

ALUM CREEK PUMP STATION & CENTRAL MAINTENANCE FACILITY

DELAWARE COUNTY, OHIO

CONTRACT "S99-1"

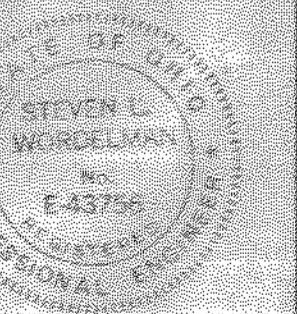


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DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO. 20571
DESIGNED BY: BEF
DRAWN BY: DRR
CHECKED BY: SLW
APPROVED BY: SLW
DATE: 1999

TITLE SHEET

SCALE: 1" = 1500'	
SHEET NO. 1	OF 100

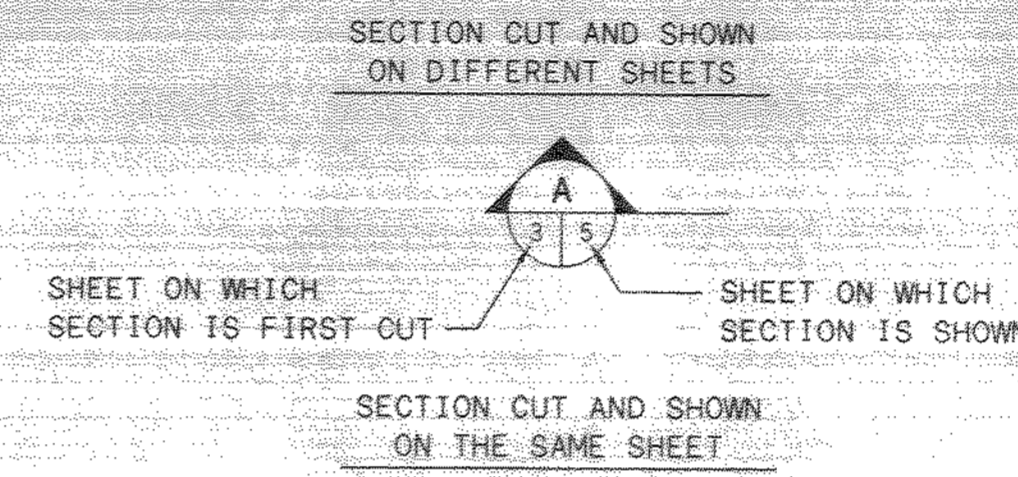
ABBREVIATIONS

AB ANCHOR BOLT	FT FEET OR FOOT	R RADIUS OR RISER
ACP ASBESTOS CEMENT PIPE	FTG FOOTING	RAD RADIUS
ADJ ADJUSTABLE		RA RETURN AIR
AFF ABOVE FINISHED FLOOR	GA GAUGE OR GAGE	RB ROOF BEAM
ALT ALTERNATE	GAL GALLON	RCP REINFORCED CONCRETE PIPE
ALUM ALUMINUM	GALV GALVANIZED	RD ROOF DRAIN
@ AT	GEN GENERAL	REINF REINFORCING
AVG AVERAGE	GRD GROUND OR GRADE	REQ'D REQUIRED
AUTO AUTOMATIC	GSP GALVANIZED STEEL PIPE	RPBP REDUCED PRESSURE BACKFLOW PREVENTER
	GYP GALVANIZED YOLOY PIPE	RT RIGHT
B BEAM OR BOTTOM		R/W RIGHT-OF-WAY
BB BUMPER BLOCK	HM HOLLOW METAL	
BD BALANCING DAMPER	HORIZ HORIZONTAL	S SLAB
BLD BUILDING	HP HORSEPOWER	SA SUPPLY AIR
BM BENCH MARK	HS HIGH SERVICE	SAN SANITARY
BOT BOTTOM	HU HEATING UNIT	SAS SANITARY SEWER
BRG BEARING	HWL HIGH WATER LEVEL	SCH SCHEDULE
		SECT SECTION
C COLUMN	ID INSIDE DIAMETER	SF SQUARE FEET
CB CATCH BASIN	IF INSIDE FACE	SHT SHEET
CDF CONTROLLED DENSITY FILL	IJ ISOLATION JOINT	SJ SAW JOINT
CF CUBIC FEET	INFL INFLUENT	SP SEWER PIPE
CFM CUBIC FEET PER MINUTE	INT INTERIOR	SPC SPACES
CI CAST IRON	INV INVERT	SPG SPACING
CIP CAST IRON PIPE	IP IRON PIN	SQ SQUARE
CL CENTERLINE		ST STRAIGHT
C/C CENTERLINE TO CENTERLINE	LAV LAVATORY	STA STATION
CL CLEAR OR CLASS	LB POUND	STD STANDARD
CLG CEILING	LG LENGTH	STIR STIRRUPS
CMP CORRUGATED METAL PIPE	LL LIVE LOAD	ST.STL.SS STAINLESS STEEL
COL COLUMN	LLV LONG LEG VERTICAL	STL STEEL
CONC CONCRETE	LS LOW SERVICE	STR STRUCTURAL
COP COPPER OR COPPER PIPE	LTG LIGHTING	STS STORM SEWER
CJ CONSTRUCTION JOINT	LWL LOW WATER LEVEL	SY SQUARE YARD
CONTR JT CONTRACTION JOINT	LT LEFT	SYM SYMMETRICAL
CONST CONSTRUCTION		
CONT CONTINUOUS	MAX MAXIMUM	T TOP OR TREAD
CY CUBIC YARD	MCC MOTOR CONTROL CENTER	T&B TOP AND BOTTOM
	MGD MILLION GALLONS PER DAY	TC TOP OF COVER
DIA DIAMETER	MH MANHOLE	T&G TONGUE AND GROOVE
DIM DIMENSION	MIN MINIMUM, MINUTE	THD THREADED
DIP DUCTILE IRON PIPE	MJ MECHANICAL JOINT	TP TURNING POINT OR TANGENT POINT
DL DEAD LOAD	MK MARK	TS STRUCTURAL TUBE
DO DOOR OPENING	MO MASONRY OPENING OR MOTOR OPERATED	TYP TYPICAL
DS DOWN SPOUT	MRP METAL REINFORCED PLASTIC PIPE	
DWG DRAWING		UNO UNLESS NOTED OTHERWISE
		URN URINAL
EA EACH	NC NORMALLY CLOSED	V VACUUM
ED EQUIPMENT DRAIN	NF NEAR FACE	VAR VARIES
EF EACH FACE	NO NORMALLY OPEN	VCP VALVE CONTROL PANEL
EFFL EFFLUENT	NO. NUMBER	VERT VERTICAL
EL. ELEV ELEVATION	NS NEAR SIDE	
EW EACH WAY	NWL NORMAL WATER LEVEL	W/ WITH
EWC ELECTRIC WATER COOLER	OC ON CENTER	W/O WITHOUT
EXF EXHAUST FAN	OD OUTSIDE DIAMETER	WC WATER CLOSET
EXIST EXISTING	OF OUTSIDE FACE	WH WATER HEATER OR WALL HYDRANT
EXL EXHAUST LOUVER	OPG OPENING	WL WATER LEVEL OR WATER LINE
EXP JT EXPANSION JOINT	OPP OPPOSITE	WWF WELDED WIRE FABRIC
EXT EXTERIOR	OZ OUNCE	
		YH YARD HYDRANT
FA FRESH AIR	PB PULL BOX	YP YOLOY PIPE
FAF FRESH AIR FAN	PCF POUNDS PER CUBIC FOOT	
FAL FIXED AIR LOUVER	PCP PUMP CONTROL PANEL	
FB FLOOR BOX OR FOUNDATION BEAM	PE POLYETHYLENE OR PLAIN END	
FD FLOOR DRAIN	PEJM PREMOLDED EXP. JT. MATERIAL	
FDN FOUNDATION	P PLATE OR PROPERTY LINE	
FEC FIRE EQUIPMENT CABINET	PNL PANEL	
FF FAR FACE	POL POLISHED	
FIN FINISHED	PP POLYPROPYLENE	
FH FIRE HYDRANT	PRCP PRESTRESSED REINFORCED CONCRETE PIPE	
FLG FLANGE	PSF POUNDS PER SQUARE FOOT	
FLR FLOOR	PSI POUNDS PER SQUARE INCH	
FOC FACE OF COLUMN	PVC POLYVINYL CHLORIDE	
FRP FIBERGLASS REINFORCED PLASTIC PIPE	QUAN QUANTITY	

SECTION SYMBOLS

	CONCRETE
	MASONRY
	METAL
	WOOD
	EXISTING GRADE
	FINISHED GRADE
	UNDISTURBED SUBGRADE
	ROCK
	POROUS BACKFILL
	COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
	SAND
	CONTROLLED DENSITY FILL
	GROUT

SECTION DESIGNATIONS



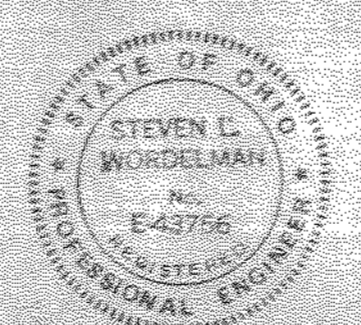
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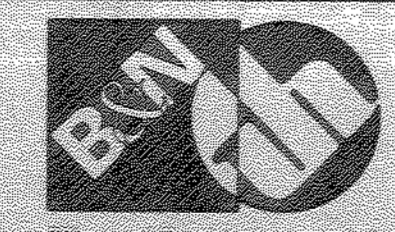
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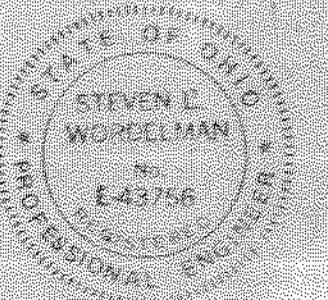
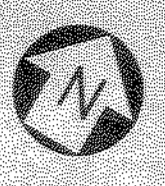
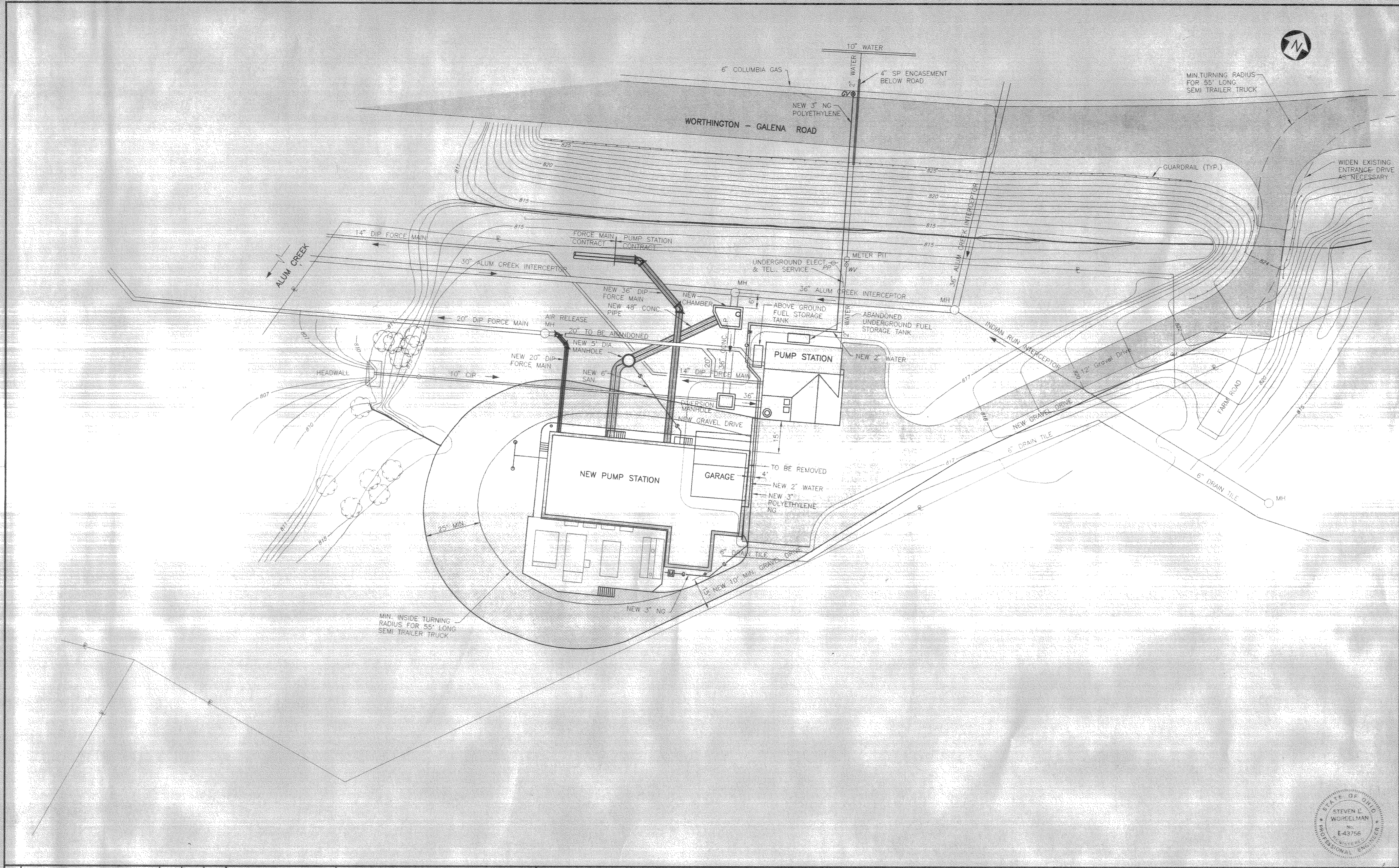
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DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

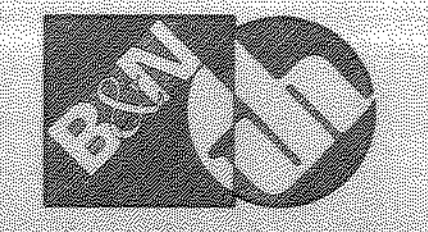
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DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	SLW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 INDEX, SYMBOLS, AND ABBREVIATIONS

SCALE:	NONE
SHEET NO.	2
OF	100



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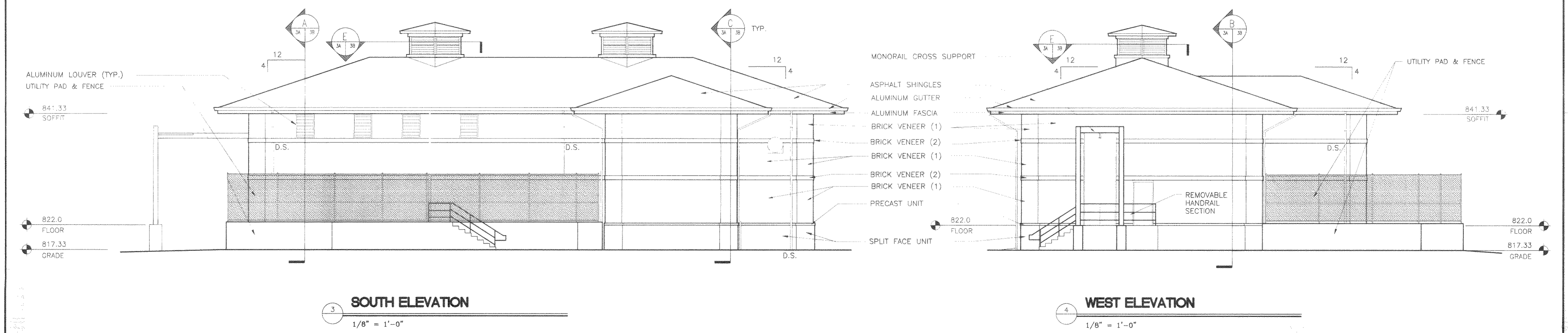
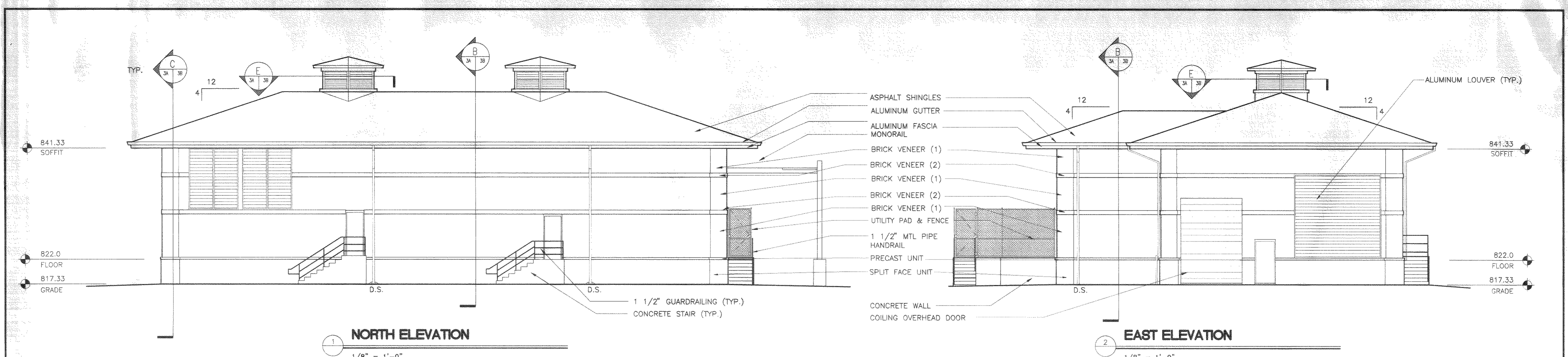
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 ALUM CREEK PUMP STATION
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**PUMP STATION
 SITE PLAN**

SCALE: 1" = 20'	
SHEET NO. 3	OF 100

DC-47145ITE
03/20/99/03/03-4



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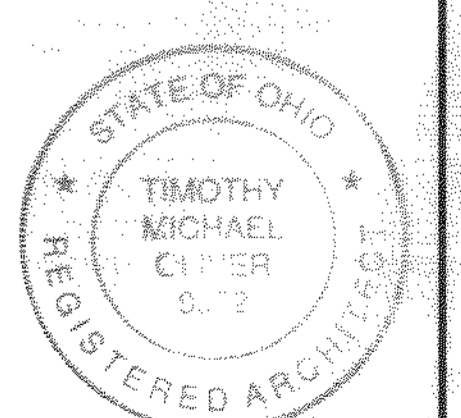
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DELAWARE COUNTY, OHIO
 ALUM CREEK WATER RECLAMATION FACILITY

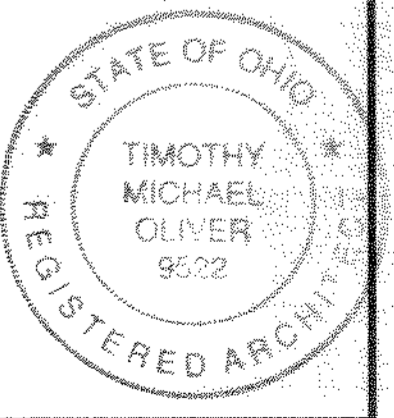
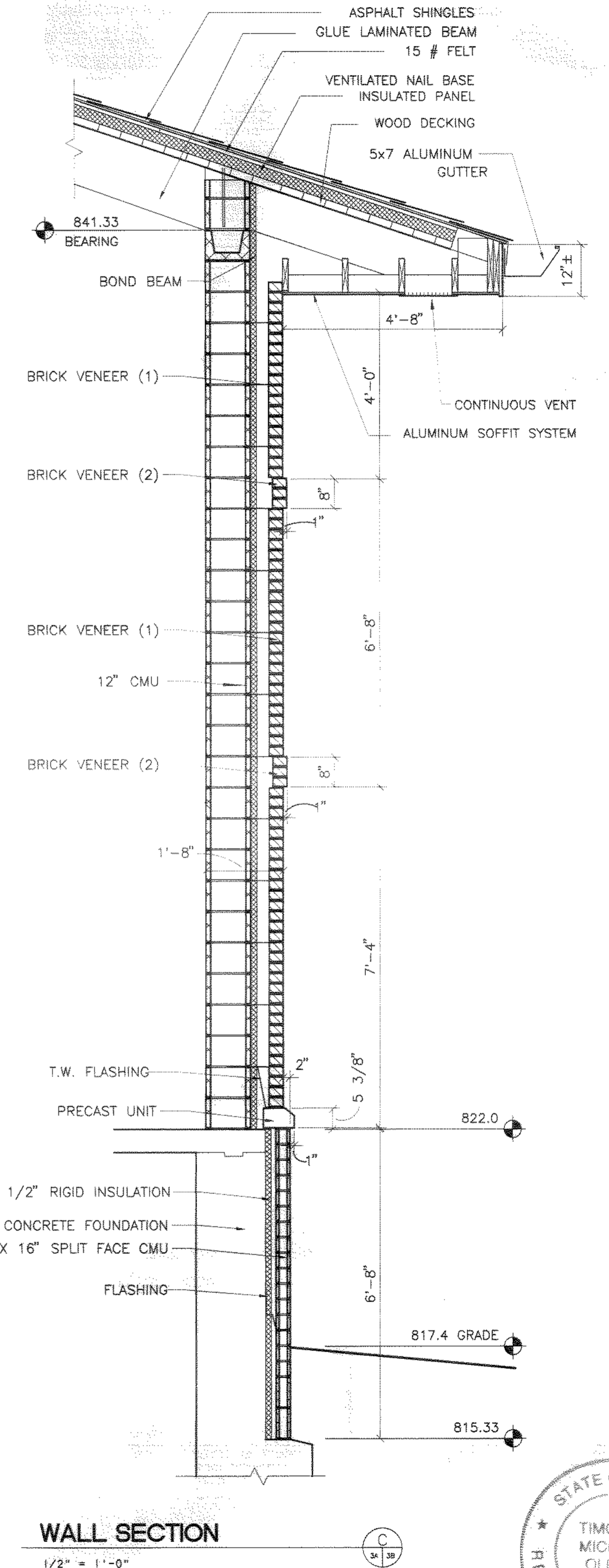
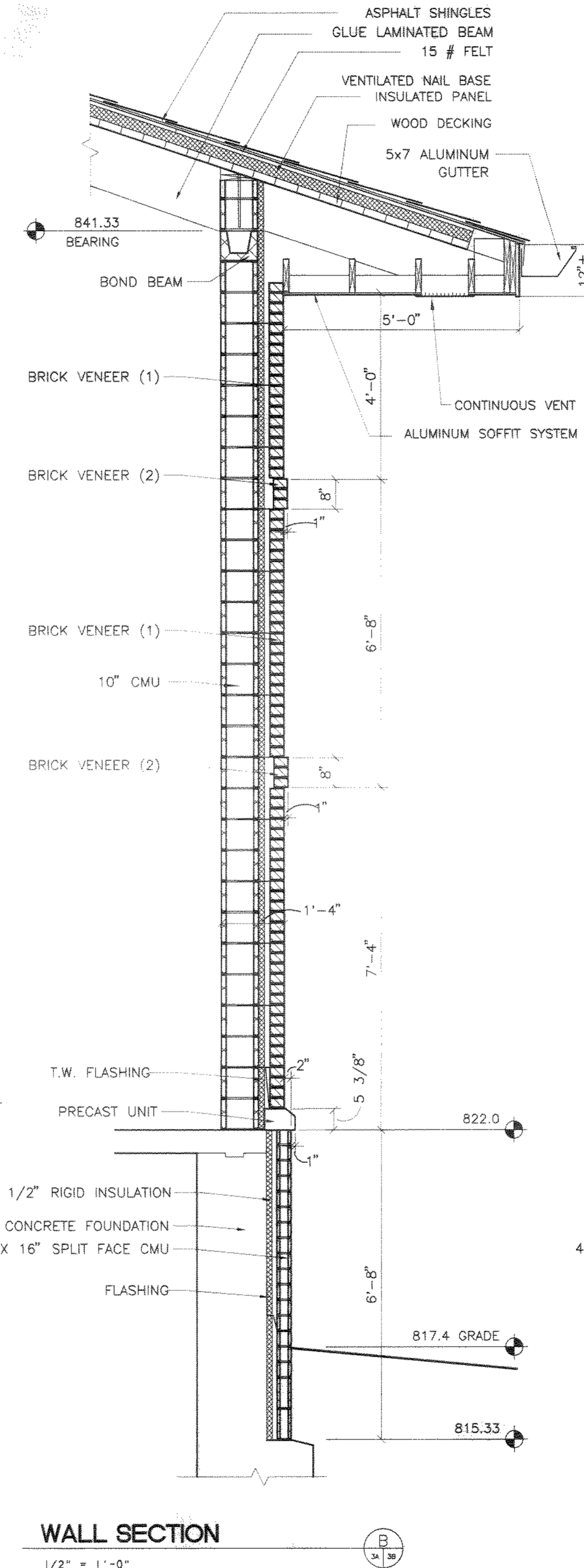
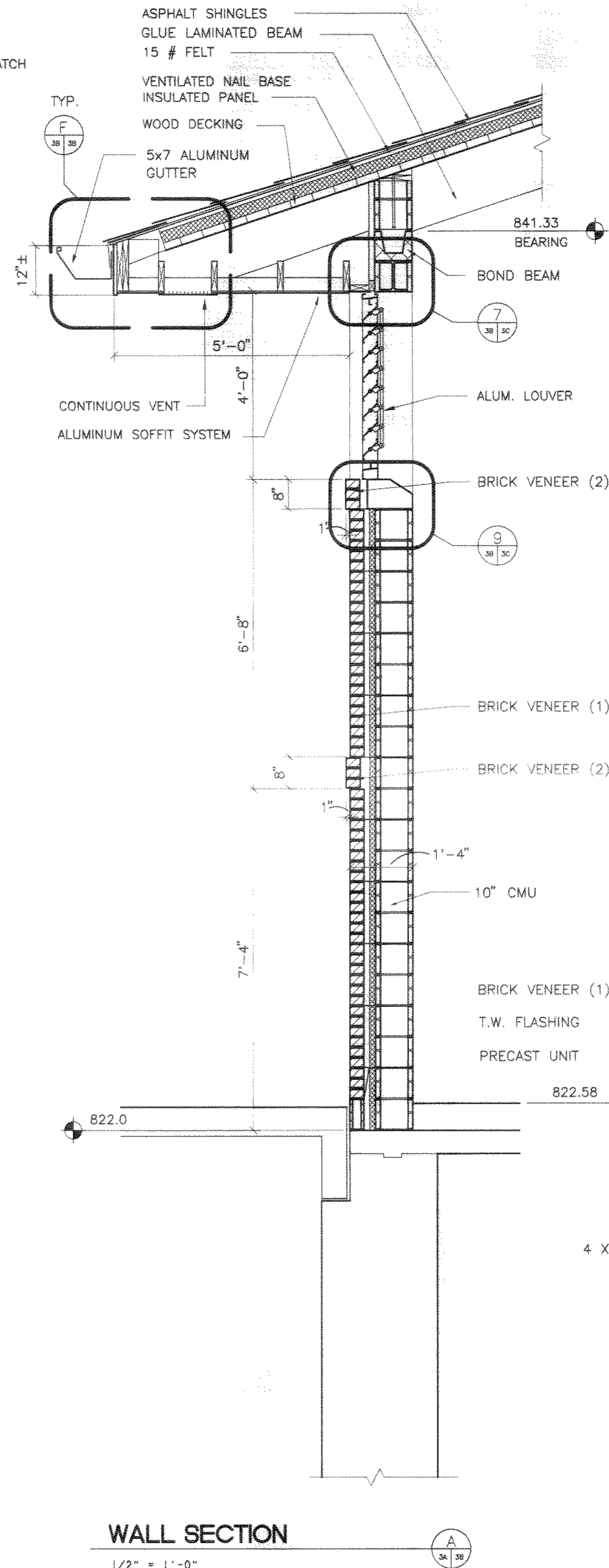
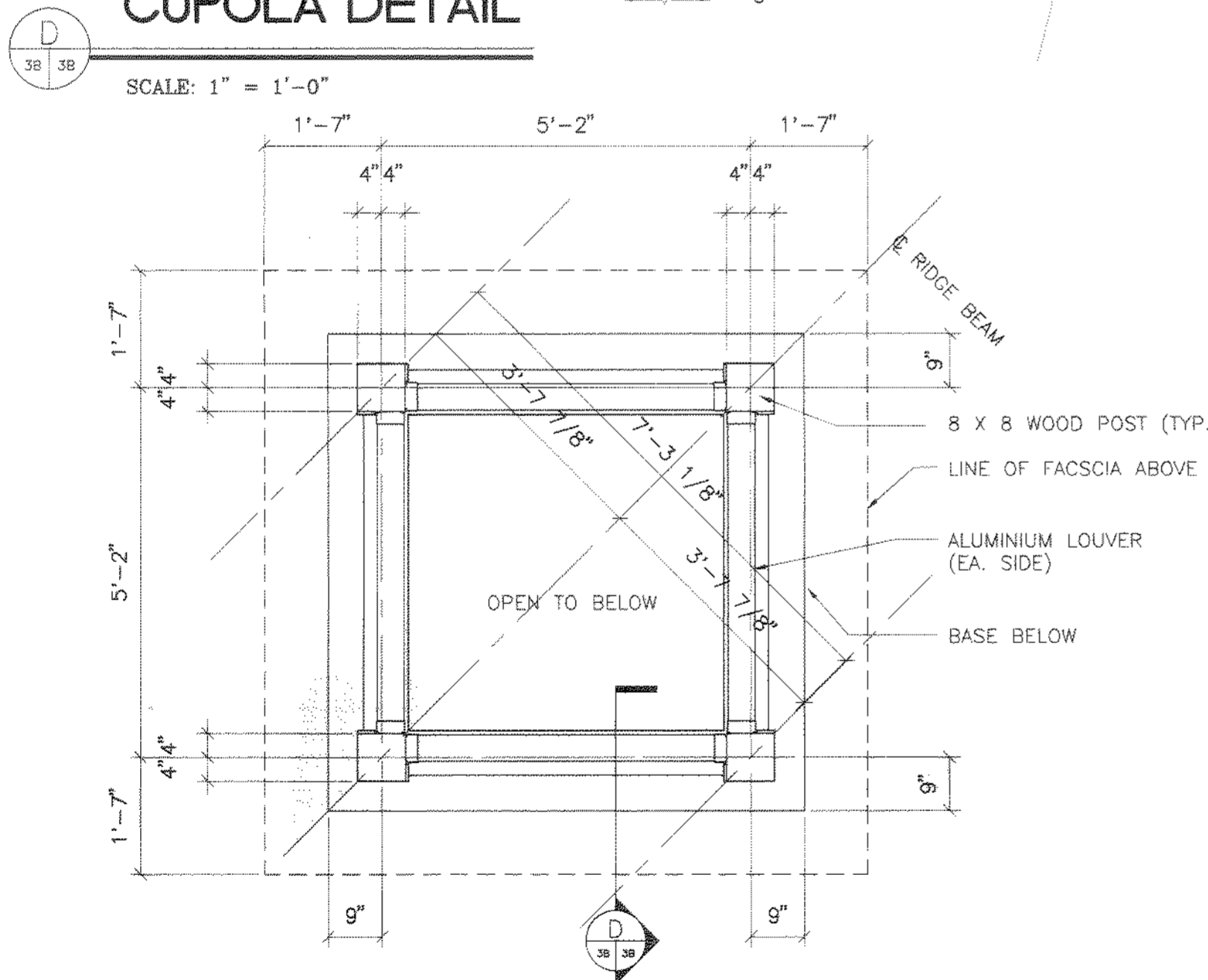
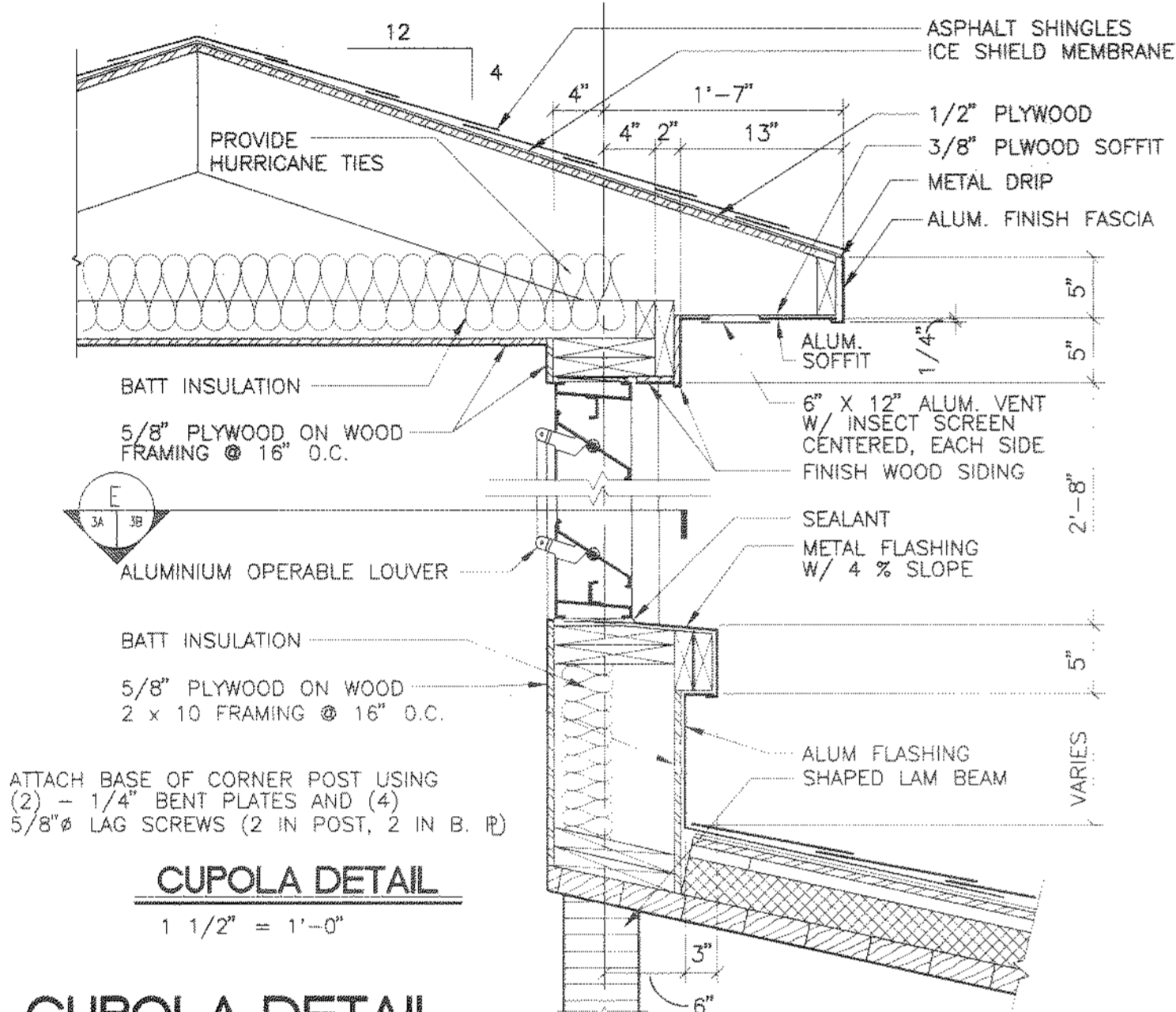
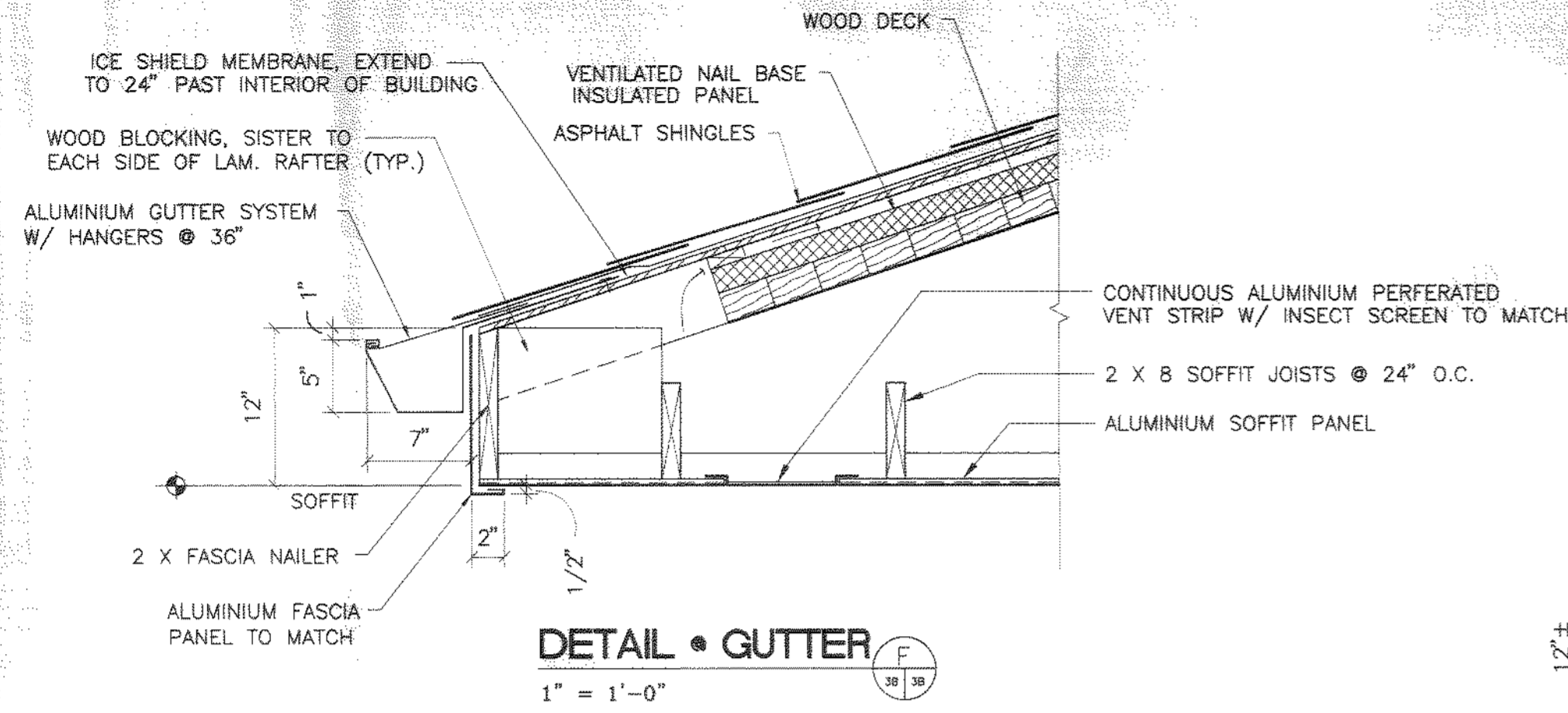
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PUMP STATION BUILDING
 EXTERIOR ELEVATIONS

SCALE: AS NOTED
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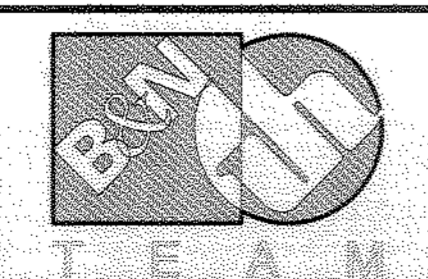


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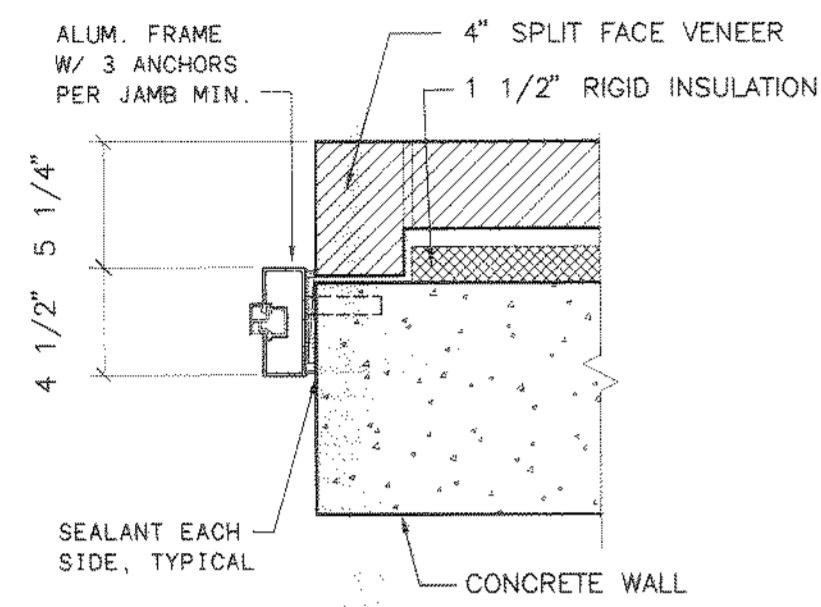
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ALUM CREEK WATER RECLAMATION FACILITY

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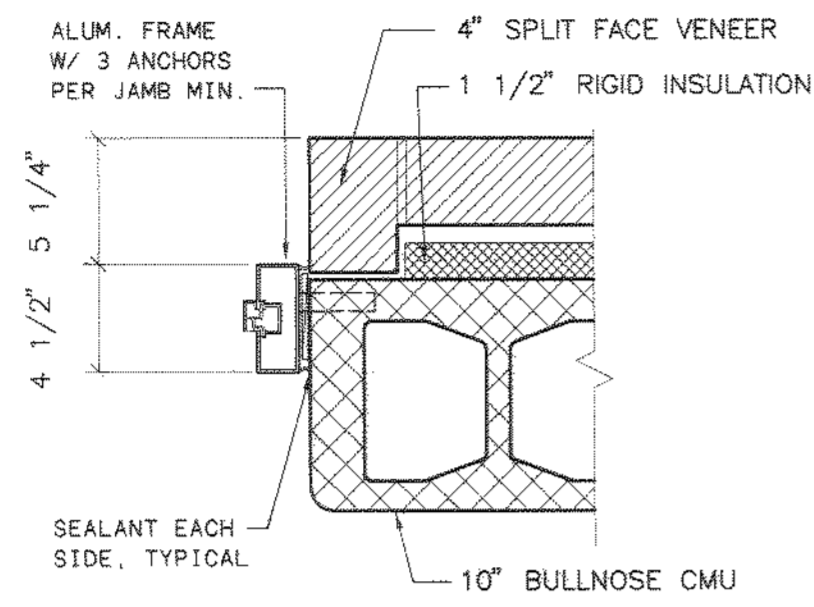
ARCHITECTURAL DETAILS

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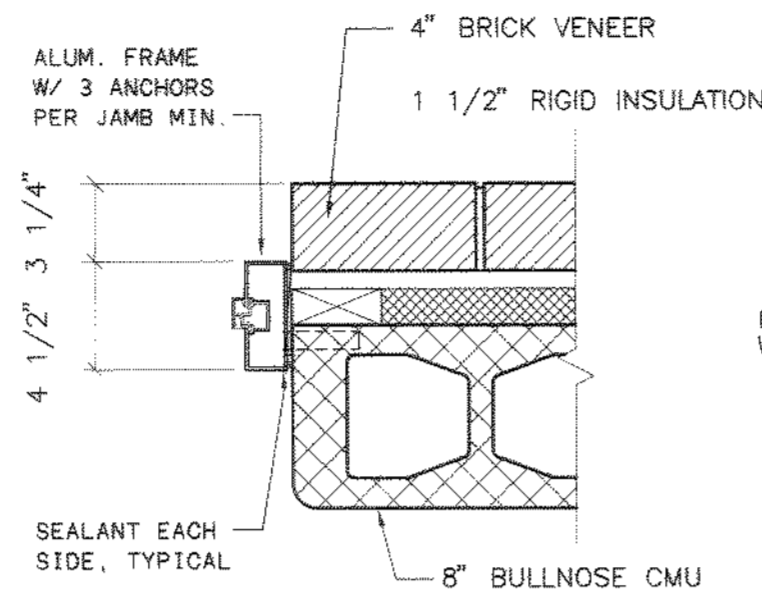
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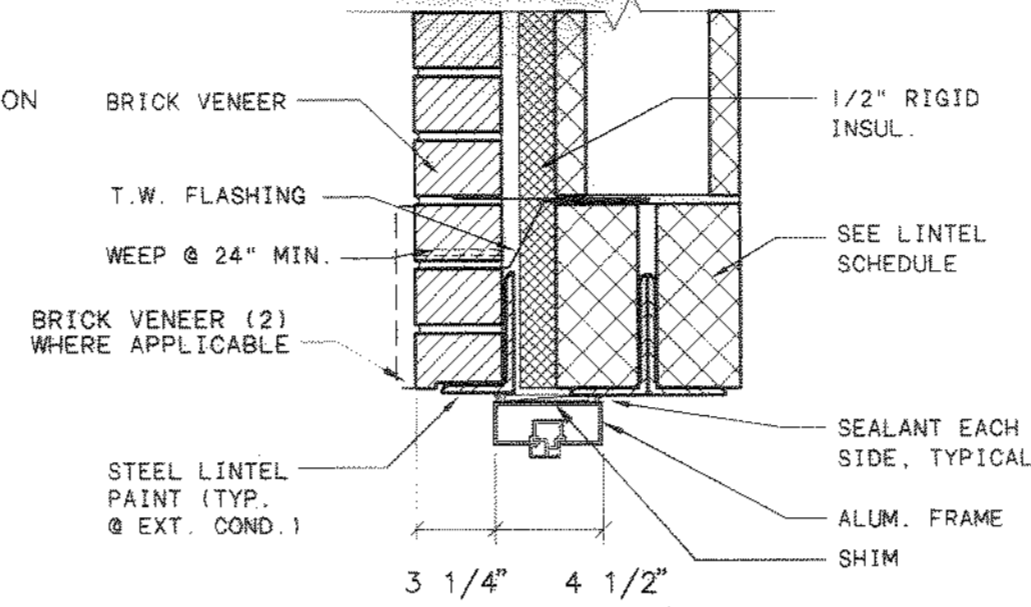
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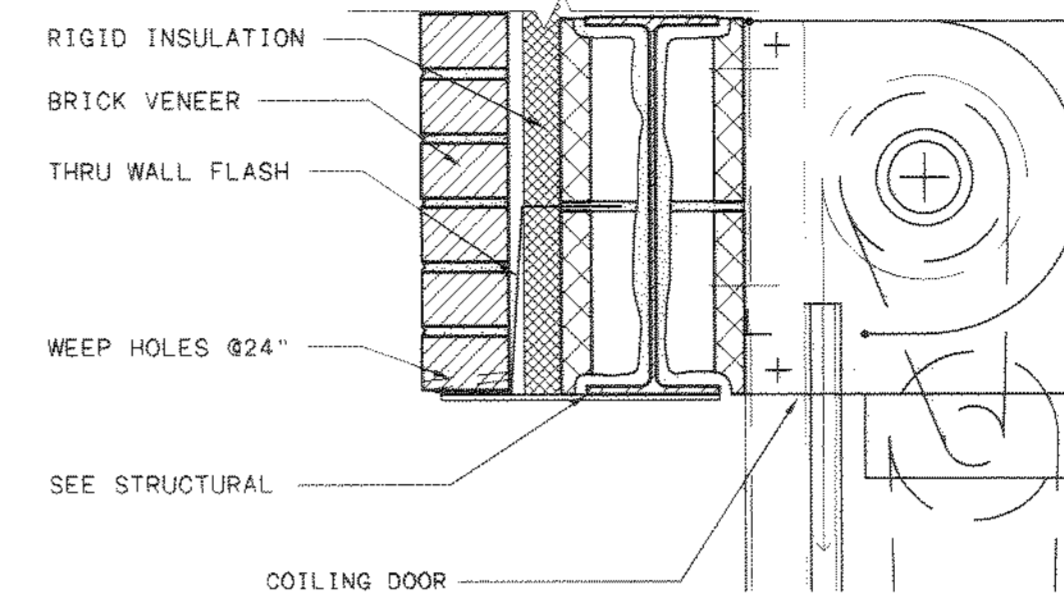
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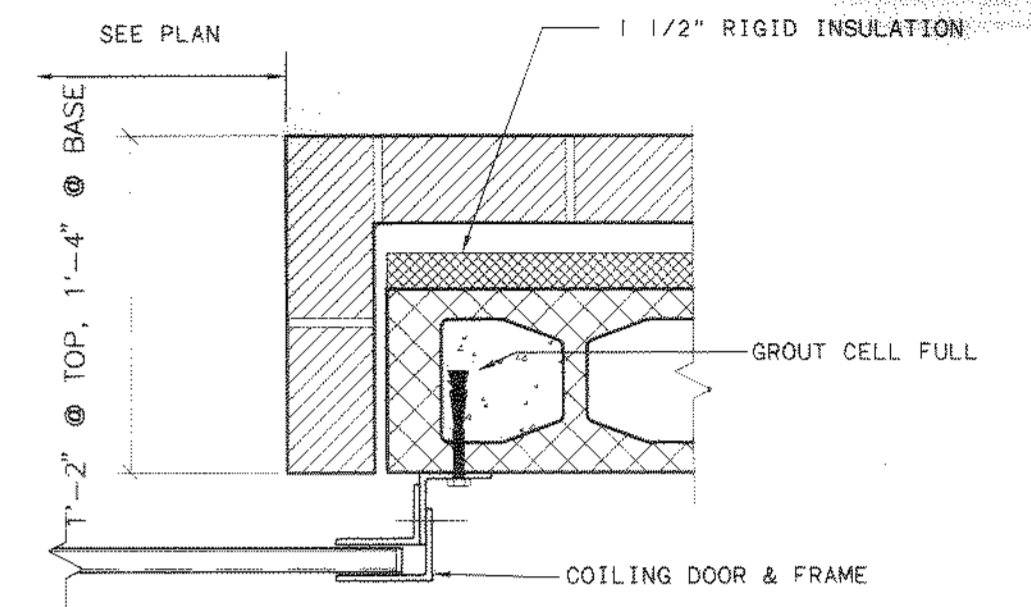
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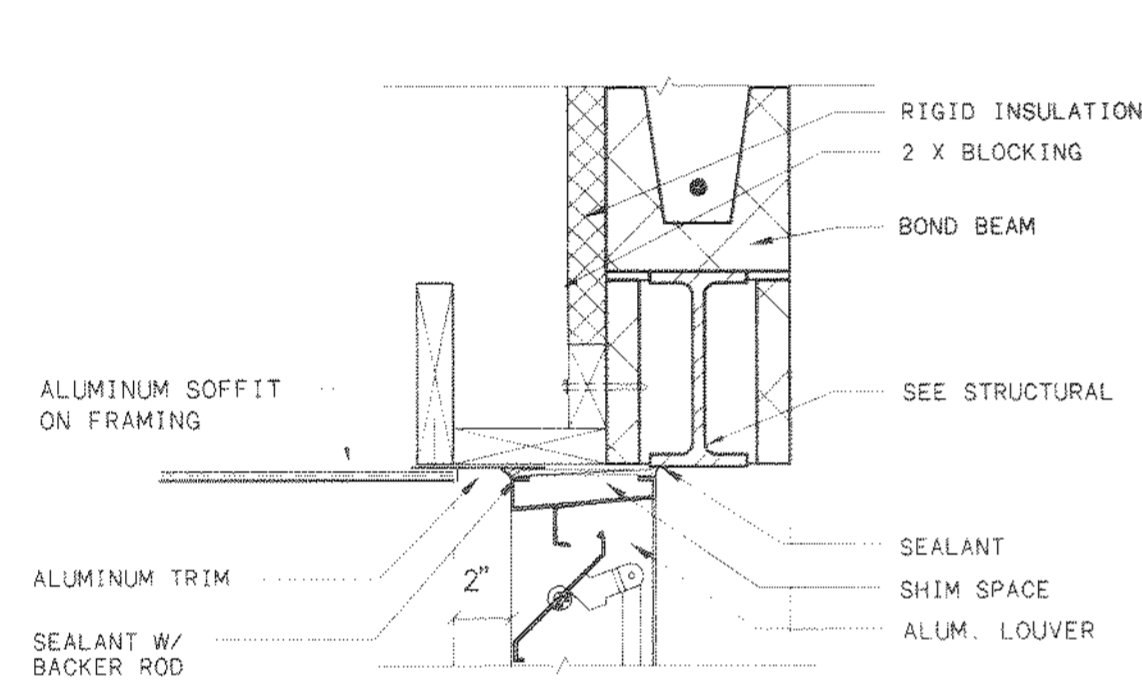
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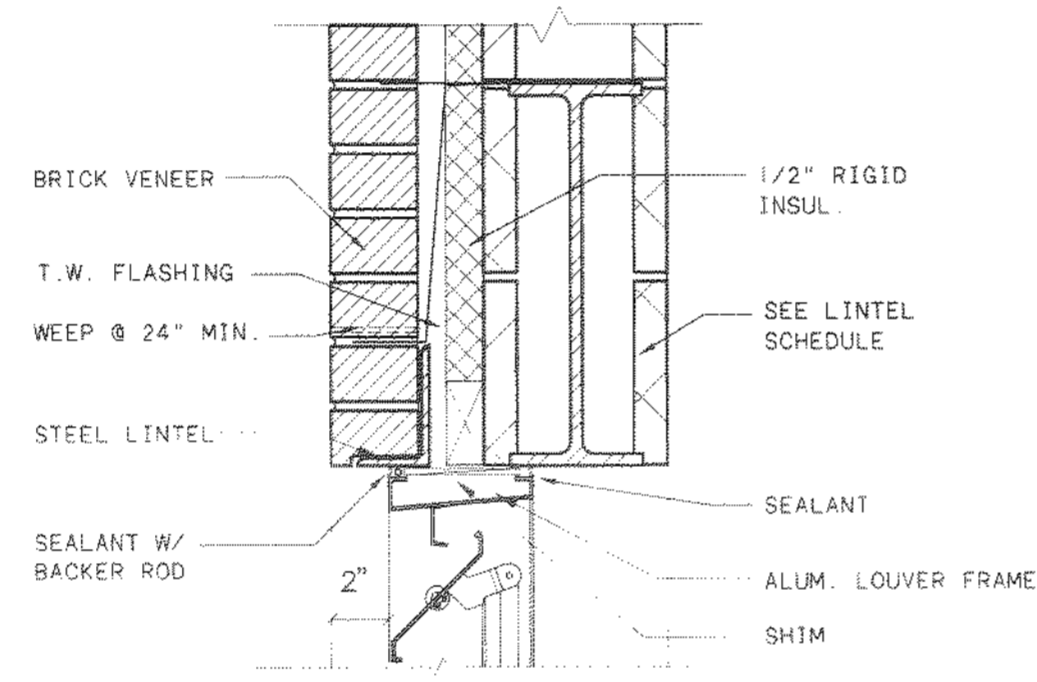
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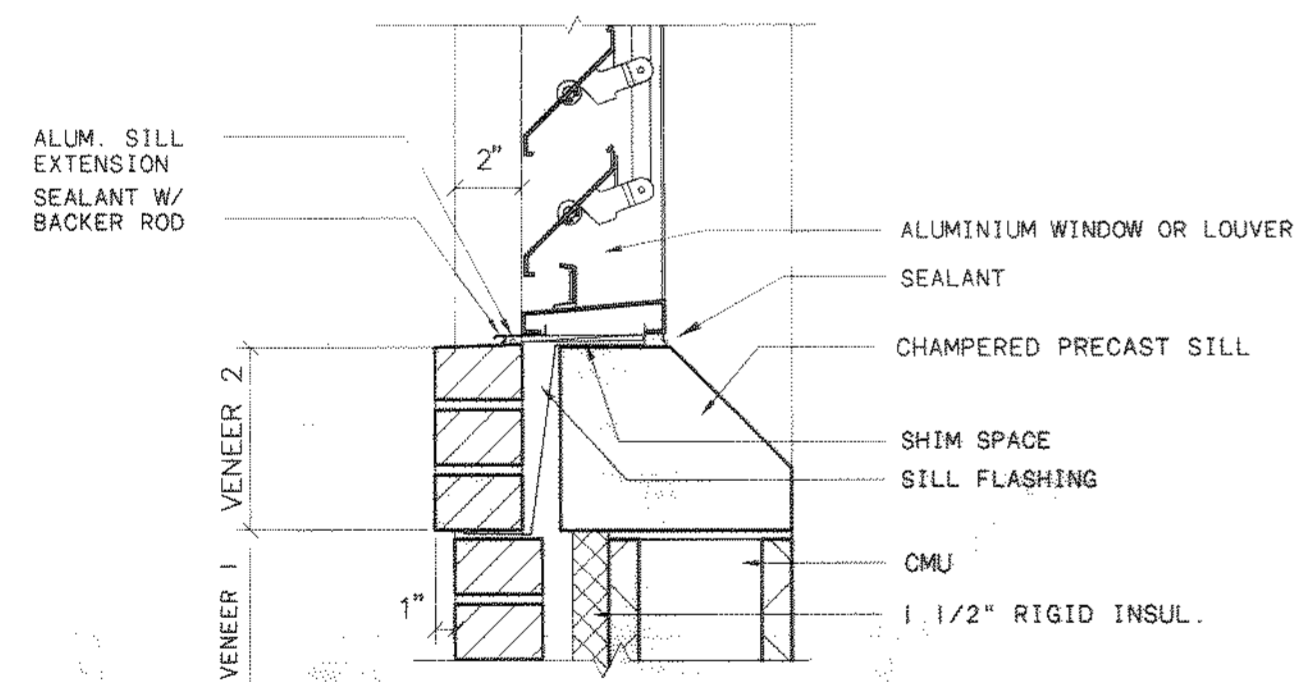
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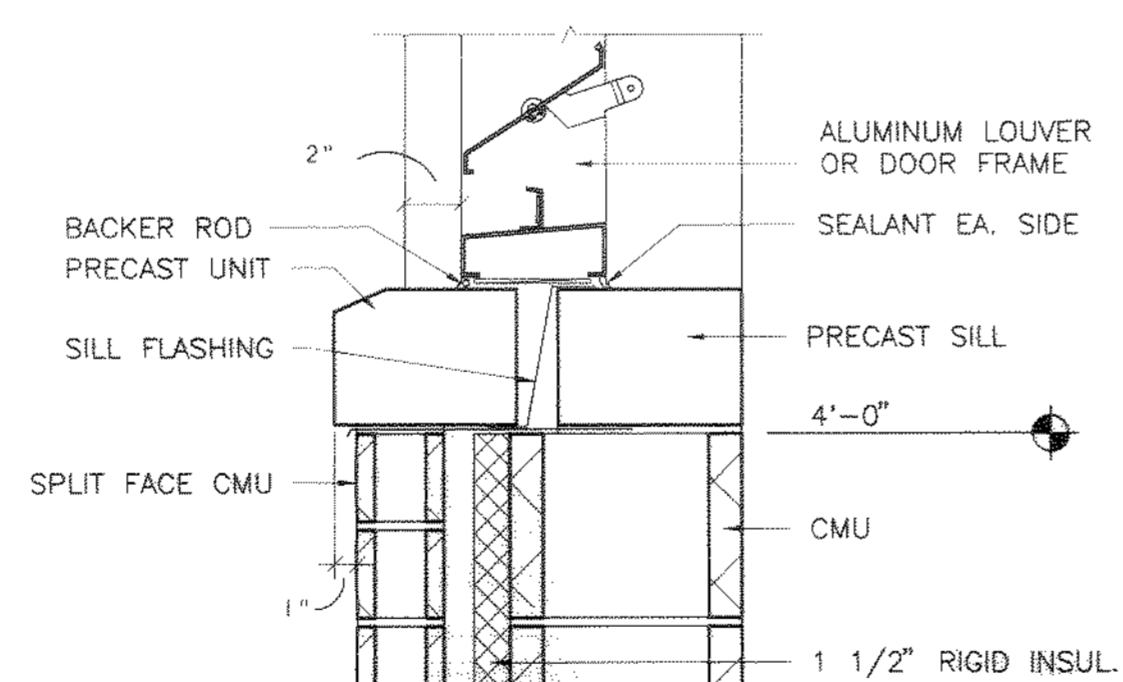
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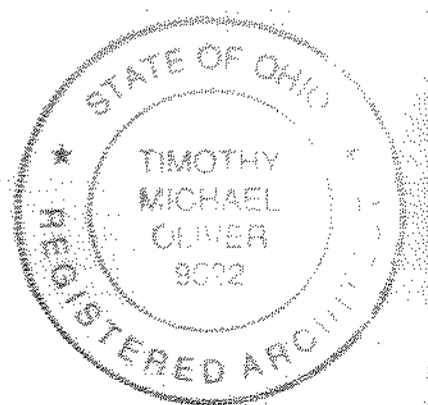
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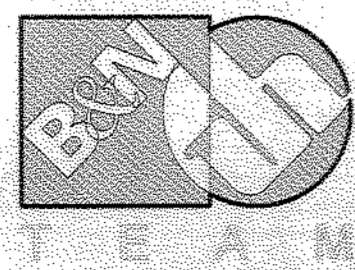
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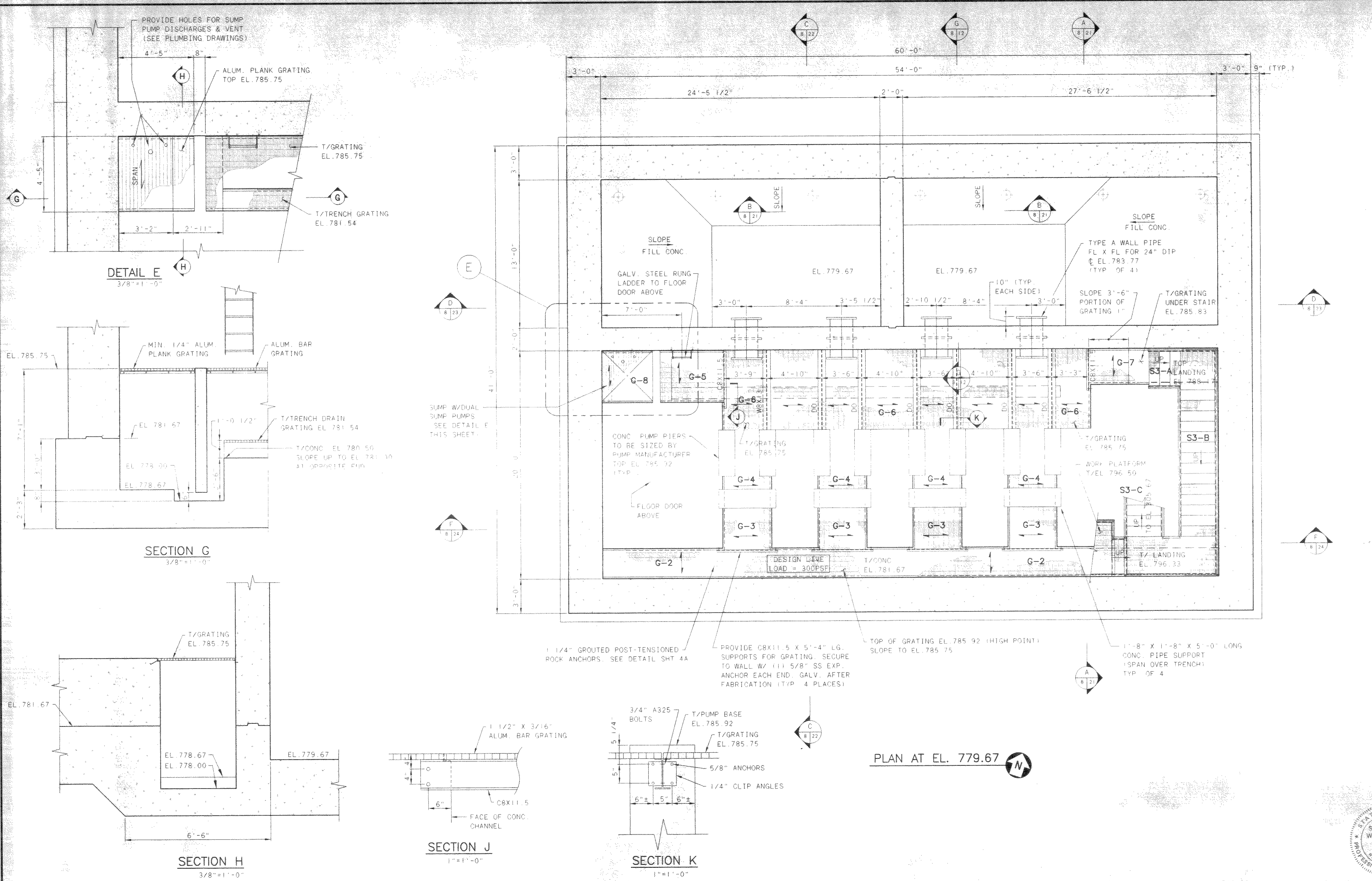
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ALUM CREEK WATER RECLAMATION FACILITY

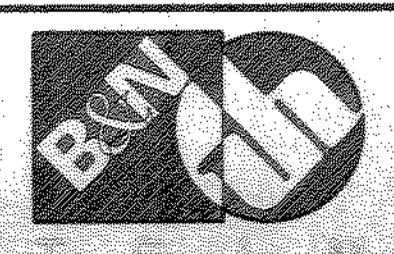
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PUMP STATION BUILDING
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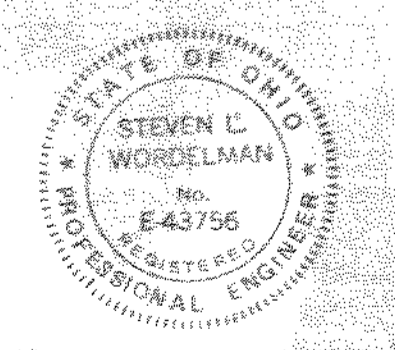
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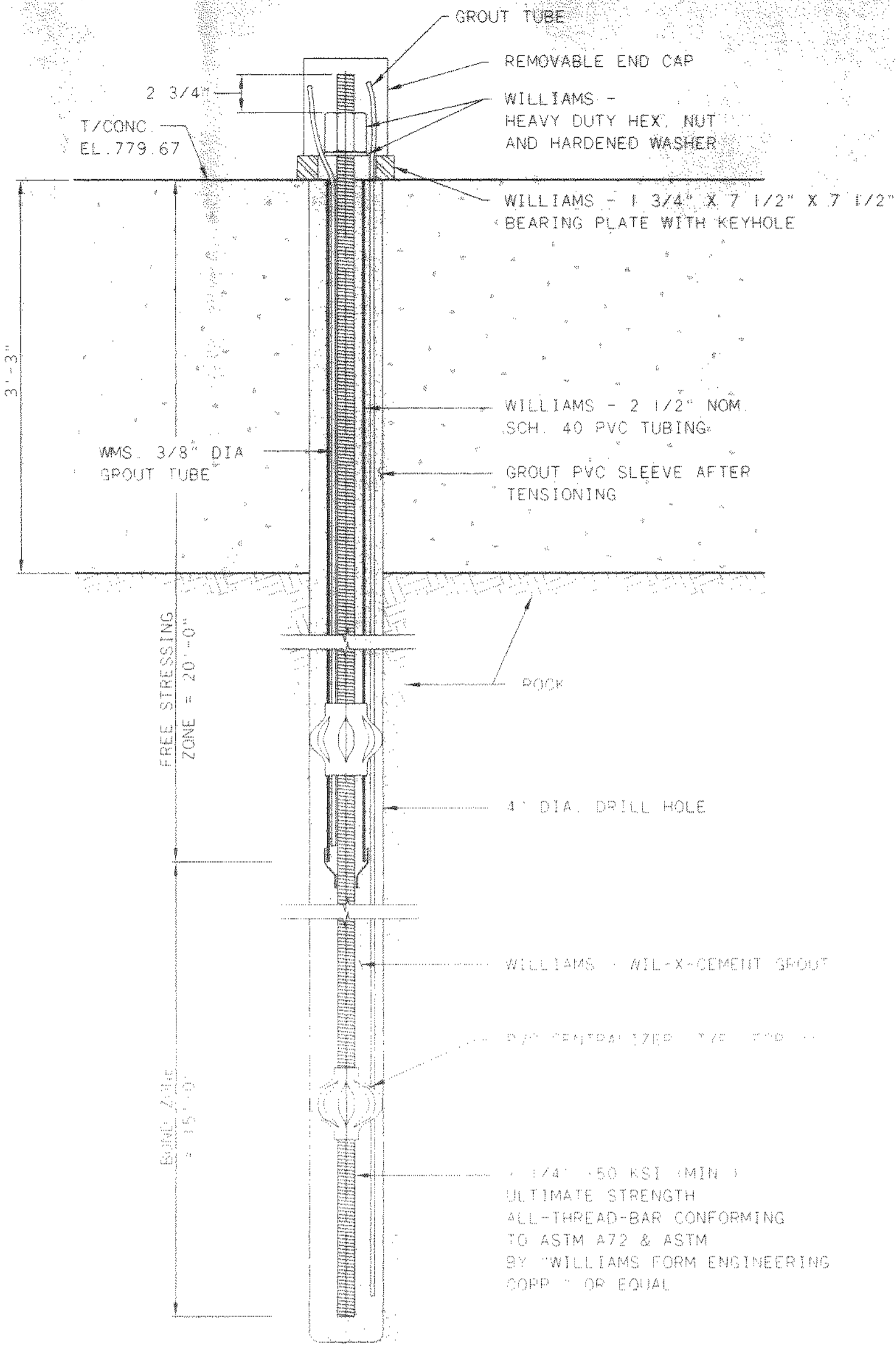
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PUMP STATION
 STRUCTURAL
 PLAN AT EL. 779.67 & 785.92
 STAIR & GRATING PLAN AND SUMP DETAILS

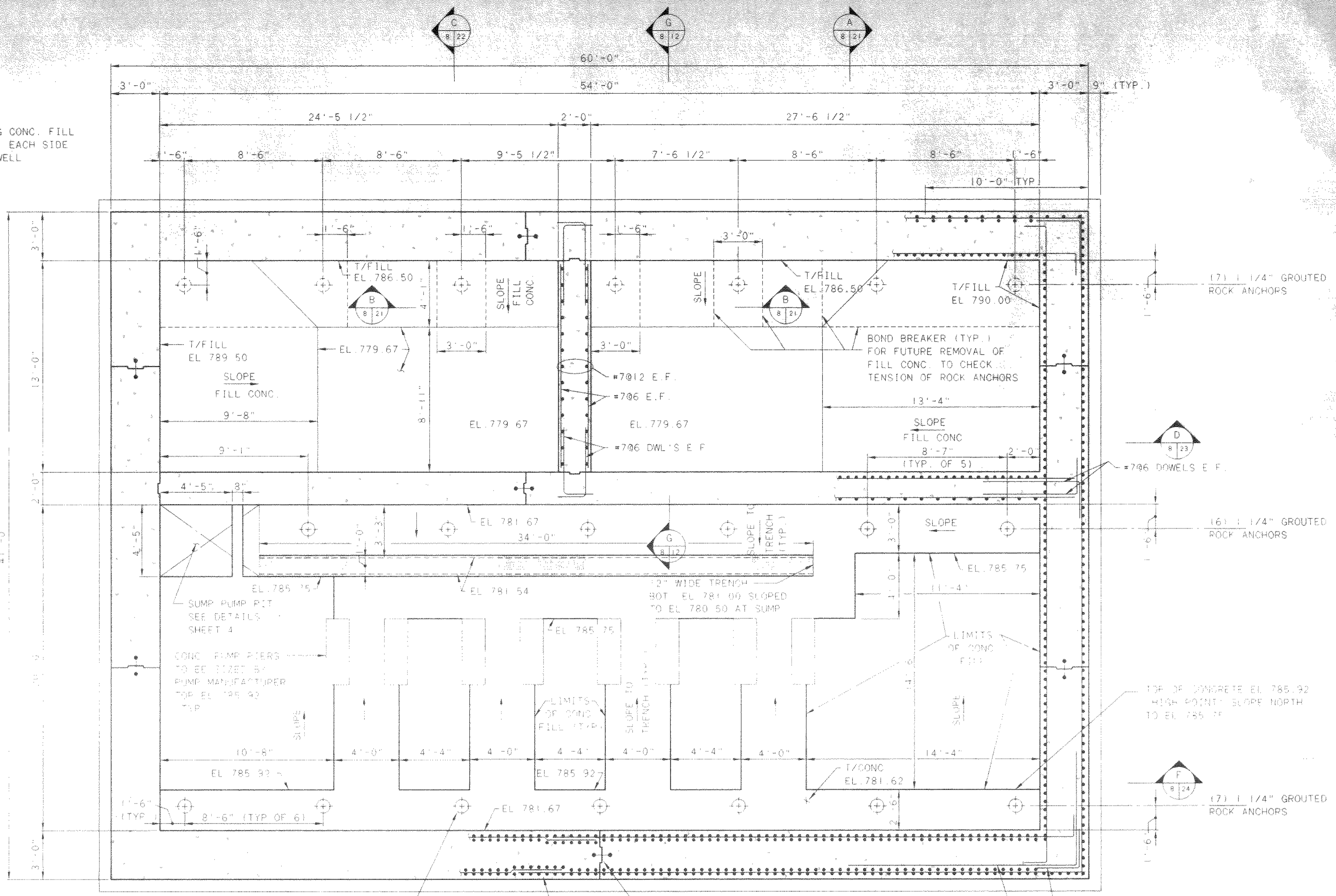
SCALE:	1/4" = 1'-0"
SHEET NO.	8
OF	100



706-4714510
 03/04/99 02:14



NOTE:
SLOPING CONC. FILL
IS TYP. EACH SIDE
OF WETWELL.



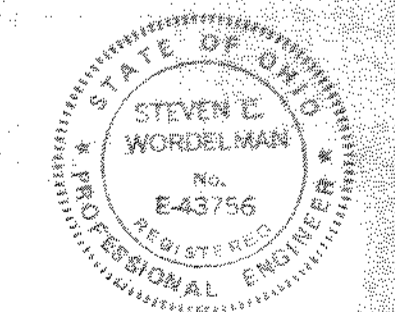
**GROUTED POST-TENSIONED
ROCK ANCHORS**
(TYPICAL OF 20) N T S.

ROCK ANCHOR - SEE DETAIL THIS SHEET
(TYP. OF 20)

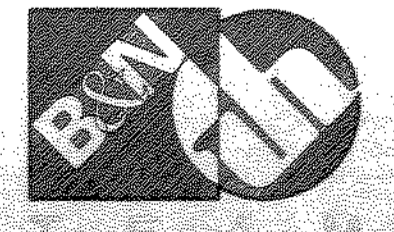
NOTE: WHERE BAR SPLICES
ARE REQUIRED, SPLICES OF
ADJACENT BARS SHALL BE
STAGGERED (TYP.)

NOTE:
GRATING SUPPORTS & FRAMES
ARE NOT SHOWN - SEE PLAN
ON SHEET 4

PLAN OF CONC. AT EL. 779.67 & EL.781.67



NO.	REVISIONS	DATE	BY	CHK.



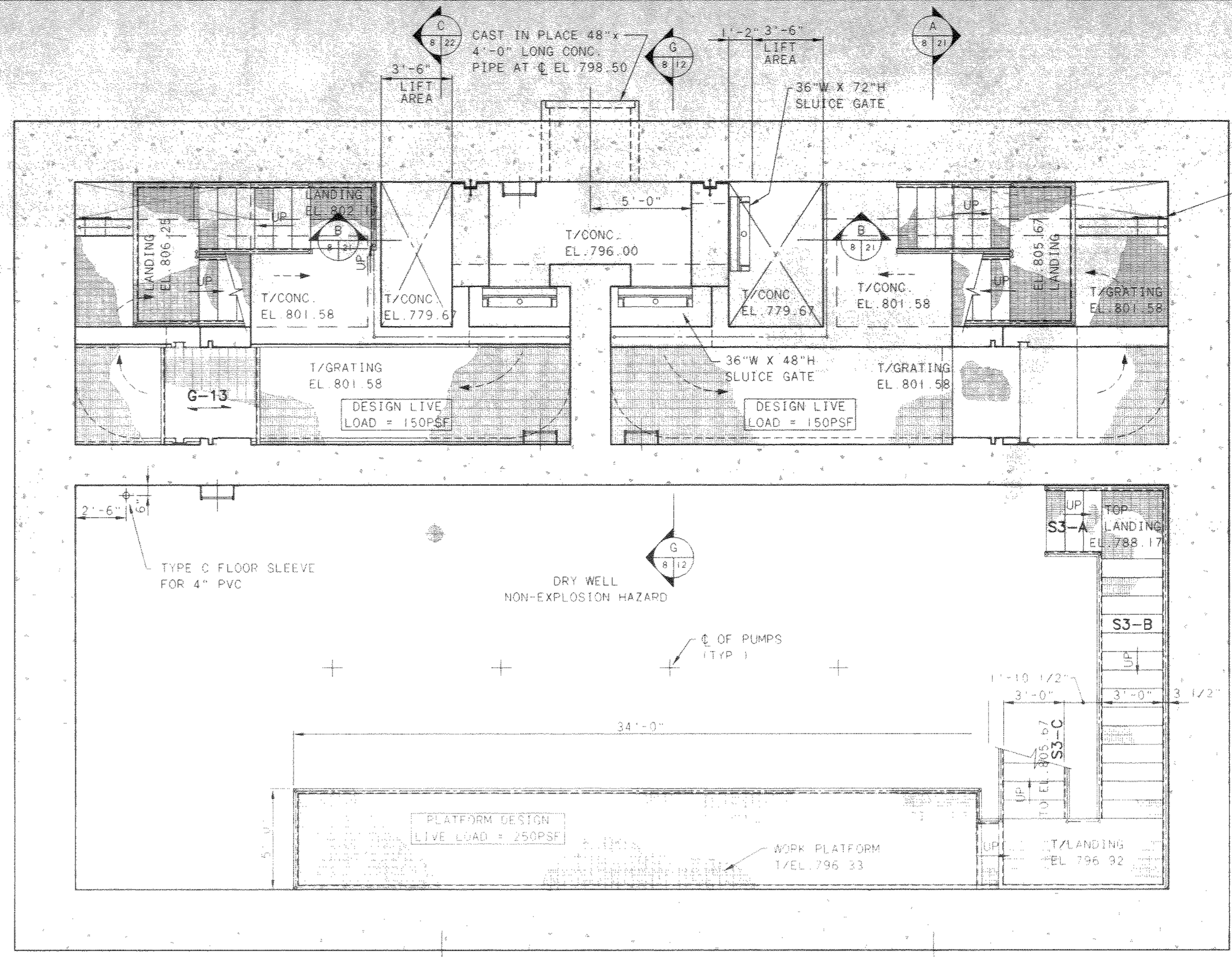
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

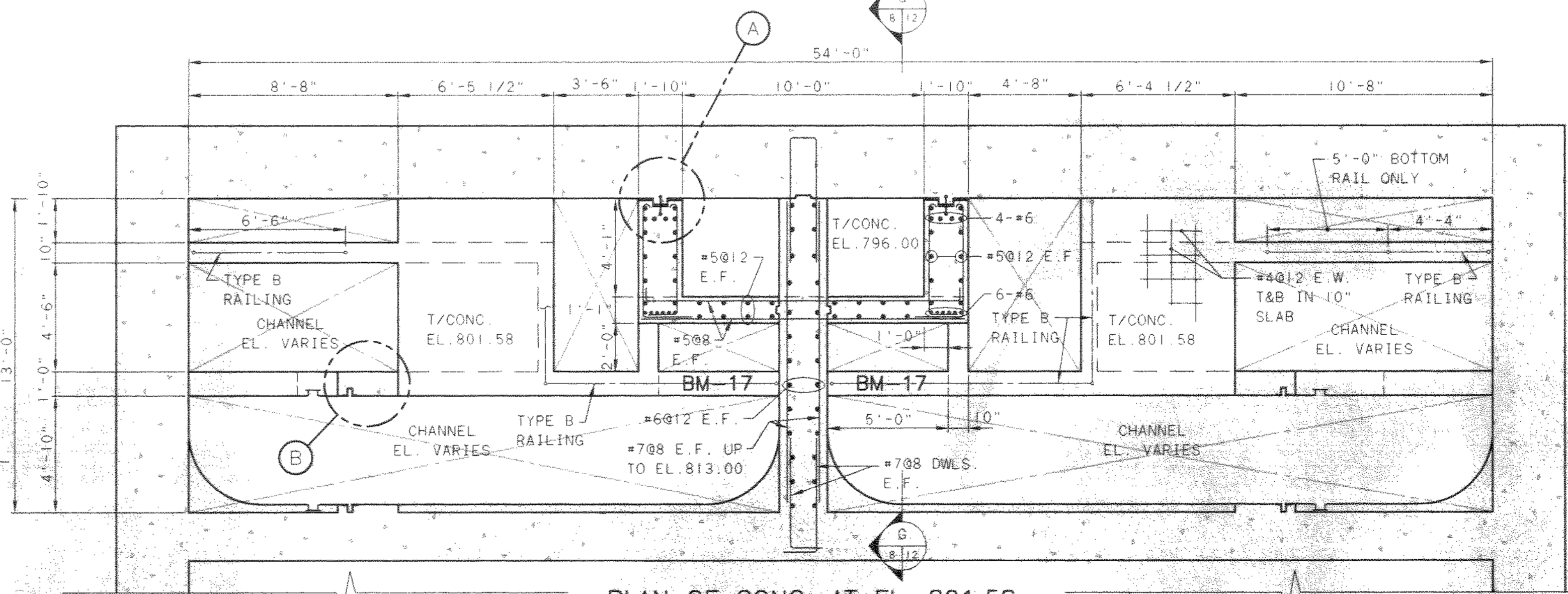
JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

**PUMP STATION
STRUCTURAL
PLAN OF CONCRETE
EL. 779.67 & EL. 781.67**

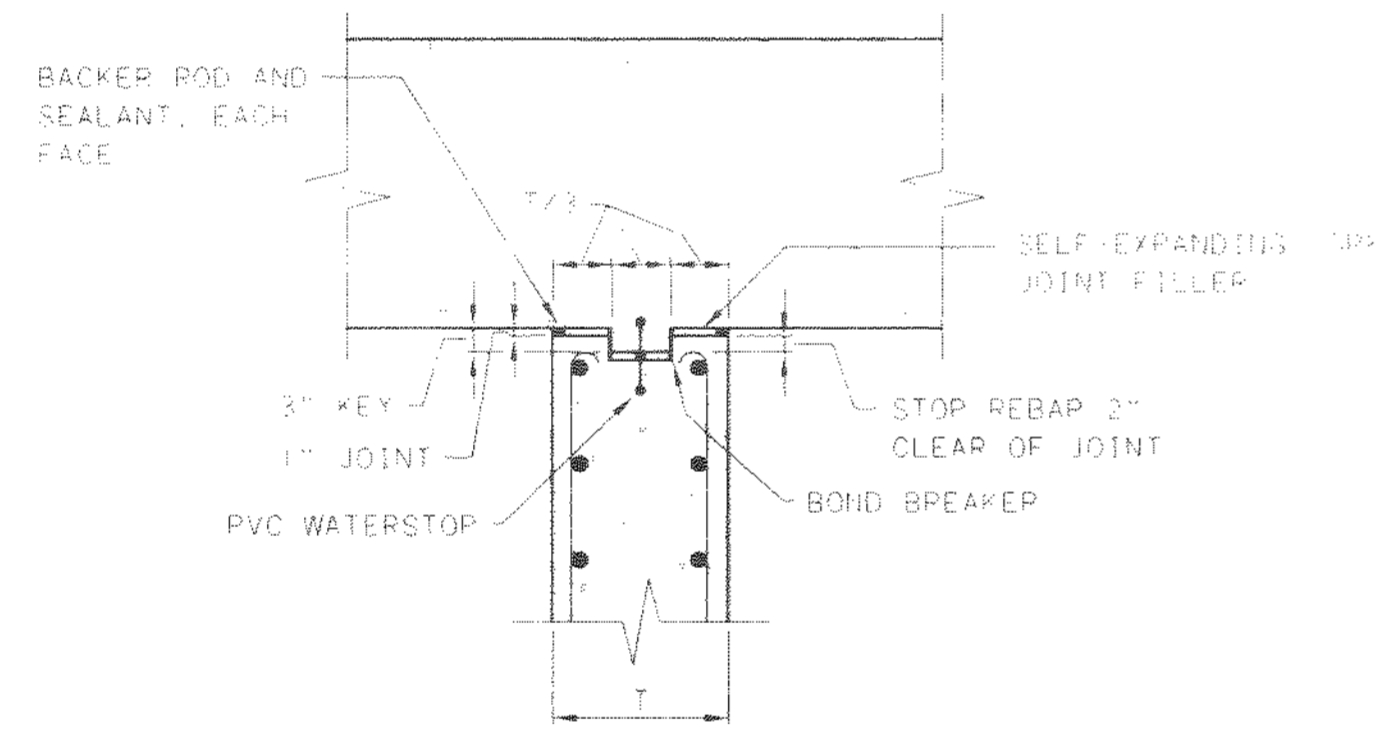
SCALE:	1/4" = 1'-0"
SHEET NO.	9
OF	100



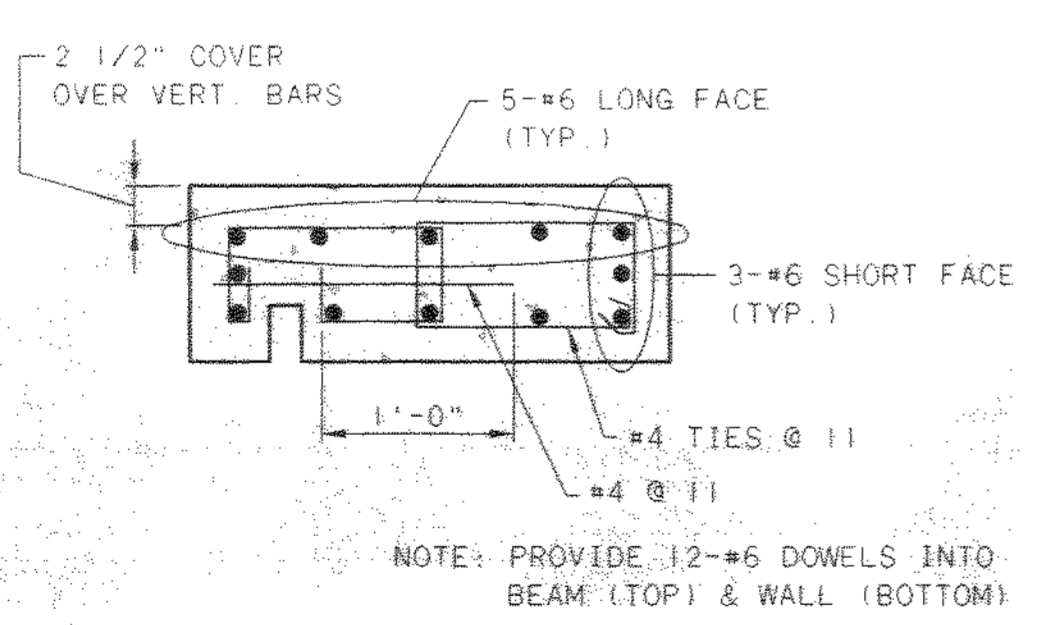
PLAN AT EL. 801.58



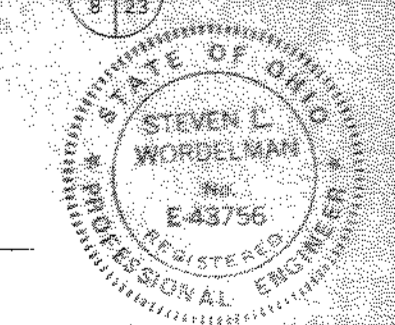
PLAN OF CONC. AT EL. 801.58
NOTE: GRATING FRAMES NOT SHOWN - SEE PLAN ABOVE



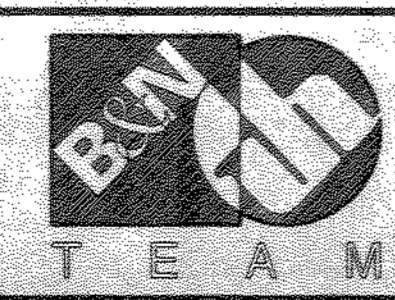
DETAIL A
KEYED EXPANSION JOINT
1" = 1'-0"



DETAIL B
1" = 1'-0"



NO.	REVISIONS	DATE	BY	CHK.



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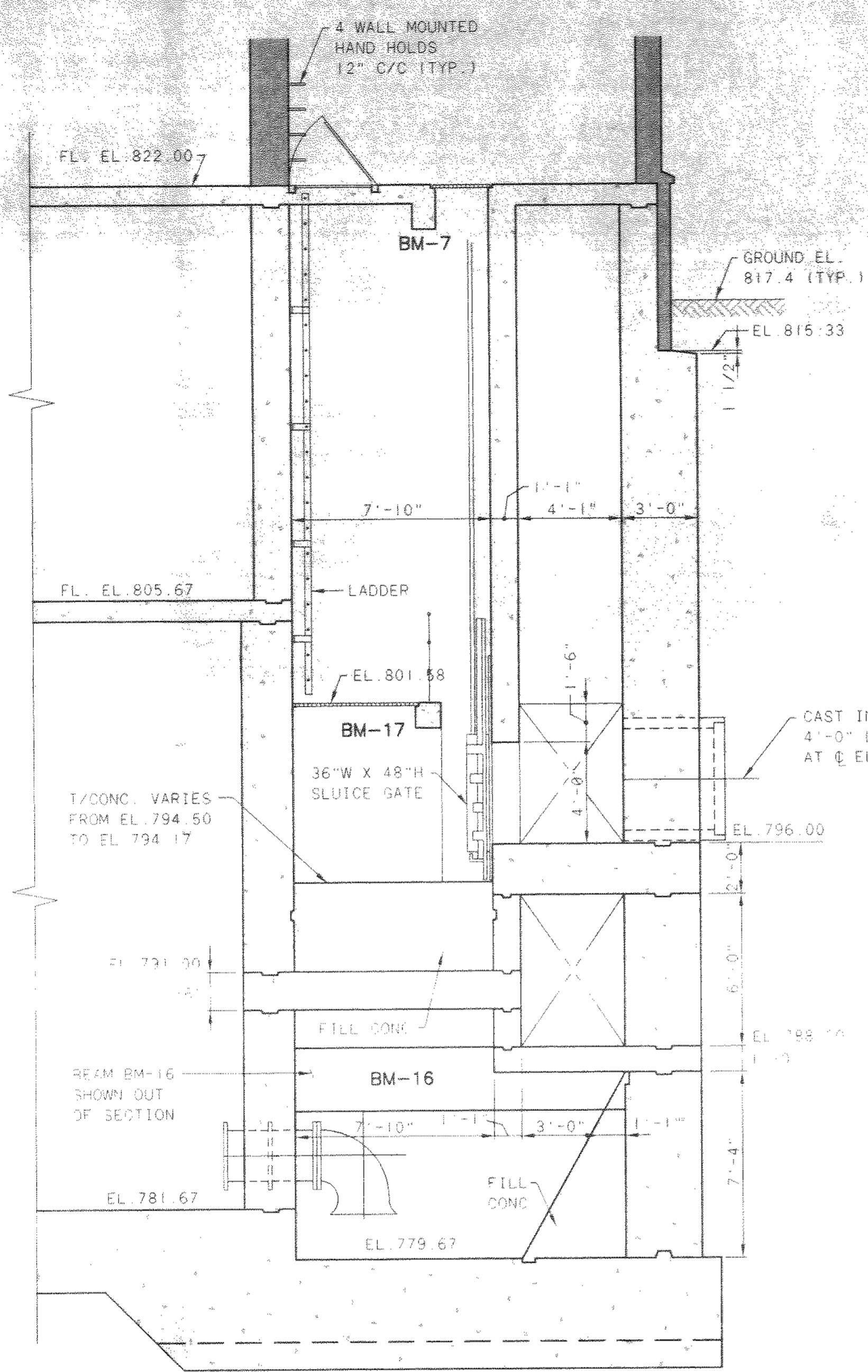
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
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JOB NO.	20571
DESIGNED BY:	FXW
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DATE:	1999

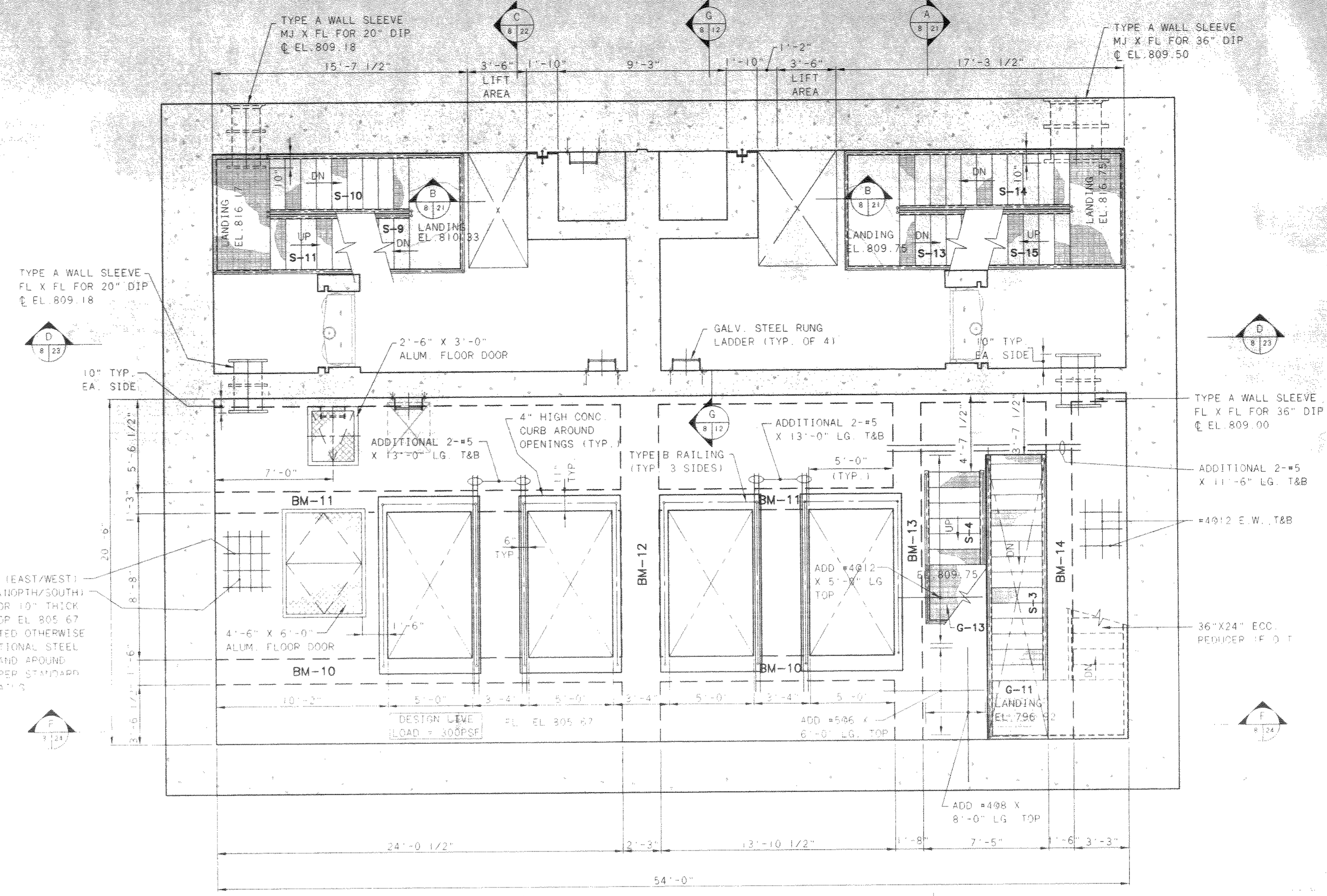
PUMP STATION
STRUCTURAL
PLAN AT EL. 801.58

SCALE:	1/4" = 1'-0"
SHEET NO.	11
OF	100

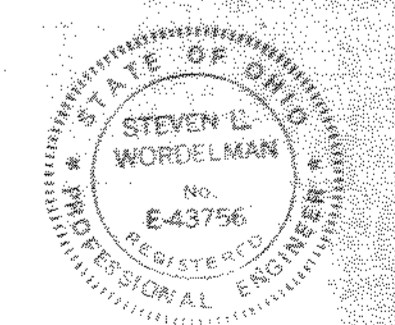
10-4714509
03/04/99 05-14



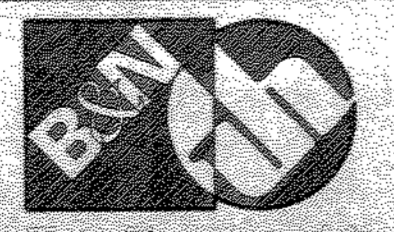
SECTION G
8/12



PLAN AT EL. 805.67



NO.	REVISIONS	DATE	BY	CHK.



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Jones & Henry Engineers, Ltd.

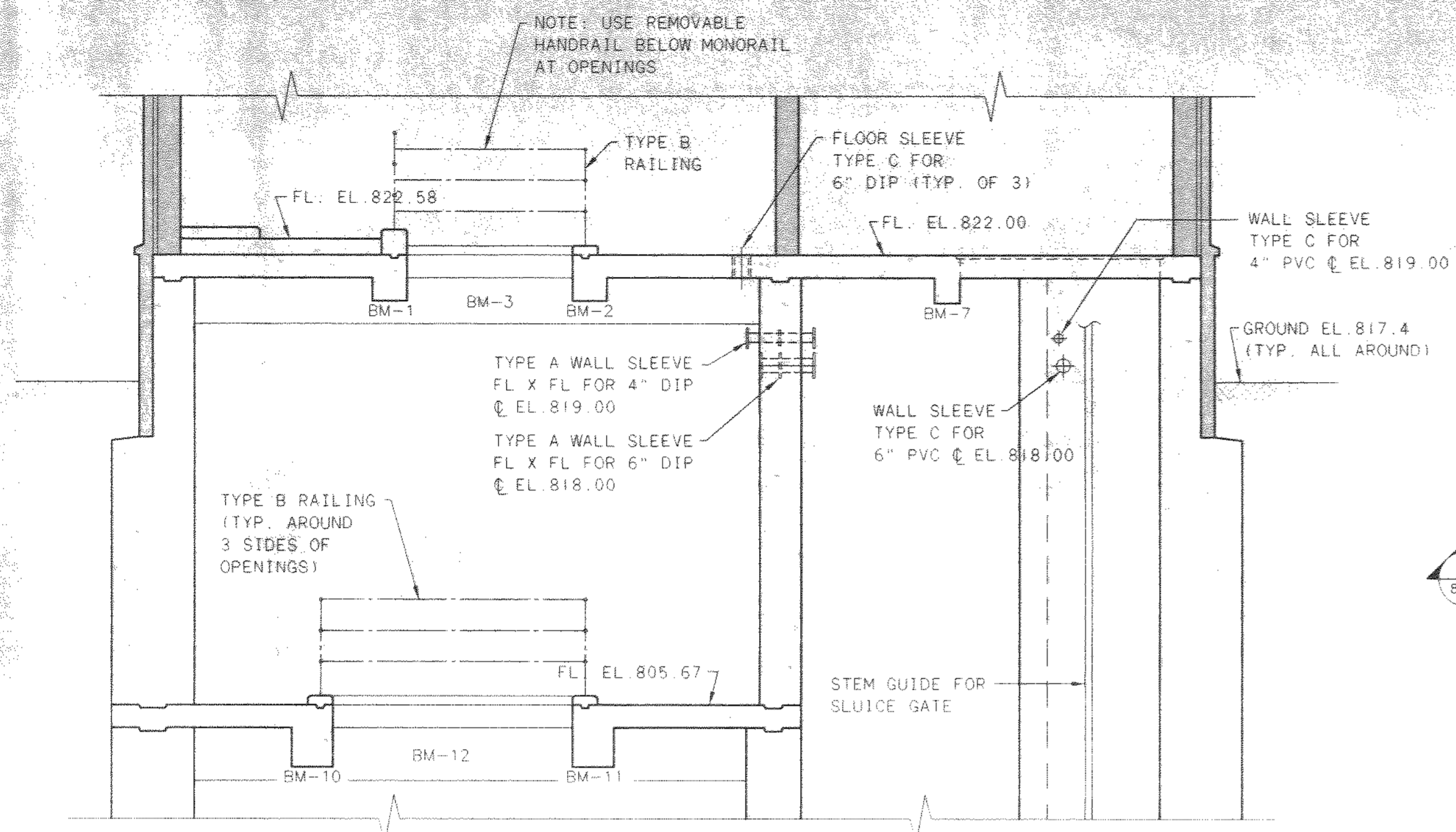
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

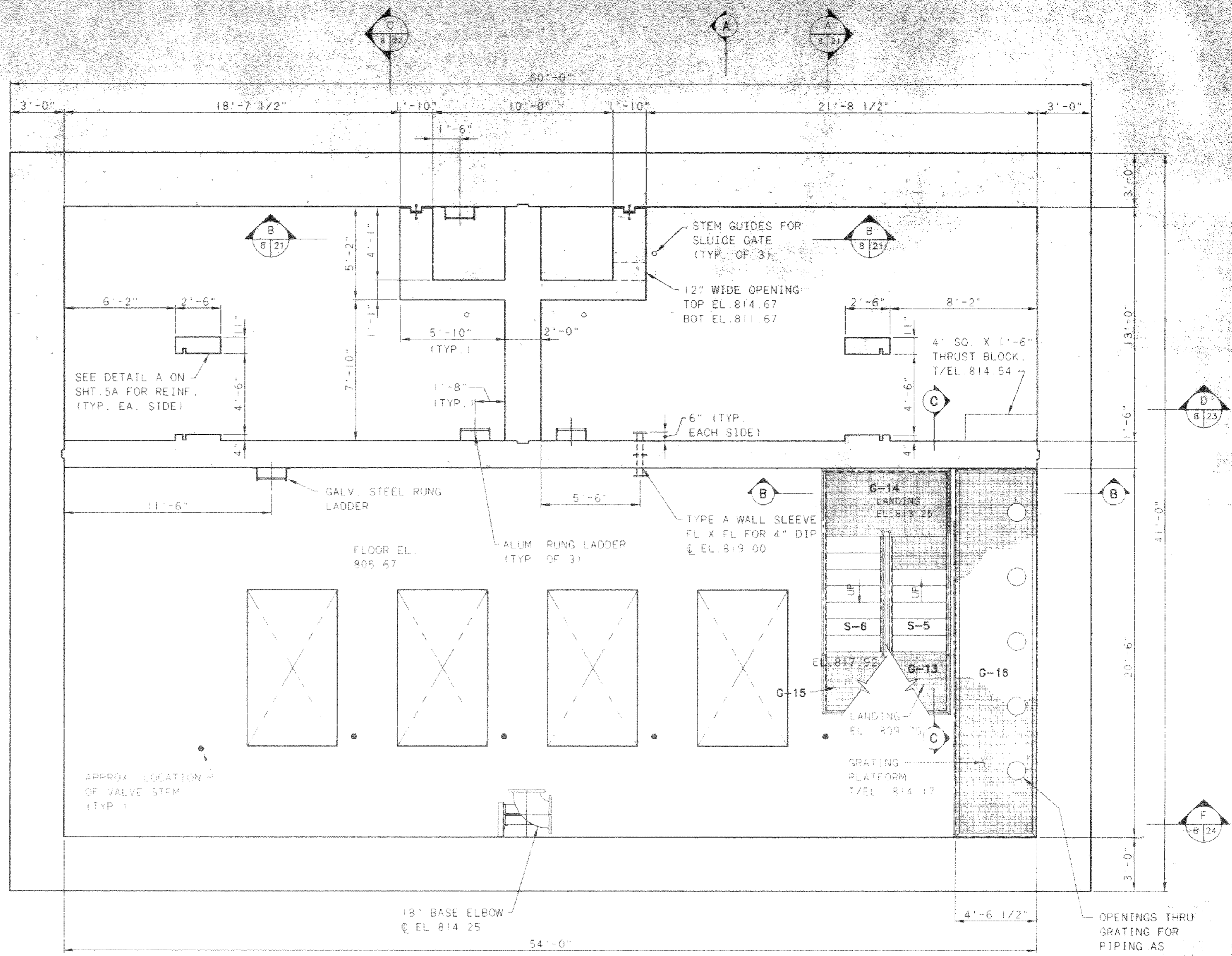
PUMP STATION
STRUCTURAL
PLAN AT EL. 805.67

SCALE:	1/4" = 1'-0"
SHEET NO.	12
OF	100

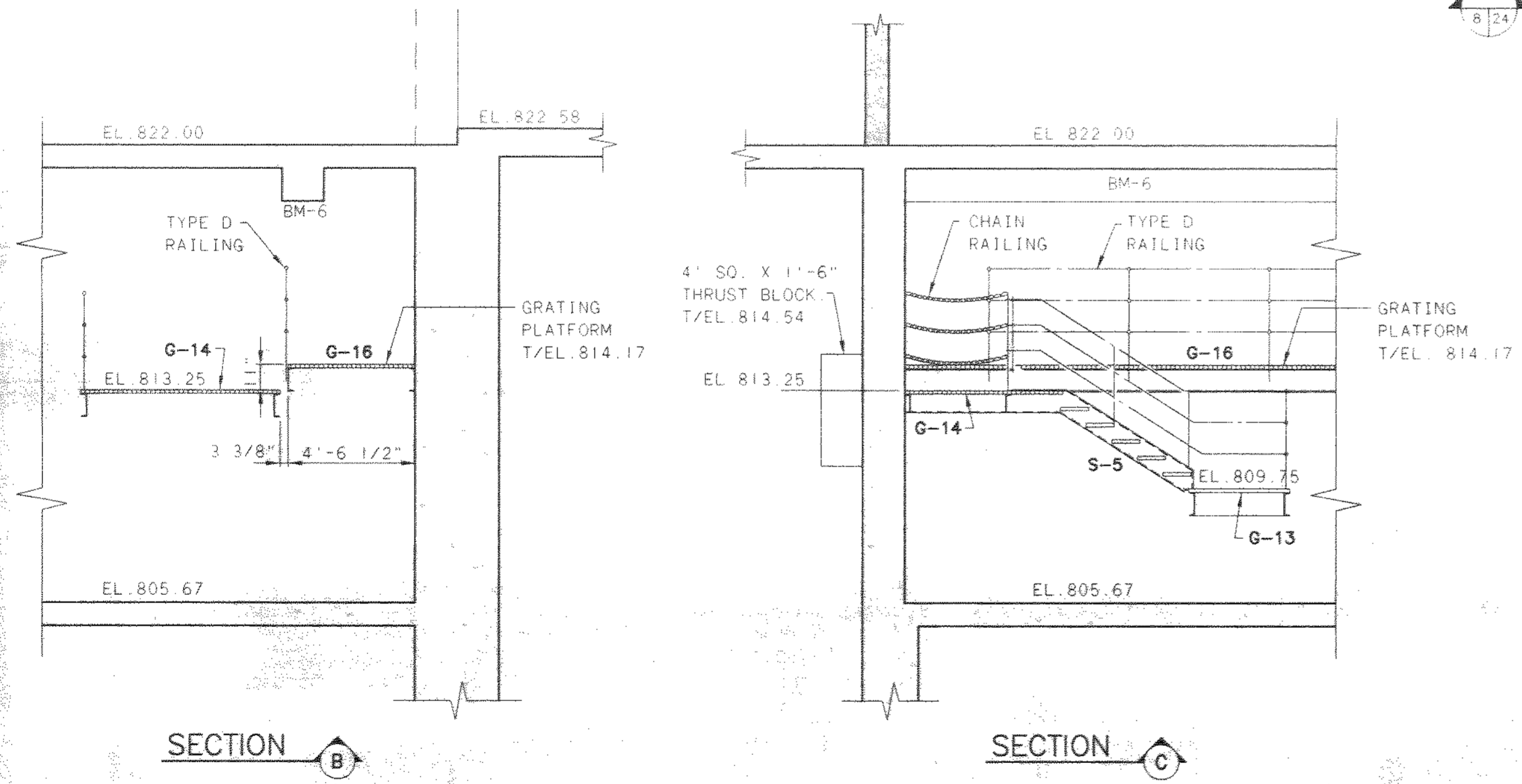
TOL-4714508
03/04/99 02-14



SECTION A

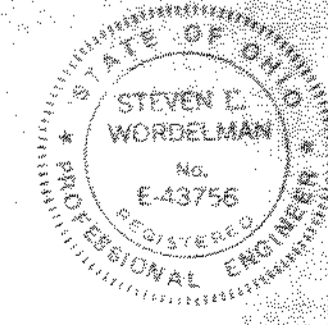


PLAN AT EL. 818.00

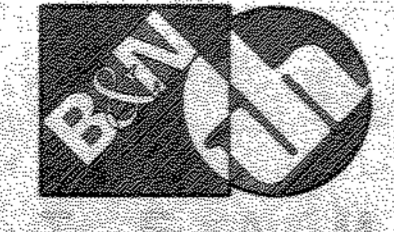


SECTION B

SECTION C



NO.	REVISIONS	DATE	BY	CHK.



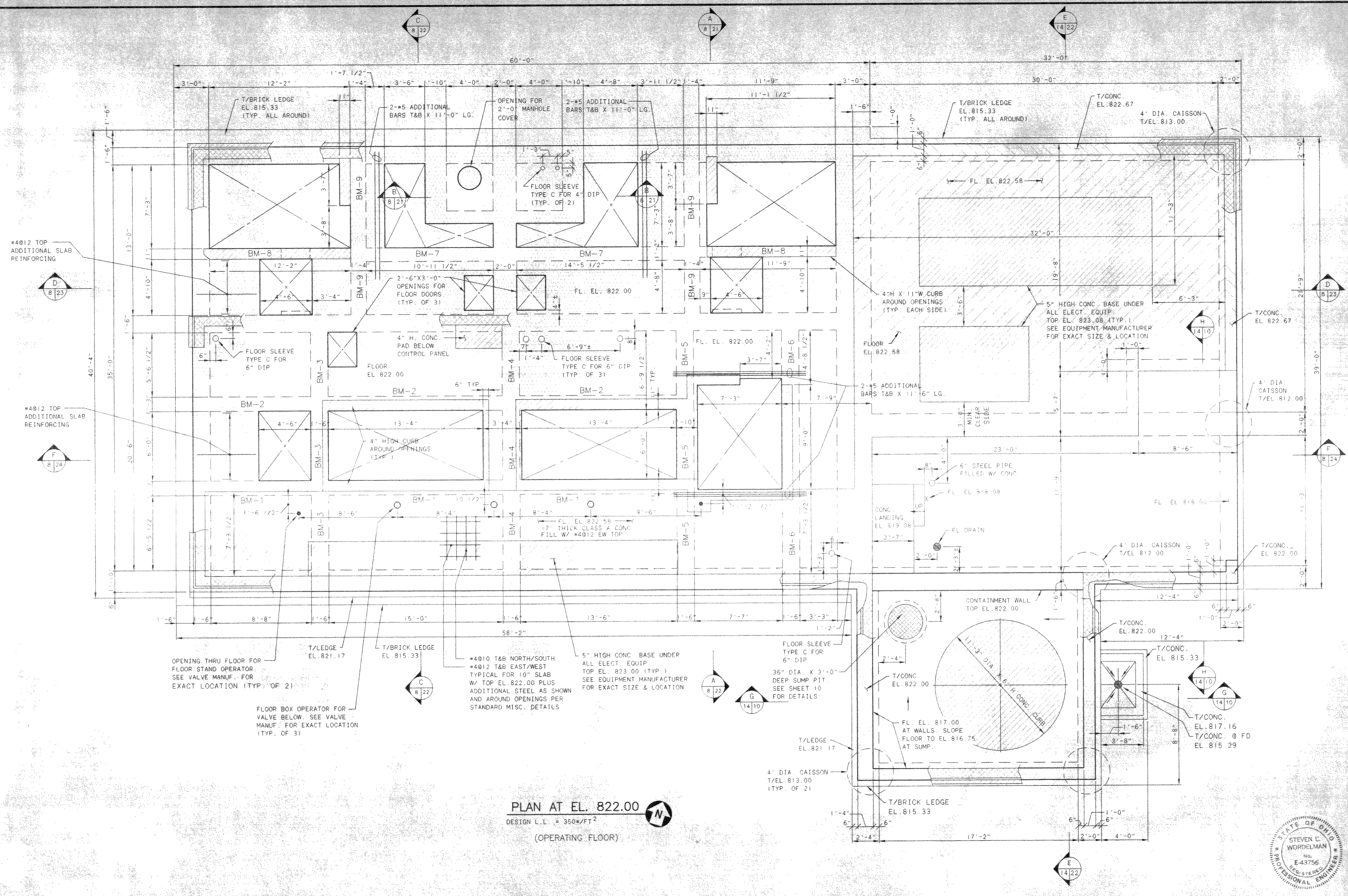
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
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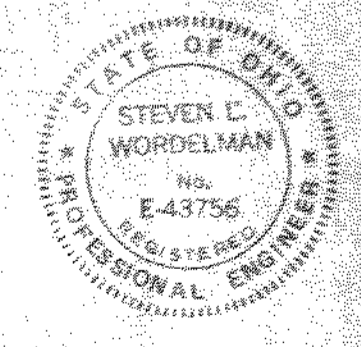
JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 STRUCTURAL
 PLAN AT EL. 818.00
 SECTIONS & DETAILS

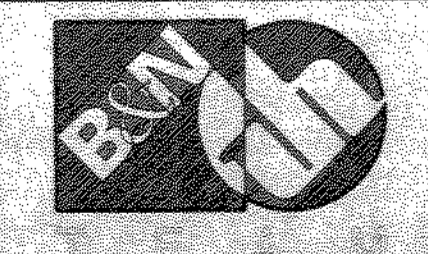
SCALE:	1/4" = 1'-0"
SHEET NO.	13
OF	100



PLAN AT EL. 822.00
 DESIGN L.L. = 350#/FT²
 (OPERATING FLOOR)



NO.	REVISIONS	DATE	BY	CHK.



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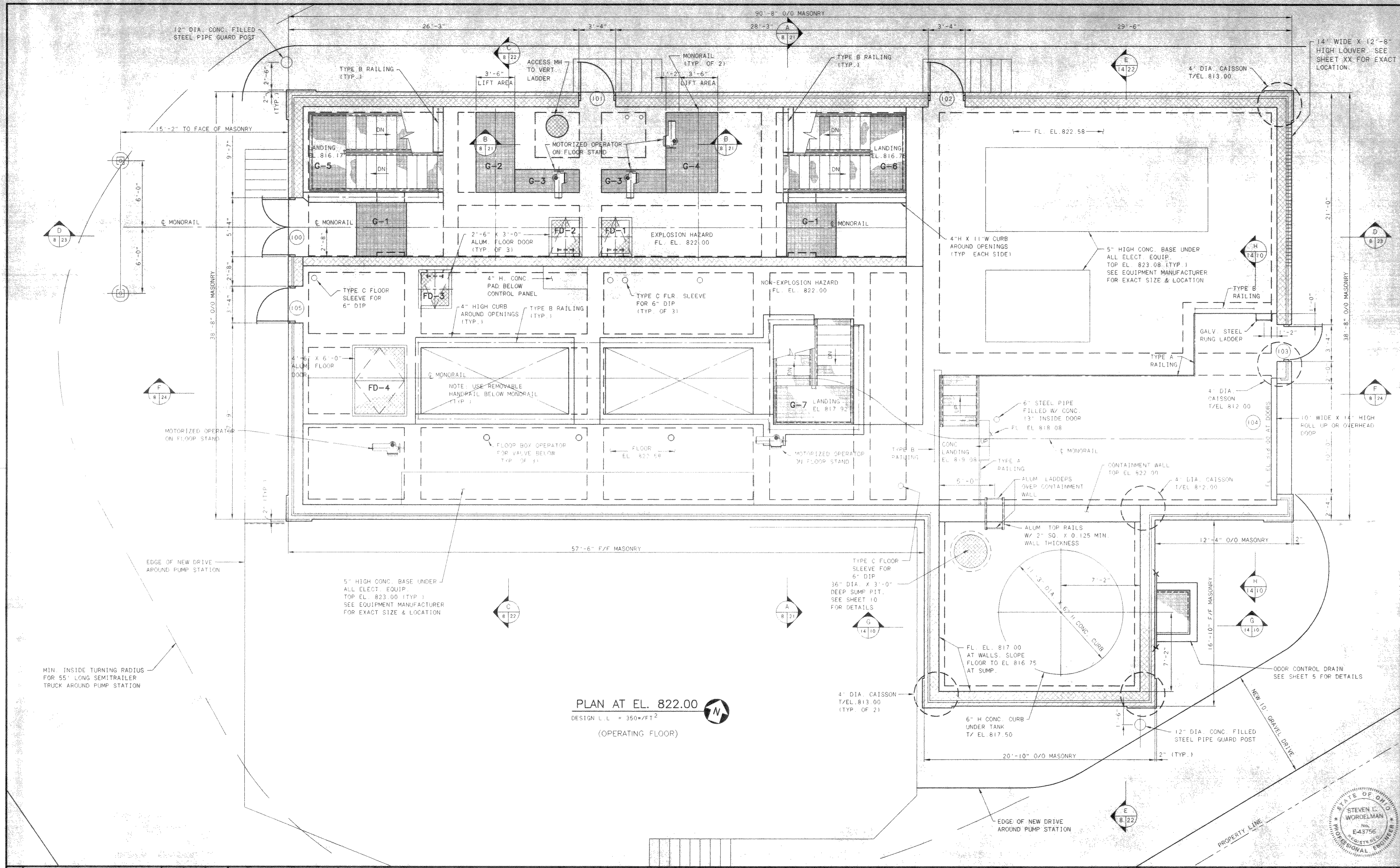
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 STRUCTURAL
 PLAN OF CONCRETE AT EL. 822.58

SCALE:	1/4" = 1'-0"
SHEET NO.	14
OF	100

TOL-471455A 03/04/99 02-14



PLAN AT EL. 822.00
 DESIGN L.L. = 350#/FT²
 (OPERATING FLOOR)

NO.	REVISIONS	DATE	BY	CHK.

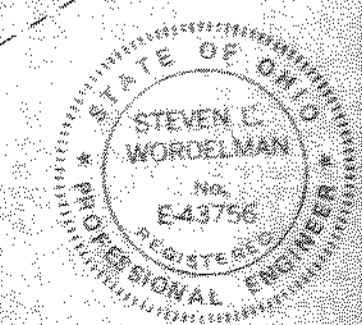
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 STRUCTURAL
 PLAN AT EL. 822.00

SCALE:	1/4" = 1'-0"
SHEET NO.	15
OF	100



TOL-4714S05
 03/04/99 02-14

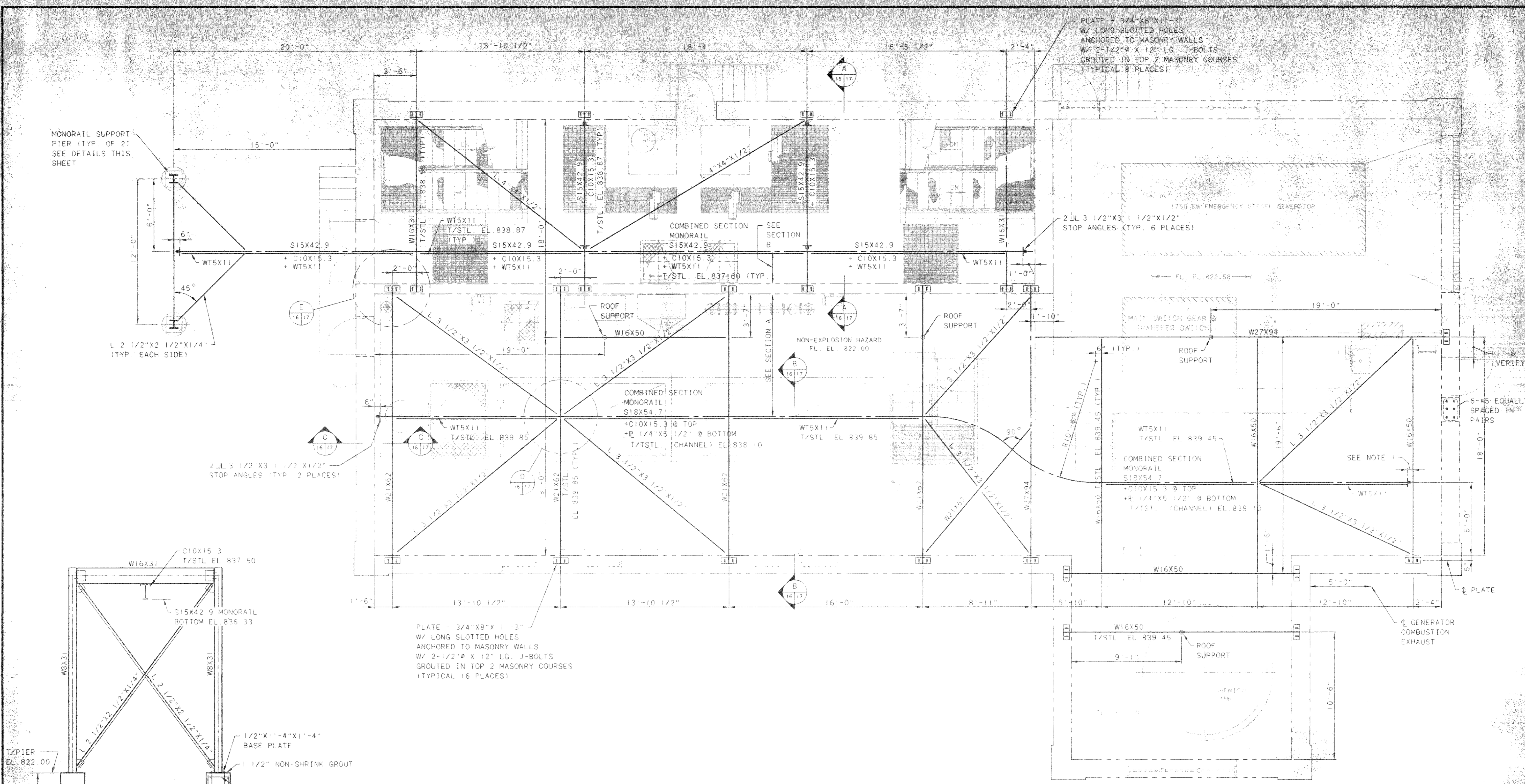


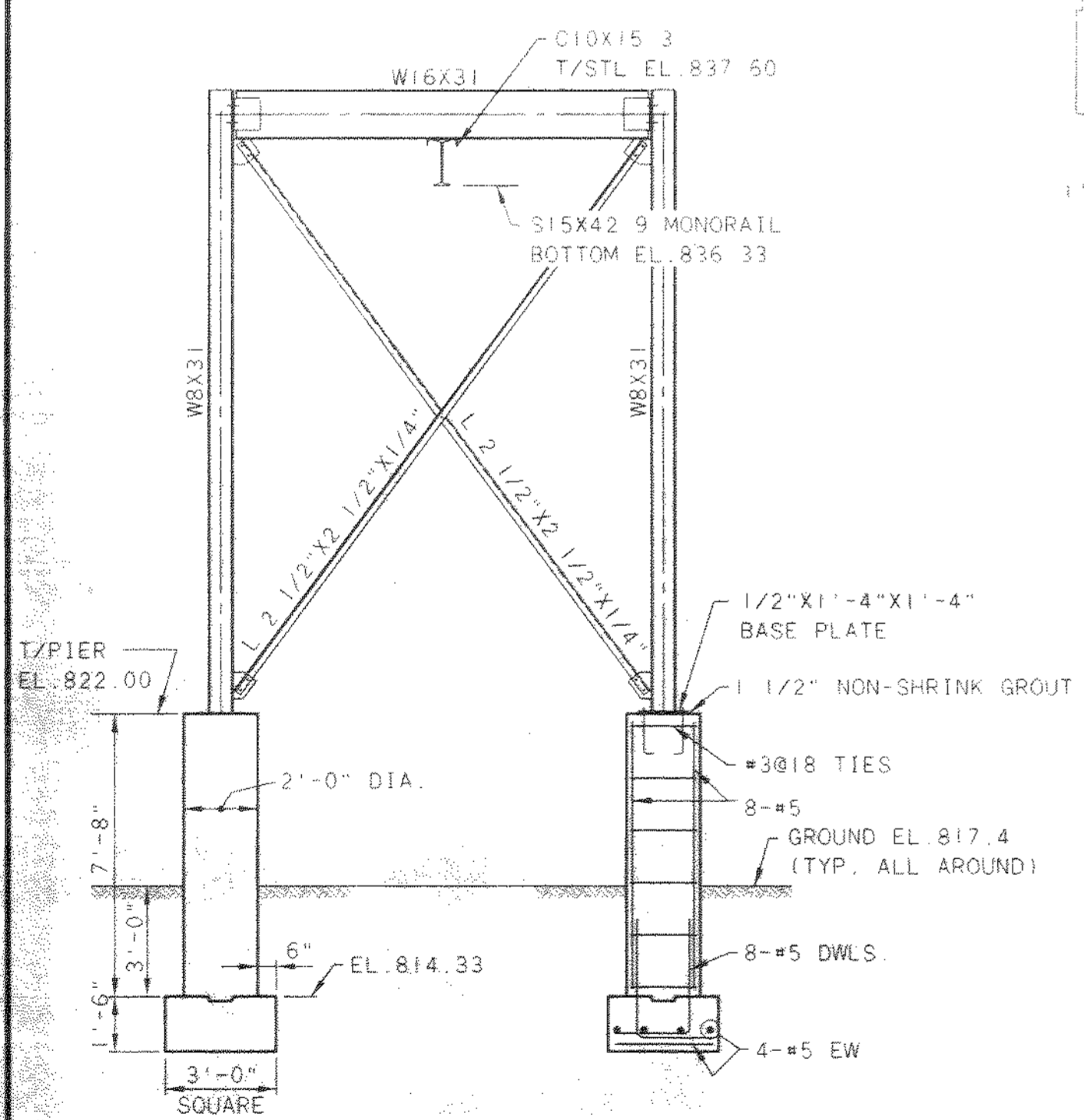
PLATE - 3/4"x6"x1'-3"
W/ LONG SLOTTED HOLES
ANCHORED TO MASONRY WALLS
W/ 2-1/2"Ø X 12" LG. J-BOLTS
GROUTED IN TOP 2 MASONRY COURSES
(TYPICAL 8 PLACES)

MONORAIL SUPPORT
PIER (TYP. OF 2)
SEE DETAILS THIS
SHEET

L 2 1/2"x2 1/2"x1/4"
(TYP. EACH SIDE)

2 JL 3 1/2"x3 1/2"x1/2"
STOP ANGLES (TYP. 2 PLACES)

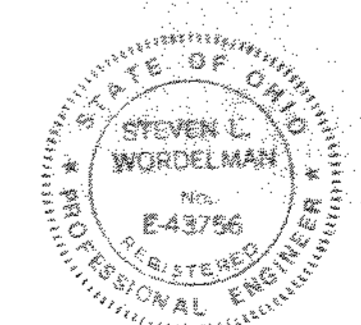
PLATE - 3/4"x8"x1'-3"
W/ LONG SLOTTED HOLES
ANCHORED TO MASONRY WALLS
W/ 2-1/2"Ø X 12" LG. J-BOLTS
GROUTED IN TOP 2 MASONRY COURSES
(TYPICAL 16 PLACES)



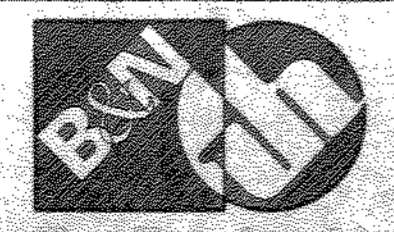
MONORAIL SUPPORT PIER
TYPICAL OF 2

PLAN AT EL. 822.00

- NOTE 1:
1. SET STOP ANGLES SO THAT NO PART OF THE HOIST OR TROLLEY CAN GO PAST Ø OF W16X50.
 2. ALL STRUCTURAL STEEL SHALL BE ASTM A572, GR. 50 ENHANCED.
 3. VERIFY LOCATION OF ROOF SUPPORT COLUMNS WITH ROOF PLAN (TYP. 4 PLACES).



NO.	REVISIONS	DATE	BY	CHK.



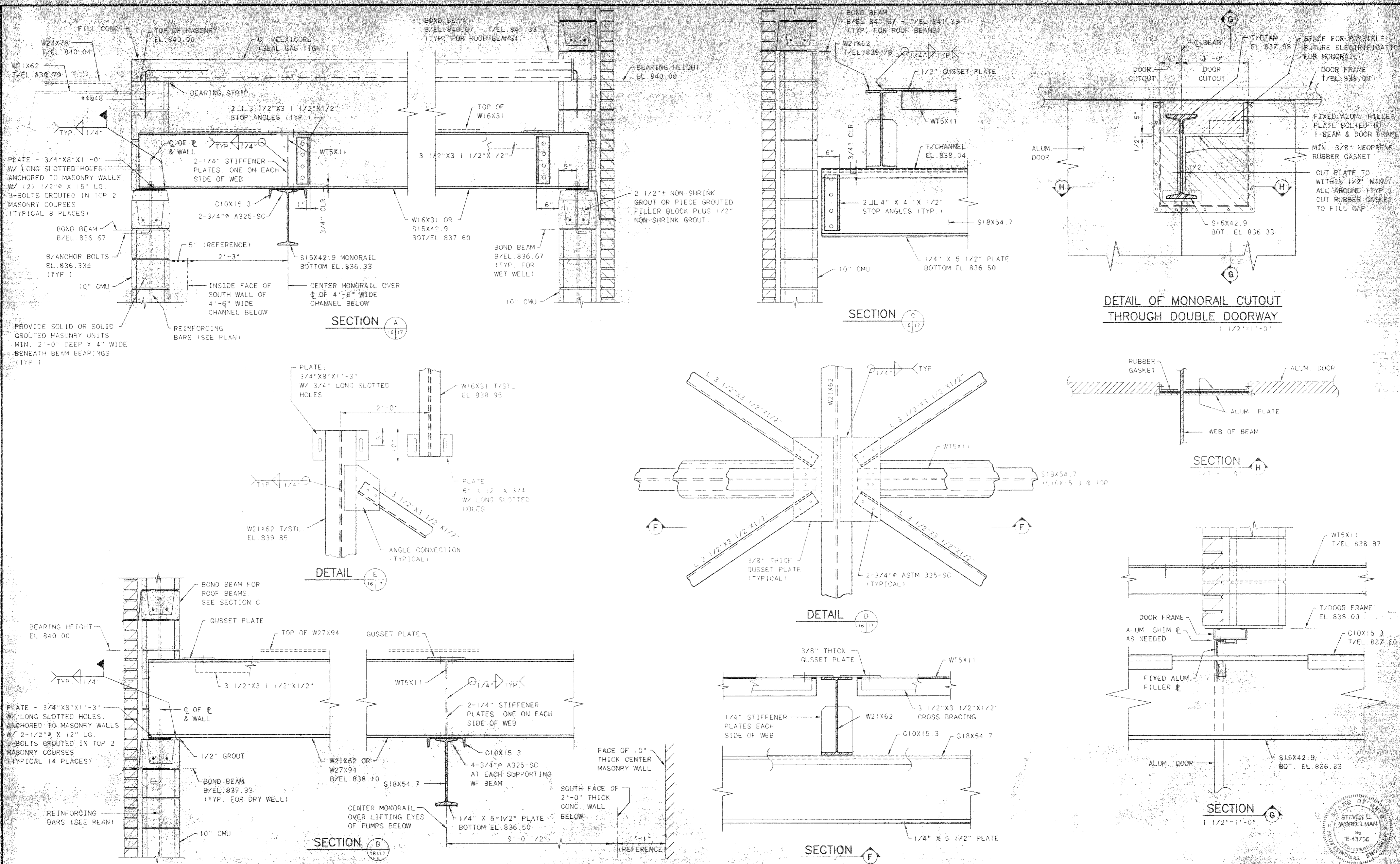
Burgess & Niple, Limited
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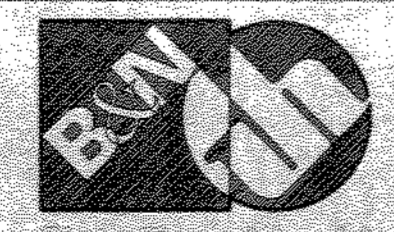
JOB NO.	20571
DESIGNED BY:	FXW
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CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
STRUCTURAL
MONORAIL AND ROOF COLUMN
SUPPORT FRAMING
PLAN AT EL. 822.00

SCALE:	1/4"=1'-0"
SHEET NO.	16
OF	100



NO.	REVISIONS	DATE	BY	CHK.



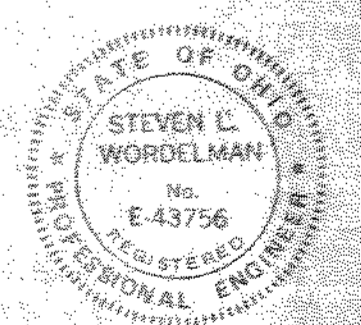
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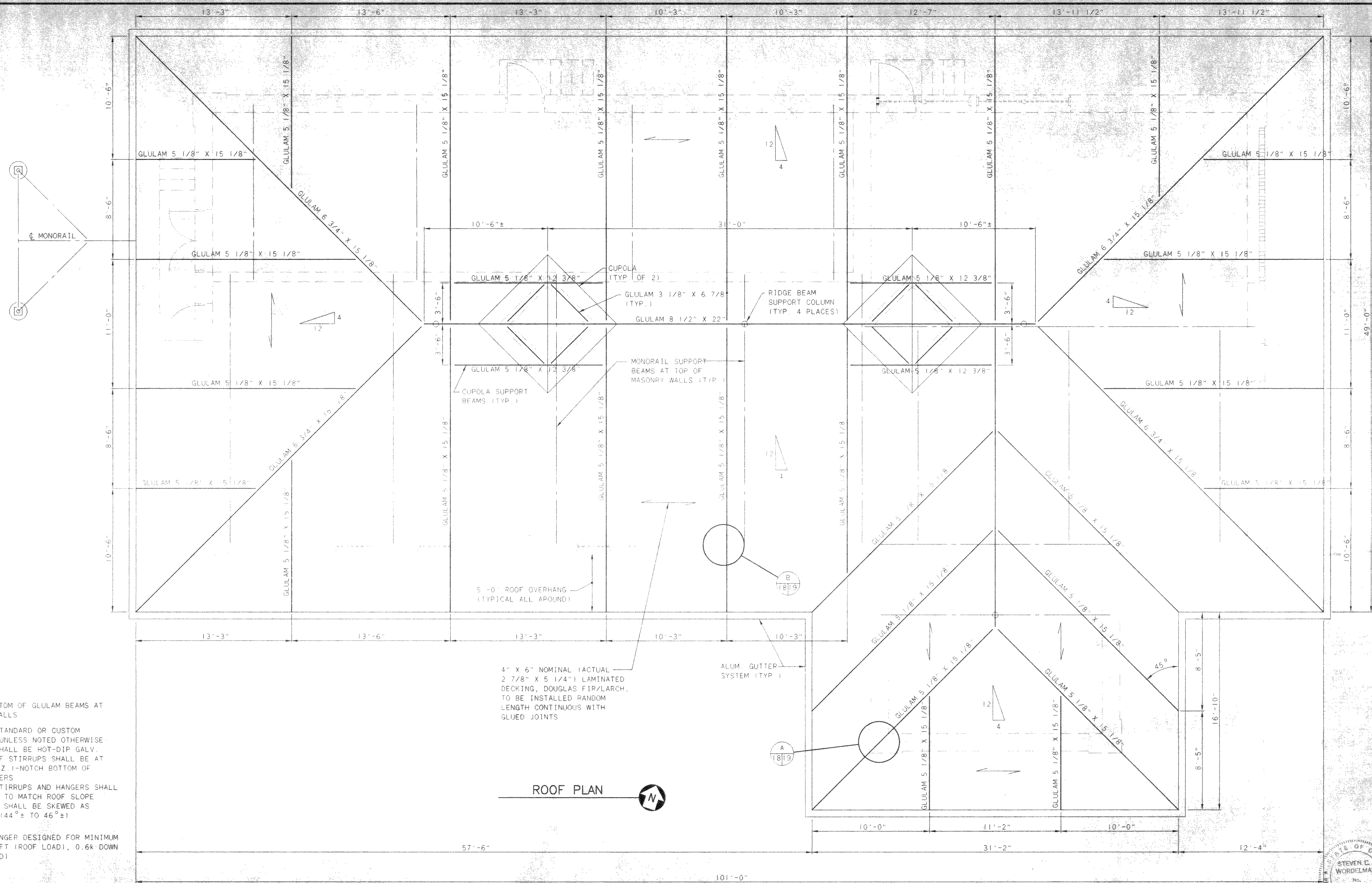
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
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JOB NO.	20571
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DATE:	1999

PUMP STATION
 STRUCTURAL
 MONORAIL FRAMING DETAILS

SCALE:	1" = 1'-0"
SHEET NO.	17
OF	100





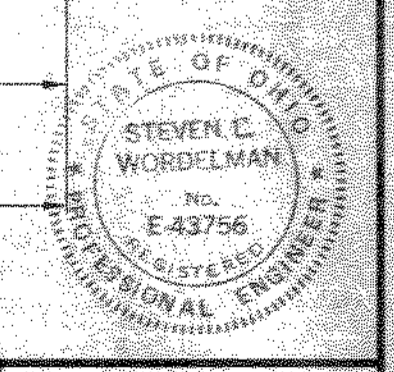
CODED NOTES:

- 1 NOTCH BOTTOM OF GLULAM BEAMS AT MASONRY WALLS
- 2 FOR ALL STANDARD OR CUSTOM HANGERS, UNLESS NOTED OTHERWISE -FINISH SHALL BE HOT-DIP GALV. -BOTTOM OF STIRRUPS SHALL BE AT 90° (HORIZ.) -NOTCH BOTTOM OF ROOF RAFTERS -TOP OF STIRRUPS AND HANGERS SHALL BE SLOPED TO MATCH ROOF SLOPE -STIRRUPS SHALL BE SKEWED AS REQUIRED (44°± TO 46°±)
- 3 CUSTOM HANGER DESIGNED FOR MINIMUM 2.8k UPLIFT (ROOF LOAD), 0.6k DOWN (WIND LOAD)

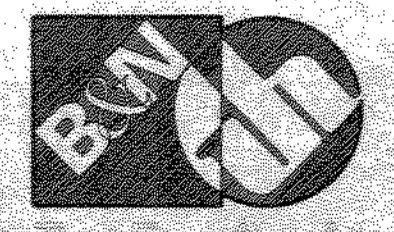
4" X 6" NOMINAL (ACTUAL 2 7/8" X 5 1/4") LAMINATED DECKING, DOUGLAS FIR/LARCH, TO BE INSTALLED RANDOM LENGTH CONTINUOUS WITH GLUED JOINTS

ALUM. GUTTER SYSTEM (TYP.)

ROOF PLAN



NO.	REVISIONS	DATE	BY	CHK.



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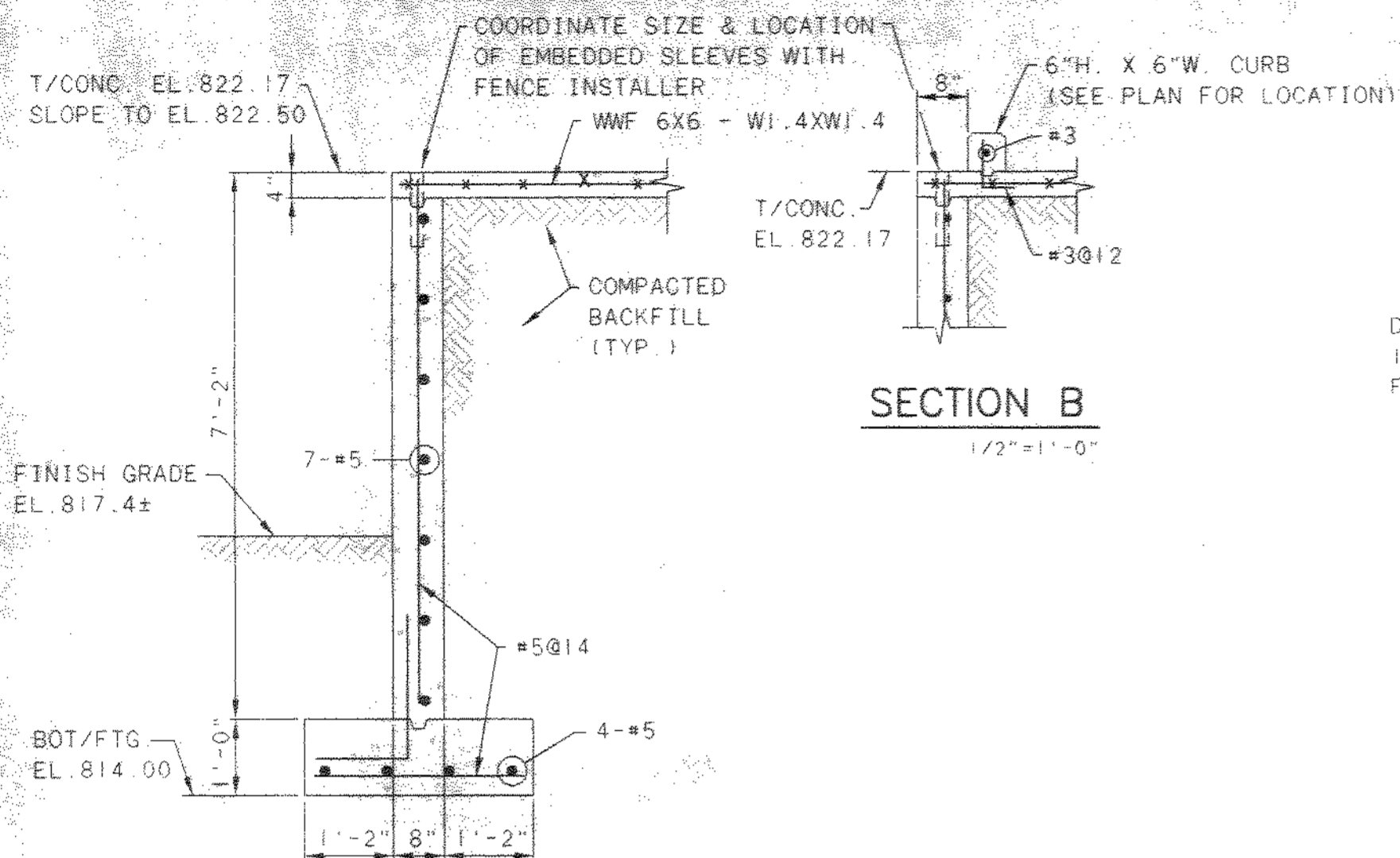
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
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DATE:	1999

PUMP STATION
STRUCTURAL
ROOF PLAN

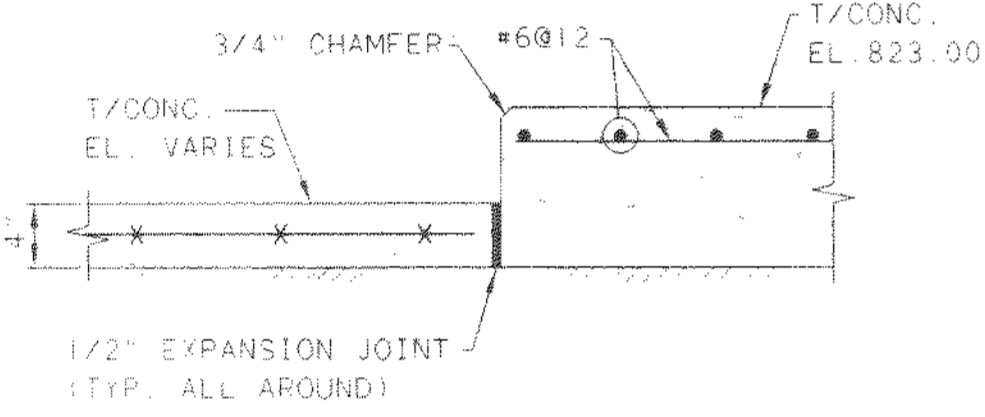
SCALE:	1/4" = 1'-0"
SHEET NO.	18
OF	100

101-4714401
 03/04/99 02-14

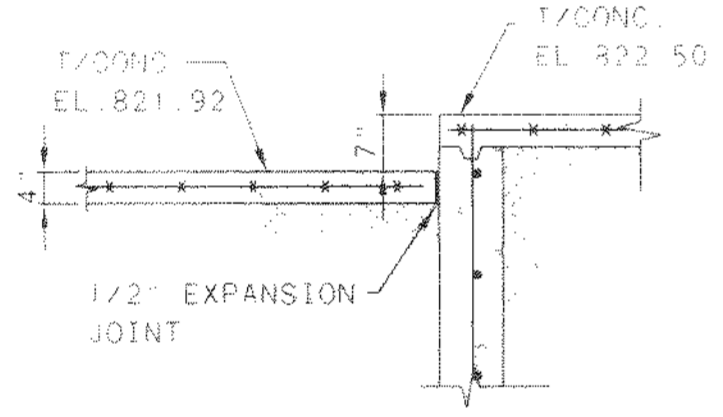


SECTION B
1/2"=1'-0"

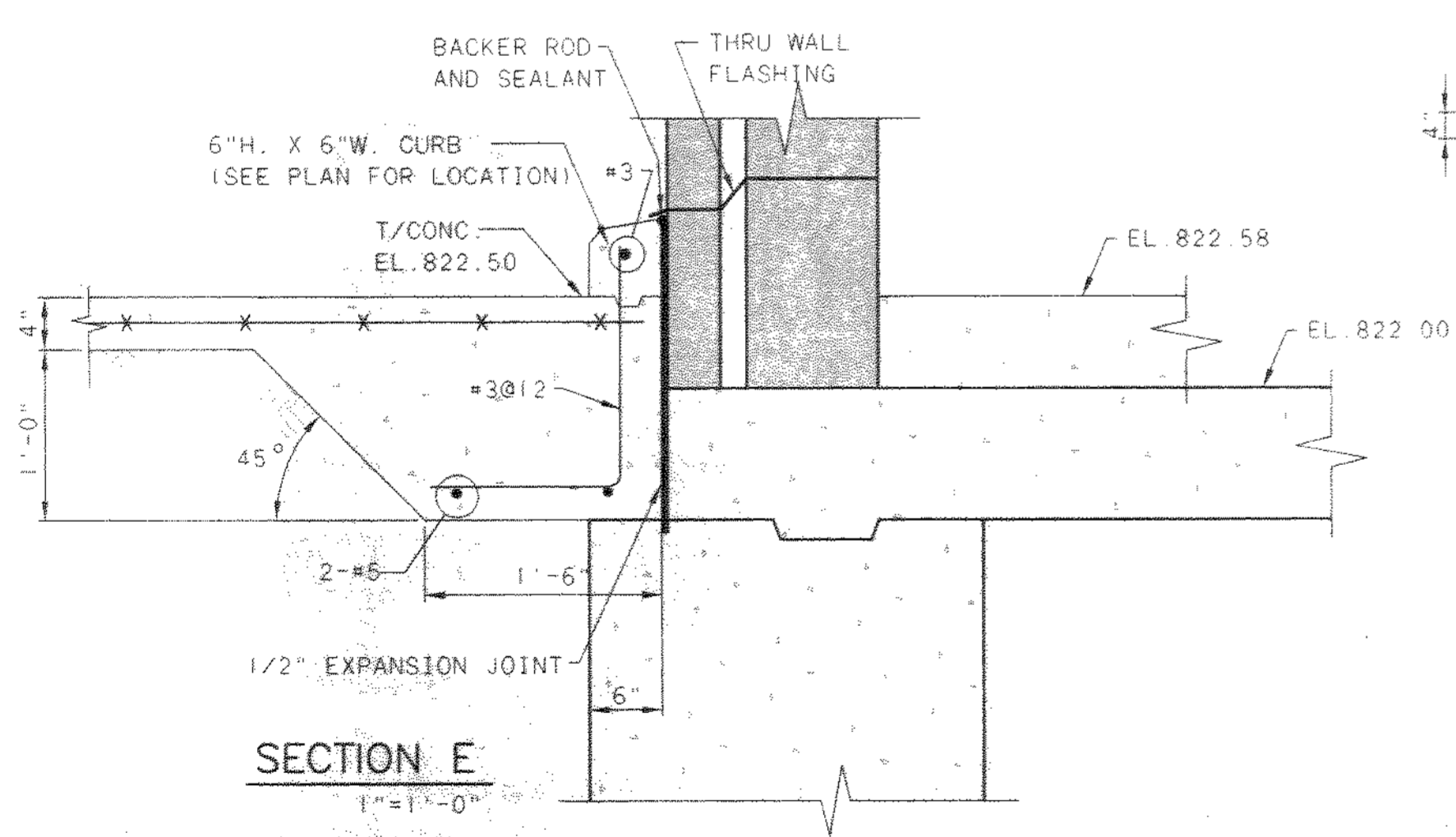
SECTION A
1/2"=1'-0"



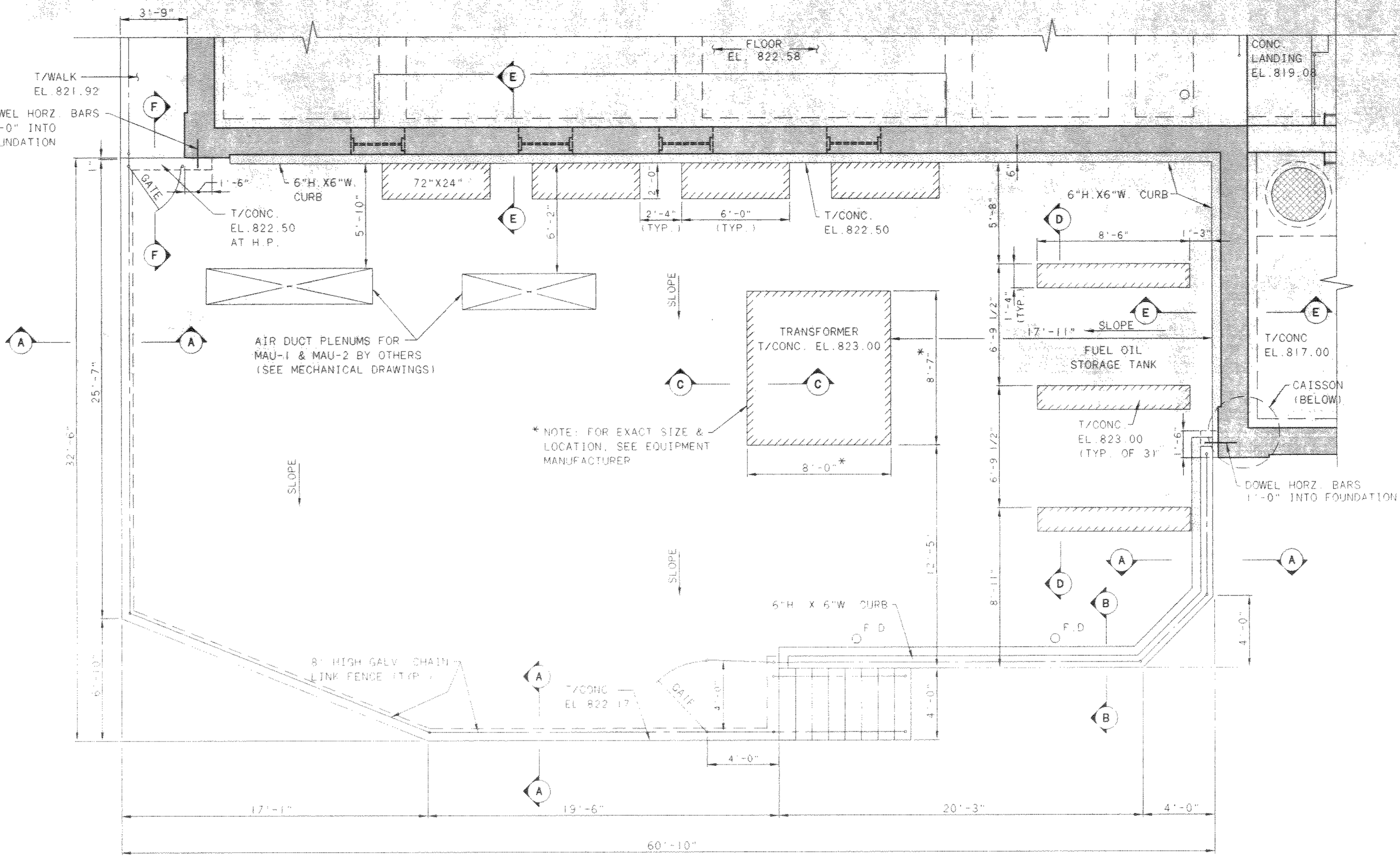
SECTION C
1/2"=1'-0"



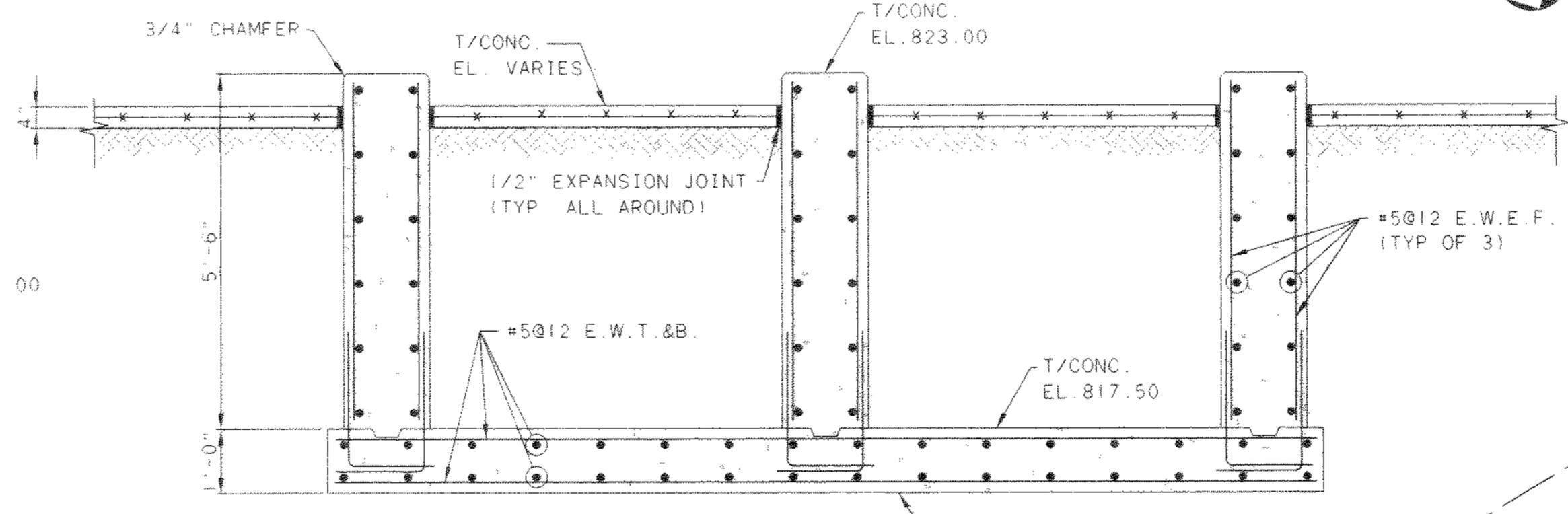
SECTION F
1/2"=1'-0"



SECTION E
1"=1'-0"

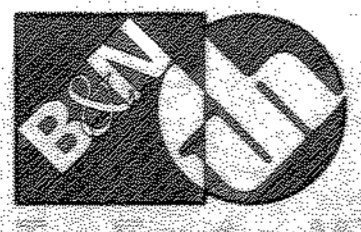


EXTERIOR SLAB PLAN



SECTION D
1/2"=1'-0"

NO.	REVISIONS	DATE	BY	CHK.

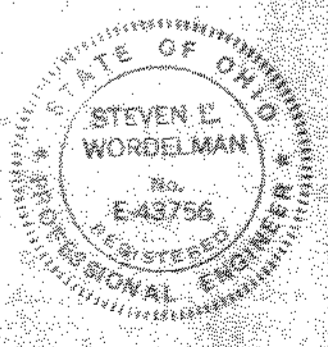


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DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
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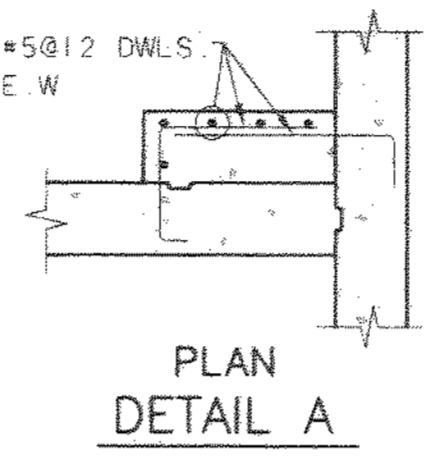
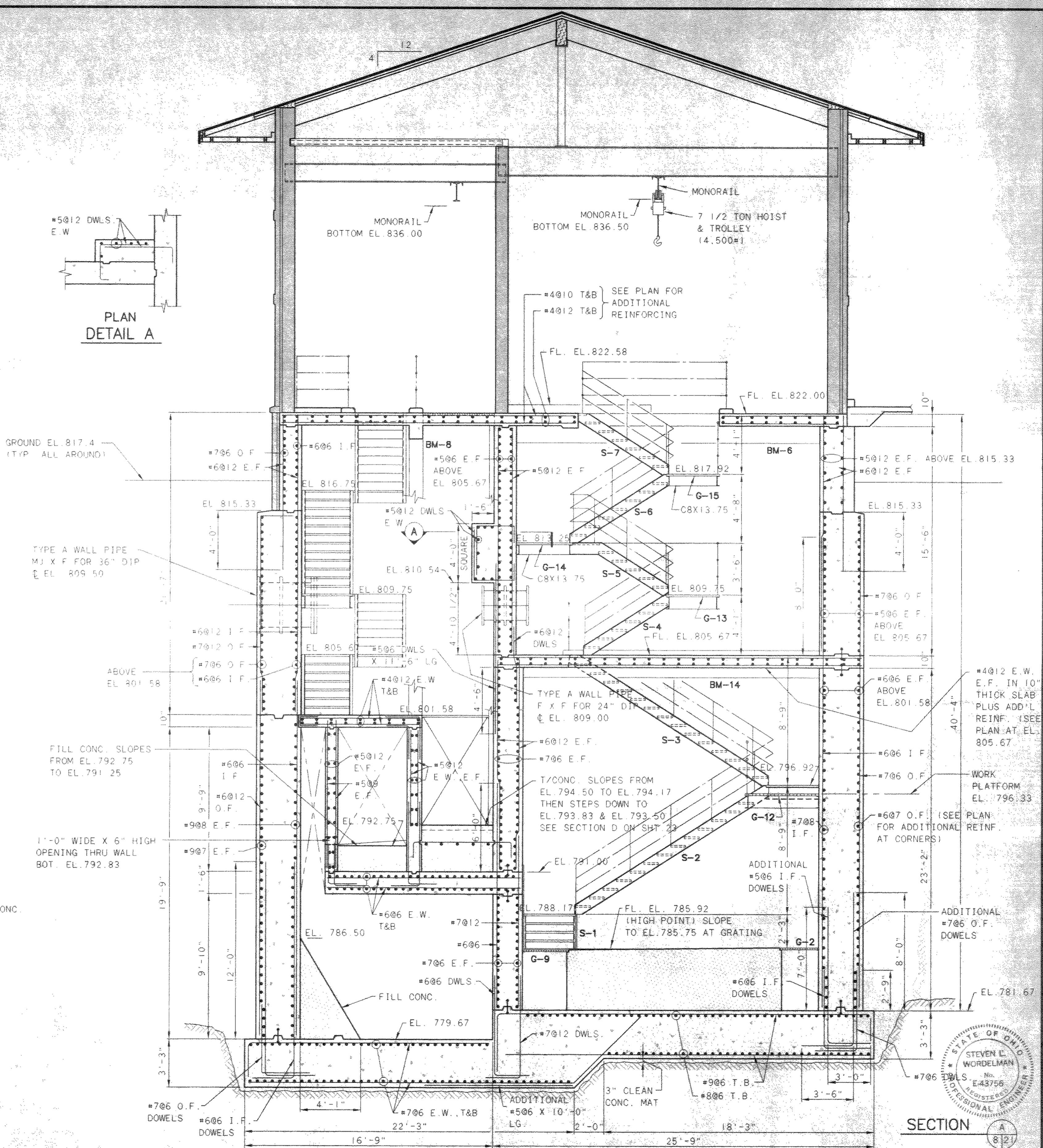
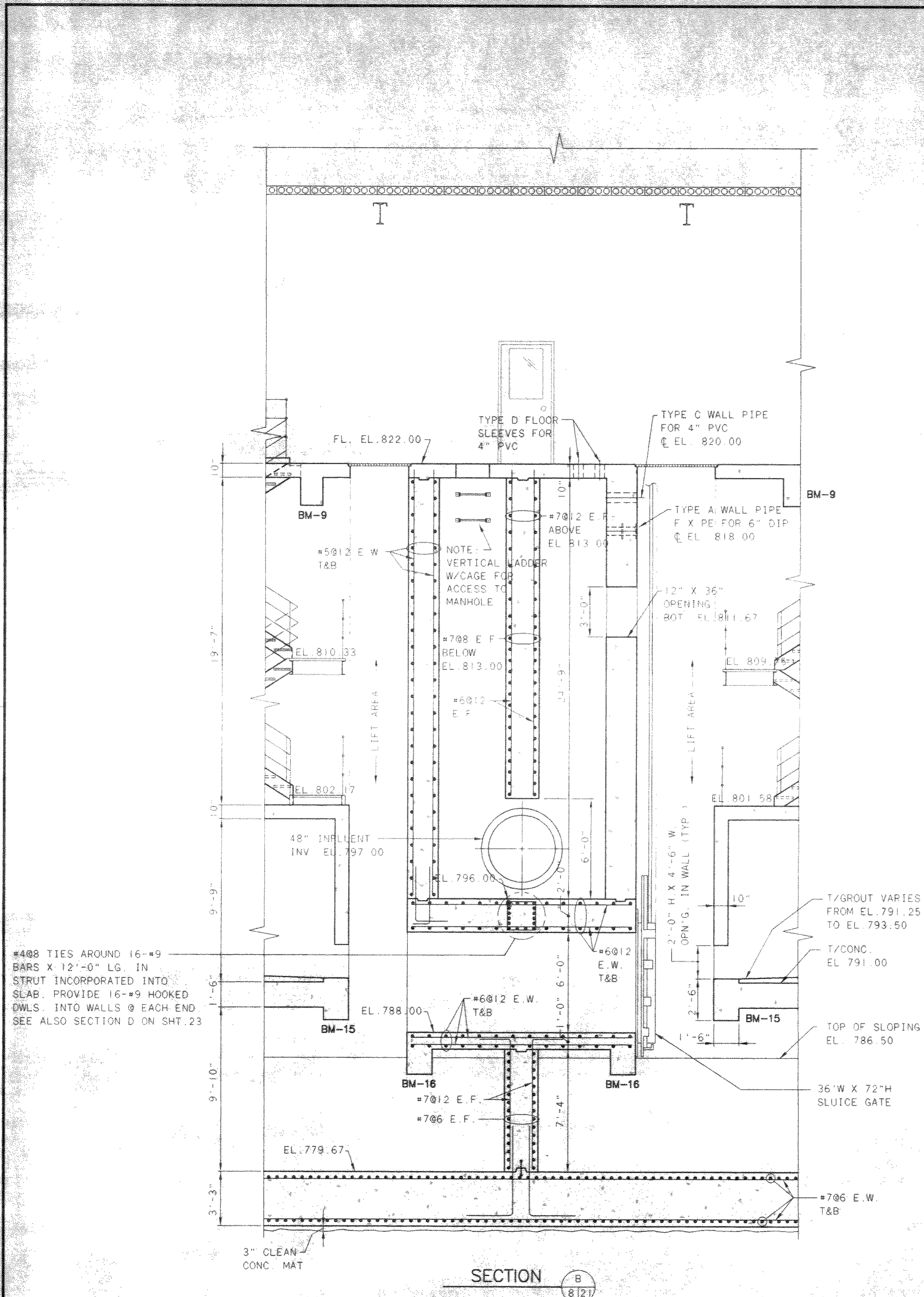
JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 STRUCTURAL
 EQUIPMENT PAD
 PLAN AT EL. 822.50

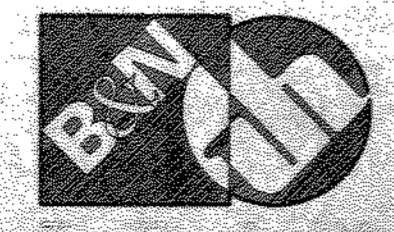


SCALE:	
1/4"=1'-0"	
SHEET NO.	OF
20	100

TDL-4714825 05/04/99 02-14



NO.	REVISIONS	DATE	BY	CHK.



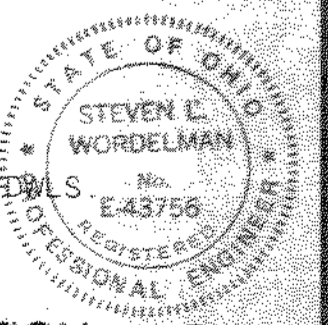
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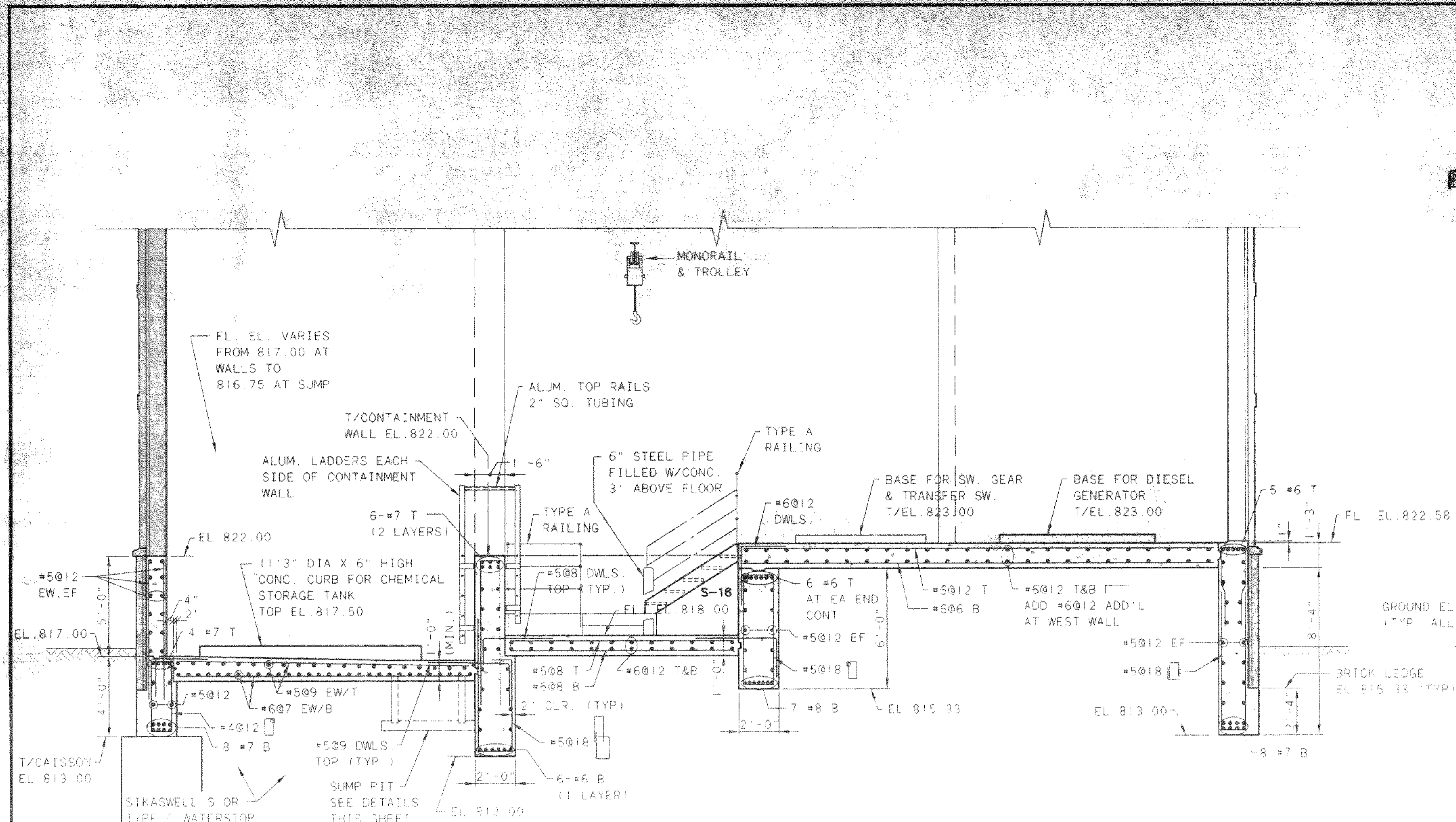
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
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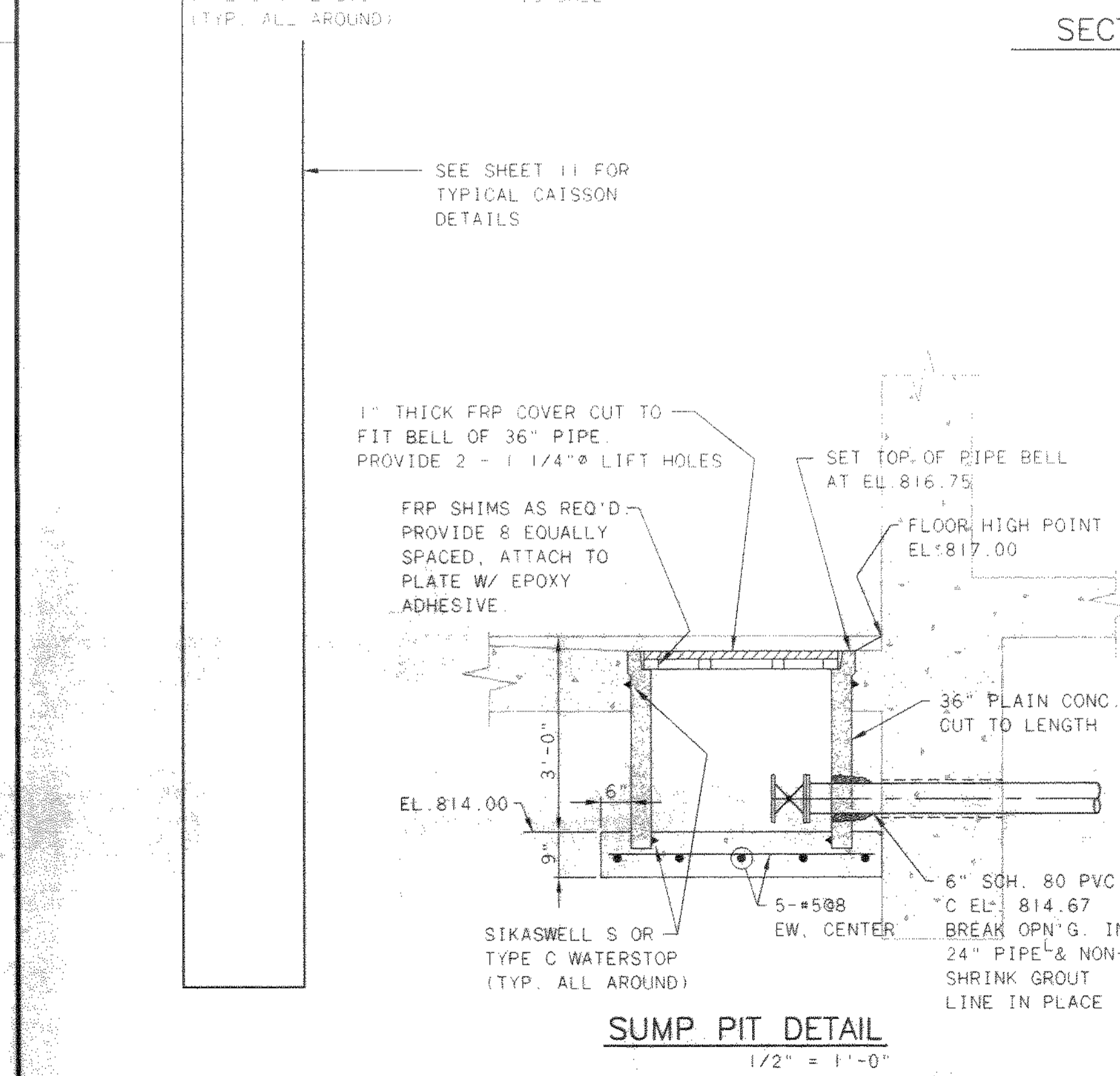
PUMP STATION
 STRUCTURAL
 SECTIONS AND DETAILS

SCALE:	1/4" = 1'-0"
SHEET NO.	21
OF	100

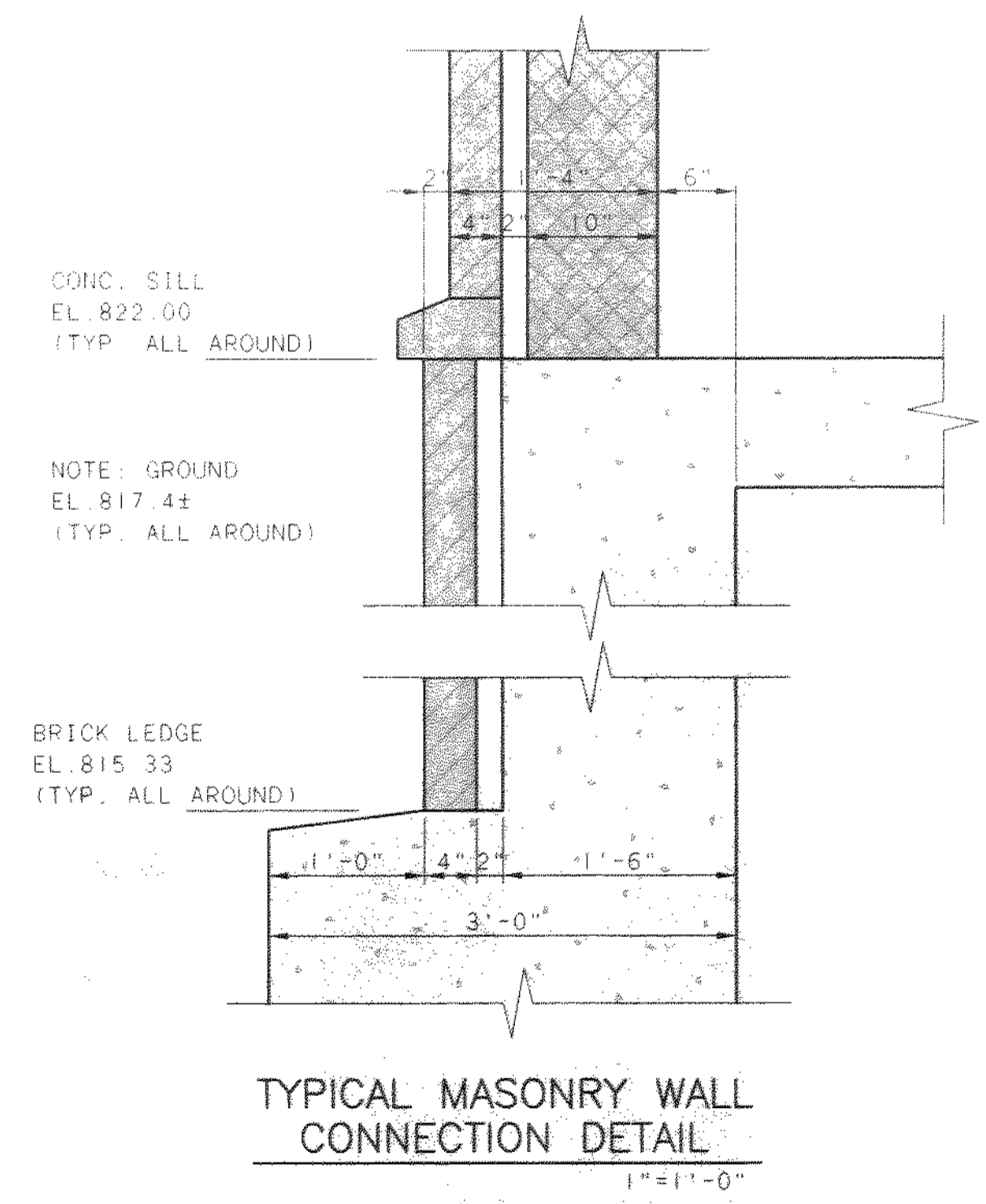




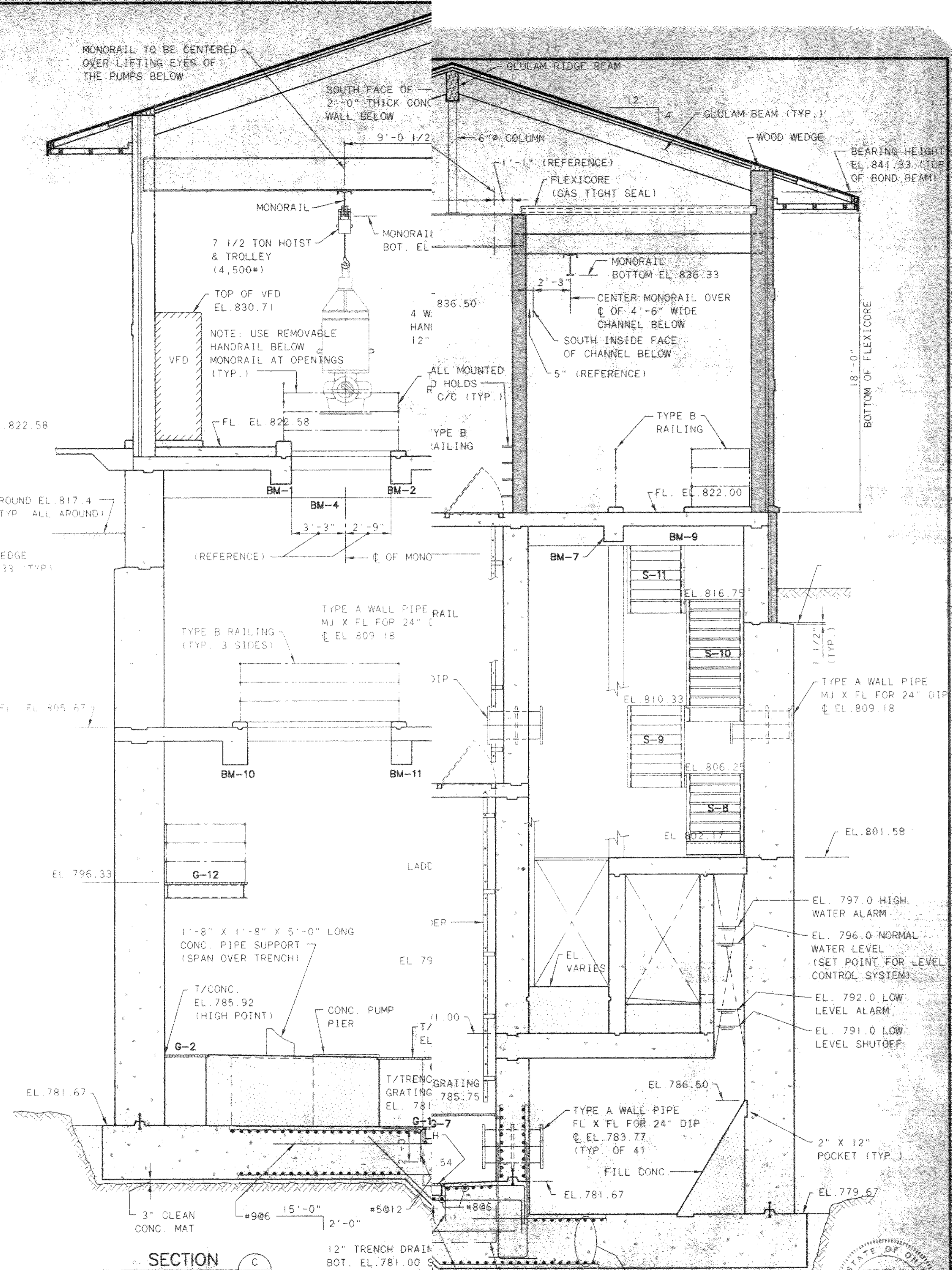
SECTION E
14/22



SUMP PIT DETAIL
1/2" = 1'-0"

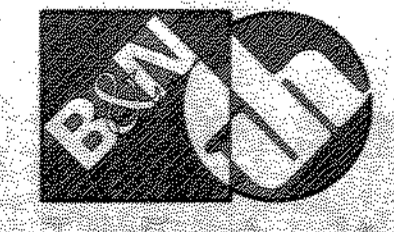


TYPICAL MASONRY WALL CONNECTION DETAIL
1" = 1'-0"



SECTION C
8/22

NO.	REVISIONS	DATE	BY	CHK.

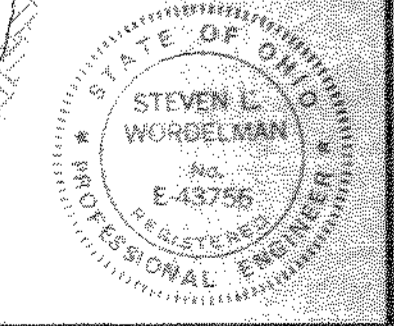


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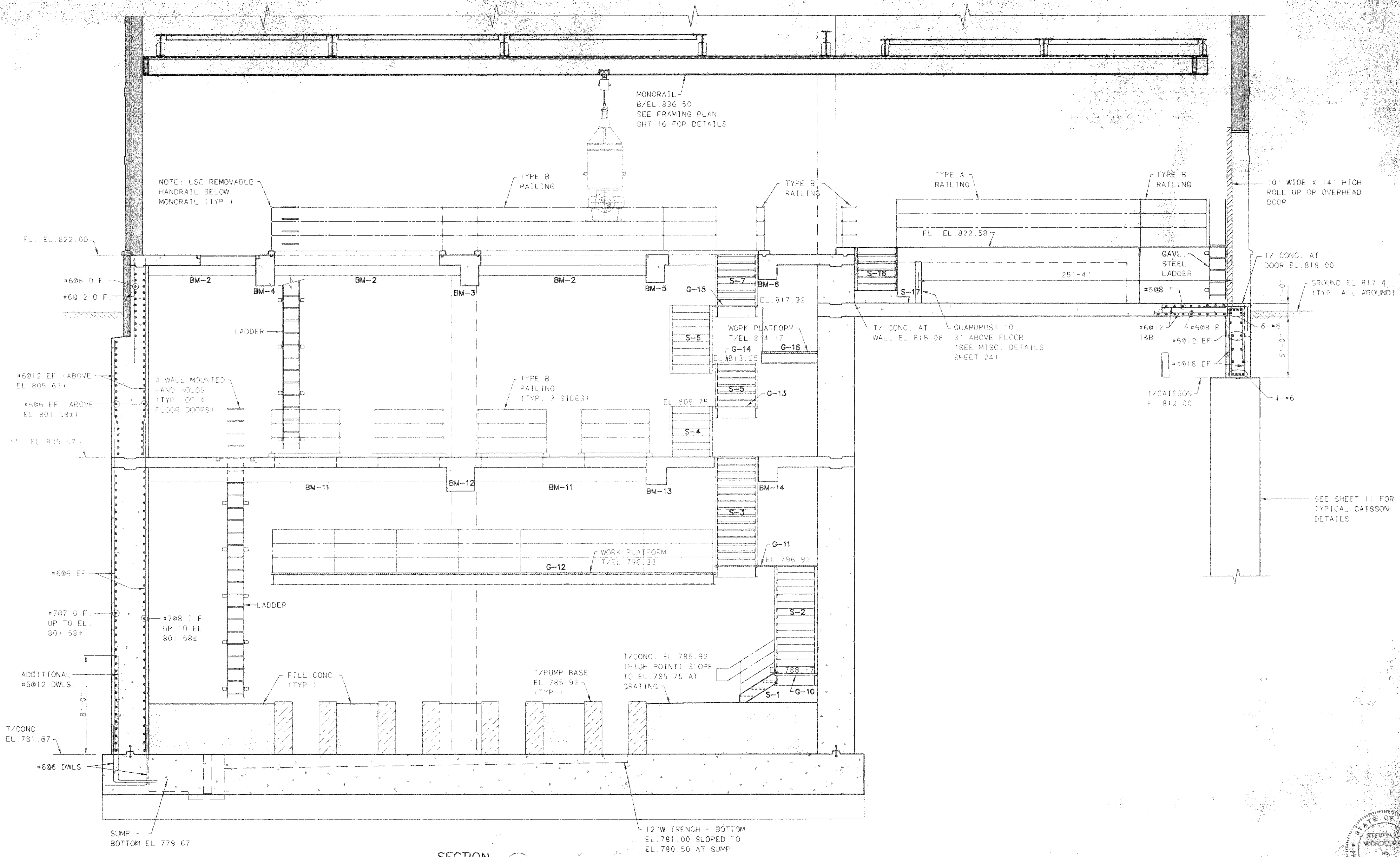
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

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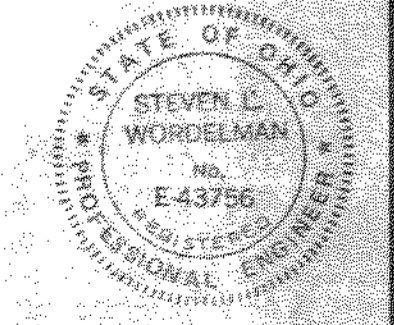
PUMP STATION
STRUCTURAL
SECTIONS AND DETAILS



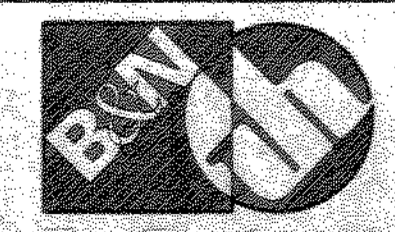
SCALE:	1/4" = 1'-0"
SHEET NO.	22
OF	100



SECTION F
8/24



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

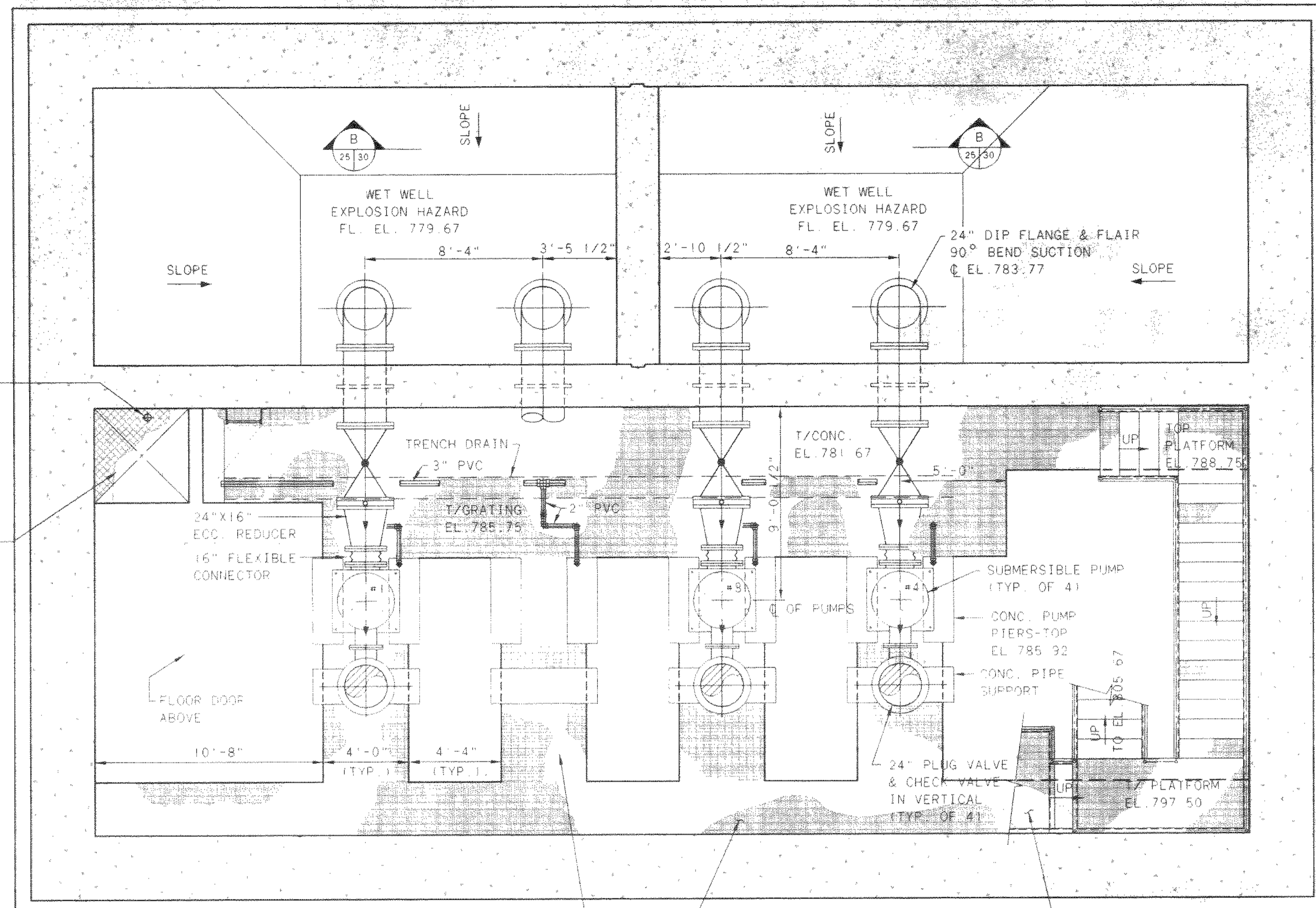
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
STRUCTURAL
SECTIONS AND DETAILS

SCALE:	1/4"=1'-0"
SHEET NO.	24
OF	100

DC-17/ASB
03/04/99/02-14



D
25 32

SUMP W/DUAL
SUMP PUMPS
BOT/EL 779.67

F
25 33

D
25 32

F
25 33

NOTE: PUMP #2 NOT
SHOWN FOR CLARITY

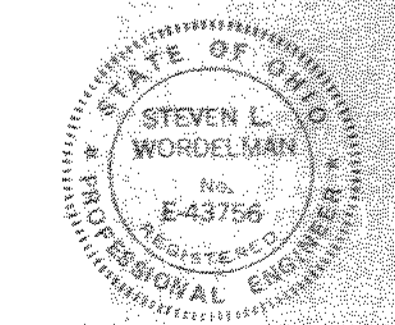
DRY WELL
NON-EXPLOSION HAZARD
T/GRATING EL. 785.92 (HIGH POINT)
SLOPE TO EL. 785.75

WORK PLATFORM
T/EL. 796.33

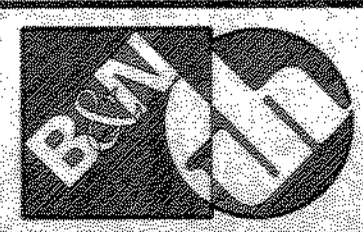
C
25 31

A
25 30

PLAN AT EL. 779.67



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
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DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

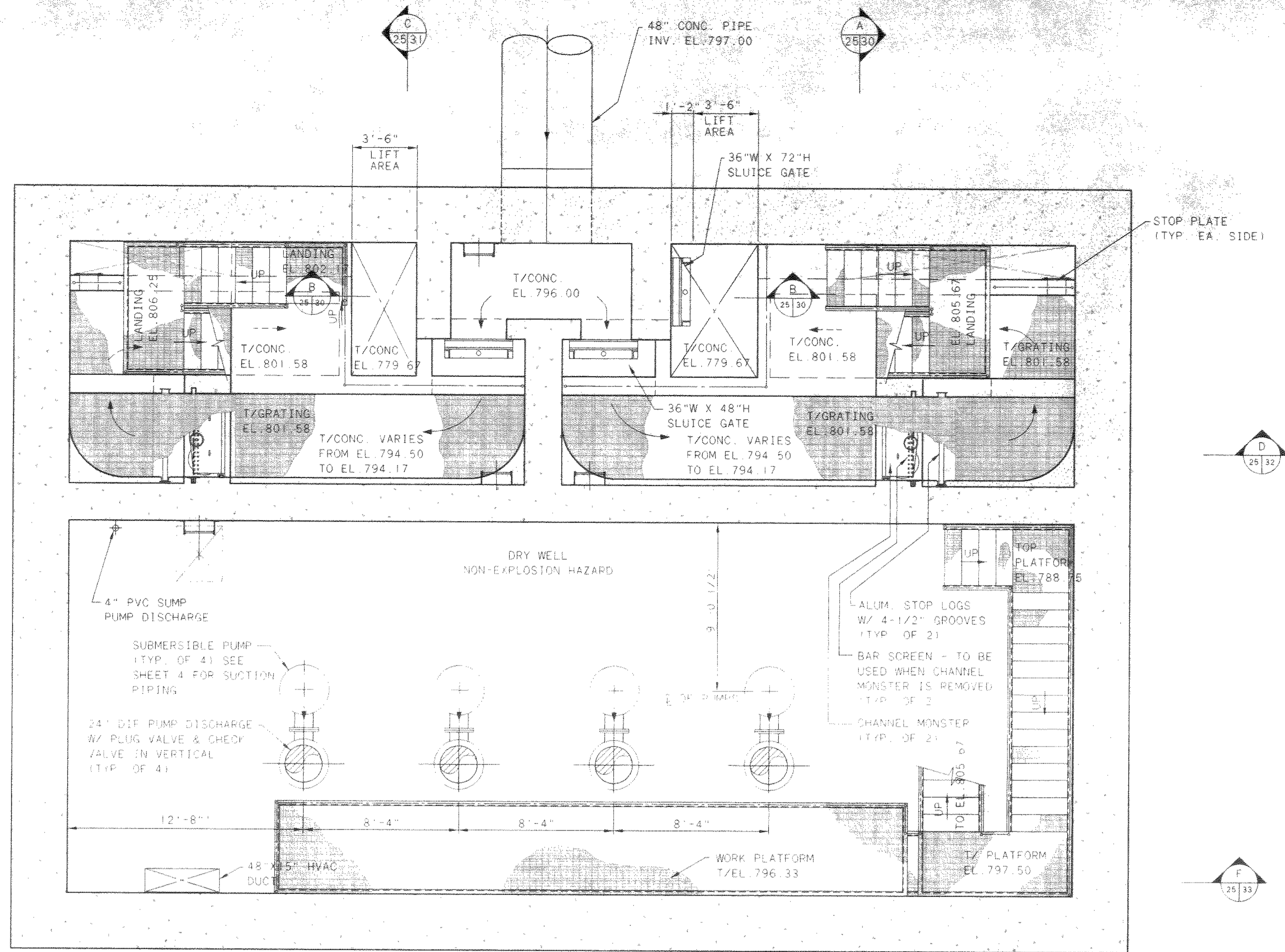
JOB NO.	84-4714
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
PIPING & EQUIPMENT
PLAN AT EL. 779.67

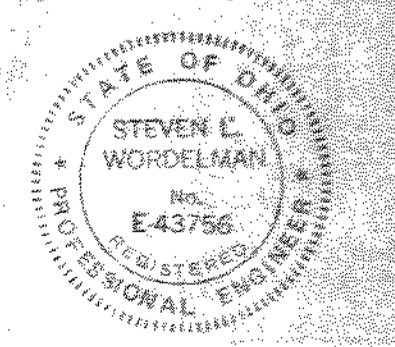
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SHEET NO.	25
OF	100

TD-4714E04
03/04/99 02-14

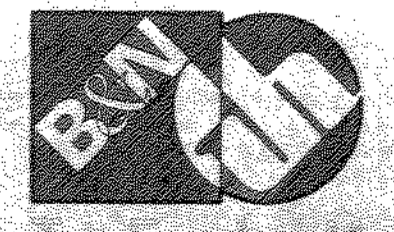
20571



PLAN AT EL. 801.58



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
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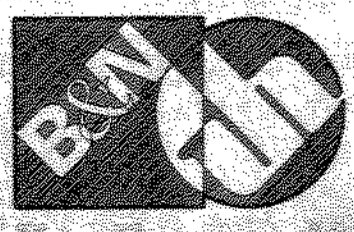
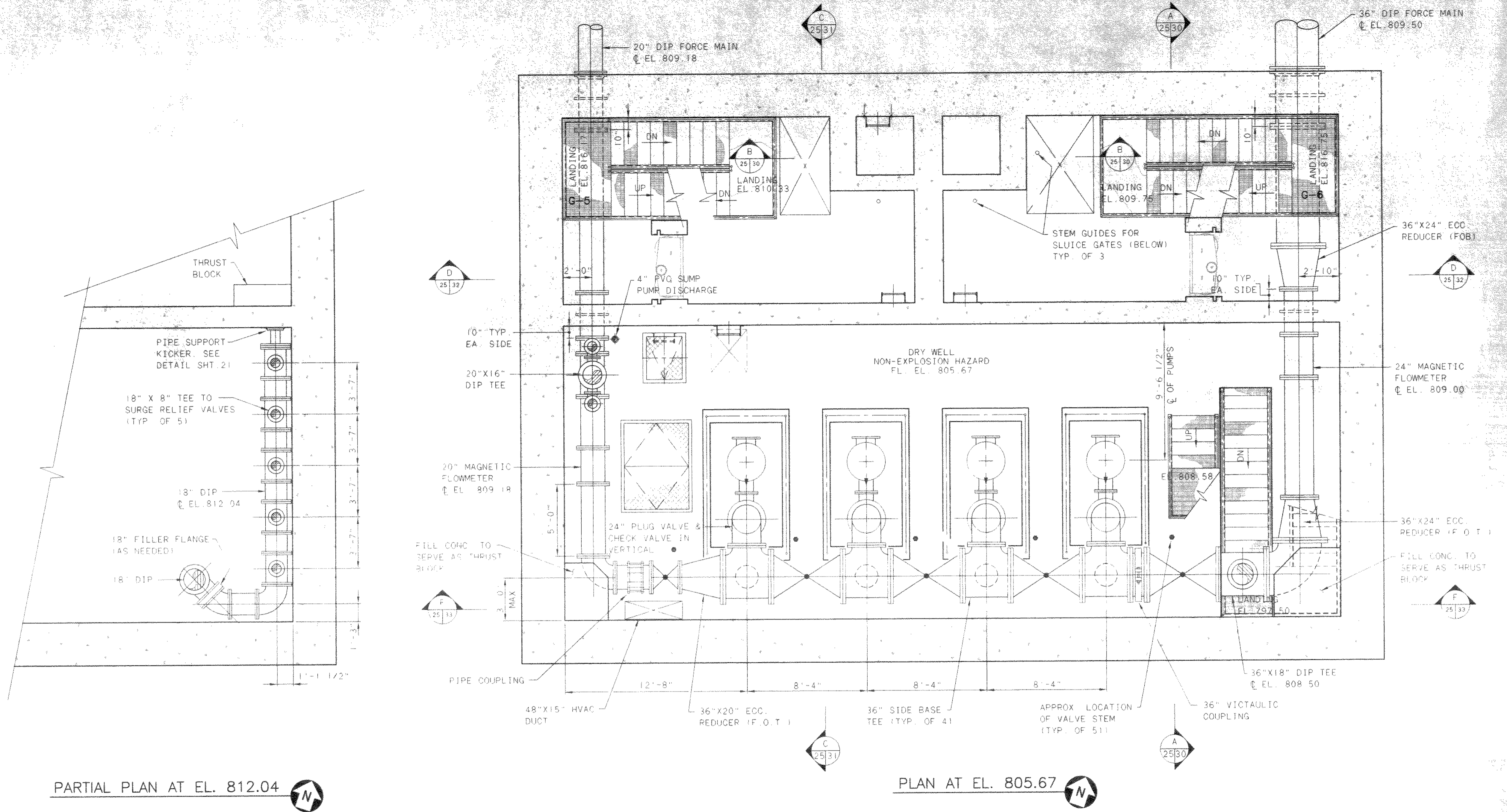
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 PIPING & EQUIPMENT
 PLAN AT EL. 801.58

SCALE:	
1/4" = 1'-0"	
SHEET NO.	OF
26	100

TOL-4714PE03
 03/04/99 02-14

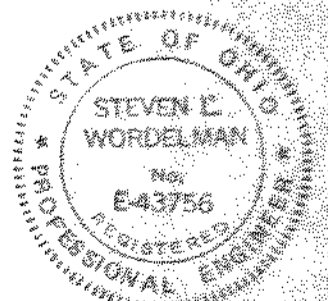


Burgess & Niple, Limited
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DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

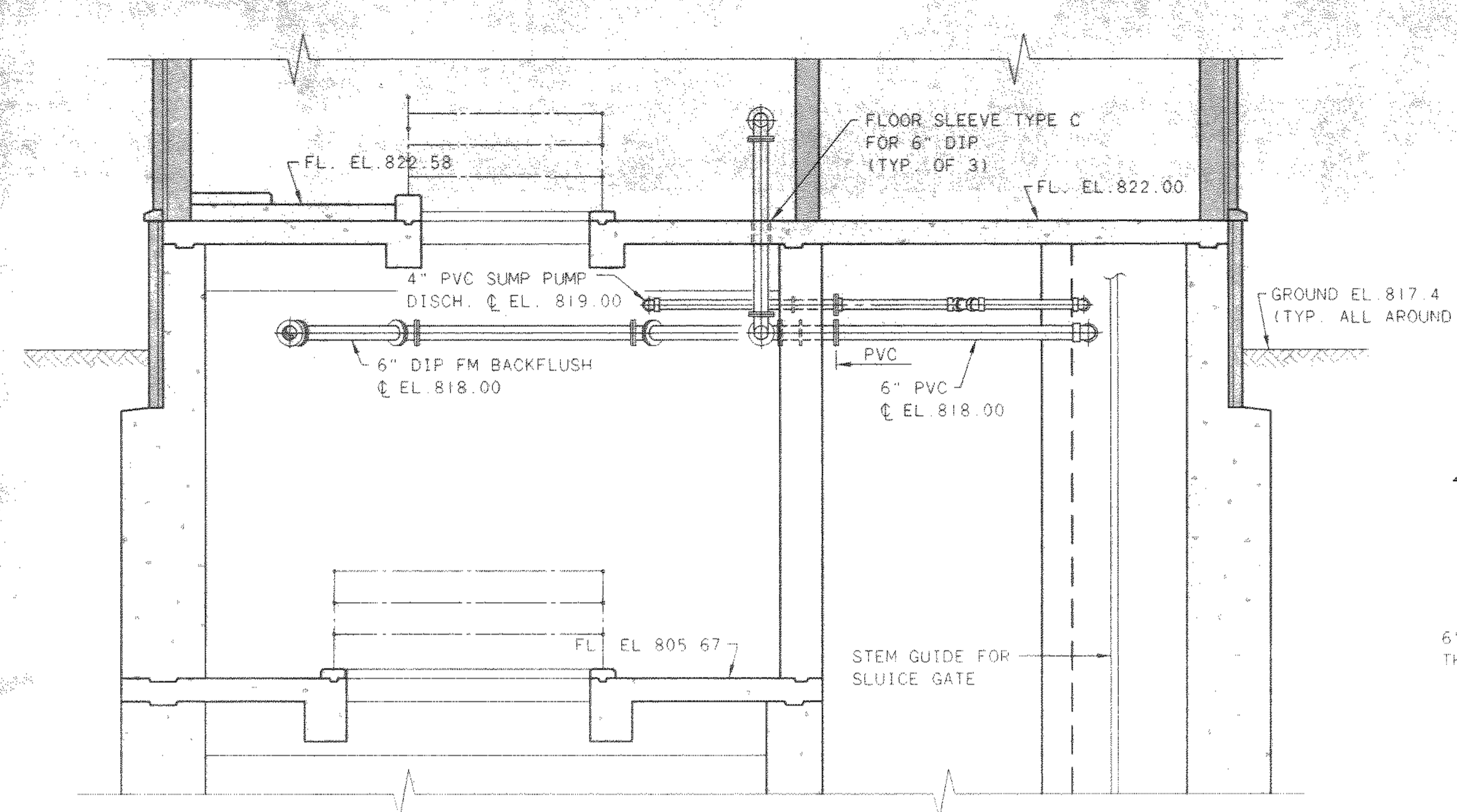
JOB NO. 20571
DESIGNED BY: FXW
DRAWN BY: RCD
CHECKED BY: FXW
APPROVED BY: SLW
DATE: 1999

PUMP STATION
PIPING & EQUIPMENT
PLAN AT EL. 805.67

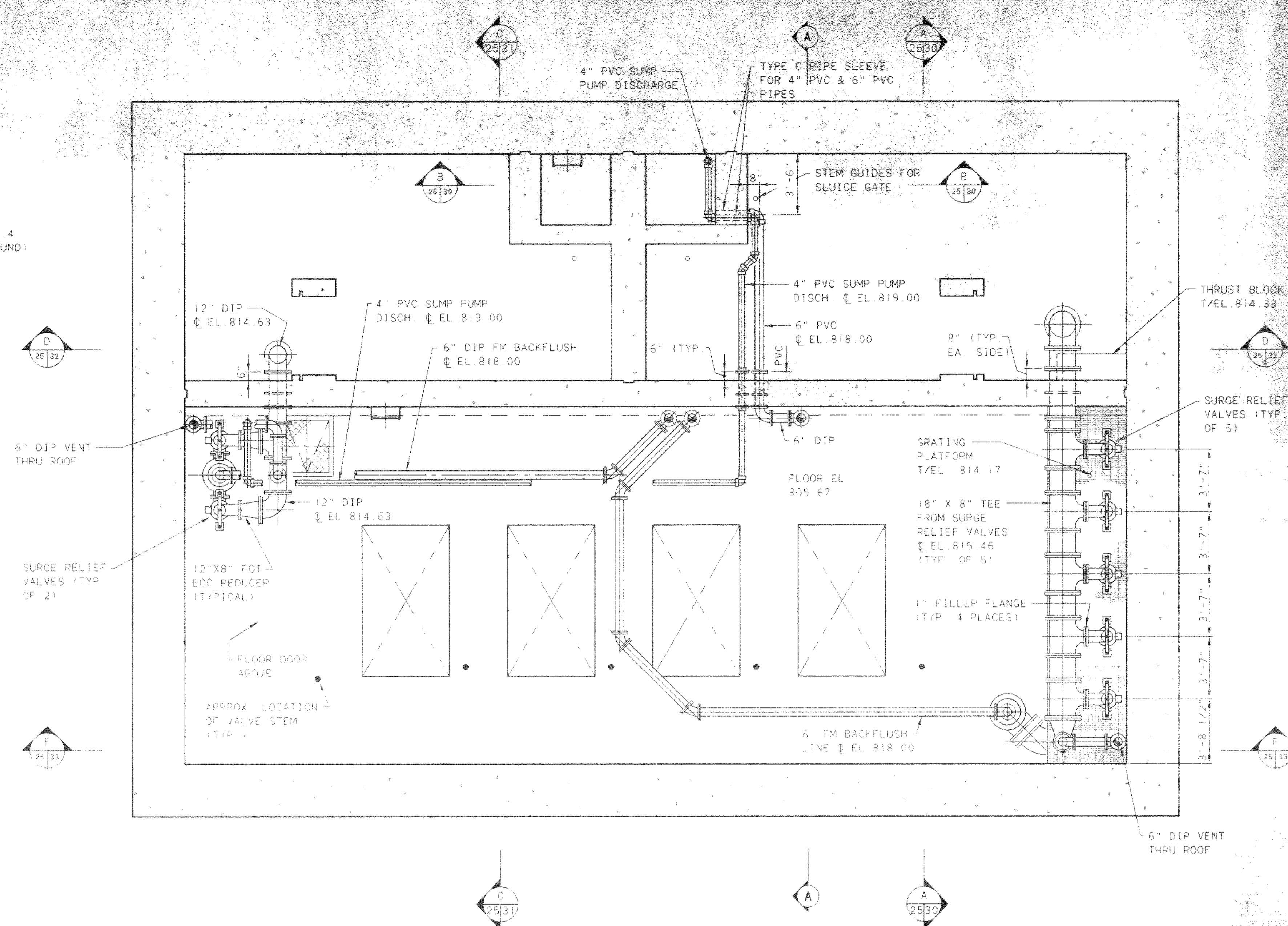


SCALE: 1/4" = 1'-0"
SHEET NO. 27 OF 100

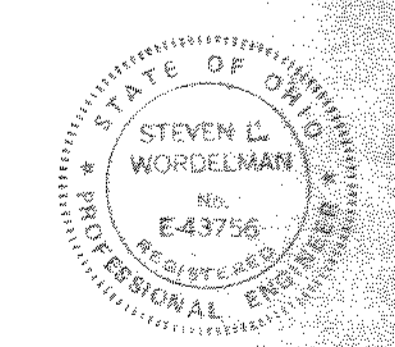
T01-4714R002 03/04/98 02-14



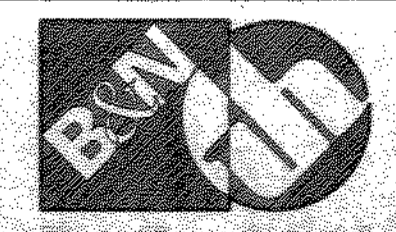
SECTION A



PLAN AT EL. 818.00



NO.	REVISIONS	DATE	BY	CHK.



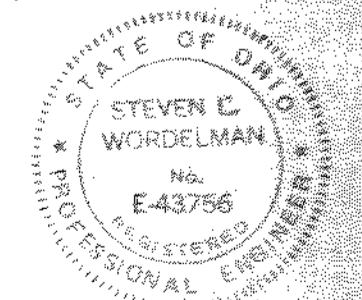
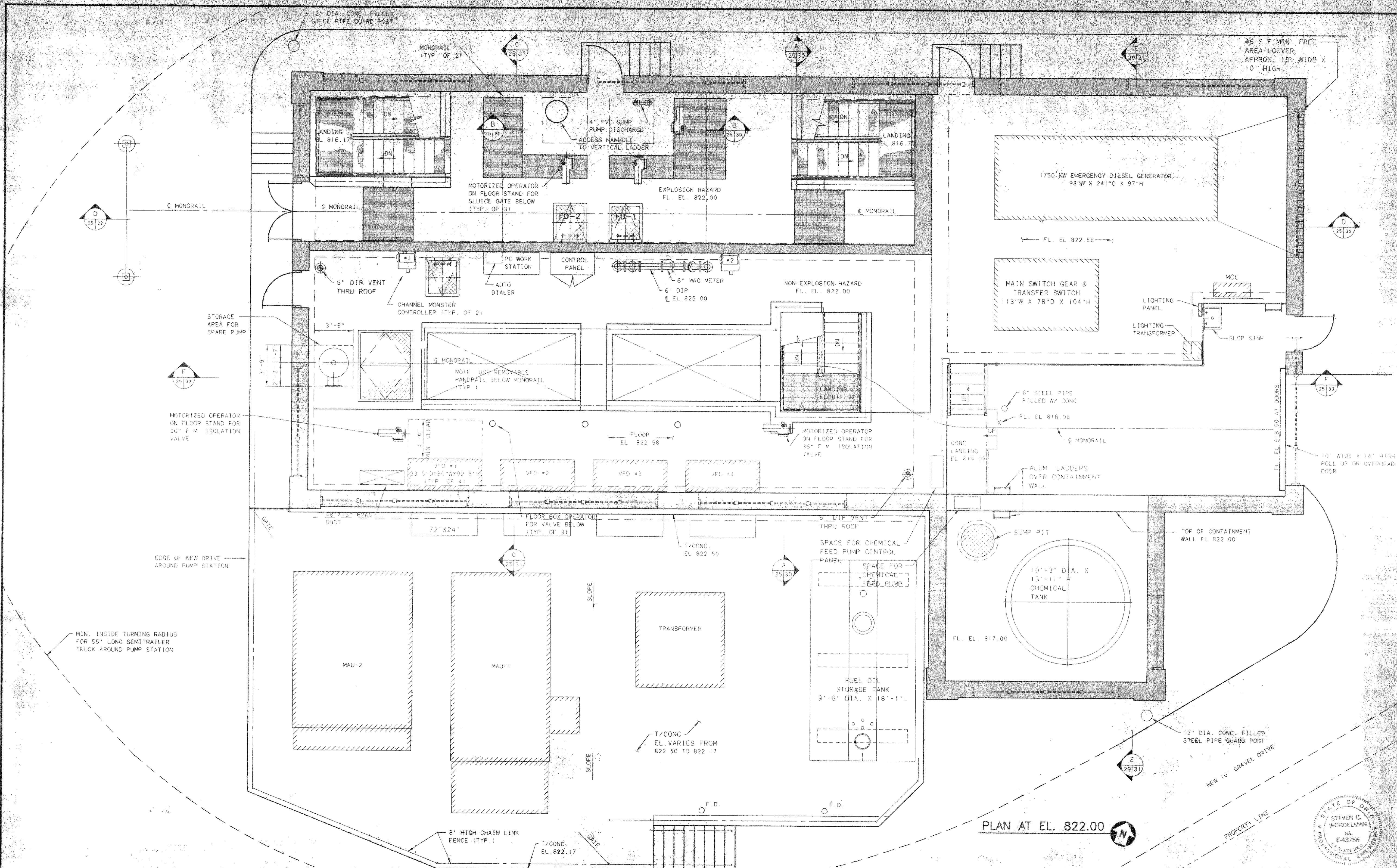
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 PIPING & EQUIPMENT
 PLAN AT EL. 818.00

SCALE:	
1/4" = 1'-0"	
SHEET NO.	OF
28	100



NO.	REVISIONS	DATE	BY	CHK.

Burgess & Niple, Limited
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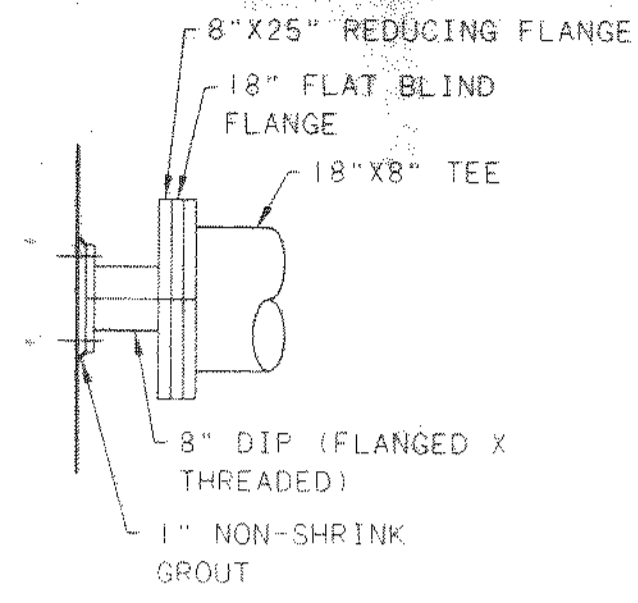
**DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY**

JOB NO. 20571
 DESIGNED BY: FXW
 DRAWN BY: RCD
 CHECKED BY: FXW
 APPROVED BY: SLW
 DATE: 1999

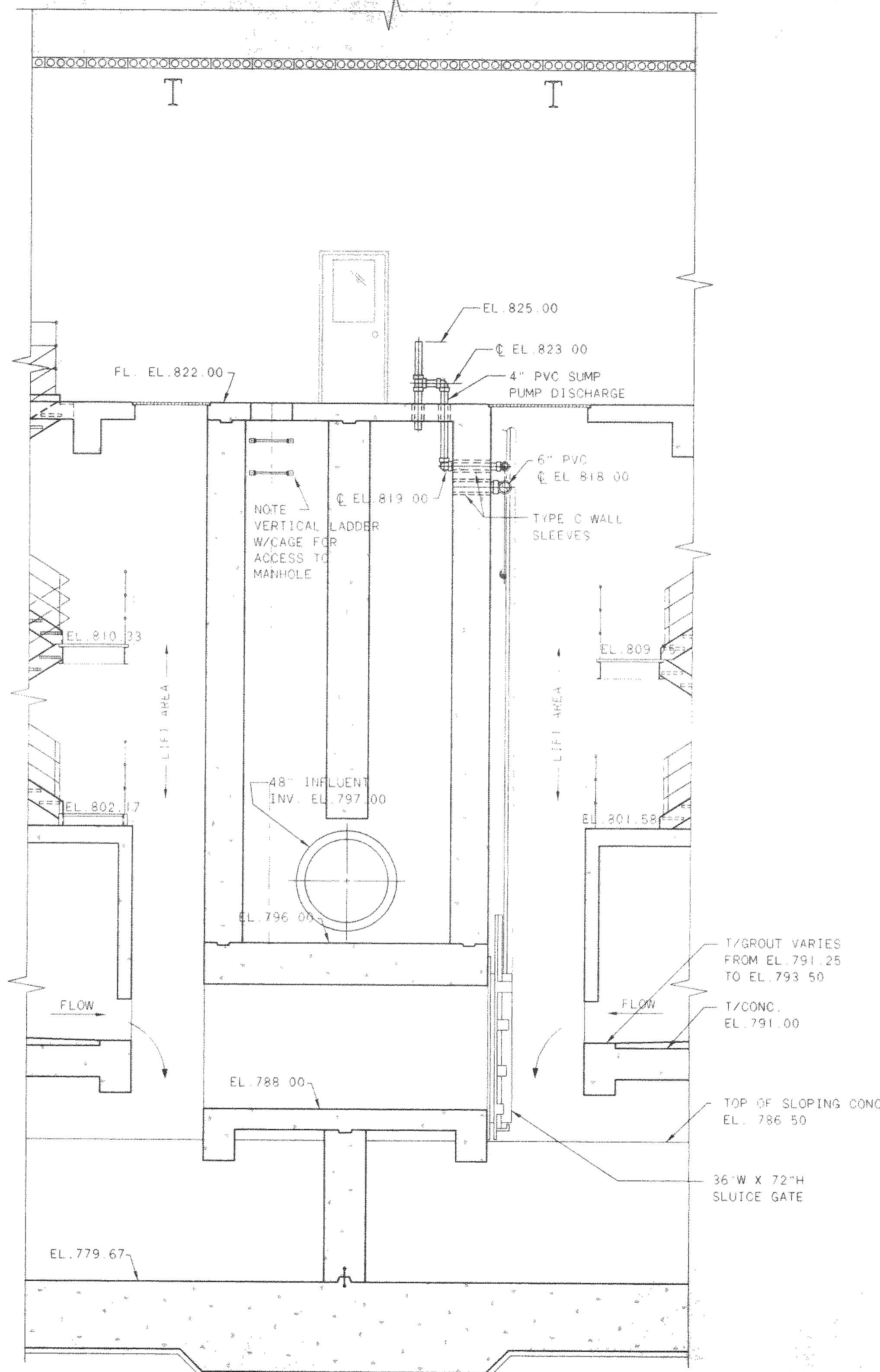
**PUMP STATION
 PIPING & EQUIPMENT
 PLAN AT EL. 822.00**

SCALE:	1/4" = 1'-0"
SHEET NO.	29
OF	100

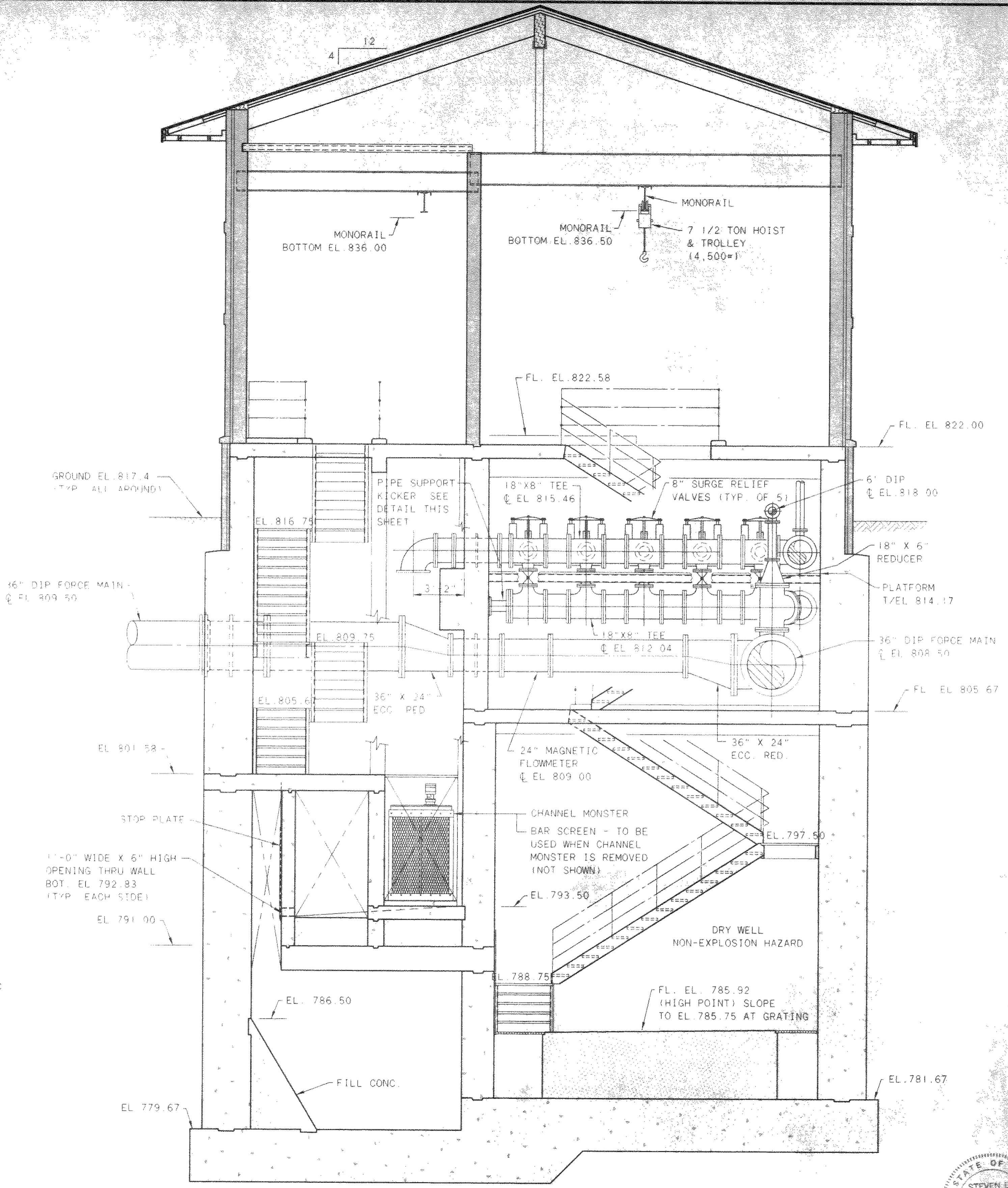
TOL-4714PEC01
 03/04/98 02-14



PIPE SUPPORT DETAIL
1/2"=1'-0"

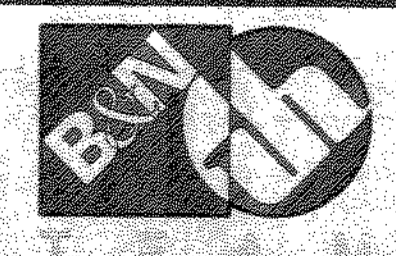


SECTION B
25/30



SECTION A
25/30

NO.	REVISIONS	DATE	BY	CHK.

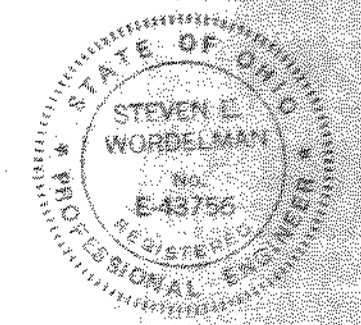


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Jones & Henry Engineers, Ltd.

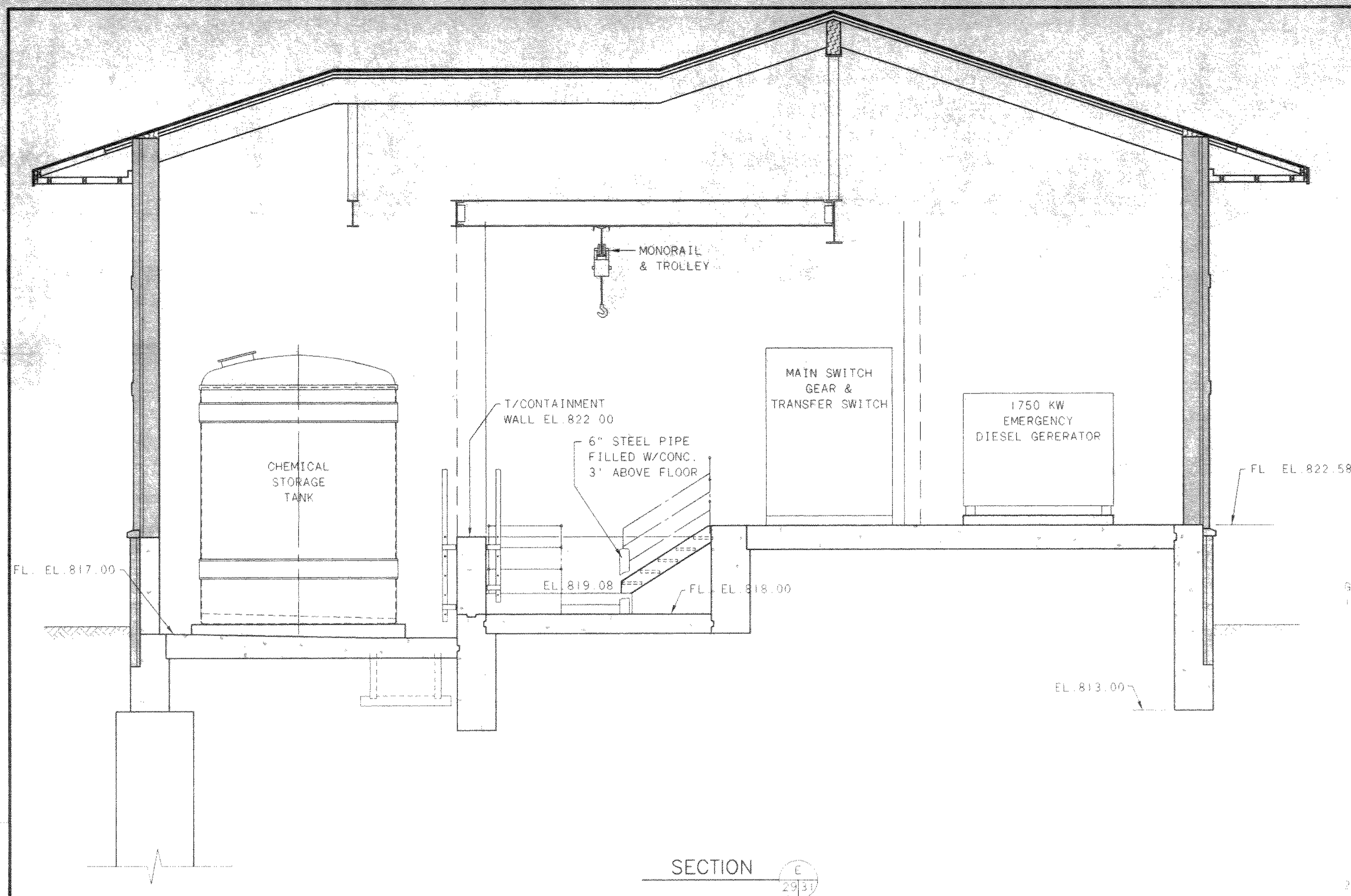
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
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DATE:	1999

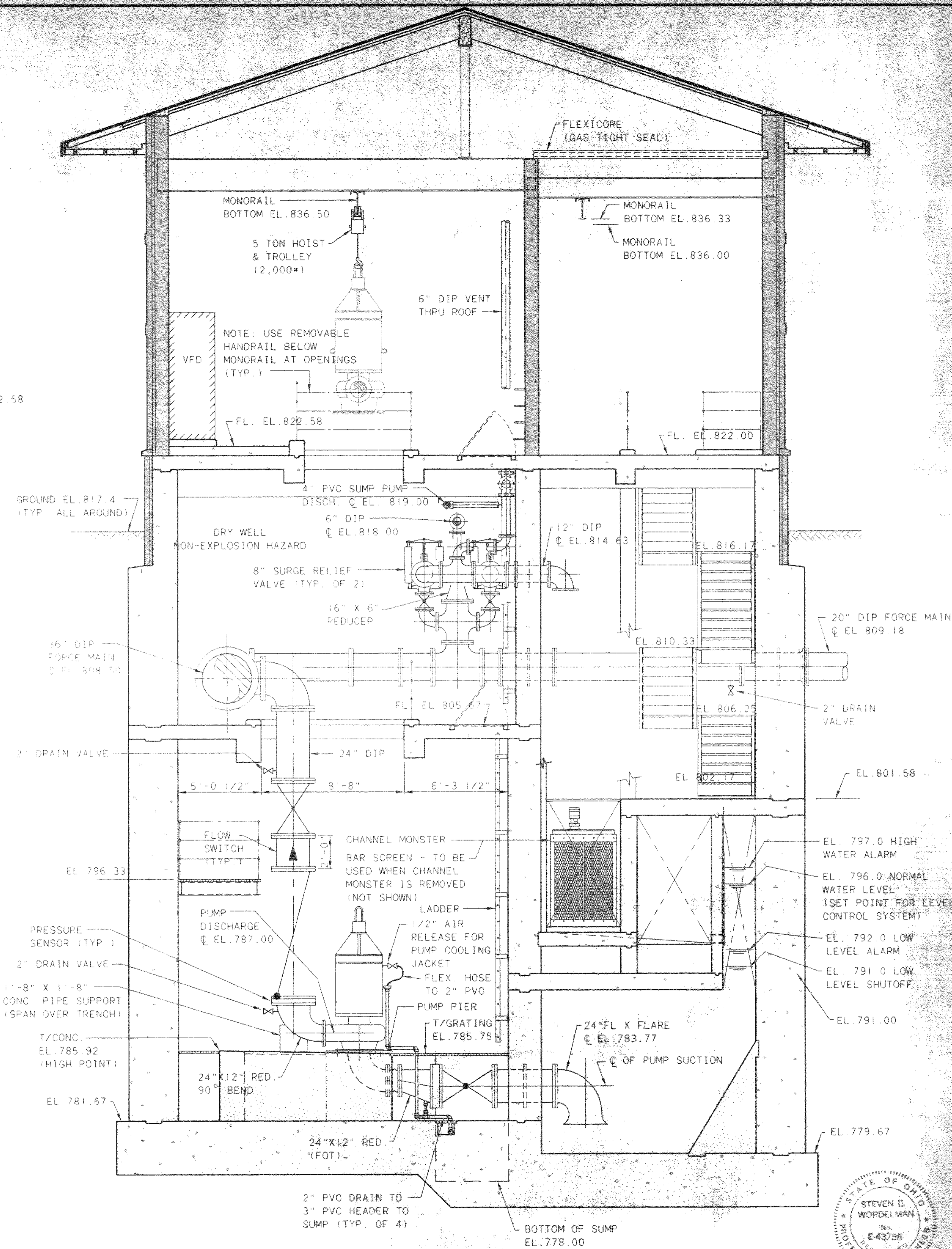
PUMP STATION
PIPING & EQUIPMENT
SECTIONS AND DETAILS



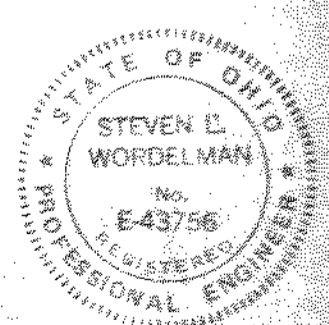
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OF	100



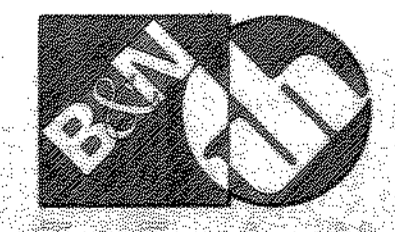
SECTION E
25/31



SECTION C
25/31



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

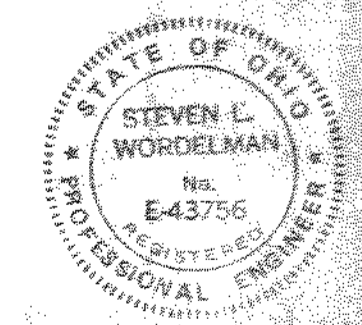
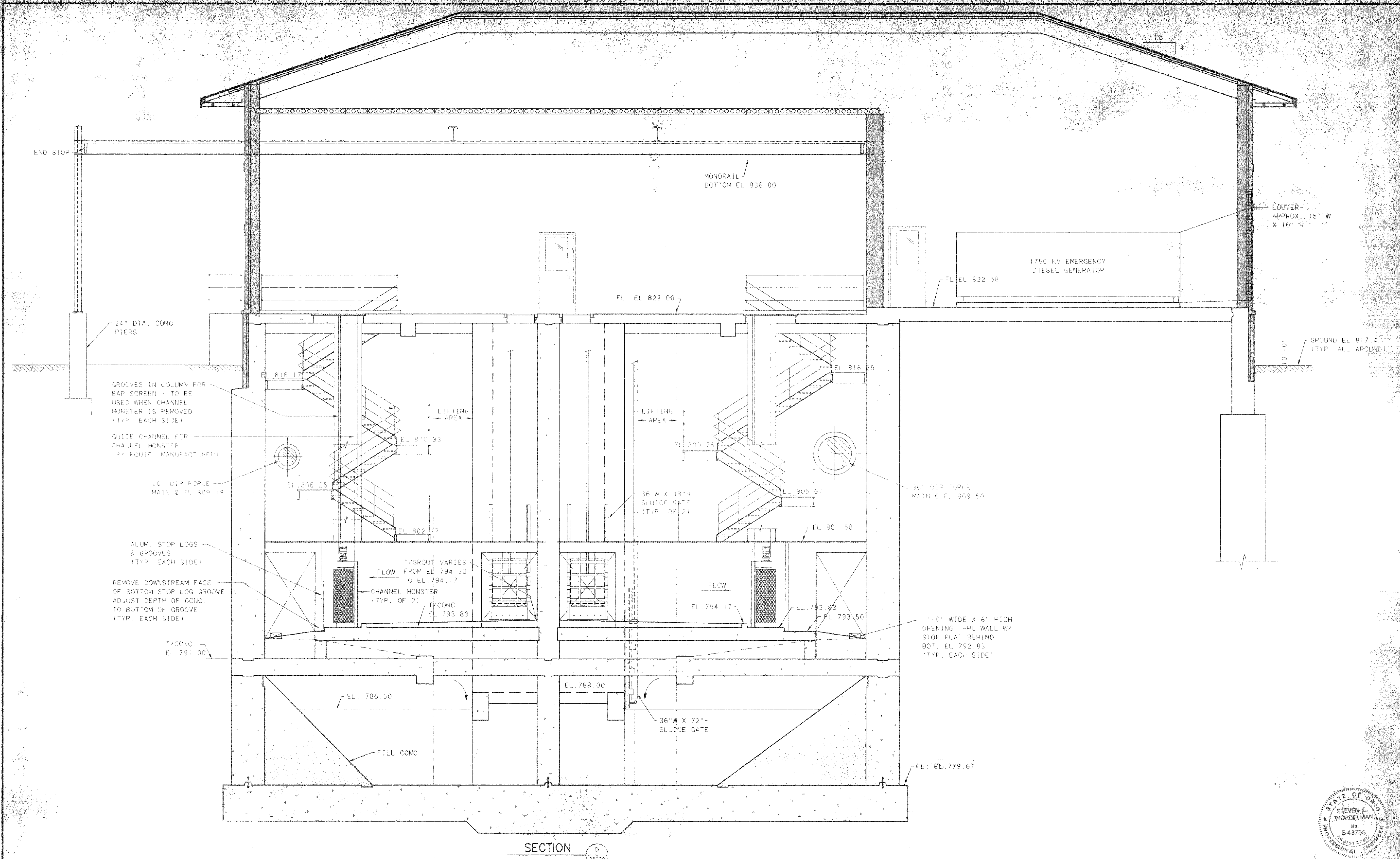
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
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DATE:	1999

**PUMP STATION
PIPING & EQUIPMENT
SECTIONS AND DETAILS**

SCALE:	1/4" = 1'-0"
SHEET NO.	31
OF	100

YOC-47/14/06
 03/04/99 02-14



NO.	REVISIONS	DATE	BY	CHK.

Burgess & Niple, Limited
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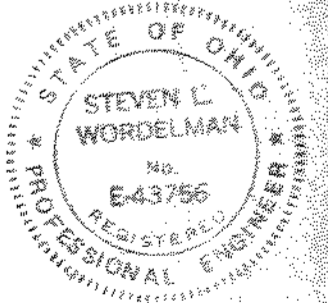
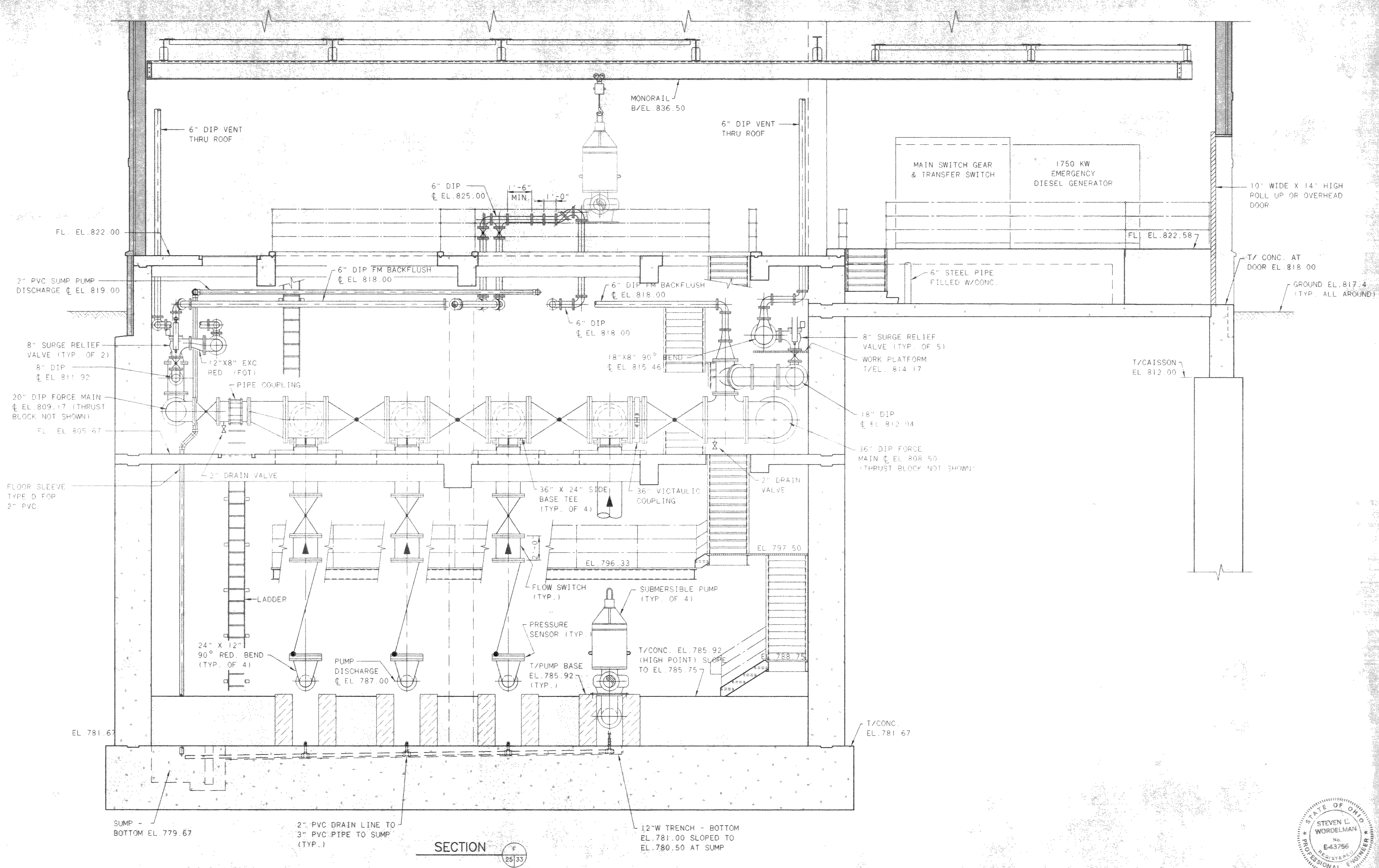
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 PIPING & EQUIPMENT
 SECTIONS AND DETAILS

SCALE:	1/4" = 1'-0"
SHEET NO.	32
OF	10

TOL-47148C07
 03/04/98 02-14



NO.	REVISIONS	DATE	BY	CHK.

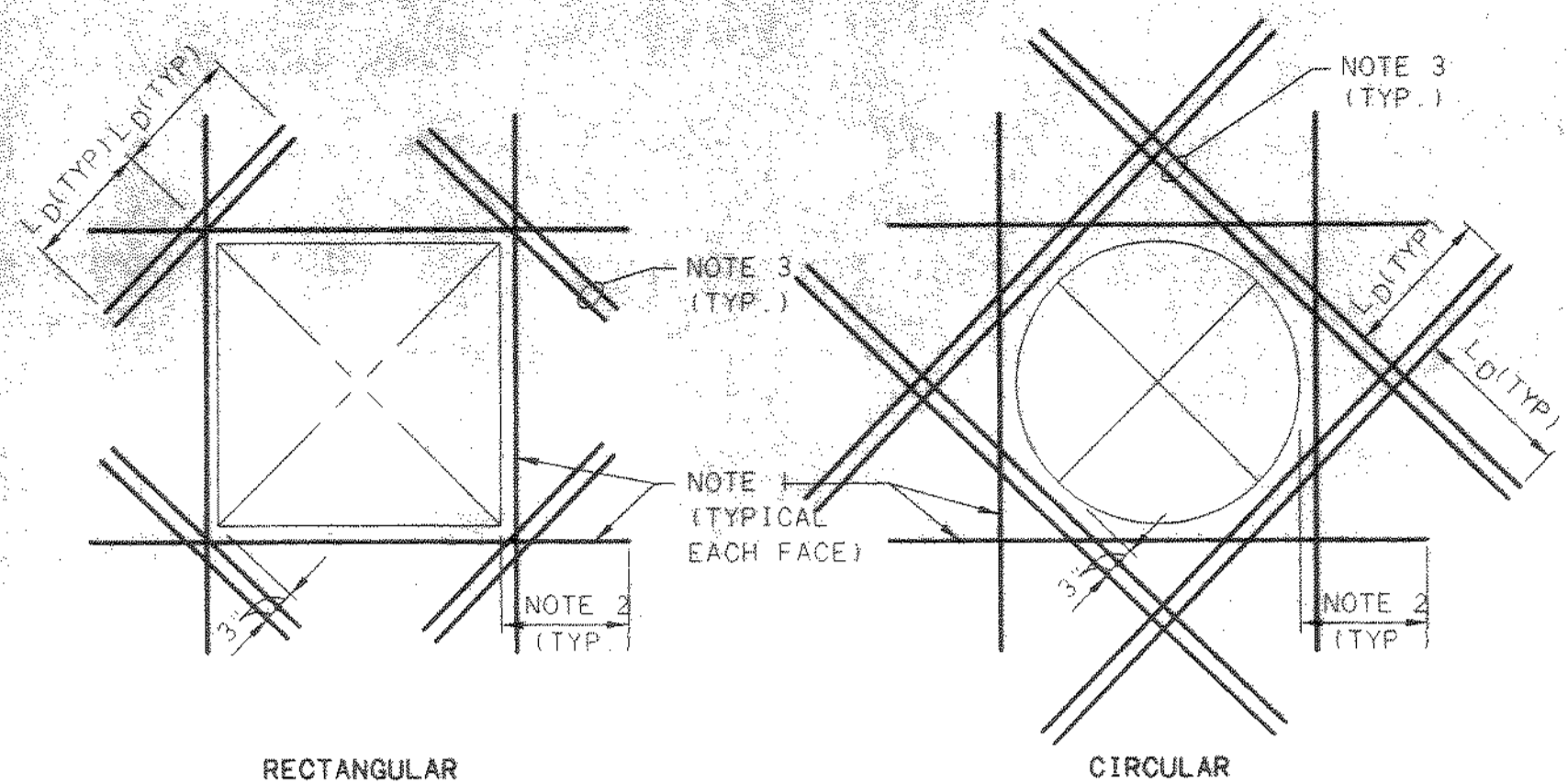
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
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DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 PIPING & EQUIPMENT
 SECTIONS AND DETAILS

SCALE:	1/4"=1'-0"
SHEET NO.	33
OF	100



RECTANGULAR

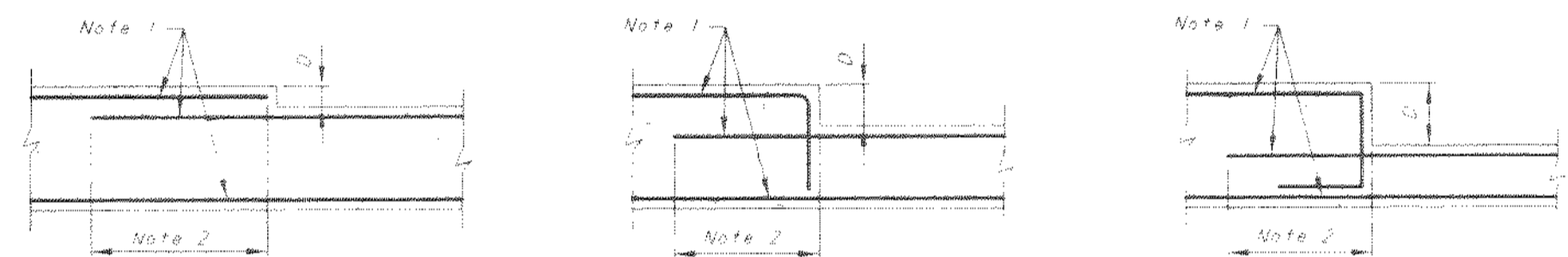
CIRCULAR

REINFORCEMENT AT OPENING NOTES:

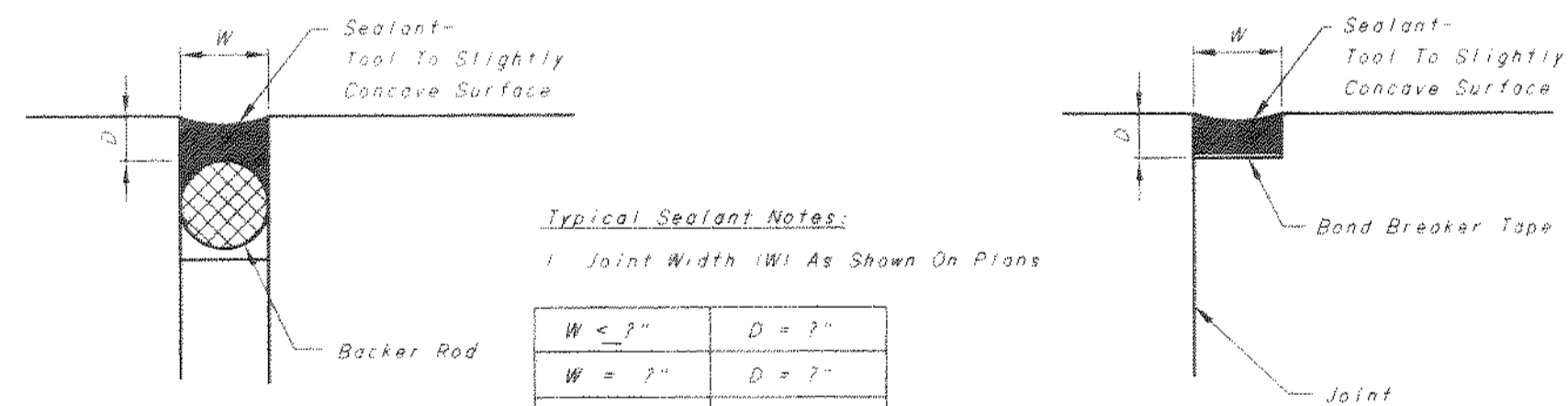
- ADDITIONAL REINFORCEMENT EQUAL IN AREA TO REINFORCEMENT CUT BY OPENING.
- LAP SPLICE LENGTH FOR TOP BARS.
- DIAGONAL BARS - EACH FACE, 2 EACH CORNER - SIZE AS FOLLOWS

CONC. THICKNESS	BAR SIZE	DEVELOPMENT LENGTH (L)
LESS THAN 12"	#4	17"
12" TO 18"	#5	21"
GREATER THAN 18"	#6	25"
- THIS STANDARD LIMITED TO PENETRATIONS SMALLER THAN 48"

TYPICAL ADDITIONAL REINFORCEMENT AT OPENINGS LARGER THAN 12"



TYPICAL SLAB DEPRESSION DETAILS



Typical Sealant Notes:

- Joint Width (W) As Shown On Plans
- Blunt Sharp Edges Of Concrete Joints With Grinder Before Sealing.

W < 1"	D = 1"
W = 1"	D = 2"
W > 1"	D = 3"

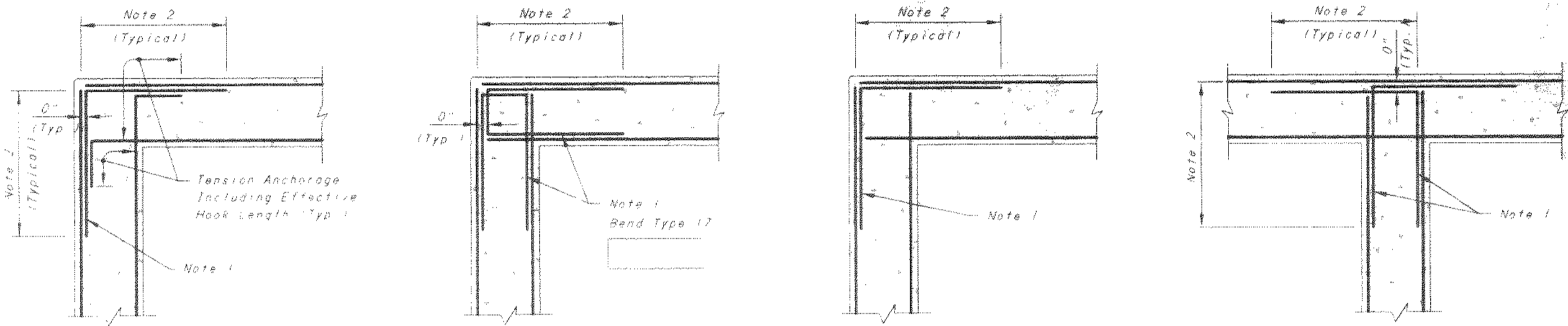
TYPICAL SEALANT DETAILS

TYPICAL CONCRETE COVER

Concrete Cast Against And Permanently Exposed To Earth	3"
Surface Exposed To Earth Or Weather	2"
Surface Exposed To Or Over Water, Sewage, Or Other Liquids	2"
Slabs, Walls, Joists	2"
Beams, Columns	2 1/2"
Primary Reinforcement	2"
Stirrups And Ties	2"
Other Surfaces	2"
Slabs, Walls, Joists	2"
Beams, Columns	2 1/2"
Primary Reinforcement	2"
Stirrups And Ties	2"

Bar Size	LAP SPLICE LENGTH (IN.) Unless Shown Otherwise	
	Top Reinforcement	Bottom And Vertical Reinforcement
#3	18	16
#4	24	19
#5	30	23
#6	36	28
#7	42	33
#8	48	37
#9	54	43
#10	60	49
#11	66	55

Top Reinforcement Is Defined As Horizontal Reinforcement With More Than 12" Of Fresh Concrete Cast Beneath The Bar. Horizontal Bars In Walls Shall Be Considered As Top Reinforcement

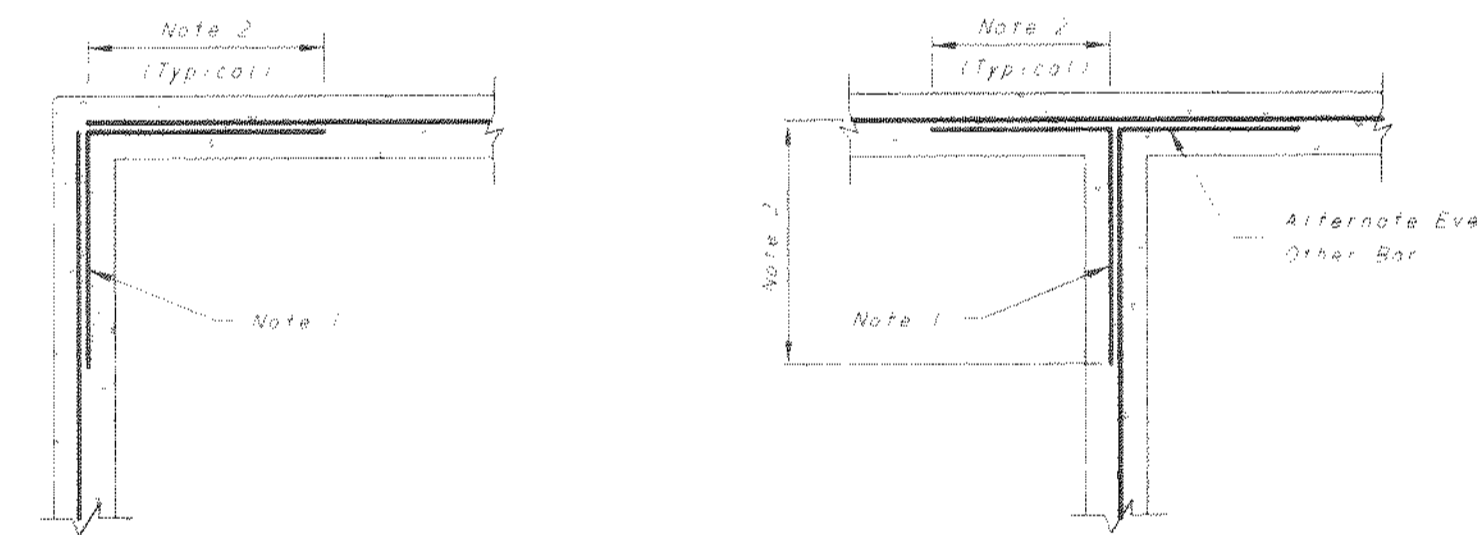


ALTERNATE FOR LIQUID-RETAINING STRUCTURES (NOTE 3)

LIQUID-RETAINING STRUCTURES

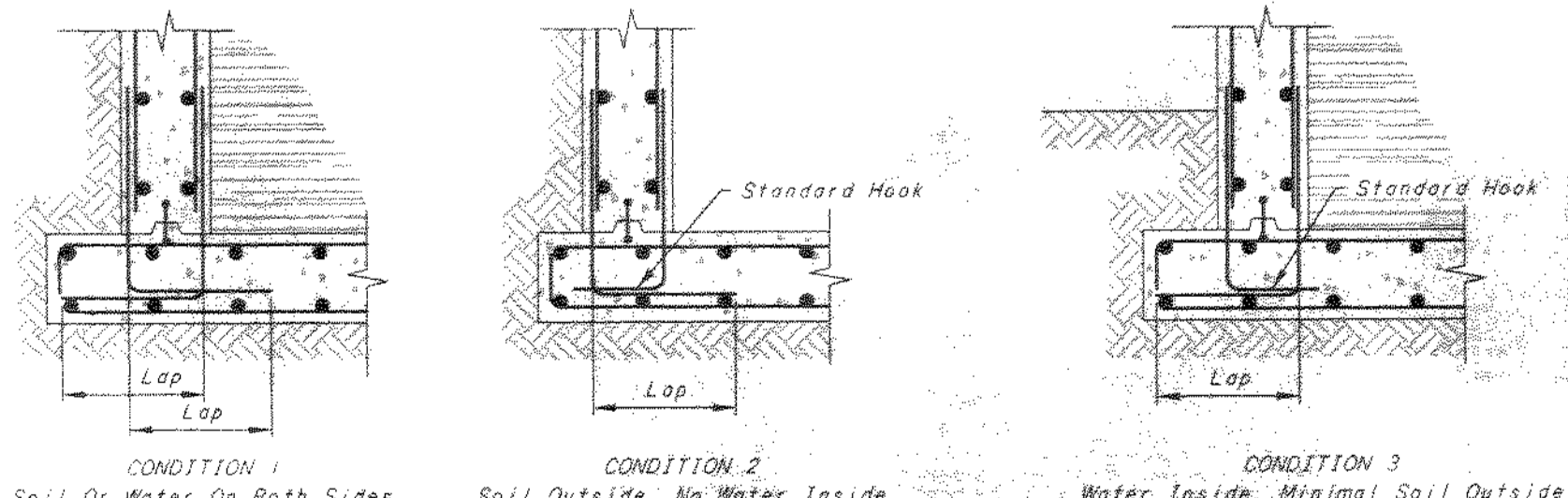
OTHER STRUCTURES

ALL STRUCTURES

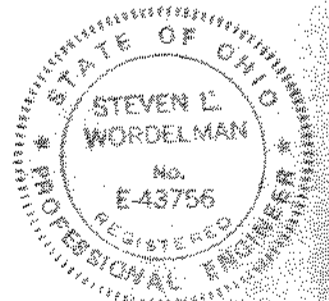


TYPICAL CONCRETE WALL CORNER REINFORCEMENT DETAILS

- Wall Corner Reinforcement Notes:
- Same Size And Spacing As Horizontal Reinforcement Unless Shown Otherwise
 - Lap Splice Length For Top Bars Unless Shown Otherwise. Lap Location May Be Shifted To Reduce Congestion At Corner.
 - Alternate Detail Requires Engineer Approval

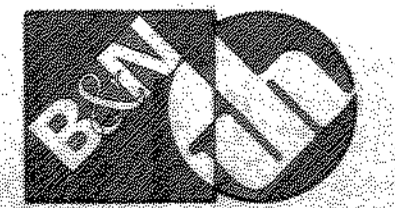


CONDITION 1 Soil Or Water On Both Sides
 CONDITION 2 Soil Outside, No Water Inside
 CONDITION 3 Water Inside, Minimal Soil Outside



Note To Designer: Consider Detailing Condition 3 Walls As Condition 1 Walls, To Accommodate Future Expansion.

NO.	REVISIONS	DATE	BY	CHK.



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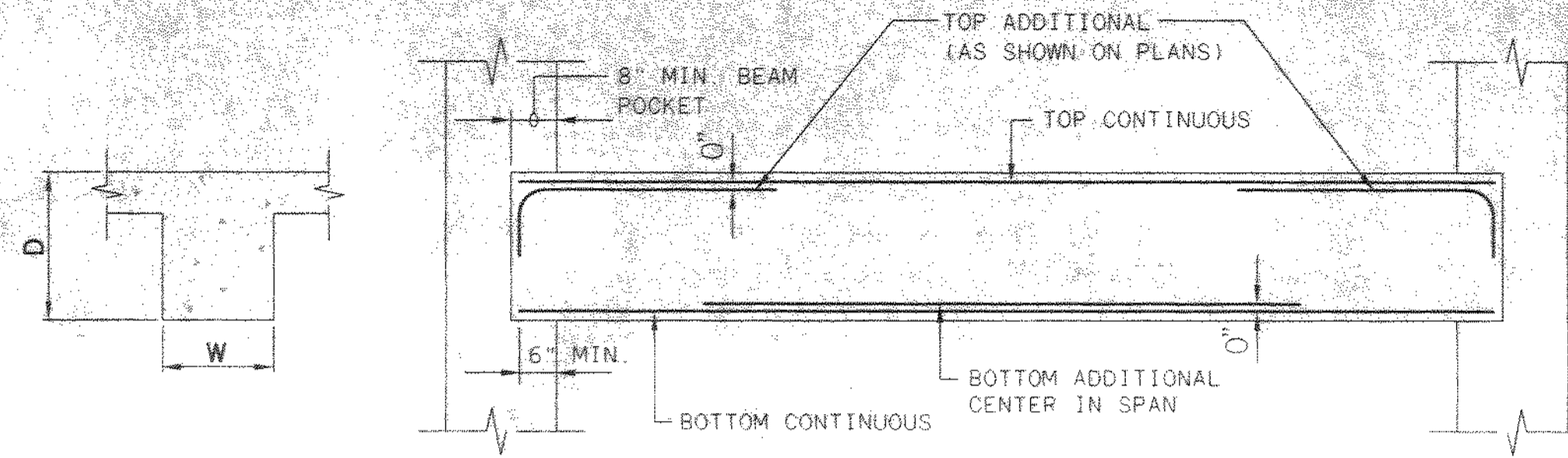
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

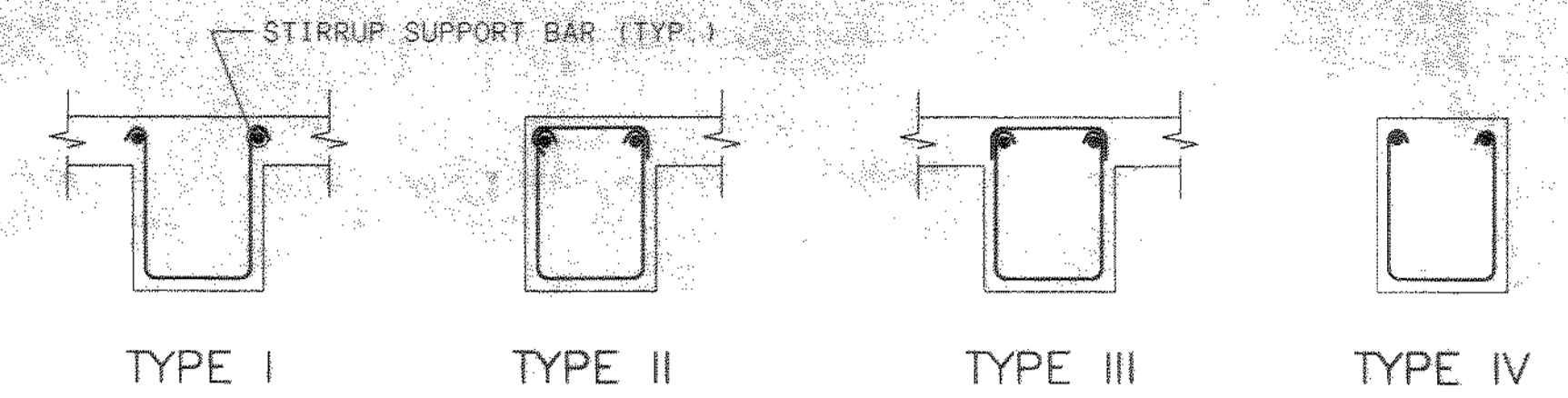
PUMP STATION
 MISCELLANEOUS DETAILS
 STRUCTURAL
 TYPICAL REINFORCING DETAILS

SCALE:	
NONE	
SHEET NO.	OF
34	100

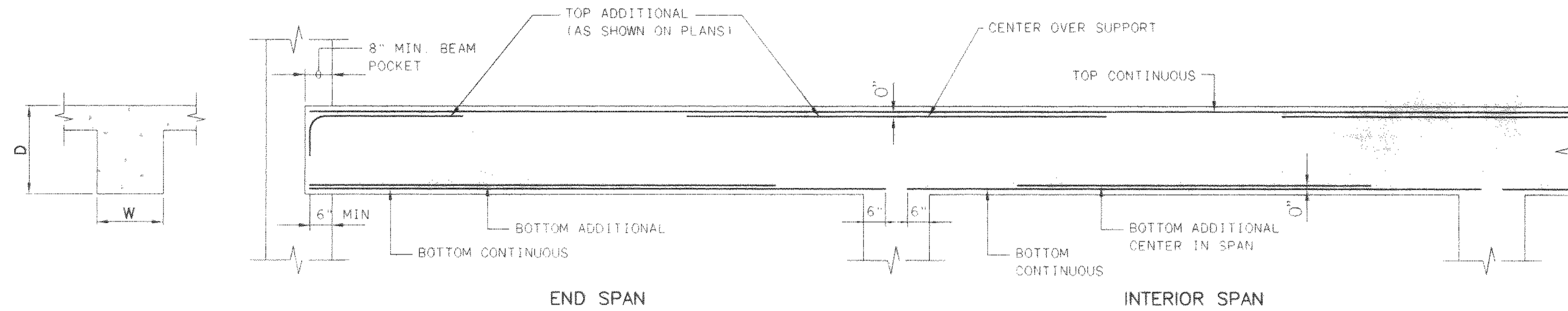
TOL-171-MDCS
 03/04/99 03-14



SINGLE SPAN BEAM DETAIL



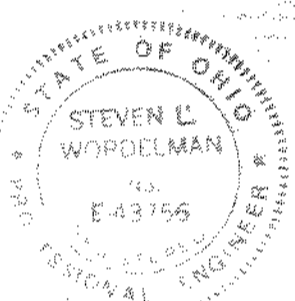
TYPICAL STIRRUP DETAILS



CONTINUOUS BEAM DETAIL

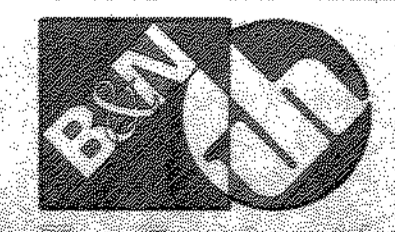
BEAM NOTES:

1. PLACE REINFORCEMENT IN SINGLE LAYER, UNLESS INDICATED OTHERWISE
2. LAP TOP REINFORCEMENT AT MID-SPAN. LAP BOTTOM REINFORCEMENT AT SUPPORT.
3. WALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH BEAM POCKET
4. STIRRUP SPACING IS MEASURED FROM FACE OF SUPPORT
5. LENGTH OF TOP ADDITIONAL BARS IS MEASURED FROM FACE OF SUPPORT



CONCRETE BEAM SCHEDULE											
TOP OF BEAM ELEVATION	MARK	SIZE		REINFORCEMENT				REMARKS	STIRRUPS		
		W	D	TOP CONT.	TOP ADDITIONAL	BOTTOM CONT.	BOTTOM ADDITIONAL		SIZE	TYPE	SPACING EACH END
822.00	BM-1	15"	20"	2-#6	2-#6	4-#6	---	3 BEAMS W/ CLEAR SPANS OF 8.67', 15.0', & 13.5'	#3	II	104", REMAINING AT 8 1/2"
822.00	BM-2	15"	20"	2-#6	2-#6	4-#6	---	"	#3	II	"
822.00	BM-3	18"	30"	4-#6	---	5-#9	---	CLEAR SPAN = 20.5'. HOOK TOP BARS @ EACH END	#3	II	106", REMAINING AT 12"
822.00	BM-4	18"	30"	4-#6	---	5-#9	---	"	#3	II	"
822.00	BM-5	18"	27"	4-#6	---	5-#8	---	"	#3	II	"
822.00	BM-6	18"	24"	4-#6	---	5-#8	---	"	#3	II	105", REMAINING AT 10"
822.00	BM-7	14"	21"	3-#7	2-#6	4-#6	---	2 BEAMS W/ CLEAR SPANS OF 10'-11 1/2" & 14'-5 1/2"	#3	II	104 1/2", REMAINING AT 9"
822.00	BM-8	11"	21"	3-#7	---	4-#6	---	2 BEAMS W/ CLEAR SPANS OF 12'-2" & 11'-9"	#3	II	"
822.00	BM-9	16"	24"	3-#6	---	4-#8	---	CLEAR SPAN = 13.0'. HOOK TOP BARS @ EACH END	#3	II	105", REMAINING AT 10"
805.67	BM-10	18"	27"	5-#8	---	4-#8	---	2 BEAMS W/ CLEAR SPANS OF 24'-0 1/2" & 13'-10 1/2"	#3	II	106", REMAINING AT 12"
805.67	BM-11	15"	24"	4-#8	---	3-#8	---	"	#3	II	105", REMAINING AT 10"
805.67	BM-12	27"	33"	4-#6	2-#6	9-#8	---	CLEAR SPAN = 20'-6"	#4	II	105", REMAINING AT 10"
805.67	BM-13	20"	30"	4-#6	---	6-#8	---	"	#4	II	106", REMAINING AT 12"
805.67	BM-14	18"	18"	3-#6	---	6-#6	---	"	#3	II	103", REMAINING AT 7 1/2"
791.25	BM-15	18"	30"	4-#6	---	5-#8	---	CLEAR SPAN = 13'-0"	#3	II	106", REMAINING AT 13"
788.00	BM-16	18"	30"	3-#7	---	5-#7	---	"	#4	II	106", REMAINING AT 12"
801.58	BM-17	12"	12"	2-#5	---	2-#5	---	2 SPANS @ 5'-0" CLEAR; 2 SPANS @ 4'-6" CLEAR	#3	II	103", REMAINING AT 6"

NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

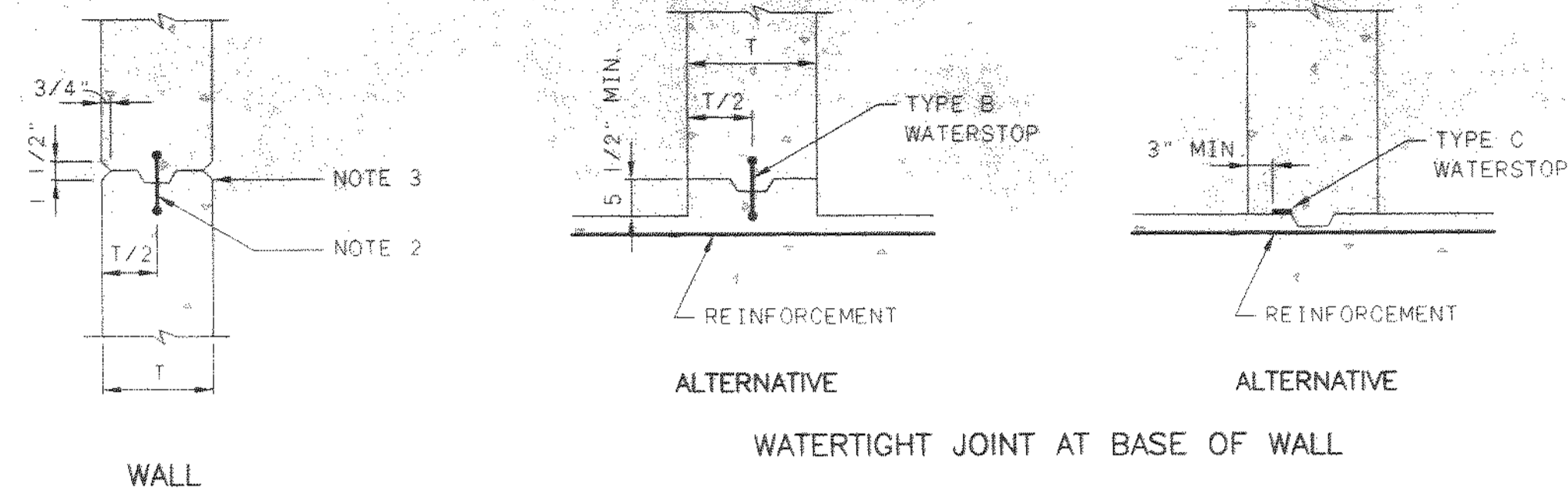
JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
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APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 MISCELLANEOUS DETAILS
 STRUCTURAL
 BEAM DETAILS & SCHEDULE

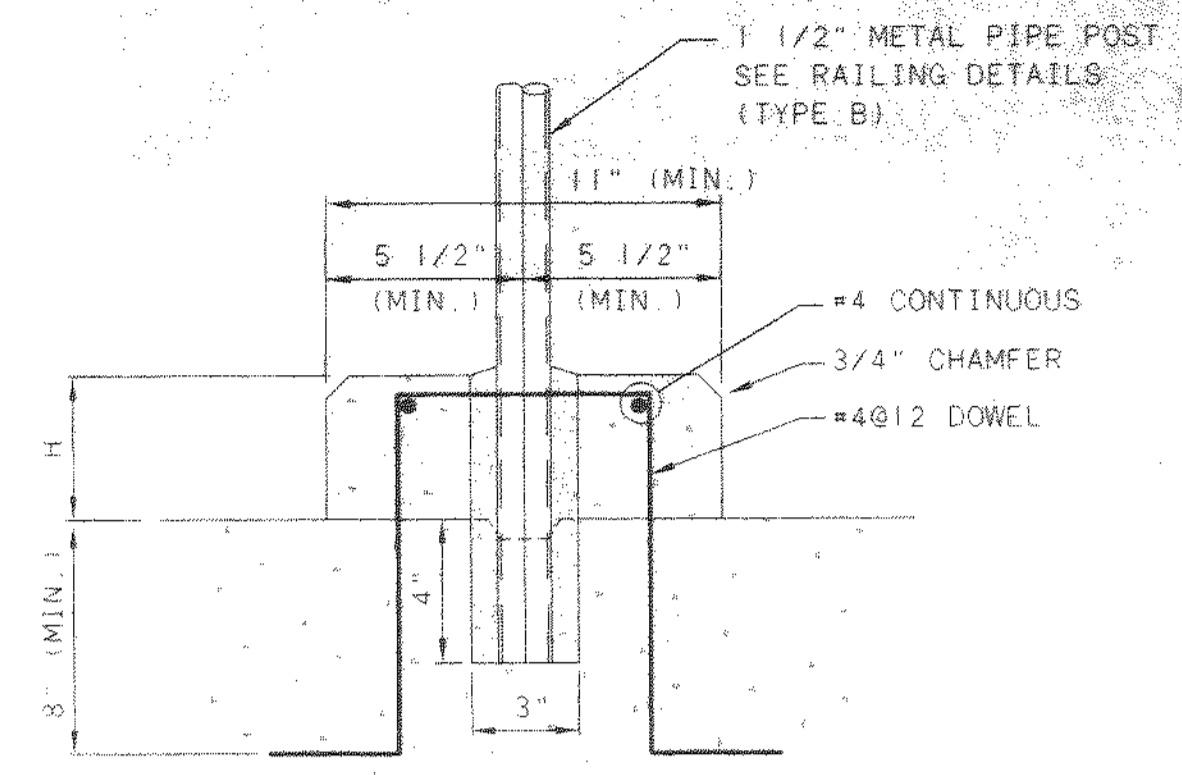
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SHEET NO.	35
OF	100

CONSTRUCTION JOINT NOTES:

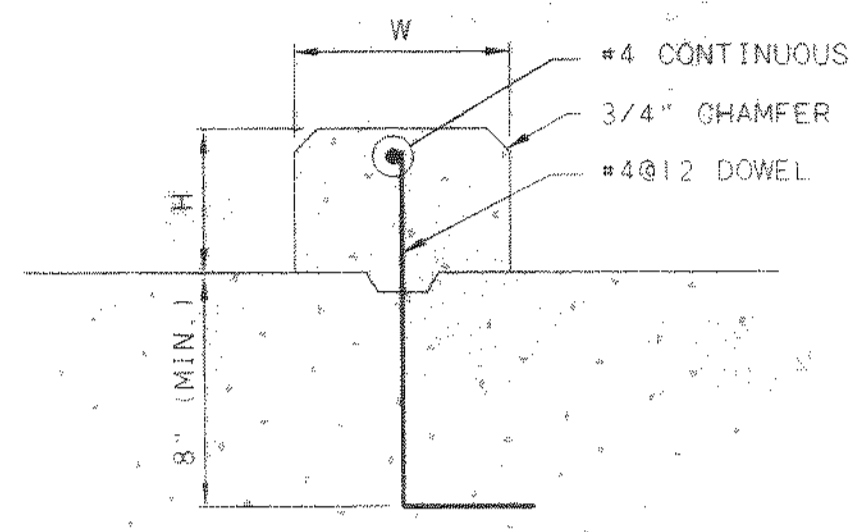
1. CONTINUE REINFORCEMENT THROUGH JOINT
2. TYPE B WATERSTOP WHERE SHOWN OR SPECIFIED
3. 3/4" DEEP X 1 1/2" RUSTICATION ON PERMANENTLY EXPOSED JOINTS. EXTEND TO 6" BELOW GRADE ON VERTICAL JOINTS. OMIT RUSTICATION ON INTERIOR SURFACES OF LIQUID-RETAINING STRUCTURES.
4. PLACE 2" DEEP BED OF BONDING GROUT IN HORIZONTAL JOINTS. BONDING ADHESIVE ON VERTICAL JOINTS, FOR NEW AND "NEW TO EXISTING" CONSTRUCTION.



TYPICAL CONSTRUCTION JOINT DETAILS



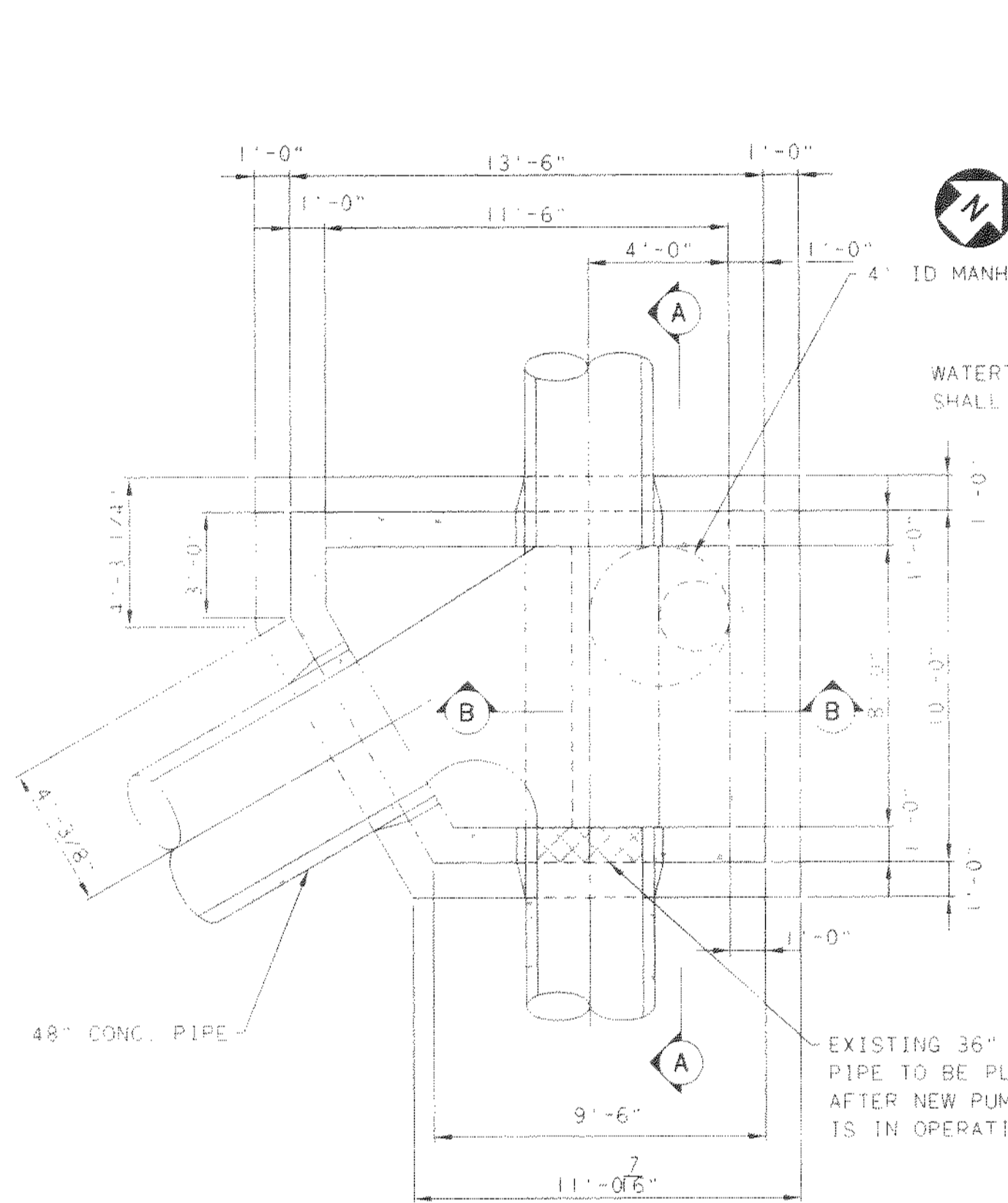
RAILING CURB ON NEW CURB



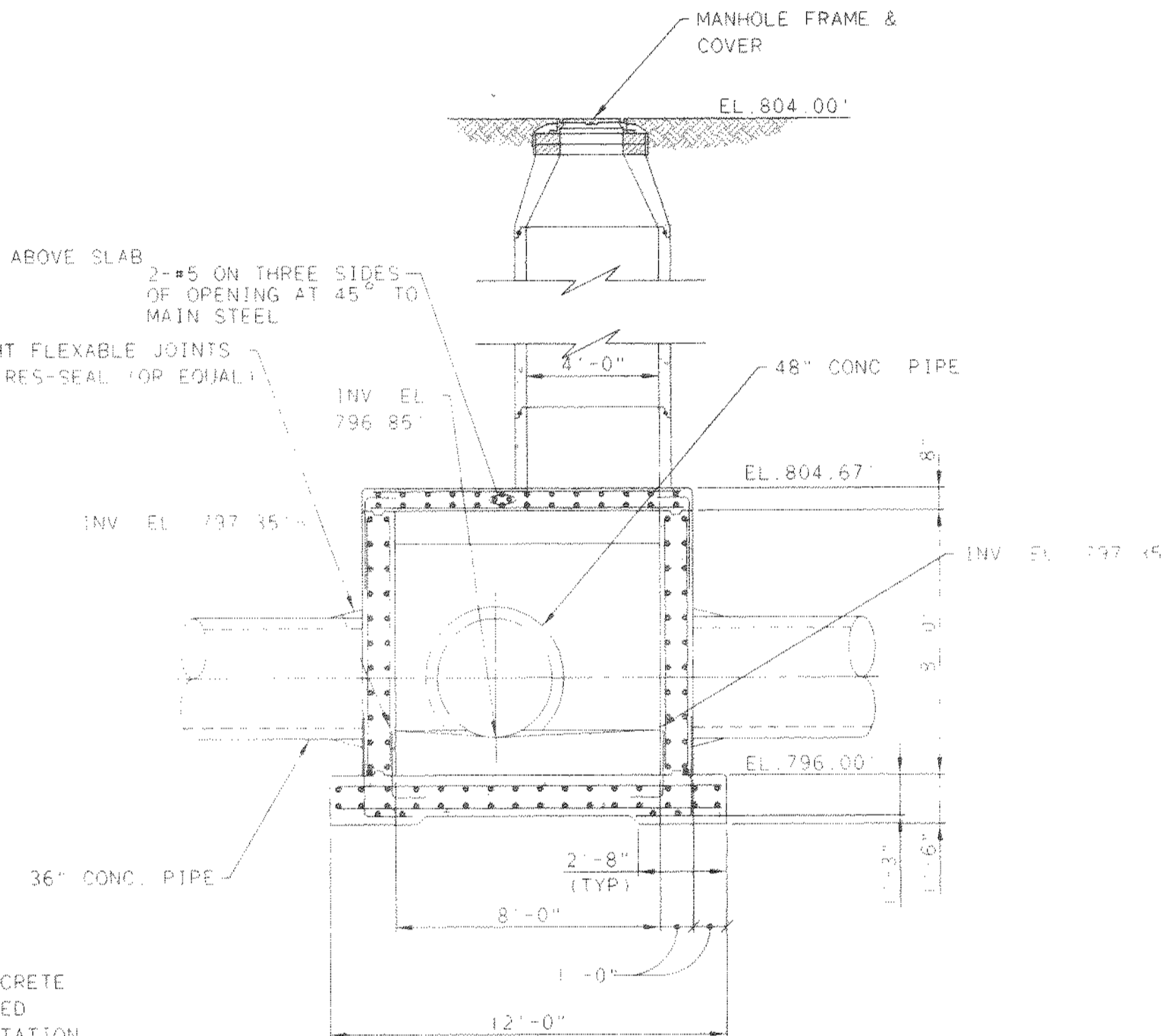
ON NEW SLAB

- CONCRETE CURB NOTES:**
1. "W" X "H" AS SHOWN ON PLANS.
 2. CURBS WITH W > 10" OR SHALL HAVE TWO CURTAINS OF REINFORCEMENT.

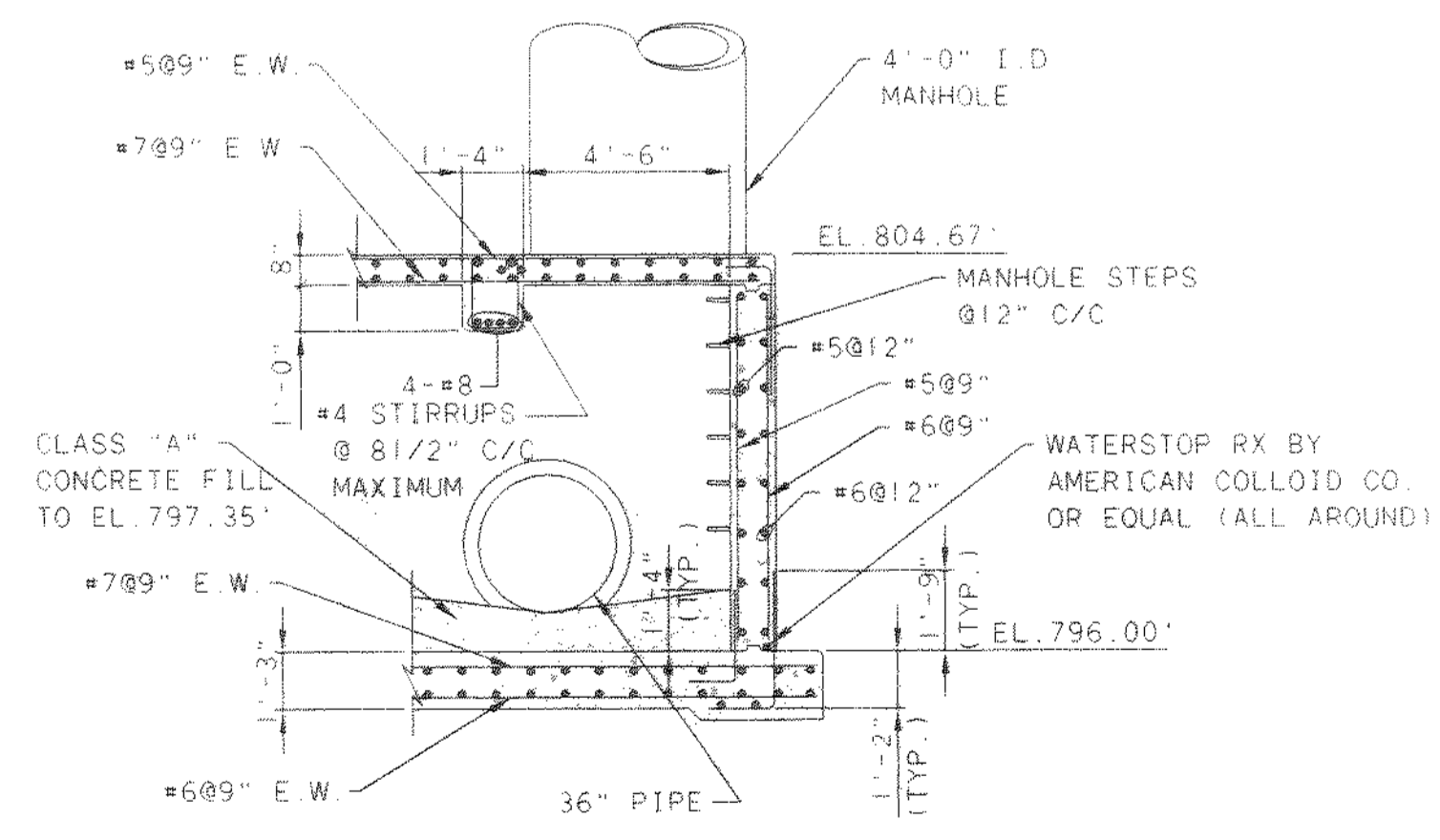
TYPICAL CONCRETE CURB DETAILS



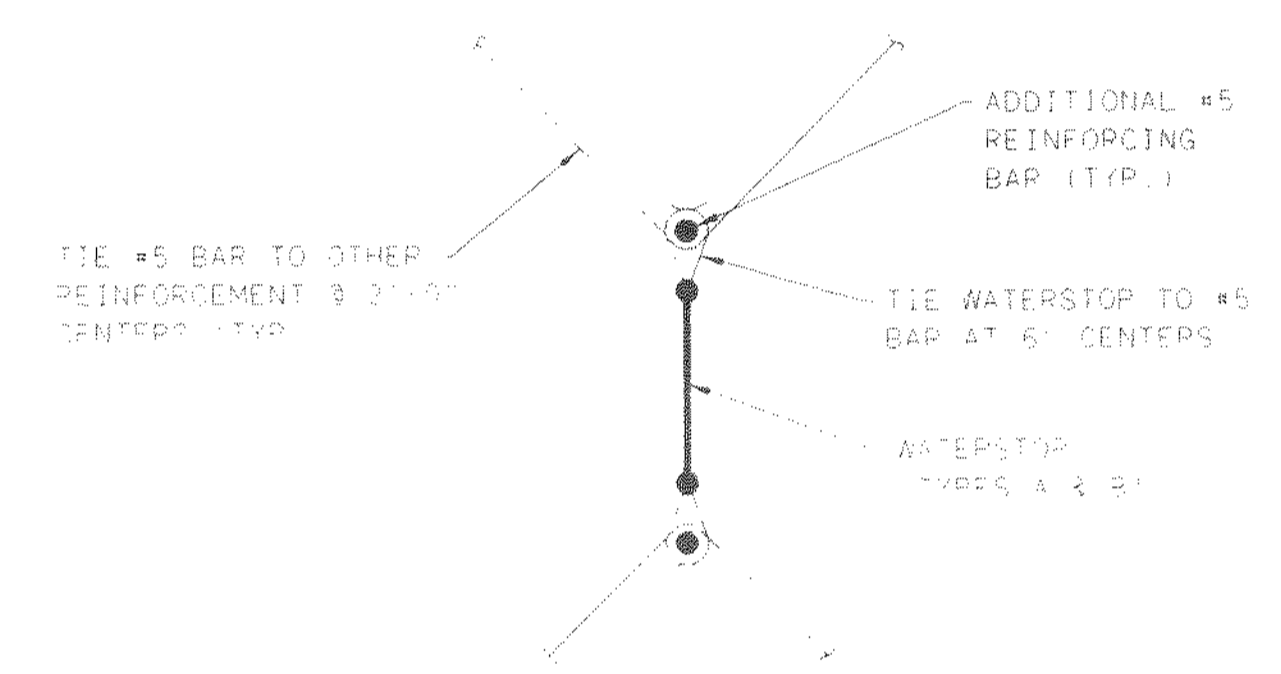
NEW CHAMBER
SCALE: 1/4" = 1'-0"



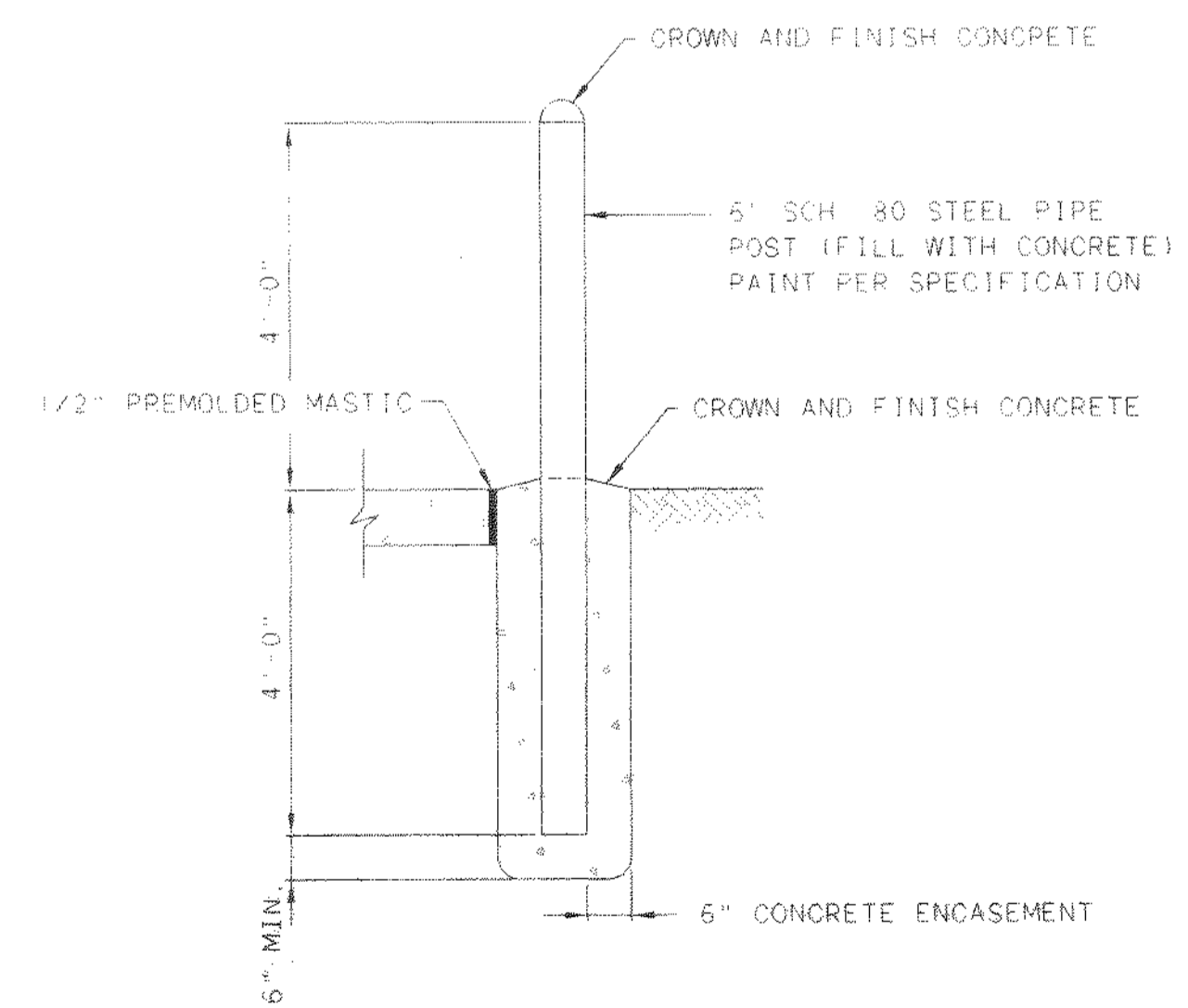
SECTION A



SECTION B

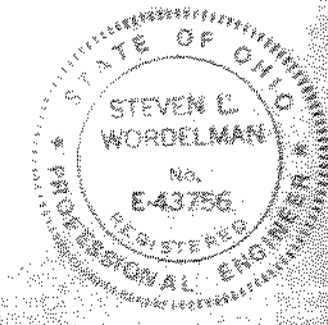


TYPICAL WATERSTOP DETAIL

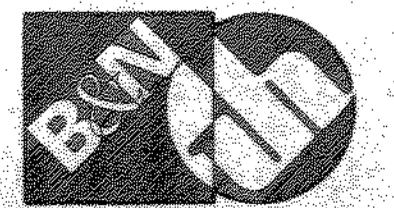


GUARDPOST DETAIL
1/2" = 1'-0"

STRUCTURAL DESIGN DATA		
BUILDING CODE	1992 OHIO BASIC BUILDING CODE	
SEISMIC	SEISMIC ZONE	Z = 1
	ACCELERATION COEFFICIENT	AV = 0.075
	IMPORTANCE FACTOR	I = 1.5
	SOIL FACTOR	S = 1.5
WIND	BASIC WIND SPEED	V = 80 MPH
	EXPOSURE	C
	IMPORTANCE FACTOR	I = 0.7
SNOW	GROUND SNOW LOAD	PG = 30 PSF
	SNOW EXPOSURE FACTOR	CE = 0.9
	IMPORTANCE FACTOR	I = 1.2
FLOOR	LIVE LOAD (AS SHOWN)	100 PSF MIN.
	MECHANICAL & ELECTRICAL PARTITIONS	= 20 PSF
		= 60 PSF
ROOF	LIVE LOAD	= 30 PSF
	SNOW LOAD (SEE ABOVE)	
	MECHANICAL & ELECTRICAL ROOFING SYSTEM	= 10 PSF
		= 15 PSF
STAIRS	LIVE LOAD	= 100 PSF
CORRIDORS	LIVE LOAD	= 100 PSF
EQUIPMENT PLATFORMS	LIVE LOAD (AS SHOWN)	= 100 PSF MIN.
BEARING CAPACITY	PRESUMED BEARING CAPACITY = 2000 PSF AT 5' FT. BELOW GRADE	



NO.	REVISIONS	DATE	BY	CHK.



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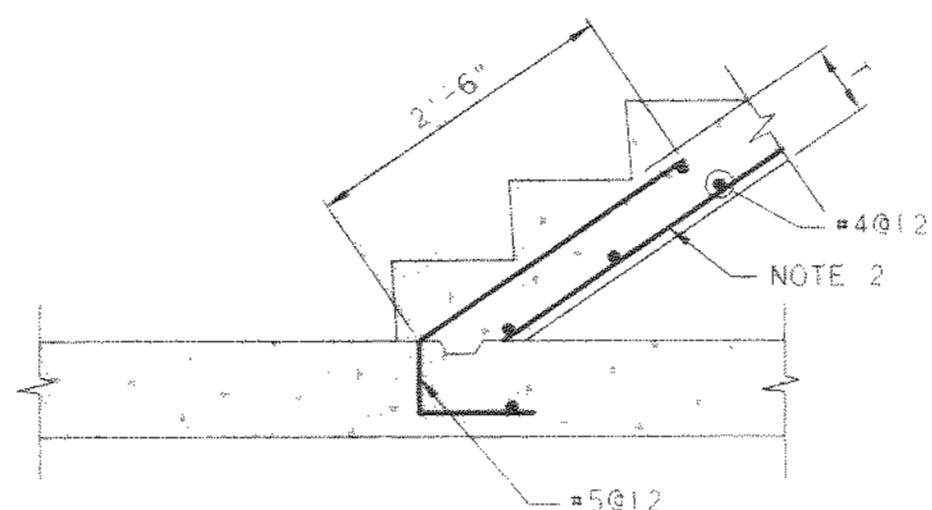
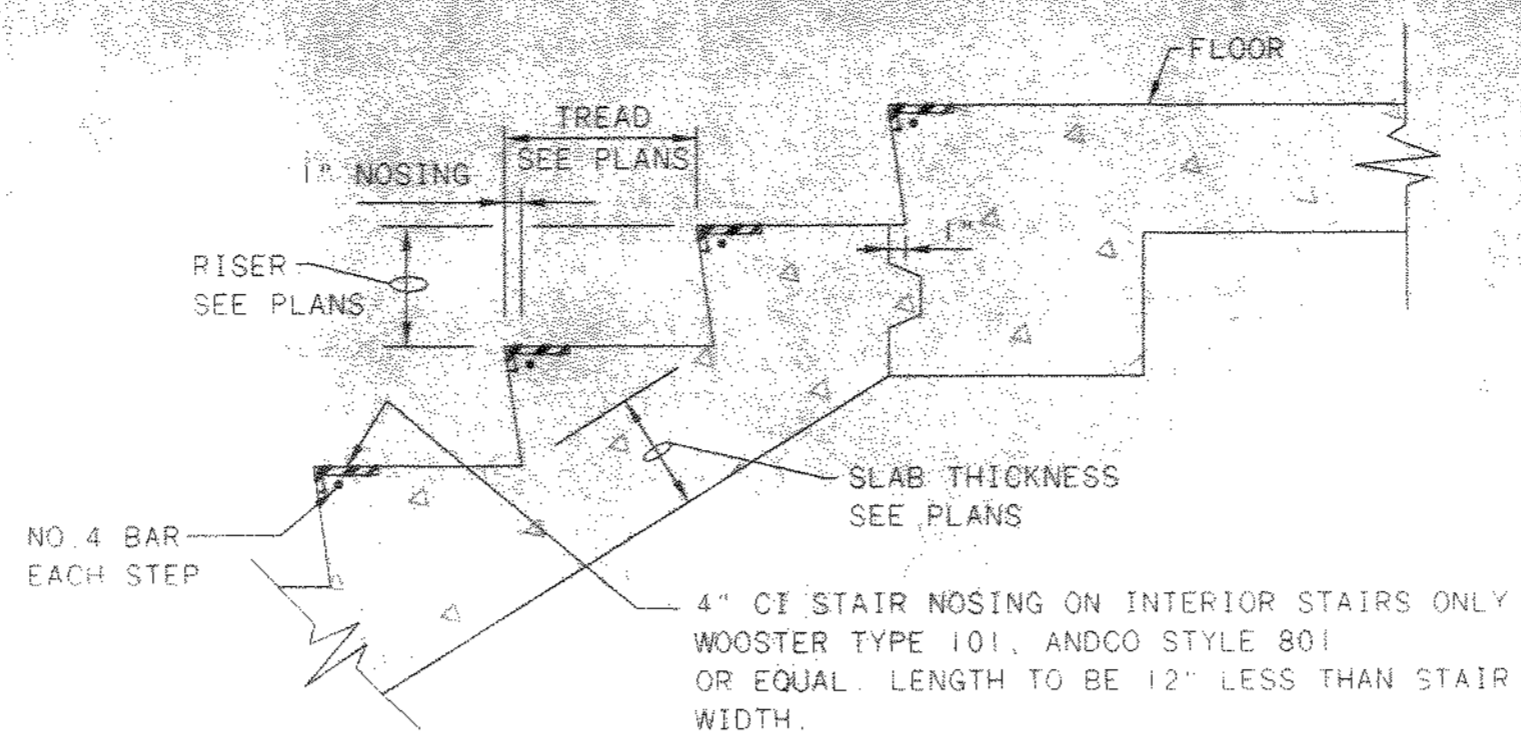
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
MISCELLANEOUS DETAILS
STRUCTURAL

SCALE:	NONE
SHEET NO. OF	36 100

TOL-471/HND06
03/04/99 02-14



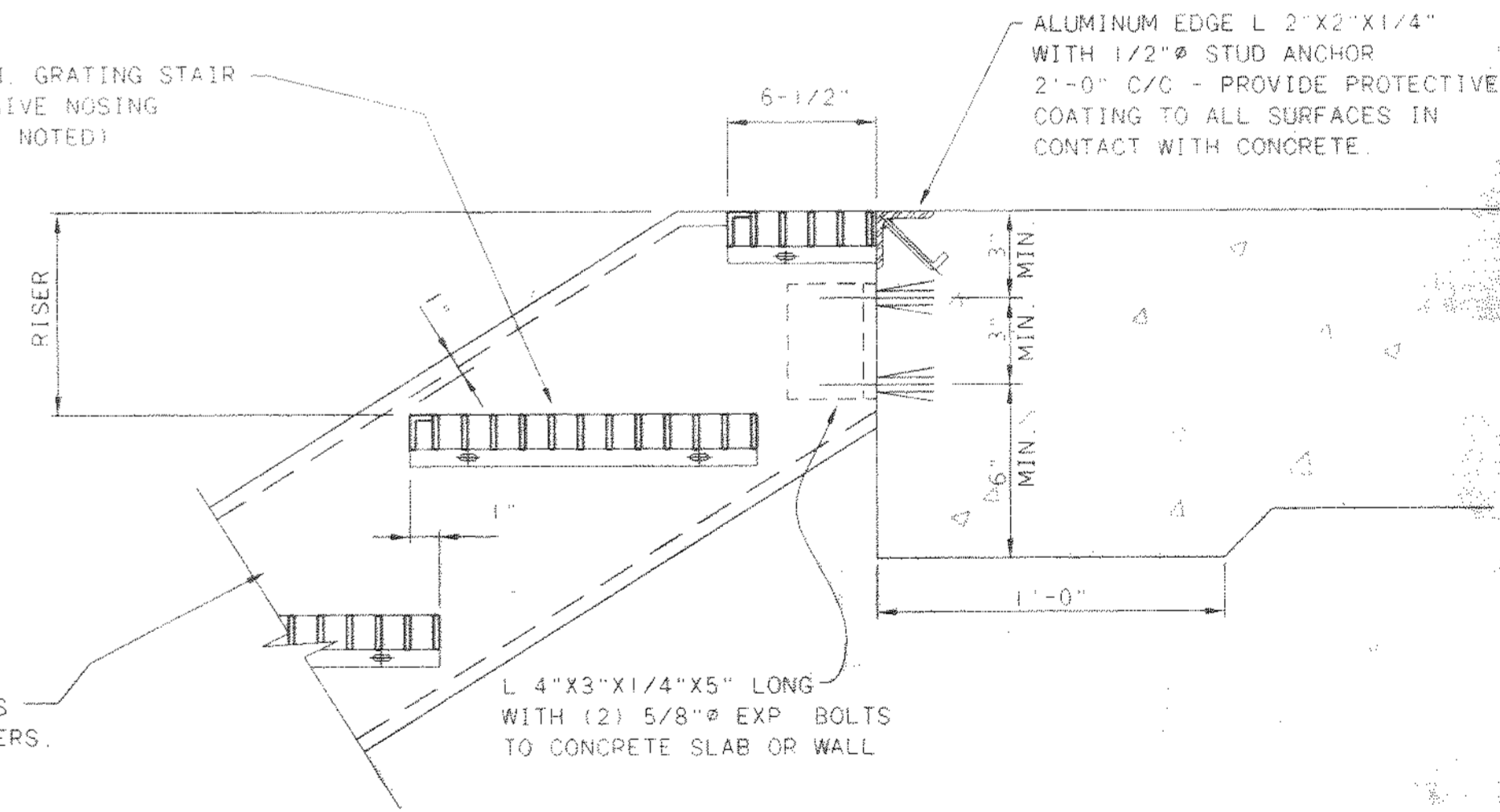
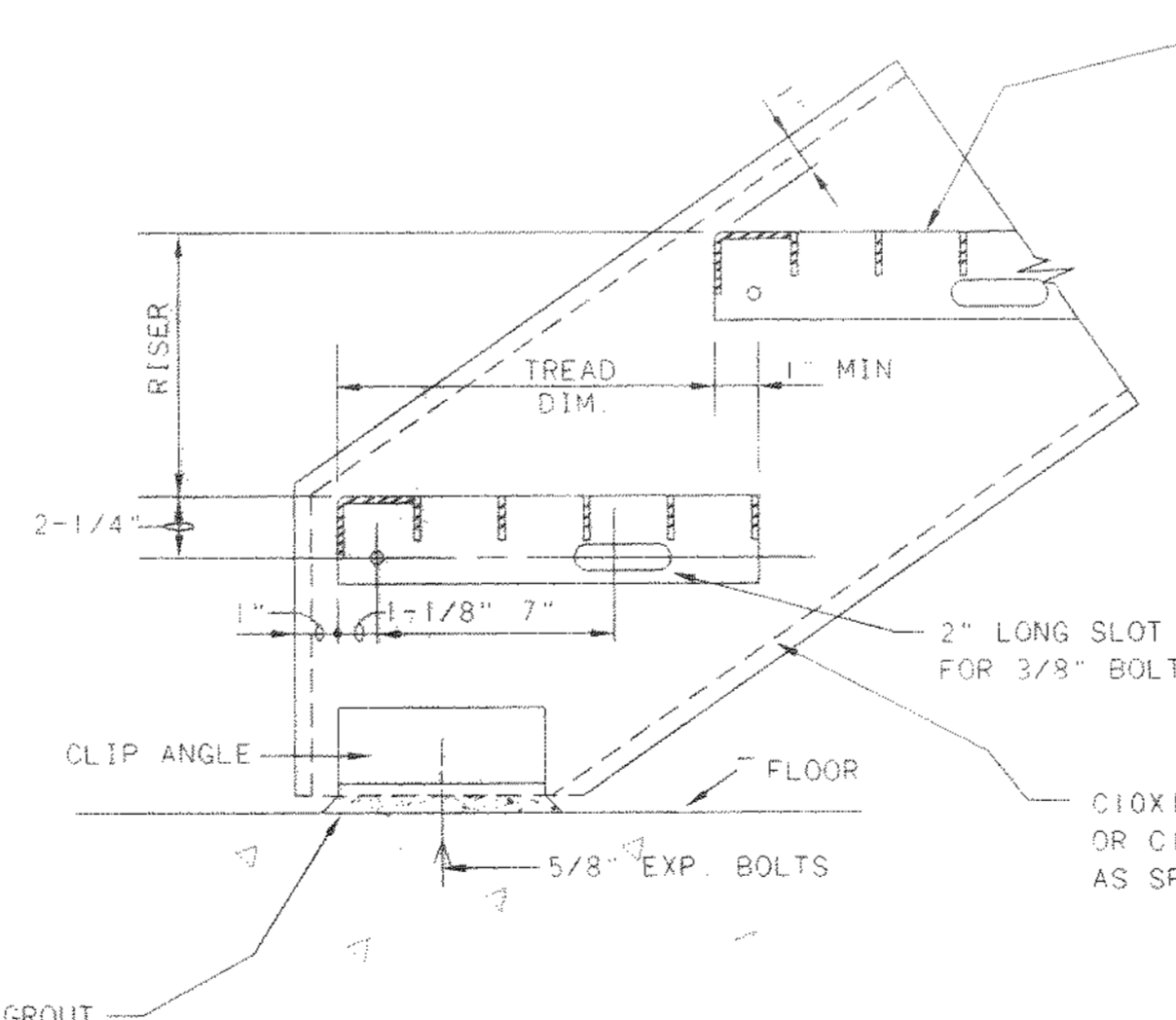
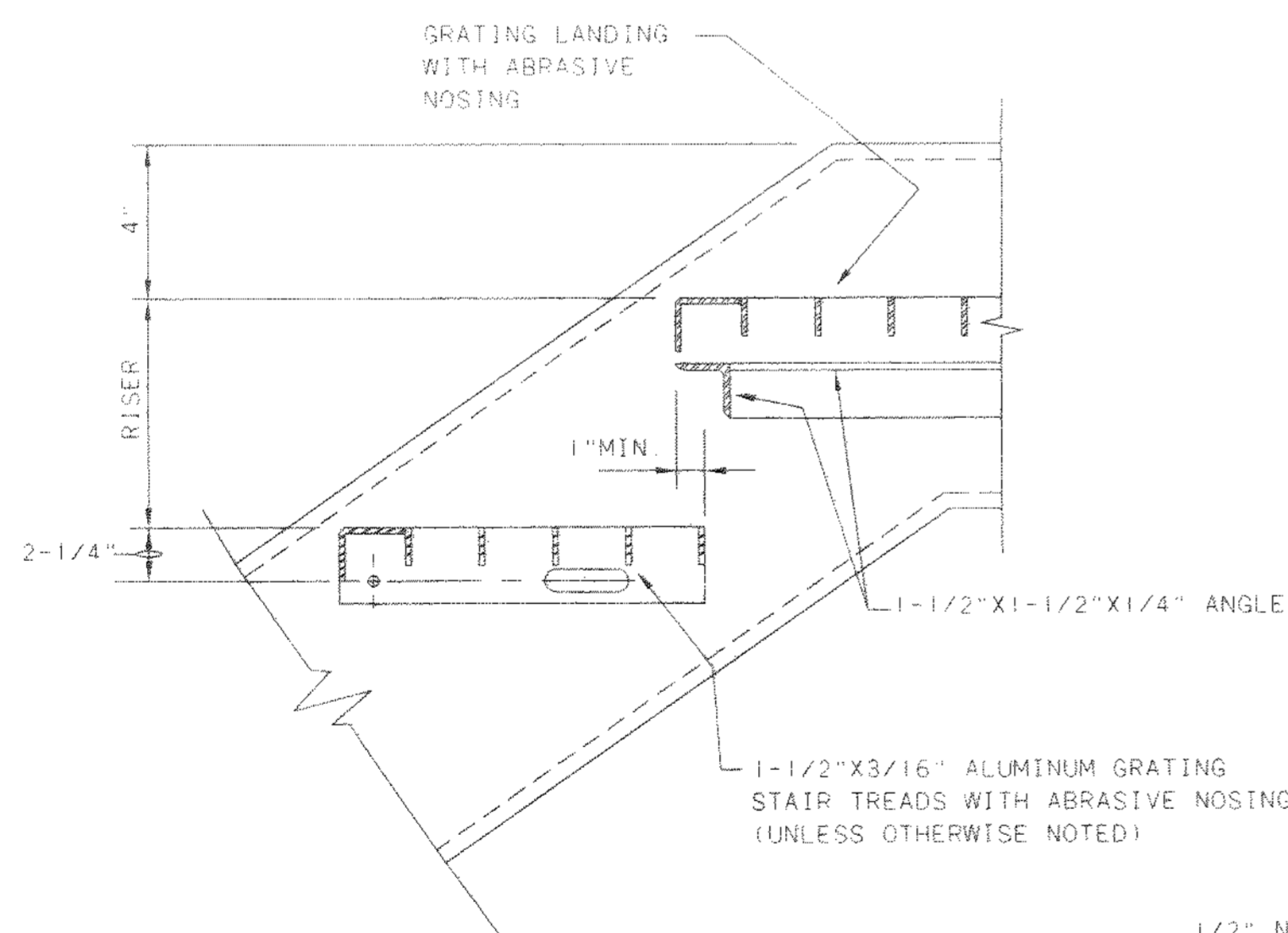
- CONCRETE STAIR NOTES:
1. "T" = AS SHOWN ON PLANS
 2. SIZE AND SPACING AS SHOWN ON PLANS
 3. HOOK LENGTH = LAP SPLICE LENGTH

TYPICAL CONCRETE STAIR DETAILS

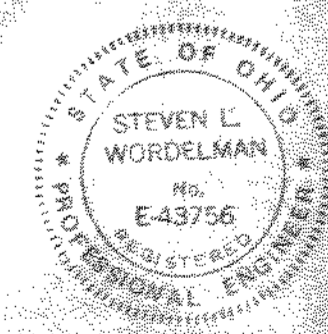
STAIR SCHEDULE

MARK	NO. REQ'D	TYPE	LOCATION	STRUCTURAL SHEET NO.	NO. OF TREADS	TREAD TYPE	TREAD DIM.	STAIR NO.	NO. OF RISERS	RISER DIM.	
S3-A	1	STEEL	PUMP STATION DRY WELL	8 & 21	3	GRATING	11"	3'-0"	4	7"	
S3-B	1	STEEL	PUMP STATION DRY WELL	8 & 21	14	GRATING	11"	3'-0"	15	7"	
S3-C	1	STEEL	PUMP STATION DRY WELL	8 & 21	14 1/2	GRATING	11"	3'-0"	15	7"	TOP HALF-TREAD 6 1/2"
S4-A	1	STEEL	PUMP STATION DRY WELL	12 & 21	6	GRATING	11"	3'-0"	7	7"	
S4-B	1	STEEL	PUMP STATION DRY WELL	21	5	GRATING	11"	3'-0"	6	7"	
S4-C	1	STEEL	PUMP STATION DRY WELL	21	7	GRATING	11"	3'-0"	8	7"	
S4-D	1	STEEL	PUMP STATION DRY WELL	21	6 1/2	GRATING	11"	3'-0"	7	7"	TOP HALF-TREAD 6 1/2"
S1-A	1	ALUM.	PUMP STATION WEST WET WELL	11 & 23	6	GRATING	11"	3'-0"	7	7"	
S1-B	1	ALUM.	PUMP STATION WEST WET WELL	11 & 23	6	GRATING	11"	3'-0"	7	7"	
S1-C	1	ALUM.	PUMP STATION WEST WET WELL	15 & 23	9	GRATING	11"	3'-0"	10	7"	
S1-D	1	ALUM.	PUMP STATION WEST WET WELL	15 & 23	9 1/2	GRATING	11"	3'-0"	10	7"	TOP HALF-TREAD 6 1/2"
S2-A	1	ALUM.	PUMP STATION EAST WET WELL	11 & 23	6	GRATING	11"	3'-0"	7	7"	
S2-B	1	ALUM.	PUMP STATION EAST WET WELL	11 & 23	6	GRATING	11"	3'-0"	7	7"	
S2-C	1	ALUM.	PUMP STATION EAST WET WELL	15 & 23	11	GRATING	11"	3'-0"	12	7"	
S2-D	1	ALUM.	PUMP STATION EAST WET WELL	15 & 23	8 1/2	GRATING	11"	3'-0"	9	7"	TOP HALF-TREAD 6 1/2"
S5-A	1	STEEL	PUMP STATION - LOADING AREA	15 & 22	5 1/2	GRATING	11"	3'-0"	6	7"	TOP HALF-TREAD 6 1/2"
S5-B	1	CONC.	PUMP STATION - LOADING AREA	15 & 24	1	CONC.	12"	3'-8"	2	6"	
S6	1	CONC.	PUMP STATION - EXTERIOR	15	8	CONC.	11"	4'-0"	9	6 5/8"	
S7	1	CONC.	PUMP STATION - EXTERIOR	15	7	CONC.	11"	4'-0"	8	6 5/8"	
S8	1	CONC.	PUMP STATION - EXTERIOR	15	7	CONC.	11"	4'-0"	8	6 5/8"	
S9	1	CONC.	PUMP STATION - EXTERIOR	15	8	CONC.	11"	4'-0"	9	6 3/4"	

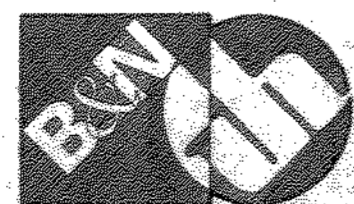
- NOTES:
1. STAIR WIDTH FOR METAL STAIRS SHALL BE THE CLEAR DISTANCE BETWEEN CHANNEL STRINGERS. FOR CONCRETE STAIRS, IT SHALL BE THE OUT TO OUT OF CONCRETE DIMENSION.
 2. TREAD DIMENSION GIVEN DOES NOT INCLUDE 1" OVERLAP.
 3. RAILING FOR ALL METAL STAIRWAYS SHALL BE TYPE "E" WITHOUT TOE PLATE UNLESS OTHERWISE NOTED, EXCEPT TYPE "C" RAILING MAY BE USED ALONG WALLS WHERE THERE IS LESS THAN 3" CLEAR BETWEEN WALL AND STRINGER, UNLESS OTHERWISE NOTED.
 4. GRATING TREADS AND LANDINGS SHALL BE ALUMINUM FOR BOTH STEEL AND ALUMINUM TREADS.
 5. STEEL STAIRS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.



GRATING TREADS-METAL STAIR DETAILS



NO.	REVISIONS	DATE	BY	CHK.



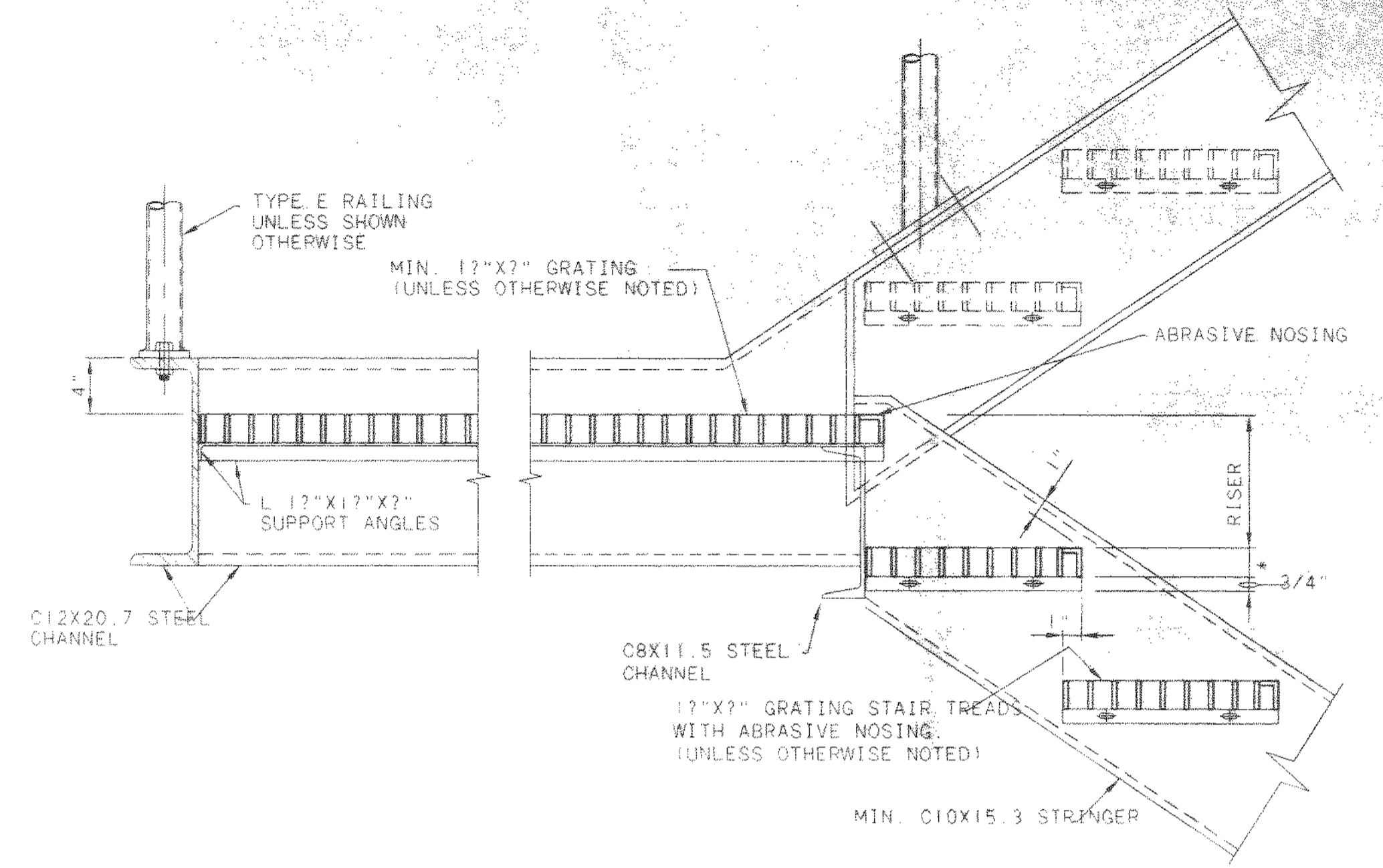
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

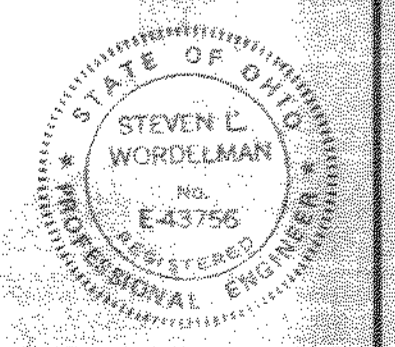
JOB NO. 20571
 DESIGNED BY: FXW
 DRAWN BY: RCD
 CHECKED BY: FXW
 APPROVED BY: SLW
 DATE: 1999

PUMP STATION
 MISCELLANEOUS DETAILS
 STRUCTURAL
 STAIR DETAILS & SCHEDULE

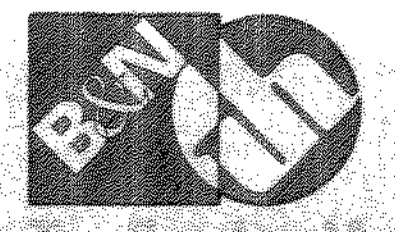
SCALE: NONE
 SHEET NO. 37 OF 100



GRATING STAIR SWITCHBACK LANDING DETAIL
NTS



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

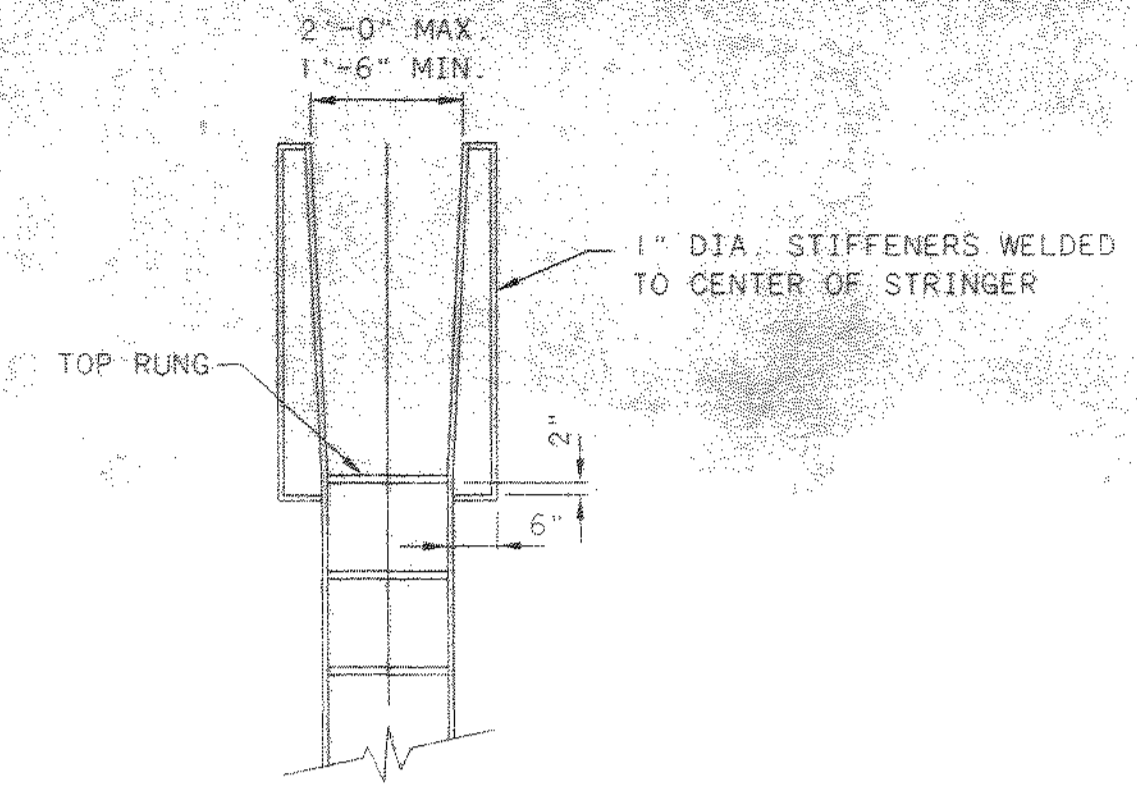
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

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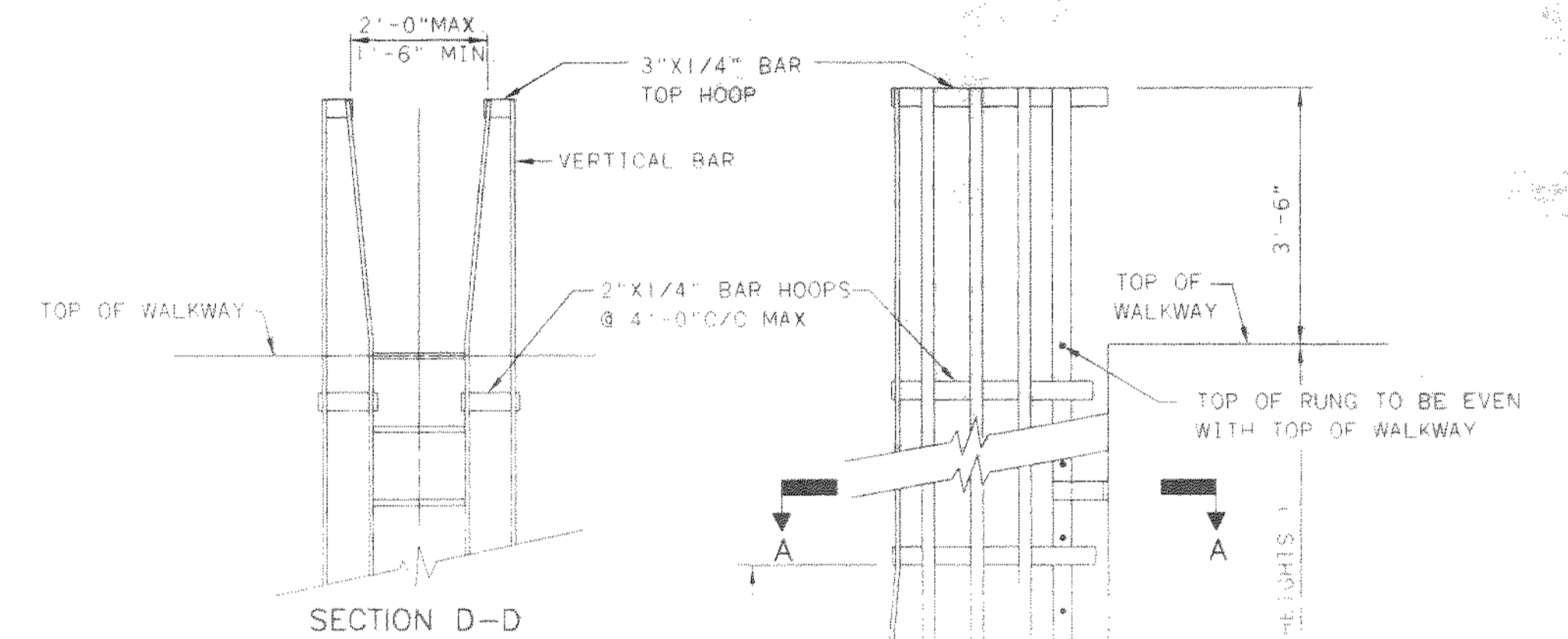
PUMP STATION
MISCELLANEOUS
STRUCTURAL
DETAILS

SCALE:	NONE
SHEET NO.	38
OF	100

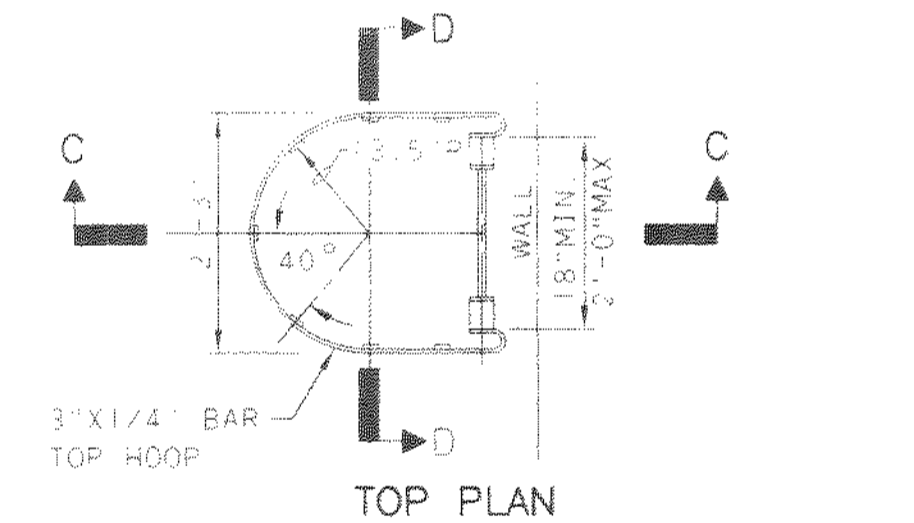
100-4714MD17
02/03/99 04-14



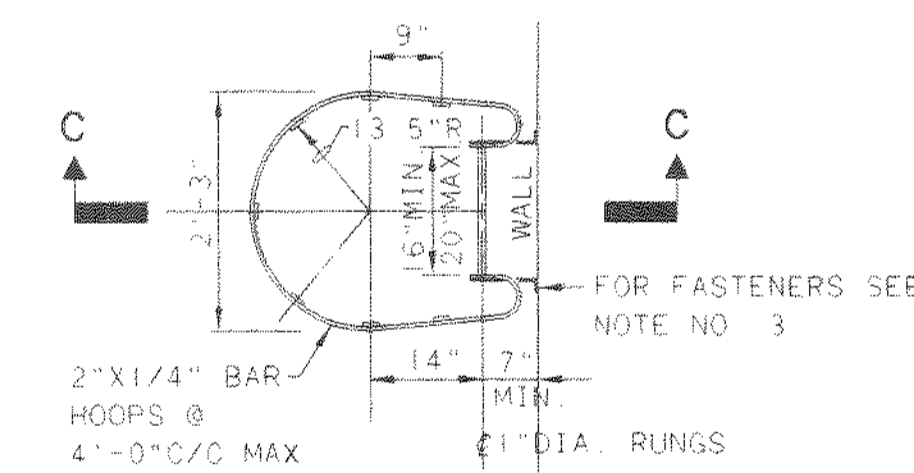
LADDER WITHOUT CAGE



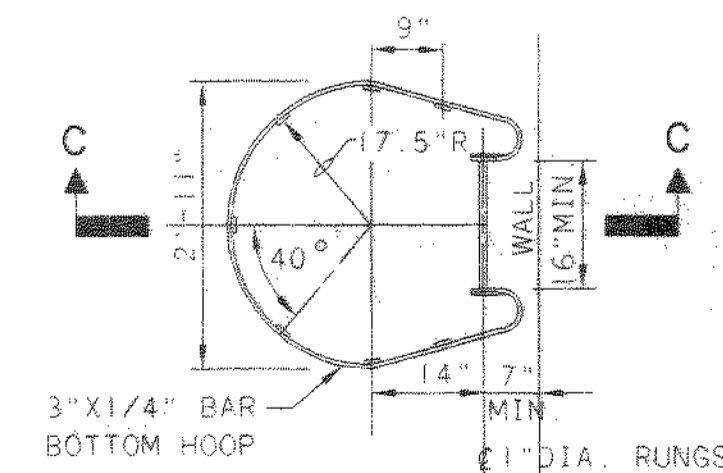
SECTION D-D



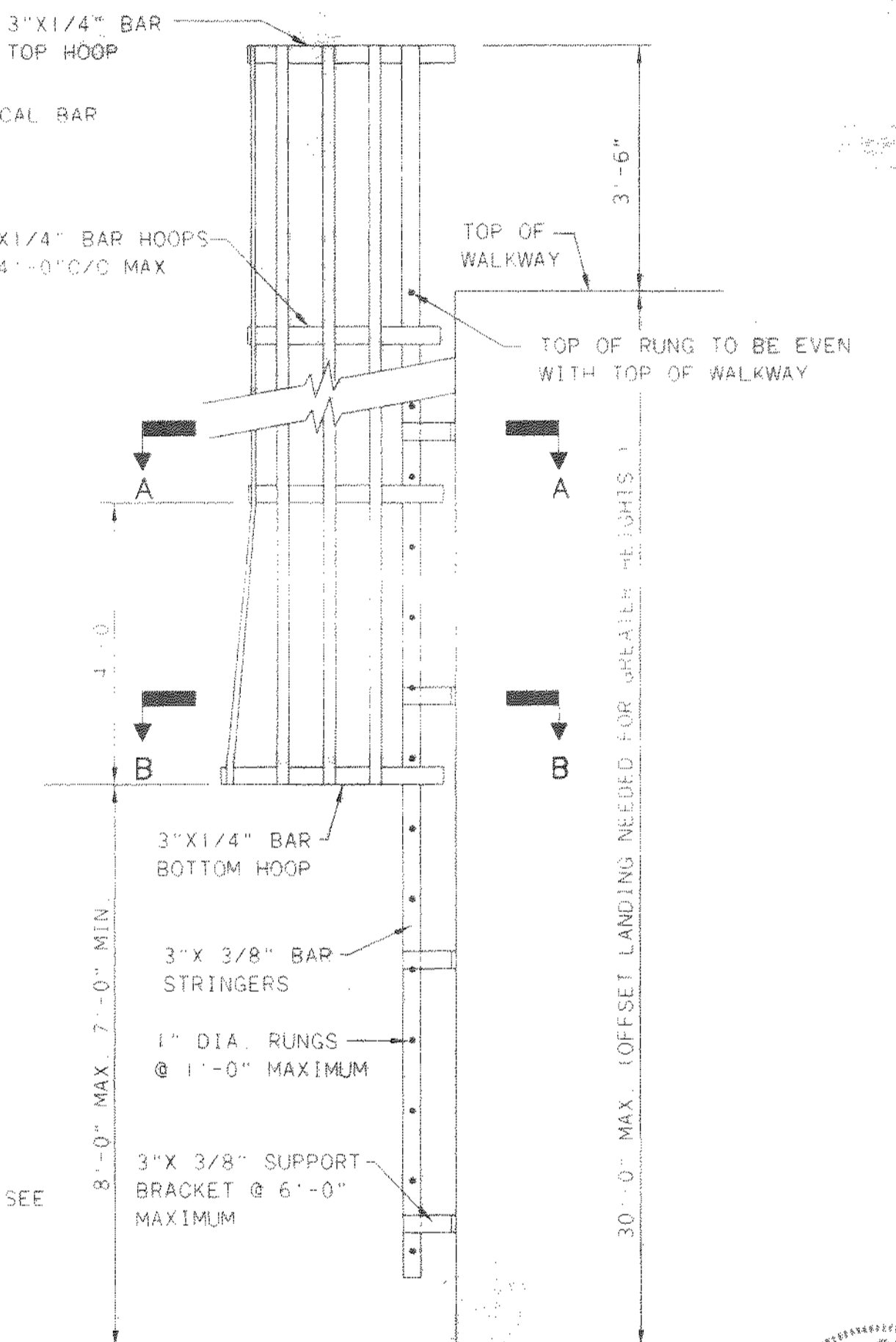
TOP PLAN



SECTIONAL PLAN A-A



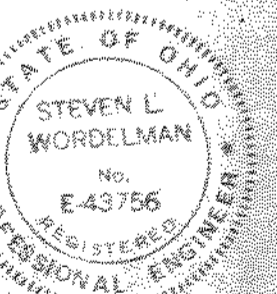
SECTIONAL PLAN B-B



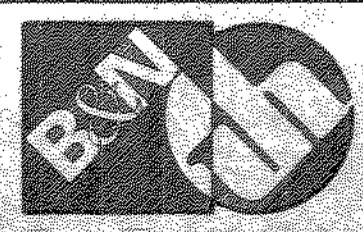
SECTION C-C

LADDER AND CAGE DETAIL

- NOTES:
1. ALL CONSTRUCTION TO BE WELDED.
 2. CAGES REQUIRED ONLY ON LADDERS OVER 20' IN HEIGHT.
 3. SUPPORT BRACKET FASTENER:
 - A. (TO CONCRETE, USE 5/8" DIA. GALV. OR CAD. P EXPANSION ANCHORS
 - B. (TO MASONRY, USE 5/8" DIA. THRU BOLTS.
 - C. (TO ALUMINUM, WELD 2-1/2" X 3/8" ALUMINUM SUPPORT BRACKET AND BOLT TO LADDER BRACKET WITH (2) 3/8" DIA. STAINLESS STEEL BOLTS & LOCK NUTS



NO.	REVISIONS	DATE	BY	CHK.



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DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

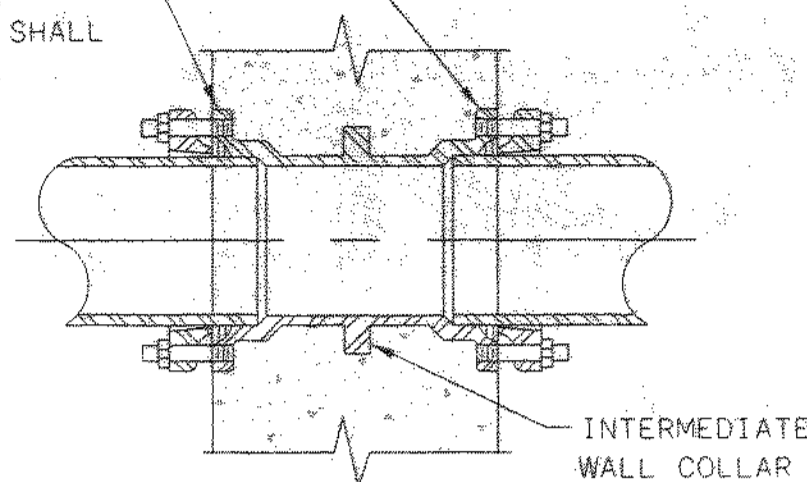
JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 MISCELLANEOUS
 STRUCTURAL
 DETAILS

SCALE:	NONE
SHEET NO.	39
OF	100

TOL-4714MD18
05/04/99 02-14

FLANGE OR MECH. JOINT WALL PIPES INSTALLED FLUSH WITH WALL SHALL BE TAPPED FOR STAINLESS STEEL STUDS. WHEN NOT SET FLUSH WITH WALL, ADEQUATE WALL CLEARANCE SHALL BE PROVIDED FOR BOLTING.

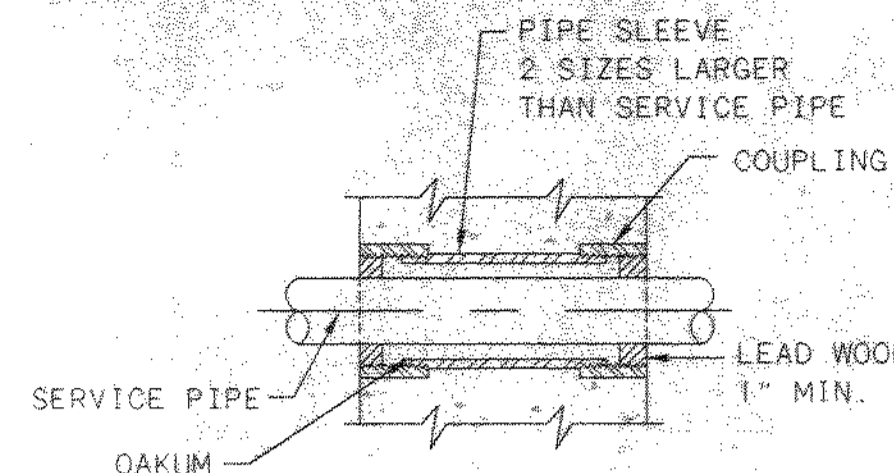


NOTE: JOINT TYPES ARE SHOWN ON DRAWINGS.

TYPE A

NOTE: UNLESS SHOWN OTHERWISE, CAST IRON OR DUCTILE IRON WALL PIPES SHALL BE USED FOR 4" DIAMETER AND LARGER PIPING.

WALL PIPE

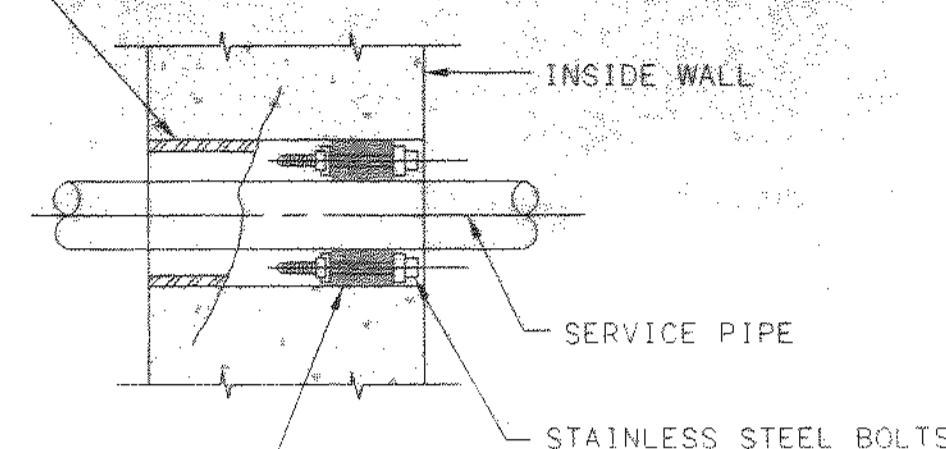


TYPE B

NOTE: FOR PIPES LESS THAN 4" DIA., USE GALVANIZED STEEL PIPE SLEEVE. FOR PIPES 4" DIA. OR LARGER, USE CI OR DI TYPE "E" SLEEVE.

EXTERIOR WALL SLEEVE

SHEET METAL OR LAMINATED FIBER CONCRETE FORM ADEQUATELY BRACED IN FIELD AND STRIPPED OUT BEFORE INSTALLING PIPE, EXCEPT IN MASONRY WHERE SLEEVE SHALL BE 3/16" STEEL AND SHALL BE INSTALLED WITH MASONRY. CONTRACTOR MAY USE A THERMOPLASTIC WALL SLEEVE, CENTURY-LINE SLEEVE BY THUNDERLINE CORP., OR EQUAL TO BE LEFT IN PLACE.



TYPE C

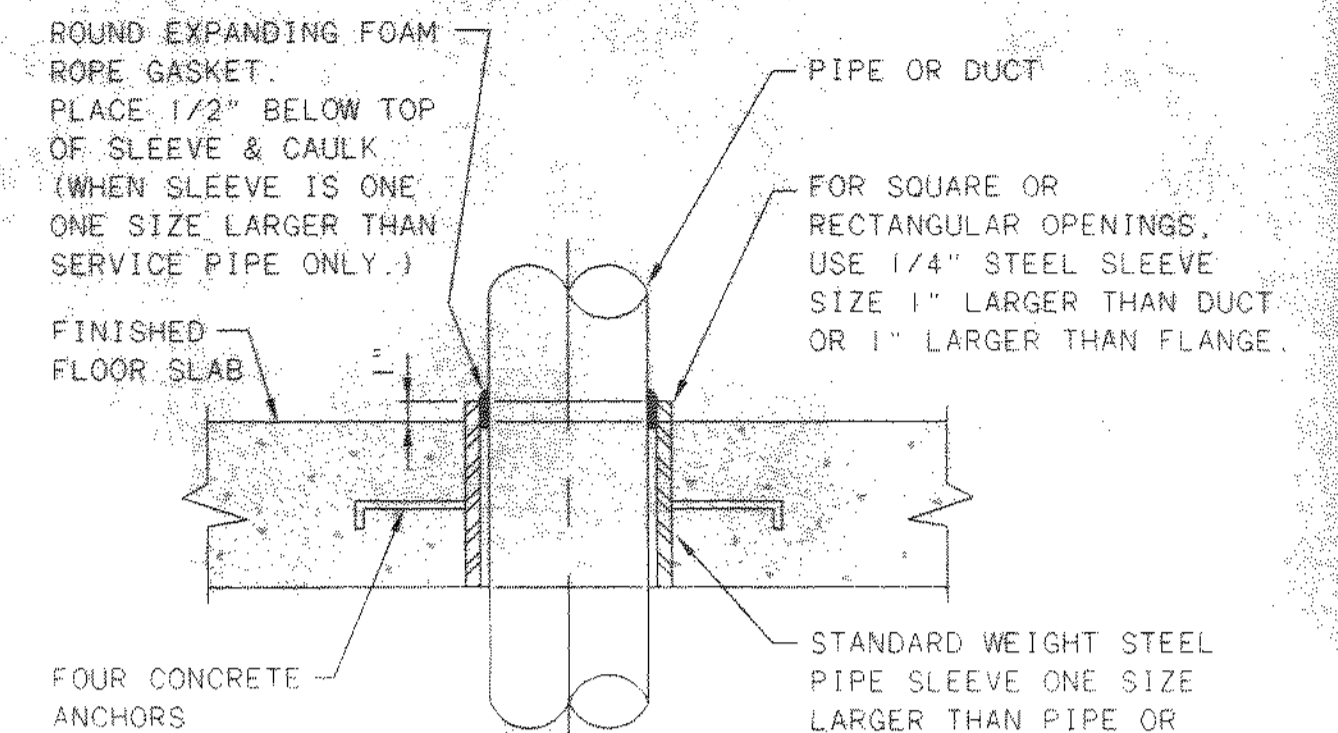
MODULAR MECHANICAL TYPE SEAL OF INTERLOCKING SYNTHETIC RUBBER LINKS

NOTE:

- EXISTING WALLS SHALL BE CORE DRILLED.
- CONCRETE SHALL BE WORKED IN AND VIBRATED TO ELIMINATE ALL VOIDS IN CONCRETE - IF VOIDS DO REMAIN, FILL WITH GROUT BEFORE INSTALLING PIPE AND RUBBER SEALS.
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS ALL INTERIOR WALL PENETRATIONS SHALL USE TYPE C PIPE SLEEVE.

PIPE SLEEVE

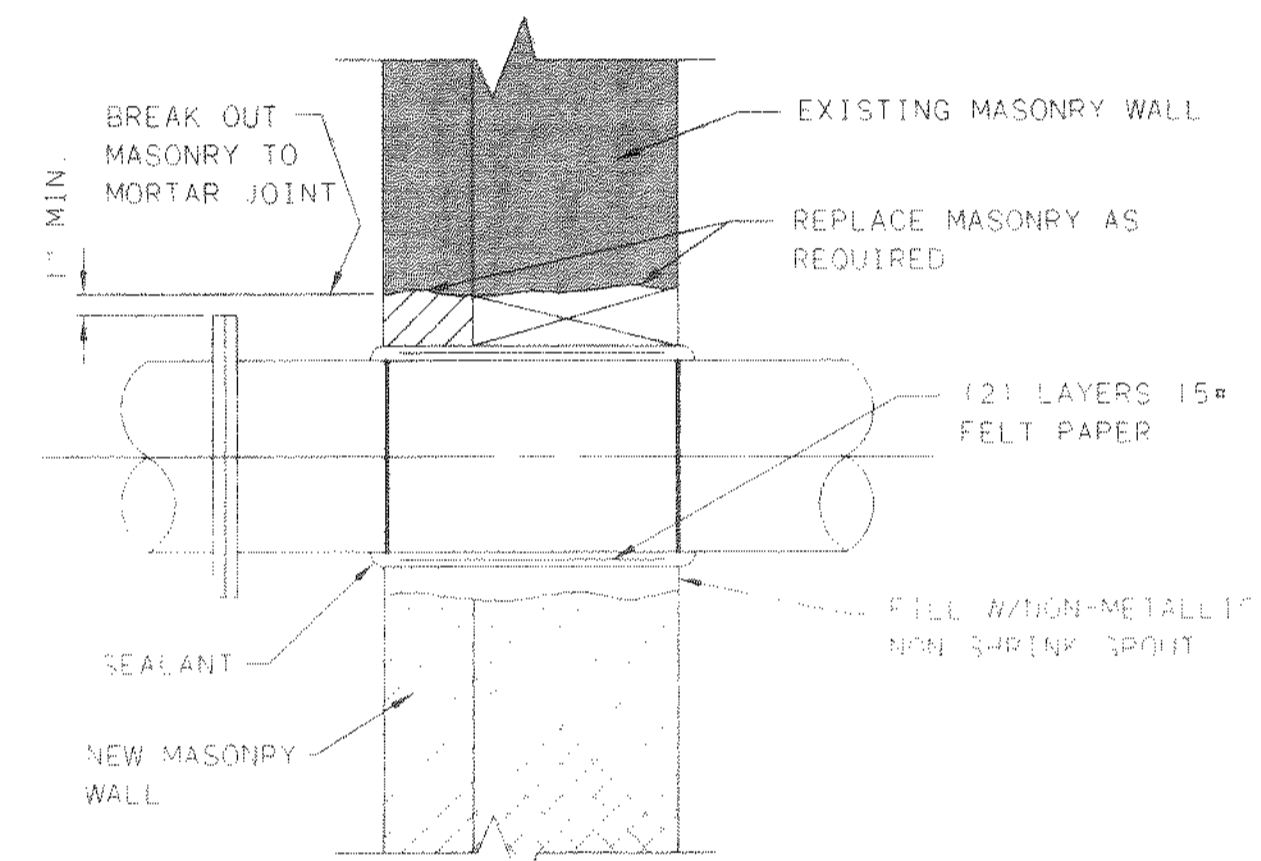
NOTE TO DESIGNER: THIS TYPE OF SEAL IS NOT WATERTIGHT AND WILL LEAK TO FLOOR BELOW DURING WASHDOWNS. SPECIFY TYPE G FOR WATERTIGHT.



TYPE D

NOTE: THRU EXISTING FLOORS WHERE TYPE "D" FLOOR SLEEVES ARE CALLED OUT, THE CONTRACTOR SHALL CORE FLOOR AND CAULK AS SHOWN, ELIMINATING THE STEEL SLEEVE.

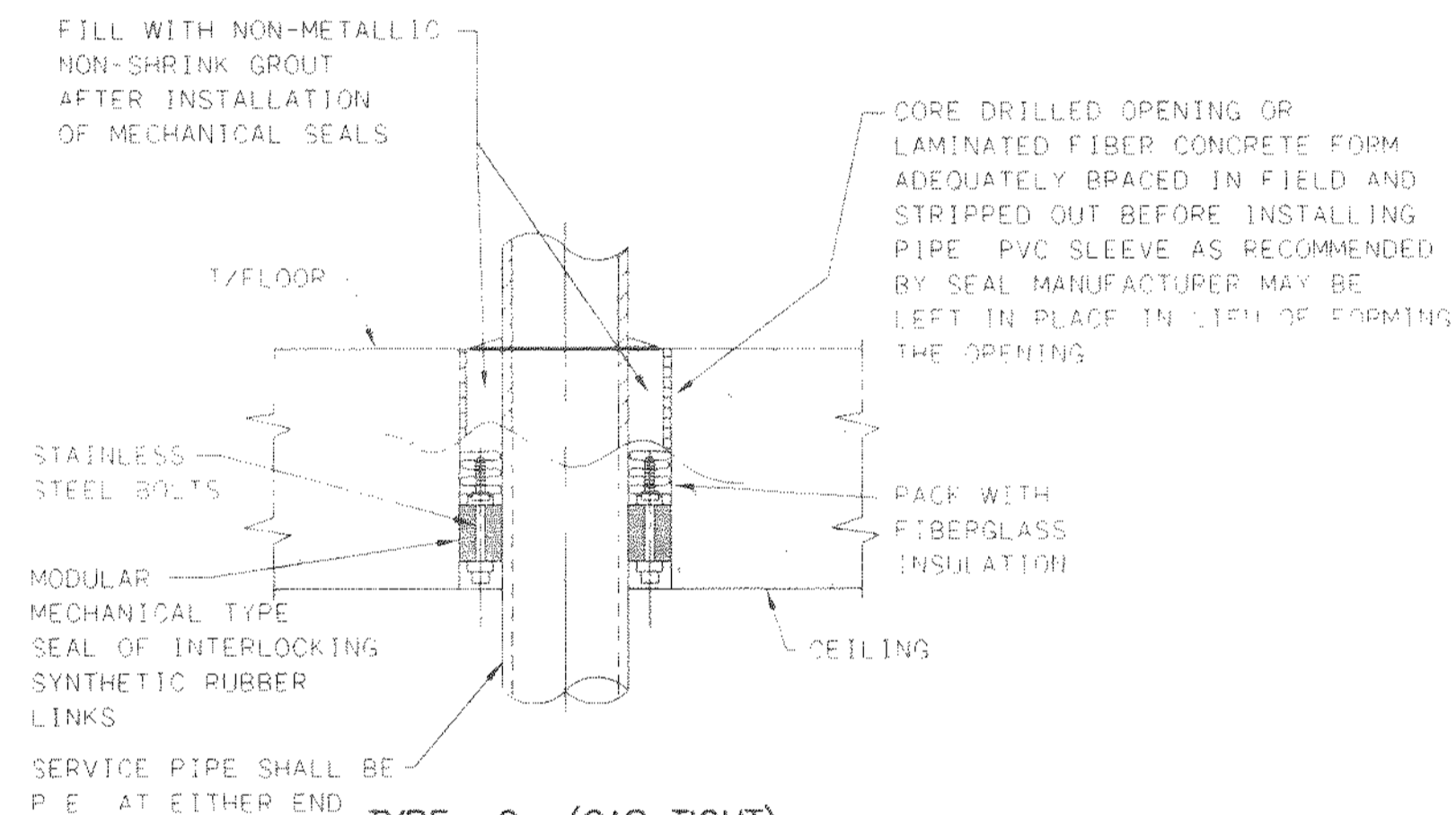
FLOOR SLEEVE



TYPE F

NOTE: FOR EXTERIOR WALLS, FACE COURSES TO BE MASONRY AND MIDDLE COURSE TO BE FILLED WITH FIBERGLASS INSULATION.

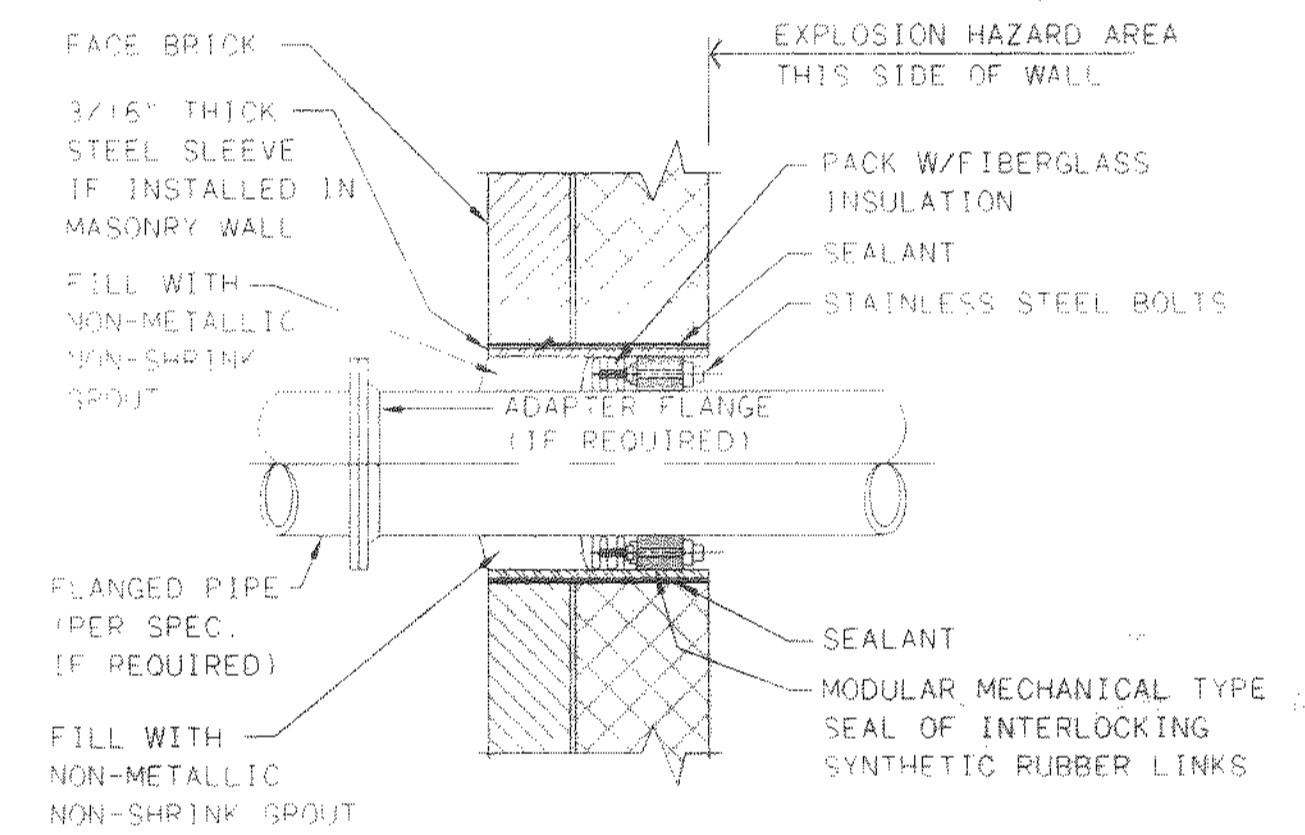
PIPE SLEEVE THRU EXISTING OR NEW MASONRY WALL



TYPE G (GAS TIGHT)

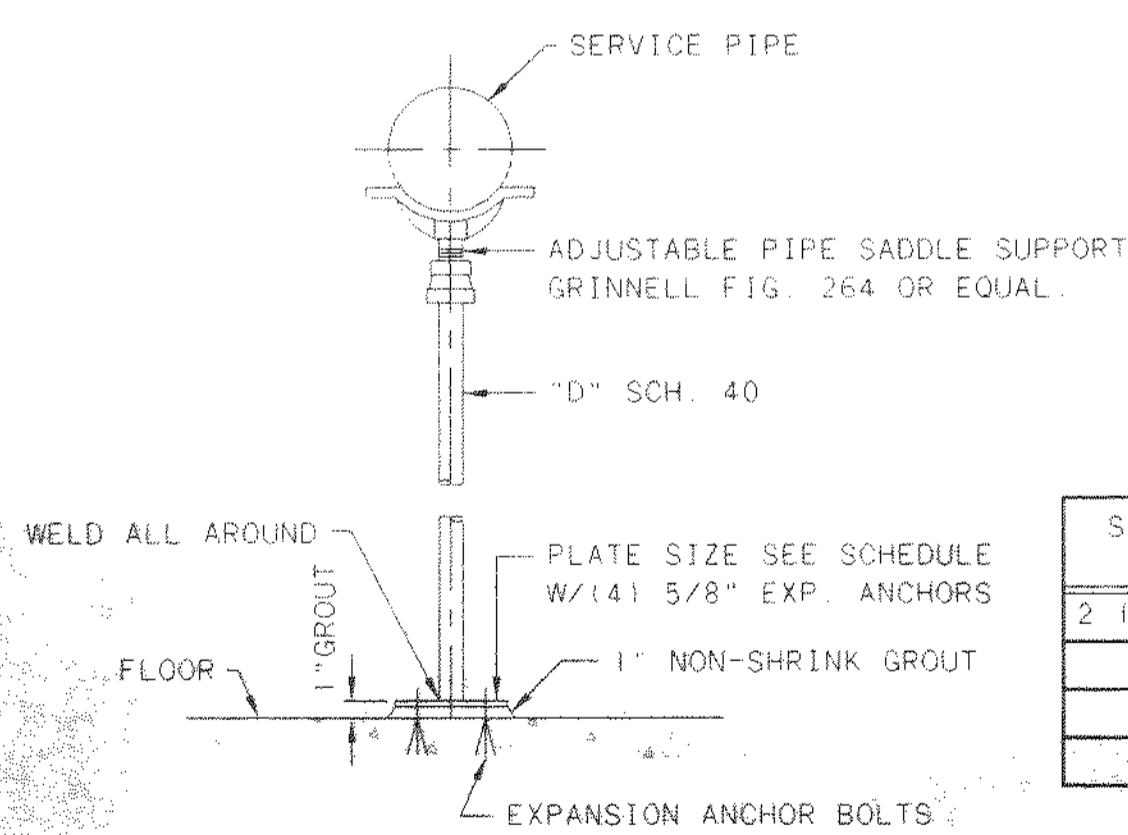
NOTE: CONCRETE SHALL BE WORKED IN AND VIBRATED TO ELIMINATE ALL VOIDS IN CONCRETE - IF VOIDS DO REMAIN, FILL WITH GROUT BEFORE INSTALLING PIPE AND RUBBER SEALS.

FLOOR SLEEVE



TYPE H (GAS TIGHT)

MASONRY WALL SLEEVE

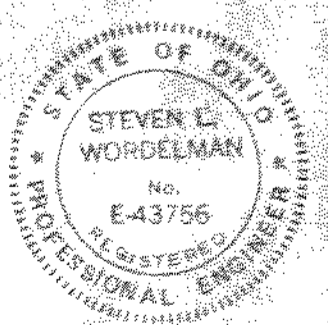


- NOTES:
- PIPE SUPPORTS SHALL BE SPACED NOT MORE THAN 12'-0" ON CENTER. SUPPORT PIPING NEAR EACH SIDE OF VALVES, FLOWMETERS, AND COUPLINGS.
 - GALVANIZE AFTER FABRICATION

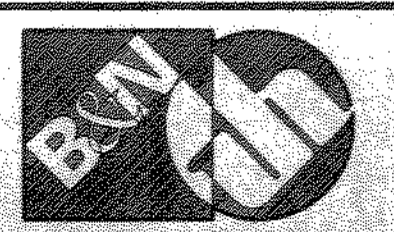
SERVICE PIPE SIZE	"D" SIZE	"PLATE" SIZE
2 1/2" TO 3 1/2"	2 1/2"	4"x3/8"x0'-4"
4" TO 12"	3"	6"x1/2"x0'-6"
14" TO 16"	4"	8"x1/2"x0'-8"
18" TO 36"	6"	8"x1/2"x0'-8"

NOTE TO DESIGNER: GALVANIZING AFTER FABRICATION MAY BE DELETED TO REDUCE COSTS

STANCHION PIPE SUPPORT DETAIL



NO.	REVISIONS	DATE	BY	CHK.



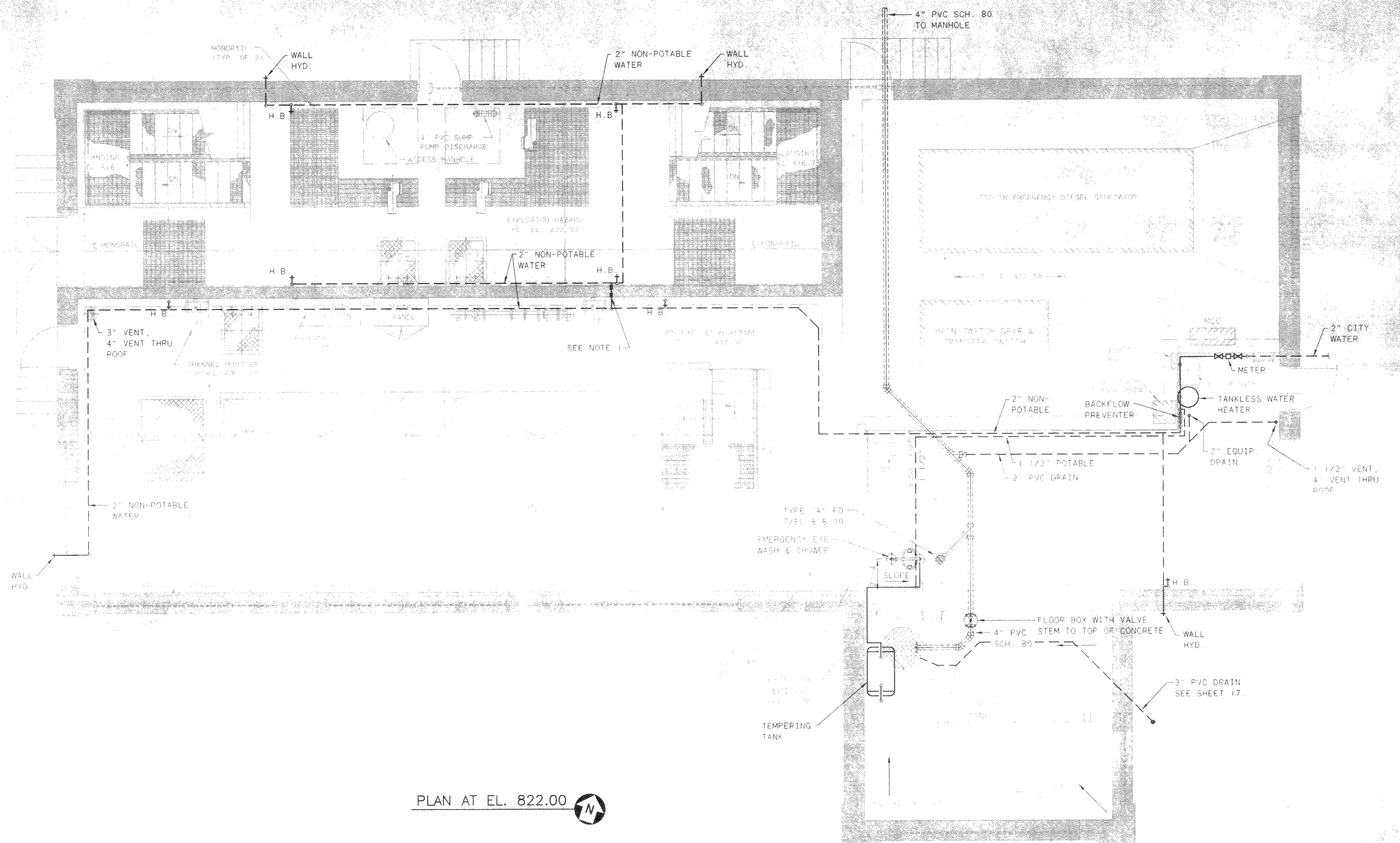
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
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DATE:	1999

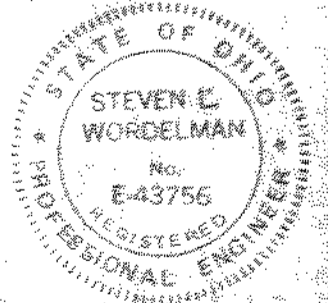
PUMP STATION
MISCELLANEOUS DETAILS
PIPING
FLOOR AND WALL SLEEVES

SCALE:	NONE
SHEET NO.	43
OF	100

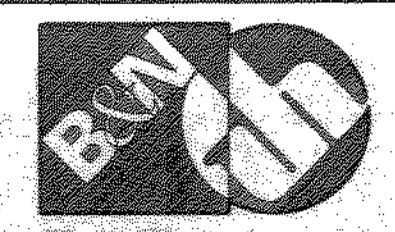


PLAN AT EL. 822.00

NOTE:
1. ALL PENETRATIONS THIS WALL TO BE GAS TIGHT.



NO.	REVISIONS	DATE	BY	CHK.



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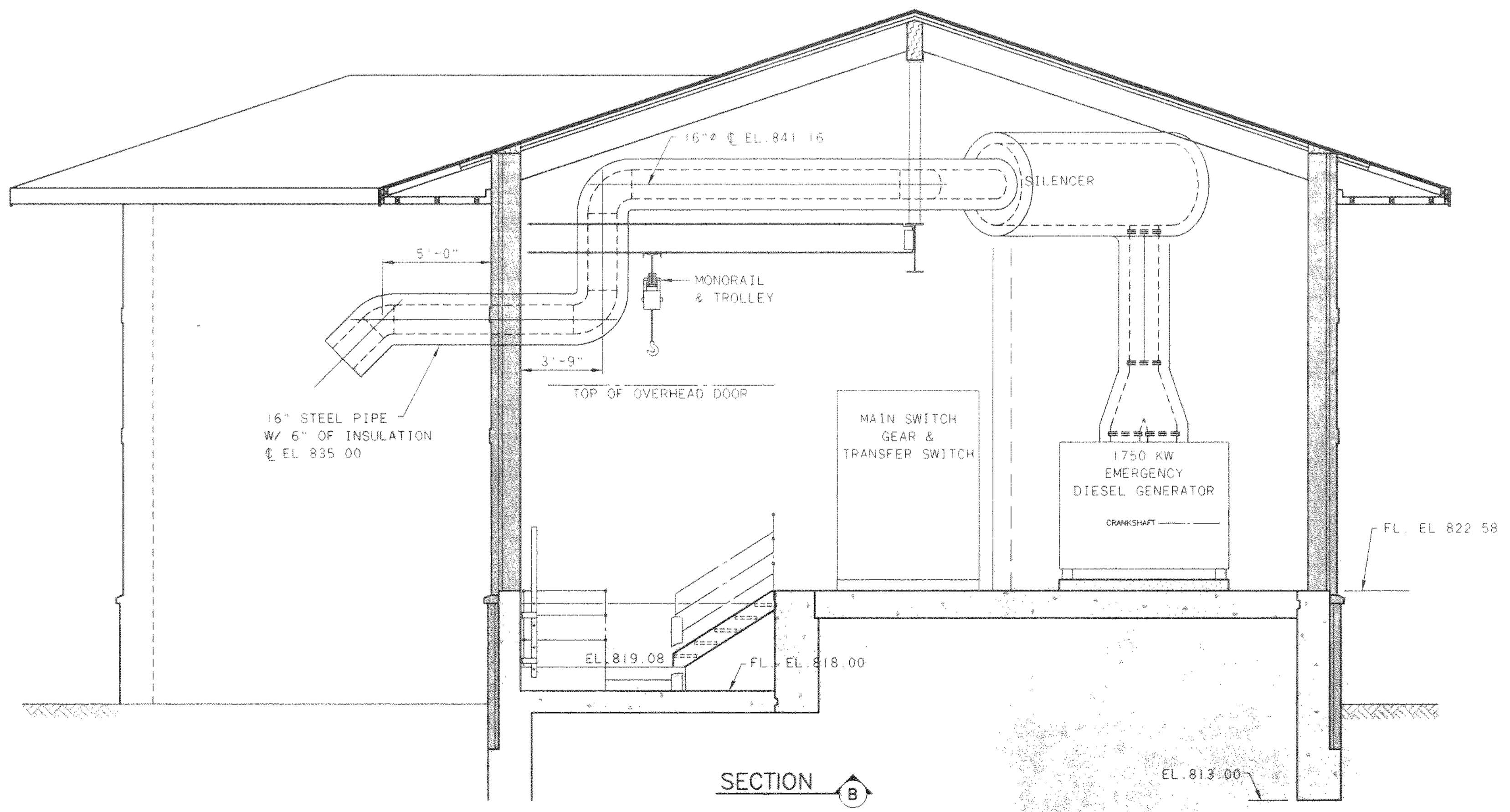
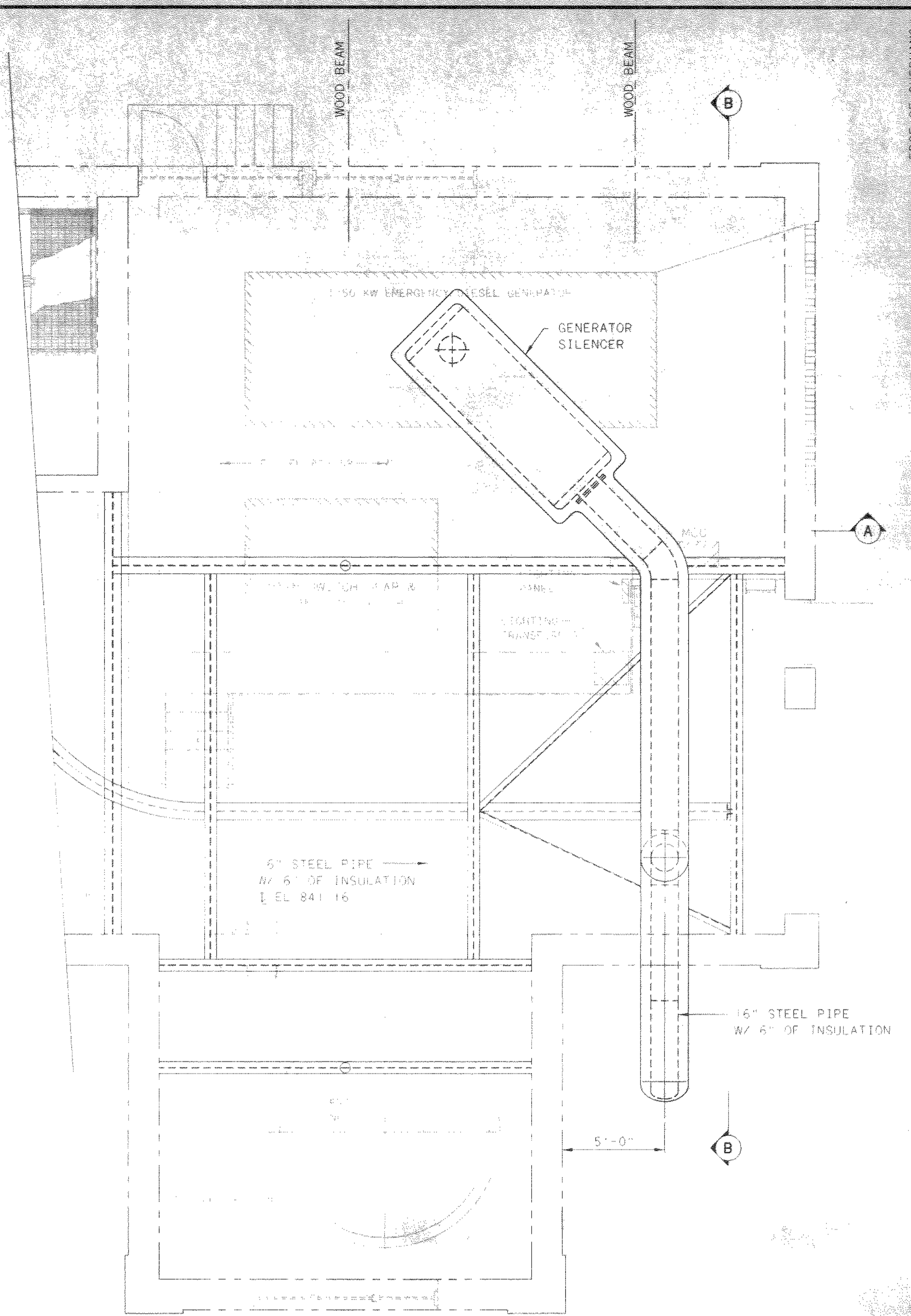
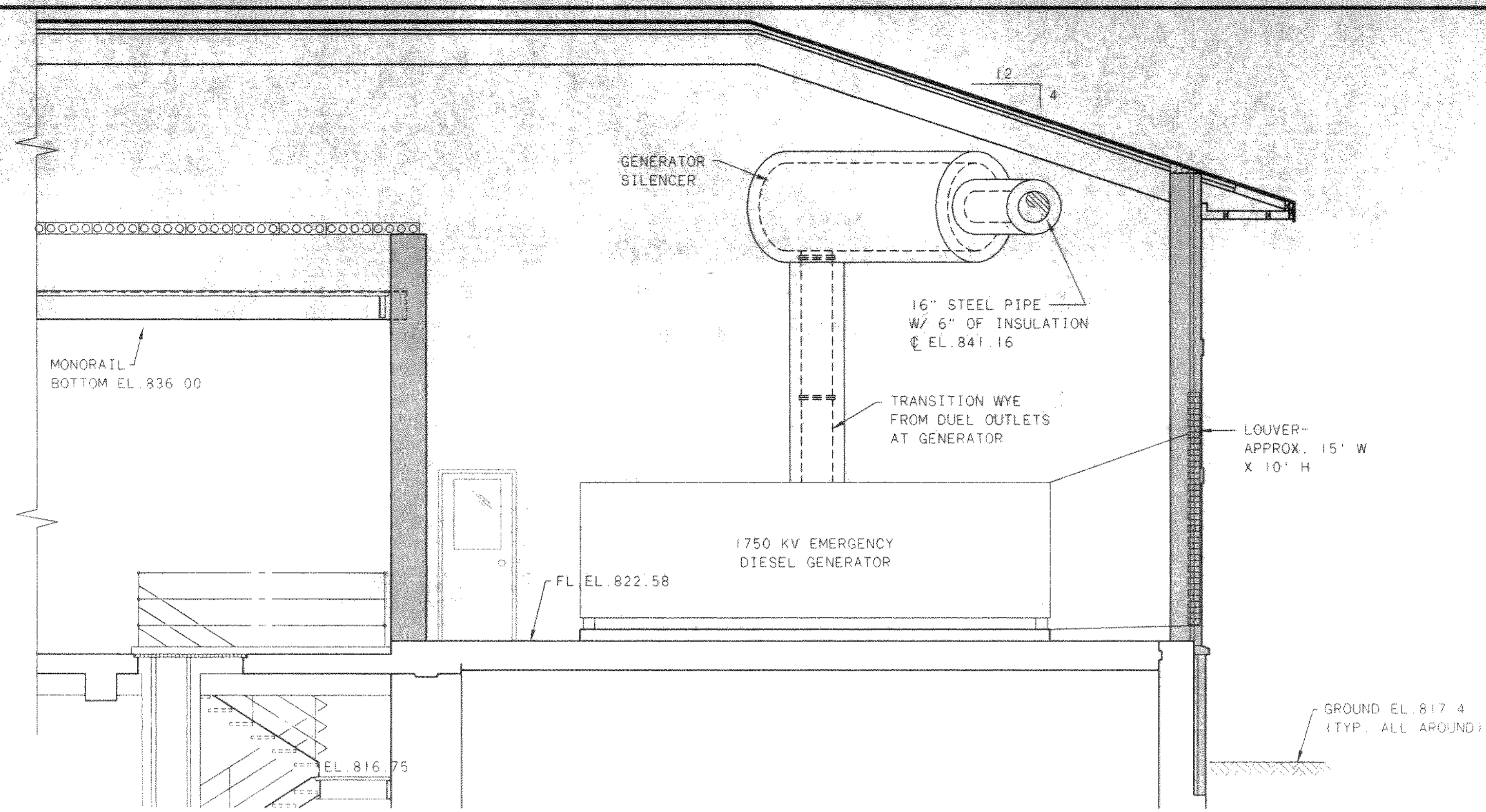
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 PLUMBING
 PLAN AT EL. 822.00

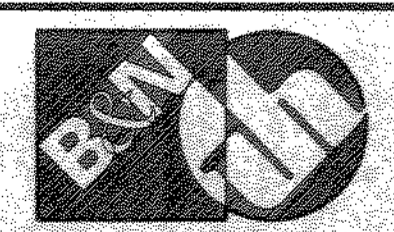
SCALE:	1/4" = 1'-0"
SHEET NO.	44
OF	100

TO: 1714992
 03/04/99 SA-14



EDGE OF OVERHANG

NO.	REVISIONS	DATE	BY	CHK.



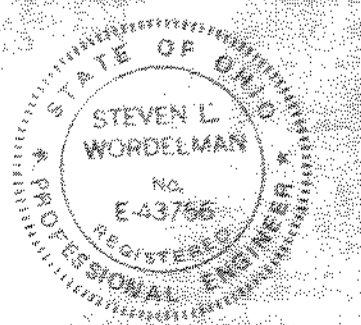
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

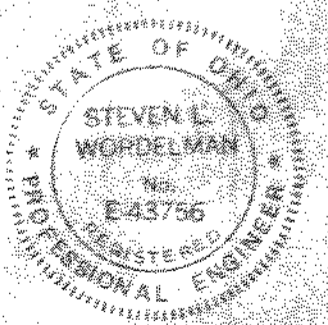
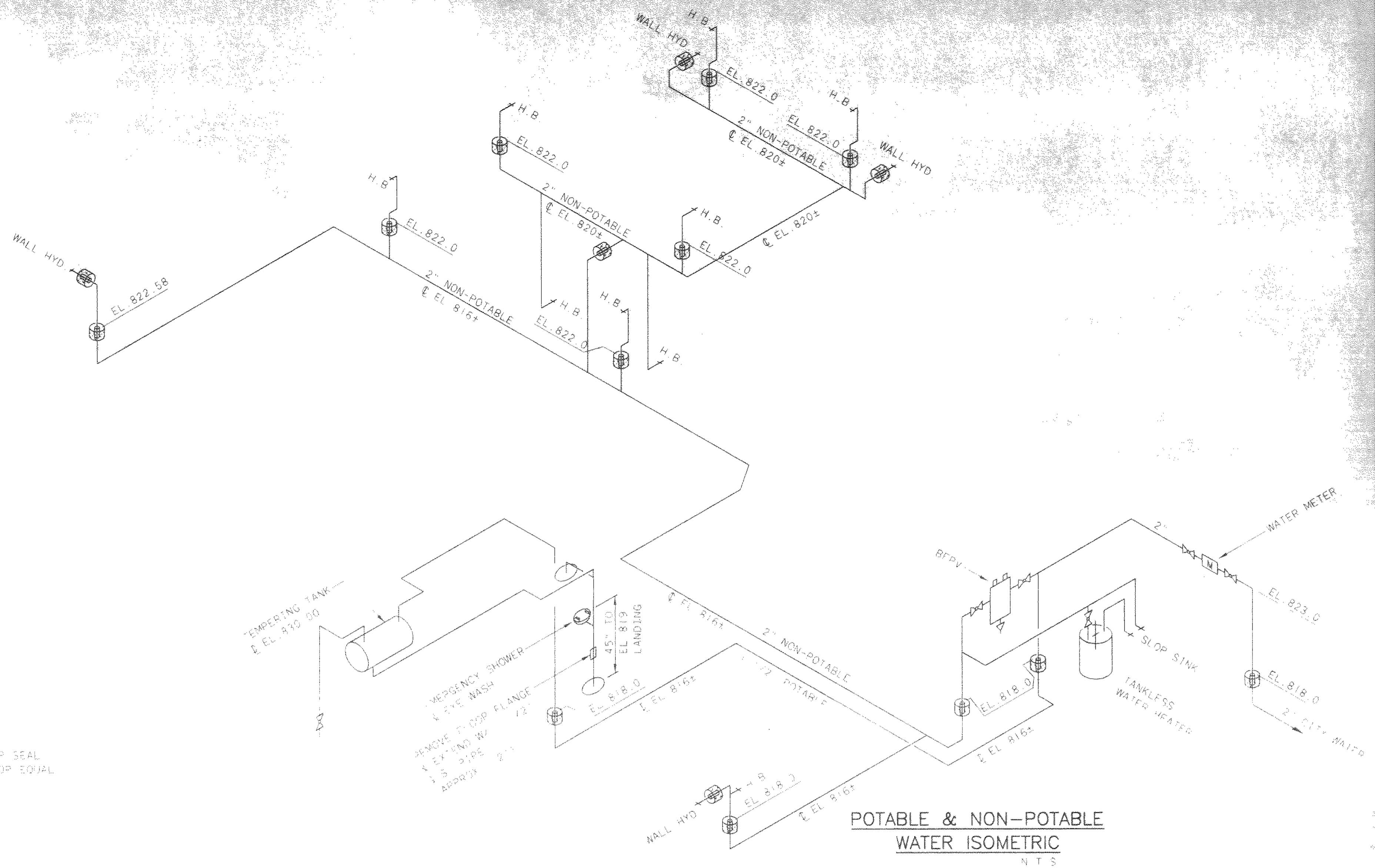
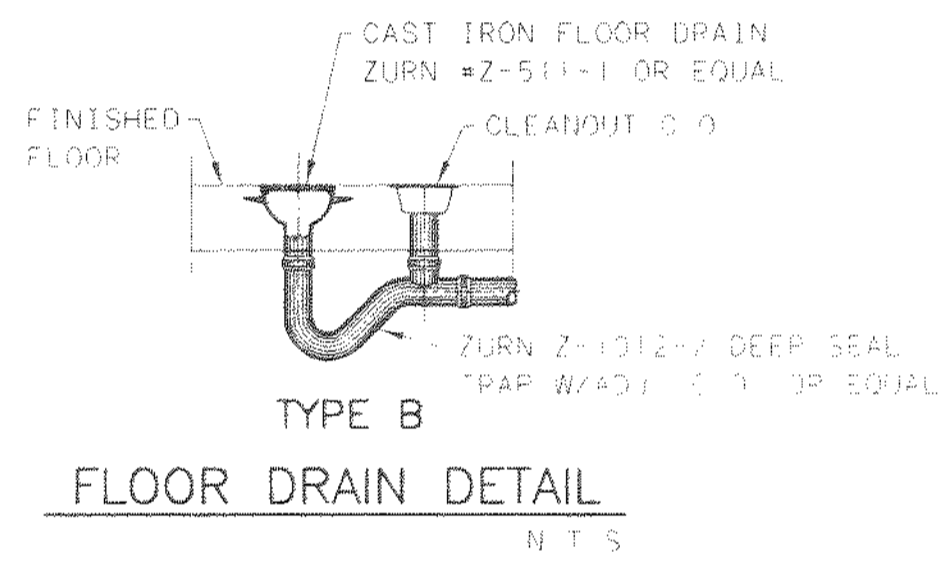
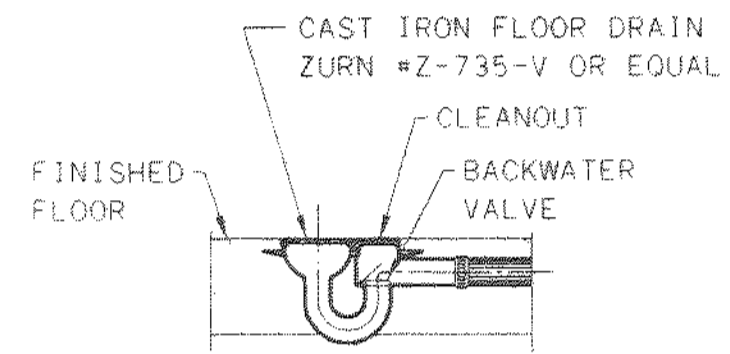
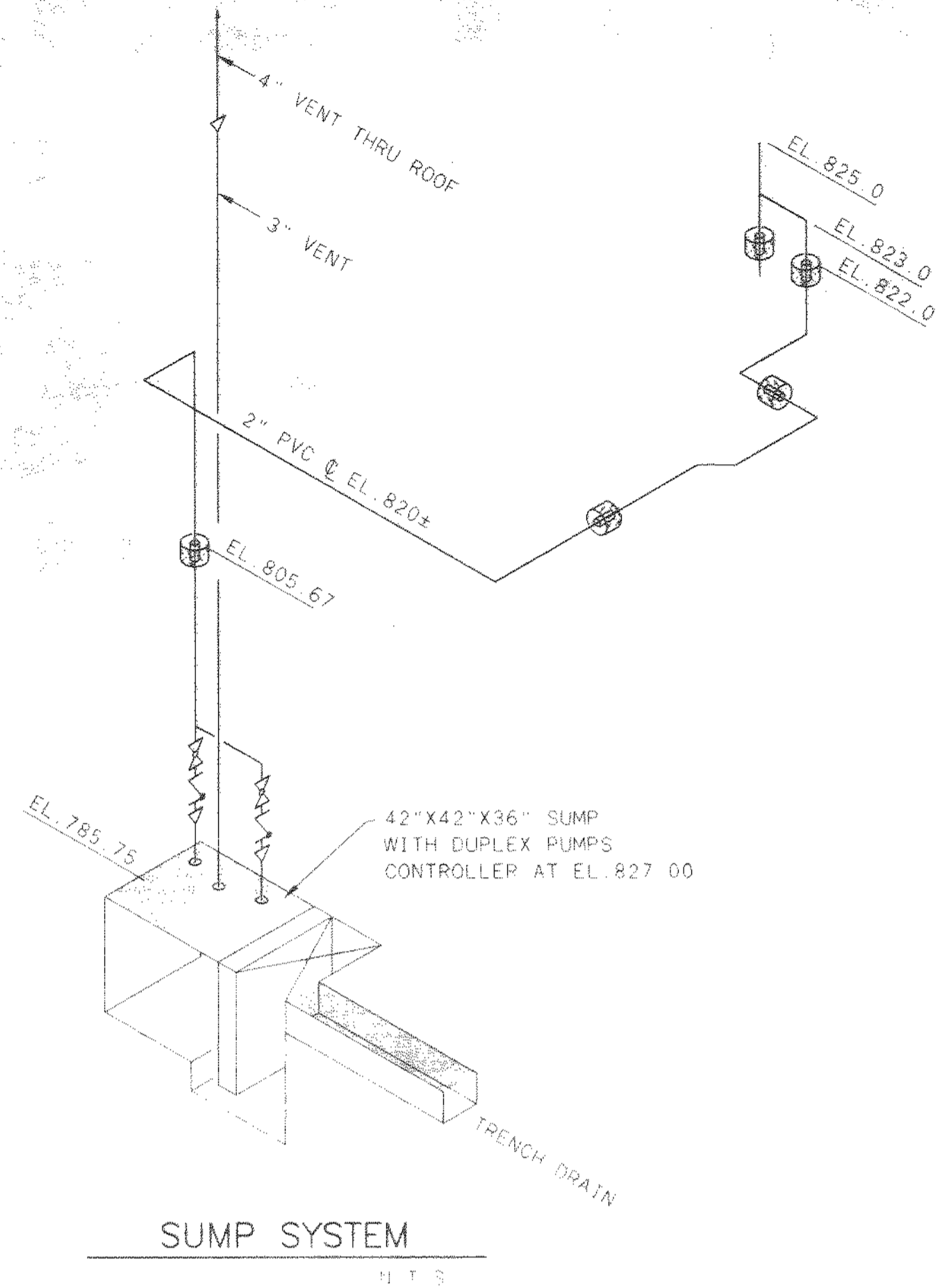
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

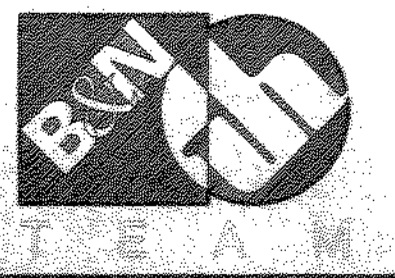
PUMP STATION
 ELECTRICAL PLAN AT EL. 822.00
 SECTIONS & DETAILS

SCALE:	1/4" = 1'-0"
SHEET NO.	45
OF	100





NO.	REVISIONS	DATE	BY	CHK.



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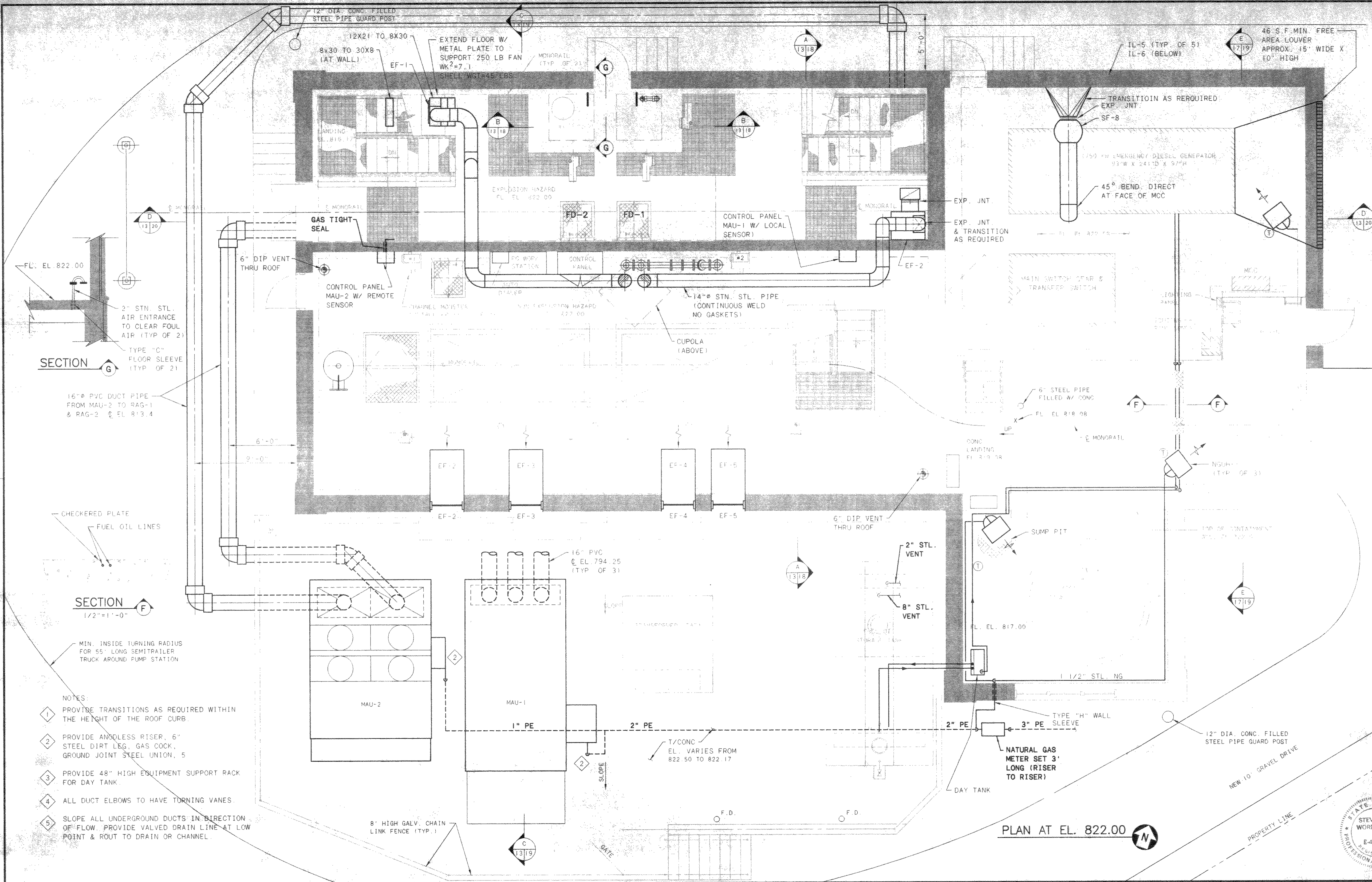
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	CCW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

**PUMP STATION
PLUMBING
POTABLE & NON-POTABLE WATER ISOMETRICS**

SCALE:	NONE
SHEET NO.	46
OF	100

TOL-4714P07
05/04/99 5K-14



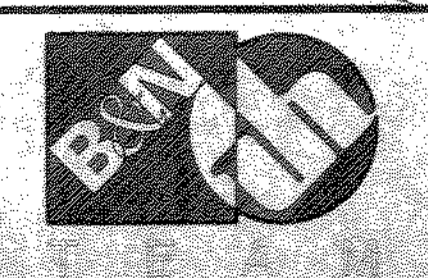
SECTION G
1/2" = 1'-0"

SECTION F
1/2" = 1'-0"

- NOTES:
- 1 PROVIDE TRANSITIONS AS REQUIRED WITHIN THE HEIGHT OF THE ROOF CURB.
 - 2 PROVIDE ANGLELESS RISER, 6" STEEL DIRT LEG, GAS COCK, GROUND JOINT STEEL UNION, 5
 - 3 PROVIDE 48" HIGH EQUIPMENT SUPPORT RACK FOR DAY TANK.
 - 4 ALL DUCT ELBOWS TO HAVE TURNING VANES.
 - 5 SLOPE ALL UNDERGROUND DUCTS IN DIRECTION OF FLOW. PROVIDE VALVED DRAIN LINE AT LOW POINT & ROUT TO DRAIN OR CHANNEL.

PLAN AT EL. 822.00

NO.	REVISIONS	DATE	BY	CHK.



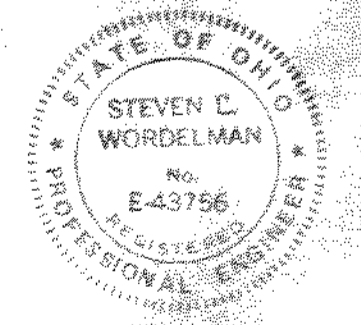
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

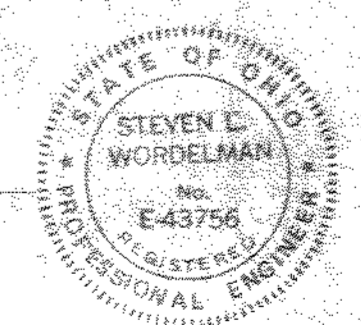
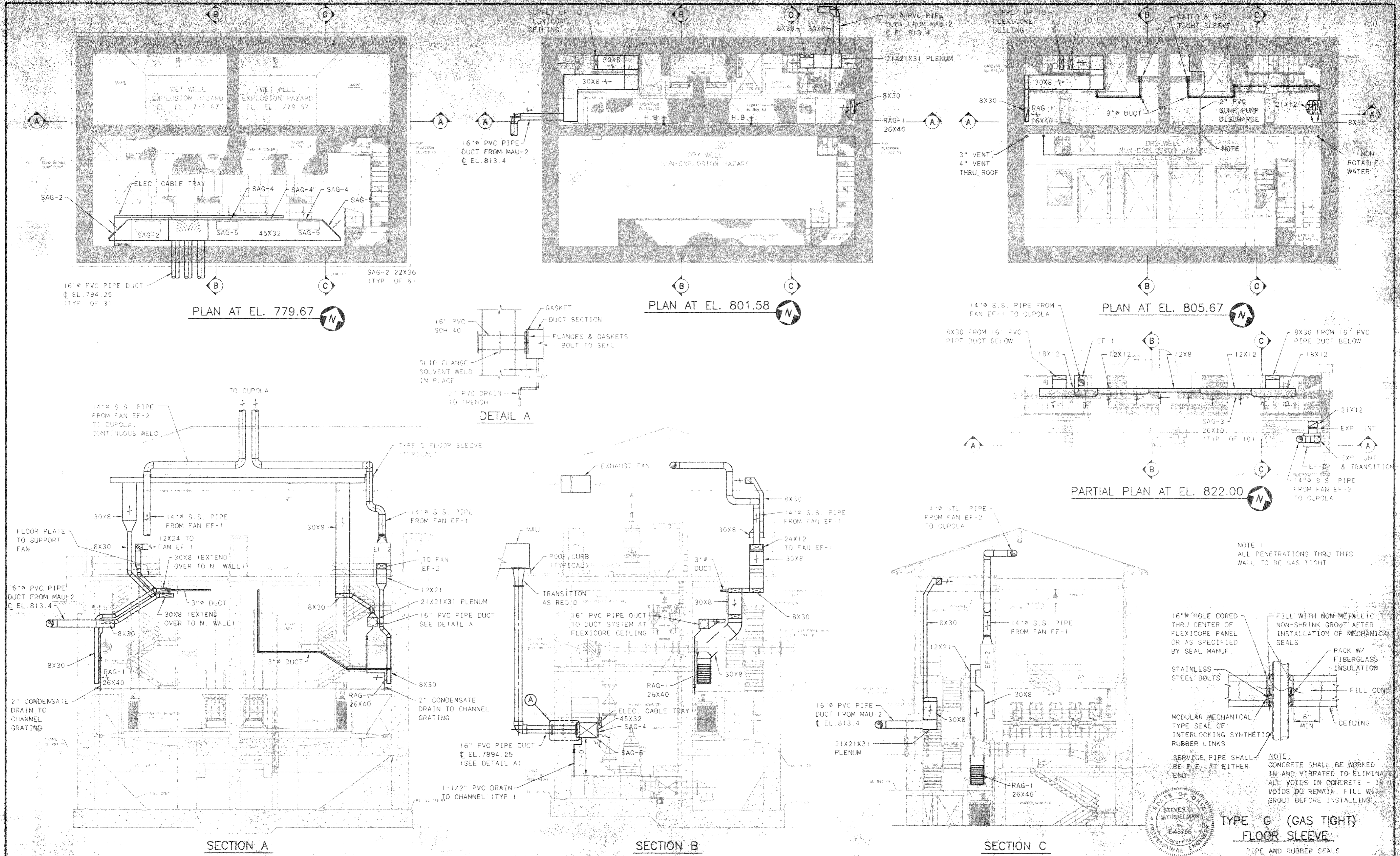
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
HVAC
PLAN AT EL. 822.00

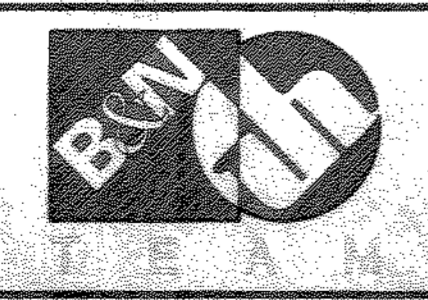
SCALE:	1/4" = 1'-0"
SHEET NO.	47
OF	100





TYPE G (GAS TIGHT) FLOOR SLEEVE
PIPE AND RUBBER SEALS

NO.	REVISIONS	DATE	BY	CHK.



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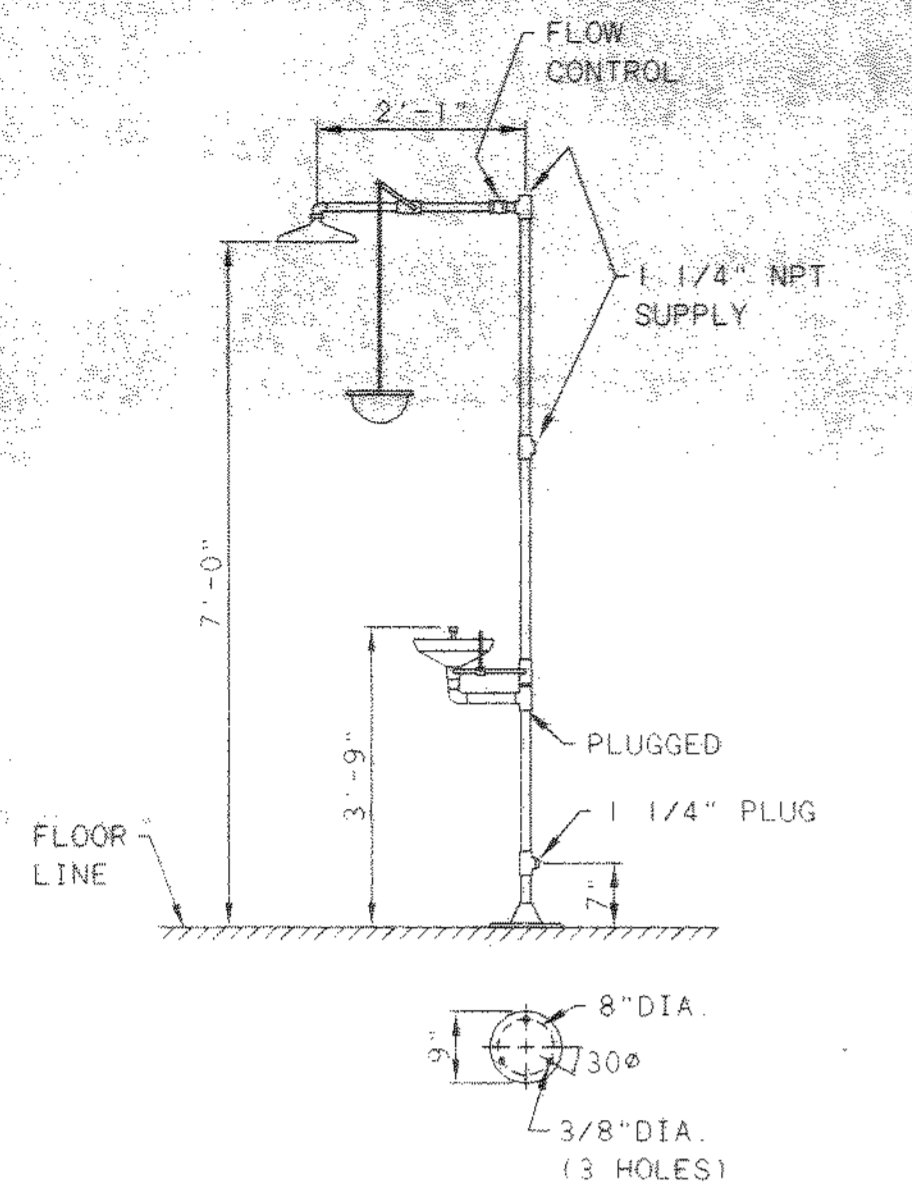
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	CCW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

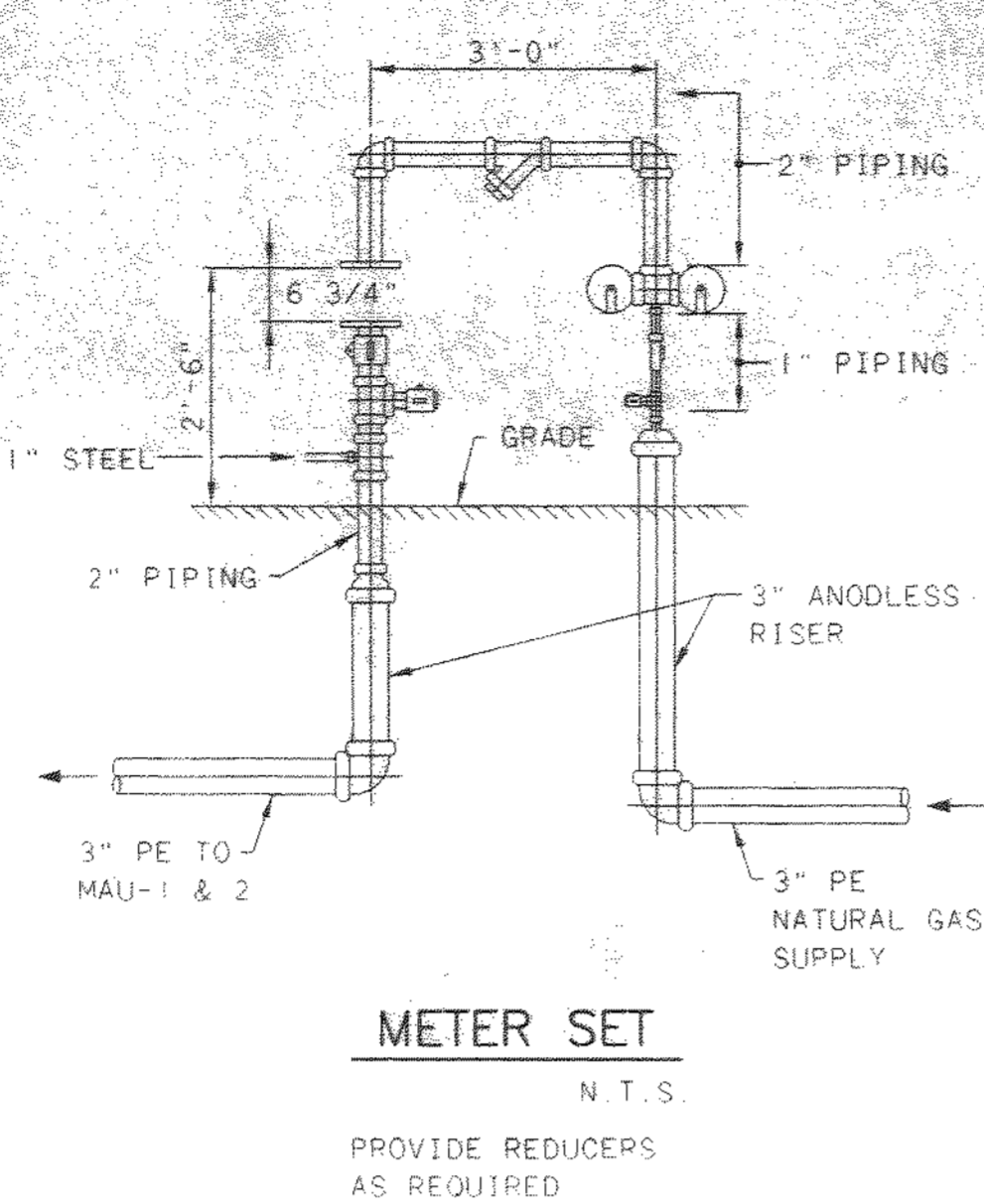
PUMP STATION
HVAC AND PLUMBING
PLAN AT EL. 779.67, 801.58, AND 805.6

SCALE:	1/8" = 1'-0"
SHEET NO.	48
OF	100

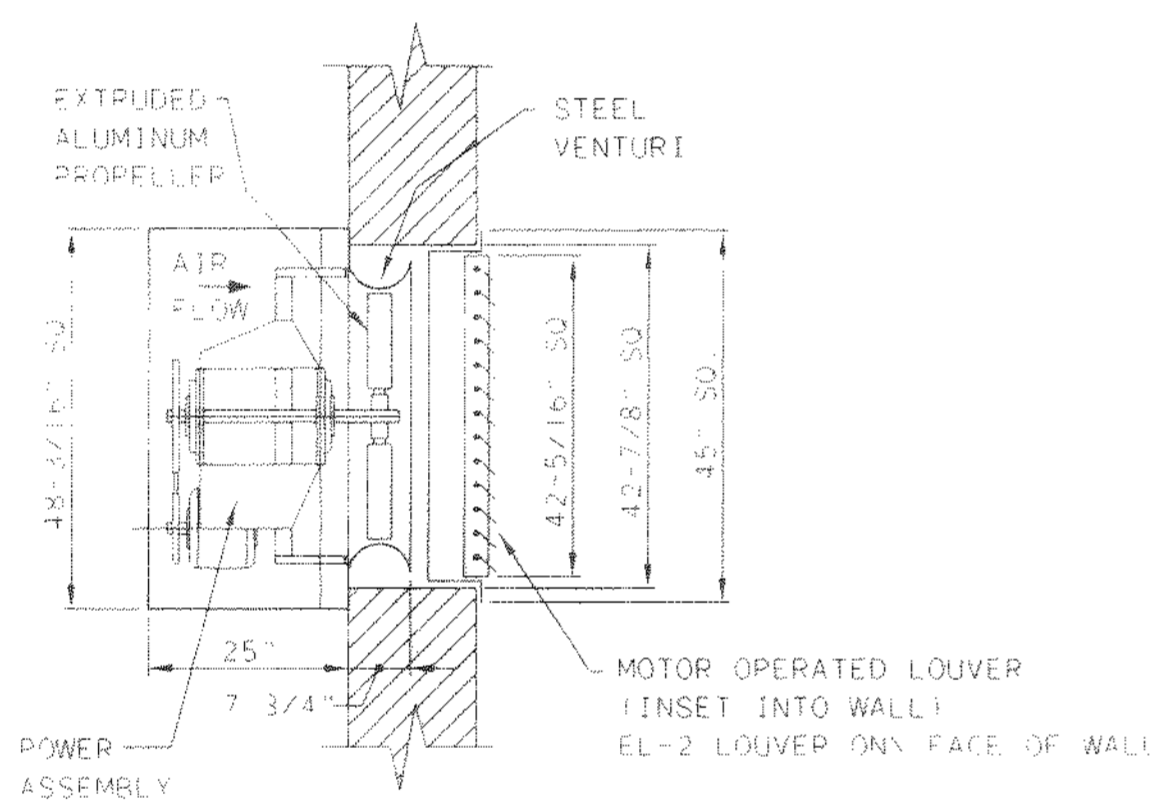
DL-4714901 02/07/99 10-14



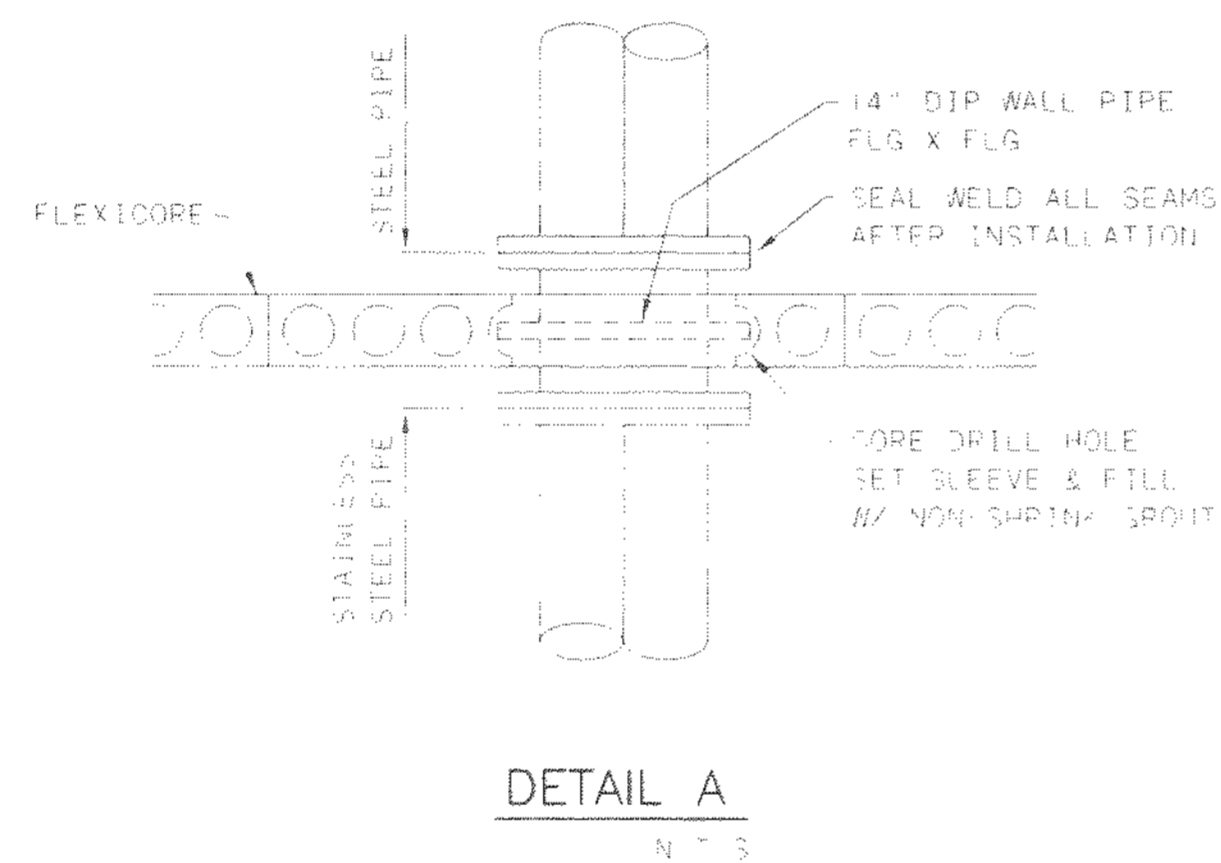
EMERGENCY SHOWER & EYEWASH
N.T.S.



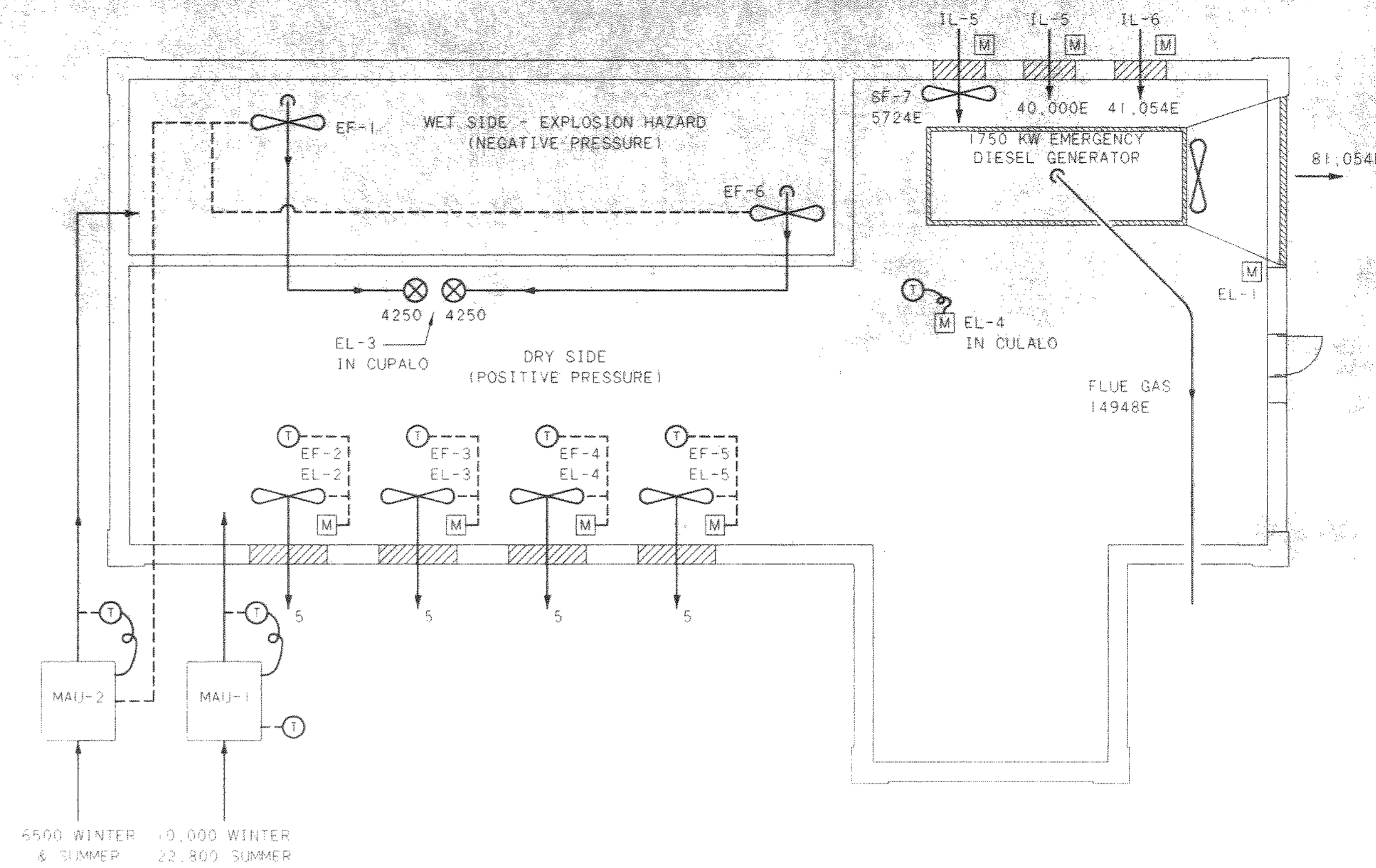
METER SET
N.T.S.
PROVIDE REDUCERS AS REQUIRED



EXHAUST LOUVER EL-1
N.T.S.



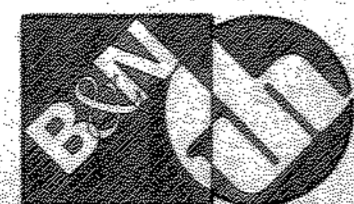
DETAIL A
N.T.S.



VENTILATION AIR BALANCE & CONTROL SCHEMATIC
ALL NUMBERS ARE CFM
E = EMERGENCY GENERATOR
N.T.S.

TOL-171-APP08
03/04/99 SA-14

NO.	REVISIONS	DATE	BY	CHK.

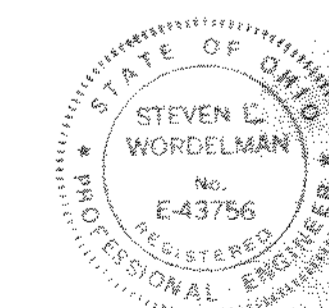


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DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

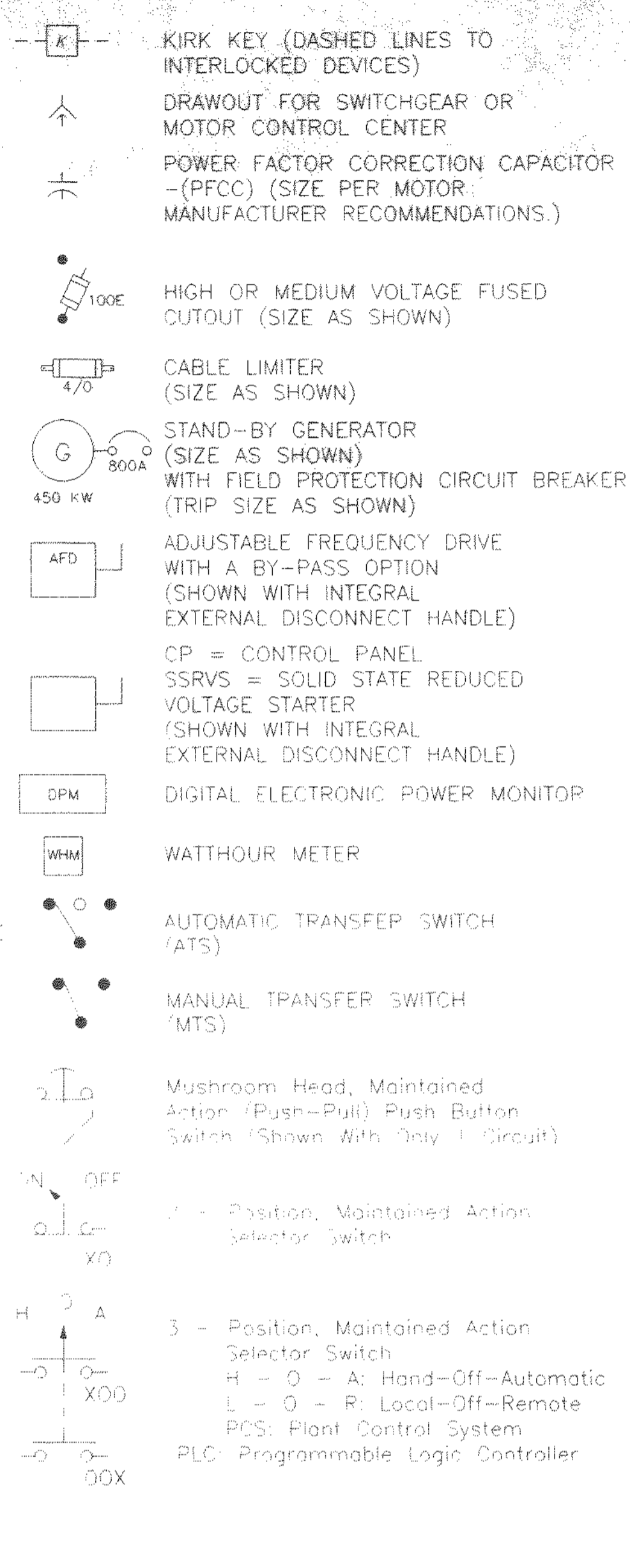
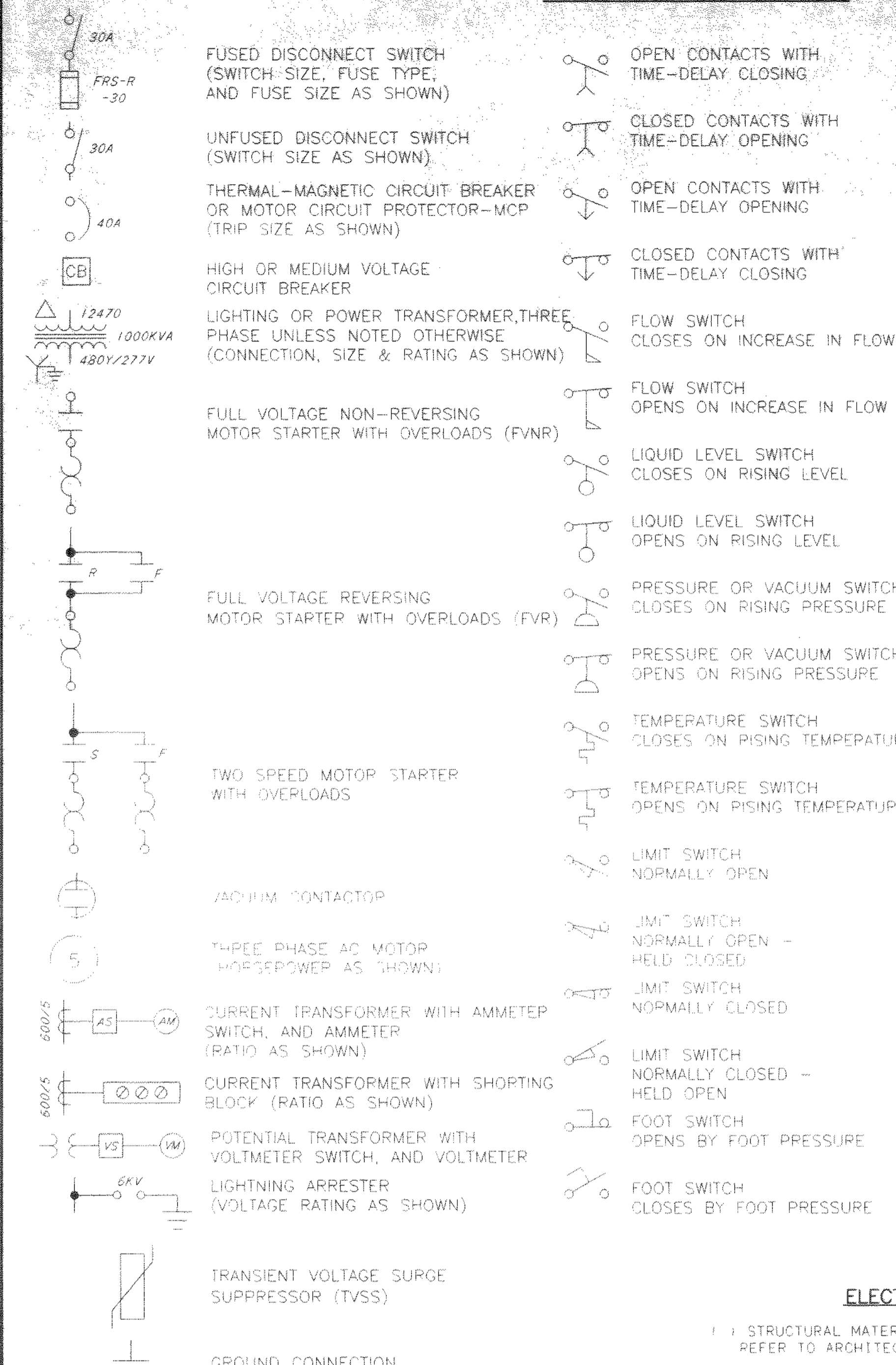
JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
MISC. HVAC DETAILS



SCALE:	1/4" = 1'-0"
SHEET NO.	49
OF	100

SINGLE LINE DIAGRAM LEGEND



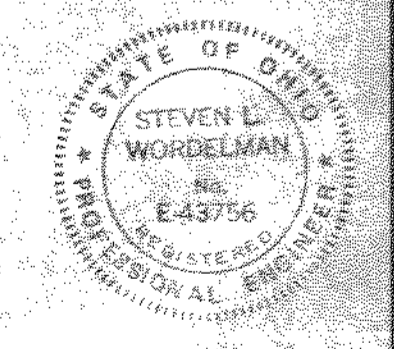
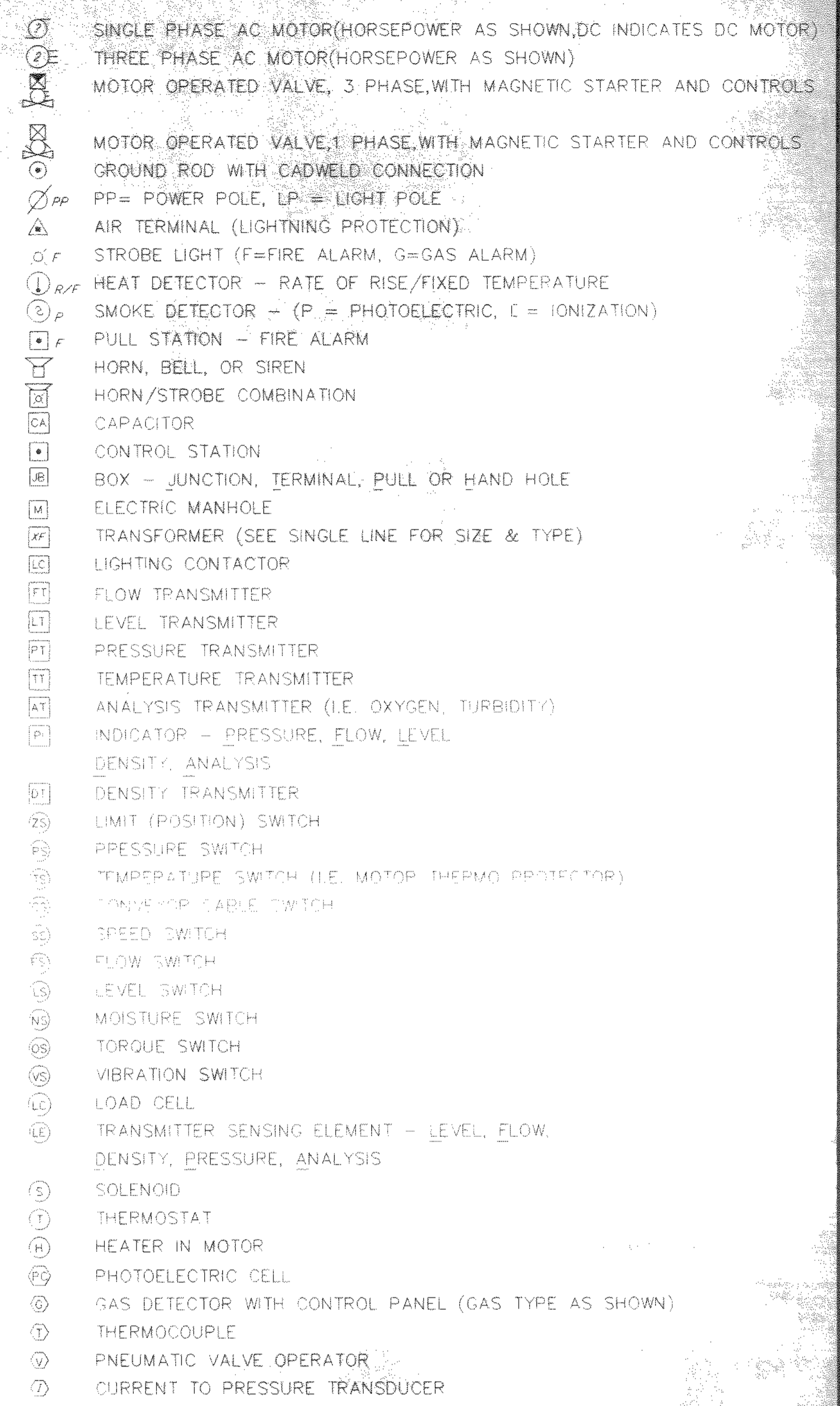
ELECTRICAL NOTES

- STRUCTURAL MATERIALS ARE NOT SHOWN ON ELECTRICAL DRAWINGS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- ALL ELECTRICAL EQUIPMENT ELEVATIONS SHOWN ARE TO BOTTOM OF DEVICE OR PANEL, UNLESS OTHERWISE NOTED.
- NUMBER SHOWN (I.E. 11735), INDICATES A SPECIFICATION REFERENCE FOR ITEMS OTHER THAN DIVISION 16. THE ELECTRICAL ITEM UNDER THIS REFERENCE IS SUPPLIED BY THE GENERAL CONTRACTOR. UNLESS OTHERWISE NOTED IN THAT SPECIFICATION, THE ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE THE ITEM PER THE DRAWINGS AND DIVISION 16 SPECIFICATIONS.
- CONTROL WIRING SHALL CONFORM TO ALL REQUIREMENTS AS SHOWN ON THE P & ID DRAWINGS WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
- WHERE LINES ARE SHOWN CONNECTING ELECTRICAL EQUIPMENT, THEY ARE NOT INTENDED AS CONDUIT ROUTING. CONTRACTOR SHALL ROUTE ALL CONDUIT RUNS (SHOWN OR NOT) PER DIVISION 16 SPECIFICATIONS.
- WP INDICATES WATERPROOF. LETTER ON LIGHT FIXTURE INDICATES TYPE, PER SECTION 16500. NUMBER WITH LIGHT FIXTURE OR RECEPTACLE INDICATES CIRCUIT NUMBER.

MOTOR STARTER ABBREVIATIONS

- FVNR - FULL VOLTAGE, NON-REVERSING
- FVR - FULL VOLTAGE REVERSING
- TS1W - TWO SPEED, ONE WINDING
- TS2W - TWO SPEED, TWO WINDING
- TSR1W - TWO SPEED REVERSING, ONE WINDING
- TSR2W - TWO SPEED REVERSING, TWO WINDING

ELECTRICAL PLAN LEGEND



NO.	REVISIONS	DATE	BY	CHK.

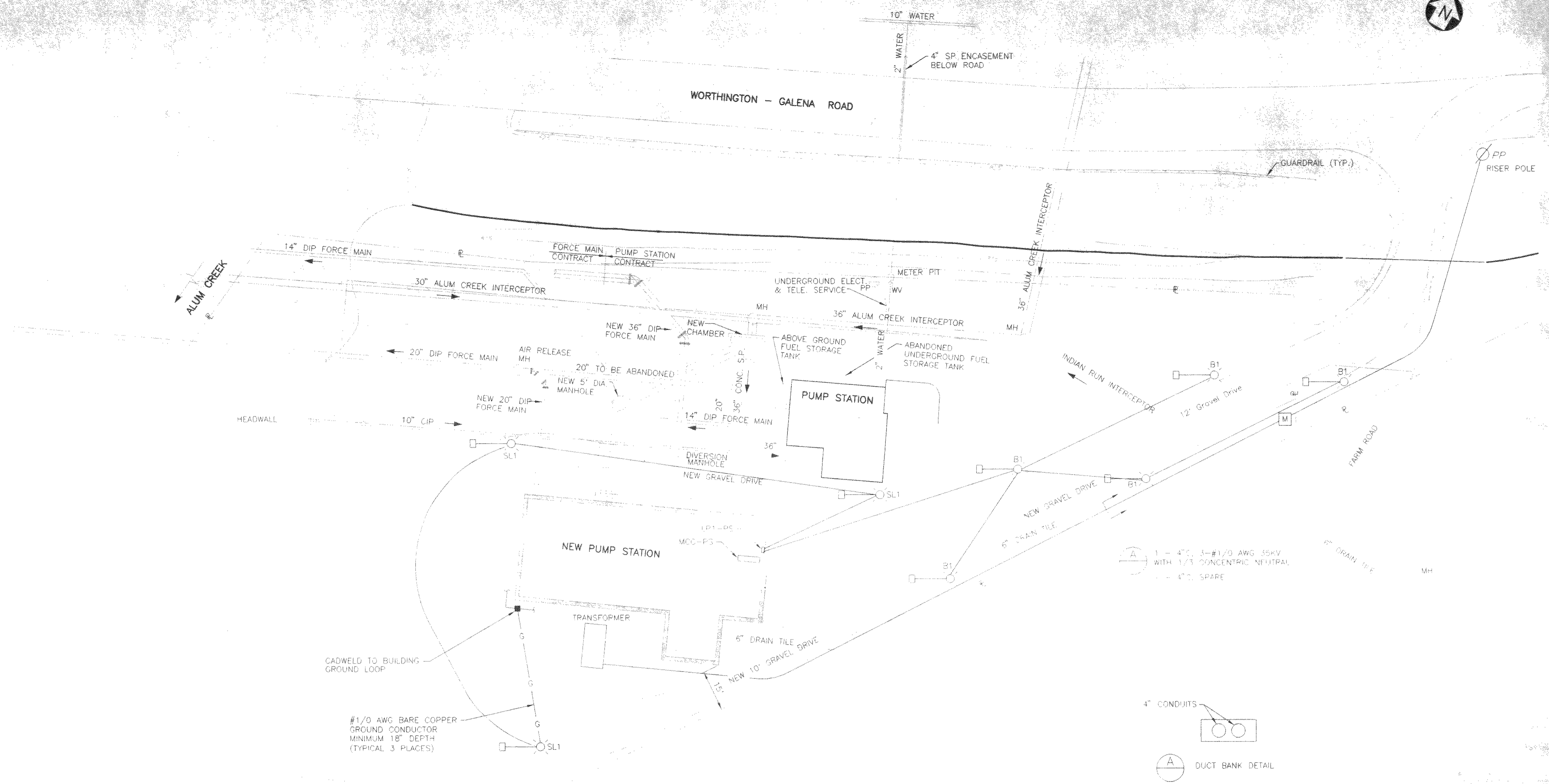
Burgess & Niple, Limited
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DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

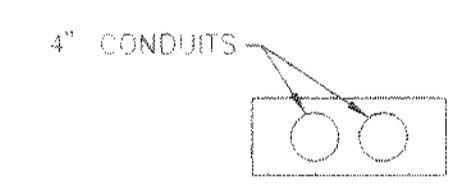
JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	KMH
CHECKED BY:	DLH
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 ELECTRICAL LEGEND

SCALE:	NONE
SHEET NO.	OF
50	100

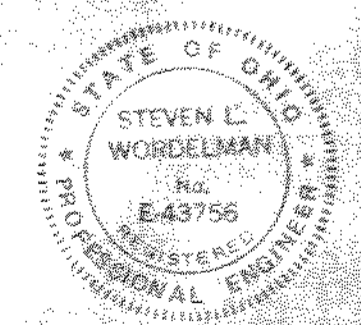


1 - 4\"/>

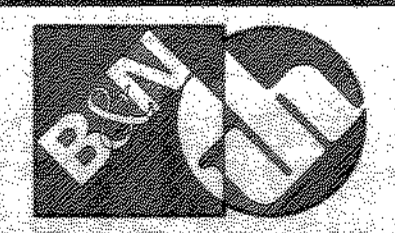


DUCT BANK DETAIL

- SEE SECTION 16500 IN THE SPECIFICATION FOR THE TYPE OF LIGHTING FIXTURE USED.
- OBTAIN ALL FOUNDATION DIMENSIONS FROM THE LIGHTING MANUFACTURER BEFORE INSTALLING ANCHOR BOLTS AND CONDUITS.



NO.	REVISIONS	DATE	BY	CHK.



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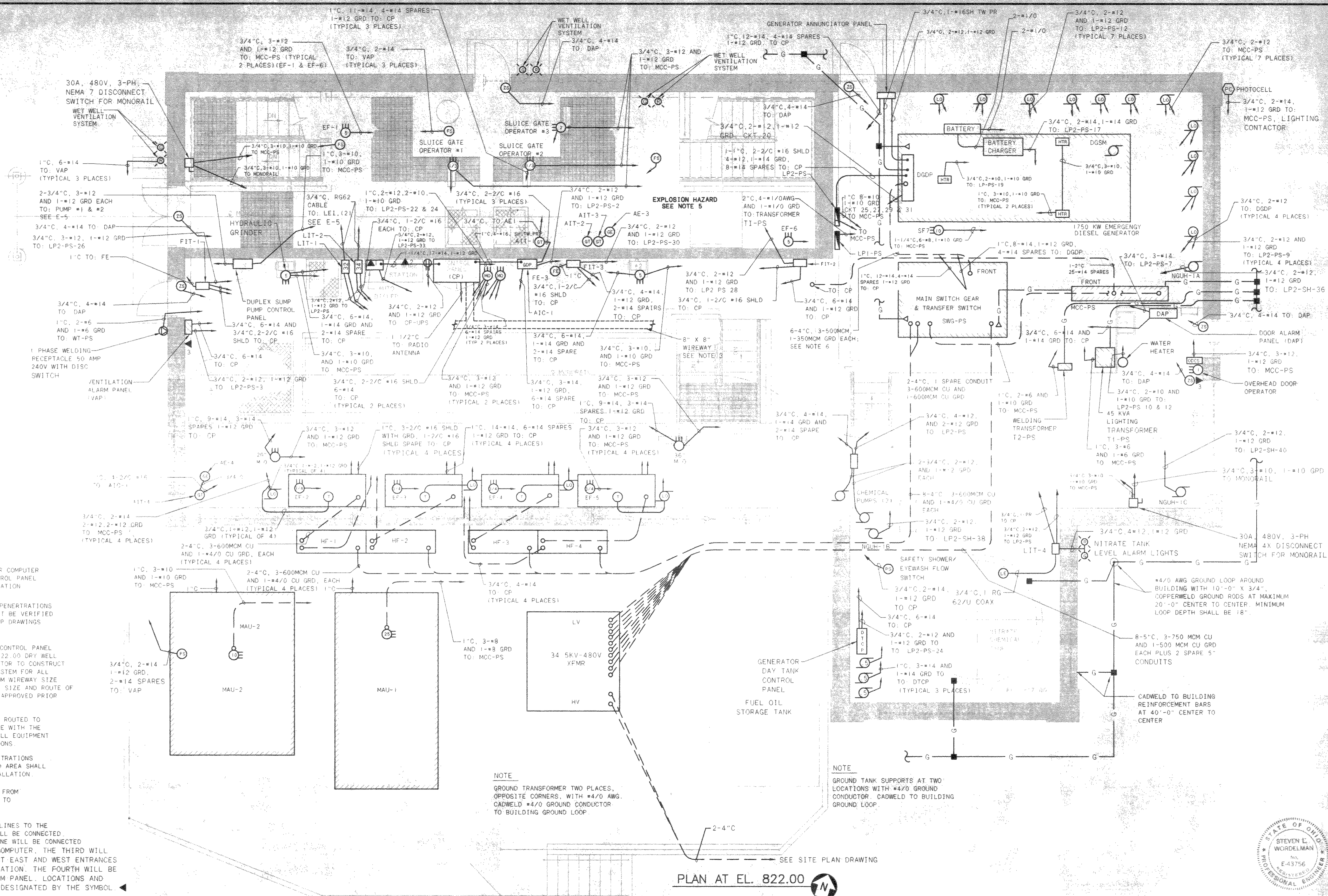
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	RCD
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 ELECTRICAL SITE PLAN

SCALE:	1" = 20'
SHEET NO.	51
OF	100

TOL-4714532
 02/04/99 SA-14

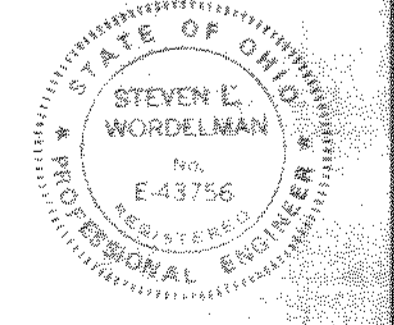


- NOTES**
1. INSTALL RECEPTACLE FOR COMPUTER WORK STATION FROM CONTROL PANEL UPS TO WORKSTATION LOCATION
 2. UNDERGROUND CONDUITS PENETRATIONS BETWEEN EQUIPMENT MUST BE VERIFIED ON MANUFACTURER'S SHOP DRAWINGS BEFORE INSTALLATION.
 3. INSTALL WIREWAY FROM CONTROL PANEL TO AREAS WITHIN EL. 822.00 DRY WELL TO ALLOW THIS CONTRACTOR TO CONSTRUCT A COMPLETE HOMERUN SYSTEM FOR ALL FIELD DEVICES. MINIMUM WIREWAY SIZE IS 8" X 8". THE FINAL SIZE AND ROUTE OF THE WIREWAY SHALL BE APPROVED PRIOR TO INSTALLATION.
 4. ALL CONDUITS SHALL BE ROUTED TO AVOID ANY INTERFERENCE WITH THE MONORAIL SYSTEM AND ALL EQUIPMENT REMOVAL ACCESS LOCATIONS.
 5. ALL CONDUIT WALL PENETRATIONS INTO EXPLOSION HAZARD AREA SHALL BE SEALED AFTER INSTALLATION.
 6. USE FLEXIBLE CONDUIT FROM UNDERGROUND CONDUITS TO GENERATOR MAIN LEADS.
 7. PROVIDE 3 TELEPHONE LINES TO THE LIFT STATION. ONE WILL BE CONNECTED TO THE AUTODIALER. ONE WILL BE CONNECTED TO A MODEM IN A COMPUTER. THE THIRD WILL BE FOR HANDSETS AT EAST AND WEST ENTRANCES AND AT PC WORK STATION. THE FOURTH WILL BE FOR THE DOOR ALARM PANEL. LOCATIONS AND LINE NUMBERS ARE DESIGNATED BY THE SYMBOL.

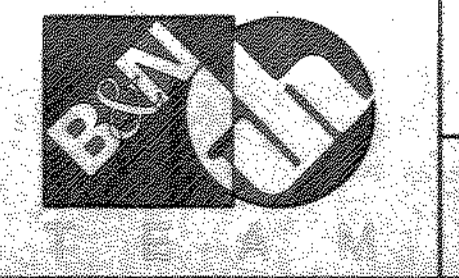
NOTE
GROUND TRANSFORMER TWO PLACES, OPPOSITE CORNERS, WITH #4/0 AWG. CADWELD #4/0 GROUND CONDUCTOR TO BUILDING GROUND LOOP.

NOTE
GROUND TANK SUPPORTS AT TWO LOCATIONS WITH #4/0 GROUND CONDUCTOR. CADWELD TO BUILDING GROUND LOOP.

PLAN AT EL. 822.00



NO.	REVISIONS	DATE	BY	CHK.



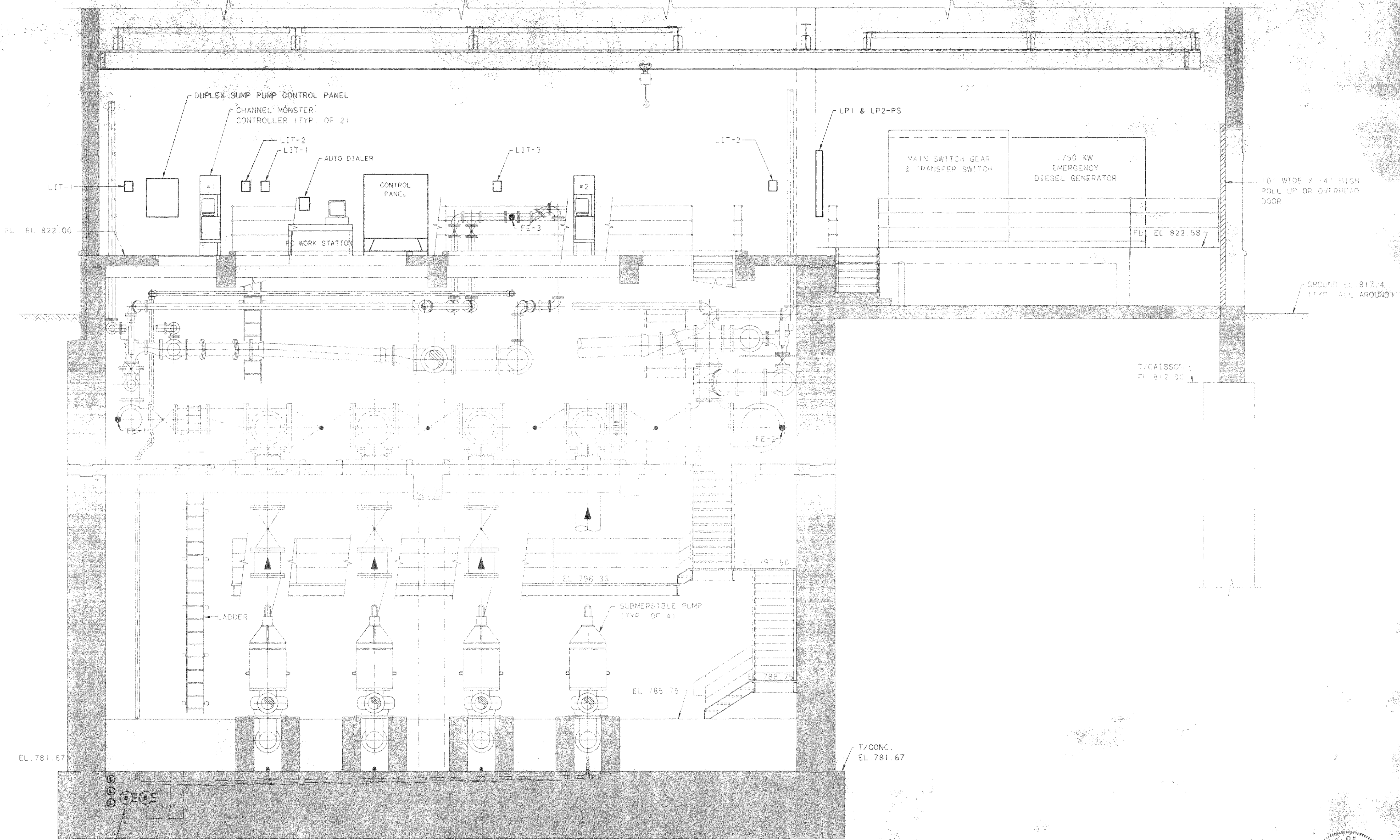
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	KMH
CHECKED BY:	DLH
APPROVED BY:	SLW
DATE:	1999

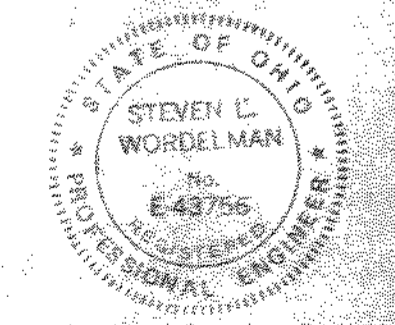
PUMP STATION
ELECTRICAL
PLAN AT EL. 822.50

SCALE:	1/4" = 1'-0"
SHEET NO.	53
OF	100

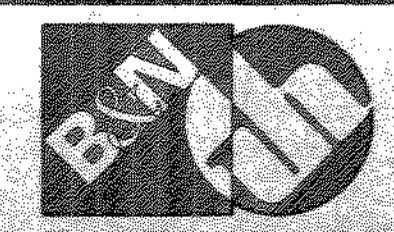


SECTION F
13/21

NOTE: THIS SHEET WAS CREATED FROM SHEET No. 21



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

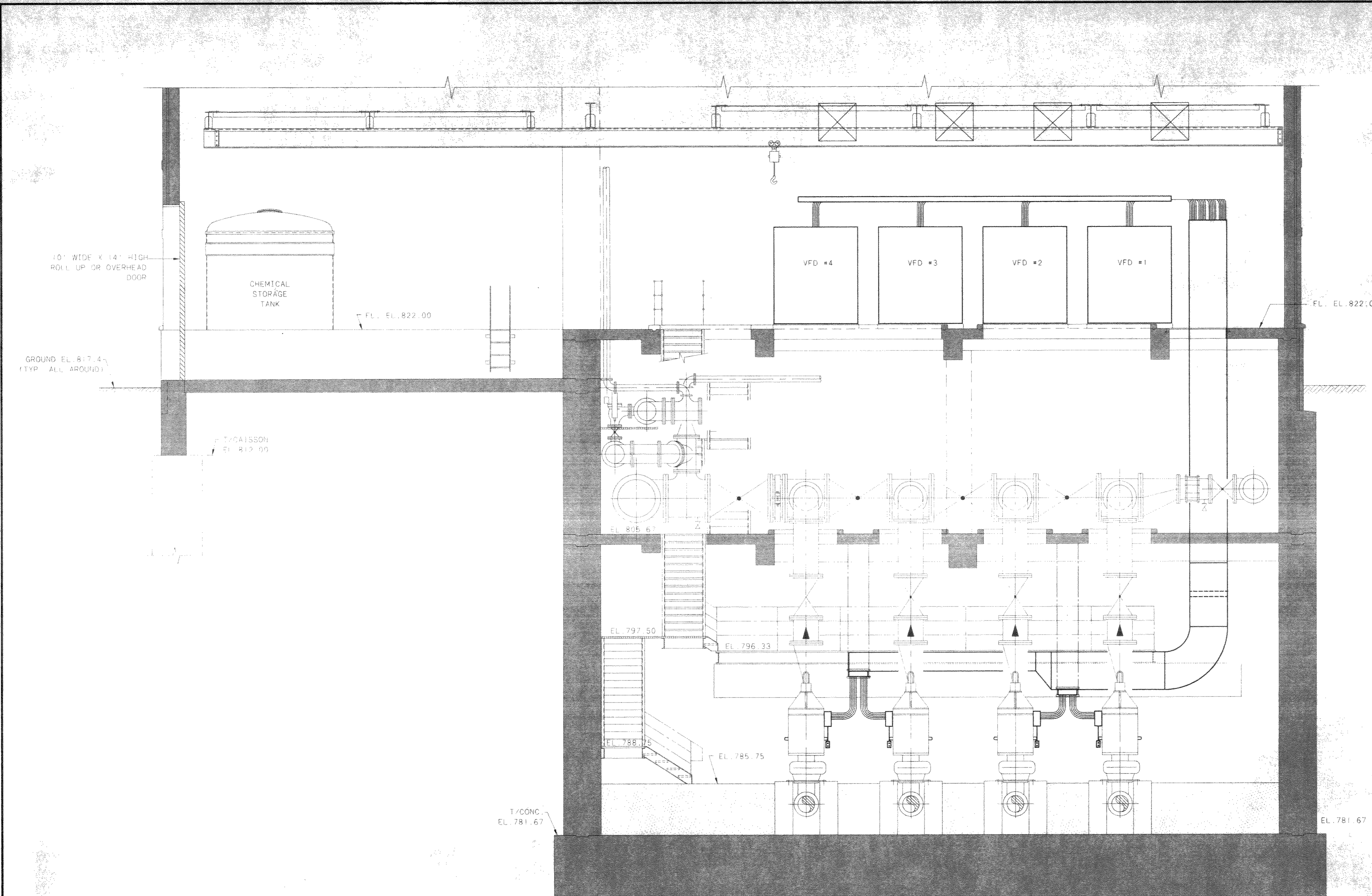
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	KMH
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

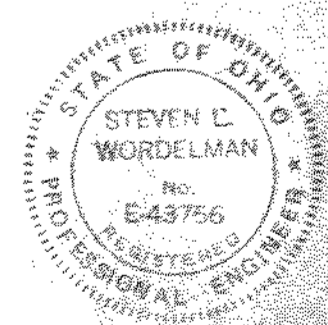
PUMP STATION
ELECTRICAL FOR PUMPS AND
EQUIPMENT

SCALE:	1/4" = 1'-0"
SHEET NO.	55
OF	100

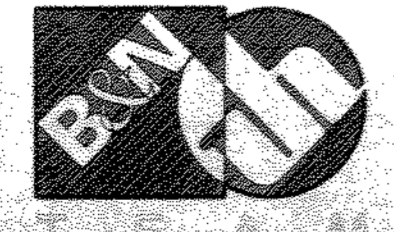
10-4718E2
03/04/99 SK-14



SECTION F 13/21



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

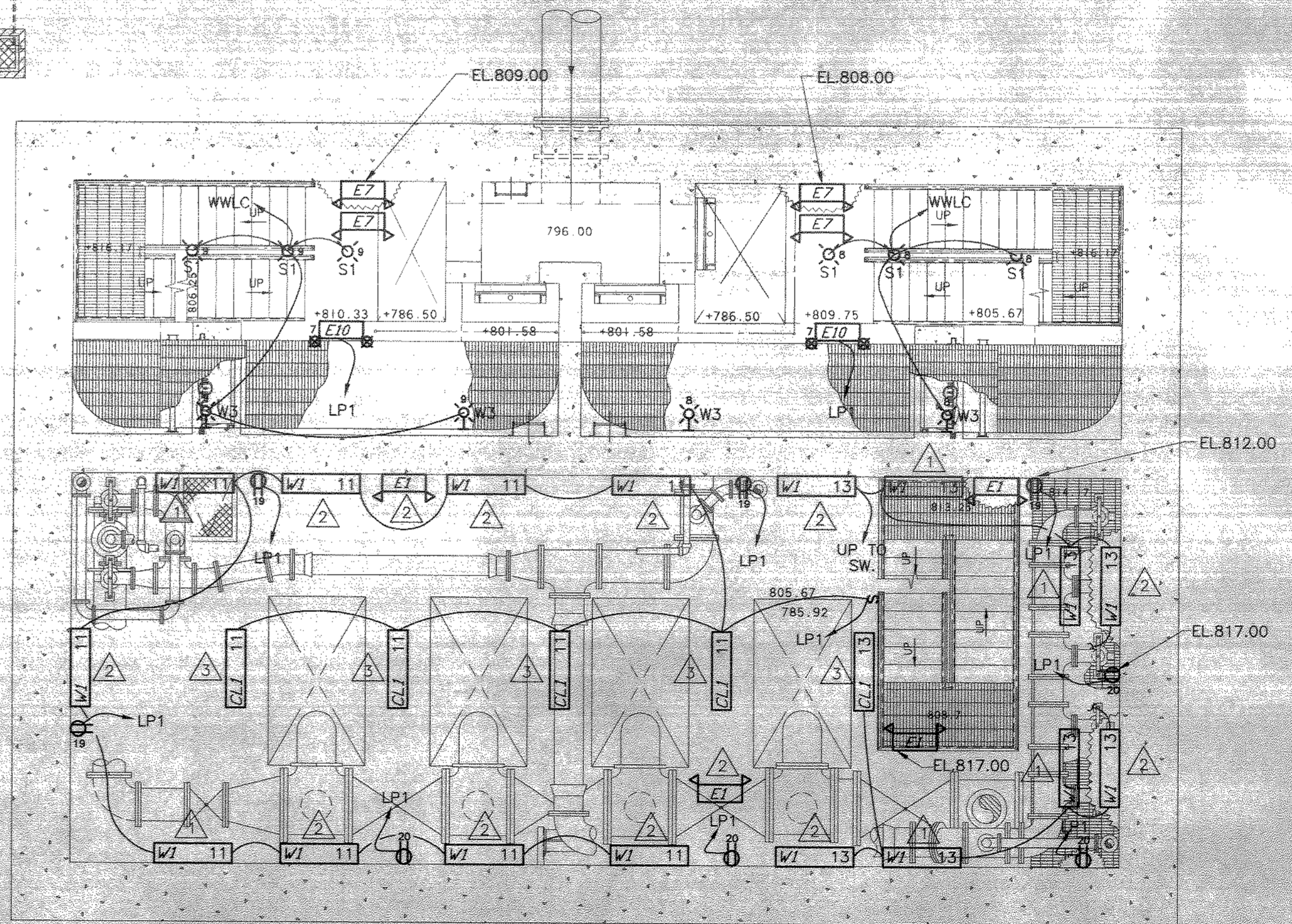
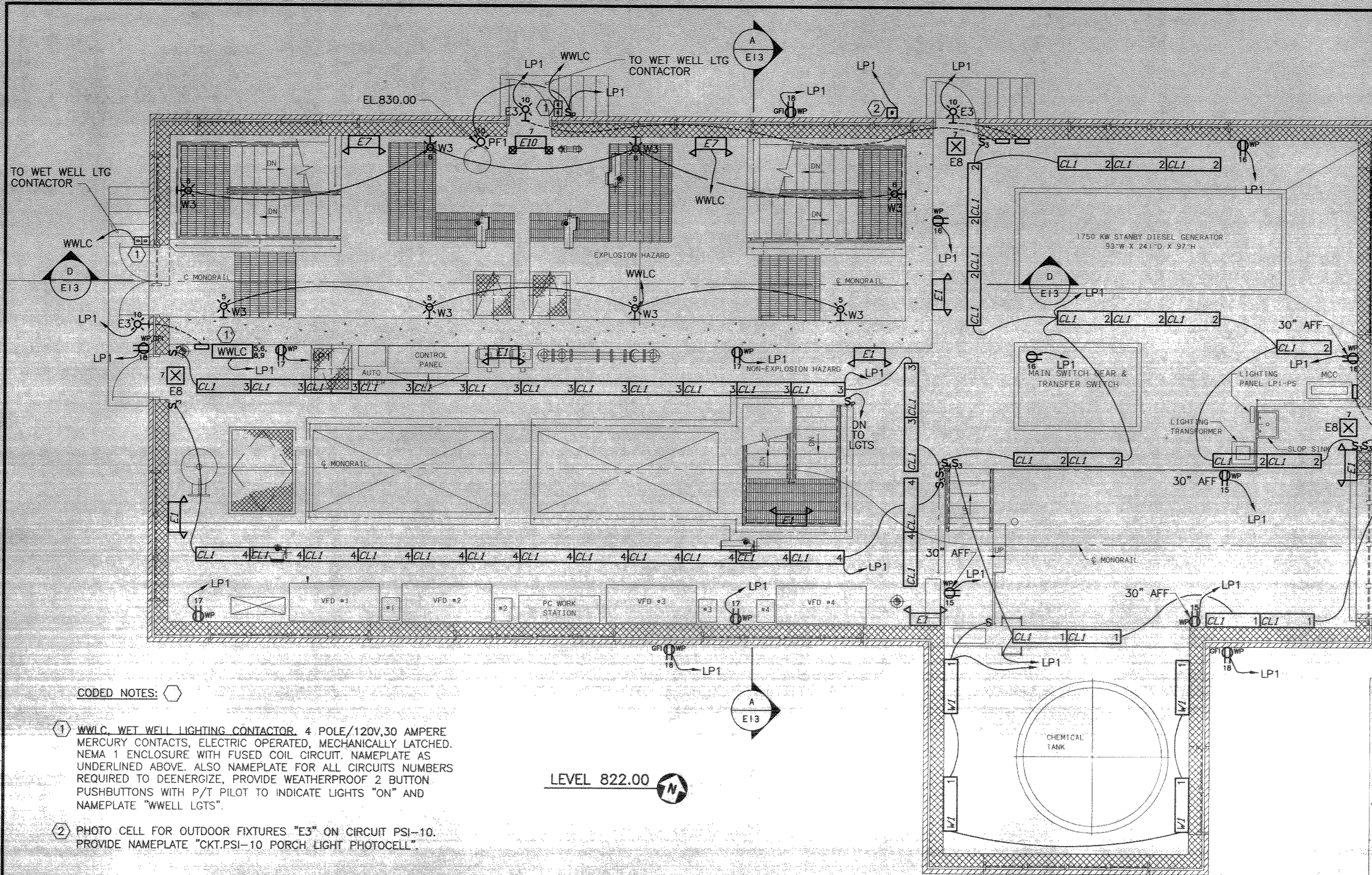
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	FXW
DRAWN BY:	KMH
CHECKED BY:	FXW
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 ELECTRICAL FOR PUMPS, VFD,S AND
 EQUIPMENT

SCALE:	1/4"=1'-0"
SHEET NO.	56
OF	100

TOL-4714673
 03/04/99 5A-14



CODED NOTES:

- △ 14' AFF. WALL MOUNTED. USE 1/2" WALL STANDOFFS.
- △ 8' AFF. WALL MOUNTED. USE 1/2" WALL STANDOFFS.
- △ 14' AFF. CEILING MOUNTED, SWIVEL HANGERS.

NOTE:
ALL RECEPTACLES ON THIS PLAN ARE 4'-0" AFF. OR AT ELEV. MARKED. ALL RECEPTACLES WEATHERPROOF.

CODED NOTES:

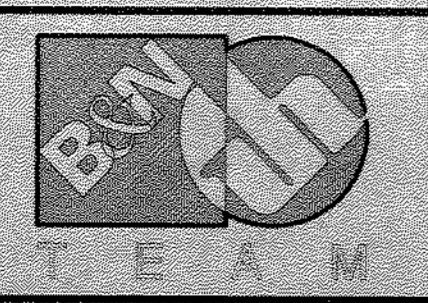
- ① WWLC, WET WELL LIGHTING CONTACTOR. 4 POLE/120V, 30 AMPERE MERCURY CONTACTS, ELECTRIC OPERATED, MECHANICALLY LATCHED. NEMA 1 ENCLOSURE WITH FUSED COIL CIRCUIT. NAMEPLATE AS UNDERLINED ABOVE. ALSO NAMEPLATE FOR ALL CIRCUITS NUMBERS REQUIRED TO DEENERGIZE, PROVIDE WEATHERPROOF 2 BUTTON PUSHBUTTONS WITH P/T PILOT TO INDICATE LIGHTS "ON" AND NAMEPLATE "WELL LGTS".
- ② PHOTO CELL FOR OUTDOOR FIXTURES "E3" ON CIRCUIT PSI-10. PROVIDE NAMEPLATE "CKT.PSI-10 PORCH LIGHT PHOTOCELL".

GENERAL NOTES:

1. SEE SHEET E15 FOR LIGHT FIXTURE SCHEDULE.
2. SEE SHEET E16 FOR PANELBOARD SCHEDULES.
3. CONDUIT HOME RUNS NOT OTHERWISE MARKED SHALL BE CONSIDERED 3/4" WITH 2 #12, 1 #12 GRD.
4. CIRCUIT ALL EMERGENCY EGRESS/EXIT LIGHTS TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCH.
5. UNLESS OTHERWISE NOTED, FIXTURE MOUNTING HEIGHT SHALL BE 10'-0" AFF. TO BOTTOM OF FIXTURE.
6. ALL HOMERUNS ON THIS SHEET INCLUDE THE SUFFIX "-PS" EVEN THOUGH NOT SHOWN.

P:\PR05071\CAD\LECO\PS-SHT1.DWG 2-26-99 11:26:34 am EST

NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO. 20571
DESIGNED BY: EDT
DRAWN BY: MSW
CHECKED BY: EDT
APPROVED BY: EDT
DATE: FEBRUARY 1999

PUMP STATION- ELECTRICAL RECEPTACLES & LIGHTING PLAN, LEVELS 822.00 & 801/805.5

SCALE: 3/16"=1'-0"
SHEET NO. 57 OF 100

GENERAL NOTES:

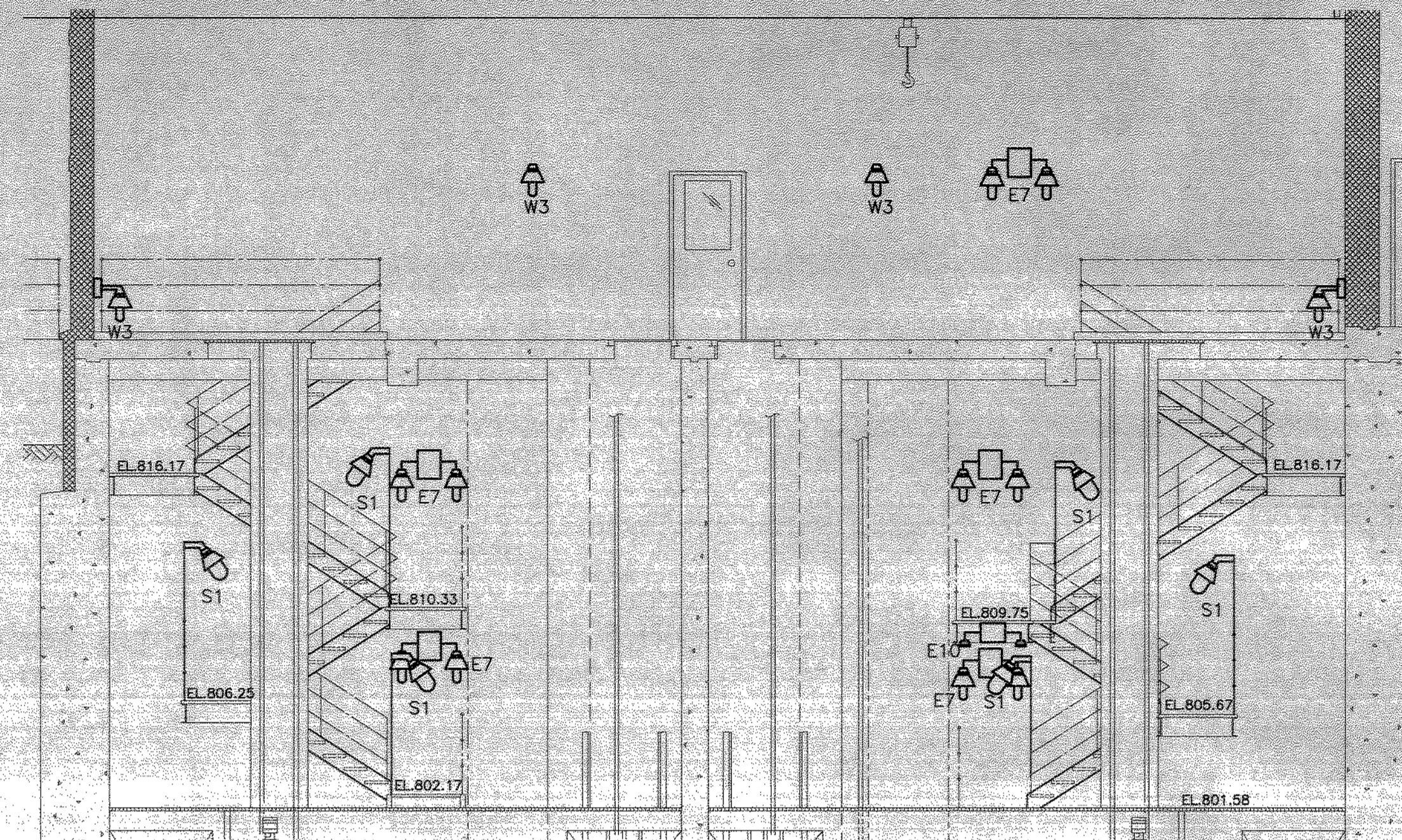
1. SEE SHEET E15 FOR LIGHT FIXTURE SCHEDULE.
2. SEE SHEET E16 FOR PANELBOARD SCHEDULES.
3. CONDUIT HOME RUNS NOT OTHERWISE MARKED SHALL BE CONSIDERED 3/4" WITH 2 #12, 1 #12 GRD.
4. CIRCUIT ALL EMERGENCY EGRESS/EXIT LIGHTS TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCH.
5. UNLESS OTHERWISE NOTED, FIXTURE MOUNTING HEIGHT SHALL BE 10'-0" AFF. TO BOTTOM OF FIXTURE.
6. ALL HOMERUNS ON THIS SHEET INCLUDE THE SUFFIX "-PS", EVEN THOUGH NOT SHOWN.

CODED NOTES: ○

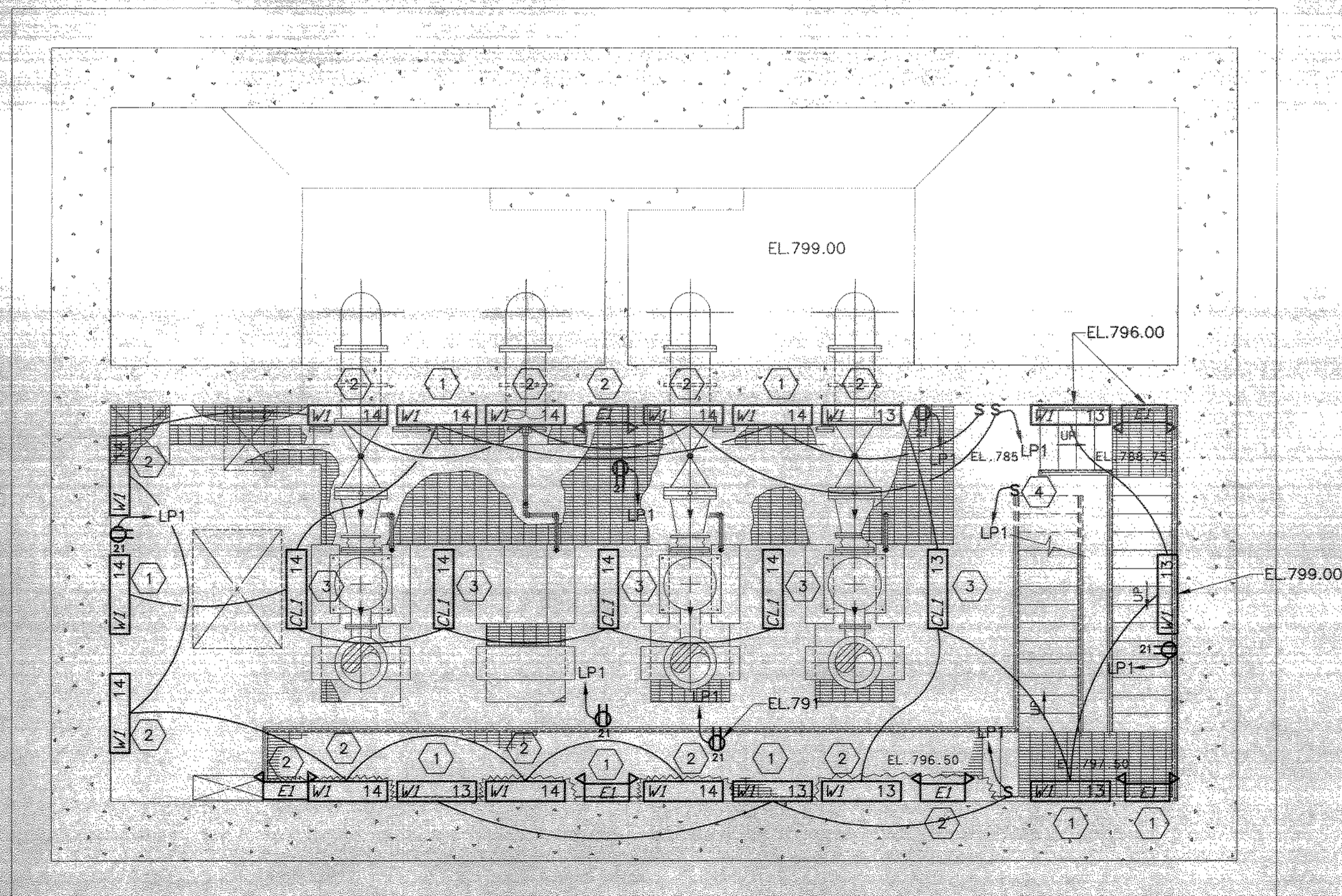
- 1) 17' AFF. WALL MOUNT. USE 1/2" WALL STANDOFFS.
- 2) 8' AFF. WALL MOUNT. USE 1/2" WALL STANDOFFS.
- 3) 17' AFF. CEILING MOUNT, SWIVEL HANGERS.
- 4) EL.809.67. MOUNT AT HANDRAIL.

NOTE:

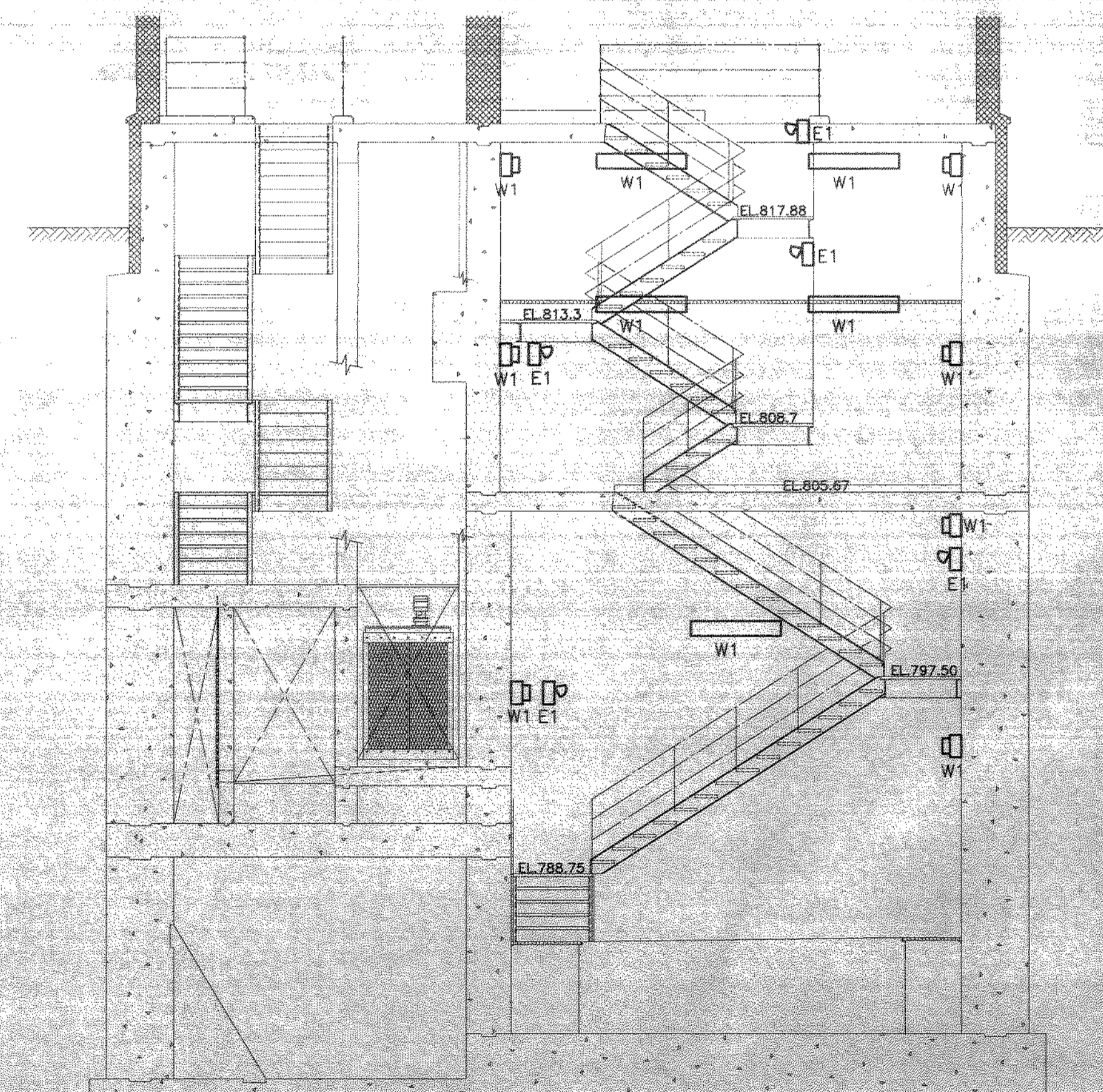
ALL RECEPTACLES ON THIS PLAN ARE 4'-0" AFF. OR AT ELEV. MARKED. ALL RECEPTACLES WEATHERPROOF, AND WALL MOUNTED.



SECTION D
12|13



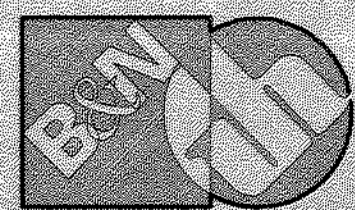
DRYWELL LEVEL 785/779



SECTION A
12|13

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NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited

Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	EDT
DRAWN BY:	MSW
CHECKED BY:	EDT
APPROVED BY:	EDT
DATE:	FEBRUARY 1999

PUMP STATION- ELECTRICAL RECEPTACLES & LIGHTING PLAN, LEVEL 785/779 & SECTIONS

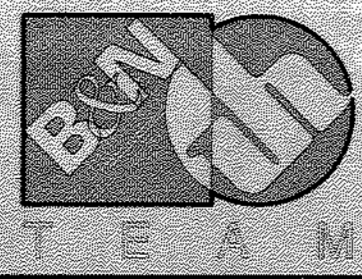
SCALE:	3/16"=1'-0"
SHEET NO.	58
OF	100

LIGHTING LUMINAIRE SCHEDULE									
FIXTURE CODE ABBREVIATIONS					LAMP ABBREVIATIONS				
CL - CEILING MOUNT	P - PENDANT MOUNT	SL - SITE LIGHT	FLR - FLUORESCENT	LPS - LOW PRESSURE SODIUM					
R - RECESSED	E - EMERGENCY	B - BOLLARD	INC - INCANDESCENT	HPS - HIGH PRESSURE SODIUM					
W - WALL MOUNT	X - EXIT SIGN	S - SURFACE	MER - MERCURY VAPOR	HAL - HALOGEN					
			MH - METAL HALIDE	TUN - TUNGSTEN					
FIXT CODE	MANUFACTURER	MODEL	OPTICS	LAMP			REMARKS		
				TYPE	QTY	SIZE			
CL1	COLUMBIA	LUN4-232-EB8 120-HUBK	HIGH IMPACT ACRYLIC DIFFUSER	FLR	2	32	120	PROVIDE OSRAM/SYLVANIA #F032/835 LAMP OR EQUAL. PROVIDE ELECTRONIC BALLAST PROVIDE 1-1/2" CEILING SPACER (OPTION "1B") FOR THOSE FIXTURES SURFACE MOUNTED ON A FLAT CEILING. PROVIDE FIXTURE WITH SLOPE CEILING SWIVEL STEM HANGERS (OPTION S01) WITH SUFFICIENT STEM LENGTH TO MOUNT FIXTURE AT 10'-0" AFF. UNLESS NOTED OTHERWISE FOR THOSE FIXTURES MOUNTED ON A SLOPED CEILING. - UL LISTED FOR WET LOCATIONS.	
E1	PRESCOLITE	EDP3-H0612	EMERGENCY EGRESS FLOOD	INC	2	12	120	- PAR 36, 6 VOLT, 12 WATT, HALOGEN LAMP FURNISHED WITH FIXTURE. - NEMA 4X HOUSING - WALL MOUNTED AT 7'-6" AFF UNLESS NOTED - 90 MIN. BATTERY WITH TEST SWITCH.	
E3	DESIGNPLAN	PSE8A01-XX-10P1	EXTERIOR EGRESS	FLR	2	13	120	- CONTRACTOR TO COORDINATE COLOR FOR EACH BLDG. WITH ENGINEER. - WALL MOUNT 12" ABOVE DOOR. PROVIDE REMOTE BALLAST WITH 90 MIN. BATTERY WITH TEST SWITCH.	
E7	PRESCOLITE	EXP3-EXPDEF	EXPLOSION PROOF EMERGENCY EGRESS FLOOD	INC	2	28	120	- 6 VOLT, 28 WATT, LAMP FURNISHED WITH FIXTURE. - 90 MIN. BATTERY WITH TEST SWITCH. - CLASS 1, DIVISION 1 RATING - WALL MOUNT AT 7'-6" AFF UNLESS NOTED OTHERWISE.	
E8	PRESCOLITE	NEX1RW3-EN-120V	CLEAR POLYCARBONATE COVER WITH RED LETTERS	FLR	2	5	120	- LAMP FURNISHED WITH FIXTURE. - WALL MOUNT NEMA 4X EXIT LIGHT ABOVE DOOR.	
E10	PRESCOLITE	EXP2EXPEXL AC/DC	FLUTED GLASS GLOBE	FLR	2	9	120	- WALL MOUNT DUAL EXIT LIGHT - EXPLOSION PROOF CLASS 1, DIVISION 1, GROUP D. - 90 MINUTE BATTERY WITH TEST SWITCH.	
PF1	KILLARK	EMSP151	PORTABLE FLOOD	HPS	1	150	120	- PERM. CONN. TO 100FT 16/3 50W CORD. - PROVIDE WALL HOOK FOR FLOOD & HOOK FOR CORD. - PROVIDE SIGN AT HOOK "SWITCH OUTSIDE DOOR" - PROVIDE SIGN AT SWITCH "PORTABLE INDOOR LIGHT".	
S1	KILLARK	EM130D5G	FLUTED GLASS W/ GUARD	INC	1	300	120	- STANCHION MOUNT 8'-0" AFF. UNLESS NOTED - X/P CLASS 1, DIV 1, GRP D.	
W1	COLUMBIA	LUN4-232- EB8 120	HIGH IMPACT ACRYLIC DIFFUSER	FLR	2	32	120	PROVIDE OSRAM/SYLVANIA #F032/835 LAMP OR EQUAL. PROVIDE ELECTRONIC BALLAST - UL LISTED FOR WET LOCATIONS PROVIDE EACH FIXTURE WITH TWO UNISTRUT #P1944 MOUNTING BRACKETS (PROVIDE EACH BRACKET WITH APPROPRIATE MOUNTING HOLES FOR ATTACHMENT OF FIXTURE).	
W3	KILLARK	EM130B2G	FLUTED GLASS W/ GUARD	INC	1	300	120	- WALL MOUNT 7'-6" AFF. UNLESS NOTED - X/P CLASS 1, DIV 1, GRP D.	

PANELBOARD "LP1-PS"										
208/120 V, 3Ø, 4W, 225 AMP BUS					PANEL LOADING SCHEDULE					
150 AMP MAIN: CB (X) SW () LUGS ()					CONNECTED					
FEED THRU LUGS ()					PHASE	A	B	C	TOTAL	DEMAND
SURFACE (X) FLUSH () COLUMN TYPE ()					AMPS	78.6	70.4	45		
ENCLOSURE: NEMA 1(X) 3R() 12() 4X()					KVA	9.4	8.4	5.4	23.2	
CIRCUIT DESCRIPTION		LOAD AMPS	BKR./POLES	OKT. NO.	BKR./POLES	LOAD AMPS	CIRCUIT DESCRIPTION			
CHEM. AREA LTS.		6.7	20/1	1 2	20/1	11.7	GEN. AREA LTS			
UPPER PUMP RM. N. LTS		11.7	20/1	3 4	20/1	11.7	UPPER PUMP RM. S. LTS			
UPPER WETWELL S. LTS		1.7	20/1	5 6	20/1	10	UPPER WETWELL N. LTS			
EXIT LTS		1	20/1	7 8	20/1	12.5	MID WETWELL LTS			
MID WETWELL LTS		12.5	20/1	9 10	20/1	2	OUTDOOR EGRESS			
MID DRYWELL LTS		10.8	20/1	11 12	20/1	-	SPARE			
LOW & MID DRYWELL LTS		14.2	20/1	13 14	20/1	12.5	LOW DRYWELL LTS			
TRUCK BAY RECEP.TS.		7.5	20/1	15 16	20/1	10	GEN. AREA RECEP.TS			
UPPER PUMP ROOMS RECEP.TS.		10	20/1	17 18	20/1	12.5	OUTDOOR RECEP.TS			
MID DRYWELL N & W RECEP.TS		10	20/1	19 20	20/1	10	MID DRYWELL S & E RECEP.TS			
LOW DRYWELL RECEP.TS.		15	20/1	21 22	20/1	-	SPARE			
-		-	-	23 24	-	-	-			
-		-	-	25 26	-	-	-			
-		-	-	27 28	-	-	-			
-		-	-	29 30	-	-	-			
-		-	-	31 32	-	-	-			
-		-	-	33 34	-	-	-			
-		-	-	35 36	-	-	-			
-		-	-	37 38	-	-	-			
-		-	-	39 40	-	-	-			
=		=	=	41 42	=	=	=			

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NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited

Jones & Henry Engineers, Ltd.

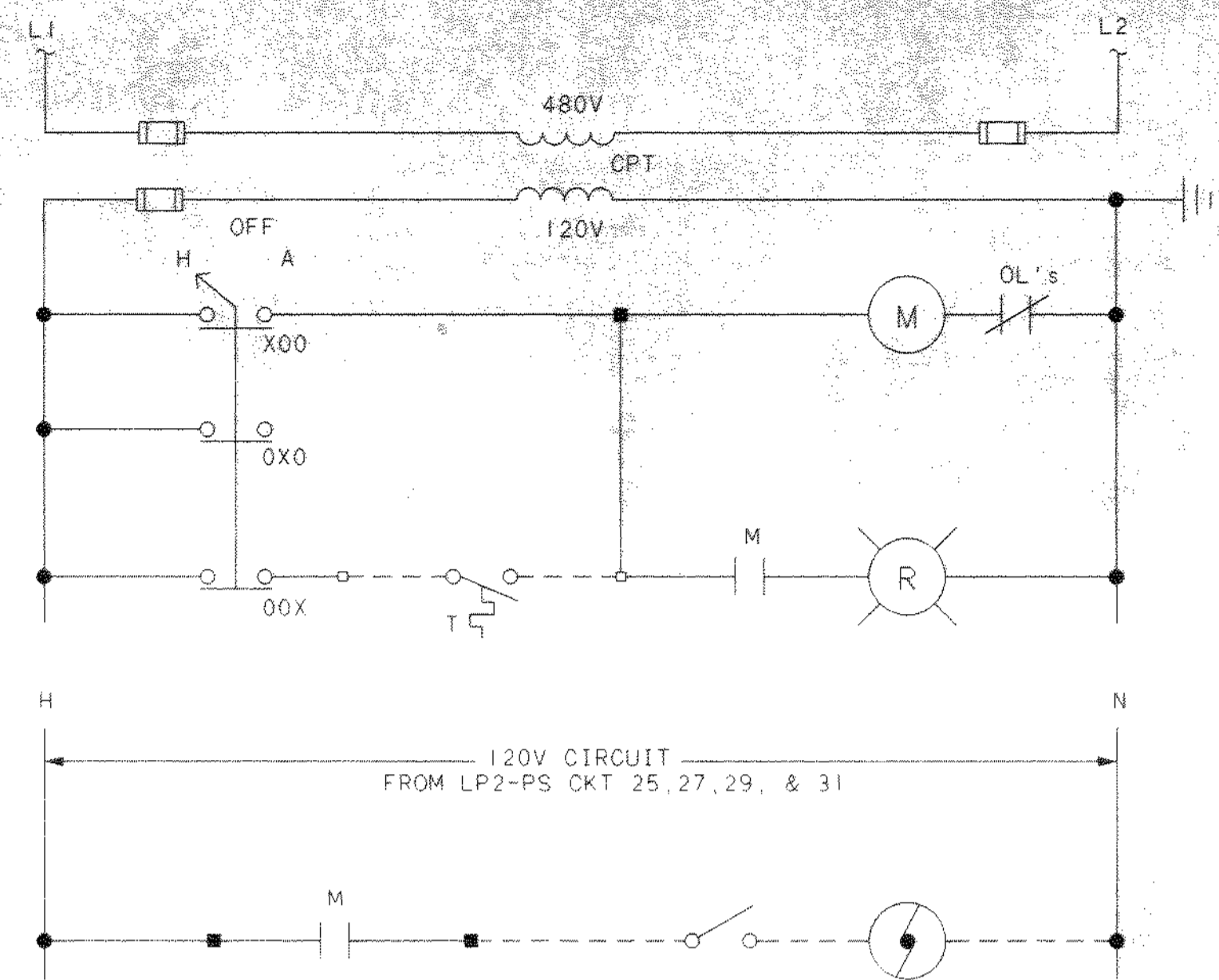
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	MSW
DRAWN BY:	MSW
CHECKED BY:	EDT
APPROVED BY:	EDT
DATE:	FEBRUARY 1999

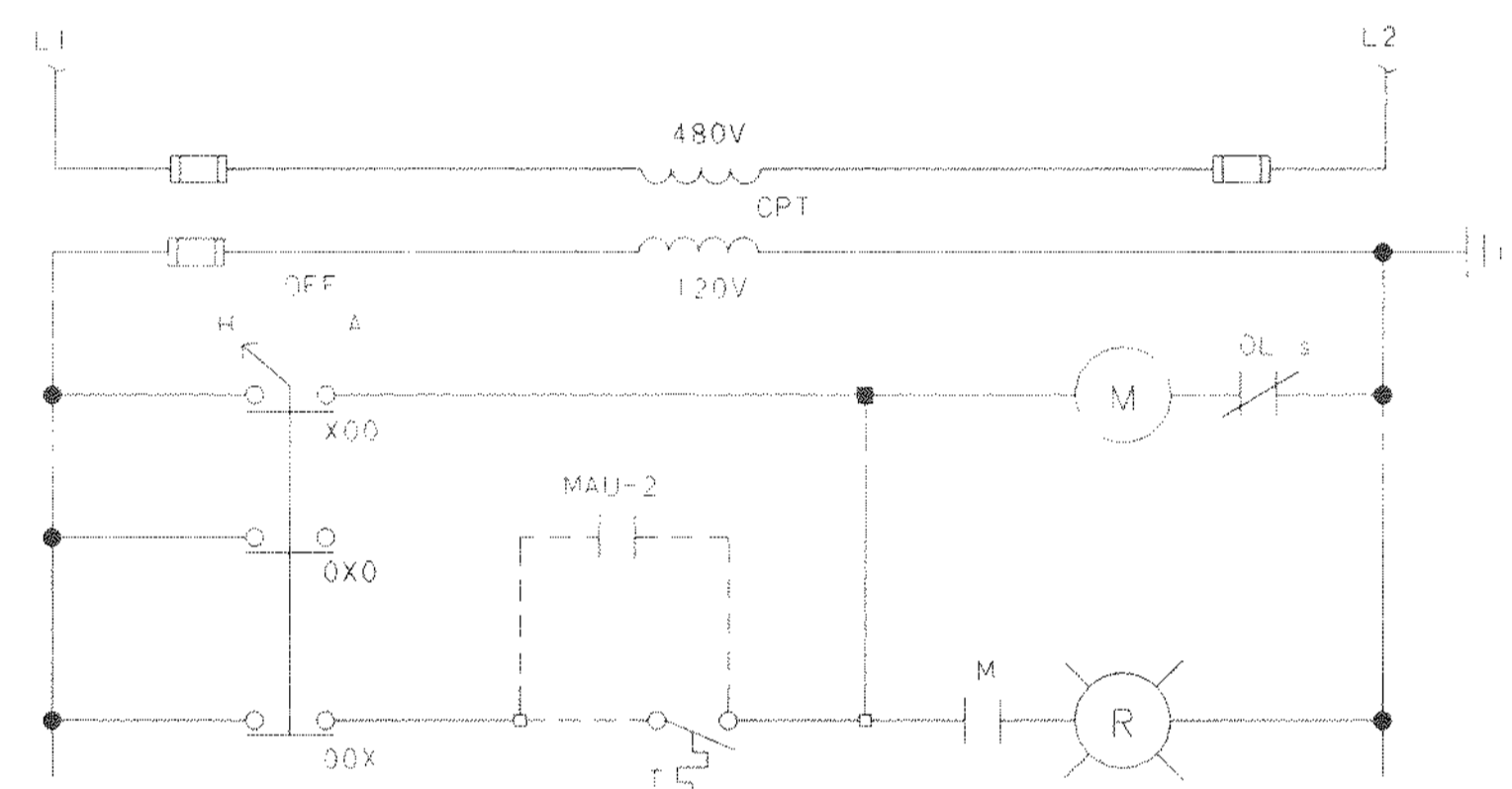
PUMP STATION LIGHTING LUMINAIRE SCHEDULE
AND PANELBOARD SCHEDULE

SCALE: NONE

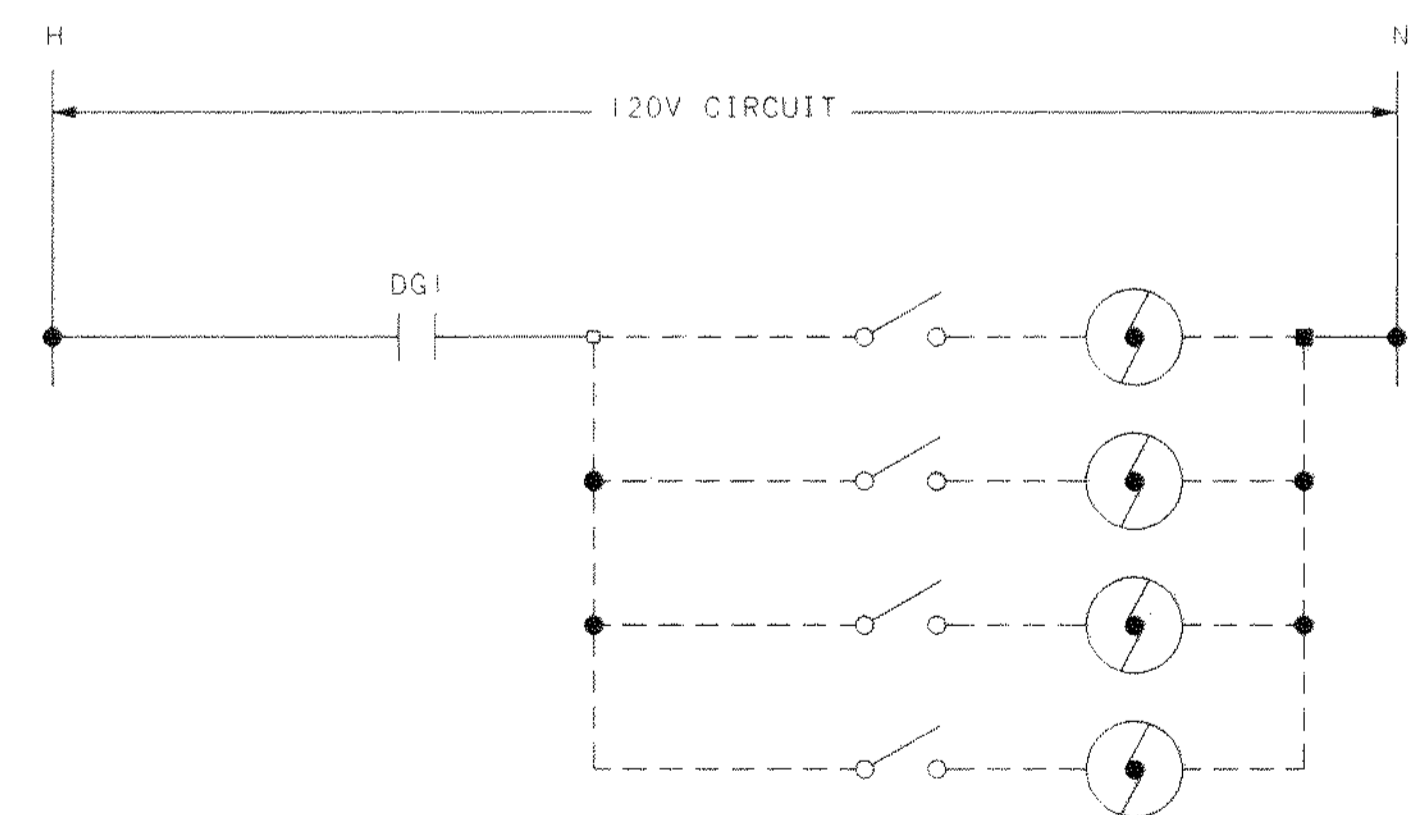
SHEET NO. 59 OF 100



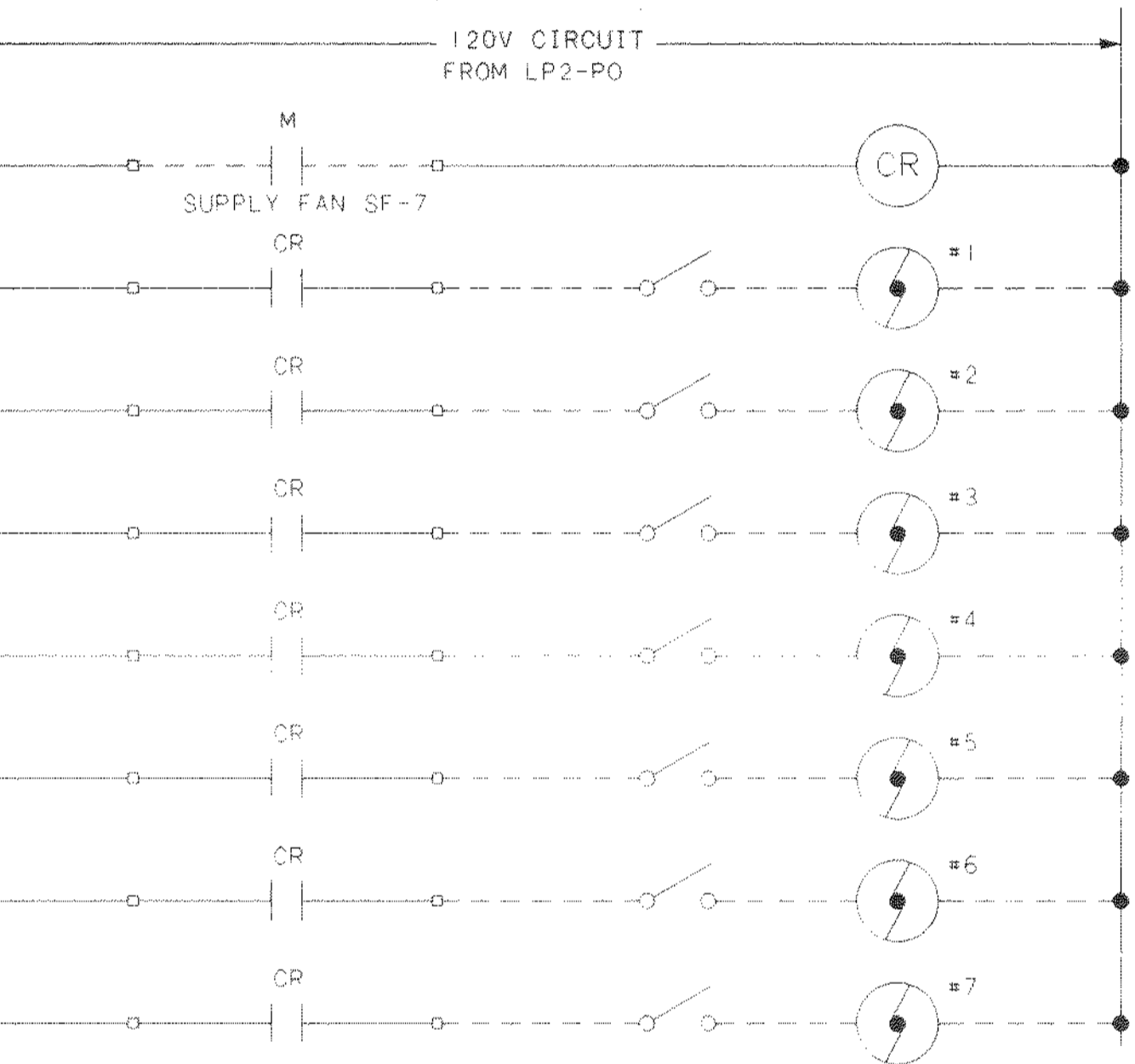
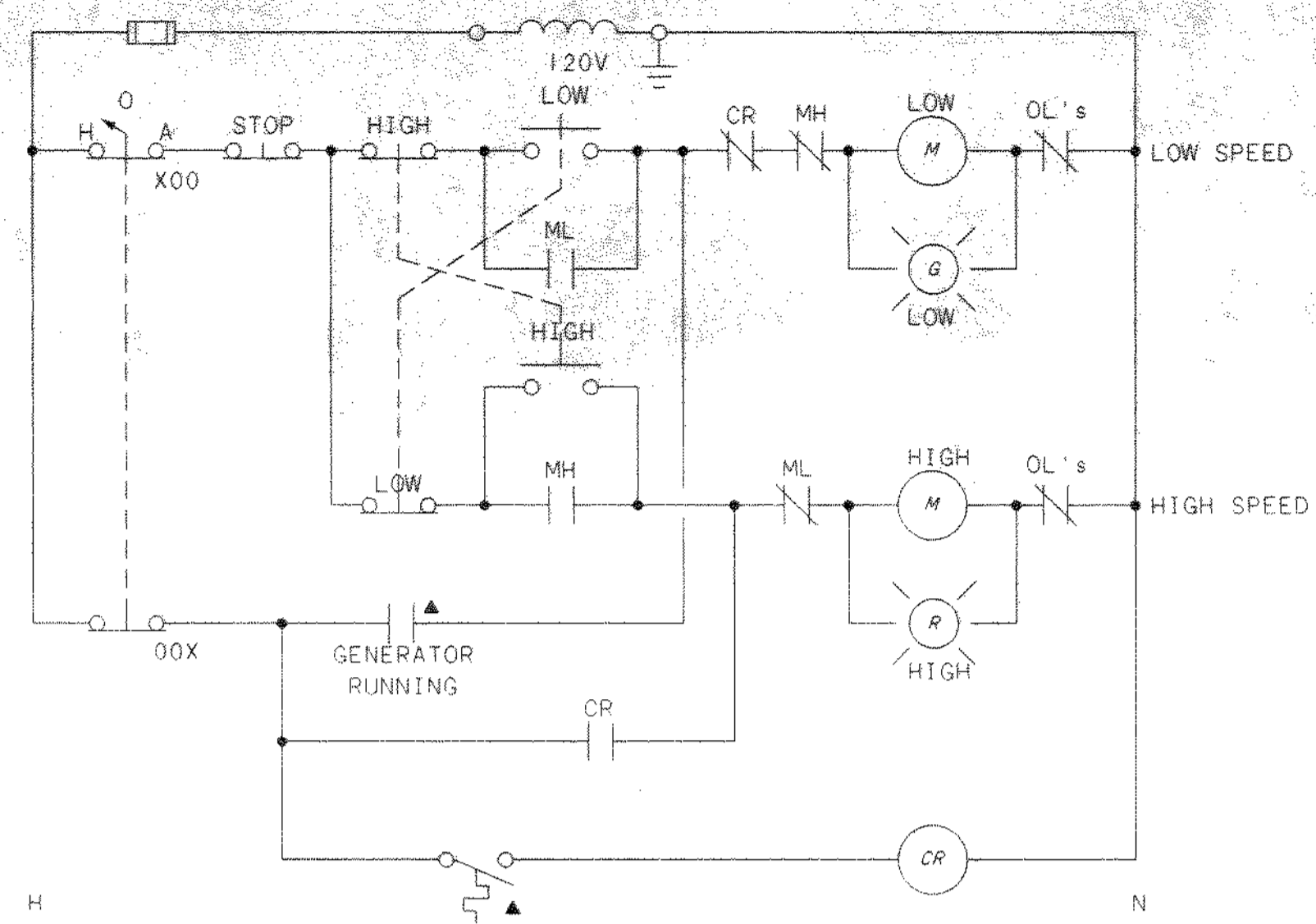
SUPPLY FAN AND LOUVER CONTROL DIAGRAMS
TYPICAL FOR EF-2, EF-3, EF-4 & EF-5



SUPPLY FAN AND LOUVER CONTROL DIAGRAMS
TYPICAL FOR EF-1 & EF-6

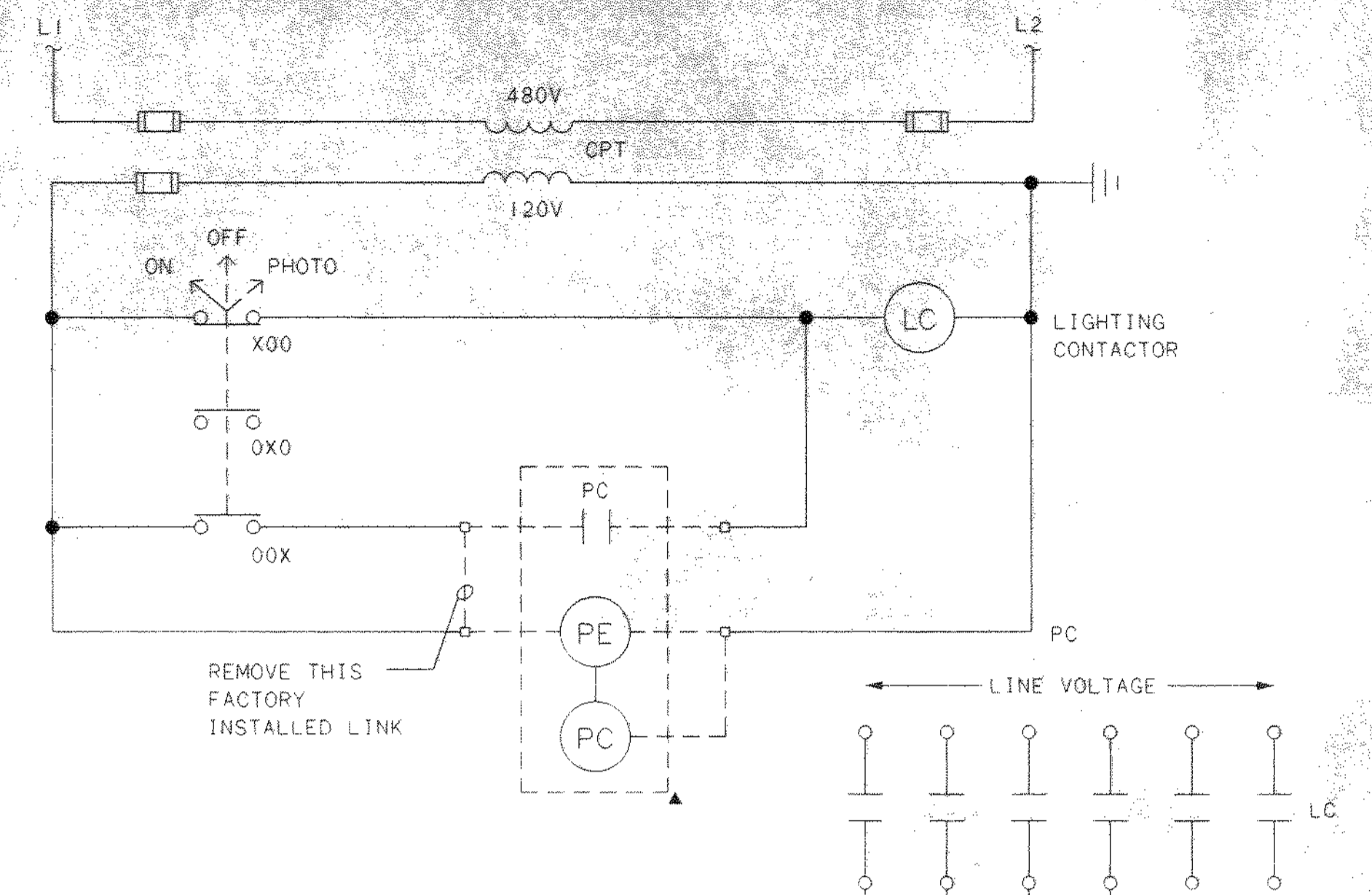


DIESEL EXHAUST LOUVER CONTROL DIAGRAM



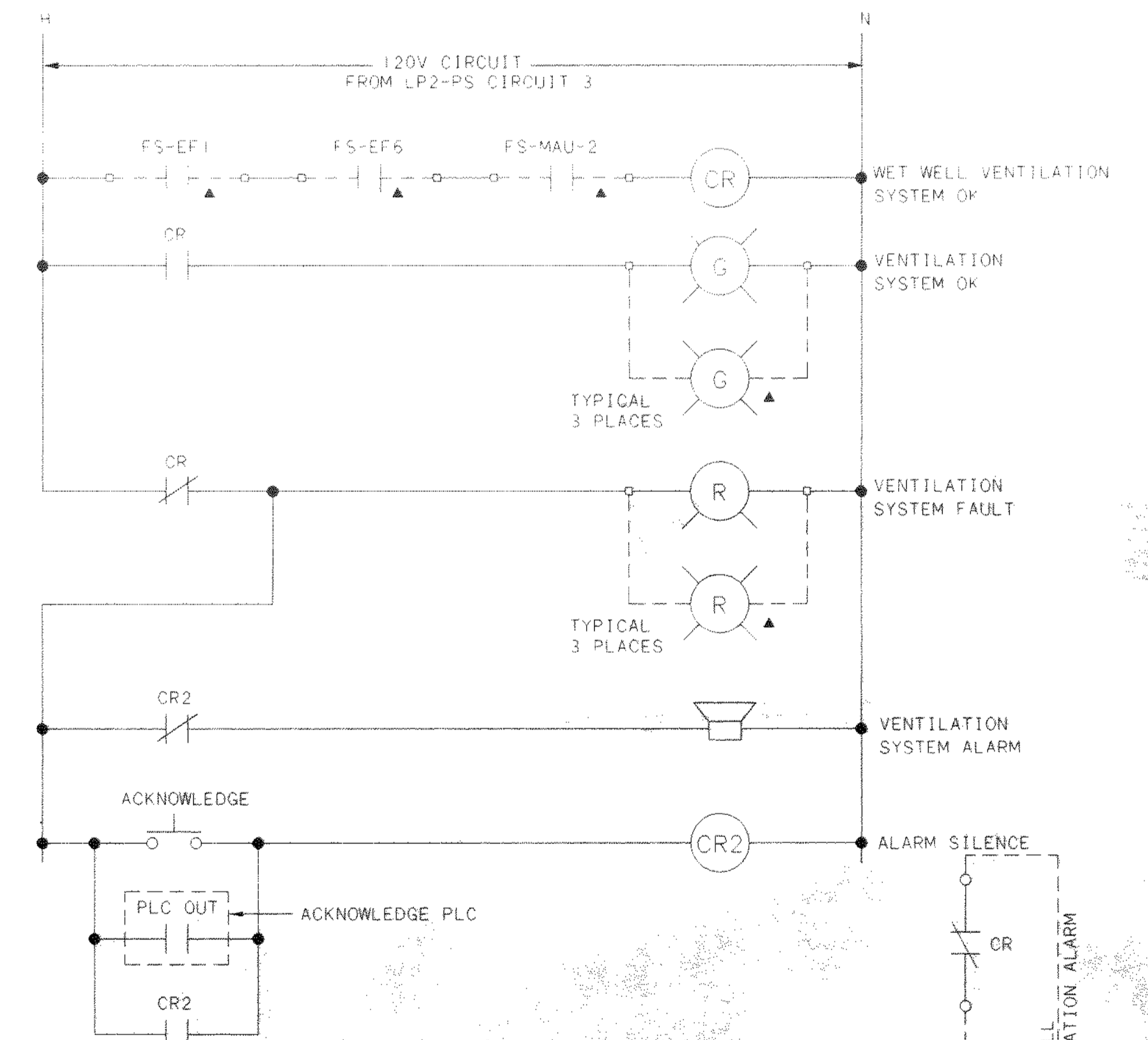
ALL ITEMS LOCATED IN MCC UNLESS OTHERWISE NOTED
▲ DENOTES ITEM LOCATED IN FIELD

SUPPLY FAN AND LOUVER CONTROL DIAGRAMS
TYPICAL FOR SF-7



ALL ITEMS LOCATED IN MCC UNLESS OTHERWISE NOTED
▲ DENOTES ITEM LOCATED IN FIELD

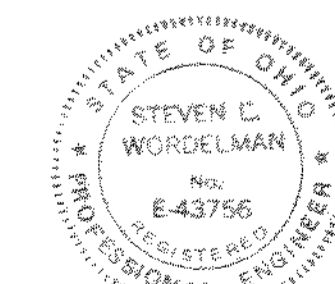
SITE LIGHTING CONTROL DIAGRAM



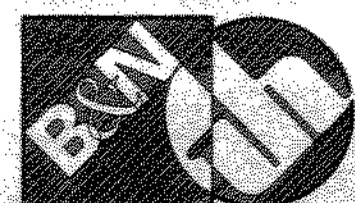
WET WELL VENTILATION SYSTEM ALARM

NOTE: CR ENERGIZED IN SAFE CONDITION.
CR DE-ENERGIZES ON LOSS OF VENTILATION.

▲ DENOTES ITEM LOCATED IN FIELD



NO.	REVISIONS	DATE	BY	CHK.



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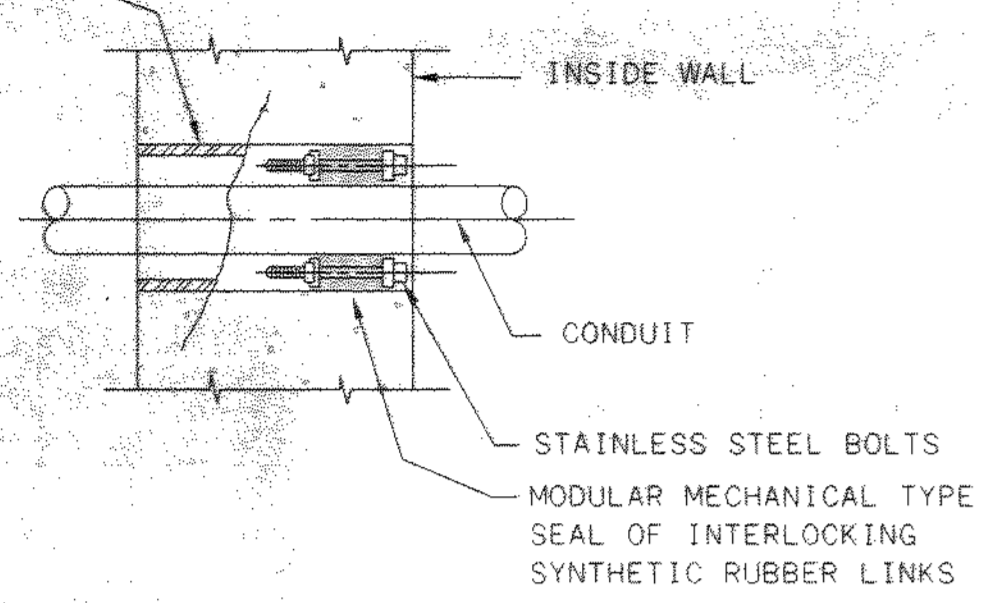
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
DATE:	1999

PUMP STATION
ELECTRICAL SCHEMATIC DIAGRAMS

SCALE:	NONE
SHEET NO.	60
OF	100

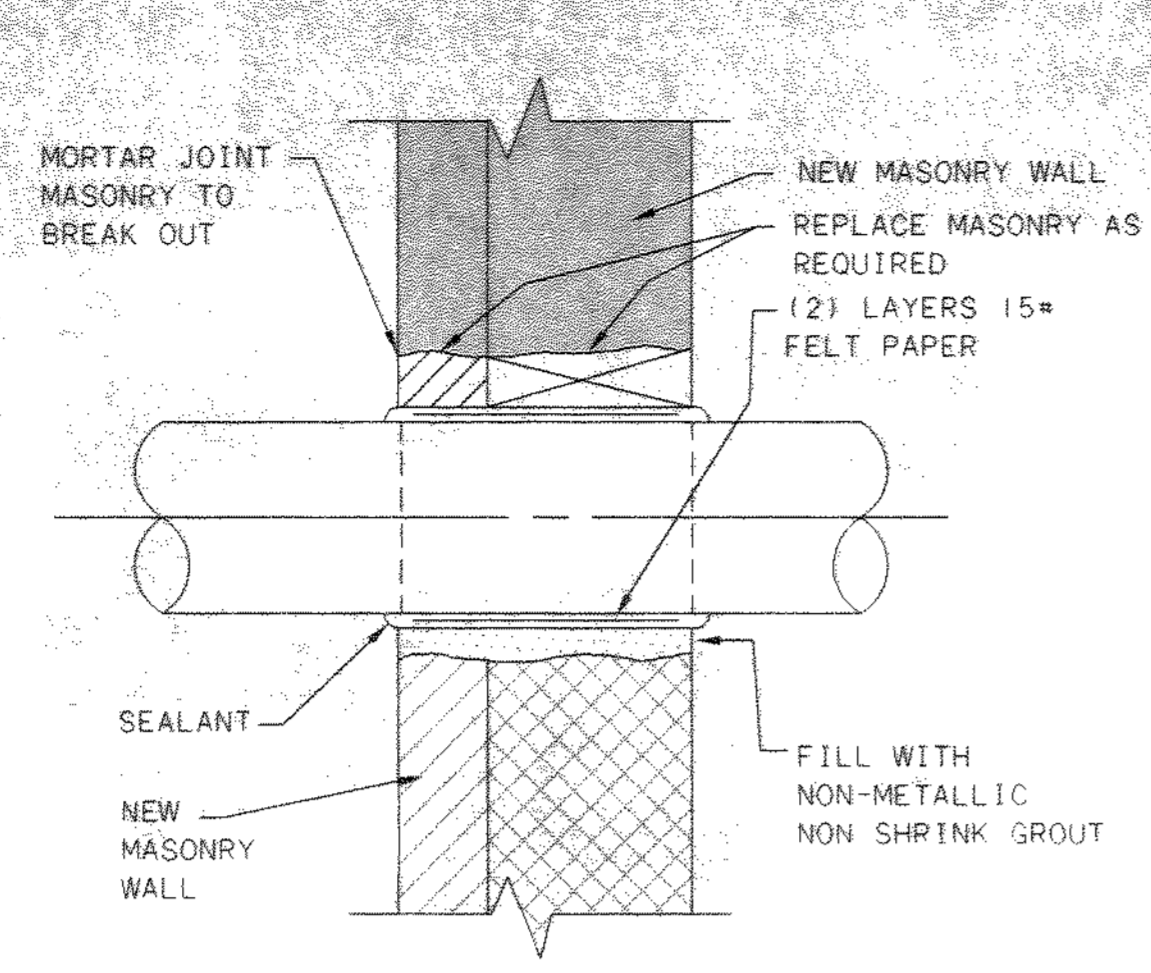
SHEET METAL OR LAMINATED FIBER CONCRETE FORM ADEQUATELY BRACED IN FIELD AND STRIPPED OUT BEFORE INSTALLING CONDUIT. EXCEPT IN MASONRY WHERE SLEEVE SHALL BE 3/16" STEEL AND SHALL BE INSTALLED WITH MASONRY. CONTRACTOR MAY USE A THERMOPLASTIC WALL SLEEVE, CENTURY-LINE SLEEVE BY THUNDERLINE CORP., OR EQUAL, TO BE LEFT IN PLACE.



TYPE C

- NOTE:
- CONCRETE SHALL BE WORKED IN AND VIBRATED TO ELIMINATE ALL VOIDS IN CONCRETE - IF VOIDS DO REMAIN, FILL WITH GROUT BEFORE INSTALLING CONDUIT AND RUBBER SEALS.
 - UNLESS OTHERWISE SHOWN ON THE DRAWINGS ALL INTERIOR WALL PENETRATIONS SHALL USE TYPE C CONDUIT SLEEVE.

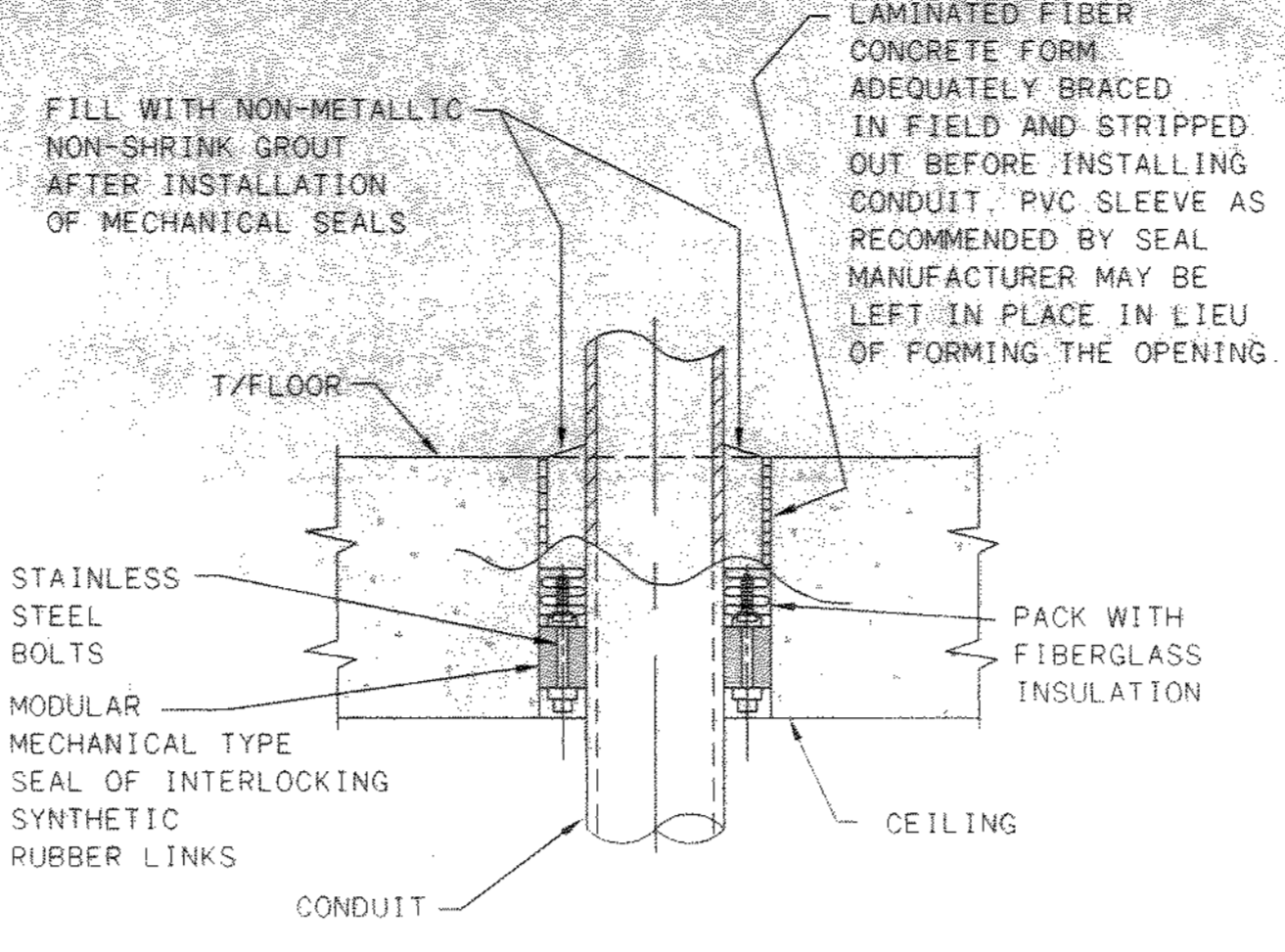
CONDUIT SLEEVE
NTS



TYPE F

NOTE:
FOR EXTERIOR WALLS, FACE COURSES TO BE MASONRY AND MIDDLE COURSE TO BE FILLED WITH FIBERGLASS INSULATION

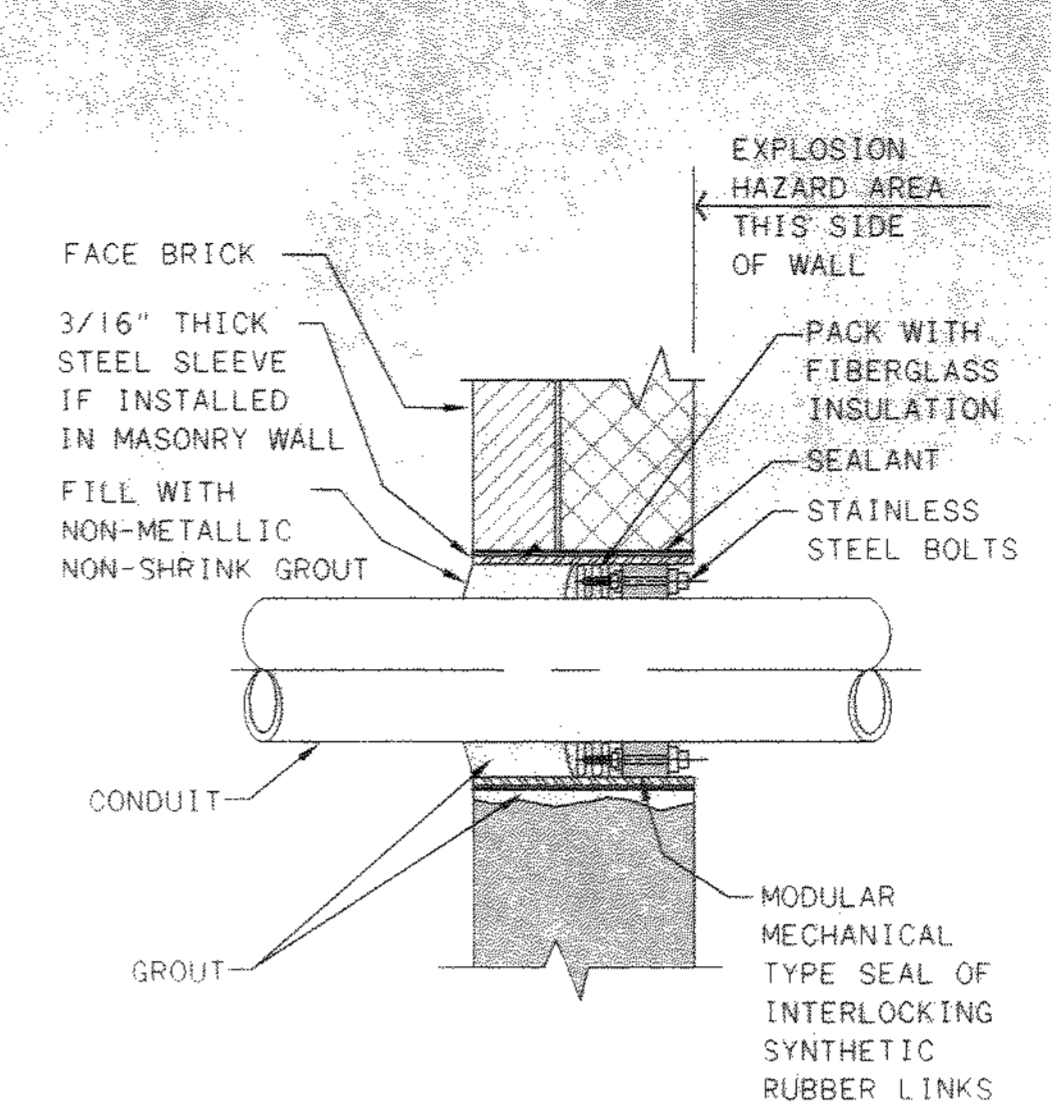
CONDUIT SLEEVE THRU NEW MASONRY WALL
NTS



TYPE G (GAS TIGHT)

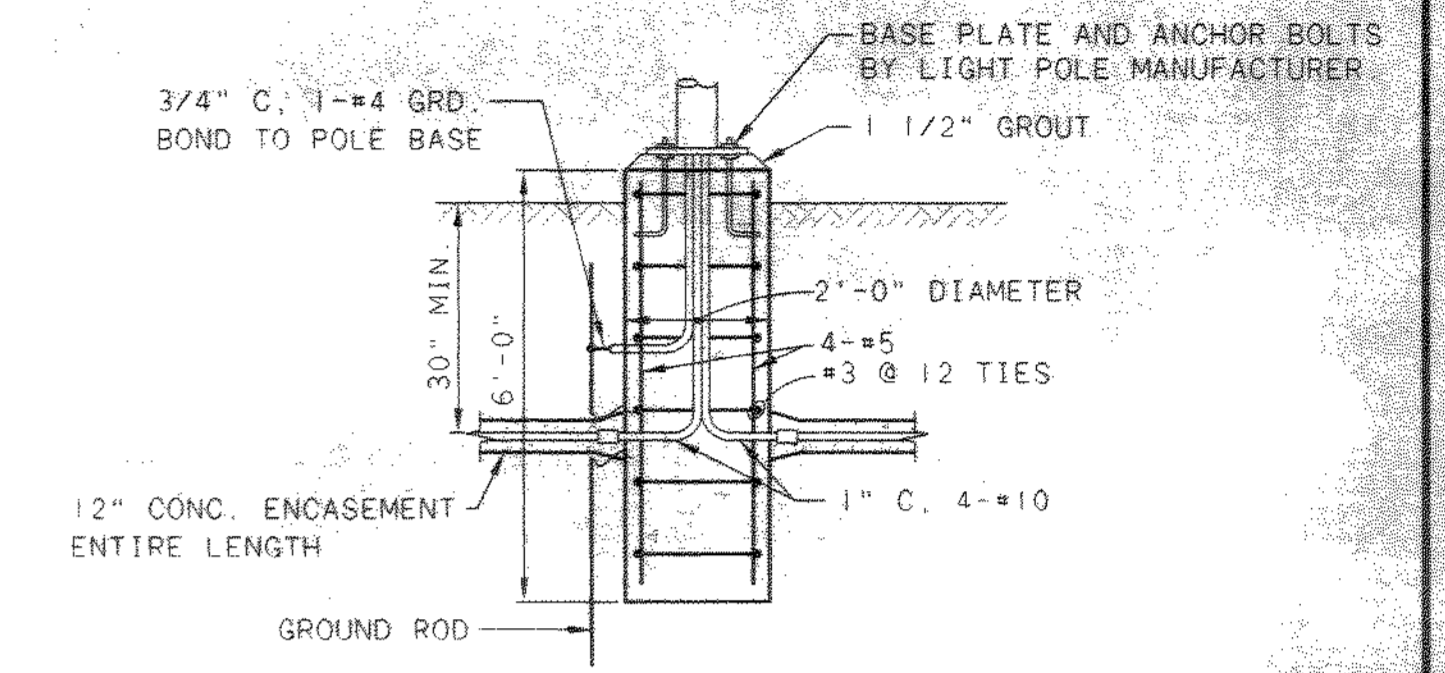
NOTE:
CONCRETE SHALL BE WORKED IN AND VIBRATED TO ELIMINATE ALL VOIDS IN CONCRETE - IF VOIDS DO REMAIN, FILL WITH GROUT BEFORE INSTALLING CONDUIT AND RUBBER SEALS

FLOOR SLEEVE
NTS



TYPE H (GAS TIGHT)

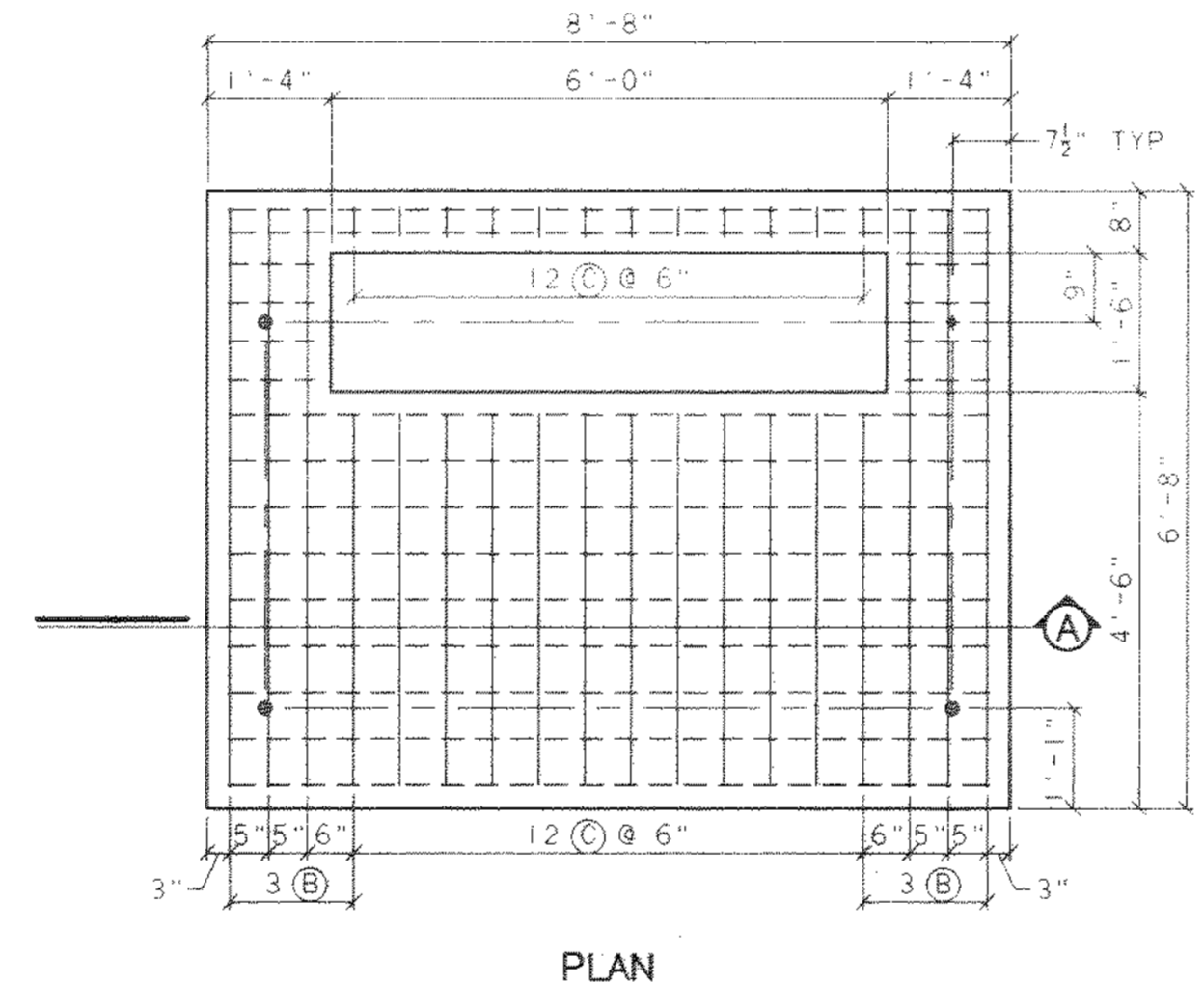
MASONRY WALL SLEEVE
NTS



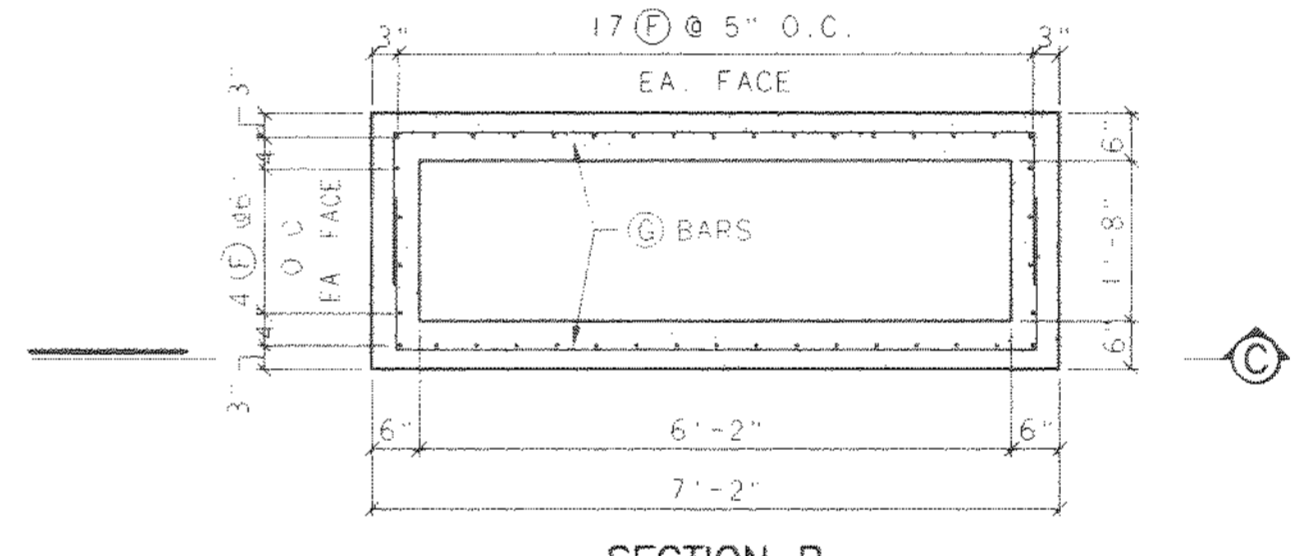
LIGHT POLE BASE DETAIL
NTS

PRIMARY METERING ENCLOSURE PAD NOTES:

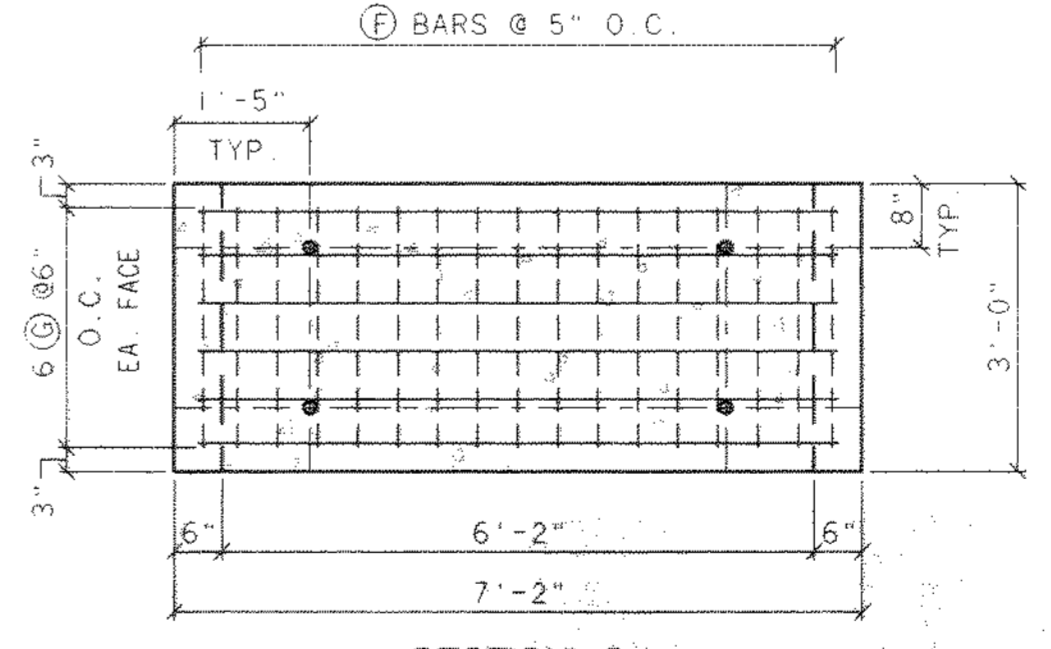
- FINAL GRADE SHALL BE ESTABLISHED WITH CRUSHED STONE AND CONCRETE BOX IN PLACE BEFORE INSTALLATION OF PAD.
- CONCRETE SHALL BE 3000PSI AT 28 DAYS @ 5%± 1% AIR ENTRAINED.
- ALL REINFORCING STEEL TO BE DEFORMED TYPE INTERMEDIATE GRADE ASTM A615 MIN. GRADE 40
- SECURE ENCLOSURE TO PAD BY MEANS OF PHILLIPS RED HEAD CONCRETE FASTENERS, VELOCITY STUD DRIVER OR EQUIVALENT MEANS COAT FASTENERS WITH CORROSIVE INHIBITOR (IM&E #84-7262) OR APPROVED EQUAL.
- WHEN THE CONCRETE SLAB AND BOX ARE PRECAST OFF-SITE, USE SINGLE LIFTING INSERTS- RICHMOND 3/4" I.C.B-1, 5-1/2" HIGH AND SLOTTED LAG STUDS TYPE LSL5, 3/4"x3" LONG OR APPROVED EQUIVALENT (8 REQUIRED: 4 FOR PAD & 4 FOR BOX). SEE MARK ● ON DRAWING FOR PLACEMENT. (INSERTS TO BE PROVIDED BY PRECASTER WHO SHOULD GREASE THE LAG STUDS BEFORE USE).
- ASSOCIATED LIFTING EQUIPMENT TO BE PROVIDED BY THE PRECASTER: DUO SWIVEL LIFT PLATE TYPE LDLP FOR 3/4" DIA. BOLTS (8 TOTAL), LIFT LAG BAG-TYPE LLAG, 3/4"x5-1/2" LONG (8 TOTAL), ALL BY RICHMOND SCREW ANCHOR COMPANY OR APPROVED EQUAL.
- AFTER LIFTING BOX & PAD INTO PLACE, REMOVE LIFT LAGS (LLAG) AND DUO SWIVEL LIFT PLATES. PATCH HOLES WITH A SAND, PORTLAND CEMENT AND WATER MIX.
- APPROXIMATE TOTAL WEIGHTS:
BOX - 4000 LBS.
PAD - 3700 LBS.



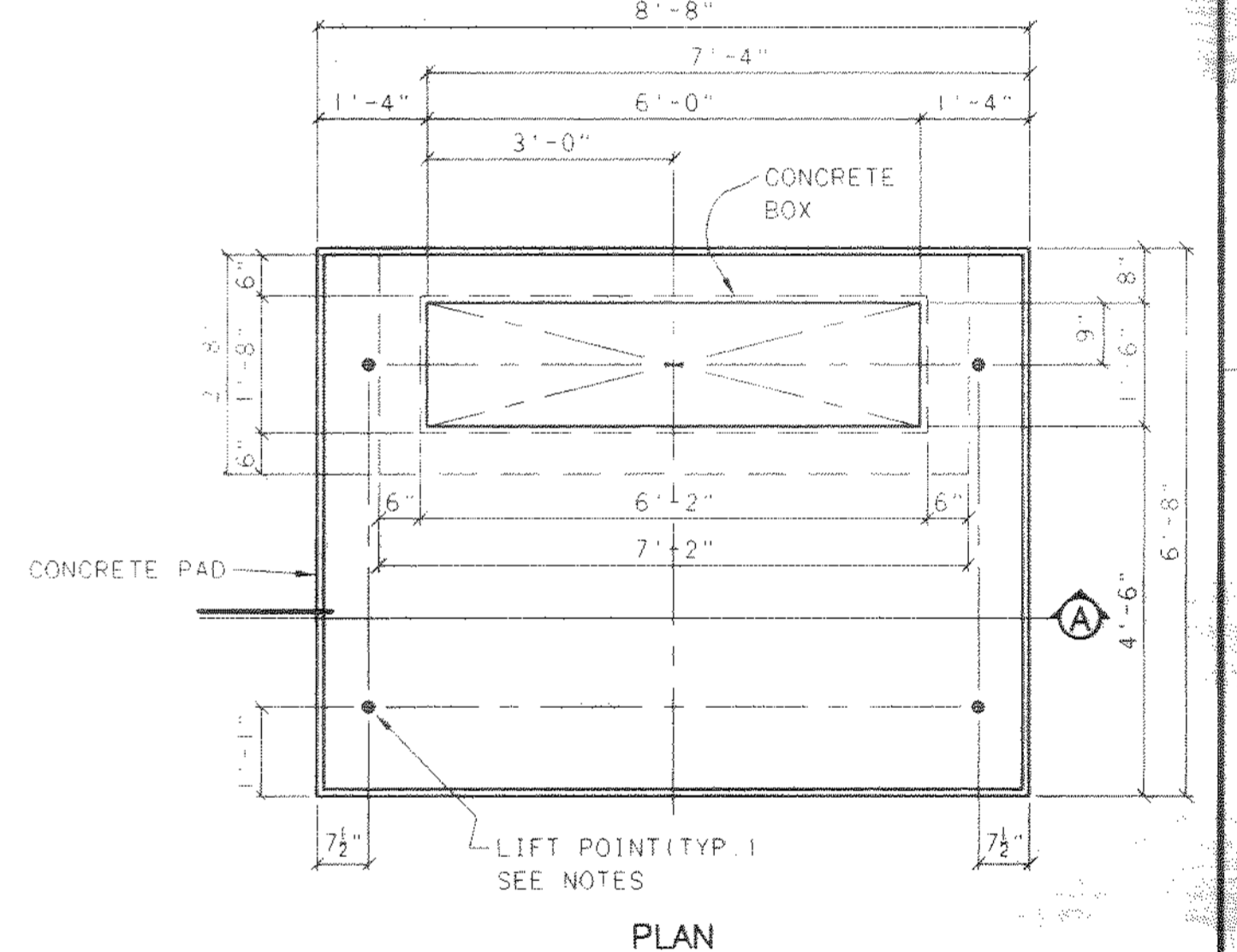
PLAN



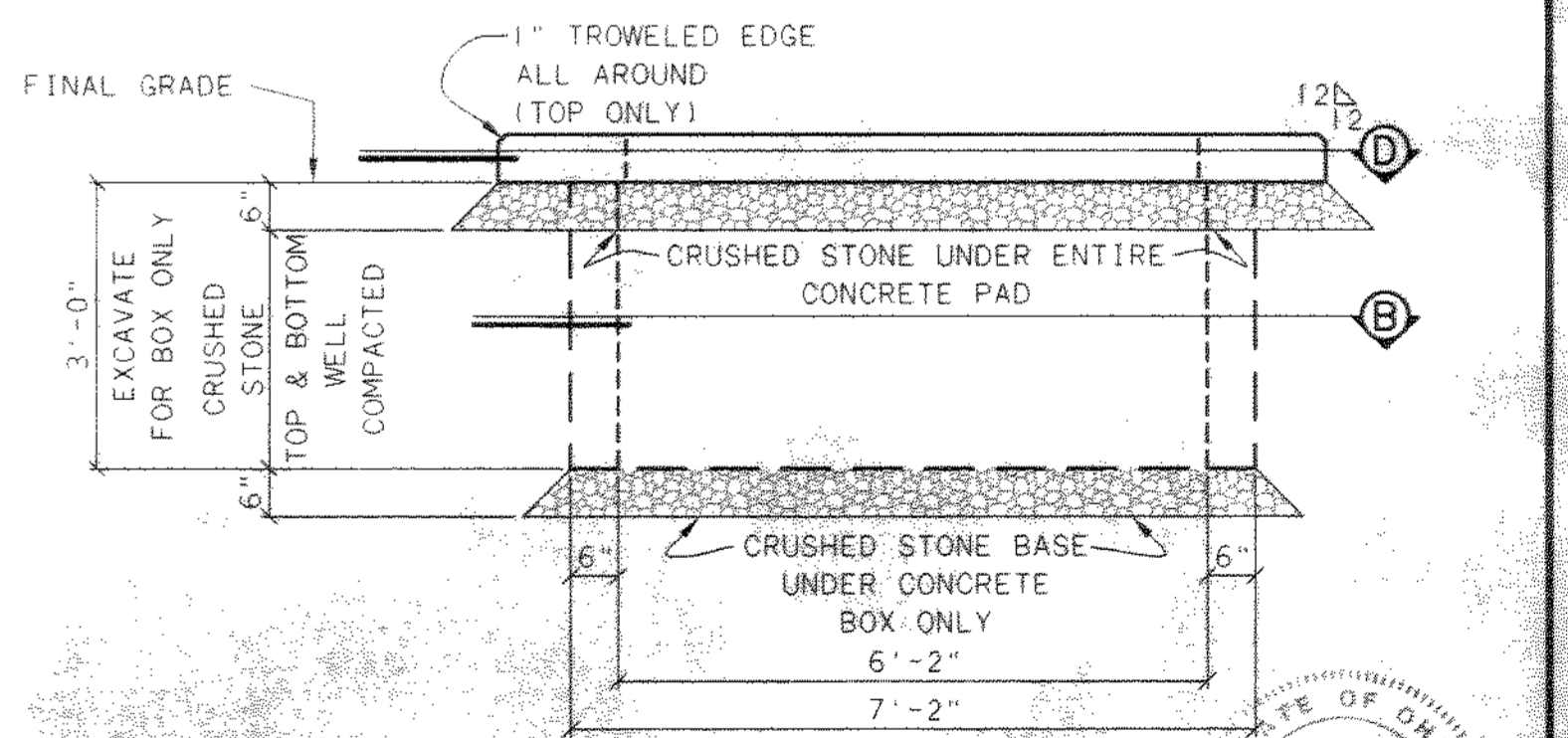
SECTION B



SECTION C



PLAN



SECTION A

CONCRETE PAD & BOX FOR 34.5 KV PRIMARY METERING ENCLOSURE
NTS

PRIMARY METERING ENCLOSURE PAD REINFORCEMENT SCHEDULE											
MARK	NO.	SIZE	LENGTH	TYPE	MARK	NO.	SIZE	LENGTH	TYPE	LENGTH "A"	LENGTH "B"
A	12	#3	4'-0"	STRAIGHT	E	8	#3	0'-11"	STRAIGHT		
B	6	#3	6'-3"	STRAIGHT	F	42	#3	2'-6"	STRAIGHT		
C	12	#3	0'-4"	STRAIGHT	G	12	#3	9'-10"	I	6'-8"	1'-7"
D	11	#3	8'-2"	STRAIGHT							

NO.	REVISIONS	DATE	BY	CHK.



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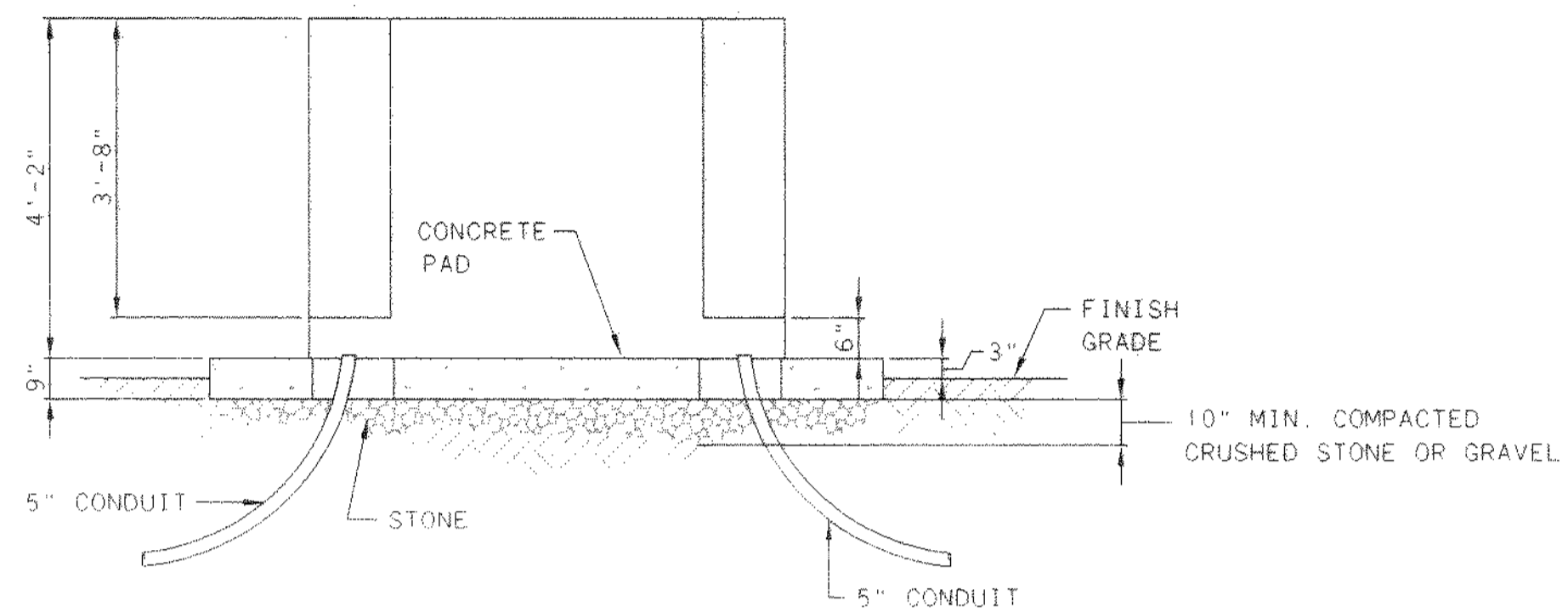
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO. 20571
DESIGNED BY: DLH
DRAWN BY: BEF/LEY
CHECKED BY: DLH
APPROVED BY: SLW
DATE: 1999

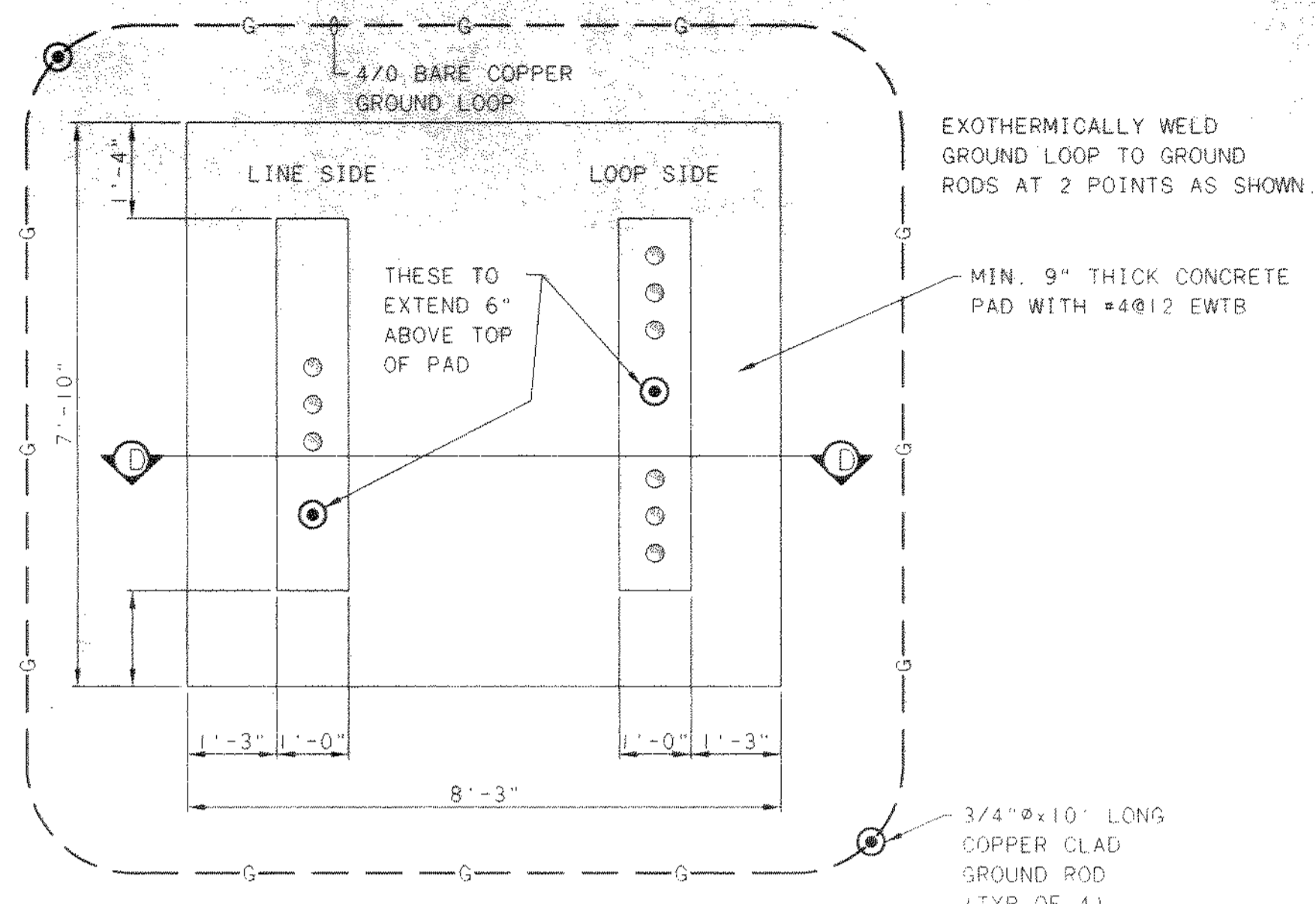
PUMP STATION
ELECTRICAL
MISCELLANEOUS DETAILS

SCALE: AS NOTED
SHEET NO. 61 OF 100

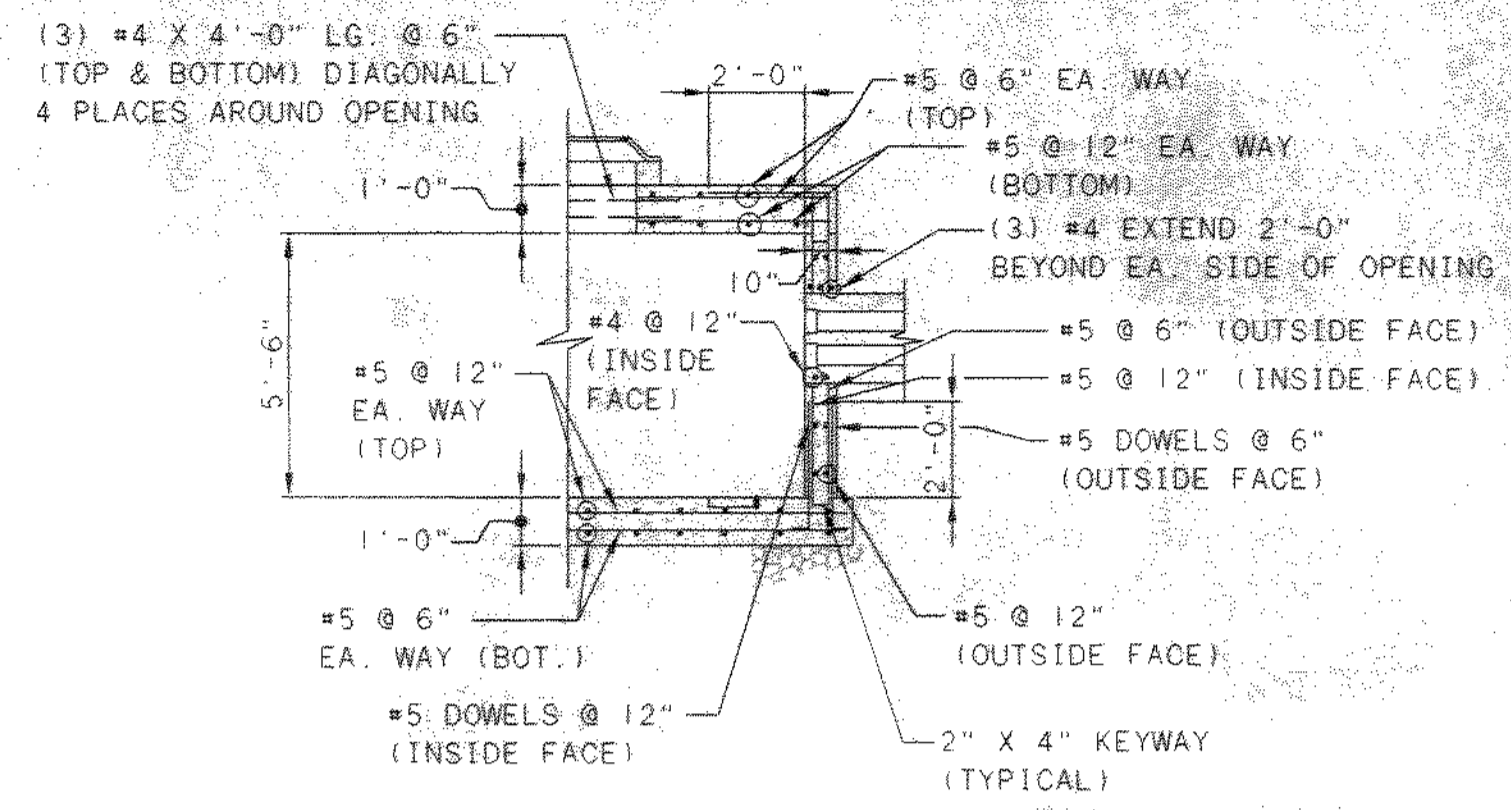
TOL-4714E79
03/03/99 04-14



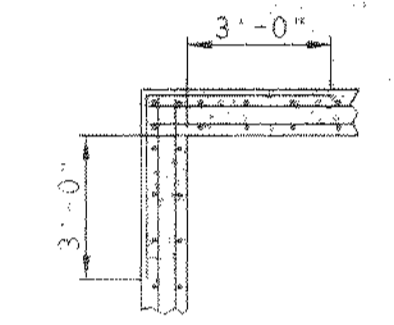
SECTION D-D



PRIMARY LOOP FEED SWITCH AND PAD
1/2" = 1'-0"

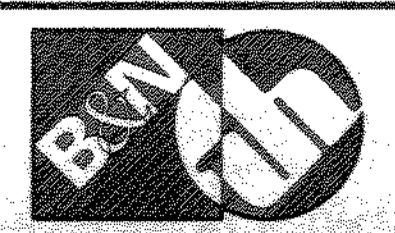


TYPICAL ELECTRICAL MANHOLE REINFORCING DETAIL
NOT TO SCALE



TYPICAL CORNER REINFORCING
NOT TO SCALE

NO.	REVISIONS	DATE	BY	CHK.

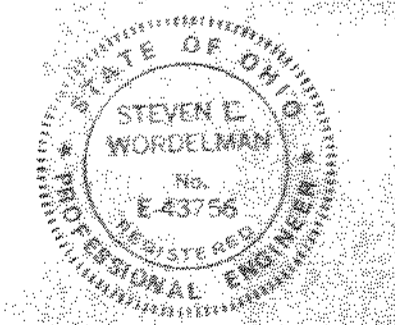


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DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

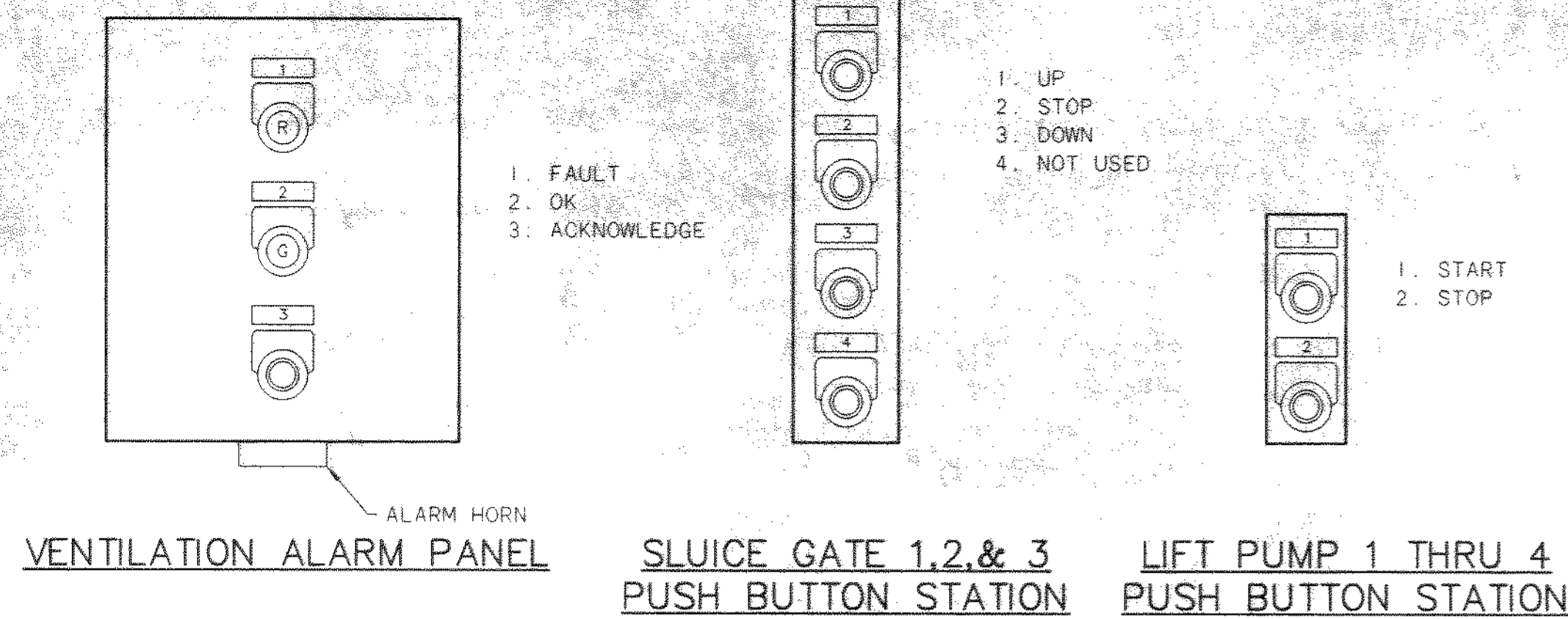
JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	LEY
CHECKED BY:	FM
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
PRIMARY LOOP FEED PAD
AND MISCELLANEOUS DETAILS



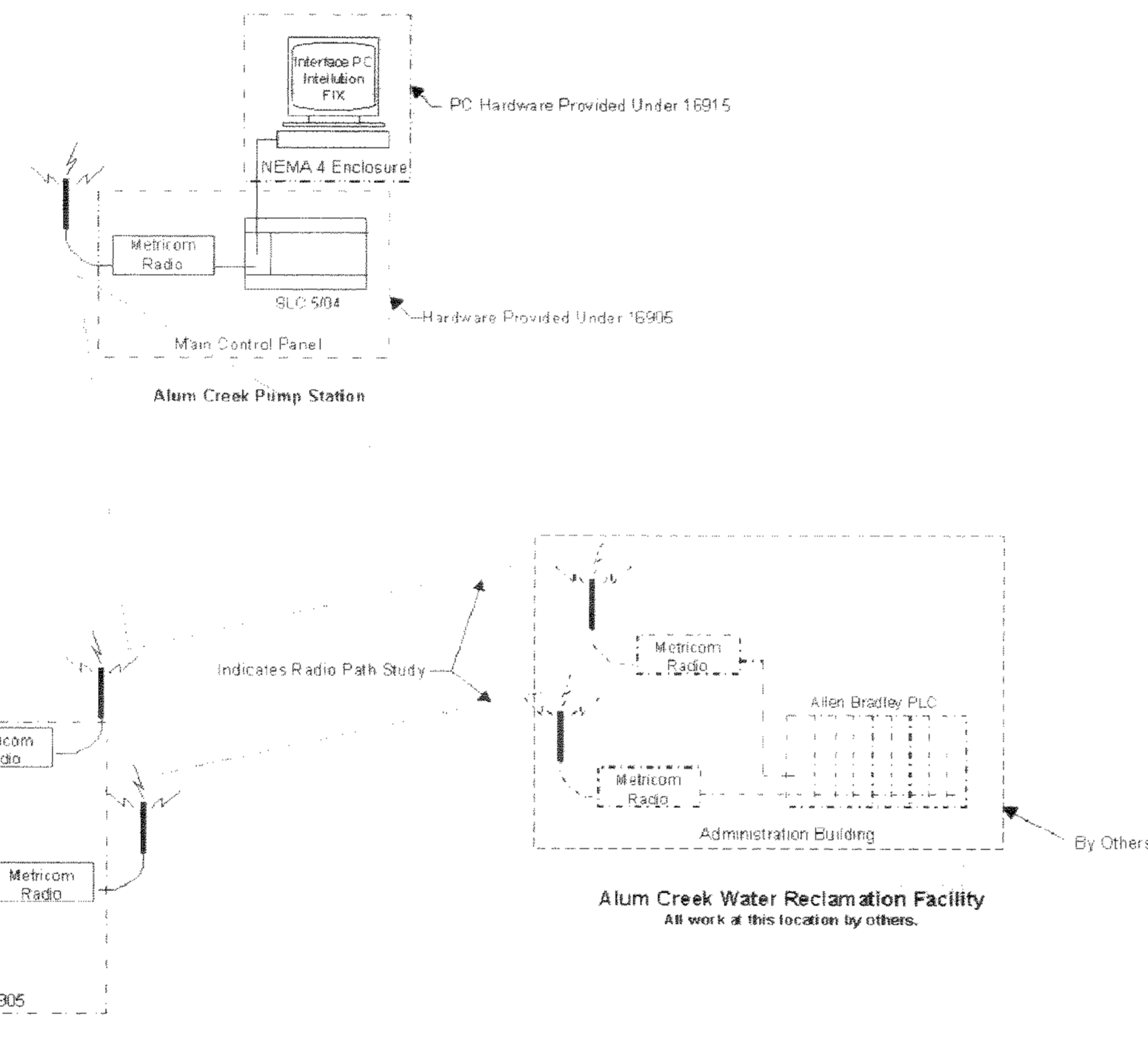
SCALE:	
AS NOTED	
SHEET NO.	OF
62	100

T01-4714E80
03/04/99 SA-14



INSTRUMENT AND DEVICE LETTERING TABLE		
LETTER	FIRST LETTER	SUCCEEDING LETTERS
A	ANALYSIS	ALARM
B	BURNER FLAME	CLOSE OR DECREASE
C	CONDUCTIVITY	CONTROL
D	DENSITY	OPEN OR INCREASE
E	VOLTAGE	PRIMARY ELEMENT
F	FLOW RATE	RATIO
G	GAUGE	SUM OR ADD
H	HAND (MANUALLY OPERATED)	HIGH
I	CURRENT (ELEC.)	INDICATE
J	POWER	LIGHT
K	TIME	CONTROL STATION
L	LEVEL	LOW
M	MOTOR	OPERATE OR ON/OFF
N	USER'S CHOICE	START/STOP OR OPEN/CLOSE
O	TORQUE	OVERLOAD
P	PRESSURE OR VACUUM	POINT OR TEST
Q	QUANTITY OR EVENT	TOTALIZE OR INTEGRATE
R	RADIOACTIVITY	RECORDER
S	SPEED OR FREQUENCY	SWITCH
T	TEMPERATURE	TRANSMITTER
U	MULTIVARIABLE	MULTIFUNCTION
V	VIBRATION, MOTION	USER'S CHOICE
W	WEIGHT OR FORCE	WELL
X	USER'S CHOICE	EXCESS
Y	COMPUTER	RELAY OR COMPUTE
Z	POSITION	DRIVE OR ACTUATE
Δ	DIFFERENTIAL	

PROCESS AND INSTRUMENTATION DIAGRAM DEVICE SYMBOLS AND DESIGNATION			
SYMBOL	DESCRIPTION	SYMBOL	INSTRUMENT OR DEVICE IDENTIFICATION
	FIRST LETTER SUCCEEDING LETTER SUCCEEDING LETTER LOOP NUMBER		ELECTRIC SUPPLY VOLTAGE (24VDC, 120VAC, ETC.)
	FRONT PANEL MOUNTED INSTRUMENT OR DEVICE		DISCRETE DATA OUTPUT POINT
	BACK PANEL MOUNTED INSTRUMENT OR DEVICE		DISCRETE DATA INPUT POINT
	FIELD MOUNTED INSTRUMENT OR DEVICE		ANALOG DATA OUTPUT POINT
	FIELD MOUNTED INSTRUMENT OR DEVICE		ANALOG DATA INPUT POINT
	ANNUNCIATOR WINDOW WITH DESCRIPTION		PROCESS FLOW DIRECTION NORMAL
	SINGLE PHASE AC MOTOR (DC INDICATES DC MOTOR)		ELECTRICAL CONNECTION WIRE (24V, 120V, 240V, ETC.)
	THREE PHASE AC MOTOR		ELECTRICAL CONNECTION WIRE 480V
	STAND-BY GENERATOR		ANALOG SIGNAL WIRE (USUALLY 4-20 MA)
	MOTOR STARTER		PROCESS FLOW LINE
	COMBINATION MOTOR STARTER		MECHANICAL CONNECTION
	DISCONNECT SWITCH		PNEUMATIC OR HYDRAULIC SIGNAL
	EQUIPMENT PROVIDED UNDER SPECIFICATION NUMBER SHOWN		HORN, BELL OR SIREN
	EQUIPMENT PROVIDED UNDER DIVISION 16	B-1	TYPICAL VALVE IDENTIFICATION LETTER INDICATES VALVE TYPE (SEE DIVISION 15)
	PUMP	(2 67)	TYPICAL SPECIFICATION REFERENCE NUMBER WITHIN SECTION 16902
	BLOWER	(11735)	TYPICAL SPECIFICATION SECTION NUMBER
	AIR COMPRESSOR		
	SLUICE GATE (SG) OR SLIDE GATE (SLG)		
	VALVE		
	THREE WAY VALVE		
	CHECK VALVE		
	SOLENOID VALVE		

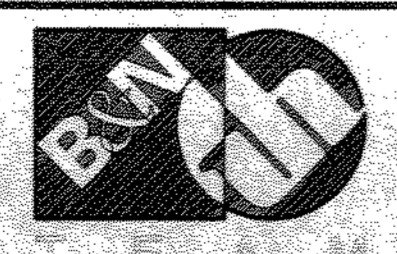


INSTRUMENTATION AND CONTROL NOTES

- NUMBER SHOWN (I.E. 11735), INDICATES A SPECIFICATION REFERENCE FOR ITEMS OTHER THAN DIVISION 16. THE ELECTRICAL ITEM UNDER THIS REFERENCE IS SUPPLIED BY THE GENERAL CONTRACTOR UNLESS OTHERWISE NOTED IN THAT SPECIFICATION. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE THE ITEM PER THE DRAWINGS AND DIVISION 16 SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE ALL ITEMS NECESSARY FOR THE COMPLETE INSTALLATION OF THE EQUIPMENT AS RECOMMENDED OR REQUIRED BY THE MANUFACTURER OF THE EQUIPMENT OR REQUIRED BY CODE WITHOUT ADDITIONAL COST TO THE OWNER REGARDLESS WHETHER THE ITEMS ARE SHOWN ON THE DRAWINGS OR COVERED IN THE SPECIFICATIONS.

10-471402
03/04/99 10-14

NO.	REVISIONS	DATE	BY	CHK.

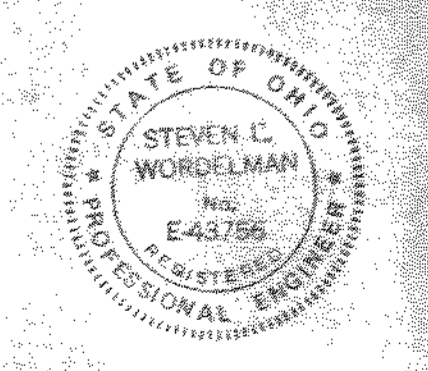


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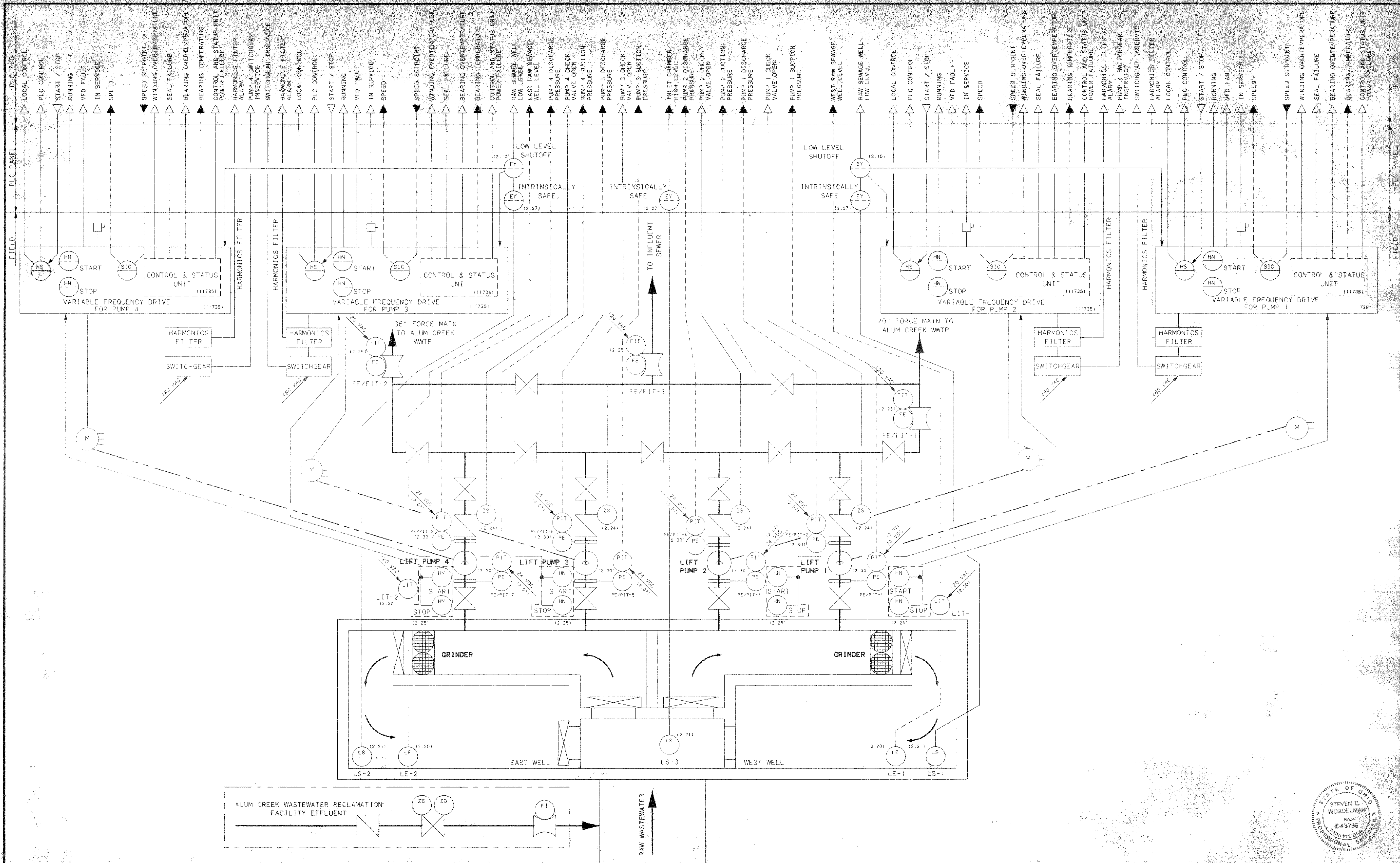
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	DRR
CHECKED BY:	DLH
APPROVED BY:	
DATE:	1999

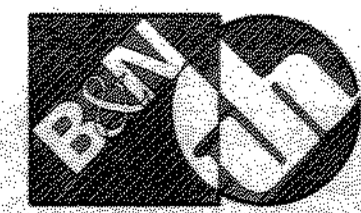
PUMP STATION
INSTRUMENTATION AND CONTROL
SYMBOLS AND ABBREVIATIONS



SCALE:	NONE
SHEET NO. OF	63 100



NO.	REVISIONS	DATE	BY	CHK.

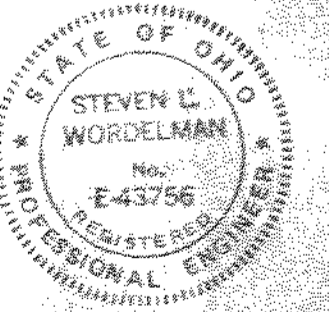


Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

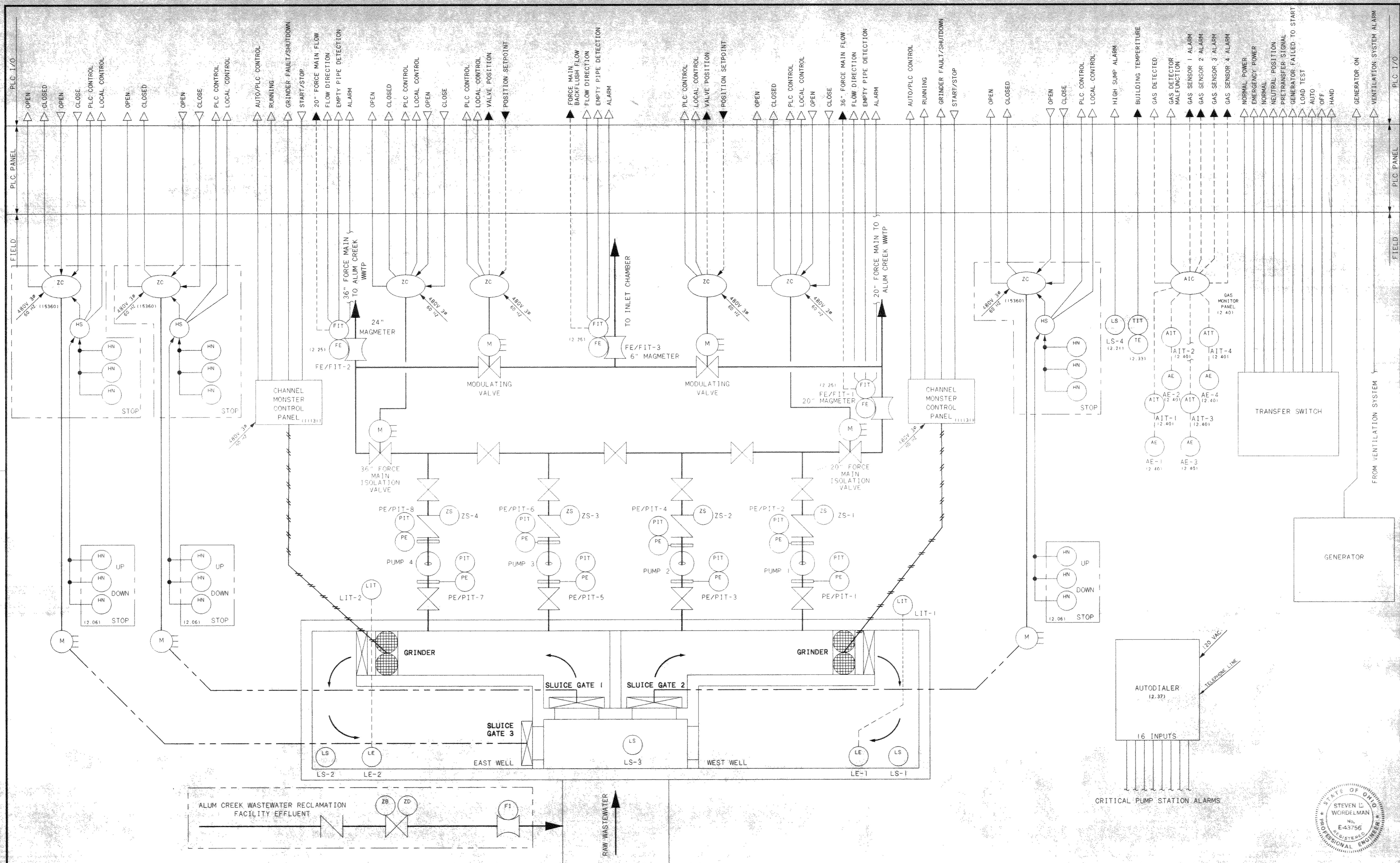
JOB NO.	20571
DESIGNED BY:	MAM
DRAWN BY:	LEY
CHECKED BY:	MAM
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 RAW WASTEWATER PUMPS
 PROCESS DIAGRAM



SCALE:	NONE
SHEET NO.	64
OF	100

TOL-4714E01
03/04/99 SA-114



NO.	REVISIONS	DATE	BY	CHK.

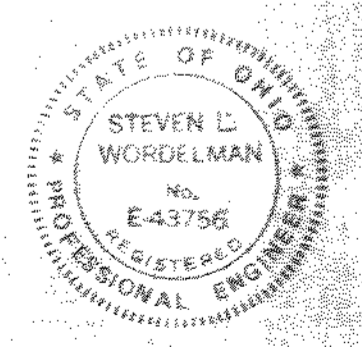
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

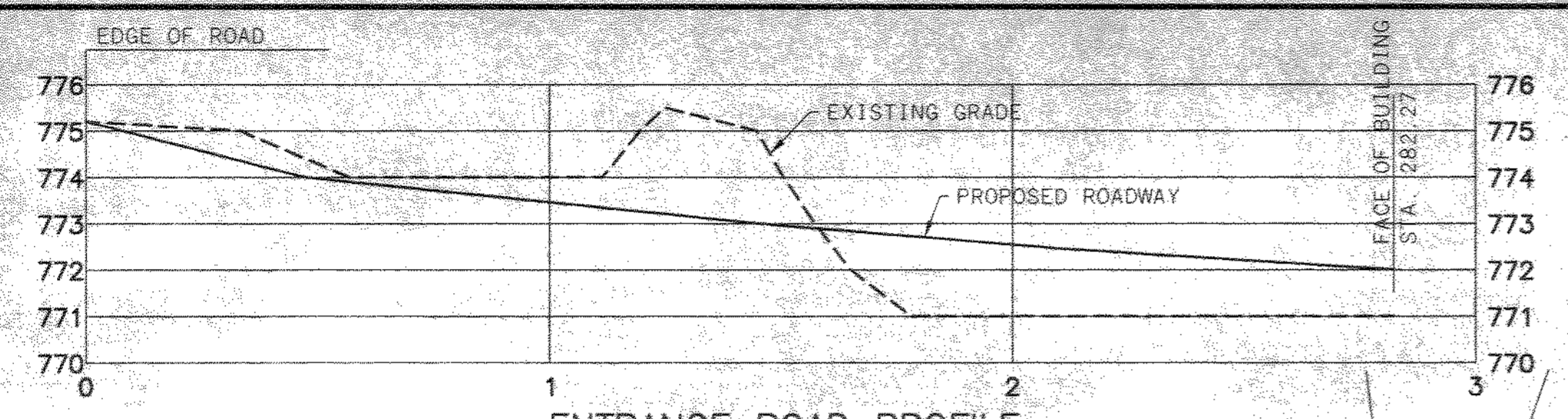
JOB NO.	20571
DESIGNED BY:	MAM
DRAWN BY:	LEY
CHECKED BY:	MAM
APPROVED BY:	SLW
DATE:	1999

PUMP STATION
 PROCESS DIAGRAM

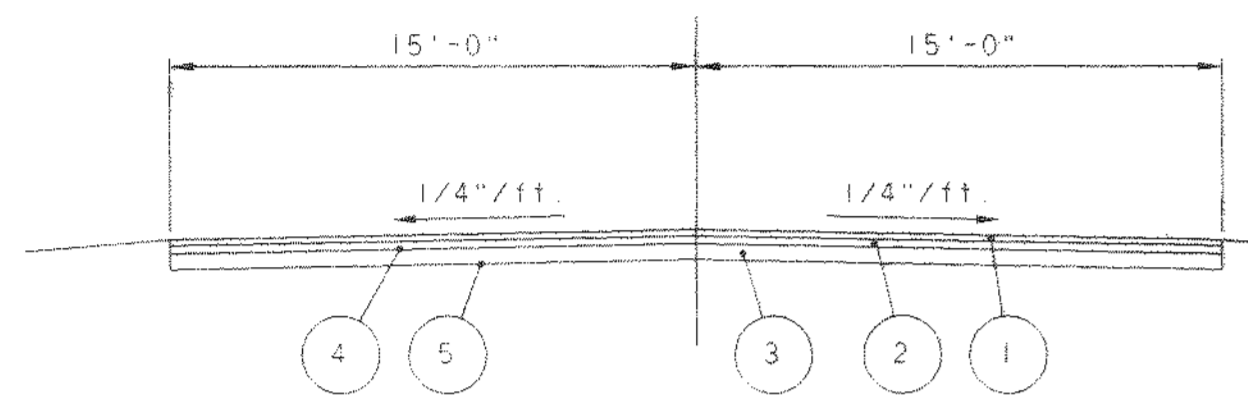
SCALE:	NONE
SHEET NO.	65
OF	100



TO: 4714E01
 02/04/99 SA: 14

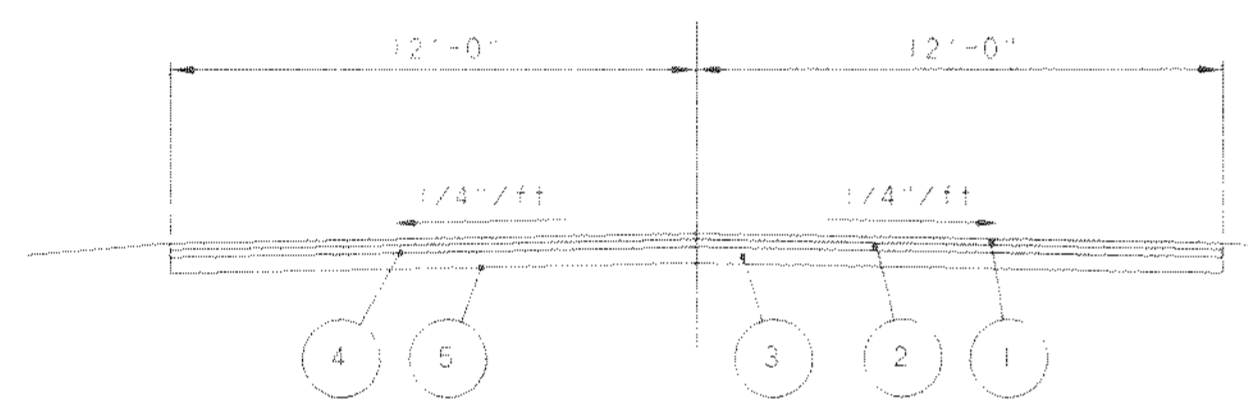


ENTRANCE ROAD PROFILE
 1"=30' HOR.
 1"=3' VERT.



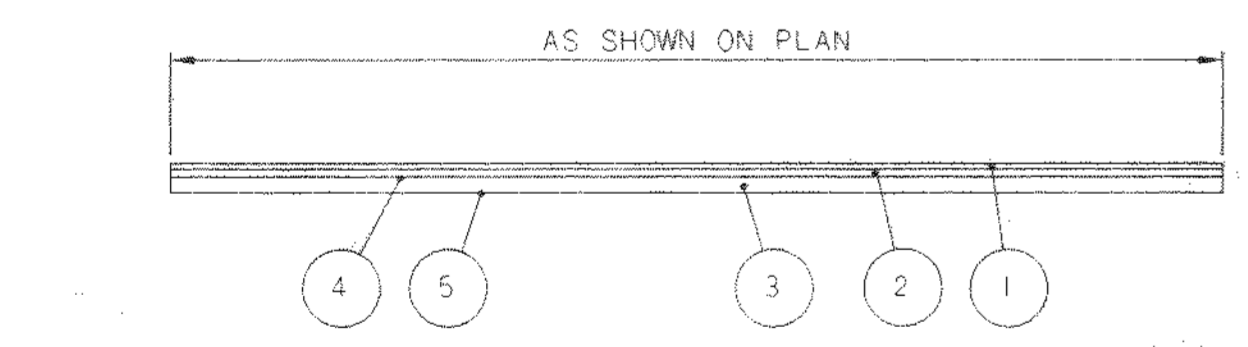
- ① 2" ASPHALT CONCRETE SURFACE COURSE (ODOT ITEM 404)
- ② 3" ASPHALT CONCRETE LEVELING COURSE (ODOT ITEM 402)
- ③ 10" AGGREGATE BASE (ODOT ITEM 304)
- ④ PRIME COAT 0.40 GAL/SQ. YD. (ODOT ITEM 408)
- ⑤ COMPACTED SUBGRADE (ODOT ITEM 203)

ENTRANCE ROAD PAVEMENT SECTION
 N.T.S.



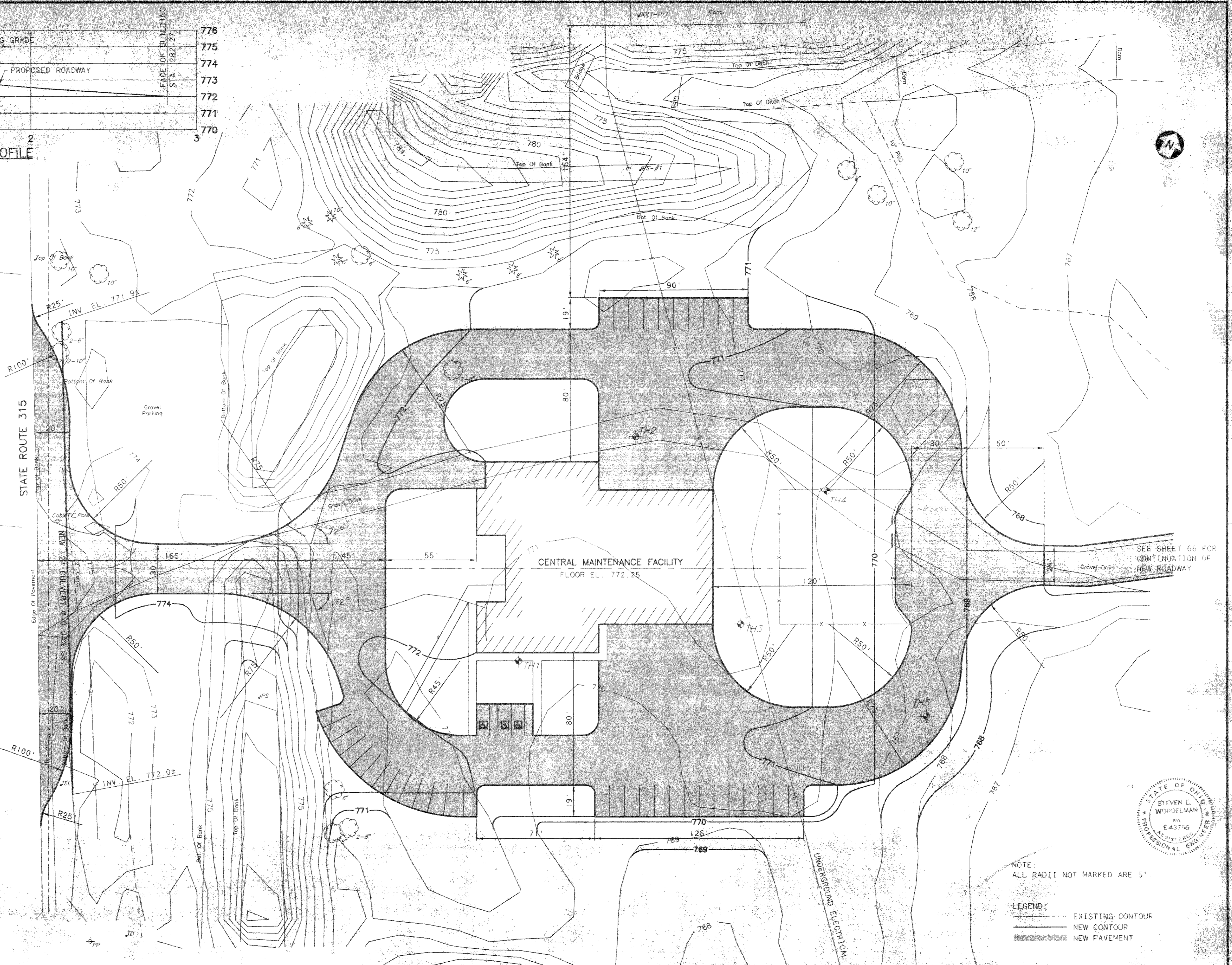
- ① 1" ASPHALT CONCRETE SURFACE COURSE (ODOT ITEM 404)
- ② 1" ASPHALT CONCRETE LEVELING COURSE (ODOT ITEM 402)
- ③ 8" AGGREGATE BASE (ODOT ITEM 304)
- ④ PRIME COAT 0.40 GAL/SQ. YD. (ODOT ITEM 408)
- ⑤ COMPACTED SUBGRADE (ODOT ITEM 203)

BACK ROAD PAVEMENT SECTION
 N.T.S.

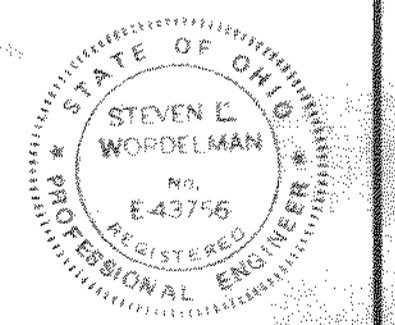


- ① 2" ASPHALT CONCRETE SURFACE COURSE (ODOT ITEM 404)
- ② 3" ASPHALT CONCRETE LEVELING COURSE (ODOT ITEM 402)
- ③ 10" AGGREGATE BASE (ODOT ITEM 304)
- ④ PRIME COAT 0.40 GAL/SQ. YD. (ODOT ITEM 408)
- ⑤ COMPACTED SUBGRADE (ODOT ITEM 203)

TYPICAL PAVEMENT SECTION
 N.T.S.



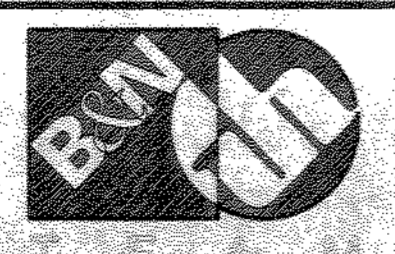
SEE SHEET 66 FOR CONTINUATION OF NEW ROADWAY



NOTE:
 ALL RADII NOT MARKED ARE 5'

LEGEND:
 ——— EXISTING CONTOUR
 ——— NEW CONTOUR
 ——— NEW PAVEMENT

NO.	REVISIONS	DATE	BY	CHK.



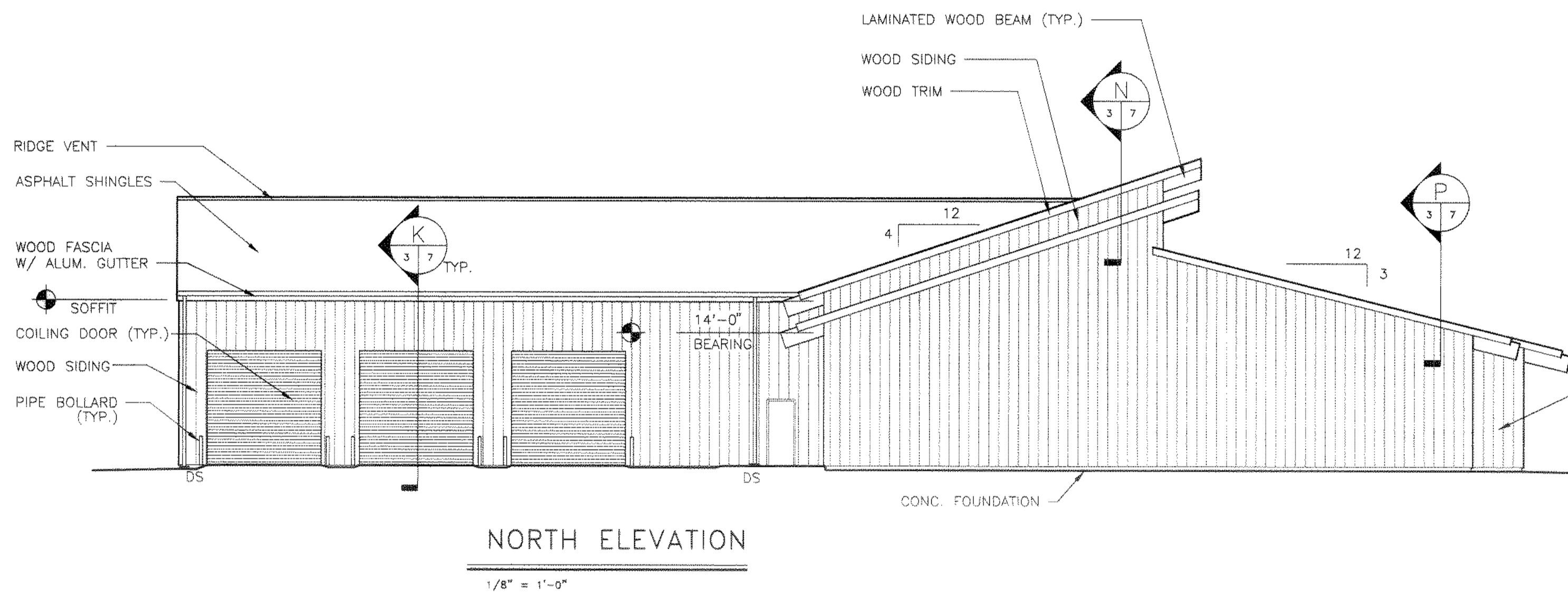
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO. 20571
 DESIGNED BY: RCD
 DRAWN BY: BEF
 CHECKED BY:
 APPROVED BY: SLW
 DATE: 1999

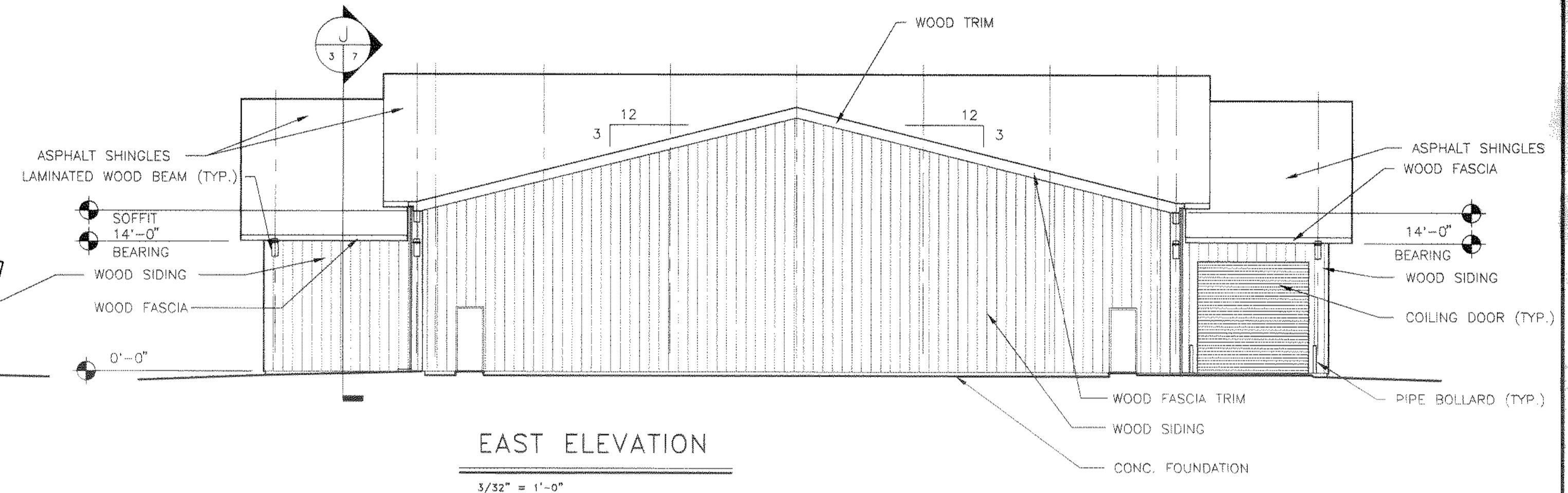
**CENTRAL MAINTENANCE FACILITY
 ROADWAY AND GRADING PLAN**

SCALE:
 1"=30'
 SHEET NO. 67 OF 100



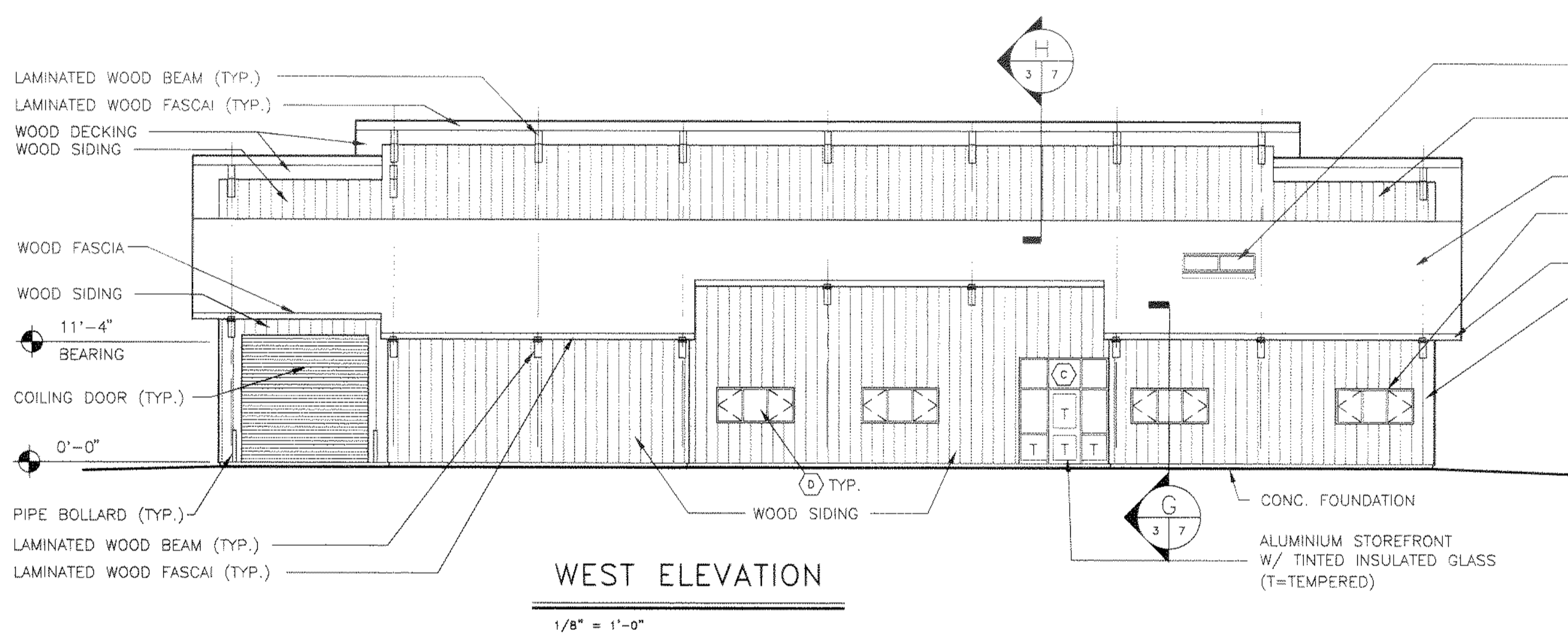
NORTH ELEVATION

1/8" = 1'-0"



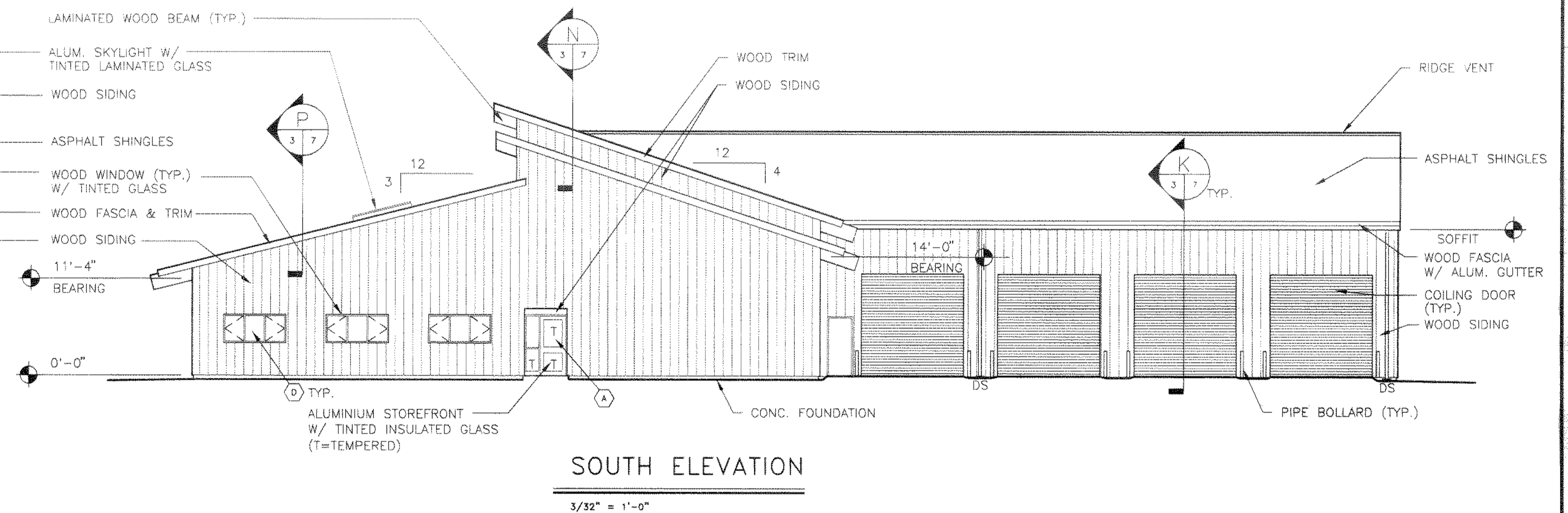
EAST ELEVATION

3/32" = 1'-0"



WEST ELEVATION

1/8" = 1'-0"



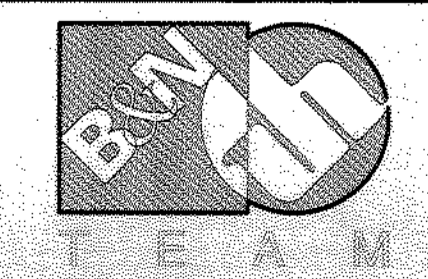
SOUTH ELEVATION

3/32" = 1'-0"

NOTE: REFER TO SHEET 8A FOR WINDOW FRAME TYPES.

Tue Mar 02 10:21:01 1999

NO.	REVISIONS	DATE	BY	CHK.

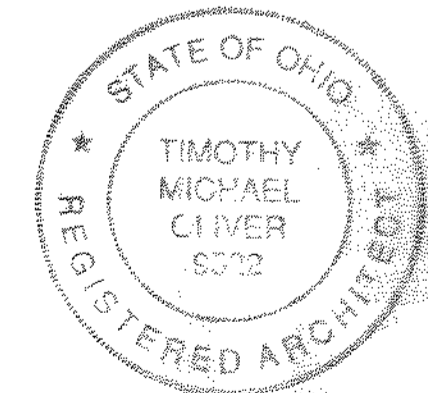


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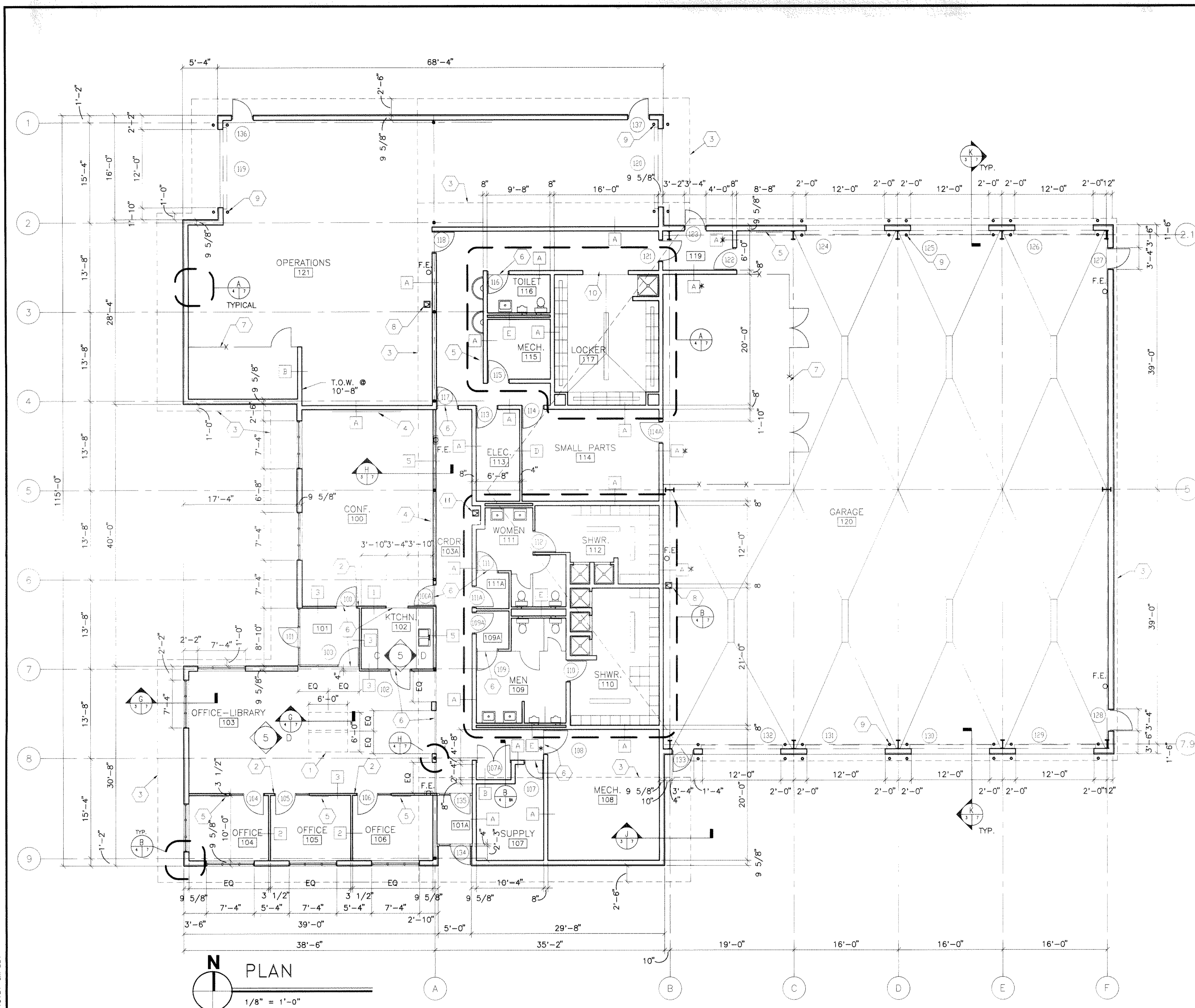
DELAWARE COUNTY, OHIO
 ALUM CREEK WATER RECLAMATION FACILITY

JOB NO.	20571
DESIGNED BY:	TO
DRAWN BY:	SJC
CHECKED BY:	
APPROVED BY:	RBD
DATE:	DECEMBER 1998

CENTRAL MAINTENANCE
 FACILITY ELEVATIONS

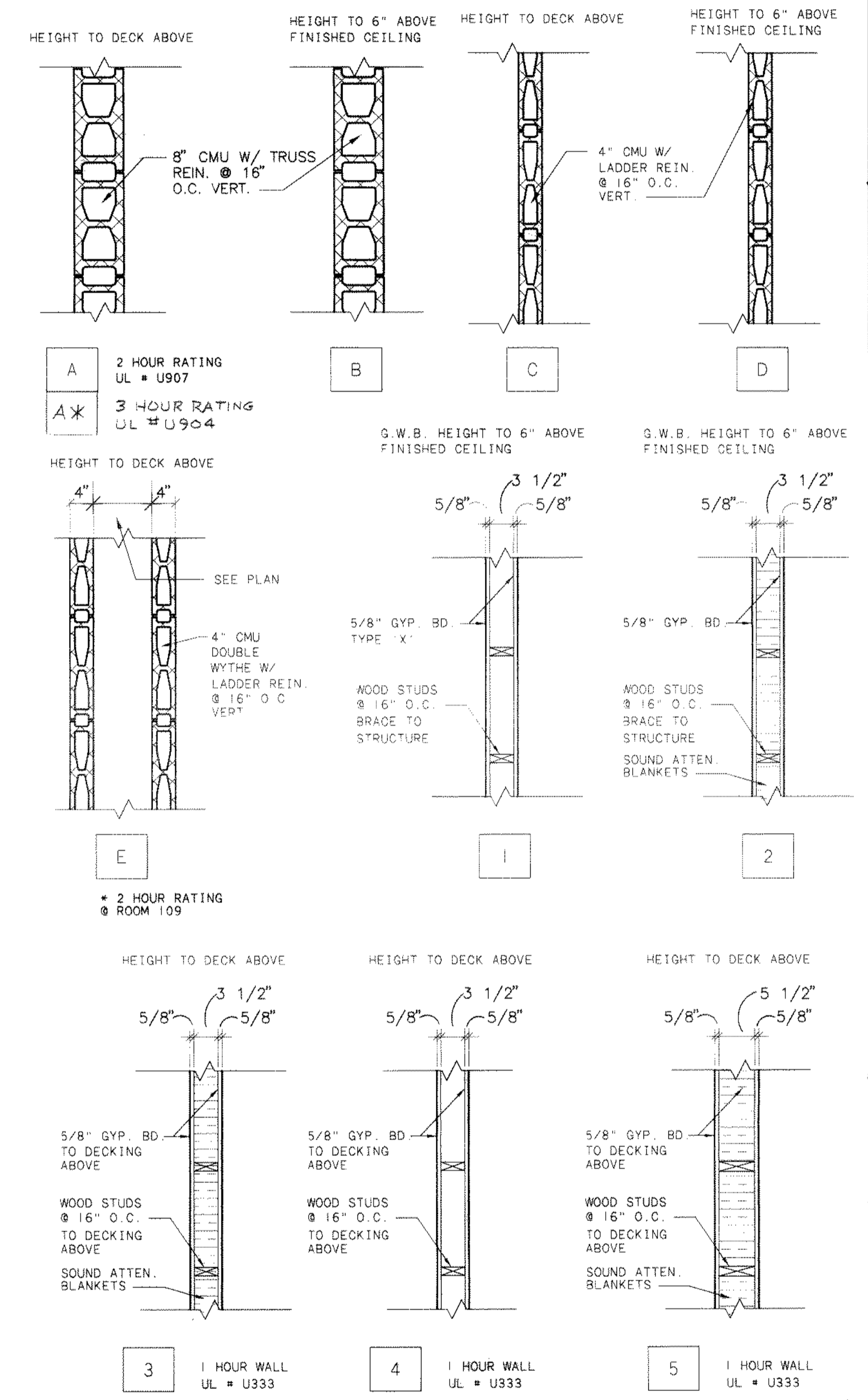


SCALE:	3/32" = 1'-0"
SHEET NO.	69
OF	100



- 1 ALUMINIUM SKYLIGHTS ABOVE
- 2 LOCATE DOOR FRAME 4" FROM ADJACENT WALL
- 3 LINE OF ROOF SOFFIT ABOVE
- 4 MARKERBOARD
- 5 TACKBOARD
- 6 FINISH FLOOR TRANSITION
- 7 WIRE PARTITION, TOP @ 10'-5"
- 8 ELECTRIC WATER COOLER
- 9 PIPE BOLLARD (TYP.)
- 10 8" CMU HEAD @ 8'-8"

CODED NOTES

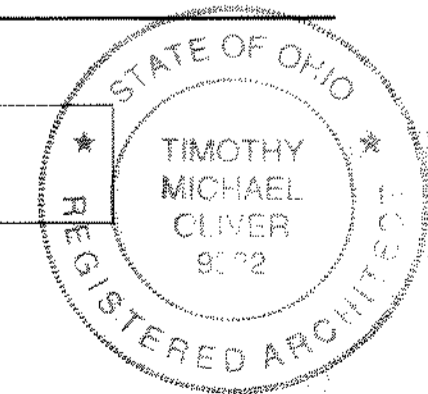


WALL TYPES

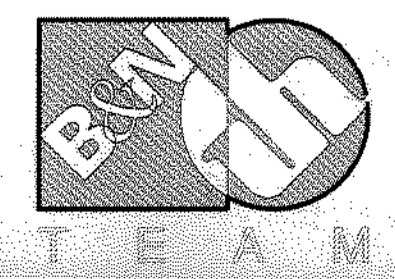
SCALE: 3/4" = 1'-0"

USE (MR) MOISTURE RESISTANT GYP. BOARD AT ANY WALL SURFACE WITHIN 4'-0" OF ANY WATER SOURCE.

VERIFY IF ALL BLOCK WALL TYPES ARE TO RECEIVE EITHER ADHERED 1/2" G.W.B. OR CERAMIC TILE, SEE FINISH SCHEDULE.



NO.	REVISIONS	DATE	BY	CHK.



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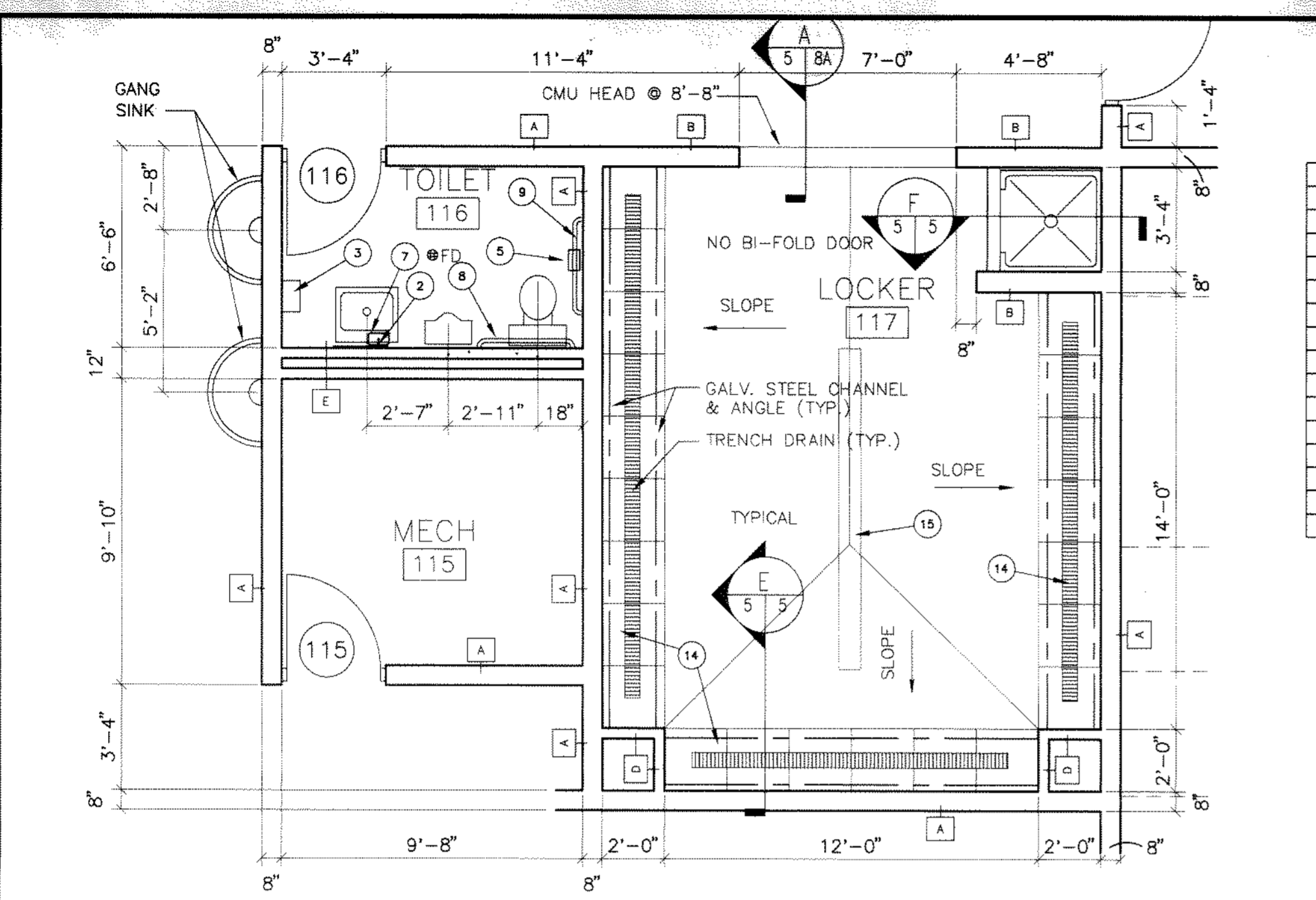
DELAWARE COUNTY, OHIO
ALUM CREEK WATER RECLAMATION FACILITY

JOB NO. 20571
DESIGNED BY: TO
DRAWN BY: SJC
CHECKED BY:
APPROVED BY: RBD
DATE: DECEMBER 1998

CENTRAL MAINTENANCE FACILITY PLAN

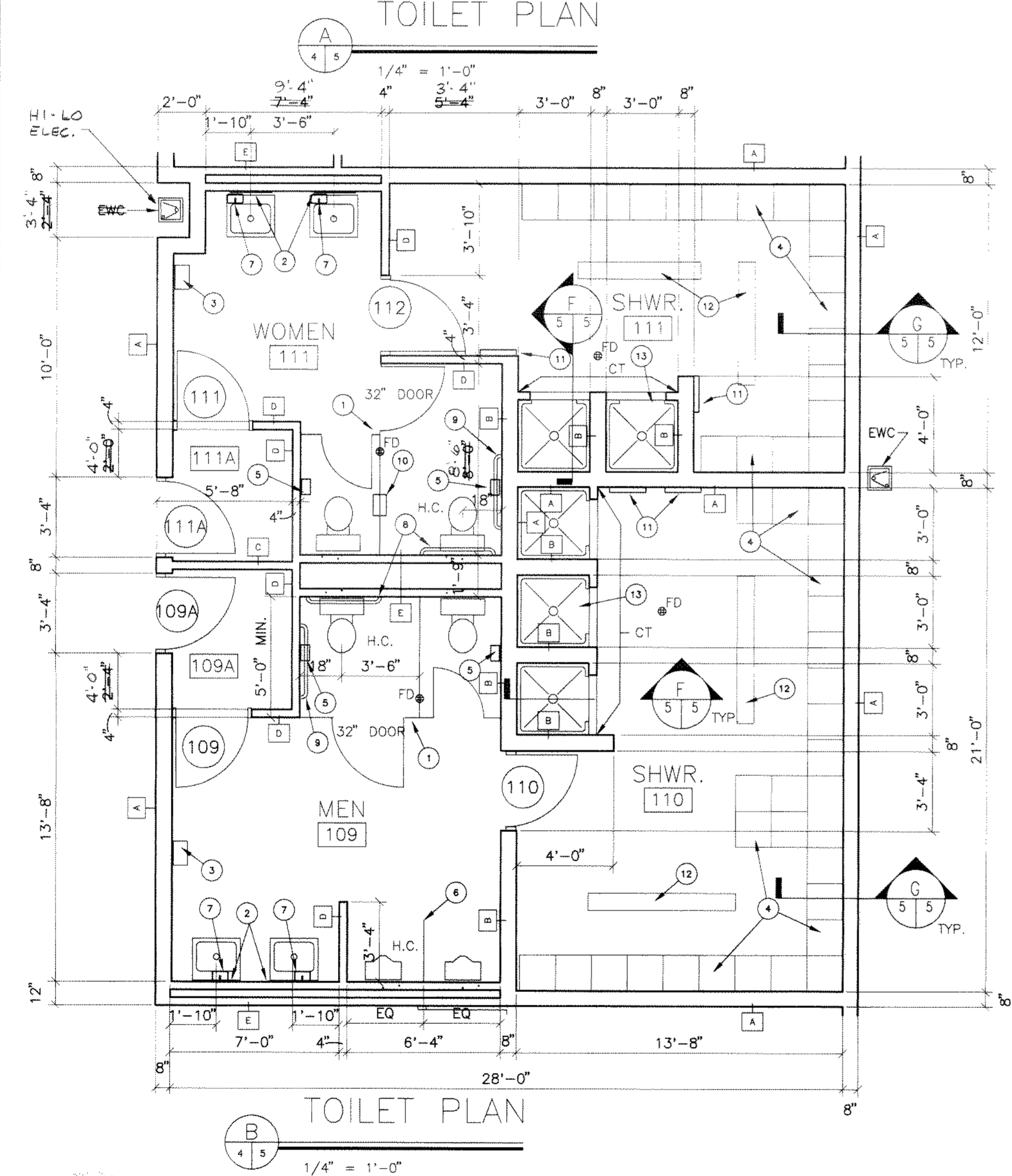
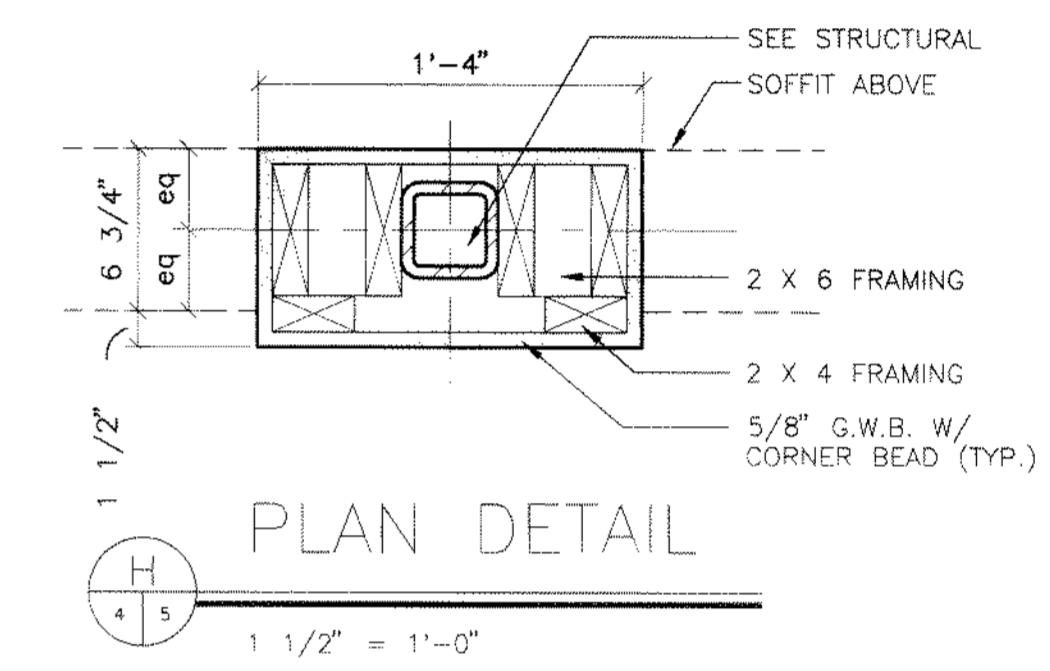
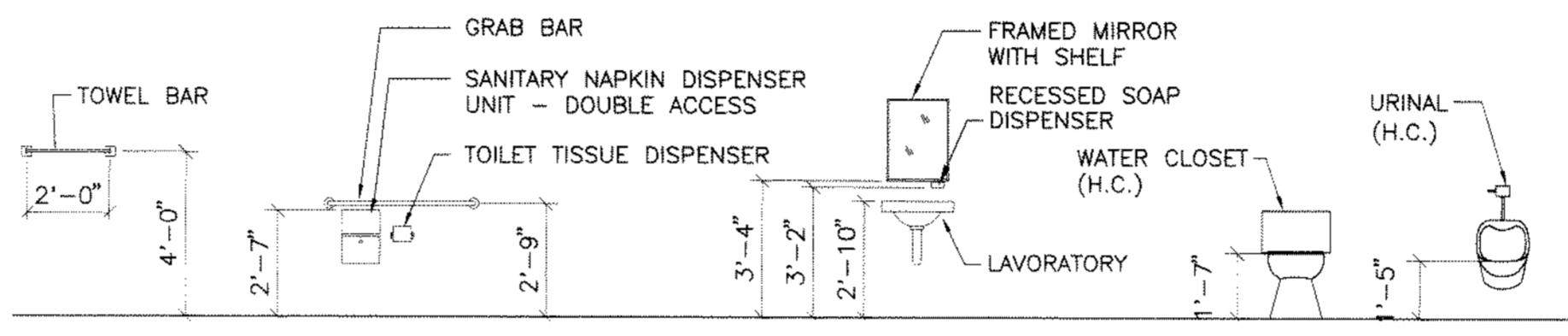
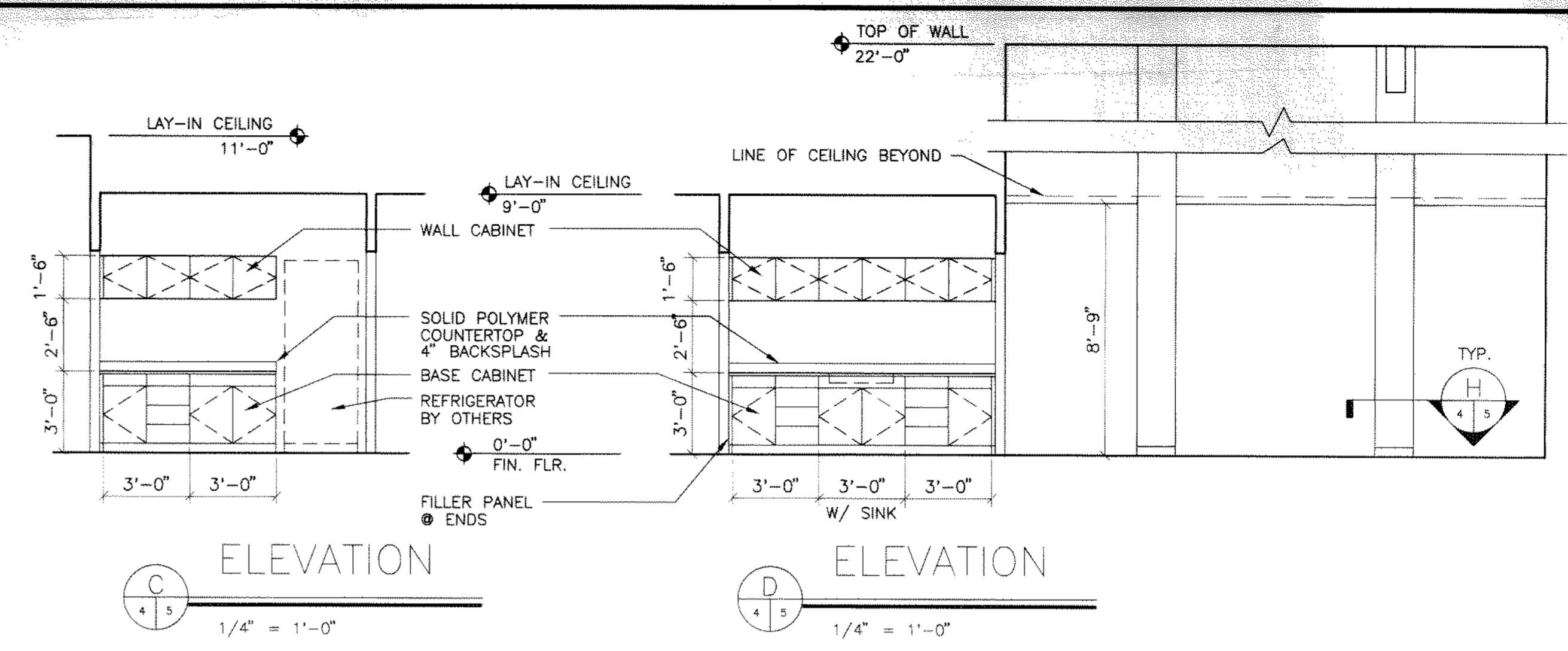
SCALE: 1/8" = 1'-0"
SHEET NO. 70 OF 100

Tue Mar 02 10:22:55 1999

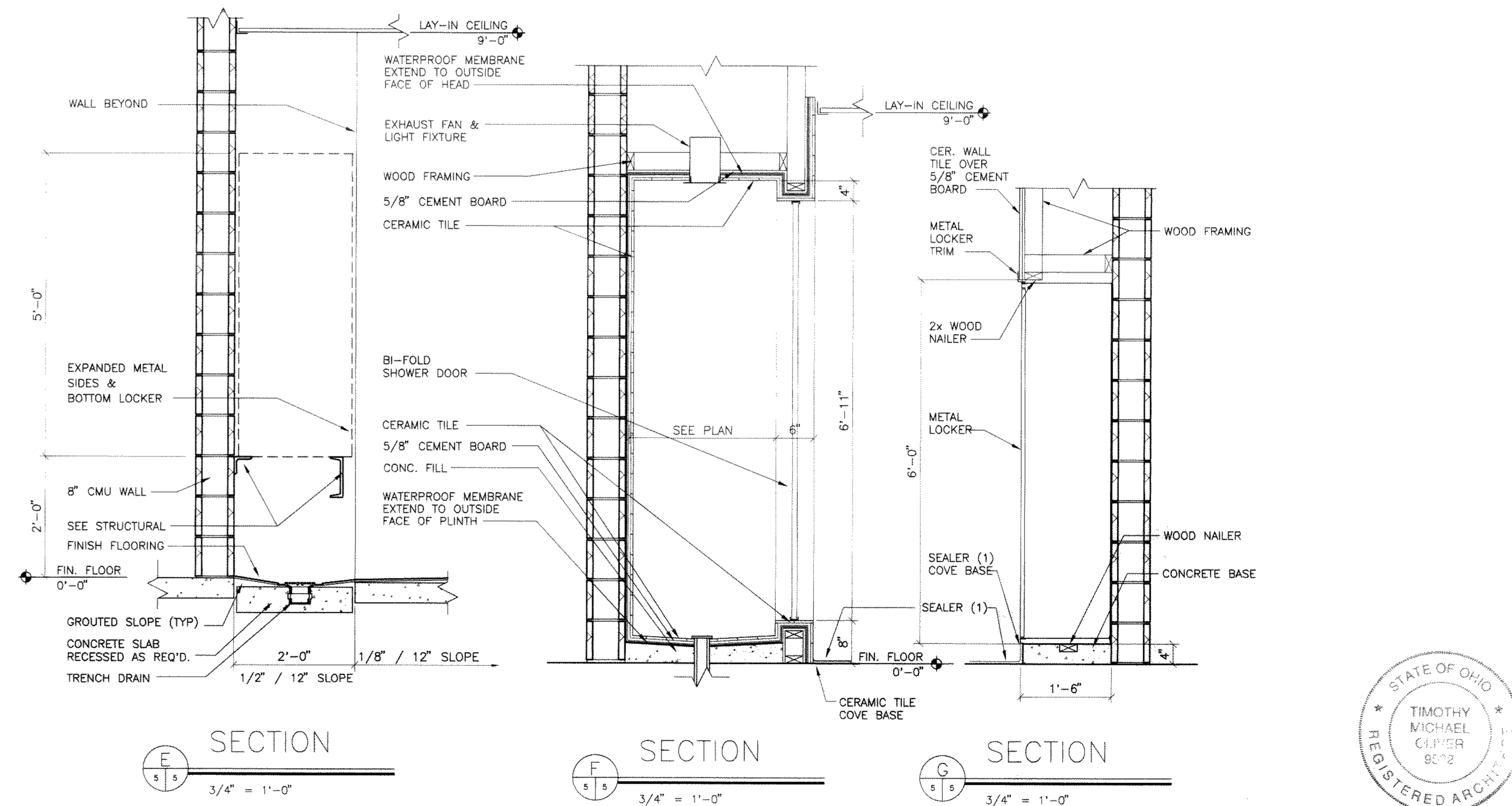


TOILET ACCESSORIES SCHEDULE

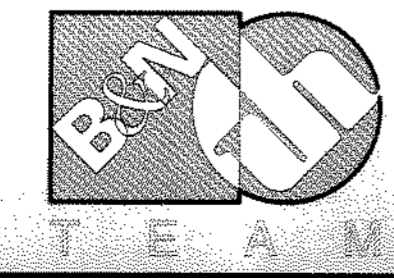
MARK	DESCRIPTION	BOBRICK MODEL # OR SIZE
1	TOILET PARTITION	
2	MIRROR 18" x 30"	B-293, BOTTOM @ 38" H
3	PAPER TOWEL / WASTE RECEPTACLE	B-3944
4	METAL LOCKERS (TYP.)	6" X 18" X 18"
5	TOILET PAPER DISPENSER DOUBLE ROLL	B-2740
6	WALL MOUNTED URINAL SCREEN	18" X 42"
7	SOAP DISPENSER	B-40
8	GRAB BAR 36"	B-6806 x 36 @ 34" H
9	GRAB BAR 42"	B-6806 x 42 @ 34" H
10	SANITARY NAPKIN DISPOSAL DOUBLE	B-354
11	TOWEL BAR (2 WOMEN - 2 MEN)	B-205 x 18
12	WOOD BENCH	5'-0" X 3' 1/2" X 18" H.
13	BIFOLD SHOWER DOOR (TYP.)	30"
14	EXPANDED METAL LOCKERS (TYP.)	5' X 24" X 24"
15	WOOD BENCH	10'-0" X 9' 1/2" X 18" H.



HANDICAP TOILET ACCESSORIES AND FIXTURE HEIGHT SCHEDULE
1/4" = 1'-0"



NO.	REVISIONS	DATE	BY	CHK.



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Jones & Henry Engineers, Ltd.

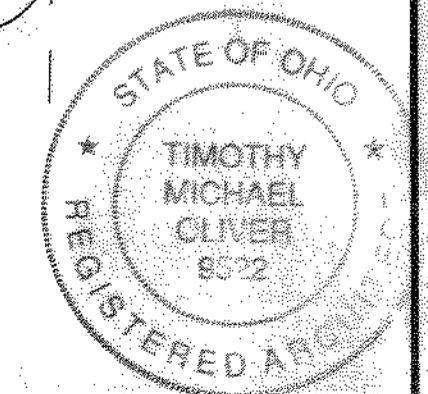
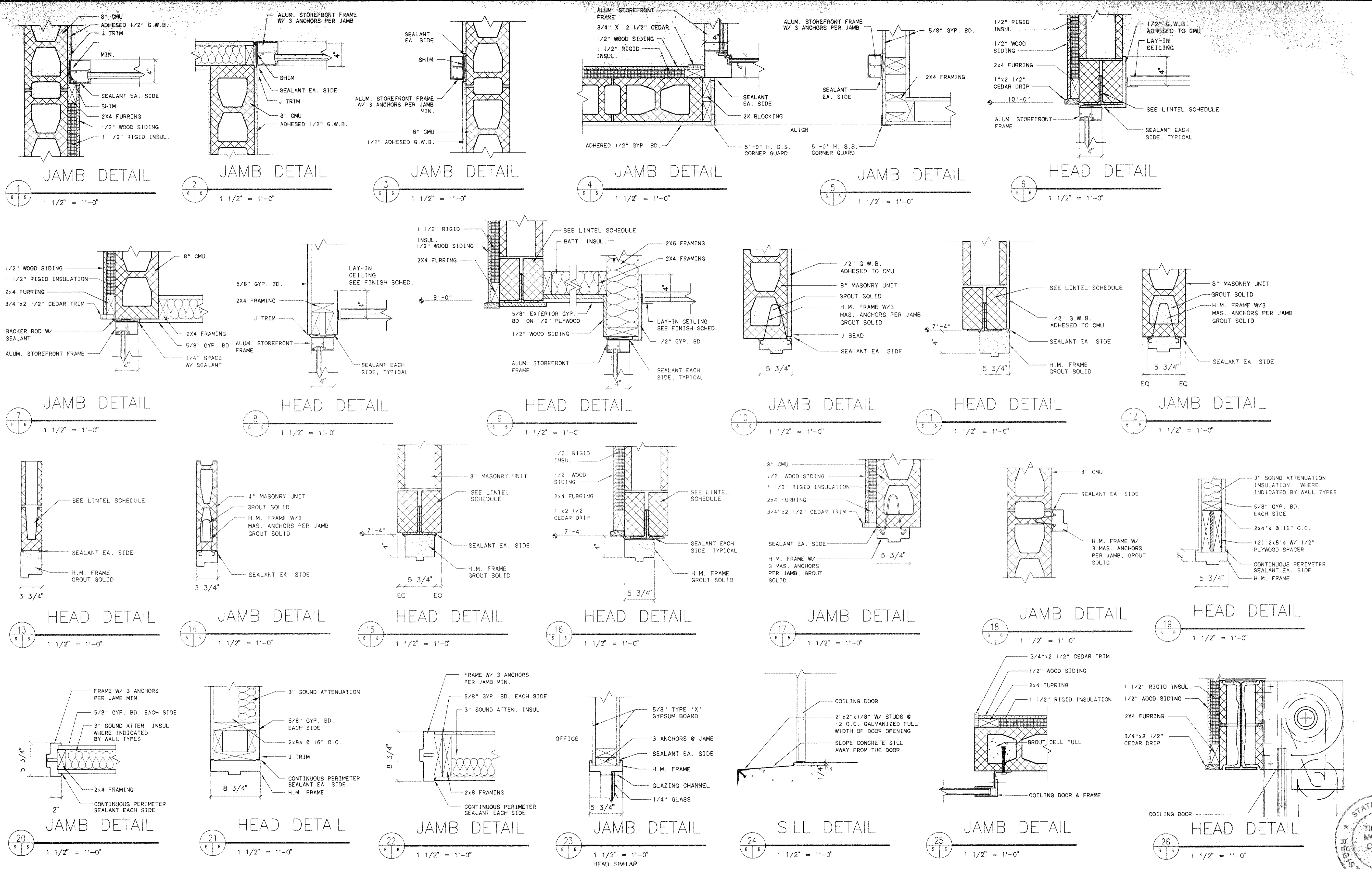
DELAWARE COUNTY, OHIO
ALUM CREEK WATER RECLAMATION FACILITY

JOB NO.	20571
DESIGNED BY:	SJC
DRAWN BY:	SJC
CHECKED BY:	TO
APPROVED BY:	RBD
DATE:	DECEMBER 1998

MAINTENANCE BUILDING
DETAILS

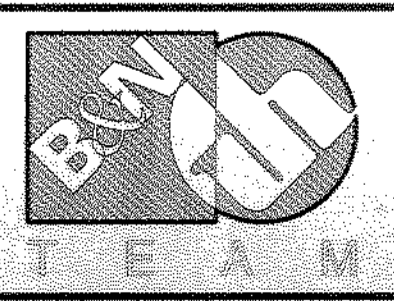
SCALE:	1/8" = 1'-0"
SHEET NO.	71
OF	100

Tue Mar 02 10:25:00 1999



TYP. MFR. 02-10-25-50 13493
 0114 1/16" = 1" = 0"

NO.	REVISIONS	DATE	BY	CHK.



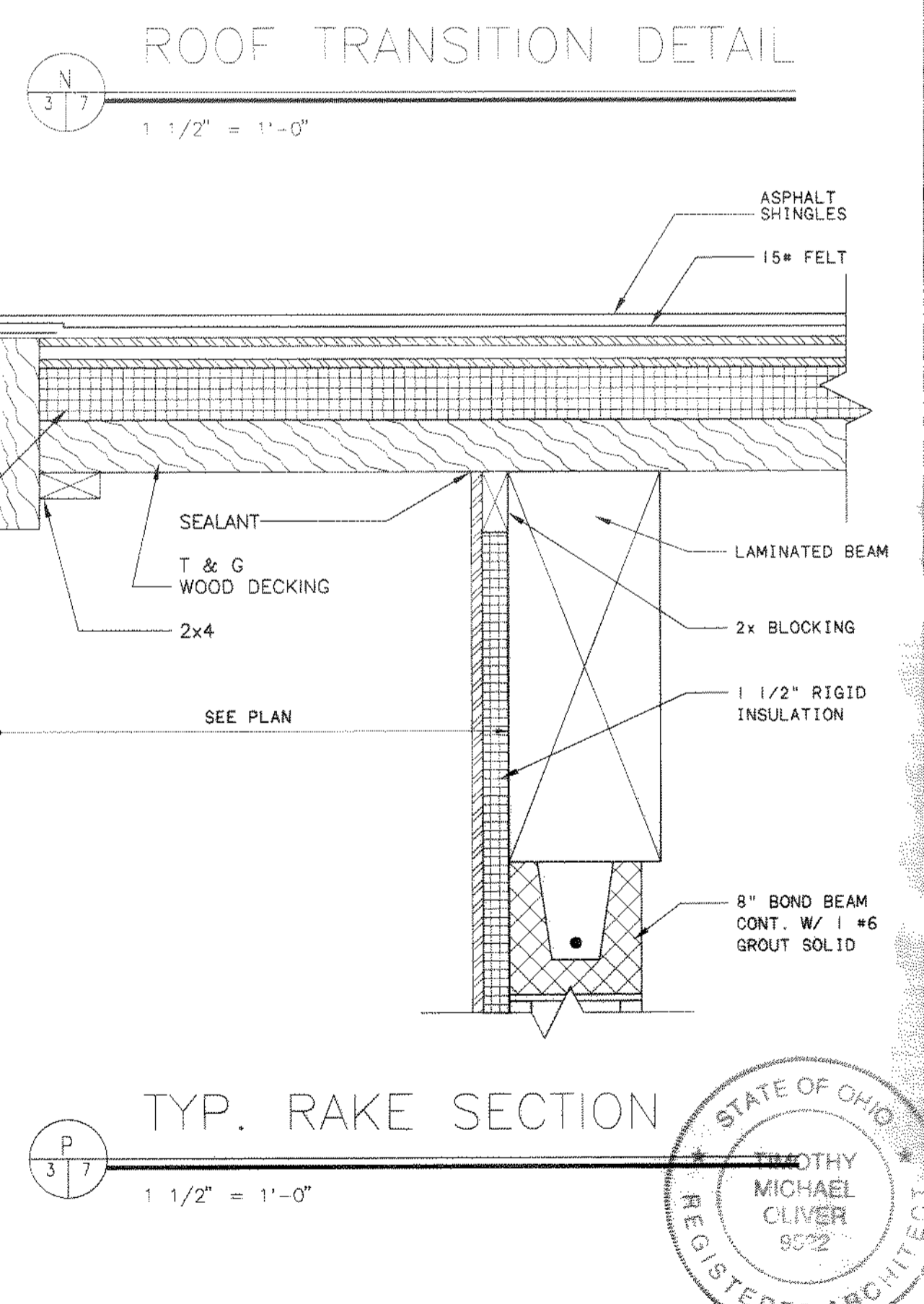
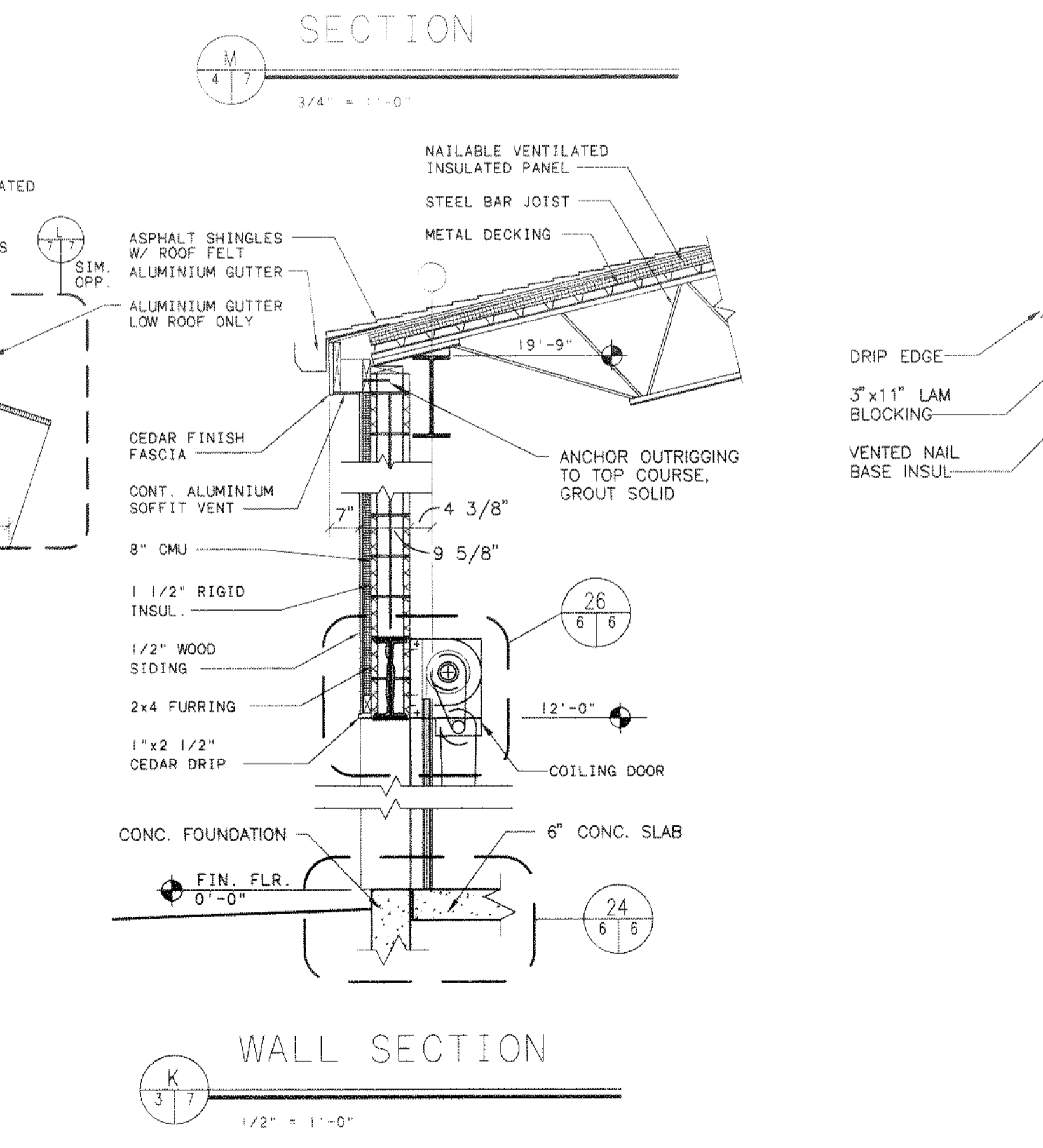
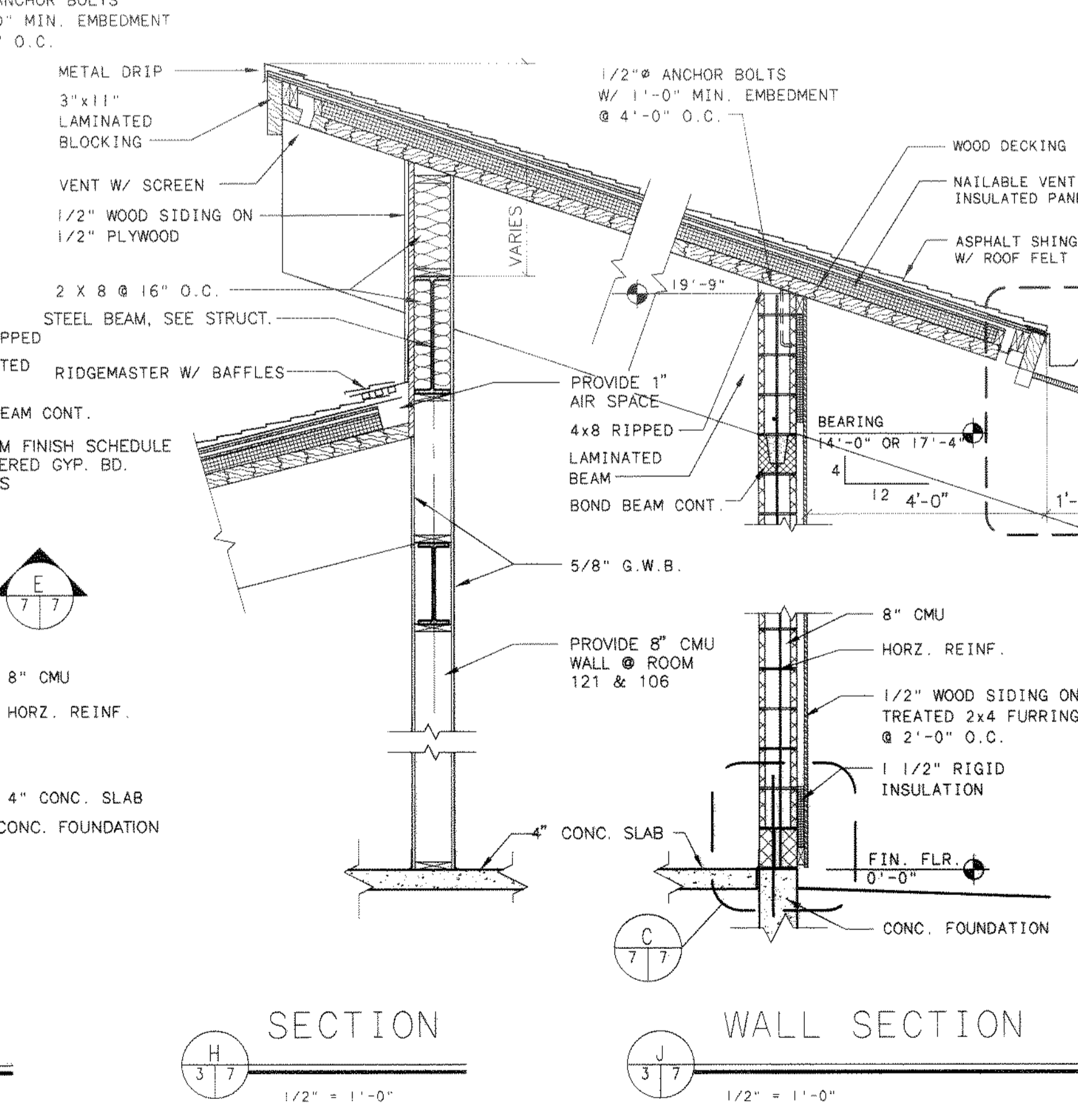
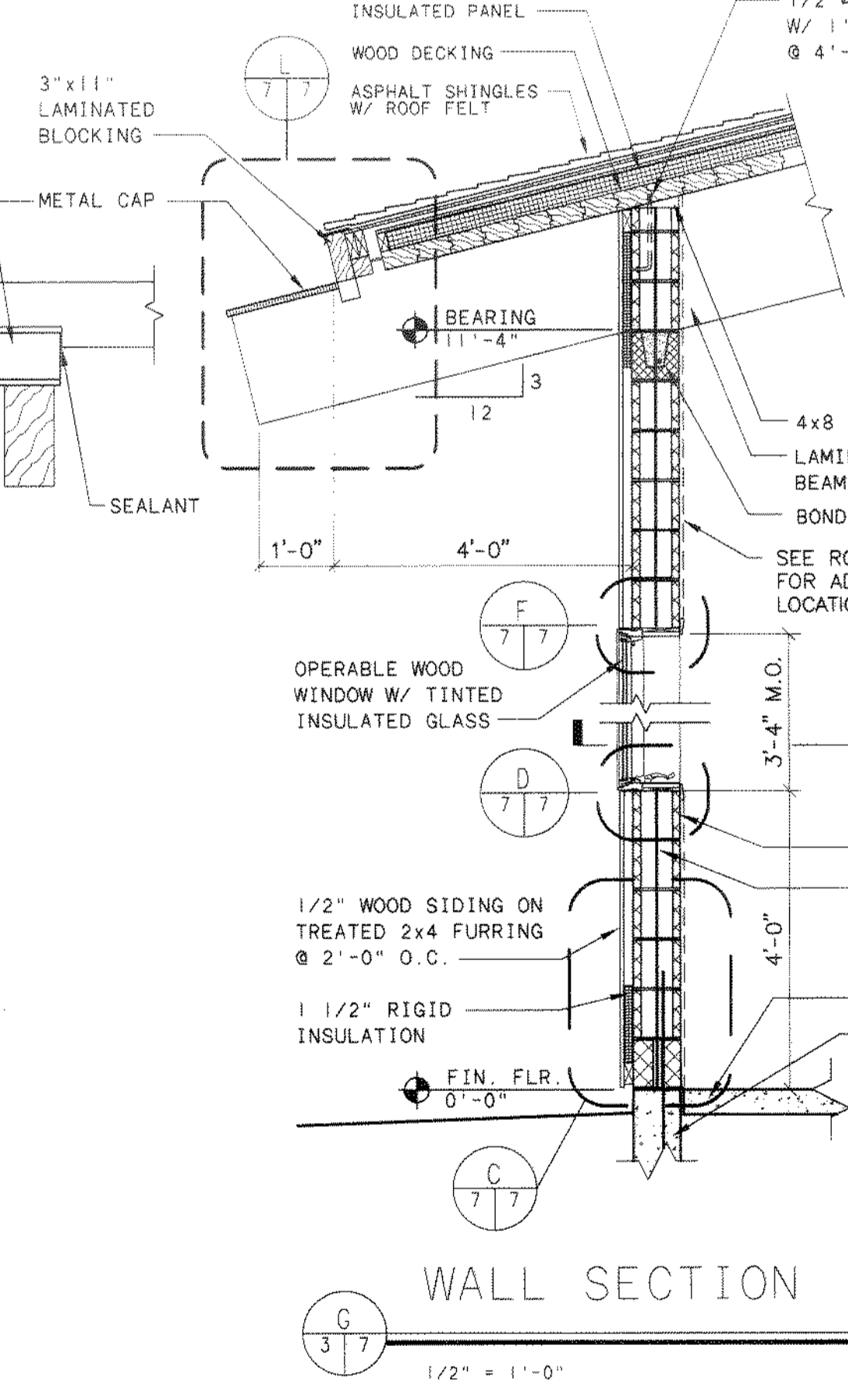
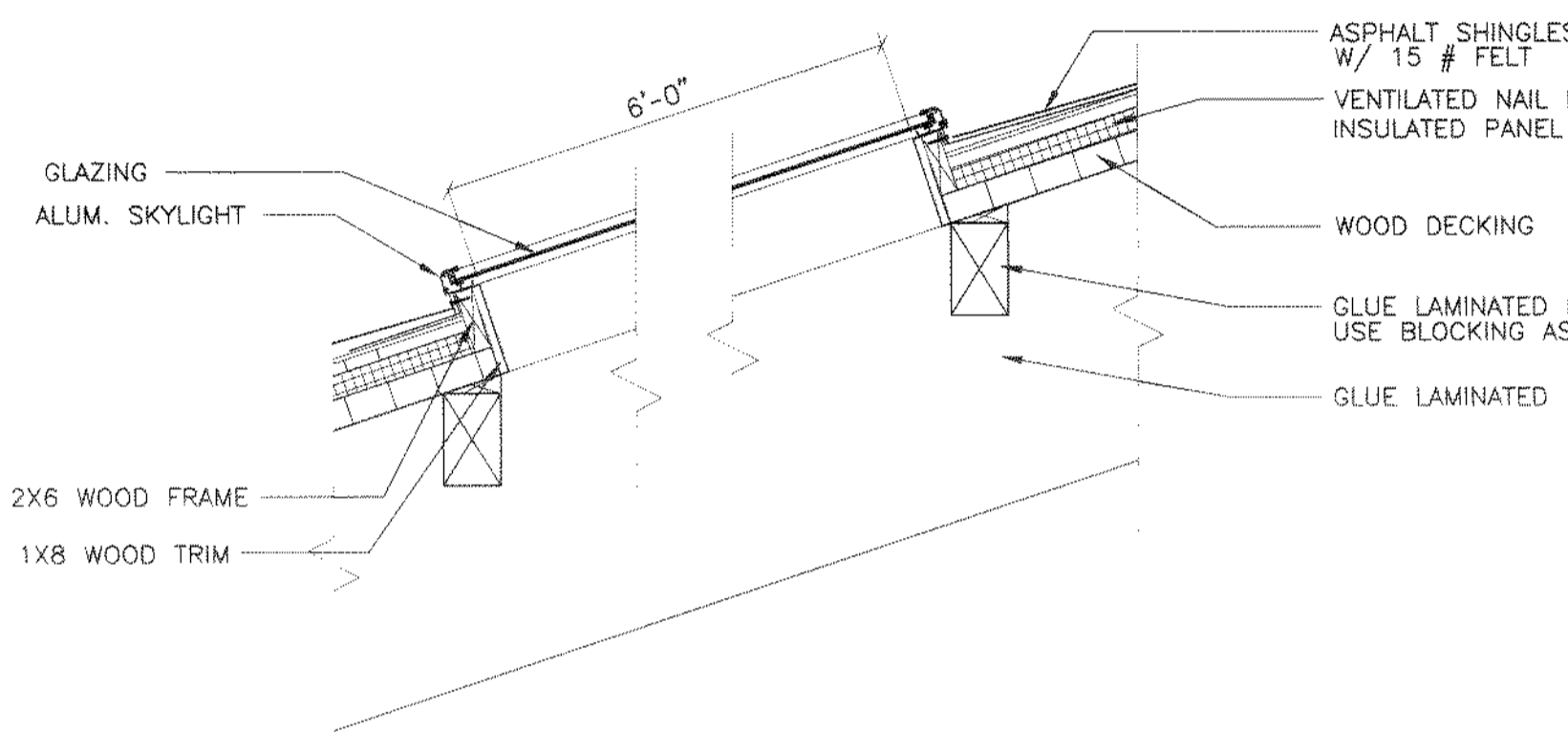
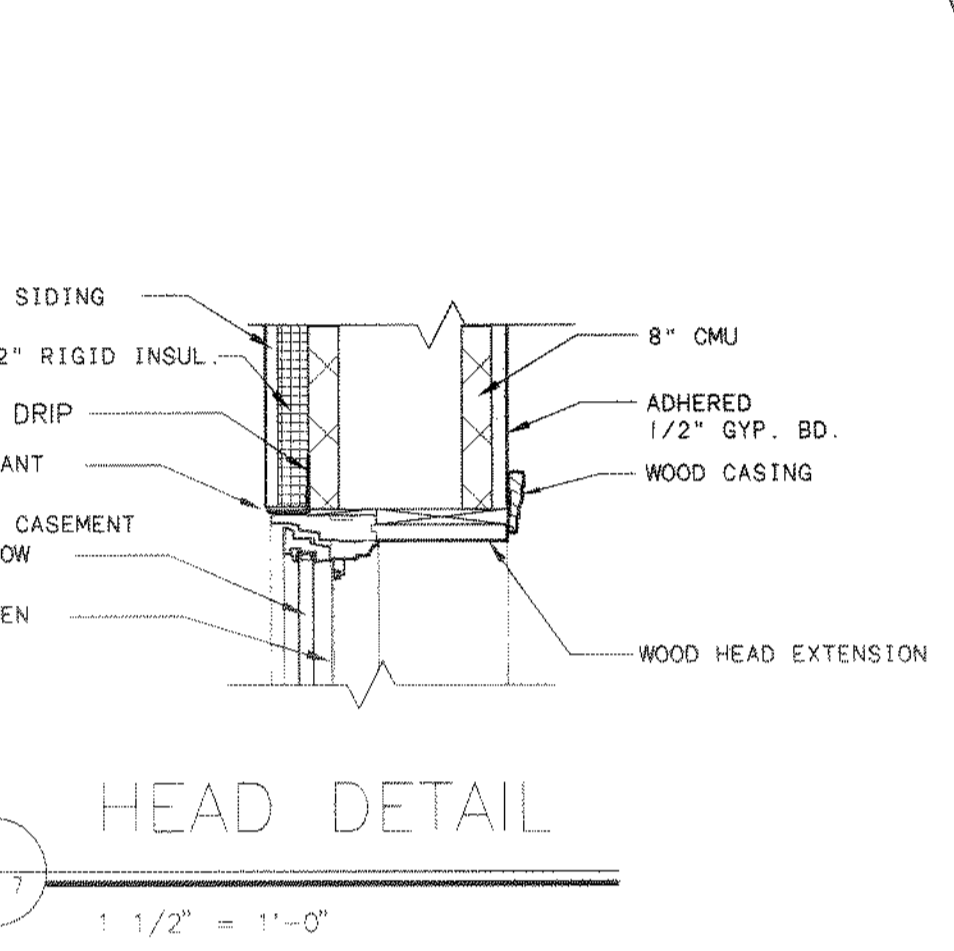
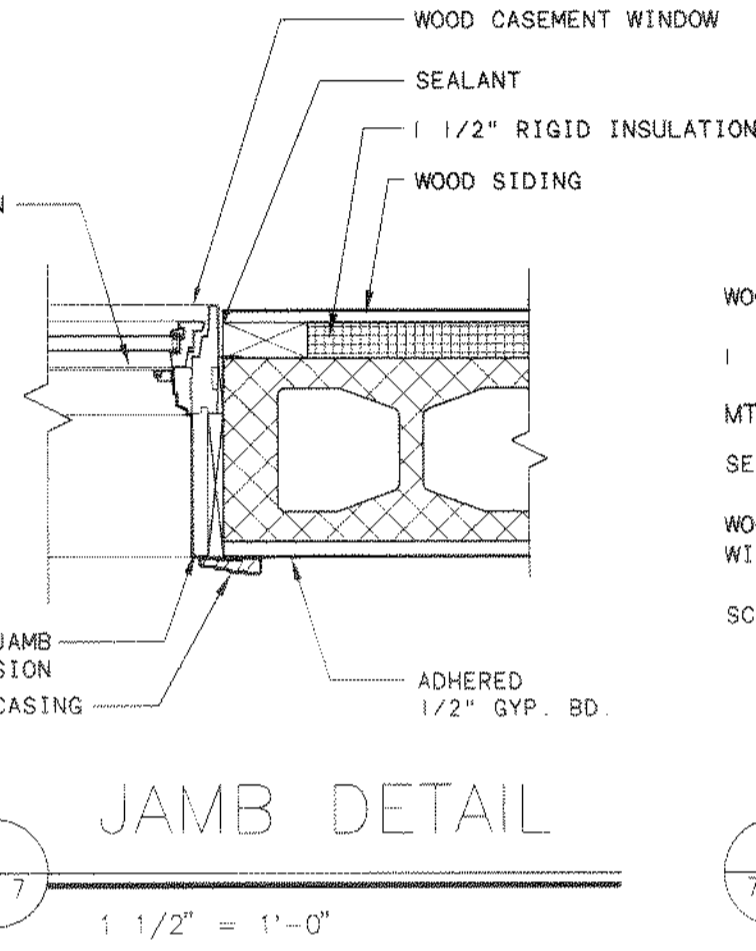
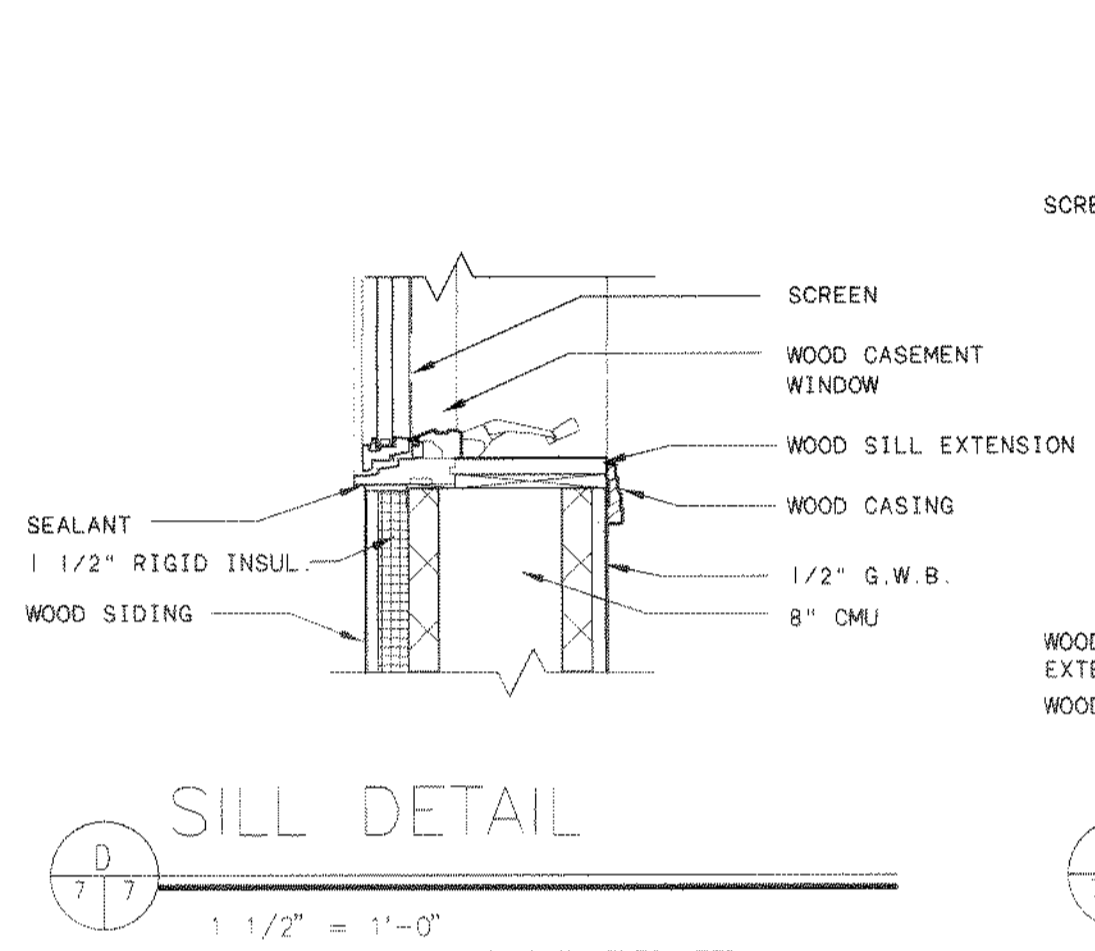
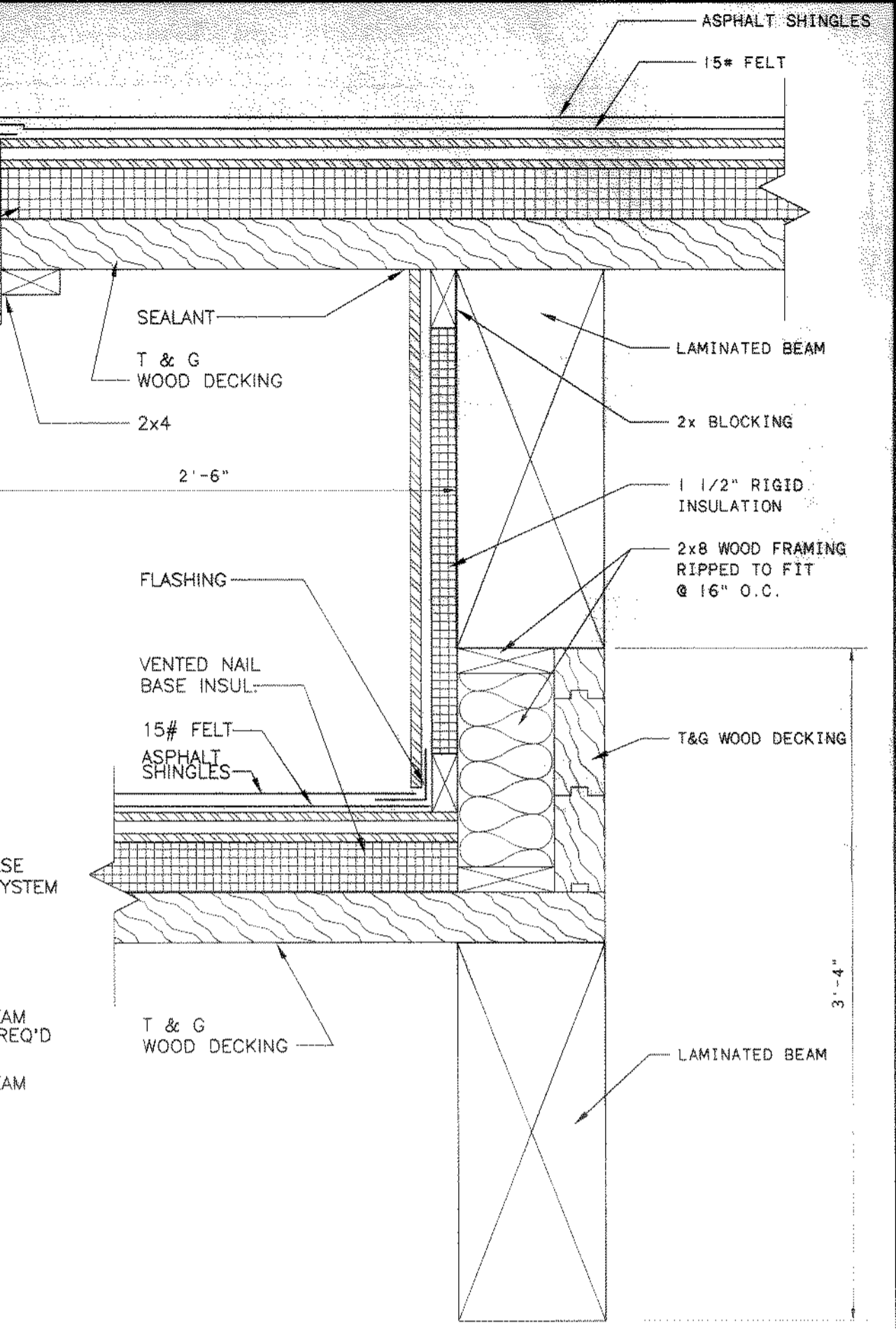
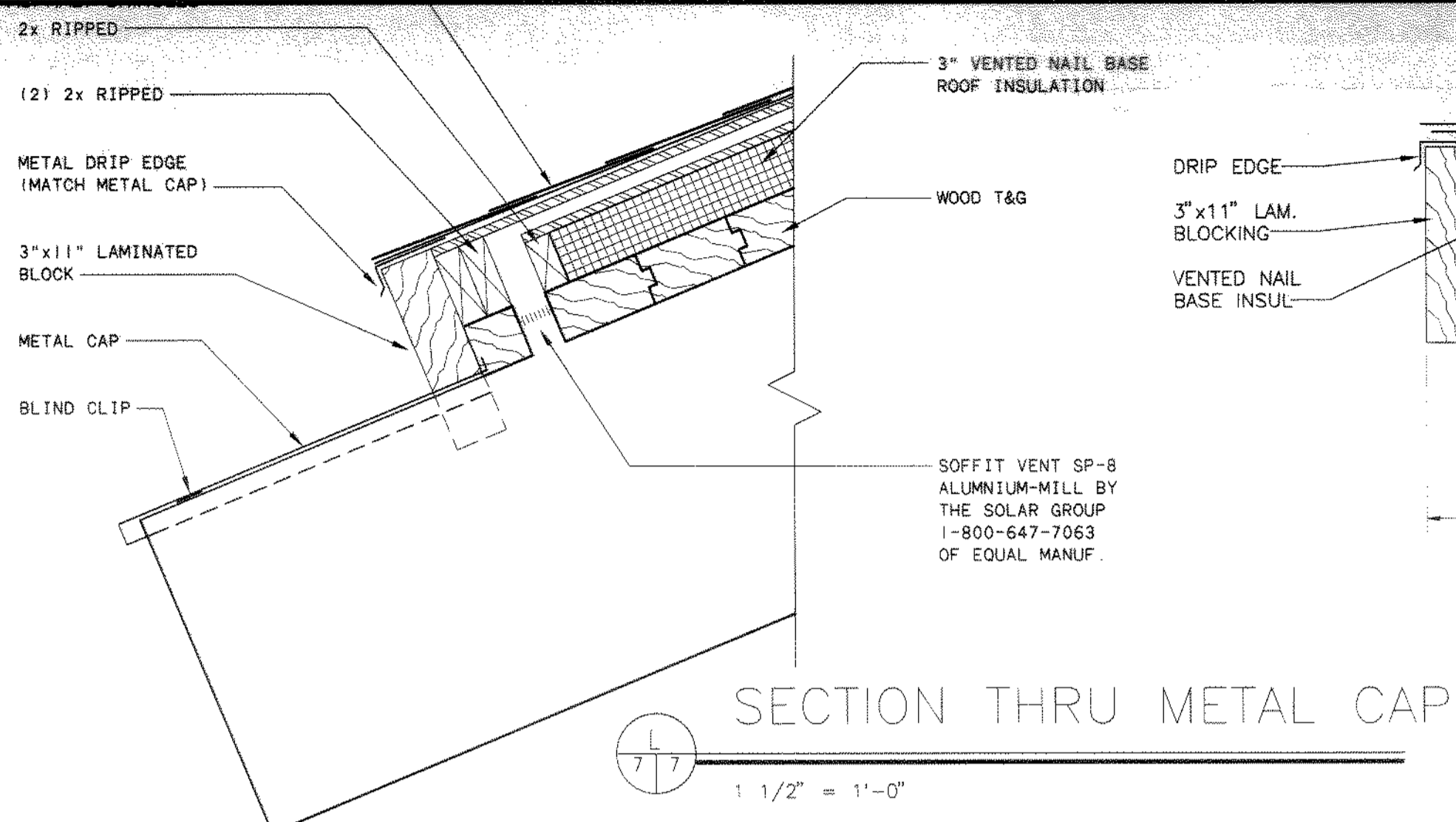
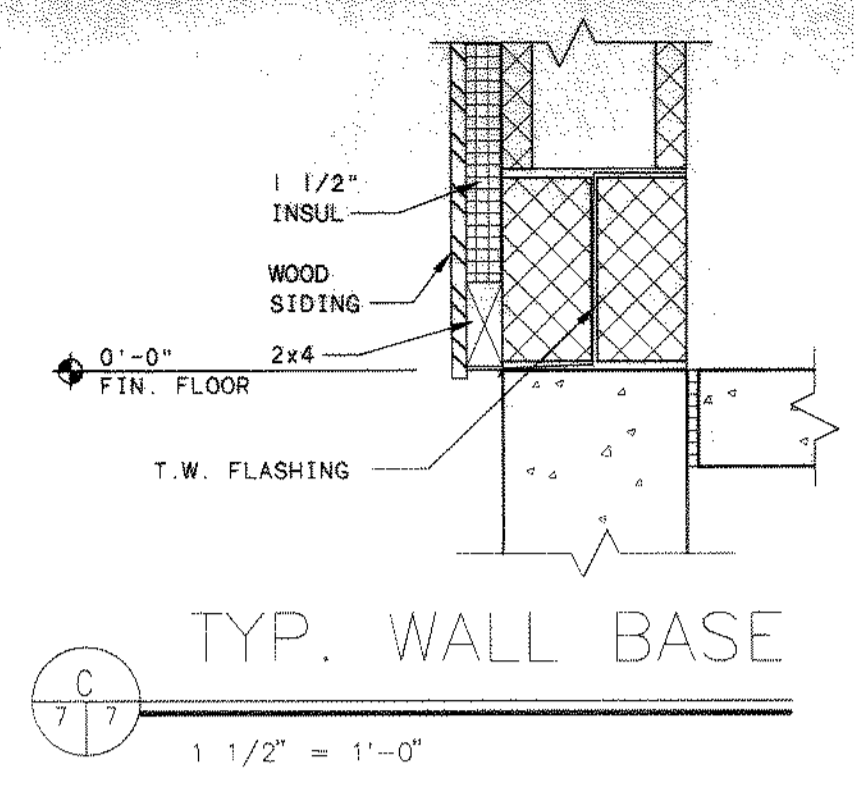
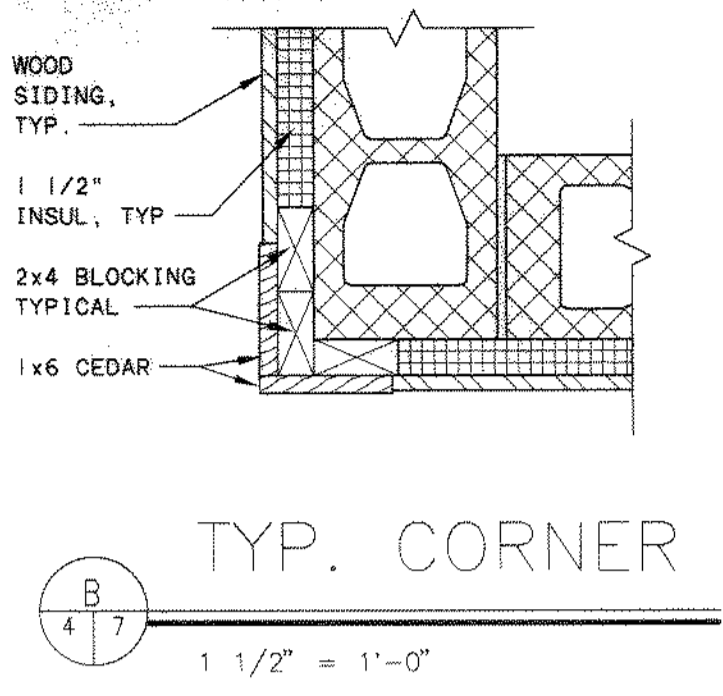
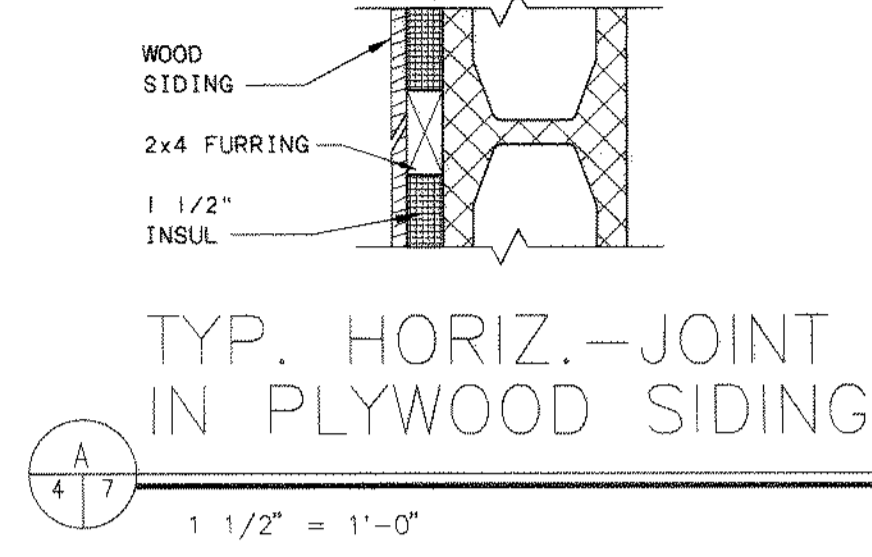
Burgess & Niple, Limited
 Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK WATER RECLAMATION FACILITY

JOB NO.	20571
DESIGNED BY:	SJC
DRAWN BY:	SJC
CHECKED BY:	TO
APPROVED BY:	RBD
DATE:	DECEMBER 1998

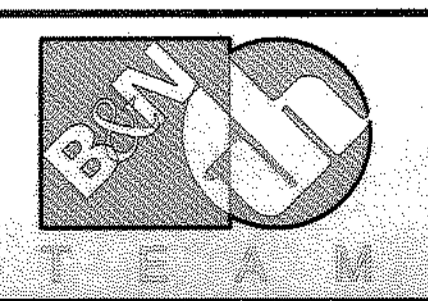
DOOR DETAILS

SCALE:	AS NOTED
SHEET NO.	72
OF	100



SH109.DWG 8-27-98 3:30:35 pm EST
 Tue Apr 02 10:28:56 1998

NO.	REVISIONS	DATE	BY	CHK.

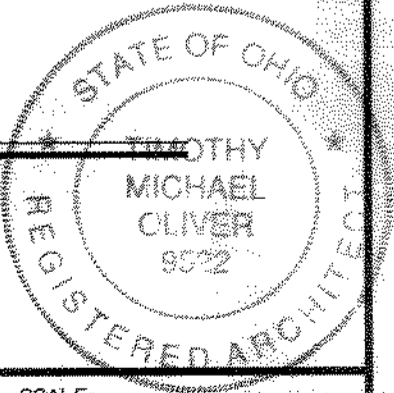


Burgess & Niple, Limited
 Jones & Henry Engineers, Ltd.

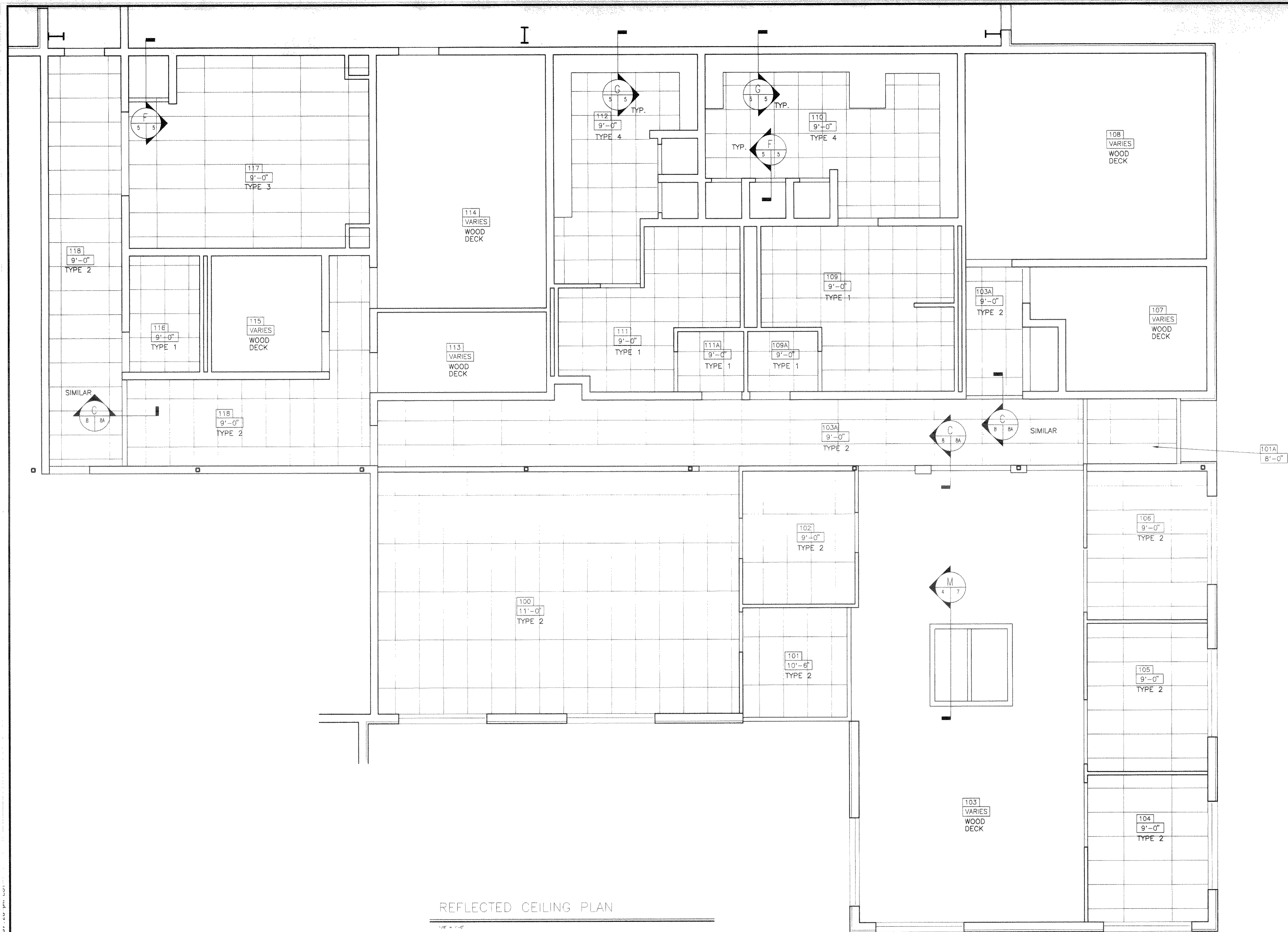
DELAWARE COUNTY, OHIO
 ALUM CREEK WATER RECLAMATION FACILITY

JOB NO.	20571
DESIGNED BY:	SJC/ TO
DRAWN BY:	SJC
CHECKED BY:	
APPROVED BY:	RBD
DATE:	DECEMBER 1998

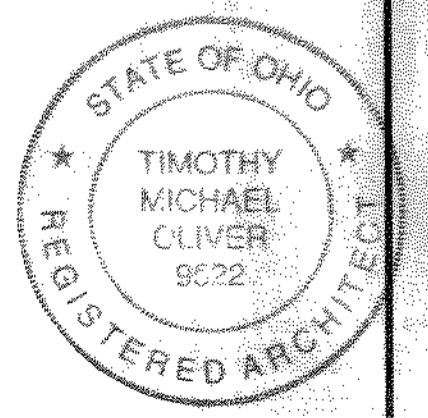
CENTRAL MAINTENANCE
 SECTION & DETAILS



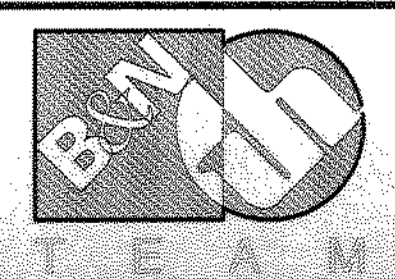
SCALE:	AS NOTED
SHEET NO.	73
OF	100



REFLECTED CEILING PLAN



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
 Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK WATER RECLAMATION FACILITY

JOB NO. 20571
 DESIGNED BY: TO
 DRAWN BY: SJC
 CHECKED BY:
 APPROVED BY: RBD
 DATE: DECEMBER 1998

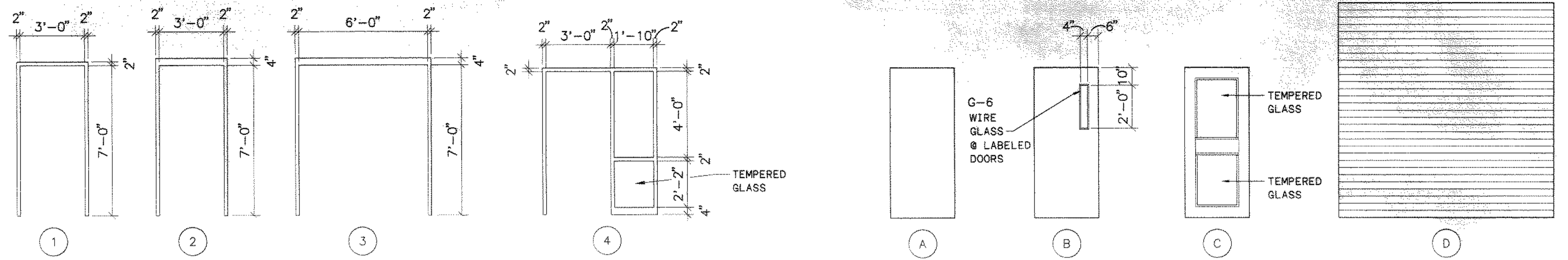
CENTRAL MAINTENANCE
 REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"
 SHEET NO. 74 OF 100

JOB No. 02 10-34-02 1998
 DATE: 12-15-98
 TIME: 10:00 AM

MAINTENANCE BUILDING DOOR SCHEDULE														
DOOR NO.	DOOR			FRAME										REMARKS
	W	H	T	MAT	GLASS	MAT	HEAD	JAMB	SILL	TYPE	HDW	LABEL		
100	3'-0"	7'-0"	3/4"	WD	A	HM	19	20	1	2	20 MIN.			
100A	3'-0"	7'-0"	3/4"	WD	A	HM	21	22	1	1	20 MIN.			
101	3'-0"	7'-0"	3/4"	ALUM	C	T	ALUM	6	4/7	3			STOREFRONT SYSTEM	
102	3'-0"	7'-0"	3/4"	WD	A	HM	19	20	1	2	20 MIN.			
103	3'-0"	7'-0"	3/4"	ALUM	C	T	ALUM	8	4/5	4			STOREFRONT SYSTEM	
104	3'-0"	7'-0"	3/4"	WD	A	HM	19	20/23	4	12				
105	3'-0"	7'-0"	3/4"	WD	A	HM	19	20/23	4	12				
106	3'-0"	7'-0"	3/4"	WD	A	HM	19	20/23	4	12				
107	3'-0"	7'-0"	3/4"	WD	A	HM	11	10	2	1	20 MIN.			
107A	2'-8"	7'-0"	3/4"	WD	A	HM	11	10	3	7	20 MIN.			
108	3'-6"	7'-0"	3/4"	WD	A	HM	11	10	2	1	20 MIN.			
109	2'-8"	7'-0"	3/4"	WD	A	HM	13	14/18	2	6				
109A	3'-0"	7'-0"	3/4"	WD	A	HM	11	10	2	5	20 MIN.			
110	3'-0"	7'-0"	3/4"	WD	A	HM	15	12	2	6				
111	3'-0"	7'-0"	3/4"	WD	A	HM	13	14/18	2	6				
111A	3'-0"	7'-0"	3/4"	WD	A	HM	11	10	2	5	20 MIN.			
112	3'-0"	7'-0"	3/4"	WD	A	HM	15	12	2	6				
113	3'-0"	7'-0"	3/4"	HM	A	HM	15	12	2	1	20 MIN.			
114	3'-0"	7'-0"	3/4"	HM	B	W	HM	15	12	2	1	20 MIN.		
114A	3'-0"	7'-0"	3/4"	HM	B	W	HM	15	12	2	2	1 HR.		
115	3'-0"	7'-0"	3/4"	HM	A	HM	15	12	2	1	20 MIN.			
116	3'-0"	7'-0"	3/4"	HM	A	HM	15	12	2	1	20 MIN.			
117	3'-0"	7'-0"	3/4"	WD	B	W	HM	11	10	2	1	20 MIN.		
118	3'-0"	7'-0"	3/4"	HM	B	W	HM	15	12	2	1	20 MIN.		
119	12'-0"	12'-0"		ALUM	D		26	25	24	15				
120	12'-0"	12'-0"		ALUM	D		26	25	24	15				
121	3'-0"	7'-0"	3/4"	HM	B	W	HM	15	12	2	2	1 HR.		
122	3'-0"	7'-0"	3/4"	HM	B	W	HM	15	12	2	1	1 HR.		
123	3'-0"	7'-0"	3/4"	HM	A	HM	16	17	2	10				
124	12'-0"	12'-0"		ALUM	D		26	25	24	15				
125	12'-0"	12'-0"		ALUM	D		26	25	24	15				
126	12'-0"	12'-0"		ALUM	D		26	25	24	15				
127	3'-0"	7'-0"	3/4"	HM	A	HM	16	17	2	10				
128	3'-0"	7'-0"	3/4"	HM	A	HM	16	17	2	10				
129	12'-0"	12'-0"		ALUM	D		26	25	24	15				
130	12'-0"	12'-0"		ALUM	D		26	25	24	15				
131	12'-0"	12'-0"		ALUM	D		26	25	24	15				
132	12'-0"	12'-0"		ALUM	D		26	25	24	15				
133	3'-0"	7'-0"	3/4"	HM	A	HM	16	17	2	10				
134	3'-0"	7'-0"	3/4"	ALUM	C	T	ALUM	9	1	3			STOREFRONT SYSTEM	
135	3'-0"	7'-0"	3/4"	ALUM	C	T	ALUM	8	2/3	4			STOREFRONT SYSTEM, HEAD SIMILAR	
136	3'-0"	7'-0"	3/4"	HM	A	HM	16	17	2	10				
137	3'-0"	7'-0"	3/4"	HM	A	HM	16	17	2	10				

NOTE: ALL HEAD & JAMB DETAILS FOR MAINTENANCE BUILDING ARE ON SHT. 6

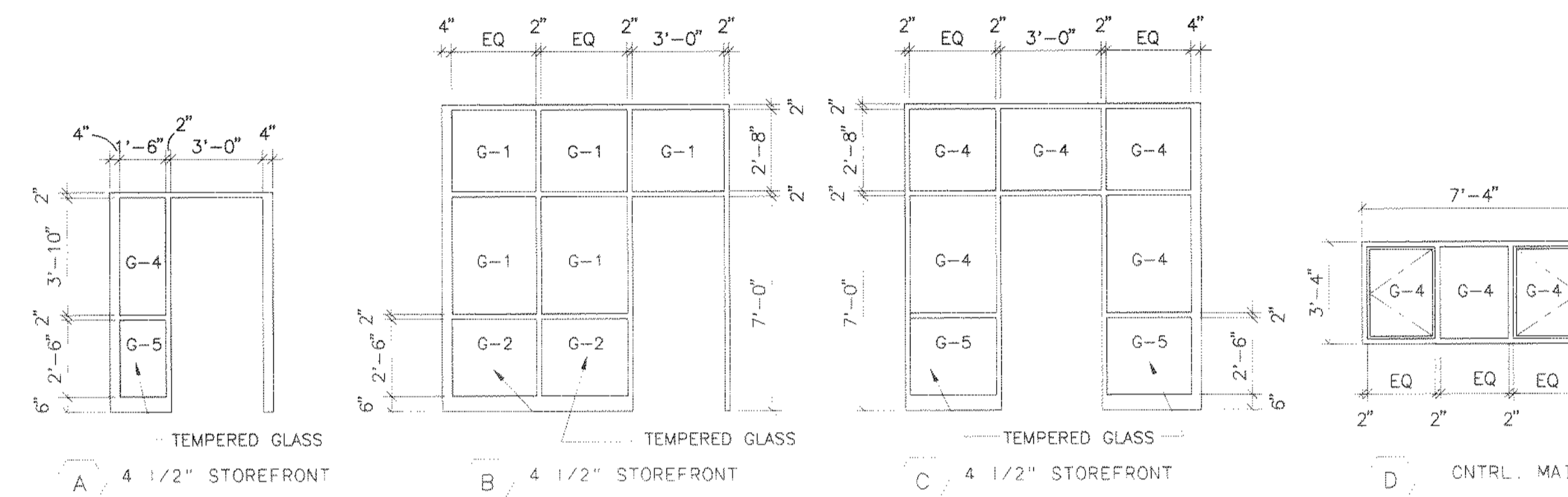


DOOR FRAME TYPES

1/4" = 1'-0"

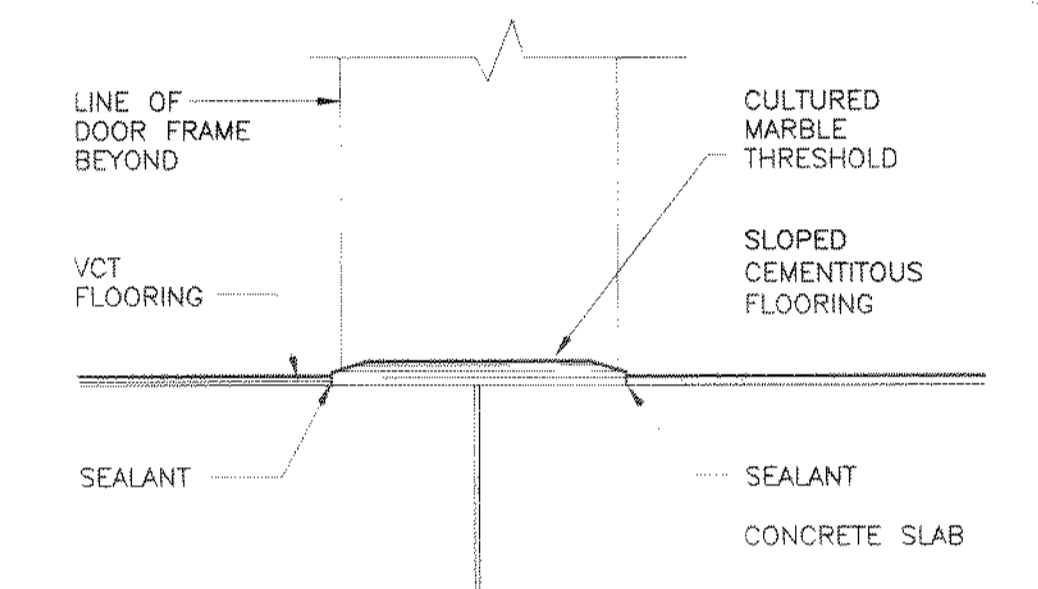
DOOR TYPES

1/4" = 1'-0"



WINDOW FRAME TYPES

1/4" = 1'-0"

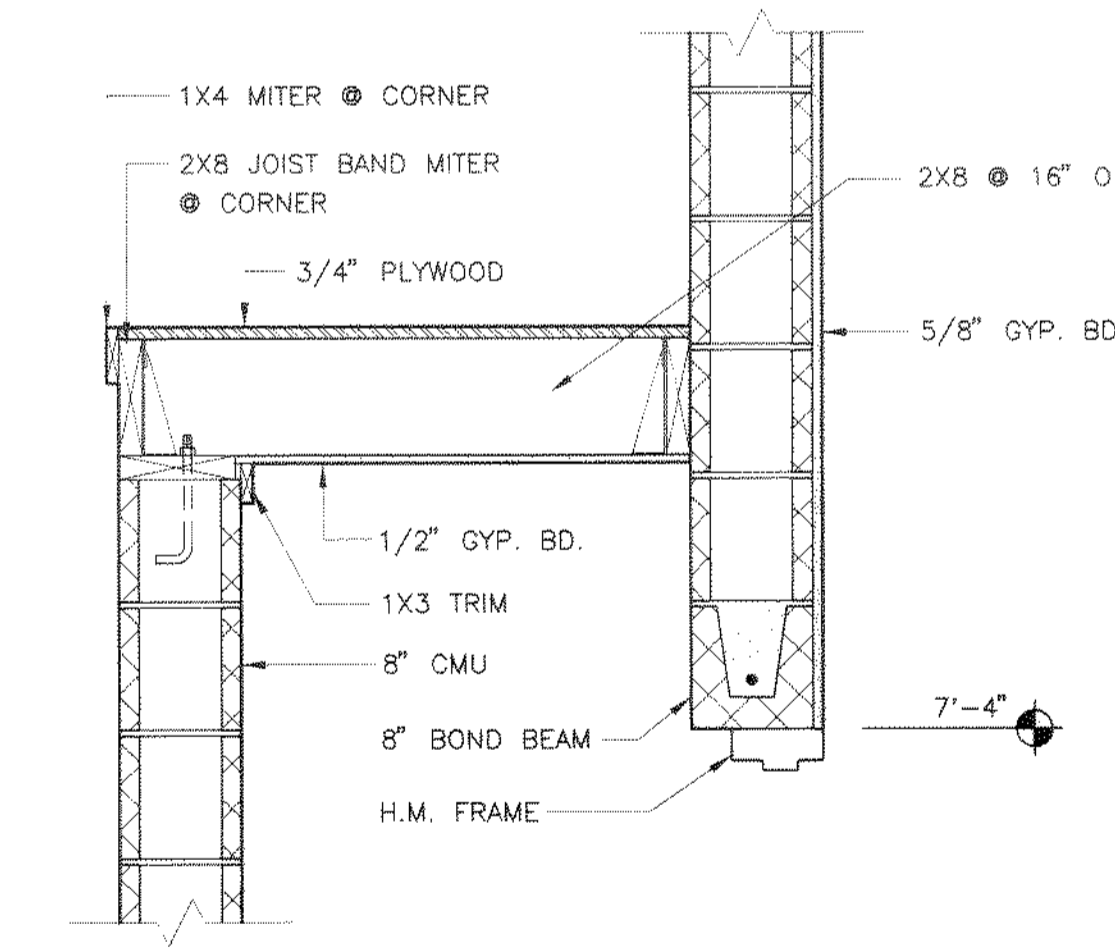


FLOOR TRANSITION

SCALE: 3" = 1'-0"

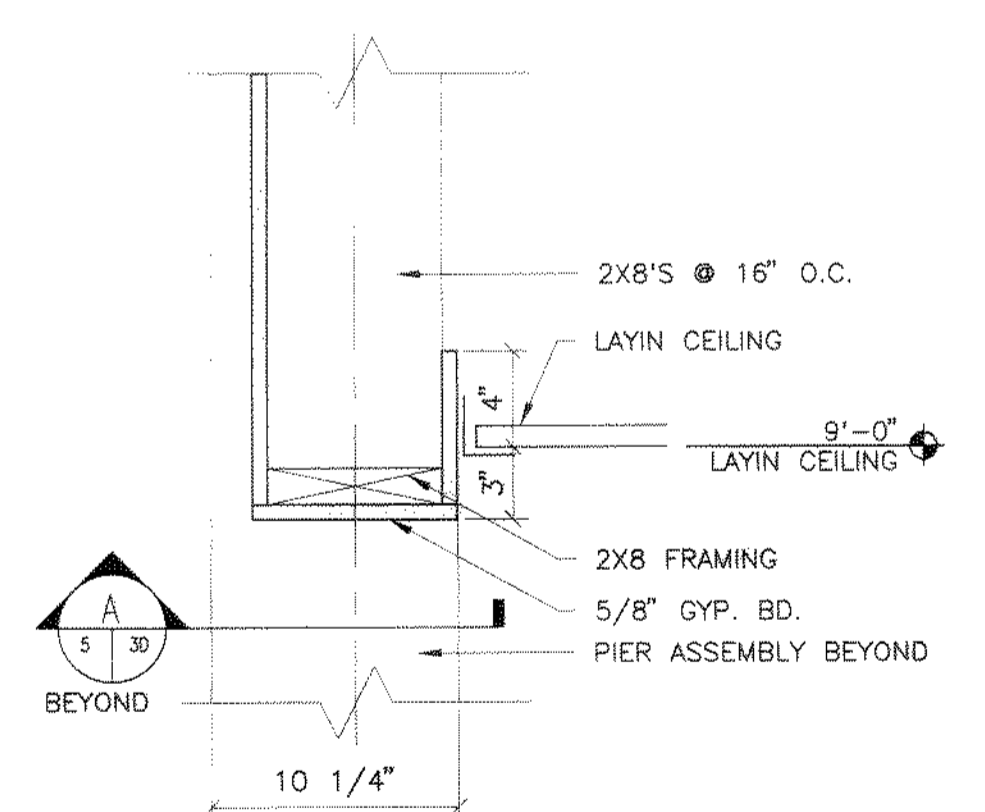
ROOM FINISH SCHEDULE															
ROOM NO.	DESCRIPTION	FLOOR		NORTH WALL		EAST WALL		SOUTH WALL		WEST WALL		CEILING			REMARKS
		BASE	MATERIAL	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FIN.	HEIGHT	
100	CONF. ROOM	RES.	CARPET	CMU	PAINT	GYP	PAINT	GYP	PAINT	CMU	PAINT	ACT2	11'-0"	PAINT SOFFIT ABOVE STOREFRONT	
101	VESTIBULE	RES.	VCT	GYP	PAINT	GYP	PAINT					ACT2	9'-0"	PAINT SOFFIT ABOVE STOREFRONT	
101A	VESTIBULE	RES.	VCT	CMU	PAINT	CMU	PAINT	GYP	PAINT	GYP	PAINT	ACT2	9'-0"		
102	KITCHEN	RES.	VCT	GYP	PAINT	GYP	PAINT	GYP	PAINT	GYP	PAINT	ACT2		EXPOSED WOOD DECK	
103	OFFICE/LIBRARY	RES.	CARPET	GYP	PAINT	GYP	PAINT	GYP	PAINT	GYP	PAINT	ACT2			
103A	CORRIDOR	RES.	VCT	GYP	PAINT	GYP	PAINT					ACT2			
104	OFFICE	RES.	CARPET	GYP	PAINT	GYP	PAINT	GYP	PAINT	GYP	PAINT	ACT2			
105	OFFICE	RES.	CARPET	GYP	PAINT	GYP	PAINT	GYP	PAINT	GYP	PAINT	ACT2			
106	OFFICE	RES.	CARPET	GYP	PAINT	GYP	PAINT	GYP	PAINT	GYP	PAINT	ACT2			
107	SUPPLY		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	
107A	CLOSET		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	GYP.	8'-8"		
108	MECHANICAL		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	
109	MEN'S TOILET		SEALER(1)	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	ACT1	9'-0"	* EPOXY PAINT	
109A	VESTIBULE	RES.	VCT	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	ACT1	9'-0"		
110	SHOWER		SEALER(1)	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	ACT4	9'-0"	* EPOXY PAINT, CT SHOWERS	
111	WOMEN'S TOILET		SEALER(1)	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	ACT1	9'-0"	* EPOXY PAINT	
111A	VESTIBULE	RES.	VCT	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	ACT1	9'-0"		
112	SHOWER		SEALER(1)	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	ACT4	9'-0"	* EPOXY PAINT, CT SHOWERS	
113	ELECTRICAL		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	
114	SMALL PARTS		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	
115	MECHANICAL		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	
116	TOILET	RES.	VCT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	ACT1	9'-0"	* EPOXY PAINT	
117	LOCKER ROOM		SEALER(1)	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	CMU	*PAINT	ACT3	9'-0"	* EPOXY PAINT, CT SHOWERS	
118	CORRIDOR		VCT	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	ACT2	9'-0"		
119	VESTIBULE		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT	ACT2	9'-0"		
120	GARAGE		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	
121	OPERATIONS		CONC./SEAL	CMU	PAINT	CMU	PAINT	CMU	PAINT	CMU	PAINT			EXPOSED WOOD DECK	

SEALER (1) SHALL BE CEMENTITIOUS WITH INTEGRAL COLOR BY TILE-RETE OR STONEHARD OR EQUAL



SECTION - CLOSET

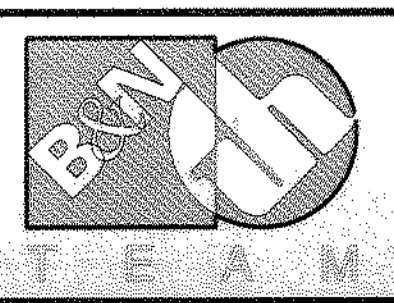
SCALE: 3/4" = 1'-0"



SECTION - OFFICE/LIBRARY

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

NO.	REVISIONS	DATE	BY	CHK.

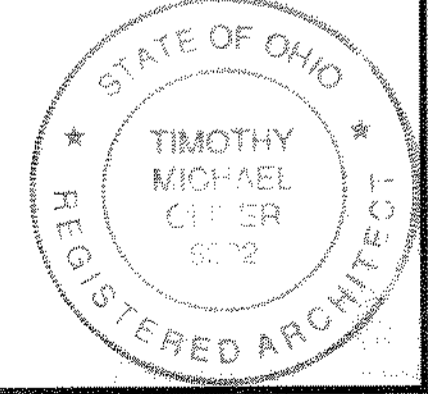


Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK WATER RECLAMATION FACILITY

JOB NO.	20571
DESIGNED BY:	SJC/DI
DRAWN BY:	SJC/DI
CHECKED BY:	TO
APPROVED BY:	RD
DATE:	DECEMBER 1998

DOOR SCHEDULE,
DOOR & FRAME TYPES
WINDOW TYPES

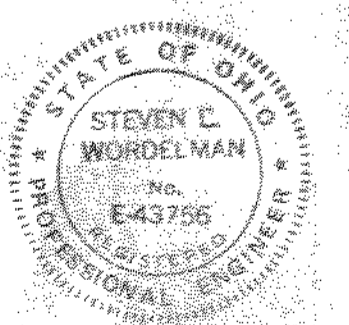


SCALE:	AS NOTED
SHEET NO.	75
OF	100

STRUCTURAL DESIGN DATA		
BUILDING CODE	1998 OHIO BASIC BUILDING CODE	
SEISMIC	SEISMIC HAZARD EXPOSURE GROUP EFFECTIVE PEAK VELOCITY-RELATED ACCELERATION SITE COEFFICIENT SEISMIC PERFORMANCE CATEGORY	II AV = 0.077 S = 1.5 B
WIND	BASIC WIND SPEED EXPOSURE IMPORTANCE FACTOR	V = 80 MPH C I = 1.00
SNOW	GROUND SNOW LOAD SNOW EXPOSURE FACTOR IMPORTANCE FACTOR	PG = 25 PSF CE = 0.7 I = 1.0
FLOOR	LIVE LOAD (AS SHOWN) MECHANICAL & ELECTRICAL (ACTUAL LOADS) PARTITIONS	100 PSF (MIN.) 10 PSF (MIN.) 20 PSF (MIN.)
ROOF	LIVE LOAD } APPLY LARGER LOAD SNOW LOAD } (SEE ABOVE) MECHANICAL & ELECTRICAL (ACTUAL LOADS) ROOFING SYSTEM	20 PSF (MIN.) (SEE ABOVE) 10 PSF (MIN.) 15 PSF (MIN.)
STAIRS	LIVE LOAD	100 PSF
CORRIDORS	LIVE LOAD	100 PSF
EQUIPMENT PLATFORMS	LIVE LOAD (AS SHOWN)	100 PSF MIN.
BEARING CAPACITY	PRESUMED BEARING CAPACITY AT 4' FT. BELOW GRADE	3000 PSF

GENERAL NOTES:

- LAP SPLICES, CONSTRUCTION JOINT DETAILS, WALL CORNER REINFORCEMENT DETAILS, JOINT SEALING DETAILS, SHEAR KEY DETAILS, ETC., UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SHALL ADHERE TO STANDARD STRUCTURAL DETAIL DRAWINGS.
- VERTICAL CONSTRUCTION JOINTS SHALL BE LOCATED TO MINIMIZE SHRINKAGE CRACKS AND NOT TO ADVERSELY AFFECT THE STRENGTH OF THE STRUCTURE. WALLS SHALL NOT BE PLACED IN SEGMENTS GREATER THAN 50 FT. AT A TIME.
- HORIZONTAL REBARS SHALL BE SPLICED WITHIN THE LIMITS OF "ADJACENT POURS" TO BE POURED LATER TO ALLOW FOR UNRESTRAINED SHRINKAGE MOVEMENTS. ADJACENT SPLICES SHOULD BE STAGGERED HORIZONTALLY BY NOT LESS THAN ONE LAP LENGTH OR 3'-0", WHICHEVER IS GREATER.
- NO BACKFILLING SHALL BE DONE UNTIL HORIZONTAL SLAB SUPPORT OR CROSS-BRACING WALLS ARE IN PLACE. ANY TEMPORARY BRACING REQUIRED TO SUPPORT WALLS DURING CONSTRUCTION SHALL BE DESIGNED AND INSTALLED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ULTIMATE STRENGTH OF CONCRETE AT 28 DAYS (FC') SHALL BE MINIMUM 4000 PSI. REINFORCING BARS SHALL CONFORM TO DEFORMED BILLET STEEL SPECIFICATION ASTM A615 AND SHALL HAVE MINIMUM YIELD STRENGTH OF 60 KSI.
- THE CONTRACTOR SHALL MAINTAIN ADEQUATE SUPERVISION AND CONTROL OF DEWATERING OPERATIONS (IF REQUIRED) TO ENSURE THAT STABILITY OF EXCAVATED AND CONSTRUCTED SLOPES ARE NOT ADVERSELY AFFECTED BY INFLOW OF GROUNDWATER AND TO PERMIT PLACEMENT AND CURING OF CONCRETE UNDER CONTROLLED ENVIRONMENTS.
- ALL MASONRY IS DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530-95/ASCE 5-95/TMS 402-95) AND MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF THIS CODE.
- WOODEN BEAMS AND DECK ARE DESIGNED IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" 1997 EDITION. (ANSI/AF&PA NDS-1997) MATERIALS SHALL CONFORM TO THIS STANDARD.
- THE BACKFILL UNDERNEATH BASE SLABS SHALL BE SPECIAL BACKFILL, UNLESS OTHERWISE APPROVED, IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE WELL COMPACTED TO NOT LESS THAN 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE MODIFIED PROCTOR TEST ASTM D-1557.
- STRUCTURAL STEEL COMPONENTS (STEEL BEAMS) ARE DESIGNED IN ACCORDANCE WITH "MANUAL OF STEEL CONSTRUCTION" ASD (NINTH EDITION) AND SHALL BE ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS CODE.
- WHEREVER REINFORCEMENT REQUIREMENTS FOR STRUCTURAL COMPONENTS (BEAMS, SLABS, WALLS, ETC.) DON'T AGREE AMONG DIFFERENT SECTIONS, THE MOST CONSERVATIVE REQUIREMENT AMONG THEM WILL GOVERN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- UNLESS OTHERWISE SHOWN OR SPECIFIED, ALL VERTICAL / HORIZONTAL DOWELS INTO SUPPORTING STRUCTURAL COMPONENTS SHALL MATCH THE MAIN REINFORCEMENT.
- VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS AT INTERFACE BETWEEN EXISTING & NEW CONSTRUCTION BEFORE STARTING TO FABRICATE STRUCTURAL STEEL OR DETAILING REBARS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.
- DURING CONSTRUCTION OF NEW STRUCTURES OR STRUCTURAL ELEMENTS, PREVENT UNDERMINING THE FOUNDATIONS OF NEARBY EXISTING STRUCTURES BY SHEET PILING OR BY UNDERPINNING AS REQUIRED. TAKE ALL NECESSARY PROTECTIVE MEASURES TO PREVENT DAMAGE TO THE EXISTING STRUCTURES. CAREFULLY MONITOR THE SETTLEMENT OF EXISTING STRUCTURES DURING SHEET PILING OR UNDERPINNING OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF SHEET PILING OR UNDERPINNING OPERATIONS & SHALL SUBMIT THIS DESIGN TO THE ENGINEER FOR REVIEW.
- CRANE BEAMS SHALL BE STRAIGHT AND PARALLEL. THE WHEEL RUNNING SURFACE SHALL BE AT A CONSTANT ELEVATION. HAVE NO TRANSVERSE TILT AND SHALL BE HELD IN ALIGNMENT AT JOINTS.
- THE CONTRACTOR SHALL ENSURE THAT FOUNDATIONS REST ON FIRM MATERIAL OVER THEIR ENTIRE AREA. THE TESTING LAB SHALL VERIFY THAT A SOIL BEARING CAPACITY OF AT LEAST 3000 PSF IS OBTAINED. THE BEARING CAPACITY VERIFICATION IS REQUIRED AT REGULAR INTERVALS IN EACH DIRECTION. NOTIFY THE ENGINEER OF ANY UNSUITABLE SOIL ENCOUNTERED. SUCH SOIL SHALL BE REMOVED AND REPLACED WITH COMPACTED SPECIAL BACKFILL AS DIRECTED BY THE ENGINEER.
- UNLESS OTHERWISE APPROVED, BACKFILL AGAINST CONCRETE WALLS SHALL BE A WELL GRADED GRANULAR MATERIAL.



NO.	REVISIONS	DATE	BY	CHK.



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Jones & Henry Engineers, Ltd.

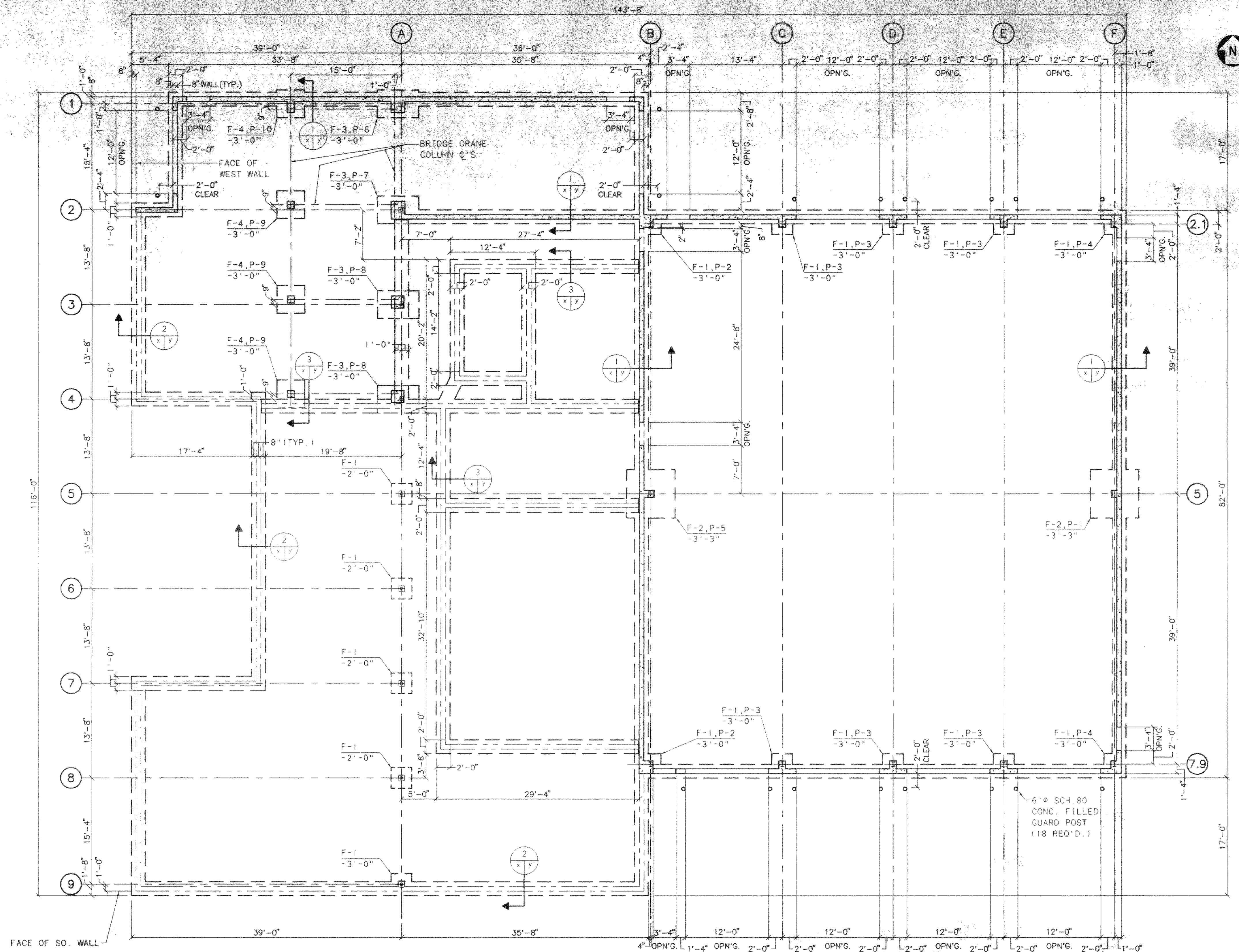
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	MVD
DRAWN BY:	PMc
CHECKED BY:	MVD
APPROVED BY:	SLW
DATE:	1999

CENTRAL MAINTENANCE FACILITY
STRUCTURAL
GENERAL NOTES & DESIGN LOADS

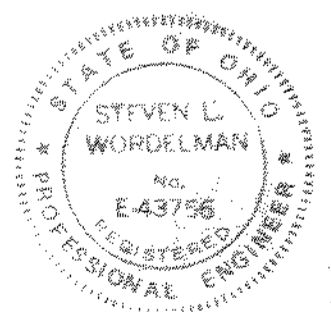
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SHEET NO.	76
OF	100

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03/04/99 09:14

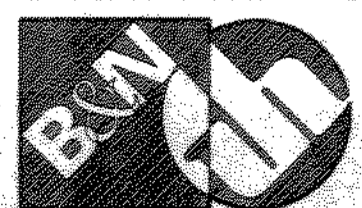


FOUNDATION PLAN
1/8" = 1'-0"

LEGEND
 INDICATES FOOTING AND PIER DESIGNATION (IF APPLICABLE)
 INDICATES DEPTH OF FOOTING BELOW FIN. FLR. (FIN. FLR. = 772.25)



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

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APPROVED BY:	SLW
DATE:	1999

**CENTRAL MAINTENANCE FACILITY
FOUNDATION PLAN**

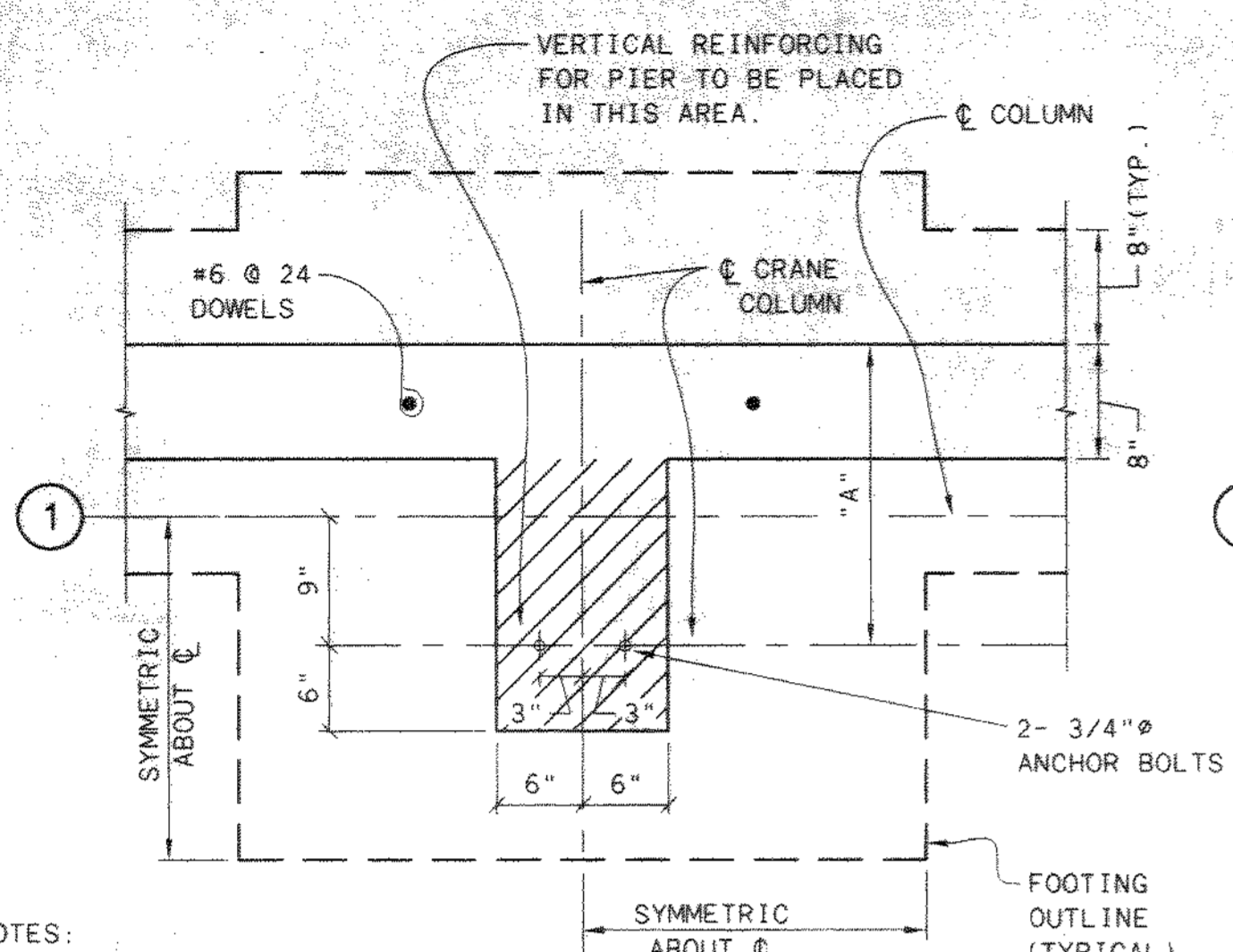
SCALE:	1/8" = 1'-0"
SHEET NO.	77
OF	100

10/11/99 04:14

PIER SCHEDULE				
DESIGNATION	A	B	REINFORCING	T/PIER ELEV.
P-1	1'-0"	-	6-#5 W/#3 TIES @ 10"	+ 3'-4"
P-2	1'-4"	1'-8"	8-#6 W/#3 TIES @ 12"	+ 3'-4"
P-3	1'-4"	-	6-#5 W/#3 TIES @ 10"	+ 3'-4"
P-4	1'-4"	1'-0"	8-#5 W/#3 TIES @ 10"	+ 3'-4"
P-5	1'-8"	-	6-#5 W/#3 TIES @ 10"	+ 3'-4"
P-6	1'-0"	-	8-#5 W/#3 TIES @ 10"	+ 3'-4"
P-7	1'-4"	-	8-#6 W/#3 TIES @ 12"	+ 3'-4"
P-8	-	-	8-#5 W/#3 TIES @ 10"	+ 0'-0"
P-9	-	-	4-#5 W/#3 TIES @ 10"	+ 0'-0"
P-10	1'-9"	-	6-#5 W/#3 TIES @ 10"	+ 3'-4"

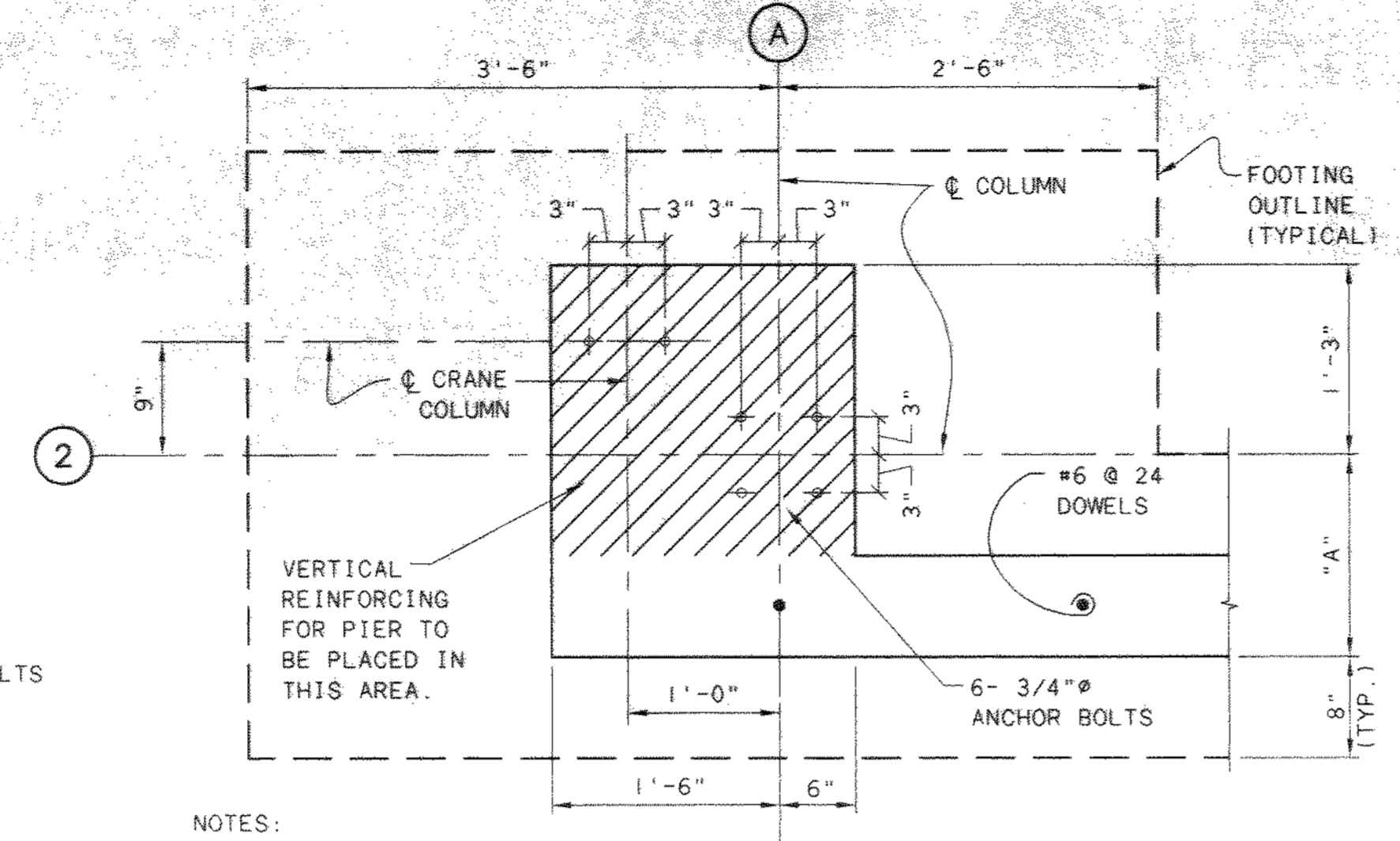
FOOTING SCHEDULE		
DESIGNATION	SIZE	REINFORCING
F-1	3'-0"x3'-0"x1'-0" THK.	4-#4 EACH WAY
F-2	7'-0"x7'-0"x1'-3" THK.	7-#6 EACH WAY
F-3	4'-0"x6'-0"x1'-0" THK.	6-#5 SHORT WAY 4-#5 LONG WAY
F-4	4'-0"x4'-0"x1'-0" THK.	5-#5 EACH WAY

- NOTES:
- FOOTING SIZE BASED ON AN ALLOWABLE SOIL BEARING VALUE OF 3000 PSF. NOTIFY ENGINEER IF UNSOUND CONDITIONS EXIST.
 - WHERE NO PIER IS PRESENT, EMBED ANCHOR BOLTS INTO FOOTING.



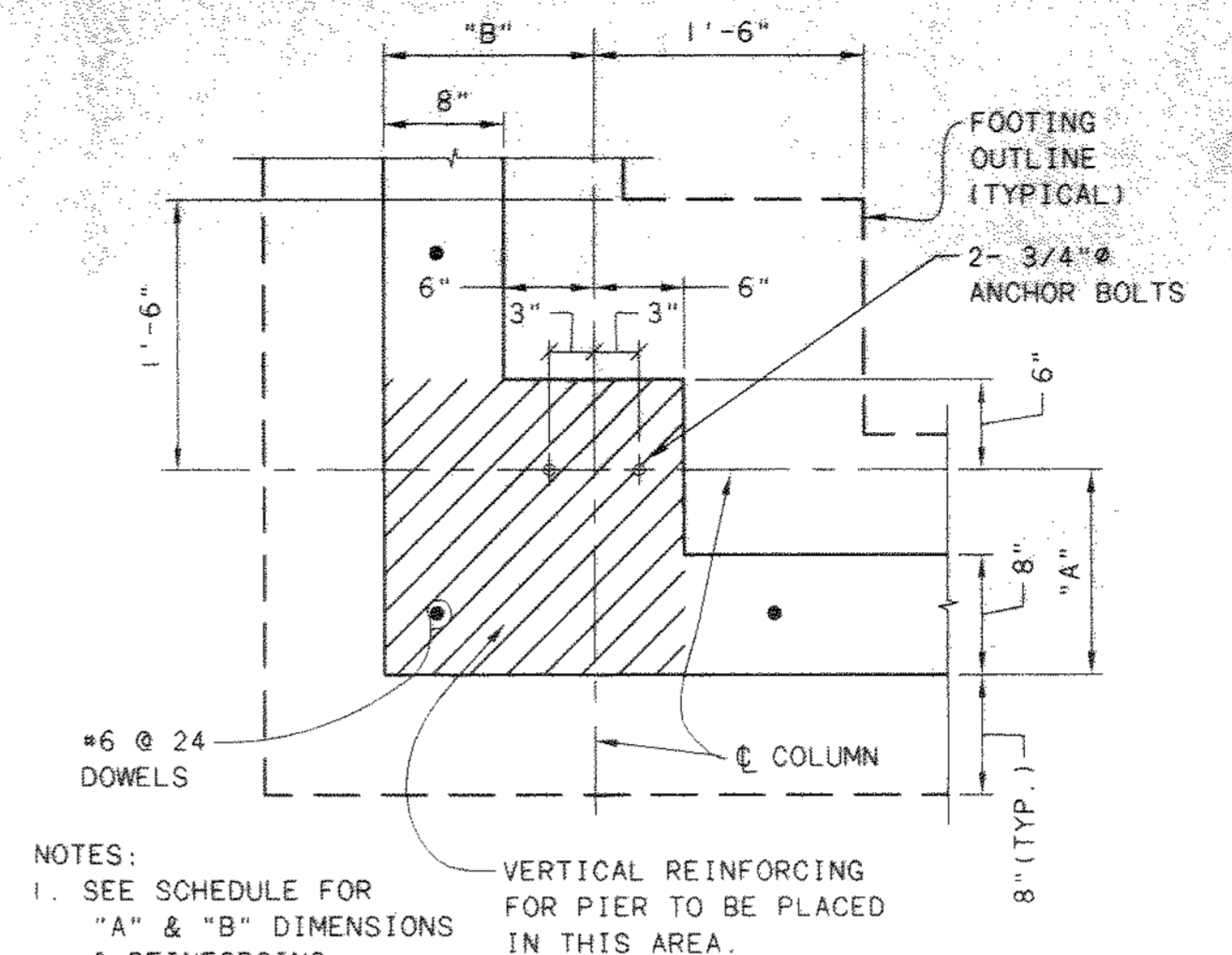
- NOTES:
- SEE SCHEDULE FOR DIMENSION "A" & REINFORCING.
 - HORIZONTAL REINFORCING FOR WALL SHALL CONTINUE THROUGH PIER.

DETAIL-PIER P-10
1" = 1'-0"



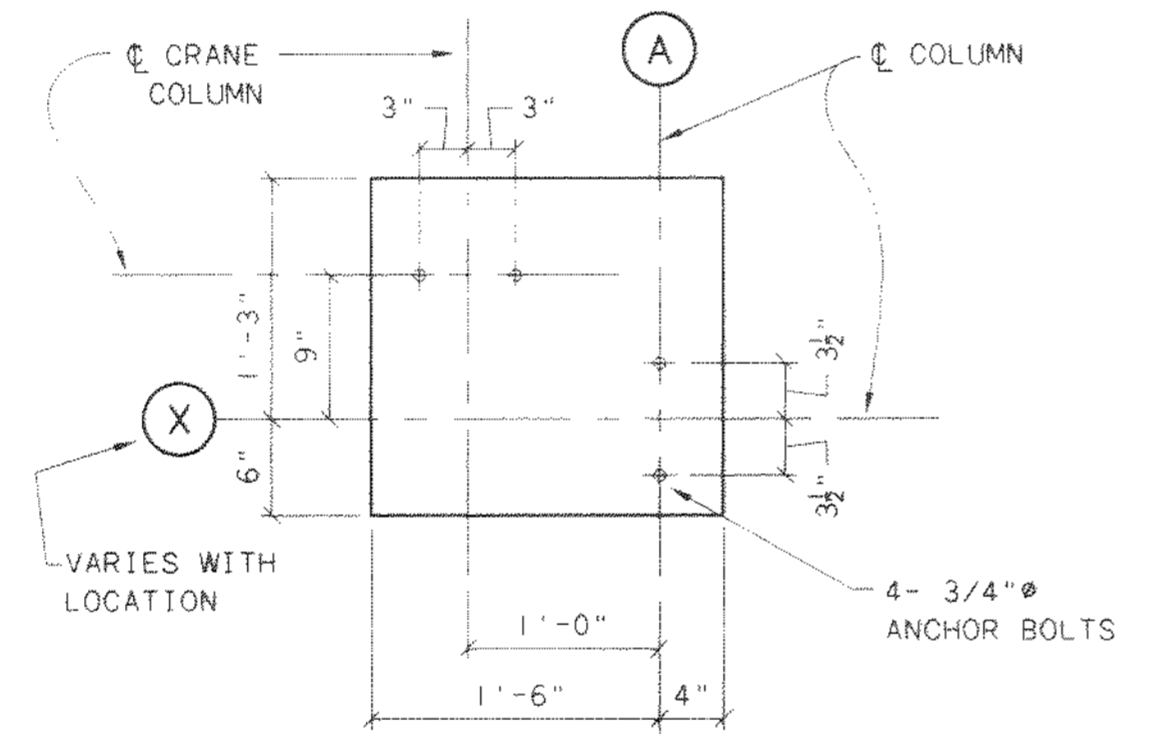
- NOTES:
- SEE SCHEDULE FOR DIMENSION "A" & REINFORCING.
 - HORIZONTAL REINFORCING FOR WALL SHALL CONTINUE THROUGH PIER.

DETAIL-PIER P-7
1" = 1'-0"

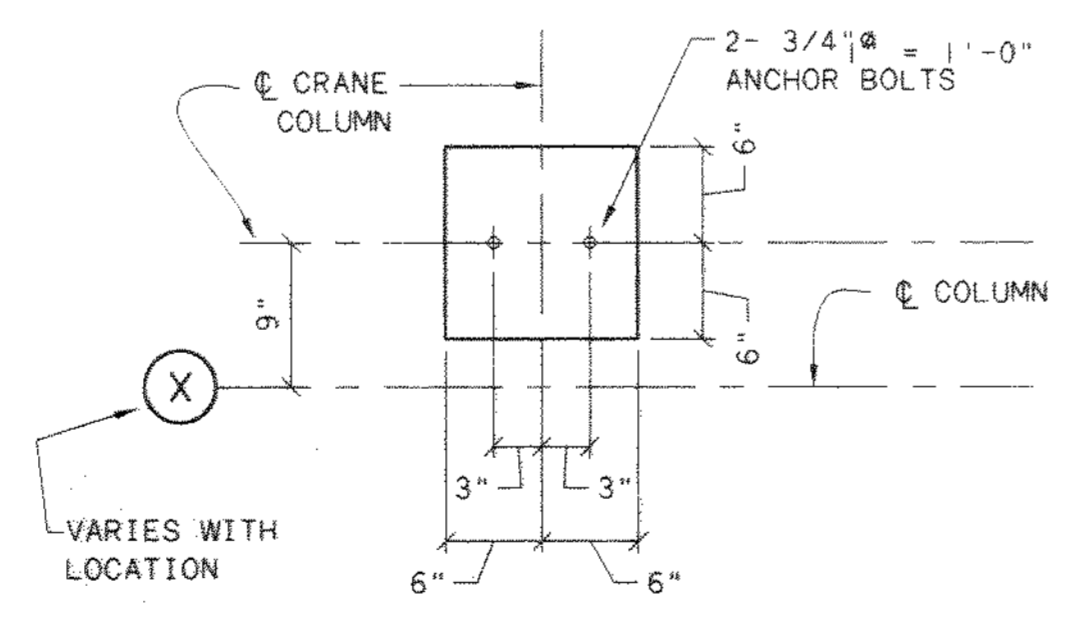


- NOTES:
- SEE SCHEDULE FOR "A" & "B" DIMENSIONS & REINFORCING.
 - HORIZONTAL REINFORCING FOR WALLS TO CONTINUE INTO PIER AND INCLUDE #4@12 CORNER REINFORCING.

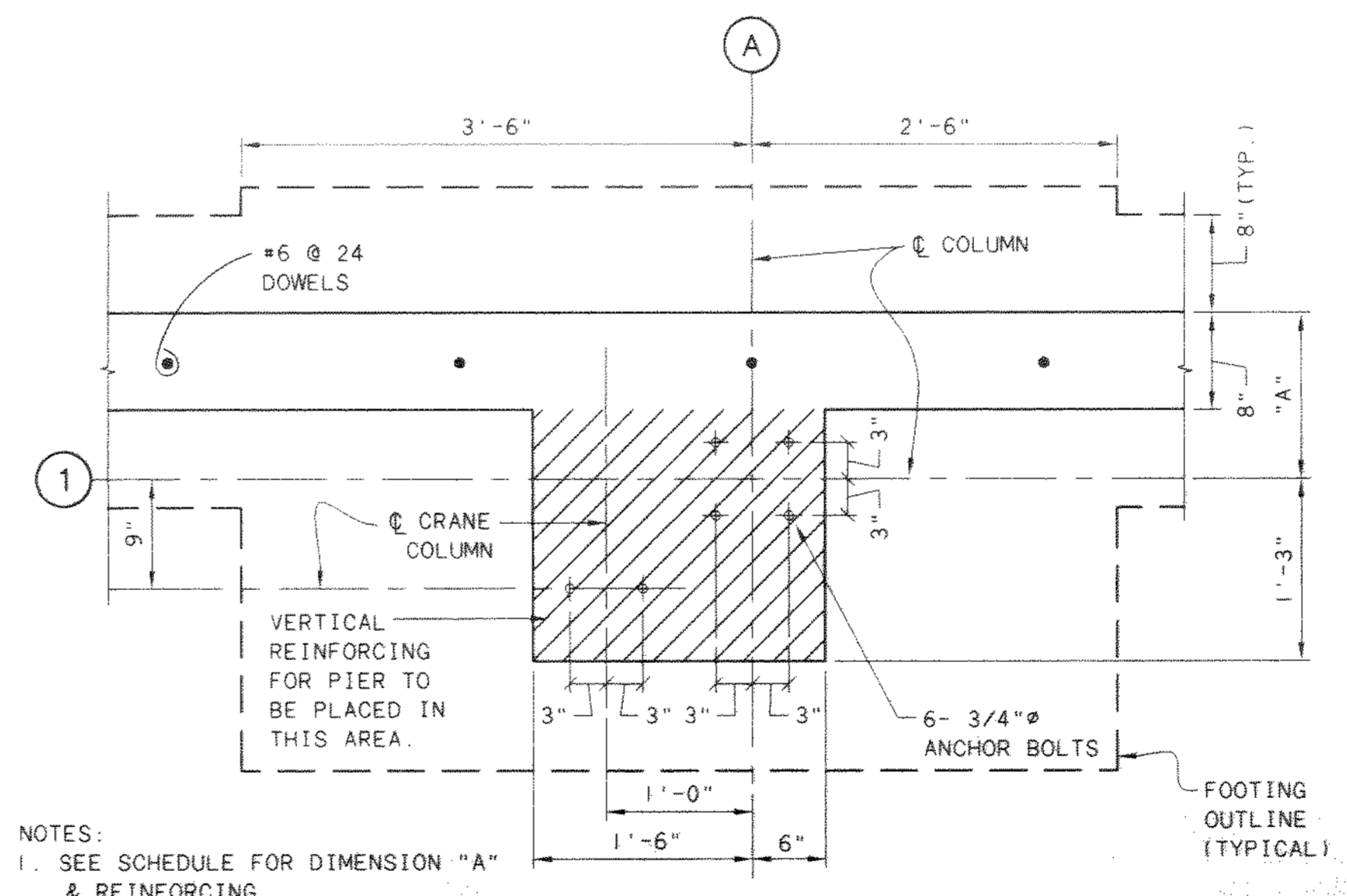
DETAIL-PIERS P-2, & P-4
1" = 1'-0"



DETAIL-PIER P-8
1" = 1'-0"

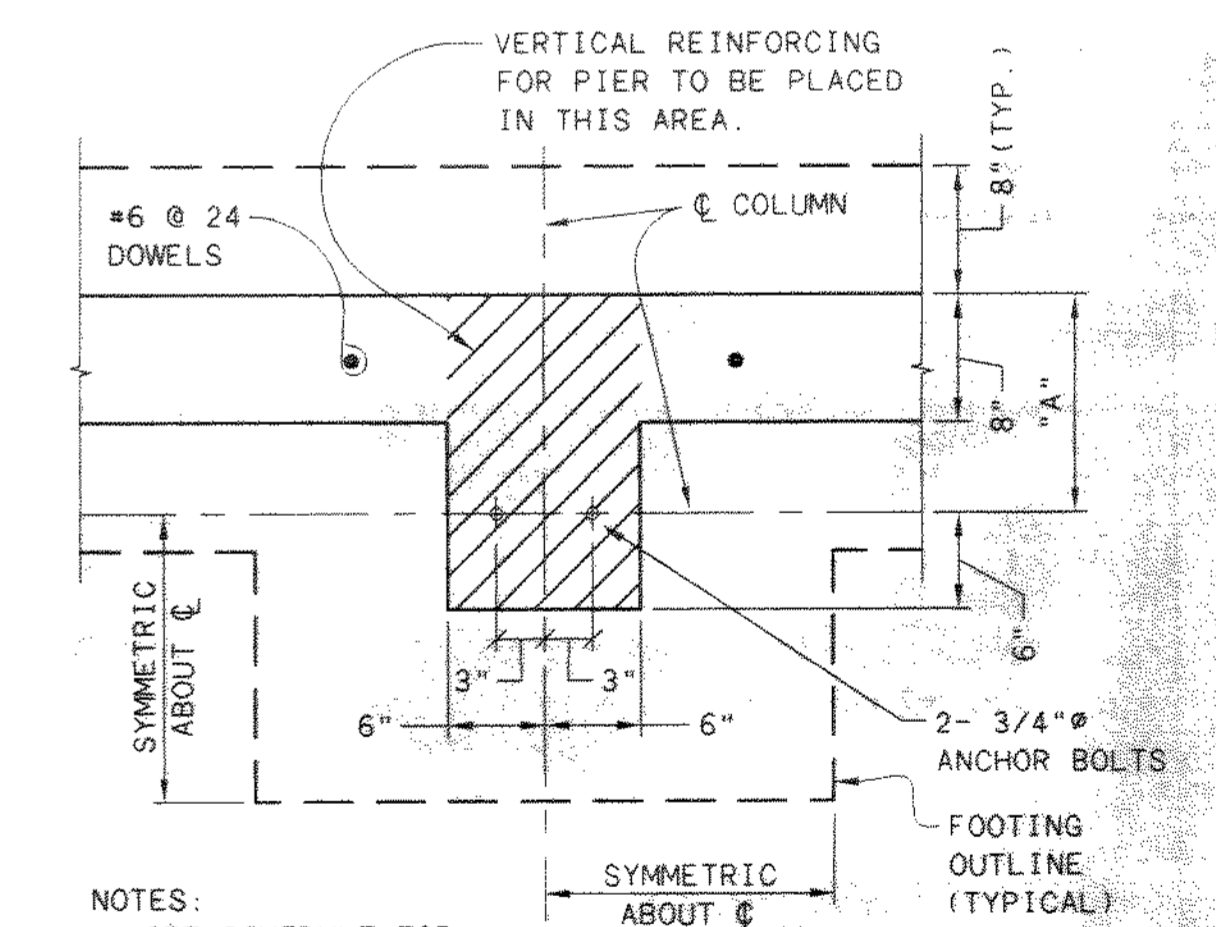


DETAIL-PIER P-9
1" = 1'-0"



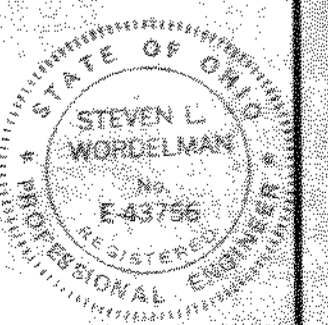
- NOTES:
- SEE SCHEDULE FOR DIMENSION "A" & REINFORCING.
 - HORIZONTAL REINFORCING FOR WALL SHALL CONTINUE THROUGH PIER.

DETAIL-PIER P-6
1" = 1'-0"

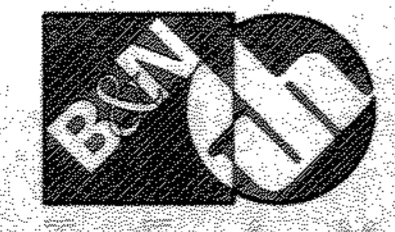


- NOTES:
- SEE SCHEDULE FOR DIMENSION "A" & REINFORCING.
 - HORIZONTAL REINFORCING FOR WALL SHALL CONTINUE THROUGH PIER.

DETAIL-PIERS P-1, P-3, & P-5
1" = 1'-0"



NO.	REVISIONS	DATE	BY	CHK.



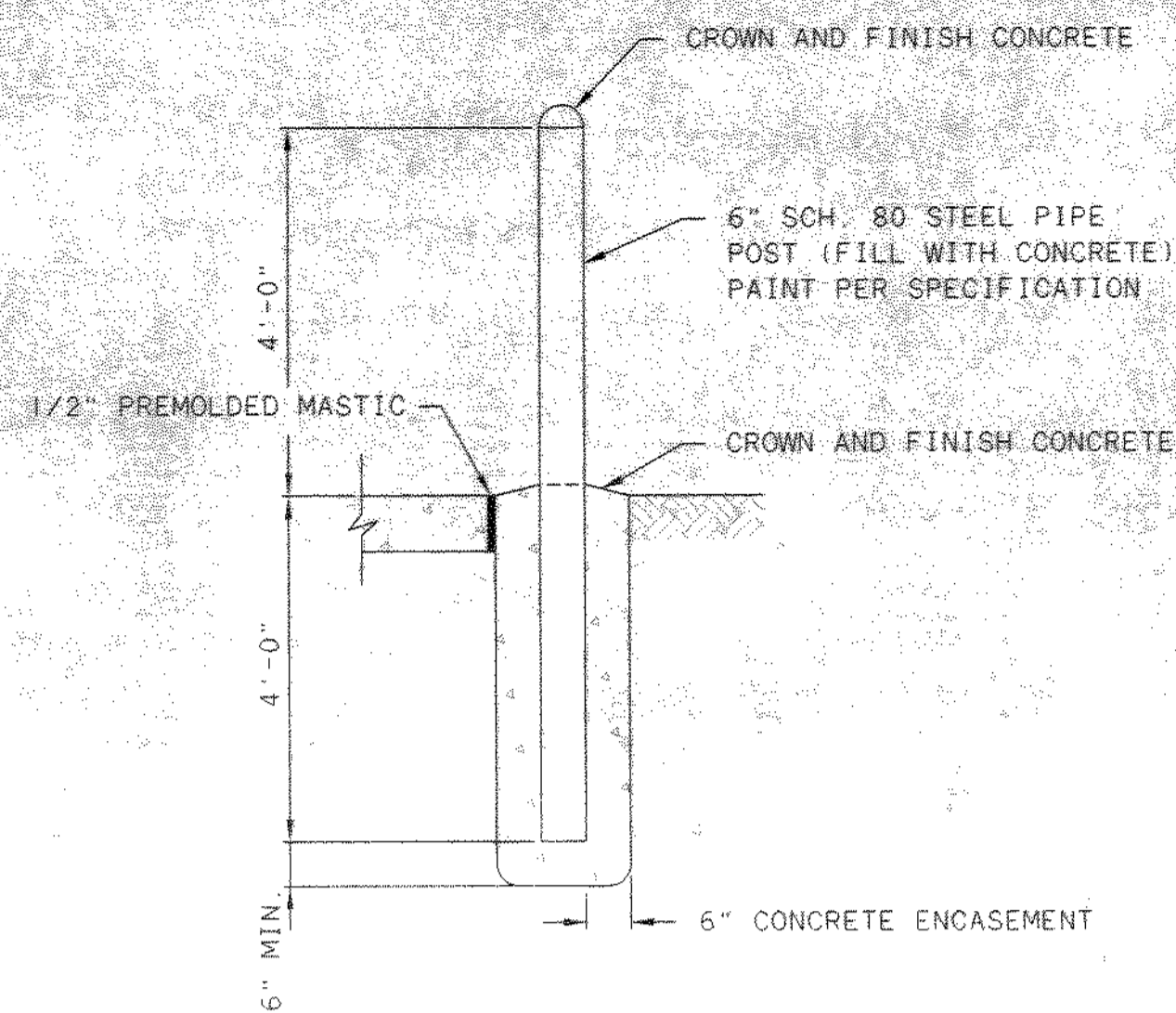
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	MVD
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CHECKED BY:	MVD
APPROVED BY:	SLW
DATE:	1999

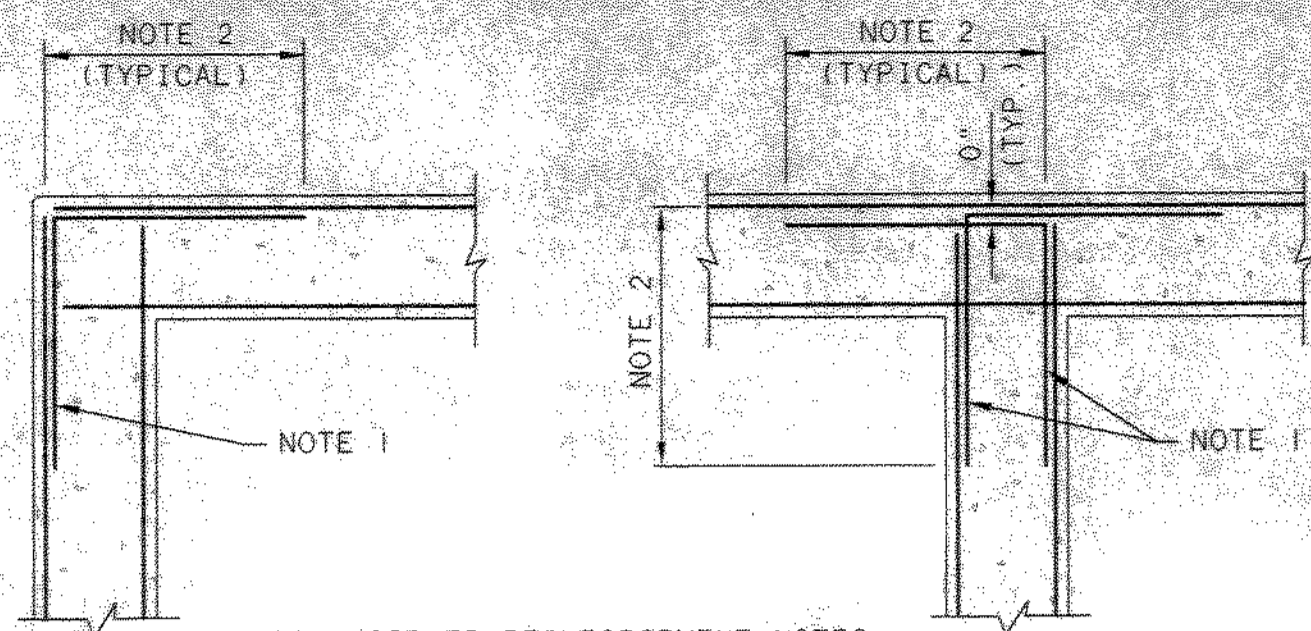
CENTRAL MAINTENANCE FACILITY
FOUNDATION
SCHEDULE & DETAILS

SCALE:	AS NOTED
SHEET NO.	78
OF	100



GUARDPOST DETAIL

1/2" = 1'-0"

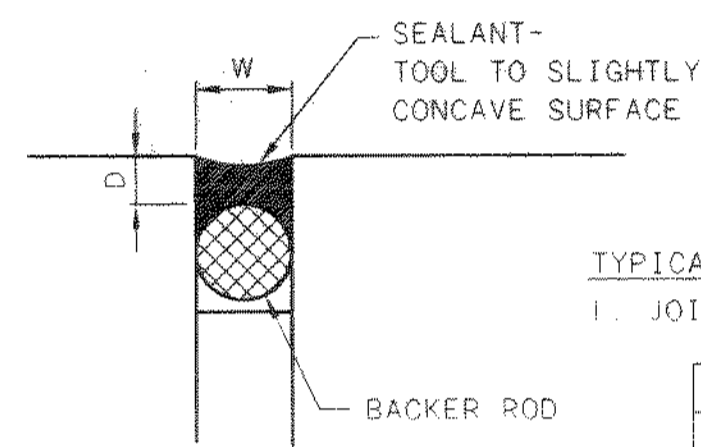


WALL CORNER REINFORCEMENT NOTES:

1. SAME SIZE AND SPACING AS HORIZONTAL REINFORCEMENT UNLESS SHOWN OTHERWISE
2. LAP SPLICE LENGTH FOR TOP BARS UNLESS SHOWN OTHERWISE. LAP LOCATION MAY BE SHIFTED TO REDUCE CONGESTION AT CORNER.
3. ALTERNATE DETAIL REQUIRES ENGINEER APPROVAL.

TYPICAL CONCRETE WALL CORNER REINFORCEMENT DETAILS

NTS



TYPICAL SEALANT NOTES:

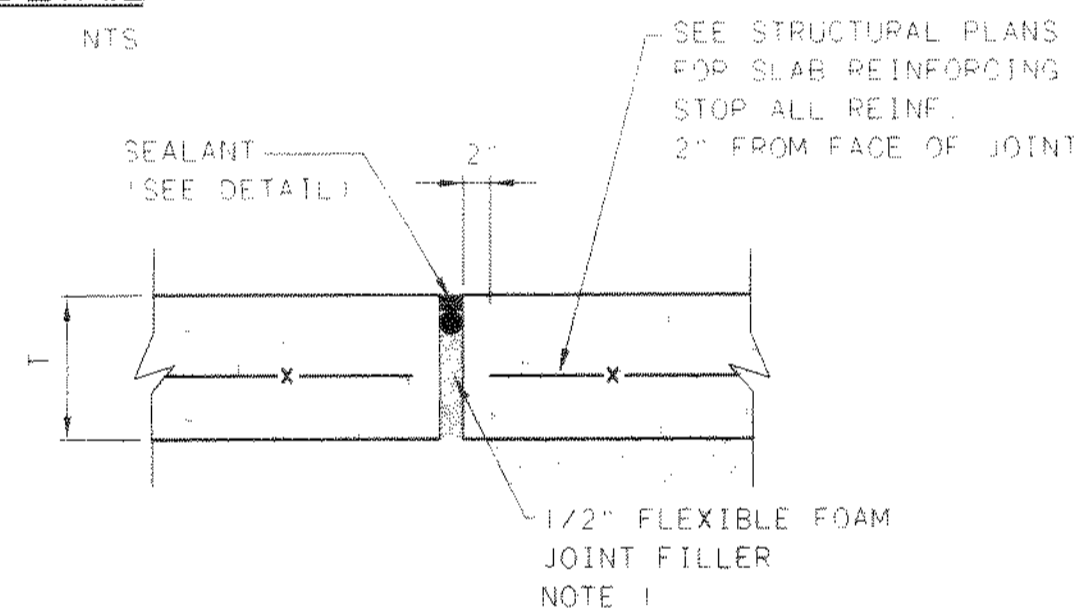
1. JOINT WIDTH (W) AS SHOWN ON PLANS

W ≤ 1/2"	D = 1/4"
W = 3/4"	D = 3/8"
W ≥ 1"	D = 1/2"

2. BLUNT SHARP EDGES OF CONCRETE JOINTS WITH GRINDER BEFORE SEALING

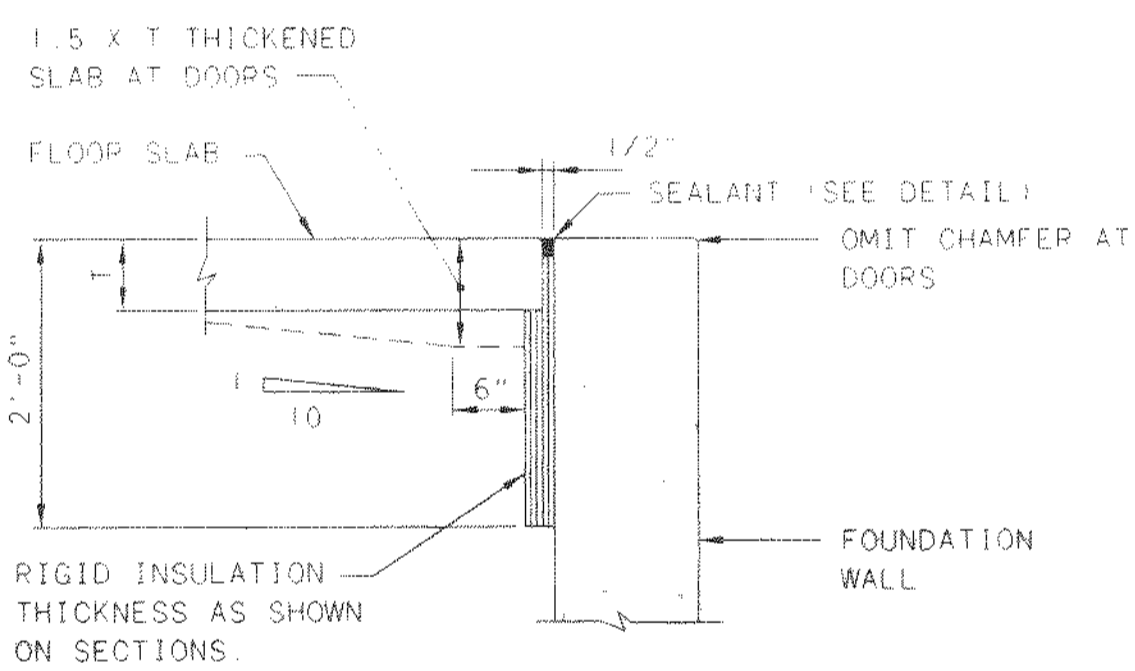
TYPICAL SEALANT DETAIL

NTS



ISOLATION JOINT

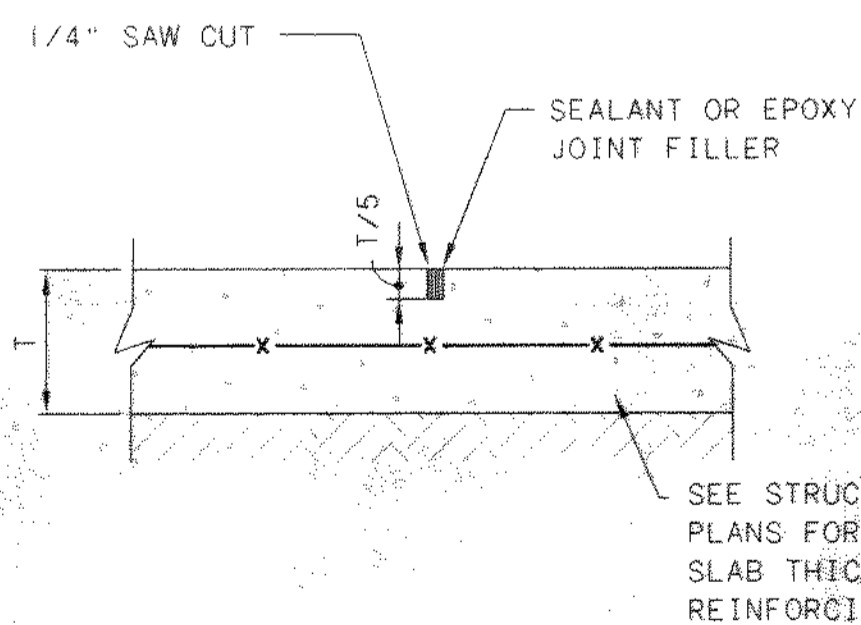
NTS



PERIMETER ISOLATION JOINT

NTS

- NOTES: 1. WHERE SHOWN ON PLANS OR SPECIFIED
2. IF ONLY ONE LAYER OF REINFORCING IS CALLED FOR IT SHALL BE LOCATED AT THE TOP OF SLAB, UNLESS OTHERWISE



CONTROL JOINT DETAIL

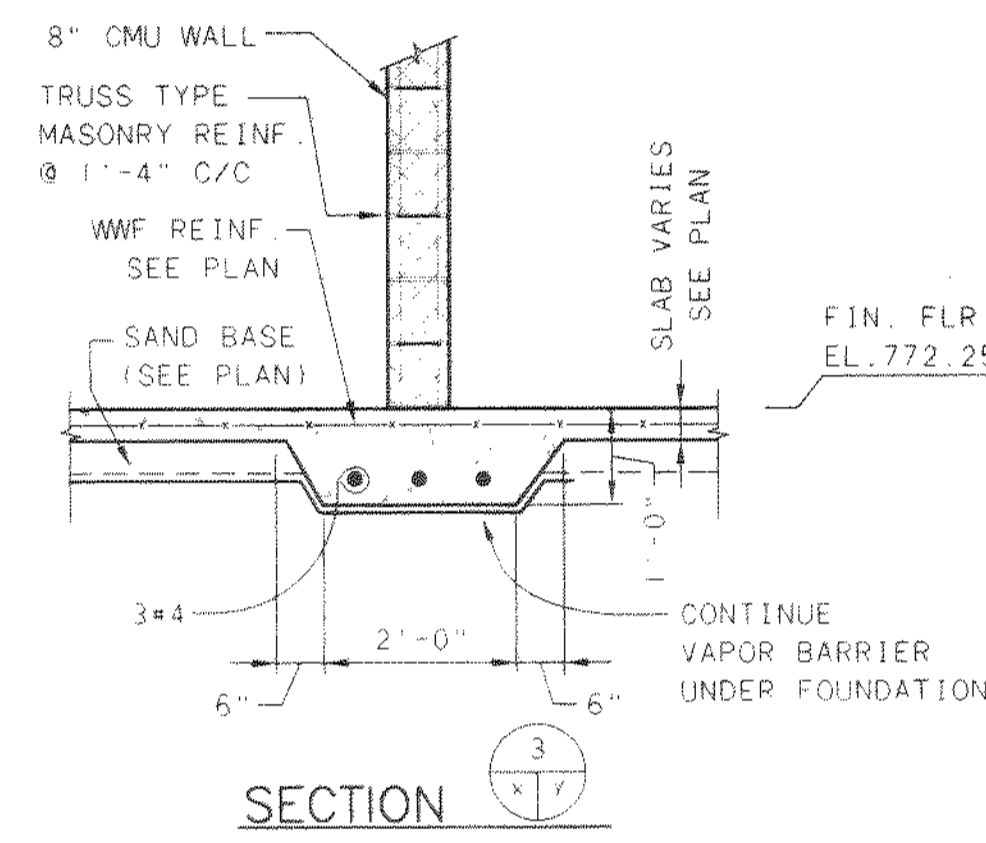
NTS

TYPICAL CONCRETE COVER

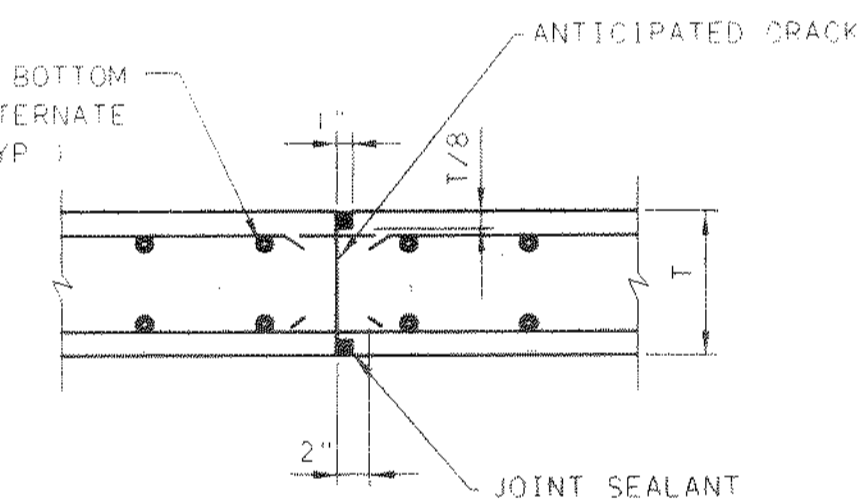
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
SURFACE EXPOSED TO EARTH OR WEATHER	2"
SURFACE EXPOSED TO OR OVER WATER, SEWAGE, OR OTHER LIQUIDS	2"
SLABS, WALLS, JOISTS	2"
BEAMS, COLUMNS	2-1/2"
PRIMARY REINFORCEMENT - STIRRUPS AND TIES:	2"
OTHER SURFACES	
SLABS, WALLS, JOISTS	3/4"
BEAMS, COLUMNS	2"
PRIMARY REINFORCEMENT - STIRRUPS AND TIES:	1-1/2"

LAP SPLICE LENGTH (IN.) UNLESS SHOWN OTHERWISE		
BAR SIZE	TOP REINFORCEMENT	BOTTOM AND VERTICAL REINFORCEMENT
#3	21	16
#4	21	16
#5	21	16
#6	30	23
#7	49	37
#8	62	47
#9	78	60
#10	99	76
#11	115	88

TOP REINFORCEMENT IS DEFINED AS HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF FRESH CONCRETE CAST BENEATH THE BAR.



CUT EVERY OTHER TOP & BOTTOM BAR 2" FROM JOINT. ALTERNATE TOP & BOTTOM CUTS. (TYP.)

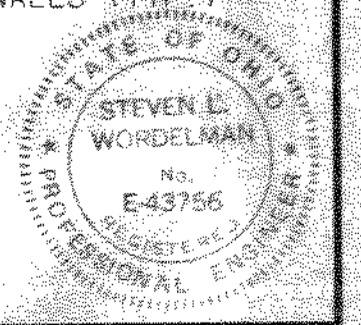
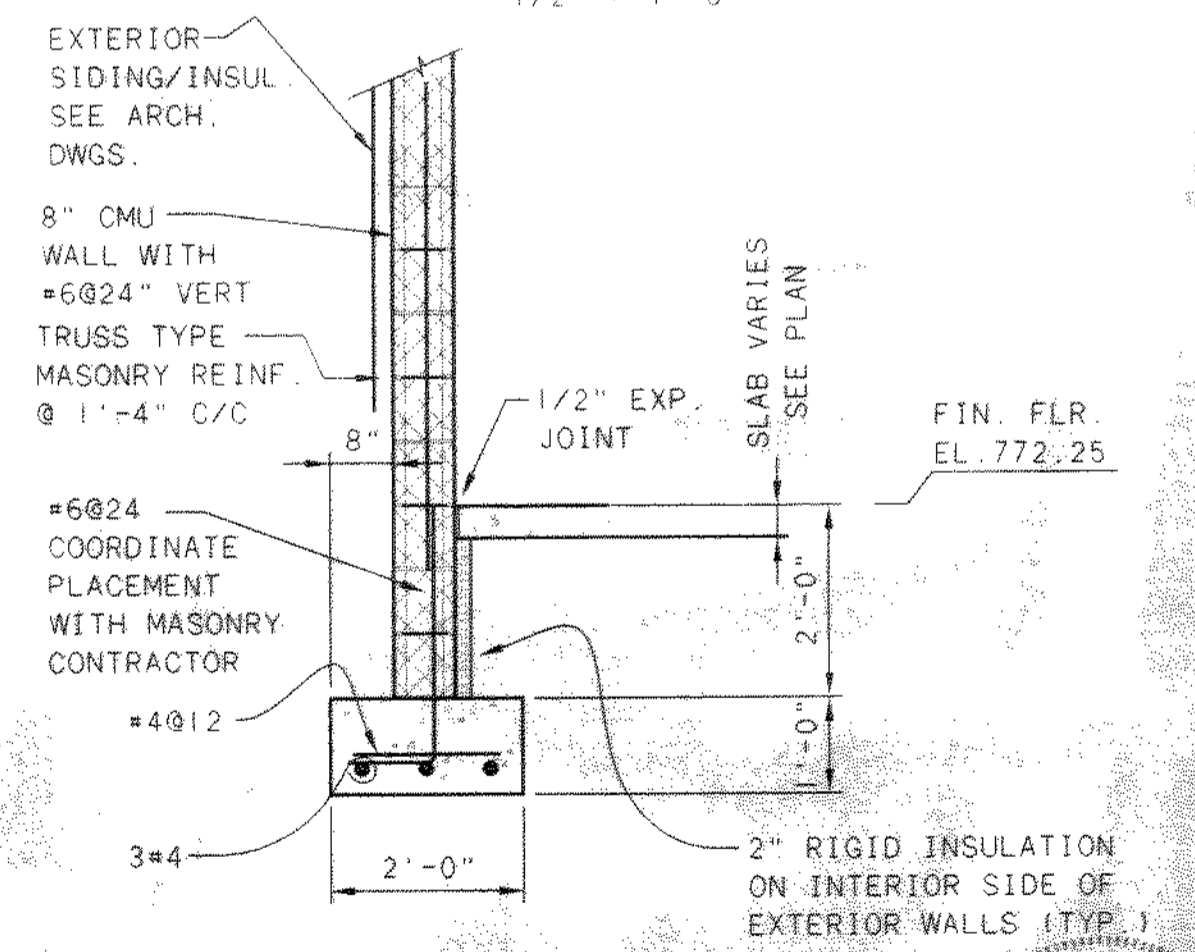
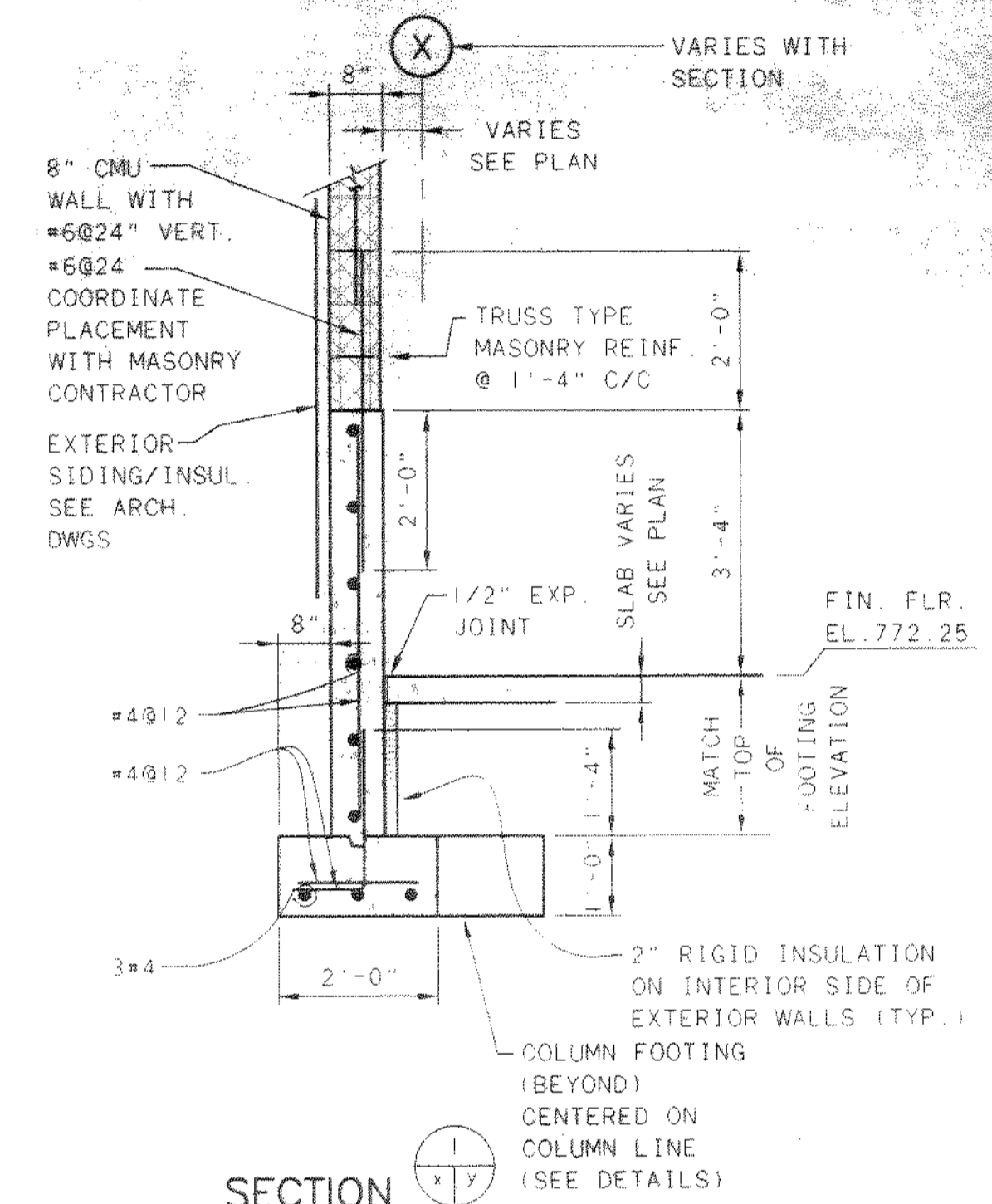


CONCRETE WALL CONTROL JOINT

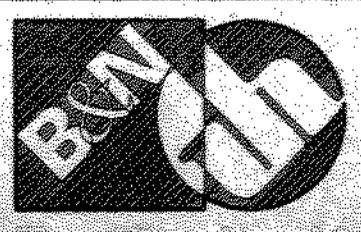
NTS

TYPICAL FUTURE EXPANSION DETAIL

NTS



NO.	REVISIONS	DATE	BY	CHK.



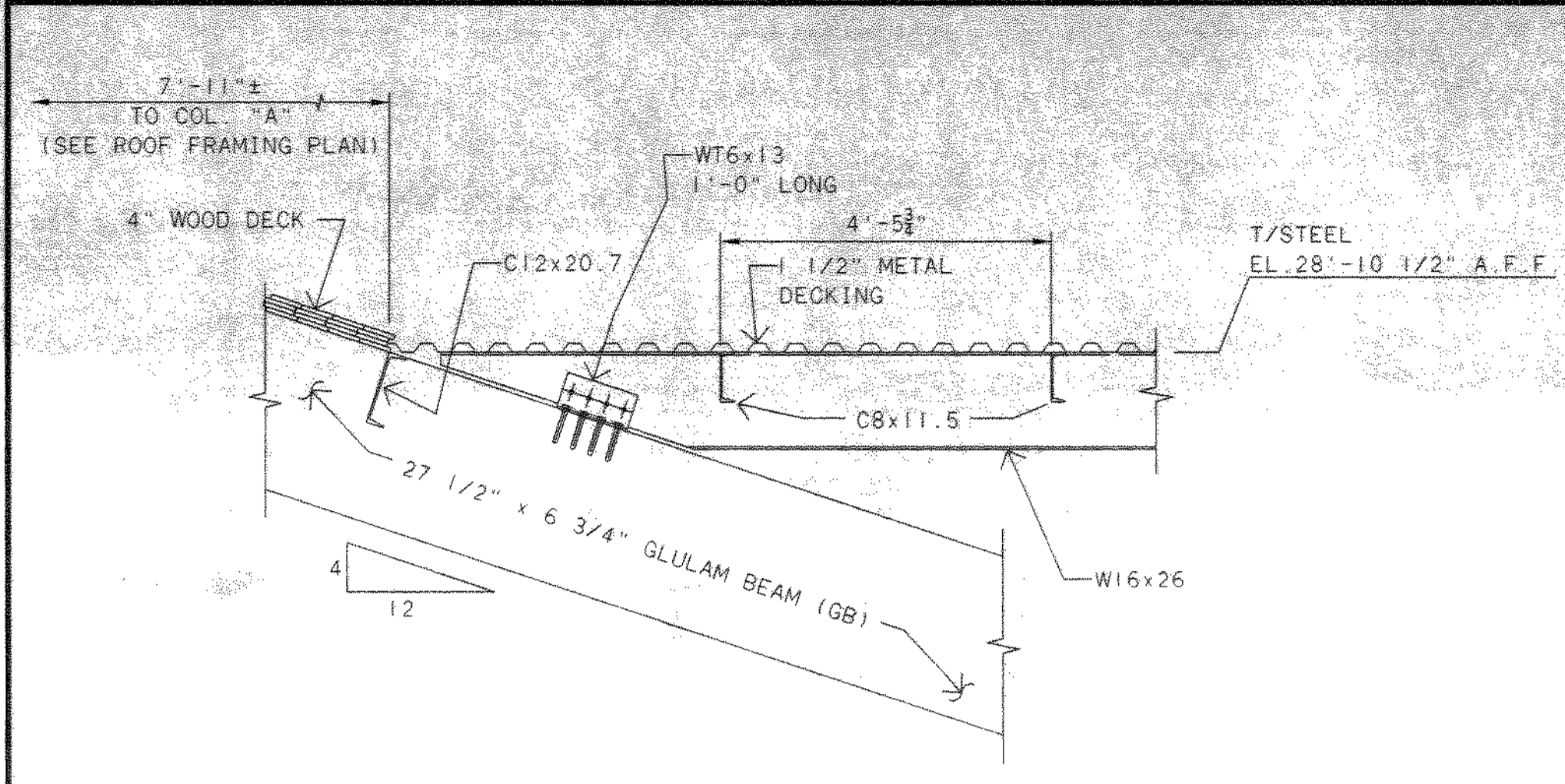
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

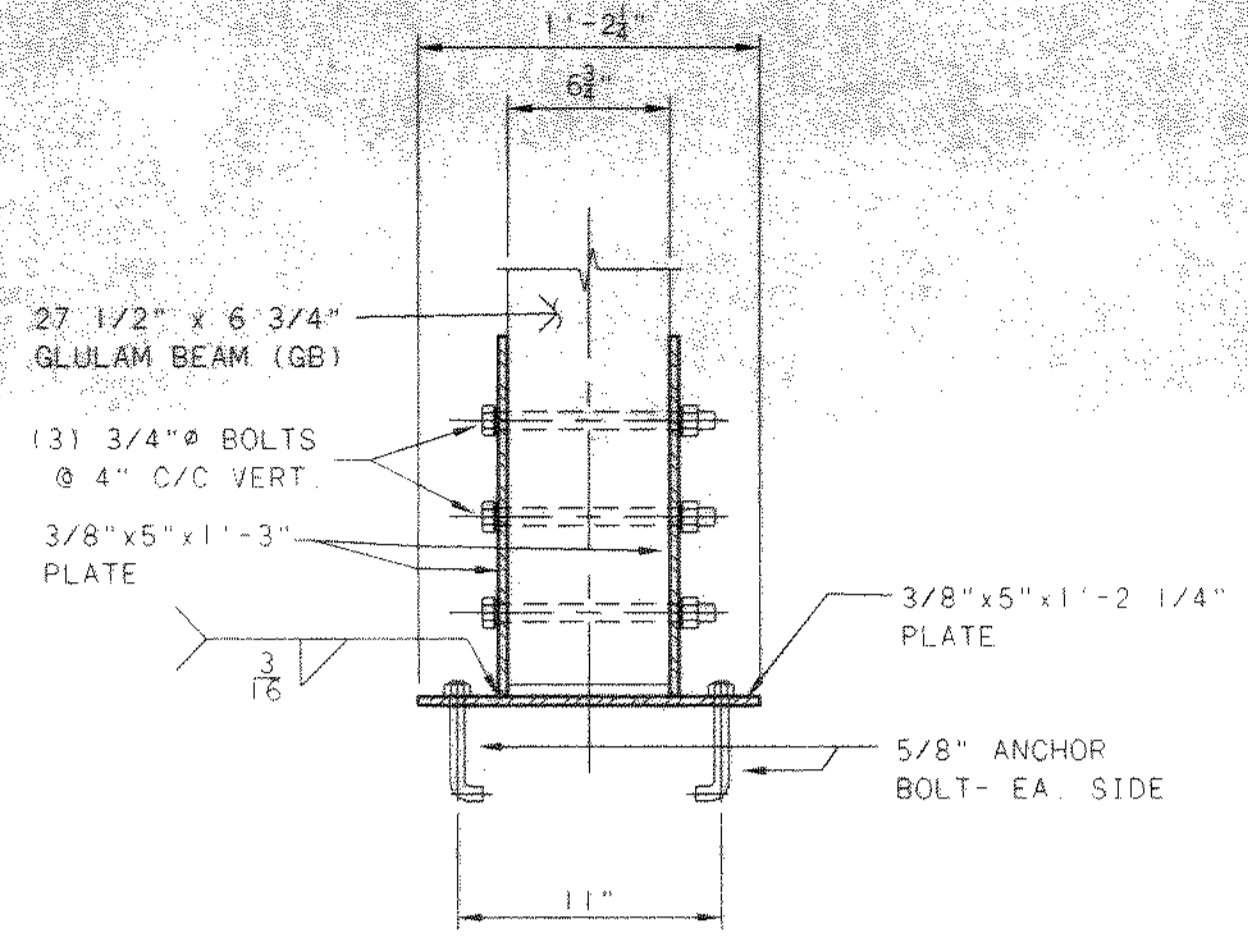
JOB NO.	20571
DESIGNED BY:	MVD
DRAWN BY:	PMG
CHECKED BY:	MVD
APPROVED BY:	SLW
DATE:	1999

CENTRAL MAINTENANCE FACILITY
MISCELLANEOUS CONCRETE
SECTIONS & DETAILS

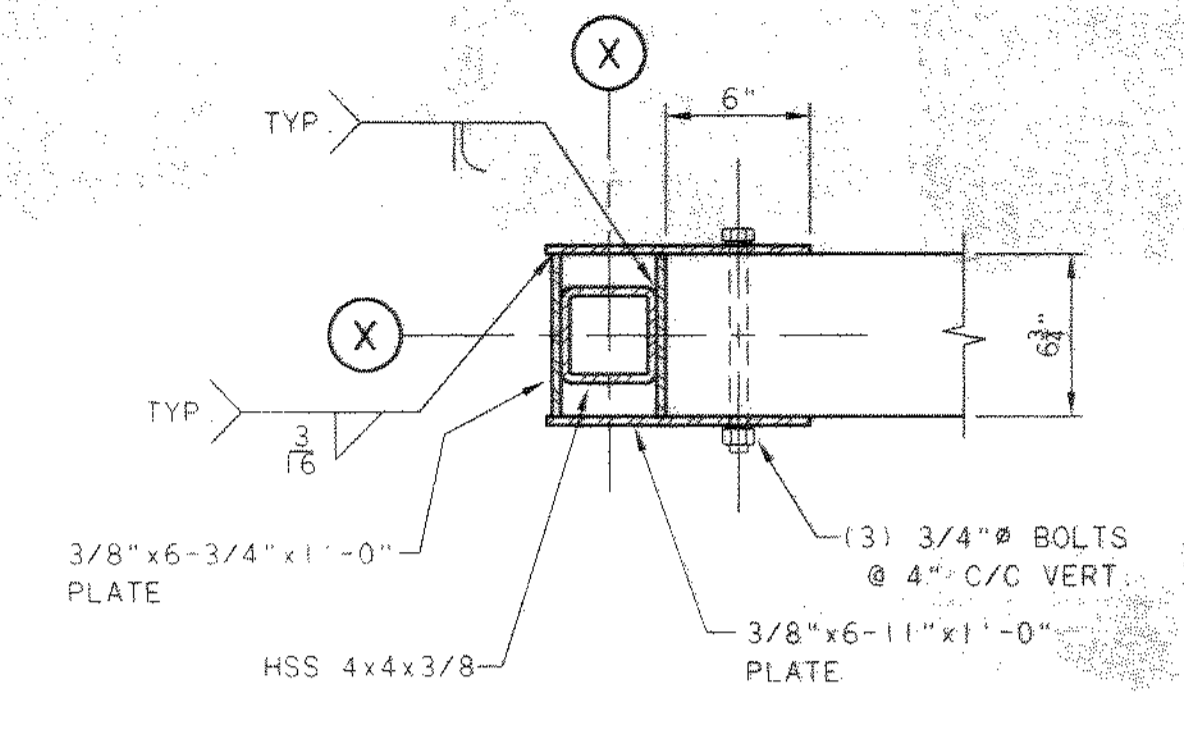
SCALE: AS NOTED	
SHEET NO. 79	OF 100



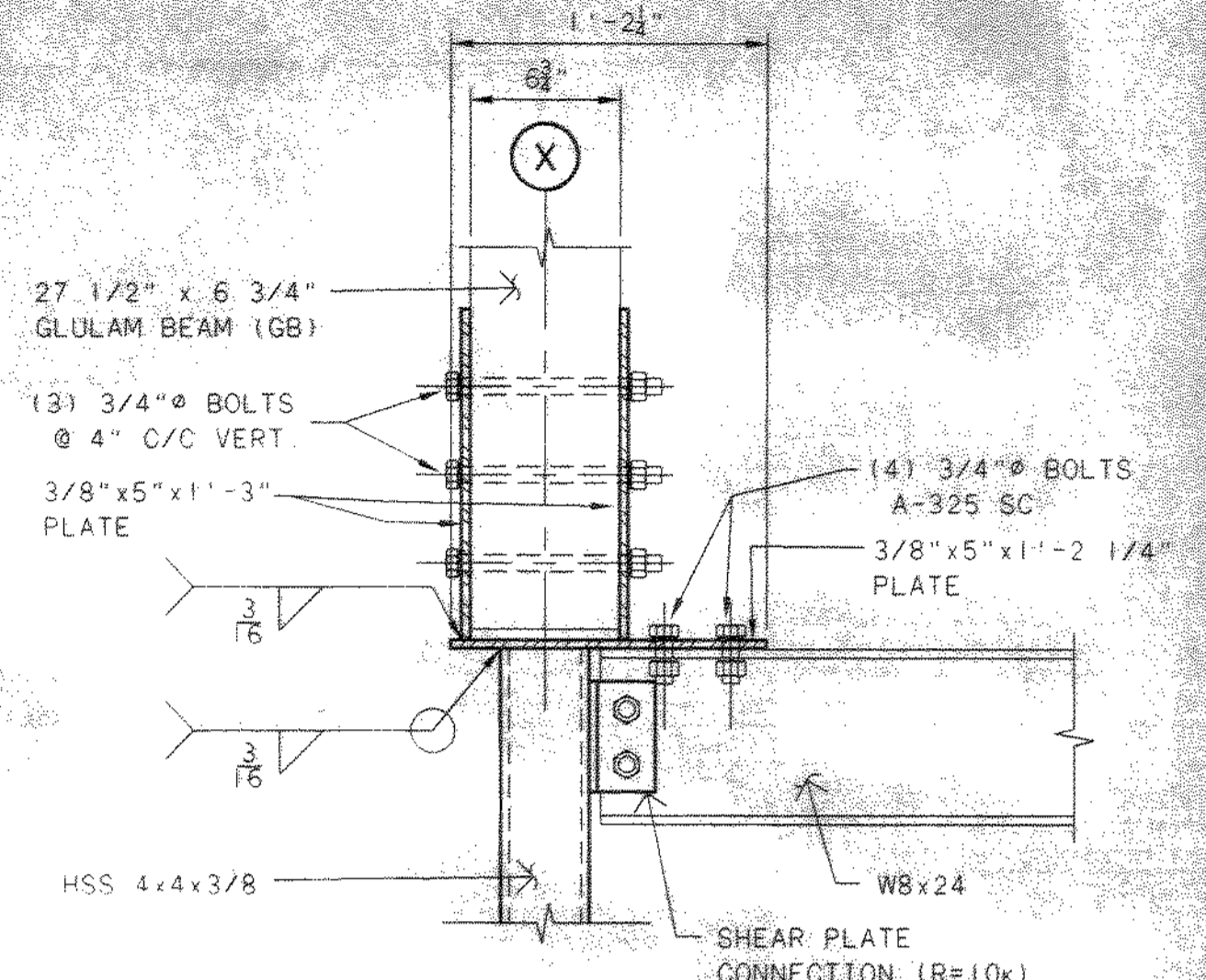
SECTION C
1/2" = 1'-0"



SECTION A
1/2" = 1'-0"

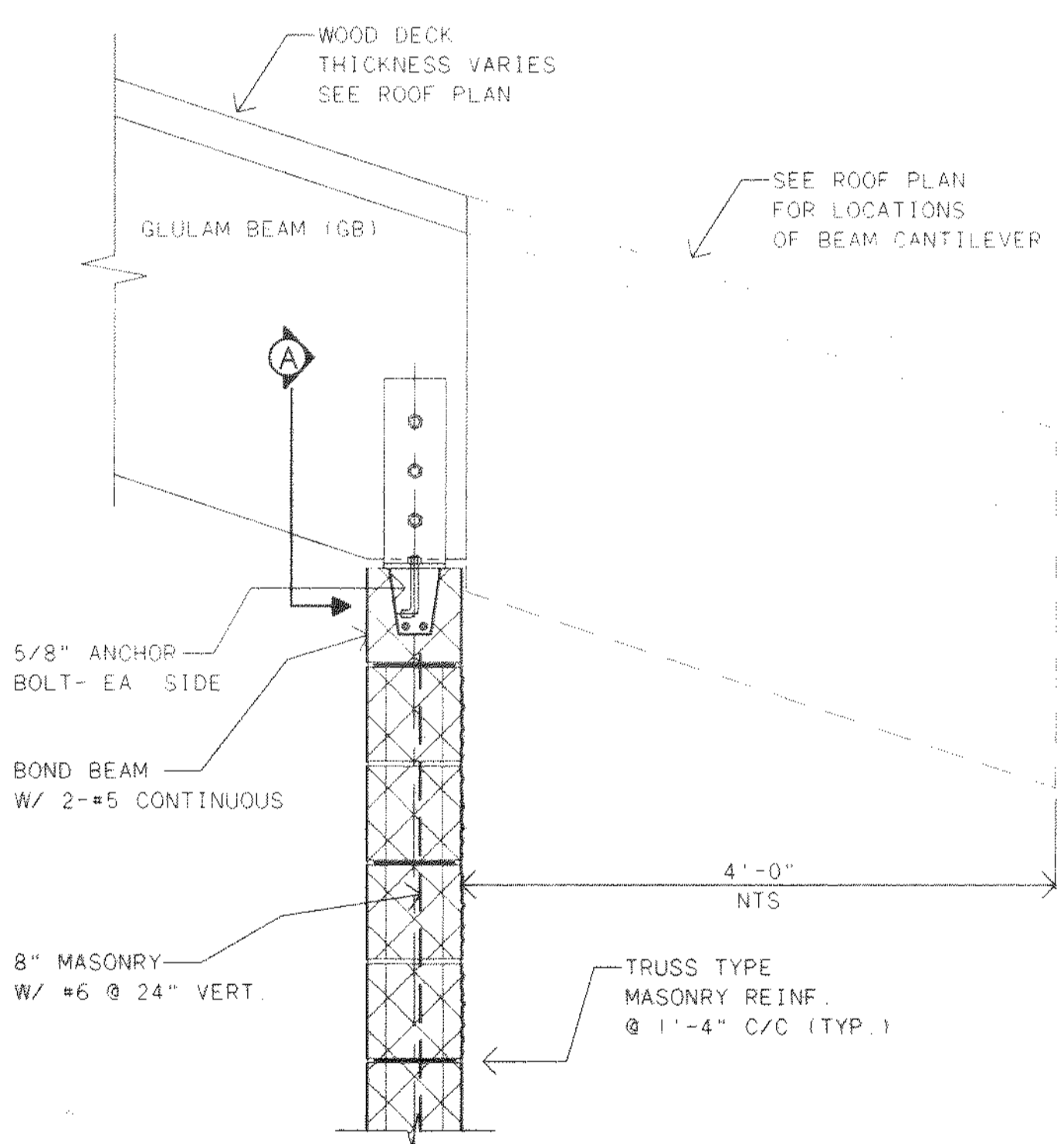


SECTION B
1/2" = 1'-0"

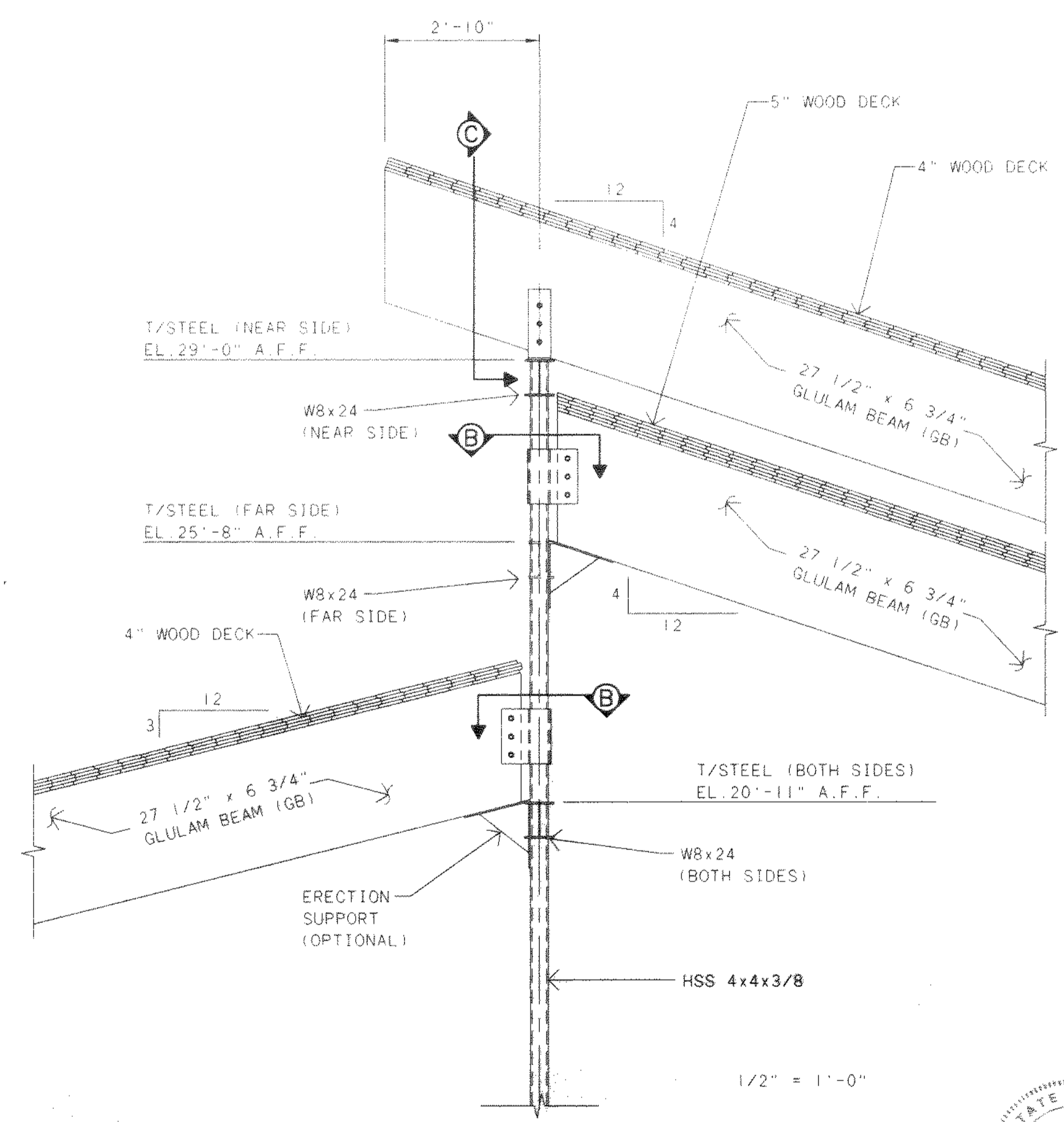


SECTION C
1/2" = 1'-0"

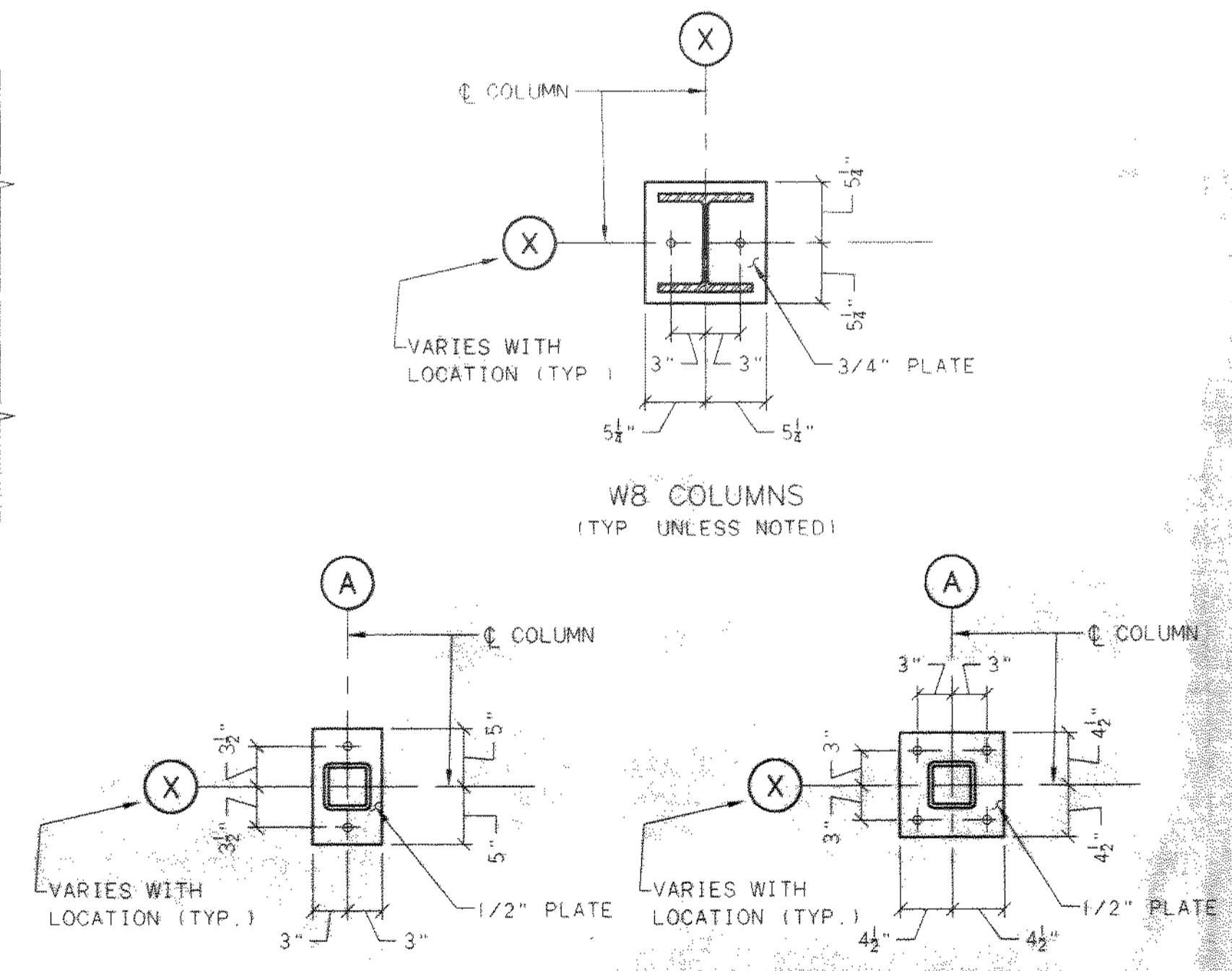
LINTEL SCHEDULE	
OPENING SIZE	LINTEL SIZE
LESS THAN 6'-0"	2L 3-1/2 x 3-1/2 x 1/4 SLBB
6'-0" TO 8'-8"	2L 4 x 3-1/2 x 1/4 LLBB
GREATER THAN 8'-8"	W8x24 + 1/4 x 7-1/2 PLT. ON BOT. FLG



SECTION Z
1" = 1'-0"



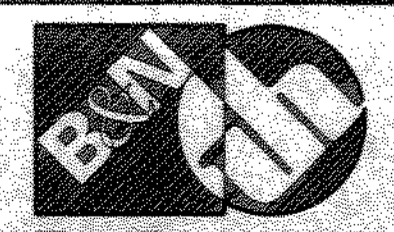
SECTION B
1/2" = 1'-0"



BASE PLATE DETAILS
1" = 1'-0"

NOTE:
SEE ARCHITECTURAL ELEVATIONS
FOR BEAM SLOPE AND BEARING ELEVATIONS

NO.	REVISIONS	DATE	BY	CHK.



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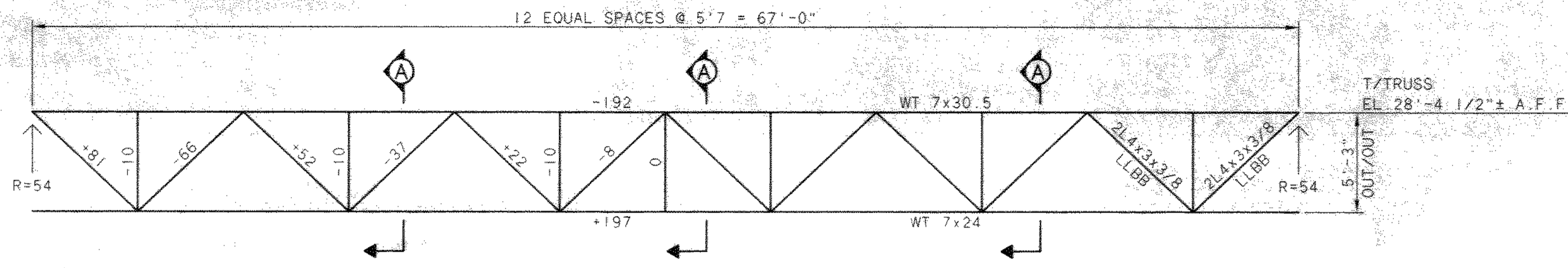
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO. 20571
DESIGNED BY: MVD
DRAWN BY: PMc
CHECKED BY: MVD
APPROVED BY: SLW
DATE: 1999

CENTRAL MAINTENANCE FACILITY
STRUCTURAL
SECTIONS & DETAILS

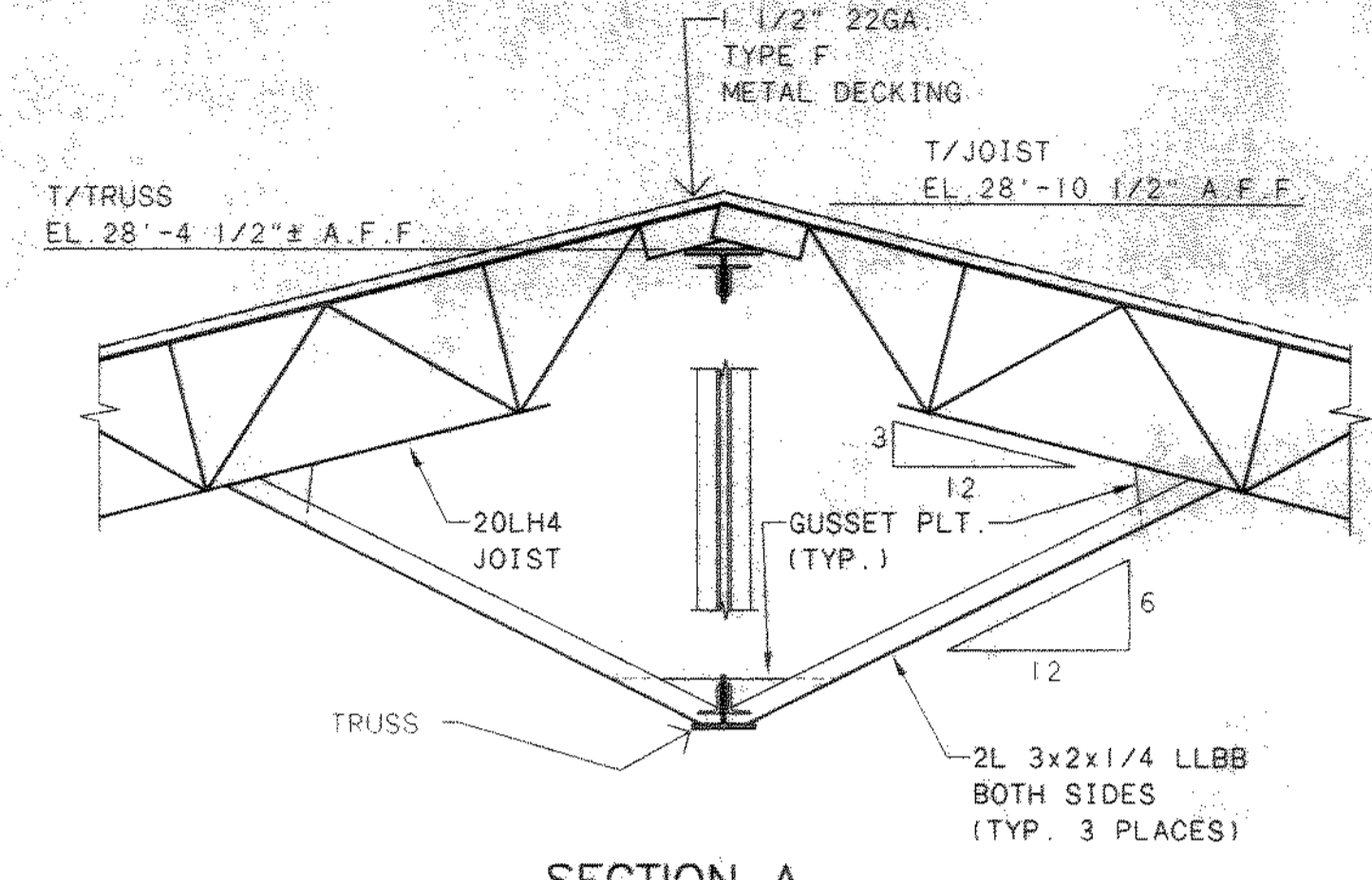
SHEET NO.		OF
80		100

TOL-47145574
03/04/99 10:14

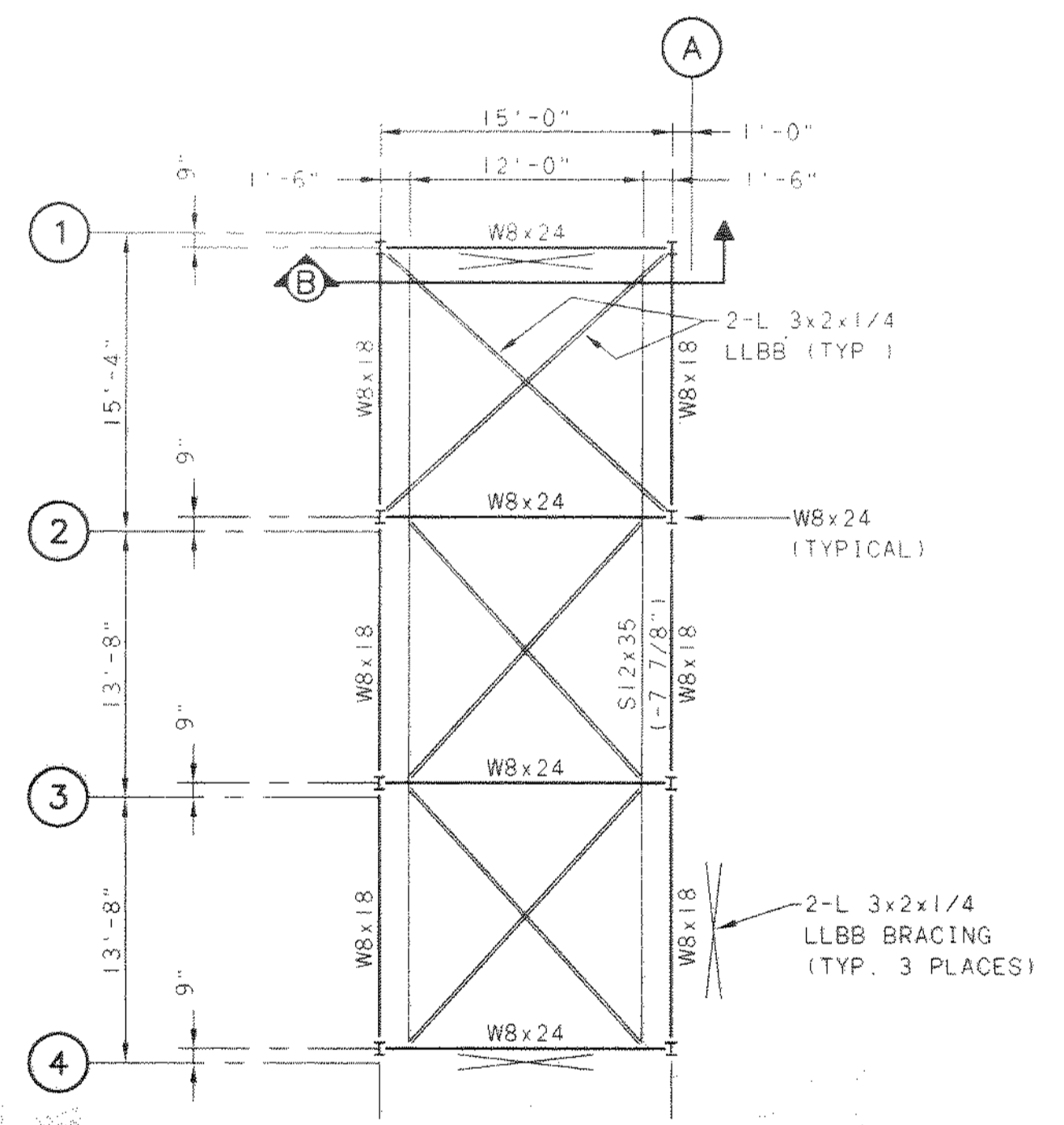


TRUSS ELEVATION
3/16" = 1'-0"

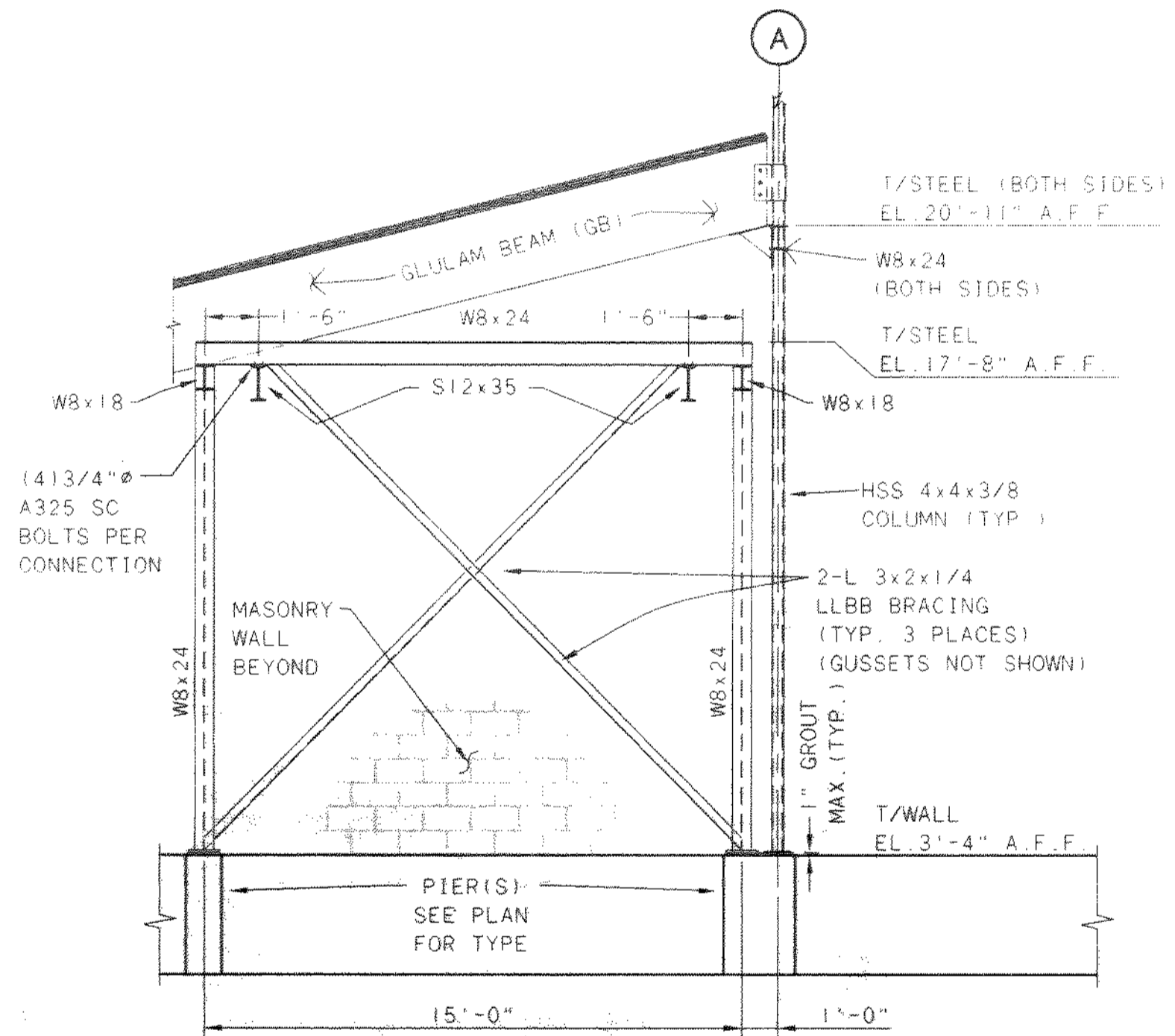
- NOTES:
 1. TRUSS IS SYMMETRICAL ABOUT C.
 2. MEMBER SIZES NOT SHOWN ARE 2L 3x3x1/4
 3. DESIGN LOADS SHOWN ARE IN KIPS (1 KIP = 1000 LBS.)
 4. + INDICATES MEMBER IN TENSION
 - INDICATES MEMBER IN COMPRESSION.
 5. TRUSS MEMBERS SHALL BE ASTM A-572 GRADE 50 STEEL.



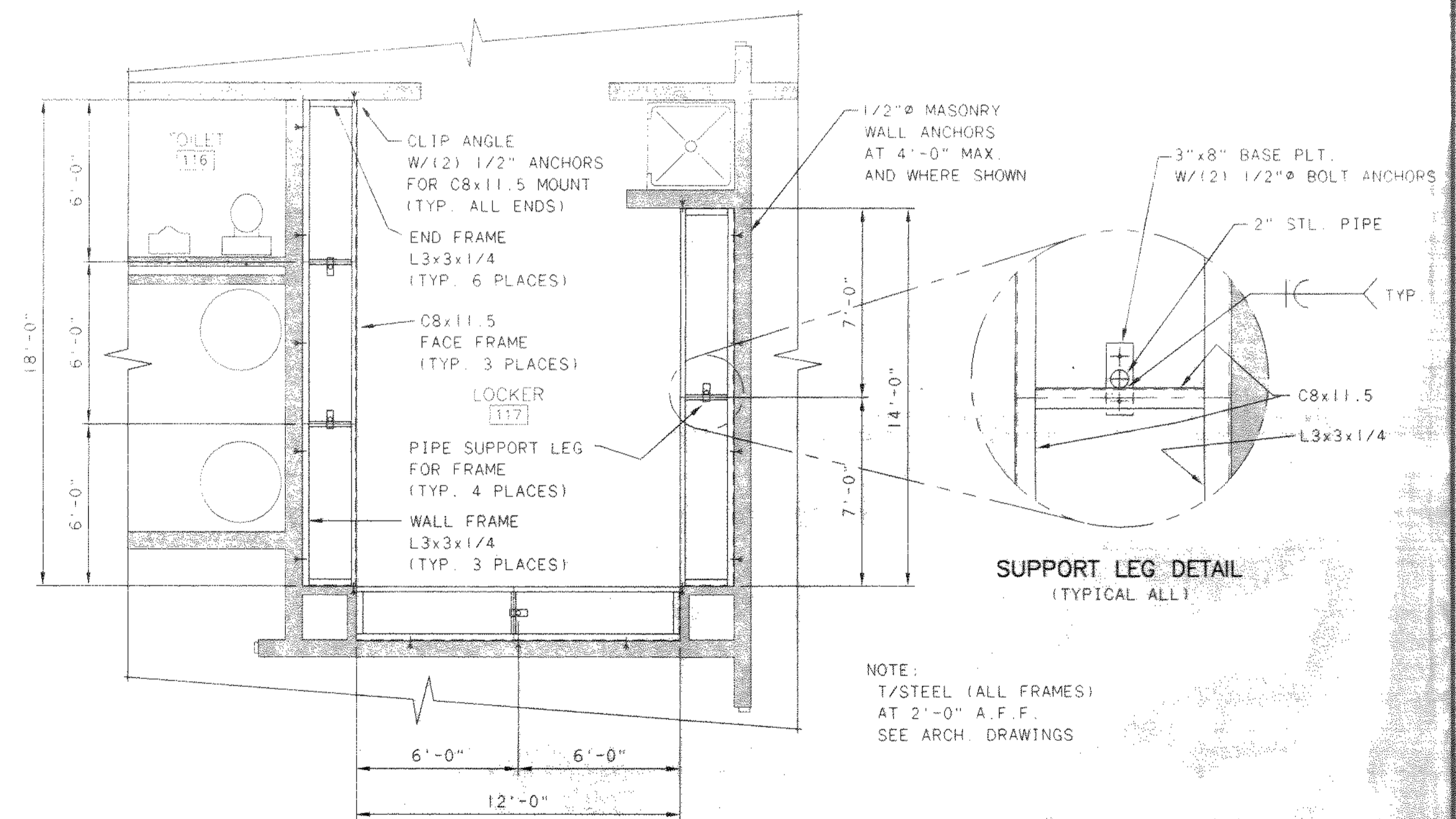
SECTION A
1/2" = 1'-0"



BRIDGE CRANE FRAMING PLAN
1/8" = 1'-0"

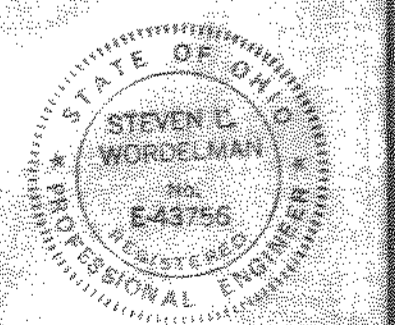


SECTION B
1/4" = 1'-0"

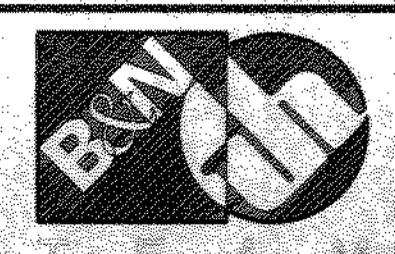


LOCKER SUPPORT FRAMING
1/4" = 1'-0"

NOTE:
 T/STEEL (ALL FRAMES)
 AT 2'-0" A.F.F.
 SEE ARCH. DRAWINGS



NO.	REVISIONS	DATE	BY	CHK.



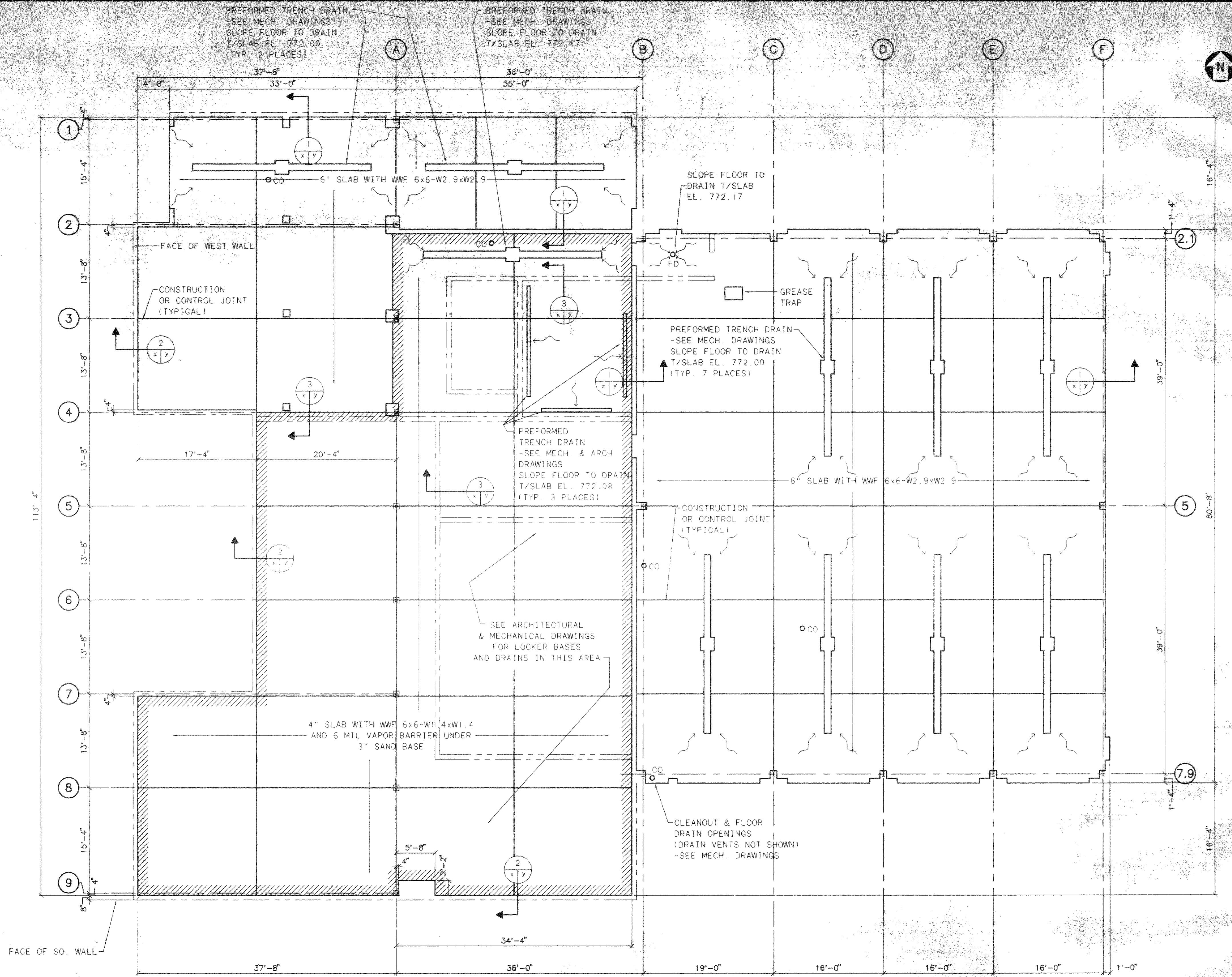
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	MVD
DRAWN BY:	PMc
CHECKED BY:	MVD
APPROVED BY:	SLW
DATE:	1999

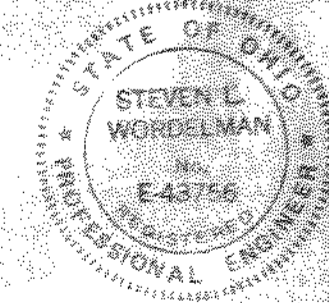
CENTRAL MAINTENANCE FACILITY
 MISCELLANEOUS STRUCTURAL
 SCHEDULES & DETAILS

SCALE:	AS NOTED
SHEET NO.	81
OF	100

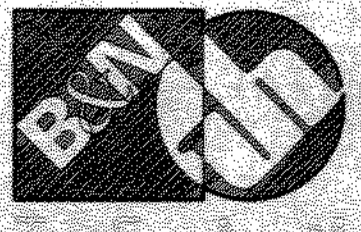


SLAB PLAN

1/8" = 1'-0"
FINISHED FLOOR ELEVATION 772.25



NO.	REVISIONS	DATE	BY	CHK.



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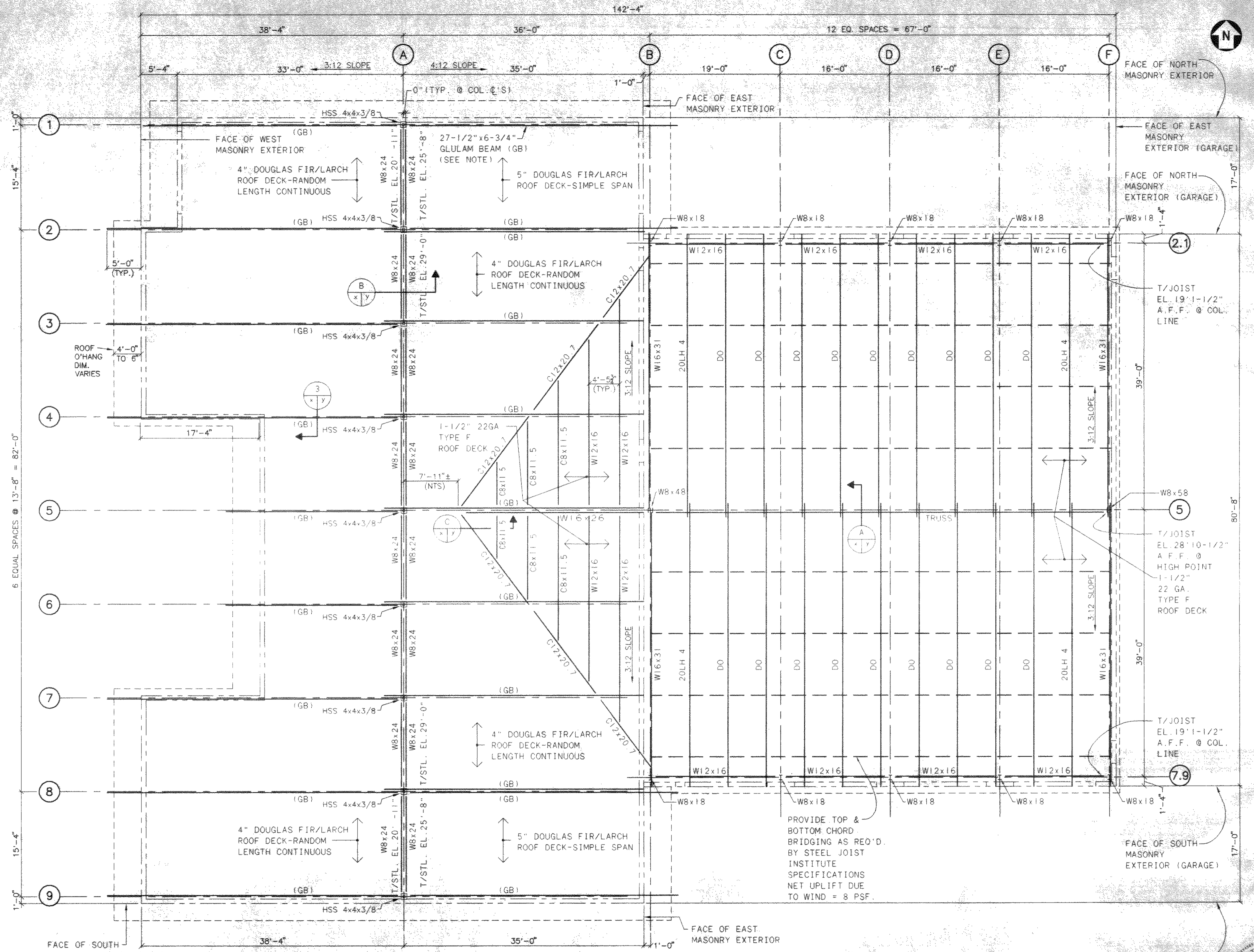
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	MVD
DRAWN BY:	PMc
CHECKED BY:	MVD
APPROVED BY:	SLW
DATE:	1999

**CENTRAL MAINTENANCE FACILITY
FLOOR SLAB PLAN**

SCALE:	1/8" = 1'-0"
SHEET NO.	82
OF	100

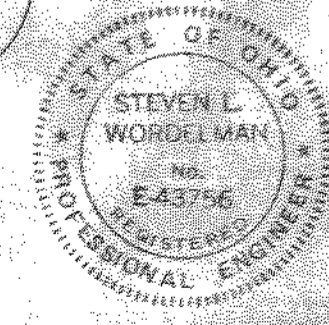
TOL-4714536
03/04/99 08-14



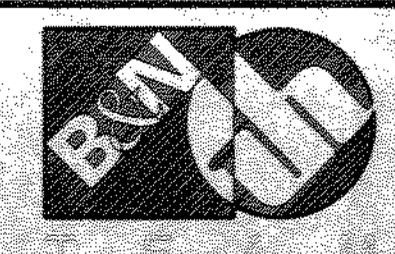
NOTE:
 MINIMUM DESIGN VALUES FOR GLULAM BEAMS:
 $F_b = 2200 \text{ PSI}$
 $F_v = 240 \text{ PSI}$
 $E = 1,600,000 \text{ PSI}$
 MAXIMUM DEFLECTION = $\text{SPAN}/240$
 DESIGN LOAD FOR BEAMS = 650 LB/FT

ROOF FRAMING PLAN

1/8" = 1'-0"



NO.	REVISIONS	DATE	BY	CHK.



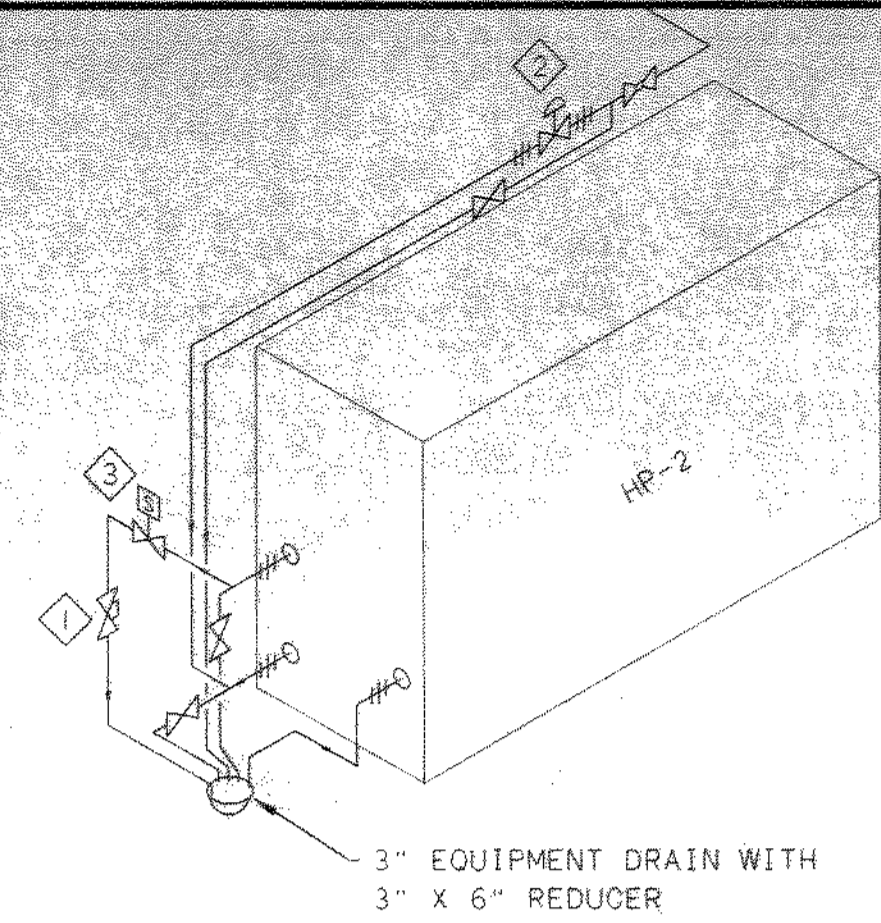
Burgess & Niple, Limited
 Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	MVD
DRAWN BY:	PMc
CHECKED BY:	MVD
APPROVED BY:	SLW
DATE:	1999

**CENTRAL MAINTENANCE FACILITY
 ROOF FRAMING PLAN**

SCALE:	1/8" = 1'-0"
SHEET NO.	83
OF	100

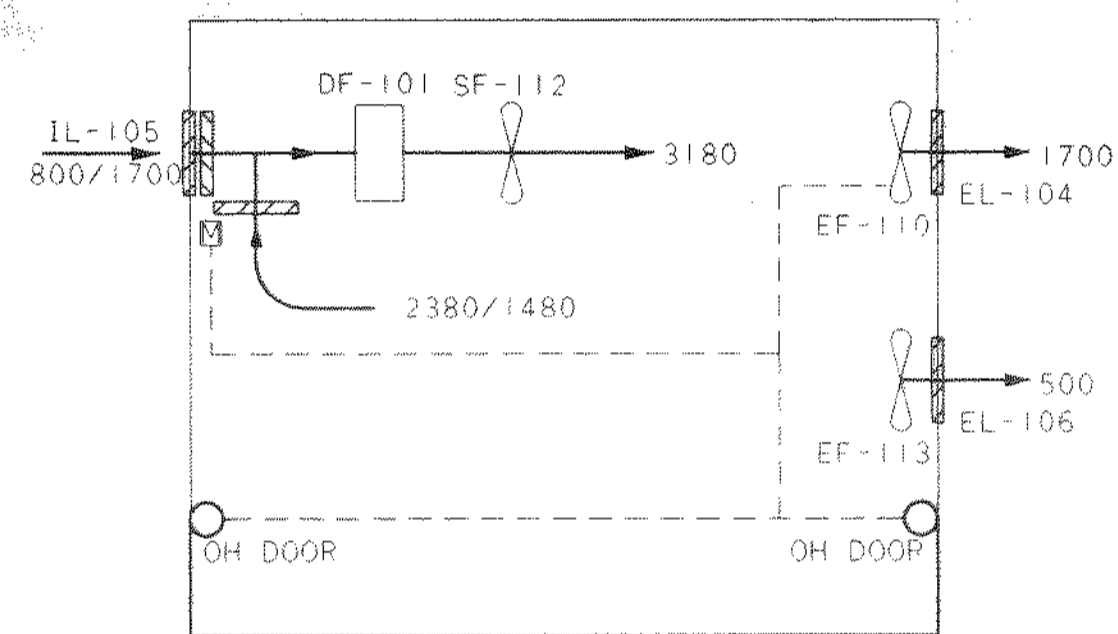


CODED NOTES

- ① AMTROL FLORATER = TFR-2 OR EQUAL
- ② HAYES FLOW CONTROL VALVE 2"-2550-44GPM
- ③ HAYES ELECTRO - FLOW 2110-2"

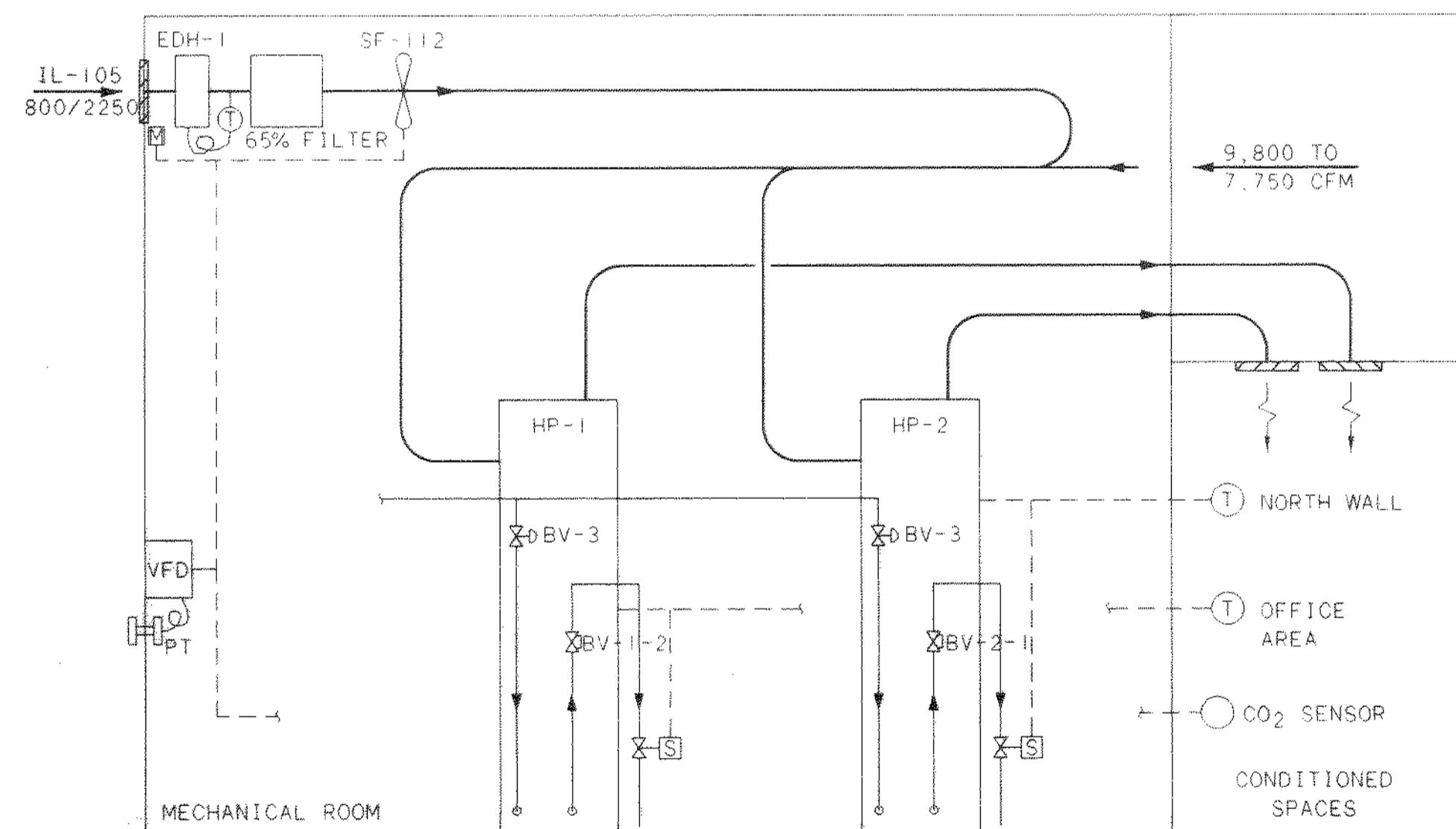
HEAT PUMP WATER BALANCE ISOMETRIC

TYPICAL FOR HEAT PUMP 2, HEAT PUMP 1 OPPOSITE HAND
NTS



OPERATIONS AIR BALANCE AND CONTROL SCHEMATIC

NTS

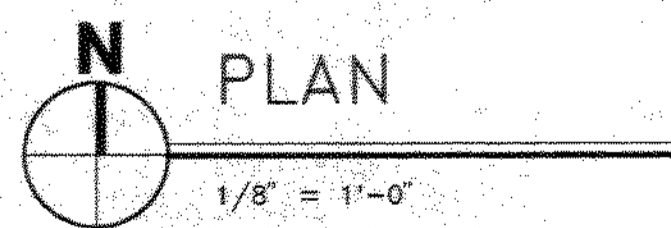
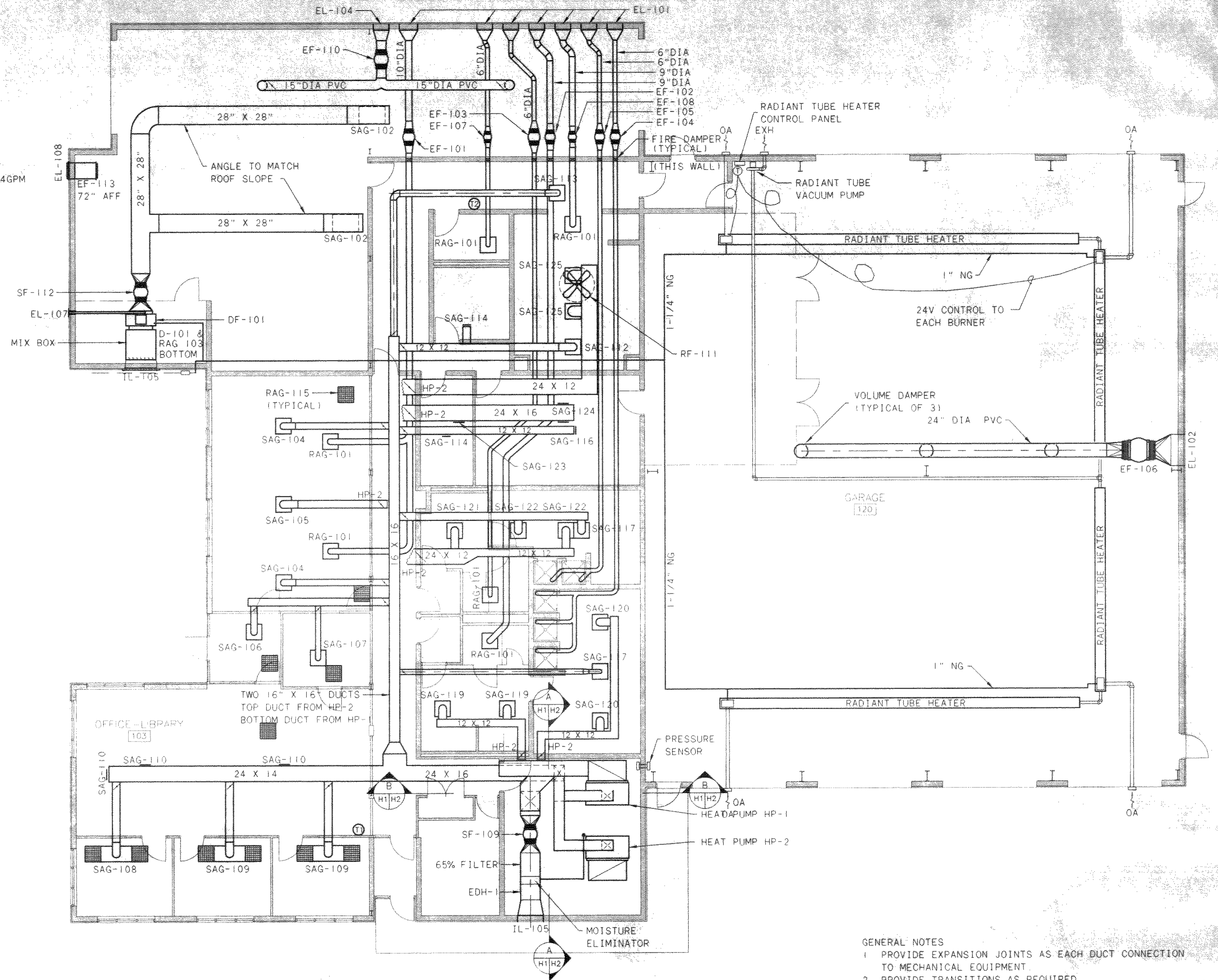


AIR AND NON-POTABLE BALANCE SCHEMATIC

NTS

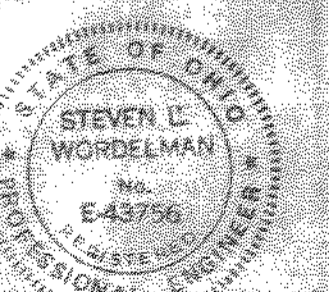
VALVE NO.	GPM	INITIAL SETTING	INITIAL AP
BV-1-1	44	20°	10 FT.
BV-2-1	44	20°	10 FT.
BV-3	44		AS REQ'D

- ① LOCATE ALL THERMOSTATS 5'-0" AFF
- ② RANGE 40°F TO 80°F THERMOSTAT



GENERAL NOTES

1. PROVIDE EXPANSION JOINTS AS EACH DUCT CONNECTION TO MECHANICAL EQUIPMENT.
2. PROVIDE TRANSITIONS AS REQUIRED.
3. SEAL ALL JOINTS.
4. PROVIDE NECK SIZE INSULATED FLEX DUCT AND COLLARS AS REQUIRED FOR DUCT CONNECTION TO ALL LAY-IN GRILLS.
5. ALL DUCT BRANCHES FROM THE MAIN SUPPLY DUCT TO BE NECK SIZE FOR THE SUPPLY GRILL OR GRILLS UNLESS NOTED.



NO.	REVISIONS	DATE	BY	CHK.



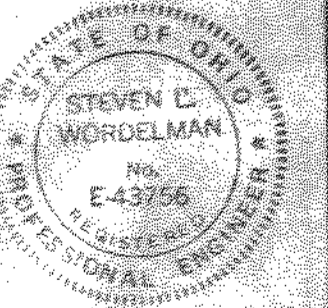
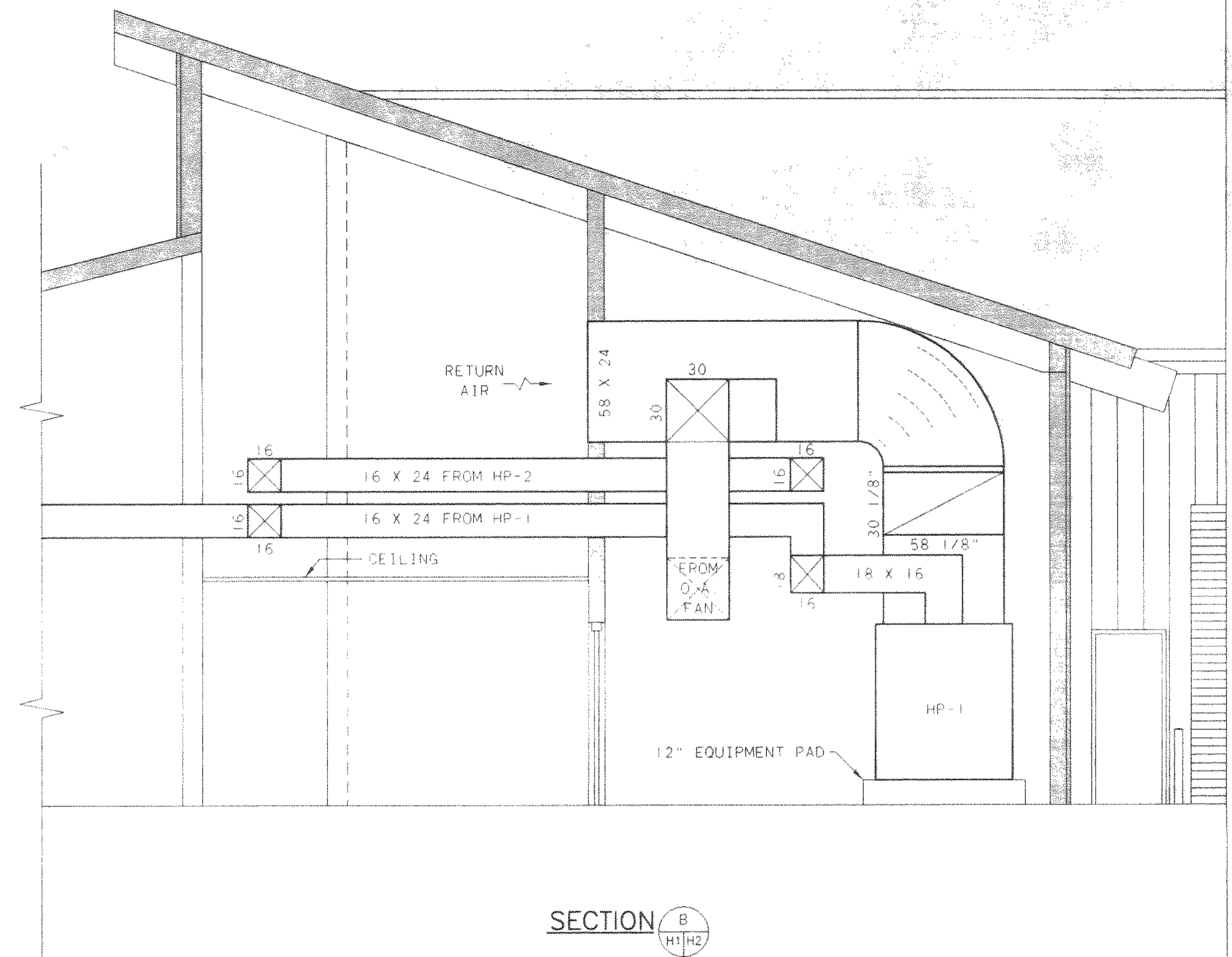
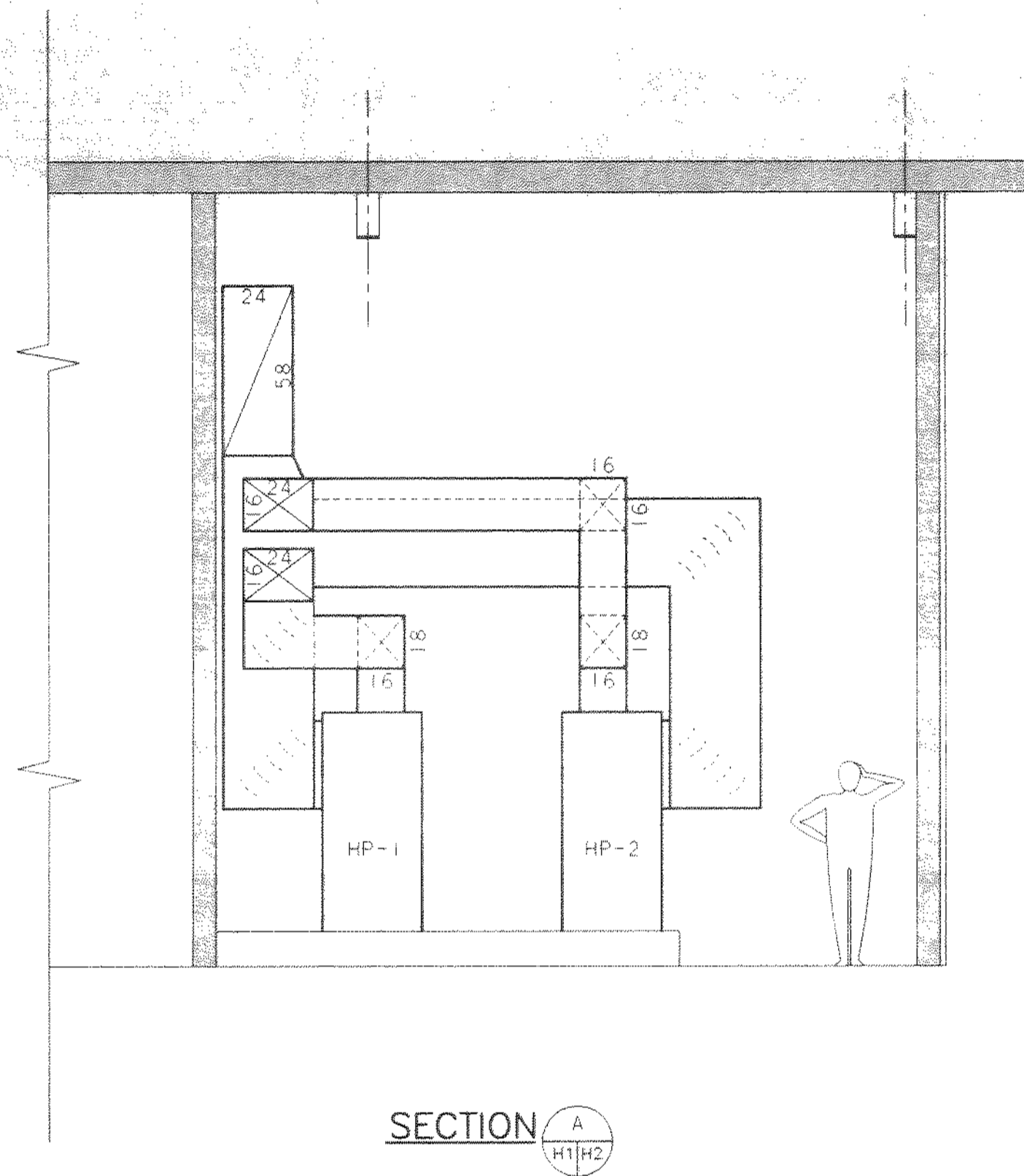
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	SLW
DATE:	1999

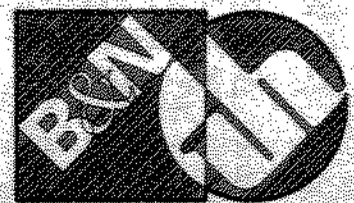
**HEATING & VENTILATION
CENTRAL MAINTENANCE FACILITY
PLAN**

SCALE:	1/8" = 1'-0"
SHEET NO.	84
OF	100



TOL-4714H07
 03/04/99 09-14

NO.	REVISIONS	DATE	BY	CHK.



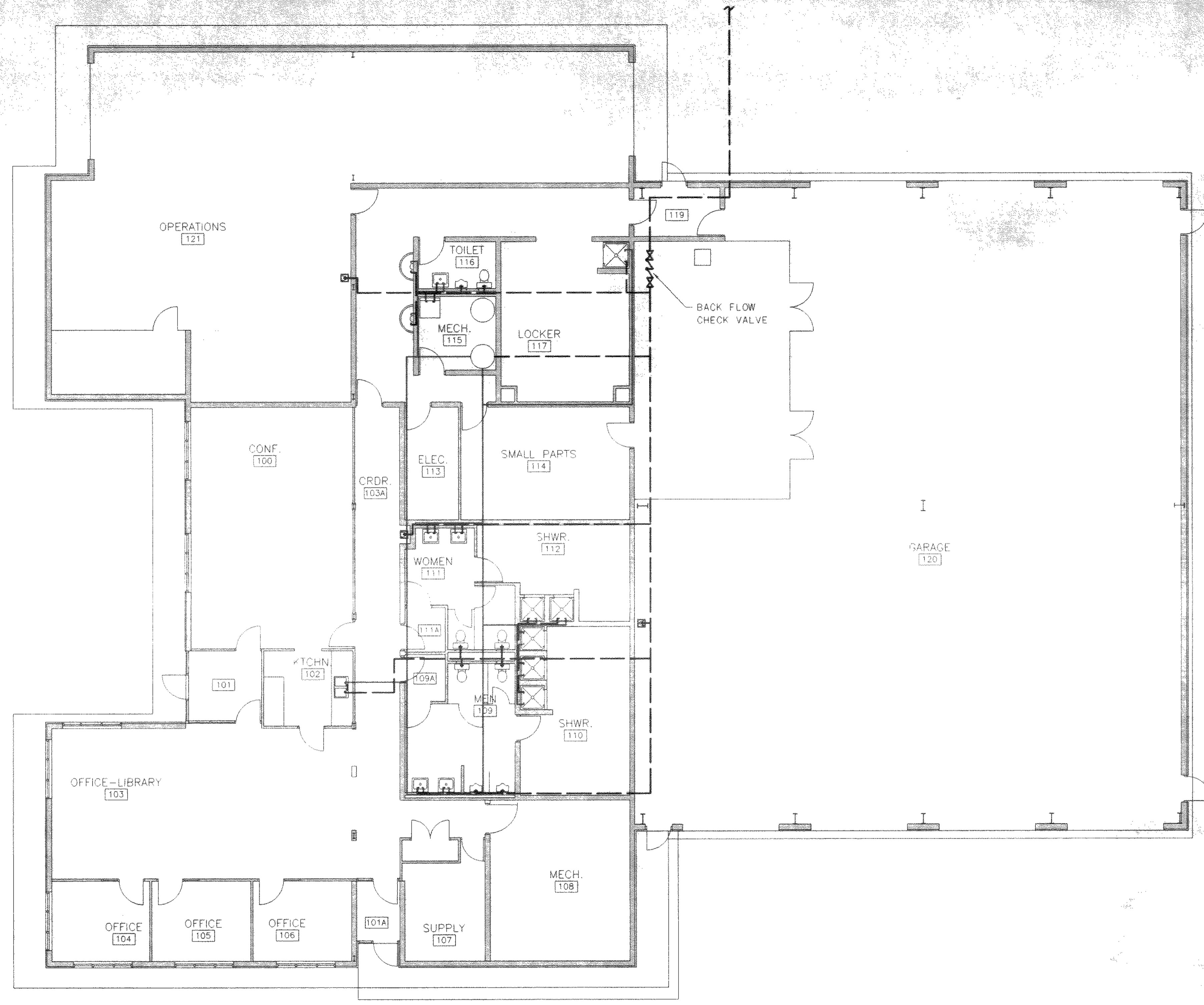
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

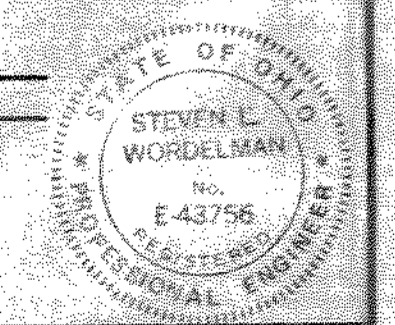
JOB NO.	20571
DESIGNED BY:	XXX
DRAWN BY:	CADD
CHECKED BY:	XXX
APPROVED BY:	XXX
DATE:	1999

HEATING AND VENTILATION
 CENTRAL MAINTENANCE FACILITY
 SECTIONS

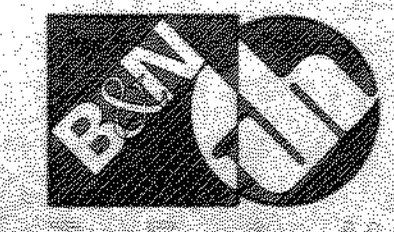
SCALE:	
1/4" = 1'-0"	
SHEET NO.	OF
85	100



LEGEND
 COLD WATER SUPPLY
 HOT WATER SUPPLY



NO.	REVISIONS	DATE	BY	CHK.



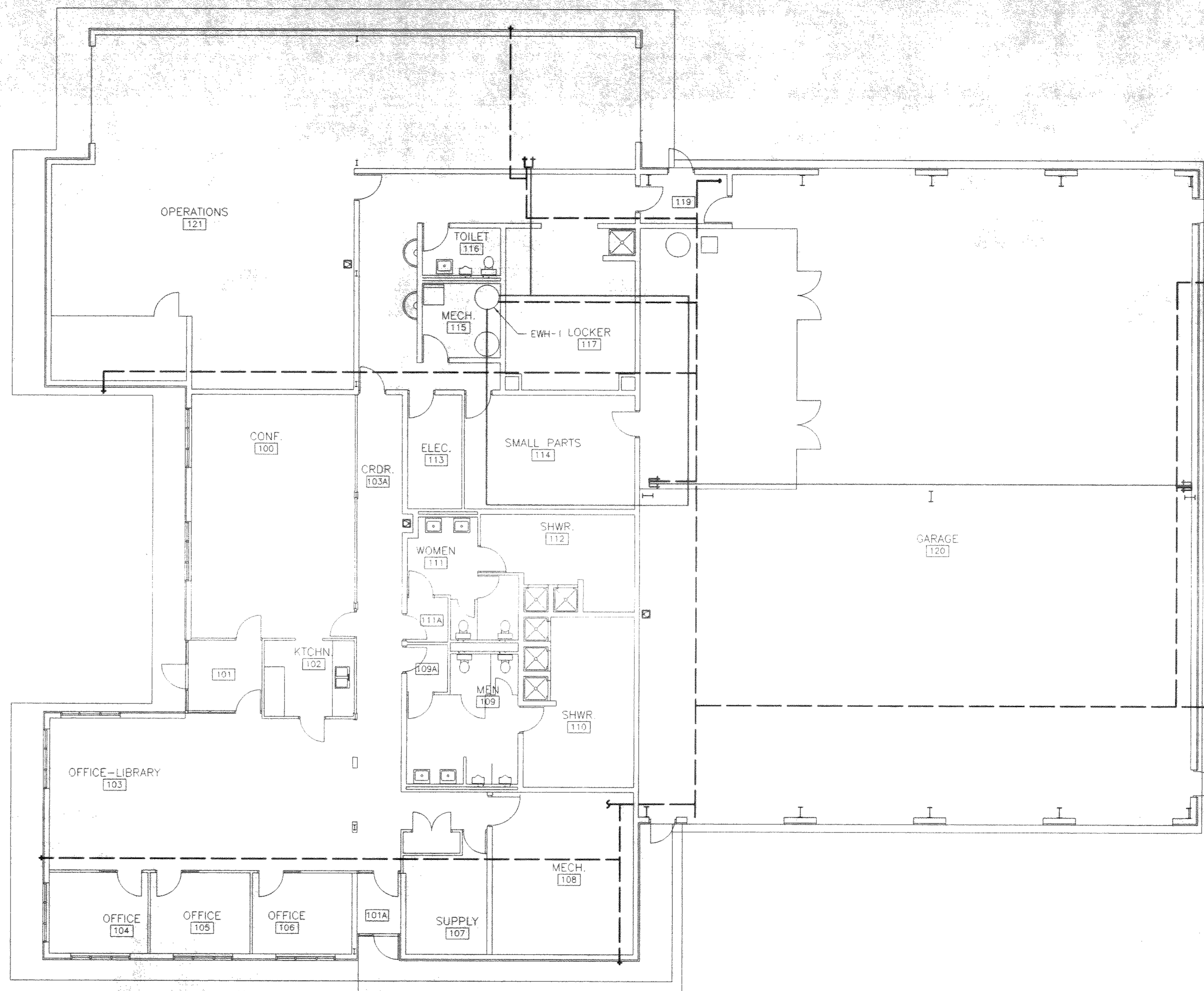
Burgess & Niple, Limited
 Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO. 20571
 DESIGNED BY: DLH
 DRAWN BY: DNY
 CHECKED BY:
 APPROVED BY: SLW
 DATE: 1999

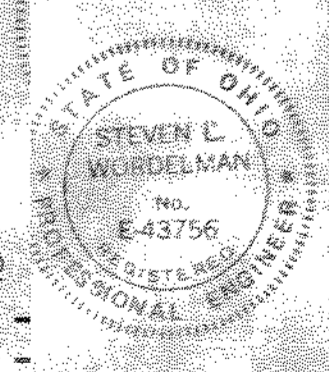
CENTRAL MAINTENANCE FACILITY
 PLUMBING
 POTABLE WATER PLAN

SCALE:
 1/8" = 1'-0"
 SHEET NO. 86 OF 100

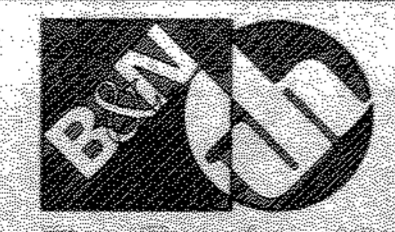


SC (TYPICAL)

LEGEND
 COLD WATER SUPPLY -
 HOT WATER SUPPLY -



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
 Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

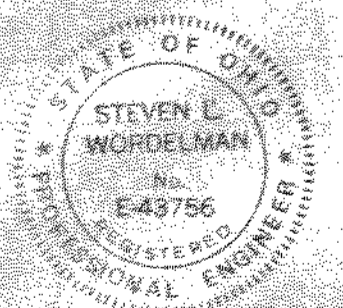
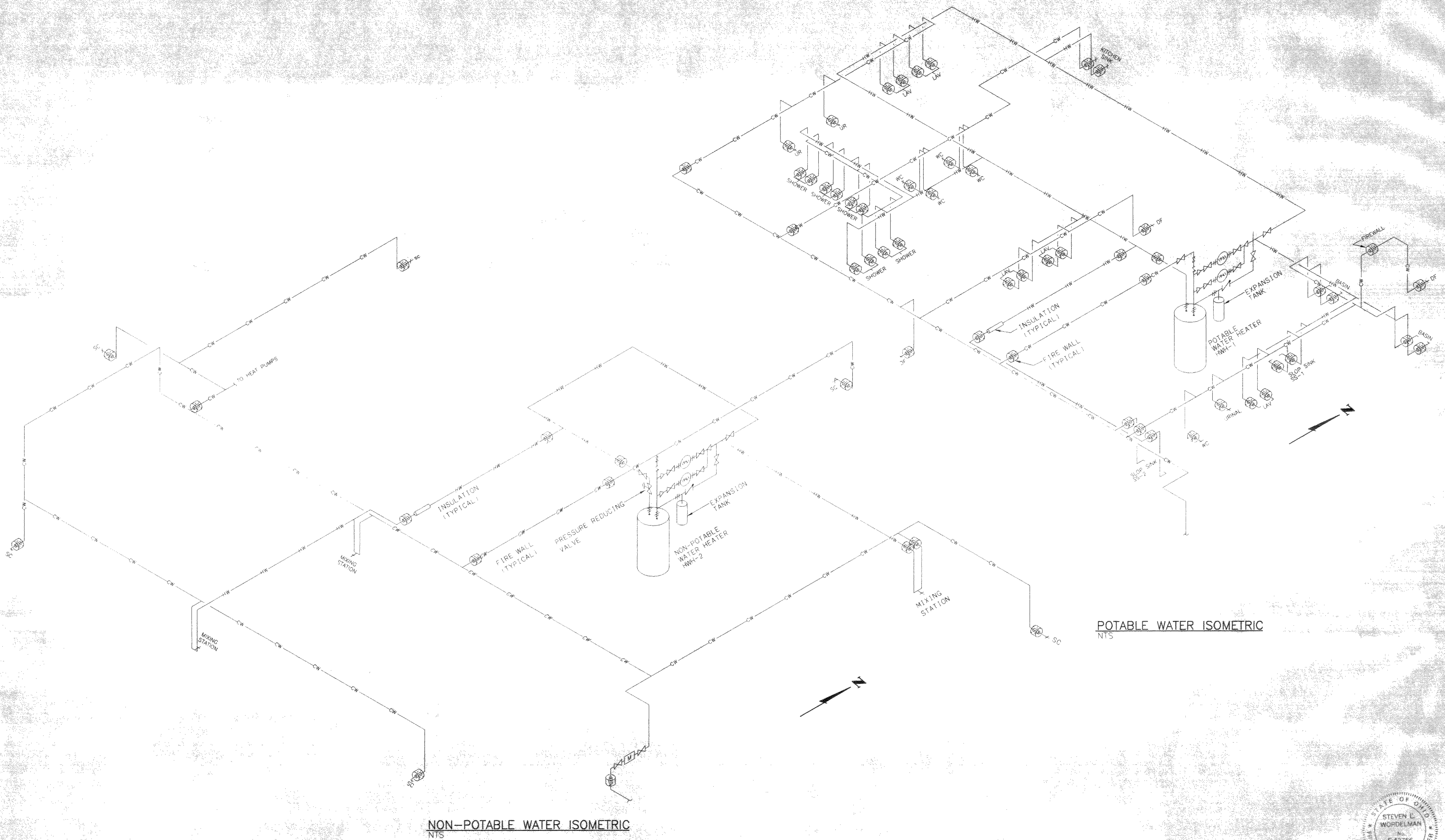
JOB NO. 20571
 DESIGNED BY: DLH
 DRAWN BY:
 CHECKED BY:
 APPROVED BY: SLW
 DATE: 1999

PLUMBING
 NON-POTABLE WATER PLAN

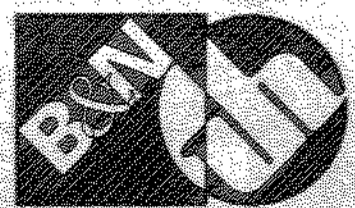
SCALE:
 1/8" = 1'-0"

SHEET NO. 87 OF 100

101-4714PS
03/04/99 09-14



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

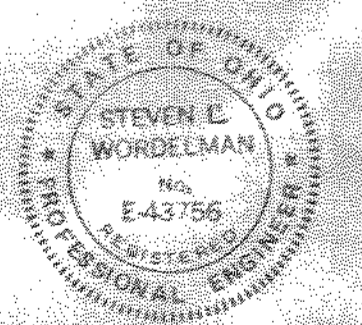
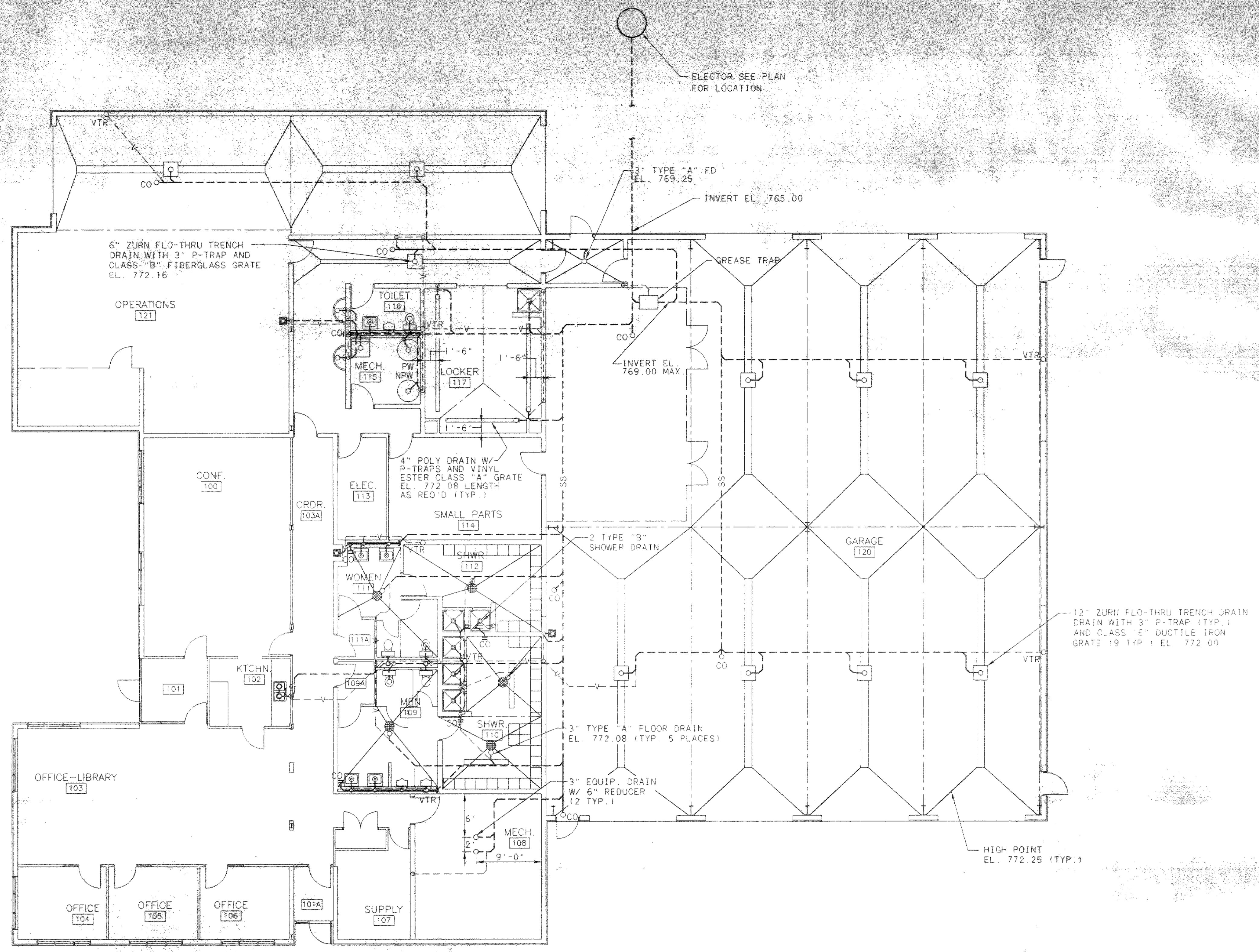
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	DNY
CHECKED BY:	
APPROVED BY:	SLW
DATE:	1999

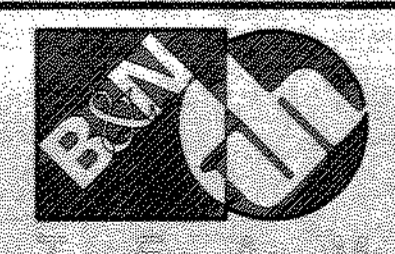
PLUMBING
WATER SUPPLY PIPING ISOMETRICS
CENTRAL MAINTENANCE FACILITY

SCALE:	
AS NOTED	
SHEET NO.	OF
88	100

T0-17425
03/04/99 09-14



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

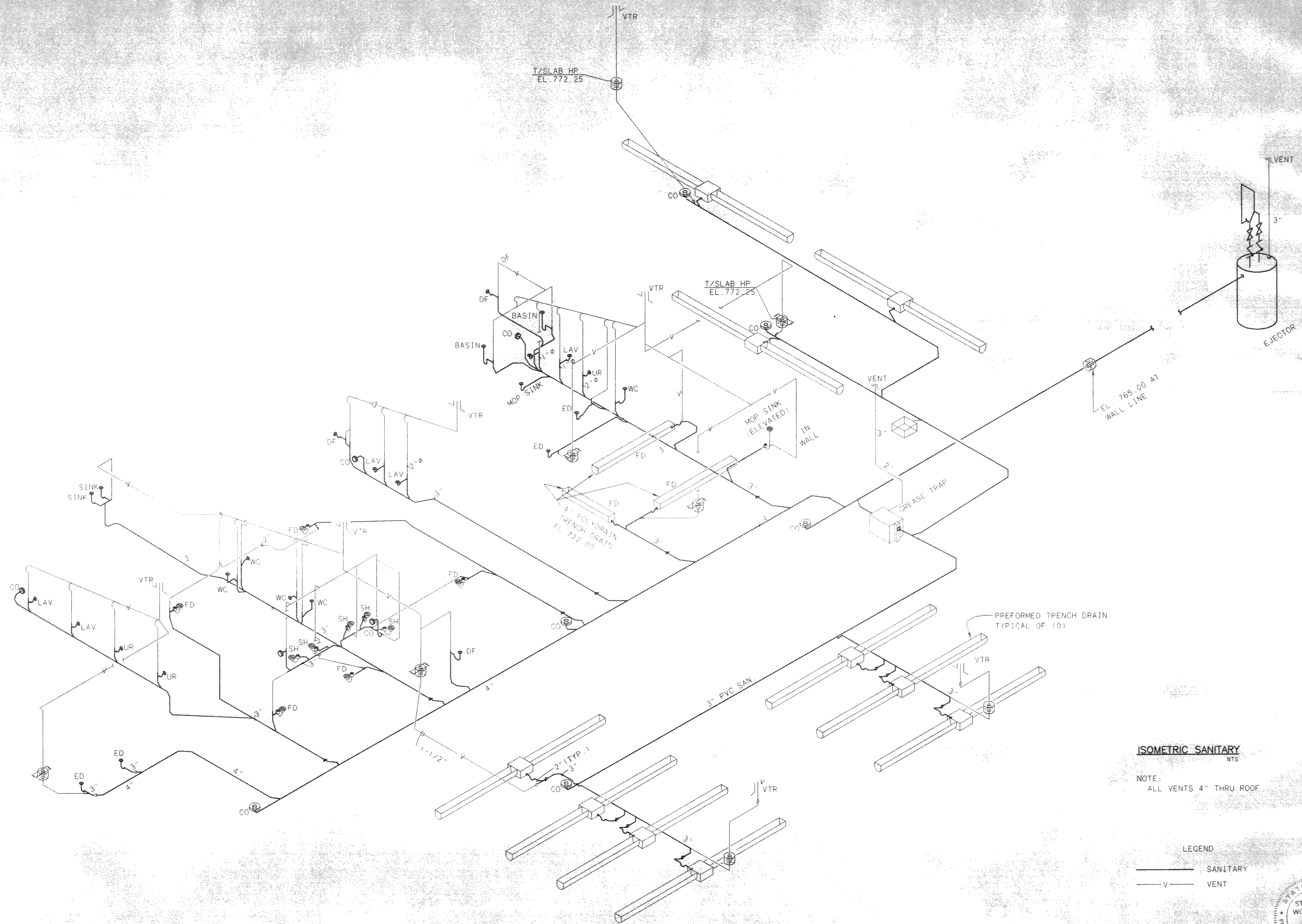
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	DNY
CHECKED BY:	
APPROVED BY:	SLW
DATE:	1999

PLUMBING
 SANITARY PIPING PLAN
 CENTRAL MAINTENANCE FACILITY

SCALE:	1/8" = 1'-0"
SHEET NO.	89
OF	100

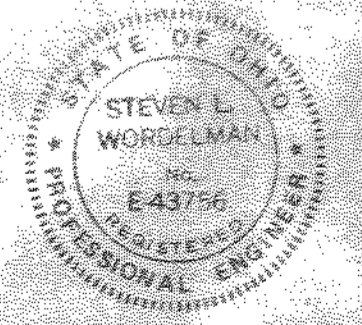
TOL-47/104
03/04/99 09-14



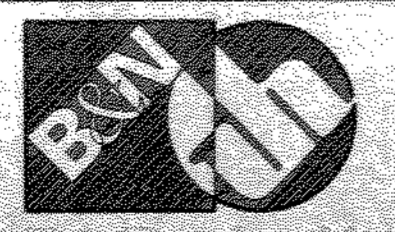
ISOMETRIC SANITARY
WTS

NOTE:
ALL VENTS 4" THRU ROOF

LEGEND
 ——— SANITARY
 - V - VENT



NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

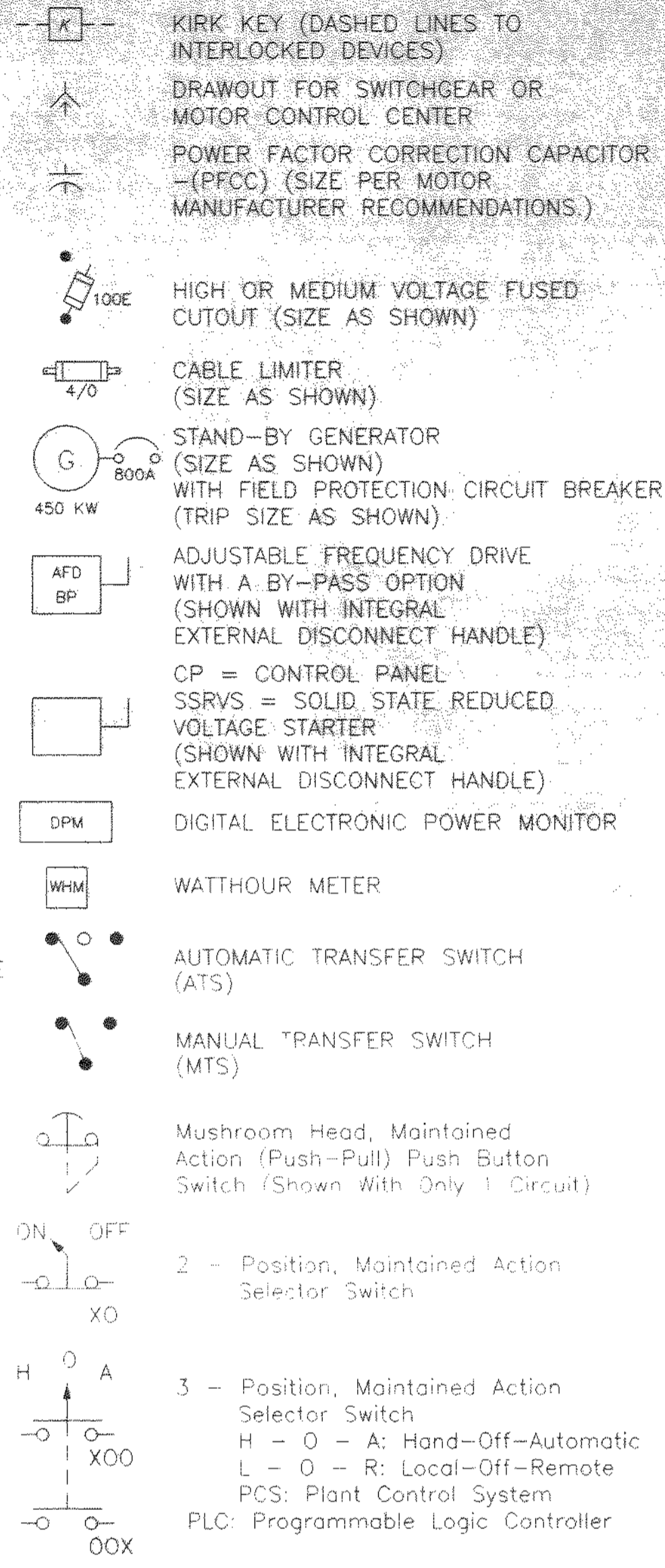
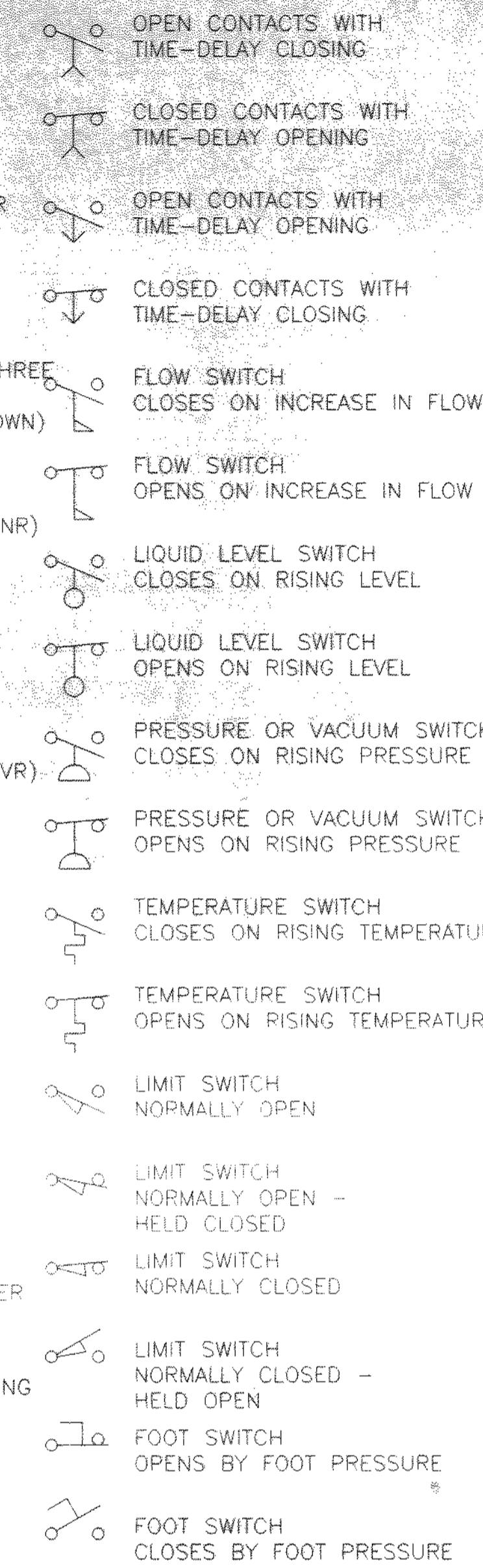
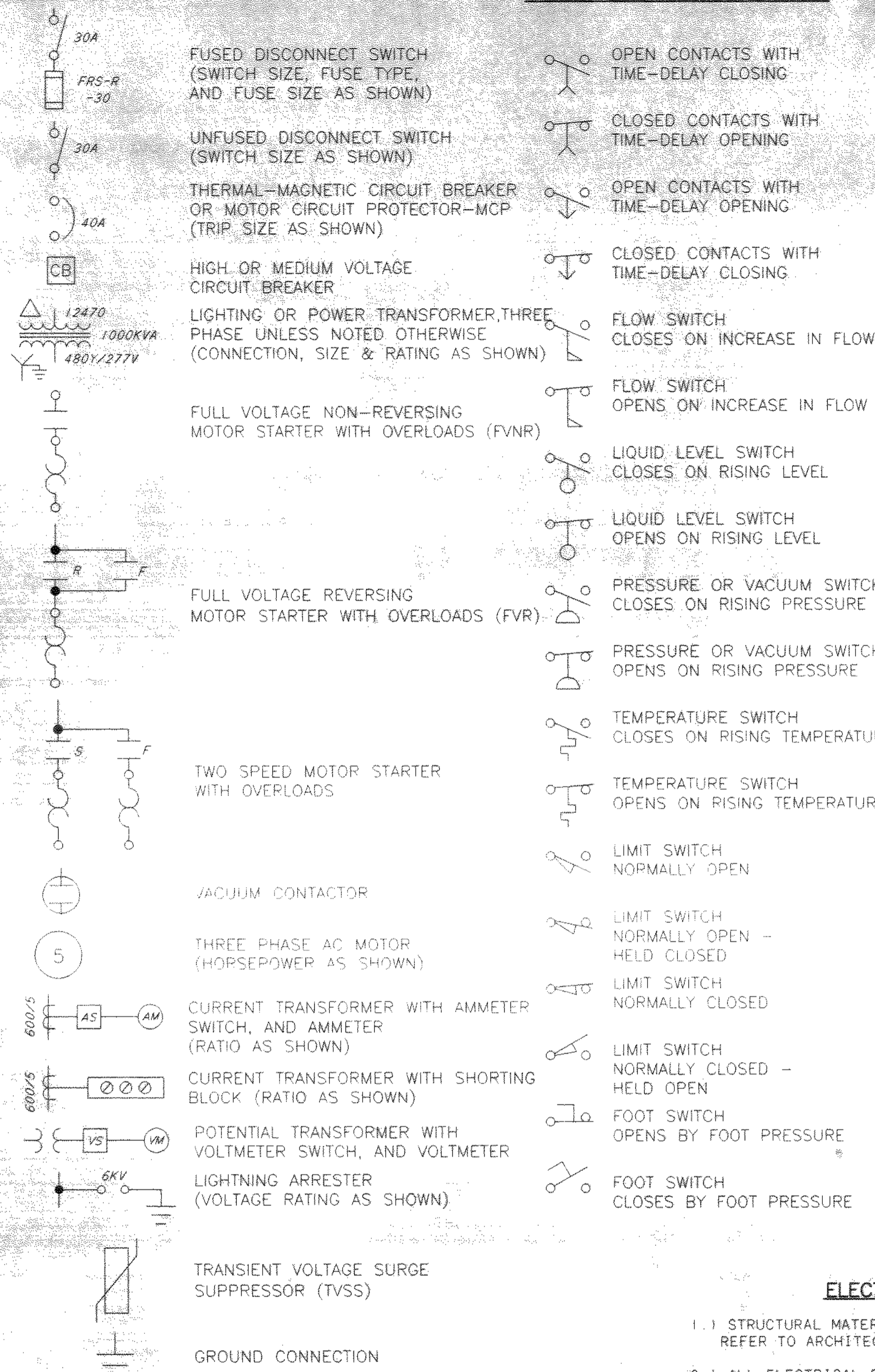
JOB NO. 20571
 DESIGNED BY: CCW
 DRAWN BY: NB
 CHECKED BY: DY
 APPROVED BY:
 DATE: 1999

CENTRAL MAINTENANCE FACILITY
 PLUMBING
 SANITARY ISOMETRICS

SCALE:	
NONE	
SHEET NO.	OF
90	100

TOL-471 HPE28
03/04/99 09-114

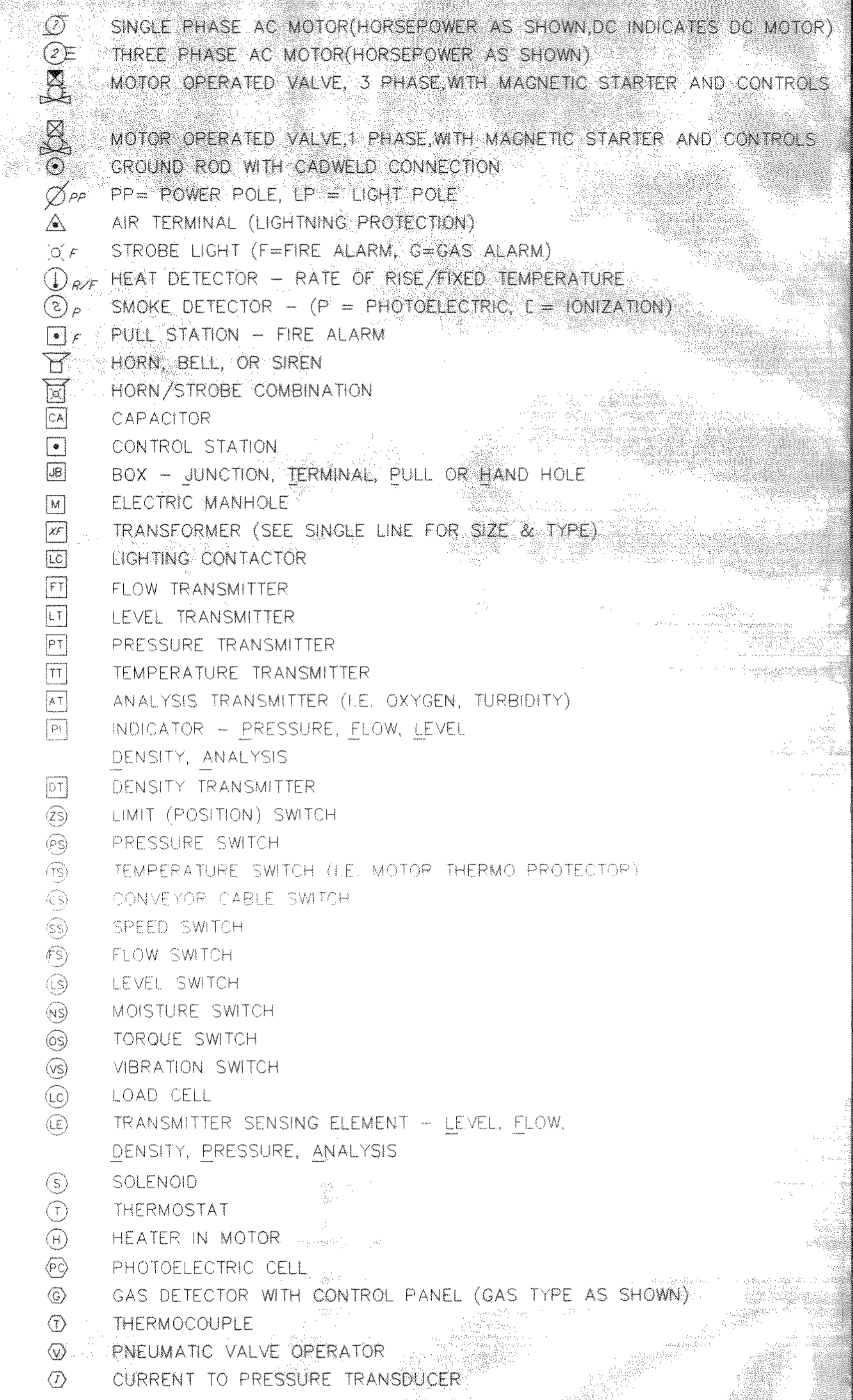
SINGLE LINE DIAGRAM LEGEND



ELECTRICAL NOTES

- STRUCTURAL MATERIALS ARE NOT SHOWN ON ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- ALL ELECTRICAL EQUIPMENT ELEVATIONS SHOWN ARE TO BOTTOM OF DEVICE OR PANEL, UNLESS OTHERWISE NOTED.
- NUMBER SHOWN (I.E. 11735), INDICATES A SPECIFICATION REFERENCE FOR ITEMS OTHER THAN DIVISION 16. THE ELECTRICAL ITEM UNDER THIS REFERENCE IS SUPPLIED BY THE GENERAL CONTRACTOR. UNLESS OTHERWISE NOTED IN THAT SPECIFICATION, THE ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE THE ITEM PER THE DRAWINGS AND DIVISION 16 SPECIFICATIONS.
- CONTROL WIRING SHALL CONFORM TO ALL REQUIREMENTS AS SHOWN ON THE P & ID DRAWINGS WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
- WHERE LINES ARE SHOWN CONNECTING ELECTRICAL EQUIPMENT, THEY ARE NOT INTENDED AS CONDUIT ROUTING. CONTRACTOR SHALL ROUTE ALL CONDUIT RUNS (SHOWN OR NOT) PER DIVISION 16 SPECIFICATIONS.
- WP INDICATES WATERPROOF. LETTER ON LIGHT FIXTURE INDICATES TYPE, PER SECTION 16500. NUMBER WITH LIGHT FIXTURE OR RECEPTACLE INDICATES CIRCUIT NUMBER.

ELECTRICAL PLAN LEGEND

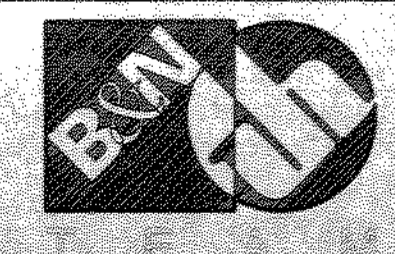


MOTOR STARTER ABBREVIATIONS

- FVNR - FULL VOLTAGE, NON-REVERSING
- FVR - FULL VOLTAGE REVERSING
- TS1W - TWO SPEED, ONE WINDING
- TS2W - TWO SPEED, TWO WINDING
- TSR1W - TWO SPEED REVERSING, ONE WINDING
- TSR2W - TWO SPEED REVERSING, TWO WINDING

DL-474874 03/04/99 09-14

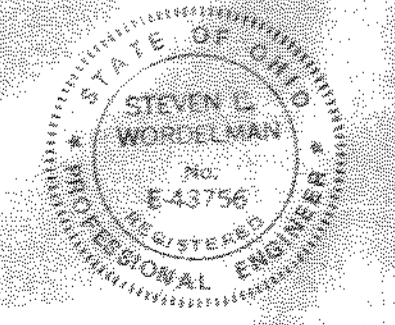
NO.	REVISIONS	DATE	BY	CHK.



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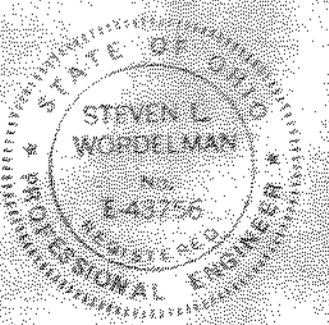
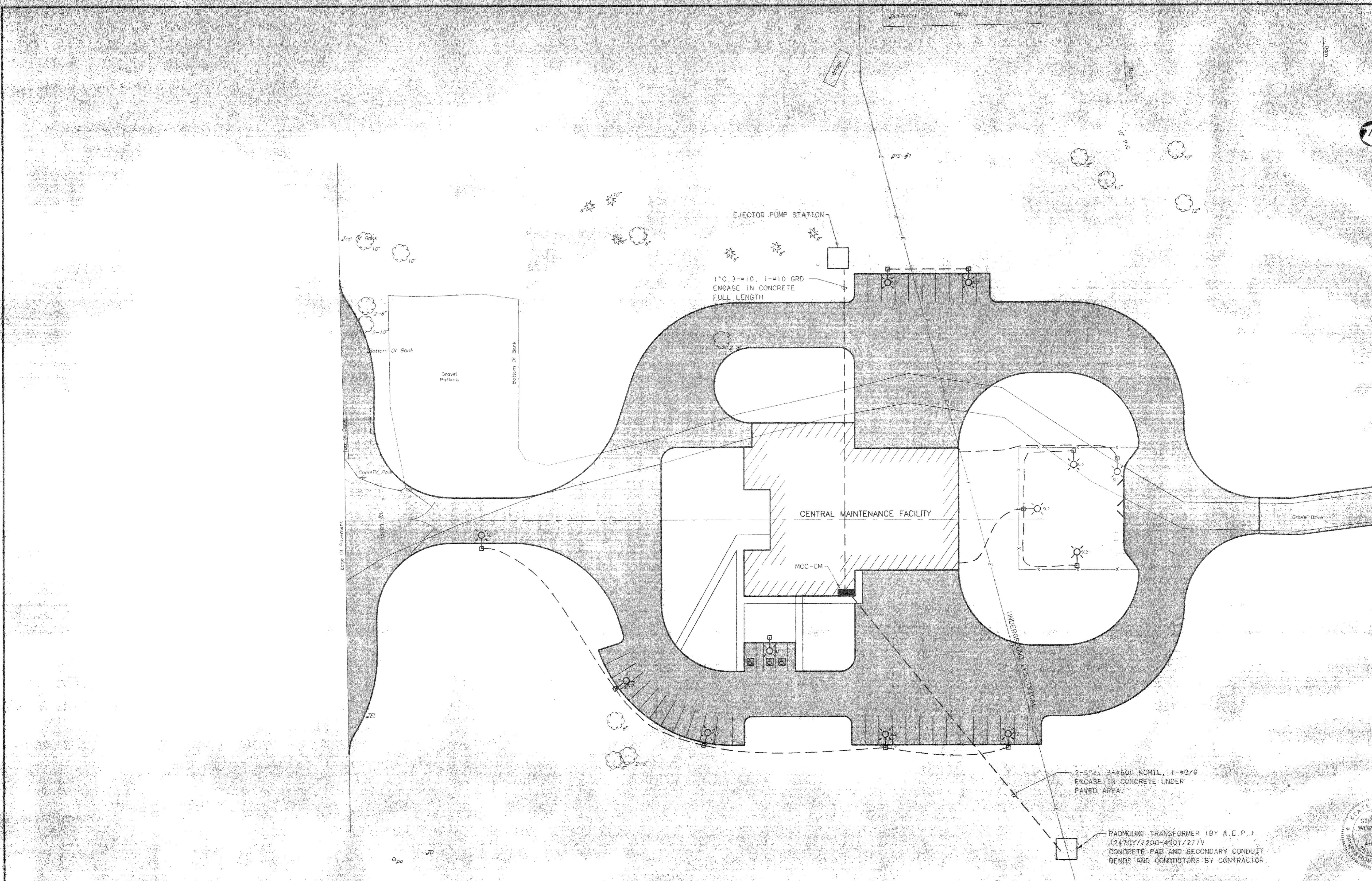
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	KMH
CHECKED BY:	
APPROVED BY:	
DATE:	1999

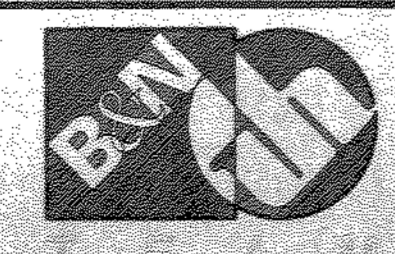


CENTRAL MAINTENANCE FACILITY
ELECTRICAL LEGEND

SCALE:	NONE
SHEET NO.	91
OF	100



NO.	REVISIONS	DATE	BY	CHK.



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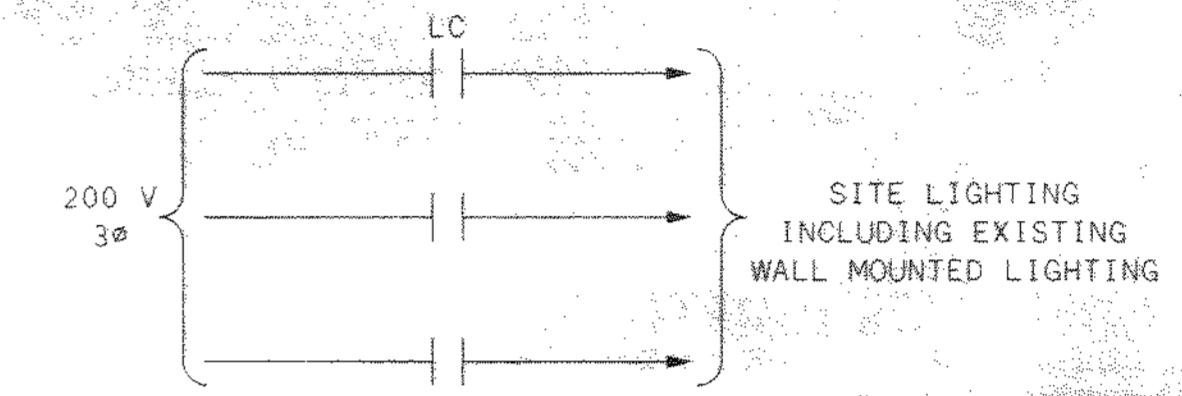
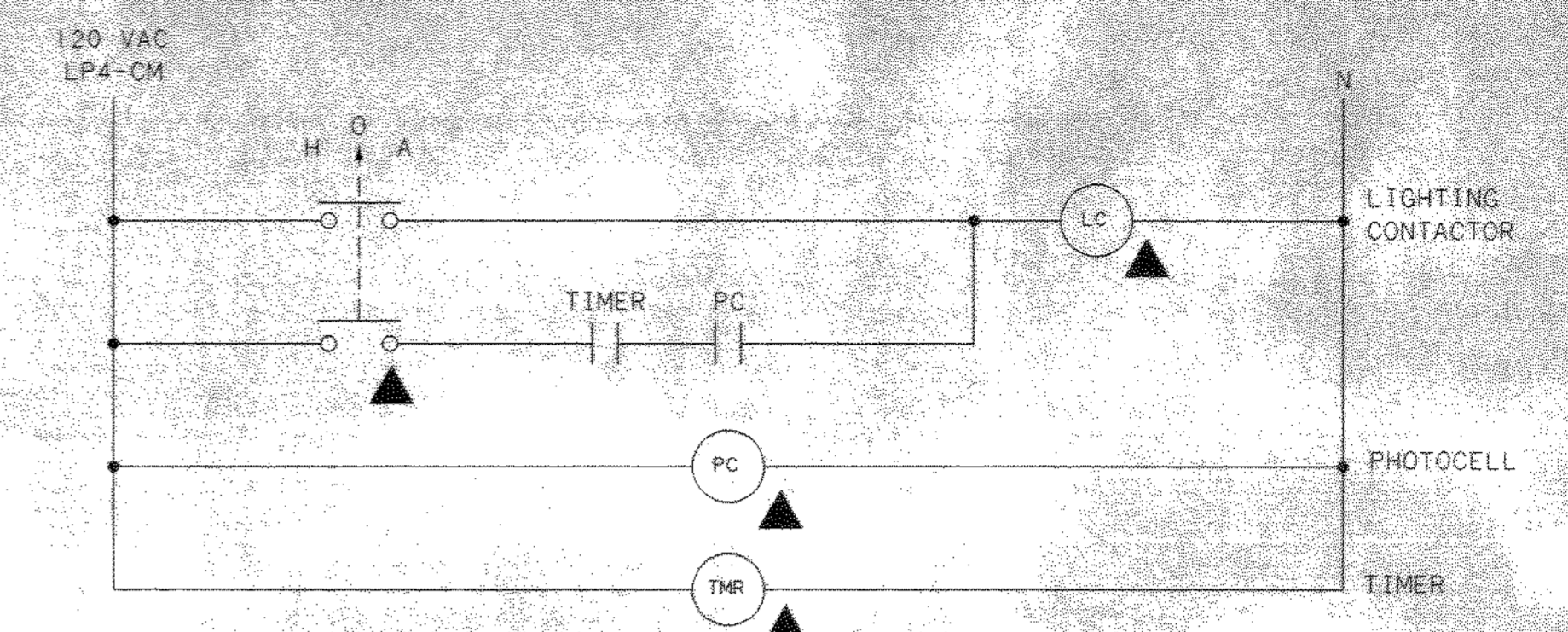
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	BEF
CHECKED BY:	
APPROVED BY:	SLW
DATE:	1999

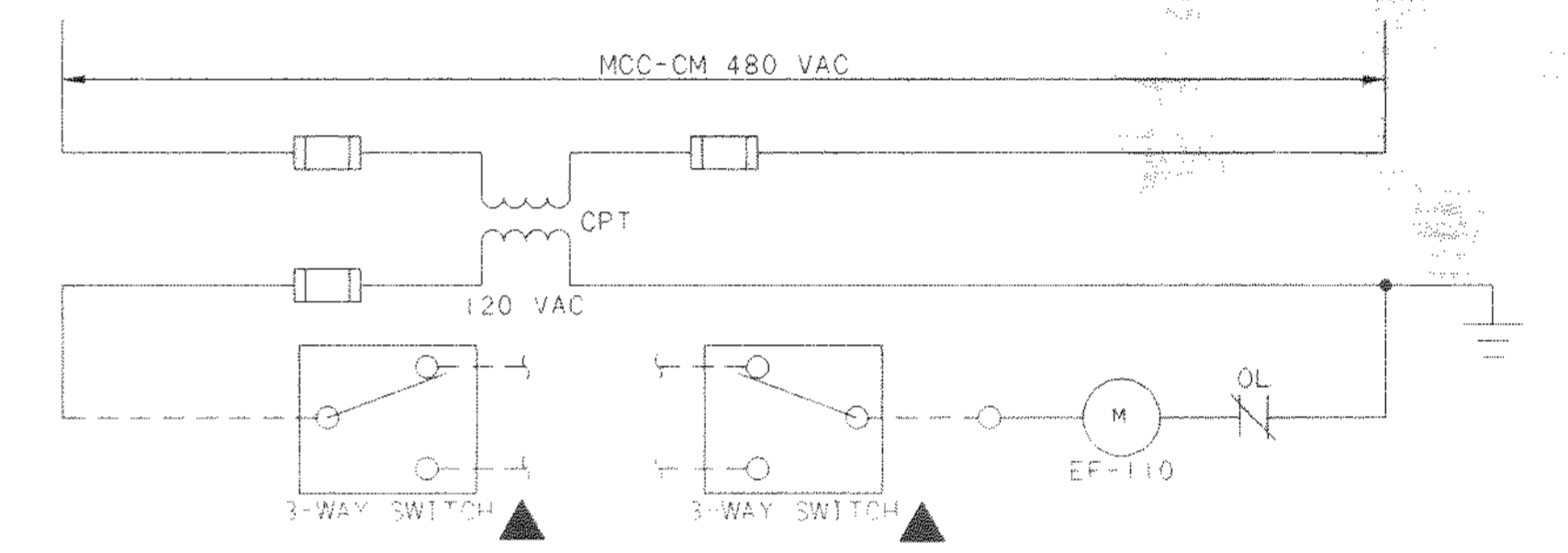
**CENTRAL MAINTENANCE FACILITY
 ELECTRICAL SITE PLAN**

SCALE:	
1"=30'	
SHEET NO.	OF
92	100

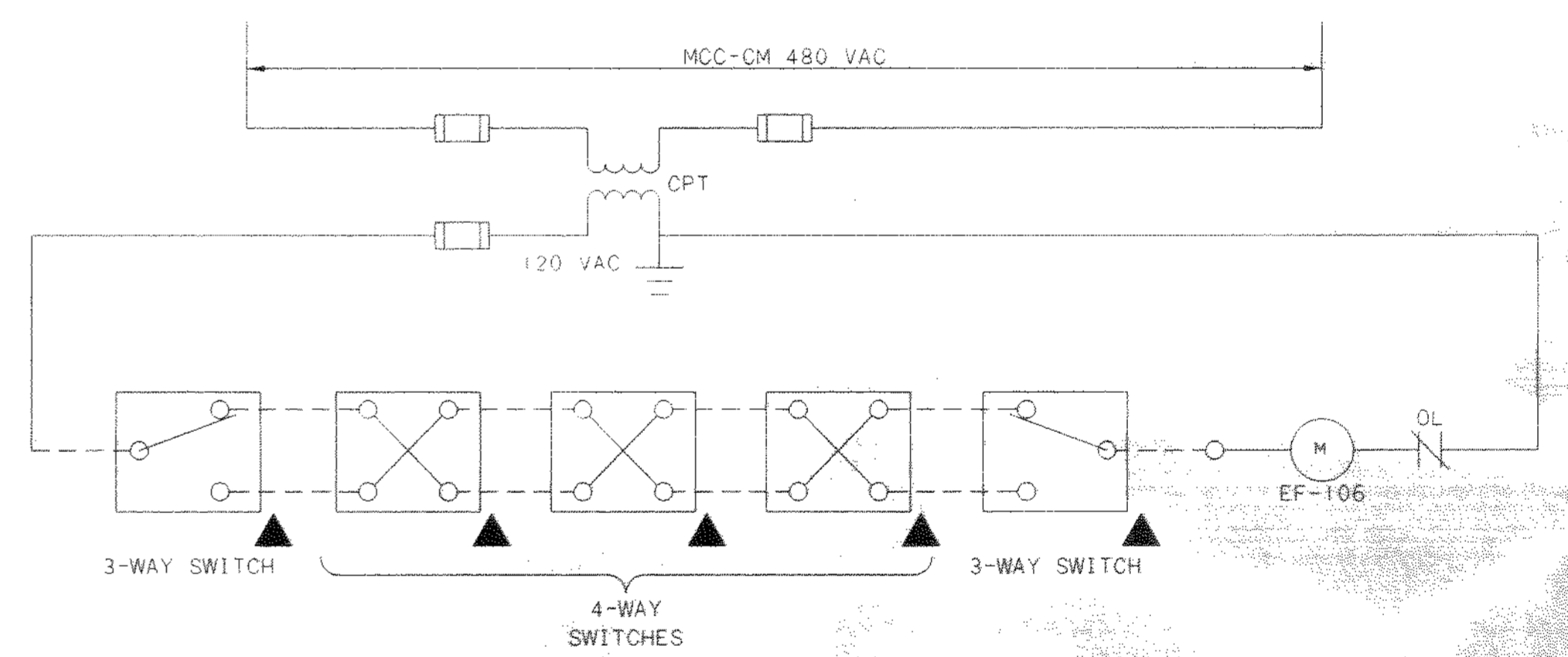
101-4714682
01/05/99/01-14



TYPICAL SITE LIGHTING CONTROL SCHEMATIC

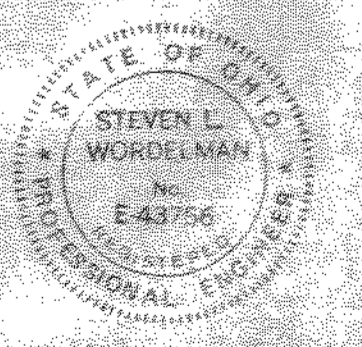


EXHAUST FAN EF-110 CONTROL SCHEMATIC

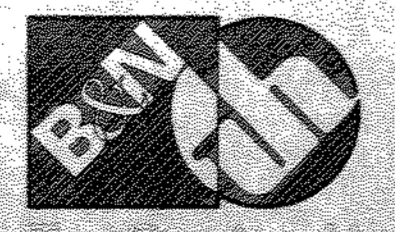


EXHAUST FAN EF-106 CONTROL SCHEMATIC

SYMBOL	LOCATION
NONE	MOTOR CONTROL CENTER MCC-CM
▲	FIELD



NO.	REVISIONS	DATE	BY	CHK.



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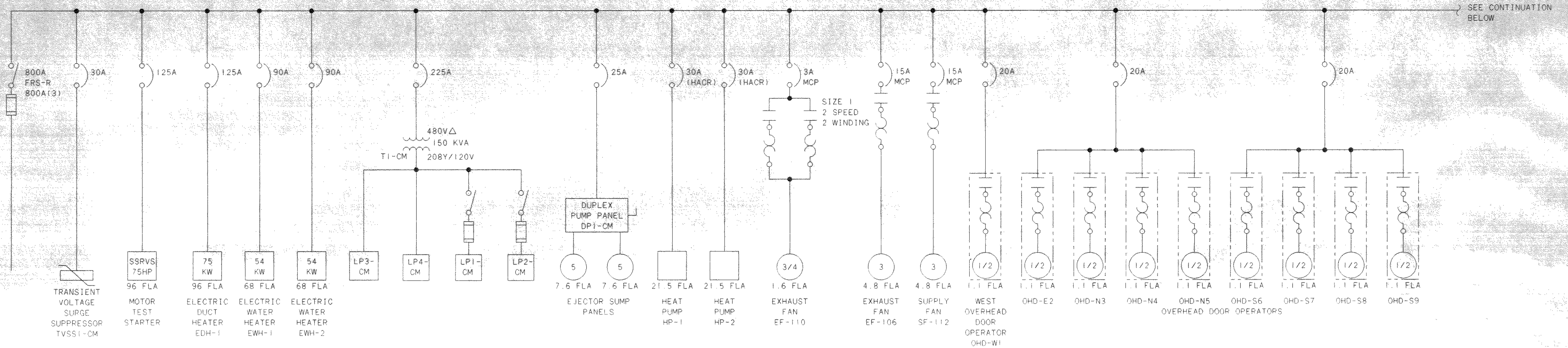
DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	KMH
CHECKED BY:	
APPROVED BY:	
DATE:	1999

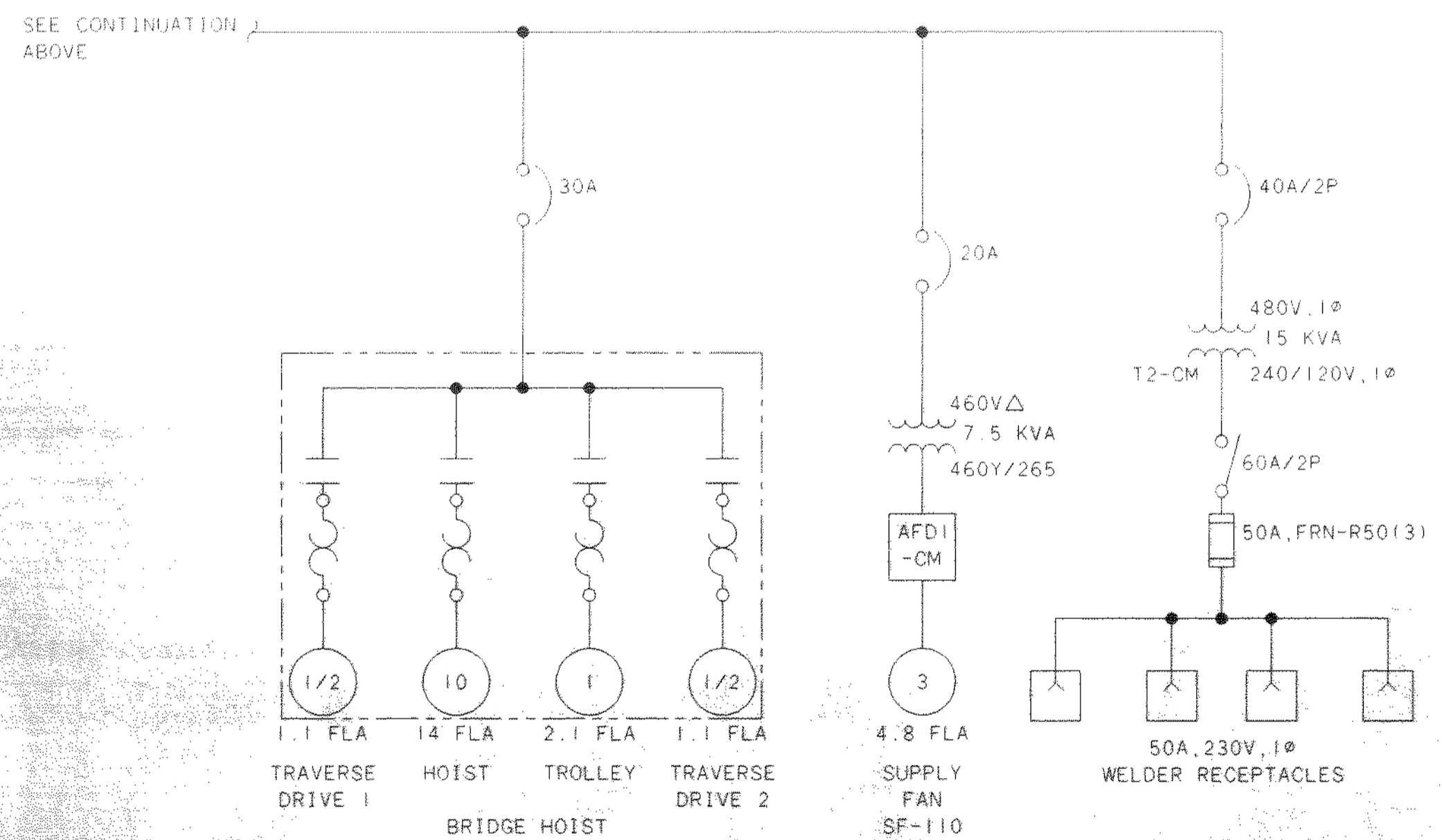
CENTRAL MAINTENANCE FACILITY
 ELECTRICAL
 TYPICAL SITE LIGHTING
 CONTROL SCHEMATICS

SCALE:	NONE
SHEET NO.	93
OF	100

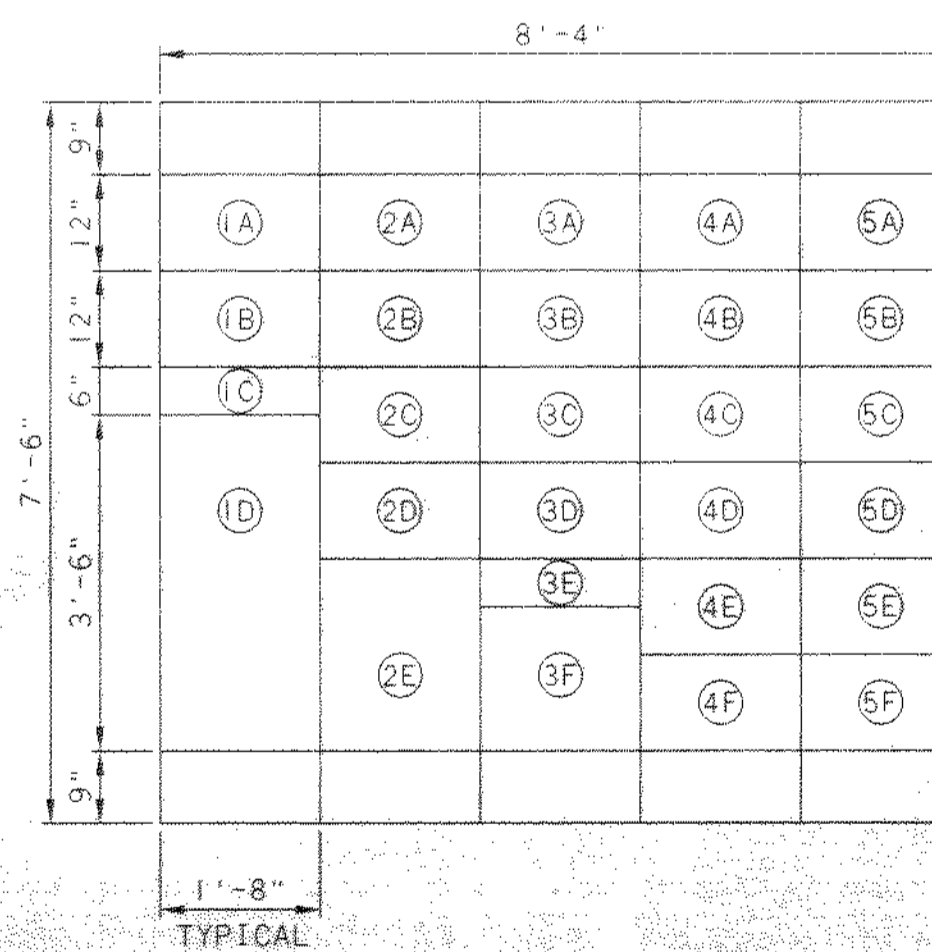
TOL-4714E78
 03/04/99 09-14



CENTRAL MAINTENANCE FACILITY MOTOR CONTROL CENTER - MCC-CM
800A, 3Ø/3W, 60HZ, 480V



CENTRAL MAINTENANCE FACILITY MOTOR CONTROL CENTER - MCC-CM (CONT'D)
800A, 3Ø/3W, 60HZ, 480V



CENTRAL MAINTENANCE FACILITY
MOTOR CONTROL CENTER MCC-CM FRONT ELEVATION
800A MAIN BUS, 3Ø/3W, 60HZ, 800A MAIN FUSED DISCONNECT, 480V

- LEGEND:
- 1A TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS1-CM)
 - 1B DIGITAL METER
 - 1C BLANK
 - 1D 800A FUSIBLE DISCONNECT SWITCH
 - 2A SPARE
 - 2B EXHAUST FAN EF-106
 - 2C SUPPLY FAN EF-112
 - 2D HEAT PUMP HP-1
 - 2E EXHAUST FAN EF-110
 - 2F SPARE
 - 3A SPARE
 - 3B SPARE
 - 3C OVERHEAD DOOR OPERATOR OHD-W1
 - 3D HEAT PUMP HP-2
 - 3E BLANK
 - 3F LIGHTING TRANSFORMER T1-CM
 - 4A SPARE
 - 4B SUPPLY FAN (SF-109) AFD1-CM
 - 4C WELDING TRANSFORMER T2-CM
 - 4D OVERHEAD DOOR OPERATORS OHD-E2, OHD-N3, OHD-N4, OHD-N5
 - 4E ELECTRIC WATER HEATER EWH-1
 - 4F MOTOR TEST STARTER (SSRVS)
 - 5A SPARE
 - 5B BRIDGE CRANE
 - 5C OVERHEAD DOOR OPERATORS OHD-S6, OHD-S7, OHD-S8, OHD-S9
 - 5D DUPLEX PUMP PANEL DP1-CM
 - 5E ELECTRIC WATER HEATER EWH-2
 - 5F ELECTRIC DUCT HEATER EDH-1

NO.	REVISIONS	DATE	BY	CHK.

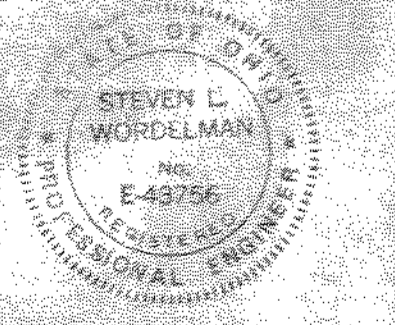
Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	BEF
CHECKED BY:	DLH
APPROVED BY:	SLW
DATE:	1999

CENTRAL MAINTENANCE FACILITY
ELECTRICAL
SINGLE LINE DIAGRAM MCC-CM
FRONT ELEVATION MCC-CM

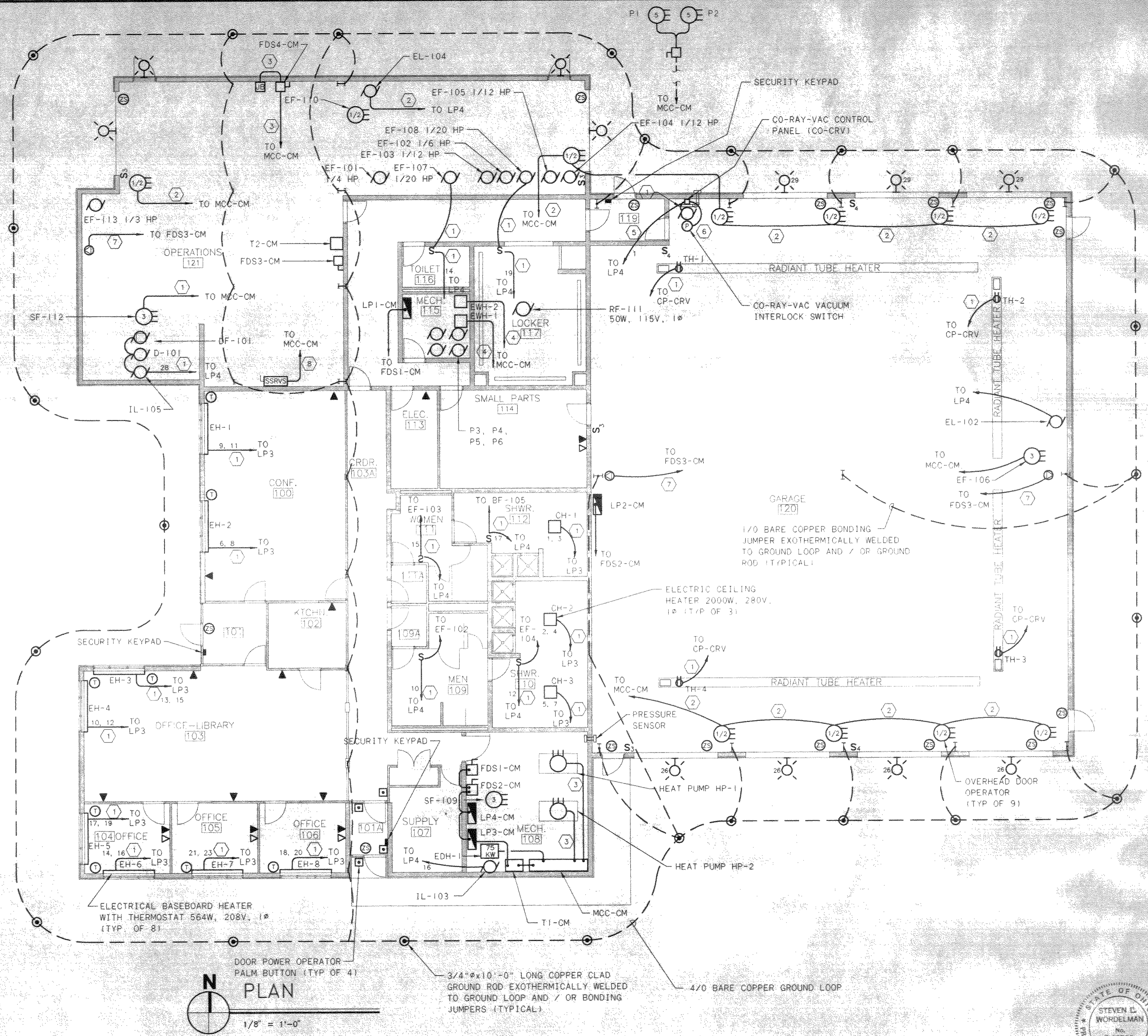
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SHEET NO.	94
OF	100



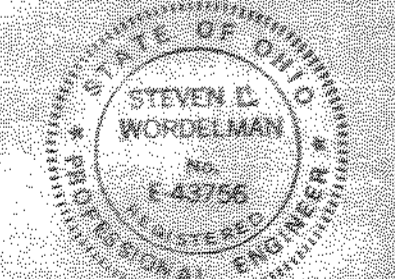
- 1 3/4" C, 2-#12, 1-#12 GRD
- 2 3/4" C, 3-#12, 1-#12 GRD
- 3 3/4" C, 3-#10, 1-#10 GRD
- 4 1-1/4" C, 3-#4, 1-#8 GRD
- 5 1" C, 2-#8, 1-#10 GRD
- 6 3/4" C, 2-#14, 1-#14 GRD
- 7 1" C, 2-#6, 1-#10 GRD
- 8 1-1/2" C, 3-#1, 1-#6 GRD

NOTES:

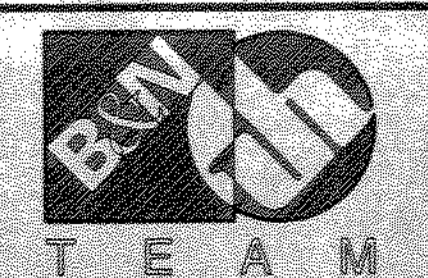
1. RUN 3/4" C, 2-#14 FROM EACH INTRUSION SENSOR (2) TO SECURITY CONTROL PANEL



PLAN
1/8" = 1'-0"



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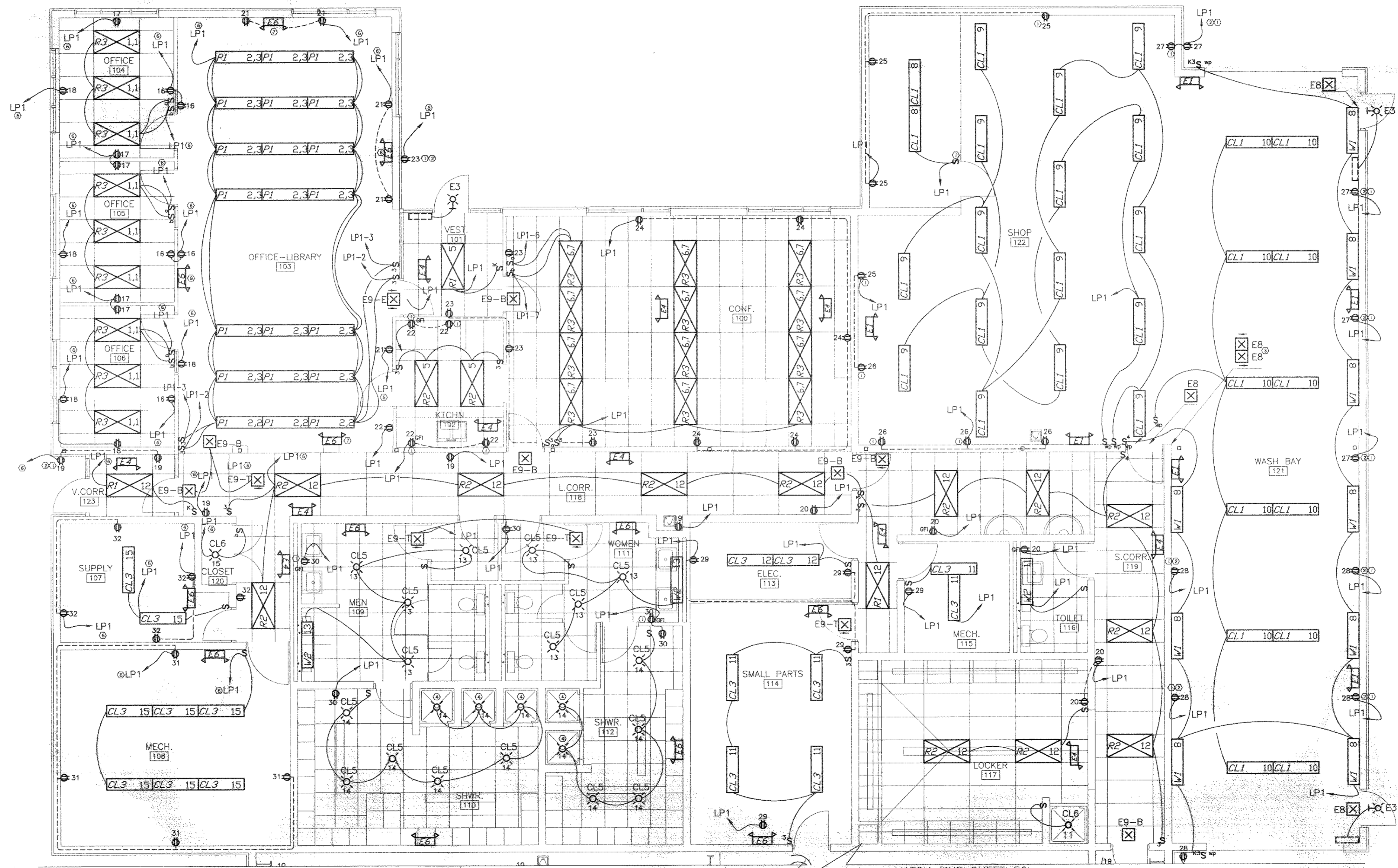
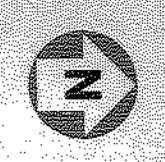
DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	SLW
DATE:	1999

CENTRAL MAINTENANCE FACILITY
ELECTRICAL
PLAN

SCALE:	1/8" = 1'-0"
SHEET NO.	95
OF	100

TOL-474625
03/04/99 09-14



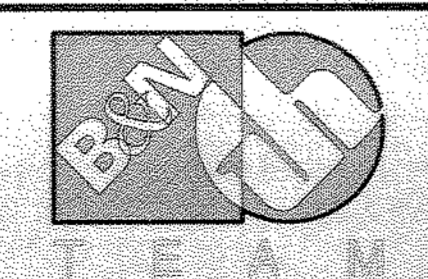
- CODED NOTES:**
- ① MT. AT 36" AFF.
 - ② WEATHERPROOF, GFI RECEPTACLE.
 - ③ PROVIDE UNISTRUT WALL BRACKET FOR BACK TO BACK MOUNTING.
 - ④ COMB. SHOWER FAN/LIGHT SEE DIV. 15
 - ⑤ FINAL LAYOUT AND LOCATION OF LUMINAIRES TO BE APPROVED BY ENGINEER/ARCHITECT.
 - ⑥ HOME RUN SHALL BE 2-#10, #10 GRD IN 3/4" C.
 - ⑦ CIRCUIT TO LP1-2, AHEAD OF SWITCH.
 - ⑧ CIRCUIT TO LP1-3, AHEAD OF SWITCH.

- GENERAL NOTES:**
1. ALL CIRCUIT HOMERUNS ON THIS SHEET INCLUDE THE SUFFIX "-CM" EVEN THOUGH NOT SHOWN.
 2. S_i - INSIDE LAMP
S_o - OUTSIDE LAMP
 3. ALL OUTDOOR "E3" FIXTURES ARE ON CIRCUIT #20 IN "LP2-CM".
 4. ALL INDOOR EGRESS FIXTURES ARE ON CIRCUIT #21 IN "LP2-CM".
 5. CONSOLIDATION OF INDIVIDUAL CONDUIT HOMERUNS SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL BY THE ENGINEER.
 6. MOUNT ALL P1 LUMINAIRES AT 10'-0" AFF.
 7. ALL HOME RUNS NOT OTHERWISE MARKED SHALL BE 2-#12, #12 GRD IN 3/4" C.
 8. X_i = INSIDE LAMP CIRCUIT
X_o = OUTSIDE LAMP CIRCUIT

MATCH LINE SHEET E6

P:\PR20571\CADD\ELEC\CONRT2\COM-WEST.DWG 3-2-99 3:25:04 pm EST

NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	EDT
DRAWN BY:	MSW
CHECKED BY:	EDT
APPROVED BY:	EDT
DATE:	FEBRUARY 1999

**CENTRAL MAINTENANCE BUILDING (WEST)
ELECTRICAL POWER & LIGHTING PLAN**

SCALE:	3/16"=1'-0"
SHEET NO.	96
OF	100

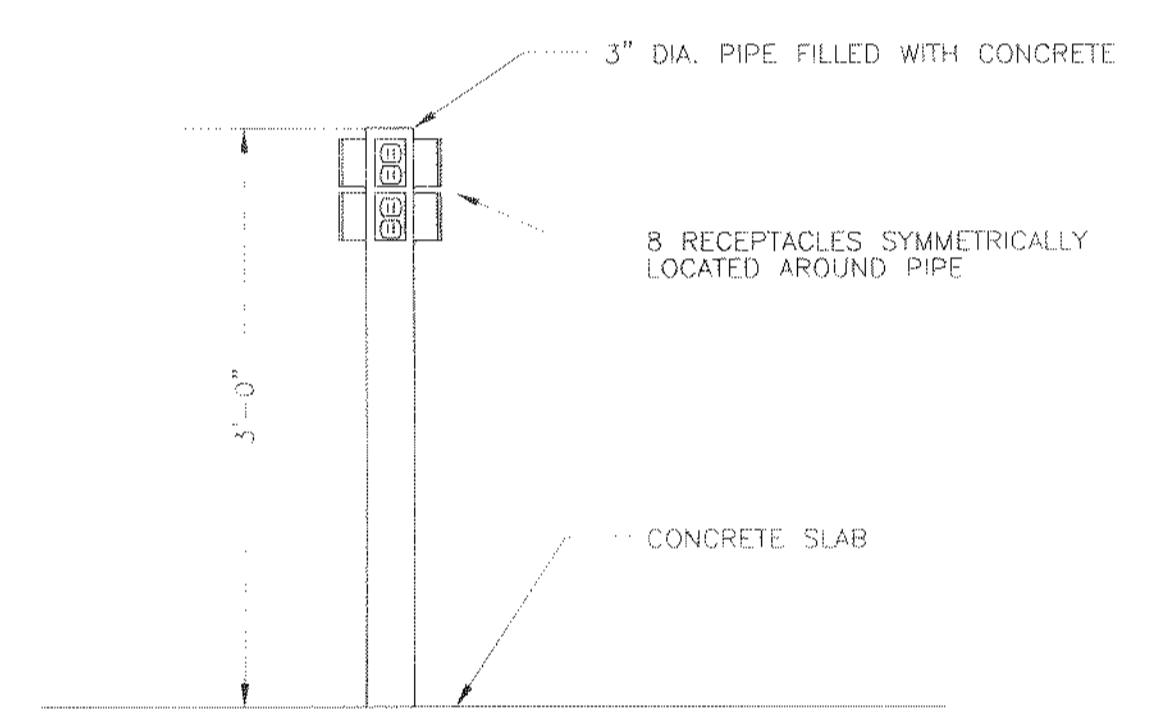
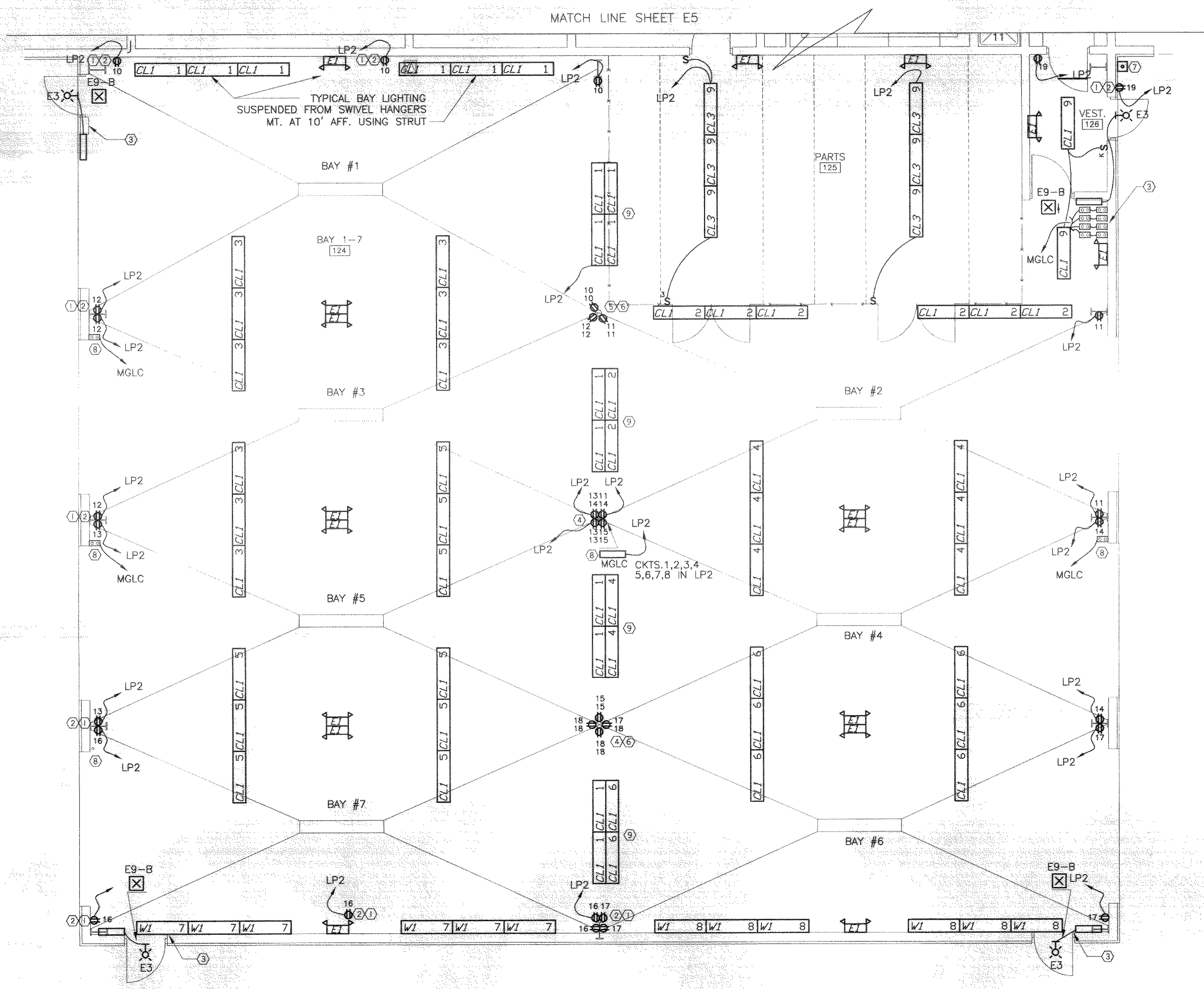


GENERAL NOTES:

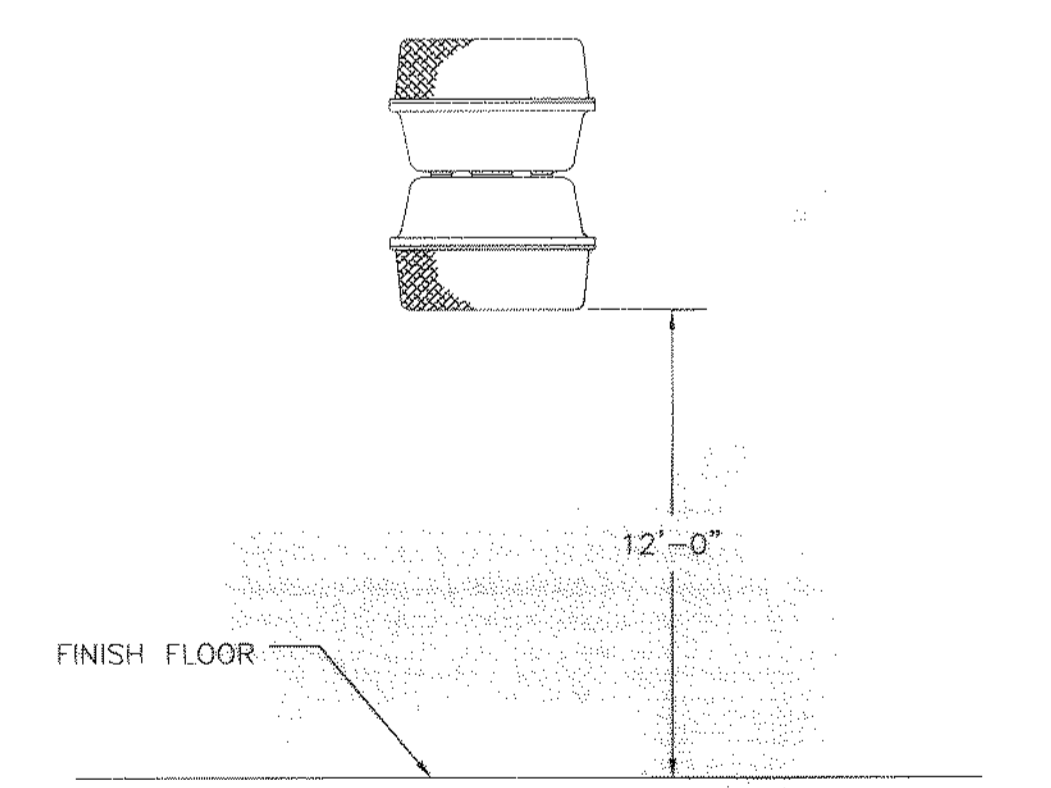
1. ALL CIRCUIT HOMERUNS FOR THIS SHEET INCLUDE THE SUFFIX "-CM", EVEN THOUGH NOT SHOWN.
2. ALL OUTDOOR "E3" FIXTURES ARE ON CIRCUIT #20 IN "LP2-CM".
3. HOMERUNS NOT OTHERWISE MARKED SHALL BE 2-#12, #12 GRD IN 3/4" C.
4. UNLESS OTHERWISE NOTED, MOUNT ALL "CL1" LUMINAIRES AT 12' AFF.

CODED NOTES:

- ① MT. AT 36" AFF.
- ② WEATHERPROOF, GFI RECEPTACLE
- ③ PUSHBUTTON SWITCHES FOR BAYS #1-7 AND "HI-BAY".
- ④ TOTAL QTY. OF EIGHT RECEPTACLES.
- ⑤ TOTAL QTY. OF SIX RECEPTACLES.
- ⑥ SEE POLE DETAIL, THIS SHEET
- ⑦ PHOTO CELL FOR OUTDOOR FIXTURES "E3" ON CIRCUIT 20. PROVIDE NAMEPLATE "CKT.20,LP2-CM. PORCH LIGHT PHOTOCELL".
- ⑧ MGLC-MASTER GARAGE LIGHTING CONTACTOR 8 POLE, 120V, 30 AMPERE MERCURY CONTACTS. ELECTRIC OPERATED, MECHANICALLY LATCHED. NEMA 1 ENCLOSURE WITH FUSED COIL CIRCUIT. NAME PLATE AS UNDERLINED ABOVE, ALSO, NAME PLATE FOR ALL CIRCUITS NUMBERS REQUIRED TO DEENERGIZE. PROVIDE WEATHERPROOF 2 BUTTON PUSHBUTTONS WITH P/T PILOT TO INDICATE LIGHTS "ON" AND NAME PLATE "BAY NO. (#1-#7 AND "HI-BAY").
- ⑨ SEE LUMINAIRE MOUNTING DETAIL, THIS SHEET



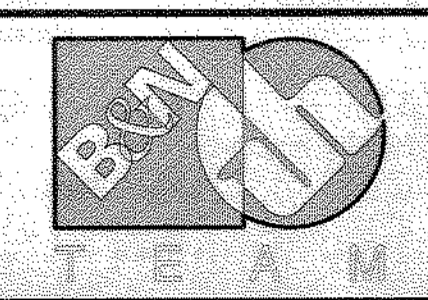
POLE DETAIL SCALE" 1=1



LUMINAIRE MOUNTING DETAIL NOT TO SCALE

P:\PR20571\CAD\VELEC\CONRT2\CM-EAST.DWG 3-1-99 10:26:08 am EST

NO.	REVISIONS	DATE	BY	CHK.



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 Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
 ALUM CREEK PUMP STATION
 & CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	???
DRAWN BY:	MSW
CHECKED BY:	EDT
APPROVED BY:	EDT
DATE:	FEBRUARY 1999

CENTRAL MAINTENANCE BUILDING (EAST)
 ELECTRICAL POWER & LIGHTING PLAN

SCALE:	3/16"=1'-0"
SHEET NO.	97
OF	100

LIGHTING LUMINAIRE SCHEDULE									
FIXTURE CODE ABBREVIATIONS					LAMP ABBREVIATIONS				
CL - CEILING MOUNT	P - PENDANT MOUNT	SL - SITE LIGHT	FLR - FLUORESCENT	LPS - LOW PRESSURE SODIUM	INC - INCANDESCENT	HPS - HIGH PRESSURE SODIUM	R - RECESSED	E - EMERGENCY	B - BOLLARD
W - WALL MOUNT	X - EXIT SIGN	S - SURFACE	MER - MERCURY VAPOR	HAL - HALOGEN	MH - METAL HALIDE	TUN - TUNGSEN			
FIXT CODE	MANUFACTURER	MODEL	OPTICS	LAMP	REMARKS				
CL1	COLUMBIA	LUN4-232-EBB 120-HUBK	HIGH IMPACT ACRYLIC DIFFUSER	FLR 2 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMPS OR EQUAL. PROVIDE ELECTRONIC BALLAST PROVIDE 1-1/2" CEILING SPACER (OPTION "JB") FOR THOSE FIXTURES SURFACE MOUNTED ON A FLAT CEILING. PROVIDE FIXTURE WITH SLOPE CEILING SWIVEL STEM HANGERS (OPTION SO) WITH SUFFICIENT STEM LENGTH TO MOUNT FIXTURE AT 10'-0" AFF (UNLESS NOTED OTHERWISE) FOR THOSE FIXTURES MOUNTED ON A SLOPED CEILING. UL LISTED FOR WET LOCATIONS. 				
CL3	COLUMBIA	K4-232-EBB 120-CSWG4	BARE LAMP STRIP	FLR 2 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMPS OR EQUAL. PROVIDE ELECTRONIC BALLAST. PROVIDE SWIVEL STEM HANGER WITH SUFFICIENT STEM LENGTHS TO MOUNT FIXTURE AT 8'-0" AFF TO BOTTOM OF FIXTURE. 				
CL5	KIRLIN	RR90944 WITH FRESNEL LENS.	GLASS FRESNEL LENS	FLR 1 32 120	<ul style="list-style-type: none"> PROVIDE PHILIPS #PL-T32W/35/4P LAMP 				
CL6	GE	H7X15F3CDD	CLEAR GLASS GLOBE WITH GUARD	INC 1 100 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #100A21 LAMP OR EQUAL. 				
E1	PRESCOLITE	EDP3-H0612	EMERGENCY EGRESS FLOOD	INC 2 12 120	<ul style="list-style-type: none"> PAR 36, 6 VOLT, 12 WATT, HALOGEN LAMPS FURNISHED WITH FIXTURE. NEMA 4X HOUSING WALL MOUNTED AT 7'-6" AFF UNLESS NOTED 90 MIN. BATTERY WITH TEST SWITCH. 				
E3	DESIGNPLAN	PSE8A01-XX-10P1	EXTERIOR EGRESS	FLR 2 13 120	<ul style="list-style-type: none"> CONTRACTOR TO COORDINATE COLOR FOR EACH BLDG. WITH ENGINEER. WALL MOUNT 12" ABOVE DOOR. PROVIDE REMOTE BALLAST WITH 90 MIN. BATTERY WITH TEST SWITCH. 				
E4	YORKLITE	AR2E12BE-120	EMERGENCY FLOOD	INC 2 12 6	<ul style="list-style-type: none"> 6 VOLT, 12 WATT, HALOGEN LAMPS FURNISHED WITH FIXTURE. RECESSED CLG. MOUNTED. 				
E6	YORKLITE	A2E1201BE	EMERGENCY FLOOD	INC 2 12 6	<ul style="list-style-type: none"> 6 VOLT, 12 WATT, HALOGEN LAMPS FURNISHED WITH FIXTURE. WALL MOUNT AT 7'-6" AFF UNLESS OTHERWISE NOTED. 				
E8	PRESCOLITE	NEX1RW3-EN-120V	CLEAR POLYCARBONATE COVER WITH RED LETTERS	FLR 2 5 120	<ul style="list-style-type: none"> LAMPS FURNISHED WITH FIXTURE WALL MOUNT NEMA 4X EXIT LIGHT ABOVE DOOR 				
E9	PRESCOLITE	LED-R-1-NB-B/BA	BRUSHED ALUMINUM STENCIL FACE WITH RED LETTERS	LED LAMPS FURNISHED WITH FIXTURE	<ul style="list-style-type: none"> PROVIDE ARROWS PER PLAN. EXIT LIGHT E9-E= EDGE MOUNT, DOUBLE FACE EXIT LIGHT E9-B= BACK MOUNT, SINGLE FACE EXIT LIGHT E9-T= TOP MOUNT, DOUBLE FACE 				

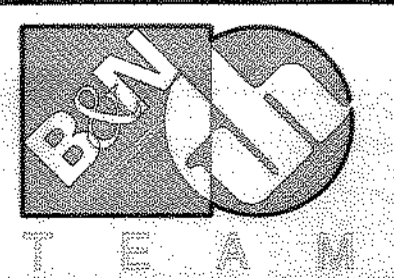
LIGHTING LUMINAIRE SCHEDULE (CONTINUED)									
FIXTURE CODE ABBREVIATIONS					LAMP ABBREVIATIONS				
CL - CEILING MOUNT	P - PENDANT MOUNT	SL - SITE LIGHT	FLR - FLUORESCENT	LPS - LOW PRESSURE SODIUM	INC - INCANDESCENT	HPS - HIGH PRESSURE SODIUM	R - RECESSED	E - EMERGENCY	B - BOLLARD
W - WALL MOUNT	X - EXIT SIGN	S - SURFACE	MER - MERCURY VAPOR	HAL - HALOGEN	MH - METAL HALIDE	TUN - TUNGSEN			
FIXT CODE	MANUFACTURER	MODEL	OPTICS	LAMP	REMARKS				
P1	LITECONTROL	P1D90XXT8 PALSS30XXTW 120	SEMI-SPECULAR ALUMINUM PARABOLIC Baffles	FLR 3 34 120	<ul style="list-style-type: none"> PROVIDE THREE OSRAM/SYLVANIA #F032/835 LAMPS FOR EACH 4'-3" LENGTH OF LIGHTED SECTIONS. PROVIDE FIXTURE FINISH PER ARCHITECT'S SELECTION. SUBMIT MANUFACTURER'S STANDARD COLOR SELECTION CHART. PROVIDE STRAIGHT LENGTHS OF FIXTURE WITH TWO SC/P6 SWIVEL HANGERS (ONE AT EACH END, ONE POWER FEED) AND ADDITIONAL ACC INTERIM SUPPORT CABLES AS RECOMMENDED BY MANUFACTURER. PROVIDE ASSEMBLED SHAPE FIXTURES (SEE NOTES #1 & 2 - ADMIN. BUILDING LIGHTING PLAN) WITH ONE SC/P6 SWIVEL HANGER AT EACH CORNER OF ASSEMBLY AND ADDITIONAL ACC INTERIM SUPPORT CABLES AS RECOMMENDED BY MANUFACTURER. 				
R1	COOPER/METALUX	2P5GX332S 39MI-120V-EBB		FLR 1 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMP OR EQUAL. PROVIDE ELECTRONIC BALLAST 				
R2	COOPER/METALUX	2P2GX332S 26MI-120V-EBB		FLR 2 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMP OR EQUAL. PROVIDE ELECTRONIC BALLAST 				
R3	COOPER/METALUX	2P5GX332S 39MI-120V-EBB		FLR 3 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMP OR EQUAL. PROVIDE ELECTRONIC BALLAST TANDEM WIRE FIXTURE TO SWITCH INSIDE LAMP SEPARATE FROM OUTSIDE LAMPS. 				
W1	COLUMBIA	LUN4-232-EBB 120	HIGH IMPACT ACRYLIC DIFFUSER	FLR 2 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMPS OR EQUAL. PROVIDE ELECTRONIC BALLAST UL LISTED FOR WET LOCATIONS PROVIDE EACH FIXTURE WITH TWO UNISTRUT #P1944 MOUNTING BRACKETS (PROVIDE EACH BRACKET WITH APPROPRIATE MOUNTING HOLES FOR ATTACHMENT OF FIXTURE). 				
W2	LITHONIA	W32120 AE	CLEAR PRISMATIC DOWN LENS, WHITE OPAL UP LENS	FLR 2 32 120	<ul style="list-style-type: none"> PROVIDE OSRAM/SYLVANIA #F032/835 LAMPS OR EQUAL. PROVIDE ELECTRONIC BALLAST PROVIDE BRUSHED ALUMINUM AND CAPS. WALL MOUNT ABOVE MIRROR. 				

PANELBOARD "LP2-CM"										
208/120 V, 3ø, 4W, 225 AMP BUS					PANEL LOADING SCHEDULE					
150 AMP MAIN: CB (X) SW () LUGS ()					CONNECTED					
FEED THRU LUGS ()					PHASE	A	B	C	TOTAL	DEMAND
SURFACE (X) FLUSH () COLUMN TYPE ()					AMPS	-	-	-	-	-
ENCLOSURE: NEMA 1(X) 3R() 12() 4X()					KVA	-	-	-	-	-
CIRCUIT DESCRIPTION	LOAD AMPS	BKR./POLES	CKT. NO.	BKR./POLES	LOAD AMPS	CIRCUIT DESCRIPTION				
LTS-BAY 1	13.3	20/1	1	2	20/1	6.7	LTS-BAY 2			
LTS-BAY 3	7.5	20/1	3	4	20/1	6.7	LTS-BAY 4			
LTS-BAY 5	7.5	20/1	5	6	20/1	6.7	LTS-BAY 6			
LTS-BAY 7	5	20/1	7	8	20/1	5	LTS-BAY 6			
LTS-RM. 125,126	5	20/1	9	10	20/1	12.5	RECEPT-BAY 1			
RECEPT-BAY 2	12.5	20/1	11	12	20/1	12.5	RECEPT-BAY 3			
RECEPT-BAY 3 & 5	12.5	20/1	13	14	20/1	10	RECEPT-BAY 4			
RECEPT-BAY 5	10	20/1	15	16	20/1	12.5	RECEPT-BAY 7			
RECEPT-BAY 6	12.5	20/1	17	18	20/1	12.5	RECEPT-BAY 6 & 7			
RECEPT-RM. 126	5	20/1	19	20	-	1.25	OUTDOOR EGRESS LIGHTS			
EGRESS LIGHTS	1	20/1	21	22	-	-	-			
-	-	-	23	24	-	-	-			
-	-	-	25	26	-	-	-			
-	-	-	27	28	-	-	-			
-	-	-	29	30	-	-	-			
-	-	-	31	32	-	-	-			
-	-	-	33	34	-	-	-			
-	-	-	35	36	-	-	-			
-	-	-	37	38	-	-	-			
-	-	-	39	40	-	-	-			
-	-	-	41	42	-	-	-			

PANELBOARD "LP1-CM"										
208/120 V, 3ø, 4W, 225 AMP BUS					PANEL LOADING SCHEDULE					
150 AMP MAIN: CB (X) SW () LUGS ()					CONNECTED					
FEED THRU LUGS ()					PHASE	A	B	C	TOTAL	DEMAND
SURFACE (X) FLUSH () COLUMN TYPE ()					AMPS	117.6	106.9	97.9	-	-
ENCLOSURE: NEMA 1(X) 3R() 12() 4X()					KVA	14.04	12.8	11.7	38.7	-
CIRCUIT DESCRIPTION	LOAD AMPS	BKR./POLES	CKT. NO.	BKR./POLES	LOAD AMPS	CIRCUIT DESCRIPTION				
LTS-RM. 104,105,106	11.3	20/1	1	2	20/1	10	LTS-RM. 103			
LTS-RM. 103	13.3	20/1	3	4	20/1	6.6	LTS-RM. 103			
LTS-RM. 101,102	2.1	20/1	5	6	20/1	2.5	LTS-RM. 100			
LTS-RM. 100	10	20/1	7	8	20/1	9.2	LTS-RM. 121,122			
LTS-RM. 122	13.3	20/1	9	10	20/1	8.3	LTS-RM. 121			
LTS-RM. 114,115,116,117	8.3	20/1	11	12	20/1	10	LTS-RM. 113,118,119,123			
LTS-RM. 109,111	3.8	20/1	13	14	20/1	5.8	LTS-RM. 110,112			
LTS-RM. 107,108,120	5.4	20/1	15	16	20/1	12.5	RECEPT-RM. 103,104,105,106			
RECEPT-RM. 104,105,106	12.5	20/1	17	18	20/1	12.5	RECEPT-RM. 103,104,105,106			
RECEPT-RM. 118-123	12.5	20/1	19	20	20/1	12.5	RECEPT-RM. 116,117,118,119			
RECEPT-RM. 103	12.5	20/1	21	22	20/1	12.5	RECEPT-RM. 102,103			
RECEPT-RM. 100,101	12.5	20/1	23	24	20/1	12.5	RECEPT-RM. 100			
RECEPT-RM. 122	10	20/1	25	26	20/1	10	RECEPT-RM. 122			
RECEPT-RM. 121,122	10	20/1	27	28	20/1	12.5	RECEPT-RM. 121			
RECEPT-RM. 113,114,115	12.5	20/1	29	30	20/1	12.5	RECEPT-RM. 109,110,111,112			
RECEPT-RM. 108	10	20/1	31	32	20/1	12.5	RECEPT-RM. 107,118			
-	-	-	33	34	-	-	-			
-	-	-	35	36	-	-	-			
-	-	-	37	38	-	-	-			
-	-	-	39	40	-	-	-			

P:\PROJECTS\10\ADD\LELEC\SCH-DK.DWG 2-26-99 9:47:58 am EST

NO.	REVISIONS	DATE	BY	CHK.



Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

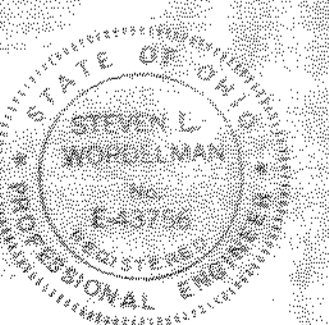
JOB NO.	20571
DESIGNED BY:	MSW
DRAWN BY:	MSW
CHECKED BY:	EDT
APPROVED BY:	EDT
DATE:	FEBRUARY 1999

CENTRAL MAINTENANCE FACILITY LIGHTING
LIGHTING SCHEDULE AND PANELBOARD SCHEDULES

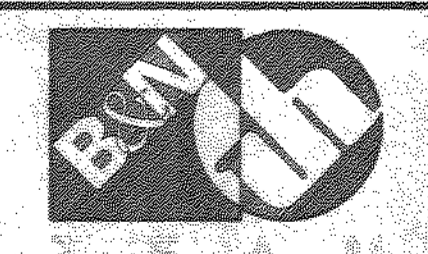
SHEET NO.	98	OF	100
SCALE: NONE			

LP4-CM: 150 MAIN CB 208/120V 3-PH/4W 225A BUS						
EQUIPMENT DESCRIPTION	AMPS	BREAKER POLES	CIRCUIT NUMBER	BREAKER POLES	AMPS	EQUIPMENT DESCRIPTION
TUBE HEATER CONTROL PANEL	25.8	35/1	1	2	20/1	0.5 RECIRCULATION PUMP P4
AIR MIXER MOD DH-1	3.0	20/1	3	4	20/1	0.5 RECIRCULATION PUMP P6
RECIRCULATION PUMP P3	0.5	20/1	5	6	20/1	--- FIRE ALARM CONTROL PANEL
RECIRCULATION PUMP P5	0.5	20/1	7	8	20/1	--- SECURITY CONTROL PANEL
FLAGPOLE	10.0	20/1	9	10	20/1	4.4 EXHAUST FAN EF-102
ADA DOOR POWER ASSIST	---	20/1	11	12	20/1	2.9 EXHAUST FAN EF-104
EXHAUST FAN EF-101	5.8	20/1	13	14	20/1	1.9 EXHAUST FAN EF-107
EXHAUST FAN EF-103	2.9	20/1	15	16	20/1	1.0 INTAKE LOUVER MOD IL-103
EXHAUST FAN EF-105	2.9	20/1	17	18	20/1	1.0 INTAKE LOUVER MOD IL-105
EXHAUST FAN EF-108	1.9	20/1	19	20	20/1	3.0 DUCT FURN. /POWER VENT DF-101
RECIRCULATION FAN RF-111	0.5	20/1	21	22	20/1	1.0 EXHAUST LOUVER MOD EL-102
EXHAUST FAN EF-113	7.2	20/1	23	24	20/1	1.0 EXHAUST LOUVER MOD EL-104

LP3-CM: 150 MAIN CB 208/120V 3-PH/4W 225A BUS						
EQUIPMENT DESCRIPTION	AMPS	BREAKER POLES	CIRCUIT NUMBER	BREAKER POLES	AMPS	EQUIPMENT DESCRIPTION
CEILING HEATER CH-1	9.6	20/2	1	2	20/2	9.6 CEILING HEATER CH-2
-----	9.6	----	3	4	----	9.6 -----
CEILING HEATER CH-3	9.6	20/2	5	6	20/2	2.7 ELECTRIC BASEBOARD HTR EH-2
-----	9.6	----	7	8	----	2.7 -----
ELECTRIC BASEBOARD HTR EH-1	2.7	20/2	9	10	20/2	2.7 ELECTRIC BASEBOARD HTR EH-4
-----	2.7	----	11	12	----	2.7 -----
ELECTRIC BASEBOARD HTR EH-3	2.7	20/2	13	14	20/2	2.7 ELECTRIC BASEBOARD HTR EH-6
-----	2.7	----	15	16	----	2.7 -----
ELECTRIC BASEBOARD HTR EH-5	2.7	20/2	17	18	20/2	2.7 ELECTRIC BASEBOARD HTR EH-8
-----	2.7	----	19	20	----	2.7 -----
ELECTRIC BASEBOARD HTR EH-7	2.7	20/2	21	22	20/2	13.0 SITE LIGHTING S. POLE MOUNTED
-----	2.7	----	23	24	----	13.0 -----
SITE LIGHTING N. POLE MOUNTED	2.7	20/2	25	26	20/2	1.3 SITE LIGHTING S. WALL MOUNTED
-----	13.0	----	27	28	----	-----
SITE LIGHTING N. WALL MOUNTED	13.0	20/2	29	30	----	-----
-----	1.0	----	31	32	----	-----



NO.	REVISIONS	DATE	BY	CHK.



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DELAWARE COUNTY, OHIO
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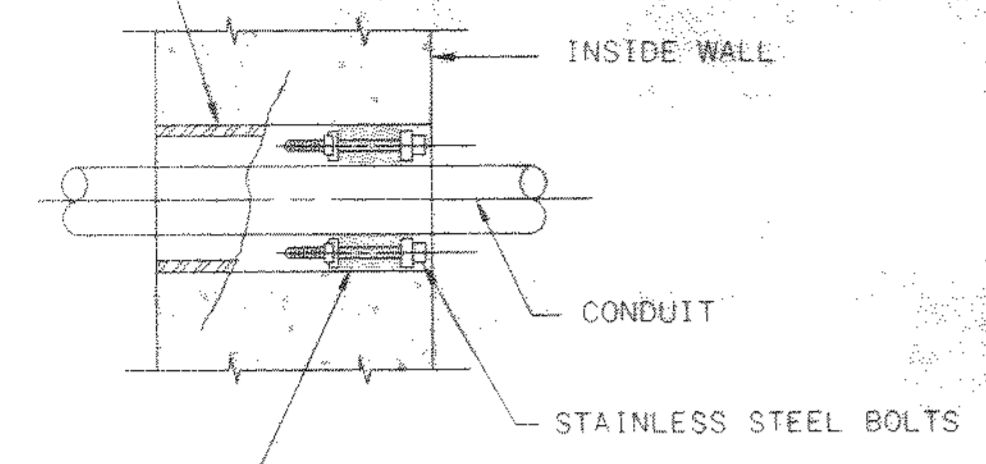
JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	KMH
CHECKED BY:	
APPROVED BY:	
DATE:	1999

CENTRAL MAINTENANCE FACILITY
 ELECTRICAL
 TYPICAL EQUIPMENT CONTROL PANELS

SCALE:	NONE
SHEET NO.	99
OF	100

10-471483
 02/07/99 SK-1

SHEET METAL OR LAMINATED FIBER CONCRETE FORM ADEQUATELY BRACED IN FIELD AND STRIPPED OUT BEFORE INSTALLING CONDUIT. EXCEPT IN MASONRY WHERE SLEEVE SHALL BE 3/16" STEEL AND SHALL BE INSTALLED WITH MASONRY CONTRACTOR MAY USE A THERMOPLASTIC WALL SLEEVE, CENTURY-LINE SLEEVE BY THUNDERLINE CORP. OR EQUAL, TO BE LEFT IN PLACE.



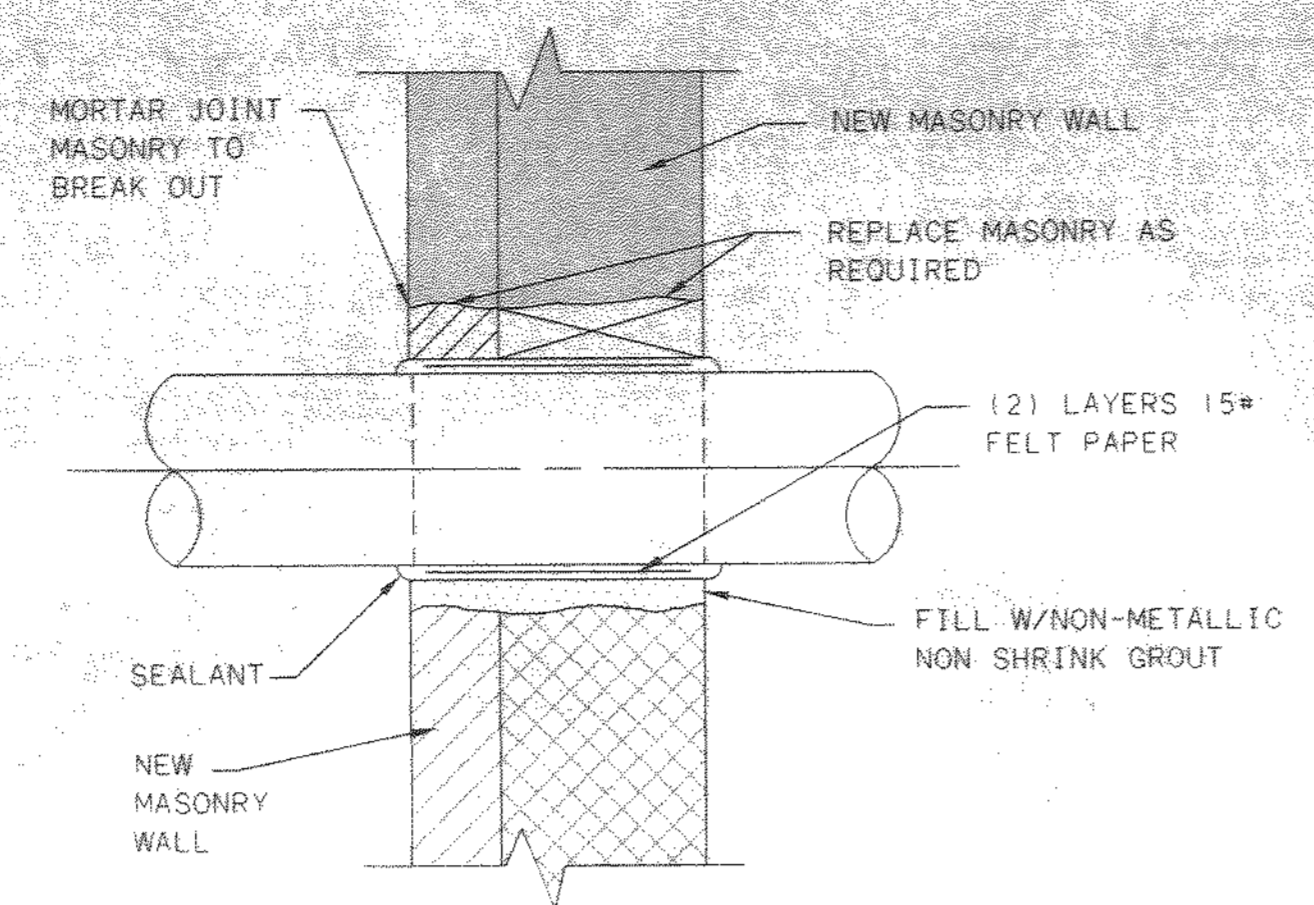
TYPE C

MODULAR MECHANICAL TYPE SEAL OF INTERLOCKING SYNTHETIC RUBBER LINKS

NOTE:

1. CONCRETE SHALL BE WORKED IN AND VIBRATED TO ELIMINATE ALL VOIDS IN CONCRETE - IF VOIDS DO REMAIN, FILL WITH GROUT BEFORE INSTALLING CONDUIT AND RUBBER SEALS
2. UNLESS OTHERWISE SHOWN ON THE DRAWINGS ALL INTERIOR WALL PENETRATIONS SHALL USE TYPE C CONDUIT SLEEVE.

CONDUIT SLEEVE

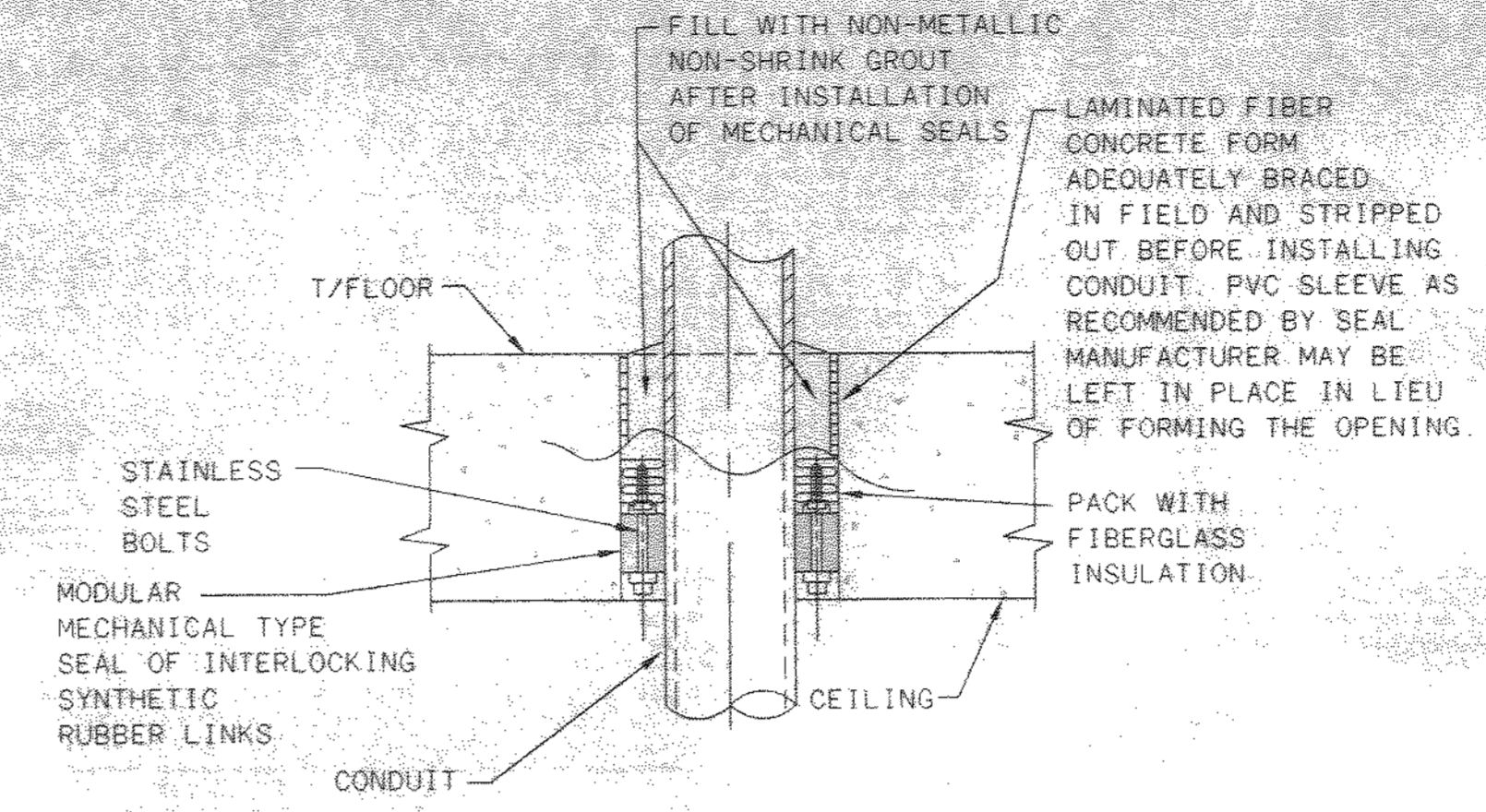


TYPE F

NOTE:

FOR EXTERIOR WALLS, FACE COURSES TO BE MASONRY AND MIDDLE COURSE TO BE FILLED WITH FIBERGLASS INSULATION

CONDUIT SLEEVE THRU NEW MASONRY WALL

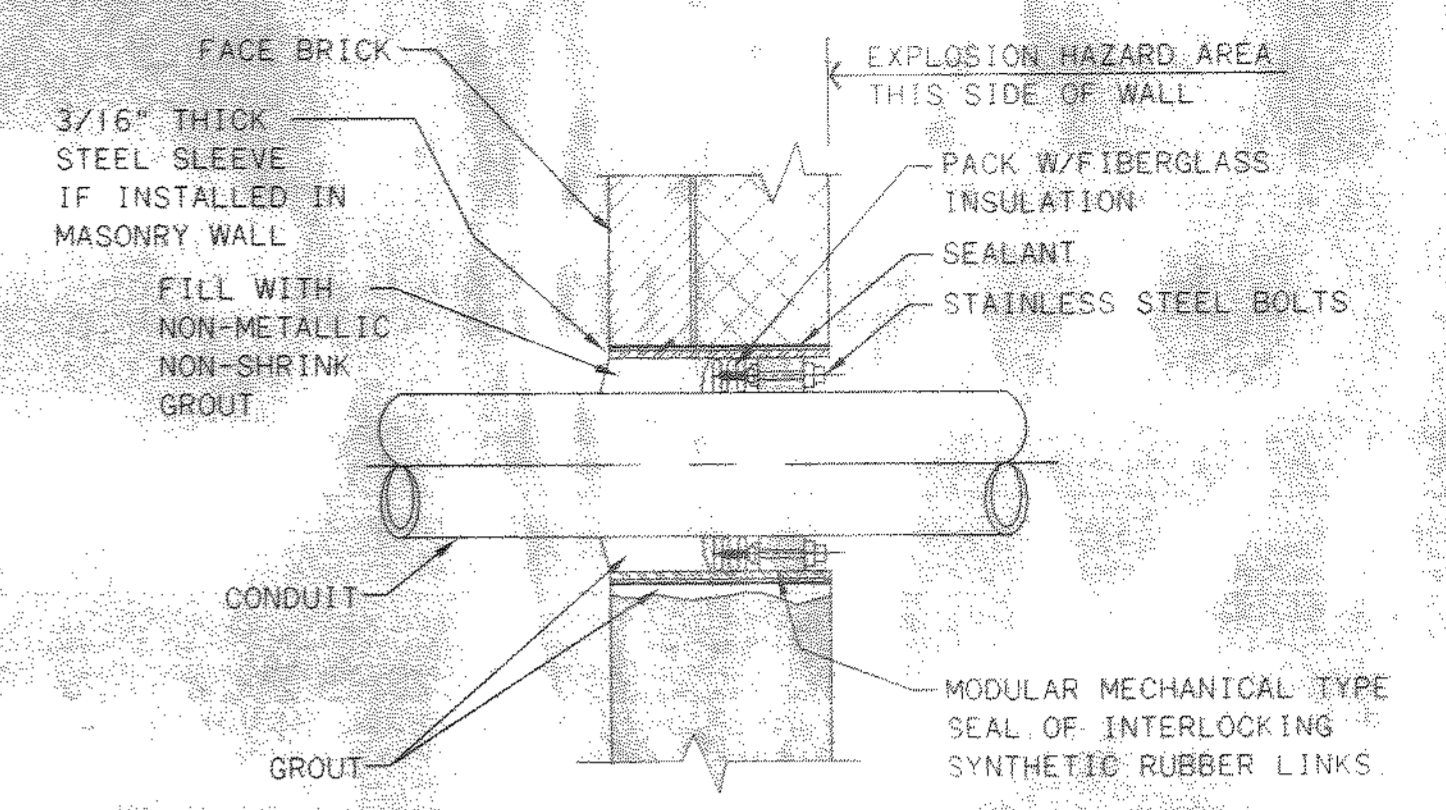


TYPE G (GAS TIGHT)

NOTE:

CONCRETE SHALL BE WORKED IN AND VIBRATED TO ELIMINATE ALL VOIDS IN CONCRETE - IF VOIDS DO REMAIN, FILL WITH GROUT BEFORE INSTALLING CONDUIT AND RUBBER SEALS

FLOOR SLEEVE



TYPE H (GAS TIGHT)

MASONRY WALL SLEEVE

NO.	REVISIONS	DATE	BY	CHK.

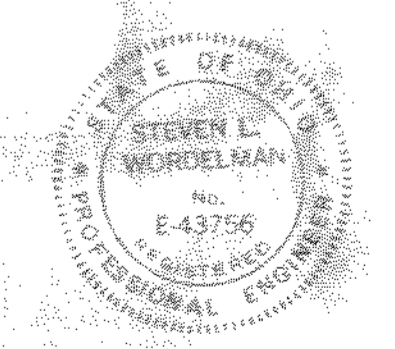


Burgess & Niple, Limited
Jones & Henry Engineers, Ltd.

DELAWARE COUNTY, OHIO
ALUM CREEK PUMP STATION
& CENTRAL MAINTENANCE FACILITY

JOB NO.	20571
DESIGNED BY:	DLH
DRAWN BY:	BEF/LEY
CHECKED BY:	DLH
APPROVED BY:	SLW
DATE:	1999

CENTRAL MAINTENANCE FACILITY
ELECTRICAL
MISCELLANEOUS DETAILS



SCALE:	
AS NOTED	
SHEET NO.	OF
100	100