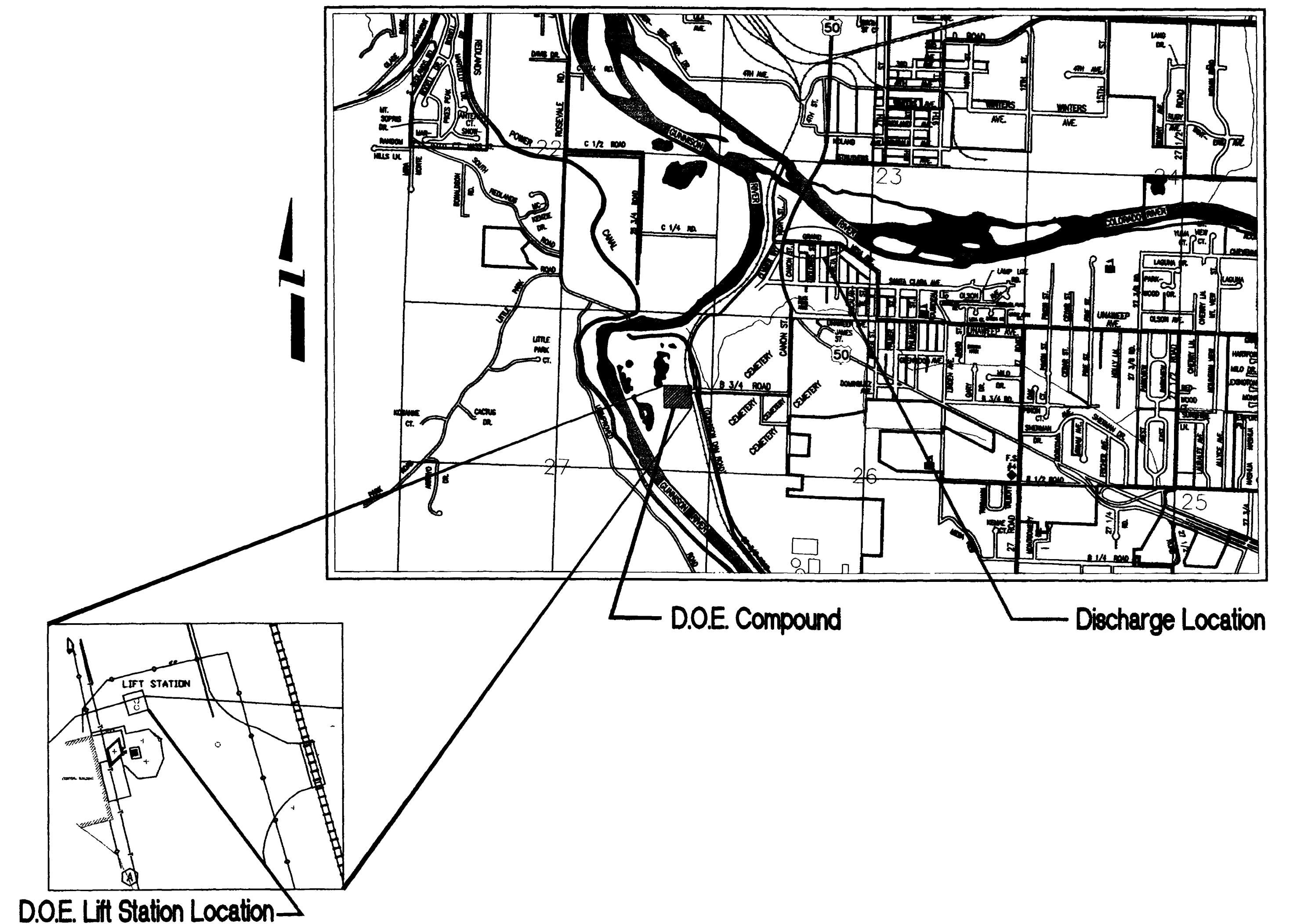


D.O.E. LIFT STATION REPLACEMENT D.O.E. COMPOUND

1. Cover Sheet
2. Drafting Standards & Abbreviations
3. Site Map
4. Demolition Plan
5. Proposed Lift Station

VICINITY MAP



City of Grand Junction, Colorado
Department of Public Works & Utilities *Engineering Division*

CITY OF GRAND JUNCTION DRAFTING STANDARDS AND ABBREVIATIONS

ENTITY DESCRIPTION

	LAYER	LINE TYPE	BLOCK	SPACING
PROPERTY OR TRACT LINE	PROP	ROW	-	-
RAILROAD	EXIST/NEW	CONTINUOUS	RAIL	4
EDGE OF PAVEMENT	EXIST/ASPH	DASHED	-	-
RIGHT OF WAY	ROW	ROW	-	-
BARBED WIRE FENCE	EXIST/NEW	CONTINUOUS	BARB	15
CHAIN LINK FENCE	EXIST/NEW	CONTINUOUS	CHAIN	15
BARRIER TYPE FENCE	EXIST/NEW	CONTINUOUS	BARRIER	15
WOVEN WIRE FENCE	EXIST/NEW	CONTINUOUS	WOVEN	15
WOOD FENCE	EXIST/NEW	CONTINUOUS	WOOD	15
EXISTING GUARD RAIL	EXIST	CONTINUOUS	GUARD	5
NEW GUARD RAIL	NEW	CONTINUOUS	NEWGUARD	5
RETAINING WALL	EXIST	CONTINUOUS	RETAIN	6
SIDEWALK	EXIST/CONC	CONTINUOUS	-	-
CURB & GUTTER	EXIST/CONC	CONTINUOUS	-	-
CURB, GUTTER & SIDEWALK	EXIST/CONC	CONTINUOUS	-	-
BURIED TELEPHONE CABLE	UTIL	CONTINUOUS	-	-
BURIED ELECTRIC CABLE	UTIL	CONTINUOUS	-	-
GAS LINE	UTIL	CONTINUOUS	-	-
WATER LINE	UTIL/WATER	CONTINUOUS	-	-
SANITARY SEWERS	UTIL/SEWER	CONTINUOUS	AROW	-
STORM SEWERS	UTIL/STORM	CONTINUOUS	AROW	-
UNDERGROUND IRRIG. PIPE	UTIL/NEW	CONTINUOUS	AROW	-
SIPHON PIPE	UTIL/NEW	CONTINUOUS	AROW	-
EARTH DITCH	EXIST/NEW	DIVIDE	-	-
CONCRETE DITCH	EXIST/CONC	CONTINUOUS	-	-
CULVERT	EXIST/NEW	DASHED	-	-
CULVERT WITH HEADWALL	EXIST/NEW	DASHED	-	-
CULVERT WITH END SECTION	EXIST/NEW	DASHED	-	-
MONUMENT LINE	0	CONTINUOUS	-	-
CONTROL LINE	0	CONTINUOUS	-	100
MATCH LINE	0	CONTINUOUS	-	-

LIST OF ABBREVIATIONS

<p>AASHTO AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS</p> <p>AC ASBESTOS CEMENT</p> <p>ASTM AMERICAN SOCIETY FOR TESTING MATERIALS</p> <p>AWWA AMERICAN WATER WORKS ASSOCIATION</p> <p>BC BACK OF CURB</p> <p>BF BUTTERFLY</p> <p>BOW BACK OF WALK</p> <p>BCR BEGIN CURB RETURN</p> <p>BOT BOTTOM</p> <p>CH CHORD</p> <p>CAP CORRUGATED ALUMINUM PIPE</p> <p>CDOT COLORADO DEPARTMENT OF TRANSPORTATION</p> <p>CI CAST IRON</p> <p>CL CENTER LINE</p> <p>CL or CI CLEAR</p> <p>CONC CONCRETE</p> <p>CMP CORRUGATED METAL PIPE</p> <p>CSP CORRUGATED STEEL PIPE</p> <p>CG & SW CURB, GUTTER & SIDEWALK</p> <p>CU COPPER</p> <p>CI LONG CHORD</p> <p>CS SHORT CHORD</p> <p>DI DUCTILE IRON</p> <p>DR DRIVEWAY</p> <p>ELEC ELECTRIC</p> <p>EL or ELEV ELEVATION</p> <p>ECR END CURB RETURN</p> <p>EP EDGE OF PAVEMENT</p> <p>EX EXISTING</p>	<p>FB FULL BODY</p> <p>FL FLANGE</p> <p>FT FOOTING</p> <p>FS FAR SIDE</p> <p>E FLOW LINE</p> <p>FC FACE OF CURB</p> <p>FG FINISHED GRADE</p> <p>GV GATE VALVE</p> <p>IRRIG IRRIGATION</p> <p>L LENGTH OF ARC</p> <p>LT LEFT</p> <p>LF LINEAR FEET</p> <p>LL LONG ARC</p> <p>LS SHORT ARC</p> <p>MH MANHOLE</p> <p>MJ MECHANICAL JOINT</p> <p>MW MILL WRAP</p> <p>N/A NOT APPLICABLE</p> <p>NS NEAR SIDE</p> <p>NIC NOT IN CONTRACT</p> <p>NRCP NON-REINFORCED CONCRETE PIPE</p> <p>NOP NO ONE PERSON</p> <p>NTS NOT TO SCALE</p>	<p>PC POINT OF CURVATURE</p> <p>PI POINT OF INTERSECTION</p> <p>PR PROPOSED</p> <p>PRC POINT OF REVERSE CURVATURE</p> <p>PTC POINT OF TANGENCY</p> <p>PVC POLYVINYL CHLORIDE</p> <p>PCC PORTLAND CEMENT CONCRETE</p> <p>R RADIUS</p> <p>RG RESTRAINED GLANDS</p> <p>RP RADIUS POINT</p> <p>RR RAIL ROAD</p> <p>RCP REINFORCED CONCRETE PIPE</p> <p>REQ'D REQUIRED</p> <p>RT RIGHT</p> <p>ROW RIGHT OF WAY</p> <p>RL LONG RADIUS</p> <p>RS SHORT RADIUS</p> <p>SCH SCHEDULE</p> <p>S SLOPE</p> <p>STA STATION</p> <p>STL STEEL</p> <p>(TYP) TYPICAL</p> <p>T LENGTH OF TANGENT</p> <p>TC TOP OF CURB</p> <p>VC VERTICAL CURVE</p> <p>VCP VITRIFIED CLAY PIPE</p> <p>VPC VERTICAL POINT OF CURVATURE</p> <p>VPI VERTICAL POINT OF INTERSECTION</p> <p>VPT VERTICAL POINT OF TANGENCY</p> <p>Δ DELTA ANGLE</p>
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BLOCKS

BLOCK NAME	SYMBOL	BLOCK NAME	SYMBOL
REDUCER FITTING	◄	REDUCER	◄
CURB STOP	•	CURBSTOP	•
PULL BOX	⊠	PULL	⊠
TRAFFIC SIGNAL POLE	⊠	SIGNAL	⊠
SIGN OR POST	+	SIGN	+
TELEPHONE MANHOLE	⊙	TELEMAN	⊙
MANHOLE	○	MANHOLE	○
BENCH MARK	Ⓐ	BENCH	Ⓐ
SPRINKLER HEAD	•	HEAD	•
MAILBOX	□	MAILBOX	□
IRRIGATION PUMP	⊠	IRRIPUMP	⊠
TREE STUMP	•	STUMP	•
LIGHT STANDARD	⊙	LITE	⊙
FIRE HYDRANT	⊙	HYDRANT	⊙
EXISTING WATER VALVE	⊙	OVALVE	⊙
NEW WATER VALVE	⊙	VALVE	⊙
TELEPHONE CONTROL BOX	⊠	TELEBOX	⊠
POWER POLE	⊙	POWER	⊙
GUY WIRE ANCHOR	⊙	GUY	⊙
TREE	⊙	TREE	⊙
HEDGE OR BUSH	⊙	BUSH	⊙
SURVEY MARKER	⊙	MCSM	⊙
WATER METER	⊙	WATERMETER	⊙
WATER HYDRANT	⊙	WATERHYDRANT	⊙
PROPERTY PIN	⊙	PIN	⊙
YARD LIGHT	⊙	YLITE	⊙
CATCH BASIN	⊙	GRATE	⊙
ARROW HEAD	→	AROW	→
BARB WIRE FENCE SYMBOL	×	BARB	×
CHAIN LINK FENCE SYMBOL	◇	CHAIN	◇
BARRIER FENCE SYMBOL	///	BARRIER	///
WOVEN FENCE SYMBOL	///	WOVEN	///
WOOD FENCE SYMBOL	•	WOOD	•
EXISTING GUARD RAIL POST	○	GUARD	○
NEW GUARD RAIL POST	•	NEWGUARD	•
RAILROAD TIE SYMBOL		RAIL	
NORTH ARROW	SEE THIS SHEET	NORTH	SEE THIS SHEET
BAR SCALE	SEE THIS SHEET	SCALE	SEE THIS SHEET

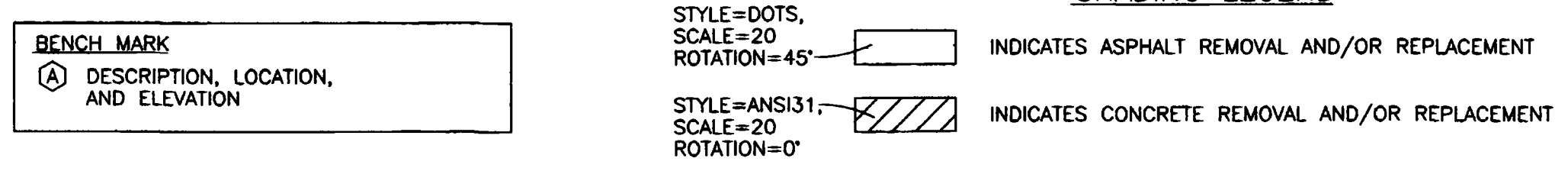
ENTITY CHARACTERISTICS

ENTITY	LAYER	COLOR	TEXT STYLE	LINE TYPE
DIMENSION LINES	0	WHITE	-	CONTINUOUS
TEXT	TEXT	YELLOW	TEXT	-
SHEET TITLE	TITLE	CYAN	TITLE	-
STREET NAMES	TITLE	CYAN	TITLE	-
SUBTITLES	TITLE	CYAN	HEADINGS	-
AS BUILT INFO.	ASBLT	RED	ASBLT	-
ROW LINES	ROW	RED	-	PHANTOM
EXISTING TOPO	EXIST	251	-	CONTINUOUS
NEW CONCRETE	CONC	GREEN	-	CONTINUOUS
NEW ASPHALT	ASPH	YELLOW	-	DASHED
PROPERTY LINES	PROP	BLUE	-	PHANTOM
SHADING	HATCH	WHITE	-	HATCH
EXISTING PROFILE	EXPRO	WHITE	-	DASHED
NEW PROFILE	PROFILE	GREEN	-	CONTINUOUS
SOLID GRID	GRID1	253	-	CONTINUOUS
DOTTED GRID	GRID2	7	-	L1
EXISTING UTILITY	AS SHOWN ON PROF1999 SHEET	251	-	CONTINUOUS
NEW SEWER	SEWER	15	-	CONTINUOUS
NEW STORM SEWER	STORM	9	-	CONTINUOUS
NEW WATER	WATER	9	-	CONTINUOUS
NEW MISC.	NEW	MAGENTA	-	CONTINUOUS
SHEET BORDER	BORDER	GREEN	-	PLINE (WIDTH=1)

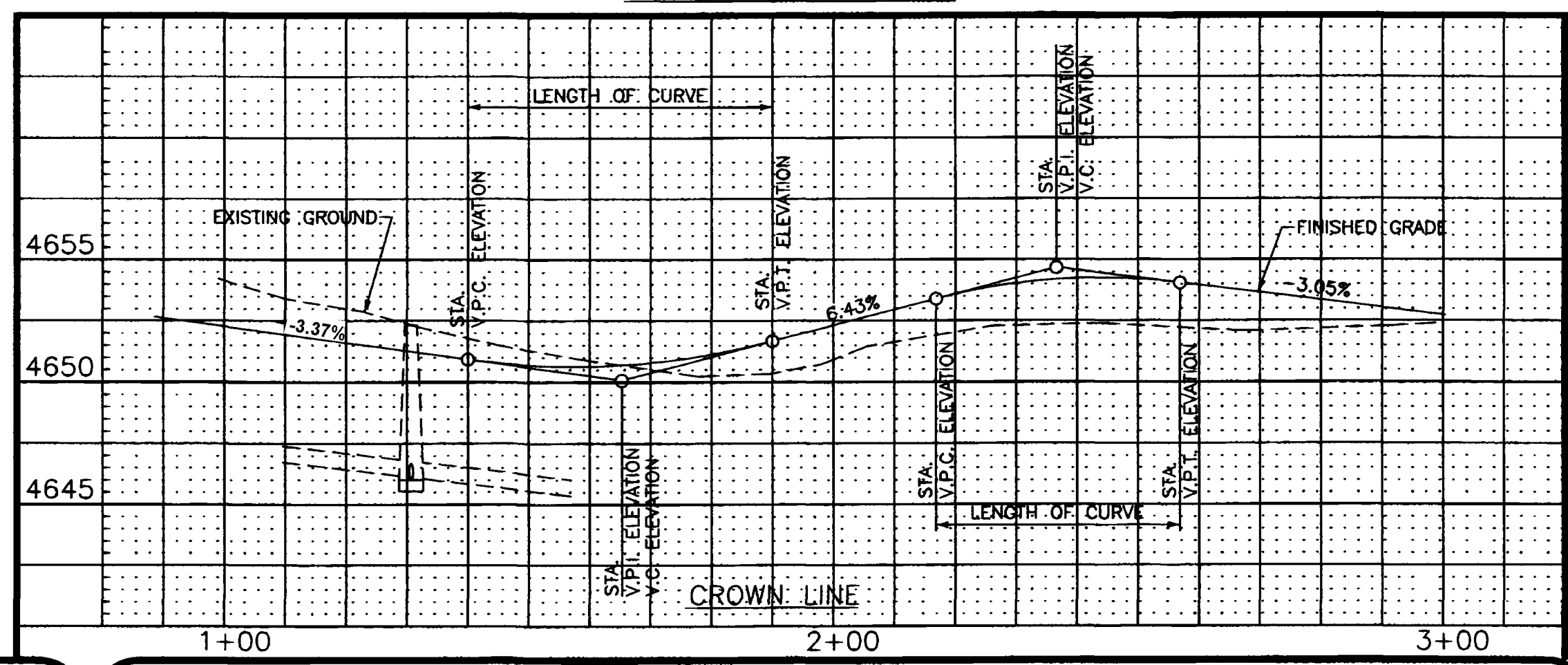
PLOTTING PARAMETERS

COLOR NAME	LINE WEIGHT (INKJET PLOTTERS)	PEN SIZE (PEN PLOTTERS)
RED	0.035	0.50
YELLOW	0.015	0.35
GREEN	0.035	0.70
CYAN	0.025	0.50
BLUE	0.010	0.25
MAGENTA	0.025	0.50
WHITE	0.015	0.25
8	0.010	0.25
9	0.035	0.70
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	0.035	0.70
16	0.035	0.70
251	0.015	-
253	0.015	-

SHADING LEGEND

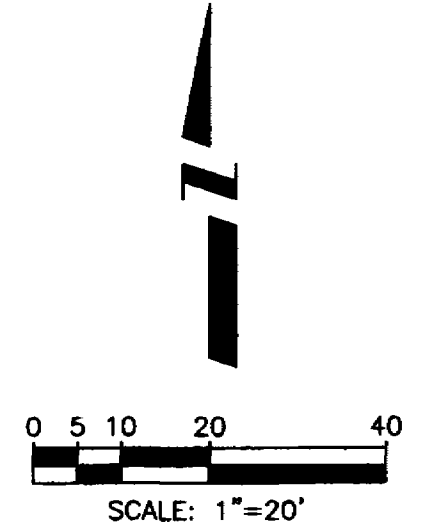


VERTICAL CURVE DETAIL



TEXT STYLE DESCRIPTIONS

TEXT	- FONT=ROMANS, HEIGHT=2.0, WIDTH FACTOR=1.0 OBLIQUE ANGLE=0°
HEADINGS	- FONT=ROMANS, HEIGHT=3.0, WIDTH FACTOR=1.0 OBLIQUE ANGLE=0°
TITLE	- FONT=COMPLEX, HEIGHT=4.0, WIDTH FACTOR=1.2 OBLIQUE ANGLE=0°
ASBLT	- FONT=ROMANS, HEIGHT=2.0, WIDTH FACTOR=1.0 OBLIQUE ANGLE=20°

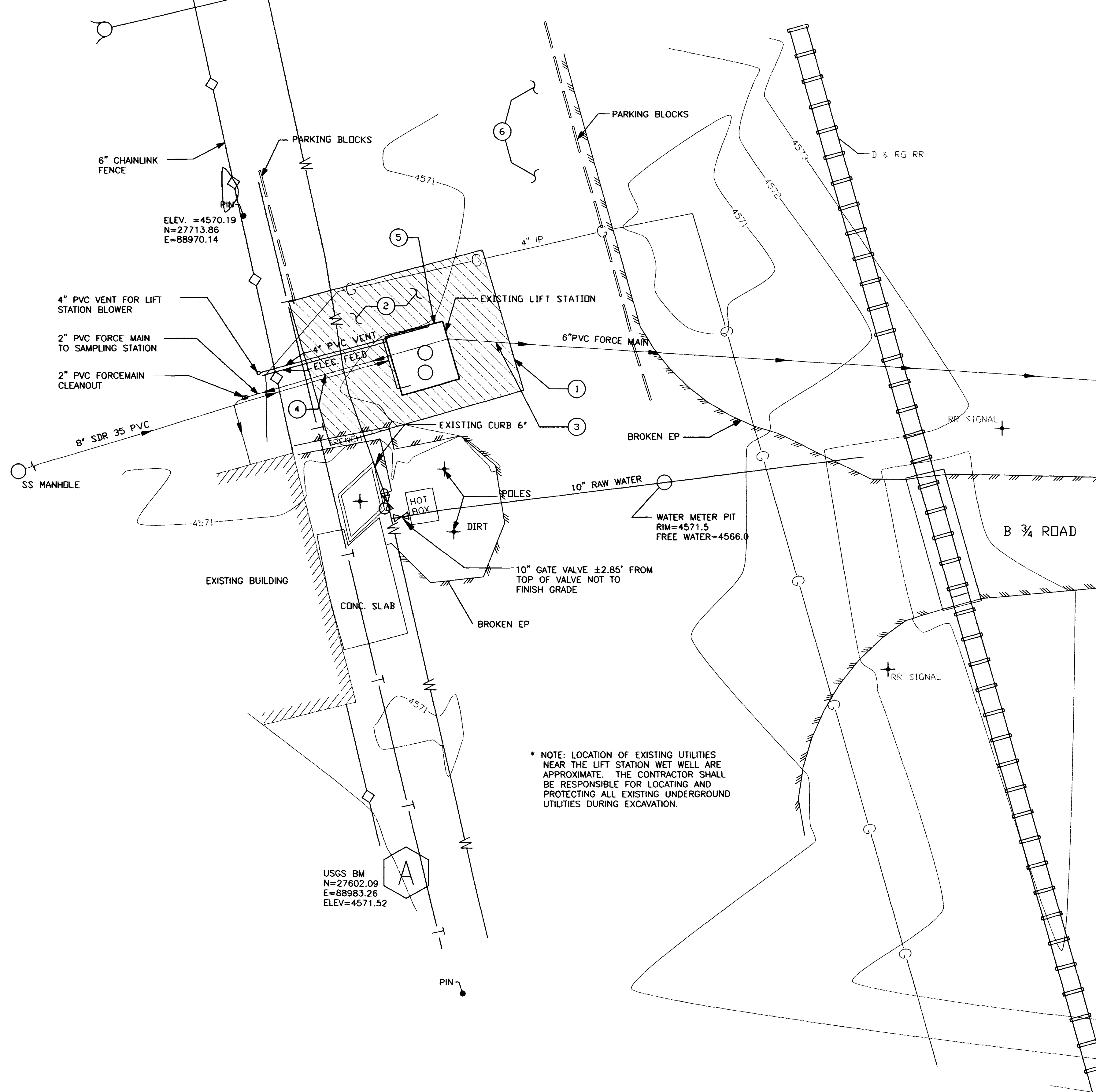
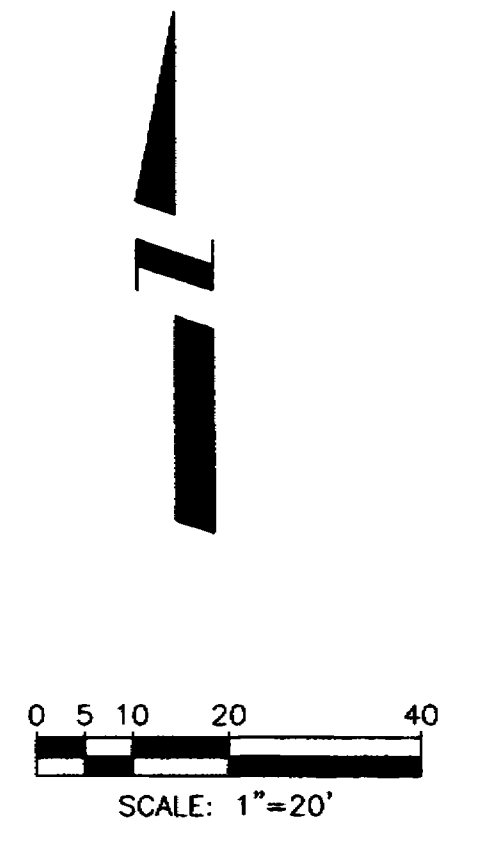


* UTILITIES SHOWN IN THE EXISTING TOPO SHALL BE SHOWN ON A SEPARATE LAYER SUCH AS EXWATER, EXSEWER, EXTELE, AND SO ON ALL OTHER EXISTING TOPO SHALL BE SHOWN ON LAYER EXIST.

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
REVISION Δ			KADEL	7/28/92	PLAN 1"=20' PROFILE 1"=5'
REVISION Δ			KADEL	7/28/92	
REVISION Δ			T.A.B.	7/28/92	

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO

D.O.E. LIFT STATION REPLACEMENT
D.O.E. COMPOUND
STANDARDS AND ABBREVIATIONS



* NOTE: LOCATION OF EXISTING UTILITIES NEAR THE LIFT STATION WET WELL ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UNDERGROUND UTILITIES DURING EXCAVATION.

CONSTRUCTION NOTES

- ① 202 LIMITS OF ASPHALT REMOVAL SHORING MAY BE REQUIRED TO REDUCE EXCAVATION TO LIMITS SHOWN.
- ② 206 EXCAVATE EXISTING LIFT STATION TO ONE FOOT BELOW THE TOP OF THE EXISTING CONCRETE WET WELL. (APPROXIMATELY 12')
- 304 BACKFILL EXCAVATION WITH IMPORTED PIT RUN MATERIALS. (CLASS 3)
- 401/304 4" HOT BITUMINOUS ASPHALT (PLACED AND COMPACTED IN 2-2" LIFTS)
- 304 6" CLASS 6 BASE COURSE SHALL BE PLACED AND COMPACTED PRIOR TO PLACING HOT BITUMINOUS ASPHALT.
- ③ THE 6" FORCEMAIN WILL NEED TO BE DRAINED PRIOR TO REMOVAL OF THE EXISTING LIFT STATION. VOLUME OF WATER IN THE FORCE MAIN IS APPROXIMATELY 4,800 GALLONS.
- ④ THE EXISTING 2" FORCEMAIN WILL BE ABANDONED BY INSTALLATION OF GLUE CAP ON EXISTING PIPE AT THE WEST EDGE OF THE EXCAVATION.
- ⑤ SEE SHEET 4 FOR REMOVAL OF EXISTING LIFT STATION AND COMPONENTS.
- ⑥ STAGING OF EQUIPMENT AND MATERIALS WILL BE ALLOWED IN THE PARKING AREA NORTH OF THE LIFT STATION.

REVISION	DESCRIPTION	DATE

DRAWN BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

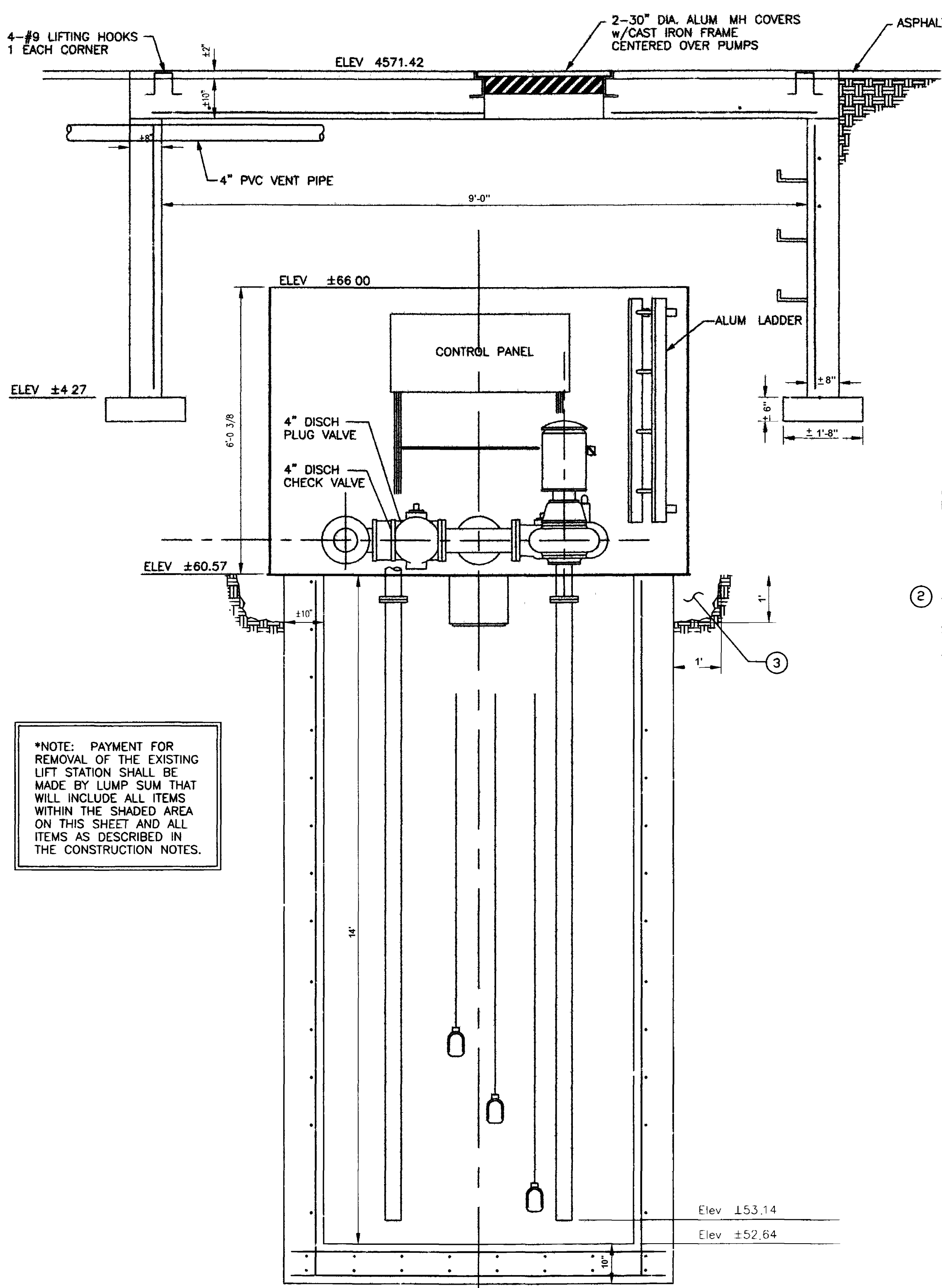
SCALE	
PLAN	PROFILE
HORIZ. 1"=10'	HORIZ. _____
VERT. _____	VERT. _____

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
 ENGINEERING AND TECHNICAL SERVICES DIVISIONS
 CITY OF GRAND JUNCTION, COLORADO

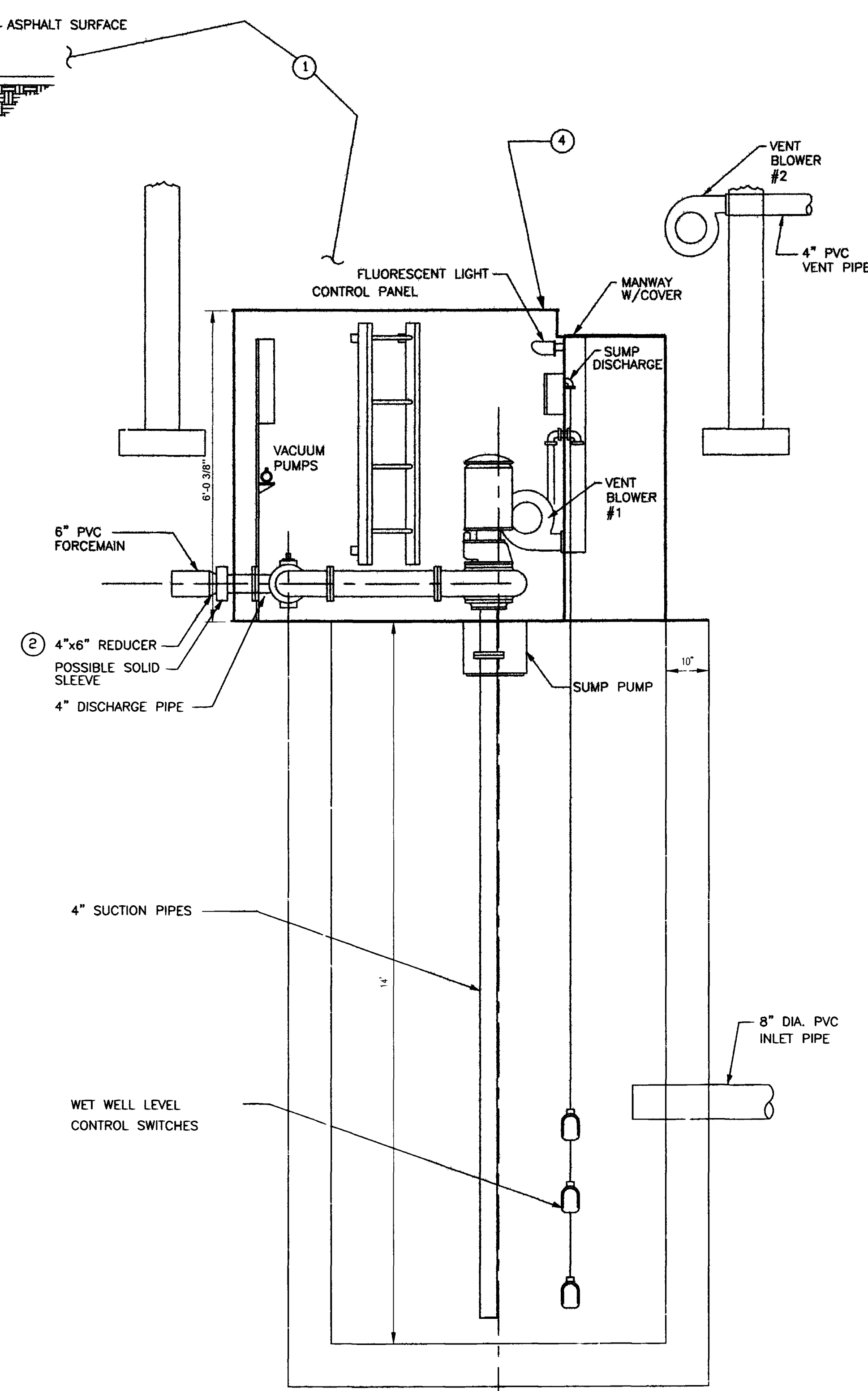
D.O.E. LIFT STATION REPLACEMENT
 D.O.E. COMPOUND
 SITE MAP

CONSTRUCTION NOTES

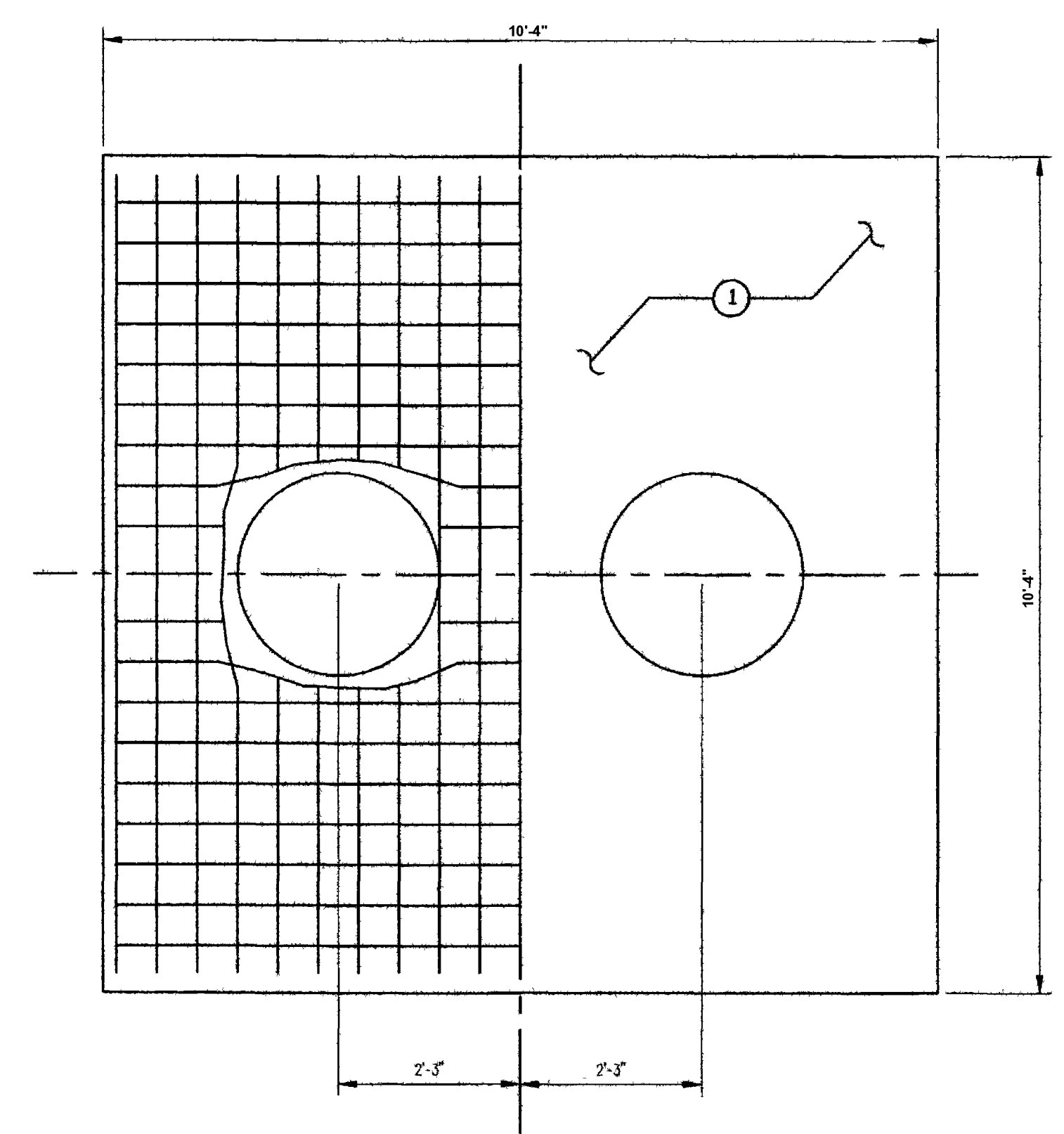
- ① 202 REMOVAL AND DISCONNECTIONS OF EXISTING LIFT STATION APPERTENANCES. (PAID BY LUMP SUM)
- ② 202 DISCONNECT FORCEMAIN AT 4"x6" REDUCER (OR POSSIBLY AT A SOLID SLEEVE AT THIS LOCATION). FORCEMAIN SHALL BE DRAINED PRIOR TO DISCONNECTION. EXACT CONFIGURATION OF FORCEMAIN CONNECTION OUTSIDE THE LIFT STATION IS NOT KNOWN.
- ③ EXCAVATE BELOW TOP OF THE EXISTING WET WELL TO DIMENSIONS SHOWN.
- ④ THE CONTENTS OF THE EXISTING LIFT STATION SHALL BE SALVAGED AND DELIVERED TO THE CITY OF GRAND JUNCTION SHOP AT THE PERSIGO WWTP.



SECTIONAL ELEVATION
NOT TO SCALE



CROSS SECTION
NOT TO SCALE



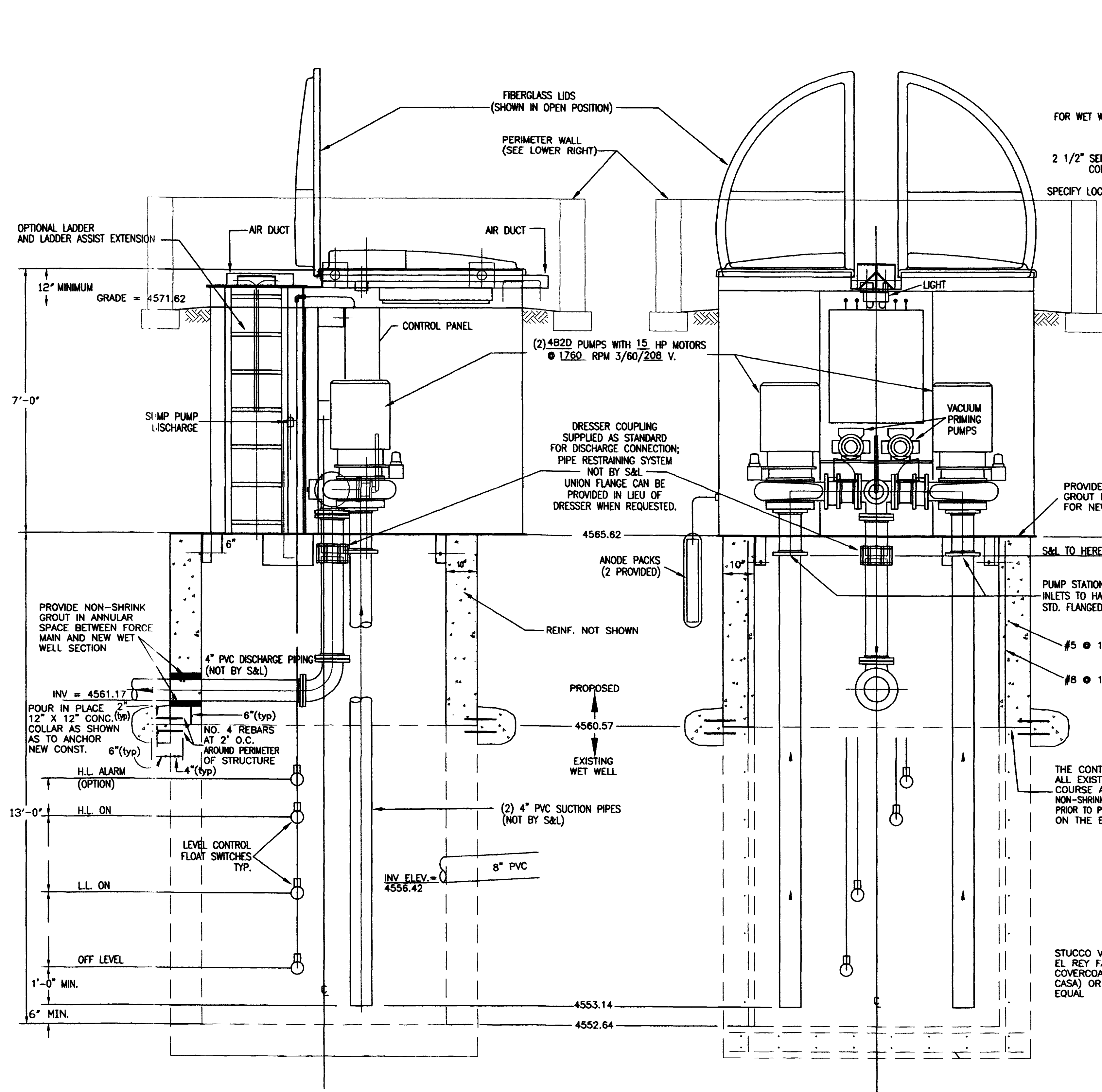
MANHOLE LID

*NOTE: PAYMENT FOR REMOVAL OF THE EXISTING LIFT STATION SHALL BE MADE BY LUMP SUM THAT WILL INCLUDE ALL ITEMS WITHIN THE SHADED AREA ON THIS SHEET AND ALL ITEMS AS DESCRIBED IN THE CONSTRUCTION NOTES.

REVISION A	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
REVISION B			DESIGNED BY	DATE	PLAN PROFILE
REVISION C			CHECKED BY	DATE	HORIZ 1"=20' HORIZ
REVISION D			APPROVED BY	DATE	VERT

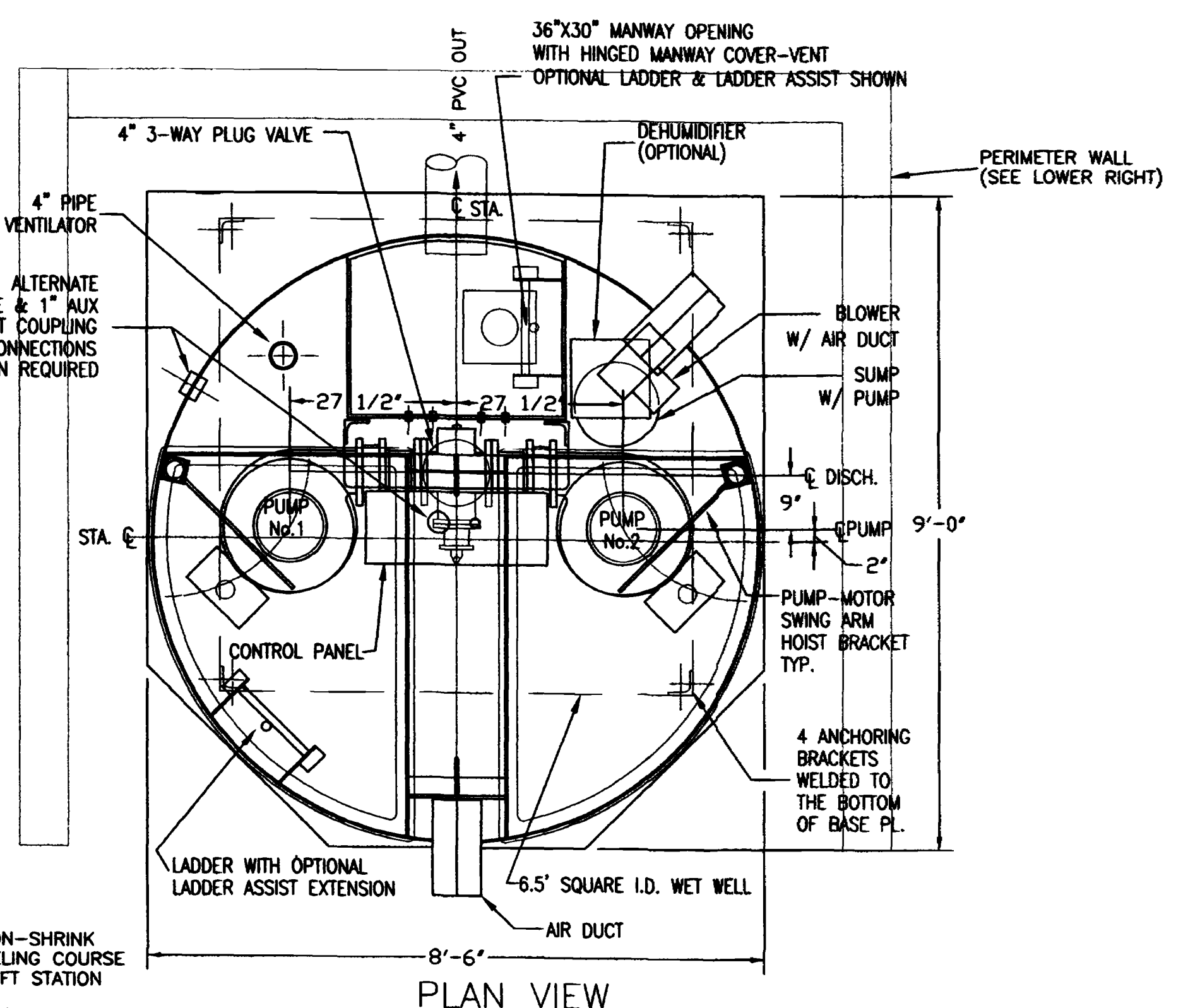
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO

D.O.E. LIFT STATION REPLACEMENT
D.O.E. Compound
DEMOLITION OF EXISTING LIFT STATION

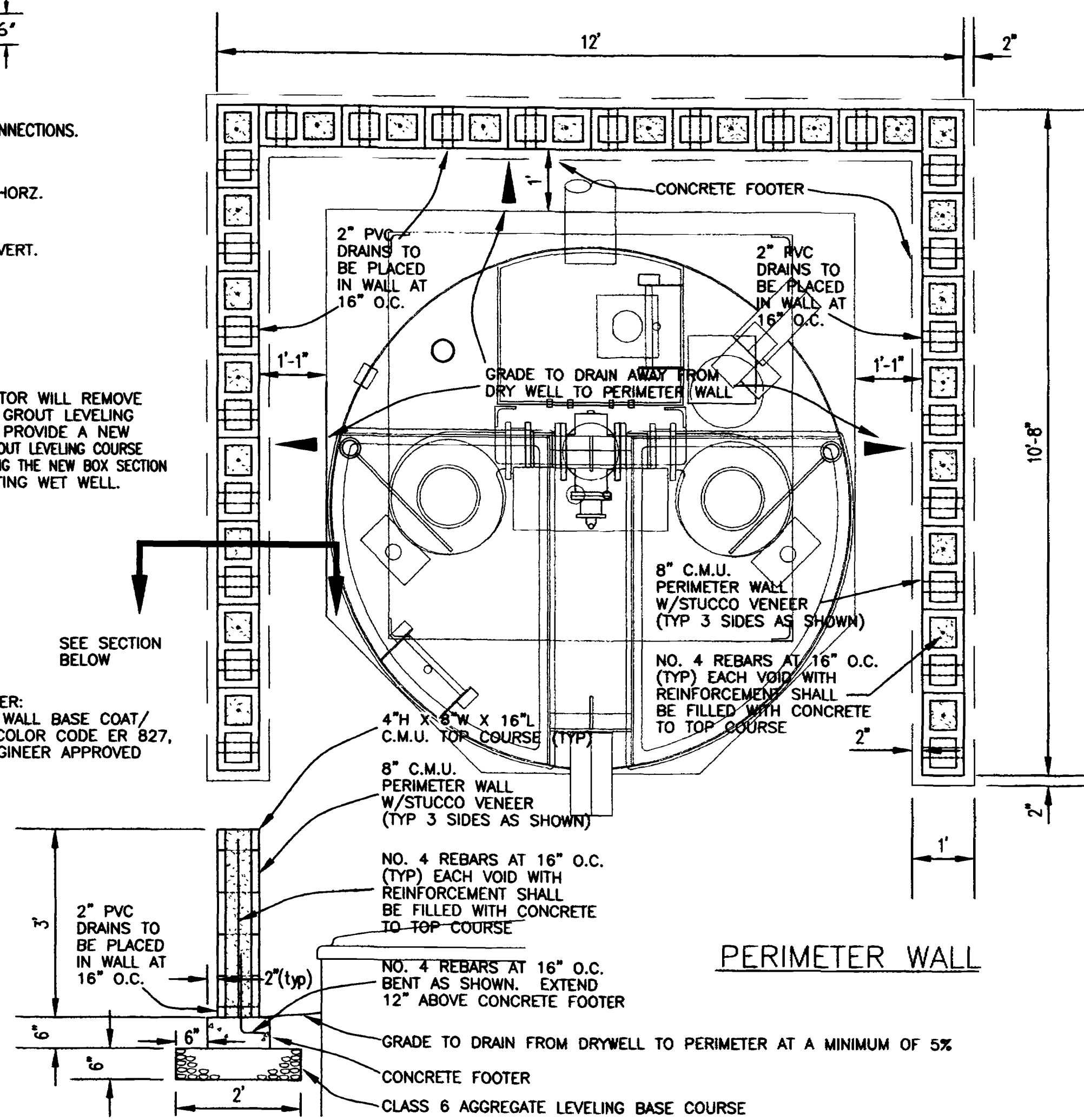


CROSS SECTION

SECTIONAL ELEVATION



PLAN VIEW



PERIMETER WALL

border.dwg 1-29-98 2:45:33 PM

REVISION	DESCRIPTION	DATE

DRAWN BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

SCALE	
PLAN	PROFILE
HORIZ. 1"=20'	HORIZ.
	VERT.

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
 ENGINEERING AND TECHNICAL SERVICES DIVISIONS
 CITY OF GRAND JUNCTION, COLORADO

D.O.E. LIFT STATION
 NEW S & L RECESSED WET WELL
 MOUNTED PUMP STATION