GENERAL NOTE(S)

- 1. EXISTING GROUND TOPOGRAPHY IS FROM A 2016 AERIAL FLYOVER SURVEY, AS PROVIDED BY CLIMAX.
- 2. THE COORDINATE SYSTEM USED IN THE DRAWINGS IS THE LOCAL CLIMAX MINE COORDINATE SYSTEM.
- 3. DIMENSIONS ARE IN UNITS OF FEET UNLESS OTHERWISE NOTED.
- 4. ALL HEALTH AND SAFETY REQUIREMENTS OF THE OWNER AND THE MINE SAFETY AND HEALTH ADMINISTRATION (MSHA) SHALL BE ADHERED TO DURING EXECUTION OF THE WORK. THE OWNER'S PROCEDURES SHALL BE USED FOR ALL EXCAVATIONS, HOT WORK, CONFINED SPACE ENTRY, LOCK OUT - TAG OUT - TRY OUT (LOTOTO), AND WORKING CLEARANCE. ALL CONTRACTOR AND SUBCONTRACTOR EMPLOYEES ASSIGNED TO THE WORK SHALL ATTEND THE OWNER'S CONTRACTOR SAFETY ORIENTATION.
- 5. THE SITE IS AN ACTIVE FACILITY. CONTRACTOR AND SUBCONTRACTOR EMPLOYEES SHALL BE AWARE OF ACTIVE EQUIPMENT IN THE VICINITY OF THE WORK AREA AND SHALL TAKE PRECAUTIONS NOT TO DISTURB ACTIVE EQUIPMENT
- 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS PRIOR TO STARTING WORK AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF CONFLICTS EXIST ON OR BETWEEN THE DRAWINGS.
- LOCATIONS AND DIMENSIONS OF EXISTING STRUCTURES ARE BASED ON DRAWINGS PROVIDED BY THE OWNER, OR BY OTHERS AS NOTED, AND SHOULD BE FIELD VERIFIED
- 8. THE CONTRACTOR SHALL PERFORM HOUSEKEEPING ON A DAILY BASIS TO KEEP THE WORK AREA CLEAN. SITE RESTORATION SHALL BE PERFORMED AT THE COMPLETION OF THE WORK TO THE SATISFACTION OF THE OWNER
- 9. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY EQUIPMENT AND PROVIDE ACCESS FOR THE OWNER AND THE OWNER'S REPRESENTATIVE TO INSPECT THE WORK. INSPECTION ACCESS IS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT.
- 10. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR EQUIPMENT IN OR DISTURB ANY AREA NOT SPECIFICALLY APPROVED BY THE OWNER'S REPRESENTATIVE.
- 11. IF DISCREPANCIES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS ARISE, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- 12. ALL EQUIPMENT IS REQUIRED TO MAINTAIN AT LEAST 20 FEET OF CLEARANCE FROM ENERGIZED ELECTRICAL POWER LINES THAT ARE 350 KILOVOLTS OR LESS AND AT LEAST 50 FEET OF CLEARANCE IF THE POWER LINES ARE MORE THAN 350 KILOVOLTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MSHA STANDARDS FOR EQUIPMENT OPERATION IN THE VICINITY OF ELECTRICAL EQUIPMENT.
- 13. THE CONTRACTOR IS REQUIRED TO PROVIDE PORTABLE SANITARY FACILITIES AT THE FIELD OFFICE(S) AND ADJACENT TO THE WORK AREAS.
- 14. QUANTITIES SHOWN ON THE DRAWINGS ARE NEAT-LINE ESTIMATES AND ARE PROVIDED FOR REFERENCE ONLY.
- 15. CONTROL OF FUGITIVE DUST GENERATED IN THE WORK AREA IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR SURVEY CONTROL, CONSTRUCTION STAKING, AND NOTIFYING THE OWNER'S SURVEYOR WHEN WORK ITEMS ARE READY FOR AS-BUILT SURVEYING.
- 17. UNLESS SPECIFICALLY NOTED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR, MATERIALS, QUALITY CONTROL, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK AS SHOWN.

TRAFFIC CONTROL

- ALL TRAFFIC CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO SIGNS, ARROW PANELS, FLASHING BEACONS, AND CHANNELIZING DEVICES, SHALL BE FURNISHED, INSTALLED, MAINTAINED (INCLUDING WASHING), RELOCATED AS NECESSARY, AND REMOVED BY THE CONTRACTOR.
- ANY TRAFFIC CONTROL DEVICE THAT IS DAMAGED, WEATHERED, WORN, OR OTHERWISE DEEMED UNACCEPTABLE BY THE OWNER'S REPRESENTATIVE SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- 3. CONTRACTOR VEHICLE PARKING AND PERSONAL VEHICLE PARKING SHALL BE WITHIN OWNER-DESIGNATED AREAS ONLY.
- THE FINAL LOCATIONS OF TRAFFIC CONTROL DEVICES ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE. FLASHING LIGHTS AND/OR FLAGS MAY BE REQUIRED BY THE OWNER'S REPRESENTATIVE TO CALL ATTENTION TO TRAFFIC CONTROL SIGNAGE.
- TRAFFIC CONTROL DEVICES SHALL COMPLY WITH COLORADO DEPARTMENT OF TRANSPORTATION STANDARDS UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.

GENERAL NOTE(S) YARD PIPING:

- DRAWINGS.
- 2. AN AS-BUILT SURVEY SHALL BE PERFORMED ON PIPING AS CONSTRUCTED. BE INDICATED WITH THE DELIVERABLE.
- 3. FOR PIPE TRENCH EXCAVATIONS, SLOPING OR SHORING SHALL BE UTILIZED IN ACCORDANCE WITH MSHA AND OSHA REQUIREMENTS.
- UNDERGROUND PIPING AS SHOWN ON THE DRAWINGS.
- ERECTED.
- DRAWINGS.

CONSTRUCTION COORDINATION:

- CONSTRUCTION PROJECTS.
- PROJECT DELAYS, OR COST IMPLICATIONS.
- TIMEFRAMES SCHEDULED BY THE OWNER.

ISSUED FOR CONSTRUCTION 2022-04-12 0

REV. YYYY-MM-DD DESCRIPTION

1. PIPING SHALL BE CONSTRUCTED PER THE MANUFACTURER'S RECOMMENDATIONS AND SHALL HAVE A LINE TOLERANCE OF ±0.2 FEET AND A GRADE TOLERANCE OF ±0.1 FEET. PIPING SHALL INCLUDE APPROPRIATE CAMBER TO LIMIT SAGS OR HUMPS FROM DEVELOPING IN THE PIPING AFTER PLACEMENT OF FILL MATERIALS. GRAVITY PIPING SHALL BE SLOPED AT A MINIMUM OF 0.25%, UNLESS OTHERWISE INDICATED ON THE

COORDINATES AND ELEVATIONS SHALL BE SURVEYED AT ALL PIPE BENDS AND AT MINIMUM 100-FOOT INTERVALS ALONG STRAIGHT PORTIONS OF PIPE. COORDINATES SHALL BE REPORTED IN THE LOCAL CLIMAX MINE COORDINATE SYSTEM. HORIZONTAL ACCURACY SHALL BE ±0.2 FEET. VERTICAL ACCURACY SHALL BE ±0.1 FEET. THE CONTRACTOR SHALL PROVIDE AN EXCEL SPREADSHEET CONTAINING SURVEY POINT NUMBER, NORTHING, EASTING, TOP OF PIPE ELEVATION, AND GROUND ELEVATION AFTER PIPE IS BURIED (IF APPLICABLE). SURVEY METHOD AND EQUIPMENT USED SHALL

4. TRACER WIRE SHALL BE INSTALLED ABOVE ALL NEW CONSTRUCTED UNDERGROUND PIPING. CAUTION TAPE SHALL BE INSTALLED ABOVE ALL NEW CONSTRUCTED

5. ALL PARTS SHALL BE ACCURATELY ASSEMBLED AND ERECTED AS SHOWN ON THE DRAWINGS OR APPROVED SHOP DRAWINGS, OR AS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE, AND ALL MATCHMARKS OF THE FABRICATOR SHALL BE CAREFULLY FOLLOWED. MEMBERS SHALL NOT BE OVERSTRESSED DURING THE PROCESS OF ASSEMBLY, AND HAMMERING THAT WILL INJURE OR DISTORT THE MEMBERS WILL NOT BE PERMITTED. BEARING SURFACES AND SURFACES TO BE IN PERMANENT CONTACT SHALL BE CLEANED BEFORE THE MEMBERS ARE ASSEMBLED OR

6. THE CONTRACTOR SHALL PROVIDE REDLINE DRAWINGS IDENTIFYING KEY ELEMENTS OF THE PIPE ASSEMBLY THAT MAY DIFFER FROM THE DRAWINGS OR APPROVED SHOP

1. THE CONTRACTOR SHALL BE AWARE OF ACTIVITIES ASSOCIATED WITH OPERATION OF THE EXISTING METALS TREATMENT PLANT AND ADDITIONAL CONSTRUCTION PROJECTS IN THE VICINITY OF THE WORK AREA. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL WORK ACTIVITIES HAVING THE POTENTIAL TO AFFECT OR BE AFFECTED BY OPERATION OF THE EXISTING METALS TREATMENT PLANT AND/OR ADDITIONAL

2. COORDINATION OF MATERIAL DELIVERY, STORAGE, AND STOCKPILING IS ANTICIPATED AND EXPECTED BETWEEN THE CONTRACTOR AND THE OWNER TO ENSURE THAT CONCURRENT WORK ACTIVITIES CAN BE COMPLETED WITHOUT SAFETY INCIDENT

3. TIE-INS OF NEW PIPING TO EXISTING PIPING MAY REQUIRE TEMPORARY ALTERNATE ROUTING. THE CONTRACTOR SHALL PARTICIPATE AND ASSIST THE OWNER WITH PLANNING, SEQUENCING, AND COORDINATION OF TEMPORARY ALTERNATE ROUTING. THE CONTRACTOR SHALL PERFORM TIE-IN WORK IN A DILIGENT AND WORKMANLIKE MANNER, WITH APPROPRIATE RESOURCES TO COMPLETE THE TIE-INS WITHIN THE

GENERAL NOTE(S)

EROSION AND SEDIMENT CONTROL NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MANAGE SEDIMENT AND PREVENT SEDIMENT FROM LEAVING THE SITE. THE CONTRACTOR SHALL PREPARE A SITE-SPECIFIC DRAINAGE AND EROSION/SEDIMENTATION PLAN FOR THE OWNER'S APPROVAL PRIOR TO MOBILIZATION. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE INTENDED AS MINIMUM REQUIREMENTS TO BE SUPPLEMENTED BY THE THE CONTRACTOR'S DRAINAGE AND EROSION/SEDIMENTATION PLAN.
- 2. ALL PERMANENT AND TEMPORARY EROSION CONTROL MEASURES ARE SUBJECT TO REVIEW FOR EFFECTIVENESS. NECESSARY ADJUSTMENTS SHALL BE MADE BY THE CONTRACTOR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 3. WETLANDS SHOWN ON THE DRAWINGS SHALL BE PROTECTED AND SPECIFICALLY ADDRESSED IN THE CONTRACTOR'S DRAINAGE AND EROSION/SEDIMENTATION PLAN.
- 4. TOPSOIL PLACEMENT, SEEDING, AND MULCHING SHALL NOT BE DONE IN A SINGLE OPERATION, BUT RATHER SHALL BE COMPLETED AFTER EACH CONSTRUCTION PHASE. IT IS ESTIMATED THAT SEVERAL MOBILIZATIONS FOR TOPSOIL PLACEMENT, SEEDING, AND MULCHING MAY BE REQUIRED AND SHOULD BE INCLUDED IN THE PRICE OF THE WORK.
- 5. THE CONTRACTOR SHALL SEED AND MULCH AREAS INDICATED ON THE DRAWINGS WITHIN THE LIMIT OF DISTURBANCE. ANY AREAS BEYOND THESE LIMITS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.
- 6. DISTURBED SURFACES SHALL BE LEFT IN A ROUGHENED CONDITION AT ALL TIMES DURING CONSTRUCTION.
- 7. PRIOR TO WINTER STOPPAGE OF CONSTRUCTION ACTIVITIES, TOPSOIL SHALL BE PLACED ON ALL COMPLETED SLOPES, FOLLOWED BY SEEDING AND MULCHING. UNCOMPLETED SLOPES SHALL BE MULCHED WITH NATIVE HAY OR STRAW BY MECHANICALLY CRIMPING IN COMBINATION WITH ORGANIC MULCH TACKIFIER.
- 8. TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE AS DETERMINED BY THE OWNER. PERMANENT EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL PERMANENT SEEDING HAS BEEN ESTABLISHED.

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CONSULTANT



CLIMAX, COLORADO

DENVER OFFICE 7425 W. ALASKA DR. STE 200 LAKEWOOD, CO. 80226 USA [+1] (303) 980-0540

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GENERAL NOTE(S) WATER QUALITY NOTES:

- 1. ALL ENVIRONMENTAL REQUIREMENTS OF THE OWNER, INCLUDING PROCEDURES FOR STORMWATER MANAGEMENT AND CHEMICAL USE ON SITE, SHALL BE ADHERED TO DURING EXECUTION OF THE WORK.
- 2. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, AND OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, STORM DRAINAGE FEATURES.
- 3. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS, AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING DEMOLITION, EXCAVATION, TRENCHING. BORING. GRADING. AND OTHER CONSTRUCTION OPERATIONS.
- 4. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ADVERSE IMPACTS TO ADJACENT WATERWAYS AND WETLANDS RESULTING FROM THE WORK.
- 5. THE CONTRACTOR SHALL ENSURE THAT ALL LOADS OF MATERIAL IMPORTED TO OR EXPORTED FROM THE SITE ARE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORTATION ON PUBLIC RIGHTS-OF-WAY.
- 6. THE USE OF REBAR, STEEL STAKES, OR STEEL FENCE POSTS TO SECURE STRAW OR HAY BALES OR TO SUPPORT SILT FENCING USED FOR EROSION CONTROL IS PROHIBITED.
- 7. WATER USED IN THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES SHALL BE DISCHARGED INTO A PREDEFINED, BERMED CONTAINMENT AREA IN THE WORK AREA. THE REQUIRED CONTAINMENT AREA IS TO BE BERMED SO THAT WASH WATER IS TOTALLY CONTAINED. WASH WATER DISCHARGED IN THE CONTAINMENT AREA SHALL BE ALLOWED TO INFILTRATE OR EVAPORATE. DRIED CEMENT WASTE IS TO BE REMOVED FROM THE CONTAINMENT AREA AND PLACED AT AN OWNER-DESIGNATED LOCATION ON SITE. SHOULD THE BERMED CONTAINMENT AREA NOT BE LARGE ENOUGH TO ACCOMMODATE THE CONSTRUCTION ACTIVITIES, PROPER DISPOSAL OF WASTE AND WATER AT THE SITE SHALL CONFORM TO APPROVED TECHNIQUES AND PRACTICES IDENTIFIED BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT ("BUILDING FOR A CLEANER ENVIRONMENT, READY MIX WASHOUT TRAINING" AND "READY MIX WASHOUT GUIDEBOOK, VEHICLE AND EQUIPMENT WASHOUT AT CONSTRUCTION SITES").
- 8. THE DIRECT OR INDIRECT DISCHARGE OF WATER CONTAINING WASTE CEMENT TO THE STORM SEWER SYSTEM IS PROHIBITED.
- 9. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM PAVEMENT CUTTING OPERATIONS TO THE STORM SEWER SYSTEM IS PROHIBITED. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING, OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY PAVEMENT CUTTING OPERATIONS ON A DAILY BASIS.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING PAVED ROADS CLEAN OF TRACKED-OUT MATERIALS FROM THE WORK AREA. PAVED SURFACES THAT ARE ADJACENT TO CONSTRUCTION AREAS MUST BE SWEPT IN A TIMELY MANNER WHEN SEDIMENT OR OTHER MATERIALS ARE TRACKED OR DISCHARGED ONTO THEM. EITHER SWEEPING BY HAND OR USING A STREET SWEEPER IS ACCEPTABLE. A STREET SWEEPER THAT USES WATER WHILE SWEEPING IS PREFERRED IN ORDER TO MINIMIZE DUST. WASHING PAVED SURFACES WITH WATER IS PROHIBITED. GRAVEL TRACKOUT PAD(S) MAY BE REQUIRED IF OTHER TRACKOUT CONTROL MEASURES ARE FOUND TO BE INSUFFICIENT IN THE OPINION OF THE OWNER

PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

TITLE **GENERAL CIVIL NOTES**

PROJECT NO.	REV.	of	DRAWING
1912808404	0	860	D-1A-C-101

NOTE(S) 1. THIS DRAWING UTILIZES COLOR TO DEPICT SPECIFIC DESIGN ELEMENTS. THEREFORE,	LEGEND EXISTING	PROPOSED				
IF IT IS NOT PLOTTED OR PRODUCED WITH COLOR, THOSE ELEMENTS MAY NOT COME ACROSS AS DESIGNED.	—— E ——	—— E ——	- ELECTRICAL			
LEGEND	X	— x —	- FENCE			AGGREGATE SUB-BASE
10350 EXISTING GROUND TOPOGRAPHY	FO		- FIBER OPTICS			ASPHALT
10350 FINAL GRADE	—— F ———	F	- FIRE WATER			ASPHALT TO BE REMOVED
LIMIT OF DISTURBANCE	>	· >	- FLOW DIRECTION			
EXISTING RETAINING WALL	FM	FM	- FORCE MAIN			CONTROLLED LOW-STRENGTH MATERIAL
RD EXISTING ROOF DRAIN	— GAS ——	— GAS —	- GAS			CRUSHED ROCK
- EXISTING OVERHEAD UTILITY POLE	. 0 0 0 0 0 0 0 0	••••••••••••••	° GUARD RAIL		64.188	DRAIN GRAVEL
EXISTING CULVERT	GM	GM	- GRAVITY MAIN			EMBANKMENT FILL
EXISTING INLET	— LTG ——	— LTG ——	- LIGHTING			NATIVE SOIL, UNDISTURBED EARTH
EXISTING MANHOLE	NG	NG	- NATURAL GAS			PIPE BEDDING
MANHOLE TO BE ABANDONED			- NON-POTABLE WATI	ER		PREPARED SUBGRADE
O PROPOSED MANHOLE	— O/H ——	— О/Н ——	- OVERHEAD POWER			RIPRAP
PROPOSED INLET	— PIPE ——	— PIPE ——	- PIPE			STRUCTURAL FILL
CONCRETE BOLLARD	PW	PW	- POTABLE WATER			TOPSOIL
EXISTING PIPE	— PWR —		- POWER		علاد عالد عالد عالد عالد عا : عالد عالد عالد عالد عالد علاد عالد عالد عالد عالد عا	WETLANDS
EVENTS POND RETURN	PSE		- PRESSURE		Xft	BREAK IN DIMENSION
FIRE WATER	SS	SS	- SANITARY SEWER			BREAK
MOLY EFFLUENT	ST	ST	- STORM SEWER		1%	GRADE INDICATOR
SANITARY SEWER	SD	SD	- STORM DRAIN			ALIGNMENT AND STATION
STORMWATER	TEL		- TELEPHONE		A	CROSS-SECTION CALLOUT
THICKENER EFFLUENT	— U/G ——	— U/G ——	- UNDERGROUND		860-1A-C-102	DRAWING SHEET LOCATION
	WWW	ww	- WASTE WATER			DETAIL CALLOUT
	W	W	- WATER		860-1A-C-102	DETAIL ID DRAWING SHEET LOCATION
PIPE TO BE ABANDONED OR REMOVED	WM	WM	- WATER MAIN		H:1V	
ELECTRICAL CONDUIT			CONCRETE BARRIER	3	H 1V	HORIZONTAL TO 1 VERTICAL SLOPE INDICATOR
			FIRE HYDRANT		· ·	
			- ROAD / PAVED AREA	A	+	BENCHMARK
EROSION & SEDIMENT CONTROL LEGEND						
EROSION CONTROL BLANKET						
SF SILT FENCE						
CONSTRUCTION FENCE						
				SEAL		
			```			CLIMAX, COLORADO
				FRADO LIC	A Freeport	t-McMoRan Company
				May be 50	CONSULTANT	
				4-11-22 CONTRACTOR		GOLDER LAKEWOOD, CO. 80226
SSUED FOR CONSTRUCTION	NKR N	NKR JEO	EPB	CONNE CONNECTION		MEMBER OF WSP         [+1] (303) 980-0540
DESCRIPTION	PREPARED [	DESIGNED REVIE	WED APPROVED			www.golder.com

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REV.

		LEGEND	
PROPOSED		50505	AGGREGATE BASE COURSE
— Е ——			AGGREGATE SUB-BASE
X	FENCE		ASPHALT
— FO ——	FIBER OPTICS		ASPHALT TO BE REMOVED
F	FIRE WATER		CONCRETE
>	FLOW DIRECTION		CONTROLLED LOW-STRENGTH MATERIAL
— FM ——	FORCE MAIN		CRUSHED ROCK
— GAS ——	GAS		DRAIN GRAVEL
<u>. , , , , , , ,</u> , , , , , , , , , , , ,	GUARD RAIL		
— GM ——	GRAVITY MAIN		
— LTG ——	LIGHTING		NATIVE SOIL, UNDISTORBED EARTH
— NG ——	NATURAL GAS		PIPE BEDDING
— NPW ——	NON-POTABLE WATER		PREPARED SUBGRADE
— O/H ——	OVERHEAD POWER		RIPRAP
— PIPE ——	PIPE		STRUCTURAL FILL
— PW ——	POTABLE WATER		TOPSOIL
— PWR ——	POWER	عللاد عللاد عللاد عللاد عللاد عللاد عل : عللد عللد عللد عللد عللد عللد عللد عللد عللد	WETLANDS
— PSE ——	PRESSURE	Xft /	BREAK IN DIMENSION
— ss ——	SANITARY SEWER	\	BREAK
— st ——	STORM SEWER	1%	GRADE INDICATOR
— SD —	STORM DRAIN	1+00 	ALIGNMENT AND STATION
— TEI ——		A	CROSS-SECTION CALLOUT
		860-1A-C-102	DRAWING SHEET LOCATION
	WASTE WATER		DETAIL CALLOUT
	WASTE WATER	860-1A-C-102	DETAIL ID DRAWING SHEET LOCATION
VV	WATER	► H:1V	
			HORIZONTAL TO 1 VERTICAL SLOPE INDICATOR
	CONCRETE BARRIER	IV	
	FIRE HYDRANT	-	BENCHMARK
	ROAD / PAVED AREA		

AOS	APPARENT OPENING SIZE
APPROX	APPROXIMATELY
AC-FT	ACRE-FEET
@ BM	AI BENCHMARK
BOP	BOTTOM OF PIPE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CDPHE	COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
CES	CUBIC FEET PER MINUTE CUBIC FEET PER SECOND
CIP	CAST IRON PIPE
CL	CENTERLINE
CLR	CONTROLLED LOW-STRENGTH MATERIAL
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	
CU	CUBIC
CU YD	CUBIC YARDS
D ₅₀	AVERAGE STONE SIZE
DET	
DIA, Ø	DIAMETER
DIP	DUCTILE IRON PIPE
EA	
EL	ELEVATION
EOR	ENGINEER OF RECORD
EP	EVENTS POND
EVV FXST FX	EXISTING
FG	FINISHED GRADE
FL	FLOW LINE
FLG	
FPS	FOOT PER SECOND
ft, FT	FEET
	HIGH-DENSITY POLYETHYLENE
ID	INNER DIAMETER, INSIDE DIAMETER
in, IN	INCHES
IP	IRON PIPE
IRR	IRRIGATION
MDPE	MEDIUM-DENSITY POLYETHYLENE
MGD	MILLION GALLONS PER DAY
MH	
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MR	MAYFLOWER RETURN PIPELINE
MW	MILL WATER PIPELINE
NA	NOT APPLICABLE
NO., #	NUMBER
NTS	NOMINAL NOT TO SCALE
0.C.	ON CENTER
OD	
PIV	POST INDICATOR VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC R	POLYVINYL CHLORIDE RADIUS
RCP	REINFORCED CONCRETE PIPE
REM	REMOVED
SCHED SCH	
SPEC	SPECIFICATIONS
SQ	SQUARE
SQFI	SQUARE FEET STATION
STD	STANDARD
TEMP	TEMPORARY
TOF	TOP OF CONCRETE TOP OF FOOTING
TOP	TOP OF PIPE
TYP W//	
W/O	WITHOUT
XFMR'S	TRANSFORMERS

PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

TITLE CIVIL LEGEND			
PROJECT NO. 1912808404	REV. O	of 86(	DRAWING



PROJECT NO.	REV.	of	DRAWING
1912808404	0	8	60-1A-C-103



REV. YYYY-MM-DD DESCRIPTION

PREPARED DESIGNED REVIEWED APPROVED

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	TO DRAWING 860-TA-C	-102 FOR LEGEN	ID AND ABBREVIA [.]	TIONS.	
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5					
	EXISTING UTILITY WATER WELL	EXISTING UT	TILITY WATER CCESS ROAD		
			·····		
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WATER WELL AC (API	CESS ROAD PROXIMATE)				E 13
1		5		1	Contraction of the second
CAR LISO	- Add	0 60 1" = 60'	120 FEET	34 500	
			,		
MOLYBI	DENUM REMOV	AL WATER	TREATMENT	「 PLANT	
TITLE SITE PL	.AN				

![](_page_4_Figure_0.jpeg)

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1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.

- 2. THIS DRAWING UTILIZES COLOR TO DEPICT SPECIFIC DESIGN ELEMENTS. THEREFORE, IF IT IS NOT PLOTTED OR PRODUCED WITH COLOR, THOSE ELEMENTS MAY NOT COME ACROSS AS DESIGNED.
- 3. EXISTING UNDERDRAIN PIPE IS ADS N-12 OR ENGINEER-APPROVED EQUAL.
- 4. PROPOSED UNDERDRAIN PIPING IS ADS N-12 PERFORATED OR ENGINEER-APPROVED EQUAL UNLESS OTHERWISE SPECIFIED.
- 5. UNDERDRAIN ELEVATIONS ARE PROVIDED IN THE 3D MODEL AND COORDINATE TABLES.

## LEGEND UNDERDRAIN ZONE 1 - 6 in PERFORATED PIPE UNDERDRAIN ZONE 2 - 4 in PERFORATED PIPE UNDERDRAIN ZONE 3 - 6 in PERFORATED PIPE UNDERDRAIN ZONE 4 - 6 in PERFORATED PIPE **UNDERDRAIN - SOLID PIPE** UNDERDRAIN - REROUTE 6 in UNDERDRAIN - REROUTE 8 in

![](_page_4_Figure_9.jpeg)

INSET

![](_page_4_Figure_11.jpeg)

### PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

#### TITLE **UNDERDRAIN SYSTEM**

PROJECT NO.	REV.	of	DRAWING
1912808404	0	860	)-1A-C-110

![](_page_5_Figure_0.jpeg)

1912808404

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. THIS DRAWING UTILIZES COLOR TO DEPICT SPECIFIC DESIGN ELEMENTS. THEREFORE, IF IT IS NOT PLOTTED OR PRODUCED WITH COLOR, THOSE ELEMENTS MAY NOT COME ACROSS AS DESIGNED.
- 3. REFER TO COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NO. M-604-10. INLET HEIGHT SHALL BE 10 ft. INLET SHALL BE PLACED ON 6 in OF AGGREGATE SUB-BASE AND BACKFILLED WITH STRUCTURAL FILL.
- 4. REFER TO COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NO. M-609-1. GUTTER WIDTH SHALL BE 6 ft. CONTROL JOINTS SHALL BE PLACED ON MINIMUM 10-ft CENTERS.
- 5. CONCRETE BARRIERS SHALL BE AT LEAST 42 in TALL AND OF A STANDARD DESIGN FOR TEMPORARY CONCRETE BARRIERS, SUCH AS FROM A STANDARD PLAN FOR A DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUPPORTING INFORMATION FOR REVIEW BY THE OWNER'S REPRESENTATIVE IN ACCORDANCE WITH SECTION 33 05 60 OF THE TECHNICAL SPECIFICATIONS.
- 6. THE MOLY WATER TREATMENT PAD ACCESS ROAD SHALL BE GRADED WITH A 2% CROSS SLOPE TO THE OUTSIDE EDGE.
- 7. WHERE INDICATED, SLOPE AWAY FROM THE BUILDING WITH A 5% SLOPE FOR 10 ft.

![](_page_5_Figure_10.jpeg)

0 860-1A-C-115

![](_page_6_Figure_0.jpeg)

PROJECT NO.	REV.	of	DRAWING
1912808404	0	86	0-1A-C-117

MOLYBDENUM REMOVAL WATER TREATMENT PLANT

![](_page_6_Figure_4.jpeg)

![](_page_6_Figure_5.jpeg)

![](_page_6_Figure_6.jpeg)

![](_page_6_Figure_7.jpeg)

10410

10400

10390

10380 <del>_</del>

10370≯

10360

10350

10340

4+78

![](_page_7_Figure_0.jpeg)

1

Å X

1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.

- 2. REFER TO STRUCTURAL DRAWINGS FOR EXTERIOR DOOR LANDING PAD DETAIL, EXTERIOR STAIR PAD DETAIL, EXTERIOR RAMP APRON SLAB DETAIL, TRANSFORMER PAD DETAILS, AND LOADOUT AREA DETAILS.
- CONCRETE BARRIERS SHALL BE AT LEAST 42 in TALL AND OF A STANDARD DESIGN FOR TEMPORARY CONCRETE BARRIERS, SUCH AS FROM A STANDARD PLAN FOR A DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUPPORTING INFORMATION FOR REVIEW BY THE OWNER'S REPRESENTATIVE IN ACCORDANCE WITH SECTION 33 05 60 OF THE TECHNICAL SPECIFICATIONS.
- 4. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE BOLLARD DETAILS.

1" = 30' FEET

TITLE	
SITE LAYOUT AND PAVING PLA	١N

MOLYBDENUM REMOVAL WATER TREATMENT PLANT

CLIMAX MINE

PROJECT NO. 1912808404

PROJECT

REV. 0

DRAWING

![](_page_8_Figure_0.jpeg)

V V V

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. DEPENDING ON EXISTING CONDITIONS, THE APPLICATION OF SILT FENCE AND STRAW WATTLES WILL BE DETERMINED BY THE CONTRACTOR.
- 3. SILT FENCE SHALL BE INSTALLED AT THE LIMIT OF DISTURBANCE WHERE INDICATED.
- 4. THE CONTRACTOR SHALL PLACE 6 in OF TOPSOIL AND APPLY SEED WHEREVER EROSION CONTROL BLANKET IS SHOWN AND IN DISTURBED AREAS.
- 5. THE CONCRETE WASHOUT CAN BE RELOCATED WITH APPROVAL FROM THE OWNER'S REPRESENTATIVE.
- 6. EROSION AND SEDIMENT CONTROL REQUIREMENTS IN THE VICINITY OF THE UTILITY WELL ARE SHOWN ON DRAWING 840-1A-C-131.

FEET 1" = 40'

### PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

#### TITLE **EROSION AND SEDIMENT CONTROL**

PROJECT NO. DRAWING REV. of 1912808404 860-1A-C-121 0

![](_page_9_Figure_0.jpeg)

PROJECT NO.	REV.	of	DRAWING
1912808404	0	860	)-1A-C-130

![](_page_10_Figure_0.jpeg)

V²X

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. THIS DRAWING UTILIZES COLOR TO DEPICT SPECIFIC DESIGN ELEMENTS. THEREFORE, IF IT IS NOT PLOTTED OR PRODUCED WITH COLOR, THOSE ELEMENTS MAY NOT COME ACROSS AS DESIGNED.
- 3. UTILITY WATER PIPING IS 4 in IPS HDPE DR11 PIPE UNLESS OTHERWISE STATED.
- 4. WELLHEAD BUILDING DESIGN INFORMATION IS PROVIDED ON STRUCTURAL DRAWING 840-1A-S-101. UTILITY WATER WELL DESIGN INFORMATION IS PROVIDED ON DRAWING 840-1A-C-135.
- 5. TP9 NEW FRESH WATER WELL FOR UTILITY WATER.
- BASED ON A HYDROGEOLOGIC EVALUATION COMPLETED BY GOLDER, THE UTILITY WELLS ARE SPACED APPROXIMATELY 185 FEET APART TO LIMIT DRAWDOWN INTERFERENCES DURING WELL PUMPING.
- 7. REFER TO STRUCTURAL DRAWINGS FOR EXTERIOR DOOR LANDING PAD DETAIL.
- 8. THE CONTRACTOR SHALL PLACE 6 in OF TOPSOIL, INSTALL EROSION CONTROL BLANKET, AND APPLY SEED IN DISTURBED AREAS (EXCEPT THE ACCESS ROAD).
- 9. THE LOCATION OF THE EXISTING UTILITY WATER PIPELINE IS APPROXIMATE. THE PIPELINE SHOULD BE FIELD LOCATED AND THE TIE-IN LOCATIONS SHOULD BE VERIFIED.
- 10. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE BOLLARD DETAILS.
- 11. THE ACCESS ROAD ALIGNMENT MAY BE ADJUSTED BASED ON FIELD CONDITIONS AS APPROVED BY THE OWNER. ACCESS ROAD ELEVATIONS WILL BE DETERMINED IN THE FIELD.

0	30	60
1" = 30'		FEET

PROJECT	
CLIMAX MINE	
MOLYBDENUM REMOVAL	WATER TREATMENT PLANT

### TITLE UTILITY WATER WELL AND PIPING

PROJECT NO.	REV.	of	DRAWING
1912808404	0	840	D-1A-C-131

![](_page_11_Figure_0.jpeg)

24" HDPE 45 (24"-EV-XP1-	5.0 LF @ 5.8% -002)	(2	24"-EV-XP1-002)				— <mark> </mark> 10330 ≸ ≝
)PE )0.0%			24" HD	PE 32.9 LF @ 1.0%			H H H H H H H H H H H H H H H H H H H
				× ,			— <u>¥</u> 10310
0' D E 860-1A-C- <i>1</i> 30	2+00 VENTS POND RETUI	RN PIPELINE	3+0	0			<u>10300</u> 4+00
11 IA-C-152	IOR BLOCK 42" HDPE —			CDOT TYPE C INLET RIM EL. 10348.7 INV IN EL. 10343.0 (SW)			
36" LBOW	HDPE 5.0 LF @ 0.6% (36"-EV-XP1-983)	10360		AST PLANT ROAD		IG GROUND	24" HDPE 7
	45° ELBOW	10350		45° ELBO	w !	22.5° ELBOW	45° E
6" HDPE 39.2 I (36"-E ECCENTRIC I CONNE INV EI	LF @ 0.5% V-XP1-983) REDUCER ECT TO EX L 10344.65 NOTE 4	10340 NOILY 10330 NOILY 10320	U010340 N0140 H H H H H H H H H H H H H H H H H H H	24" 36" HDPE	24" HD HDPE 20.0 LF @ 11 14-C-152 ANCH	UPE 21.5 LF @ 2.5% ) 2.5%	24" HDPE 1!
	10" DIP —	10310	10310				
MOLY PR EVENTS I 30	DLY PROCESS BUILDING LOADOUT AREA EXISTING GROUND BOX CONNECTION 345.5 ECTRICAL CONDUIT DTE 5 COTE 5 6" DIP 25.7 LF @ 2.5% (42"-SO-XP1-983) 42" WYE (42"-SO-XP1-983) 42" WYE CONNECT TO EX INV EL 10344.0 NOTE 4 COCESS BUILDING T POND RETURN PIPE	10380 10370 10360 10350 10340 10320 0+68 O LINE	10380 $10370$ $10360$ $10360$ $10360$ $10340$ $10340$ $10330$ $0+00$ $SCALE 1" = 15'$ $860-1A$	SCAL - MOLY PROCESS BUILDIN FINISHED FLOOR EL 1036 - SUMP CONNECTION INV EL 10346.0 NOTE 3 TRENCH 45° ELBOW - 45° ELBOW - 30" HDPE 10.7 (30"-PD-XP1-17 - 30" HDPE 7.6 LF @ 0. (30"-PD-XP1-173) - MOLY SUMP TO 130	E 1" = 15' E 860-1A-0	STORMWA -1/30 103 COUND 103 103 103 103 103 103 103 103	Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second system       Image: Arrow of the second system         Image: Arrow of the second
	SEA	SPADO LICS		<b>Climax</b> Molyb A Freeport-McMoRan Cor JLTANT	C denum F npany	CLIMAX, COLO	DR STE 200
<b>PARED REVI</b>	EPB EWED APPROVED	4-11-22.0° Some Contraction of the second se	'	GOL MEMBER O	DER F WSP	(425 W. ALASKA I LAKEWOOD, CO. USA [+1] (303) 980-054 www.golder.com	80226 0

FINAL GRADE -

- 22.5° VERTICAL ELBOW

24" HDPE 9.2 LF @ 46.7%

(24"-EV-XP1-002)

#### NOTE(S)

10370

10360

<u>10350</u>

10340

— 6" DIP

24" HDPE 169.8 LF @ 1.0% —

22.5° ELBOW –

22.5° ELBOW -

– 24" HDPE 124.3 LF @ 1.0%

(24"-EV-XP1-002)

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. SEE PIPING AND EQUIPMENT DRAWINGS FOR PIPE CONTINUATIONS IN BUILDINGS AND STRUCTURES.
- 3. SEE STRUCTURAL DRAWINGS FOR WALL AND FLOOR PENETRATION DETAILS.
- 4. ELECTROFUSION CONNECTIONS ARE ACCEPTABLE AT THE LOCATIONS INDICATED AND WHERE OTHERWISE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- 5. ELECTRICAL CONDUIT SHOWN FOR REFERENCE. REFER TO ELECTRICAL DRAWINGS.

![](_page_11_Figure_9.jpeg)

860-1A-C-132

0

1912808404

![](_page_12_Figure_0.jpeg)

1912808404	0	860-1A-C-13	
PROJECT NO.	REV.	of	DRAWING

0	15	30
1" = 15'		FEET
0	20	40
1" = 20'		FEET

![](_page_12_Figure_5.jpeg)

![](_page_13_Figure_0.jpeg)

- 2. SEE PIPING AND EQUIPMENT DRAWINGS FOR PIPE CONTINUATIONS IN BUILDINGS AND
- 3. SEE STRUCTURAL DRAWINGS FOR WALL AND FLOOR PENETRATION DETAILS.
- 4. ELECTROFUSION CONNECTIONS ARE ACCEPTABLE AT THE LOCATIONS INDICATED AND WHERE OTHERWISE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- 6. VALVE SHALL BE A 4" ACRIS PFA-LINED BUTTERFLY VALVE, 17-4 STAINLESS STEEL SHAFT/DISC OVERMOLDED WITH PFA, VITON BACKUP LINER, MASTIC-COATED FOR BURIED SERVICE, WITH BONNETED EXTENSION, OR OWNER-APPROVED ALTERNATE. EXTENSION SHALL BE STEEL CONSTRUCTION WITH EPOXY COATING FOR BURIED SERVICE. HANDWHEEL GEAR SHALL BE LOCATED 3 ft ABOVE FINAL GRADE.
- 7. THE CONTRACTOR SHALL INSTALL INSULATION AT LEAST TWO PANELS WIDE, CENTERED OVER THE PIPE WHEREVER THE PIPE DEPTH IS LESS THAN 9 ft. INSTALLATION SHALL BE
- 8. ELECTRICAL CONDUIT SHOWN FOR REFERENCE. REFER TO ELECTRICAL DRAWINGS

PROJECT NO.	REV.	of	DRAWING
1912808404	0	86	0-1A-C-134

![](_page_14_Figure_0.jpeg)

#### NOTES

- 1. STEEL CASINGS SHALL BE 304 STAINLESS STEEL WITH A MINIMUM WALL THICKNESS OF 0.188".
- 2. GROUT SHALL BE NEAT CEMENT OR CEMENT BENTONITE MEETING THE FOLLOWING SPECIFICATIONS:
  - A. NEAT CEMENT: A SLURRY OF CEMENT AND WATER WITH THE FOLLOWING
    - MIX RATIOS: A.1. 7 GALLONS OF WATER PER 94-POUND SACK IF THE SLURRY IS PUMPED INTO THE WELL
    - A.2. 6 GALLONS OF WATER PER 94-POUND SACK IF THE SLURRY IS POURED INTO THE ANNULUS
    - FLY ASH MAY BE BLENDED WITH PORTLAND CEMENT FOR GROUTING WELLS. THE WATER-CEMENT RATIO FOR THESE GROUT SLURRIES SHALL NOT EXCEED 5 GALLONS OF WATER PER 86-POUND SACK OF BLENDED CEMENT.
  - B. CEMENT BENTONITE: A SLURRY OF CEMENT, BENTONITE, AND WATER. THE DRY WEIGHT OF BENTONITE ADDED SHALL NOT EXCEED 8% OF THE CEMENT DRY WEIGHT. THE VOLUME OF ADDED WATER USED IN PREPARING THESE SLURRIES IS LIMITED TO THREE QUARTERS (0.75) OF A GALLON PER 94-POUND SACK OF CEMENT FOR EACH 1% OF BENTONITE ADDED.
- 3. THE STATIC WATER LEVEL SHALL BE MEASURED IN THE FIELD.
- WELL COMPLETION MATERIAL MAY VARY AS DETERMINED IN THE FIELD. 4.
- 5. THE BOTTOM OF THE WELL AND FINAL PLACEMENT OF THE SCREEN WILL BE DETERMINED IN THE FIELD BASED ON LITHOLOGY AND DEPTH TO WATER.
- 6. PUMP POWER SUPPLY SHALL BE CORE DRILLED AS NECESSARY.
- 7. THE CONTRACTOR SHALL FILE THE WELL CONSTRUCTION, PUMP INSTALLATION, AND WELL TEST REPORTS TO MEET STATE REGULATIONS.
- 8. THE PUMP SHALL BE THE MODEL SHOWN OR AN OWNER-APPROVED ALTERNATE.

### PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

#### TITLE UTILITY WATER WELL DETAILS

PROJECT NO.	REV.	of	DRAWING
1912808404	0	840	D-1A-C-135

![](_page_15_Figure_0.jpeg)

LEGEND

ROOF DRAIN - 12 in PIPE

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. ROOF DRAIN PIPE SHALL BE ADS N-12, WATERTIGHT WITH SMOOTH INTERIOR WALL, OR APPROVED EQUAL.
- 3. REFER TO MECHANICAL DRAWINGS FOR CONTINUATION. CONTRACTOR SHALL USE A TRANSITION COUPLING APPROVED BY THE OWNER'S REPRESENTATIVE.
- 4. THIS DRAWING USES COLOR TO DEPICT SPECIFIC DESIGN ELEMENTS. THEREFORE, IF IT IS NOT PLOTTED OR PRODUCED WITH COLOR, THOSE ELEMENTS MAY NOT COME ACROSS AS DESIGNED.

0	20	40
1" = 20		FEET

PROJECT			
CLIMAX MINE			
MOLYBDENUM REMOVAL	WATER	TREATMENT	PLANT

### TITLE MOLY PROCESS BUILDING ROOF DRAIN SYSTEM

0

![](_page_16_Figure_0.jpeg)

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. WHERE STRAW WATTLES MEET, THEY SHALL BE INSTALLED IN DIRECT CONTACT WITH A MINIMUM 1 ft OVERLAP. BEGIN INSTALLING STRAW WATTLES BY EXCAVATING A 3 in DEEP BY 9 in WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE TRENCH. SECURE STRAW WATTLES WITH 24 in LONG WOOD STAKES EVERY 4 ft AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE STRAW WATTLE, LEAVING AT LEAST 3 in OF STAKE EXTENDING ABOVE THE STRAW WATTLE.

### PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

#### TITLE CIVIL DETAILS SHEET 1

PROJECT NO.	REV.	of	DRAWING
1912808404	0	860	)-1A-C-151

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_2.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_19_Figure_0.jpeg)

![](_page_19_Figure_9.jpeg)

![](_page_19_Figure_10.jpeg)

STRUCTURAL FILL

Climax Molybdenum FREMONT PASS [®] A Freeport-McMoRan Company CONSULTANT

![](_page_19_Picture_12.jpeg)

## CLIMAX, COLORADO

DENVER OFFICE 7425 W. ALASKA DR. STE 200 LAKEWOOD, CO. 80226 USA [+1] (303) 980-0540

www.golder.com

### NOTE(S)

- 1. REFER TO DRAWING 860-1A-C-102 FOR LEGEND AND ABBREVIATIONS.
- 2. THE TOP OF DRAINAGE PIPING MUST BE AT OR BELOW THE TOP OF THE FOOTING.
- 3. REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING.

![](_page_19_Figure_21.jpeg)

![](_page_19_Figure_22.jpeg)

![](_page_19_Figure_23.jpeg)

SECTION

![](_page_19_Figure_25.jpeg)

### PROJECT CLIMAX MINE MOLYBDENUM REMOVAL WATER TREATMENT PLANT

#### TITLE **CIVIL DETAILS SHEET 4**

PROJECT NO.	REV.	of	DRAWING
1912808404	0	860	)-1A-C-154

![](_page_20_Figure_0.jpeg)

BJP	JEO	EPB	

- 1. REFER TO DRAWING 860-1-C-101 FOR LEGEND AND ABBREVIATIONS.
- 2. THE PRE-CAST VAULT SHALL BE CONSTRUCTED WITH PIPE OPENINGS TO ALLOW INSTALLATION OF THE 4 in HDPE PIPE PRIOR TO PLACEMENT OF THE VAULT. AFTER PLACEMENT, THE PIPE OPENINGS SHALL BE FILLED WITH A CONCRETE MIX APPROVED BY
- 3. EXTENDABLE LADDER SHALL BE PIPELINE PRODUCTS VL-100 OR OWNER-APPROVED ALTERNATE. FINISH MUST BE APPROVED BY THE OWNER.
- 4. PROVIDE AT LEAST 1.5 ft OF STRAIGHT-LINE PIPE UPSTREAM OF THE FLOW METER.
- 5. VALVE SHALL BE PROVIDED WITH T-HANDLE OR KEY FOR OPERATION FROM THE
- 6. CONCRETE BARRIERS SHALL BE AT LEAST 42 IN TALL AND OF A STANDARD DESIGN FOR TEMPORARY CONCRETE BARRIERS, SUCH AS FROM A STANDARD PLAN FOR A DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUPPORTING INFORMATION FOR REVIEW BY THE OWNER'S REPRESENTATIVE IN ACCORDANCE WITH SECTION 33 05 60 OF THE TECHNICAL SPECIFICATIONS.
- 7. THE INDICATED PORTION OF THE DETAIL IS ONLY APPLICABLE BELOW ELEVATION 10329.3 (1.5 FEET ABOVE THE UNDERDRAIN PIPE OUTLET ). ABOVE ELEVATION 10329.3, TIE INTO

# MOLYBDENUM REMOVAL WATER TREATMENT PLANT

PROJECT NO.	REV.	of	DRAWING
1912808404	0	860-1A-C-155	