

GENERAL NOTES

SITE GRADING

- ALL AREAS THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4 INCHES OF SOIL SHALL BE LOAM.
- THE CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL DEVICES SHALL BE INSTALLED WHERE NECESSARY. EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
- ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALES TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL SEDIMENT COLLECTED AS A RESULT OF HIS OPERATIONS.
- TEST PIT AND/OR BORING LOGS FOR THE PROJECT SITE ARE INCLUDED IN APPENDIX A OF THE SPECIFICATIONS. THIS DATA IS PRESENTED FOR INFORMATIONAL PURPOSES ONLY. AND EER AND ITS CONSULTANTS DO NOT WARRANT THE ACCURACY ON COMPLETION OF DATA. CONTRACTOR SHALL MAKE SUCH SUPPLEMENTAL INVESTIGATIONS AS HE FEELS NECESSARY TO CONSTRUCT FACILITY.
- CONTRACTORS SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE DEGREE AS OUTLINED IN SPECIFICATION SECTION 01560.
- CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL AT THE SITE OR ON PUBLIC OR PRIVATE STREETS. THE CONTRACTOR SHALL CLEAN UP ANY SUCH SPILLS IMMEDIATELY.
- ALL CATCH BASINS, MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS AND EXCESS EXCAVATED MATERIAL FROM WITHIN THE CONSTRUCTION LIMIT OF WORK, TO A SUITABLE SITE PROVIDED BY THE CONTRACTOR, IN COMPLIANCE WITH ALL STATE AND LOCAL REGULATIONS.
- CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER.
- WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE.

SITE PIPING

- ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS IN PIPING SHALL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS (HORIZONTAL AND VERTICAL) AS REQUIRED TO MEET THE GRADES AND ALIGNMENT INDICATED ON THE DRAWINGS.
- ALL PIPING (EXCLUDING BUILDING DRAINS) INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.
- ALL BURIED CONNECTIONS TO STRUCTURES SHALL HAVE SOLID SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4 FEET FROM THE STRUCTURES.
- PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE WATERSTOPS. SEE PROCESS, MECHANICAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF PENETRATIONS. NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND "LINK-SEAL" TYPE SEALS, UNLESS OTHERWISE INDICATED. OPENINGS SHALL BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES.
- A MINIMUM OF 5 FEET OF COVER IS REQUIRED ON ALL LIQUID CARRYING PIPES. TRENCH INSULATION SHALL BE USED WHERE DEPTH OF COVER IS LESS THAN 5 FEET.
- MANHOLES ARE 4 FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS. PIPES WITHIN MANHOLES SHALL BE SUPPORTED 12 INCHES ABOVE BOTTOM OF MANHOLE ON ADJUSTABLE PIPE SADDLE SUPPORTS, UNLESS OTHERWISE INDICATED.
- REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
- COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02200. ANY SETTLEMENT OCCURRING WITHIN ONE YEAR OF FINAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION.
- ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS.
- ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO ANY TRENCH EXCAVATION SHALL BE PROTECTED AND SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED WITH THE ENGINEER AND THE OWNER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE THAT ALL PROCESS WASTEWATER FLOWS ARE MAINTAINED DURING CONSTRUCTION. GRAVITY OR PUMPED BYPASSES AND OTHER MEANS OF MAINTAINING FLOW SHALL BE SUBJECT TO THE REVIEW AND ACCEPTANCE OF THE ENGINEER. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY STOPPAGES OR BYPASSES WITH THE OWNER AND ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND HIS DEWATERING OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION FOR HIS USE. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION.

INTERIOR PROCESS PIPING

- FOR PIPING SYMBOL, DESCRIPTION, LOCATION AND JOINT SYSTEM REFER TO THE PROCESS PIPING SCHEDULE.
- USE ONLY LONG RADIUS PIPE BEND FITTINGS ON PUMP SUCTION AND DISCHARGE LINES, EXCEPT WHERE DIMENSIONAL CONSTRAINTS NECESSITATE THE USE OF STANDARD BENDS. SUBMIT ANY EXCEPTIONS TO ENGINEER FOR REVIEW.
- FLOW METERS SHALL BE LOCATED A MINIMUM OF TEN PIPE DIAMETERS DOWNSTREAM AND FIVE DIAMETERS UPSTREAM OF ANY HYDRAULIC DISTURBANCE AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE DRIP PANS, WITH CENTRAL COLLECTION POINT AND DRAIN TO FLOOR, FOR ELECTRICAL AND INSTRUMENTATION EQUIPMENT LOCATED BENEATH LIQUID CARRYING PIPES.
- ALL PIPES SHALL BE ADEQUATELY RETAINED AND SUPPORTED IN ACCORDANCE WITH SPECIFICATION SECTION 15100.
- AFTER INSTALLATION, ALL PIPELINES SHALL BE PRESSURE TESTED. PRESSURE MAINS AND PLANT WATER LINES INCLUDING BUT NOT LIMITED TO WASTEWATER, SLUDGE AND OIL FORCE MAINS SHALL BE PRESSURE TESTED AT 1 1/2 TIMES THE ASSOCIATED PUMP SHUTOFF HEAD OR AT 100 PSIG - WHICHEVER IS GREATEST. PROCESS GRAVITY LINES AND AIR LINES SHALL BE PRESSURE TESTED WITH AIR AT 15 PSIG, UNLESS OTHERWISE INDICATED. THE AIR LINES SHALL BE ACCEPTABLE IF THE PRESSURE DECREASE IS NOT GREATER THE 1/2 PSIG IN 30 MINUTES. ALL LEAKS SHALL BE CORRECTED AND RETESTED UNTIL PRESSURE TEST IS SATISFACTORY COMPLETED.
- ALL PIPING SHALL BE CLEANED, TO THE SATISFACTION OF THE ENGINEER, BEFORE TESTING.
- PROVIDE 6-INCH HIGH (MIN.) REINFORCED CONCRETE PAD UNDER ALL EQUIPMENT, CONTROL PANELS, PIPE AND EQUIPMENT SUPPORTS, TANKS, ETC. UNLESS OTHERWISE INDICATED.
- ALL EQUIPMENT AND PIPING LAYOUT DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH EQUIPMENT SUPPLIED AND/OR EXISTING CONDITIONS.
- WRITTEN DIMENSIONS WHERE PROVIDED SHALL PREVAIL OVER SCALE DISTANCE OR DIMENSIONS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- SLOPE ALL PRESSUR PIPES TO HIGH POINT AND PROVIDE MANUAL AIR RELEASE VALVE.
- SLOPE ALL GRAVITY PROCESS LINES 0.02 FT/FT

BUILDING CONSTRUCTION

- GENERAL NOTES FOR BUILDING CONSTRUCTION SHOW ON BUILDING & FOUNDATION PLAN SHEETS.

MECHANICAL / ELECTRICAL CONTRACTORS


- GENERAL NOTES FOR MECHANICAL / ELECTRICAL WORK ARE SHOWN ON APPROPRIATE DRAWINGS

CONTRACT DRAWINGS

SHT. NO.	TITLE	DWG. NO.	SHT. NO.	TITLE	DWG. NO.
1	COVER SHEET	--	28	CMU OPENING DETAILS	S-4
2	DRAWING INDEX AND GENERAL NOTES	G-100	29	OVER HEAD DOOR DETAILS	S-5
3	PROPOSED SITE PLAN	C-1	30	CMU DETAILS	S-6
4	GRADING AND DRAINAGE	C-2	31	PROCESS FLOW AND PIPING DIAGRAM	P-100
5	UTILITIES AND CONSTRUCTION LIMITS	C-3	32	HYDRAULIC PROFILE	P-101
6	SEWER DETAILS	C-4	33	PROCESS EQUIPMENT AND PIPING PLAN	P-102
7	SITE DETAILS	C-5	34	PROCESS EQUIPMENT AND PIPING - SECTION A-A	P-103
8	WATER MAIN, SEWER MAIN & THRUST DETAILS	C-6	35	PROCESS EQUIPMENT AND PIPING - SECTION B-B	P-104
9	FLOOR PLAN, DOOR & WINDOW SCHEDULE	A-1	36	PROCESS EQUIPMENT AND PIPING - SECTION C-C	P-105
10	ROOF PLAN & DETAILS	A-2	37	PROCESS EQUIPMENT AND PIPING - SECTION D-D	P-106
11	WEST AND EAST ELEVATIONS	A-3	38	PROCESS EQUIPMENT AND PIPING - SECTION E-E	P-107
12	NORTH AND SOUTH ELEVATIONS	A-4	39	DIFFUSED AIR AERATION SYSTEM PLAN	P-108
13	BUILDING SECTIONS	A-5	40	DIFFUSED AIR AERATION SYSTEM DETAILS	P-109
14	FOUNDATION PLAN	F-1	41	FLOAT REMOVAL TANK SKIMMER-SECTIONS AND DETAILS	P-110
15	FLOOR DRAIN PLAN	F-2	42	MISCELLANEOUS DETAILS NO.1	P-111
16	BUILDING SECTIONS	F-3	43	MISCELLANEOUS DETAILS NO.2	P-112
17	BUILDING SECTIONS	F-4	44	MISCELLANEOUS DETAILS NO.3	P-113
18	WALL SECTION 5 AND 6	F-5	45	PROCESS BUILDING ELECTRICAL FLOOR PLAN AND SITE PLAN	E-100
19	WALL SECTION 7 AND 7A	F-6	46	ELECTRICAL PANEL SCHEDULE	E-101
20	WALL SECTION 8	F-7	47	PROCESS BUILDING MECHANICAL FLOOR PLAN	M-100
21	WALL SECTION 9, 10 & 11	F-8	48	PROCESS BUILDING MECHANICAL FLOOR PLAN	M-101
22	WALL SECTION AND DETAILS	F-9			
23	FOUNDATION DETAILS	F-10			
24	FOUNDATION DETAILS	F-11			
25	CMU REINFORCEMENT ELEVATIONS	S-1			
26	CMU REINFORCEMENT ELEVATIONS	S-2			
27	INTERIOR CMU WALL PLAN & REINFORCEMENT ELEVATIONS	S-3			

C	RCL	12/19/02	ISSUED FOR: BID	760_c_G-100
A	RCL	12/12/02	ISSUED FOR: CLIENT REVIEW	760_b_G-100
REV.	BY	DATE	STATUS	CAD NO.

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