

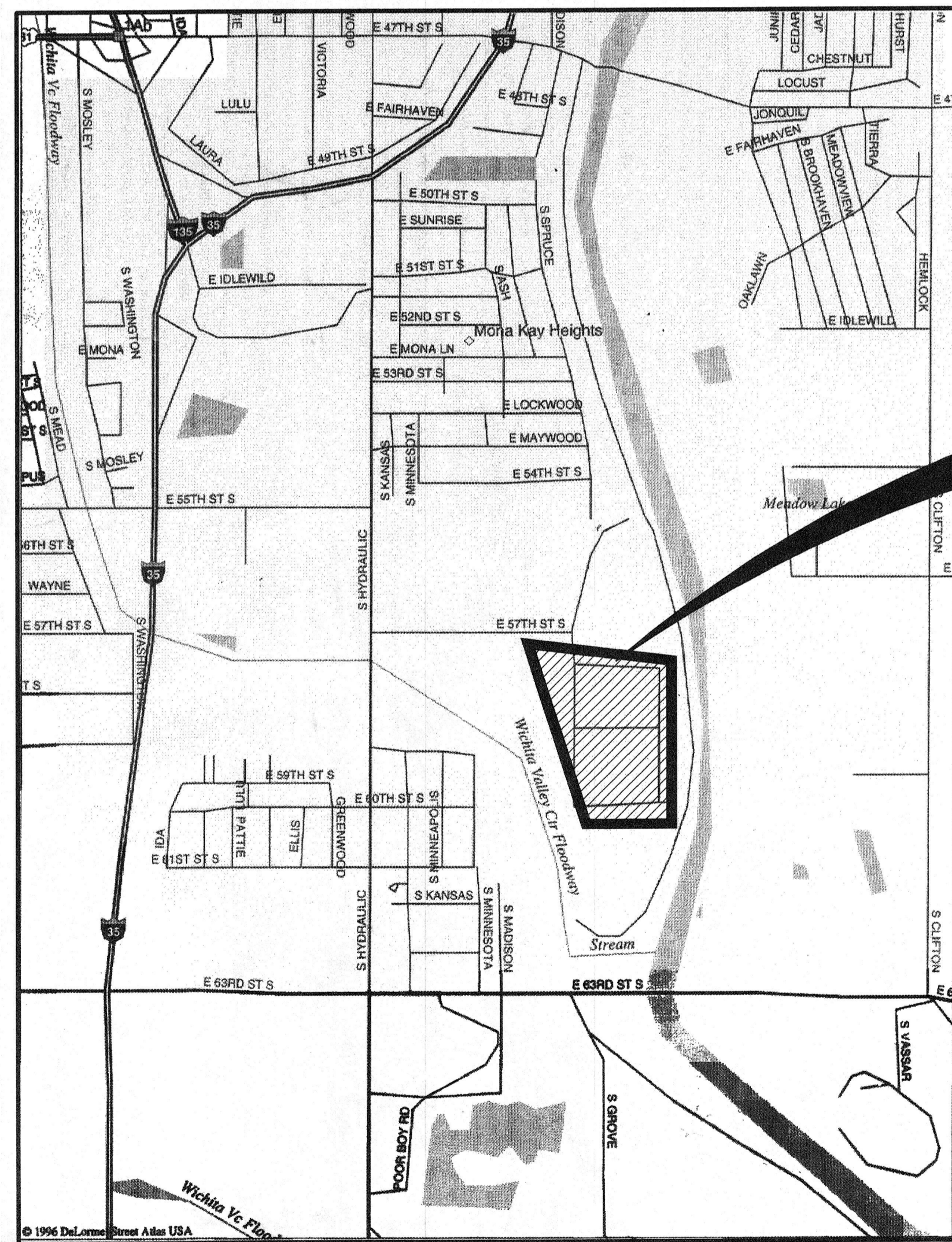


CITY OF WICHITA
WATER & SEWER DEPARTMENT
WICHITA, KANSAS

SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS

NOVEMBER 2000

DRAWING INDEX



PROJECT LOCATION (NTS)

Table with 4 columns: Sht. No., Dwg. No., Description, Sht. No., Dwg. No., Description. Lists drawing sheets 1 through 136, categorized into General, Civil/Site Work, Structural, Process/Mechanical, HVAC & Plumbing, and Electrical.

CDM Camp Dresser & McKee Inc.

consulting engineering construction operations
9200 WARD PARKWAY, SUITE 500
KANSAS CITY, MISSOURI 64114
CDM PROJECT NO. 2395-26968

RECORD DRAWING
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.
DATE: 7/23/02 By: JEC CAMP DRESSER & MCKEE

SET NO.



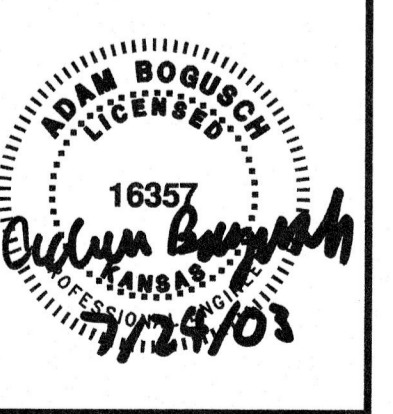
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ABBREVIATIONS

IW	POTABLE WATER	CULT	CULTIVATED	GUTT	GUTTER	OH	OVERHEAD (DOOR)	SPR	SPRING
2W	NON-POTABLE CITY WATER	CULV	CULVERT	GV	GAS VALVE	OHE	OVERHEAD ELECTRIC	SQ	SQUARE
3W	PLANT WATER (SECONDARY EFFLUENT)	CU FT	CUBIC FOOT (FEET)	HAS	HEADED ANCHOR STUD	OPNG(S)	OPENING(S)	SQ FT	SQUARE FEET
#	DIAMETER	CU YDS	CUBIC YARDS	HB	HOSE BIBB	OPP	OPPOSITE	SQ YDS	SQUARE YARDS
&	NUMBER	CWO	CHAIN WHEEL OPERATOR	HDWL	HEADWALL	OPP HD	OPPOSITE HAND	SS	SAINTELY SEWER
@	AND	D	DEGREE OF CURVATURE OR DIRECTIONAL PERCENTAGE OF DHV	HEX	HEXAGON	OPT	OPTION(AL)	SS	STAINLESS STEEL
⊕	AT	DA	DRAINAGE AREA	HGT	HEIGHT	P/S	PRESTRESSED	SSR	STORM SEWER
⊖	CENTERLINE	DCT BK	DUCT BANK	HO	HOUSE	PAST	PASTURE	ST	STREET
AC	AIR CONDITIONING	DET	DETAIL	HOR	HORIZONTAL	PAVT	PAVEMENT	ST SEW	SPIRAL TO TANGENT STORM SEWER
A/C	ACCESS CONTROL	DHV	DESIGN HOURLY VOLUME	HP	HIGH POINT (HORSEPOWER)	PC	POINT OF CURVE (ATURE)	STA	STATION
Ac	ACRE	DIA	DIAMETER	HS	HIGH SERVICE (HIGH STRENGTH)	PC	POINT OF HORIZONTAL CURVATURE	STD	STANDARD
AB	ANCHOR BOLT	DIAG	DIAGONAL	HUB GD	HUB GUARD	PCC	POINT OF HORIZONTAL COMPOUND CURVATURE	STD DT	STANDARD DITCH
ABND	ABANDON OR ABANDONED	DIFF	DIFFUSER	HW	HIGH WATER	PCCP	PRESTRESSED CONCRETE CYLINDER PIPE	STIF	STIFFENER
ADDL	ADDITIONAL	DIP	DUCTILE IRON PIPE	HWA	HIGH WATER ALARM	PDM	PADDLE DRIVE MOTORS	STRUC	STRUCTURE (S, URAL)
ADJ	ADJUSTABLE, ADJUST	DIV	DIVISION	HWL	HIGH WATER LEVEL	PE	PLAIN-END, PLANT EFFLUENT	SSD	STOPPING SIGHT DISTANCE
ADPT	ADAPTER	DIM	DIMENSION	HWO	HAND WHEEL OPERATOR	PERM	PERMANENT	SUBGR	SUBGRADE
AFG	ABOVE FINISHED GRADE	DN	DOWN	HYD	HYDRANT	PED	PEDESTAL	SURF	SURFACE
AHU	AIR HANDLING UNIT	DO	DITTO	HZ	HERTZ	PERF	PERFORATED	SW	SIDEWALK
AHD	AHEAD	DR	DRIVE	I & C	INSTRUMENTATION & CONTROL	PI	POINT OF HORIZONTAL INTERSECTION	SWD	SIDE WATER DEPTH
AL	ALUMINUM	DRN	DRAIN	ID	INSIDE DIAMETER	PLT	PLANT	SWK	SIDEWALK SEWER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	DT	DITCH	IF	INSIDE FACE	PNEU	PNEUMATIC	SWR	SEWER
APPROX	APPROXIMATE (LY)	DWG	DRAWING	INL	INLET ELEVATION	POC	POINT ON A CURVE	SYMM	SYMMETRICAL
APPR	APPROACH	DWL	DOWEL(S)	INV	INVERT ELEVATION	POP	POPULATION	T/C	TOP OF CURB
AR	ACID RESISTANT	E	EXTERNAL	IN	INCH	POST	POINT ON SUB-TANGENT	T/R	TOP OF RAIL
ARCH	ARCHITECT (URAL) (URE)	E & I	ELECTRICAL & INSTRUMENTATION	INT	INTERIOR	POT	POINT ON TANGENT	T/S	TOP OF SLAB
ARND	AROUND	EA	EACH	INV	INVERT	POW	POWER	T/SW	TOP OF SIDEWALK
ASP	ACTIVATED SLUDGE PUMP	E	EAST (CIVIL), EASTING	IRR	IRRIGATION	PPM	PARTS PER MILLION	T/W	TOP OF WALL
ASPH	ASPHALTIC CONCRETE	ECC	ECCENTRIC	JB	JUNCTION BOX	PP	POWER POLE	T	TANGENT (CURVE DATA) OR TRUCK TREAD (S)
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	ECR	END OF CURB RETURN	JCT	JUNCTION	PRESS	PRESSURE	T&B	TOP AND BOTTOM
ATC	AUTOMATIC TEMPERATURE CONTROL	EF	EACH FACE	JT	JOINT	PR GR	PROFILE GRADE	TAN	TANGENCY
AUTO	AUTOMATIC	EL OR EV	ELEVATION	K	KELVIN	PRC	REVERSE CURVATURE	TC	TOP OF CURB ELEVATION
AUX	AUXILIARY	ELEC	ELECTRICAL	KDHE	KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT	PRIM	PRIMARY	TECH	TECHNICAL
AWWA	AMERICAN WATER WORKS ASSOCIATION	EMB	EMBANKMENT	KWH	KILOWATT HOUR	PL	PROPERTY LINE	TELE, T	TELEPHONE
AVG	AVERAGE	EMERG	EMERGENCY	L	CURVE LENGTH	PROJ	PROJECT	TEMP	TEMPERATURE
BASELINE	BASELINE	ENGR	ENGINEER	LAT	LATERAL	PS	PRIMARY SLUDGE	TM	TELEMETER OR TIME
B/B	BACK TO BACK OR CURBS	ENT	ENTRANCE	LBS	POUND	PS	PUMP STATION	TO	TOP OF
B/C	BACK OF CURB	EP	EDGE OF PAVEMENT	LF	LINEAR FEET	PSI	POUNDS PER SQUARE INCH	TOS	TOP OF STEEL
B&C	BOX AND COVER	EQ	EQUAL	LG	LENGTH	PT	POINT	TP	TRUSS PIPE
BD	BOUND	EQPT	EQUIPMENT	LG	LONG	PTI	POINT OF HORIZONTAL TANGENCY	TR SIG	TRAFFIC SIGNAL
BFP	BELT FILTER PRESS	EQUIV	EQUIVALENT	LJ	LONGITUDINAL JOINT	PVC	POINT OF VERTICAL CURVATURE OR POLYVINYL CHLORIDE PIPE	TS	TANGENT TO SPIRAL
BHP	BRAKE HORSEPOWER	ES	EACH SIDE	LLH	LONG LEG HORIZONTAL	PVCC	POINT OF VERTICAL COMPOUND CURVATURE	TV	TELEVISION
BK	BACK	ESMT	EASEMENT	LLV	LONG LEG VERTICAL	PVI	POINT OF VERTICAL INTERSECTION	TW	TRAVELED WAY
BLD FLG	BLIND FLANGE	ETC	ETCETERA	LNTL	LINTEL	PVRC	POINT OF VERTICAL REVERSE CURVATURE	TYP	TYPICAL
BLDG	BUILDING	EW	EACH WAY	LONG	LONGITUDIAL			UGE	UNDERGROUND ELECTRIC
BM	BENCHMARK	EWS	END OF WEARING SURFACE	LP	LONG POINT (LOW PRESSURE)			UGTC	UNDERGROUND TELEPHONE CABLE
BOTT	BOTTOM	EXC	EXCAVATION	LR	LONG RADIUS			UNDG	UNDERGROUND
BOW	BOTTOM OF WALL	EXP	EXPANSION	LS	LUMP SUM			UNO	UNLESS NOTED OTHERWISE
BR	BRIDGE	EXP JT	EXPANSION JOINT	LT	LEFT			USCOE	U.S. ARMY CORP OF ENGINEERS
BRG	BEARING	EXST OR EX	EXISTING	LWA	LOW WATER ALARM			V	DESIGN SPEED
BTU	BRITISH THERMAL UNIT	EXT	EXTERIOR	LWL	LOW WATER LEVEL			VAR	VARIOUS/VARIABLE
BTWN	BETWEEN	EXTD	EXTENDED	MAC	METAL ARCH CULVERT			VB	VALVE BOX
⊕	CENTERLINE	F	FAHRENHEIT	MAG	MAGNETIC			VBR	VACUUM BREAKER
⊖	CENTERLINE PROPOSED IMPROVEMENT	FAC	FACILITY	MAX	MAXIMUM			VC	VERTICAL CURVE
C/C	CENTER TO CENTER	FAS	FEDERAL AID SECONDARY	MB	MAILBOX			VCP	VITRIFIED CLAY PIPE
C&G	CURB AND GUTTER	FENCE	FENCE	MCC	MOTOR CONTROL CENTER			VERT	VERTICAL
CI	CURB INLET	F/C	FACE OF CURB	MEAS	MEASURE			VOL	VOLUME
C	CENTIGRADE	FD	FLOOR DRAIN	MED	MEDIAN			VS	VARIABLE SPEED
CAP	CAPACITY	FE	FINAL EFFLUENT	MFD	MANUFACTURED			VSD	VARIABLE SPEED DRIVE
CEM	CEMETERY	FG	FINISH GRADE	MFG	MANUFACTURING			W	WATER
CFM	CUBIC FEET PER MINUTE	FH	FIRE HYDRANT	MFR	MANUFACTURER			W/	WITH
CFS	CUBIC FEET PER SECOND	FIG	FIGURE	MG/L	MILLIGRAMS PER LITER			W/O	WITHOUT
CH CH	CHANNEL CHANGE	FIS	FEEDER ISOLATION SWITCH GEAR	MGD	MILLION GALLONS PER DAY			WD	WOOD
CIP	CAST IRON PIPE	FL	FLOOR	MH	MANHOLE			WE	WATER'S EDGE
CIRC	CIRCUMFERENTIAL	FLG	FLOW LINE	MIN	MINIMUM			WL	WATER LEVEL
CJ	CONSTRUCTION JOINT	FLG	FLORING	MIS	MECHANICAL INFLUENT SCREEN			WM	WATER METER
CL	CLASS	FM	FORCE MAIN	MISC	MISCELLANEOUS			WM	WATER MAIN
CLJ	CONTROL JOINT	FRP	FIBERGLASS REINFORCED PLASTIC	MJ	MECHANICAL JOINT			WP	WORKING POINT (WELDED PIPE)
CLR	CLEAR	FS	FAR SIDE	MO	MOTOR OPERATOR			WS	WATER SURFACE OR WATERST
CMF	CORRUGATED METAL PIPE	FT	FEET/FOOT	MON	MONUMENT			WT	WEIGHT
CMU	CONCRETE MASONRY UNIT	FTG	FOOTING/FITTING	MPH	MILES PER HOUR			WTHPRF	WEATHERPROOF
CO	CLEAN OUT	G	GAS	MTD	MOUNTED			WV	WATER VALVE
COGEN	CO-GENERATION	GA	GAUZE	N	NORTH, NORTHING			WWF	WELDED WIRE FABRIC
COL	COLUMN	GAL	GALLON	N AZ	NORTH AZIMUTH			WWTP	WASTEWATER TREATMENT PLANT
COM	COMMON	GALVS	GALVANIZED STEEL	NBS	NATIONAL BUREAU OF STANDARDS			XFER	XFER
COMB	COMBINATION	GAR	GARAGE	NC	NORMALLY CLOSED			X-SECT	CROSS SECTION
COMP	COMPRESSOR	GAV	GALVANIZED	NEC	NATIONAL ELECTRIC CODE			YD	YARD
CON	CONCENTRIC	GCR	GRIT CONCENTRATOR (HYDROCYCLONE)	NEMA	NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION			YR	YEAR
CONC	CONCRETE	GDR	GIRDER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION				
CONN	CONNECTION	GIP	GALVANIZED IRON PIPE	NG	NATURAL GAS				
CONST	CONSTRUCTION	GM	GAS METER	NIC	NOT IN CONTRACT				
CONT	CONTINUOUS	GP	GUY POLE	NO	NUMBER				
CP	CONTROL POINT	GPD	GALLONS PER DAY	NOS	NATIONAL OCEANOGRAPHIC SURVEY				
CR GR	CROWN GRADE	GPM	GALLONS PER MINUTE	NS	NON-SHRINK				
CS	CIRCULAR CURVE TO SPIRAL	GRAV	GRAVEL	NTS	NOT TO SCALE				
CSP	CORRUGATED STEEL PIPE	GRC	GRIT REMOVAL CHAMBER	O/E	OR EQUAL				
CTR	CENTER (ED)	GRD	GROUND	OC	ON CENTER				
		GRD RAIL	GROUND RAIL	OD	OUTSIDE DIAMETER				
		GRTG	GRATING	OF	OUTSIDE FACE				
		GSKT	GASKET						

NOTES:
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 DATE: 7/21/03 BY: GB CAMP DRESSER & MCKEE



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DESIGNED BY:	CDM
DRAWN BY:	C. CANITRELL
SHEET CHK'D BY:	D. HENRICHSEN
CROSS CHK'D BY:	R. BROWN
APPROVED BY:	
DATE:	NOVEMBER 2000

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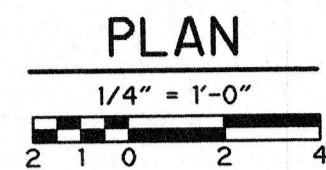
SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS
CITY OF WICHITA, KANSAS
WATER AND SEWER DEPARTMENT

ABBREVIATIONS

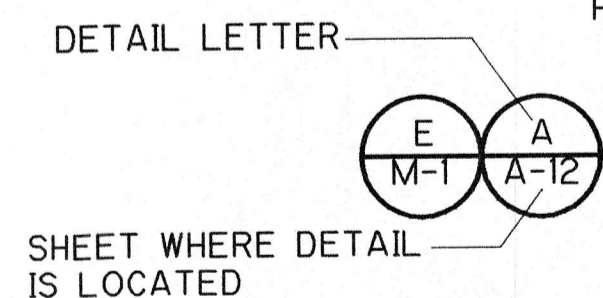
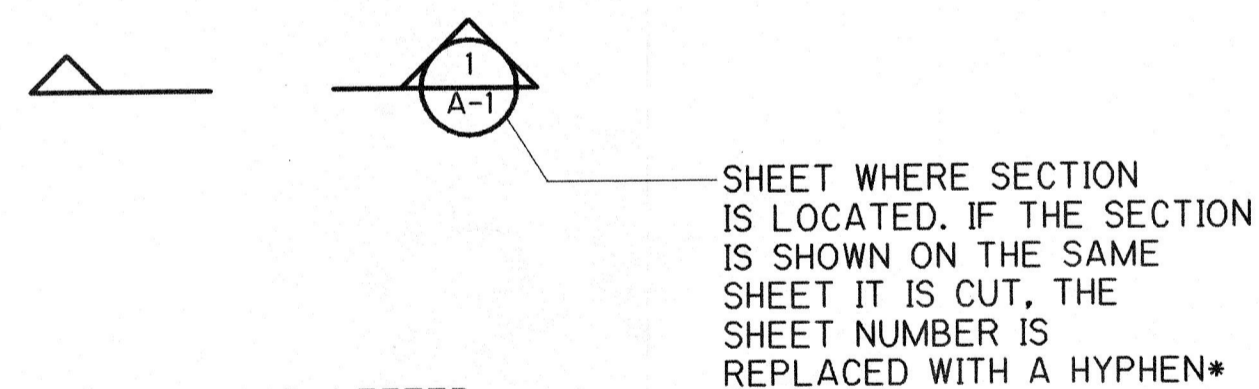
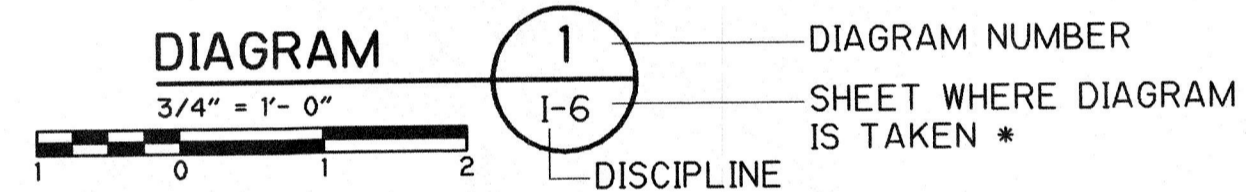
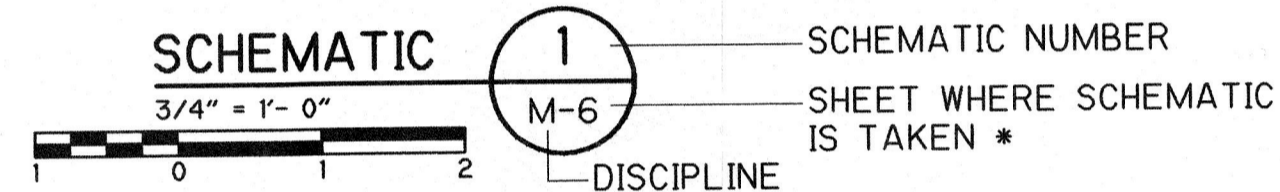
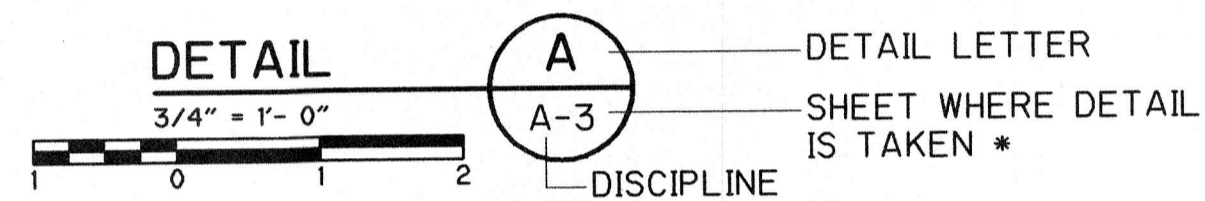
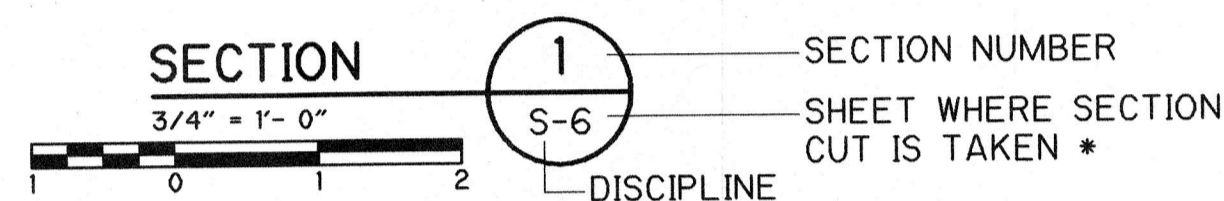
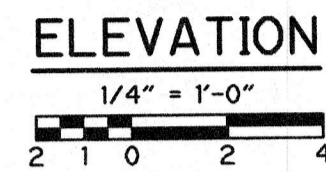
PROJECT NO. 2395-26968
 FILE NAME: 26968g2.DWG
 SHEET NO. **G-2**

DRAWING, SECTION AND DETAIL TITLES

SUBTITLE OR DESCRIPTION (AS REQ'D)



SUBTITLE OR DESCRIPTION (AS REQ'D)

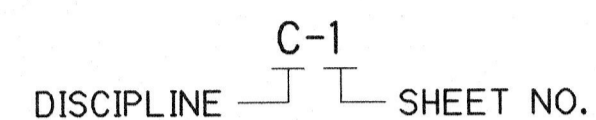


* IF SECTION, DETAIL, SCHEMATIC OR DIAGRAM IS DRAWN ON THE SAME SHEET THAT IT IS TAKEN FROM, THE SHEET NUMBER IS REPLACED WITH A HYPHEN. IF THE SECTION IS REFERENCED ON MULTIPLE SHEETS, THE SHEET NUMBER SHOWN INDICATES THE FIRST SHEET THE SECTION IS TAKEN FROM.

DRAWING NUMBER SYSTEM

THE DRAWINGS ARE SUBDIVIDED BY DISCIPLINE AS FOLLOWS:

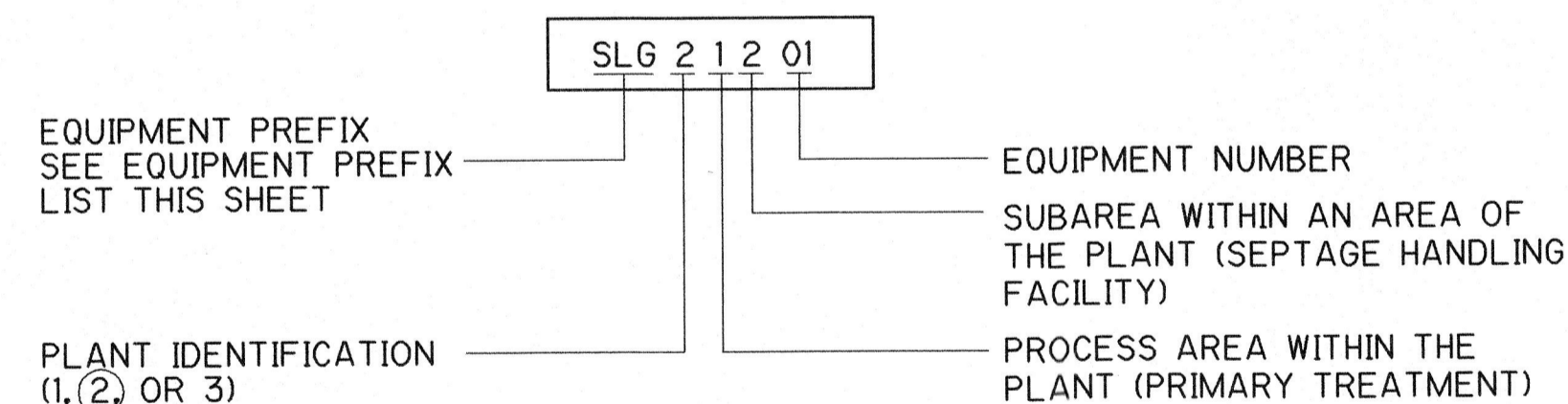
- G GENERAL
- C CIVIL
- A ARCHITECTURAL
- S STRUCTURAL
- M PROCESS/MECHANICAL
- H HVAC, PLUMBING, AND ODOR CONTROL SYSTEM
- E ELECTRICAL
- I INSTRUMENTATION AND CONTROL



EQUIPMENT NUMBERING SYSTEM

EQUIPMENT NUMBERING SYSTEM IN ACCORDANCE WITH PLANT PROCESS AREA AS FOLLOWS:

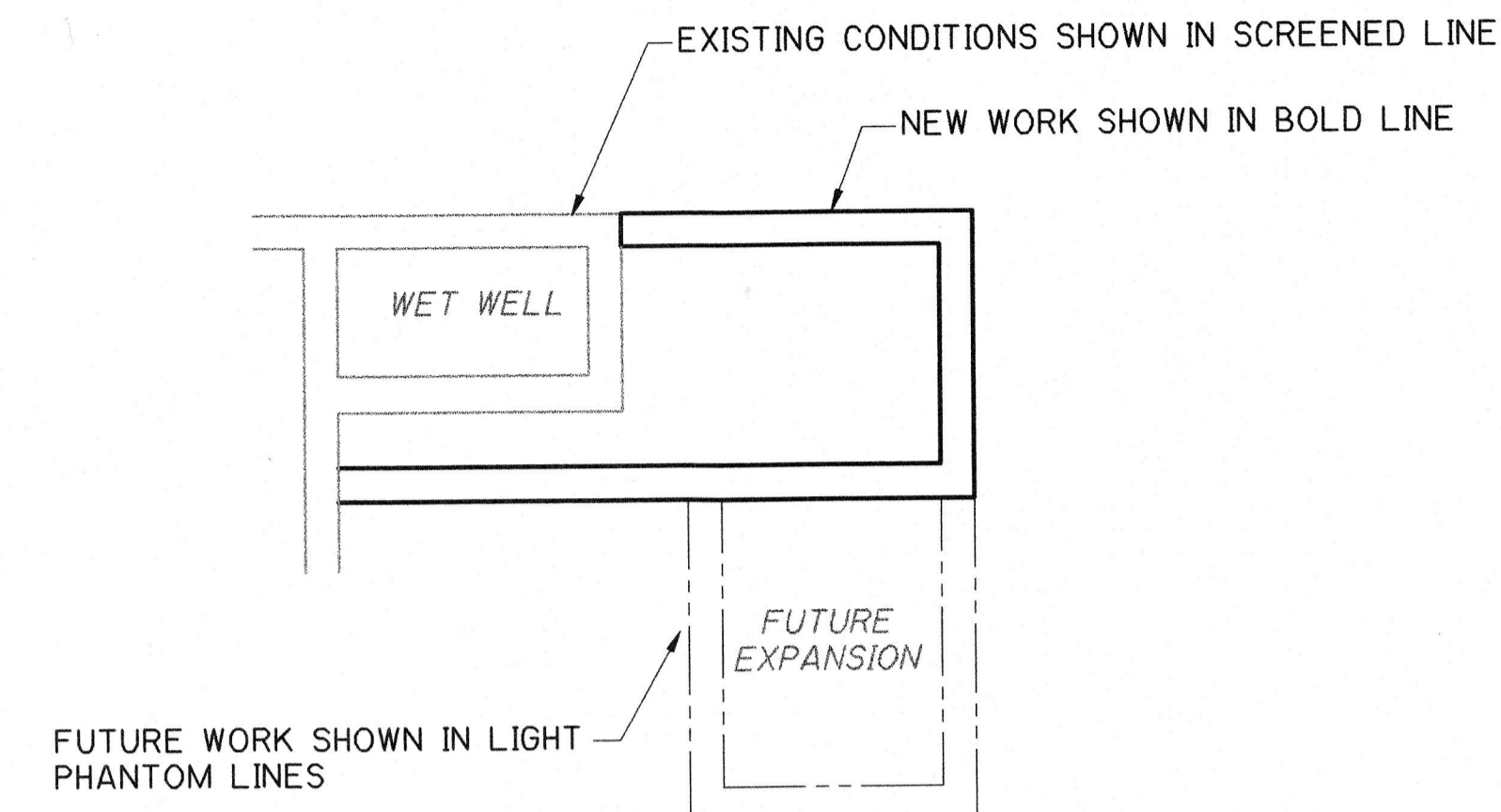
PROCESS AREA	EQUIPMENT NO.
PLANT 2 - PRIMARY TREATMENT	
- RAW SEWAGE PUMP ROOM/SCREEN ROOM	21100 - 21199
- SEPTAGE HANDLING FACILITY	21200 - 21299
- GRIT REMOVAL/GRIT HANDLING BUILDING	21800 - 21899
- PRIMARY CLARIFIER	21300 - 21399
PLANT 2 - SECONDARY TREATMENT	
- INFLUENT AND CONTROL VALVE MANHOLE	22100 - 22199
- WEST INTERMEDIATE CLARIFIER MODIFICATIONS	22200 - 22299
PLANT 2 - DISINFECTION	
- UV SYSTEM	24100 - 24199
PLANT 2 - SUPPORT SYSTEMS	
- ODOR CONTROL	29100 - 29299



EQUIPMENT PREFIXES

ACU	AIR CONDITIONING UNIT	OCU	ODOR CONTROL UNIT
AHU	AIR HANDLING UNIT	P	PUMP
CV	CONTROL VALVE	SCR	SCREENS
DU	DRIVE UNIT	SG	SLIDE GATE
EA	EXHAUST AIR	SLG	SLUICE GATE
F	FAN	UH	UNIT HEATER
MME	MISCELLANEOUS MECHANICAL EQUIPMENT		

EXISTING OR FUTURE CONDITION DESIGNATION



MISCELLANEOUS SYMBOLS

SYMBOL	FEATURE
//////	DEMOLITION WORK
————	CONCRETE CAST IN PLACE
XXXXXX	CONCRETE BLOCK
.....	GROUT
.....	GRAVEL
	CHECKERED PLATE
————	BAR GRATING
————	CENTERLINE
//////	STEEL UNLESS NOTED OTHERWISE
	EARTH FILL
————	UNDISTURBED EARTH

NOTES:

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- SEE ALSO DISCIPLINE SECTIONS FOR ADDITIONAL ABBREVIATIONS.
- IF ACTUAL SCALE BAR IS NOT ONE INCH THEN DRAWING HAS BEEN REDUCED OR ENLARGED (TYP ALL DRAWINGS)

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PROJECT NO. 2395-26968
FILE NAME: 26968g3.DWG

SHEET NO.

G-3

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REV. NO.	DATE	DRWN	CHKD	REMARKS
1	12/02	AJF	AB	REVISED FOR THE RECORD

DESIGNED BY: CDM
DRAWN BY: M. MILAM
SHEET CHK'D BY: D. HENRICHSEN
CROSS CHK'D BY: R. BROWN
APPROVED BY: _____
DATE: NOVEMBER 2000

CDM Camp Dresser & McKee Inc.
9200 WARD PARKWAY, SUITE 500
KANSAS CITY, MISSOURI 64114

SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS
CITY OF WICHITA, KANSAS
WATER AND SEWER DEPARTMENT

LEGENDS AND SYMBOLS

BOUNDARY AND MARKER SYMBOLS

SYMBOL	FEATURE
X—X—X	WIRE FENCE
■—■—■	WOOD FENCE
○—○—○	CHAIN LINK FENCE
●—●—●	GUARD RAIL
—●—●—●	STONE WALL
—●—●—●	STONE RETAINING WALL
---	PROPERTY LINE (R)
---	EASEMENT LINE
---R/W---	RIGHT OF WAY (R/W)
IP	IRON PIPE BOUNDARY MARKER
IR	IRON ROD BOUNDARY MARKER
MON	CONCRETE MONUMENT BOUNDARY MARKER
SB	STONE MONUMENT BOUNDARY MARKER
⊙ W-8	EXISTING PRODUCTION WELL
⊙ W-8	PROPOSED PRODUCTION WELL
⊙ MW-8	EXISTING MONITORING WELL
⊙ MW-8	PROPOSED MONITORING WELL
○ TP-1	TURNING POINT
△ TR-3	TRIANGULATION POINT
⊙ B-7	BORING
⊕ S-1	SOUNDING
BM 8	BENCHMARK
CP 603	CONTROL POINT

TRAVELED WAY SYMBOLS

SYMBOL	FEATURE
B & M + + + + + C & O + + + + +	RAILROAD TRACKS
— — — — —	DOUBLE TRACK RAILROAD
---	UNIMPROVED DIRT ROAD OR GRAVELED ROADWAY
24' ASPH PAVT	PAVED ROADWAY, SIZE AND TYPE
24' ASPH PAVT	PAVED ROADWAY W/CURB, SIZE AND TYPE
()	TUNNEL
()	BRIDGE
()	BOX CULVERT
()	CULVERT, PIPE SIZES AND TYPE
2-36" RCP	
S	SIGNS

NOTE:
SEE SHEET G-5 FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS.

LANDSCAPE AND DRAINAGE SYMBOLS

SYMBOL	FEATURE
[]	BUILDING OR STRUCTURE FOOTPRINT
4" OAK	TREE, SIZE & TYPE
10" PINE	
~~~~~	HEDGE
~~~~~	EDGE OF WOODS
~~~~~	EDGE OF WETLANDS
~~~~~	EDGE OF SHORELINE
[]	POND
~~~~~	RIVER
~~~~~	STREAM
→	DIRECTION OF FLOW FOR STORMWATER
→	DIRECTION OF FLOW FOR SWALE
~~~~~	FLUME
~~~~~	TUNNEL
~~~~~	WEIR W/ WINGWALLS

**SURFACE ELEVATION SYMBOLS**

SYMBOL	FEATURE
84	DEPRESSION CONTOUR
85	EXISTING INTERMEDIATE CONTOUR LINE AND ELEVATION DESIGNATION
85	EXISTING INDEX CONTOUR LINE AND ELEVATION DESIGNATION
85	PROPOSED INTERMEDIATE CONTOUR LINE AND ELEVATION DESIGNATION
85	PROPOSED INDEX CONTOUR LINE AND ELEVATION DESIGNATION
365.7	SPOT ELEVATION
△	EXISTING EMBANKMENT (REVERSE SYMBOLS FOR CHANNEL)
▽	PROPOSED EMBANKMENT (REVERSE SYMBOLS FOR CHANNEL)

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**UNDERGROUND AND OVERHEAD UTILITY SYMBOLS**

SYMBOL	FEATURE
MH-14 WEST INV 27.35 EAST INV 32.50	SANITARY SEWER AND MANHOLE
MH-22 EAST INV 32.75 WEST INV 32.50	STORM DRAIN, MANHOLE, AND CATCH BASIN
CB-1 INV 33.75	
8" SS	FIRE LINE W/ FIRE HYDRANT ASSEMBLY (INCLUDES VALVE)
FL	RAW SEWAGE
6" FM	FORCE MAIN
6" RAS-PVC	PROCESS PIPELINE CALLOUT
	PIPE MATERIAL
	ABBREVIATED PROCESS LINE DESCRIPTION
	PIPE DIAMETER
12" ELEC	ELECTRICAL CABLE/DUCT
OE	OVERHEAD ELECTRIC
TEL	TELEPHONE
OT	OVERHEAD TELEPHONE
S	SIGNAL LINE
CATV	CABLE TV
OTV	OVERHEAD TV
LP	LIGHT POLE
PP	POWER POLE W/ GUY

**GENERAL NOTES**

**OVERALL**

- LOCATION OF ALL EXISTING UTILITIES, STRUCTURES, PROPERTY LINES, SUBSURFACE SOIL OR ROCK CONDITIONS ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL EXISTING FACILITIES OR POTENTIAL CONFLICTS ARE SHOWN. EXISTING ITEMS SHOWN IN PROFILE ARE APPROXIMATE ELEVATIONS ONLY. ALL OVERHEAD ELECTRICAL AND TELEPHONE CABLES AND POLES ARE NOT WARRANTED TO BE SHOWN.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL PROPERTY LINES, EASEMENTS AND EXISTING UTILITIES. CONTRACTOR SHALL REPORT FINDINGS TO THE ENGINEER PRIOR TO CONSTRUCTION. IT IS THE INTENT TO SHOW ALL PROPERTY LINES, EXISTING UTILITIES AND UNDERGROUND STRUCTURES, HOWEVER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SATISFY HIMSELF/HERSELF THAT ALL EXISTING UTILITIES AND OTHER ITEMS, WHETHER SHOWN ON THESE DRAWINGS OR NOT, HAVE BEEN PROPERLY LOCATED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING ITEMS, UTILITIES OR STRUCTURES. THE CONTRACTOR SHALL CONTACT UTILITY OWNERS OR MAKE EXPLORATORY EXCAVATIONS AS NECESSARY AND AS NOTED ON THE DRAWINGS TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AND THE LIMITS AND CHARACTER OF SOIL AND/OR ROCK. IF ANY ITEM REQUIRES RELOCATION, THE CONTRACTOR SHALL NOTIFY THE OWNER OF THE ITEM WELL IN ADVANCE OF APPROACH TO THE ITEM AND SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE OWNER FOR RELOCATION OF THE ITEM. RELOCATION OF MINOR FACILITIES MAY BE DONE BY THE CONTRACTOR IF ACCEPTABLE TO THE ENGINEER.
- SLANTED AND SCREENED TEXT DENOTES INFORMATION TAKEN FROM OR CALCULATED FROM AS-BUILT SOURCES THAT HAVE NOT BEEN FIELD VERIFIED. AS-BUILT INFORMATION WAS TAKEN FROM EXISTING PLANT RECORD DRAWINGS. THESE DRAWINGS ARE AVAILABLE FOR REVIEW BY CONTRACTOR AT OWNER'S CONVENIENCE. UNLESS OTHERWISE NOTED, ALL INFORMATION OBTAINED FROM AS-BUILT SOURCES HAS NOT BEEN FIELD VERIFIED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL PROJECT SAFETY INCLUDING, BUT NOT LIMITED TO, TRENCH EXCAVATION AND SHORING, TRAFFIC CONTROL, CONFINED SPACE ENTRY AND SITE SECURITY. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF HIS/HER OWN EQUIPMENT, TOOLS, FACILITIES, MATERIALS, OFFICES, AND OTHER APPURTENANCES DURING THE LIFE OF PROJECT.

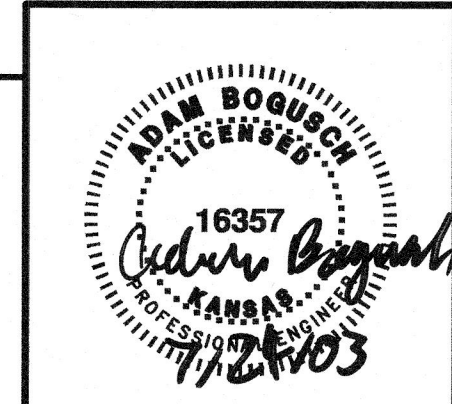
**GENERAL NOTES**

**OVERALL (CON'T)**

- THE CONTRACTOR SHALL LIMIT HIS/HER ACTIVITY TO WITHIN THE PLANT SITE BOUNDARIES. EXISTING TREES AND SHRUBS SHALL BE MOVED ONLY IF ACCEPTABLE TO THE ENGINEER OR IF SPECIFICALLY NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL VERIFY PIPE MATERIAL AND TYPE OF JOINT BEFORE CONNECTIONS BETWEEN EXISTING AND NEW PIPES ARE MADE. THE CONTRACTOR SHALL SUPPORT ALL PIPING AND CONDUITS EXPOSED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW DIVERSION AND DEWATERING OF EXISTING PIPE LINES BEFORE INSTALLING TIE-INS.
- THE CONTRACTOR SHALL REPAIR PAVEMENTS THAT HAVE BEEN CUT OR DAMAGED DURING CONSTRUCTION IN ACCORDANCE WITH THE CITY OF WICHITA STANDARDS. REPAIRS SHALL BE COMPLETED PRIOR TO SUBSTANTIAL COMPLETION.
- THE CONTRACTOR SHALL GRADE, SEED AND FERTILIZE ALL DISTURBED VEGETATION AREAS WITH SIMILAR MATERIALS AND AS DESCRIBED IN THE CITY OF WICHITA STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORM WATER, SILT AND EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL ASSOCIATED CONSTRUCTION PERMITS.
- ALL EXCESS MATERIALS AND DEMOLITION DEBRIS SHALL BECOME THE PROPERTY OF CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN OFF-SITE SOLID WASTE LANDFILL OR OTHER ACCEPTABLE LOCATION. EXCESS SOIL SHALL BE STOCKPILED AT THE SITE IN A LOCATION ACCEPTABLE TO THE OWNER AND SHALL REMAIN THE PROPERTY OF THE OWNER. STOCKPILED SOIL SHALL NOT CONTAIN CONSTRUCTION DEBRIS, ROCK OR OTHER DELETERIOUS SUBSTANCES. CONTAMINATED SOIL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISPOSAL COST AND OBTAINING THE REQUIRED PERMITS.
- THE TERM "ACCEPTABLE TO ENGINEER" SHALL MEAN WRITTEN ACCEPTANCE BY ENGINEER TO BE RECEIVED BEFORE WORK IS STARTED.
- ANY DEVIATION FROM CONTRACT DRAWINGS OR SPECIFICATIONS MUST BE ACCEPTED BY THE ENGINEER IN WRITING PRIOR TO THE WORK BEING STARTED. ANY DEVIATION PERFORMED WITHOUT THE ENGINEER'S ACCEPTANCE WILL NOT BE PAID FOR AND MAY BE REQUIRED TO BE REDONE AT THE CONTRACTOR'S EXPENSE.
- EXCEPT AS MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK SHALL BE IN ACCORDANCE WITH ALL CITY OF WICHITA STANDARDS. THE CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE STANDARD SPECIFICATIONS AND DRAWINGS AT THE WORK SITE AT ALL TIMES.
- SEE INDIVIDUAL SHEETS FOR ADDITIONAL ABBREVIATIONS, SYMBOLS, LEGENDS, DETAILS AND NOTES, IF ANY. NOT ALL "STANDARD" DETAILS SHOWN MAY BE APPLICABLE TO THIS PROJECT.
- CONTRACTOR SHALL COORDINATE WITH KANSAS ONE-CALL, OR OTHER UTILITY LOCATION SERVICE, TO LOCATE ALL UNDERGROUND UTILITIES. KANSAS ONE-CALL CAN BE REACHED AT (316) 687-2470.
- MEASUREMENTS**
- ALL STATIONS AND/OR DISTANCES SHOWN ARE TAKEN OFF THE CENTERLINE OF THE NEW PIPELINES OR REPRESENT DISTANCES MEASURED FROM INSIDE FACE OF A STRUCTURE, UNLESS OTHERWISE NOTED.
- STATIONING IS BASED ON DIMENSIONING INFORMATION FROM PREVIOUS AS-BUILT DRAWINGS. ACTUAL STATIONING SHALL BE RECORDED BY THE CONTRACTOR AND INCLUDED IN THE RECORD DRAWINGS.
- WRITTEN DISTANCES AND ELEVATIONS SHALL GOVERN OVER SCALED DISTANCES AND ELEVATIONS.
- PIPE LENGTHS SHOWN ON PROFILE OR PLAN ARE APPROXIMATE AND MAY VARY UP TO FIVE PERCENT OF THE INDICATED LENGTH.
- SURVEYING FOR THE DESIGN OF THIS PROJECT WAS COMPLETED BY SAVOY, ROGGLER AND BOHM ENGINEERING AND SURVEYING, P.A. OF WICHITA, KS.

**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.  
DATE: 11/03/06 BY: AB CAMP DRESSER & McKEE



DESIGNED BY: CDM	Camp Dresser & McKee Inc. 9200 WARD PARKWAY, SUITE 500 KANSAS CITY, MISSOURI 64114
DRAWN BY: M. MILAM	
SHEET CHK'D BY: D. HENRICHSEN	
CROSS CHK'D BY: R. BROWN	
APPROVED BY: _____	
DATE: NOVEMBER 2000	

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
CITY OF WICHITA, KANSAS  
**WATER AND SEWER DEPARTMENT**

**GENERAL NOTES AND SYMBOLS**

PROJECT NO. 2395-26968
FILE NAME: 26968g4.DWG
SHEET NO. G-4

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**VALVE AND FITTING SYMBOLS**

SYMBOL	FEATURE
	IPS EXPANSION JOINT COUPLING
	FLOW METER
	TELESCOPING VALVE
	VALVE WITH HOSE END
	GATE VALVE
	KNIFE GATE VALVE
	GLOBE VALVE
	BALL VALVE
	3-WAY BALL VALVE
	4-WAY BALL VALVE
	CONE VALVE
	NEEDLE VALVE
	PINCH VALVE
	DIAPHRAGM VALVE
	BUTTERFLY VALVE
	PLUG VALVE
	3-WAY PLUG VALVE
	4-WAY PLUG VALVE
	CHECK VALVE, GENERAL SYMBOL
	BALL CHECK VALVE
	DOUBLE DOOR CHECK VALVE
	ANGLE VALVE
	SOLENOID VALVE
	THREE WAY SOLENOID VALVE
	FOUR WAY SOLENOID VALVE
	MOTOR OPERATED VALVE
	MUD VALVE
	FLOOR DRAIN
	OPEN EQUIPMENT DRAIN
	ECCENTRIC REDUCER OR REDUCING BUSHING
	CONCENTRIC REDUCER OR REDUCING BUSHING
	Y-STRAINER
	BASKET STRAINER
	CALIBRATION CYLINDER
	AIR RELEASE VALVE
	MOTOR OPERATED
	FLAP VALVE

**NOTE:**  
SEE SHEET G-4 FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS

**PIPING SYMBOLS**

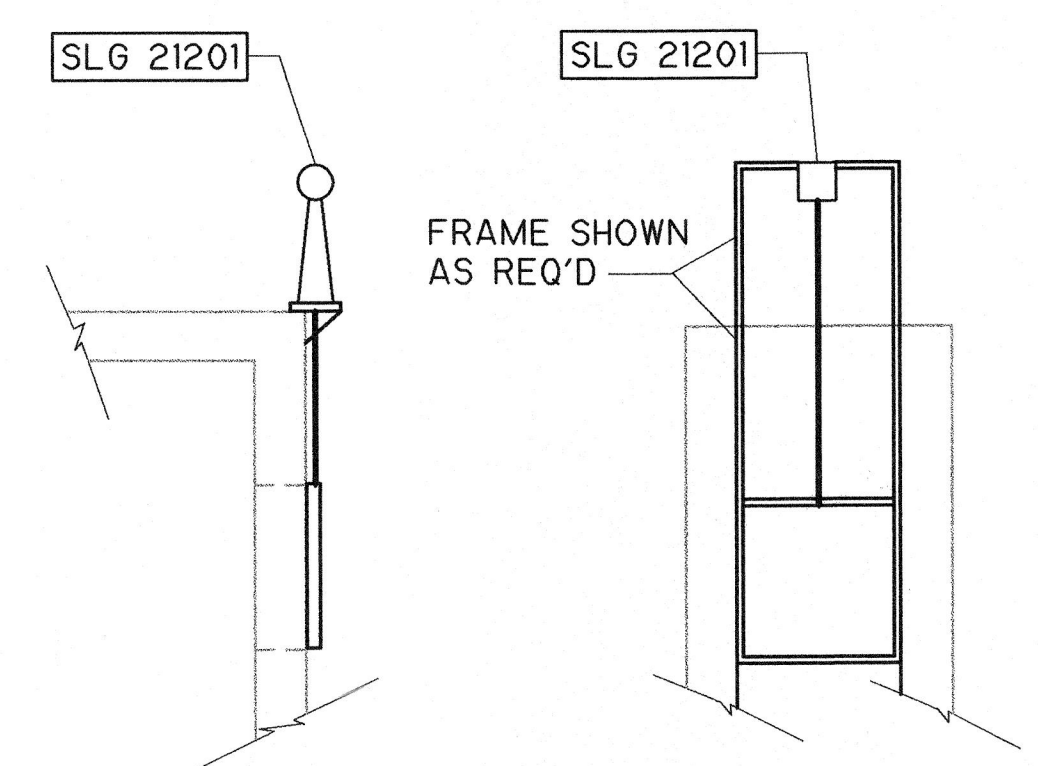
DOUBLE LINE SYMBOL 10" DIA. AND LARGER	SINGLE LINE SYMBOL SMALLER THAN 10" DIA.	FEATURE
		PLAIN END x PLAIN END PIPE COUPLING
		PLAIN END x PLAIN END PIPE COUPLING RESTRAINED
		RESTRAINED PIPE COUPLING FOR FLANGED PIPE
		RESTRAINED FLANGED COUPLING ADAPTER
		FLEXIBLE COUPLING OR EXPANSION JOINT (SLEEVE TYPE)
		FLEXIBLE COUPLING OR EXPANSION JOINT (BELLOWS TYPE)
		SPLIT RING COUPLING FOR GROOVED END JOINTS: Ⓐ FLEXIBLE Ⓑ RIGID (FLEXIBLE IF NO SYMBOL SHOWN)
		FLANGE GUARD
		FLANGE FILLER
		UNION
		QUICK CONNECT COUPLING
		HOSE COUPLING
		WELDED JOINT
		FLANGED JOINT SIMPLIFIED REPRESENTATION.
		FLANGED JOINT COMPLEX REPRESENTATION.
		MECHANICAL JOINT SIMPLIFIED REPRESENTATION.
		MECHANICAL JOINT COMPLEX REPRESENTATION.
		MECHANICAL JOINT RESTRAINED
		PUSH ON JOINT OR CAULKED BELL & SPIGOT JOINT SIMPLIFIED REPRESENTATION
		PUSH ON JOINT OR CAULKED BELL & SPIGOT JOINT COMPLEX REPRESENTATION
		PUSH ON JOINT OR CAULKED BELL & SPIGOT JOINT RESTRAINED
		BALL JOINT
		PIPE LINE W/ DIRECTION OF FLOW
		CHANGE IN PIPING MATERIAL
		PIPE DOWN
		PIPE UP

SEE NOTE 2

**GATE SYMBOLS**

PLAN	FEATURE
	SLUICE GATE (SG)
	SLIDE GATE (SLG)
	WEIR SLIDE GATE (WSLG)
	STOP PLATE (SP)
	SLUICE GATE (SG)
	SLIDE GATE (SLG)
	WEIR SLIDE GATE (WSLG)

SECTION (OPERATOR ONLY)



**PIPE AND FITTING SYMBOL NOTES**

- SIMPLIFIED JOINT SYMBOL IS USED FOR ALL SINGLE LINE PIPING SHOWN ON THE INTERIOR AND EXTERIOR PIPING DRAWINGS.
- BOTH SIMPLIFIED AND COMPLEX JOINT REPRESENTATIONS MAY BE SHOWN ON THE DRAWINGS.
- UNLESS MODIFIED BY THE GENERAL PROJECT NOTES OR DETAILED ON THE DRAWINGS, PIPE AND FITTING JOINT REQUIREMENTS FOR THE VARIOUS PIPE MATERIALS ARE DEFINED IN THE SPECIFICATIONS.

**NOTES:**

- THIS IS A STANDARD DRAWING AND NOT ALL ITEMS SHOWN MAY BE USED IN THIS CONTRACT.
- SEE ALSO DISCIPLINE SECTIONS FOR ADDITIONAL ABBREVIATIONS.

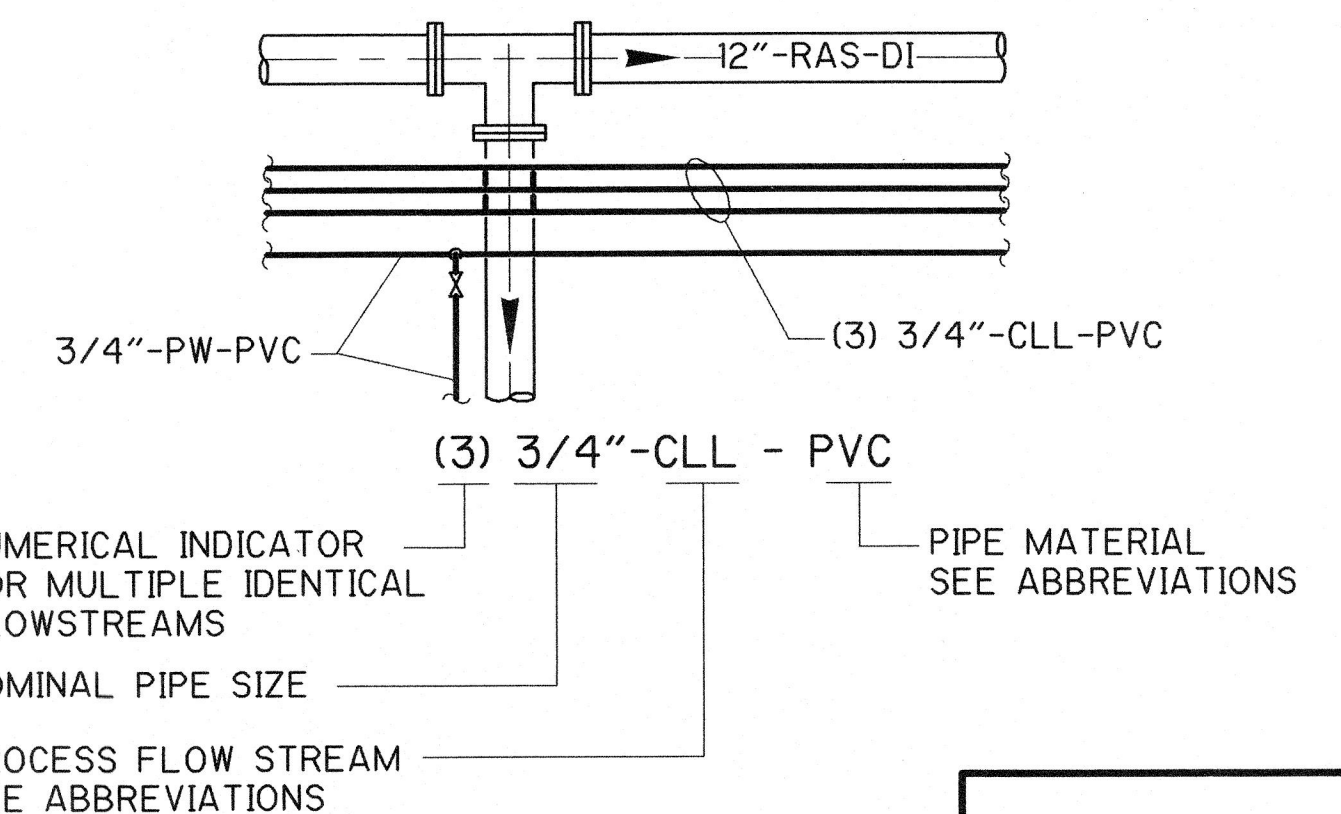
**ABBREVIATIONS**

PIPING MATERIALS		PROCESS FLOW STREAM	
BSP	BLACK STEEL PIPE	NG	NATURAL GAS
CI	CAST IRON	OVF	OVERFLOW
CISP	CAST IRON SOIL PIPE	PE	PRIMARY EFFLUENT
CMP	CORRUGATED METAL PIPE	1W/POT	POTABLE WATER
CS	CARBON STEEL	PSC	PRIMARY SCUM
CU	COPPER PIPE	3W/PW	PLANT WATER (NON-POTABLE)
DI	DUCTILE IRON	RAS	RETURN ACTIVATED SLUDGE
FRP	FIBERGLASS REINFORCED PLASTIC	RE	REUSE EFFLUENT
		RS	RAW SEWAGE
		SC	SCUM
		SEP	SEPTAGE
		SN	SUPERNATANT, SUBNATANT
		SS	SANITARY SEWER
		SW	STORM WATER
		TD	TANK DRAIN
		WAS	WASTE ACTIVATED SLUDGE
		WAW	WASH WATER
		2W	NON-POTABLE CITY WATER

VALVE NOMENCLATURE	
BCV	BALL CHECK VALVE
BFV	BUTTERFLY VALVE
BPRV	BACK PRESSURE REGULATING VALVE
BV	BALL VALVE
COMP JT	COMPRESSION JOINT
CV	CHECK VALVE (AIR CUSHION)
EXP JT	EXPANSION JOINT
FAC	FLANGED ADAPTOR COUPLING
FH	FIRE HYDRANT
FS	FLOOR STAND
GOV	GLOBE VALVE
GV	GATE VALVE
HFAC	HARNESSED FLANGED ADAPTOR COUPLING
KGV	KNIFE GATE VALVE
MJ	MECHANICAL JOINT
MV	MUD VALVE
PBAV	PLASTIC BALL VALVE
PCV	PRESSURE CONTROL VALVE
PE	PLAIN END
POJ	PUSH ON JOINT
PRV	PRESSURE RELIEF VALVE
PV	PLUG VALVE
PVRV	PRESSURE VACUUM RELIEF VALVE
RJ	RESTRAINED JOINT
SJ	SOLDERED JOINT
SOLV	SOLENOID VALVE
THD	THREADED
TUBV	TRUE UNION BALL VALVE
UN	UNION
VB	VALVE BOX
VC	VICTAULIC COUPLING (SHOULDERED ENDS)
WAP	WALL PIPE
WJ	WELDED JOINT
WP	WELDED PIPE
WSV	WALL SLEEVE

**PIPE TAG**



**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.  
DATE: 12/21/03 By: OB CAMP DRESSER & MCKEE



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REV. NO.	DATE	DRWN	CHKD	REMARKS
1	12/02	AJF	AP	REVISED FOR THE RECORD

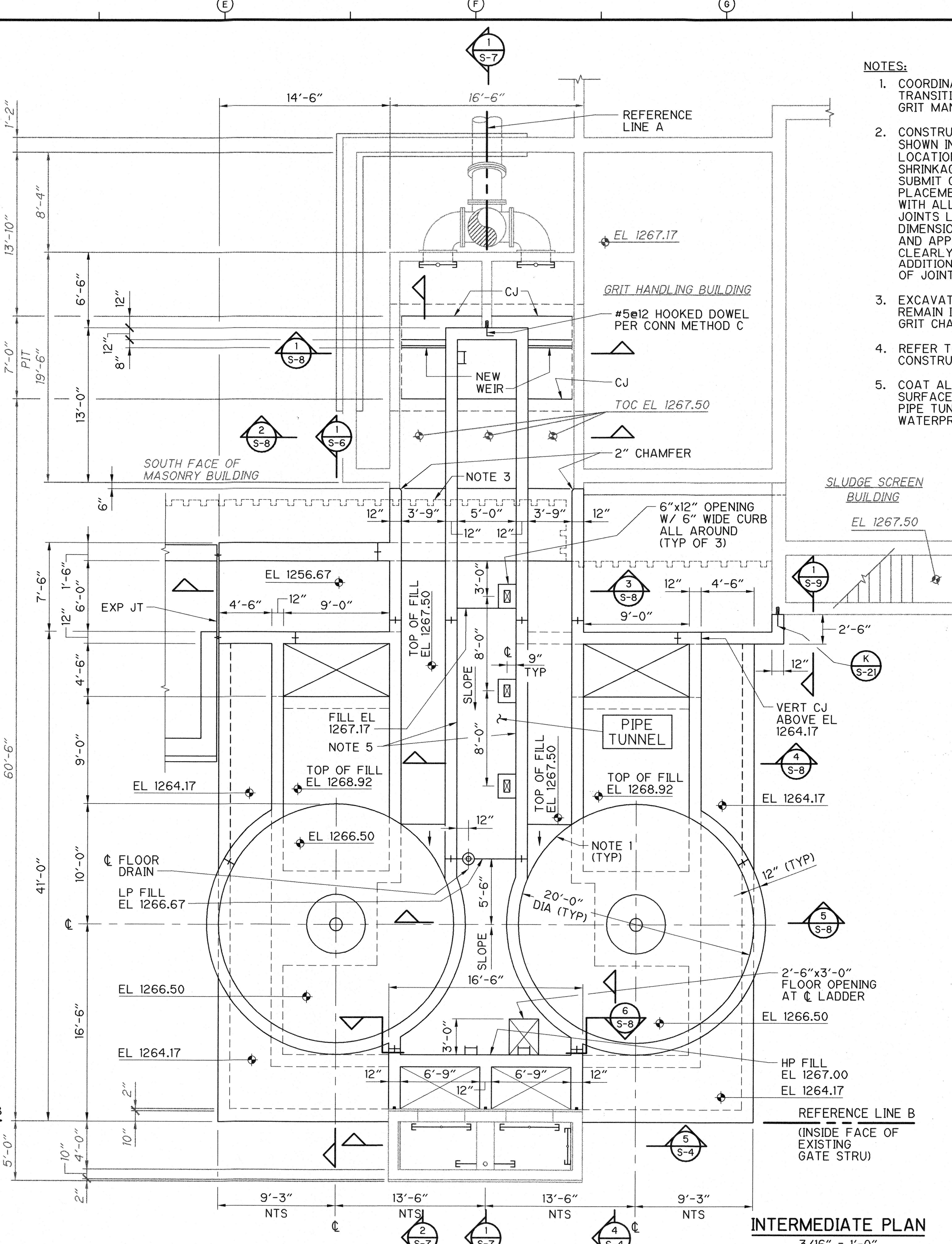
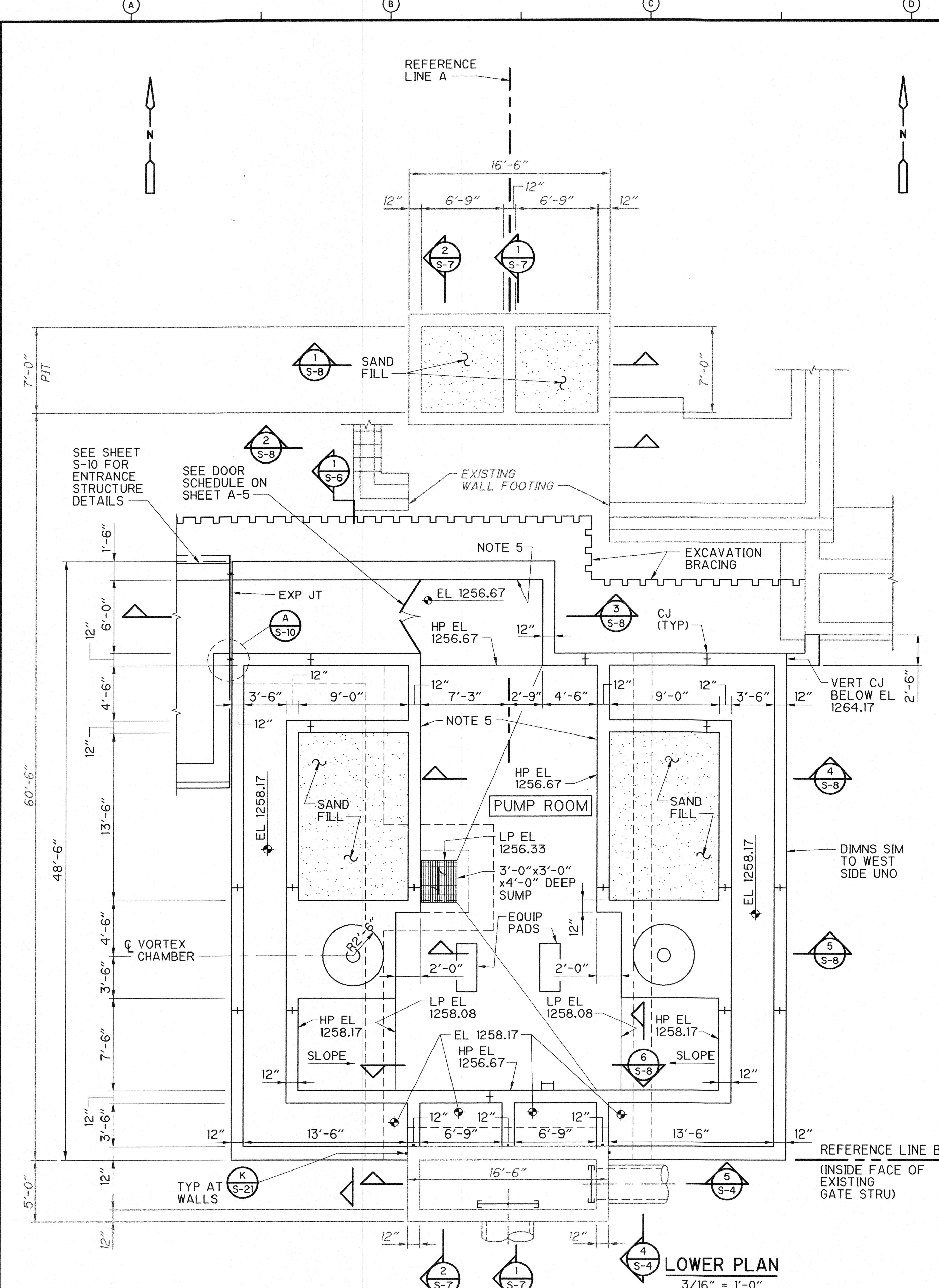
DESIGNED BY: CDM  
DRAWN BY: M. MILAM  
SHEET CHK'D BY: D. HENRICHSEN  
CROSS CHK'D BY: R. BROWN  
APPROVED BY: _____  
DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
9200 WARD PARKWAY, SUITE 500  
KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
**CITY OF WICHITA, KANSAS**  
**WATER AND SEWER DEPARTMENT**

**MECHANICAL PROCESS**  
**ABBREVIATIONS, SYMBOLS AND LEGENDS**

PROJECT NO. 2395-26968  
FILE NAME: 2696805.DWG  
SHEET NO. **G-5**

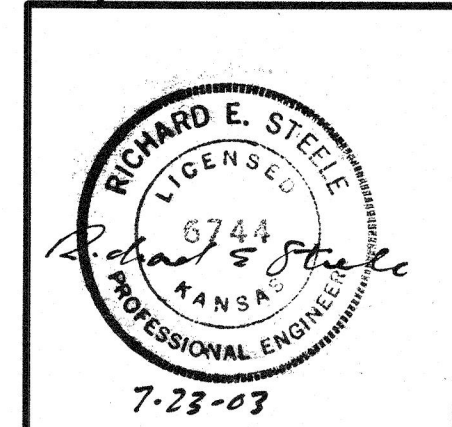


- NOTES:**
1. COORDINATE CONCRETE TRANSITION WITH VORTEX GRIT MANUFACTURER.
  2. CONSTRUCTION JOINTS ARE SHOWN IN APPROXIMATE LOCATIONS TO MINIMIZE SHRINKAGE EFFECTS. SUBMIT CONCRETE PLACEMENT DRAWINGS WITH ALL CONSTRUCTION JOINTS LOCATED AND DIMENSIONED, FOR REVIEW AND APPROVAL BY ENGINEER. CLEARLY NOTE ANY PROPOSED ADDITIONS OR DELETIONS OF JOINTS.
  3. EXCAVATION BRACING TO REMAIN IN PLACE BELOW GRIT CHANNELS.
  4. REFER TO SHEET S-2 FOR CONSTRUCTION SEQUENCING.
  5. COAT ALL INTERIOR WALL SURFACES OF PUMP ROOM AND PIPE TUNNEL WITH CAPILLARY WATERPROOFING.

S:\2395\26968\DWG\Stru\100% Dwgs\26968S-5 11/02/00 21:15 Vanhoutenhp XREFS: XREF1

**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT. DATE: 2-22-03 By: [Signature] CAMP DRESSER & MCKEE



PROJECT NO. 2395-26968  
FILE NAME: 26968S-5.DWG  
SHEET NO. **S-5**

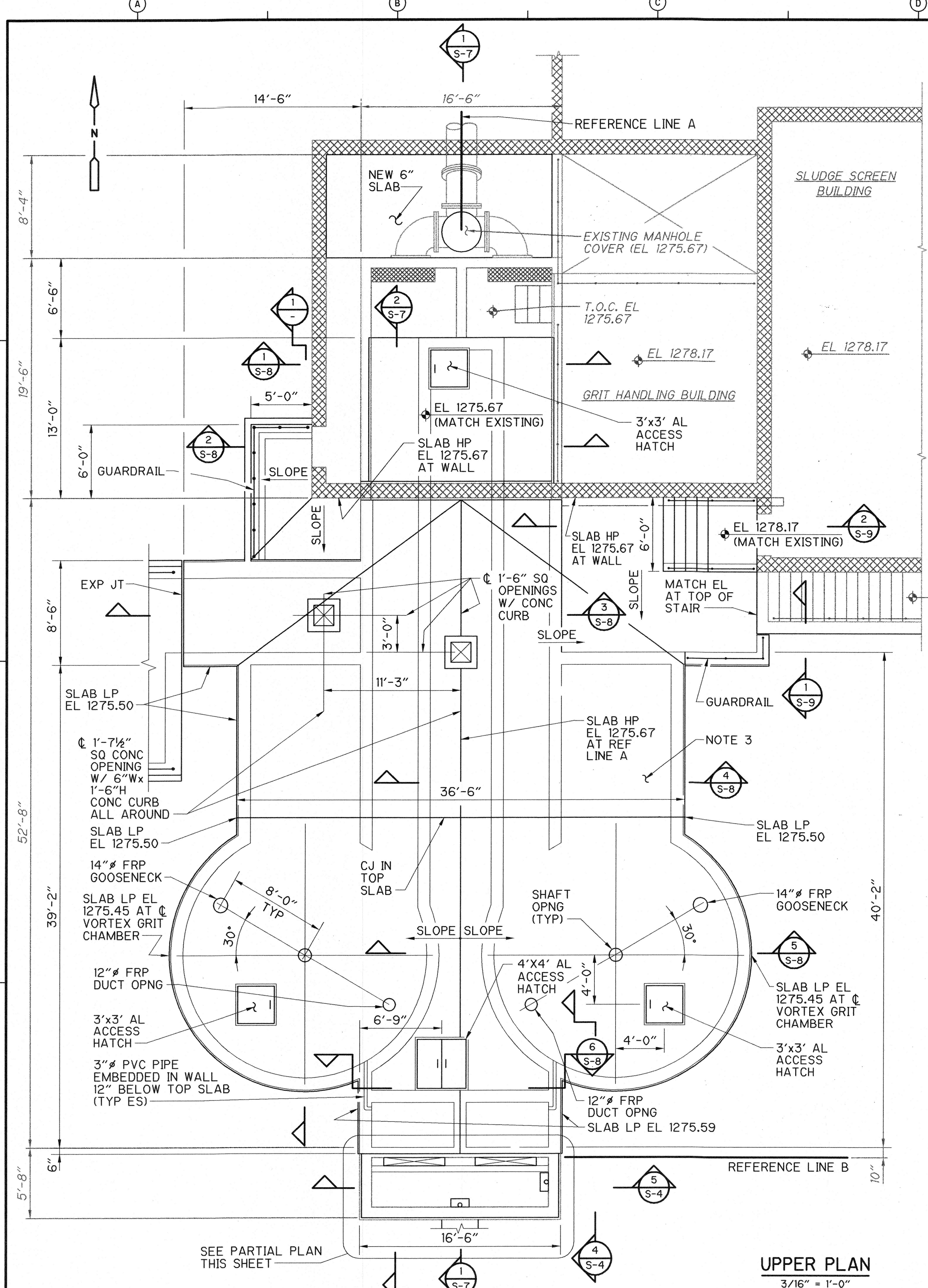
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	12/02	AJF	AB	REVISED FOR THE RECORD

DESIGNED BY: P. STIEFLER  
DRAWN BY: K. VAN HOUTEN  
SHEET CHK'D BY: W. SHERMAN  
CROSS CHK'D BY: D. HENRICHSEN  
APPROVED BY: [Signature]  
DATE: NOVEMBER 2000

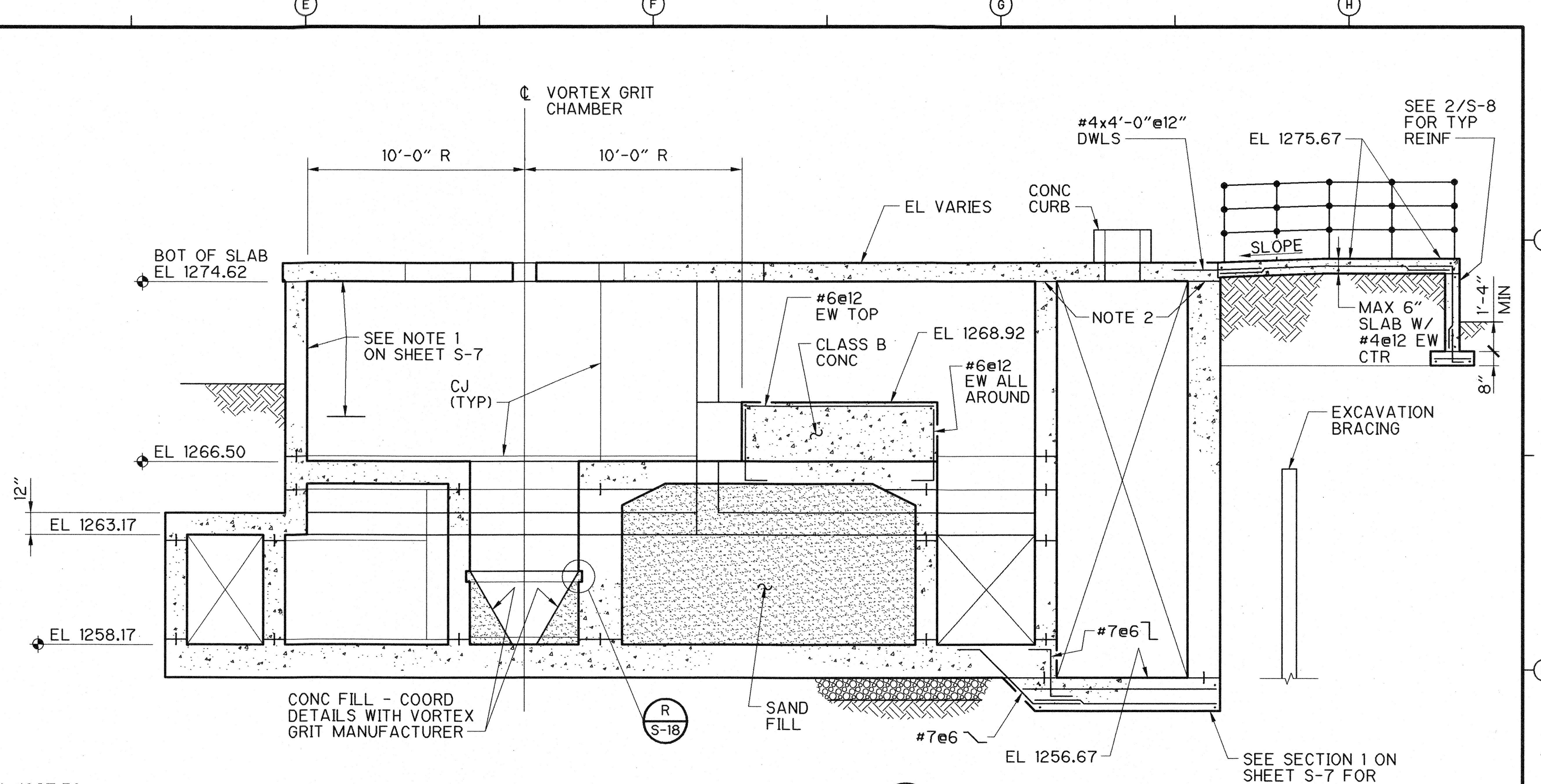
**CDM** Camp Dresser & McKee Inc.  
9200 WARD PARKWAY, SUITE 500  
KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
CITY OF WICHITA, KANSAS  
**WATER AND SEWER DEPARTMENT**

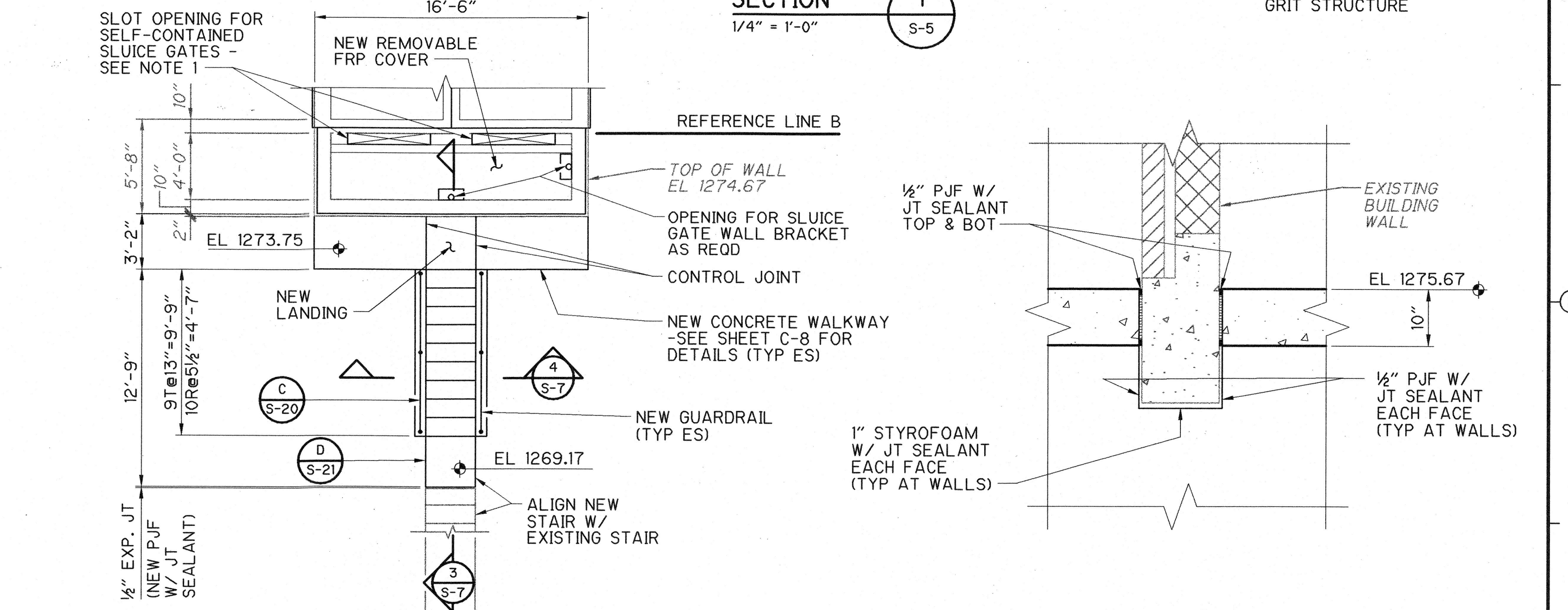
**GRIT REMOVAL SYSTEM**  
**NEW WORK - PLANS**



**UPPER PLAN**  
3/16" = 1'-0"



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



**PARTIAL PLAN**  
3/16" = 1'-0"

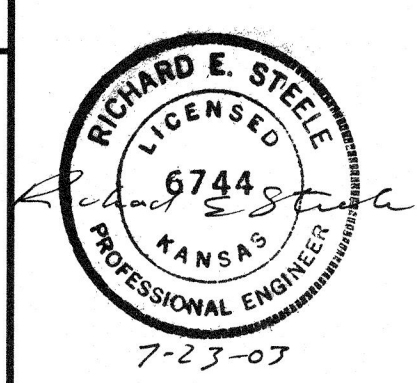
**DETAIL A**  
3/4" = 1'-0"

- NOTES:**
- DIMENSIONS OF GATE SLOTS TO BE CONFIRMED WITH THE GATE MANUFACTURER.
  - WATERSTOP NOT REQ'D IN JOINTS AT TOP SLAB UNO.
  - COAT ENTIRE EXTERIOR SURFACE OF TOP SLAB WITH CAPILLARY WATERPROOFING.

**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

DATE: 7-23-03 By: [Signature] CAMP DRESSER & MCKEE



REV. NO.	DATE	DRWN	CHKD	REMARKS
				REVISED FOR THE RECORD
12/02	AJF	AB		ADDENDUM NO. 2 DATED DECEMBER 1, 2000
12/02	AJF	AB		ADDENDUM NO. 1 DATED NOVEMBER 27, 2000

DESIGNED BY: P. STIEFLER  
 DRAWN BY: K. VAN HOUTEN  
 SHEET CHK'D BY: W. SHERMAN  
 CROSS CHK'D BY: D. HENRICHSEN  
 APPROVED BY: [Signature]  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
**CITY OF WICHITA, KANSAS**

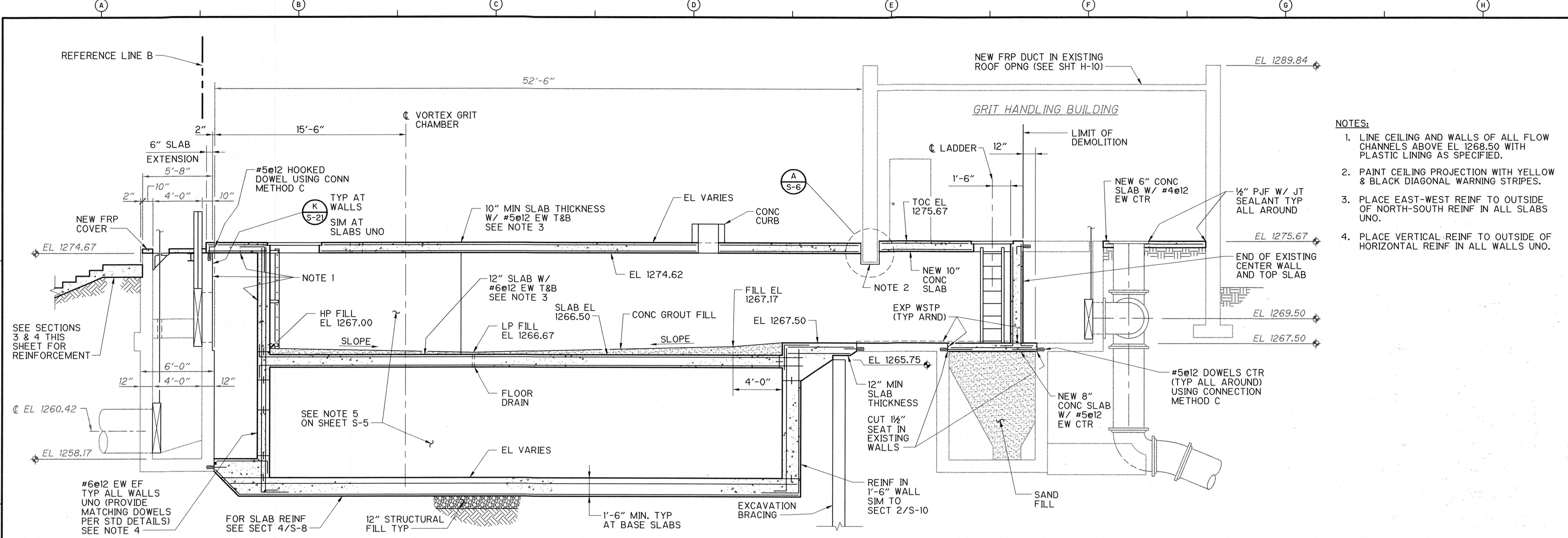
**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**NEW WORK - PLAN & SECTION**

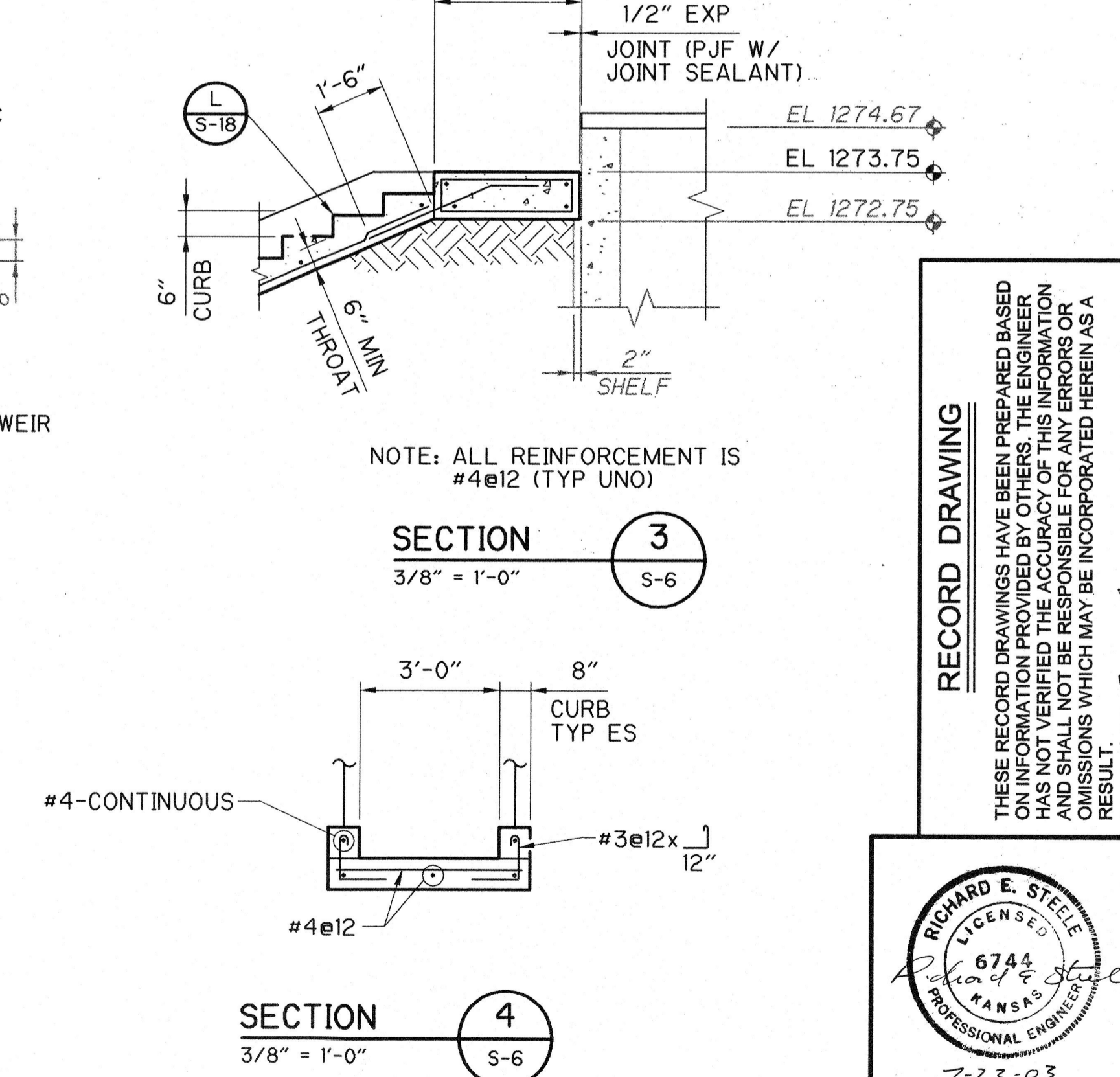
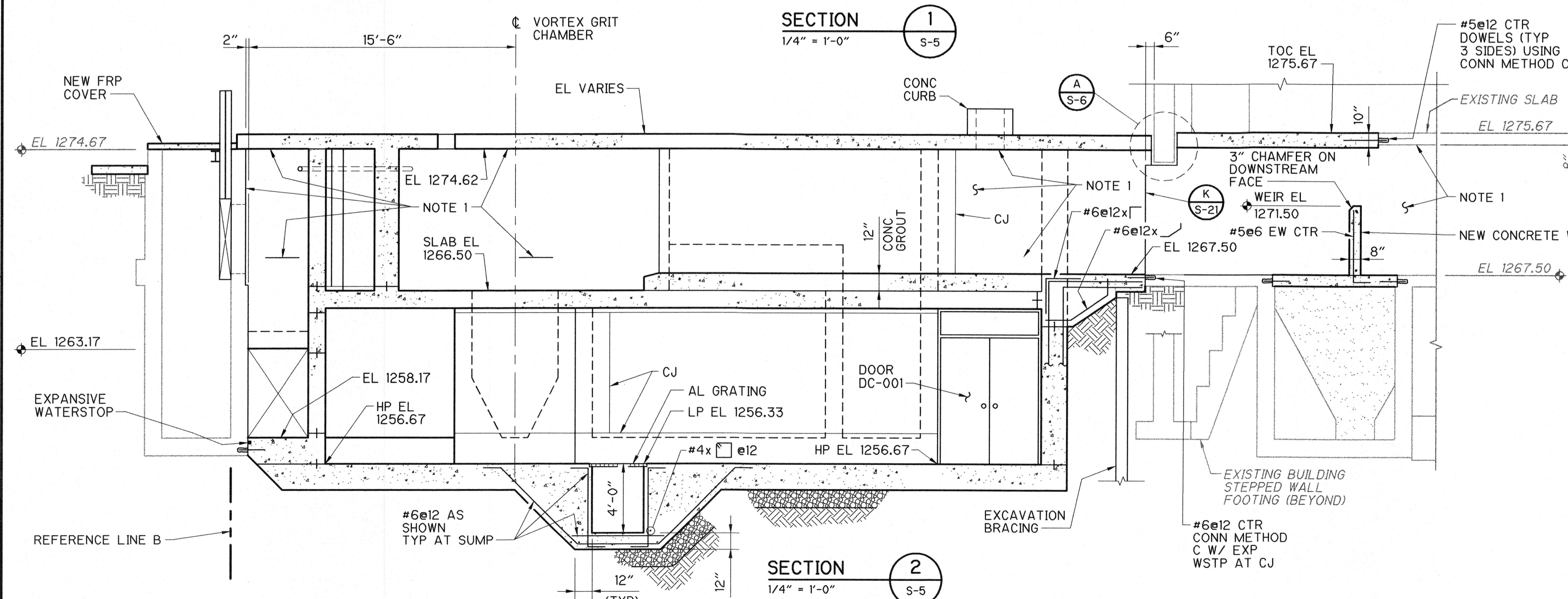
PROJECT NO. 2395-26968  
 FILE NAME: 26968S-6.DWG

SHEET NO.  
**S-6**

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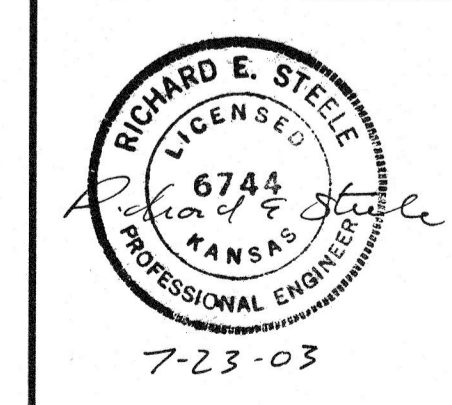
- NOTES:**
1. LINE CEILING AND WALLS OF ALL FLOW CHANNELS ABOVE EL 1268.50 WITH PLASTIC LINING AS SPECIFIED.
  2. PAINT CEILING PROJECTION WITH YELLOW & BLACK DIAGONAL WARNING STRIPES.
  3. PLACE EAST-WEST REINF TO OUTSIDE OF NORTH-SOUTH REINF IN ALL SLABS UNO.
  4. PLACE VERTICAL REINF TO OUTSIDE OF HORIZONTAL REINF IN ALL WALLS UNO.



**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

DATE: 7-23-03 By: [Signature] CAMP DRESSER & MCKEE



REV. NO.	DATE	DRWN	CHKD	REMARKS
12/02	AJF	AB		REVISED FOR THE RECORD

DESIGNED BY: P. STIEFLER  
 DRAWN BY: K. VAN HOUTEN  
 SHEET CHK'D BY: W. SHERMAN  
 CROSS CHK'D BY: D. HENRICHSEN  
 APPROVED BY: [Signature]  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
 CITY OF WICHITA, KANSAS

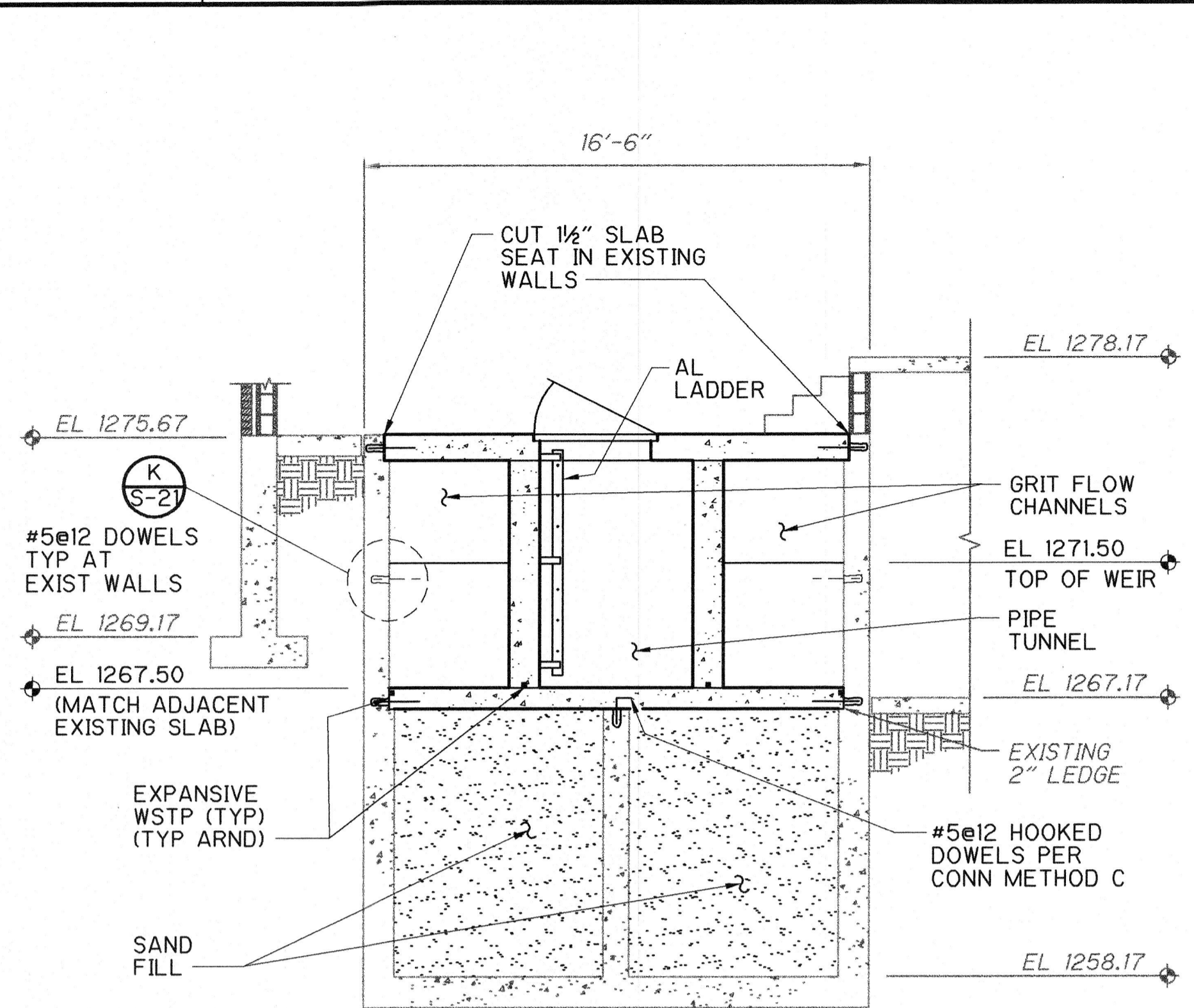
**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**NEW WORK - SECTIONS**

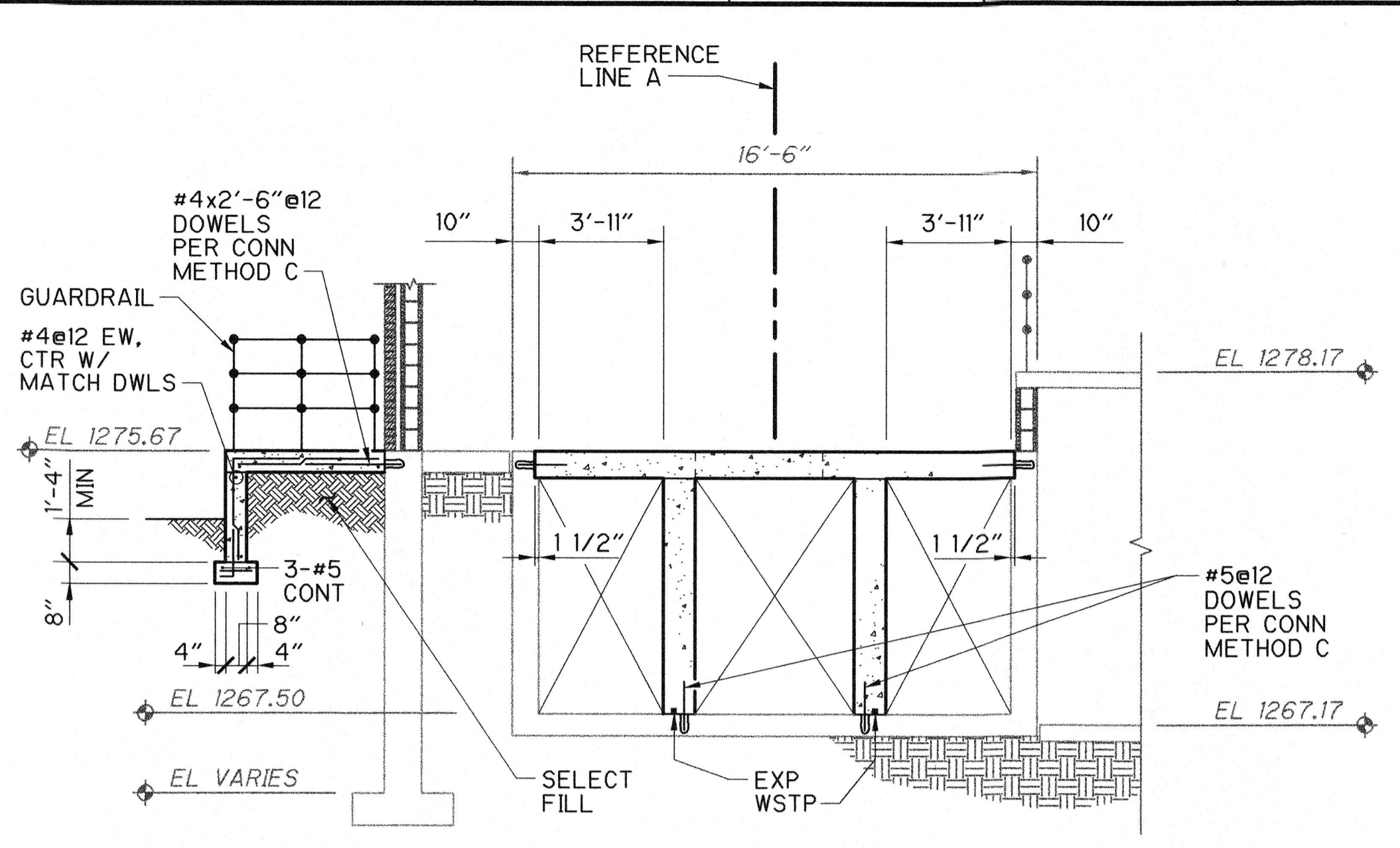
PROJECT NO. 2395-26968  
 FILE NAME: 26968S-7.DWG

SHEET NO. **S-7**

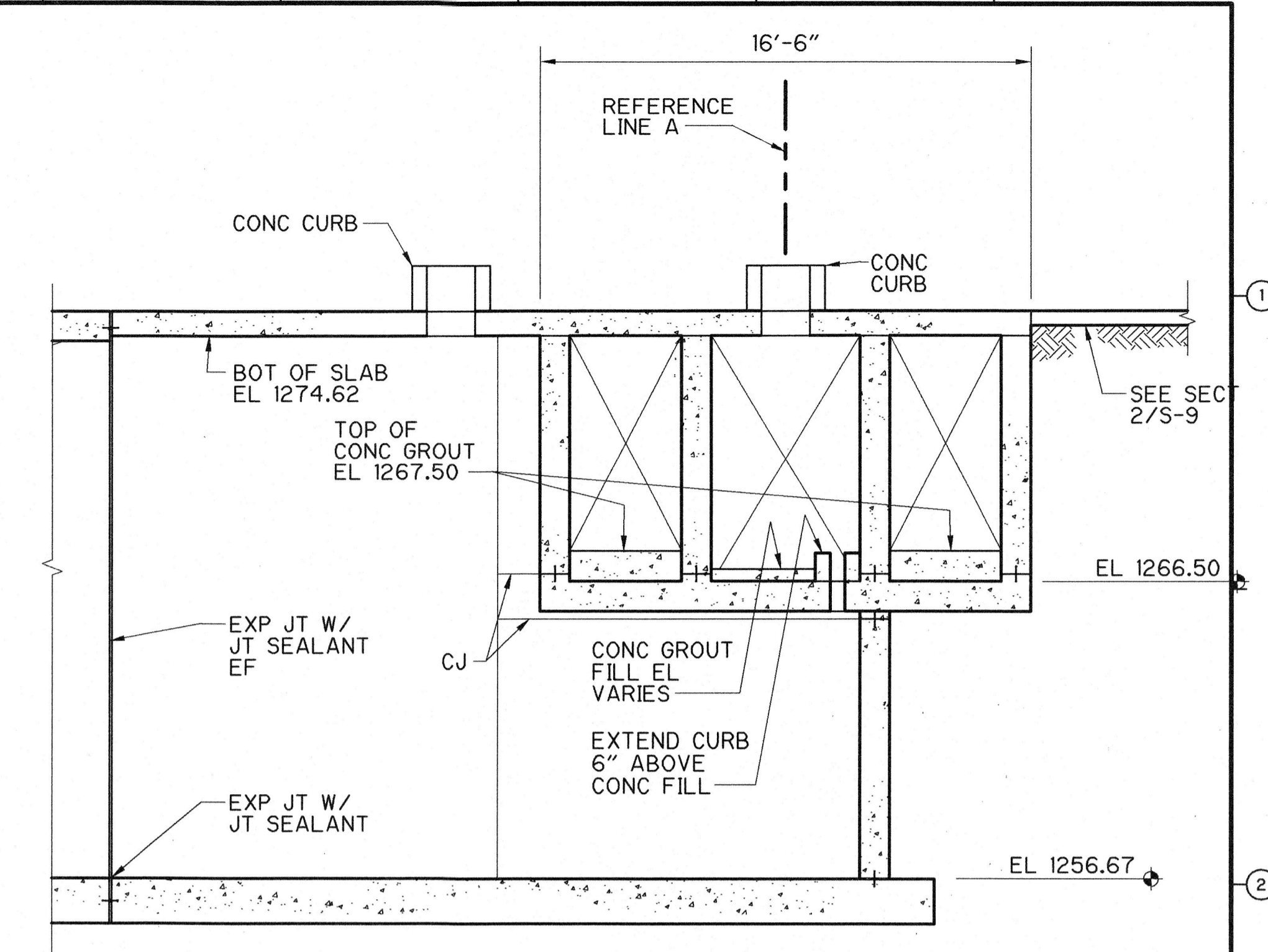
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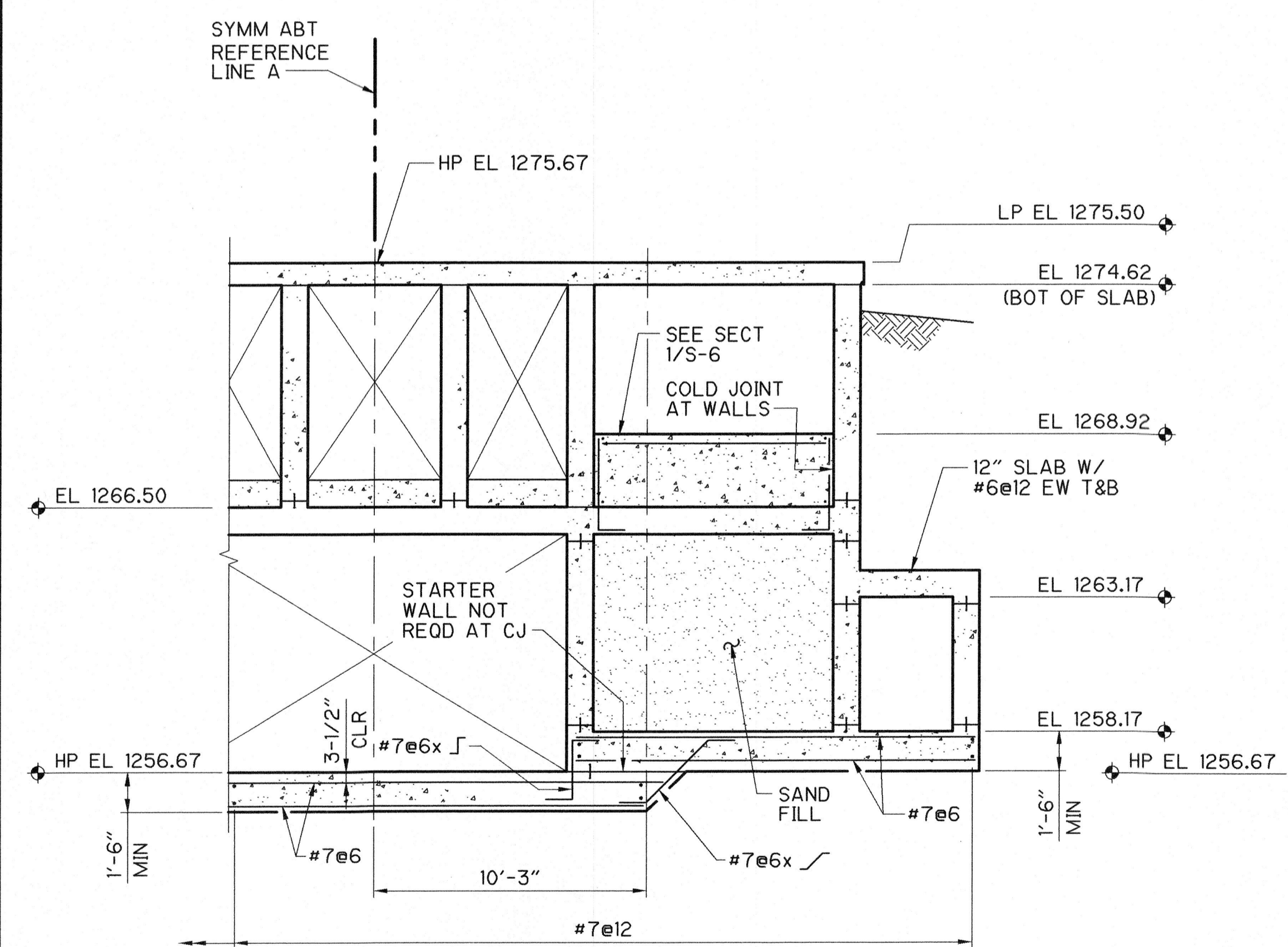
SECTION 1  
1/4" = 1'-0"



SECTION 2  
1/4" = 1'-0"

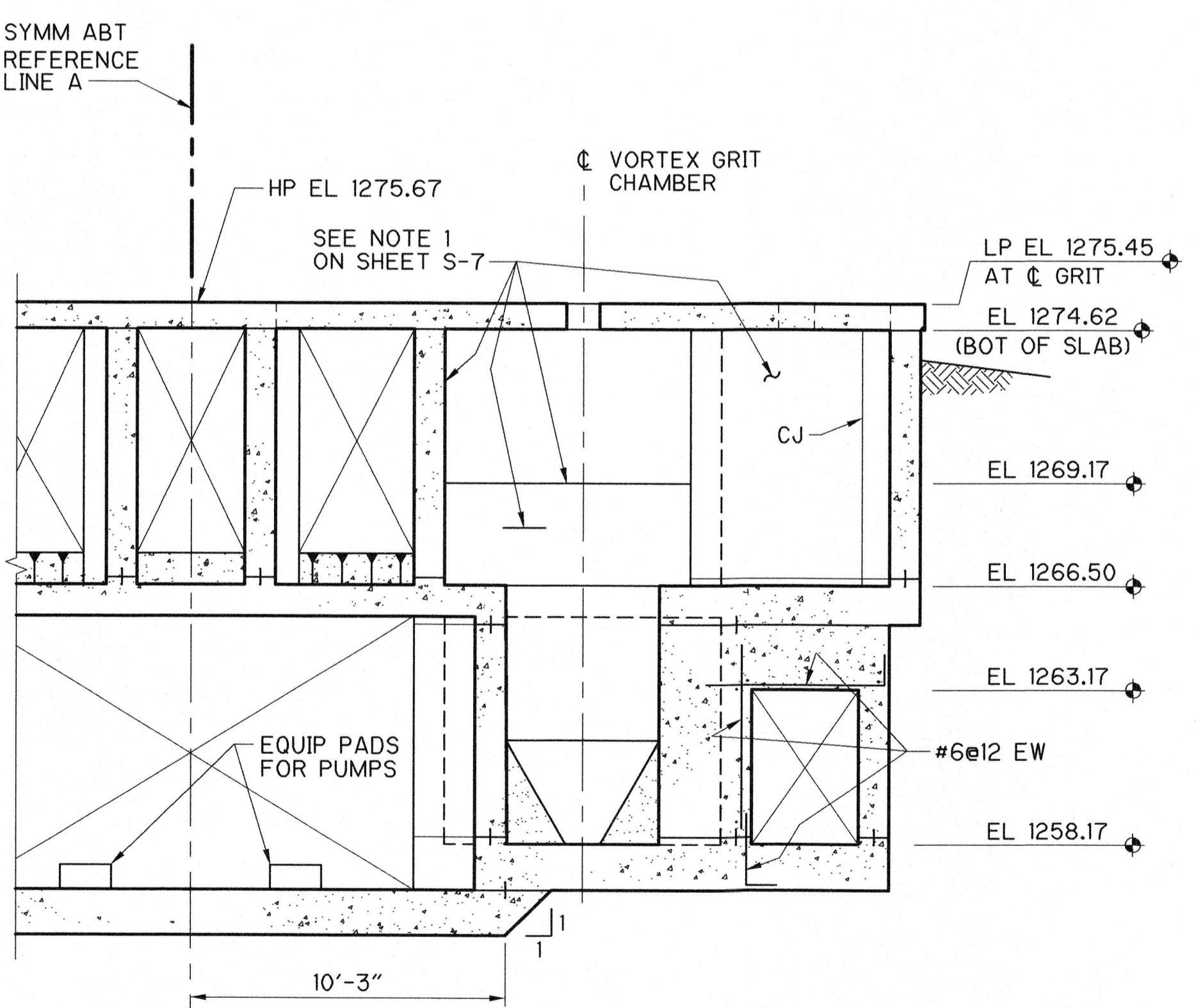


SECTION 3  
1/4" = 1'-0"

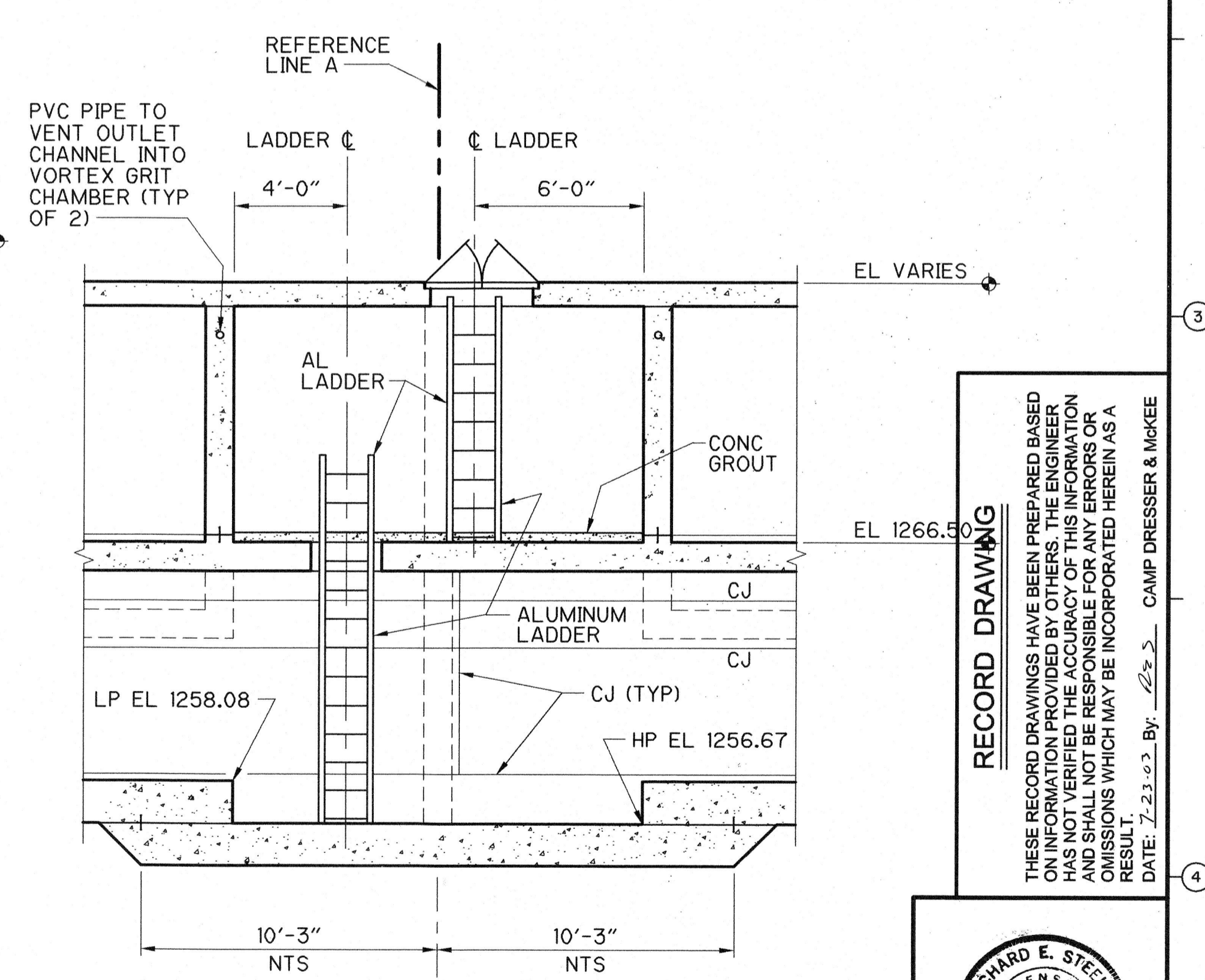


SECTION 4  
1/4" = 1'-0"

NOTE: REFER TO SECTION 1 ON SHEET S-7 FOR REINF NOT SHOWN.



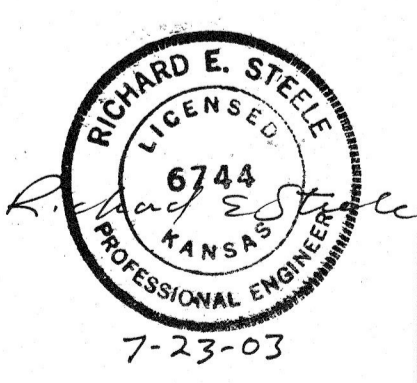
SECTION 5  
1/4" = 1'-0"



SECTION 6  
1/4" = 1'-0"

S:\2395\26968\DWGS\Stru\100% Dwg\ 26968S-8 11/02/00 21:17 Vornhoutenhp XREES; T-BLOCK

**RECORD DRAWING**  
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.  
DATE: 7-23-03 By: [Signature] CAMP DRESSER & MCKEE



REV. NO.	DATE	DRWN	CHKD	REMARKS
12/02	AJF	AB		REVISED FOR THE RECORD
12/02	AJF	AB		ADDENDUM NO. 1 DATED NOVEMBER 27, 2000

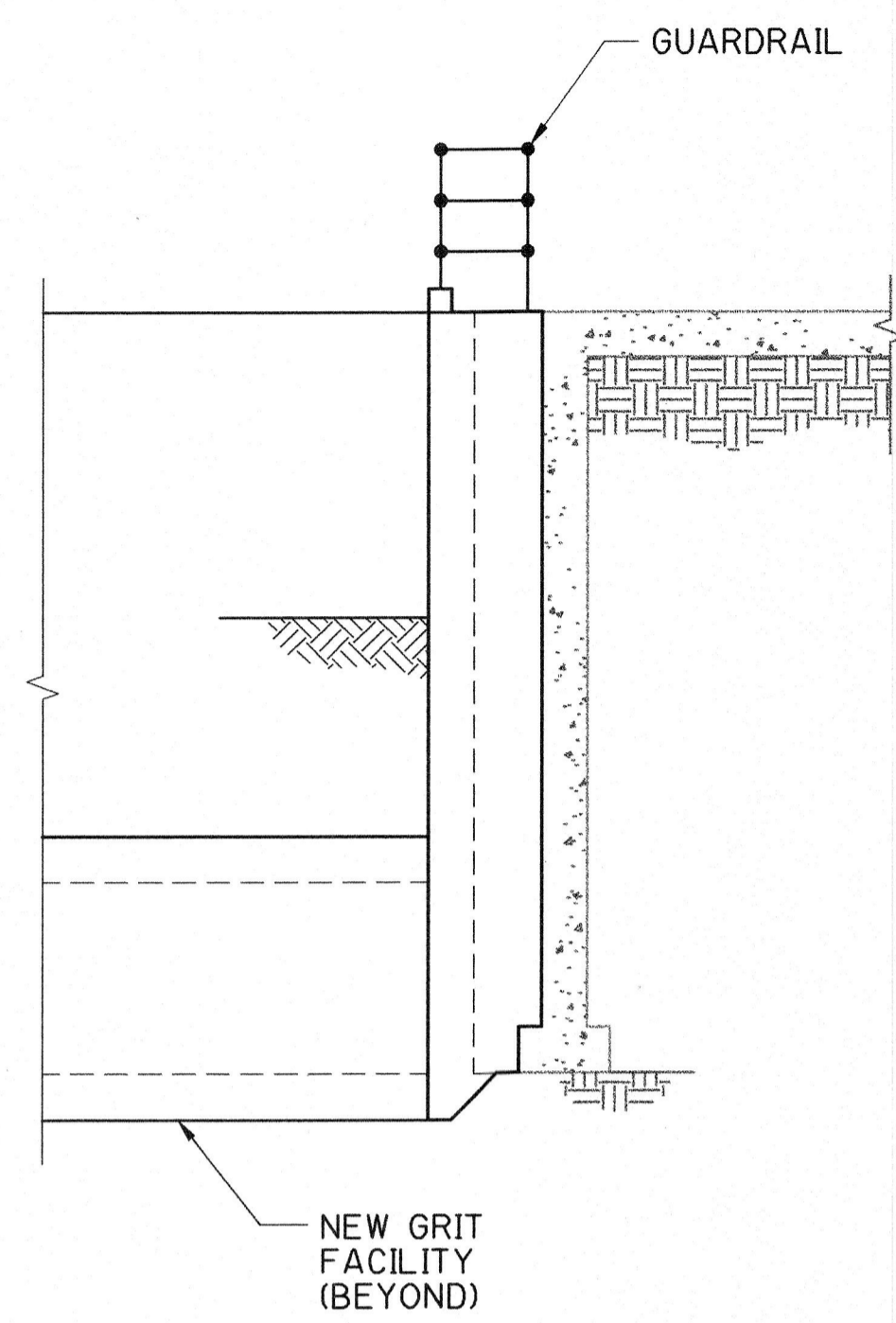
DESIGNED BY: P. STIEFLER  
DRAWN BY: K. VAN HOUTEN  
SHEET CHKD BY: W. SHERMAN  
CROSS CHKD BY: D. HENRICHSEN  
APPROVED BY: [Signature]  
DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
9200 WARD PARKWAY, SUITE 500  
KANSAS CITY, MISSOURI 64114

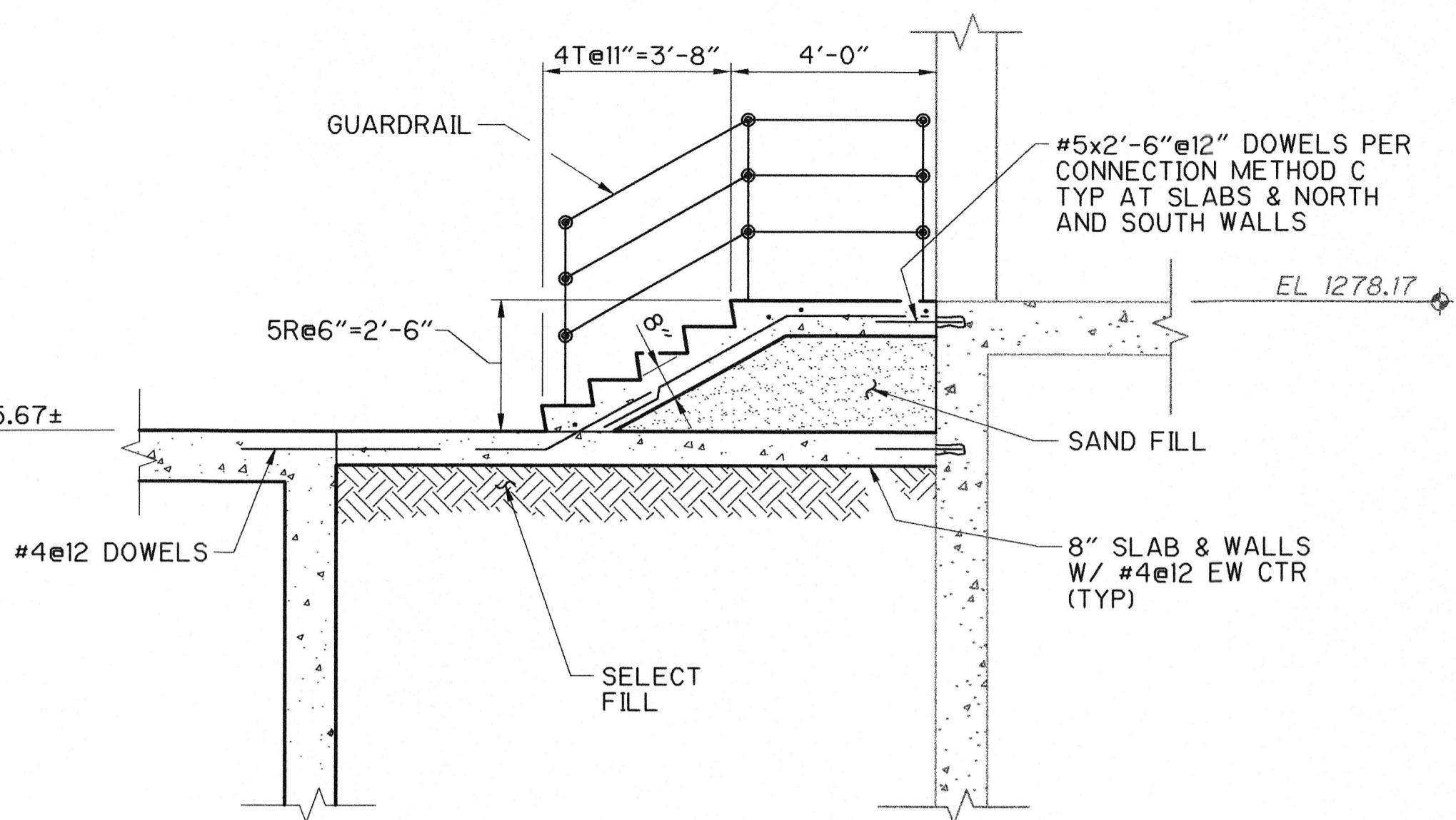
**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
CITY OF WICHITA, KANSAS  
**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**NEW WORK - SECTIONS**

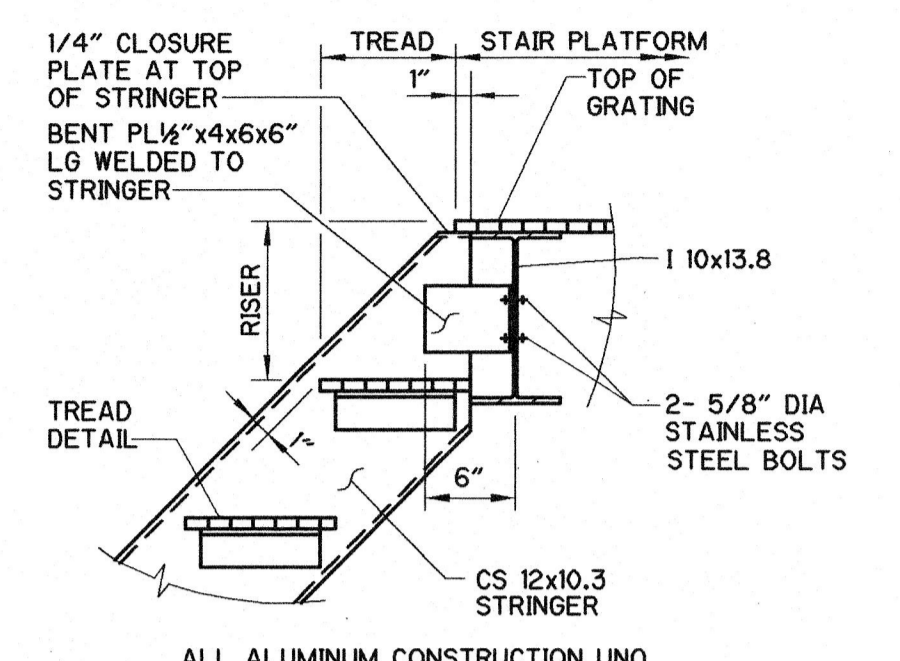
PROJECT NO. 2395-26968  
FILE NAME: 26968S-8.DWG  
SHEET NO. **S-8**



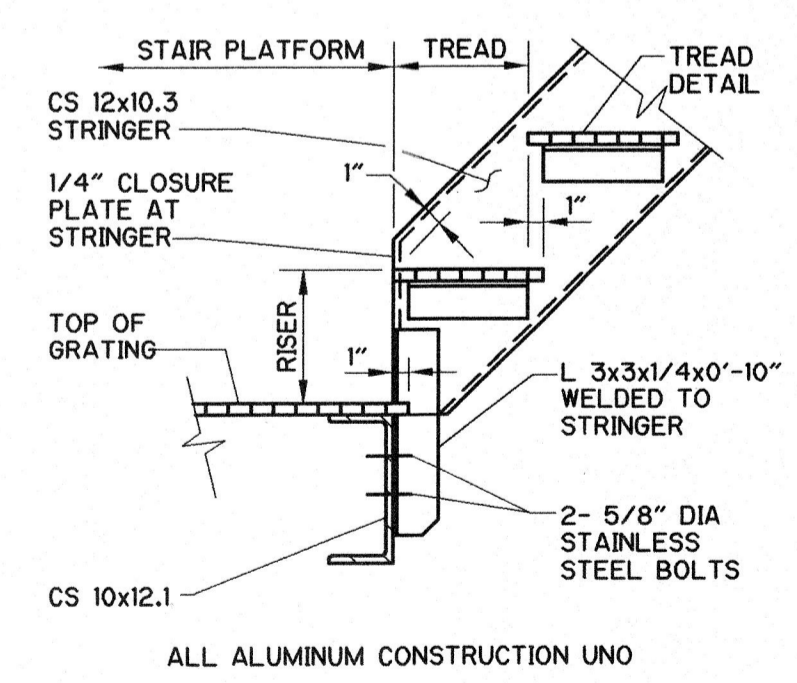
SECTION 1  
1/4" = 1'-0"  
S-5



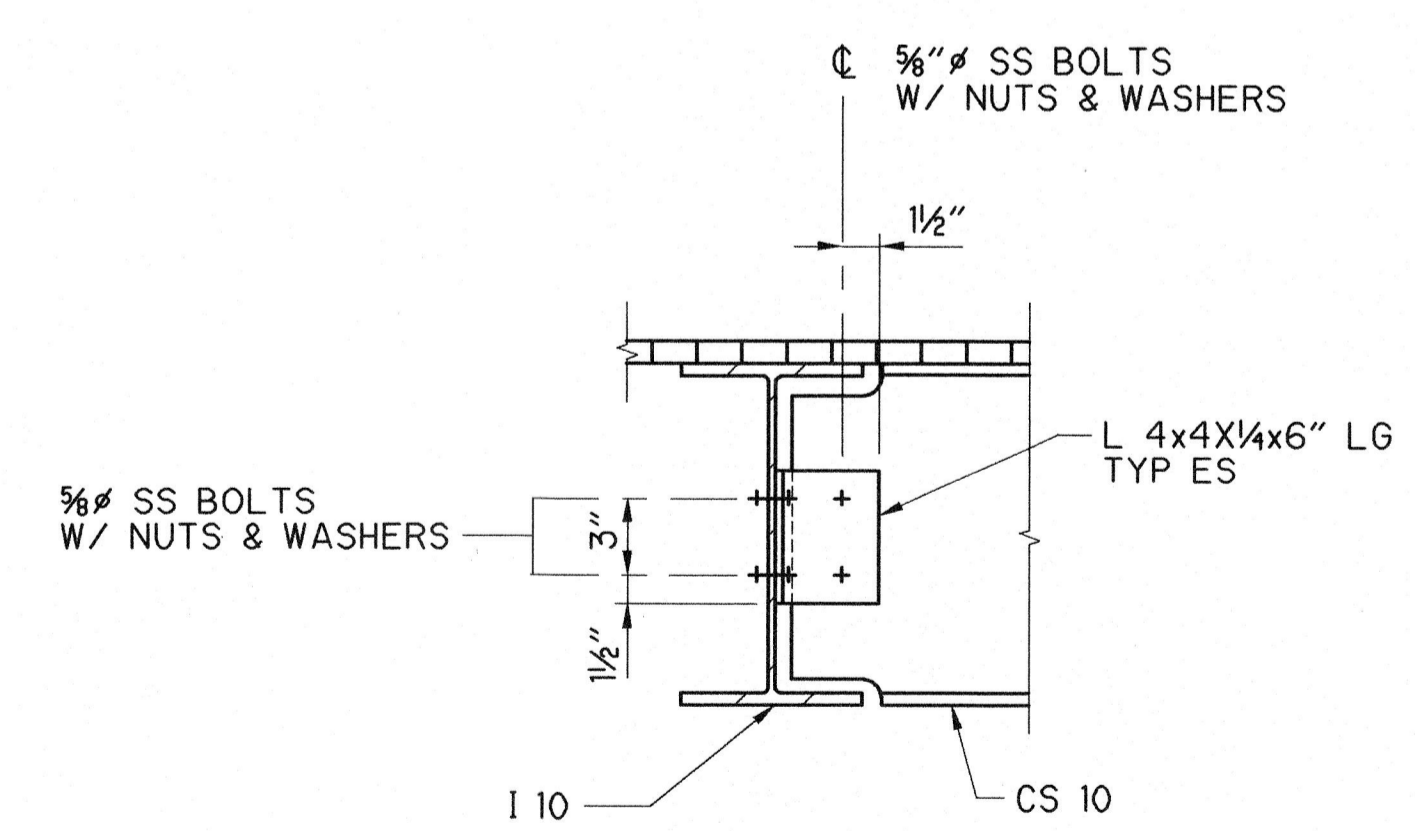
SECTION 2  
3/8" = 1'-0"  
S-6



DETAIL B  
S-15  
NTS



DETAIL C  
S-15  
NTS



DETAIL D  
S-15  
NTS

S:\2395\26968\DWGS\Stru\100% Dwg\ 269685-9 11/02/00 21:17 Vanhoutenkp XREFS: XREF1

REV. NO.	DATE	DRWN	CHKD	REMARKS
12/02	AJF	AB		REVISED FOR THE RECORD
12/02	AJF	AB		ADDENDUM NO. 1 DATED NOVEMBER 27, 2000

DESIGNED BY: P. STIEFLER  
 DRAWN BY: K. VAN HOUTEN  
 SHEET CHK'D BY: W. SHERMAN  
 CROSS CHK'D BY: D. HENRICHSEN  
 APPROVED BY:  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

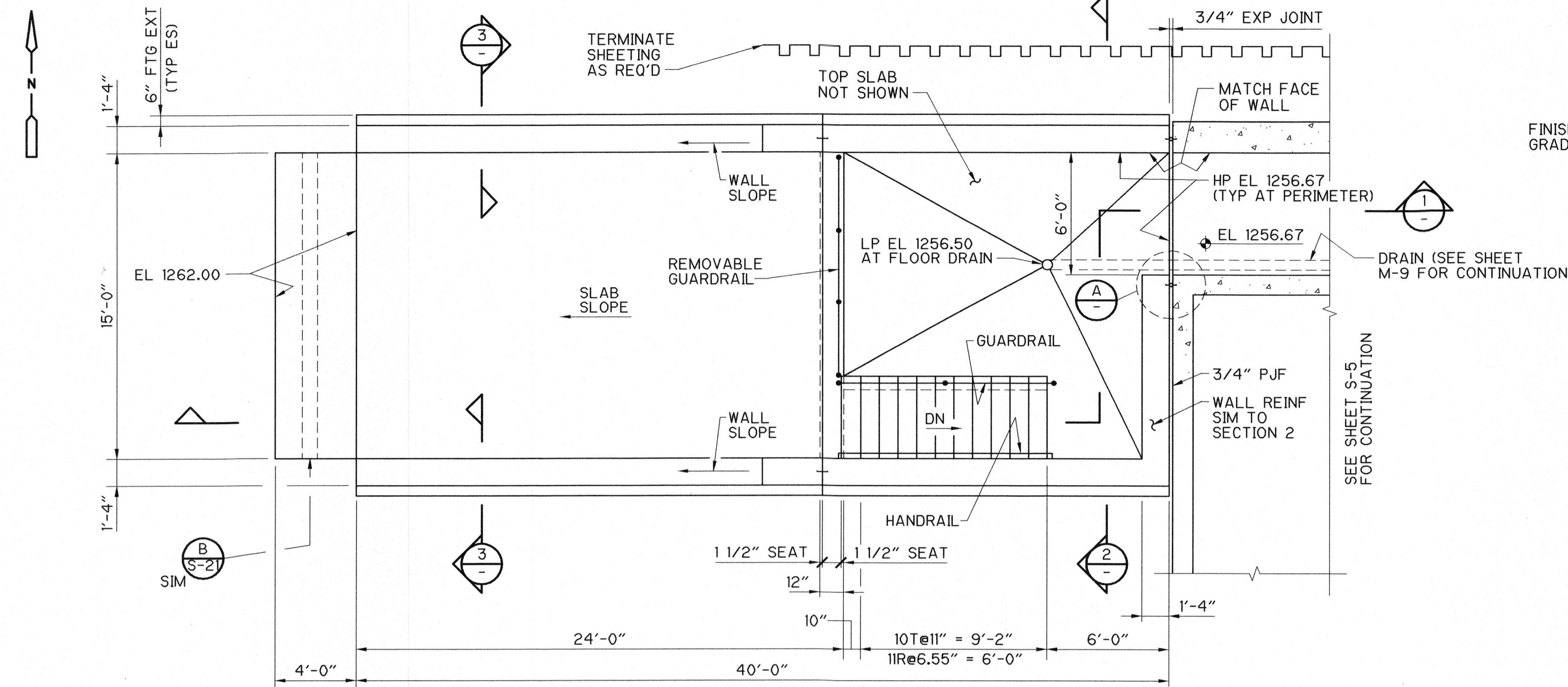
SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS  
 CITY OF WICHITA, KANSAS  
**WATER AND SEWER DEPARTMENT**

**MISCELLANEOUS SECTIONS & DETAILS**

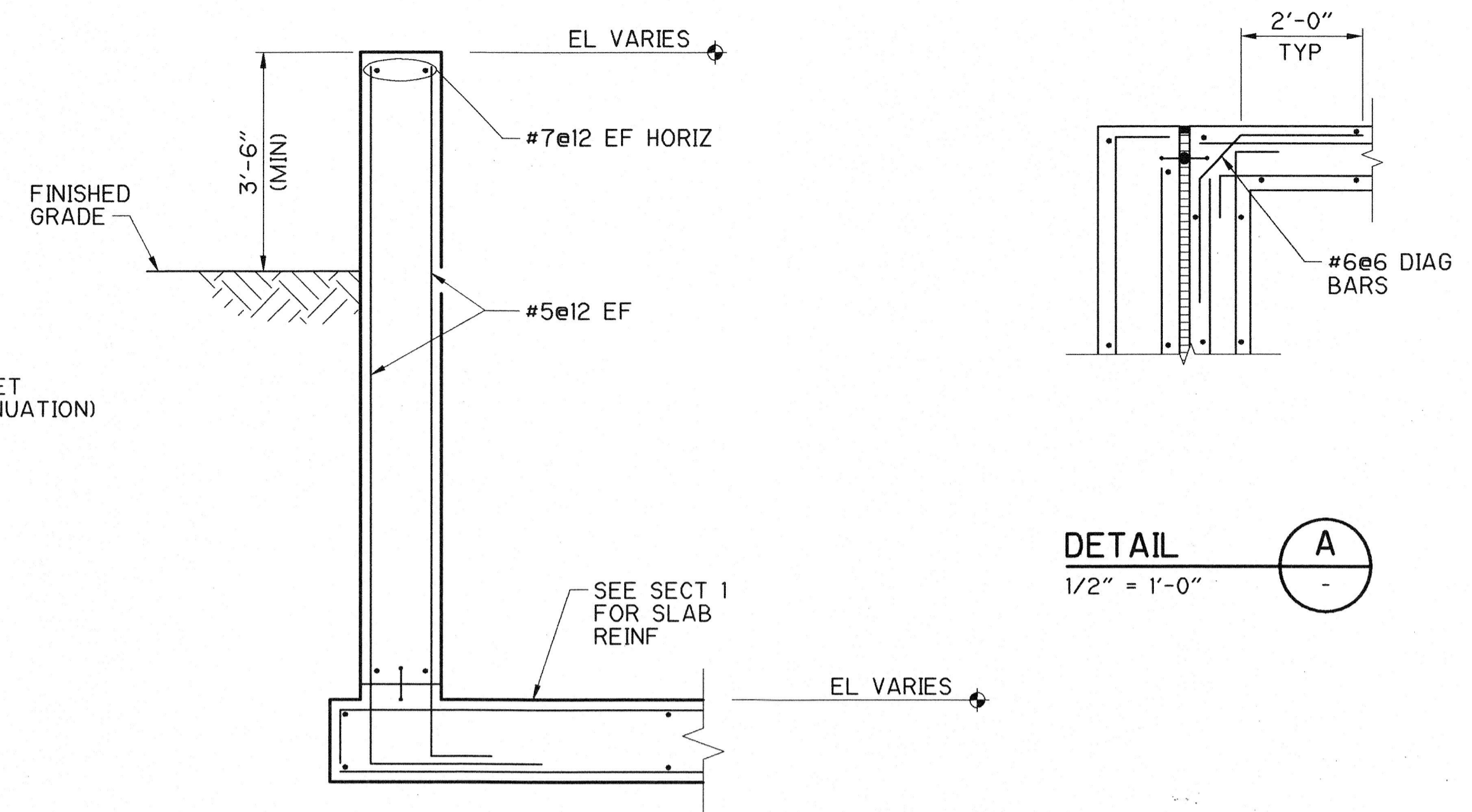
**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.  
 DATE: 7-23-03 By: RJS CAMP DRESSER & MCKEE

PROJECT NO. 2395-26968  
 FILE NAME: 269685-9.DWG  
 SHEET NO. **S-9**

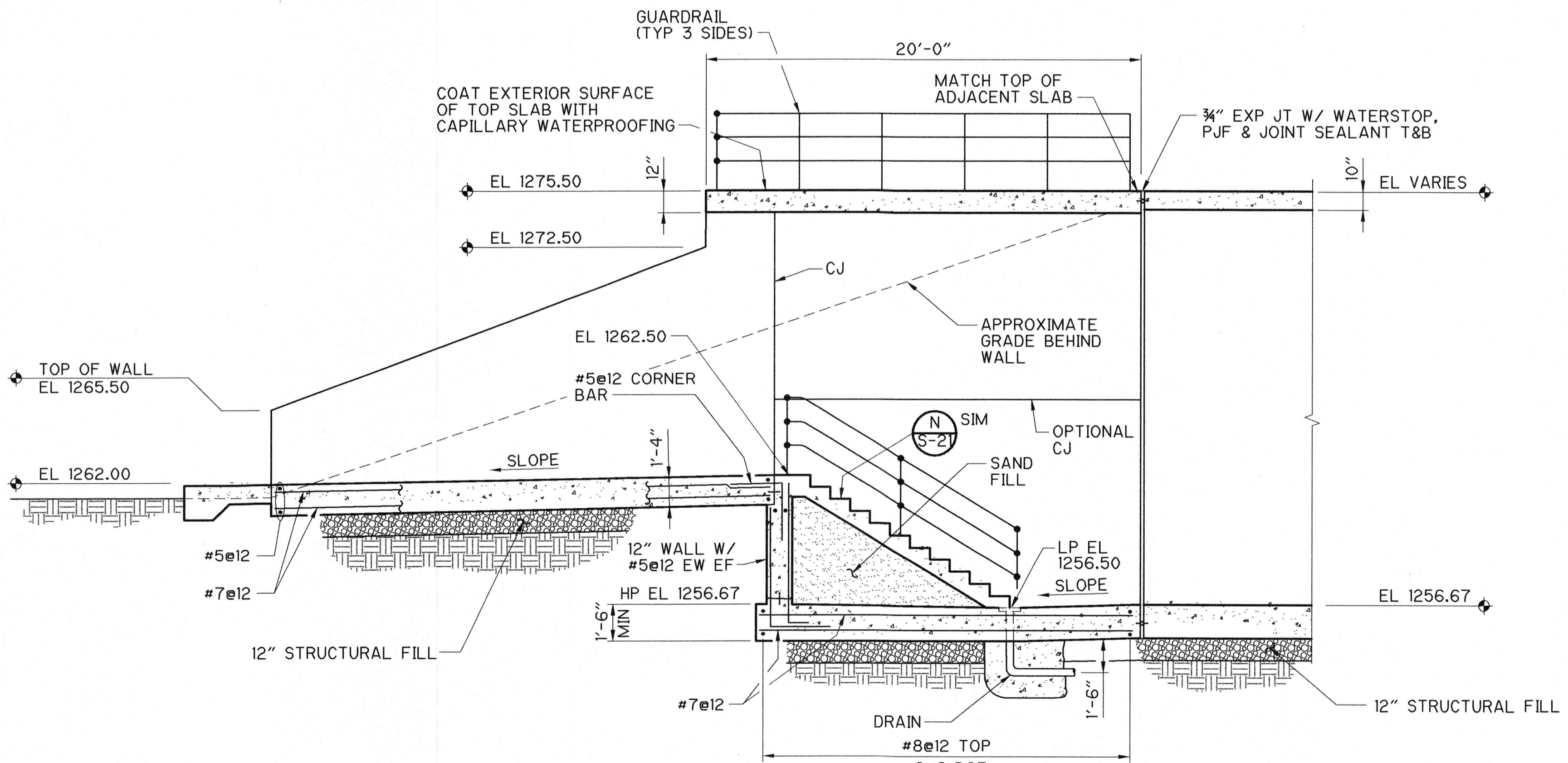


PLAN  
1/4" = 1'-0"

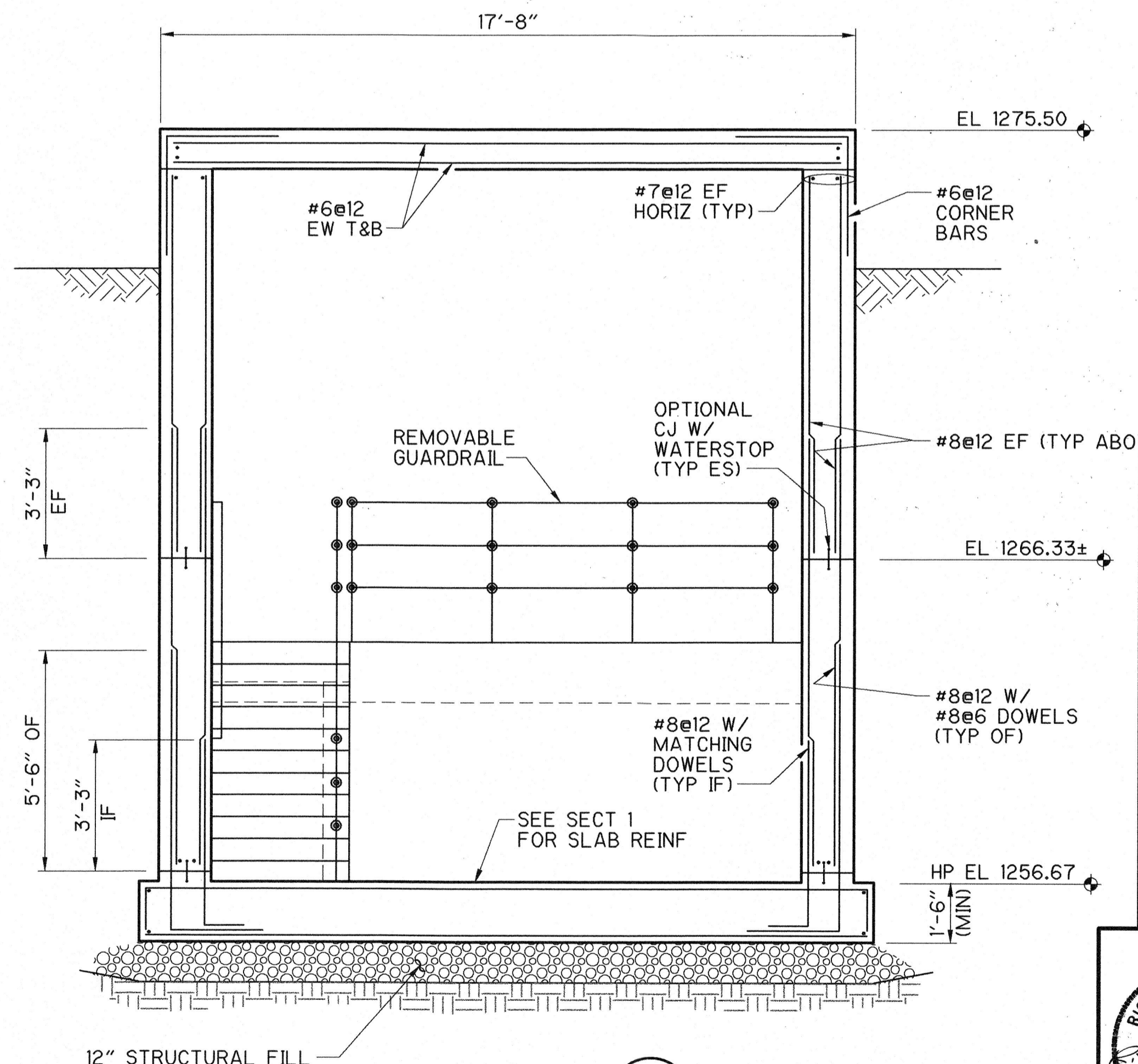


SECTION 3  
1/2" = 1'-0"

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



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



SECTION 2  
3/8" = 1'-0"

**RECORD DRAWING**

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DATE: 7-23-03 By: [Signature] CAMP DRESSER & MCKEE



S:\2395\26968\DWG\Stru\100% Dwgs\ 26968S-10 11/02/00 21:18 Vanhoutenkp XREF1

REV. NO.	DATE	DRWN	CHKD	REMARKS
12/02	AJF	AB		REVISED FOR THE RECORD

DESIGNED BY: P. STIEFLER  
 DRAWN BY: K. VAN HOUTEN  
 SHEET CHK'D BY: W. SHERMAN  
 CROSS CHK'D BY: D. HENRICHSEN  
 APPROVED BY: [Signature]  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

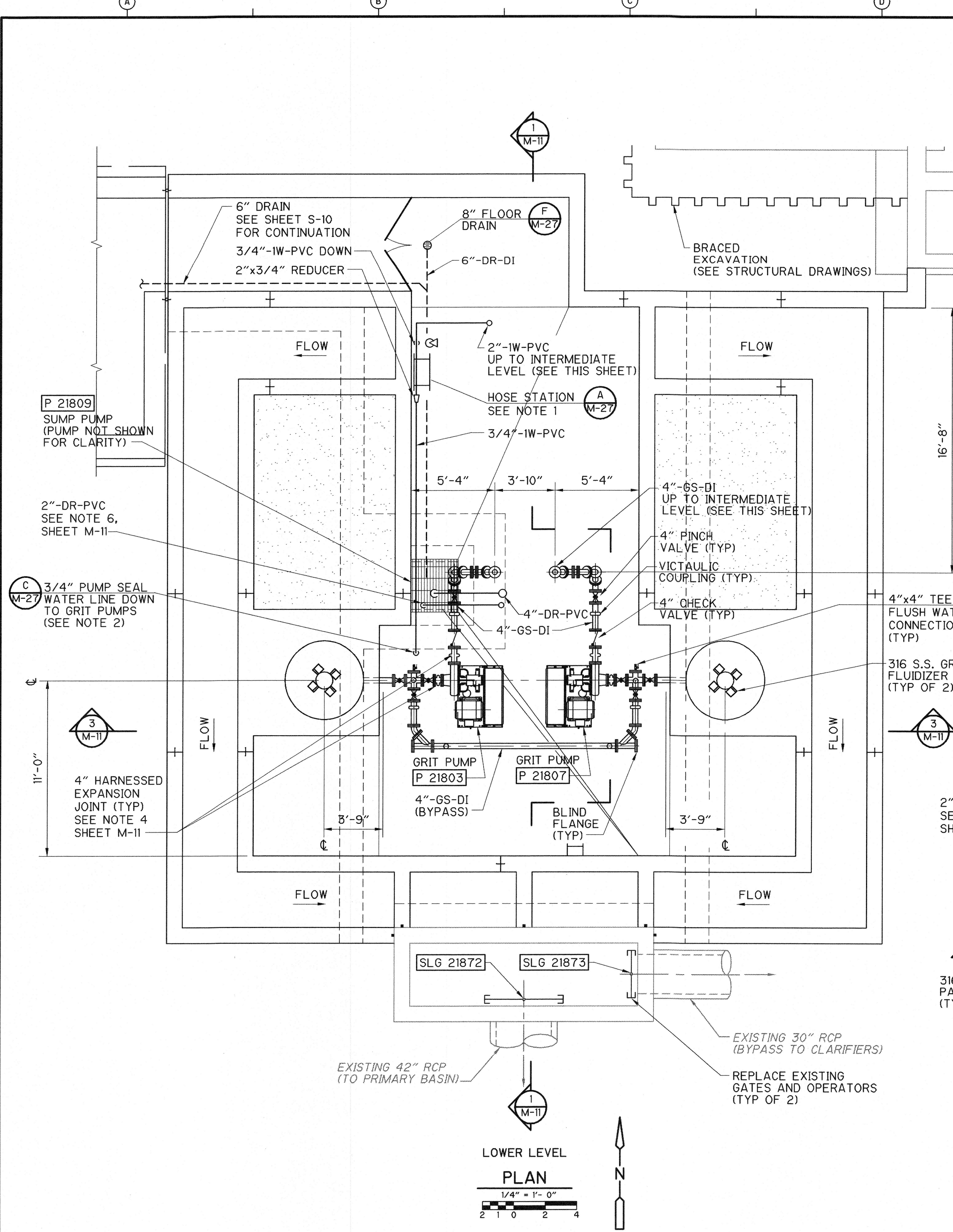
SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS  
 CITY OF WICHITA, KANSAS

**WATER AND SEWER DEPARTMENT**

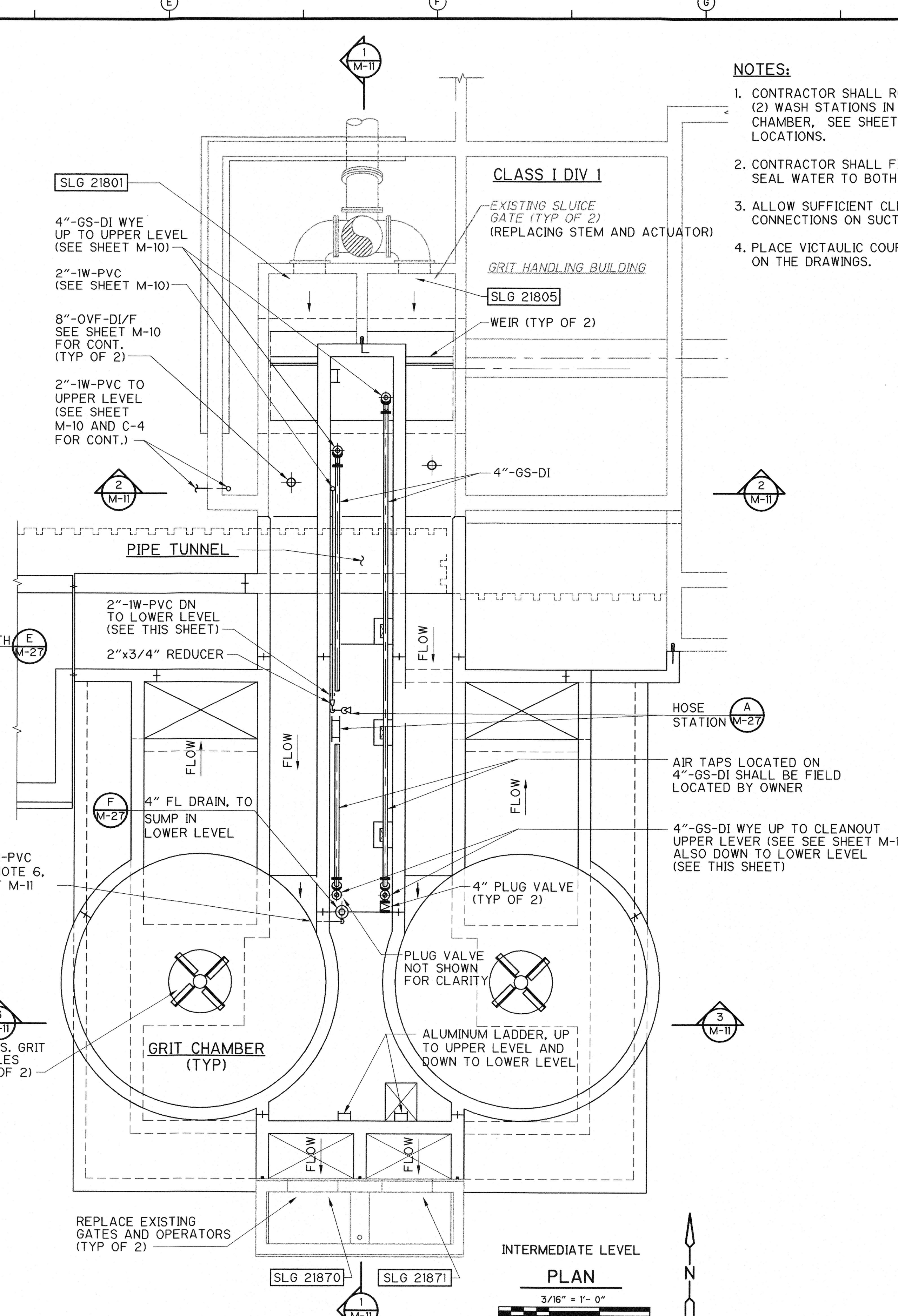
**GRIT REMOVAL SYSTEM  
 NEW WORK - PLAN & SECTIONS**

PROJECT NO. 2395-26968  
 FILE NAME: 26968S-10.DWG

SHEET NO.  
**S-10**



LOWER LEVEL  
PLAN  
1/4" = 1'-0"  
2 1 0 2 4



INTERMEDIATE LEVEL  
PLAN  
3/16" = 1'-0"  
4 0 4 8

- NOTES:**
1. CONTRACTOR SHALL ROUTE 2"-IW-PVC LINE TO TWO (2) WASH STATIONS IN PIPE TUNNEL AND GRIT PUMP CHAMBER. SEE SHEET M-11 FOR CONTINUATION AND LOCATIONS.
  2. CONTRACTOR SHALL FIELD ROUTE 3/4"-IW-PVC FOR SEAL WATER TO BOTH GRIT PUMPS.
  3. ALLOW SUFFICIENT CLEARANCE FOR FLUSHWATER CONNECTIONS ON SUCTION AND DISCHARGE LINES.
  4. PLACE VICTAULIC COUPLINGS AS INDICATED ON THE DRAWINGS.

S:\2395\26968\As-Built\Mech\ 26968M09 07/07/03 19:24:51 144800 Zellner

**RECORD DRAWING**  
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.  
 DATE: 7/23/03 By: J.D. Camp Dresser & McKee



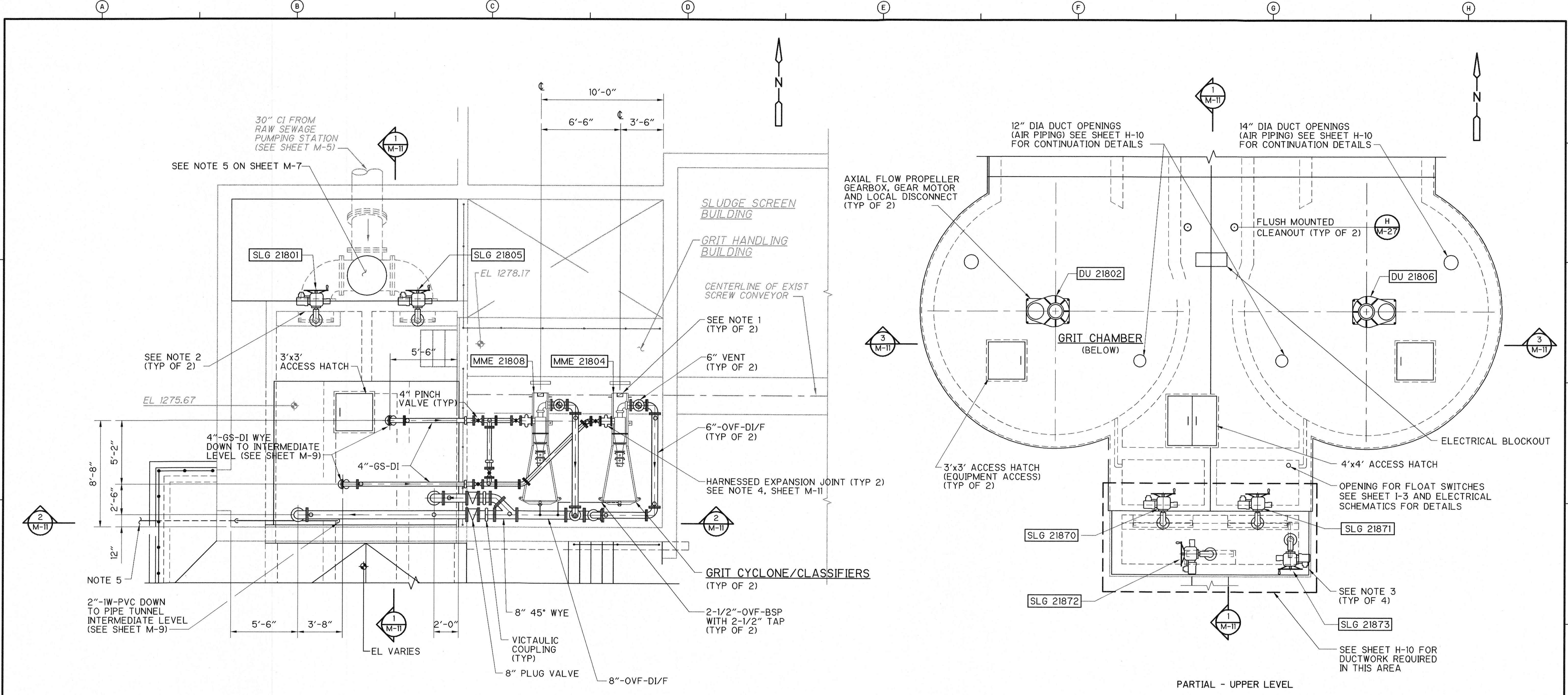
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	12/02	AJF	AB	REVISED FOR THE RECORD

DESIGNED BY: J. STRICKLAND  
 DRAWN BY: M. MILAM  
 SHEET CHK'D BY: D. HENRICHSEN  
 CROSS CHK'D BY: R. BROWN  
 APPROVED BY: _____  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
**CITY OF WICHITA, KANSAS**  
**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**NEW WORK - PLANS**  
 PROJECT NO. 2395-26968  
 FILE NAME: 26968M9  
 SHEET NO. **M-9**



PARTIAL - UPPER LEVEL  
**PLAN**  
 1/4" = 1'-0"  
 2 1 0 2 4

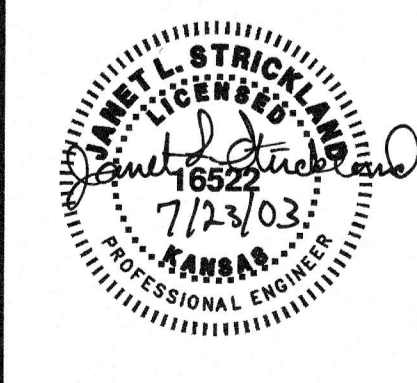
PARTIAL - UPPER LEVEL  
**PLAN**  
 1/4" = 1'-0"  
 2 1 0 2 4

**NOTES:**

1. PROVIDE NEW DISCHARGE CHUTES SIMILAR TO EXISTING CHUTES TO DIVERT DEWATERED GRIT FROM NEW CLASSIFIERS TO EXISTING SCREW CONVEYOR.
2. REPLACE EXISTING MANUAL OPERATOR AND GATE STEM (SLG 21801, SLG 21805) WITH NEW MOTORIZED ACTUATOR AND STEM. CONTRACTOR AND GATE MANUFACTURER SHALL BE RESPONSIBLE FOR NEW EQUIPMENT TO BE COMPATIBLE WITH EXISTING GATE.
3. REPLACE EXISTING SLUICE GATES, OPERATORS AND ALL REQUIRED APPURTENANCES, (SLG 21870, SLG 21871, SLG 21872, SLG 21873) WITH NEW SLUICE GATES AND MOTORIZED ACTUATORS PER SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR GATES FITTING UP TO EXISTING WALL THIMBLES. GATES SLG 21870 AND 21871 ARE SELF-CONTAINED GATES.
4. REPLACE EXISTING WASH WATER PIPING TO NEW EQUIPMENT, AND REPLACE WATER PIPING TO THE NEW SOLENOID VALVES ON NEW GRIT CLASSIFIER.
5. CONTRACTOR SHALL FIELD ROUTE (2"-IW) POTABLE WATER LINE INTO GRIT BUILDING FOR HOSE STATIONS AND PUMP SEAL WATER CONNECTIONS. SEE SHEET C-4 FOR WATER LINE ROUTING DETAILS.

**RECORD DRAWING**

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 DATE: 7/23/03 By: J.D.D. CAMP DRESSER & MCKEE



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REV. NO.	DATE	DRWN	CHKD	REMARKS
1	12/02	AJF	AB	REVISED FOR THE RECORD

DESIGNED BY: J. STRICKLAND  
 DRAWN BY: M. MILAM  
 SHEET CHK'D BY: D. HENRICHSEN  
 CROSS CHK'D BY: R. BROWN  
 APPROVED BY: _____  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

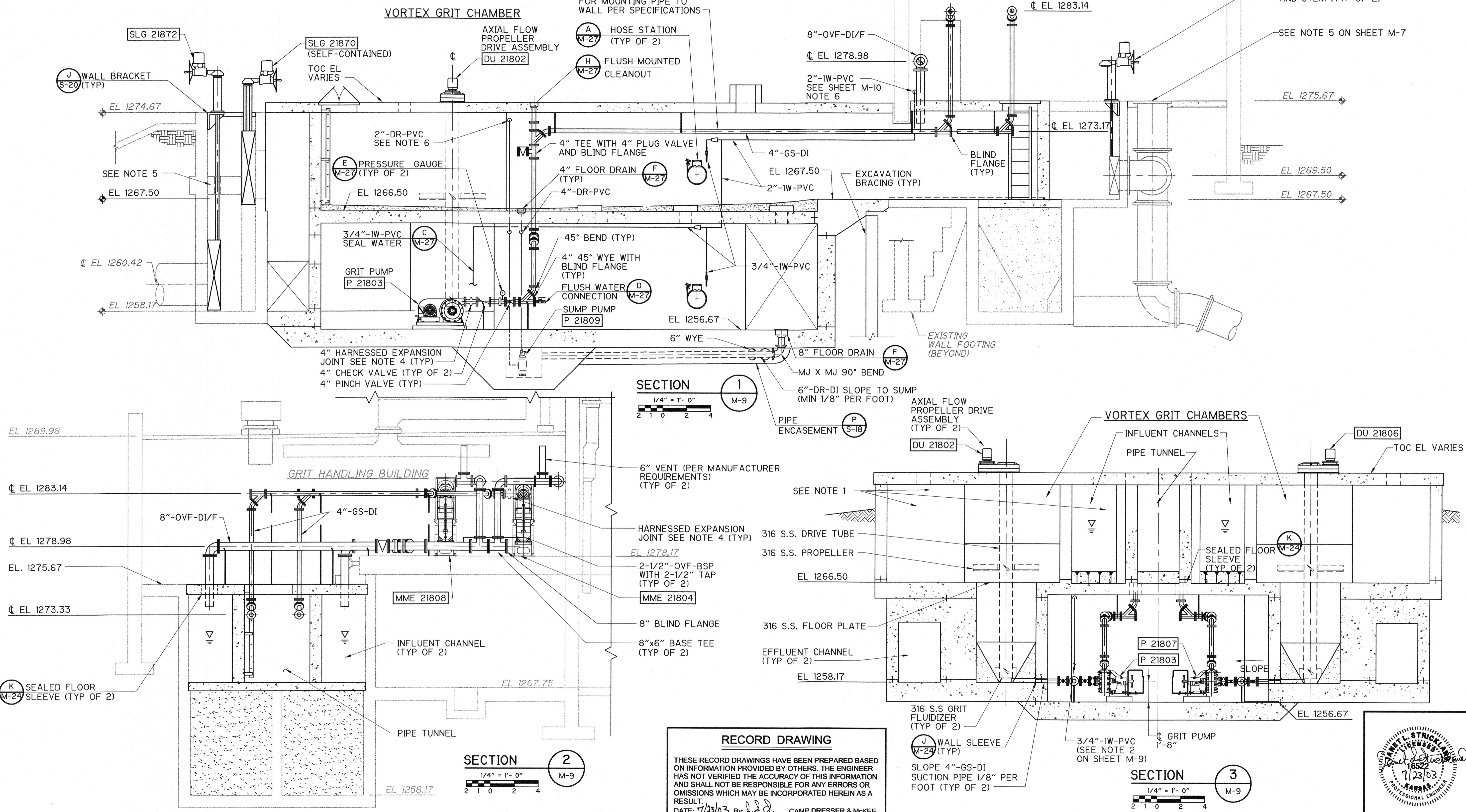
**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
**CITY OF WICHITA, KANSAS**  
**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**NEW WORK - PARTIAL PLANS**

PROJECT NO. 2395-26968  
 FILE NAME: 26968M10  
 SHEET NO.  
**M-10**

**NOTES:**

1. LINE CEILING AND WALLS OF INLET CHANNELS WITH PLASTIC LINING. SEE STRUCTURAL DRAWINGS FOR DETAILS, AND DIVISION 6 OF SPECIFICATIONS FOR LINING.
2. CONTRACTOR TO PROVIDE PIPING SUPPORTS, AND BRACKETS, AS NEEDED PER SPECIFICATIONS.
3. CONTRACTOR TO PROVIDE FOUR (4) AIR TAP CONNECTIONS IN EACH 4"-GS-DI DISCHARGE PIPE, AS DIRECTED BY OWNER.
4. CONTRACTOR TO PROVIDE HARNESSSED STAINLESS STEEL EXPANSION JOINTS BY METRAFLEX® OR EQUAL, PER SPECIFICATIONS.
5. CONTRACTOR SHALL FIELD VERIFY STEM DIAMETER FOR THIS GATE (SLG 21872) AND COORDINATE WITH GATE MANUFACTURER TO MATCH EXISTING STEM DIAMETER DUE TO EXISTING STEM GUIDE CONDITIONS. ADD ADDITIONAL STEM GUIDES, AS NECESSARY, PER GATE MANUFACTURER. SEE SPECIFICATION 11281 ALSO.
6. CONTRACTOR SHALL FIELD ROUTE DISCHARGE (2"-DR-PVC) (AND PROVIDE CHECK VALVE) FROM SUMP PUMP TO INLET CHANNEL/VORTEX UNIT. INVERT ELEVATION OF 2" PIPE THROUGH WALL SHALL BE AT 1274.00 (MIN).



**SECTION 1**  
1/4" = 1'-0"  
M-9

**SECTION 2**  
1/4" = 1'-0"  
M-9

**SECTION 3**  
1/4" = 1'-0"  
M-9

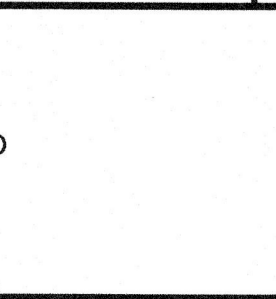
**RECORD DRAWING**  
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.  
DATE: 11/23/03 By: J.S.S. CAMP DRESSER & MCKEE



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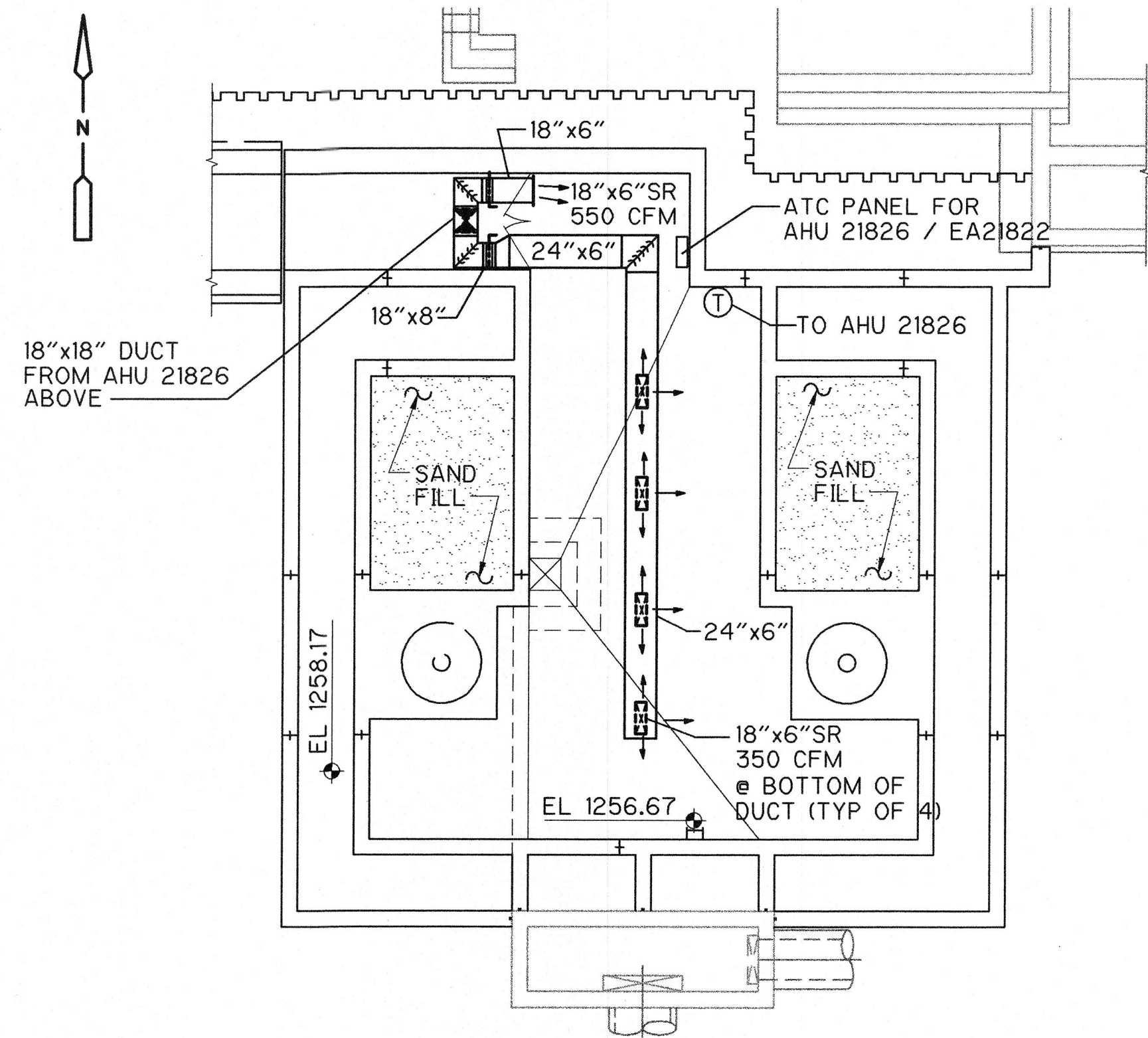
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	12/02	AJF	AB	REVISED FOR THE RECORD

DESIGNED BY: J. STRICKLAND  
 DRAWN BY: C. CANTRELL  
 SHEET CHK'D BY: D. HENRICHSEN  
 GROSS CHK'D BY: R. BROWN  
 APPROVED BY: _____  
 DATE: NOVEMBER 2000

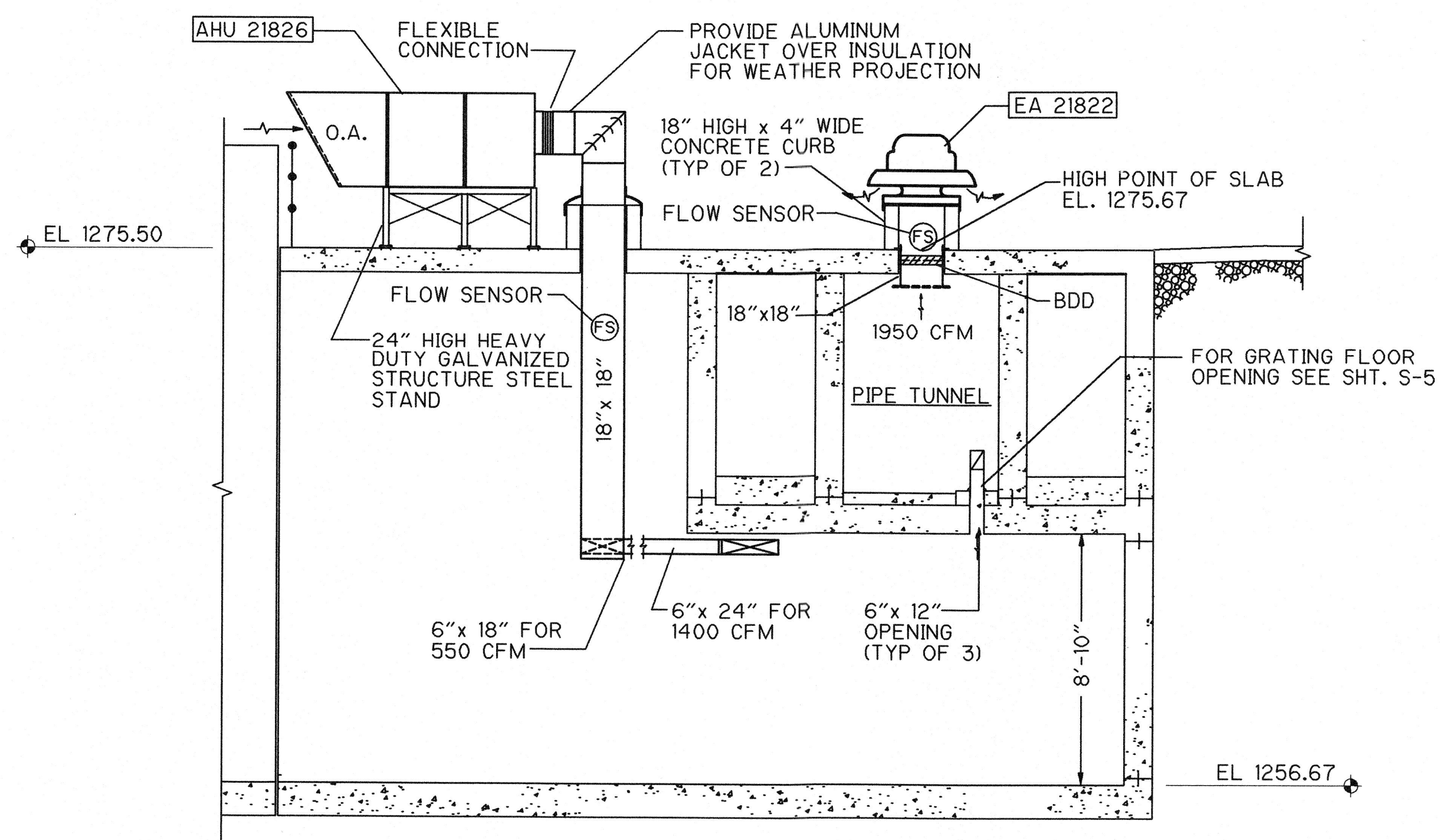


**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
**CITY OF WICHITA, KANSAS**  
**WATER AND SEWER DEPARTMENT**

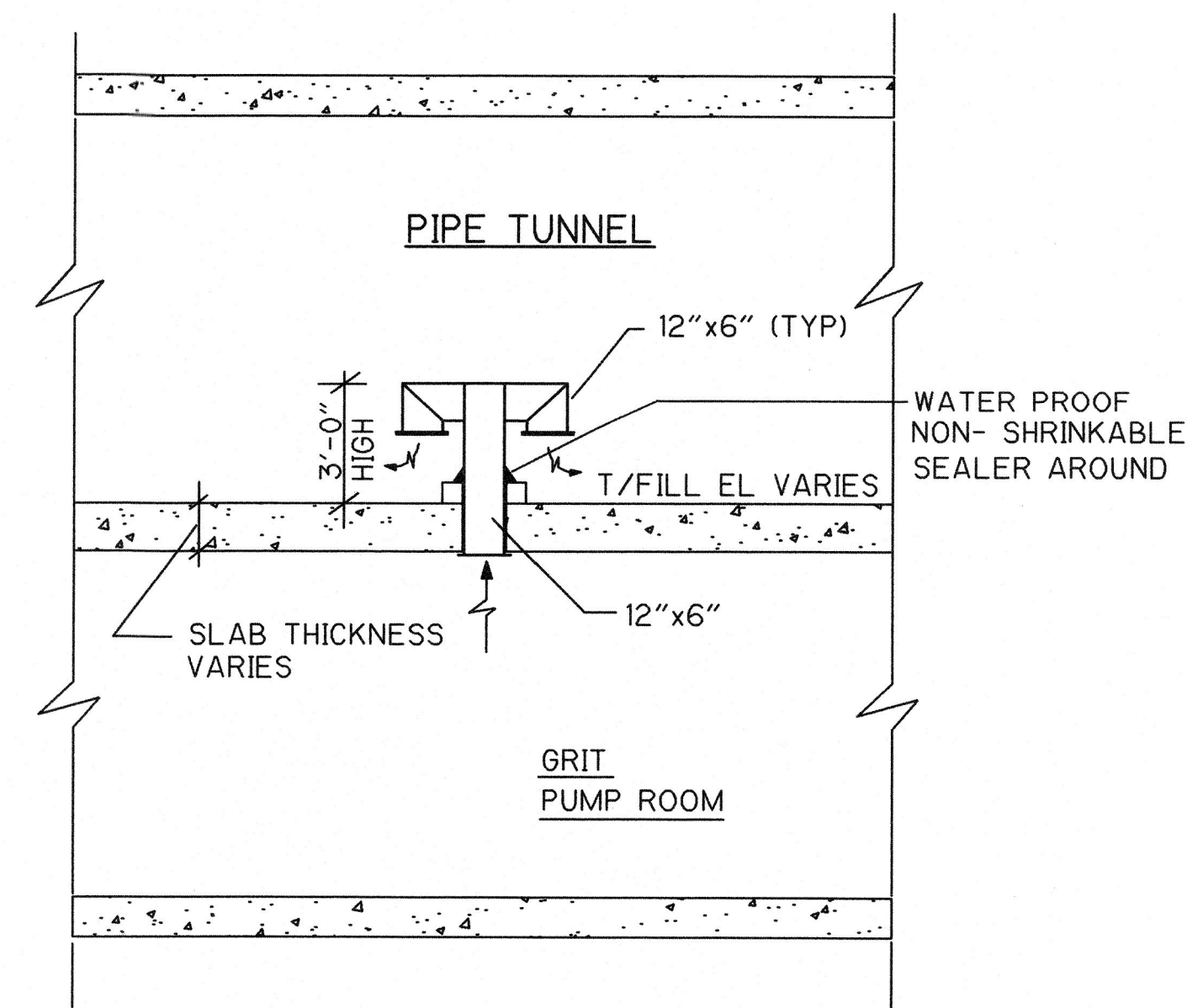
**GRIT REMOVAL SYSTEM**  
**NEW WORK - SECTIONS**  
 PROJECT NO. 2395-26968  
 FILE NAME: 26968M11  
 SHEET NO. **M-11**



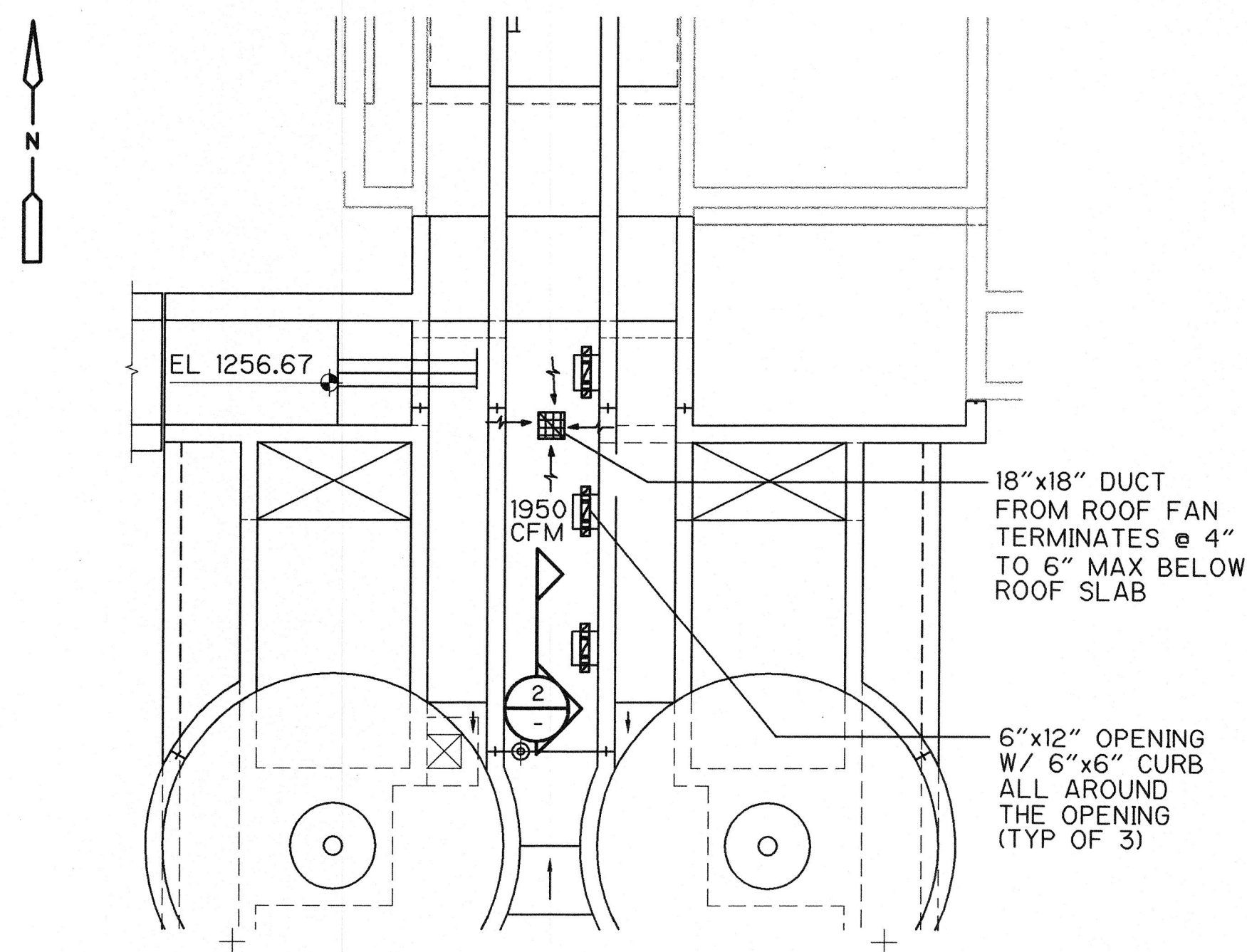
**LOWER PLAN**  
1/8" = 1'-0"



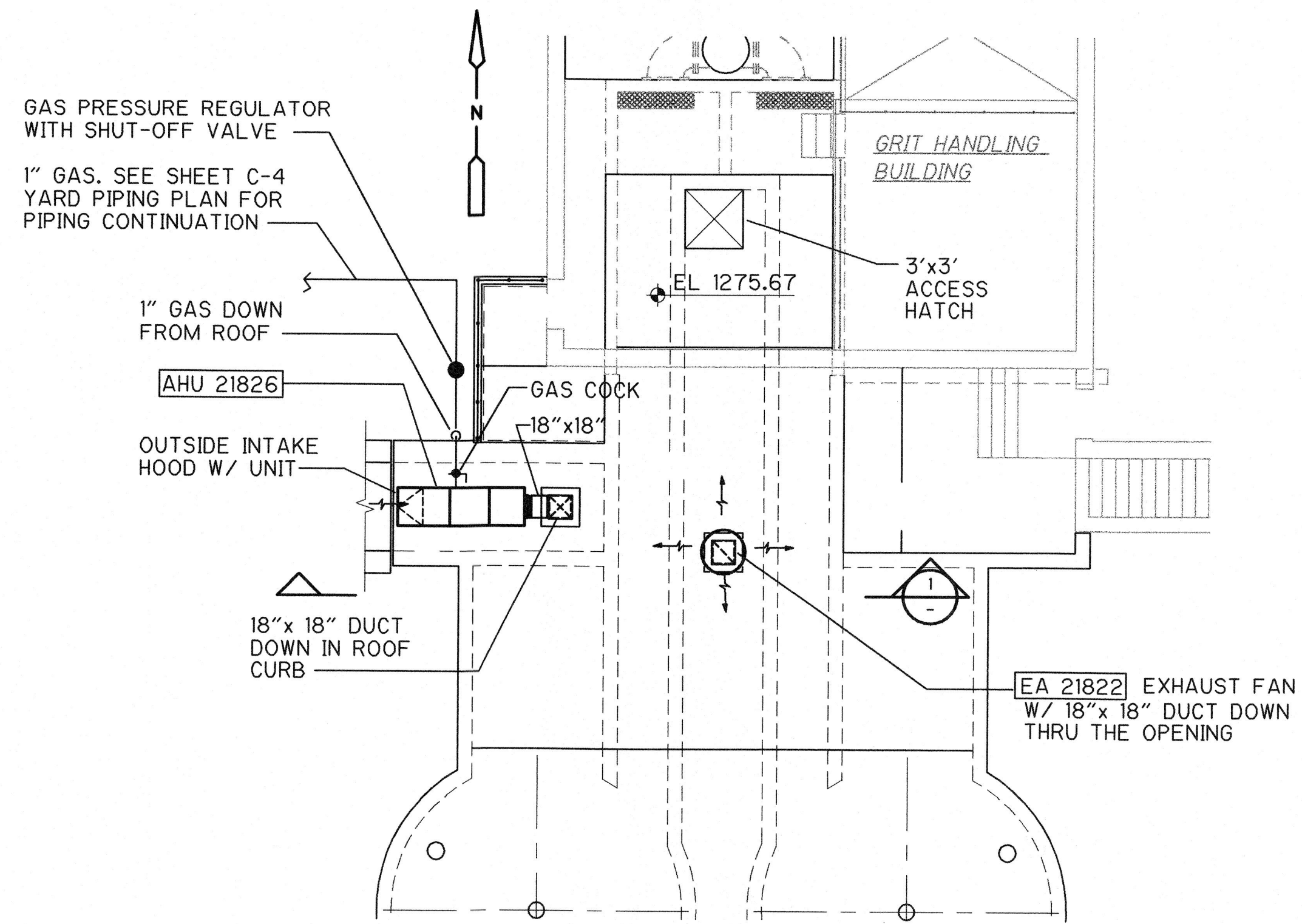
**SECTION 1**  
1/4" = 1'-0"



**SECTION 2**  
1/4" = 1'-0" TYPICAL FOR THREE 12" x 6" DUCTS



**INTERMEDIATE PLAN**  
1/8" = 1'-0"



**UPPER PLAN**  
1/8" = 1'-0"

**RECORD DRAWING**

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DATE: 7/23/03 By: J.D. CAMP DRESSER & MCKEE



S:\2395\26968\As-Built\Sheet\26968H12 07/08/03 17:49:33 13:16:16 Zellerba

REV. NO.	DATE	DRWN	CHKD	REMARKS
12/02	AJF	AB		REVISED FOR THE RECORD

DESIGNED BY: A. MALHOTRA  
DRAWN BY: D. SANGWORN  
SHEET CHK'D BY: J. STRICKLAND  
CROSS CHK'D BY: D. HENRICHSEN  
APPROVED BY: _____  
DATE: NOVEMBER 2000

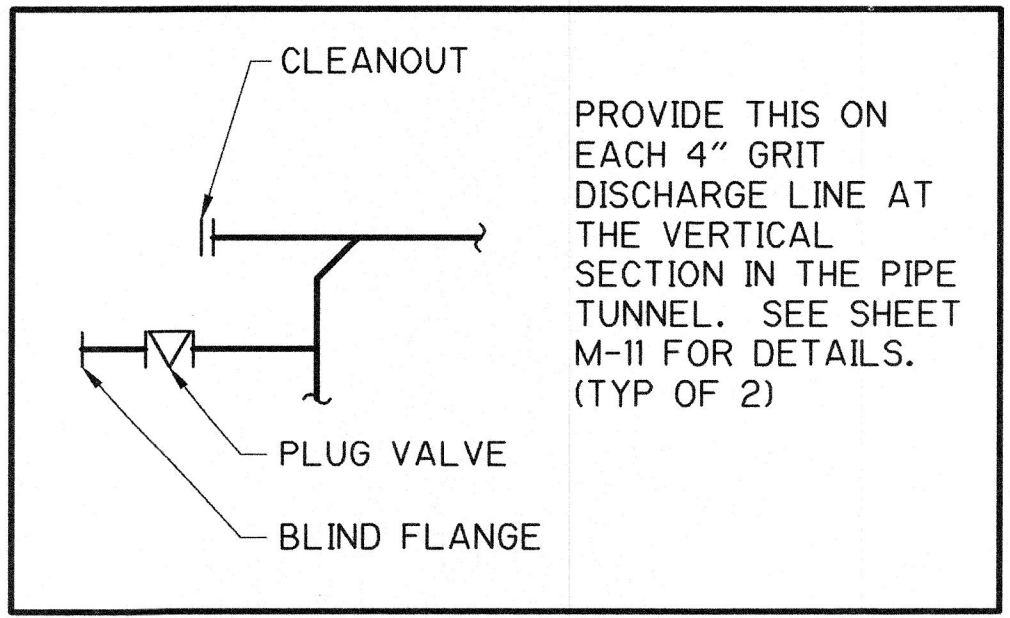
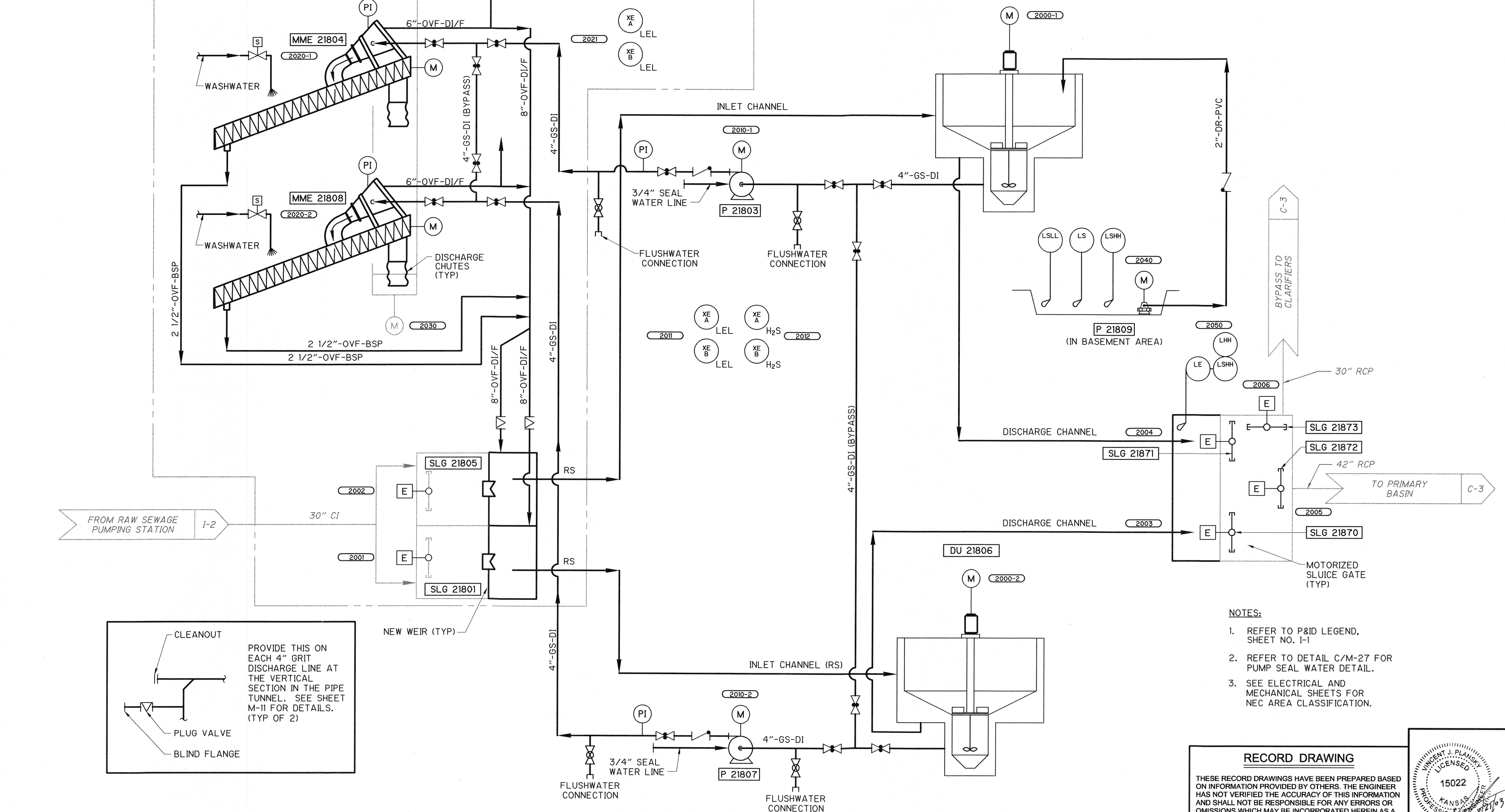
**CDM** Camp Dresser & McKee Inc.  
9200 WARD PARKWAY, SUITE 500  
KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
CITY OF WICHITA, KANSAS  
**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**NEW WORK - SECTIONS**

PROJECT NO. 2395-26968  
FILE NAME: 26968H-12  
SHEET NO. **H-12**

DEWATERED GRIT DUMPSTER  
(TO BE PROVIDED BY OWNER)



- NOTES:**
1. REFER TO P&ID LEGEND, SHEET NO. I-1
  2. REFER TO DETAIL C/M-27 FOR PUMP SEAL WATER DETAIL.
  3. SEE ELECTRICAL AND MECHANICAL SHEETS FOR NEC AREA CLASSIFICATION.

**RECORD DRAWING**

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

DATE: 7/25/02 By: [Signature] CAMP DRESSER & MCKEE



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REV. NO.	DATE	DRWN	CHKD	REMARKS
1	07/03	BSZ	AB	REVISED FOR THE RECORD

DESIGNED BY: P. WOOD  
 DRAWN BY: J. VANGOETHEM  
 SHEET CHK'D BY: R. WILLIAMS  
 CROSS CHK'D BY: P. WOOD  
 APPROVED BY: [Signature]  
 DATE: NOVEMBER 2000

**CDM** Camp Dresser & McKee Inc.  
 9200 WARD PARKWAY, SUITE 500  
 KANSAS CITY, MISSOURI 64114

**SEWAGE TREATMENT PLANT NO. 2 IMPROVEMENTS**  
 CITY OF WICHITA, KANSAS

**WATER AND SEWER DEPARTMENT**

**GRIT REMOVAL SYSTEM**  
**PROCESS & INSTRUMENTATION DIAGRAM**

PROJECT NO. 2395-26968  
 FILE NAME: 2696813

SHEET NO. I-3