

Copper Flat Project



Process Facility Containment Report

Prepared For:



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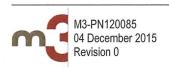
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PROCESS FACILITY CONTAINMENT REPORT COPPER FLAT PROJECT

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1 INTRODUCTION

The Copper Flat Project is located in South Central New Mexico, near the town of Hillsboro, approximately 150 miles south of Albuquerque, and approximately 20 miles southwest of Truth or Consequences (straight-line distances) as illustrated in Drawing (Dwg.) 000-CI-001. The Project is owned and operated by New Mexico Copper Corporation (NMCC), a wholly owned subsidiary of THEMAC Resources Group Limited.

The State of New Mexico has promulgated regulations pertaining to groundwater protection at copper mining facilities (New Mexico Administrative Code Title 20, Chapter 6, Part 7 [20.6.7 NMAC], the "Copper Rule"), the stated purpose of which is "to control discharges of water contaminants specific to copper mine facilities and their operations to prevent water pollution."

This report provides the design criteria, location, and capacity of containment systems for the process areas identified in Section 2 of this report to comply with 20.6.7 NMAC, Sections 22, 23, and 26. This report excludes design considerations for the Impacted Stormwater Impoundments, Process Water Reservoir, and Tailings Storage Facility (TSF), i.e., the tailings impoundment, underdrain collection pond, surge pond and the secondary containment trench from the processing facility to the TSF, which have been completed by others and are reported separately.



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2 PROCESS AREA IDENTIFICATION

Pursuant to 20.6.17.22 and .23, tanks and pipelines for new construction as proposed for the Copper Flat Project are required to be designed with adequate containment to prevent migration of process solutions to groundwater. Specific areas of the project for which the containment designs are described in this report include the following areas with tanks that require secondary containment.

- Concentrator Area
- Truck Shop
- Fuel Station
- Process Water Storage Tank

This report also describes containment for the following areas that contain process equipment and/or liquids that require containment to prevent release to the environment.

- Crusher
- Coarse Ore Stockpile and Ore Reclaim Tunnel
- Truck and Equipment Washing Unit
- Analytical Laboratory
- Domestic Sewage Treatment Facility

Discussion of containment of facilities related to the tailings storage facility (TSF) (tailings pipelines, tailings storage facility), impacted stormwater impoundments, and the process water reservoir is not included in this report.

The following containment areas will be covered by a roof and therefore will not collect appreciable precipitation.

- Grinding
- Copper Flotation
- Molybdenum Flotation
- Copper Filtration
- Diesel Reagents
- Flotation Reagents
- Sodium Hydrosulfide Reagents
- Truck Shop Tank Farm
- Assay Laboratory
- Wastewater Treatment Facility

The following areas will be uncovered and will therefore collect precipitation. Monthly inspections of these facilities are required by 2.6.7.22 and .23 NMAC. However, after occurrence of a significant precipitation event, the collection sumps will be inspected and collected water will be evacuated within 30 days to maintain required containment capacity. Stormwater evacuated from these areas will be added to the process reservoir or process stream for disposal.

- Copper-Moly Thickening
- Copper Thickening
- Lime Reagents
- Wheel Wash
- Fuel Station
- Truck and Equipment Washing Unit
- Process Water Storage Tank



3 BASIS OF DESIGN

Tanks and pipelines for the Copper Flat Project are designed in accordance with NMAC 20.6.7.23 (A). Most process pipelines are located within buildings with concrete floors sloped to drain to containment sumps. Process pipelines located outside of buildings will have secondary containment for management of leaks and spills. Pipelines are designed in accordance with the following specifications.

Construction Materials	20.6.7.23.A.(1).(a) NMAC	Impermeable materials compatible with contents and resistant to corrosion or degradation
Leak Detection	20.6.7.23.A.(1).(b) NMAC	Mechanism for monitoring integrity
Containment	20.6.7.23.A.(1).(c) NMAC	Secondary containment provided by building floors, double-walled piping, or lined trenches.

Tanks containing process solutions, reagents, chemicals, and petroleum products are located within a building area or on concrete containment pads with curbs or stem walls that are designed to be impermeable to the contents of the contained tanks. Joints between containment curbs and floors will be sealed with approved water stops to seal against leaks. Tanks are designed to contain the stored material, prevent overflows, and are resistant to corrosion or degradation. Tanks for this project (Table 1) are above ground and designed in accordance with the following specifications, except where specifically noted.

Construction Materials	20.6.7.23.A.(2).(a) NMAC	Impermeable materials compatible with contents and resistant to corrosion or degradation
Foundation	20.6.7.23.A.(2).(b) NMAC	Constructed concrete foundation
Containment	20.6.7.23.A.(2).(c) and 20.6.7.23.A.(2).(d) NMAC	Concrete containment to prevent run-on. Containment volume sized to contain 110% of volume of largest tank in the enclosed area while accounting for unusable volume with the containment due to the presence of other tanks, equipment, pedestals, etc.

The majority of process solution pipelines will be placed inside secondary containment for tanks and process buildings. When process pipelines cannot be positioned within secondary containment for tanks or process buildings, the pipe will either be double walled and positioned to drain to an established containment area, or secondary containment specific to the pipeline will be constructed.

Containment sumps will be sealed with water stops at joints and coatings applied where necessary to provide a watertight seal in order to prevent leaking solution to the environment. A list of containment sumps and the destination of liquids collecting in the sumps is provided as Table 2.



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4 PROCESS FACILITY CONTAINMENT AREAS

Containment of process solutions, reagents, and other potential groundwater contaminants associated with the Copper Flat Project is delineated below by process area. The areas described include the primary mineral processing circuit and other ancillary areas that are essential to the operation of the project, such as vehicle washing and maintenance, fueling operations, assaying, and sanitary wastewater treatment. The portions of the project area addressed in this report are identified in Dwg. 0000-CI-008. Containment of process solutions is discussed below by process area and by location of ancillary facilities. A list of tanks designed for installation at the Copper Flat Project is presented as Table 1. Table 1 provides location, dimensions, material of construction, and capacity of the tanks in gallons. These tank capacities are compared with the capacities of containments in which they are located to demonstrate adequate containment.

Containment is provided around tanks and in areas with process piping to prevent loss of contents, control leaks and spills, and prevent release of solutions to the surface or ground water. Concrete containment walls are used to contain leaks and spills where tanks are present. The net volume of the containment is designed to contain at least 110 percent of the volume of the largest tank or series of connected tanks in the system. Any leakage, spillage, or wash water within a containment area is directed by sloped concrete floors to a watertight drainage sump. A list of the sumps present in each of the containment areas and the disposition of the captured solutions is presented in Table 2. The sumps listed in Table 2 are containment sumps.

4.1 CONCENTRATOR AREA

Drawing 3000-FS-000 summarizes the Copper Flat ore process flowsheet. Processing of the ore begins with the Crusher. Crushed ore is conveyed to the Coarse Ore Stockpile to be used as mill feed. A concrete tunnel beneath the Coarse Ore Stockpile is used to reclaim the crushed ore and convey it to the Grinding Area. Coarse ore is combined with water in the grinding mills to create a slurry that flows by gravity to Copper Flotation. Concentrate containing copper (Cu) and molybdenum (Moly) is pumped to the Copper-Molybdenum Thickening area and then to the Molybdenum Flotation area for separation of Copper and Moly. Moly Concentrates are filtered, dried, and bagged for shipment in this area. The remaining Copper concentrate is pumped to the Copper Thickening area where excess water is removed. Thickened Copper concentrates are pumped to the Copper Filtration area for dewatering prior to loading onto trucks for offsite shipment. The wheels of trucks and trailers loaded with Copper concentrate are washed In the Wheel Wash area to prevent the loss of concentrate and contamination of roadways.

Chemicals used in the process described above are stored in the Reagents area. Several containment areas are present in the Reagent area to isolate chemicals that may be incompatible or require special handling. Containment areas in the Reagents area include Lime Containment, Diesel Containment, General Reagents Containment, and Sodium Hydrosulfide (NaHS) Containment. The sumps are equipped with a dedicated sump pump to remove the contained liquids and transfer them to an appropriate location in the process.

An overall plan of the Concentrator Area is provided in Dwg. 0000-GA-050. Locations of tanks and sumps are shown on the drawing along with flow arrows depicting the slope of the floor surfaces to demonstrate flows to the collection sumps for the identified areas. A table on the drawing provides the volume of the largest tank in a given area and compares it with the capacity of the containment sump in which it resides.

The concentrator perimeter will be enclosed by curbing to prevent migration of process solutions away from the concentrator building. Unless specified below, general containment curbing at the perimeter of the concentrator will be at least 4 inches tall.



4.1.1 Crushing Area

The Crusher Area (Dwg. 0000-CI-008) does not contain any tanks. The crusher takes large blocks of ore recovered from the mine pit and crushes it to sizes that can be efficiently handled in the grinding area. Crushing is a dry process, but the crusher dump pocket is open to precipitation. Water is used in the crusher to suppress dust during the transfer of crushed ore to the conveying system to feed the Coarse Ore Stockpile. Water is used to wash down areas within the crusher that accumulate dust and dirt. Precipitation and the moisture content of the ore also contribute minor amounts of water that will collect at the bottom of the crusher structure.

A collection sump located in the lowest level of the concrete crusher facility collects water within the primary crusher and pump it to the Coarse Ore Reclaim Tunnel sump using a dedicated sump pump. The sump has a capacity of approximately 560 gallons. The sump pump will be configured for automatic start when solution is detected and the capacity of the crusher sump is appropriate for the potential solution flows.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Crushing Area					
No Storage Tanks	na	na	na	na	
	560				

4.1.2 Coarse Ore Stockpile and Ore Reclaim Tunnel Area

The Coarse Ore Stockpile and Reclaim Tunnel Area (Dwg. 0000-CI-008) does not contain any tanks. The Coarse Ore Stockpile accumulates crushed ore for delivery to the grinding area of the concentrator for processing. An existing concrete Reclaim Tunnel lies beneath this area and will be used to recover crushed ore at a controllable rate to supply feed to the grinding circuit. Process water and fresh water piping to the Concentrator pass through the Reclaim Tunnel.

Water used for wash down and dust suppression, as well as the water pumped from Crusher sump, drains to a sump in the bottom of the Reclaim Tunnel. Process water or fresh water solution coming from piping in the tunnel and moisture from precipitation or excess water contained in the crushed ore will drain to the Reclaim Tunnel sump.

A dedicated sump pump will be used to transfer collected water from the Reclaim Tunnel sump to the concentrator through the Primary Cyclone Feed system. The Reclaim Tunnel Sump has a capacity of approximately 6,400 gallons. The sump pump will be configured for automatic start when solution is detected and the capacity of the Reclaim Tunnel sump is appropriate for the potential solution flows. The installed pumping capacity will be sufficient to evacuate the sump at a flow rate equal to the rate that may be generated by a broken water line.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Reclaim Tunnel Area					
No Storage Tanks	na	na	na	na	
	6,400				



4.1.3 Grinding Area

A conveyor from the Reclaim Tunnel delivers crushed ore to the semi-autogenous grinding (SAG) mill. Water is added to the SAG mill to begin the grinding process. Discharge from the SAG mill is pumped to the Primary Cyclone classifiers in closed circuit with the Ball Mill. The slurry is circulated through the Ball Mill until the particles are fine enough to flow out of the top of the cyclones and on the Rougher Flotation Conditioning Tank. A portion of the circulating slurry will go through a gravity concentration circuit to recover separable gold prior to fine grinding.

The only tank in the Grinding Area (Dwg. 0000-GA-050) is the Gravity Concentrate Tank. This tank accumulates concentrate from gravity gold separation and will typically be filled with 8,000 gallons of wet solids. The Grinding Area containment volume is 200,000 gallons. The large containment volume in this area is not based on required capacity but rather results from requirements for setup and configuration of the grinding equipment. Therefore, the resulting containment capacity is more than adequate to contain the contents of the gravity concentrate tank and any operating upsets or maintenance conditions that may occur in the grinding circuit or elsewhere in the concentrator area.

All leakage or spillage of liquids or water used to wash down equipment and floors in this area reports to the Grinding Area Containment sump. The sump is equipped with a dedicated pump and automatic start/stop controls. Liquids accumulated in this sump are pumped back into the Primary Cyclone Feed system.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL		
Concentrator: Grinding Area Containment						
Gravity Concentrate Tank	12.00	9.50	8,000	Carbon Steel		
	200,000					

4.1.4 Copper Flotation Area

Copper Flotation (Dwg. 0000-GA-050) includes the Rougher Conditioning Tank, rougher flotation cells, and other equipment to recover the sulfide minerals in the process slurry. The floor in the Copper Flotation area is sloped to facilitate gravity flow from one flotation cell to the next.

The floor slopes are directed to the Copper Flotation Area sump. Solutions accumulated in the Copper Flotation Area sump are returned to the Rougher Flotation Conditioning Tank. The sump is equipped with a dedicated pump and automatic start/stop control.

The largest tank the Copper Flotation Area is the Rougher Flotation Conditioning Tank with a capacity of 69,300 gallons, which requires a containment capacity of approximately 76,200 gallons at 110% of capacity. The net containment volume in the Copper Flotation Area is 79,000 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Concentrator: Copper Flotation Area Containment					
Rougher Flotation Conditioning Tank	22.00	25.00	69,300	Carbon Steel	
	79,000				



4.1.5 Copper-Molybdenum Thickening Area

The Copper-molybdenum (Copper-Moly) Thickening Area (Dwg. 0000-GA-050) recovers water from the rougher flotation concentrate in preparation for separating the moly into a saleable product. The area includes the flocculant mixing and distribution system, Copper-Moly thickener, and Copper-Moly thickener overflow tank.

The floor slopes are directed to the Copper-Moly Thickening Area sump. Solutions accumulated in the Copper-Moly Thickening Area sump are returned to the Copper-Moly Separation Conditioning Tank. The sump is equipped with a dedicated pump and automatic start/stop control.

The largest vessel is the Copper-Moly Concentrate Thickener at a capacity of 17,700 gallons., which requires a containment capacity of approximately 19,500 gallons at 110% of capacity. The designed containment volume is 29,000 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Concentrator: Copper-Moly Thickening Area Containment					
Flocculant Mix Tank	12.00	7.25	6,100	Carbon Steel	
Flocculant Distribution Tank	12.00	7.25	6,100	Carbon Steel	
Copper-Moly Concentrate Thickener	20.00	7.50	17,700	Carbon Steel	
Copper-Moly Concentrate Thickener Overflow Tank	4.00	10.67	1,000	Carbon Steel	
	29,000				

4.1.6 Molybdenum Flotation Area

Molybdenum (Moly) Flotation (Dwg. 0000-GA-050) separates the moly from the copper concentrate and refines it through a series of flotation and cleaning steps into a saleable product that is filtered, dried, and bagged for shipment to the buyer. The area includes the copper-moly separation conditioning tank, moly filter feed tank, and moly filter cloth wash tank.

The floor slopes are directed to the Moly Flotation Area sump. Solutions accumulated in the Moly Flotation Area sump are returned to the Copper-Moly Separation Conditioning Tank. The sump is equipped with a dedicated pump and automatic start/stop control.

The largest vessel is the Moly Filter Feed Tank at a capacity of 2,000 gallons., which requires a containment capacity of approximately 2,200 gallons at 110% of capacity. The designed containment volume is 8,300 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Concentrator: Moly Flotation Area Containment					
Copper-Moly Separation Conditioning Tank	4.00	10.67	1,000	Carbon Steel	
Moly Filter Cloth Wash Tank	4.00	6.00	560	Carbon Steel	
Moly Filter Feed Tank	8.00	6.00	2,000	Carbon Steel	



Containment Volume (gallons)	8,300
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4.1.7 Copper Thickening Area

The Copper Thickening Area (Dwg. 0000-GA-050) receives the copper concentrate from the moly flotation circuit and dewaters it in preparation for filtration to make a shippable concentrate. The area includes a stock tank for storage of thickened concentrates to act as surge capacity for production. Copper Filtrate tanks receive water recovered from the filters for recycling through the thickener.

The floor slopes are directed to the Copper Thickening Area sump. Solutions accumulated in the Copper Thickening Area sump are returned to the Copper Thickener feed box. The sump is equipped with a dedicated pump and automatic start/stop control.

The largest vessel is the Copper Concentrate Stock Tank at a capacity of 41,760 gallons., which requires a containment capacity of approximately 46,000 gallons at 110% of capacity. The designed containment volume is 50,000 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL
Conce	ntrator: Copper Thicke	ening Area Contai	nment	
Copper Concentrate Thickener Overflow Tank	4.00	4.00	375	Carbon Steel
Copper Concentrate Stock Tank	17.00	25.00	41,760	Carbon Steel
Copper Filtrate Tank	4.00	4.00	375	Carbon Steel
Copper Filtrate Tank	4.00	4.00	375	Carbon Steel
Copper Concentrate Filter Cloth Wash Tank	4.00	6.00	560	Carbon Steel
Containment Volume (gallons)			50,000	

4.1.8 Copper Filtration Area

The Copper Filtration Area (Dwg. 0000-GA-050) does not contain any tanks. Thickened copper concentrate from the stock tank is pumped to a pair of plate-and-frame filters that produce a filter cake suitable for bulk shipment. The water recovered from the filters returns to the copper thickener via the Copper Filtrate Tanks that are located with the thickener. The filter cake drops to the floor in the Concentrate Loadout area and is loaded into concentrate trailers for shipment offsite.

The floor slopes are directed to the Copper Loadout Area sump. Solutions accumulated in the Copper Loadout Area sump are returned to the Copper Thickener feed box. The sump is equipped with a dedicated pump and automatic start/stop control.

The designed containment in the Copper Filtration Area is approximately 25,000 gallons.

TANK DESCRIPTION	TANK DIAMETER	TANK HEIGHT	TANK VOLUME	TANK	
	(ft)	(ft)	(gallons)	MATERIAL	
Concentrator: Copper Filtration and Concentrate Loadout Area Containment					



No Storage Tanks	na	na	na	na
	Containmen	Containment Volume (gallons)		

4.1.9 Wheel Wash Area

The Wheel Wash Area (Dwg. 0000-GA-050) consists of the wheel wash tank and pump area and a concrete containment area in which the wheels of the concentrate trucks are washed to remove adhering copper concentrates before driving off onto the site roads.

The floor slopes are directed to the Wheel Wash Area sump. Solutions accumulated in the Wheel Wash Area sump are returned to the Copper Thickener feed box. The sump is equipped with a dedicated pump and automatic start/stop control.

The largest vessel is the Wheel Wash Surge Tank at a capacity of 560 gallons., which requires a containment capacity of approximately 620 gallons at 110% of capacity. The designed containment volume is 15,000 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Concentrator: Wheel Wash Area Containment					
Wheel Wash Surge Tank 4.00 6.00 560 Carbon Ste					
Containment Volume (gallons)			15,000		

4.1.10 Reagents Area

The Reagents Area (Dwg. 0000-GA-050) includes equipment and storage tanks to contain reagents used in the process. This area is configured into four separate containments to separate and manage Lime Reagent, Diesel Reagent, Flotation Reagent, and Sodium Hydrosulfide (NaHS) Reagent.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
C	oncentrator: Lime R	eagent Containmen	t		
Milk of Lime	12.00	23.67	20,000	Carbon Steel	
Milk of Lime	12.00	23.67	20,000	Carbon Steel	
Containment Volume (gallons)			30,000		
Co	Concentrator: Diesel Reagent Containment				
No. 2 Diesel Storage Tank	8.00	6.00	2,000	Carbon Steel	
Containment Volume (gallons)			4,800		
Concentrator: Flotation Reagent Containment					



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Pax Mix Tank	8.00	10.67	4,000	Carbon Steel
Pax Distribution Tank	8.00	10.67	4,000	Carbon Steel
MIBC Storage Tank	8.00	6.00	2,000	Carbon Steel
AERO 238 Mix Tank	8.00	10.67	4,000	Carbon Steel
AERO 238 Distribution Tank	8.00	10.67	4,000	Carbon Steel
Moly Collector Mix Tank	8.00	6.00	2,300	Carbon Steel
Moly Collector Distribution Tank	8.00	6.00	2,300	Carbon Steel
	Containment Volume (gallons)			
Concentra	ator: Sodium Hydro:	sulfide Reagent Con	tainment	
NaHS Mix Tank	8.00	10.67	4,000	Stainless Steel
NaHS Distribution Tank	8.00	10.67	4,000	Stainless Steel
NaHS Stock Tank	8.00	10.67	4,000	Stainless Steel
Containment Volume (gallons)			4,900	

4.1.10.1 Lime Reagent Area

The Lime Reagent Area (Dwg. 0000-GA-050) consists of a Lime Silo, Lime Slaker, and Milk of Lime tanks to receive pebble lime from the supplier and convert it to a lime slurry that can be used to raise the pH of process solutions.

The floor slopes are directed to the Lime Reagent Area sump. Solutions accumulated in the Lime Reagent Area sump are returned to the milk of lime distribution box. The containment will be inspected on a regular basis per regulatory requirements and solutions evacuated immediately as observed and the source will be investigated and addressed. Solutions will be evacuated from the containment using a portable pump.

The largest vessels are the Milk of Lime Tanks at a capacity of 20,000 gallons., which requires a containment capacity of approximately 22,000 gallons at 110% of capacity. The designed containment volume is 30,000 gallons.

4.1.10.2 Diesel Containment Area

Diesel fuel is used as a reagent in the flotation process. It is stored in the Diesel Tank in the Diesel Containment (Dwg. 0000-GA-050) and has its own containment area and sump.

The floor slopes are directed to the Diesel Containment Area sump. Leaked or spilled diesel fuel accumulating in the sump is pumped out using a portable pump and deposited in the Used Oil Storage Tank (Sec. 4.2). The containment will be inspected on a regular basis per regulatory requirements and solutions evacuated as soon as observed, and the source will be investigated and addressed.

The Diesel Containment Tank has a capacity of 2,000 gallons., which requires a containment capacity of approximately 2,200 gallons. The designed containment volume is 4,800 gallons.



4.1.10.3 Flotation Reagent Area

The Flotation (General) Reagents Area contains tanks with compatible aqueous reagents that are used in the process.

The floor slopes are directed to the Flotation Reagent Area sump. Solutions accumulating in the sump are pumped to the tailings box to be combined with tailings and report to the TSF. The containment will be inspected on a regular basis per regulatory requirement and solutions evacuated immediately as observed and the source will be investigated and addressed. The sump is equipped with a dedicated pump and manual start/stop control.

The largest vessels are the Aero 238 Tanks at a capacity of 4,000 gallons., which requires a containment capacity of approximately 4,400 gallons. The designed containment volume is 10,200 gallons.

4.2 TRUCK SHOP

The Truck Shop is located south east of the concentrator (Dwg. 0000-CI-008) and provides maintenance services for the mining and mobile equipment fleet. Tanks will be constructed at the truck shop (Dwg. 1010-AR-012) to store required maintenance fluids such as: motor oil, gear oil, hydraulic oil, engine coolant, and used oil and coolant for recycling.

The floor slopes are directed to the Truck Shop Tank Farm Area sump. Leaked or spilled diesel fuel accumulating in the sump is pumped out using a portable pump and deposited in the Used Oil Storage Tank for recycling. The containment will be inspected on a regular basis per regulatory requirement and solutions evacuated immediately as observed and the source will be investigated and addressed. Solutions will be evacuated from the containment using a portable pump.

The Used Oil Storage Tank has a capacity of 2,000 gallons., which requires a containment capacity of approximately 2,200 gallons. The designed containment volume is 5,600 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL		
Truck Shop Tank Farm Containment						
Used Oil Storage Tank	8.00	6.00	2,000	Carbon Steel		
Used Anti-Freeze Storage Tank	8.00	6.00	2,000	Carbon Steel		
ATF Fluid Storage Tank	6.00	6.00	1,000	Carbon Steel		
Hydraulic Fluid Storage Tank	6.00	6.00	1,000	Carbon Steel		
Engine Oil Storage Tank	6.00	6.00	1,000	Carbon Steel		
Gear Oil Storage Tank	6.00	6.00	1,000	Carbon Steel		
Anti-Freeze/Coolant Storage Tank	6.00	6.00	1,000	Carbon Steel		
	Containm	ent Volume (gallons)	5,600			

4.3 FUEL STATION

A Fuel Station with secondary containment for project vehicles will be constructed on the haulage road west of the concentrator (Dwg. 0000-CI-008). Tanks, pumps, and piping associated with the fuel station will be positioned inside



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the containment facility (Dwg. 1010-GA-010). During fueling and fuel offloading operations, vehicles and equipment will be parked on concrete pads that are sloped to drain into solution containment sumps. Liquid from the sumps will be evacuated into a portable used oil tank for transfer to the used oil holding facility for recycling.

The floor slopes at the fueling areas and within the tank containment are directed to the Fuel Station Area sumps. Solutions accumulated in the Fuel Station Area sumps are pumped out and transported offsite by a Certified used oil recycler. The containment will be inspected on a regular basis per regulatory requirement and solutions evacuated immediately as observed and the source will be investigated and addressed. Solutions will be evacuated from the containment using a portable pump.

The largest vessel is the Off Road Diesel Fuel Storage Tank at a capacity of 100,000 gallons., which requires a containment capacity of approximately 110,000 gallons at 110% of capacity. The designed containment volume is 119,000 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Fuel Station Containment					
Off Road Diesel Fuel Storage Tank	28.00	24.00	100,000	Carbon Steel	
On Road Diesel Storage Tank	12.00	12.00	10,000	Carbon Steel	
Gasoline Storage Tank	12.00	12.00	10,000	Carbon Steel	
Urea Tank	4.00	6.00	560	Carbon Steel	
Urea Tank	4.00	6.00	560	Carbon Steel	
Containment Volume (gallons)			119,000		

4.4 TRUCK AND EQUIPMENT WASHING UNIT

A Truck and Equipment Washing Unit (Truck Wash) will be constructed along the haulage road from the mine to the Truck Shop (Dwg. 0000-CI-008). This facility is designed in accordance with 20.6.7.26 NMAC. The washing unit includes a concrete pad on which equipment will be parked for washing (Dwg. 1010-GA-001). The pad will be sloped to drain into a concrete basin for separating water, solids, oil, and grease. The water from the basin will be recycled and reused for washing equipment. Oil and grease will be skimmed from the settling basin and stored in sealed drums for proper disposal. After draining, sediment will be removed from the basin and either loaded directly into a dump truck for disposal at tailings or stored on a concrete pad adjacent to the facility for re-handling and disposal at the TSF. The settling basin will be designed to provide at least 12 inches of freeboard during operation. During periods of precipitation, excess water will be removed from the settling basin by a water truck and transported to the a process water impoundment for reuse.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Equipment Wash Pad					
Settling Basin	40' W x 50' L x 3' D		50,000	Concrete	
Containment Volume (gallons)		50,000			



4.5 ASSAY LABORATORY

The Assay Laboratory (Dwg. 0000-CI-008) uses a variety of reagents for sample process and analytical testing of mine and process samples. Sinks and drains in areas with potential chemical use are piped to a below-ground holding tank (Dwg. 3010-AR-003) so that they are not commingled with sanitary wastes from the building's restrooms and breakroom area. The chemical holding tank will be installed in a concrete, water tight vault as secondary containment.

The floor slopes in the Assay Lab Chemical Waste tank containment are directed to a collection sump. Solutions accumulated in the Assay Lab Chemical Waste sump are pumped out and taken to the TSF or transferred to a portable tank and removed from site by a certified disposal contractor. The containment will be inspected on a regular basis and solutions evacuated immediately as observed and the source will be investigated and addressed. Solutions will be evacuated from the containment using a portable pump.

The only vessel is the Chemical Waste Tank at a capacity of 1,200 gallons., which requires a containment capacity of approximately 1,300 gallons at 110% of capacity. The designed containment volume is 7,500 gallons.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL
Assay Lab Chemical Waste Tank	4.00	14.00	1,200	Polypropylene
Containment Volume (gallons)			7,700	

4.6 DOMESTIC WASTEWATER TREATMENT FACILITY

A packaged wastewater treatment facility (WWTF) for treatment of domestic sanitary will be installed on an existing concrete slab located near the Guardhouse at the main entrance (Dwg. 0000-Cl-008). Concrete, water tight curbing will be installed at the perimeter of the foundation slab to provide a minimum volume of 5,000 gallons of secondary containment for the facility. The containment will be inspected on a regular basis and solutions evacuated immediately as observed and the source will be investigated and addressed. Solutions will be evacuated from the containment using a portable pump.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL	
Sanitary Wastewater Treatment Facility					
Sewage Treatment Equalization Tank	9.60	8.00	4,300	Carbon Steel	
Sewage Treatment Treatment Tank	9.60	8.00	4,300	Carbon Steel	
Sewage Treatment Solids Holding Tank	9.60	8.00	4,300	Carbon Steel	
Containment Volume (gallons)			5,000		



4.7 PROCESS WATER STORAGE TANK

Process water from the Process Water Reservoir will be pumped to the Process Water Storage Tank (Dwg. 0000-CI-008) on the slopes of Animas Peak to provide consistent line pressure using gravity head to supply water for use in the process. The tank will be installed within a lined earthen basin with a secondary containment capacity of at least 190,000 gallons, plus 2 feet of freeboard. The containment basin will be lined with 60 mil HDPE liner or equivalent. The containment will be inspected on a regular basis and solutions evacuated immediately as observed and the source will be investigated and addressed. Solutions will be evacuated from the containment using a portable pump. Any water collecting in the basin will be pumped out within 30 days and deposited in the Process Water Reservoir.

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gallons)	TANK MATERIAL
Miscellaneous Site				
Process Water Head Tank	30.00	32.00	170,000	Carbon Steel



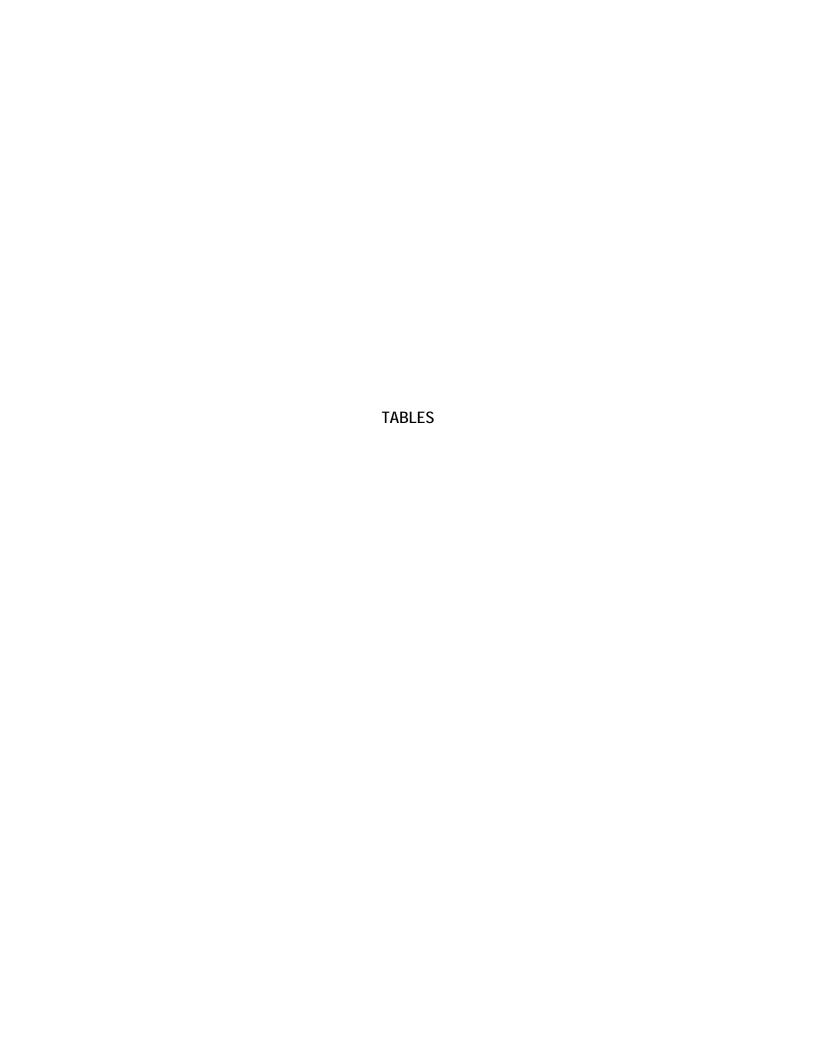


Table 1: List of Tanks and Process Solution Containment Areas

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gal)	TANK MATERIAL		
	Concentrator: Grinding	Area Containment				
Gravity Concentrator Concentrate Tank	12.00	9.50	8,000	Carbon Steel		
	Conta	inment Volume (gal)	200,000			
Con	centrator: Copper Flota	tion Area Containme	nt			
Rougher Flotation Conditioning Tank	22.00	25.00	69,300	Carbon Steel		
	Conta	inment Volume (gal)	79,000			
Con	centrator: Copper Reg	rind Area Containmer	nt			
Copper 1st Cleaner Conditioning Tank	12.00	7.25	6,000	Carbon Steel		
	Conta	inment Volume (gal)	8,900			
Con	ncentrator: Moly Flotati	ion Area Containmen	t			
Cu-Mo Separation Conditioning Tank	4.00	10.67	1,000	Carbon Steel		
Moly Filter Cloth Wash Tank	4.00	6.00	560	Carbon Steel		
Moly Filter Feed Tank	8.00	6.00	2,000	Carbon Steel		
	Conta	inment Volume (gal)	8,300			
Concent	rator: Copper-Moly Thi	ckening Area Contair	nment			
Flocculant Mix Tank	12.00	7.25	6,100	Carbon Steel		
Flocculant Distribution Tank	12.00	7.25	6,100	Carbon Steel		
Cu-Mo Concentrate Thickener	20.00	7.50	17,700	Carbon Steel		
Cu-Mo Concentrate Thickener Overflow Tank	4.00	10.67	1,000	Carbon Steel		
	Conta	inment Volume (gal)	13,000			
Conce	entrator: Copper Thicke	ening Area Containme	ent			
Cu-Mo Concentrate Thickener	20.00	7.50	17,700	Carbon Steel		
Cu Concentrate Thickener Overflow Tank	4.00	4.00	375	Carbon Steel		
Cu Concentrate Stock Tank	17.00	25.00	41,760	Carbon Steel		
Copper Filtrate Tank	4.00	4.00	375	Carbon Steel		
Copper Filtrate Tank	4.00	4.00	375	Carbon Steel		
Cu Concentrate Filter Cloth Wash Tank	4.00	6.00	560	Carbon Steel		
	Conta	inment Volume (gal)	50,000			
Concentrator: Co	pperFiltration and Con	centrate Loadout Are	a Containment			
No Storage Tanks						
	Conta	inment Volume (gal)	25,000			

Table 1: List of Tanks and Process Solution Containment Areas

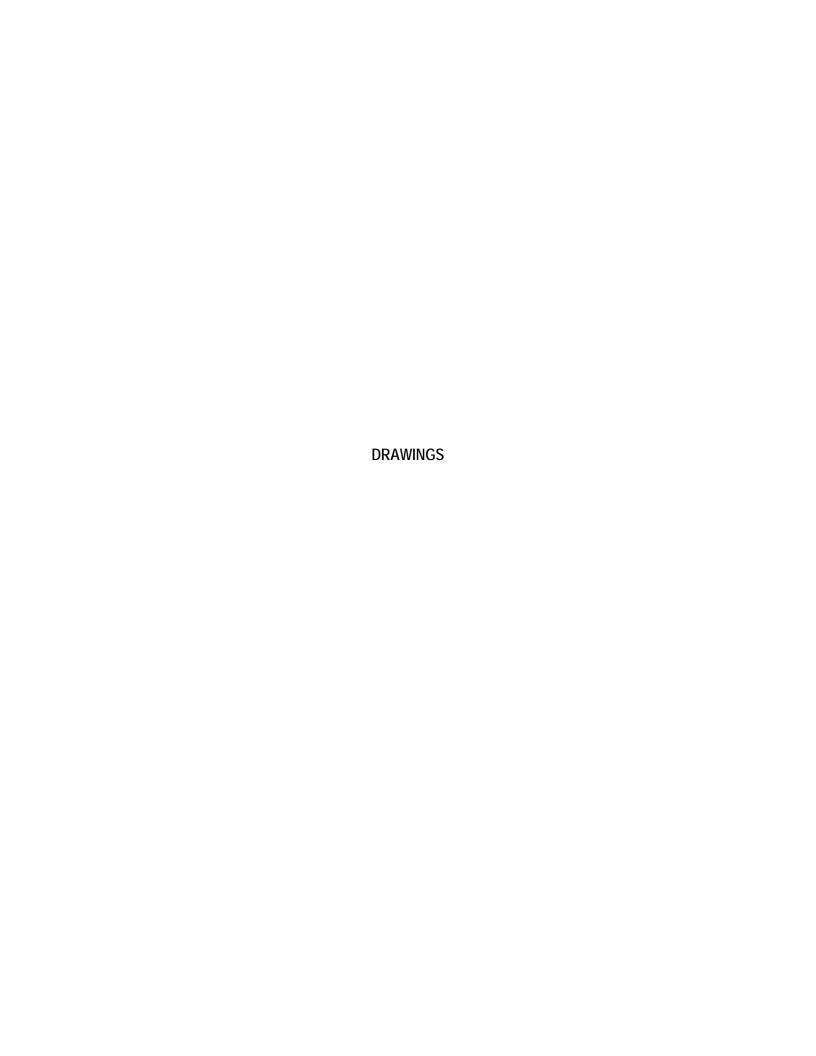
TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gal)	TANK Material								
Conce	entrator: Copper Filtration W	/heel Wash Area Cont	ainment									
Wheel Wash Surge Tank	4.00	6.00	560	Carbon Steel								
	Conta	Containment Volume (gal) 15,										
	Concentrator: Lime Re	agent Containment										
Milk of Lime	12.00	23.67	20,000	Carbon Steel								
Milk of Lime	12.00	23.67	20,000	Carbon Steel								
	Conta	inment Volume (gal)	30,000									
	Concentrator: Diesel Re	eagent Containment										
No. 2 Diesel Storage Tank	8.00	6.00	2,000	Carbon Steel								
Containment Volume (gal) 4,800												
	Concentrator: General R	eagent Containment										
Pax Mix Tank	8.00	10.67	4,000	Carbon Steel								
Pax Distribution Tank	8.00	10.67	4,000	Carbon Steel								
MIBC Storage Tank	8.00	6.00	2,000	Carbon Steel								
AERO 238 Mix Tank	8.00	10.67	4,000	Carbon Steel								
AERO 238 Distribution Tank	8.00	10.67	4,000	Carbon Steel								
Moly Collector Mix Tank	8.00	6.00	2,300	Carbon Steel								
Moly Collector Distribution Tank	8.00	6.00	2,300	Carbon Steel								
	Conta	inment Volume (gal)	10,200									
Co	ncentrator: Sodium Hydrosu	Ifide Reagent Contair	ment									
NaHS Mix Tank	8.00	10.67	4,000	Stainless Steel								
NaHS Distribution Tank	8.00	10.67	4,000	Stainless Steel								
NaHS Stock Tank	8.00	10.67	4,000	4,000 Stainless Steel								
	Conta	inment Volume (gal)	4,900									

Table 1: List of Tanks and Process Solution Containment Areas

TANK DESCRIPTION	TANK DIAMETER (ft)	TANK HEIGHT (ft)	TANK VOLUME (gal)	TANK Material									
	Truck Shop Tank Fa	rm Containment											
Used Oil Storage Tank	8.00	6.00	2,000	Carbon Steel									
Used Anti-Freeze Storage Tank	8.00	6.00	2,000	Carbon Steel									
ATF Fluid Storage Tank	6.00	6.00	1,000	Carbon Steel									
Hydraulic Fluid Storage Tank	6.00	6.00	1,000	Carbon Steel									
Engine Oil Storage Tank	6.00	6.00	1,000	Carbon Steel									
Gear Oil Storage Tank	6.00	6.00	1,000	Carbon Steel									
Anti-Freeze/Coolant Storage Tank	6.00	6.00	1,000	Carbon Steel									
	5,600												
Containment Volume (gal) 5,600 Fuel Station Containment													
Off Road Diesel Fuel Storage Tank	28.00	24.00	100,000	Carbon Steel									
On Road Diesel Storage Tank	12.00	12.00	10,000	Carbon Steel									
Gasoline Storage Tank	12.00	12.00	10,000	Carbon Steel									
Urea Tank	4.00	6.00	560	Carbon Steel									
Urea Tank	4.00	6.00	560	Carbon Steel									
	Conta	inment Volume (gal)	119,000										
	Equipment V	Vash Pad											
Settling Basin	40' W x 5	0' L x 3' D	50,000	Concrete									
	Conta	inment Volume (gal)	50,000										
Miscellaneous Site			-										
Process Water Head Tank	30.00	32.00	170,000	Carbon Steel									
Assay Lab Chemical Waste Tank	4.00	14.00	1,200	Polypropylene									
Sewage Treatment Equalization Tank	9.60	8.00	4,300	Carbon Steel									
Sewage Treatment Treatment Tank	9.60	8.00	4,300	Carbon Steel									
Sewage Treatment Solids Holding Tank	9.60	8.00	4,300	Carbon Steel									

Table 2: Containment and Cleanout Sumps

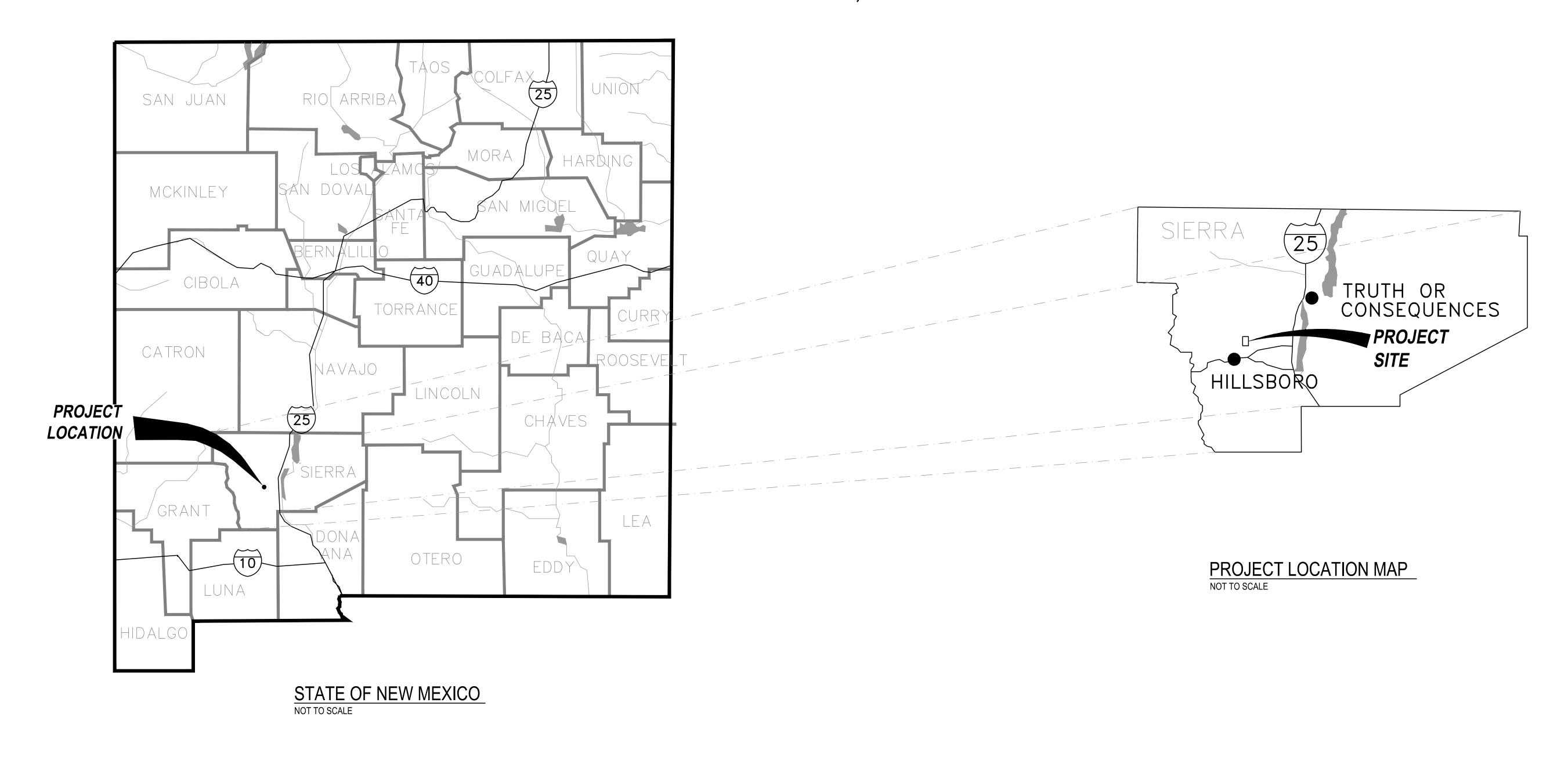
Location	Reports To
Crusher	Recalim Tunnel Sump
Reclaim Tunnel	Primary Cyclone Feed System
Grinding Area	Primary Cyclone Feed System
Copper Flotation Area	Rougher Flotaiton Conditioning Tank
Copper Regrind Area	Copper Regrind Cyclone Feed Box
Mo Flotation Area	Copper-Molybdenum Separation Conditioning Tank
Copper-Molybdenum Thickening Area	Copper-Molybdenum Thickener
Copper Thickening Area	Copper Concentrate Thickener
Copper Filtration and Concentrate Loadout Area	Copper Concentrate Thickener
Copper Filtration Wheel Wash Area	Copper Concentrate Thickener
Lime Containment Area	Lime Distribution Box
Diesel Reagent Containment Area	Used Oil Tank
General Reagent Containment Area	Tailings Sump
Sodium Hydrosulfide Reagent Containment Area	Copper-Molybdenum Separation Conditioning Tank
Mobile Equipment Shop Containment	Certified Used Oil Recycler
Fuel Station Containment	Certified Used Oil Recycler
Heavy Equipment Fuel Pad	Certified Used Oil Recycler
Light Vehicle Fuel/Fuel Offload Pad	Certified Used Oil Recycler
Equipment Wash Pad Settling Basin	Closed Basin; Zero Discharge
Process Water Head Tank Containment	Process Water Reservoir
Sewage Treatment Plant	Sewage Treatment Plant or Sanitary Waste Disposal Contractor
Chemical Waste Containment	TSF or Certified Contractor Disposal





NEW MEXICO COPPER CORPORATION

COPPER FLAT PROJECT SIERRA COUNTY, NEW MEXICO



DO NOT SCALE 11x17 DRAWINGS

PRELIMINARY FOR AGENCY REVIEW

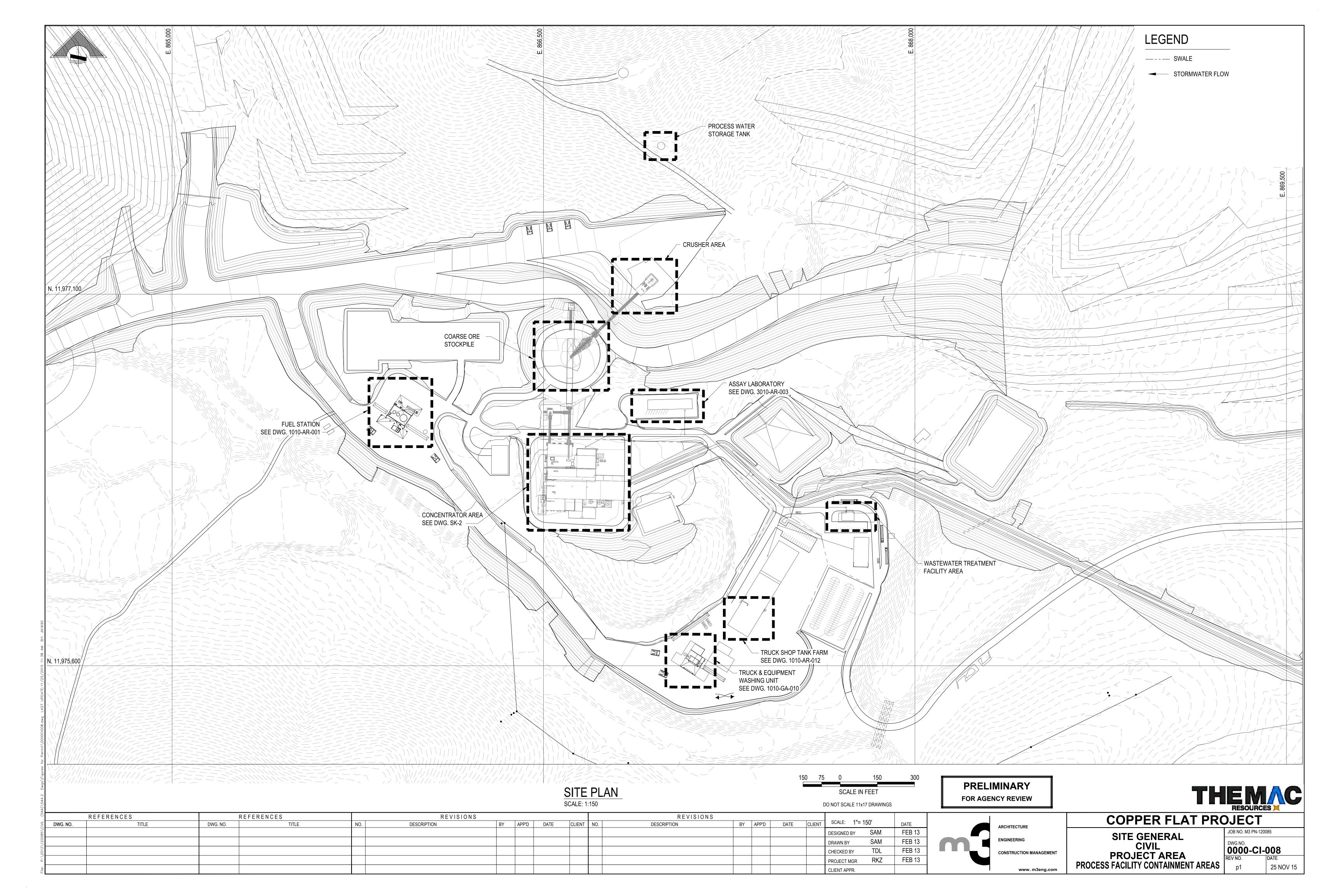


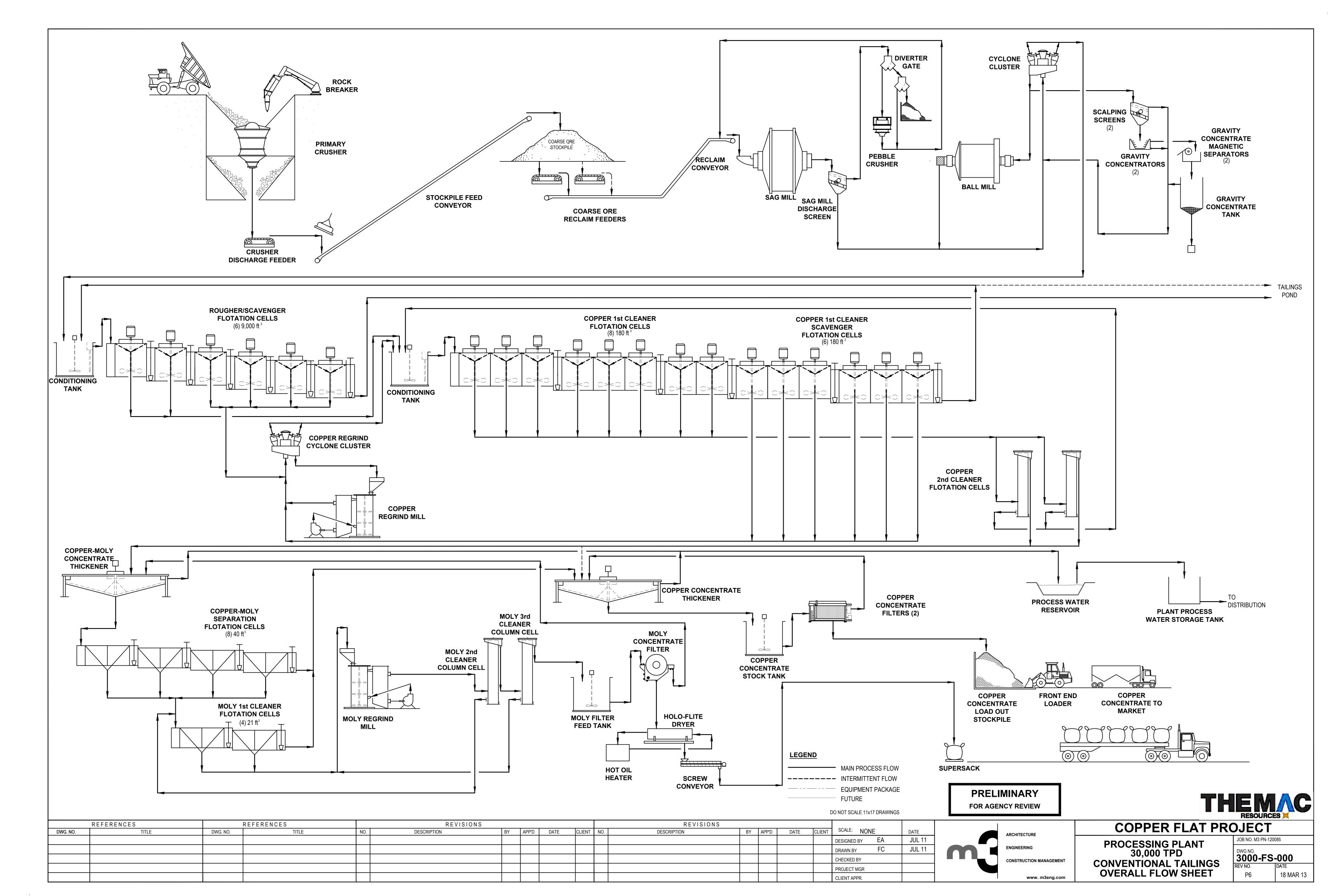
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DWG. NO.	TITLE	DWG. NO.	TITLE	NO.	DESCRIPTION	BY	APP'D	DATE	CLIENT	NO.	DESCRIPTION	BY	APP'D	DATE	CLIENT	SCALE: NO	NE	DATE
																DESIGNED BY	SAM	DEC12
																DRAWN BY	SAM	DEC12
																CHECKED BY	TDL	JAN13
																PROJECT MGR	RKZ	
																CLIENT APPR.		

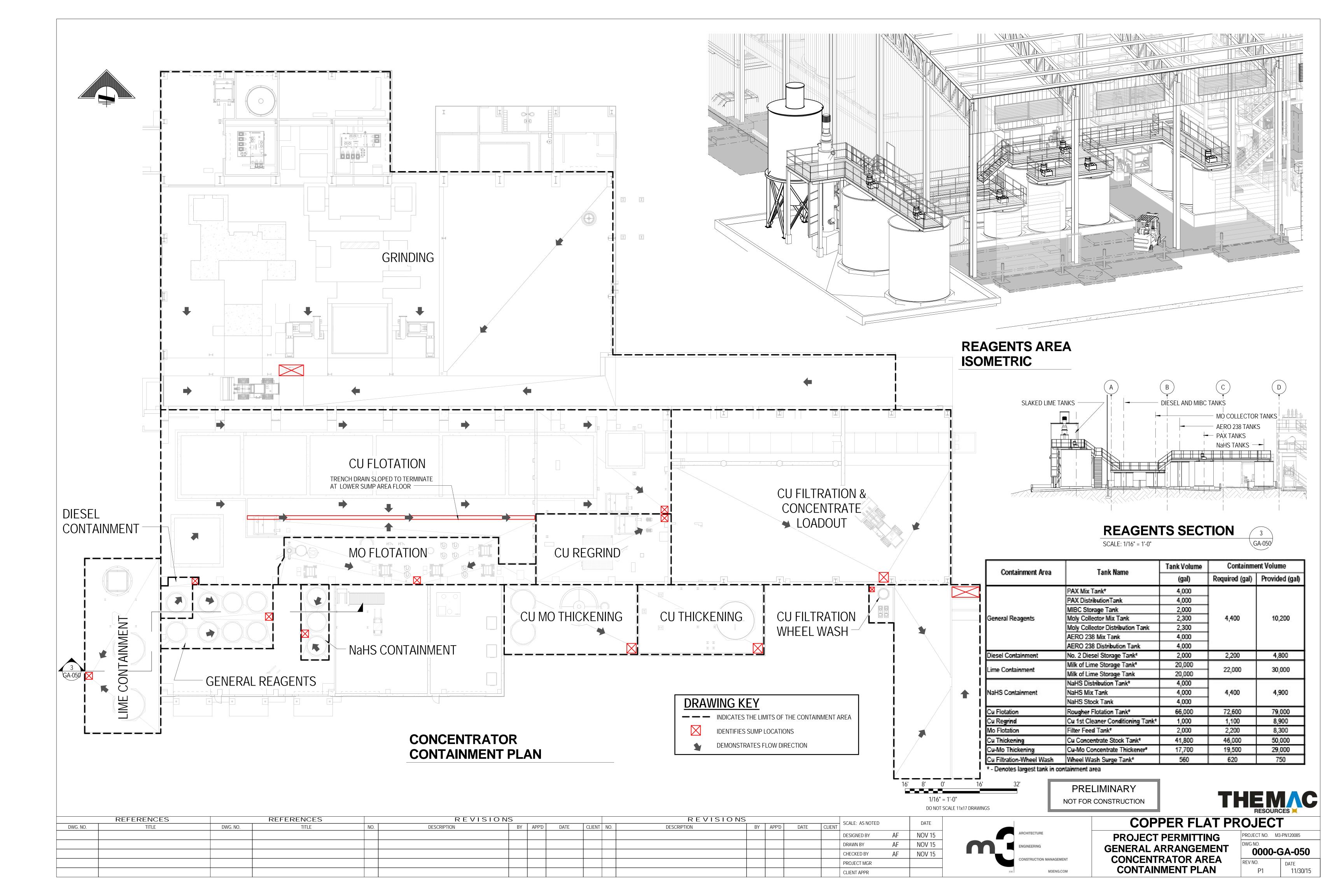


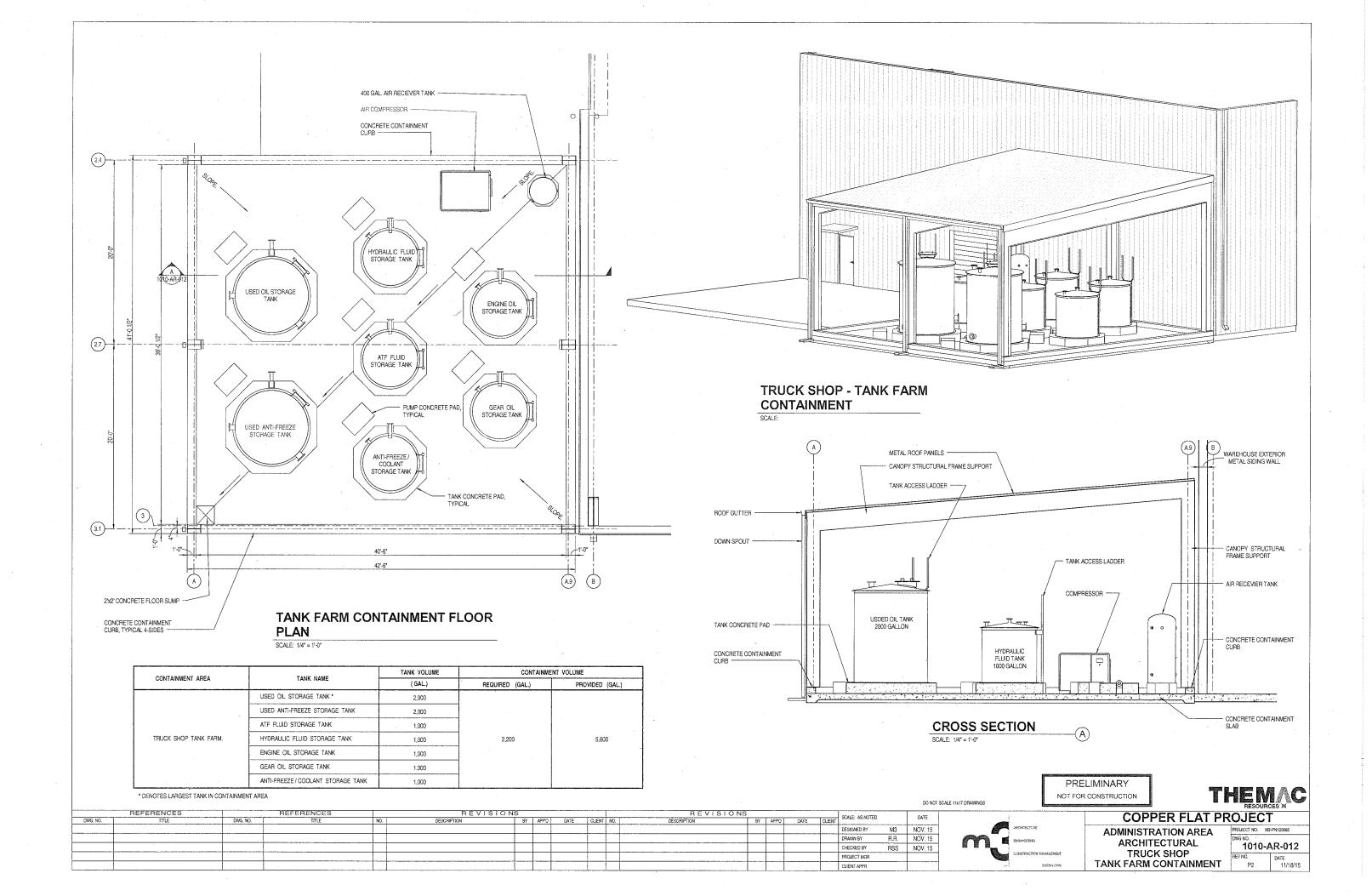
COPPER FLAT PRO	DJECT
SITE GENERAL	JOB NO. M3 PN-1200
CIVIL	DWG NO. 0000-CI-0
PROJECT AREA	REV NO.
SITE LOCATION PLAN	P4

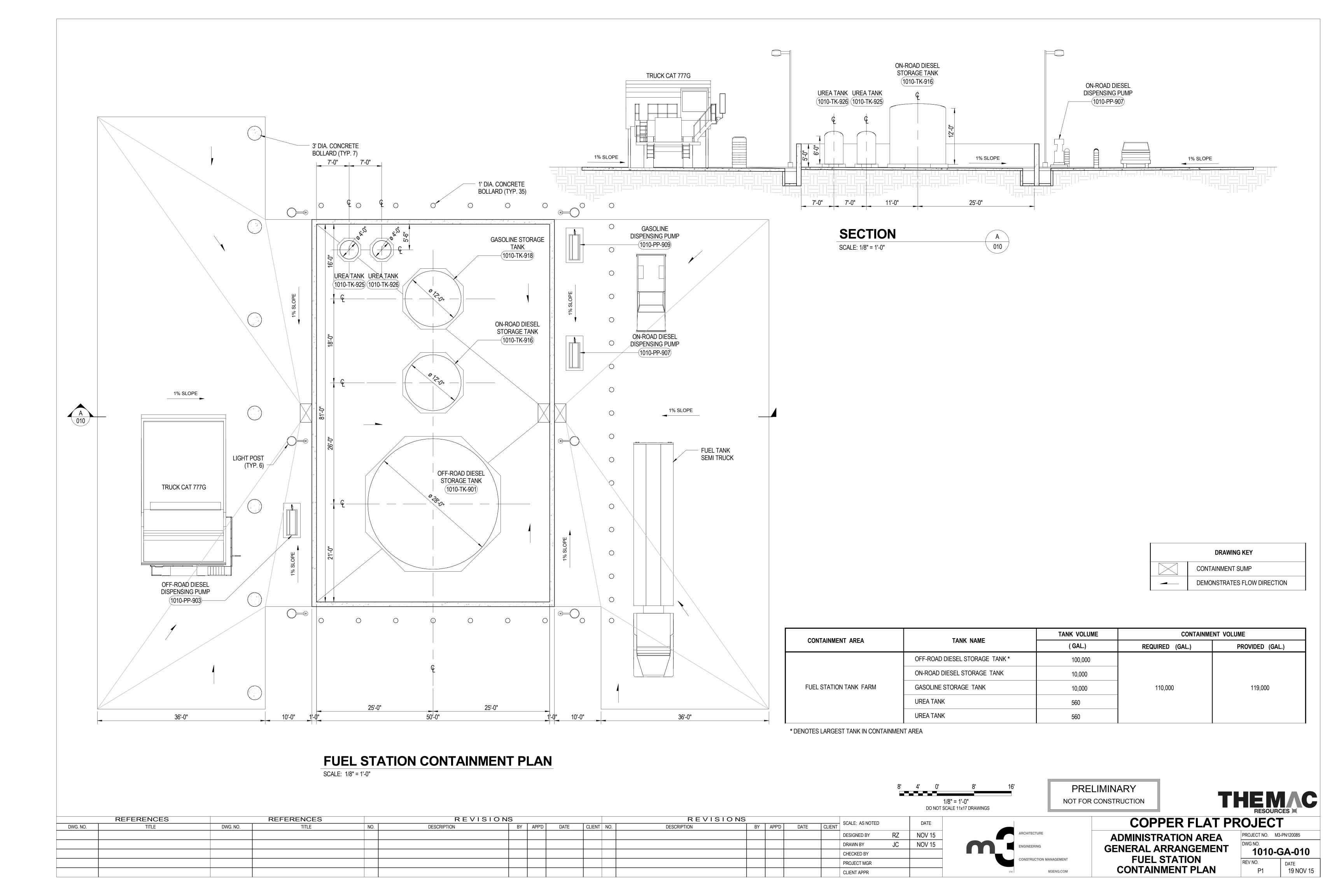
JOB NO. M3 PN-120085 DWG NO. **0000-CI-001** 05 MAR 13

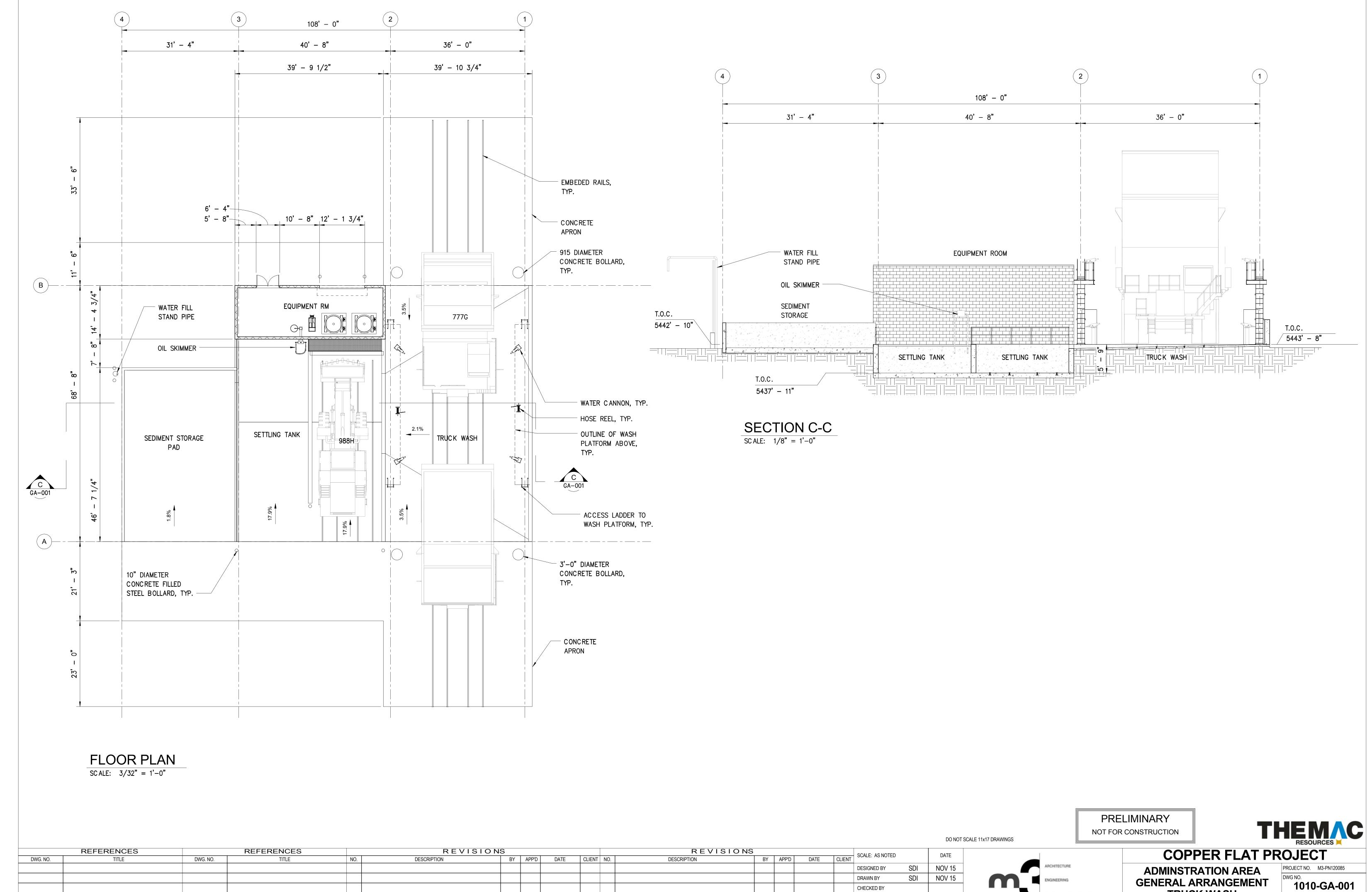










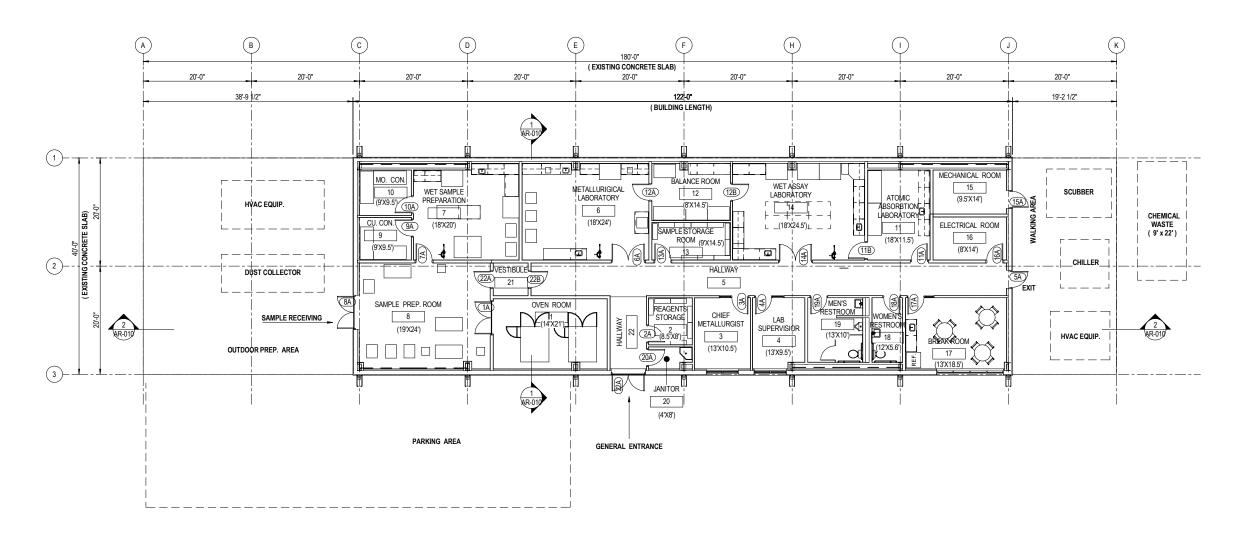


PROJECT MGR

CLIENT APPR

TRUCK WASH DATE 20 NOV 15 **FLOOR PLAN & SECTION**



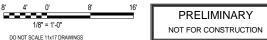


FLOOR PLAN

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

ANALYSIS:

- VENDOR ENGINEERED PREFABRICATED METAL BUILDING.
 NEW BUILDING SIZE: 122-0" x 40-0" = 4,880 SQ. FT.
 EXISTING CONRETE SLAB SQUARE FOOTAGE = 7,200 SQ. FT.
 COLUMN LINE SPACING SAME AS PRIOR BUILDING, UTILIZING EXISTING FOUNDATIONS.





DATE 5 DEC. 12

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	REFERENCES		REFERENCES		REVISIONS			TONS REVISIONS						DATE	T		COPPER EL AT DE	ROJECT																					
DWG. NO	TITLE	DWG. NO.	TITLE	NO.	DESCRIPTION	BY AF	P'D DA	TE (CLIENT	NO. DESCRIPTION	BY A	PP'D	DATE CLIE	NT OOALL	AS NOTED DATE		GOALE AD NOTED		OGNEE NOTICIES		GOVEE NOTIONES		GOVEE NOTIONES		OUTEE TO HOTES		/ GOVER TIGHTOLES		/ GOVERNO NO NO NE		GOVEE VICTORES		GOVEE VIOLITIES		DATE			COLLECTER	(OJEC)
														DESIG	NED BY R. R	RAMOS	NOV. 12	4	ARCHITECTURE	CONCENTRATOR AREA	PROJECT NO. M3-PN120085																		
														DRAW	NBY R.R	RAMOS	NOV. 12		ENGINEERING	ARCHITECTURAL	DWG NO.																		
														CHEC	KED BY F	R.S.	NOV. 12				3010-AR-003																		
														PROJE	ECT MGR				CONSTRUCTION MANAGEMENT	LABORATORY	REV NO. DATE																		
														CLIEN	T APPR				SM M3ENG.COM	FLOOR PLAN	P2 5 DEC. 12																		