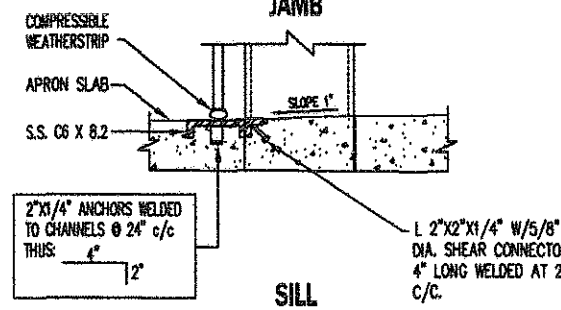
NO SCALE



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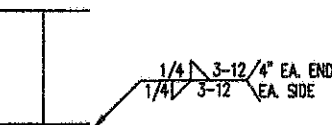


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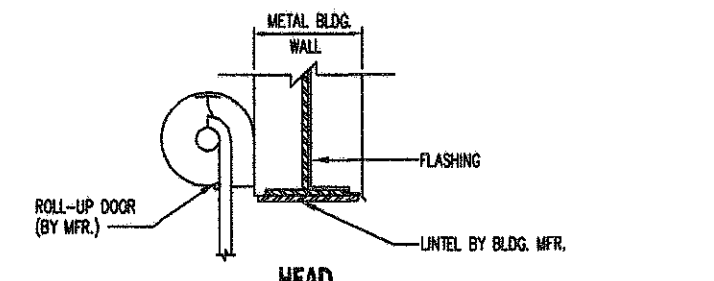
ROLL-UP DOOR DETAIL (D-2)

NO SCALE

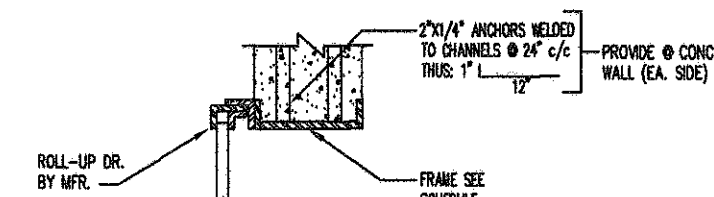


DETAIL "A"

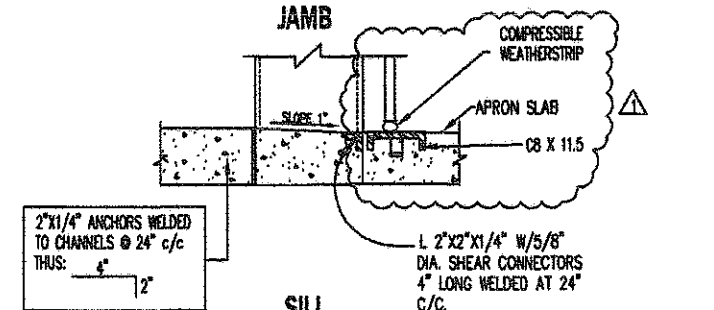
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HEAD



JAMB



ROLL-UP DOOR DETAIL (D-9)

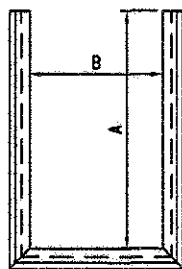
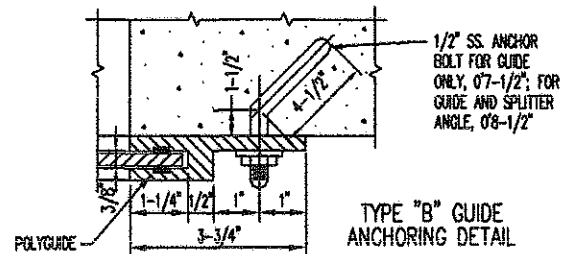
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NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

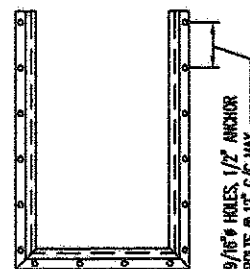
FLOYD BROWNE ASSOCIATES INC.
 * Contact Office
 * Marion, Ohio 740.383.2187
 * Sidney, Ohio 937.492.7636
 * Delaware, Ohio 740.383.0782
 DATE OCT 2002 CADD FILE ADMSC
 JOB NO. 7403-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 DOOR-WINDOW-LINTEL SCHEDULES
 STRUCTURAL

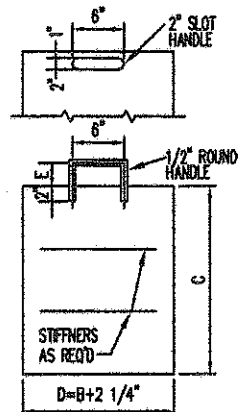
G47 OF G54



TYPE "A" GUIDE



TYPE "B" GUIDE



GATE

ALUMINUM GUIDES

TYPE "A" = WACO GUIDE EXTRUSION, NO. A-3249
 TYPE "B" = WACO GUIDE EXTRUSION, NO. A-27027
 OR SIMILAR BY BUSTIN ALUMINUM PRODUCTS CO.
 DOVER, N.J. OR EQUAL

FIBERGLASS REINFORCED PLASTIC GUIDES

TYPE "A" = WARMINSTER FIBERGLASS CO. RECESSED GUIDE FRAME
 TYPE "B" = WARMINSTER FIBERGLASS CO. FLANGE MOUNTED GUIDE FRAME
 OR SIMILAR BY F.B. LEOPOLD CO., ZELLENOPLE, PA. OR EQUAL

STOP GATE DETAILS

SHT. REF.	MARK	LOCATION	QUANTITY		MAT'L	A	B	C	D = B + 2 1/4"	TYPE GUIDE	TYPE HANDLE	E
			GATE	GUIDE								
G16	100	PRELIMINARY TREATMENT FACILITY	1	2	ALUM.	2'-10"	2'-6"	1'-6"	2'-8 1/4"	A	ROUND	1'-3"
G16	101	PRELIMINARY TREATMENT FACILITY	1	1	ALUM.	4'-6"	2'-8"	2'-7"	2'-10 1/4"	A	ROUND	1'-11"
G16	102	PRELIMINARY TREATMENT FACILITY	1	1	ALUM.	4'-6"	2'-0"	2'-7"	2'-2 1/4"	A	ROUND	1'-11"
G16	103	PRELIMINARY TREATMENT FACILITY	1	1	ALUM.	3'-6"	4'-0"	1'-3"	4'-2 1/4"	A	ROUND, QTY. 2	2'-3"
G20	200	AERATION SPLITTER BOX	2	4	ALUM.	3'-0"	3'-0"	1'-10"	3'-2 1/4"	A	ROUND, QTY. 2	1'-1"
G27	400	CLARIFIER SPLITTER BOX	2	4	ALUM.	2'-6"	3'-0"	2'-2"	3'-2 1/4"	A	ROUND, QTY. 2	4"

NOTE: CUT STOP GATE GUIDE TO MATCH BACK SIDE OF GRATING ANGLE FRAME.
 (STOP GRATING ANGLE FRAME AT GATE GUIDE)

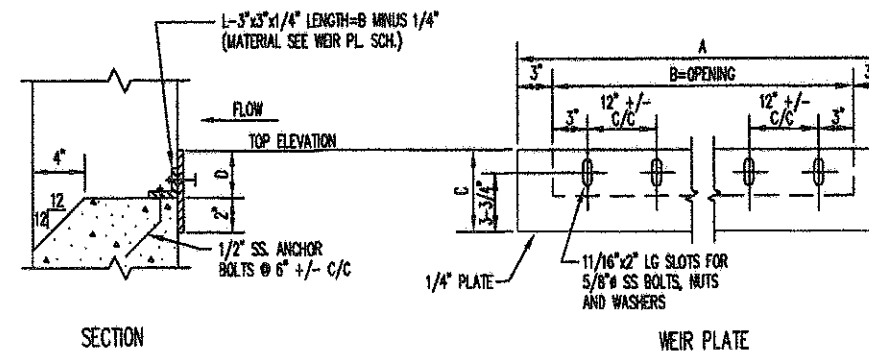
SLUICE AND SLIDE GATE SCHEDULE

SHT. REF.	GATE NO.	LOCATION	NO. REQ'D	SIZE WIDTH X HGT.	OPERATING HEAD IN FEET OF WATER		GATE MATERIAL	TYPE OF FRAME	STEM LENGTH	MIN. STEM DIA.	OPERATOR TYPE	THIMBLE		REMARKS
					SEATING	UNSEATING						TYPE	LENGTH	
G23	300	AERATION BASIN	1	36" X 36"	8'-6"	8'-6"	CAST IRON	FLANGE BACK	BY MFR.	BY MFR.	H'WHEEL	F	1'-2"	SLUICE GATE

NOTES:
 1. GATE AND ACCESSORY MODEL NOS. ARE RODNEY HUNT, EQUAL EQUIPMENT BY OTHERS MAY BE SUBMITTED.
 2. STEM HEIGHT MEASUREMENT IS FROM CENTERLINE OF GATE TO OPERATOR MOUNTING PLATFORM.
 3. J-SEALS REQUIRED ON BOTTOM AND TWO SIDES.
 4. PER AWWA STANDARD C-501, SEC. 14.02, ALL GATES 24" AND WIDER WITH UNSEATING HEADS GREATER THAN 5 FEET SHALL HAVE TOP AND BOTTOM WEDGES.

SCHEDULE

100 PRELIMINARY TREATMENT FACILITY
 200 AERATION SPLITTER BOX
 300 AERATION BASINS
 400 CLARIFIER SPLITTER BOX



SECTION

WEIR PLATE DETAIL

WEIR PLATE

FRP=FIBERGLASS REINFORCED PLASTIC, ALUM=ALUMINUM, STL=STEEL(HOT DIP GALV.)

WEIR PLATE SCHEDULE

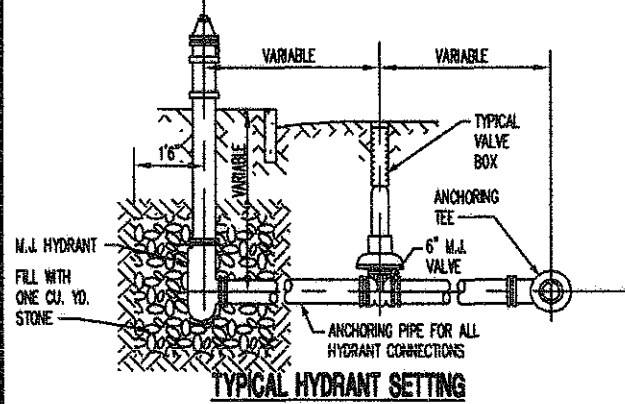
SHT. REF.	MARK	LOCATION	NO. REQ'D	MAT'L	A	B	C	D
G20	200	AERATION SPLITTER BOX	3	ALUM.	3'-6"	3'-0"	7'-1/2"	5'-1/2"
G27	400	CLARIFIER SPLITTER BOX	2	ALUM.	3'-6"	3'-0"	8"	6"

NOTE: ALL DETAILS ON THIS DRAWING ARE NOT NECESSARILY APPLICABLE TO THIS CONTRACT.

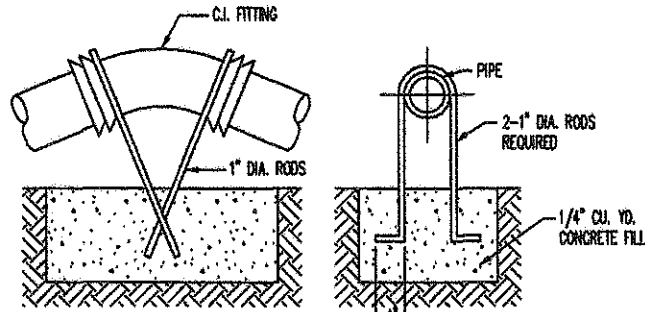
NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 740.383.2187 937.492.7636 740.383.6792
 DATE OCT 2002 CADD FILE SDI
 JOB NO. 7400-07 APPROVED

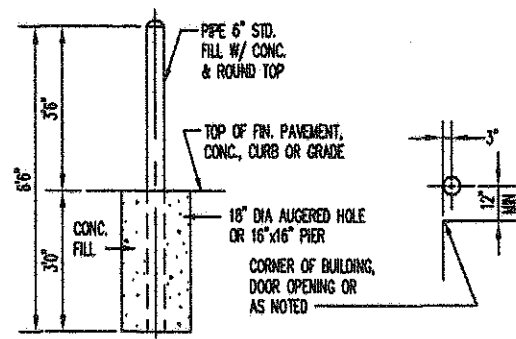
VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 GATE AND WEIR PLATE SCHEDULES



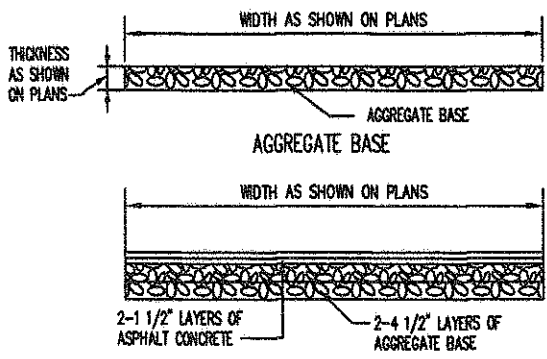
TYPICAL HYDRANT SETTING



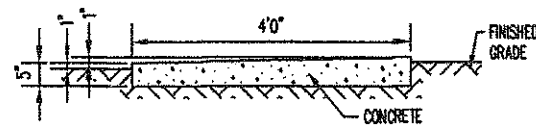
VERTICAL BEND ANCHOR DETAIL



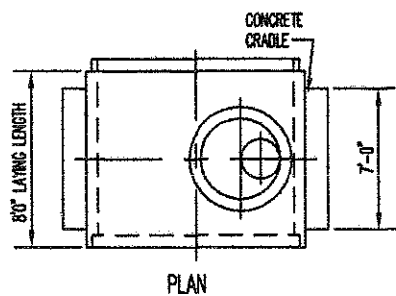
GUARD POST DETAIL



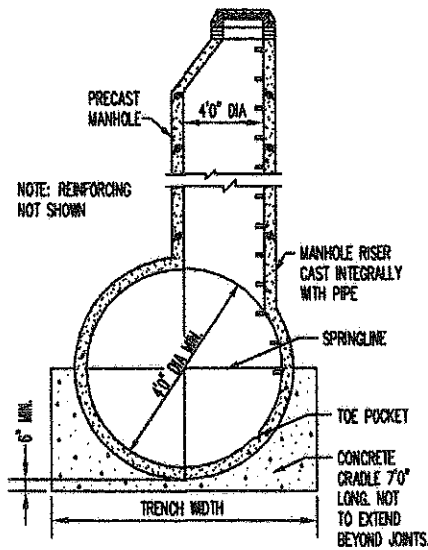
TYPICAL NEW PAVEMENT SECTIONS



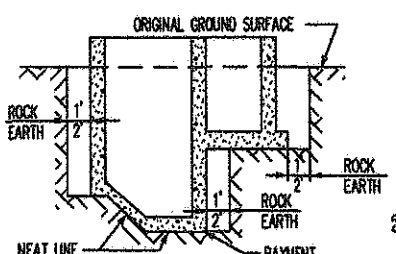
CONCRETE SIDEWALK



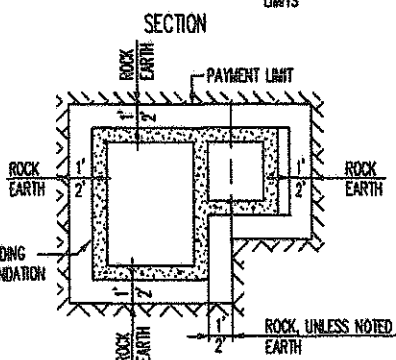
PLAN



SECTION PRECAST MANHOLE RISER TEE

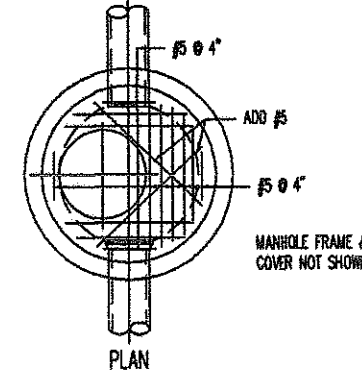


SECTION SHALLOW MANHOLE

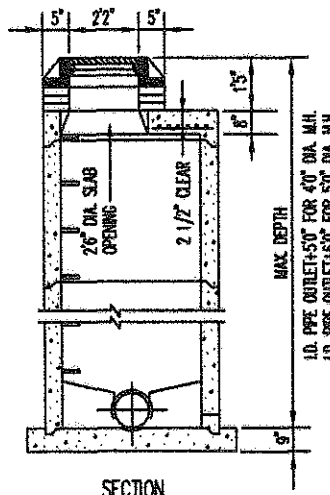


TYPICAL CONCRETE CRADLE

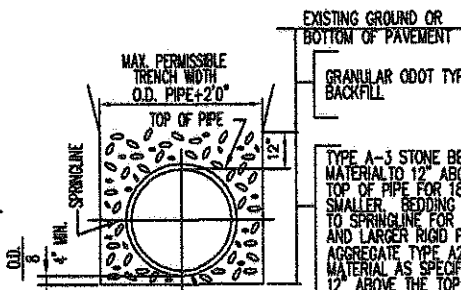
PLAN STRUCTURE EXCAVATION



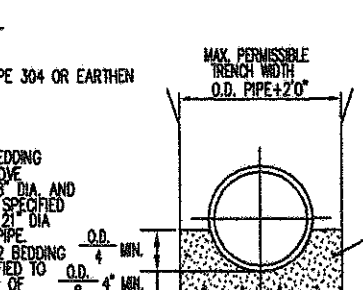
PLAN



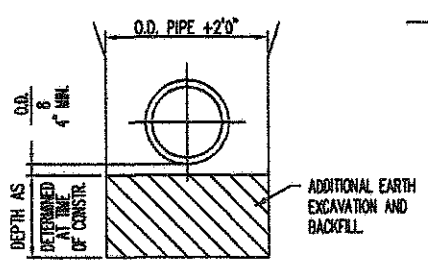
SECTION DROP ATTACHMENT AND PRECAST MANHOLE



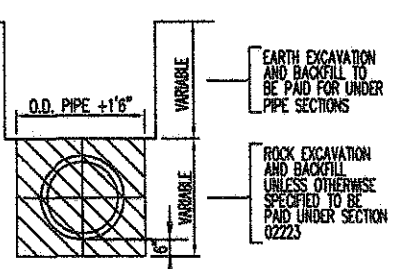
STANDARD BEDDING AND TRENCH DETAIL



TYPICAL CONCRETE CRADLE



EARTH EXCAVATION



ROCK EXCAVATION

EXCAVATION MEASUREMENT LIMITS

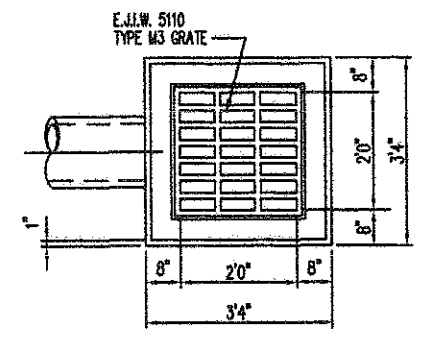
NO.	REVISION DATA	DATE	BY	APP'D

NOTE: ALL DETAILS ON THIS DRAWING ARE NOT NECESSARILY APPLICABLE TO THIS CONTRACT.

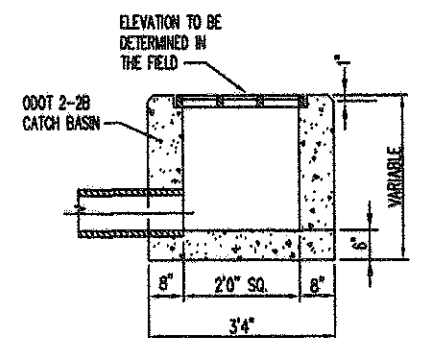
FLOYD BROWNE ASSOCIATES, INC.
 * Marion, Ohio 740.583.5187 * Sidney, Ohio 937.462.7638 * Delaware, Ohio 740.583.6782
 DATE: OCT 2002 * CAUD FILE * SIZE
 JOB NO. 7402-07 * APPROVED

NOTE: MANHOLE STEPS ALLUMINUM ALLOY ASTM B-221
 DROP STEP STEEL BRASS OR POLYPROPYLENE (M.D. 15-1, OR EQUAL)
 MANHOLE FRAME AND COVER E.L.W. 1040 WITH SOLID COVER OR EQUAL

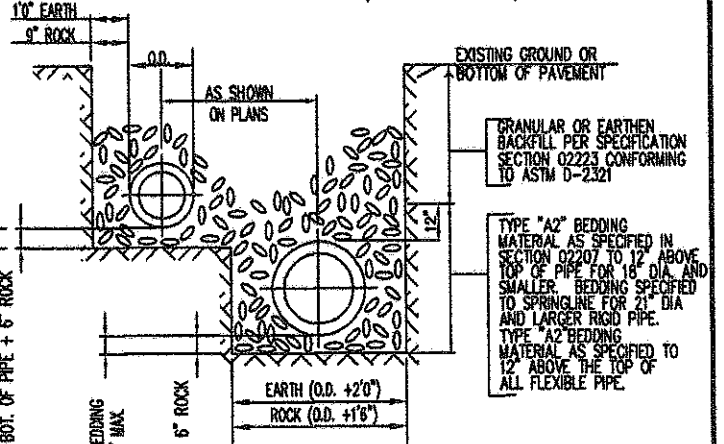
SEWER SIZE	DROP SIZE
8"	8"
10"-12"	8"
15"-18"	10"
21"-24"	12"



PLAN



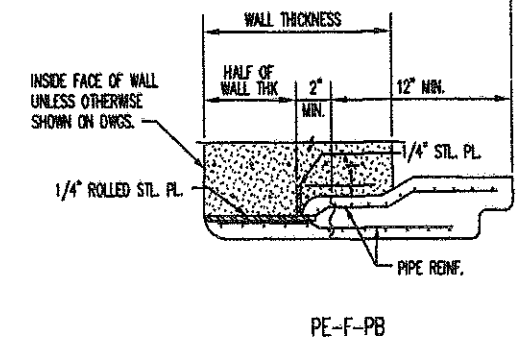
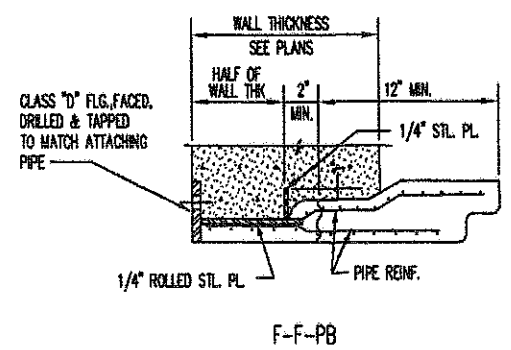
SECTION INLET DETAIL (OR PRECAST STRUCTURE)



BEDDING AND TRENCH DETAIL FOR TWO OR MORE PIPES

G49 of G54

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 STANDARD DETAILS
 PROCESS

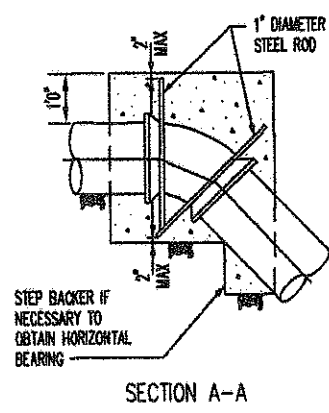


TYPICAL CONCRETE WALL PIECES

GRAVITY THRUST BLOCKING
VERTICAL BENDS

SIZE	BEND	90 DEG.	45 DEG.	22 1/2 DEG.	11 1/4 DEG.
4"		.53 CY	.36 CY	.20 CY	.10 CY
6"		1.20	.85	.46	.23
8"		2.13	1.50	.81	.42
10"		3.32	2.35	1.27	.65
12"		4.79	3.39	1.83	.93
14"		6.52	4.61	2.49	1.27
16"		8.51	6.02	3.26	1.66
18"		10.77	7.62	4.18	2.10
20"		13.30	9.40	5.09	2.59
24"		19.15	13.54	7.33	3.74
30"		29.92	21.16	11.45	5.84
36"		43.08	30.47	16.49	8.41
42"		58.64	41.47	22.44	11.44
48"		76.60	54.16	29.31	14.94

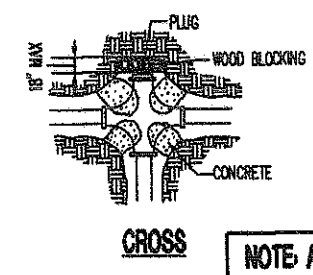
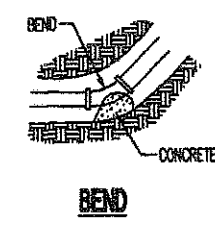
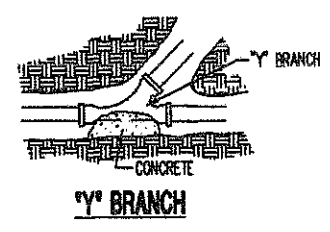
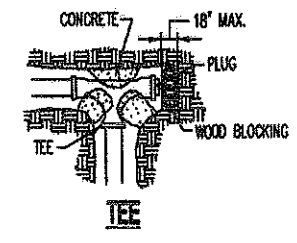
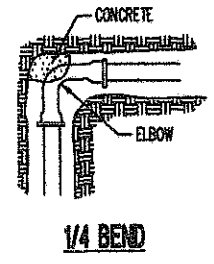
NOTE: 1. BACKER TO BE CENTERED HORIZONTALLY ON BEND.
2. STEEL WILL BE USED AS REQUIRED BY THE ENGINEER.



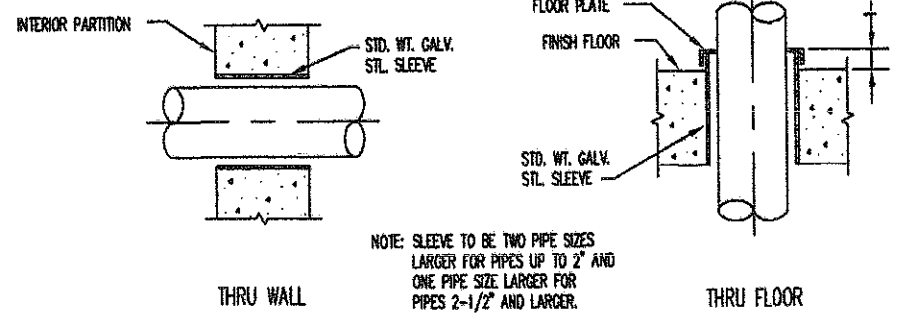
ANCHOR DETAIL

HORIZONTAL BENDS

	11 1/4	45	90	TEES	WYES	CROSSES
6"-8"	2 CF	2 CF	4 CF	8 CF	2 CF	8 CF
10"-12"	3	5	8	27	5	27
14"-16"	5	9	16	54	9	54

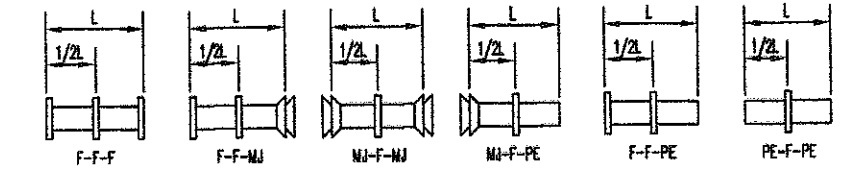


NOTE: ALL DETAILS ON THIS DRAWING ARE NOT NECESSARILY APPLICABLE TO THIS CONTRACT.



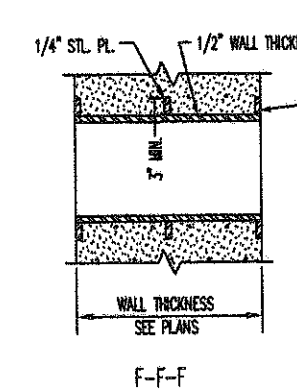
TYPICAL PIPE SLEEVE DETAIL

NOTE: SLEEVE TO BE TWO PIPE SIZES LARGER FOR PIPES UP TO 2" AND ONE PIPE SIZE LARGER FOR PIPES 2-1/2" AND LARGER.



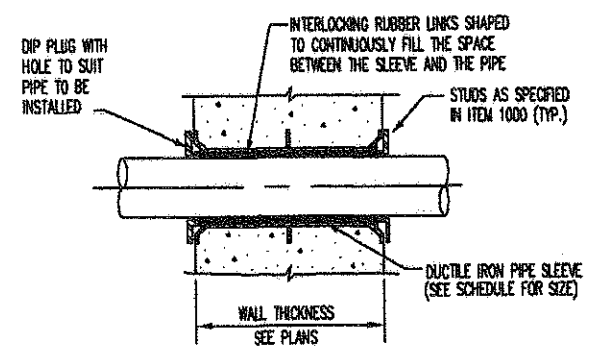
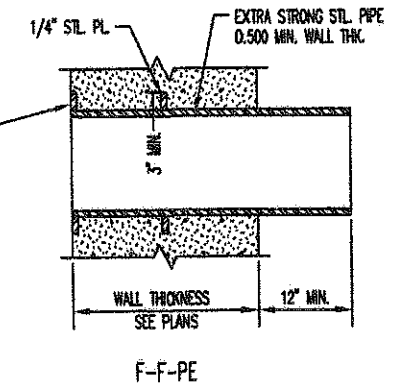
NOTE: WALL CASTINGS REQUIRING BELL ENDS IN LIEU OF MJ SHALL BE NOTED AS "B". ALL FLANGED (F) AND MECHANICAL JOINT (MJ) FLUSH WITH WALL ARE TO BE DRILLED, AND TAPPED FOR STUDS.

CAST IRON WALL CASTING ABBREVIATIONS

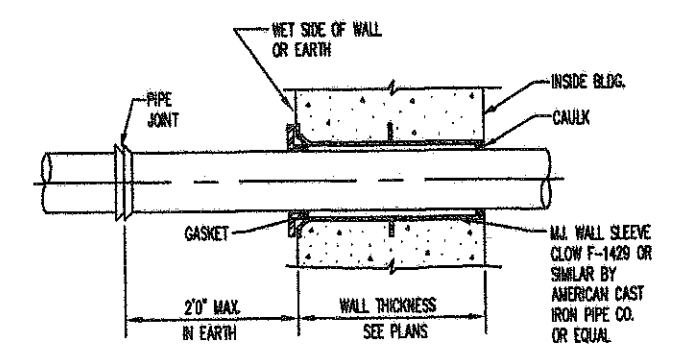


TYPICAL FABRICATED STEEL WALL PIECES OVER 24" DIA.

NOTE: APPLY COAL TAR COATING TO PIPE INTERIOR AFTER FABRICATION



2 1/2" PIPE AND SMALLER



3" PIPE AND LARGER

SLEEVE SCHEDULE							
PIPE SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
SLEEVE SIZE	2"	2"	2 1/2"	3"	3"	4"	4"

TYPICAL WATERPROOF SLEEVE DETAIL

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NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES INC.

Marion, Ohio 740.383.8187 Sidney, Ohio 687.488.7838 Delaware, Ohio 740.363.6788

DATE: OCT 2002 CHD FILE: 513

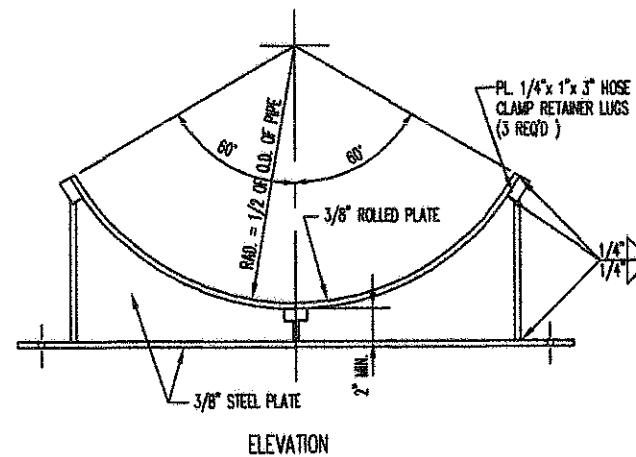
EST. NO. 7803-07 APPROVED: _____

VILLAGE OF SUNBURY, OHIO

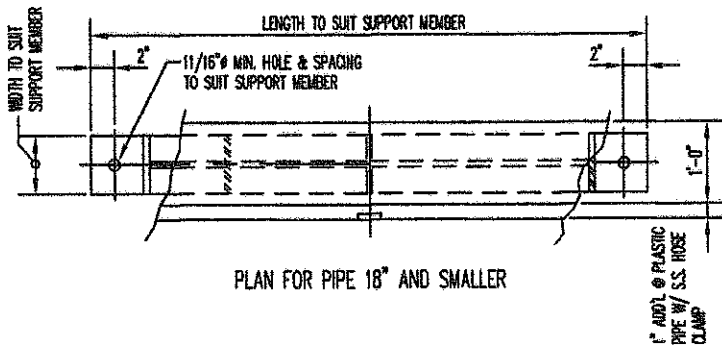
WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT NO. 2002-02

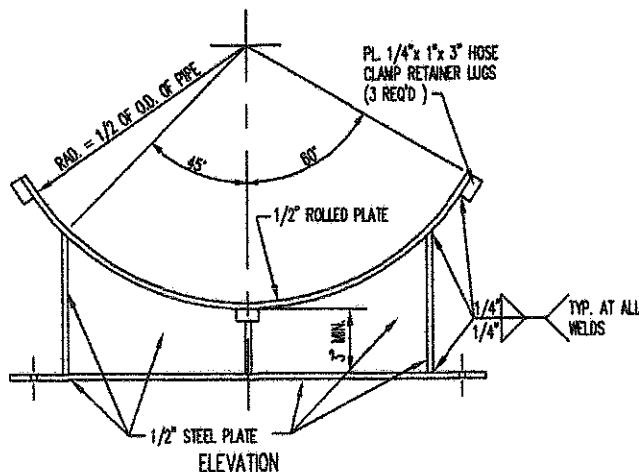
STANDARD DETAILS PROCESS



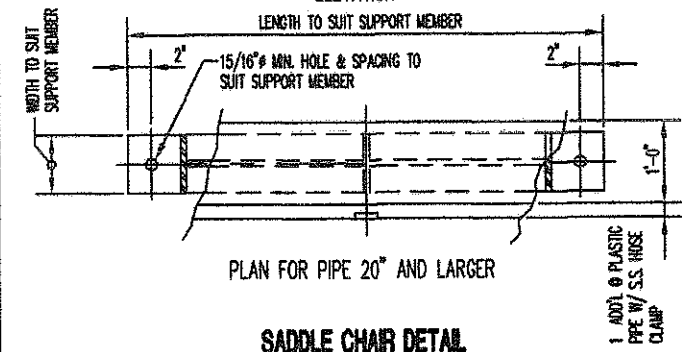
ELEVATION



PLAN FOR PIPE 16" AND SMALLER

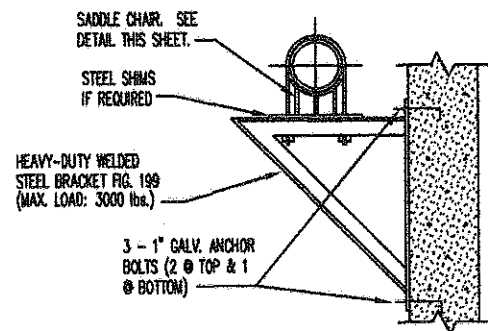


ELEVATION

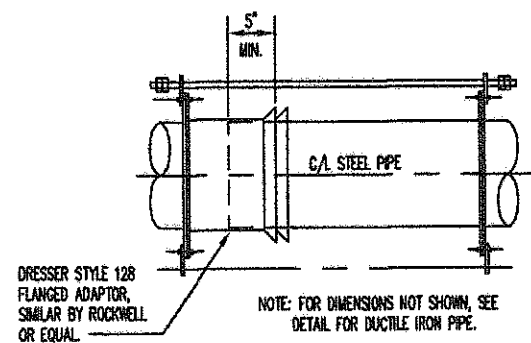


PLAN FOR PIPE 20" AND LARGER

SADDLE CHAIR DETAIL



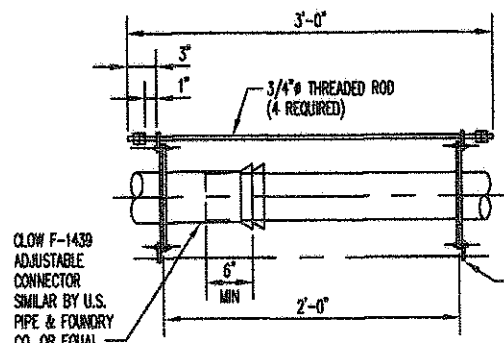
PIPE SUPPORT PS-4



STEEL PIPE

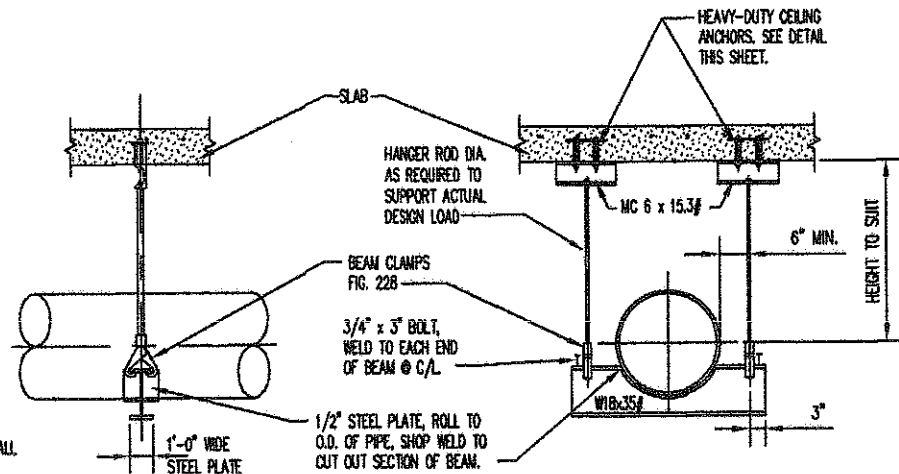
DRESSER STYLE 128 FLANGED ADAPTOR, SIMILAR BY ROCKWELL OR EQUAL.

NOTE: FOR DIMENSIONS NOT SHOWN, SEE DETAIL FOR DUCTILE IRON PIPE.

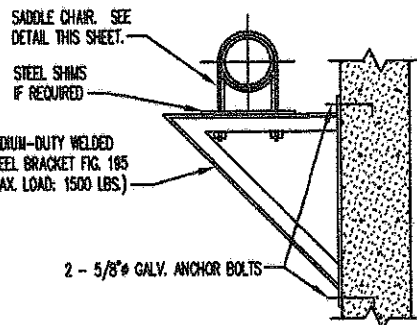


DUCTILE IRON PIPE RESTRAINED EXPANSION COUPLING DETAIL

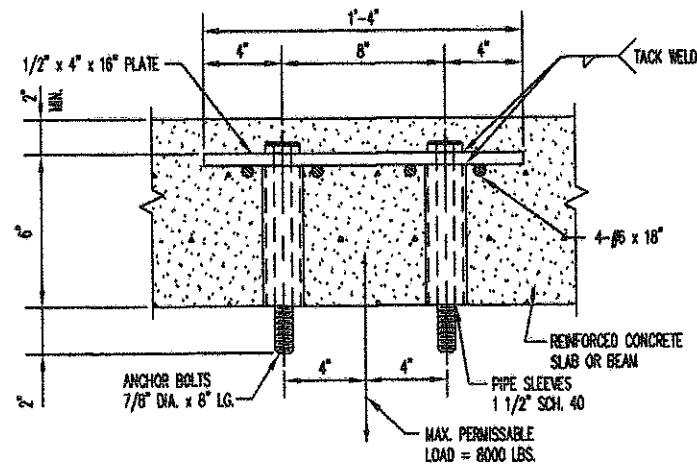
CLOW F-1439 ADJUSTABLE CONNECTOR SIMILAR BY U.S. PIPE & FOUNDRY CO. OR EQUAL.



PIPE HANGER PH-4



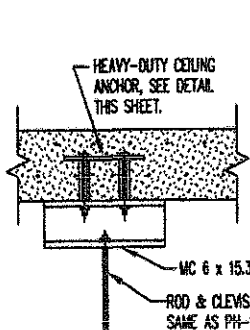
PIPE SUPPORT PS-3



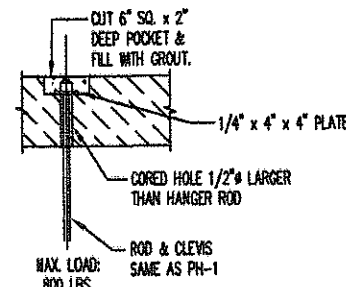
HEAVY-DUTY CEILING ANCHOR

GENERAL NOTES

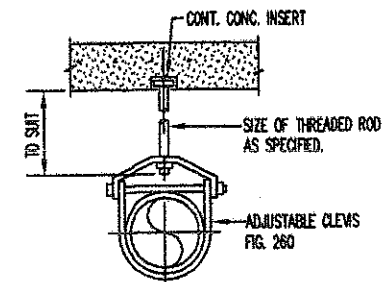
1. PIPE HANGER AND SUPPORT CATALOGUE NUMBERS SHOWN ARE GRINWELL CORP. SIMILAR BY ELCON OR EQUAL IS ACCEPTABLE.
2. PIPE HANGER AND SUPPORT DETAILS SHOWN INCLUDE MOST PIPE SIZES 4" AND LARGER. FOR ADDITIONAL INFORMATION SEE SPEC.



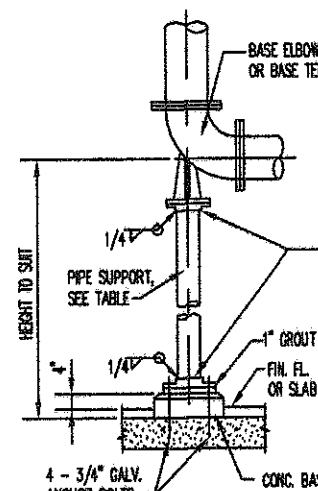
PIPE HANGER PH-3



PIPE HANGER PH-2

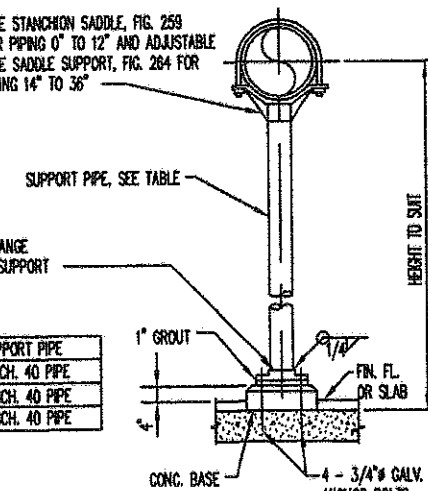


PIPE HANGER PH-1

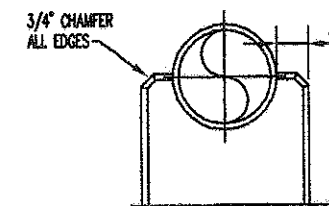


PIPE SUPPORT PS-2

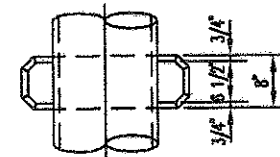
PIPE SIZE	SUPPORT PIPE
6" TO 12"	3" SCH. 40 PIPE
14" TO 18"	4" SCH. 40 PIPE
18" TO 36"	6" SCH. 40 PIPE



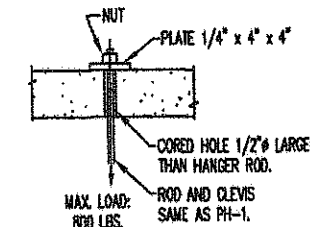
PIPE SUPPORT PS-1



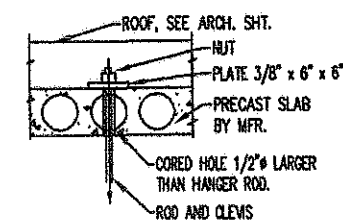
ELEVATION



PLAN TYPICAL CONCRETE PIPE SUPPORT



PIPE HANGER PH-5



PIPE HANGER PH-6

NOTE: FIELD DRILL ROOF SLABS FOR EYEBOLTS. AVOID HIGH TENSION STRANDS DURING DRILLING.

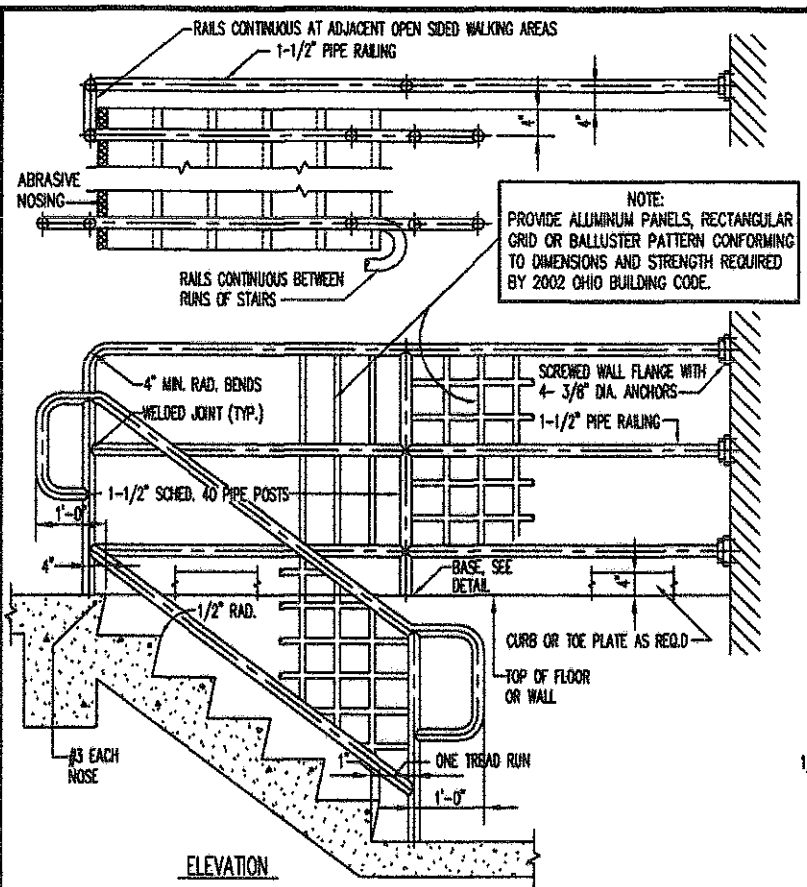
NOTE: ALL DETAILS ON THIS DRAWING ARE NOT NECESSARILY APPLICABLE TO THIS CONTRACT.

NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES INC.
 *Contact Office
 *Marion, Ohio 740.383.2187
 *Sidney, Ohio 937.458.7858
 *Delaware, Ohio 740.385.0788
 DATE OCT 2002
 308 INCL. 7402-07

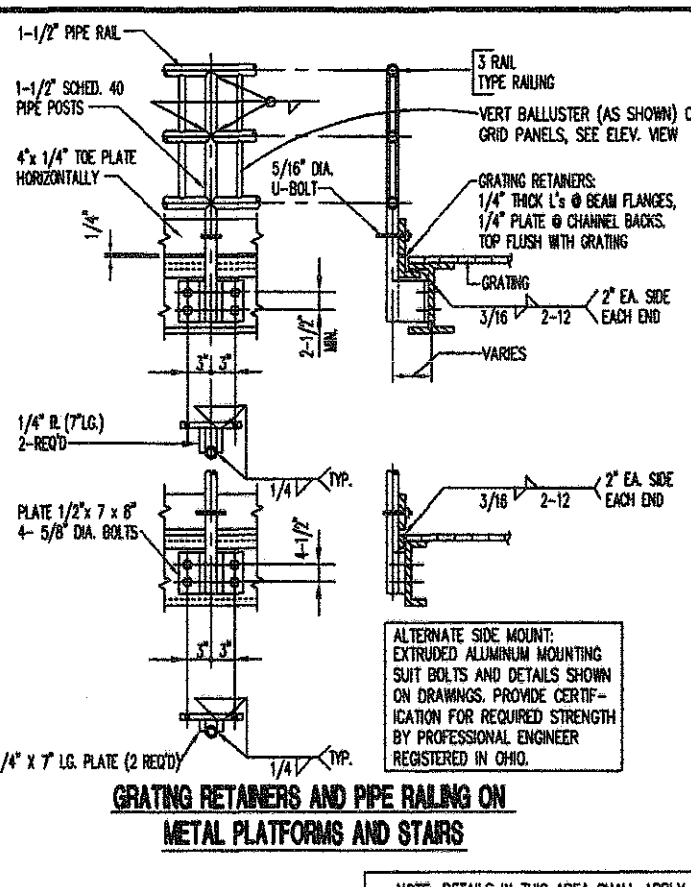
VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT NO. 2002-02
 STANDARD DETAILS
 PROCESS

G51 OF G54



CONCRETE STAIRS AND TYPICAL PIPE RAILING DETAILS

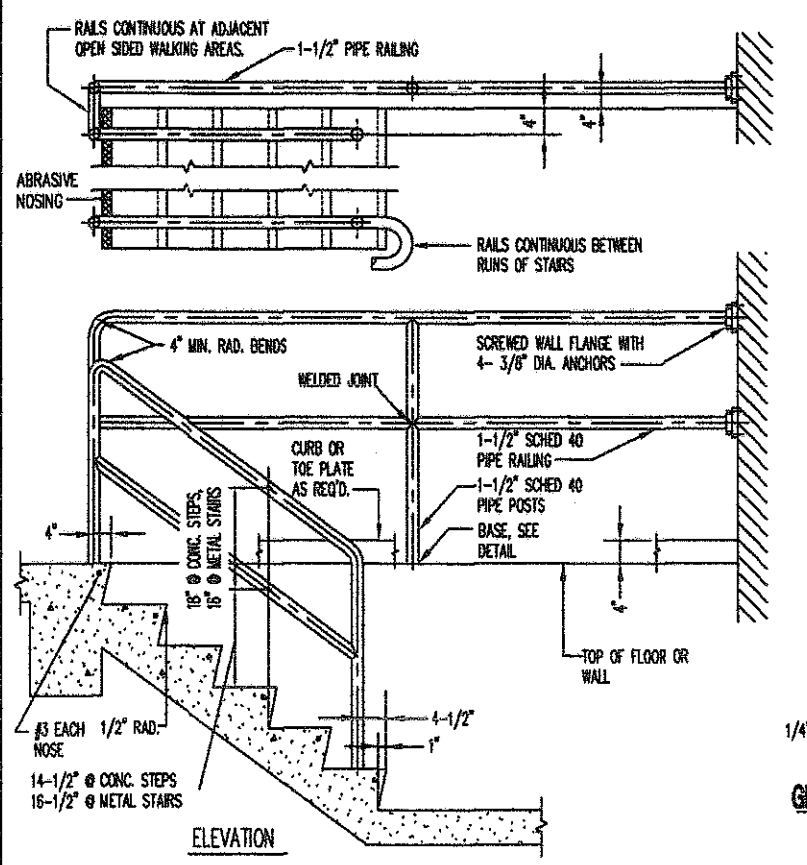
THE RAILS SHALL BE CONTINUOUS BETWEEN RUNS OF STAIRS AND THE STAIRS ADJACENT TO THE OPEN SIDED WALKING AREAS, EXTEND WALL MOUNTED HANDRAILS IN CONFORMANCE WITH 2002 OHIO BUILDING CODE.



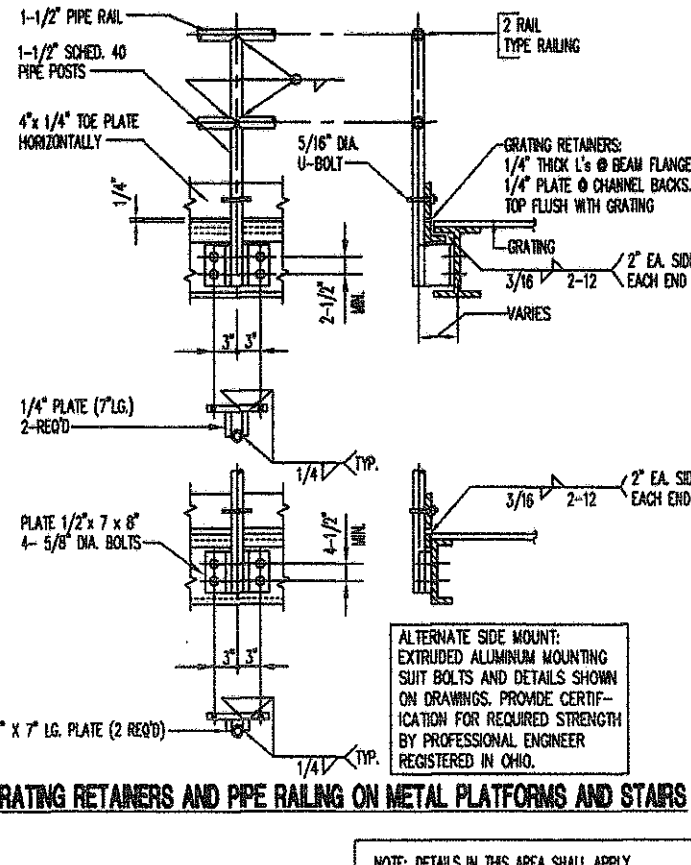
THREE RAIL-RAILING SYSTEM

- POST SPACING SHALL NOT EXCEED 4'-4" C/C.
- ALUMINUM RAILING & PANELS SHALL BE ANODIZED.

NOTE: DETAILS IN THIS AREA SHALL APPLY WITHIN BUILDINGS AND EXTENT OF BUILDING EGRESS FOR BUILDINGS CLASSIFIED IN 2002 OHIO BUILDING CODE USE GROUP A, B, C, H4, I-1, I-2, M OR R.



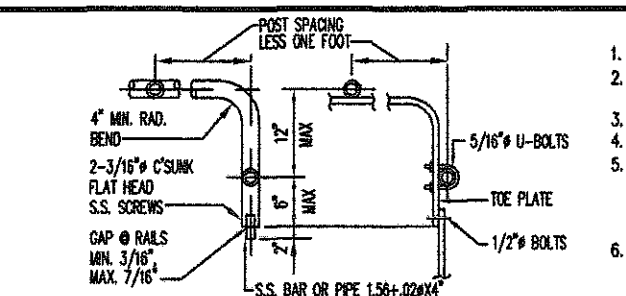
CONCRETE STAIRS AND TYPICAL PIPE RAILING DETAILS



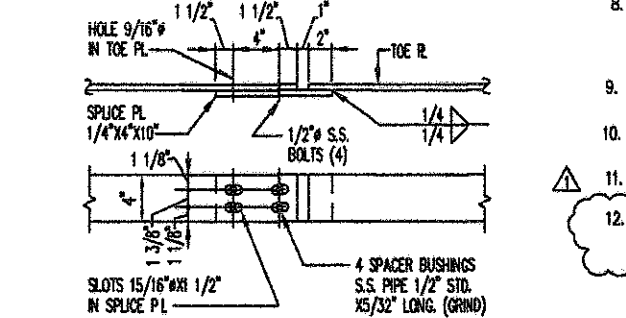
TWO RAIL-RAILING SYSTEM

- POST SPACING SHALL NOT EXCEED 6'-0" C/C.
- ALUMINUM RAILING SHALL BE ANODIZED.

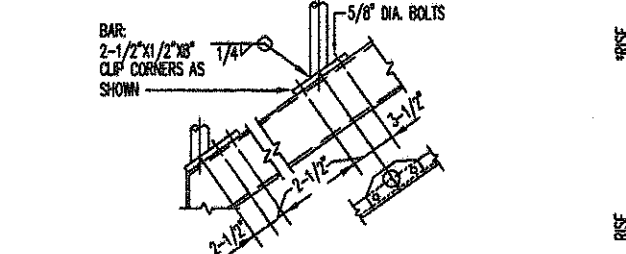
NOTE: DETAILS IN THIS AREA SHALL APPLY TO THE PROJECT EXCEPT WITHIN THE BUILDINGS AND EXTENT OF BUILDING EGRESS NOTED FOR 3 RAIL-RAILING.



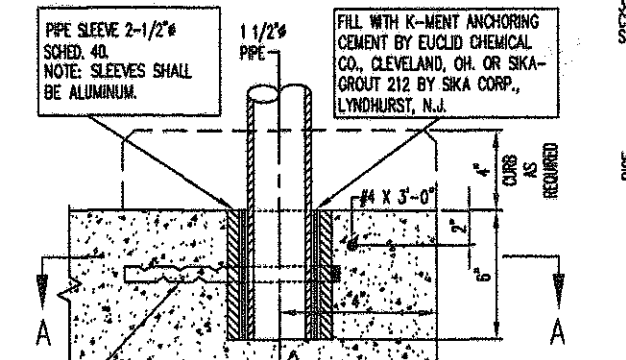
CORNERS & FIELD SPLICES FOR RAILING & TOE PLATES



EXPANSION PLATES FOR TOE PLATES SPACE EVENLY @ 25 FT. MAX.

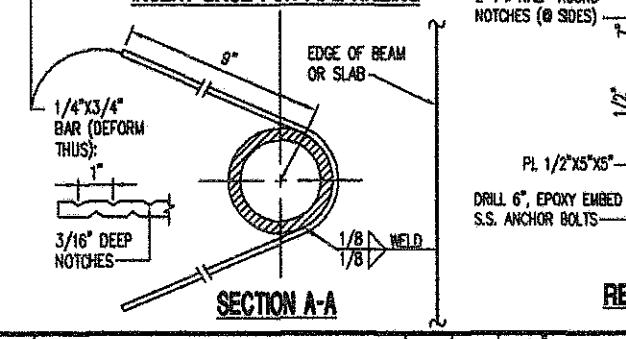


STANCHION BASE FOR METAL STAIRS



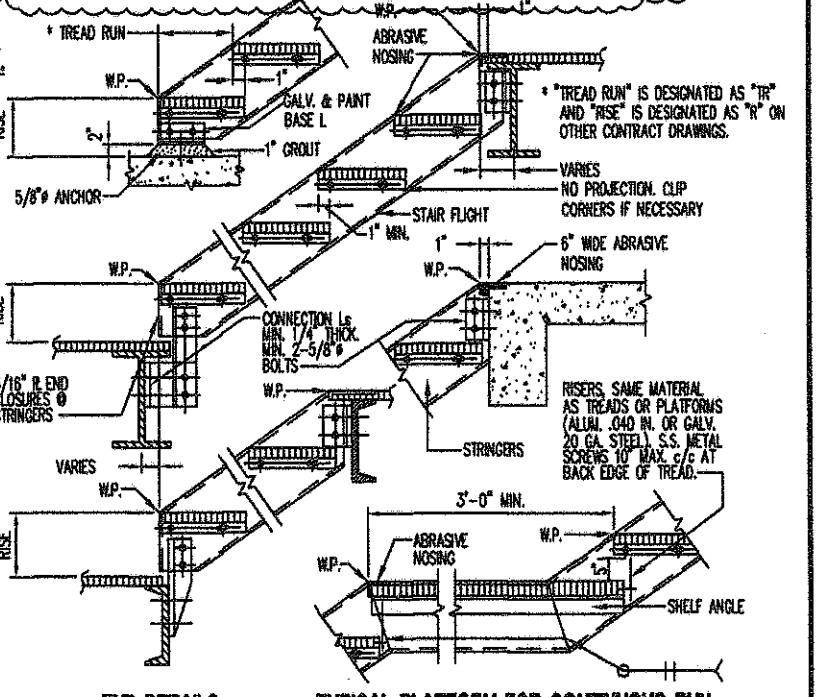
INSERT BASE FOR PIPE RAILING

NOTE: WHERE INDICATED ON DRAWINGS TO ATTACH POSTS TO FACE OF CONCRETE PROVIDE PLATES SAME AS FOR METAL PLATFORMS WITH 4-5/8 inch x 6 inch STAINLESS STEEL ANCHOR BOLTS.



REMOVABLE RAILING DETAIL

- METAL STAIR & PLATFORM NOTES**
1. PROVIDE RAILINGS, TOE PLATES, GRATING & RETAINERS, FASTENERS, ETC. SEE STD. DETAILS THIS SH.T. & CONTRACT SPECIFICATIONS.
 2. STAIRS STRINGERS, PLATFORM FRAMES, & GRATING RETAINERS SHALL BE STEEL UNLESS NOTED. RAILINGS AND TOE PLATES SHALL BE ALUMINUM UNLESS NOTED.
 3. STEEL STRINGERS SHALL BE C10 x 13.3, 3'-0" BACK TO BACK, UNLESS NOTED.
 4. ALUMINUM STRINGERS SHALL BE AL C10 x 5.28, 3'-0" BACK TO BACK, UNLESS NOTED.
 5. ALL TREADS SHALL BE ALUMINUM WITH ABRASIVE NOSING, UNLESS NOTED. ALL PLATFORM GRATING SHALL BE 1/2" ALUMINUM UNLESS NOTED, FIXED IN PLACE. GRATING FASTENERS SHALL BE SADDLE CLIPS WITH WELDED STUDS, OR 1/4" GALV. J-BOLTS (HOLES MAY BE FIELD DRILLED) HOOKED OVER BARS @ 18" MAX C/C. PROVIDE SEBRATED GRATING BARS AT OUTDOOR LOCATIONS & PLAIN BARS AT INDOOR LOCATIONS.
 6. PROVIDE RAILINGS @ BOTH SIDES OF STAIRS AND EXPOSED SIDES OF PLATFORMS. PROVIDE WALL-MOUNTED HANDRAILINGS AT STRINGERS ADJACENT TO MASONRY OR CONCRETE WALLS (ALUMINUM BRACKETS @ ALUMINUM RAIL & MALLEABLE IRON BRACKETS @ STEEL RAIL), 2" CLEAR, RETURN ENDS.
 7. SEE CONTRACT SPECIFICATIONS FOR GRATING, HANDRAIL & RAILING, STRUCTURAL STEEL AND ALUMINUM.
 8. STEEL PLATFORMS SHALL BE C9 x 13.4 @ 4 SIDES AND INTERIOR MEMBERS, UNLESS NOTED. CONNECTIONS MAY BE WELDED (FULL WELD @ WEB & BOTH FLANGES) OR 1/4" ANGLES AND MINIMUM 2 ROWS 5/8" BOLTS. LESS SHALL BE GALV. Ls 3 1/2" x 3 1/2" x 1/4", 3/8" TOP PLs, BASE PLs 1/2" x 5/8", 5/8" BOLTS & ANCHORS. X-BRACES AND KNEE BRACES SHALL BE Ls 2 1/2" x 2 1/2" x 1/4", UNLESS NOTED, CONNECT AT ENDS & INTERSECTIONS.
 9. ALUMINUM PLATFORMS SHALL BE AL 9" x 4.60 @ 4 SIDES AND INTERIOR MEMBERS, UNLESS NOTED. OTHER DETAILS SIMILAR TO THOSE SHOWN OR NOTED FOR STEEL PLATFORMS.
 10. RISERS SHALL BE PROVIDED AT STAIR FLIGHTS AND PLATFORMS AT ALL POINTS FIVE FEET OR MORE ABOVE A FLOOR, INCLUDING FLIGHTS IN OPEN STAIRWELLS.
 11. ANCHORS & ANCHOR BOLTS IN CONCRETE SHALL BE STAINLESS STEEL. GALVANIZE ALL STEEL, INCLUDING FASTENERS, IN EXTERIOR LOCATIONS. THE EXPOSED SURFACES SHALL ALSO BE PAINTED.
 12. AT ALL METAL STEPS PROVIDE ABRASIVE NOSINGS BY TREAD MANUF. AT ALL CONC. STEPS PROVIDE 6" WIDE CAST ABRASIVE ALUMINOGRIT NOSINGS TYPE 103 BY WOOSTER PRODUCTS, WOOSTER, OH OR ALUMINUM NOSINGS TYPE 803 BY AMERICAN SAFETY TREAD COMPANY, HELENA, ALABAMA OR APPROVED EQUAL.



END DETAILS

TYPICAL PLATFORM FOR CONTINUOUS RUN METAL STAIR DETAILS

- NOTE:**
- ALL DETAILS ON THIS DRAWING ARE NOT NECESSARILY APPLICABLE TO THIS CONTRACT.
 - MOUNTING OF PIPE RAILING AT HEATED CONC. STEPS: NO CORE DRILLING SHALL BE PERMITTED WITHOUT ENGINEERS WRITTEN APPROVAL.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	7-26-16	WCS	

FLOYD BROWNE ASSOCIATES, INC.

Marion, Ohio 740.583.8187
 Sidney, Ohio 937.492.7658
 Delaware, Ohio 740.583.8782

DATE: OCT 2002
 JOB NO: 7400-07

VILLAGE OF SUNBURY, OHIO

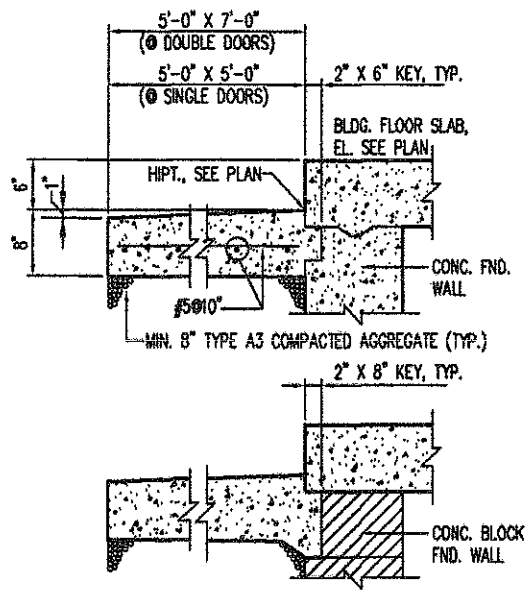
WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT NO. 2002-02

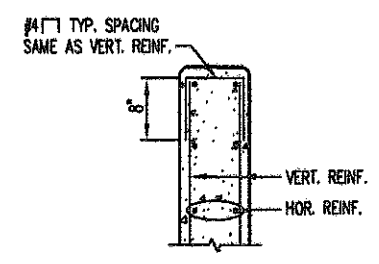
STANDARD DETAILS

STRUCTURAL

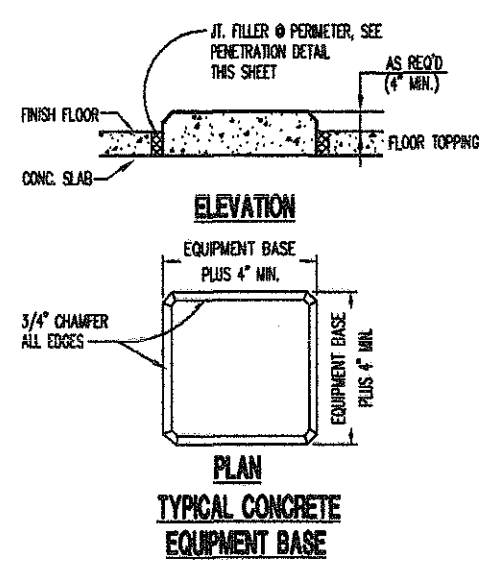
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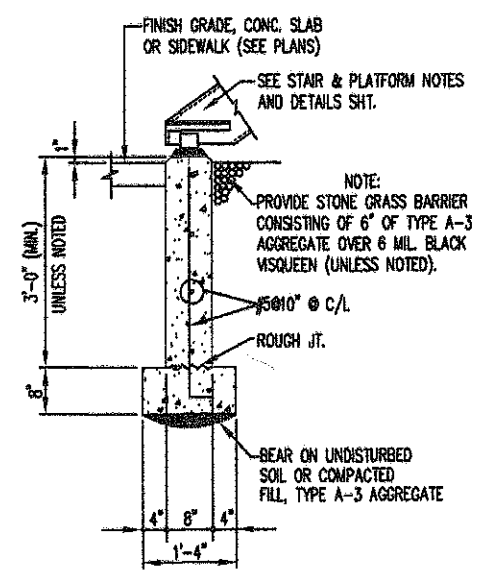
ENTRANCE SLAB DETAIL AT EXTERIOR MADOORS
SCALE IN FEET
NO SCALE
TYPICAL DETAILS UNLESS NOTED ON PLANS.



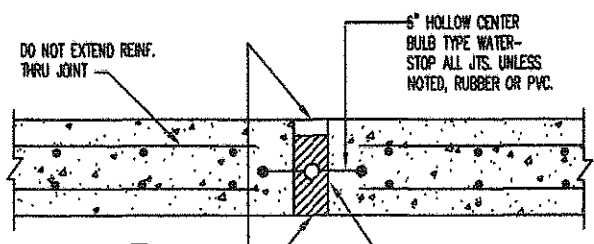
TYPICAL REINF. DETAIL AT TOP OF ALL EXPOSED CONC. WALLS
NO SCALE



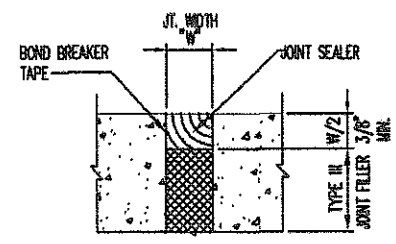
TYPICAL CONCRETE EQUIPMENT BASE



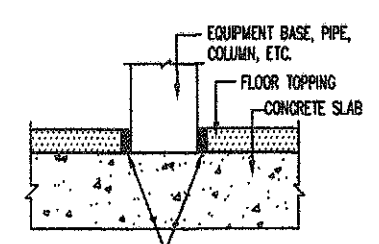
TYPICAL STAIR FTG. DETAIL
NOTE: LENGTH OF WALL AND FTG. = STAIR WIDTH + 1'-0"
SCALE IN FEET



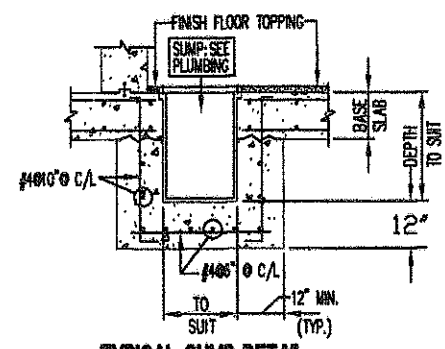
EXPANSION JOINT DETAIL HORIZONTAL OR VERTICAL



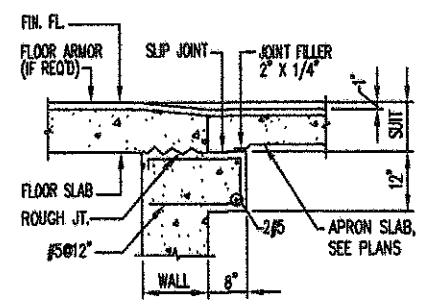
EXPANSION JOINT SEALER DETAIL



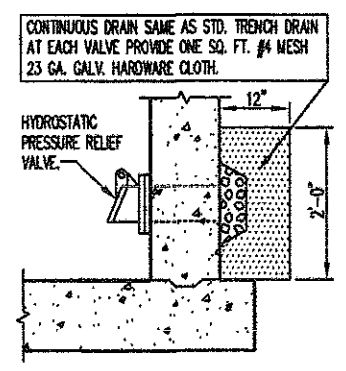
PENETRATION THRU FLOOR TOPPING DETAIL
NO SCALE



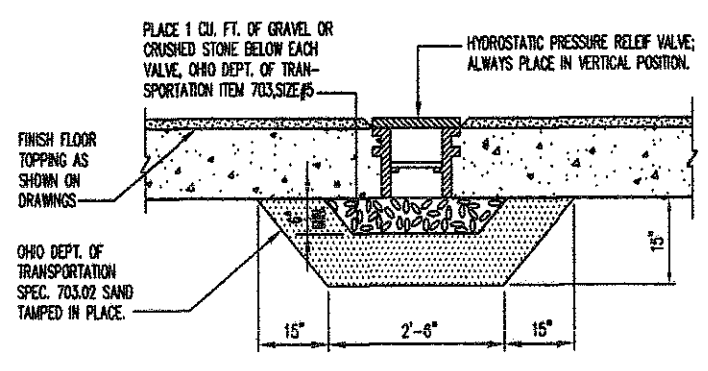
TYPICAL SUMP DETAIL



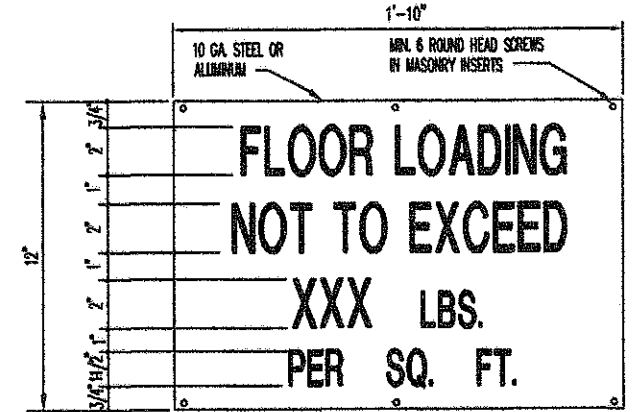
HAUNCH DETAIL @ APRON SLAB



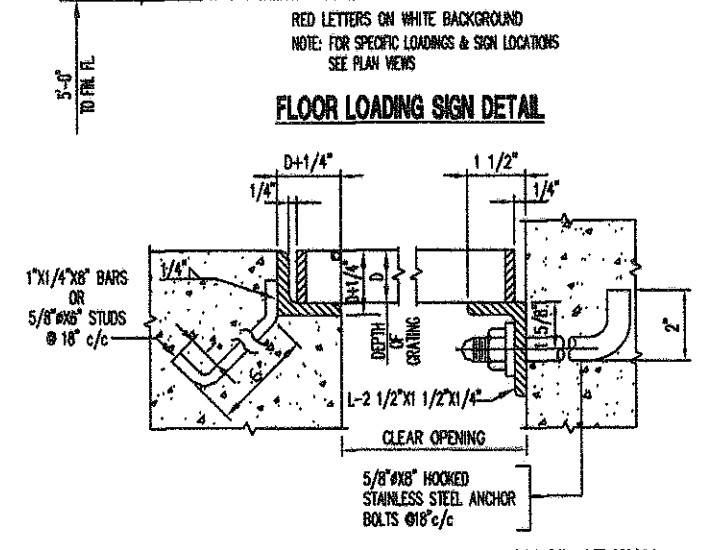
WALL TYPE HYDROSTATIC PRESSURE RELIEF VALVE & DRAIN DETAIL



FLOOR TYPE HYDROSTATIC PRESSURE RELIEF VALVE & DRAIN DETAIL
NOTE: PAYMENT FOR AGGREGATE DRAINS UNDER FOUNDATION CUSHION.



FLOOR LOADING SIGN DETAIL

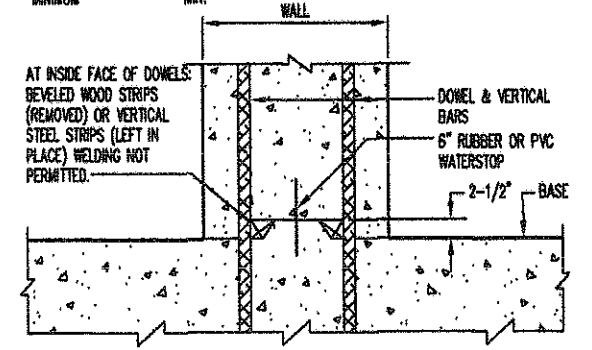


NOTE: ALL DETAILS ON THIS DRAWING ARE NOT NECESSARILY APPLICABLE TO THIS CONTRACT.

GENERAL NOTES:

- FINISH FLOOR ELEVATION OR SLAB THICKNESS SHOWN IS AT HIGH POINT OF SLABS, NORMALLY AT WALLS, PARTITIONS AND STAIRS, UNLESS NOTED. SLOPE TOP OF EXTERIOR WALKS AND LANDINGS 1/8" TO 12", UNLESS NOTED.
- ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 INCHES, UNLESS NOTED.
- PROVIDE CONTINUOUS 6" WATERSTOP AT JOINTS AS INDICATED ON THE DRAWINGS.
- PAYMENT FOR SUMP ENCASUREMENT INCLUDED IN UNIT PRICE OF CONCRETE.
- SIZE AND LOCATION OF EQUIPMENT OPENINGS, BASES, ANCHORS, CASTINGS, GRATING, ETC. SHOWN ON ARCH, ELEC, PROCESS, STRUCT., AND PLUMBING HVAC DRAWINGS SHALL CONFORM TO MANUFACTURER'S DETAILS.
- CONCRETE COVER OVER REINFORCING BARS SHALL BE 2" FOR WALLS, BASE SLABS AND SLABS IN CHANNELS; 1-1/2" FOR BEAMS, COLUMNS AND THE BOTTOM MAT OF SLABS WHERE CONTINUOUS CONCRETE INSERTS ARE USED; ONE INCH FOR WALKWAYS AND FLOOR SLABS; 3" FOR CONCRETE POURED AGAINST EARTH, UNLESS NOTED.
- REINFORCING BARS SHALL BE GRADE 60 KSI, UNLESS NOTED. REINFORCING BARS MAY BE SPLICED ONLY AT POINTS AUTHORIZED BY RESIDENT REPRESENTATIVE OR AS SHOWN ON THE DRAWINGS. SPLICE WELDED WIRE FABRIC (WWF) A MINIMUM OF ONE COMPLETE MESH + 2". LAP BARS AT SPLICES AS INDICATED IN THE CONTRACT SPECIFICATIONS.
- STEEL REINFORCEMENT SHALL BE SUPPORTED OR SECURED IN POSITION USING STANDARD BAR SUPPORTS AT INTERIOR LOCATIONS AND PLASTIC TIP BAR SUPPORTS AT EXTERIOR LOCATIONS AS DETAILED IN ACI "MANUAL OF STANDARD PRACTICE", UNLESS NOTED. AT FOUNDATION SLABS SUPPORT UPPER LAYER OF REINFORCING FROM LOWER LAYER BY BENT #4 BAR. SPACE VERTICAL LAYERS OF WALL REINFORCING FROM FORMS BY TIES AND SPACERS. MAINTAIN SPACE BETWEEN LAYERS BY BENT & TIED #3 BARS THUS:
- IN EACH REINFORCING PLANE PROVIDE ONE #5 BAR AROUND ALL OPENINGS 4'-0" LONGER THAN OPENING AND ONE #4X4'-0" DIAGONALLY AT EACH CORNER, UNLESS NOTED.
- AT BOTTOM OF CONTINUOUS CONCRETE BEAMS PROVIDE 2#7 8'-0" LONG, SYMMETRICAL ABOUT CL OF SUPPORT
- STANDARD STRUCTURAL ABBREVIATIONS:

BOTTOM	BOT.	FOOTING	FOOTINGS	FTG., FTGS.
EACHWAY	E.W.	OPENING, OPENINGS	OPNG., OPNGS.	
INSIDE FACE	I.F.	ELEVATION, ELEVATIONS	EL., ELS.	
OUTSIDE FACE	O.F.	SHEET, SHEETS	SHT., SHTS.	
REINFORCING	R.F.	HIGH POINT	HPT.	
HORIZONTAL	HORIZ.	LOW POINT	LPT.	
VERTICAL	VERT.	REQUIRED SECTION	REQ'D. SEC.	
DOWELS	DWLS.	STANDARD	STD.	
CENTER TO CENTER	c/c	TYPICAL DETAIL	TYP. DET.	
CONSTRUCTION JOINT	CONSTR. JT.	BEAM, BEAMS	BM., BMS.	
EXPANSION JOINT WITH WATERSTOP	EXP. JT. W/WSTOP	HIGH STRENGTH GALVANIZED	H.S. GALV.	
FINISH FLOOR	FIN. FL.	WORK POINT	W.P.	
EXCAVATION	EXC.			
FOUNDATION	FND.			
MAXIMUM	MAX.			
MINIMUM	MIN.			



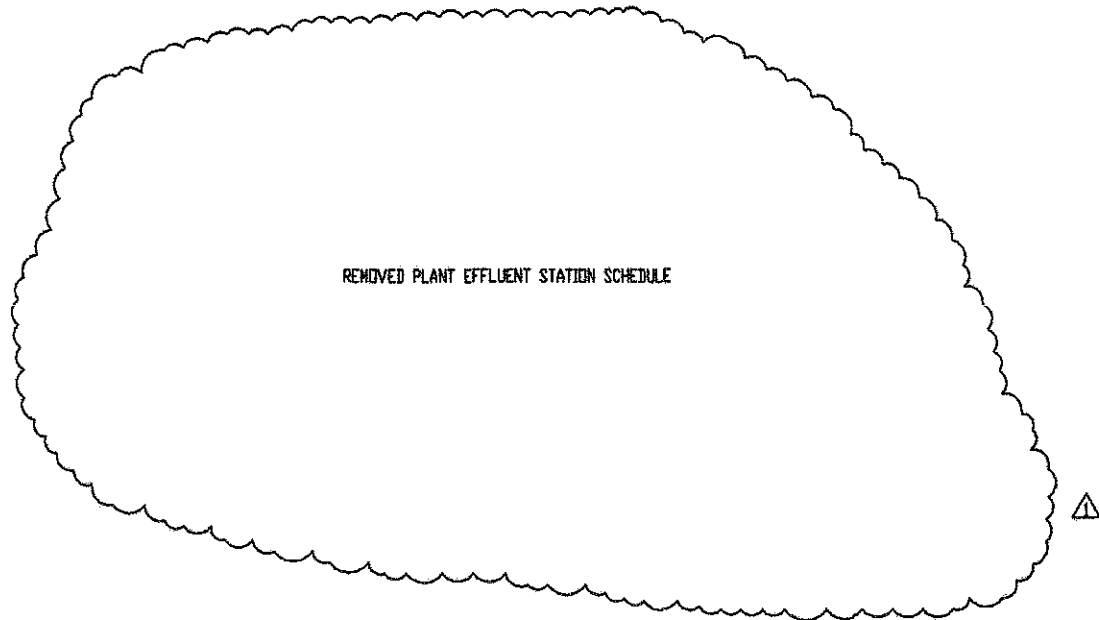
DETAIL-JOINT FOR USE AS WATERSTOP AT BASE OF WALL
FOR WALLS 12" OR MORE IN THICKNESS

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FLOYD BROWNE ASSOCIATES INC.
*Contact Office
Marion, Ohio 740.383.2187
Sidney, Ohio 637.492.7934
Delaware, Ohio 740.383.6782
DATE OCT 2002
JOB NO. 7400-07
CADD FILE S07
APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
STANDARD DETAILS
STRUCTURAL

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REMOVED PLANT EFFLUENT STATION SCHEDULE

GENERAL NOTES

- HVAC**
- DUCT LAYOUT IS FOR REFERENCE ONLY. EXACT LOCATION TO BE COORDINATED ON THE JOB WITH BUILDING STRUCTURE AND WORK OF OTHERS.
 - OPENINGS THROUGH OUTSIDE WALL FOR FANS, LOUVERS, AND SHUTTERS BY GENERAL CONTRACTOR. ALL LINTELS AND WEATHERTIGHT SETTING OF STATIONARY LOUVER BY GENERAL CONTRACTOR.
 - OPENING THROUGH ROOF BY GENERAL CONTRACTOR. FURNISHING AND SETTING OF PREFABRICATED CURBS AND FANS BY HVAC CONTRACTOR.
 - FLASHING BY GENERAL CONTRACTOR.
 - INSTALL BALANCING DAMPERS AND SPLITTER DAMPERS AS SHOWN AND AS REQUIRED FOR PROPER BALANCING AIR HANDLING SYSTEM.
 - NOTIFY GENERAL CONTRACTOR OF SIZE AND LOCATION OF ALL RECESSES AND OPENINGS REQUIRED BY HVAC WORK.
 - PROVIDE AIRTIGHT ACCESS DOOR IN DUCT ADJACENT TO ALL AUTOMATIC DAMPERS AND TEMPERATURE CONTROLS DEVICES.
 - INSTALL WATER BALANCING DEVICES ON ALL HOT WATER HEATING DEVICES.
 - MOUNT ALL CONNECTORS WITH BOTTOM 6" ABOVE FLOOR, UNLESS OTHERWISE NOTED.
 - MOUNT THERMOSTATS 4'-4" ABOVE FINISHED FLOOR ELEVATION.
 - COORDINATE EXACT LOCATION OF DIFFUSERS AND GRILLES TO PROVIDE SYMMETRY WITH THE BUILDING AND ROOM LIGHTING FIXTURES WHERE POSSIBLE.
 - COORDINATE EXACT LOCATION OF DUCT RISERS IN PIPE SPACES WITH PLUMBING STACK BY PLUMBING CONTRACTOR.
 - CAULK SPACE BETWEEN SLEEVES AND DUCTS AND PIPES WHERE THEY PASS THROUGH WALL. CAULKING TO BE AIRTIGHT.
 - OFFSET DUCT AS REQUIRED FOR CLEARANCE WHERE SPACE ABOVE CEILING IS NOT SUFFICIENT TO CROSS OTHER DUCTS OR WORK OF OTHERS CONTRACTORS.

- PLUMBING**
- PIPING LAYOUT IS FOR REFERENCE ONLY. EXACT LOCATION OF PIPES TO BE COORDINATED ON THE JOB WITH BUILDING STRUCTURE AND WORK OF OTHERS.
 - RUN ALL DRAIN LINES OF EQUIPMENT INDIRECT TO NEAREST F.D.
 - CONTRACTOR TO MAKE ALL PIPING CONNECTIONS TO LABORATORY EQUIPMENT (ITEM 5020) AS REQUIRED.
 - MOUNT HOSE BIBBS AND WALL HYDRANTS 2'-6" ABOVE FINISHED FLOOR OR WORK PLATFORM ELEVATIONS.
 - ALL FLOOR DRAINS AND ROOF DRAINS SHALL BE 4" UNLESS SHOWN OTHERWISE.
 - GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY APPLICABLE PLUMBING CONSTRUCTION.

HVAC/PLUMBING

- DO NOT INSTALL HVAC OR PLUMBING PIPING OR EQUIPMENT WITHIN AN ENVELOPE DIRECTLY ABOVE AN ELECTRICAL CONTROL PANEL OR MCC.

PROPANE (LP) NOTE

- COORDINATE REGULATOR SIZING AND PROPANE PRESSURES WITH PROPANE SUPPLIER:
SCHILLING PROPANE SERVICE
10500 C.D. RD. 122
P.O. BOX 415
UPPER SANDUSKY, OH 43351

ABBREVIATIONS

HVAC

- ACU AIR CONDITIONING UNIT
- AHU AIR HANDLING UNIT
- ADP APPARATUS DEW POINT
- BTU BRITISH THERMAL UNIT
- BTUH BRITISH THERMAL UNIT PER HOUR
- CFM CUBIC FEET PER MINUTE
- COND. CONDENSATION
- CONV. CONVECTOR
- DBT DRY BULB TEMPERATURE
- EAT ENTERING AIR TEMPERATURE
- EF EXHAUST FAN
- ENT. ENTERING
- EUH ELECTRIC UNIT HEATER
- EWB ELECTRIC WALL HEATER
- EVT ENTERING WATER TEMPERATURE
- F.C. FLEXIBLE CONNECTOR
- FPN FEET PER MINUTE
- FPS FEET PER SECOND
- G.S. GRAVITY SHUTTER
- GTD GREATEST TEMPERATURE DIFFERENCE
- HHWS HEATING HOT WATER SUPPLY
- HHWR HEATING HOT WATER RETURN
- HP HEAT PUMP
- HTR. HEATER
- LMTD LEAST MEAN TEMPERATURE DIFFERENCE
- LHG LATENT HEAT GAIN
- LAT LEAVING AIR TEMPERATURE
- L.O.U. LOUVER
- LVT LEAVING WATER TEMPERATURE
- M.O.D. MOTOR OPERATED DAMPER
- MBH BTUH IN THOUSANDS
- M.O.S. MOTOR OPERATED SHUTTER
- MTD. MEAN TEMPERATURE DIFFERENCE
- OA OUTDOOR/OUTSIDE AIR
- OPD OPPOSED BLADE DAMPER
- PRE POWER ROOF EXHAUSTER
- PRV POWER ROOF VENTILATOR
- R REFRIGERANT
- RH RELATIVE HUMIDITY
- RA RETURN AIR
- RC ROOF CURB
- SA SUPPLY AIR
- SHG SENSIBLE HEAT GAIN
- SP. STATIC PRESSURE IN INCHES OF WATER
- STM. STEAM
- T.D. TEMPERATURE DIFFERENCE
- T THERMOSTAT
- TCH TEMPERATURE CONTROL HOBES
- TEMP. TEMPERATURE
- UH UNIT HEATER
- VENT. VENTILATION
- WG. WALL GRILLE

PLUMBING

- A AIR
- AC AIR COMPRESSOR
- B BATH
- CO CLEANOUT
- CV COLD WATER
- EWC ELECTRIC WATER COILER
- FC-2' FLUSHING CONNECTION - 2" (PER SPEC.)
- FD FLOOR DRAIN
- G GAS
- HB HOSE BIBB - 3/4" HOSE CONNECTION
- HB-2' HOSE BIBB - 2" SYSTEM (PER SPEC.)
- HW HOT WATER
- HWB HOT WATER HEATER
- HWR HOT WATER RETURN
- K.S. KITCHEN SINK
- L.S. LAB SINK
- LAV. LAVATORY
- PE PLANT EFFLUENT
- PRV PRESSURE RELIEF VALVE
- RD ROOF DRAIN
- SAN. SANITARY
- SD STROM DRAIN
- SH SHOWER
- SPD SUMP PUMP DISCHARGE
- SS SERVICE SINK
- UR URINAL
- V VENT
- VAC. VACUUM
- WC WATER CLOSET
- VH WALL HYDRANT
- YH YARD HYDRANT - 2'

MISCELLANEOUS

- ADJ. ADJUSTABLE
- AMP AMPERE
- AVG. AVERAGE
- BHP BRAKE HORSEPOWER
- C CENTRIFUGAL
- C/P CORROSION PROTECTION
- CONC. CONCRETE
- CONTR. CONTROL
- CP CIRCULATING PUMP
- DET. DETAIL
- DIA. DIAMETER
- DISCH. DISCHARGE
- DS DISCONNECT SWITCH
- EFF. EFFICIENCY
- EL. ELEVATION
- ELEC. ELECTRICAL
- EXP. EXPANSION
- FT. FEET
- G.A. GAGE OR GAUGE
- GAL. GALLONS
- GPH GALLONS PER HOUR
- HZ. HERTZ
- HD. HEAD
- HG. MERCURY
- HGT. HEIGHT
- HP. HORSEPOWER
- HOR. HORIZONTAL
- HR. HOUR
- IN. INCHES
- KV. KILOWATTS
- KWH KILOWATTS PER HOUR
- LG. LENGTH
- LIN. FT. LINEAR FEET
- LBS. POUNDS
- MAX. MAXIMUM
- MIN. MINIMUM
- MOUNT. MOUNTING
- N/A NOT APPLICABLE
- N.C. NORMALLY CLOSED
- N.O. NORMALLY OPEN
- NO. NUMBER
- NTS. NOT TO SCALE
- PH. PHASE
- PDS. POSITION
- PSI POUNDS PER SQUARE INCH
- PSIG POUNDS PER SQUARE INCH, GAUGE
- PRESS. PRESSURE
- RPM. REVOLUTIONS PER MINUTE
- SHT. SHEET
- SQ. SQUARE
- THK. THICKNESS
- TYP. TYPICAL
- V VOLT
- VEL. PRESS. VELOCITY PRESSURE
- VOL. VOLUME
- WG. WATER GAUGE
- W WATT

H2
OF
H6

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

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#Marion, Ohio 740.383.2187 Sidney, Ohio 937.482.7636 Delaware, Ohio 740.365.6782

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JOB NO. 7400-07 APPROVED

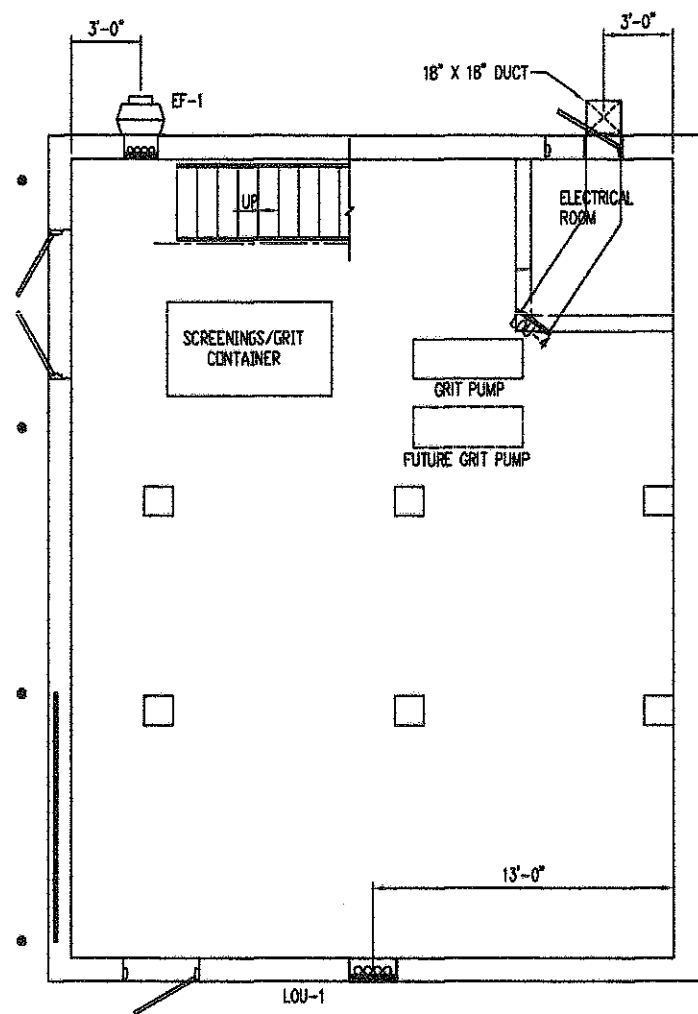
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WASTEWATER TREATMENT PLANT IMPROVEMENTS

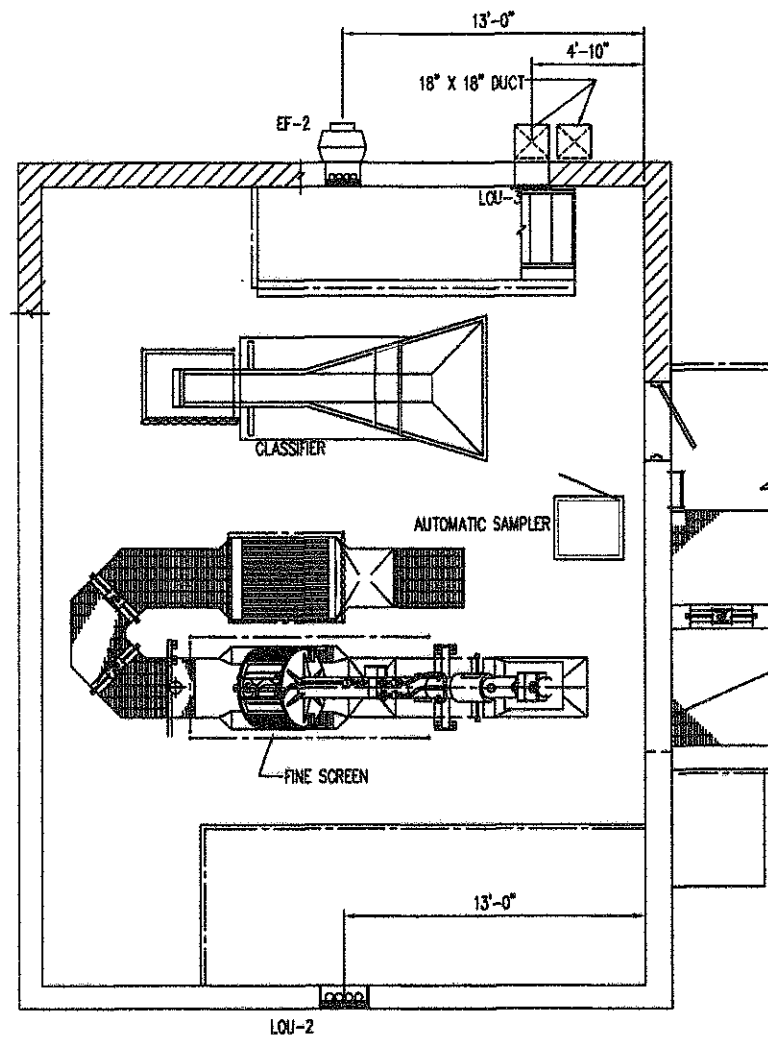
CONTRACT 2002-02

HVAC ABBREAVATIONS

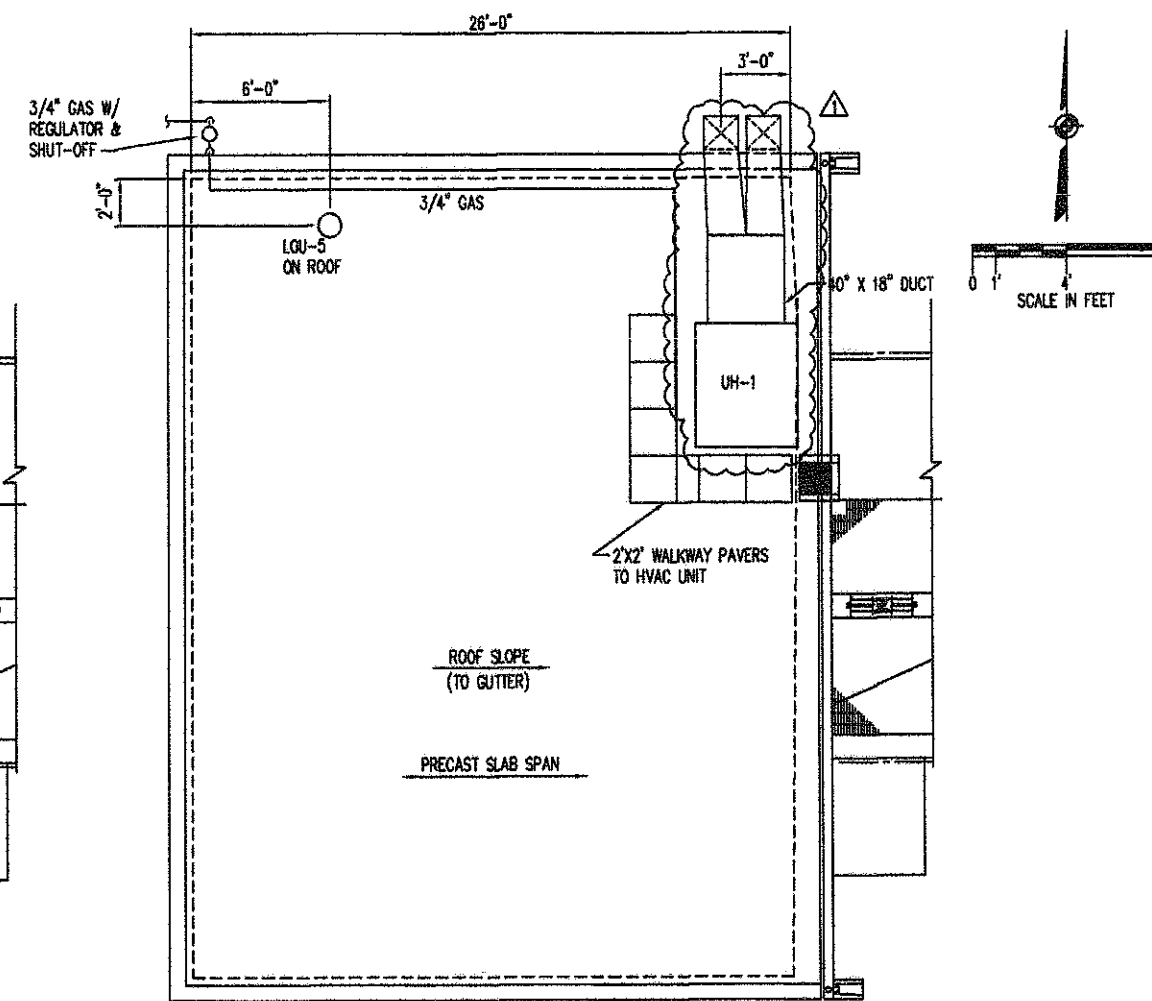
HVAC



BASE PLAN

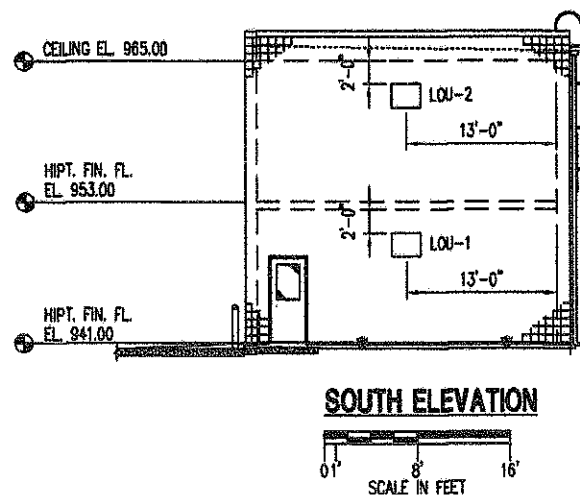


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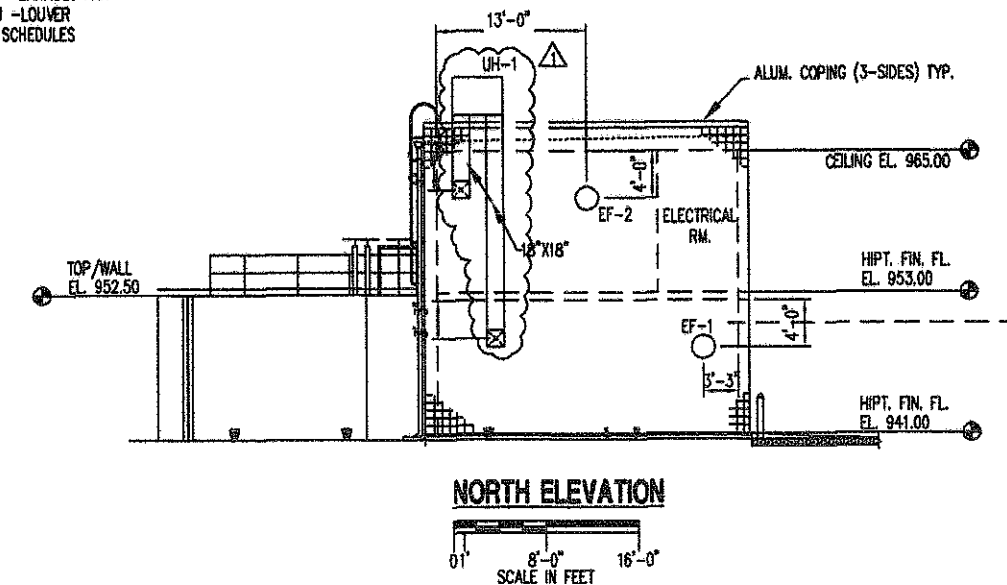


ROOF PLAN

NOTE:
 SF - SUPPLY FAN
 EF - EXHAUST FAN
 LOU - LOUVER
 SEE SCHEDULES



SOUTH ELEVATION



NORTH ELEVATION

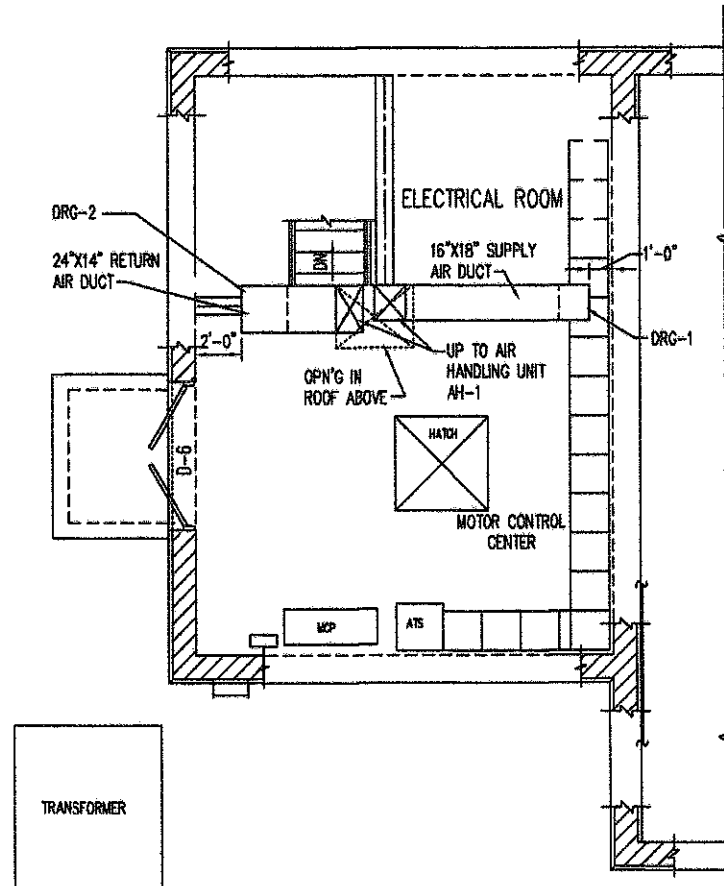
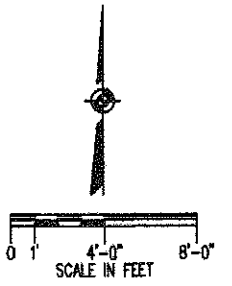
NOTE:
 1. DUCT WORK ON SHT. H4 AND H5 SHALL BE GALVANIZED OR FIBERGLASS.

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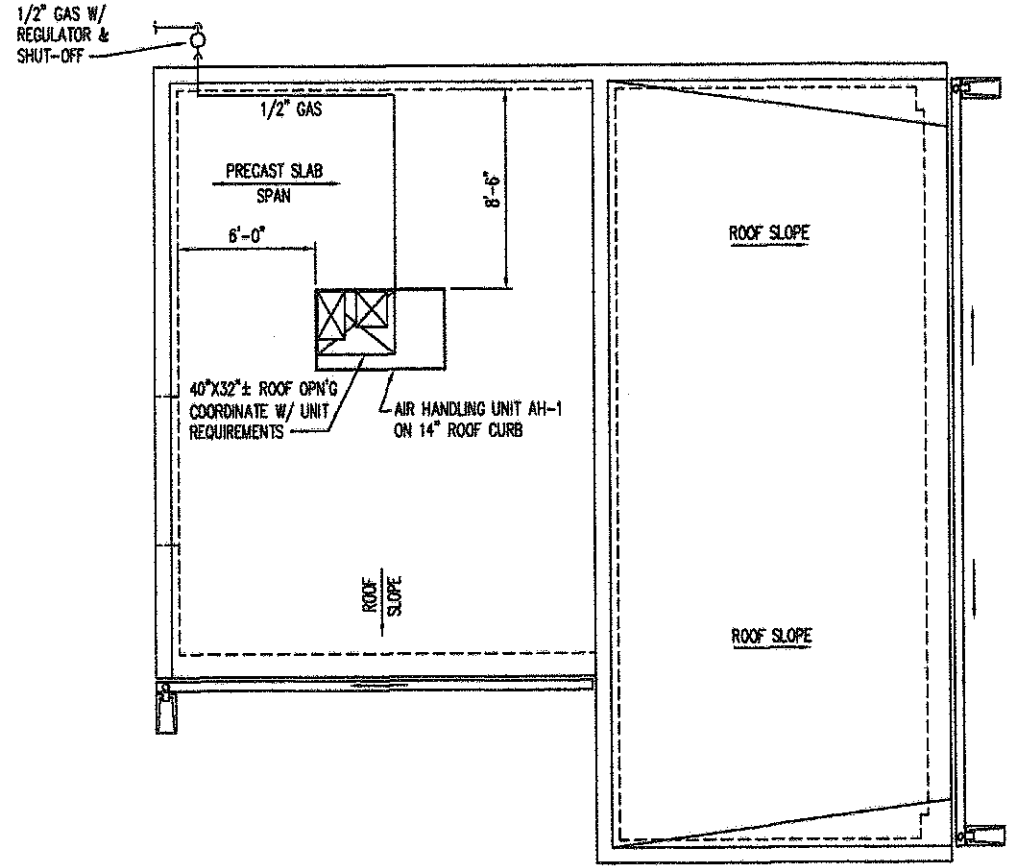
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 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.383.6792
 DATE OCT 2002 CADD FILE H-PRELM BLDG
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT 2002-02
 PRELIMINARY TREATMENT BLDG
 HVAC

H4 OF H6



GROUND FLOOR



ROOF PLAN

NOTE:
 SF - SUPPLY FAN
 EF - EXHAUST FAN
 LOU - LOUVER
 DRG - DIFFUSER
 SEE SCHEDULES

NOTE:
 1. DUCT WORK ON SHT. H4 AND H5 SHALL BE GALVANIZED OR FIBERGLASS.

H5
 OF
 H6

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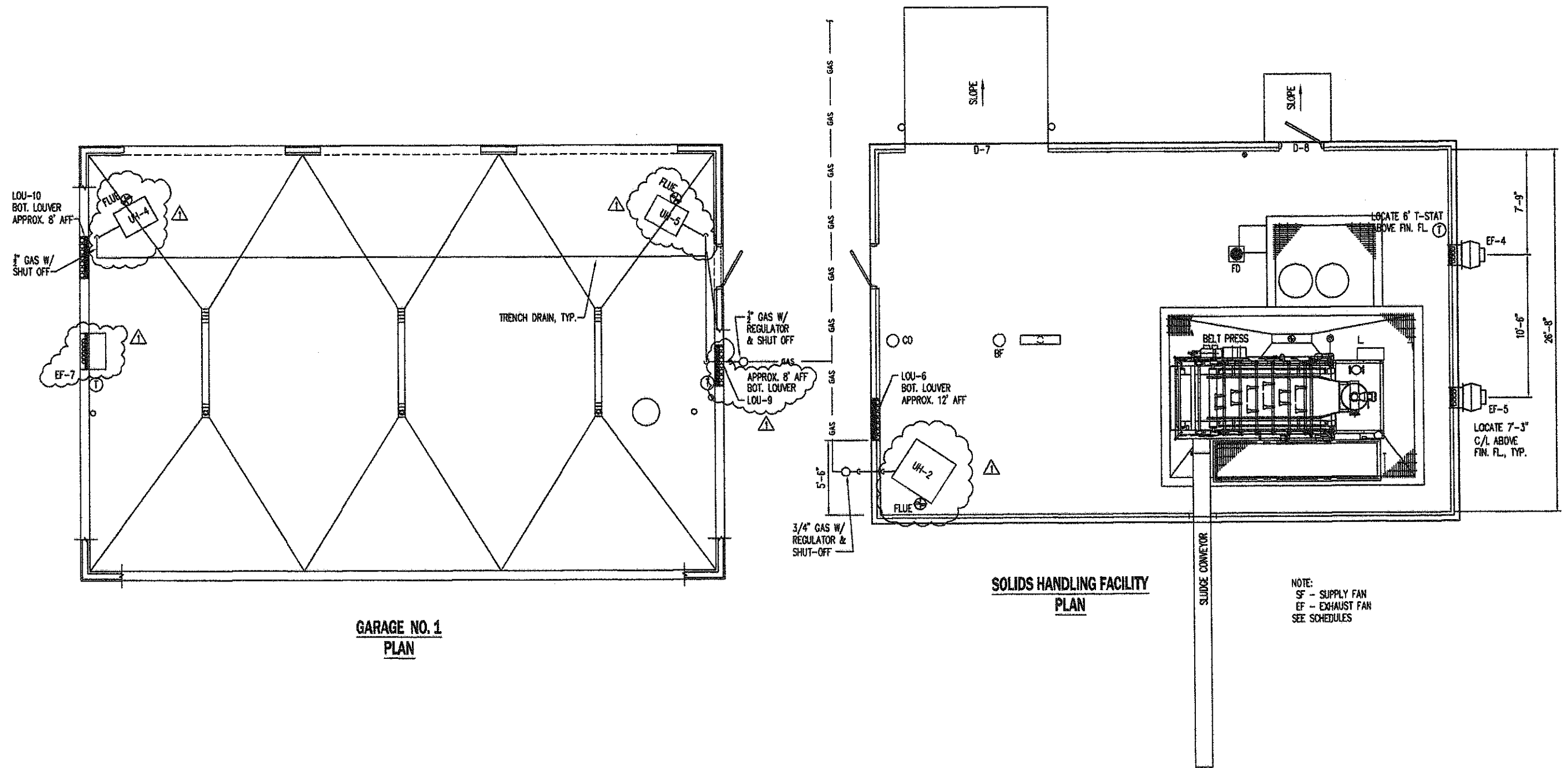
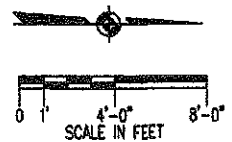
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WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT 2002-02

SLUDGE TRANSFER / ELECTRICAL BLDG

HVAC



**GARAGE NO. 1
PLAN**

**SOLIDS HANDLING FACILITY
PLAN**

NOTE:
SF - SUPPLY FAN
EF - EXHAUST FAN
SEE SCHEDULES

H6
OF
H6

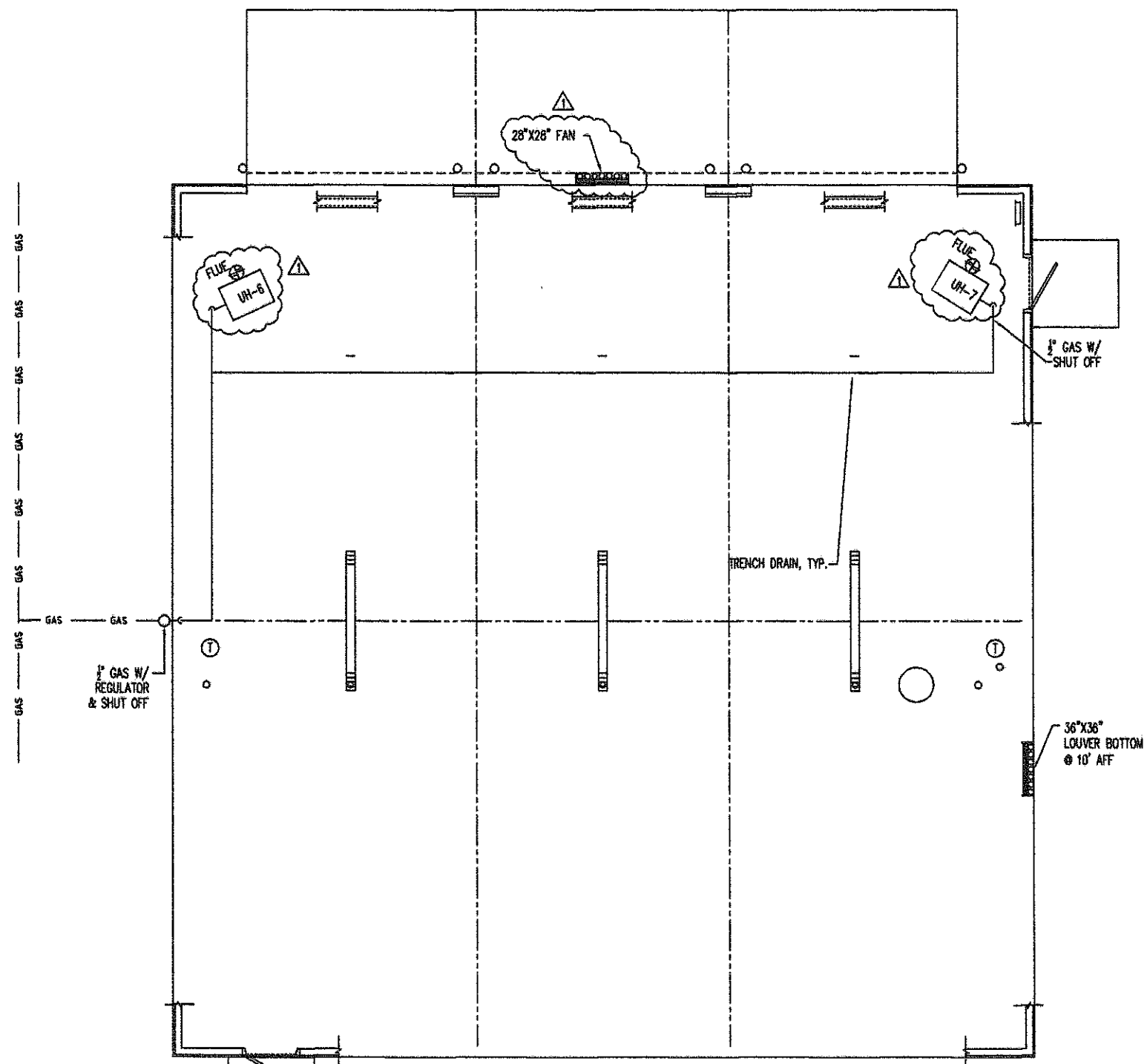
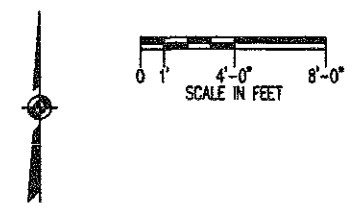
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DATE OCT 2002 CADD FILE H-SH FACILITIES
JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT 2002-02
SOLIDS HANDLING FACILITY & GARAGE
HVAC



NOTE:
UNIT HEATERS, LOUVER AND EXHAUST FAN
TO BE FIELD LOCATED

**GARAGE NO. 2
PLAN**

H7
OF
H6

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-2-06	WCS	

WCS
Welland Consulting Services

DATE OCT 2002 CADD FILE H-SH FACILITIES
JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT 2002-02
GARAGE NO. 2
HVAC

GENERAL NOTES

- CLASS 1, DIVISION 1 OR 2 (AS NOTED), GROUP D. ALL CONDUITS AND FITTINGS PVC COATED. SEAL OFF FITTINGS REQUIRED ON ALL CONDUITS AND DEVICES PER NEC ARTICLE 501-5.
- HIGHLY CORROSIVE ATMOSPHERE. ALL CONDUITS AND FITTINGS PVC COATED. SEAL OFF FITTINGS ARE REQUIRED ON ALL CONDUIT ENTERING AND LEAVING AREA. ALL ELECTRICAL ENCLOSURES TO BE NEMA 4, NONMETALLIC.
- ALL LIGHTING AND RECEPTACLE WIRING TO BE #12 THIN WITH EQUIPMENT GROUND IN 3/4" C UNLESS OTHERWISE NOTED.
- DO NOT MOUNT ANY LIGHT FIXTURE DIRECTLY OVER PIPING OR EQUIPMENT THAT WILL INTERFERE WITH NORMAL LIGHTING DISTRIBUTION.
- FURNISHED, INSTALLED, AND WIRED UNDER EQUIPMENT ITEM.
- FURNISHED AND MOUNTED WITH EQUIPMENT. WIRED UNDER ITEM 16000.
- FURNISHED WITH EQUIPMENT. INSTALLED AND WIRED UNDER ITEM 16000.
- SIZE JB 'S AS REQUIRED PER NEC. PROVIDE BARRIER TYPE TERMINAL STRIPS, AND ALL WIRING TO BE IN PLASTIC DUCT.
- SIZE PULL BOXES AS REQUIRED PER NEC.
- PROVIDE SEPARATE PB 'S FOR CONTROL AND POWER.
- MOTOR OVERLOAD HEATERS SHALL BE FIELD SELECTED PER MOTOR NAME PLATE CURRENT AND INSTALLED ACCORDINGLY.
- WATERTIGHT CONNECTIONS - HEAT SHINK INSULATION RAYCHEM, THOMAS BETTS, OR EQUAL.
- LOCAL CONTROLS AT EQUIPMENT SHALL BE MOUNTED 48" ABOVE FINISHED FLOOR. MOUNT CONTROLS ON WALL NEAREST EQUIPMENT WHERE POSSIBLE. (MAX. DISTANCE FROM WALL TO EQUIPMENT - 10 FEET).
- LEGEND: M - MOTOR CIRCUIT PROTECTOR
C - CIRCUIT BREAKER
- FOR PURPOSES OF CLARITY ON ELECTRICAL DRAWINGS ALL NEW BUILDINGS, PIPING, PROCESS EQUIPMENT, ETC. IS SHOWN SHADED. ALL EXISTING BUILDINGS, EQUIPMENT, ETC. IS SHOWN SHADED AND DASHED.

LIGHTING FIXTURE SCHEDULE

ID	MANUFACTURER	DESCRIPTION	LAMPS
FG-2,4	HOLOPHANE TYPE SLSW COOPER METALUX IA SERIES GRANGER # 51673, 68839 OR EQUAL	TWO LAMP FLUORESCENT TYPE, OPEN, FUSED, 10X UPLIGHT, 120 V SUSPENDED OR SURFACE MOUNT ZONAL OUTPUT } 0°-60°, 50% MINIMUM LAMP LUMENS } 60°-90°, 12% MAXIMUM	F32T8HW
FL-2D	HOLOPHANE "CONTOLESCENT", COOPER METALUX VT2 SERIES GRANGER # 51664 OR EQUAL	ENCLOSED & GASKETED, SURFACE OR SUSPENDED MTG TWO LAMP FLUORESCENT, U.L. LISTED FOR WET LOCATIONS, CORROSION RESISTANT, HIGH IMPACT PRISMATIC ACRYLIC LENS, 120 V, FUSED, LOW BRIGHTNESS ZONAL OUTPUT, } 0°-60°, 50% MINIMUM LAMP LUMENS } 60°-90°, 12% MAXIMUM	F32T8HW
FLT-2,4	HOLOPHANE TYPE TO COOPER METALUX 2GR SERIES GRANGER # 51937, 4PH77 OR EQUAL	FOUR LAMP FLUORESCENT, ACRYLIC PRISMATIC LENS, TROFFER, 120V, U.L. LISTED	F32T8HW
FL-2 XP	APPLETON SERIES HOLV234152 GRANGER # 4PL84 OR EQUAL	DUST/ VAPOR/ IGNITION RESISTANT TWO LAMP FLUORESCENT, U.L. LISTED FOR CL 1 DIV 2 OR A,B,C,D CORROSION RESISTANT 120V	F32T8HW
HY-1	HOLOPHANE SMST250MH12BZCL OR EQUAL	AREA FLOODLIGHT, SOMERSET W/ SINGLE FIXTURE FUSE ASSEMBLY, 120V, ORIENT AS SHOWN	250 W MH
HY-2	HOLOPHANE SMST250MH12BZCL OR EQUAL	AREA FLOODLIGHT, SOMERSET W/ DOUBLE FIXTURE FUSE ASSEMBLY, 120V, ORIENT AS SHOWN	250 W MH
HY-3	HOLOPHANE CH2A250MH12BZCA OR EQUAL	AREA FLOODLIGHT, CRESTWOOD SINGLE FIXTURE FUSE ASSEMBLY, 120V, ORIENT AS SHOWN	250 W MH
HK	HOLOPHANE WLK2165MH12BZ-TP-F1 OR EQUAL	OUTDOOR WALLPACK, U.L. LISTED FOR WET LOCATION. INDIVIDUAL FUSING, 120V, HIGH PRESSURE SODIUM TYPE, TAMPER PROOF, WITH POLYCARBONATE SHIELD, CLOSED CELL NEOPRENE GASKETING.	150 W HPS CLEAR
EK-1	LITHONIA TYPE XS, HOLOPHANE, OR EQUAL	LIGHTED EXIT SIGN, RED, SINGLE OR DOUBLE FACE AS REQUIRED. SELF-POWERED EMERGENCY OPERATION, 120V	2-15W
EK-3	CHLORIDE TYPE WSP OR EQUAL	LIGHTED EXIT SIGN, RED, SINGLE FACE RATED NEMA 4X. SELF-POWERED EMERGENCY OPERATION, 120V	2-15W
EM-1	HOLOPHANE EC-10-2A, LITHONIA, OR EQUAL	EMERGENCY LIGHT W/2 LIGHTS CEILING OR WALL MOUNTED ON (AS INDICATED ON DWGS) 12V BATTERY 50W MH. CAPACITY - 120V	2-25W
P-1	HOLOPHANE, OR EQUAL	PAINTED STL TILT-OVER POLE, 25FT W/ WEATHER-PROOF RECP IN BASE. PROVIDE ONE TILTING HANDLE	
ELR-1		REMOTE EMERGENCY LIGHT HEAD. COOPER SURE LITES MODEL 6X-9-WGY OR LITHONIA QUANTUM ELANIX H0805	
EL-1		EMERGENCY LIGHT, COOPER SURE LITES MODEL HR121172B60R OR LITHONIA QUANTUM ELT125	
FL-2W		SURFACE MTG WRAP AROUND FLUORESCENT FIXTURE 2 LAMP 48-INCH, 120V, COOPER METALUX WS232A120VEB81 OR HOLOPHANE HWSM40SH71042EP11	78 LAMP
EM-3		COMBINATION EXIT AND EMERGENCY LIGHT, COOPER SURE LITES MODEL CCK70RMH2H OR LITHONIA QUANTUM LH08MSK3 (R OR G) 120/277	

ALL FIXTURES LISTED ARE NOT NECESSARILY USED. FIXTURES LISTED ON DRAWINGS SUPERSEDE THIS LISTING.

ELECTRICAL ABBREVIATIONS

A	AMPS	FVR	FULL VOLTAGE REVERSING	NEUT	NEUTRAL	SSOR	SOLID STATE OVERLOAD RELAY
AI	ANALOG INPUT (PLC)	GF	GROUND FAULT INTERRUPTER	NFDS	NON-FUSED DISCONNECT SWITCH	SSPB	START/STOP PUSHBUTTON
AL	ALUMINUM	GRD	GROUND	OCSS	OPEN/CLOSE SELECTOR SWITCH	SSS	SOLID STATE STARTER
AM	AMMETER	GFR	GROUND FAULT RELAY	OL	OVERLOAD	STD	STANDARD
AO	ANALOG OUTPUT (PLC)	HOA	HAND/OFF/AUTO SELECTOR SWITCH	OGSS	ON/OFF SELECTOR SWITCH	STRTR	STARTER
AP	ALARM PANEL	HP	HORSEPOWER	OT	OVER TORQUE SWITCH	SV	SOLENOID VALVE
AWG	AMERICAN WIRE GAUGE	HT	HIGH TORQUE SWITCH	PB	PUSHBUTTON	SW	SWITCH
CAP	CAPACITOR	HTR	HEATER	PBC	PULLBOX-CONTROL	T	TELEPHONE
CB	CIRCUIT BREAKER	HZ	HERTZ	PBM	PULLBOX-METERING	TB	TERMINAL BOARD
CL	CURRENT LIMITING	ICP	INSTRUMENTATION & CONTROL PANEL	PEP	PULLBOX-PONER	TC	TIME CLOCK
CP	CONTROL PANEL	IPP	INSTRUMENT POWER PANEL	PC	PHOTO CONTROL	TD	TRENCH DUCT
CPT	CONTROL POWER TRANSFORMER	IPD	INTERCONNECTION WIRING DIAGRAM	PF	POWER FACTOR	TBB	TELEPHONE EQUIPMENT BACKBOARD
CR	CORROSION RESISTANT	JBC	JUNCTION BOX-CONTROL	PFM	POWER FACTOR METER	TEMP	TEMPERATURE
CS	CENTRIFUGAL SWITCH	JBM	JUNCTION BOX-METERING	PH	PHASE	TERP	THERMAL OVERLOAD RELAY
CT	CURRENT TRANSFORMER	JBP	JUNCTION BOX-POWER	PLC	PROGRAMMABLE LOGIC CONTROLLER	TR	TRIP RELAY
CU	COPPER	K	KEY INTERLOCK OR KLO (1000)	PLD	PROGRAMMABLE CONTROLLER LOGIC DIAGRAM	TRANS	TRANSFORMER
DB	DUCT BANK	KVA	KILOVOLT AMPERES	PP	POWER PANEL	TSTAT	THERMOSTAT
DI	DIGITAL INPUT (PLC)	KVAR	KILOVOLT AMPERES-REACTIVE	PR	PRIMARY	2SZWR	2 SPEED, 2 WINDING NON-REVERSING STARTER
DO	DIGITAL OUTPUT (PLC)	KW	KILOWATT	PS	PRESSURE SWITCH	UH	UNIT HEATER
EAG	ELECTRICALLY ACTIVATED GATE	LA	LIGHTNING ARRESTER	PT	POTENTIAL TRANSFORMER	UPS	UNINTERRUPTIBLE POWER SUPPLY
EAV	ELECTRICALLY ACTIVATED VALVE	LGT	LIGHT	R	RELAY	V	VOLTS
EF	EXHAUST FAN	LGR	LOCAL/OFF/REMOTE SELECTOR SWITCH	RCP	REINFORCED CONCRETE PIPE	VC	VOLUME CONTROL
ESPB	EMERGENCY STOP PUSHBUTTON (MAINTAINED)	LP	LIGHTING PANEL	RL	RUN LIGHT	VFD	VARIABLE FREQUENCY DRIVE
EIT	ELAPSED TIME TOTALIZER	LS	LEVEL SWITCH	SEC	SECONDARY	VM	VOLT METER
END	ELEMENTARY WIRING DIAGRAM	MCC	MOTOR CONTROL CENTER	SF	SUPPLY FAN	X/P	EXPLOSION PROOF
FDS	FUSED DISCONNECT SWITCH	MCP	MOTOR CIRCUIT PROTECTOR	SFSPB	SLOW/FAST/STOP PUSHBUTTON	ZS	LIMIT SWITCH
FLA	FULL LOAD AMPERES	MDP	MAIN DISTRIBUTION PANEL	SHD	SHIELDED		
FS	FLOW SWITCH	MSS	MANUAL START SWITCH	SP	SHEAR PIN SWITCH		
FVC	FULL VOLTAGE CONTACTOR	NEC	NATIONAL ELECTRICAL CODE	SPK	SPEAKER		
FVR-1	FULL VOLTAGE NON-REVERSING STARTER, SIZE 1	NEMA	NATIONAL ELECTRICAL MFR. ASSOC.	SS	SELECTOR SWITCH		

LIGHTING SWITCHES & RECEPTACLES

MARK	ITEM	AMPS	VOLTS	PHASE	DESCRIPTION	TYPE
⊖	RECEPTACLE	20	125	1	3 WIRE GROUNDING DUPLEX TYPE	HUBBELL 5362-GRY, PASS & SEYMOUR OR EQUAL
⊖	RECEPTACLE-GROUND FAULT	20	125	1	3 WIRE GROUNDING, DUPLEX TYPE, NEMA REF: RECEPT 5-20R PLUG 5-20P	HUBBELL GF-5362, PASS & SEYMOUR, OR EQUAL
⊖	RECEPTACLE-GROUND FAULT WET LOCATION	20	125	1	3 WIRE GROUNDING, DUPLEX TYPE, COMPLETE W/COVER & RECEPTACLE	HUBBELL GF-5362 W/ WP 26 COVER, PASS & SEYMOUR, OR EQUAL
⊖	RECEPTACLE-CORROSION PROOF	20	125	1	3 WIRE GROUNDING DUPLEX TYPE W/ COVER	HUBBELL 530862 RECEPT, W/ 530822 COVER, PASS & SEYMOUR, OR EQUAL
⊖	RECEPTACLE-EXPLOSION PROOF	20	125	1	3 WIRE GROUNDING SINGLE GANG W/ PLUG NEMA 7	APPLETON EFS RECEPT W/ ECP PLUG HUBBELL, OR EQUAL
\$	WALL SWITCH	20	120/277	1	SINGLE POLE PRESS SWITCH & PLATE W/ PILOT LIGHT	HUBBELL 1281-GRY-1785, PASS & SEYMOUR, OR EQUAL
\$	WALL SWITCH	20	120/277	1	THREE WAY PRESS SWITCH & PLATE W/ PILOT LIGHT	HUBBELL 1283-GRY-1785, PASS & SEYMOUR, OR EQUAL
\$	WALL SWITCH	20	120/277	1	FOUR WAY PRESS SWITCH & PLATE W/ PILOT LIGHT	HUBBELL 1284-GRY-1785, PASS & SEYMOUR, OR EQUAL
MZ	MANUAL START SWITCH *	20	120	1	TWO POLE SWITCH W/ PILOT LIGHT	ALLEN BRADLEY BULLETIN 600, CUTLER HAMMER 910 SERIES, OR EQUAL

* PROVIDE ENCLOSURE W/ NEMA RATING AS REQ'D.
NEMA 1 - OFFICE & LAB AREAS
NEMA 4X - OUTSIDE/CORROSIVE AREAS
NEMA 7 - HAZARDOUS AREAS
NEMA 12 - INSIDE

LEGEND OF ELECTRICAL SYMBOLS

PLAN SYMBOLS

MOTOR (M)	PRESSURE SWITCH (PS)	CEILING MOUNTED FIXTURE
DISCONNECT SWITCH	FLOW SWITCH (FS)	WALL MOUNTED FIXTURE
MOTOR CONTROLLER	LEVEL SWITCH (LS)	FLUORESCENT FIXTURE
CAPACITOR (CAP)	LIMIT SWITCH (ZS)	WALLPACK
LOCAL CONTROL STATION	CENTRIFUGAL SWITCH (CS)	UNIT HEATER
SURGE SUPPRESSOR	TIME CLOCK (TC)	SOLENOID VALVE
	THERMOSTAT (T)	MOTOR OPERATED VALVE
	HIGHLY CORROSIVE ATMOSPHERE	

CLASS 1, DIV. 1 OR 2 (AS NOTED) GROUP D AREA

SINGLE LINE, ELEMENTARY, & INTERCONNECTION DIAGRAMS - SYMBOLS

DISCONNECT - AMP RATING	N.O. SWITCH	CONTACT-NORMALLY CLOSED
FUSE - AMP RATING	N.O. LEVEL SWITCH	SOLENOID COIL
CIRCUIT BREAKER - AMP RATING	N.O. PRESSURE SWITCH	PILOT LIGHT-PUSH TO TEST
AMMETER (AM)	N.O. TEMPERATURE SWITCH	GROUND
VOLT METER (VM)	N.O. TIME DELAY AFTER ENERGIZATION	CAPACITOR
POWER FACTOR METER (PF)	N.C. TIME DELAY AFTER ENERGIZATION	2 POSITION SELECTOR SWITCH
GROUND FAULT RELAY (GFR)	N.C. TIME DELAY AFTER DE-ENERGIZATION	3 POSITION SELECTOR SWITCH
TRANSFORMER	N.O. TIME DELAY AFTER DE-ENERGIZATION	EQUIPMENT FIELD TERMINAL
RELAY COIL (R)	N.O. SWITCH (GENERAL)	NCC OR STARTER TERMINAL
TIMING RELAY COIL (TR)	START PUSHBUTTON NORMALLY OPEN	MCP TERMINAL
MOTOR STARTER COIL (M)	STOP PUSHBUTTON NORMALLY CLOSED	PLC TERMINAL
ELAPSED TIME TOTALIZER (ETT)	CONTACT-NORMALLY OPEN	SPECIAL TERMINAL AS NOTED
N.O. LIMIT SWITCH		PROCESS RECORDER TERMINAL

PROTECTIVE DEVICES

- UNDERVOLTAGE RELAY (27)
- PHASE BALANCE RELAY (46)
- OVERCURRENT RELAY (51)
- FREQUENCY RELAY (61)

NOTE: ON SHEETS E1, E4, E8, E9, AND E13, THE LIGHTING FIXTURES DESIGNATED AS "HK" SHALL MEET THE REQUIREMENTS OF THE "HK-1" DESIGNATION ON SHEET E3.

E1 OF E19

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	1-20-02	WCS	

FLOYD BROWNE ASSOCIATES, INC.

* Marion, Ohio 740.383.2187 Sidney, Ohio 937.692.7886 Delaware, Ohio 740.383.6792

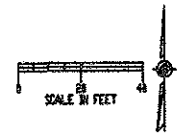
DATE: OCT 2002 CHD FILE: DWG-2

200 H.L. 700-CZ APPROVED

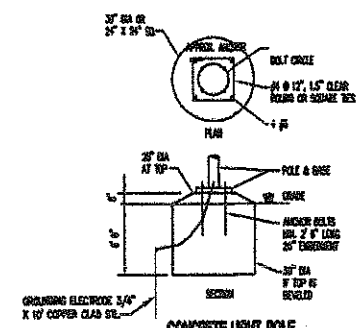
VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS CONTRACT 2002-02

NOTES/LEGENDS/SCHEDULES/ABBREVIATIONS ELECTRICAL



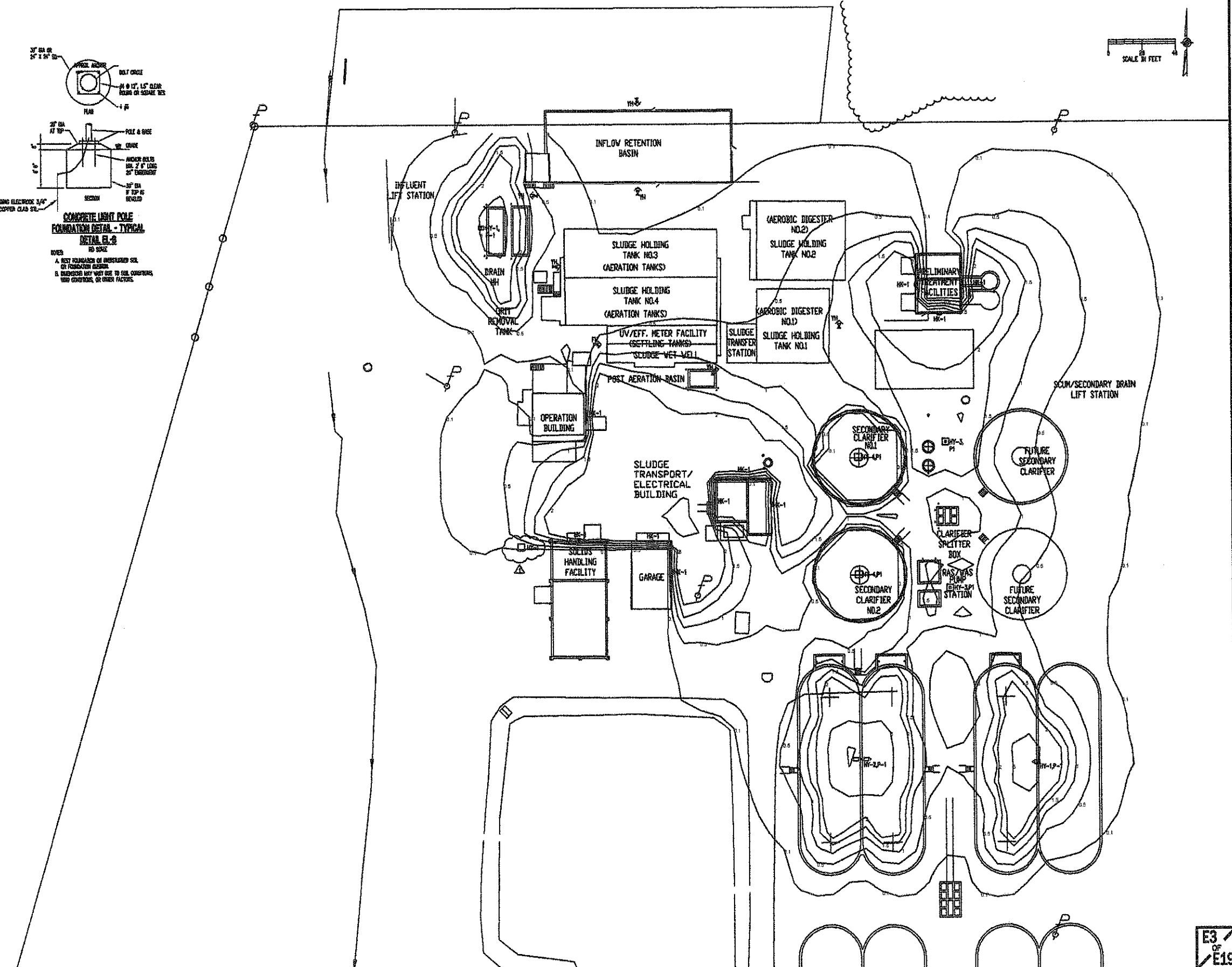
- YARD LIGHT 1 - 250 WATT CLEAR MH FLOODLIGHT HOLOPHANE SOMERSET FIXTURE 120V BALLAST.
- YARD LIGHT 2 - 250 WATT CLEAR MH FLOODLIGHT HOLOPHANE SOMERSET DIAL FIXTURE 120V BALLAST.
- YARD LIGHT 3 - 250 WATT CLEAR MH FLOODLIGHT HOLOPHANE CRESTWOOD FIXTURE CH24250MH120CA.
- YARD LIGHT 4 - 250 WATT CLEAR MH FLOODLIGHT HOLOPHANE CRESTWOOD FIXTURE CH24250MH120CA.



CONCRETE LIGHT POLE FOUNDATION DETAIL - TYPICAL
DETAIL EL-2

- NOTES
- A. REST FOUNDATION OF UNCHANGED SIZE OR FOUNDATION DESIGN.
- B. DIMENSIONS MAY VARY DUE TO SOIL CONDITIONS, USED CONTRACTS, OR OTHER FACTORS.

P-1 YARD LIGHT POLE - 25 FT HIGH STEEL POLE, PROVIDE ONE LONGitudinal HAND CRANK WIND DESIGN FOR 100 MPH WIND. PAINT TO MATCH FIXTURE. PROVIDE ONE OR WEATHER PROOF 8-1/2" DIA. COVER AT BASE. INC. CONC. BASE @ 16" DIA. 24" DIA.



NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-20-06	WCS	

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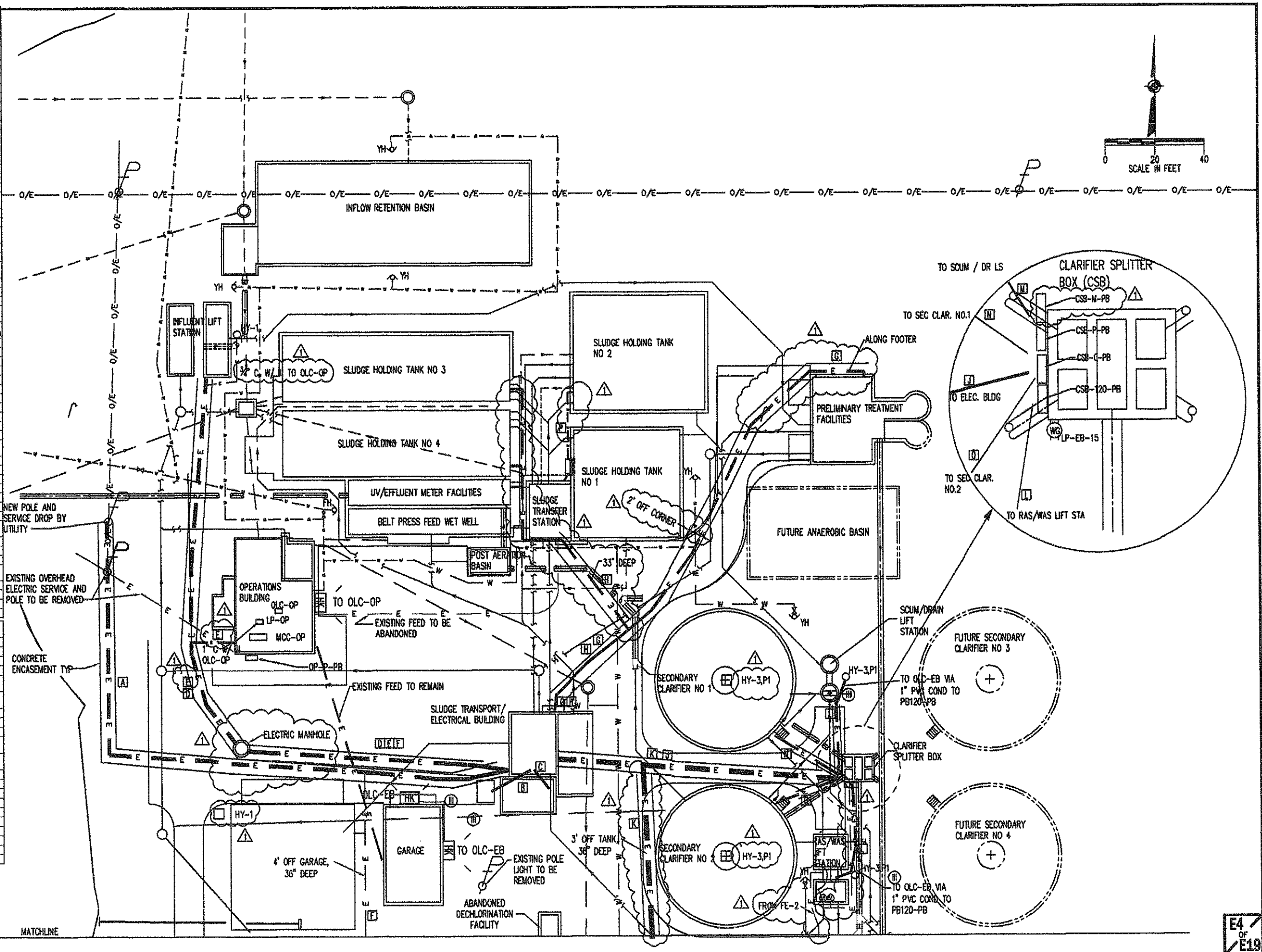
*Marion, Ohio 740.583.2187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.583.6782

DATE NOV 2002 CADD FILE E-LIGHTING PLAN
JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
YARD LIGHTING

E3 OF E19

DUCT	FROM	TO	NO. & CONDUIT SIZE	USE	WIRE
A	SERVICE POLE	TRANSFORMER	1-5"	POWER	PRIMARY
			1-5"	POWER	SPARE
B	TRANSFORMER	ATS IN MCC	4-4"	POWER	4 SETS OF 750 MCM & 1 #0 GND
C	GENERATOR	ATS IN MCC	4-4"	POWER	4 SETS OF 750 MCM & 1 #0 GND
			1-1"	120/240 VAC	IV
			1-1"	CONTROL	CC
D	ELEC BLDG	INF LIFT STATION (E/L)	1-2 1/2"	POWER	XXVIII
			1-2 1/2"	POWER	SPARE
			1-1"	CONTROL	CC
			1-1"	SCADA	CA T-5e
E	ELEC BLDG	OPERATIONS BLDG PER OP (OP)	1-2 1/2"	POWER	XXVII
			1-2 1/2"	POWER	SPARE
			1-1 1/2"	CONTROL	2-CP'S
			1-1"	SCADA	CA T-5e
			1-1"	TELEPHONE	
F	ELEC BLDG	SOLIDS HANDLING BLDG (SH)	1-1 1/2"	POWER	XXI
			1-1"	CONTROL	CG
			1-1"	METERING	2 MA'S
G	ELEC BLDG	PRELIMINARY TREATMENT FACILITIES	1-1 1/2"	POWER	XVI
			1-1"	CONTROL	CG
			1-1"	METERING	1 MA'S
H	ELEC BLDG	SLUDGE TRANSFER STATION	1-1 1/2"	POWER	XXI
			1-1"	CONTROL	CF
			1-1"	METERING	3 MA'S
I	NOT USED				
J	ELEC BLDG	CLARIFIER SPLITTER BOX PPS			
		CSB-P-PB	1-1 1/2"	POWER	2-M'S, 1-XXII, 1-XIII
		CSB-C-PB	1-1"	CONTROL	2-CP'S, 2-CP'S
		CSB-120-PB	1-1"	120/240 VAC	2-#4-IV
K	ELEC BLDG	AERATION BASIN MH	1-3"	POWER	XXIX
			1-3"	POWER	FUTURE
			2-3"	POWER	SPARE
			1-1 1/2"	120/240 VAC	XVII
			1-1 1/2"	120/240 VAC	FUTURE
			2-1 1/2"	SCADA	CA T-5e
			1-1"	SCADA	CA T-5e
			1-1"	SCADA	FUTURE
			1-1"	SPARE	
L	CLARIFIER SPLITTER BOX PPS	RAS / WAS LIFT STA.			
		CSB-P-PB	1-2"	POWER	XXIV
		CSB-P-PB	1-2"	POWER	SPARE
		CSB-120-PB	1-1"	120/240 VAC	IV
		CSB-C-PB	1-1 1/2"	CONTROL	CN
		CSB-M-PB	1-1"	SCADA	CA T-5e
			1-1"	SCADA	SPARE
M	CLARIFIER SPLITTER BOX PPS	SCUM / DRAIN LIFT STA.			
		CSB-P-PB	1-1"	POWER	XI
		CSB-120-PB	1-1"	120/240 VAC	IV
			1-1"	SPARE	
N	CLARIFIER SPLITTER BOX PPS	SECONDARY CLARIFIER NO. 1			
			1-1"	POWER	IV
			1-1"	120/240 VAC	2-#5
			1-1"	CONTROL	CG
			1-1"	SPARE	
O	CLARIFIER SPLITTER BOX PPS	SECONDARY CLARIFIER NO. 2			
			1-1"	POWER	IV
			1-1"	120/240 VAC	2-#5
			1-1"	CONTROL	CG
			1-1"	SPARE	
P	SLUDGE TRANSFER STATION	SLUDGE HOLDING TANK NO. 3	1-1"	CONTROL	CF
Q	SLUDGE TRANSFER STATION	UV FACILITIES	1-1 1/2"	120/240 VAC	2-XV'S
			1-1"	120/240 VAC	II
			1-1"	CONTROL	CC
			1-1"	METERING	IM
R	AERATION BASIN MH	AERATION BASIN NO. 1&2			
		AERATION ROTOR CONTROL PANEL, A/RCP	1-3"	POWER	XXIV
			1-3"	POWER	SPARE
		LP-AB	1-1 1/2"	120/240 VAC	XVII
			1-1 1/2"	SPARE	
S	AERATION BASIN MH	AS-C-IB1	1-1"	SCADA	CA T-5e
			1-1"	SCADA	SPARE
T	AERATION BASIN MH	FUTURE STUBS	1-3"	POWER	SPARE
			1-3"	POWER	SPARE
			1-1 1/2"	120/240 VAC	SPARE
			1-1"	SCADA	SPARE
			1-1 1/2"	SPARE	



NOTE: MIN CONDUIT SIZE IN YARD AND DUCTBANKS IS 1"

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-29-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.

Marion, Ohio 740.383.2187 Sidney, Ohio 857.692.7858 Delaware, Ohio 740.383.8792

*Contact Office

VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT NO. 2002-02

NORTH YARD ELECTRICAL

DATE	AUG 2003	CADD FILE	E-1P-NORTH
JOB NO.	7400-07	APPROVED	

E4 OF E19

MATCHLINE

EXISTING DECHLORINATION FACILITY TO BE ABANDONED

ELEC MH

GAS FLOWMETER MANHOLE FE-2

FUTURE ELEC DUCT

SOLIDS HANDLING FACILITIES

ON FOOTER

GAS

GARAGE

FUTURE AERATOR CONTROL PANEL

FUTURE AERATION BASIN NO.4

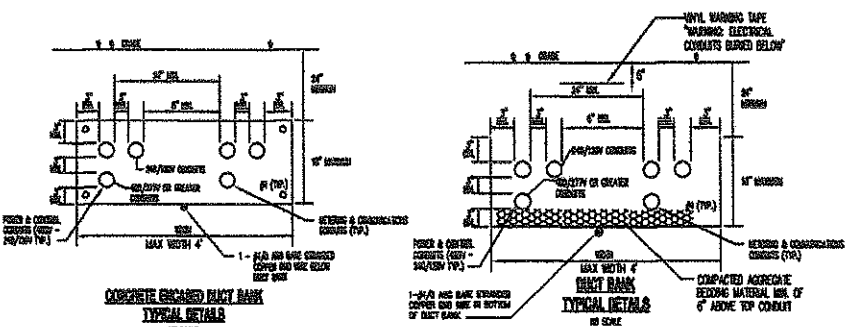
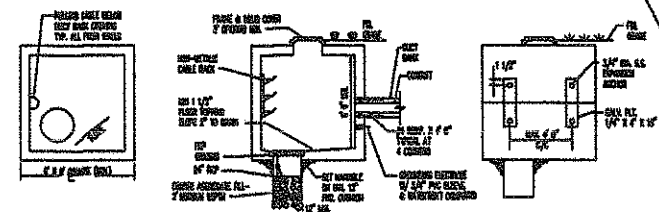
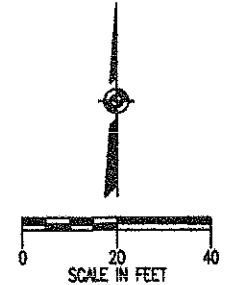
FUTURE AERATION BASIN NO.3

AERATION BASIN NO.2

AERATION BASIN NO.1

SEE SHT E10 FOR AERATION BASIN DETAILS

AERATION SPLITTER BOX



100 YR. FLOOD 83'

100 YR. FLOOD 93'

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-05	WCS	

FLOYD BROWNE ASSOCIATES
INC.

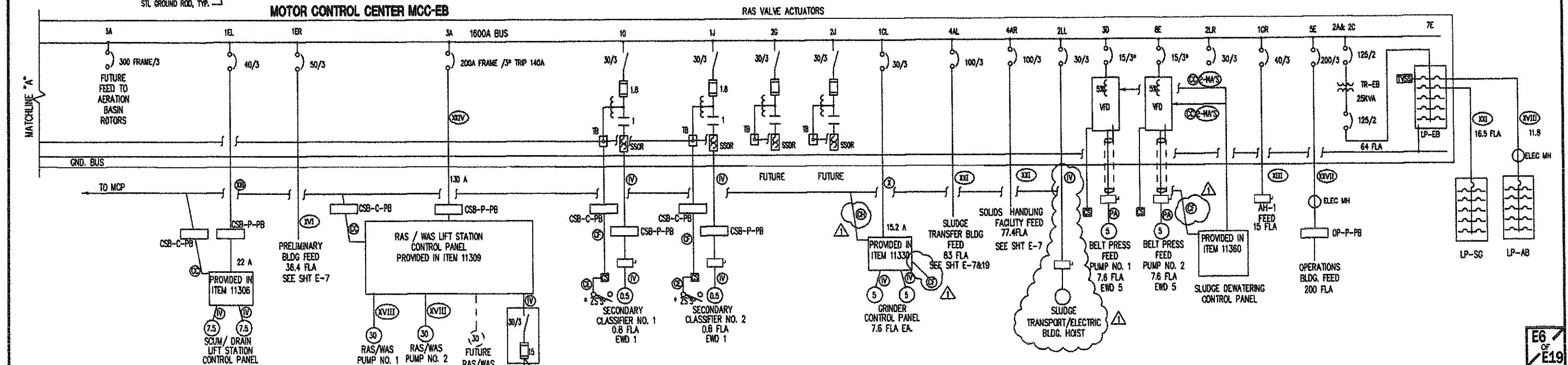
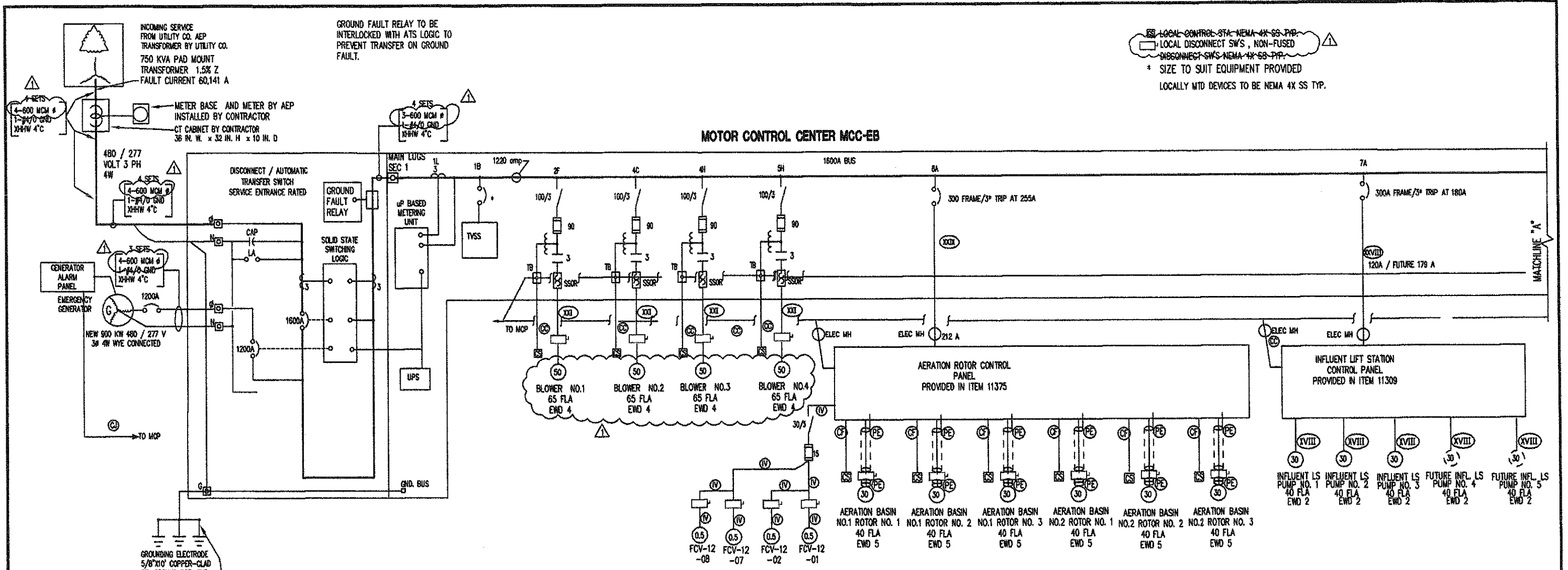
Marion, Ohio 740.383.2187
Sidney, Ohio 937.492.7658
Delaware, Ohio 740.363.6752

DATE: OCT 2002
JOB NO: 7402-07

CADD FILE: E-YF-SOUTH
APPROVED:

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
SOUTH YARD ELECTRICAL

E5 OF E19



NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-2-06	WCS	

FLOYD BROWNE ASSOCIATES, INC.

Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7838 Delaware, Ohio 740.363.8793

DATE: OCT 2002 CADD FILE: E-LINE REV

JOB NO: 7400-07 APPROVED:

VILLAGE OF SUNBURY, OHIO

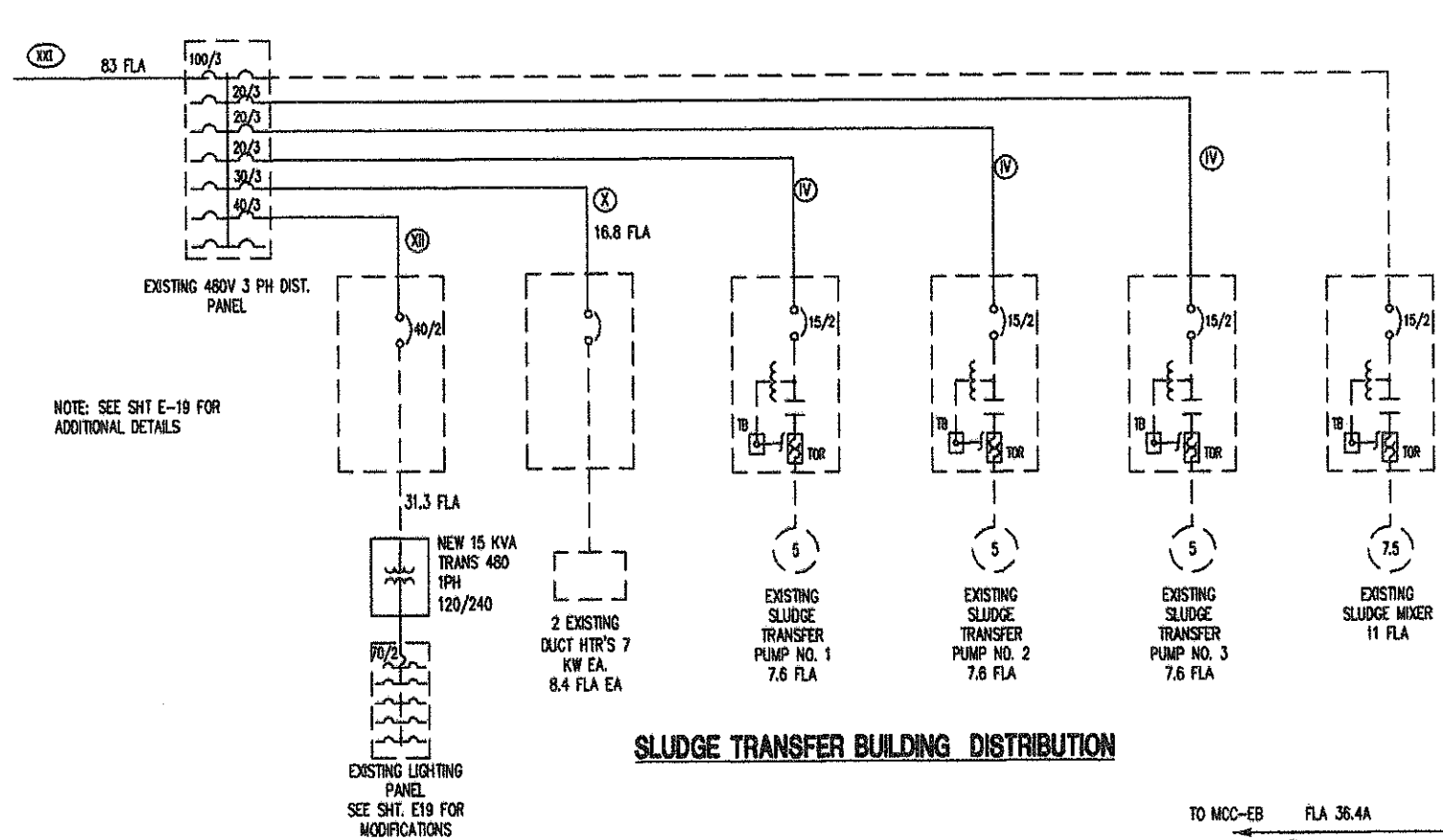
WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT NO. 2002-02

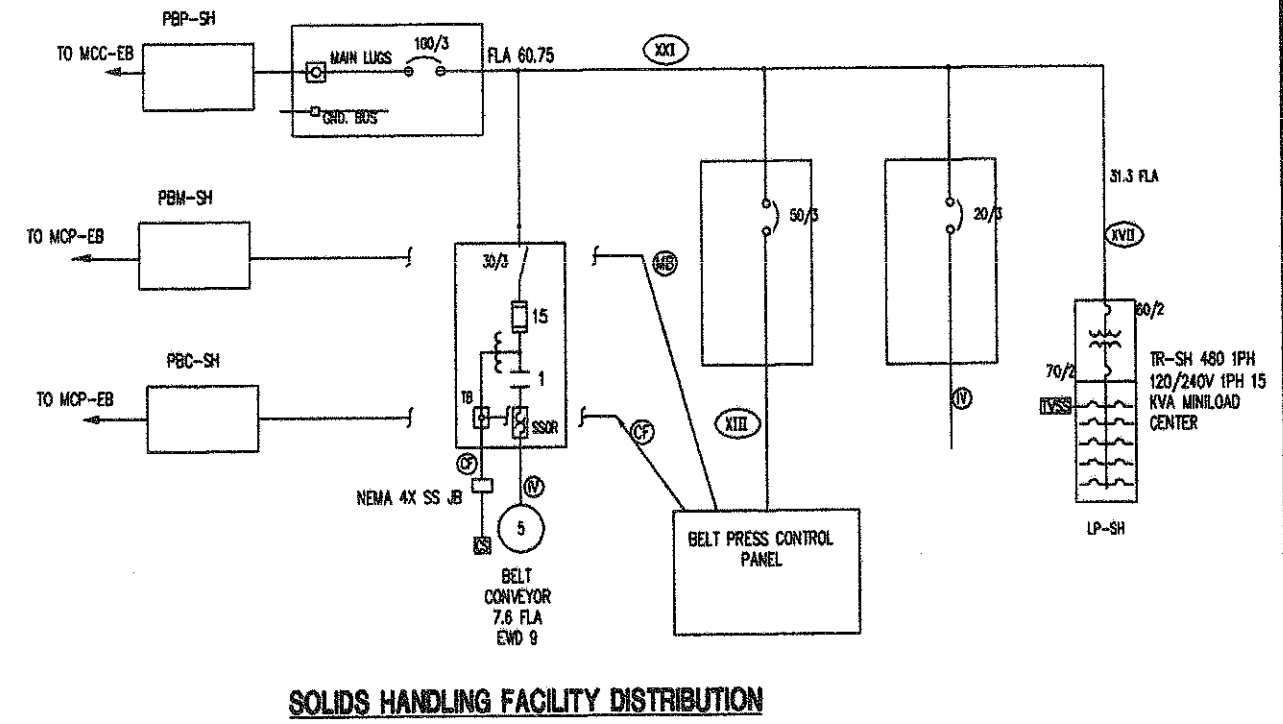
ELECTRICAL POWER DISTRIBUTION

ONE LINE

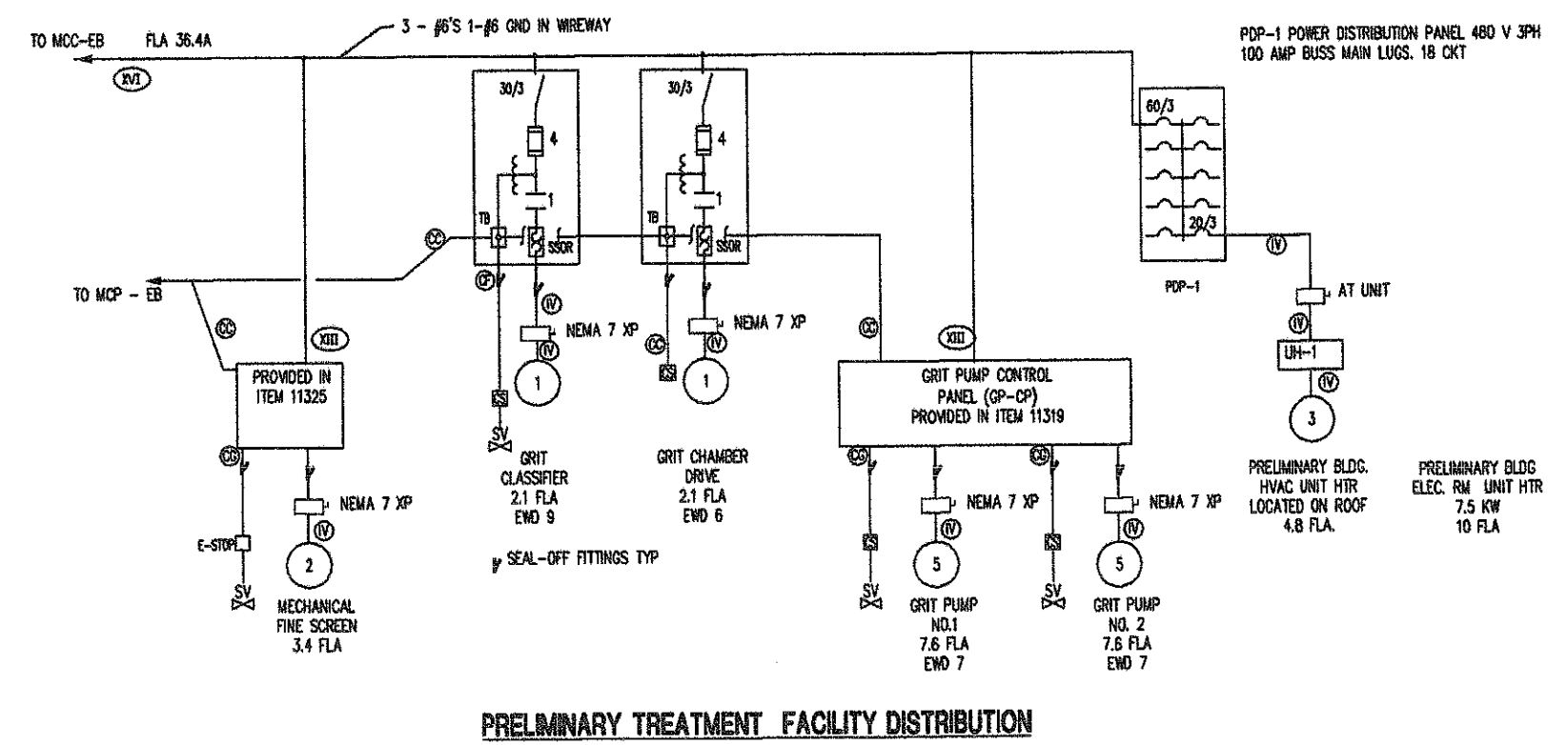
E6 OF E19



SLUDGE TRANSFER BUILDING DISTRIBUTION



SOLIDS HANDLING FACILITY DISTRIBUTION



PRELIMINARY TREATMENT FACILITY DISTRIBUTION

NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES, INC.

*Marton, Ohio 740.383.2197 Sidney, Ohio 937.492.7836 Delaware, Ohio 740.383.6782

DATE: SEPT 2002 CAD FILE: E-118E-2

JOB NO: 7400-02 APPROVED: _____

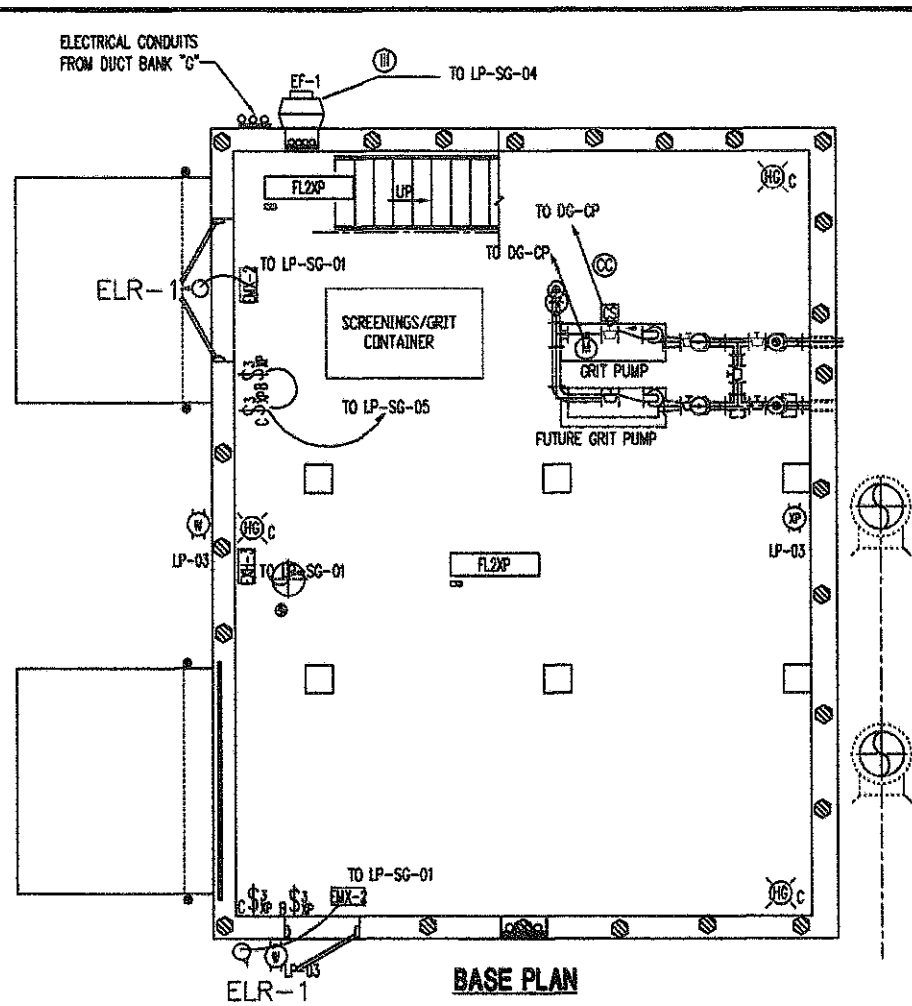
VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS

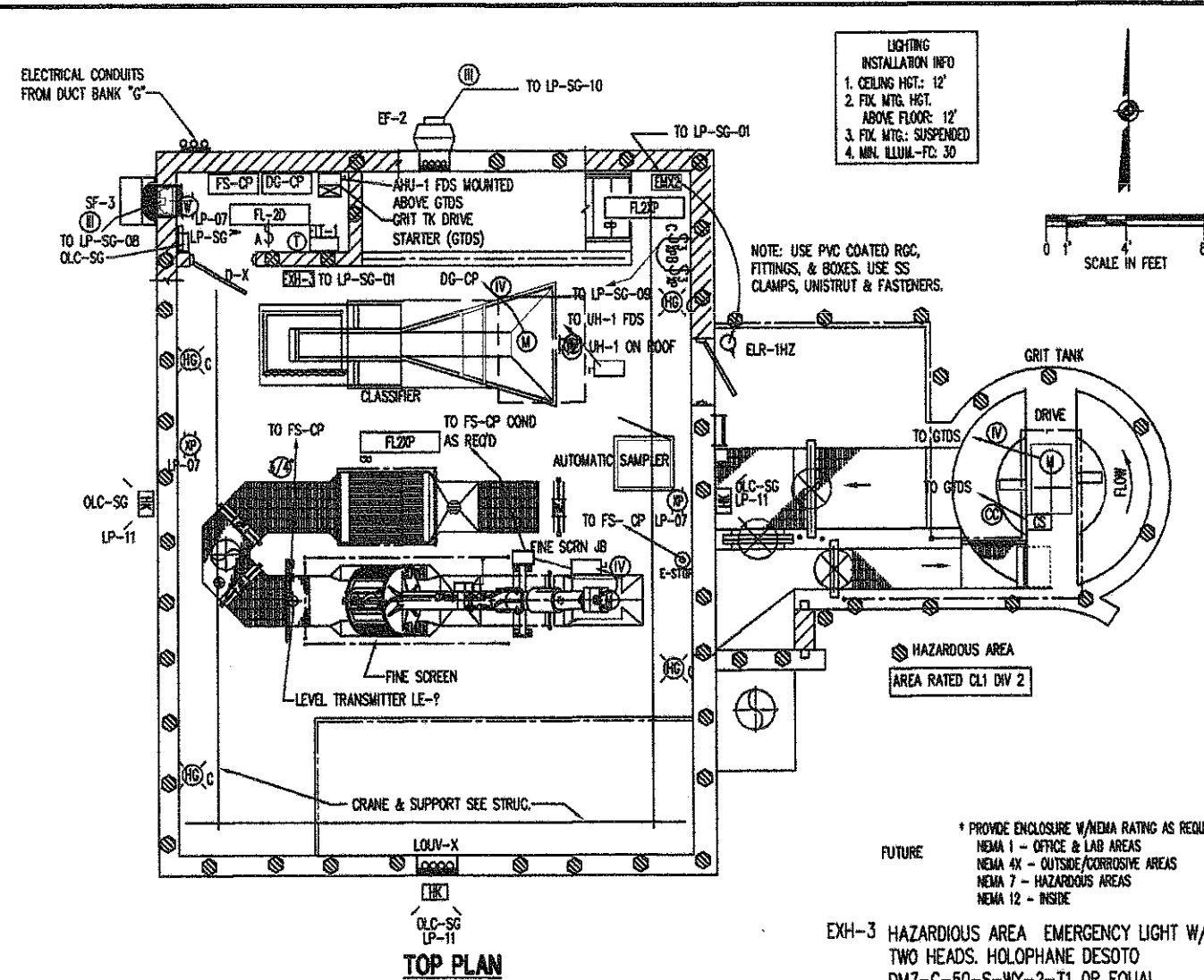
CONTRACT 2002-02

SOLIDS HANDLING BLDG

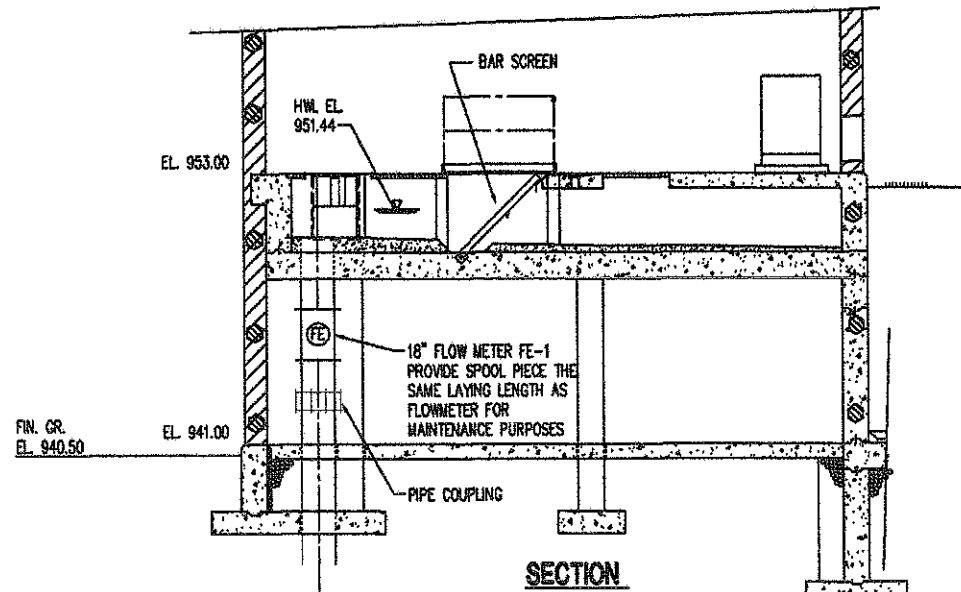
ONE LINE DISTRIBUTION ELECTRICAL



BASE PLAN



TOP PLAN



SECTION

PRELIMINARY BUILDING
480 VOLT THREE PHASE

1	GRIT PUMP PANEL	2	GRIT TANK CLASSIFIER
3	GRIT PUMP PANEL	4	GRIT TANK CLASSIFIER
5	GRIT PUMP PANEL	6	GRIT TANK CLASSIFIER
7	FINE SCREEN PANEL	8	GRIT TANK CLASSIFIER
9	FINE SCREEN PANEL	10	
11		12	
13		14	
15		16	
17		18	
19		20	

PRELIMINARY BUILDING
120/208 VOLT THREE PHASE

1	ROOF TOP & OUTSIDE RECEPTACLES	2	SPARE
3	DOWNSTAIRS RECEPTACLES	4	EXHAUST FAN
5	LIGHTING	6	SPARE
7	LIGHTING	8	SPARE
9	UPSTAIRS RECEPTACLES	10	EXHAUST FAN
11	OUTSIDE LIGHTS	12	INFL. FLOW METER
13	SPARE	14	SPARE
15	SPARE	16	SPARE
17		18	BASEBOARD HEATER
19		20	BASEBOARD HEATER

- LIGHTING INSTALLATION INFO**
1. CEILING HGT.: 12'
 2. FIX. MTG. HGT. ABOVE FLOOR: 12'
 3. FIX. MTG.: SUSPENDED
 4. MIN. ILLUM.-FC: 30

NOTE: USE PVC COATED RGC, FITTINGS, & BOXES. USE SS CLAMPS, UNISTRUT & FASTENERS.

HAZARDOUS AREA
AREA RATED CL1 DIV 2

* PROVIDE ENCLOSURE W/ NEMA RATING AS REQUIRED
FUTURE
NEMA 1 - OFFICE & LAB AREAS
NEMA 4X - OUTSIDE/CORROSIVE AREAS
NEMA 7 - HAZARDOUS AREAS
NEMA 12 - INSIDE

- EXH-3 HAZARDOUS AREA EMERGENCY LIGHT W/ TWO HEADS. HOLOPHANE DESOTO DM7-C-50-S-WY-2-T1 OR EQUAL.
- EMX-2 HAZARDOUS AREA COMBINATION EXIT & REMOTE EMERGENCY LIGHT HEAD. HOLOPHANE DELEON LHDR-D-12-G-GR-S-N-T1 OR EQUAL.
- ELR-1HZ HAZARDOUS AREA REMOTE EMERGENCY LIGHT HEAD AND MOUNTING. HOLOPHANE LR-NN-SH OR EQUAL.
- FL2XP HAZARDOUS AREA FLOESCENT FIXTURE 2-F32T8 TUBES. GRANGER STOCK NO. 4PLB4 OR EQUAL.
- HG HAZARDOUS AREA HID FIXTURE WALL MTD 150 W HPS APPLETON KPWB1575MT GRANGER STOCK NO. 7D786 OR EQUAL.
- HK WALL MTD 150W HID FIXTURE, HOLOPHANE WL2K15AHP12BZ-TP-F1 OR EQUAL.

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	1-29-06	WCS	

FLOYD BROWNE ASSOCIATES INC.

* Contact Office

* Marion, Ohio 740.583.2187 Sidney, Ohio 687.488.7858 Delaware, Ohio 740.583.6782

DATE: OCT 2002 CAD FILE: E-SCRN & GRIT
JOB NO. 7400-07 APPROVED

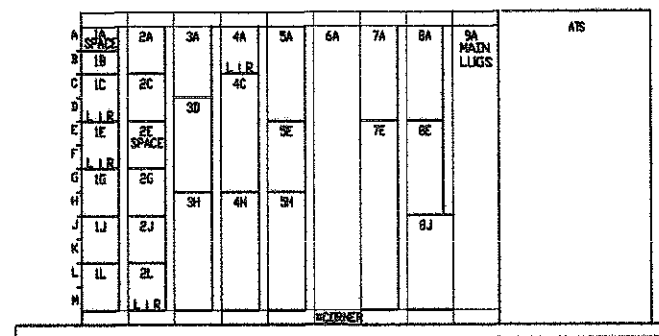
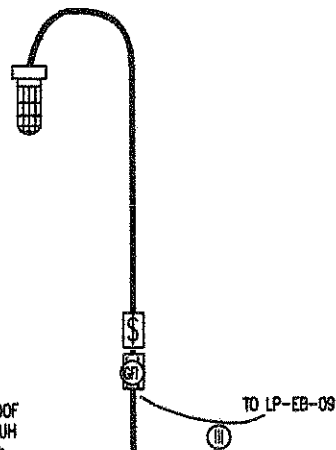
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT 2002-02
PRELIMINARY TREATMENT FACILITY
WIRING PLAN
ELECTRICAL

SOLIDS TRANSPORT/ELECTRICAL BUILDING PANEL

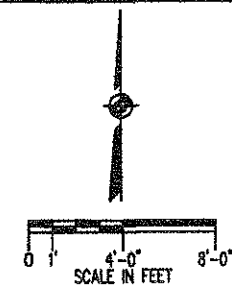
120\208 VOLT SINGLE PHASE

1	SCADA PANEL	2	CLARIFIER RECEPTACLE
3	UPSTAIRS LIGHTING	4	SPARE
5	DOWNSTAIRS LIGHTING	6	SPARE
7	FRONT POLE LIGHT	8	RECEPTACLES
9	BLOWER ROOM LIGHTING	10	RECEPTACLES
11	ROOFTOP RECEIPT & LIGHT	12	SUMP RECEPTACLES
13	ALARM PANEL - GEN	14	DOWNSTAIRS RECEPTACLES
15	BATTERY CHARGER	16	FIRST FLOOR RECEPTACLES
17	FUEL HEATER	18	BLOWER ROOM RECEPTACLES
19	FUEL HEATER	20	SPARE
21	FUEL HEATER	22	SPARE
23	SPARE	24	SPARE
25	SPARE	26	SPARE
27	SPARE	28	SPARE
29		30	PANEL SG
31		32	PANEL SG
33		34	PANEL AB
35		36	PANEL AB
37		38	BLOCK HEATER
39		40	BLOCK HEATER
41		42	SPARE

INCANDESCENT LIGHT
FIXTURE
STONCO MODEL
VP-11GC GRANGER
MODEL 2V804 PROVIDE
W/ 100 W LAMP

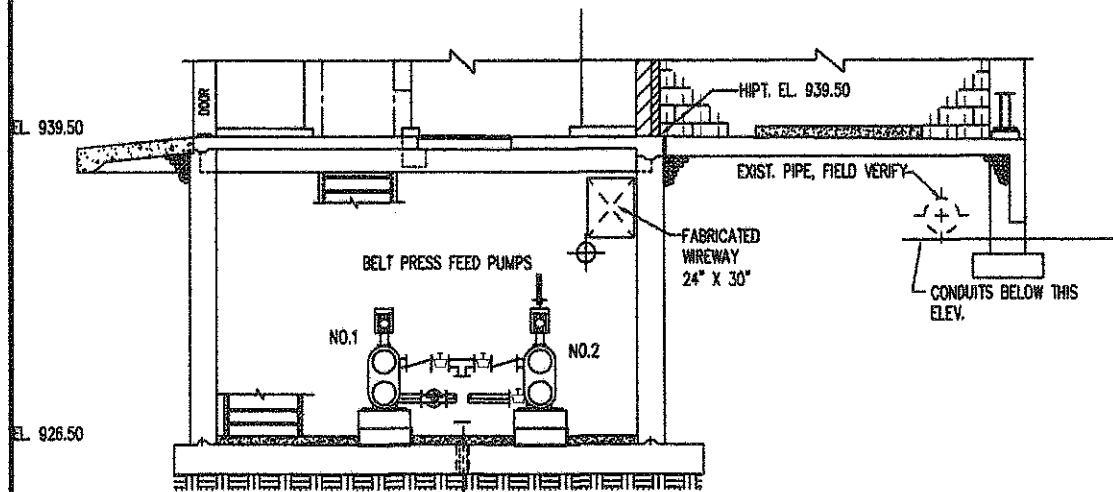


MCC-EB & ATS ELEVATION

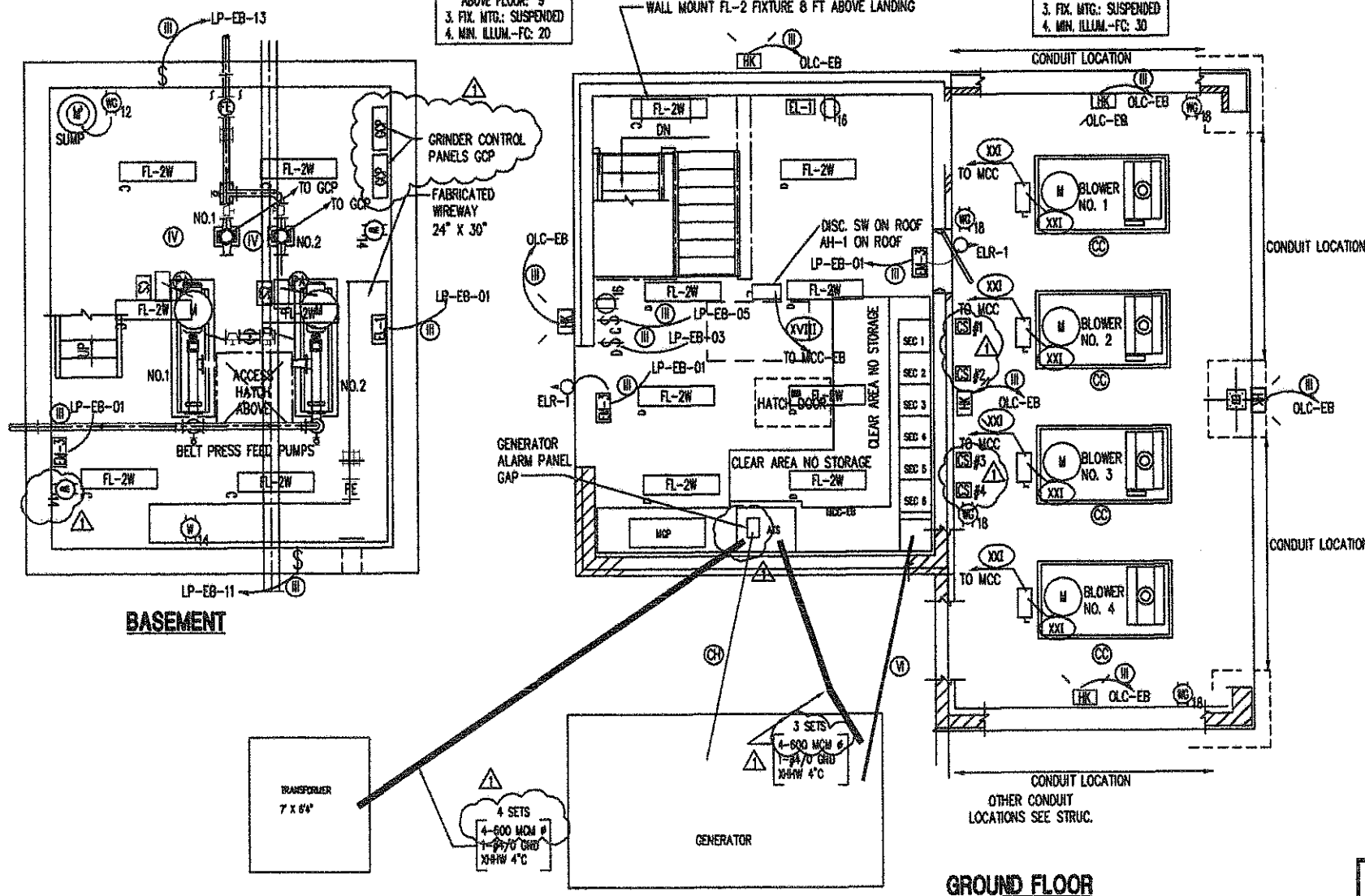


LIGHTING
INSTALLATION INFO
1. CEILING HGT.: 10
2. FIX. MTG. HGT.
ABOVE FLOOR: 9
3. FIX. MTG.: SUSPENDED
4. MIN. ILLUM.-FC: 20

LIGHTING
INSTALLATION INFO
1. CEILING HGT.: 10
2. FIX. MTG. HGT.
ABOVE FLOOR: 9
3. FIX. MTG.: SUSPENDED
4. MIN. ILLUM.-FC: 30

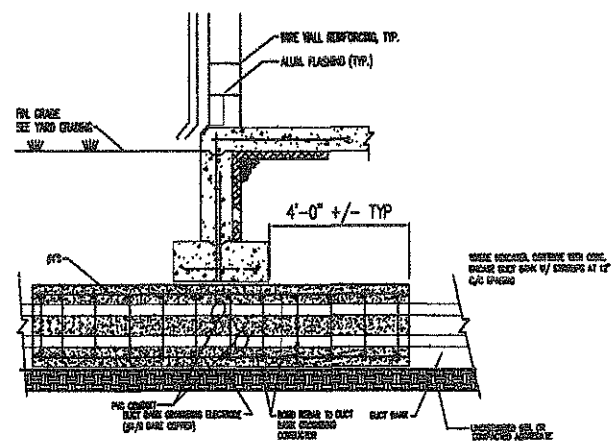


SECTION



BASEMENT

GROUND FLOOR



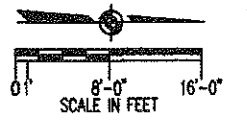
DUCT BANK BELOW FOOTER DETAIL

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7658 Delaware, Ohio 740.383.6782
 DATE OCT 2002 CAD FILE E-ELEC BLDG
 JOB NO. 7400-07 APPROVED

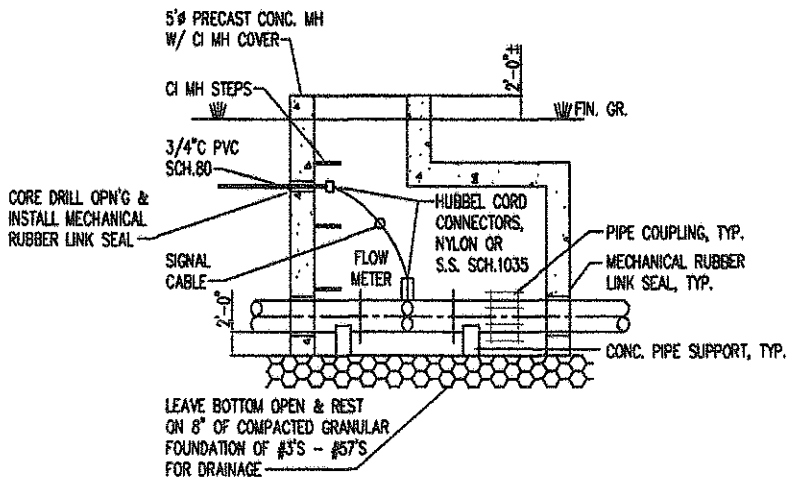
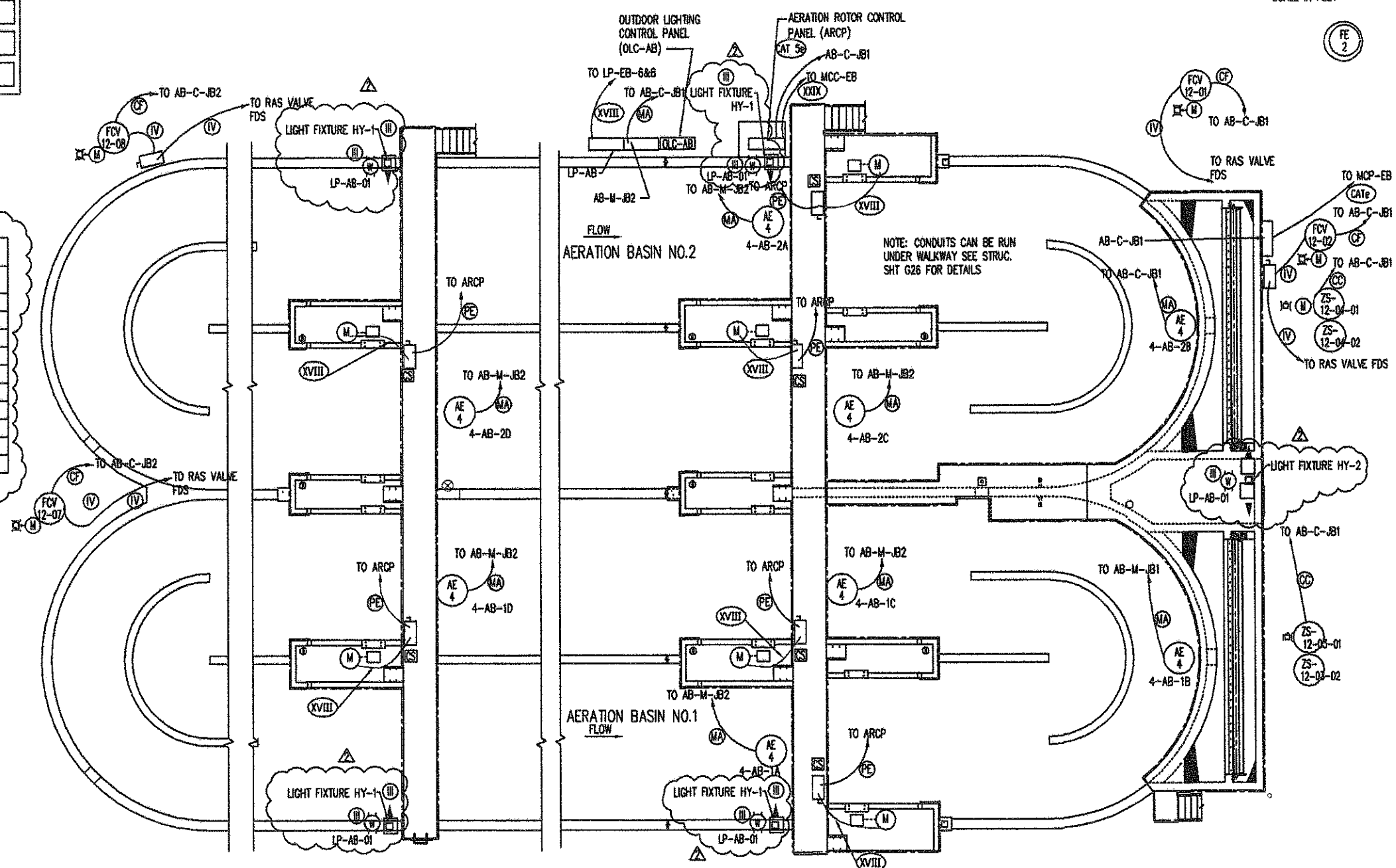
VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT 2002-02
 SLUDGE TRANSFER / ELECTRICAL BLDG
 ELECTRICAL

AERATION SPLITTER BOX

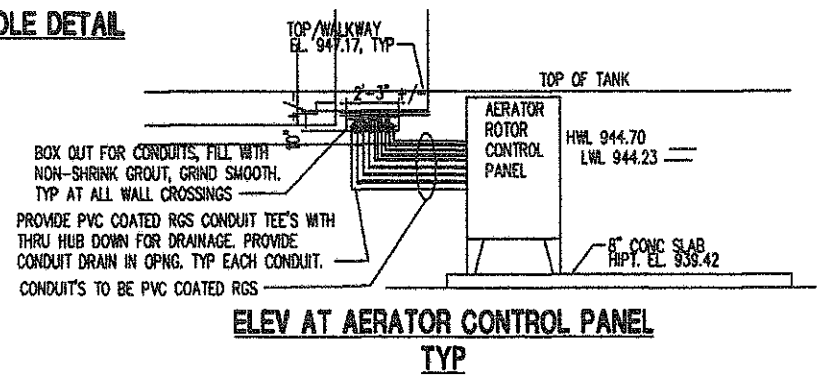


PANEL AB
120\208 VOLT SINGLE PHASE

1	SPARE	2	SPARE
3	SPARE	4	SPARE
5	POLE RECEPTACLE	6	PANEL RECEPTACLE
7	SPARE	8	AERATION PANEL
9	POLE RECEPTACLE	10	POLE LIGHTS
11		12	POLE LIGHTS
13		14	POLE RECEPTACLE
15		16	POLE LIGHTS
17		18	
19		20	



TYPICAL FLOW METER MANHOLE DETAIL



ELEV AT AERATOR CONTROL PANEL
TYP

AERATION BASIN PLAN

NOTE: CONDUITS LOCATED UNDER AERATION BASIN WALKWAY TO BE SCHD 80 PVC. USE SS CHANNEL SUPPORTS AND HARDWARE. CONDUITS WILL BE SUBMERGED

E10
of
E19

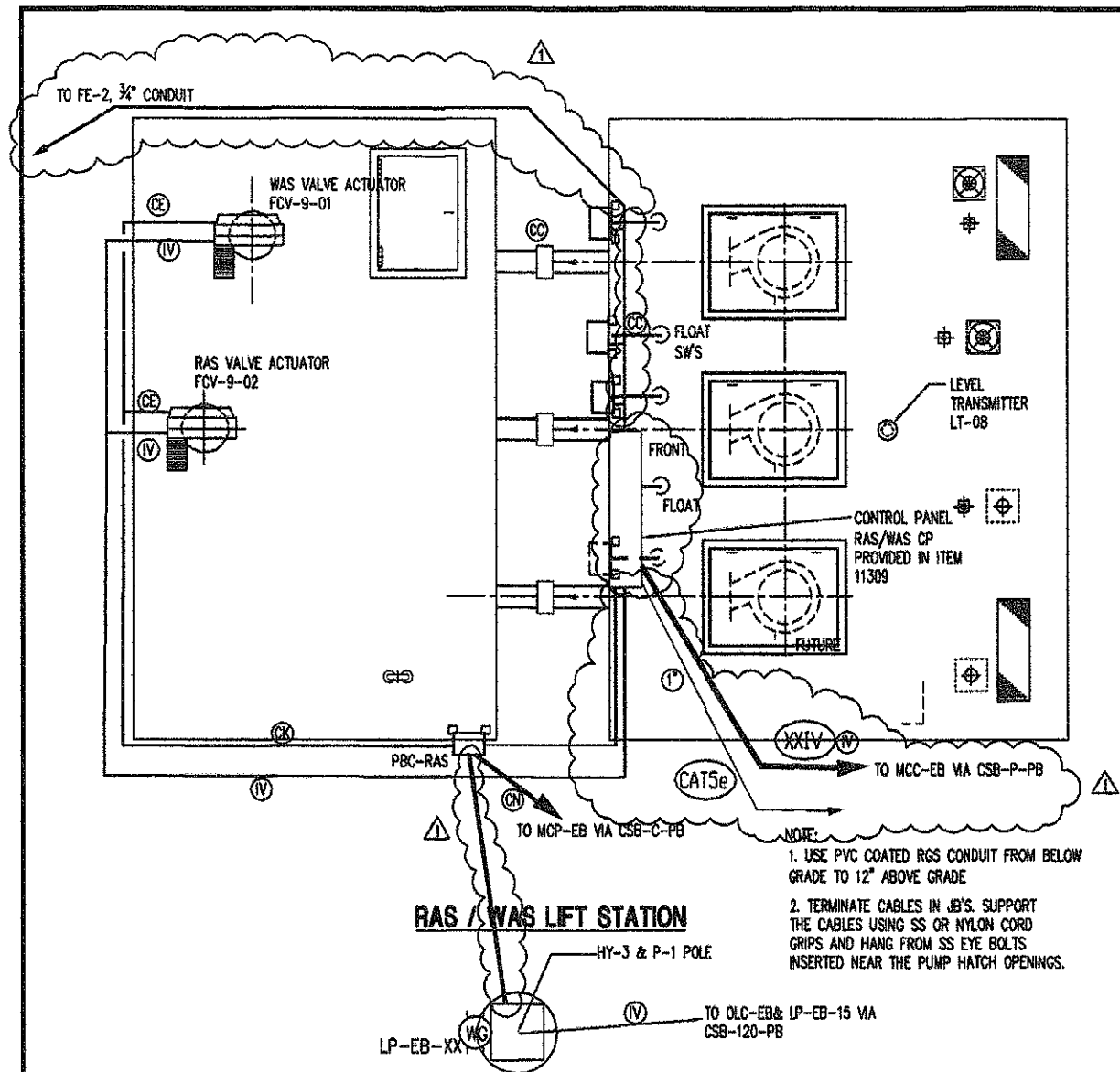
NO.	REVISION DATA	DATE	BY	APP'D
1	REVISED PER OEPA COMMENTS	5-14-03		
2	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office

Marion, Ohio 740.363.2107 Sidney, Ohio 637.482.7656 Delaware, Ohio 740.363.6722

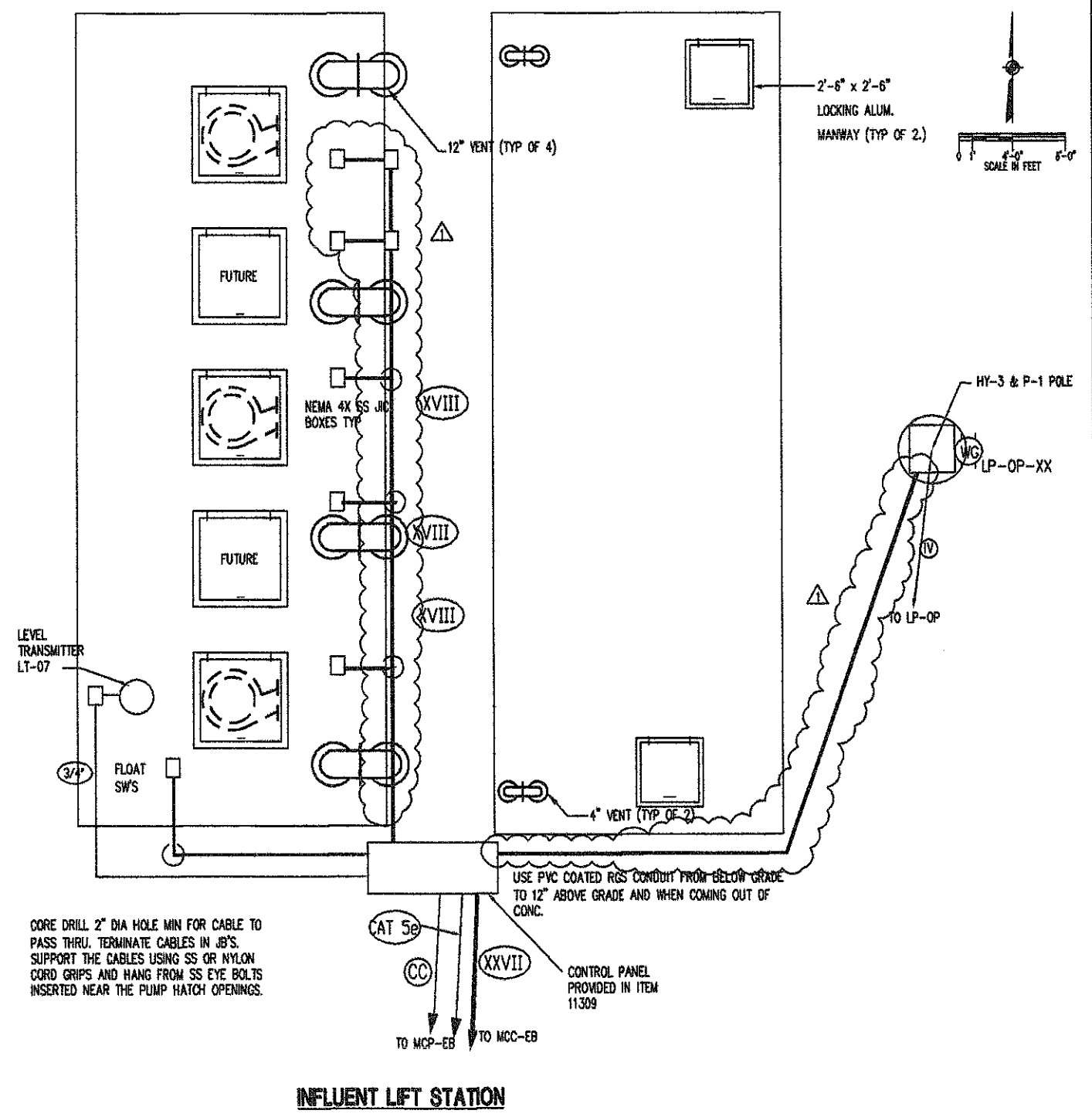
DATE: OCT 2002 CAD FILE: E-AERATION BASIN
JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT 2002-02
AERATION BASIN
ELECTRICAL



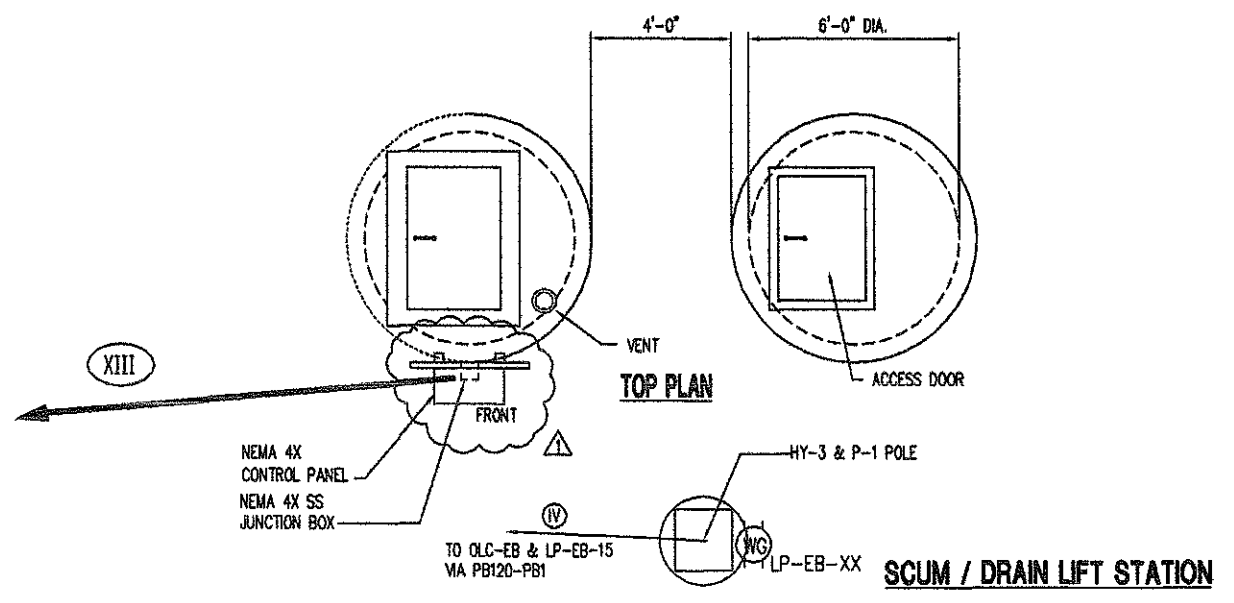
RAS / WAS LIFT STATION

- NOTE:
1. USE PVC COATED RGS CONDUIT FROM BELOW GRADE TO 12" ABOVE GRADE
 2. TERMINATE CABLES IN JB'S. SUPPORT THE CABLES USING SS OR NYLON CORD GRIPS AND HANG FROM SS EYE BOLTS INSERTED NEAR THE PUMP HATCH OPENINGS.



INFLUENT LIFT STATION

CORE DRILL 2" DIA HOLE MIN FOR CABLE TO PASS THRU. TERMINATE CABLES IN JB'S. SUPPORT THE CABLES USING SS OR NYLON CORD GRIPS AND HANG FROM SS EYE BOLTS INSERTED NEAR THE PUMP HATCH OPENINGS.

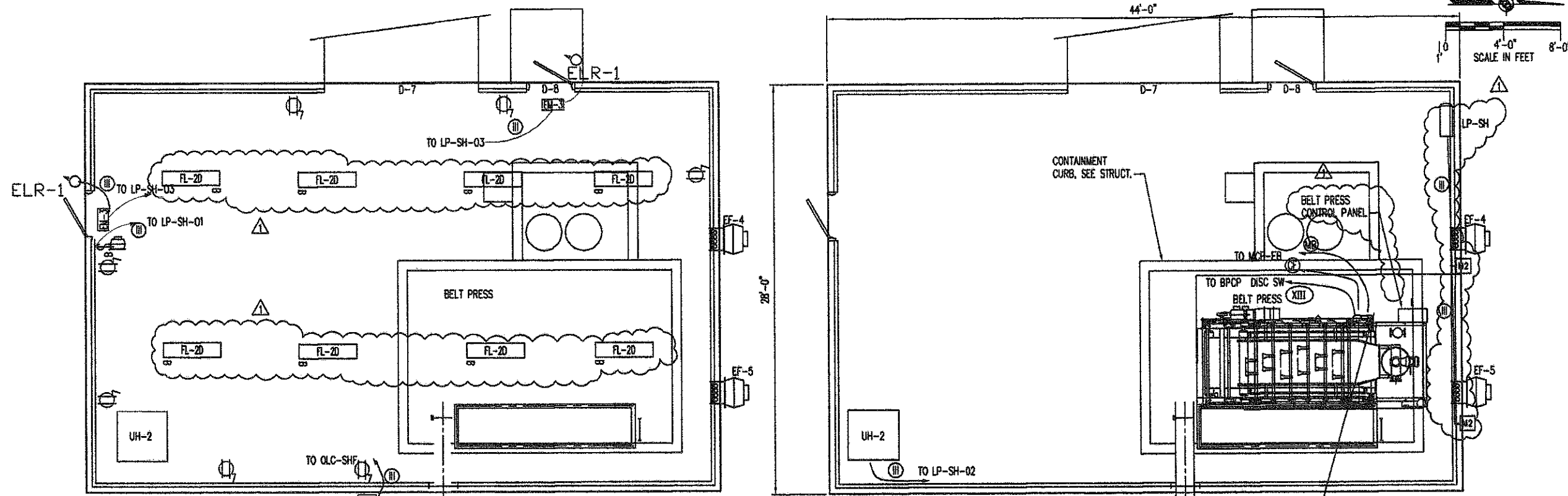


SCUM / DRAIN LIFT STATION

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-28-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.393.2107 Sidney, Ohio 887.492.7636 Delaware, Ohio 740.363.5792
 DATE OCT 2002 CADD FILE E-LIFT STATIONS
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT 2002-02
 INFLUENT, RAS/WAS, SCUM DR LIFT STATIONS
 ELECTRICAL

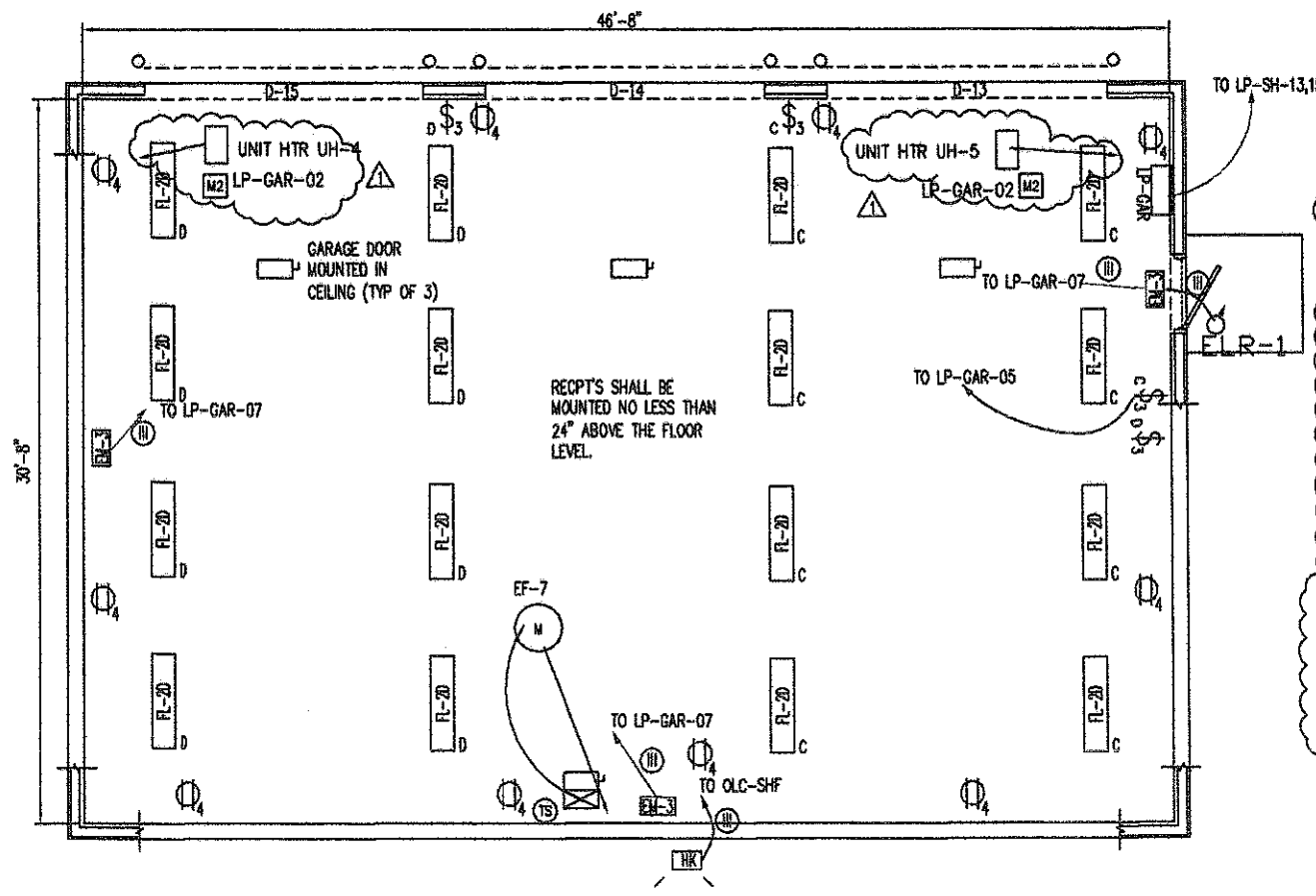


UPPER PLAN
CONTROL PANEL

* PROVIDE ENCLOSURE W/NEMA RATING AS REQUIRED
 NEMA 1 - OFFICE & LAB AREAS
 NEMA 4X - OUTSIDE/CORROSIVE AREAS
 NEMA 7 - HAZARDOUS AREAS
 NEMA 12 - INSIDE

BELT PRESS BUILDING PANEL			
120\208 VOLT MINIPower ZONE			
1	PANEL RECEPTACLES	2	SECONDARY MAIN
3	EXHAUST FANS	4	SECONDARY MAIN
5	WEST RECEPTACLES	6	EAST RECEPTACLES
7	EMERGENCY LIGHTS	8	OUTSIDE LIGHTS
9	LIGHTING	10	HEATER
11		12	POLYMER RECEPTACLE

GARAGE #1 PANEL			
120\208 VOLT THREE PHASE			
1	NORTH GARAGE RECEPTACLE	2	UH-1
3	NORTH LIGHTING	4	UH-2
5	SOUTH GARAGE RECEPTACLES	6	EM LIGHTS - NORTH
7	SOUTH LIGHTING	8	EM LIGHTS - EAST
9	EM LIGHTS - SOUTH	10	NORTH & EAST WALL RECEPTACLES
11	SOUTH WALL RECEPTACLES	12	OUTSIDE LIGHTS
13	NORTH & CENTER OH DOOR	14	SPARE
15	SOUTH OH DOOR	16	
17		18	
19		20	
21		22	
23		24	
25		26	
27		28	
29		30	
31		32	
33		34	
35		36	



GARAGE #1

NO.	REVISION DATA	DATE	BY	APP'D

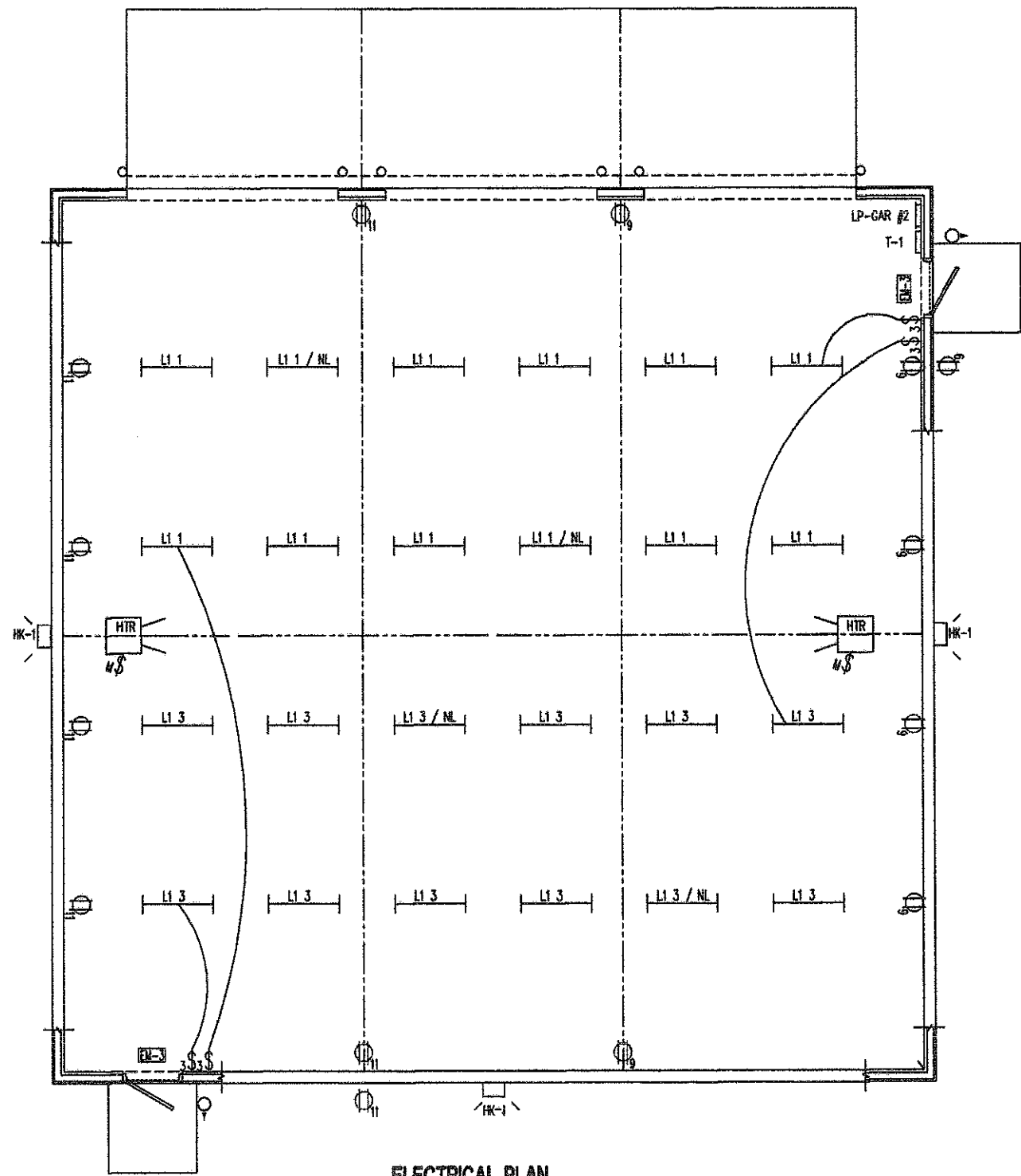
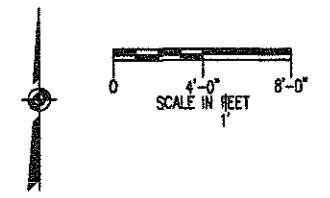
FLOYD BROWNE ASSOCIATES, INC. * Contact Office

*Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7650 Delaware, Ohio 740.383.6792

DATE AUG.2002 CADD FILE E-SHF FACILITIES
 JOB NO. 7400-07 APPROVED

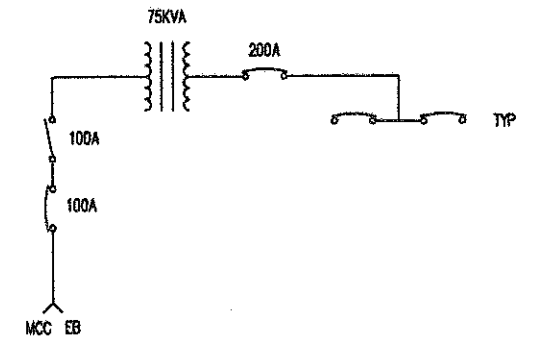
VILLAGE OF SUNBURY, OHIO
 SOLIDS HANDLING IMPROVEMENTS
 CONTRACT NO. 2003-01
 SOLIDS HANDLING FACILITY
 ELECTRICAL PLAN

E13
OF
E19



ELECTRICAL PLAN

- L1 2LT - 40W, FL, INDUSTRIAL
- HK-1 175W MH WALL PACK
- EXIT W/ 2 EM HEAD
- REMOTE EM HEAD
- T-1 75KVA DRY TRANSFORMER 480Δ-208/120Y
- LP-GAR #2 200A -120/208V PNL 3Φ 4W W/200A-3P MNCBKR, 42 CKT



RISER DIAGRAM
NO SCALE

GARAGE #2 PANEL			
120\208 VOLT THREE PHASE			
1	LIGHTING	2	OH DOORS
3		4	OH DOORS
5	WEST WALL RECEPTACLES	6	OH DOORS
7	EAST DOOR POST RECEPTACLE	8	SPARE
9	WEST DOOR RECEPTACLE	10	UNIT HEATER EAST
11	SPARE	12	EAST WALL RECEPTACLES
13		14	SOUTH WALL RECEPTACLES
15		16	OUTSIDE LIGHTS
17		18	SPARE
19		20	SPARE
21		22	SPARE
23		24	SPARE
25		26	SPARE
27		28	EXHAUST FAN
29		30	EXHAUST FAN
31		32	EXHAUST FAN

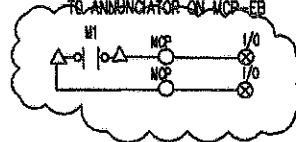
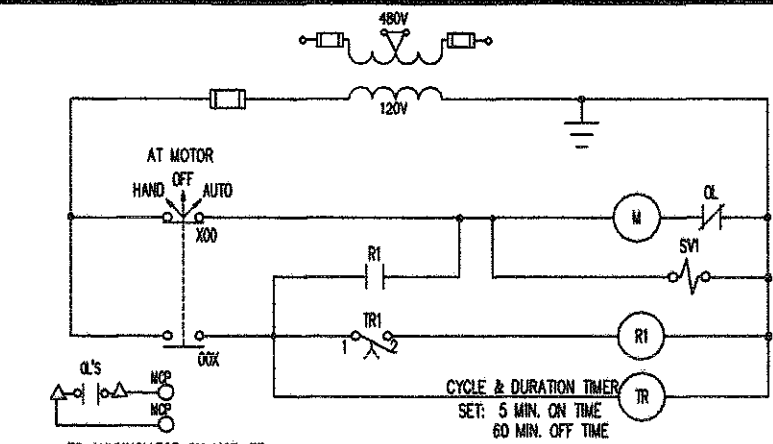
E13A
OF
E19

NO.	REVISION DATA	DATE	BY	APP'D

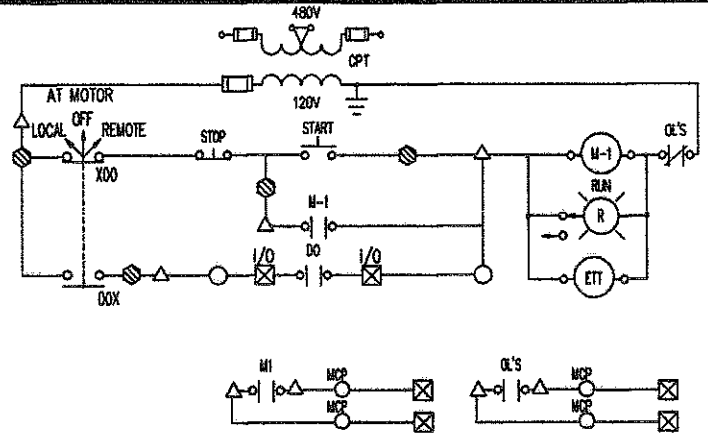
WCS
Welland Consulting Services

DATE AUG.2002 CADD FILE E-SIF FACILITIES
JOB NO. 7400-07 APPROVED

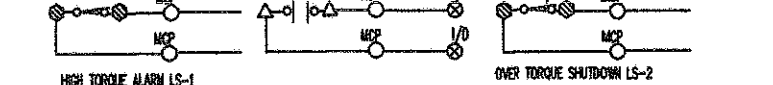
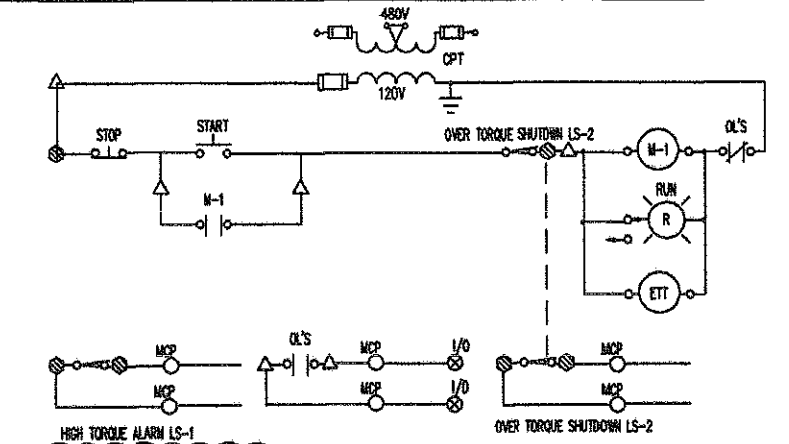
VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT NO. 2002-02
GARAGE NO. 2
ELECTRICAL PLAN
ELECTRICAL



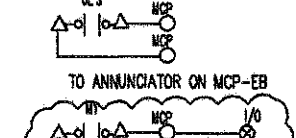
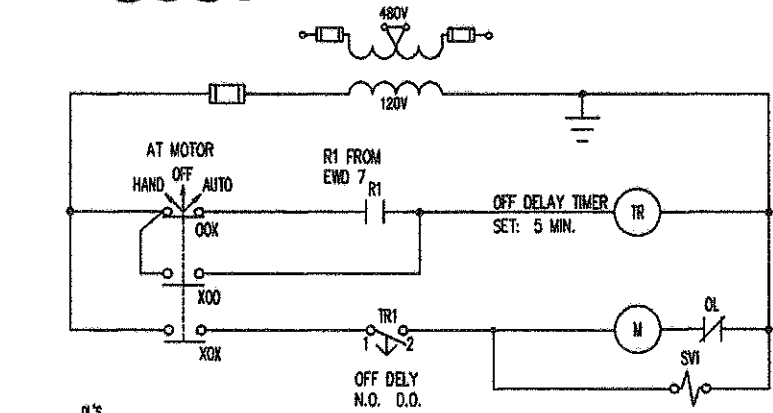
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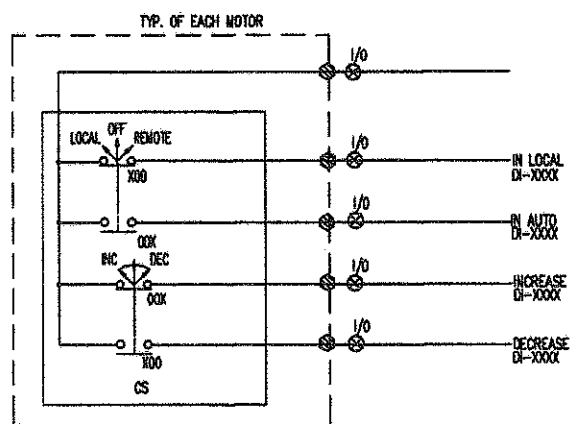
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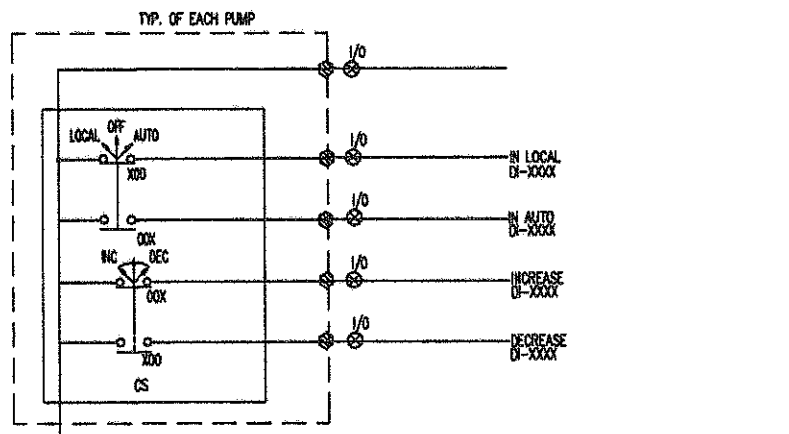
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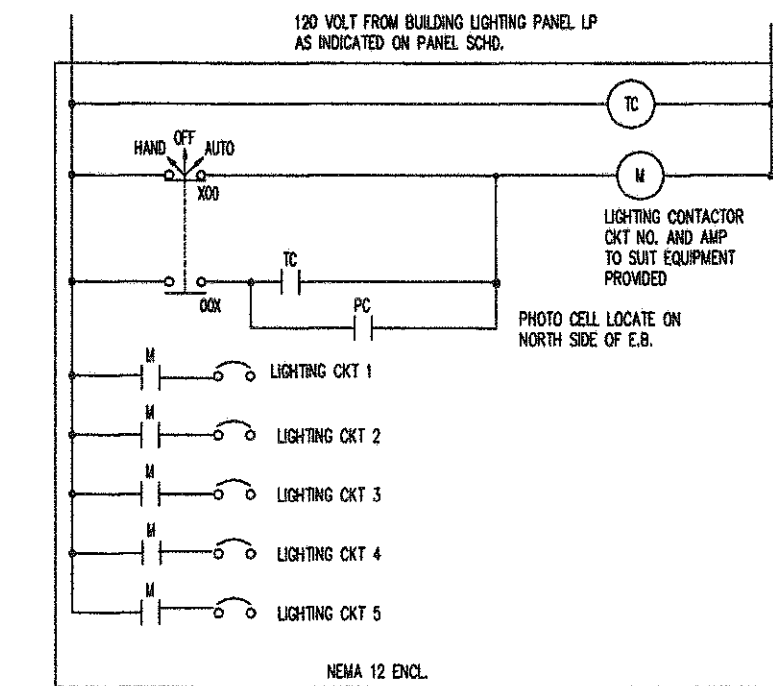
EWD 9



EWD 5

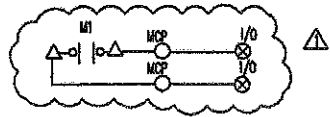
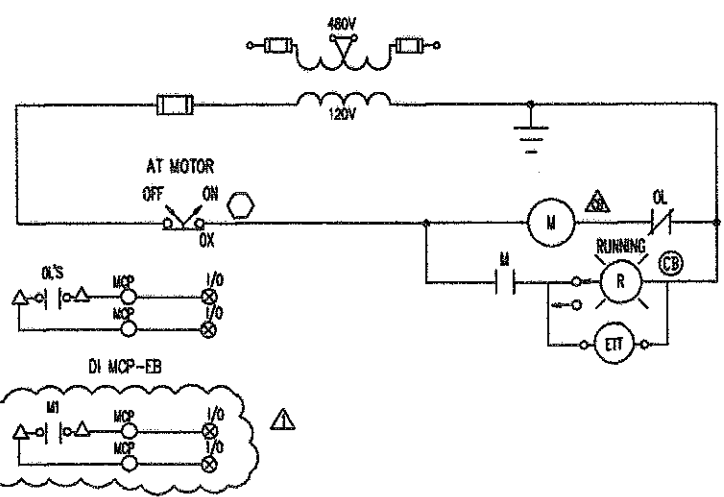


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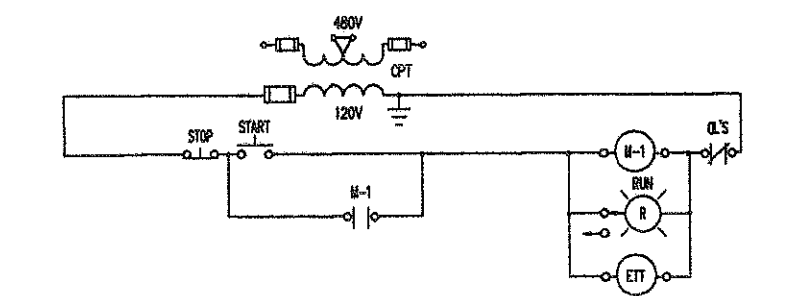


OUTDOOR LIGHTING CONTROL (OLC)

EWD 8



EWD 6



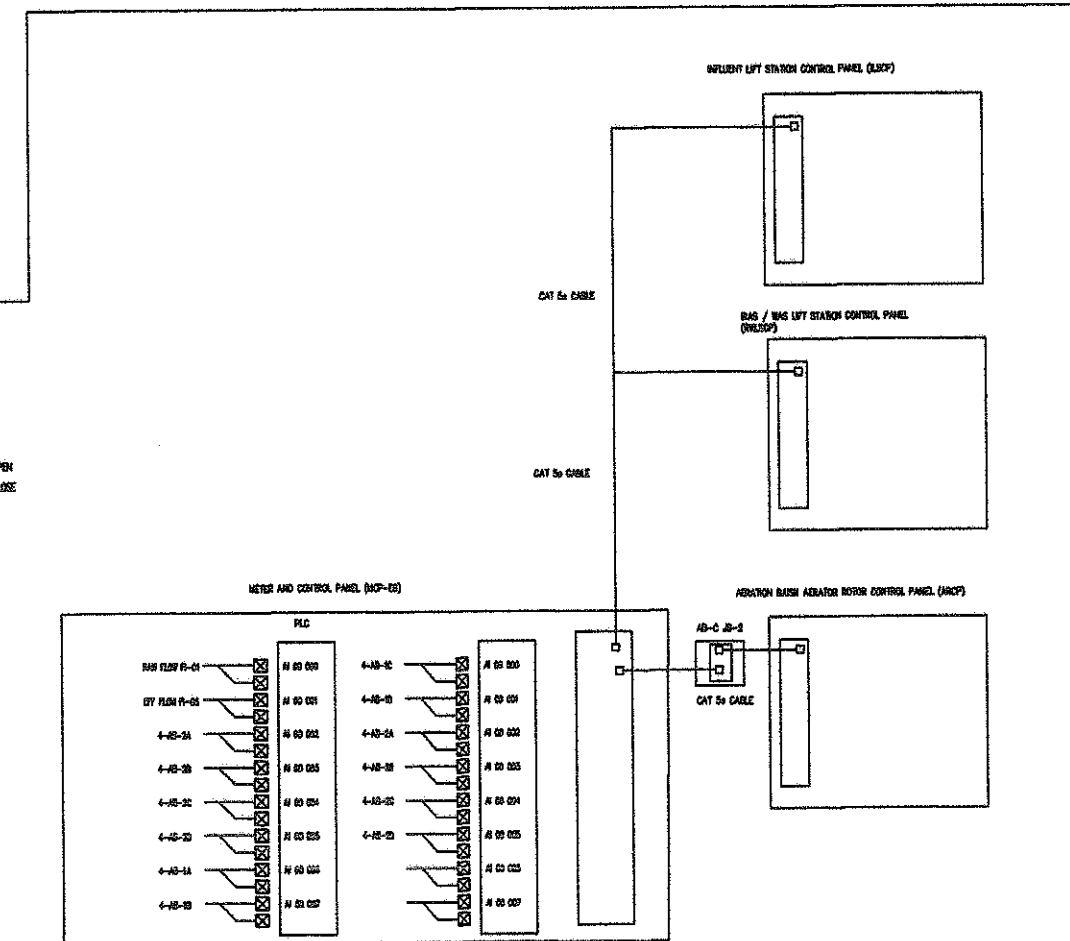
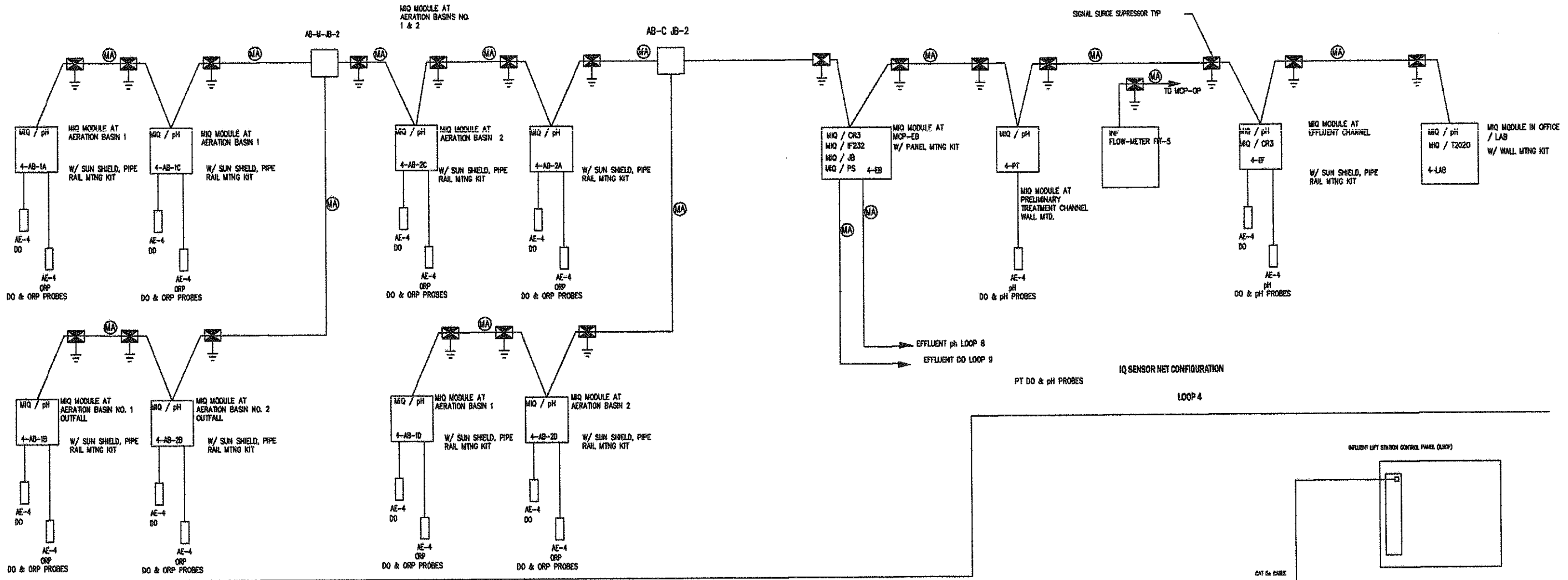
EWD 3

E14
OF
E19

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-20-06	WCS	

FLOYD BROWNE ASSOCIATES, INC. *Contact Office
 740.383.2187 937.492.7638 740.343.6792
 DATE OCT 2002 CADD FILE E-EWD'S 1
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT 2002-02
 EWD'S ELECTRICAL



RAS TO AERATION SPLITTER BOX VALVE FCV-12-01 IN REMOTE	DI 00 000	RF FROM SPLITTER BOX TO AERATION BASIN NO.1 VALVE FCV-12-05 IN REMOTE	DI 01 000	BAS FLOW FI-02	AI 03 000	DO 00 009	RF FROM SPLITTER BOX TO AERATION SPLITTER BOX VALVE FCV-12-01 OPEN	DI 00 009
RAS TO AERATION SPLITTER BOX VALVE FCV-12-01 OPEN	DI 00 001	RF FROM SPLITTER BOX TO AERATION BASIN NO.1 VALVE FCV-12-06 OPEN	DI 01 001	WAS FLOW FI-03	AI 03 001	DO 00 001	RAS TO AERATION SPLITTER BOX VALVE FCV-12-01 CLOSE	DI 00 001
RAS TO AERATION SPLITTER BOX VALVE FCV-12-01 CLOSED	DI 00 002	RF FROM SPLITTER BOX TO AERATION BASIN NO.1 VALVE FCV-12-08 CLOSED	DI 01 002		AI 03 004	DO 00 002	RAS TO AERATION BASIN VALVE FCV-12-02 OPEN	DI 00 002
RAS TO AERATION BASIN VALVE FCV-12-02 IN REMOTE	DI 00 003		DI 01 003		AI 03 004	DO 00 003	RAS TO AERATION BASIN VALVE FCV-12-02 CLOSE	DI 00 003
RAS TO AERATION BASIN VALVE FCV-12-02 OPEN	DI 00 004		DI 01 004		AI 03 005	DO 00 004	RF FROM SPLITTER BOX TO AERATION BASIN NO.1 VALVE FCV-12-05 OPEN LS	DI 00 004
RAS TO AERATION BASIN VALVE FCV-12-02 CLOSED	DI 00 005		DI 01 005		AI 03 005	DO 00 005	RAS TO AERATION BASIN NO.1 VALVE FCV-12-05 -02 CLOSED LS	DI 00 005
RAS TO AERATION BASIN NO.1 VALVE FCV-12-05 -01 OPEN LS	DI 00 006		DI 01 006		AI 03 005	DO 00 006	RAS TO AERATION BASIN NO.2 VALVE FCV-12-04 -01 OPEN LS	DI 00 006
RAS TO AERATION BASIN NO.1 VALVE FCV-12-05 -02 CLOSED LS	DI 00 007		DI 01 007		AI 03 005	DO 00 007	RAS TO AERATION BASIN NO.2 VALVE FCV-12-04 -02 CLOSED LS	DI 00 007
RAS TO AERATION BASIN NO.2 VALVE FCV-12-04 -01 OPEN LS	DI 00 008		DI 01 008		AI 03 005	DO 00 008	RF FROM SPLITTER BOX TO AERATION BASIN NO.2 VALVE FCV-12-06 OPEN	DI 00 008
RAS TO AERATION BASIN NO.2 VALVE FCV-12-04 -02 CLOSED LS	DI 00 009		DI 01 009		AI 03 005	DO 00 009	RF FROM SPLITTER BOX TO AERATION BASIN NO.2 VALVE FCV-12-06 CLOSE	DI 00 009
RF FROM SPLITTER BOX TO AERATION BASIN NO.2 VALVE FCV-12-06 IN REMOTE	DI 00 010		DI 01 010		AI 03 005	DO 00 010		DI 00 010
RF FROM SPLITTER BOX TO AERATION BASIN NO.2 VALVE FCV-12-06 OPEN	DI 00 011		DI 01 011		AI 03 005	DO 00 011		DI 00 011
RF FROM SPLITTER BOX TO AERATION BASIN NO.2 VALVE FCV-12-06 CLOSED	DI 00 012		DI 01 012		AI 03 005	DO 00 012		DI 00 012
	DI 00 013		DI 01 013		AI 03 005	DO 00 013		DI 00 013
	DI 00 014		DI 01 014		AI 03 005	DO 00 014		DI 00 014
	DI 00 015		DI 01 015		AI 03 005	DO 00 015		DI 00 015
	DI 00 016		DI 01 016		AI 03 005	DO 00 016		DI 00 016
	DI 00 017		DI 01 017		AI 03 005	DO 00 017		DI 00 017

REMOTE I/O AT AERATION BASINS
AB-C JB-2

NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES, INC.

Marion, Ohio 740.383.2187 Sidney, Ohio 937.492.7636 Delaware, Ohio 740.383.6782

DATE: OCT 2002 CADD FILE: E-LOOP DIAG-2

JOB NO: 7400-07 APPROVED: _____

VILLAGE OF SUNBURY, OHIO

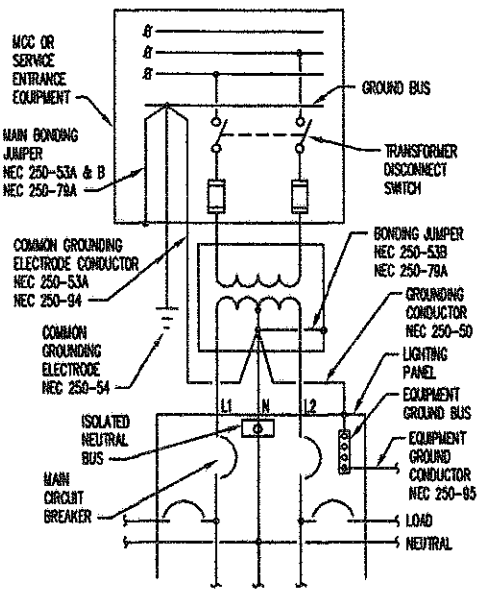
WASTEWATER TREATMENT PLANT IMPROVEMENTS

CONTRACT 2002-02

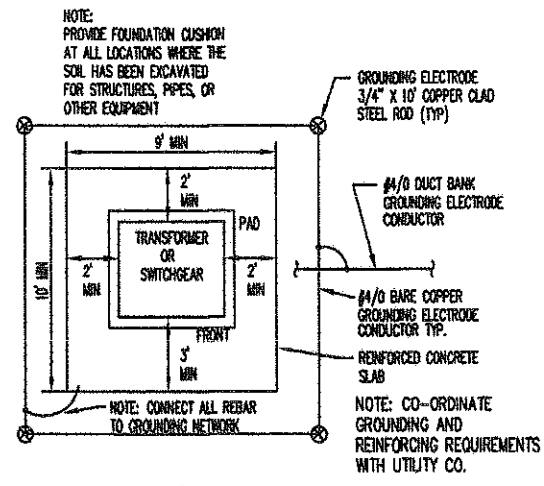
INSTRUMENTATION LOOPS

ELECTRICAL

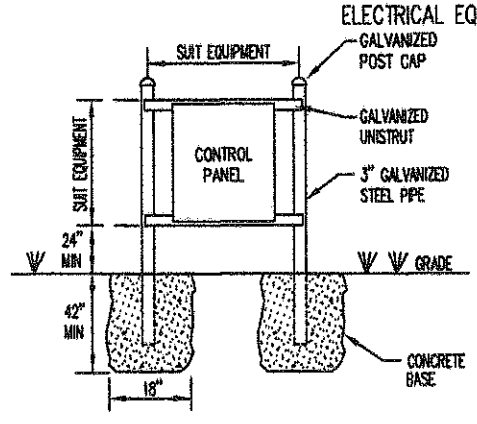
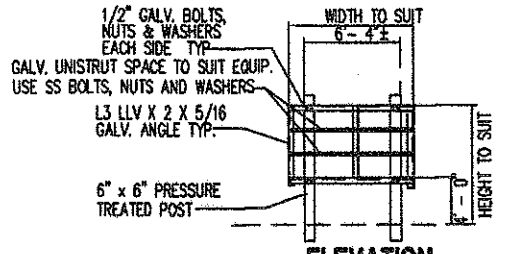
E16 OF E19



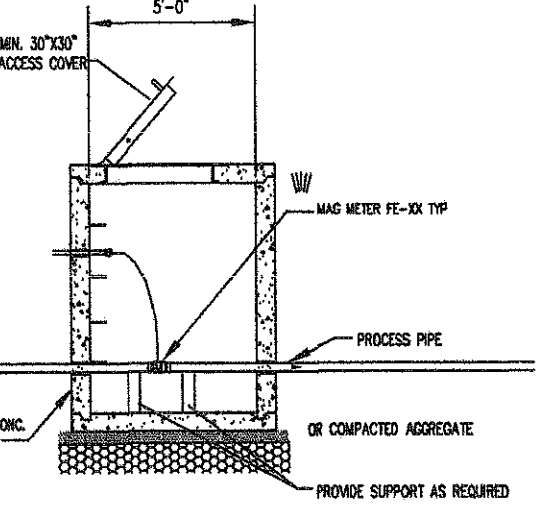
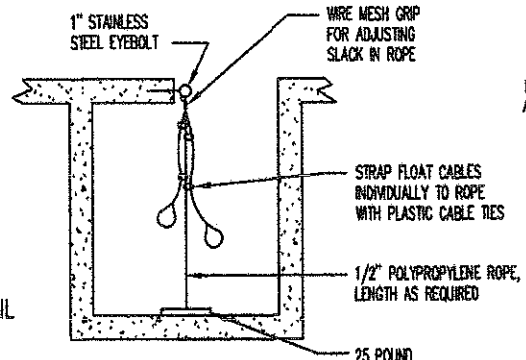
**GROUNDING SEPARATELY DERIVED
A.C. SYSTEM
DETAIL EL-L**
NO SCALE
NEC 250-26
TYPICAL FOR ALL 480-240/120V
OR 480-208/120V
TRANSFORMERS & PANELS



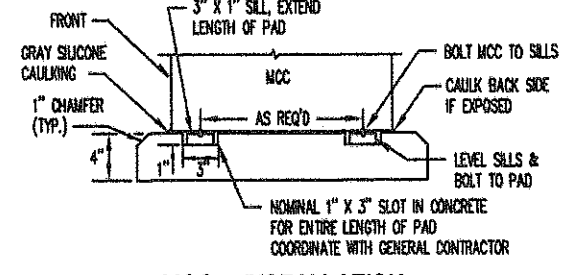
**SLAB SUPPORT & GROUNDING SYSTEM
SCHEMATIC DIAGRAM
DETAIL EL-B**
NO SCALE



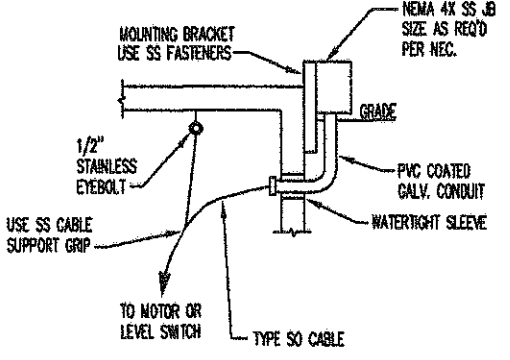
**TYPICAL CONTROL PANEL MOUNTING DETAIL
DETAIL EL-P1**
NO SCALE



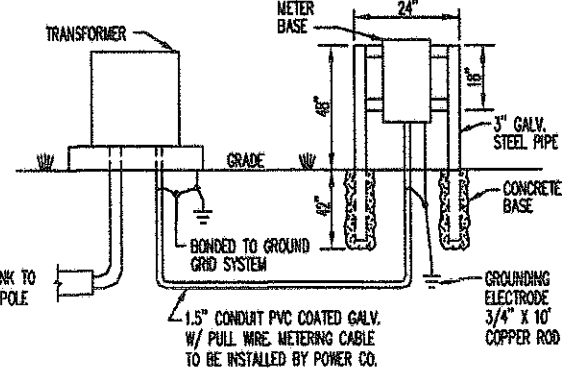
BURIED FLOW METER DETAIL



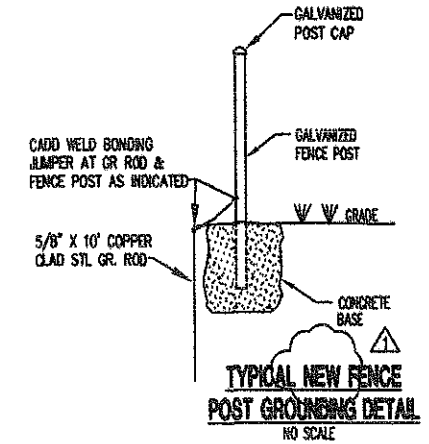
**MCC - INSTALLATION
DETAIL EL-H**
NO SCALE



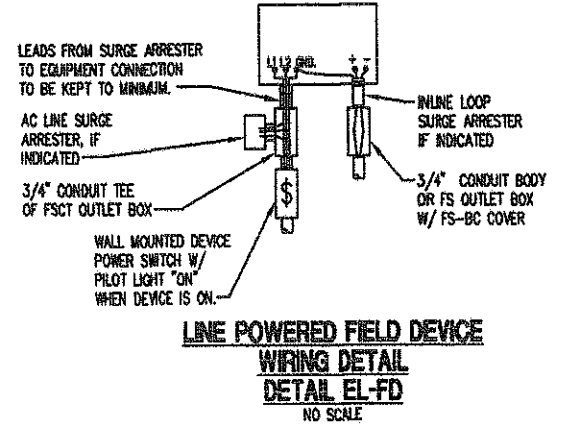
1. SEAL CONDUIT TO CONTROL PANEL AT JB AND CONTROL PANEL.
2. CONNECTIONS TO BE MADE TO FLOAT SWITCHES AND PUMP CABLES USING HEAT SHRINKABLE SEALING BUTT SPLICES, T & B 2RBS14 OR 12X. PROVIDE AN OVERALL COVER EXTENDING 1-1/2" BEYOND THE BUTT SPLICE WITH T & B HS16-12. PROVIDE 18" ADDITIONAL WIRE IN JB FOR FUTURE REMAKE OF SPLICES. PROVIDE DRAINS & VENTS IN JB TO ALLOW CONDENSATION TO DRAIN.



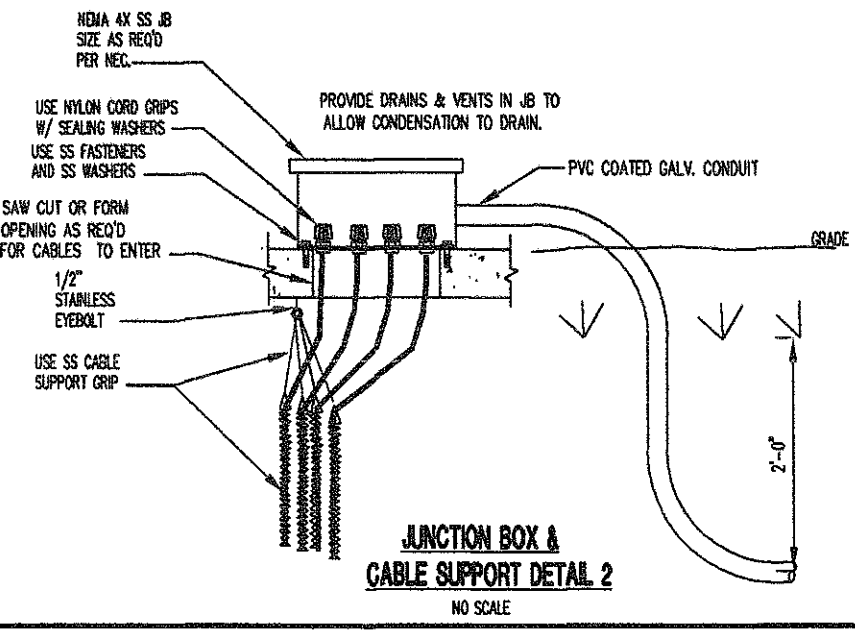
**SECONDARY METERING DETAIL
DETAIL EL-J**
NO SCALE
LOCATION TO SUIT UTILITY METERING



**TYPICAL NEW FENCE POST GROUNDING DETAIL
NO SCALE**



**LINE POWERED FIELD DEVICE WIRING DETAIL
DETAIL EL-FD**
NO SCALE



**JUNCTION BOX & CABLE SUPPORT DETAIL 2
NO SCALE**

NO.	REVISION DATA	DATE	BY	APP'D
1	PER RECORD PRINTS	9-20-06	WCS	

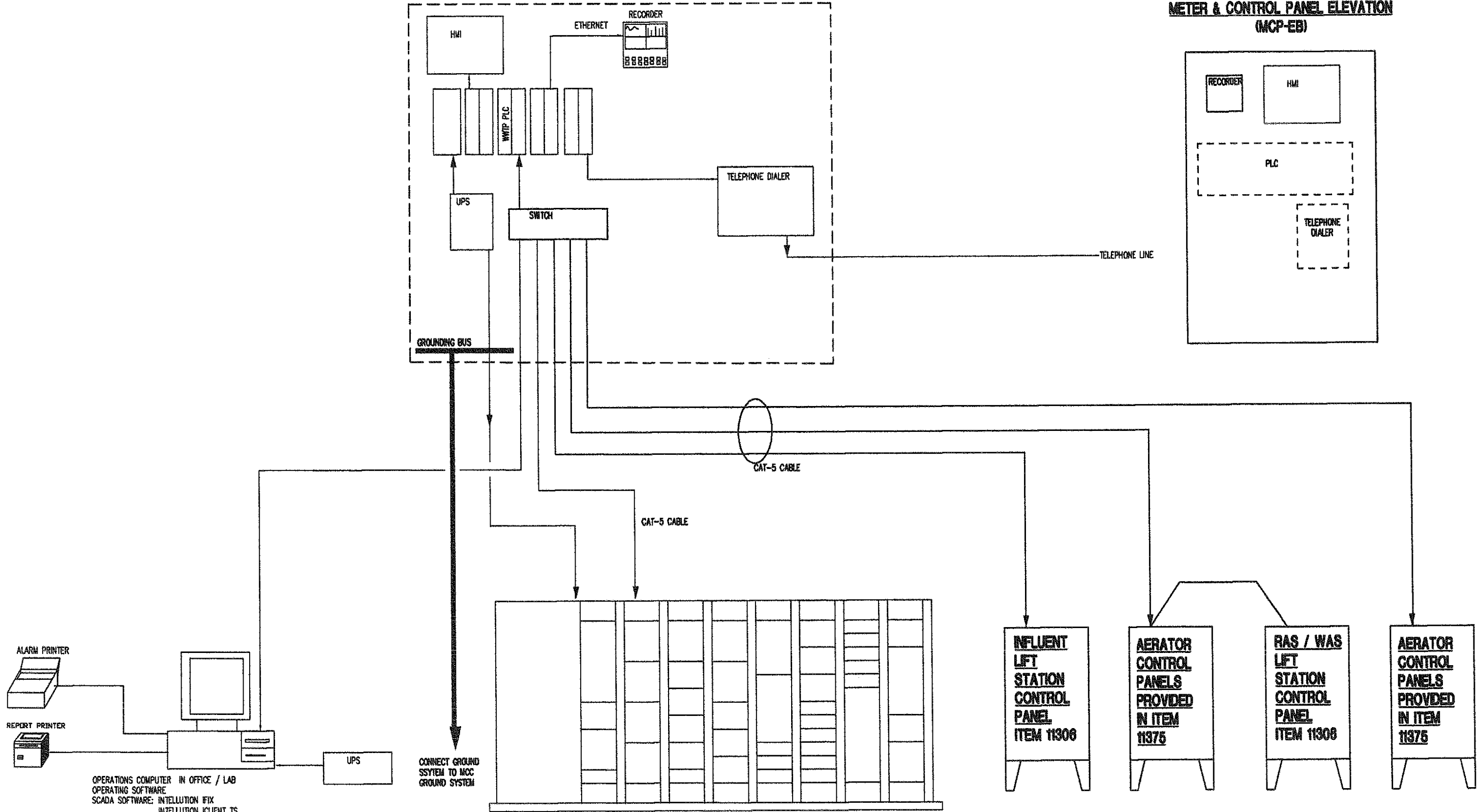
FLOYD BROWNE ASSOCIATES, INC.
*Contact Office
*Marion, Ohio 740.383.2187
*Sidney, Ohio 937.492.7838
*Delaware, Ohio 740.363.6782
DATE OCT 2002
JOB NO. 7400-07
CAID FILE MISC ELEC DETAILS
APPROVED

VILLAGE OF SUNBURY, OHIO
WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT 2002-02
MISC ELEC DETAILS
ELECTRICAL

E17
OF
E19

METER & CONTROL PANEL MCP-EB

METER & CONTROL PANEL ELEVATION (MCP-EB)



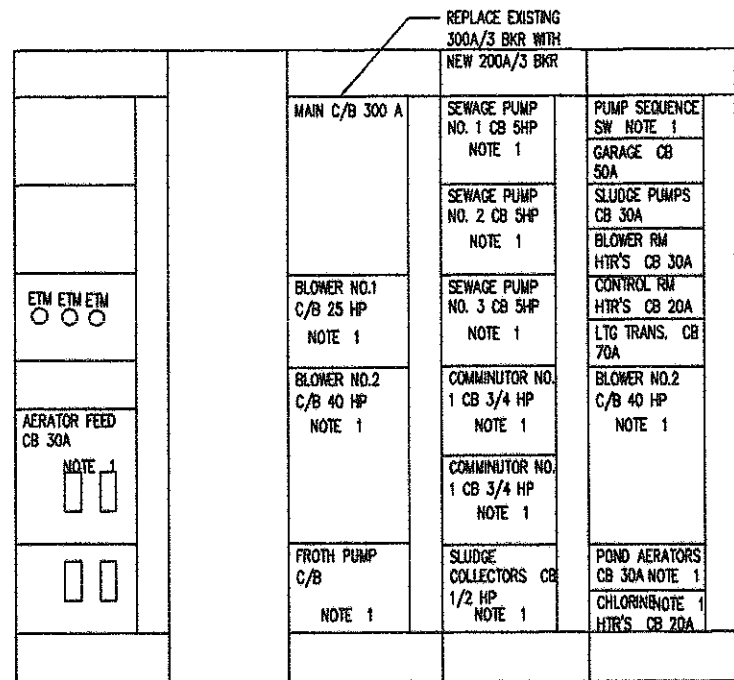
MOTOR CONTROL CENTER MCC-EB

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of
E19

NO.	REVISION DATA	DATE	BY	APP'D

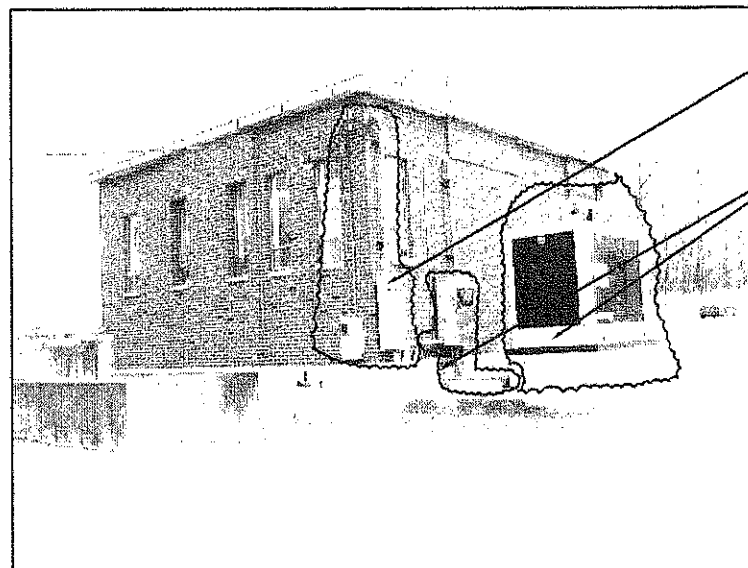
FLOYD BROWNE ASSOCIATES, INC. * Contact Office
 *Marion, Ohio 740.385.2187 Sidney, Ohio 637.492.7838 Delaware, Ohio 740.383.6782
 DATE SEPT 2002 CADD FILE E-COMP SYS DWG
 JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO
 WASTEWATER TREATMENT PLANT IMPROVEMENTS
 CONTRACT 2002-02
 PLC CONTROL
 ELECTRICAL



EXISTING MCC IN OPERATIONS BLDG

NOTE:
1. DISCONNECT EXISTING WIRING AND REMOVE WIRING TO WIREWAY. REMOVE EXISTING STARTERS & C/B'S TURN OVER TO OWNER. PROVIDE NEW BLANK DOORS FOR CLOSING MCC BUCKETS WHERE DEVICES WERE REMOVED

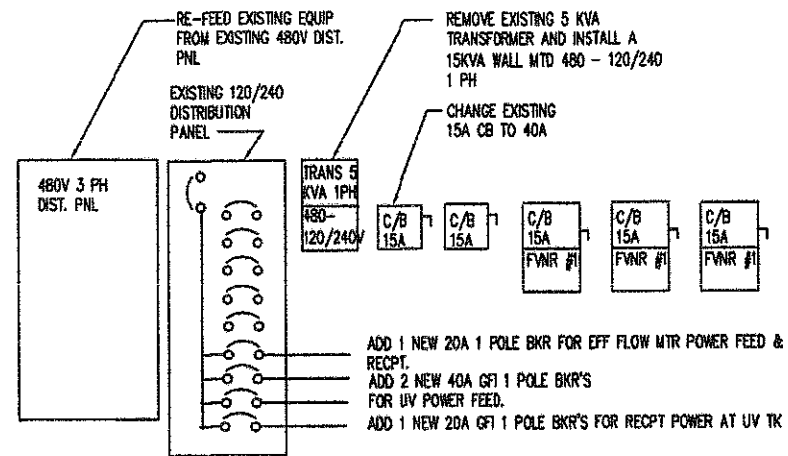


OPERATIONS BLDG INCOMING SERVICE MODIFICATION

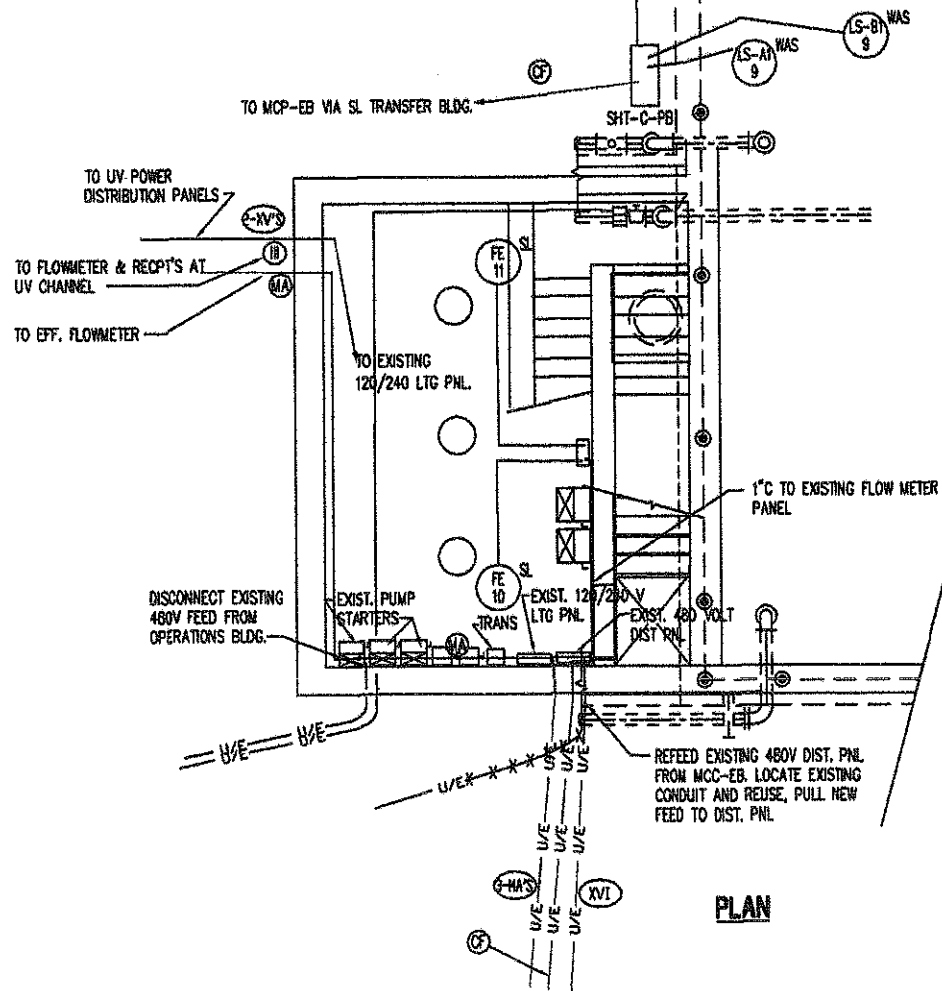
REMOVE INCOMING SERVICE, DISC SW, CONDUIT,

REMOVE EXISTING TRANSFER SWITCH, CONDUIT, GENERATOR ETC. TRANSFER SW & GENERATOR TO REMAIN PROPERTY OF OWNER.

NOTE:
THE DEMOLITION OF THE EXISTING FACILITIES ARE SHOWN ON THE GENERAL CONTRACTOR SHEETS. DEMOLITION REQUIRED SHALL BE COORDINATED FOR THE DISCONNECTING, REMOVAL, AND REPAIRS ASSOCIATED WITH THE EQUIPMENT TO BE REMOVED.



**DISTRIBUTION ELEVATION
EXISTING SLUDGE TRANSFER BUILDING**



REV 08/11/03 JAS

E19
OF
E19

NO.	REVISION DATA	DATE	BY	APP'D

FLOYD BROWNE ASSOCIATES INC

* Contact Office

Marion, Ohio 740.383.2187 Sidney, Ohio 937.486.7838 Delaware, Ohio 740.383.6702

DATE: SEPT 2002 CADD FILE: E-EXIST EQUIP MODS

JOB NO. 7400-07 APPROVED

VILLAGE OF SUNBURY, OHIO

WASTEWATER TREATMENT PLANT IMPROVEMENTS
CONTRACT 2002-02

ELECTRICAL MODIFICATIONS TO EXIST EQUIPMENT

ELECTRICAL

CITY OF SUNBURY, OHIO WASTE WATER TREATMENT PLANT IMPROVEMENTS

DRAWING INDEX

<p><i>COVER</i></p> <p><i>ARCH-PLC</i></p> <p><i>ARCH-WTW</i></p> <p><i>MCP-EB-01</i></p> <p><i>MCP-EB-02</i></p> <p><i>MCP-EB-03</i></p> <p><i>MCP-EB-04</i></p> <p><i>MCP-EB-05</i></p> <p><i>MCP-EB-06</i></p> <p><i>MCP-EB-07</i></p> <p><i>MCP-AER-01</i></p> <p><i>MCP-AER-02</i></p> <p><i>MCP-AER-03</i></p> <p><i>MCP-AER-04</i></p> <p><i>MCP-AER-05</i></p>	<p><i>COVER SHEET</i></p> <p><i>PLC SYSTEM ARCHITECTURE</i></p> <p><i>WTW NETWORK ARCHITECTURE</i></p> <p><i>METER AND CONTROL PLC PANEL LAYOUT</i></p> <p><i>MATERIAL LISTING</i></p> <p><i>METER AND CONTROL PLC PANEL WIRING DIAGRAM</i></p> <p><i>METER AND CONTROL PLC PANEL I/O LAYOUT</i></p> <p><i>METER AND CONTROL PLC PANEL I/O LAYOUT</i></p> <p><i>METER AND CONTROL PLC PANEL I/O LAYOUT</i></p> <p><i>METER AND CONTROL PLC PANEL I/O LAYOUT</i></p> <p><i>METER AND CONTROL PLC PANEL I/O LAYOUT</i></p> <p><i>AERATION PLC PANEL LAYOUT</i></p> <p><i>AERATION PLC PANEL WIRING DIAGRAM</i></p> <p><i>AERATION PLC PANEL I/O LAYOUT</i></p> <p><i>AERATION PLC PANEL I/O LAYOUT</i></p> <p><i>AERATION PLC PANEL I/O LAYOUT</i></p>
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X:\CAD Files\176 OH, Peterson Construction\176.01 Sunbury WWTPI\INDEX.DWG

NO.	REVISIONS	BY	DATE	
			CDT	10/98
1	REVISED		CDT	2/99
2	REVISED		CDT	2/02
3	AS BUILT		CDT	2/02

DMYTRYKA JACOBS ENGINEERS, INC.
AUTOMATION AND CONTROL SYSTEMS ENGINEERS

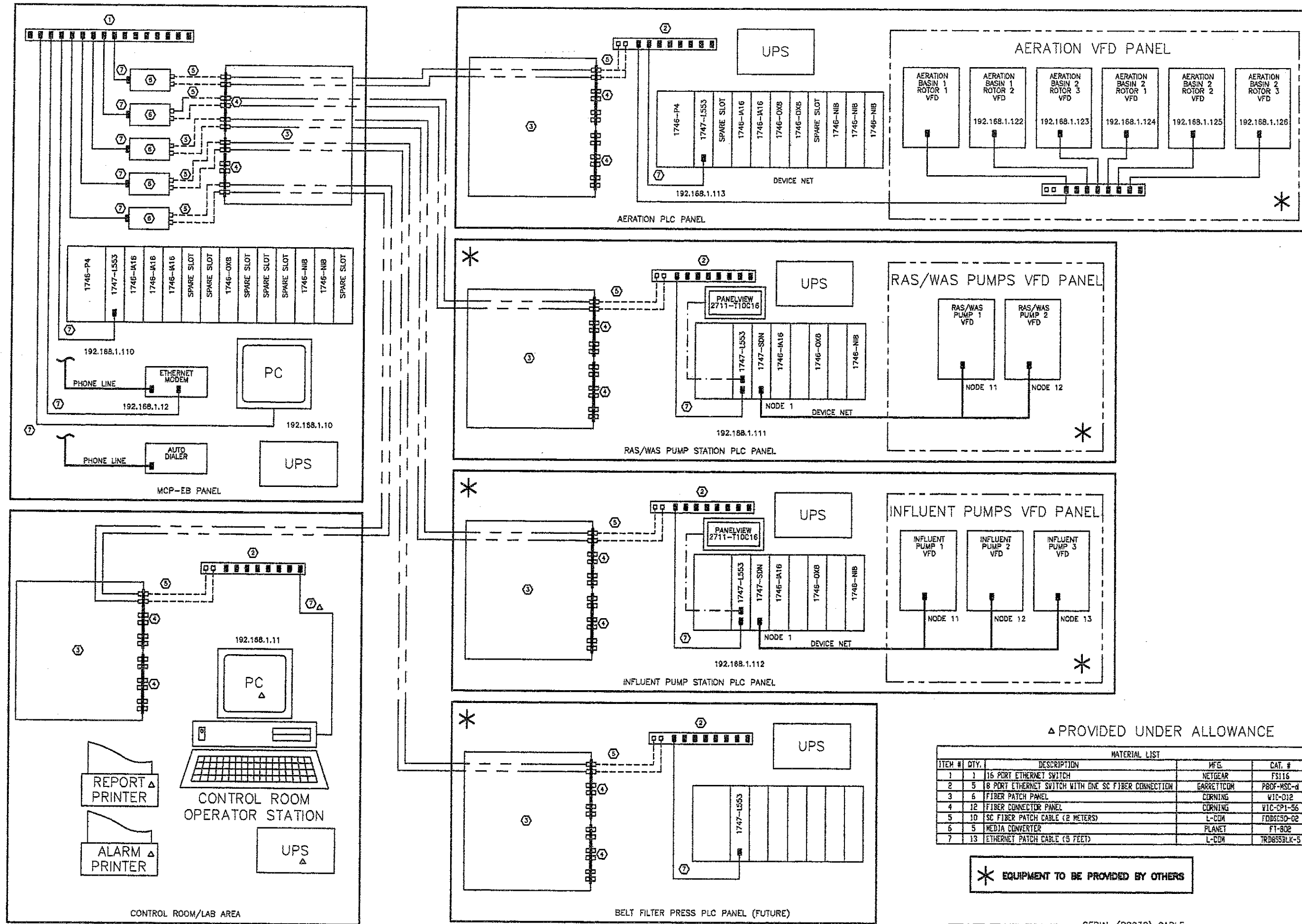
3855 CLEVELAND ROAD • PEPPERBURG, OHIO 43551
 TELEPHONE (614) 662-9001 • FAX (614) 662-9005

<p>SUNBURY, OHIO WASTE WATER TREATMENT PLANT</p>	<p>COVER SHEET</p>
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DRAWN	CDT	CHECKED	MLB
APPROVED	DWD	DATE	5/9/05

PROJECT NO. 176.01	SCALE NONE
SHEET COVER	
FILE NO. INDEX.DWG	

X:\CAD Files\176 OH, Peterson Construction\176.01 Sunbury WWTP\1760100arc.dwg



▲ PROVIDED UNDER ALLOWANCE

ITEM #	QTY.	DESCRIPTION	MFG.	CAT. #
1	1	16 PORT ETHERNET SWITCH	NETGEAR	FS116
2	5	8 PORT ETHERNET SWITCH WITH ONE SC FIBER CONNECTION	BARRETTCOM	P80F-HSC-d
3	6	FIBER PATCH PANEL	CORNING	WIC-012
4	12	FIBER CONNECTOR PANEL	CORNING	WIC-CP1-56
5	10	SC FIBER PATCH CABLE (2 METERS)	L-COM	FD85C50-02
6	5	MEDIA CONVERTER	PLANET	FT-802
7	13	ETHERNET PATCH CABLE (5 FEET)	L-COM	TR0855BLK-5

* EQUIPMENT TO BE PROVIDED BY OTHERS

--- SERIAL (RS232) CABLE
 --- CAT V ETHERNET PATCH CABLE
 --- FIBER OPTIC PATCH CABLE
 --- FIBER OPTIC CABLE TO BE PROVIDED BY OTHERS

NO.	REVISIONS	BY	DATE

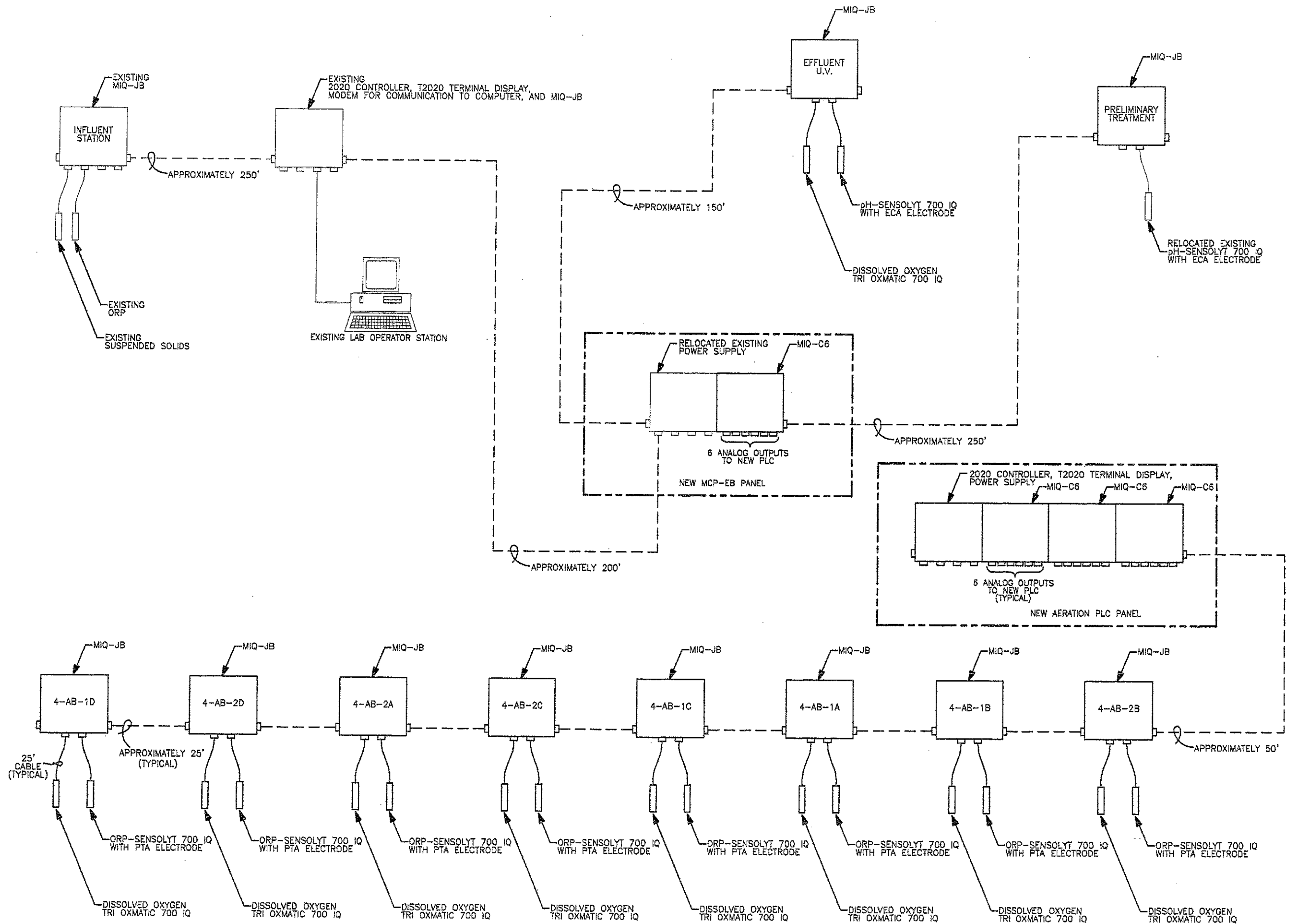
JIC
 DMYTRYKA JACOBS
 ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28535 GLENWOOD ROAD • PEPPERBURG, OHIO 43551
 TELEPHONE (419) 682-8001 • FAX (419) 682-8005

SUNBURY, OHIO
 WASTE WATER TREATMENT PLANT
 PLC COMMUNICATION SYSTEM ARCHITECTURE

DATE	CDT	APPROVED DWD
3/31/05		

PROJECT NO. 176.01
 SCALE NONE
 SHEET
 ARCH-PLC
 FILE NO. 1760100arc.dwg

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NO.	REVISIONS	BY	DATE

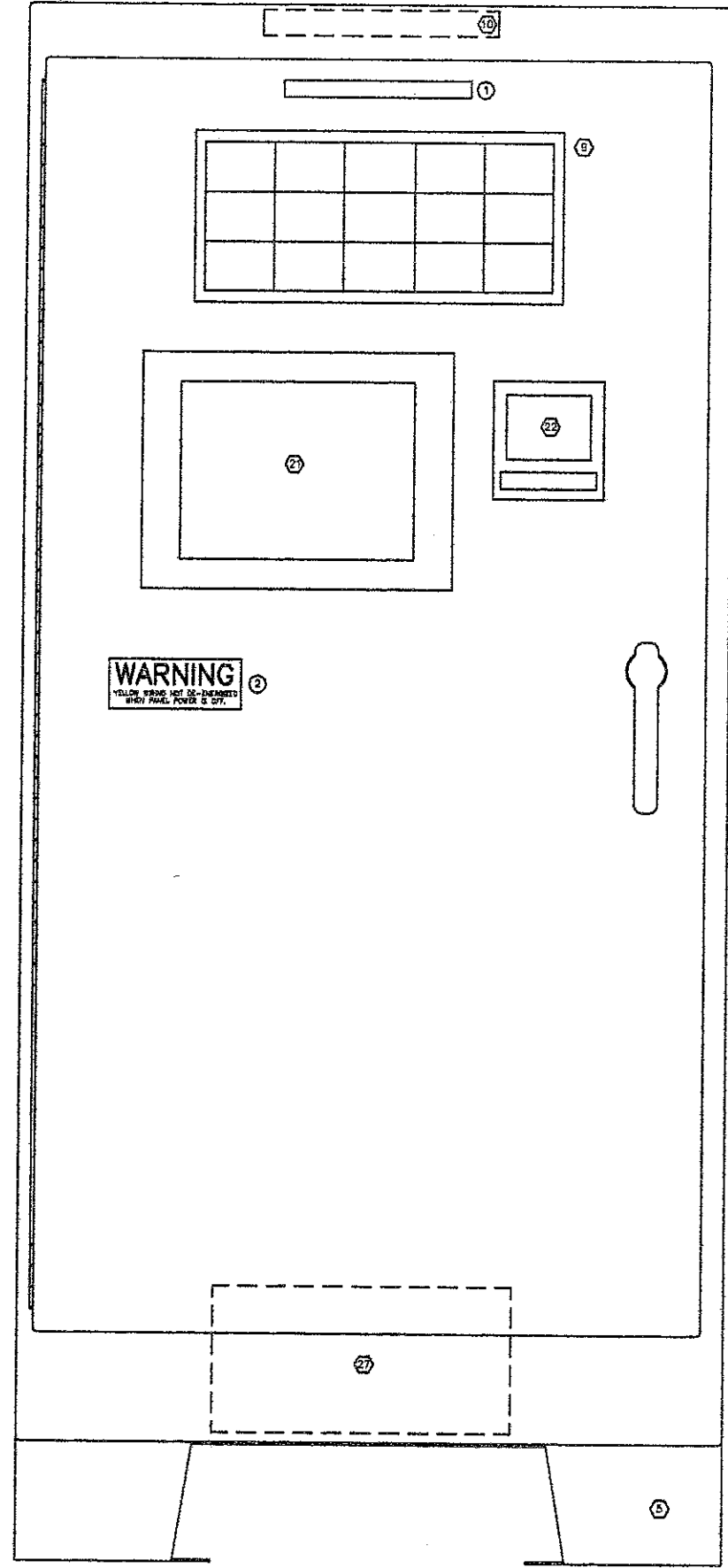
Jje
DWYTRYKA JACOBS ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28335 GLENWOOD ROAD • PERRYSBURG, OHIO 43051
 TELEPHONE (419) 682-9001 • FAX (419) 682-9005

SUNBURY, OHIO WASTE WATER TREATMENT PLANT
 Project Description
WTW NETWORK ARCHITECTURE

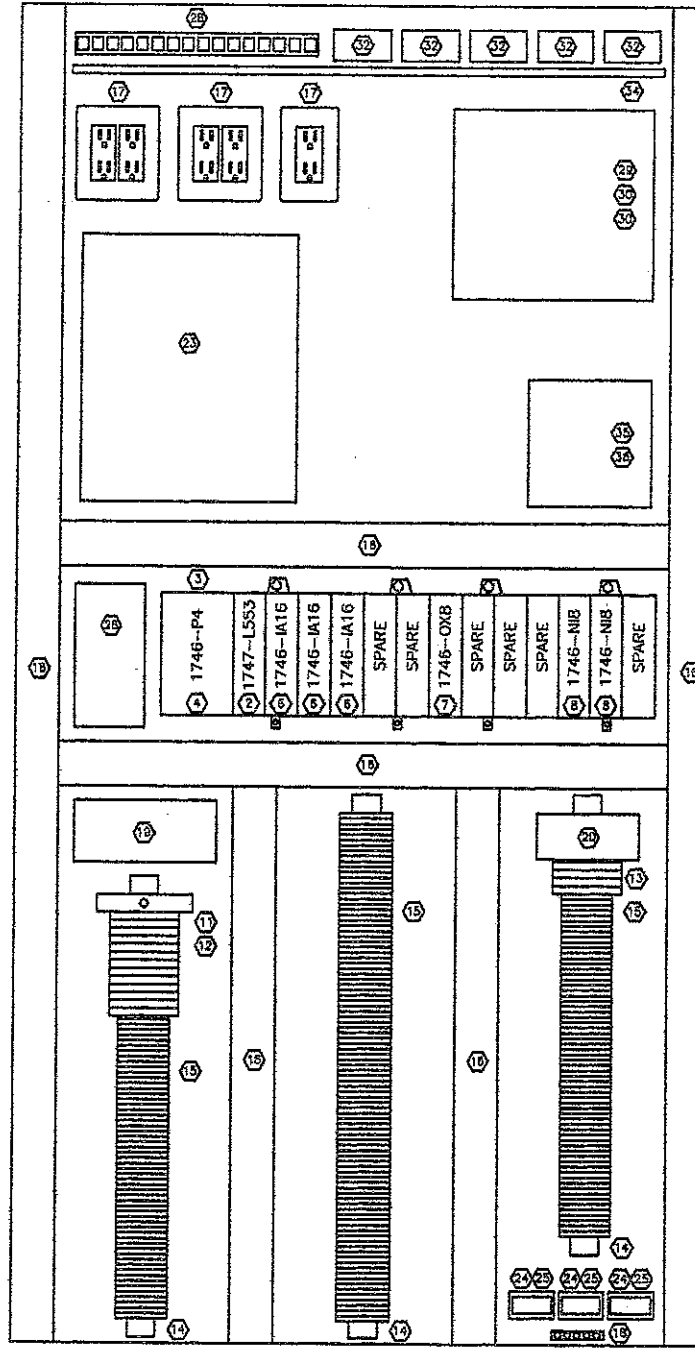
DRAWN	CDT
DESIGNED	CDT
CHECKED	MLB
APPROVED	DWD
DATE	3/2/05

PROJECT NO.	176.01
SCALE	NONE
SHEET	ARCH-WTW
FILE NO.	1760101wlv.dwg

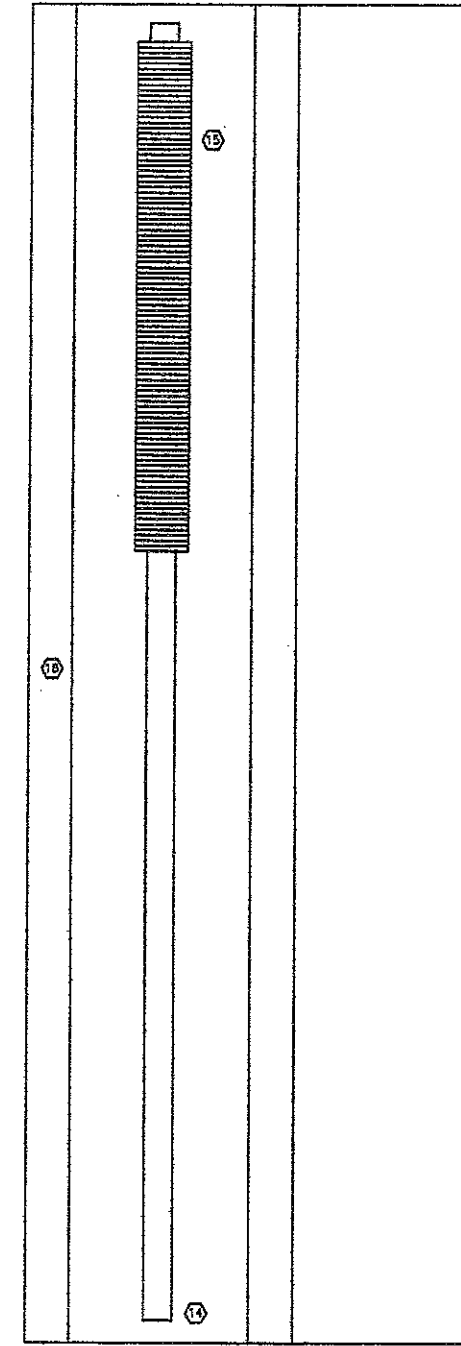
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ENCLOSURE DOOR LAYOUT



SUBPANEL LAYOUT



LEFT SIDE PANEL LAYOUT

NO.	REVISIONS	BY	DATE

Jje
DMYTRYKA JACOBS ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28535 CLENWOOD ROAD • PERRYSBURG, OHIO 43051
 TELEPHONE (419) 662-9001 • FAX (419) 662-9005

**SUNBURY, OHIO
 WASTE WATER TREATMENT PLANT
 METER & CONTROL PANEL
 LAYOUT**

PROJECT	CDT

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-EB-01
FILE NO.	dje_1760101.dwg

MATERIAL LIST				
ITEM #	QTY.	DESCRIPTION	MFG.	CAT. #
1	1	ENCLOSURE 72x36x24, SUBPANEL 60x32	HOFFMAN	A723624FS
2	1	SLC 5/05 PROCESSOR	A-B	1747-L553
3	1	13-SLOT I/O CHASSIS	A-B	1746-A13
4	1	CHASSIS POWER SUPPLY	A-B	1746-P4
5	2	FLOOR STAND KIT	HOFFMAN	AFK0608
6	3	16 POINT DISCRETE INPUT MODULE	A-B	1746-1A16
7	1	8 POINT DISCRETE OUTPUT MODULE	A-B	1746-0X8
8	2	8 POINT ANALOG INPUT MODULE	A-B	1746-N18
9	1	ANNUNCIATOR	ROCHESTER	3100C
10	1	ENCLOSURE LIGHTING	HOFFMAN	ALF16H24R
11	1	CIRCUIT BREAKER	A-B	CB4201
12	13	FUSED TERMINALS	A-B	1492-H4
13	4	FUSED TERMINALS	A-B	1492-H5
14	AS REQ.	DIN RAIL	A-B	199-DR1
15	AS REQ.	TERMINALS	A-B	1492-J4
16	AS REQ.	WIREWAY	PANDUIT	-
17	1	OUTLET	LEVITON	-
18	1	GROUND BAR	CUTLER HAMMER	-
19	1	SURGE SUPPRESSOR	EDCO	FAS-120-AC
20	1	24V DC SUPPLY	SDLA	SDP1-24-100T
21	1	COMPUTER	ADVANTECH	IPPC-9150G-R
22	1	RECORDER	ADB	SM2000
23	1	AUTO DIALER	RAYCO	VERBATIM
24	3	SURGE SUPPRESSOR	EDCO	PC642C-030
25	3	SURGE SUPPRESSOR BASE	EDCO	PCB1B
26	1	ETHERNET SWITCH	NETGEAR	FS116
27	1	UPS	APC	BACK-UPS PRO 500
28	1	ETHERNET MODEM	A-B	9300-RADES
29	1	FIBER PATCH PANEL	CORNING	WIC-012
30	2	FIBER CONNECTOR PANEL	CORNING	WIC-CP1-56
31	5	SC FIBER PATCH CABLE (2 METERS)	L-COM	FDDSC50-02
32	5	MEDIA CONVERTER	PLANET	FT-802
33	8	ETHERNET PATCH CABLE (5 FEET)	L-COM	TRDB55BK-5
34	1	SHELF	EUSTON	-
35	1	18W POWER SUPPLY (24 VDC OUTPUT)	WTV	4800D4
36	1	MODULE WITH 6 ANALOG OUTPUTS (4-20mA)	WTV	4800D5

NOTE:
 ① INDICATES NAME PLATE
 ② INDICATES MATERIAL

NAME PLATE LEGEND:
 1.) METER & CONTROL PANEL (MCP-EB) 1/2"
 2.) YELLOW WIRING NOT DE-ENERGIZED WHEN PANEL POWER IS OFF. 1/4"

LETTER SIZE

NAMEPLATES: BLACK LETTERING ON WHITE TAG

NO.	REVISIONS	BY	DATE

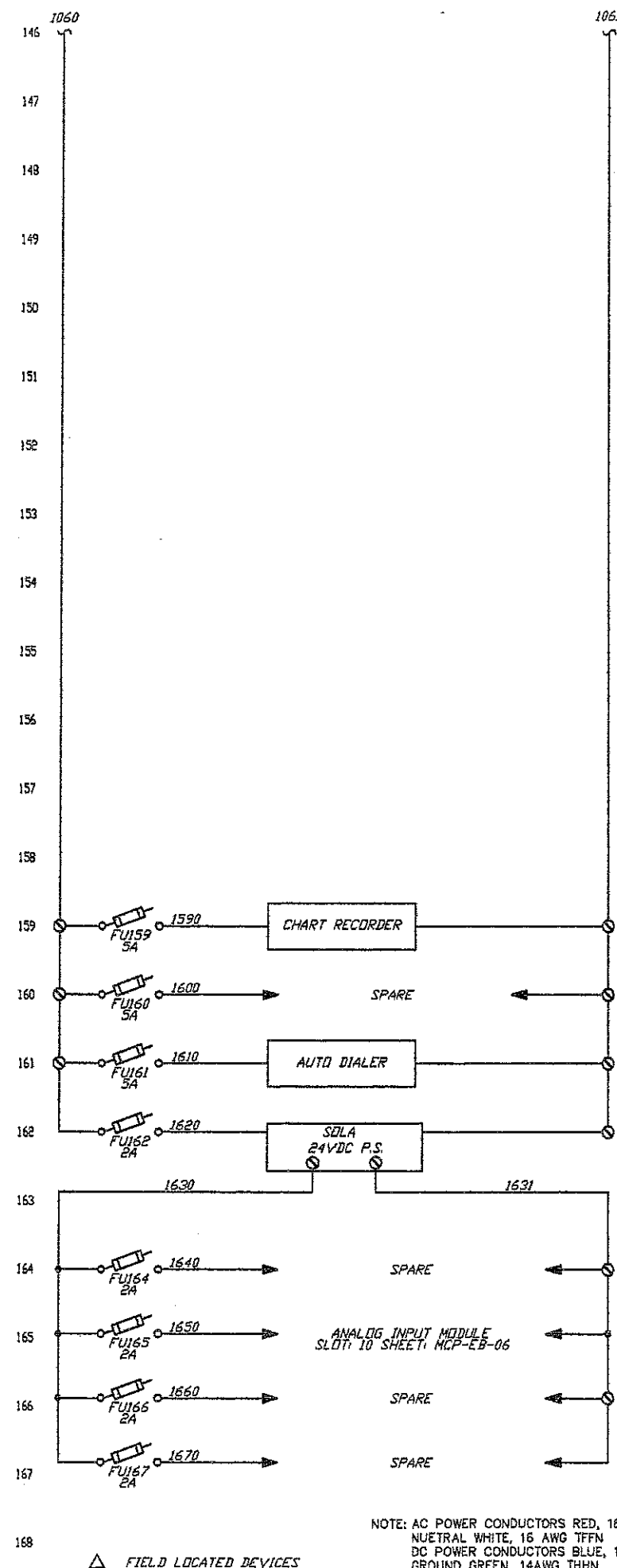
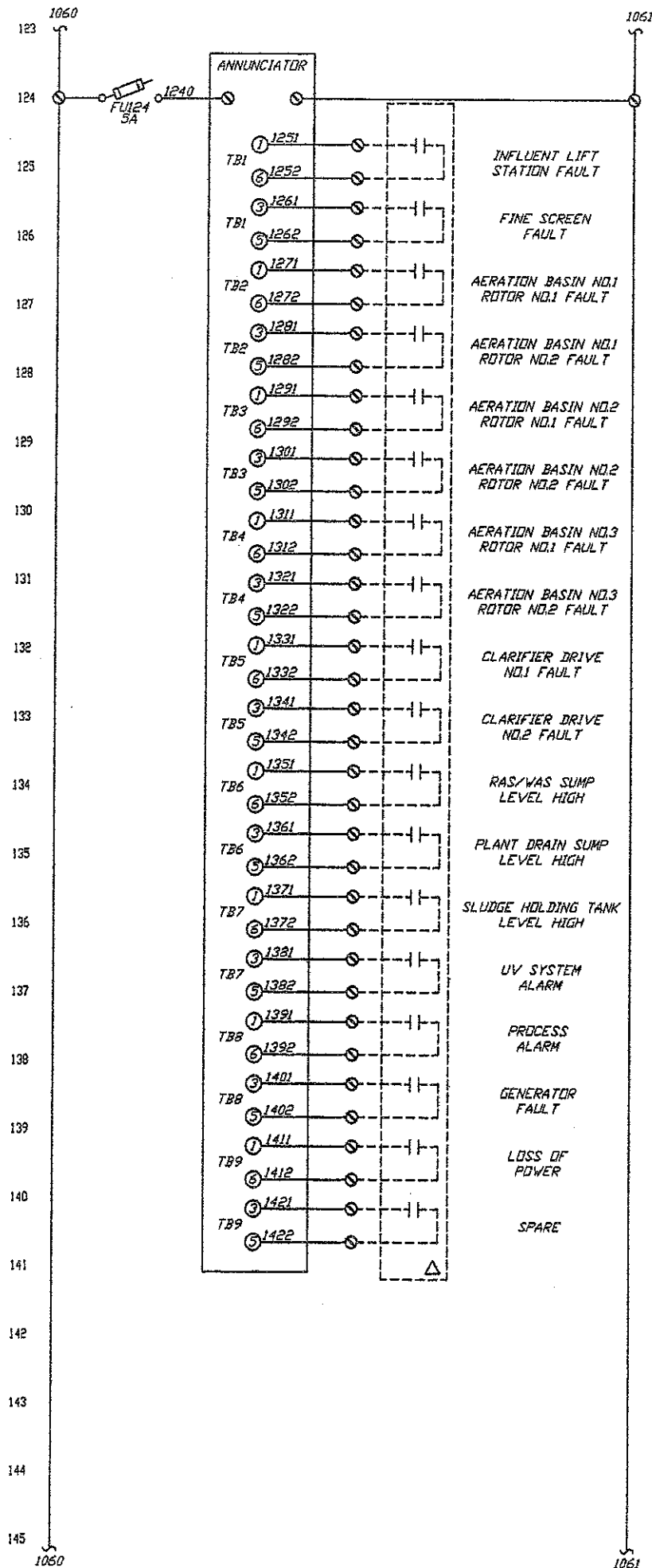
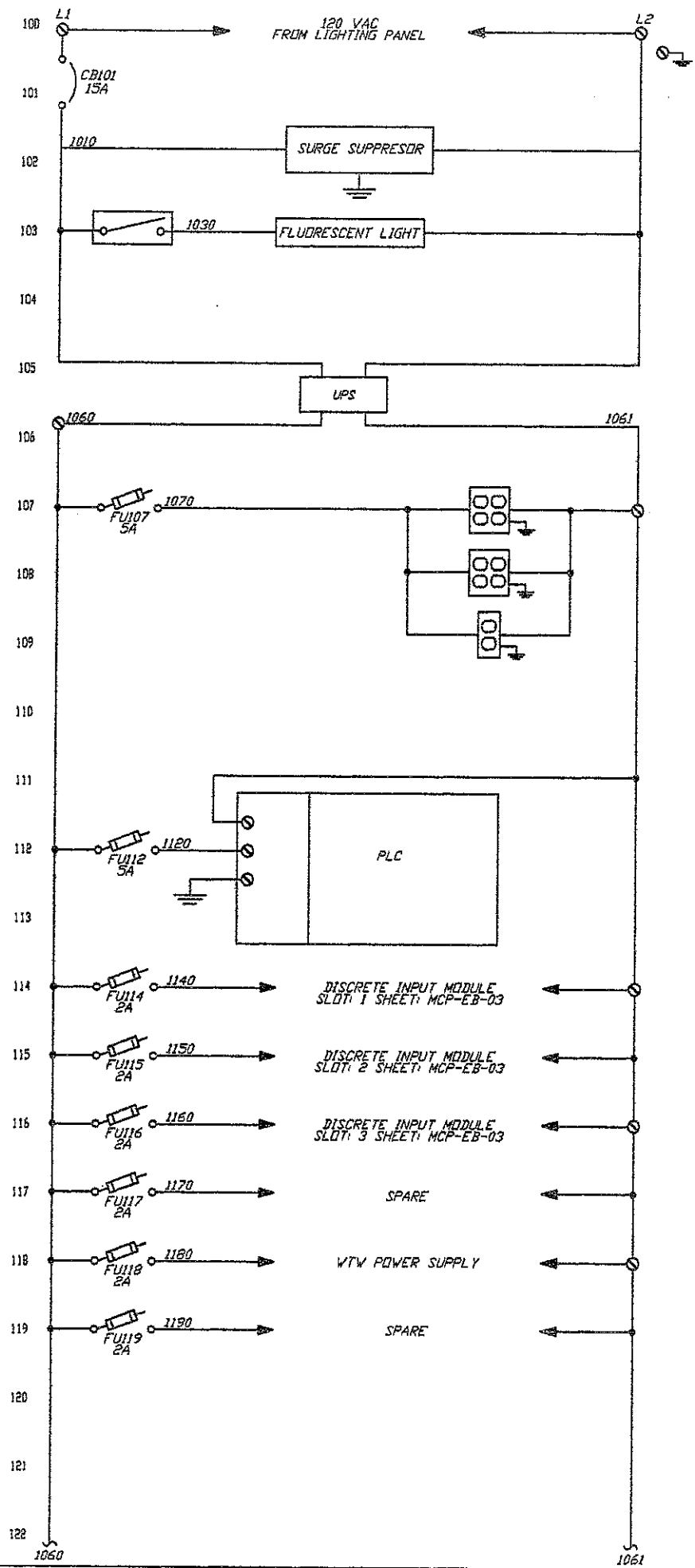
JJE
DMYTRYKA JACOBS ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28535 GLENWOOD ROAD • PERRYSBURG, OHIO 43051
 TELEPHONE (419) 662-9001 • FAX (419) 662-9005

Project: **SUNBURY, OHIO WASTE WATER TREATMENT PLANT**
 Description: **METER & CONTROL PANEL MATERIAL LISTING**

DESIGNED	CDT
CHECKED	MLB
APPROVED	DWD
DATE	5/9/05

PROJECT NO. 176.01
 SCALE NONE
 SHEET MCP-EB-02
 FILE NO. dje_1760107.dwg

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NOTE: AC POWER CONDUCTORS RED, 16 AWG TFFN
 NEUTRAL WHITE, 16 AWG TFFN
 DC POWER CONDUCTORS BLUE, 16 AWG TFFN
 GROUND GREEN, 14AWG THHN.

△ FIELD LOCATED DEVICES

NO.	REVISIONS	BY	DATE

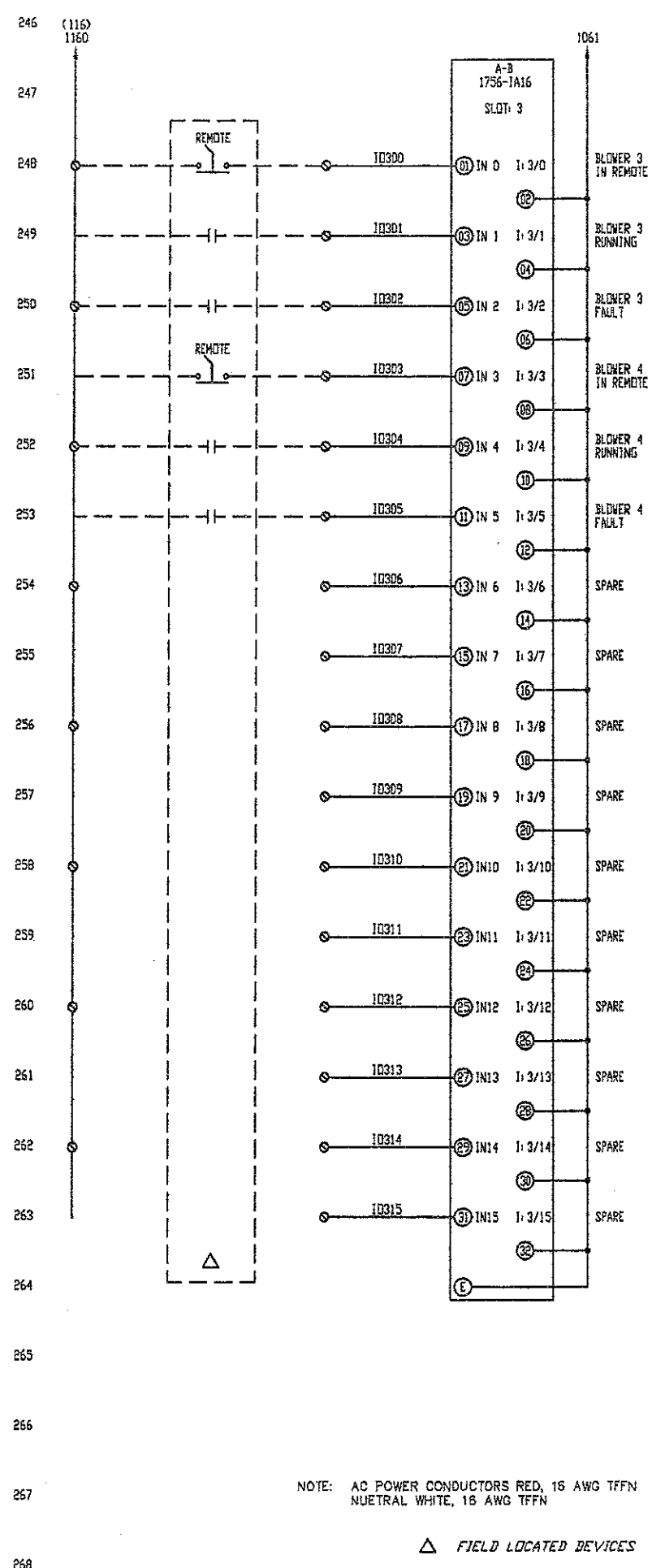
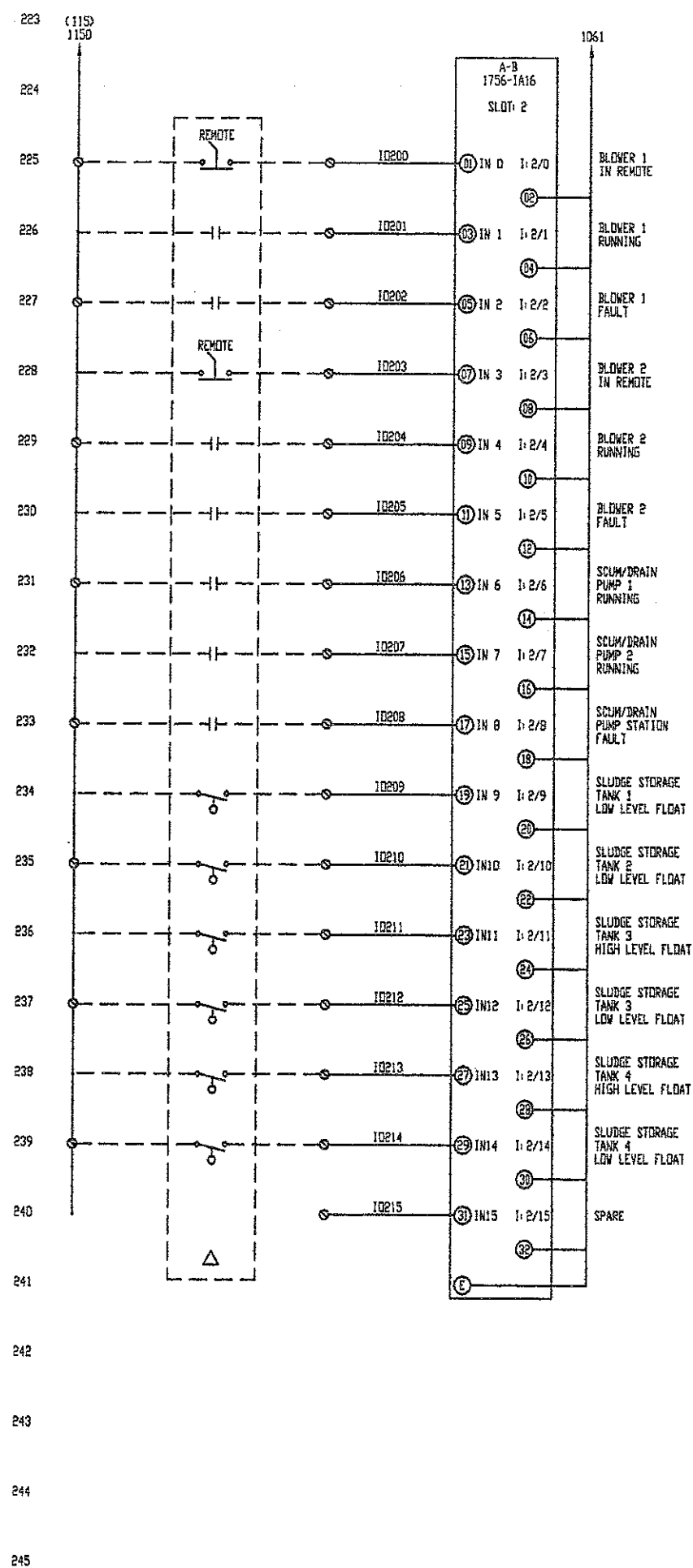
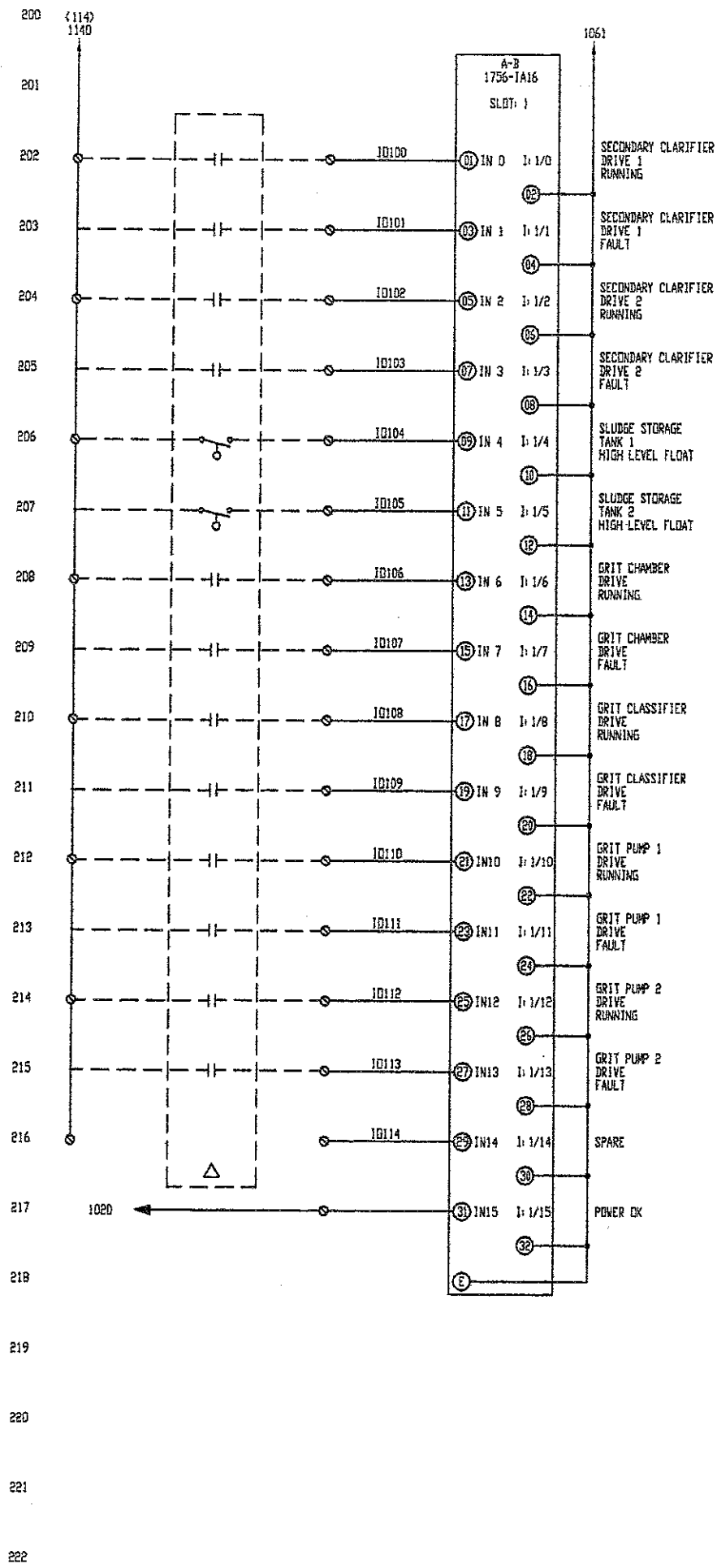
Jie
 DMYTRYKA JACOBS
 ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28535 GLENWOOD ROAD • POKYTSBURG, OHIO 43081
 TELEPHONE (419) 652-9001 • FAX (419) 652-9005

Project: SUNBURY, OHIO WASTE WATER TREATMENT PLANT
 Description: METER & CONTROL PANEL WIRING DIAGRAM

CDT	CDT	MB	DWD	DATE
DRAWN	DESIGNED	CHECKED	APPROVED	5/9/05

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-EB-03
FILE NO.	dje_1760102.dwg

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NOTE: AC POWER CONDUCTORS RED, 16 AWG TFFN
 NEUTRAL WHITE, 18 AWG TFFN

△ FIELD LOCATED DEVICES

NO.	REVISIONS	BY	DATE

Jje
DMYTRYKA JACOBS ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28555 GLENNWOOD ROAD • PERRYSBURG, OHIO 43051
 TELEPHONE (419) 682-9001 • FAX (419) 682-9005

Project: **SUNBURY, OHIO WASTE WATER TREATMENT PLANT**
 Description: **METER & CONTROL PANEL I/O LAYOUT**

DRAWN	CDT
DESIGNED	CDT
CHECKED	MJB
APPROVED	DWD
DATE	5/9/05

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-EB-04
FILE NO.	dje_1760103.dwg

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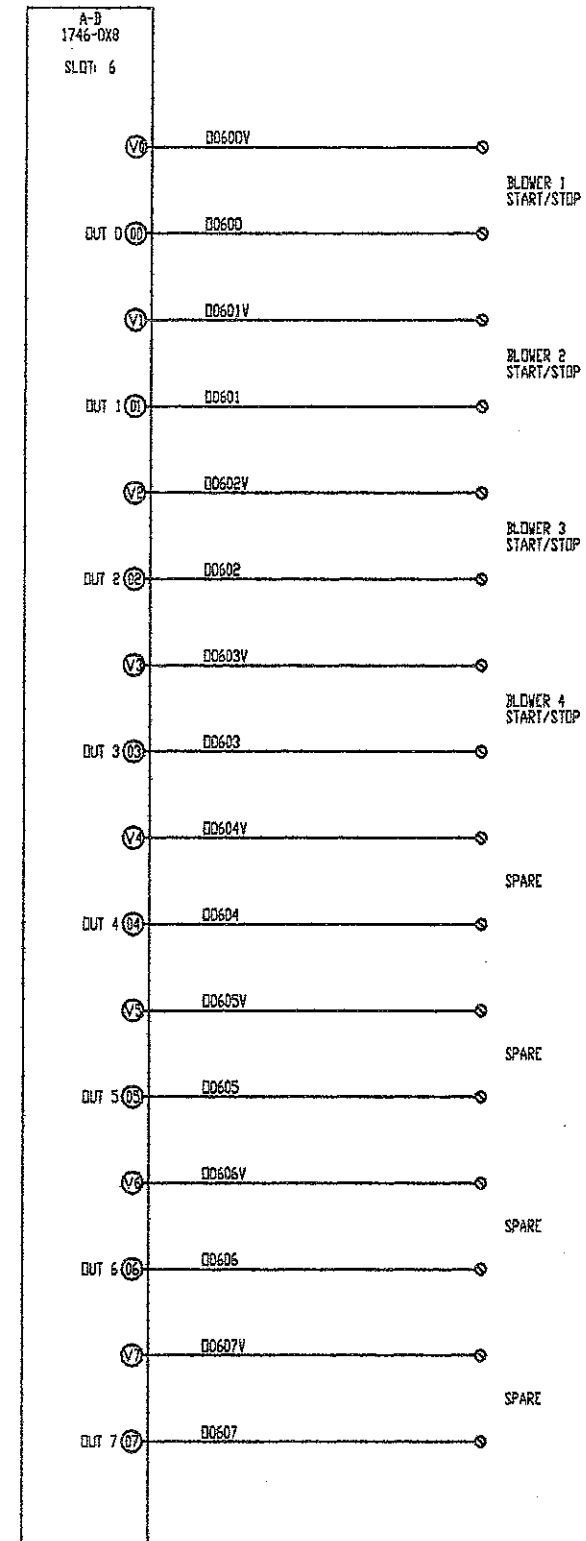
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SLOT: 4

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SLOT: 5

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NOTE: OUTPUT MODULE CONDUCTORS YELLOW, 16 AWG TFFN
NEUTRAL WHITE, 18 AWG TFFN

△ FIELD LOCATED DEVICES

NO.	REVISIONS	BY	DATE

Jje DMYTRYKA JACOBS ENGINEERS, INC.
AUTOMATION AND CONTROL SYSTEMS ENGINEERS
28535 GLENWOOD ROAD • PERRYSBURG, OHIO 43051
TELEPHONE (419) 662-9001 • FAX (419) 662-9005

Project: SUNBURY, OHIO WASTE WATER TREATMENT PLANT
Description: METER & CONTROL PANEL I/O LAYOUT

DRAWN	CDT	DESIGNED	CDT	CHECKED	MLB	APPROVED	DWD	DATE
								5/9/05

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-EB-05
FILE NO.	dje_1760104.dwg

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SLOT: 7

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SLOT: 8

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SLOT: 9

NOTE: OUTPUT MODULE CONDUCTORS YELLOW, 16 AWG TFFN
 NEUTRAL WHITE, 18 AWG TFFN

△ FIELD LOCATED DEVICES

NO.	REVISIONS	BY	DATE

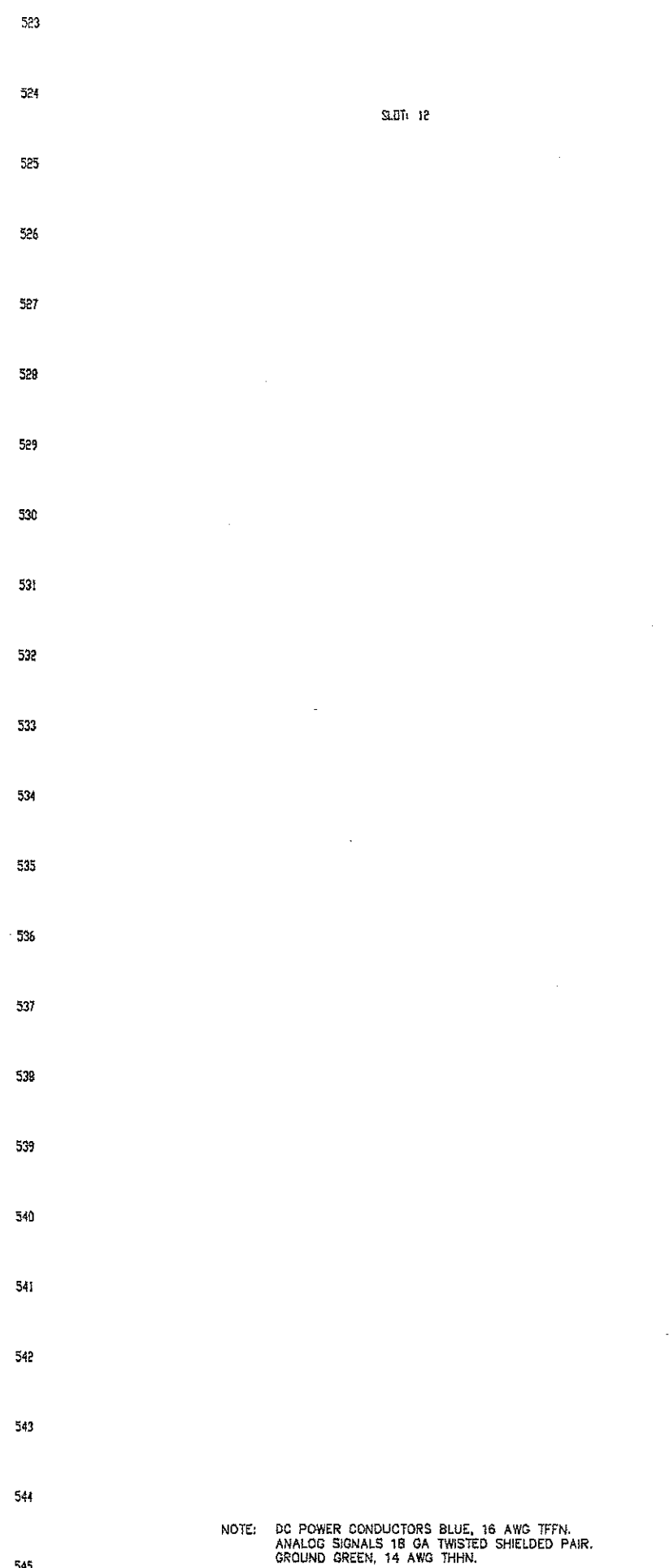
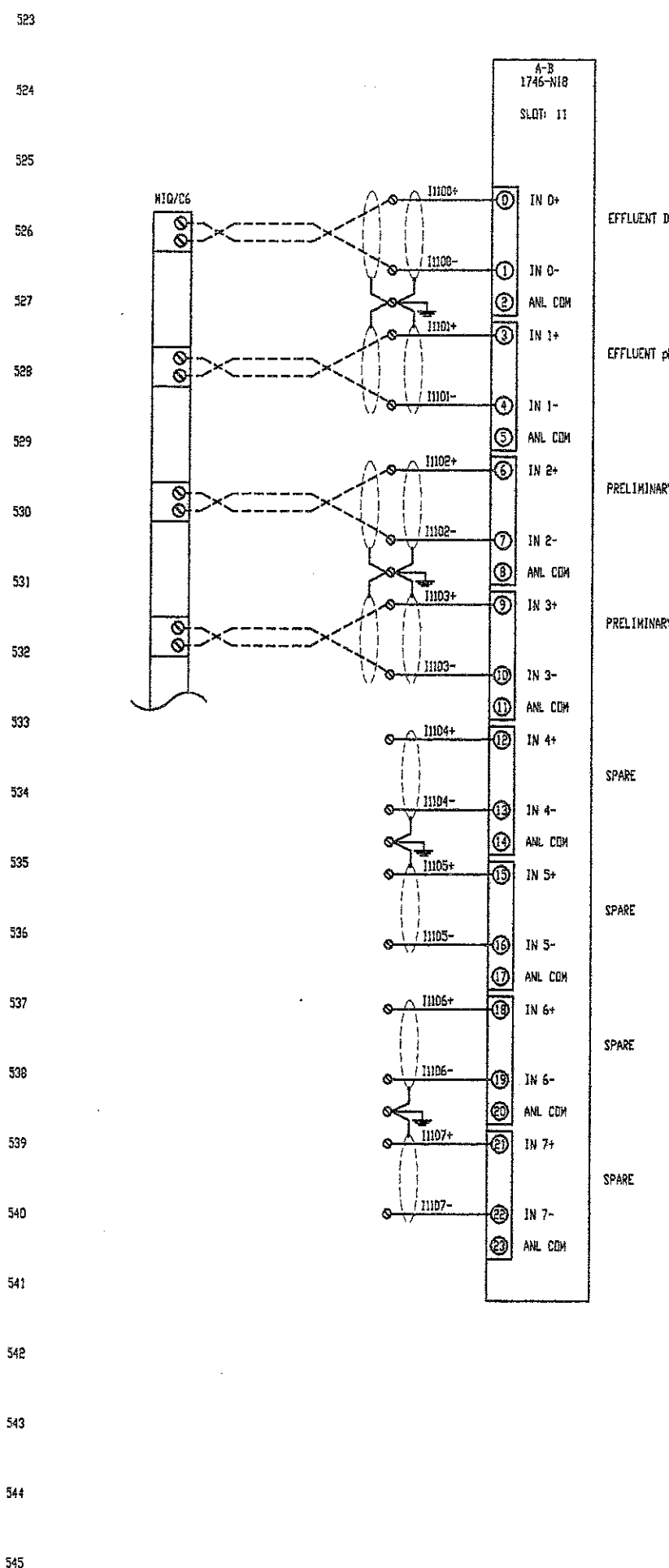
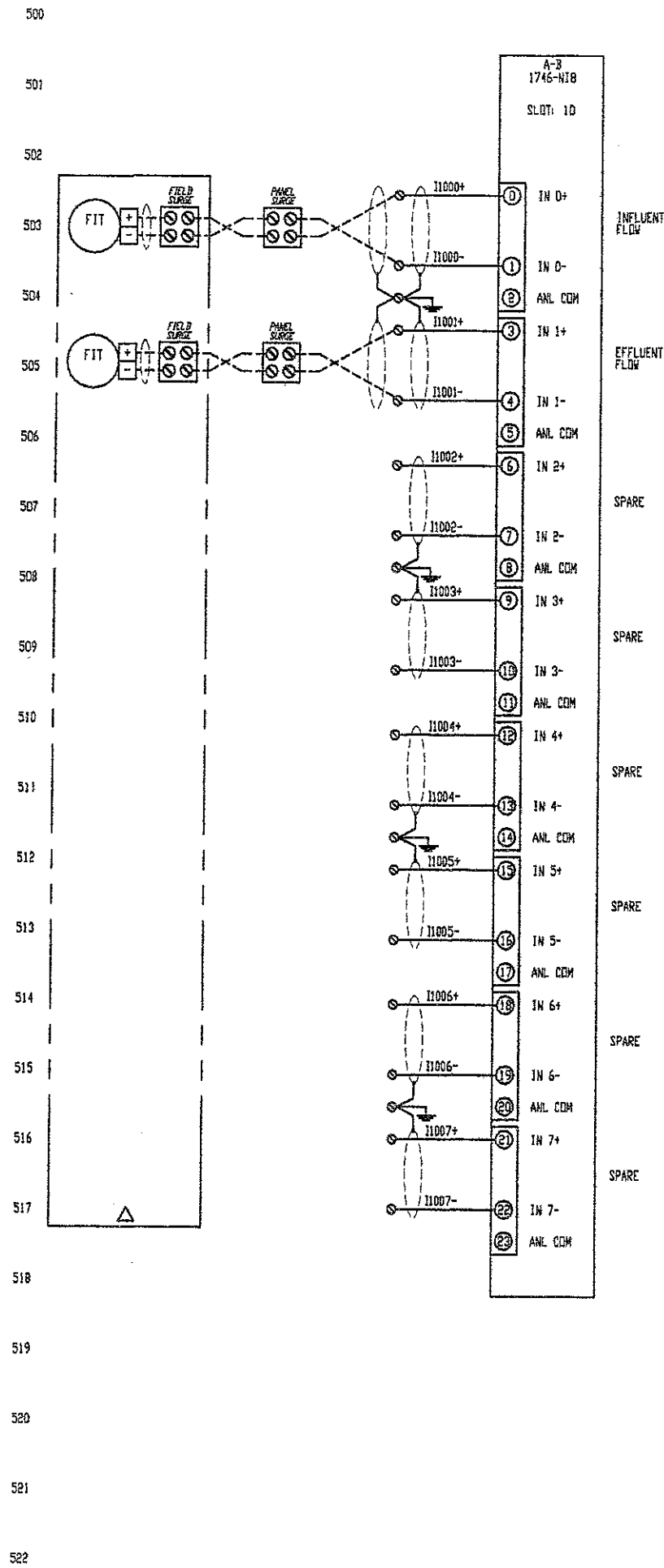
djc
 DMYTRYKA JACOBS
 ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 29535 GLENWOOD ROAD • PERRYSSBURG, OHIO 43051
 TELEPHONE (419) 662-9001 • FAX (419) 662-9005

Project: SUNBURY, OHIO
 WASTE WATER TREATMENT PLANT
 Description: METER & CONTROL PANEL
 I/O LAYOUT

DRAWN	CDT
DESIGNED	CDT
CHECKED	MLB
APPROVED	DWD
DATE 5/9/05	

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-EB-06
FILE NO.	dje_1760105.dwg

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NOTE: DC POWER CONDUCTORS BLUE, 16 AWG TFFN.
 ANALOG SIGNALS 18 GA TWISTED SHIELDED PAIR.
 GROUND GREEN, 14 AWG THHN.
 ▲ FIELD LOCATED DEVICES

NO.	REVISIONS	BY	DATE

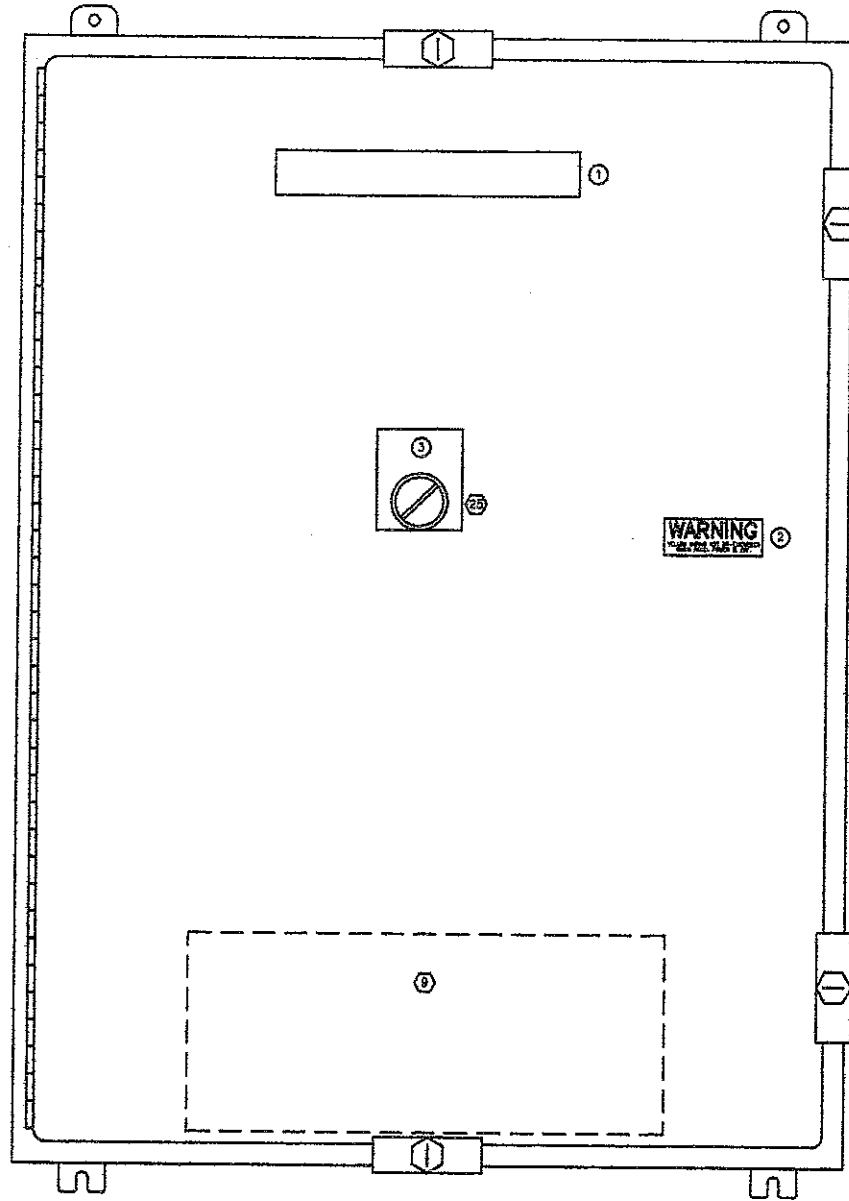
JJE
 DMYTRYKA JACOBS
 ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28535 GLENWOOD ROAD • PETERSBURG, OHIO 43551
 TELEPHONE (419) 852-9001 • FAX (419) 852-9005

Project: SUNBURY, OHIO
 WASTE WATER TREATMENT PLANT
 Description: METER & CONTROL PANEL
 I/O LAYOUT

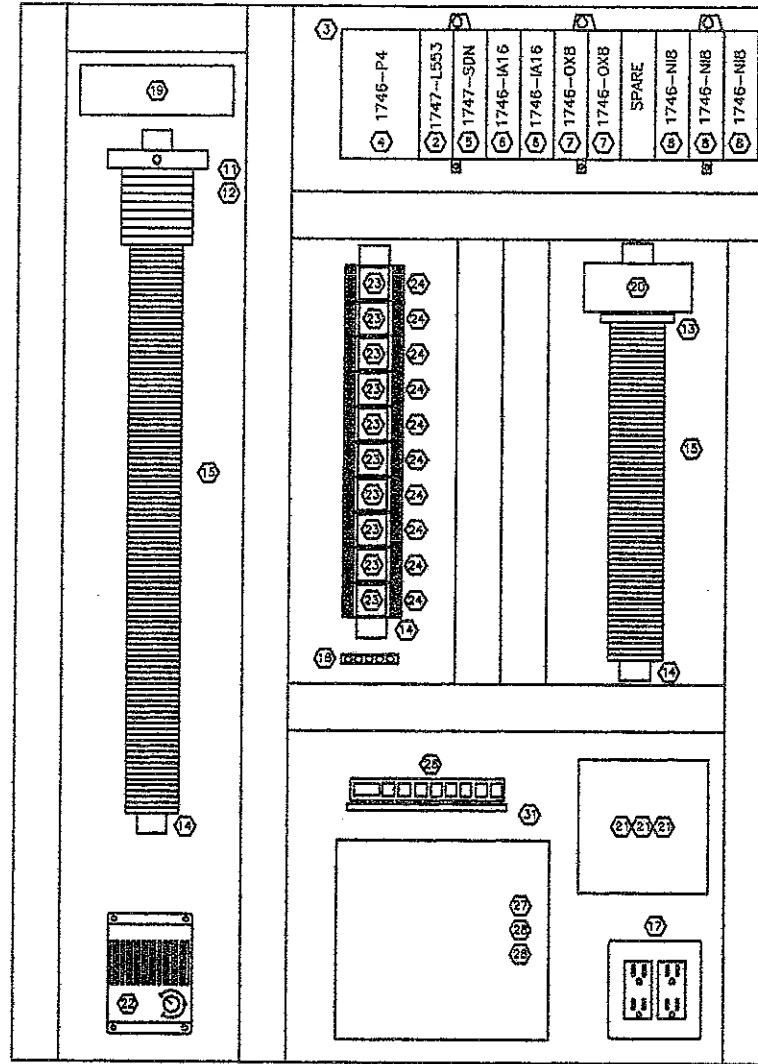
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CHECKED	MLB
APPROVED	DWD
DATE	5/9/05

PROJECT NO.	176.01
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SHEET	MCP-EB-07
FILE NO.	dje_1760106.dwg

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ENCLOSURE DOOR LAYOUT



SUBPANEL LAYOUT

MATERIAL LIST				
ITEM #	QTY.	DESCRIPTION	MFG.	CAT. #
1	1	ENCLOSURE 48x36x12, SUBPANEL 45x33	HOFFMAN	A48H3612SPL, A48P36
2	1	SLC 5/05 PROCESSOR	A-B	1747-L553
3	1	10-SLOT I/O CHASSIS	A-B	1746-A10
4	1	CHASSIS POWER SUPPLY	A-B	1746-P4
5	1	DEVICE NET SCANNER MODULE	A-B	1747-SDN
6	2	16 POINT DISCRETE INPUT MODULE	A-B	1746-IA16
7	2	8 POINT DISCRETE OUTPUT MODULE	A-B	1746-OB8
8	2	8 POINT ANALOG INPUT MODULE	A-B	1746-NI8
9	1	UPS	APC	BACK-UPS PRO 500
10				
11	1	CIRCUIT BREAKER	A-B	CB4201
12	9	FUSED TERMINALS	A-B	1492-H4
13	1	FUSED TERMINALS	A-B	1492-H5
14	AS REQ	DIN RAIL	A-B	199-DR1
15	AS REQ	TERMINALS	A-B	1492-J4
16	AS REQ	WIREWAY	PANBUIT	-
17	1	OUTLET	LEVITON	-
18	1	GROUND BAR	CUTLER HAMMER	-
19	1	SURGE SUPPRESSOR	EDCO	FAS-120-AC
20	1	24V DC SUPPLY	SOJA	SDP1-24-100T
21	3	16 CHANNEL ANALOG OUTPUT MODULE	WTV	480015
22	1	HEATER	HOFFMAN	DAH2001A
23	8	RELAY	A-B	700-HA32A1
24	8	RELAY BASE	A-B	700-HN100
25	1	SELECTOR SWITCH	A-B	800-TH33A
26	1	8 PORT ETHERNET SWITCH	GARRETTCOM	P80F-HSC-d
27	1	FIBER PATCH PANEL	CORNING	VIC-D12
28	2	FIBER CONNECTOR PANEL	CORNING	VIC-CP1-56
29	1	SC FIBER PATCH CABLE (2 METERS)	L-COM	FDDSC50-02
30	1	ETHERNET PATCH CABLE (5 FEET)	L-COM	TR3855BLK-5
31	1	SHELF	CUSTOM	-

NOTE:
 ① INDICATES NAME PLATE
 ② INDICATES MATERIAL

NAME PLATE LEGEND:
 1.) AERATION PLC PANEL 1/2"
 2.) YELLOW WIRING NOT DE-ENERGIZED WHEN PANEL POWER IS OFF. 1/4"
 3.) STORM MODE ENABLE - ON OFF PB

LETTER SIZE

NAMEPLATES: 3/32 THICK LAMINATED PHENOLICS
 BLACK LETTERING ON WHITE TAG

NO.	REVISIONS	BY	DATE

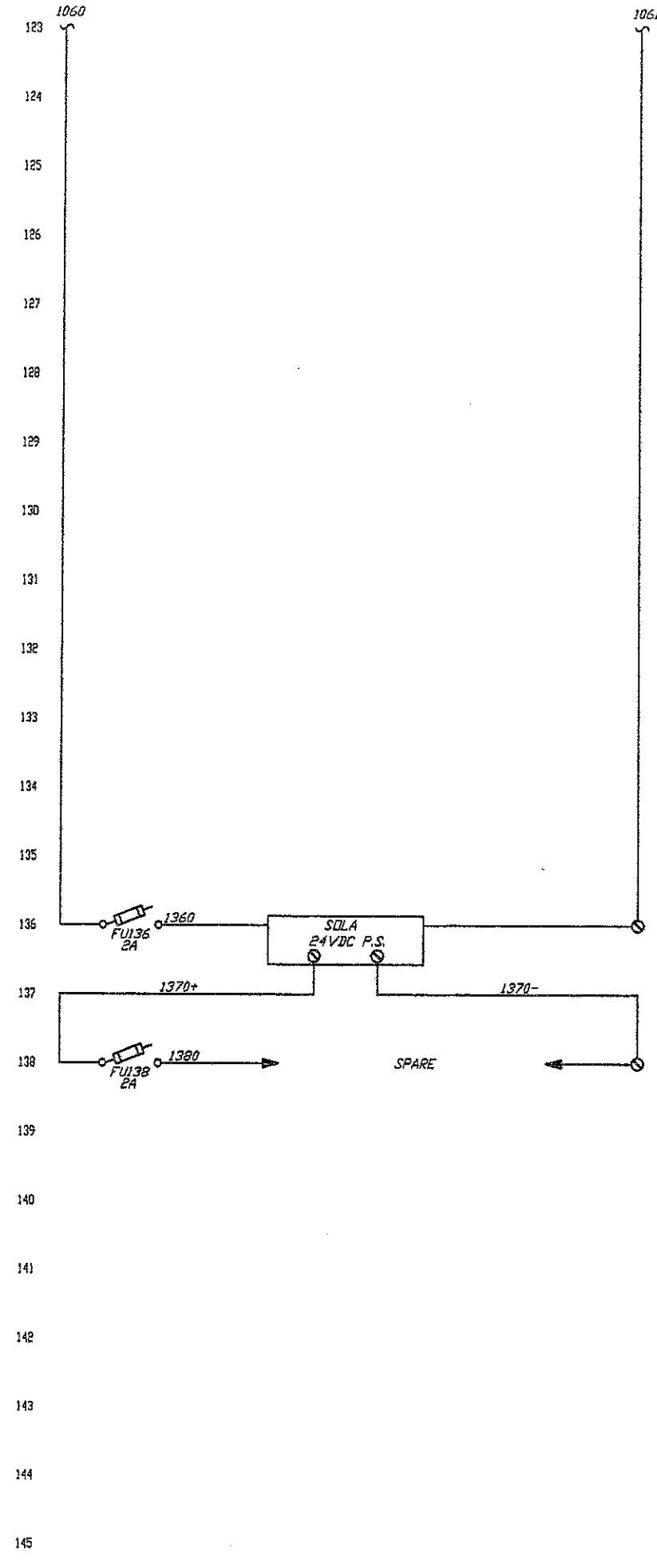
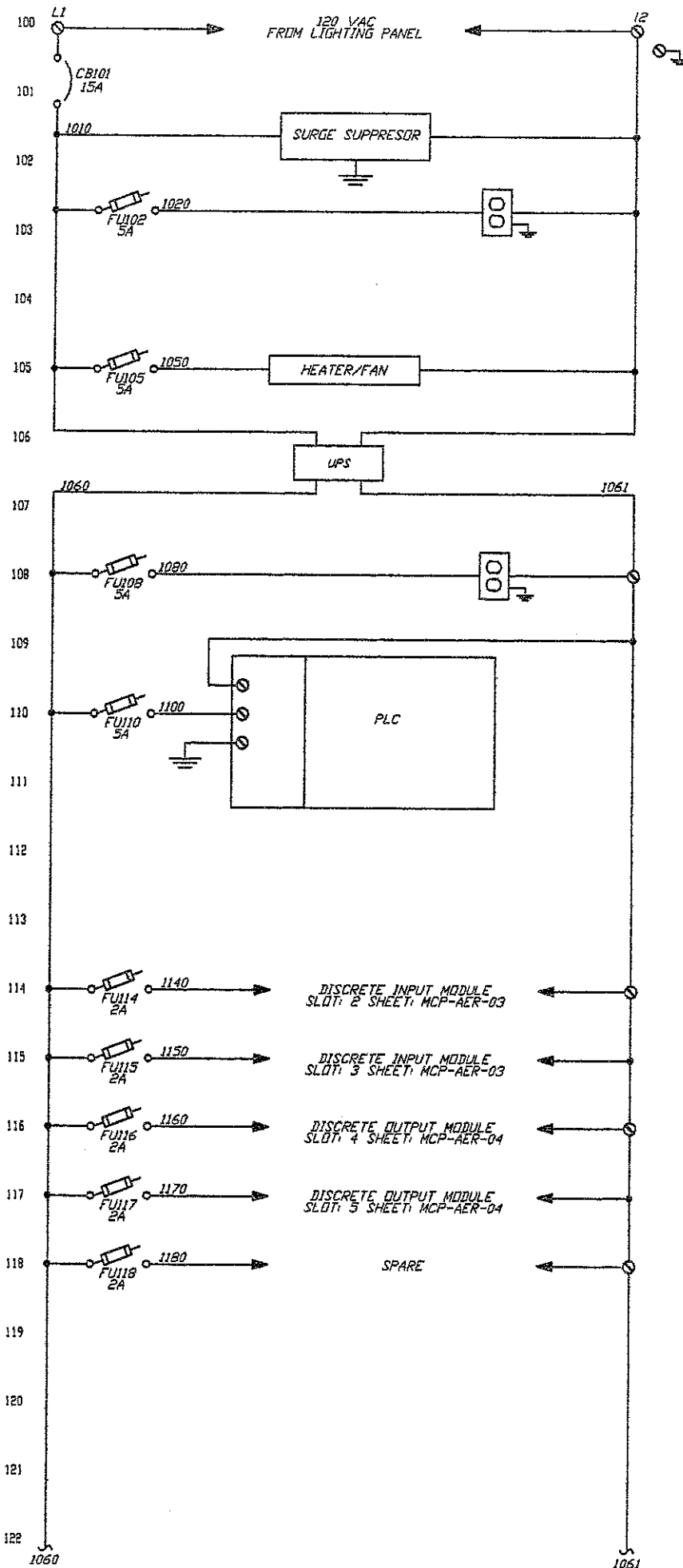
JJC
 DMYTRYKA JACOBS ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 28033 GLENWOOD ROAD • PERRYSBURG, OHIO 43081
 TELEPHONE (419) 662-9001 • FAX (419) 662-9005

Project: SUNBURY, OHIO WASTE WATER TREATMENT PLANT
 Description: AERATION PLC PANEL LAYOUT

DRAWN	NEB
DESIGNED	MLB
CHECKED	MLB
APPROVED	MEJ
DATE 5/9/05	

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-AER-01
FILE NO.	dje_1760111.dwg

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NOTE: AC POWER CONDUCTORS RED, 16 AWG TFFN
 NEUTRAL WHITE, 16 AWG TFFN
 DC POWER CONDUCTORS BLUE, 16 AWG TFFN
 GROUND GREEN, 14AWG THHN.

NO.	REVISIONS	BY	DATE

Jic
 DMYTRYKA JACOBS
 ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS ENGINEERS
 26535 GLENWOOD ROAD • PERRYSBURG, OHIO 43091
 TELEPHONE (419) 662-9001 • FAX (419) 662-9005

Project: SUNBURY, OHIO
 WASTE WATER TREATMENT PLANT
 Description: AERATION PLC PANEL
 WIRING DIAGRAM

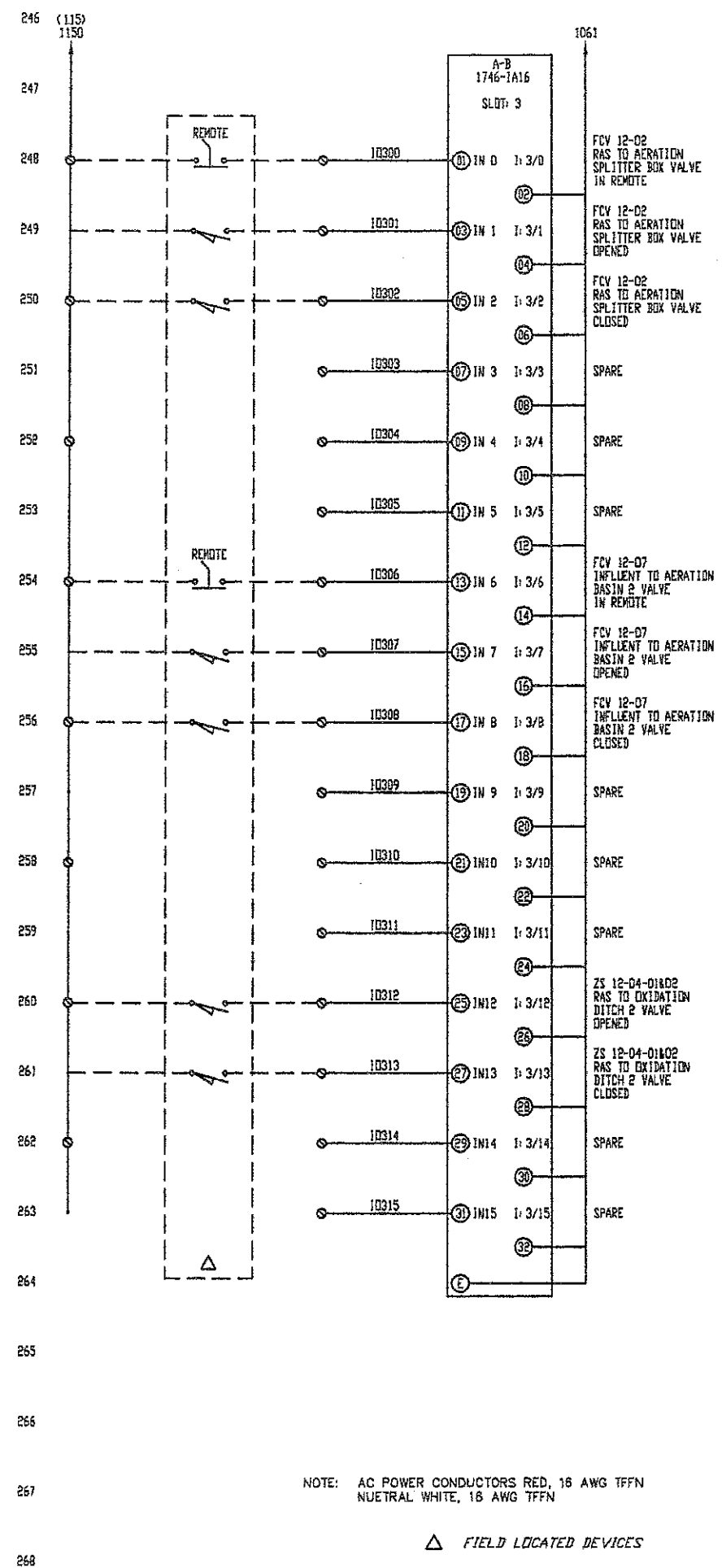
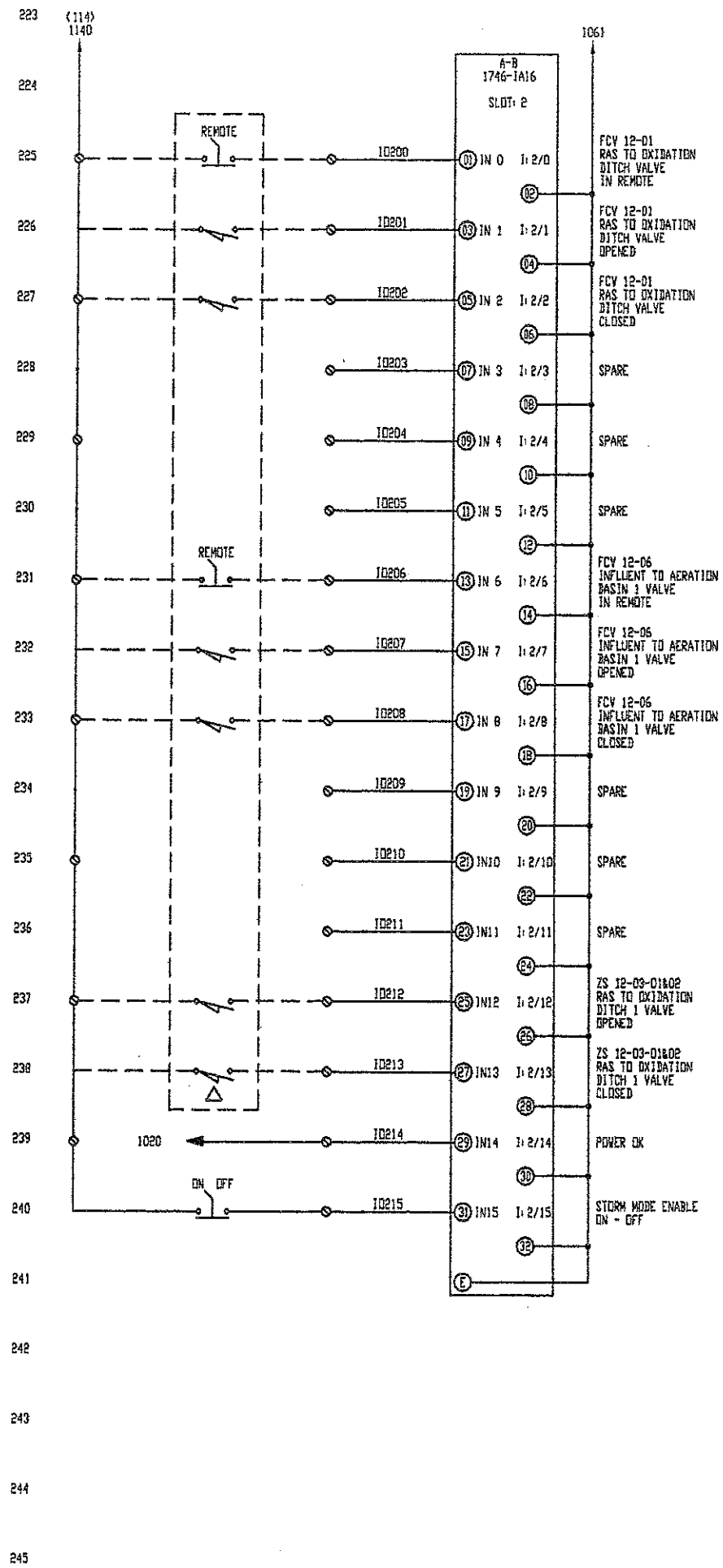
DESIGN	CDT	REVISION	CDT	DESIGNED	MLB	APPROVED	DMD	DATE
								5/9/05

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-AER-02
FILE NO.	dje_1760112.dwg

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1746-1A16
SLOT: 1



NOTE: AC POWER CONDUCTORS RED, 16 AWG TFFN
NEUTRAL WHITE, 16 AWG TFFN

△ FIELD LOCATED DEVICES

NO.	REVISIONS	DATE

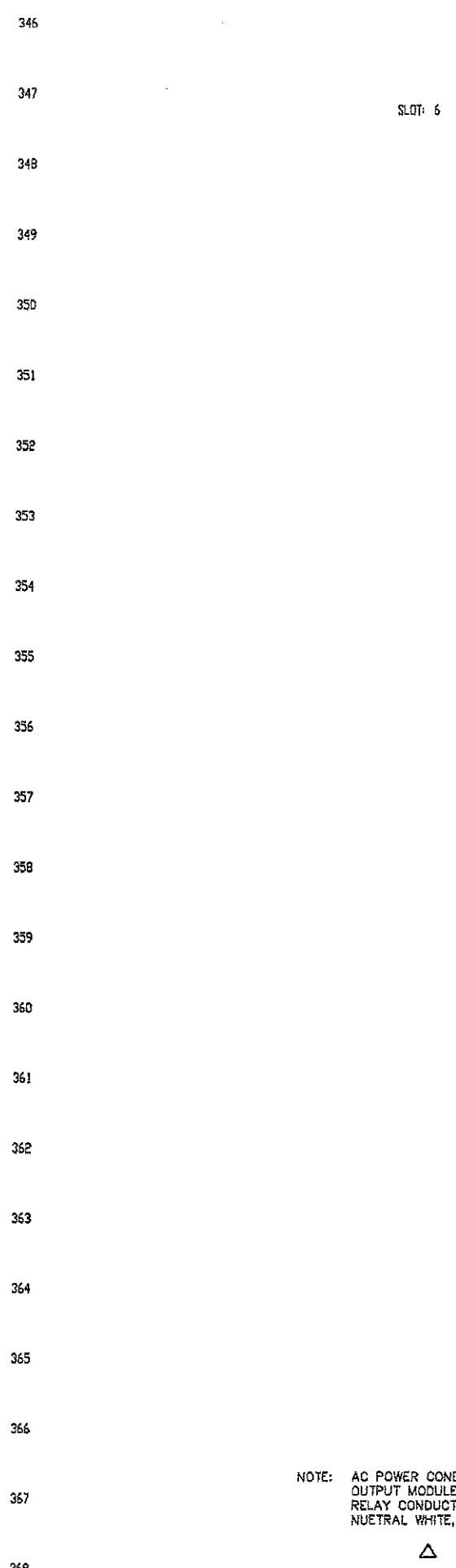
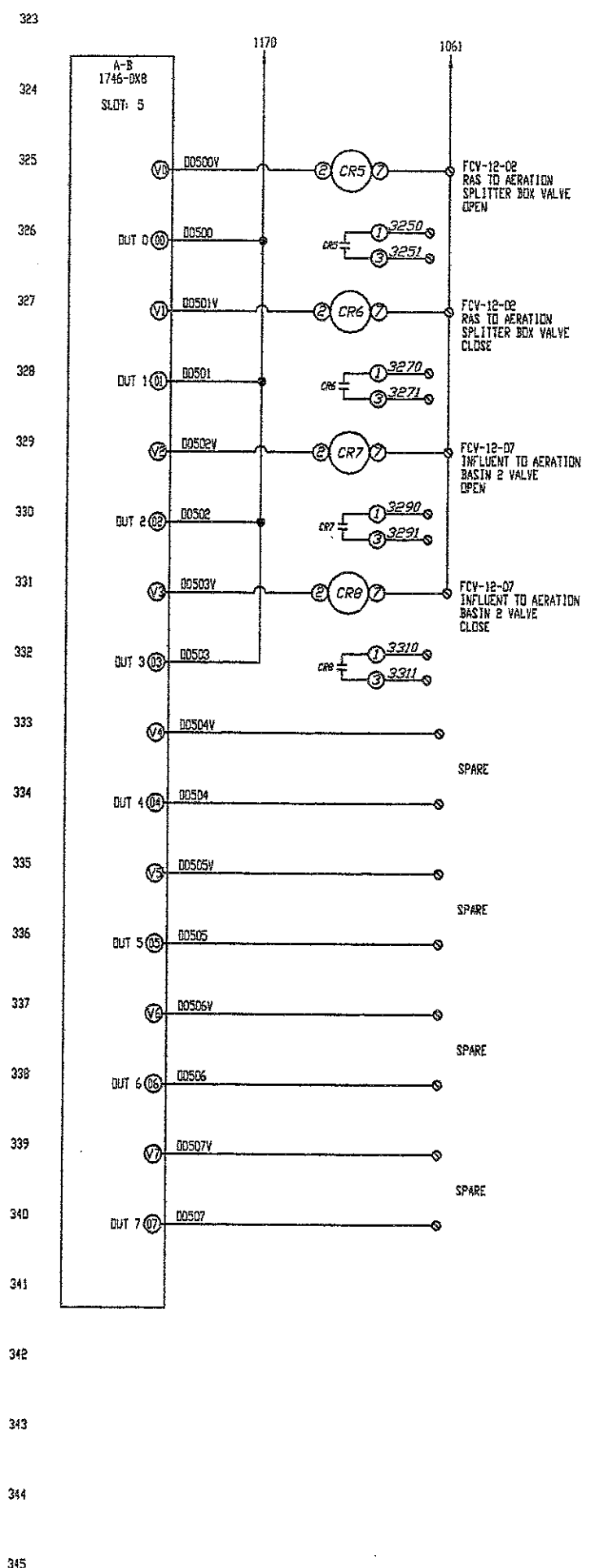
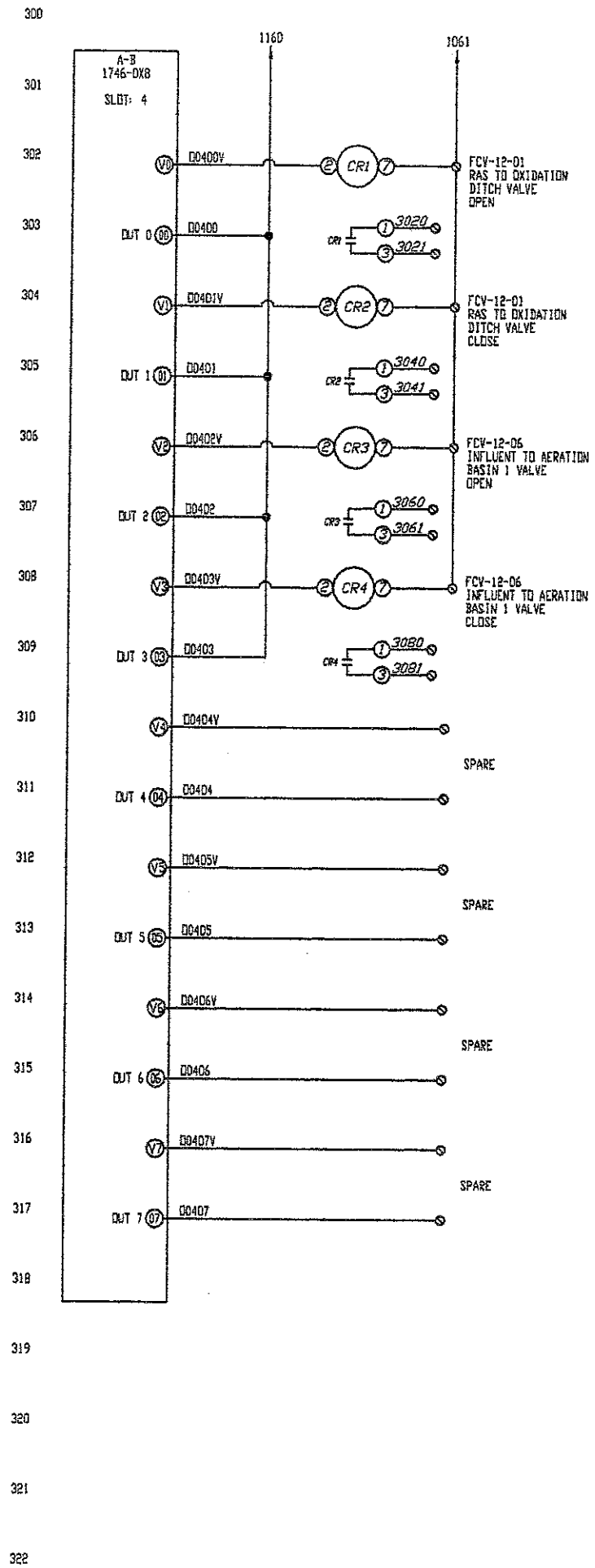
Jie
DMTRYKA JACOBS ENGINEERS, INC.
Automation and Control Systems Engineers
 28535 CLEWOOD ROAD • PERRYSHURG, OHIO 43051
 TELEPHONE (419) 662-9001 • FAX (419) 662-9005

Project: **SUNBURY, OHIO WASTE WATER TREATMENT PLANT**
 Description: **AERATION PLC PANEL I/O LAYOUT**

DESIGNED	CDT
ISSUED FOR	CDT
CHECKED	MLB
APPROVED	DWD
DATE 3/31/05	

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-AER-03
FILE NO.	dje_1760113.dwg

X:\CAD Files\176 OH, Peterson Construction\176.01 Sunbury WWTP\MCPAER\dje_1760114.dwg



NOTE: AC POWER CONDUCTORS RED, 16 AWG TFFN
 OUTPUT MODULE CONDUCTORS YELLOW, 18 AWG TFFN
 RELAY CONDUCTORS YELLOW, 16 AWG TFFN
 NEUTRAL WHITE, 16 AWG TFFN

△ FIELD LOCATED DEVICES

NO.	REVISIONS	BY	DATE

JJE
 DMYTRYKA JACOBS
 ENGINEERS, INC.
 AUTOMATION AND CONTROL SYSTEMS DIVISION
 28535 GLENWOOD ROAD • PERRYSBURG, OHIO 43051
 TELEPHONE (419) 882-9001 • FAX (419) 882-9005

Project: SUNBURY, OHIO
 WASTE WATER TREATMENT PLANT
 Description: AERATION PLC PANEL
 I/O LAYOUT

DESIGNED	CDT
CHECKED	MEB
APPROVED	DWD
DATE	3/31/05

PROJECT NO.	176.01
SCALE	NONE
SHEET	MCP-AER-04
FILE NO.	dje_1760114.dwg

