

# MONO COUNTY NEW JAIL

## 100% SCHEMATIC DESIGN NARRATIVE

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# ACKNOWLEDGEMENTS

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# OVERVIEW

## BACKGROUND

The Mono County New Jail Project is a SB844 Lease Revenue Bond Financed project with a State reimbursement of \$25,000,000 and a cash match of approximately \$2,053,000.

The new jail is expected to share the 3.67-acre parcel with an existing Digital 395 broadband infrastructure building, an existing community medical clinic, and an existing paramedic garage/trailer. The site is located on the East side of Twin Lakes Road, approximately one quarter mile South of US Highway 395 and within the census-designated place of Bridgeport, CA. Site access for staff, visitors, inmate movement, and deliveries will occur through the existing site entrance off Twin Lakes Road.

A now vacant, existing hospital and associated outbuilding will be demolished to make room for the construction of the new jail. These buildings are approximately 16,700 SF and 720 SF in size respectively. All other existing structures will remain on site and are to remain operational through the completion of the jail project and beyond.

The New Mono County Jail will replace the existing jail located in downtown Bridgeport, CA. The approximate 26,610 SF program comprises of 22 cell type beds, 24 beds in dorms, 2 ad-seg cell beds, lobby and public visiting area, vehicle sallyport, intake/transfer/release area, housing support and program rooms, central control room, administrative spaces, medical clinic, kitchen, laundry, and building support spaces.

## SITE ORIENTATION

The 3.67-acre parcel is approximately 6480 feet above sea level and extremely flat with a very gentle slope from the West side to the East. There is a small single-family residence on the West side of Twin Lakes Road adjacent to the jail parcel and another small residence immediately South of the future jail. The remaining surrounding parcels are currently undeveloped.

The existing curb-cut on the Northwest corner of the parcel will continue to serve as the site entry point and an access/service road will loop around the future jail. The existing buildings to remain will be immediately north of this planned access road. Jail staff will have a secure parking lot, separate from the adjacent public/visitor parking area. The looping access/service road will provide unencumbered site circulation for emergency apparatus and facility deliveries, discharging onto Twin Lakes Road on the Southwest corner of the parcel.

# CIVIL

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## CIVIL OVERVIEW

This project involves the construction of a new jail facility in Bridgeport, California. The project parcel is 3.67+/- acres in area and is located on the east side of Twin Lakes Road approximately ¼-mile south of Main Street (US 395). The site has existing structures which serve as a multipurpose medical/fire response facility. Structures located on the northern edge of the parcel will remain. The existing 16,700+/- square foot structure, previously used as a medical center, will be demolished. The site is located at approximately 6478 feet in elevation and drains generally to the east. It appears the parcel was raised approximately 3' with structural fill. Off-site improvements will include utility extensions to service the new jail facility.

### Proposed Site Development

The proposed development consists of an approximately 26,400 square foot jail building with landscaping and a drive aisle around the perimeter and parking areas to the north. The finish floor elevation will be constrained by pavement cross slope and conformance to existing grades. Majority of the site area has slopes between 1% and 3%. Pending the results of ongoing soil analysis and to the maximum extent that is feasible within design constraints, existing soils appear suitable for reuse as topsoil and structural fill. Mitigation of a 3'+/- thick liquefiable soil layer, encountered approximately 6' to 9' below the ground surface, will be required. Site layout and grading design will follow Mono County standards.

## STORM DRAIN SYSTEM

### Site Considerations

The site drains generally towards the south and east. There is one existing storm drain inlet near the middle of the parcel which discharges to an existing swale at the east of the parcel through a 4" PVC pipe. Existing flows on Twin Lakes Road are conveyed through a roadside ditch and driveway culverts on the west side of the road. There is no existing storm drainage infrastructure in place to tie into.

### Proposed Site Development

The proposed drainage system follows the existing drainage patterns. The proposed storm drain system will collect and treat stormwater runoff using stormwater retention/snow storage basins according to State Water Board and Mono County standards. The site will feature multiple retention facilities that are dispersed throughout the site that are relatively small and shallow, located close to the drainage area that is being treated, and can be used for snow storage during plowing/removal operations. After treatment, the storm drain system will convey runoff to a new outfall near the existing offsite swale. No additional stormwater detention is anticipated.

## WATER SYSTEM

### Site Considerations

Potable water is supplied by the Bridgeport Public Utility District. Existing water facilities include a 2-inch domestic service which is routed throughout the site to service the existing buildings.

## Proposed Site Development

The proposed development will maintain service to the existing buildings which are to remain. A new 3-inch domestic service to the jail facility will be installed at the main. Once the pressure of the existing water supply system is determined, it is anticipated that domestic service will include a pressure reducer and backflow preventer. Additionally, it is anticipated that an 8-inch fire water service will be installed to provide the required fire flow capacity to the site. Fire hydrants will be provided around the perimeter of the building to accommodate CFC spacing and fire flow requirements

## SANITARY SEWER SYSTEM

### Site Considerations

Sanitary sewer service is provided by the Bridgeport Public Utility District. Existing sewer facilities include a 6-inch service lateral that extends from the existing 8-inch main on the east side of Twin Lakes Road to the existing hospital facility.

### Proposed Site Development

Proposed sanitary sewer improvements will include a lateral from the existing main to serve the building waste system, a grease interceptor near the food preparation area, and a sewage grinder system will be provided to prevent large debris introduced by inmates from clogging the sewer mains.

## DRY UTILITIES (GAS, ELECTRIC, TELEPHONE, CABLE TV)

### Site Considerations

Liquid propane service is provided by Amerigas, electric service is provided by Southern California Edison, telephone and cable TV service providers are yet to be determined. Liquid propane, electric, telephone, and cable TV services exist on site.

### Proposed Site Development

New services will be installed to serve the jail facility. Liquid propane and electric services will run to the south side of the housing units. Telephone and cable TV service locations are to be determined and coordinated with new MPOE location. Tie-in locations will be determined pending the demand loads for the building. It is anticipated that some dry utilities will require extension from existing infrastructure to the north of the project site. New underground service will need to be installed with care to phase, and relocate, existing utilities serving the buildings on the north side of the site.

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# LANDSCAPING

## GENERAL

The landscape development of the site will consist of landscaping of the public open spaces around the site, staff open spaces, at the building foundation, around the parking lots, and along the site perimeter. Security and facility functional needs will be kept in the forefront of the landscape design. The landscape development includes the layout of pedestrian patios, pathways connecting the building entries and exits and parking lots, and a connection to the public right-of-way. Pedestrian pathways will also be provided, where feasible, to the site perimeter to facilitate pedestrian connections with the existing and known future facilities that adjoin this site.

The site design will include sustainable and environmentally responsible design to the greatest extent possible and feasible. Landscaping and irrigation will be designed per the requirements of AB1881 for water-efficient landscape. The planting design will focus on utilizing plant species that are low-water using, adapted to the harsh conditions of the east-slope of the Sierras, and that require low long-term maintenance.

The design concept for the site development of the project is to create an open, aesthetic landscape that enhances the building's architectural character, keeps sight lines open, utilizes a limited plant palette comprised of adapted or native plants to this region, and visually conforms to the open valley on the east side of the Sierras. The design will incorporate the following goals, criteria, and components:

1. Create a strong sense of entry.
2. Provide shaded, comfortable outdoor pedestrian and vehicular access spaces.
3. Avoid creating space where the public can congregate. Nor providing benches or other seating areas per the request of the Sheriff's Dept.
4. Maintain clear views through landscape areas (security).
5. Create separated spaces for use by the public and distinct, separated spaces for employees use.
6. Provide fencing and gates around the employee parking lot.
7. Employee patio to be provided within the fenced portion of the site separate from the public space and screened from direct view by the public.
8. Create a site design that supports and complements the character of the building's architecture.
9. Screen unsightly off-site views.
10. Incorporate "Eastern Sierra" materials and themes in the design including stone and plant species.
11. Use plants that are well-adapted or native to the region.
12. Utilize a simple and clean planting palette comprised of a limited number of species that are grouped in masses to meet the function of the landscape (screen, hedge, shade tree, etc.).

13. Provide visual relief using plant form, leaf color and texture in key areas.
14. Trees to be placed that allow for security cameras to view the areas that they are intended to view.
15. Trees to be planted away from pole lights and camera locations. Coordinate with the electrical engineer for the optimal location of the lights and the trees.
16. Tree species to be selected and located so that trees cannot be used as a ladder onto roofs, over walls or fences, or any other means of gaining access to secure facilities.
17. Prune trees up to provide a minimum of 8' from the ground to the underside of the canopy (unless specifically needed for screening).
18. Planting and site planning to be designed based on the harsh climate. Provide locations for snow to be placed.
19. Use landscape, fences, and structures to mitigate winter winds and blowing snow where feasible.

## PLANTING

The planting design for the project will provide an aesthetic and functional landscape that meets several criteria: meets the project goals established by the County; conforms to County requirements; is safe, long-lasting, low maintenance, and relatively low water use; is appropriate for the environment; and provides aesthetic value. The goal is to select plant material that will perform the best, will use a limited amount of water, and will require the least amount of on-going maintenance.

1. Select plant species that are appropriate for the climate and provide for ease of maintenance by the County.
2. Majority of plants selected to be drought-tolerant / low-water using for reduction in irrigation demand.
3. Incorporate non-planted (non-irrigated) landscape material such as boulders, cobble, DG, etc. to lessen water and maintenance demands. Avoid rocks at inmate accessible areas.
4. Plants to be selected to be appropriate for the intended use and the space at maturity without requiring substantial pruning to maintain their shape. Design so that no plant is intended to have more than 25% of its mature size pruned in order to maintain its size.
5. Reduction in maintenance hours associated with limited pruning, better health of the plant, and reduction in the generation of green waste.
6. Select shrubs and groundcovers that will remain low to maintain clear views throughout (security).
7. Use of deciduous trees to provide shade in the summer and allow sun light through in the winter (climate).
8. Selection of plant species that have minimal fruit and pollen, are insect and pest resistant, and generate minimal mess.

9. Use ornamental shrubs at limited, key areas of the site to create accent focal points such as the site or building entries.
10. Most shrubs to be 36" in height or less unless specifically used for screening or architectural accent (such as narrow upright shrubs) to avoid places to hide.
11. Provide transitional planting at the site perimeter that uses a palette of adapted and native plants to blend the site back into the existing adjacent landscape.

## IRRIGATION

Irrigation system will be designed for long-term function with quality components and designed for ease of maintenance. Irrigation to apply the optimal amount of water based on the needs of the plants. Plants will be placed in hydro-zones based on their water use requirements and the irrigation will be designed specific to those hydro-zones. Nuisance run-off (irrigation overspray) is to be eliminated (or at least minimized to the greatest extent possible).

1. The new irrigation service will be into the domestic water service with all code-required point-of-connection equipment such as meter, backflow preventer, flow sensor, and master valve.
2. Irrigation backflow preventer to be placed inside the building or equivalent to avoid freeze.
3. Landscape will be designed to meet the requirements of the State-mandated Water Efficient Landscape Ordinance (AB 1881). This ordinance limits the amount of irrigation water that can be used base on site specific calculations to determine the maximum water allowance as well as minimum irrigation efficiencies.
4. No visible irrigation product will be placed in inmate areas – Irrigation is proposed for perimeter, public and staff areas only.
5. Irrigation will use high-efficiency drip irrigation at each plant for shrub and groundcover areas.
6. Irrigation controller will be a smart controller that will automatically self-adjust based on real-time weather updates (via cellular update from the manufacturer or on-site weather station) or soil moisture sensors.
7. Irrigation will be designed to operate during a specific water window (typically between 9:00 PM and 6:00 AM). Shrub drip/bubbler circuits can operate beyond that water window if needed.
8. Quick couplers will be placed throughout the landscape areas for convenience watering per the direction of County maintenance staff.
9. Piping to be minimum schedule 40 PVC with Sch. 40 fittings. Irrigation equipment to be coordinated with County-maintenance team preferences and shall be commercial/industrial grade equipment from Toro, Rainbird, or Hunter.
10. Irrigation system will be designed with a port to allow all water to be pushed out during the winter (winterization).



## SITE DESIGN, HARDSCAPE & FURNISHINGS

The hardscape design for the project will provide internal circulation around the building perimeter, create public and employee-only outdoor spaces, and provide pedestrian connections between building entries and parking areas. The open spaces throughout the site will be designed to allow for a variety of uses and by a variety of sizes of groups.

1. Provide fully accessible pedestrian pathways to connect parking lots, public streets, building entries and exits, and public use spaces of the site design.
2. Provide an entry walkway at the building to connect the public parking lot with the building entry. Plaza will be generally open with predominantly hardscape elements that provide for clear visibility. Seating to be avoided in this location.
3. Entry paving will be designed to complement and coordinate with the building architecture and material and will serve to draw the visitors to the front of the building.
4. Provide a private patio space for employee use for breaks, lunches and small gatherings or events. This space is to be within a fenced area of the site (separated from public access) and not visible to the public.
5. Provide a secure facility by incorporating fencing and walls around the staff parking areas, staff/delivery vehicle areas, and the building. Provide secure, gated entry to the staff parking lot. Fencing to be tube steel or chain link to allow for open views through it while maintaining security. Walls will be CMU.
6. Provide a screened separation between the public plaza/entry space and the adjacent employee open space and parking area.
7. Utilize locally sourced materials as feasible.
8. Coordinate hardscape materials and design to complement and coordinate the building architecture.
9. Provide accessible pedestrian pathways from all parking lots to building entries.
10. Some sidewalks may be designed to slope toward the landscape instead of the curb in order to allow for spray irrigation to be placed directly adjacent to the hardscape. This will allow any irrigation run-off to drain into landscape instead of the storm drain.
11. Pedestrian paving to be designed for ease of snow removal, to minimize potential ice build-up, and be clear of locations where snow or ice could 'shed' off of the building.

# STRUCTURAL

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## STRUCTURAL OVERVIEW

This project involves construction of a new jail facility for Mono County. The jail will be one single story structure containing the housing unit, administration, kitchen, and medical/clinic area. The main building materials will be concrete filled steel deck over structural steel for the roof, with fully grouted reinforced masonry walls supported on concrete foundations.

## STRUCTURAL DESIGN CRITERIA

### Lateral Force Resisting System/Seismic

The entire building will be considered one building and will not be seismically isolated into multiple parts. The main lateral force resisting system consists of a rigid diaphragm concrete filled roof deck with specially reinforced CMU shear walls. The building will be considered risk category 4 and designed for with an importance factor of  $I_e = 1.50$  since the dispatch will be contained inside the building. Non-attached support structures other than the jail will be considered risk category 3 and designed for with an importance factor of  $I = 1.25$ . Seismic parameters are medium-high for this site, with  $S_{ds} = 0.81$  and  $S_{d1} = 0.50$  per the preliminary geotechnical report and site is considered Seismic Design Category D.

The anchorage of components deemed essential by the County will be designed with a component importance factor of  $I_p = 1.5$ . These include, but are not limited to, the emergency generators and radio equipment and items powered by the generator. The component importance factor ( $I_p$ ) is for the design of the anchorage only and is not intended to be the building importance factor ( $I_e$ ).

### Wind Load

The design wind speed is  $V = 106$  mph as determined by ASCE 7-16 using the Applied Technology Council (ATC) Hazard maps. Wind loads will be considered in the overall building design and components using the applicable load combinations given in the California Building Code. Seismic loads will likely govern over wind loads for the overall building analysis since the seismic loads are high for this site.

### Snow Load

Snow load is considered at this site due to its high elevation. Snow loads values were taken from the Mono County Community Development Department, with a ground snow load  $p_g = 65$  pounds per square foot (psf) at this site located in Bridgeport. An importance factor of  $I_s = 1.20$  will be used for risk category 4 building. Snow loads will be evaluated in the overall gravity and lateral system per the load combinations given in the California Building Code.

### Site Considerations & Foundation

A preliminary geotechnical report has been provided for this project. The preliminary report classifies the site as Site Class D, with layers of soil from top to bottom of silty, clayey sand, dense (3-4 +/- ft), poorly graded sand with silt (4-5 +/- ft), Poorly graded sand with silt and gravel (31-34 +/- ft), silty to clayey sand (5-6 +/- ft), poorly graded sand with silt and gravel (11-12 +/- ft), followed by bedrock. Groundwater ranges from around 6-9 ft below the surface.

Liquefaction is present at a shallow depth at this location and is approximately 3 feet thick, liquefaction remediation is recommended by the Geotech. Four soil improvement options were provided by the Geotech: (1) complete overexcavation, (2) reinforced earth mat foundation, (3) pressure grouting, or (4) stone column remediation. See the geotechnical report for additional information about these systems. Another option would be to use Rapid Impact Compaction (RIC), RIC is a dynamic compaction system used to densify loose sandy material to mitigate liquefaction using hammering dynamic compaction forces to densify the soil below 10 feet. If RIC is used, noise and vibrations must be considered during the ground improvement process, along with allowance for a second pass of RIC if required.

Out of the four options provided we believe that complete overexcavation (1) will be the likely method used to remediate the soil, with an option of combining the overexcavation with a reinforced earth mat (2) if acceptable bearing values cannot be achieved. Pressure grouting (3) may be difficult to implement since there are many bearing walls that would require it and would need overburden to spread the pressure grout laterally, which may be difficult to achieve on this site. Stone column remediation (4) would achieve the highest bearing pressures but requires preconstruction testing and layout and would need approximately 4 weeks install time with 3 months after installation for the soil improvement, which may affect the construction schedule.

For option (1), dewatering of the site will most likely be required along with the overexcavation, with water levels varying with the season during site construction phase. Engineered fill shall be compacted to 90% compaction at optimum moisture content. Preliminary allowable soil bearing pressures given by the Geotech report are not exceed 2,000 psf. Allowable friction coefficient is 0.45, and allowable passive soil pressure is 300 psf. Values may change depending if another foundation improvement method is selected.

Continuous footings under walls will be approximately 1'-6" deep with varying widths based on loads. See schematic design structural sheets for additional info on rebar quantity and sizing based off the bearing values provided by the Geotech in option (1) overexcavation.

## STRUCTURAL SYSTEM

### Structural Roof Diaphragm & Concrete

Structural roof diaphragm will be 3 ½" normal weight concrete over 2" x 18 gage metal deck (total of 5 ½" slab thickness) for a 1-hour fire rating. If additional fire rating is required, we suggest a spray-on fire proofing solution to limit the weight of the roof diaphragm. Because of the remote nature of the site (1 hour from Mammoth Lakes, CA and 2 hours from Reno, NV by car), normal weight concrete was chosen over lightweight concrete deck as a more readily available option that can be supplied to the site. Concrete supply to Bridgeport is limited due to its remote location, therefore we anticipate that concrete supplied to the site will have added set-retarders to carry the concrete mix from a farther distance than normal.

### CMU Walls

The exterior walls of the housing units will be either insulated or non-insulated CMU walls. The insulated masonry walls are single cavity 12" CMU, consisting of approximately 6 1/2" structural section and the balance being insulation and non-structural masonry. The grouted cells are reinforced with #5 vertical bars and #5 horizontal bars both spaced @ 16" oc. Non-insulated masonry walls are 8" CMU fully grouted with #5 vertical bars and #5 horizontal bars both spaced @ 16" oc. Interior walls are 8" CMU fully grouted with #5 vertical bars and #5 horizontal bars both spaced @ 16" oc.

## Cell Lids

Project datum elevations are used in this narrative. Finished floor datum for the building is 100'-0". The main housing unit has an adjoining dayroom and rec yards. The main floor elevation for the housing unit is consistent throughout, with a proposed elevation of a project datum of 100.00 feet. The top of concrete cell lid level will be 10'-0" and at cells 9'-4" above the main floor level, with a proposed project elevation of 110.00 feet and 109.33 feet, respectively. Cell heights will be confirmed with architect. The top of concrete over metal deck roof above the dormitory, dayroom and housing unit will be between 16'-8" to 18'-0" above the dayroom floor.

The lids over the cells will consist of structural concrete over steel deck. The structural concrete on these decks will be constructed using composite steel decks as the formwork. Steel decks at the cells will have a flat bottom, with regular non-acoustical steel deck.

# ARCHITECTURAL

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## ARCHITECTURAL

The New Mono County Jail will be a single-story building to replace the to replace the current, inefficient, and antiquated jail that is operating beyond its useful life cycle. The primary goal is to provide a safe and secure facility that reflects an environment that supports the operational requirements of the Mono County Sheriff's Office. The following requirements are provided to generally define the scope of the project and design considerations.

With proper maintenance a fifty-year life expectancy is expected for the jail. An emphasis will be placed on material and system selections that reflect durability and ease of maintenance. Preferred systems are those that have demonstrated a record of resistance to damage and ability to be maintained with a minimum of resources expended throughout the life of the building.

The facilities, whenever feasible, should illustrate a non-threatening setting and downplay the institutional feeling and support a more normalized environment. This may be achieved using materials, colors, acoustic treatment, and natural light. Secure areas shall be constructed with emphasis on providing materials which are resistant to abuse and damage. Non-secure areas shall be constructed to provide functionality and security. The facility shall be designed to be cost effective and abuse resistant with operational flexibility to accommodate the ever-changing inmate population.

## HOUSING

48 new beds will be constructed to meet immediate needs and accommodate the Mono County Sheriff's Office. 22 of the beds will occur in cells located within two housing units. 24 of the beds will occur in dorms within three housing units, and 2 of the beds will compose an administrative segregation unit. All of the housing units will be designed to maximize visual supervision and observation by correctional officers. The housing units will utilize indirect visual supervision.

The facility will have flexibility for various inmate classifications and single bunking if required for disciplinary segregation and/or protective custody inmates. Each respective Housing Unit will have ADA compliant cells and support spaces.

### Dayrooms

Dayrooms will be provided with a minimum of 35 sf square feet per inmate to meet Title 24 of the California Code of Regulations and will contain tables with seating to accommodate the number of inmates in the respective unit. Access to toilets, washbasins, drinking water, and showers will be provided from the dayroom. Dining will occur in the dayroom of each housing unit. Dayrooms will be designed with special attention to acoustics, and natural light.

### Interview and Visitation

Three types of in-person visitation will be provided at the new Jail. A contact family visitation room will be located beyond a secure sallyport off the public lobby. Three non-contact visitation stations will be provided with secure glazing between the detainee and their visitor. Lastly, a non-contact attorney visitation area will also be provided at the facility.

Interviews, video arraignments, and Tele-psychiatry services will be conducted in a flexible Video/Interview room that is located off the main circulation corridor and close to housing units.

## Program Space

Two dedicated program rooms will be provided adjacent to the housing units. These rooms are sized to accommodate approximately 16 inmates and up to two staff with secured storage for an audio-video cart, and supplies. Activities that may occur in these spaces include adult education, religious services and counseling, substance abuse classes, group counseling, and mental health evaluations and classes, along with other programs designed to reduce recidivism.

## Outdoor Space

The 10-person dorms and cell housing units will have direct access to secure outdoor exercise areas. The Ad-Seg housing and lower security dorm unit can also access the outdoor exercise areas directly off the main circulation corridor. These exercise areas will be observable from the staff station/central control. The outdoor exercise areas will be partially covered to provide relief from inclement weather with partial open area which incorporates a metal fabric lid that will allow for daylight but prevent the introduction of contraband.

## Central Control

A Central Control room will monitor and operate/control movement within the facility and security perimeter access. CCTV will be utilized to provide visual control and assist in the control of inmate/staff movement and monitor the perimeter. Central control is the most secure area of the facility and will be centrally located within the facility to provide additional visual monitoring. Central control will function as the Sheriff's Office command post to manage the staff and inmates within the jail at all times.

## **PUBLIC LOBBY | VIDEO VISITING**

The public lobby will provide both contact and non-contact in-person visitation during normal business hours. The new lobby will provide ample seating for public as well as natural light. The new video visiting space will allow for visits to happen in a controlled, efficient environment for inmates, the public, and staff—greatly increasing the efficiency of visiting and allowing for inmates and loved ones to visit in a better environment for both parties.

## **ADMINISTRATION | STAFF SUPPORT**

Administrative staff will have offices in the non-secure administration area. The jail staff will be responsible for the day-to-day operation of the jail facility. The jail staff will meet with other facility employees in this area, as well as other official visitors and the general public. The administration offices will be occupied during traditional business hours. Access from the public lobby to the administration shall be restricted by a lockable door. A conference room will provide meeting space for staff and business purposes. The administration area will also include a staff break room, multi-purpose training room, staff locker room with dedicated shower and changing room, and restrooms. Staff will have their own secure entrance to the facility, immediately adjacent to the secure staff parking area and administrative functions within the building.



## INTAKE | TRANSFER | RELEASE

The Intake/Transfer/Release (ITR) area will be used for the reception of new inmates into the facility. Inmates will be thoroughly searched, commitment papers will be verified, and screening will be conducted. Inmates will then be processed into the jail management system, screened by staff, and dressed in jail-issued clothing. Inmate property will be inventoried and stored, and an initial classification and assessment screening will be conducted. Inmates will be temporarily placed in secure holding cells or processing booth while being processed and awaiting placement to a housing unit assignment.

Inmates being transported outside the facility to court, dental or doctor appointments, will be moved through the ITR via separate circulation paths to the vehicular sally. Inmates being released will have their property returned to them within the release area of the facility.

The Intake/Booking area will be open 24 hours a day, seven days a week but staffed as the situation allows. At times an inmate may be placed in a holding cell while Sheriff staff tend to more pressing needs within the facility. The Intake and Vehicle Sally will be under CCTV video surveillance. The environment should be normalized with the use of colors and furnishings that can withstand abuse.

## CLINIC

The medical clinic will provide basic medical and triage care for inmates through an exam room. If an inmate requires any further medical care the Sheriff's office will transport the individual to a local hospital. Medical activities occurring in this area include the screening of inmates, submitting sick slips, and administering pills if needed. An office shall be provided for medical and psychiatric providers, a records storage, an inmate toilet, and an equipment and medical supply room shall be provided. Medical services on a contract basis are limited due to the remote location, but the clinic could be used by outside providers should that availability change in the future.

## KITCHEN | LAUNDRY

The food service component includes all phases of food delivery, food preparation, and distribution. Food will be prepared, trayed, and delivered to inmates in their respective housing units. Inmate workers will operate the kitchen with supervision by facility staff.

The laundry will be of adequate size to handle the laundering of inmate uniforms, sheets, towels, and blankets for the 48 inmates who will be housed in the jail. Inmate workers will operate the laundry with supervision by facility staff.

## BUILDING SUPPORT

Design and inclusion of storage, maintenance, mechanical, electrical, IT and phone needs for the jail will be provided to account for the space needed to store mattresses and other supplies, provide for adequate space for maintenance staff to maintain the jail and provide for adequate space for water heaters, the electrical systems and the IT/low voltage requirements for the jail.

## EXTERIOR ENVELOPE

Given the secure nature of the jail a good portion of the exterior walls will be Concrete Masonry Units (CMU). A mix of precision, split-faced, and scored CMU will be utilized to enhance the architecture of the jail. At the public entry/administration areas, metal panels have been introduced along with a storefront window system that provides an inviting entry for visitors. The roof of the facility will be a sloping single ply membrane that also covers the vehicle sallyport for inmate drop-offs and transfers. Skylights will be provided above at select dayrooms for natural lighting for those spaces while other dayrooms will utilize clerestory windows to achieve the same desired effect.

## INTERIOR FINISHES

See following section.

# INTERIOR DESIGN

## **NARRATIVE BY:**

Lionakis  
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Contact: Andrea Gabor

## INTERIOR DESIGN

### Inmate/ Staff Centric Design

The interior design will provide connections to the outdoors using a nature inspired color palette, varied materials, organic patterns, effective acoustics, and natural light. These elements have been shown to reduce anger, stress, anxiety, and depression and are key to creating an environment that feels less institutional for staff, visitors, and inmates. As we have learned from the Healthcare industry, there is growing evidence that a built environment can have a significant impact on a person's feelings, behavior, and performance.

The public lobby serves to link the design to the community while creating a sense of order and tranquility. The use of biophilic colors, textures, and natural light will promote a welcoming environment for visitors and staff. The finishes and materials in addition to meeting the functional, durability and sound control requirements, will also create a harmonious and inviting atmosphere to help reduce tension and improve outlook. Finishes designated for staff spaces will facilitate operational efficiency and comfort while keeping the environment light and upbeat. Color and pattern will be used in strategic locations to create moments of respite for staff members as they pass by or pause for a break during a busy or stressful day.

The design will support the County's mission to provide humane custody and care for incarcerated individuals. High impact acoustic wall and ceiling panels will be provided in Dayrooms, Dorms and Program Rooms where possible, to enhance acoustical control and assist in inmate management by improving mood and focus. In addition, Program Rooms will be classroom style and have carpet, providing a more normalized environment and further opportunity for color, texture, and noise reduction. Light and color, reminiscent of nature will be employed in inmate environments to promote calm, alleviate stress, and improve manageability.

### Facility Centric Design

All products will have a record of abuse resistance, weather resistance and the ability to be maintained with minimal resources throughout the life of the facility. Materials and finishes will be specified which are appropriate for the intended use of the room or area, are highly durable and which reduce required maintenance. Floor finishes will be selected to effectively endure the anticipated traffic in each area, while patterns and accents will provide a sense of wayfinding where applicable. Ceiling finishes will be suitable for the intended use and desired security level while also providing for maintenance access, and acoustical performance. Wall protection (crash rails & corner guards) Will be provided in corridors and rooms designed for cart or equipment movement or storage. Busy areas such as the Lobby, Conference, Training and Break Rooms will have performance, fiber reinforced laminate panels and chair-rails to preserve the walls and aesthetic characteristics of the room. Timeless, attractive, and eminently enduring ceramic tile will be utilized on staff restroom, walls, and flooring as well as on the institutional kitchen floor.

The following is the finish legend and schedule by room type for the New Mono County Jail.

## INTERIOR FINISH MATERIAL LEGEND

Finish Material Legend			
ACT	Suspended Acoustical Ceiling	FRP	Fiberglass Reinforced Plastic Panels
ACI	Suspended Acoustical Ceiling Impact Resistant	FRL	Reinforced Plastic Laminate
ACC	Suspended Acoustical Ceiling Cleanable	FTWB	Fire Treated Plywood Backboard
ACG	Acoustical Ceiling Tile Glue-on	INT	Integral (Same Material as Floor)
ACP	Wall Mounted Acoustic Panels	LVT	Luxury Vinyl Tile
CFS	Sealed Concrete	PMC	Detention Plank Metal Ceiling
CMU	Concrete Masonry Unit	PNTE	Paint - Epoxy
CPTT	Carpet Tile	PNTL	Paint - Latex
CPTI	Carpet Tile – Institutional Grade	RB	Rubber Base
CR	Chair Rail/ Crash Rail	RF	Resinous Epoxy Flooring
CT	Ceramic Tile	RP	Resilient Padding
CTB	Ceramic Tile Cove Base	RS	Roller Shade
CTQ	Ceramic Tile - Quarry	RW	Resinous Epoxy Wall Finish
ESD	Electrostatic Dissipative Tile	SF	Sheet Flooring - Linoleum
EXP	Exposed to Structure and Painted	NA	Not Applicable/ No Job Finish

## INTERIOR FINISH SCHEDULE

Public, Staff, and Support						
Room Type	Floor	Base	Wall	Wainscot	Ceiling	Window Covering
Lobby	CT	CTB	PNTL	FRL - 4' H, CR	ACT	RS
Visit Public	CPTI	CTB	PNTL	FRL - 4' H, CR, - 2 Walls	ACT	NA
Visit Inmate RR	CPTI	CTB	PNTL	NA	ACG	NA
Sally	CFS	NA	PNTL	NA	ACT	NA
Family	CPTI	RB	PNTL	NA	ACT	NA
Public Restrooms	CT	CTB	PNTL	CT - 6' H	PNTL	NA
Staff Restrooms	CT	CTB	PNTL	CT - 6' H	PNTL	NA
Staff Breakroom	LVT	RB	PNTL	NA	PNTL	NA
Lockers	LVT	RB	PNTL	NA	PNTL	NA
Admin	CPTT	RB	PNTL	NA	ACT	NA
Work Room	LVT	RB	PNTL	NA	ACT	NA
Storage	LVT	RB	PNTL	NARR	ACT	NA
Private Offices	CPTT	RB	PNTL	NA	ACT	RS
Janitor	SF	INT	FRP	NA	PNTL	NA
Training	CPTT	RB	PNTL	FRL – 4' H, CR	ACT	RS
Conference	CPTT	RB	PNTL	FRL – 4' H, CR	ACT	RS
Mechanical/Electrical	NA	NA	NA	NA	NA	NA
Central Control	CPTI	RB	PNTE	NA	ACT	NA
Corridor	CFS	NA	PNTE	CR	ACT	NA
Chase/Equip	NA	NA	NA	NA	NA	NA
Electrical	CFS	NA	PNTL	NA	PNTL	NA
Security Electronics	CFS	NA	PNTL	FTWB – 1 Wall	PNTL	NA
Low Voltage	CFS	NA	PNTL	NA	PNTL	NA

Intake						
Room Type	Floor	Base	Wall	Wainscot	Ceiling	Window Covering
Booth	CFS	RB	PNTE	NA	ACT	NA
Release	CFS	NA	PNTE	NA	PNTE	NA
Pre-Book	CFS	RB	PNTE	NA	ACT	NA
Search	CFS	RB	PNTE	NA	ACT	NA
Property Storage	CFS	RB	PNTE	NA	ACT	NA
Work Room	CPTI	RB	PNTE	NA	ACT	NA
Booking	CPTI	RB	PNTE	NA	PNTE	NA
Process	CFS	RB	PNTE	NA	ACT	NA
Sober Hold	RP	INT	PNTE	RP - LOW WALL	PNTE	NA
Hold	CFS	NA	PNTE	NA	PNTE	NA
Storage Equip	CFS	NA	PNTE	NA	PNTE	NA
Dress-In	CFS	NA	PNTE	NA	PNTE	NA
Inmate Restroom	SF	INT	PNTE	FRP – GYP BD WALL	PNTE	NA
Staff Restroom	CT	CTB	PNTL	CT – 6' H	PNTL	NA

Housing						
Room Type	Floor	Base	Wall	Wainscot	Ceiling	Window Covering
Dorm	CFS	NA	PNTE	ACP@ 8' AFF	ACT	NA
Cells	CFS	NA	PNTE	NA	PNTE	NA
Toilet Area	RF	INT	PNTE	RW – WET WALLS	PNTE	NA
Shower	RF	INT	RW	NA	RW	NA

Housing Support						
Room Type	Floor	Base	Wall	Wainscot	Ceiling	Window Covering
Program/Group Rooms	CPTI	RB	PNTE	ACP@ 8' AFF	ACT	NA
Day Rooms	CFS	NA	PNTE	ACP@ 10' AFF	ACT	NA
Outdoor Rec	CFS	NA	PNTE	NA	NA	NA
Janitor	CFS	CTB	PNTE	NA	PNTE	NA
Storage	CFS	NA	PNTE	NA	PNTE	NA
Laundry	CFS	NA	PNTE	NA	PNTE	NA

Kitchen						
Room Type	Floor	Base	Wall	Wainscot	Ceiling	Window Covering
Kitchen	CTQ	CTB	FRP	NA	ACC	NA
Storage	CTQ	CTB	FRP	NA	PNTE	NA
Inmate Toilet	CTQ	CTB	FRP	NA	PNTE	NA
Staff Toilet	CTQ	CTB	PNTL	CT – 6' H	PNTL	NA
Walk-In Cooler/Freezer	FF	FF	FF	FF	PNTE	NA
Office	CTQ	CTB	PNTL	NA	ACC	NA

Medical/Mental Health						
Room Type	Floor	Base	Wall	Wainscot	Ceiling	Window Covering
Ante Room	CFS	NA	PNTE	NA	ACT	NA
Interview	CPTI	NA	PNTE	NA	ACG	NA
Video	CPTI	NA	PNTE	NA	ACG	NA
Isolation/ Segregation	CFS	NA	PNTE	NA	PMC	NA
Exam	SF	INT	PNTL	NA	PNTL	NA
Inmate Restroom Medical	SF	INT	PNTL	FRP – 6' H	PNTL	NA
Medical Storage	SF	INT	PNTL	NA	PNTL	NA
Clinic	LVT	RB	PNTL	NA	ACT	NA
Custody	LVT	RB	PNTL	NA	ACT	NA
Safety Cell	RP	INT	RP	NA	PNTE	NA

# MECHANICAL

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# HVAC BASIS OF DESIGN

## Codes and Standards

The project will be designed based on the following:

1. Americans with Disabilities Act (ADA).
2. California Building Codes, 2019 Edition:
  - a. California Building Code (CBC).
  - b. California Fire Code (CFC).
  - c. California Green Building Standards Code (CalGreen).
  - d. California Energy Code (CEC).
  - e. California Mechanical Code (CMC).
  - f. California Plumbing Code (CPC).
3. National Fire Protection Association (NFPA) Codes and Standards, dates of publication as referenced by the 2019 CBC:
  - a. NFPA 13: Standard for the Installation of Sprinkler Systems
  - b. NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems.
  - c. NFPA 90B: Standard for the Installation of Warm Air Heating and Air-Conditioning Systems.
  - d. NFPA 96: Ventilation Control and Fire Protection of Commercial Cooking Operations.
  - e. NFPA 99: Health Care Facilities Code.
  - f. NFPA 101: Life Safety Code.
4. Additional state and local jurisdiction requirements.

## Outdoor Design Conditions

Source: ASHRAE Climactic Data for Site Specific Region

Location: Bridgeport, CA

Summer:

1. Design Dry Bulb & Mean Coincident Wet Bulb: 89°F DB / 56°F WB (0.1%).
2. Design Wet Bulb (Evaporative Cooling Systems): 66°F.

Winter:

1. -20°F (Median of Extremes).

Elevation: 6470 ft.

Climate Zone: 16

## Indoor Design Conditions

General Building & Administration areas:

1. Cooling: 75°F +/- 2°F.
2. Heating: 72°F +/- 2°F.

Dorms, Housing Cells and Day Rooms:

1. Cooling: 75°F +/-2°F.
2. Heating: 72°F +/-2°F.

Control Rooms:

1. Cooling: 75°F +/-2°F.
2. Heating: 72°F +/-2°F.

Mechanical & Main Electrical Rooms:

1. Cooling only: 90°F +/-2°F maximum.
  - a. Rooms are provided with exhaust ventilation only; no mechanical cooling.

Electrical Rooms:

1. Cooling only: 90°F +/-2°F maximum.

Security/Telecom Rooms:

1. Cooling only, 72°F +/- 2°F maximum.

Kitchen, Laundry:

1. Cooling: 80°F +/-2°F.
2. Heating: 70°F +/-2°F.

Humidity Control:

1. No direct humidity control provided, spaces <60%RH.

## Ventilation Criteria

The following criteria will be used to determine the minimum ventilation required in each space:

1. Occupant Density: Based on actual people count. Where number of persons is unknown, default occupancy for CBC/CMC will be used.
2. Ventilation Air Rates: In accordance with Title 24 requirements as follows.
  - a. 15 cfm/person or 0.15 cfm/sf minimum.

## Exhaust to Outdoors

The following spaces will be exhausted. Minimum exhaust rates will be provided in accordance with CMC Chapter 4 and ASHRAE 62.1 or higher as follows:

1. Toilet rooms: 75 cfm/fixture.
2. Locker rooms: 0.5 cfm/sf minimum.
3. Janitor closet: 1 cfm/sf.
4. Shower rooms: 10 air changes per hour.
5. Cells with Toilet: 1 cfm/sf minimum or based on cooling load.
6. Airborne infection isolation rooms: 12 air changes per hour, fully exhausted.

## Internal Heat Gains

Equipment and Lights:

Room Type	Equip./Misc. Watts/Sq. Ft.	Lights Watts/Sq. Ft.
Office	2.0	1.0

Conference/Program	2.0	1.2
Corridor/Restroom/Support	0	1.0
Medical/Clinical Care	2.0	1.2
Kitchen/Laundry	(Based on Equip Load)	1.4
Mechanical/Electrical	(Based on Equip Load)	1.0

Occupancy Criteria:

1. Heat Gain per Person:
  - a. Sensible: 255 Btuh.
  - b. Latent: 255 Btuh.
2. Density
  - a. Office: 100 sf/person.
  - b. Multipurpose/Conference room: 20 sf/person.
  - c. Cells and Dorms: Based on number of beds (assumes 2 per bunk).
  - d. Day room: Sum of Dorm/Cell occupancy

## Scheduling

The following building areas will be scheduled to operate 24 hours per day, 7 days per week continuously:

1. All Dayrooms and Housing Areas.
2. Intake.
3. Control Room.
4. Lockers.
5. Dispatch.

The following areas will be scheduled to operate between the hours of 6am and 10pm, 7 days per week. During unoccupied mode, a night time setback temperature will be provided with ability to override system operation via the local wall thermostat.

1. Kitchen.
2. Laundry.
3. Inmate Program/Medical areas.
4. Administration.
5. Entry Lobby.

## HVAC Zoning

Use of single packaged HVAC units will limit the ability to provide zone control for the building. The building will be zoned at a minimum to provide temperature control for spaces with similar thermal characteristics. Occupancy and scheduling requirements will also be considered.

Building HVAC systems will be zoned based on the following:

1. Single HVAC zone per housing unit, to take advantage of occupancy diversity between cells and Dayroom.
2. Conference and multipurpose spaces with high occupancy density will be provided with a separate zone.
3. Control room will be provided with separate dedicated HVAC systems.
4. IT/Security spaces will be provided with separate dedicated cooling-only units.

## Air Distribution Design Criteria

Supply, Return and General Exhaust Ductwork:

1. Velocity not to exceed 1200 ft/min
2. Air pressure drop not to exceed 0.08" wg/100 ft.

Type 1 Kitchen Exhaust (Grease Hoods):

1. Maximum 2,000 ft/min velocity. Velocity shall be allowed to drop to 500 ft/min as allowable by CMC 511.2 where controlled by a UL-Listed Demand Control Ventilation (DCV) Kitchen Exhaust system.

Type 2 Kitchen Exhaust (Wet/Vapor Hoods):

1. Same as general exhaust above.

## Equipment Sizing

Equipment will be size based on the following:

1. All Equipment: Provide 3% allowance for duct leakage and 10% safety factor on overall system sizing.
2. Future: Equipment will not be sized for future expansion.
3. Diversity: Housing Unit systems will be sized for peak design of Dayroom vs Cell occupancy, accounting for occupant diversity between these two spaces. All other areas will be designed for maximum occupancy.
4. Air-cooled equipment shall be sized with ambient conditions of 105°F DB for condenser performance/selection.

Electrical Service: Packaged air handling equipment will be connected to Emergency Power for full continuation of service in emergency conditions. Dedicated HVAC units for Central Control, MDF/IDF, and Security Electronics rooms will also be on Emergency Power.

## Acoustical

The following noise NC/RC criteria levels will be achieved and as defined in the ASHRAE HVAC Applications Handbook. These levels address the mechanical systems only. Actual sound performance requirements for each space must be verified with an acoustical consultant.

1. Multi-Purpose/Conference: 35
2. Exam rooms: 35

3. Private Offices: 35
4. Day Rooms: 35-40 (max. 45 dBA)
5. Dorms, Cells: 35
6. Corridors: 45
7. Kitchen/Laundry: 45
8. Mechanical/Electrical/Storage: 50

## SYSTEMS NARRATIVE

### Air Distribution

#### Housing Units:

1. Each Housing Unit (Dayroom and Cells) will be served by packaged rooftop air conditioning units. The system(s) will be single duct, constant volume unit balanced to approximately 40% outside air providing heating and cooling to the spaces. All air from the cells will be exhausted, and cells will be maintained at a slight negative pressure to the Dayroom.
2. The units will include the following components:
  - a. Direct expansion coil.
  - b. High efficiency air cooled refrigeration system utilizing R410a refrigerant.
  - c. Propane fueled gas burner
  - d. 2" MERV-13 filters.
  - e. Unit-mounted modulating power exhaust economizers.
1. The following exhaust system will be provided:
  - a. A rooftop mushroom type exhaust fan with an ECM motor will be provided and interlocked with the HVAC unit. The exhaust fan will provide general exhaust to Housing Cells or Dorm restrooms.
  - b. An exhaust fan with an ECM motor will be provided for the Dayroom. A switch located in the Control room will allow the guards to switch the fan to a full exhaust/purge mode and open the outside air damper at the HVAC unit.
  - c. Smoke exhaust is not anticipated to be required for the Dayrooms but should be validated by a rational analysis and review with the State Fire Marshal early in the design development.

#### General Building, Administration, Building Support

1. Multiple packaged rooftop air conditioning units will be provided to serve remainder of the general building areas including Administration, Intake, Corridors, Building Support, etc. The system(s) will be a single duct, constant volume unit balanced with approximately 20-30% outside air providing heating and cooling to the spaces.
2. The unit will include the following components:
  - a. Direct expansion coil.
  - b. High efficiency air cooled refrigeration system.
  - c. Propane fueled gas burner
  - d. 2" MERV-13 filters.
  - e. Unit-mounted modulating power exhaust economizers.
3. The main Conference Room is provided with a dedicated unit.
4. The following exhaust system will be provided:

- a. A rooftop mushroom type exhaust fan with an ECM motor will be provided and interlocked with the HVAC unit. The exhaust fan will provide general exhaust to the Restrooms, Holding Cells and Janitor rooms.
- b. An exhaust fan with an ECM motor will be provided for Intake. A switch located in the Control room will allow the guards to switch the fan to a chemical purge mode and open the outside air damper at the HVAC unit.

#### Mechanical and Electrical Rooms

1. A rooftop mushroom or thru-wall type exhaust fan will be provided to provide ventilation and reduce heat loads within the space. The exhaust fans will be provided with ECM motors. A wall or door louver will provide makeup air to the space. Fans will be controlled with wall-mounted thermostats set to energize fans when space temperature rises above 80°F.

#### Kitchen

1. A packaged makeup rooftop unit will be provided to serve the kitchen when the kitchen exhaust fans are on. The system(s) will be a single duct, variable volume unit programmed for variable outside air depending on status of the kitchen hood exhaust fans. The unit will be capable of 100% outside air operation at the design heating and cooling climate conditions.
2. The recalculating unit will include the following components:
  - a. Supply fan with variable frequency drive.
  - b. Direct expansion coil.
  - c. High efficiency air cooled refrigeration system.
  - d. Propane fueled gas burner
  - e. 2" MERV-13 filters.
3. The following exhaust system will be provided:
  - a. A rooftop mushroom type exhaust fan be provided and interlocked with the HVAC unit. The exhaust fan will provide general exhaust to the restrooms and janitors closet associated with the kitchen.
  - b. A dedicated exhaust fan will be provided to serve the kitchen hoods. The fan will be a Type 1 listed, rooftop up-blast fan. All ductwork associated with the system shall be welded Type 316 stainless steel and provided with UL-Listed fire wrap.
  - c. A dedicated exhaust fan will be provided to serve the kitchen wet exhaust. The fan will be a rooftop up-blast fan. All ductwork associated with the system shall be welded Type 304 stainless steel.
  - d. Kitchen hood fans are to be provided with a Demand Control Ventilation (DCV) control system that varies exhaust fan speed depending on cooking operations. The Hood DCV system will provide a makeup air quantity signal to the BMS or Makeup Air Unit directly for modulation of outside air to meet exhaust volumes.

#### Low Voltage/Security Room(s)

1. A dedicated split system fan coil and rooftop condensing unit will be provided to serve the Control room and Multi-purpose rooms.
2. The unit will include the following components:
  - a. Wall-mounted indoor fan coil unit.
  - b. High efficiency air cooled condensing unit.
  - c. Refrigerant piping.
  - d. Standard washable filters.

## Building Automation System

The building control system will feature the following:

1. A new BACNet-based direct digital control (DDC) automatic temperature control system will be provided. The BAS system shall feature the following items:
  - a. Control and monitoring of all mechanical and plumbing equipment including enable, start/stop, alarm, status.
  - b. Packaged equipment will be controlled by manufacturer's equipment panel. BACNet interface modules shall be specified at equipment where available to allow monitoring of equipment.
  - c. HVAC units with economizer fault detection and diagnostics testing.
  - d. Local operator's workstation in building (or laptop with software provided for remote access).
  - e. Remote monitoring of system via a web-based platform.
  - f. Sequence of Operation features shall include:
    - i. Trim and respond.
    - ii. Outside reset temperature sequence of operation.
    - iii. Duct static pressure reset.

# PLUMBING

## **NARRATIVE BY:**

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Contact: Kevin Stillman



# BASIS OF DESIGN

## Codes and Standards

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  - d. NFPA 96: Ventilation Control and Fire Protection of Commercial Cooking Operations.
  - e. NFPA 99: Health Care Facilities Code.
  - f. NFPA 101: Life Safety Code.
4. Additional state and local jurisdiction requirements.

## Design Criteria

Water supply:

1. Minimum available water pressure (static): **TBD**
2. Cold water pipe size as shown on drawings
3. Cold water demand: **TBD**

Heating Water System:

1. Domestic Hot Water Supply:
  - a. Cells, General Building: 110°F
  - b. Kitchen: 140°F
  - c. Laundry: 140°F
2. Domestic Cold-Water temperature: 55°F (used for water heater sizing)
3. Kitchen:
  - a. 140°F hot water will be provided to Dishwasher, Can Wash, and other fixtures and equipment as identified by Food Service plans. 110°F provided to handwash sinks and other conventional fixtures.
4. Laundry:
  - a. 140°F hot water will be provided to Washing Machine equipment as outlined in the Equipment plans. 110°F provided to handwash sinks and other conventional fixtures.

Sanitary Sewer:

1. Building sewer size as shown on plans inches at 2% slope
2. Grease Waste will be provided for Kitchen and Dishwashing areas as required by Code and Local Health Department.

Storm drain:

1. Rainfall intensity 3.0 inches/hour

Gas Service:

1. Stored liquid propane will be available on site and refilled as needed through the owner's contract with a local provider. No gas metering will be provided.

## SYSTEMS NARRATIVE

### Domestic Cold-Water System

A new domestic water service will be provided to the building, with a service entry point at one of the main mechanical rooms.

Domestic water piping distribution throughout the building will be Type L copper tubing with wrought copper fittings. Piping below slab will be Type K copper tubing with wrought copper fittings or Type K annealed copper tubing without joints.

Penal plumbing fixtures will be provided without local or networked water management. To allow shutoff of water from central control, remotely activated solenoids will be provided to isolate each housing wing.

### Domestic Hot Water Systems

Provide (2) domestic hot water systems to serve the building. One system will serve the Housing Units, Intake areas, and Admin areas. A second system shall be provided to serve the laundry and kitchen area. Both systems shall generate and store hot water at a minimum of 140°F. A recirculation pump and digital mixing valve will be provided at the housing unit and administration loop to maintain circulating water temperature of 110-115°F. Local booster heaters will be provided at the kitchen and laundry equipment where higher temperatures are required.

The Housing/Intake/Admin domestic hot water system will include the following equipment:

1. Propane-fired Water Heater, size as shown on plan.
2. Expansion tank.
3. Digital Mixing valve.
4. Recirculation pump.

The Kitchen and Laundry domestic hot water system will include the following equipment:

1. Propane-fired Water Heater, size as shown on plan
2. Expansion tank.
3. Recirculation pump.

## Sanitary Waste & Vent System

Three sanitary mains will be provided to serve the plumbing fixtures in the building. One sanitary main will serve the administration wing and laundry, one sanitary main will serve the kitchen, and one sanitary main will serve the housing blocks (general, mental health, and medical). The kitchen sanitary main will drain into an underground 4,000-gallon (estimated size **TBD**) grease interceptor. The grease interceptor will be located outside the building footprint and will be provided with manholes for serving of unit and monitoring ports. The housing sanitary main will drain into a sewage grinder located outside the building; grinder system will be arranged with bypass piping. The administration sanitary main will not be connected to any post-processing equipment. All three sanitary mains will connect to a site sanitary connection provided by Civil.

Sanitary waste and vent piping inside the facility and under slab will be service weight cast iron with no hub couplings.

Pressure activated trap primers will be provided for all floor sinks and floor drains. Electronic trap primer systems will be provided where no pressure-fluctuating devices (flush valves) are located nearby.

Penal fixtures will be provided at all security level locations. Pinned cleanouts will be provided at all inmate toilets.

## Stormwater System

Roof drainage will consist of roof drains, scuppers, rainwater leaders and downspouts and will be sized to carry away the equivalent of 3 inches per hour of rainfall. The rainwater lines will discharge to splash blocks at grade, or directly connect to civil storm lines which drain to site bioretention areas. Overflow drains will be provided to protect the roof and will daylight outside the building.

## Plumbing Fixtures

All plumbing fixtures and faucets will be high efficiency type, commercial grade. Fixtures will include hard-wired automatic flush valves with optional manual flush activation for water urinals, water closets, and automatic faucets in toilet rooms. Fixtures provided will reduce water potable water consumption by a minimum of 20% below baseline standard, in accordance with CA Green Code requirements. Low flow water conserving fixtures will be provided at staff and public areas, and in inmate-accessible areas where institutional products are available.

# FIRE PROTECTION

## **NARRATIVE BY:**

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Contact: Kevin Stillman

## BASIS OF DESIGN

### Codes and Standards

The project will be designed based on the following:

1. California Building Codes, 2019 Edition:
  - a. California Building Code (CBC).
  - b. California Fire Code (CFC).
  - c. California Mechanical Code (CMC).
  - d. California Plumbing Code (CPC).
2. National Fire Protection Association (NFPA) Codes and Standards, dates of publication as referenced by the 2019 CBC:
  - a. NFPA 13: Standard for the Installation of Sprinkler Systems
  - b. NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems.
  - c. NFPA 90B: Standard for the Installation of Warm Air Heating and Air-Conditioning Systems.
  - d. NFPA 96: Ventilation Control and Fire Protection of Commercial Cooking Operations.
  - e. NFPA 99: Health Care Facilities Code.
  - f. NFPA 101: Life Safety Code.
3. Additional state and local jurisdiction requirements.

### Water Supply

A Fire Flow Test will be required to determine design conditions.

1. Flow Test Location: **TBD**
2. Static: **TBD**
3. Residual: **TBD**

Test Flow **TBD**

### Design Criteria

System design will be based on the following criteria:

1. Main size: 6 inches.
2. Backflow Preventer: 6 psi.
3. Meter: 5 psi.
4. Minimum Pressure at Sprinkler: 15 psi.
5. Number of risers: 1.
6. Design Occupancy: Light Hazard.
7. Density: 0.10 gpm over most remote 1500 sf.

### Sprinkler Head Type

The follow sprinkler heads will be used on project:

1. Administration, General Building and Support Areas: Semi-recessed quick response, ordinary temperature 165°F.

2. Security/IT Room: Semi-recessed quick response, intermediate temperature 200°F. Head guards provided where subject to damage.
3. Mechanical/Electrical Rooms: Upright exposed quick-response, intermediate temperature 200°F. Head guards provided where subject to damage.
4. Dayrooms and Cell/Dorms: Fully recessed, institutional type quick response extended coverage.

## SYSTEMS NARRATIVE

### Wet Pipe System

The building will be protected by a new automatic wet pipe fire sprinkler system served from a new 8" fire water main riser. The fire water service will enter the building in the Mechanical room. The riser assembly will include isolation valve, inspector's test port, pressure gauges, fire department connection, applicable signs, flow switch, alarm, and fire alarm monitoring.

Piping will be Schedule 40 black steel with threaded fittings for piping 2" and smaller and rolled groove piping with rubber gasket fittings for piping 2-1/2" and larger.

Fire Sprinkler alarm will annunciate at the following locations:

1. Local fire department via building Fire Alarm Panel.
2. Guard's Desk in all Control Room(s).

Special Application window coverage sprinkler systems (Tyco Model WS, or equal) may be provided as necessary at the glazing assembly in the rated wall construction around the Central Control station in the housing wing. An Alternate Means of Compliance for this approach at rated glazing areas has been allowed on recent detention projects reviewed by the OSFM in lieu of high cost rated glazing assemblies.

A specialty fire suppression system will be provided for the kitchen exhaust hoods. The system will be included as part of the kitchen equipment and integral to the exhaust hoods.

# ELECTRICAL

## **NARRATIVE BY:**

LP Consulting Engineers  
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Contact: Ciprian Padraru

This project involves the demolition of an existing hospital and supporting building, as well as the construction of a new, single level jail facility for Mono County, California. The facility contains two (2) housing units and two (2) dorms with Outdoor Recreation Yards, Medical Clinic, Interview, Laundry, Kitchen, Intake Area, Public Entry Lobby, and Administrative Space.

## BASIS OF DESIGN

### Codes and Standards

The project will be designed based on the following:

1. California Building Codes, 2019 Edition:
  - a. California Building Code (CBC).
  - b. California Fire Code (CFC).
  - c. California Electrical Code (CEC).
2. National Fire Protection Association (NFPA) Codes and Standards, dates of publication as referenced by the 2019 CBC:
  - a. NFPA 72: National Fire Alarm Code
  - b. NFPA 70: National Electrical Code
  - c. NFPA 99: Health Care Facilities Code.
  - d. NFPA 101: Life Safety Code.

## ELECTRICAL OVERVIEW

The facility will be provided with one main electrical room and one (1) satellite electrical room for distribution of normal (utility) and emergency (generator) power throughout the facility. The main electrical room will be sub-divided into two fire rated rooms to provide separation of the automatic transfer switches and emergency power distribution from the normal power distribution equipment. The main electrical room will be located near the southwest corner of the Housing Units with exterior access. This main electrical room will contain the main electrical service switchboard with underground secondary service conduits to an outdoor pad mounted utility transformer located adjacent to the main electrical room. Electrical distribution panels and sub-panels will be provided in the main electrical room and in the satellite electrical room to facilitate local power distribution to the respective adjacent areas. The electrical distribution equipment will consist of the following:

- Main electrical room to house the main electrical service equipment, and transformers and sub-panels for future normal power loads.
- ATS room to house the automatic transfer switch for the emergency generator, and transformers and subpanels on emergency power to serve the support areas located adjacent to the ATS room.
- One satellite electrical room to house distribution panel, transformer, and subpanels to serve the areas adjacent to each of the satellite electrical room.

## ELECTRICAL SYSTEM

### Normal Electrical Power

The facility will be provided with a new electric service from Southern California Edison (SCE). which will provide “normal” or utility power for the project. A new outdoor pad mounted utility transformer will be



provided near the building's main electrical room with underground secondary feeder connection to the building's main electric service switchboard. The main electric service switchboard or "Main Switchboard" will be rated for 277/480V, 3 Phase, 4 Wire. Preliminary calculations indicate a bus size of 1,200 amps. The main switchboard will contain an underground pull section for terminating the secondary feeders from the outdoor pad mounted utility transformer, utility metering section, customer metering with load monitoring features via TBS and Bacnet communications, main circuit breaker and distribution sections. The main switchboard distribution section will feed the emergency distribution panel via the automatic transfers switch, which will feed sub-panels for lighting, HVAC equipment power and step-down transformers. Sub-metering will be provided at emergency distribution panels.



**Main Switchboard**

Preliminary Load Calculations for Electrical Service Size:

Project Size: 19,000 SF

Lighting @ 3.0 watts/sf x 1.25	=	71,250 watts
Exterior Lighting	=	10,000 watts
Receptacles @ 3.0 watts/sf	=	57,000 watts
Mechanical @ 8.0 watts/sf	=	207,260 watts
Service Water Heating	=	10,000 watts
Sewage Grinder (10HP)	=	11,634 watts
EV Chargers (5) @ 7,000 watts x 1.25	=	43,750 watts
Kitchen	=	104,500 watts
Laundry	=	19,010 watts
Gate Operators (4) @ 1HP	=	7,360 watts
Dispatch Tower	=	40,000 watts
Largest Motor @ 25%	=	3,000 watts
25% Spare capacity	=	<u>146,190 watts</u>
Service Total		730,950 watts

For 277/480V, 3 Phase, 4 Wire service:

$$730,950 \text{ watts} \div 480 \times \sqrt{3} = 880 \text{ amps}$$

The satellite electrical room will contain 277/480V and 120/208V emergency power sub-panels to serve the emergency lighting and outlets in their respective areas, and a normal power sub-panel for future EV chargers. Three 277/480V, 3 phase, 4 wire, underground electrical feeders will be run from the Emergency Distribution Panel in the ATS room to two 277/480V, 3 phase, 4 wire distribution panel in the satellite electrical room, one panel for lighting and another for HVAC equipment and to one 480V to 120/208V, 3 phase, transformer, which in turn will feed 120/208V, 3 phase, 4 wire distribution panel and subpanels for receptacle and other emergency 120V and 208V equipment loads. One 120/208V, 3 phase, 4 wire, underground electrical feeder will be run from a sub-panel in the main electrical room to one 120/208V, 3 phase, 4 wire sub-panel in the satellite electrical room for future EV chargers.

## Emergency Power

The jail facility will be provided with two outdoor LP propane-powered emergency generators, with remote 48 hour fuel tanks to provide emergency power for all electrical loads, including: life safety, security, HVAC, kitchen, laundry and other essential electrical loads in the event of a utility power failure. The generators will be rated for 277/480V, 3 Phase, 4 Wire operation. Preliminary calculations indicate a size of 2 x 400 KW. Underground concrete encased feeders will be provided from each generator to an automatic transfer switch (ATS) located in the ATS room. The ATS will feed an emergency distribution panel, also located within the building's dedicated ATS electrical room, which in turn will feed 277/480V sub-panels, and step down transformers in both the main electrical room and satellite electrical room. The emergency generator shall meet I=1.5 for anchorage and shall be provided with a factory certified shake test.

Following is a comprehensive but not exhaustive list of the loads that will be provided with emergency generator power:

- Emergency egress and exit lighting
- Exterior Lighting
- Fire Alarm System
- Security system and equipment
- Data and communications equipment
- Security lighting
- Refrigeration equipment
- Emergency power receptacles
- Heating systems
- Radio equipment and chargers
- Sewage grinder
- Water management system
- Medical equipment
- Air condition systems for the entire building.
- Kitchen equipment
- Laundry equipment

- General use receptacles

Battery back-up power will be provided for critical systems to provide for uninterrupted power during the start-up and load transfer time for the generator power system. The battery power will be provided either by integral battery units within the equipment or external uninterruptible power supplies (UPS). Battery back-up power will be provided for the following systems:

- Emergency egress and exit lighting
- Fire Alarm System
- Security system and equipment
- Data and communications equipment

## Interior Lighting

The interior lighting system will consist of energy efficient lighting fixtures using LED lamp sources. All lighting fixtures in inmate accessible areas will be security grade, vandal proof type with security hardware. Lighting fixtures in sleeping rooms will be maximum security type, surface mounted LED fixtures with pre-set, dimmable LED night light feature. Lighting fixtures for non-inmate accessible areas will be surface and/or recessed LED type to match ceiling types and configurations. Safety Cells shall be provided with dimmable security light fixtures, controlled from outside of each Safety Cell.



**Cell Security Light Fixture**

Lighting controls for the day rooms, walkways and recreation yards in detention areas will be controlled at the central control staff station for each area. Sleeping rooms will be provided with controls at the staff stations for each area. All other non-inmate areas will be provided with local switching and/or dimming controls with occupancy sensors for automatic lighting shut off of lighting fixtures when rooms are vacated. Automatic daylighting controls will be provided for all Occupancy B areas where daylighting contribution is present. Daylighting controls will provide for reduced light output or shutting off lighting fixtures located within the daylight zone when daylight contributions are of sufficient levels.

Designated lighting fixtures throughout the facility needed for emergency egress, exiting and security will be provided with integral battery packs for continuous, uninterruptable illumination in the event of a utility power failure. These fixtures will also be connected to emergency generator power for operation during sustained power outages.

## Exterior Lighting

Exterior lighting will consist of building mounted and pole mounted luminaires utilizing LED lamp sources for maximum energy efficiency and low maintenance. Pole mounted lighting fixtures will be minimal as

necessary for parking, drive, and walkway areas. Building mounted lighting fixtures will be used predominately for exterior security illumination. All exterior lighting fixtures will be connected to emergency generator power for continuous nighttime illumination during utility power failures.



**Exterior LED Wall Light**



**Exterior LED Pole Light**

All exterior lighting will be controlled by a photocell for dusk to dawn operation with a manual override in the ATS room for service and maintenance purposes.

# TELECOM

## MAJOR EQUIPMENT LIST BY:

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Contact: Matt Harper

## TELECOM OVERVIEW

The project will be provided with telephone and data infrastructure to facilitate the Counties telephone and Data equipment installation. An intermediate distribution frames (MDF) will be provided for cabling distribution throughout the facility. The MDF will be provided with provisions for connectivity to new IDF locations. The telecom infrastructure will consist of raceways, cable trays, equipment mounting backboards, data racks, patch panels, grounding systems, power outlets, rack mounted uninterruptable power supplies (UPS) and telecom/data outlets with jacks and cabling back to the IDF room.

### TELECOM System

#### Conduit Infrastructure System

Technology infrastructure includes both continuous and non-continuous pathways supported by a core basket tray infrastructure linking telecommunication rooms. Continuous pathway consists of 1 to 1.25-inch conduit chases both vertical and horizontal over hard lid environments with appropriately sized backboxes. For non-continuous pathway both 2 inch and 4-inch J hooks will be utilized spaced at 5 ft. apart. All thoroughfare cabling will reside on 18-inch basket tray.

#### Telephone System

Telephone service from MDF to new IDF will be coordinated with Facilities. A new minimum point of entry (MPOE) will be established in the building's MDF room and consist of a 4' x 8' x ¾" fire resistant plywood backboard, power receptacle connected to emergency generator power and ground bus in accordance with service providers standards. Two (2) underground 4-inch conduits will be provided from the main telephone backboard to the service providers point of connection. UPS and emergency generator power will be provided for the main telephone board equipment. The telephone system equipment shall not be in the same room as the Security-Electronics equipment.

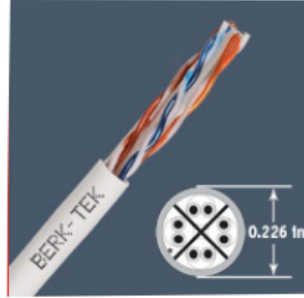
Single telephone outlets and/or combination telephone/data outlets will be provided throughout the facility as designated by the County. Conduit will be provided from each outlet to the nearest cable tray above accessible ceilings in the main corridors. Cabling will be installed from each outlet, via conduit to the cable tray and continue to the IDF room for termination at the telephone or data racks. Cabling will be color coded for identification and convenience.

#### Data System

Data systems infrastructure will be provided for the facility consisting of data racks, cable patch panels, cabling, and outlets with data jacks. CAT 6 cabling will be installed from each outlet in conduit to an overhead cable tray installed above accessible ceilings in the corridors and route back to the IDF room. Secured wireless access points will be provided in office locations and shared staff locations. Electrical power outlets will be provided at each of the equipment racks for connection of the Counties equipment. UPS and emergency generator power will be provided for all the data outlets at the equipment racks. Cabling will be color coded for identification and convenience.



**Cable Tray**



**CAT6 Plenum Rated Cable**

## Cable TV System

The facility will be provided with Cable Television service from Comcast for distribution of commercially and locally originated signals to dayrooms and other areas via a coaxial cabling system with amplifiers, splitters, taps, attenuators and all other components required for a complete an operational television signal distribution system.

A cable television backboard will be provided in the IDF room for termination of Comcast Cable service entrance cable and distribution equipment. Cable television distribution will be provided for the following:

- Inmate Broadcast TV: Channels available on the system are limited to pre-selected channels as determined by the Sheriff and controlled by the county vendor. Channels to be selected at the TV receiver. Cabling will be color coded for identification and convenience.
- Staff Broadcast TV: Channels available on the system shall be as determined by the Sheriff and controlled by the vendor. Channels to be selected at the TV receiver. Cabling will be color coded for identification and convenience.

Infrastructure for the Comcast cable service shall consist of two (2) underground 2-inch conduits from the cable television backboard in IDF room to the roadway with underground service box for cable television connectivity.

## **VIDEO VISITATION**

### System Description

The facility will be provided with a Video Visitation System to be provided by a 3<sup>rd</sup> party vendor. The infrastructure including power, data cabling, equipment rack and pathways will be provided in the construction documents.

The equipment rack shall be in the IDF room and will provide for future equipment installation by the County selected 3<sup>rd</sup> part vendor. The video visitation equipment shall not be in the same room as the Security-Electronics equipment

Infrastructure for the service shall consist of (1) Cat6 data cable from backboard in IDF room to station location detailed as an AV1 location to share basket tray with data cabling back to IDF. Cabling will be color coded for identification and convenience.

## MATV System

The facility will be provided with a Master Antenna Television System for distribution of commercially and locally originated signals to dayrooms and other areas via a coaxial cabling system with amplifiers, splitters, taps, attenuators and all other components required for a complete an operational television signal distribution system.

The head end equipment shall be located in the MDF room and will provide for both inmate and staff broadcast television to consist of the following:

- Inmate Broadcast TV: Channels available on the system are limited to pre-selected channels as determined by the Sheriff and controlled by the county vendor. Channels to be selected at the TV receiver.
- Staff Broadcast TV: Channels available on the system shall be as determined by the Sheriff and controlled by the vendor. Channels to be selected at the TV receiver.

Infrastructure for future cable service consisting of underground conduits from the MDF room to the roadway and underground service box will be provided for future connectivity if decided at a future date.



# FIRE ALARM

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## Fire Alarm System

This facility will be provided with a complete automatic/manual addressable fire alarm system consisting of main fire alarm control panel, remote annunciators, and initiating and signaling devices. The main fire alarm control panel shall be located in the main electrical room with remote annunciators at Central Control, Staff Stations for monitoring of the fire alarm system. The annunciator at Central Control will be a graphic annunciator for easy identification of locations for devices in alarm and/or trouble conditions and will monitor all initiating devices in the I occupancy areas. Initiating devices will consist of smoke and heat detectors throughout the building and manual pull boxes at the Central Control Staff Stations and at building exits. The manual pull boxes at the building exit locations will be key operated where accessible by inmates.

All fire alarm conditions will be monitored at Central Control and will not automatically open housing unit egress doors. Control of housing egress doors will be manual by the staff only.

The fire alarm system will also provide monitoring of all fire suppression systems, mechanical duct smoke detectors and will control fire smoke dampers and HVAC equipment shut down. An auto damper test feature is to be provided for the fire alarm system for ease of testing operation of remote dampers.

The fire alarm control panel will be provided with integral battery back-up power and will be connected to emergency generator power for continuous operation in the event of a utility power failure.

# SECURITY ELECTRONICS

## **NARRATIVE BY:**

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## SECURITY ELECTRONICS OVERVIEW

The purpose of the electronic security systems will be to assist in creating a secure and safe environment for the staff, inmates, volunteers, and public that use the facility. The systems to be designed will accomplish their purpose by providing the staff with the tools they will need to operate the facility in an efficient manner while maintaining security and safety.

As these facilities look to the future, it is not uncommon to see a need to adjust treatment, change the mission of a facility, or simply adjust operations in order to meet changing demands of society. A system design must respond to this challenge by incorporating flexibility and expansion potential in the systems.

Although the electronic security system will be made up of several sub systems, they will be integrated in both physical and electronic manner to achieve a single system presentation and functionality to the operator.

The electronic security system for the Mono County Jail will consist of the following subsystems:

- Security intercom and Paging Systems
- Electronic Security Control System (PLC)
- Touch Screen Control and Management System (and/or handheld controllers)
- Video Management and Recording System
- Access Control System (Card readers)
- Uninterruptible power systems for security equipment

### Security Intercom and Paging Systems

The intercom and paging systems will utilize a modular digital communications system (VoIP). The intercom systems will provide two-way communications between control stations and remote locations. Each control station shall be provided with a dedicated speech path.

The new digital communication became more common in commercial and industrial applications and displayed the rigidity and flexibility to meet the demands of the environment and operations of detention and correctional facilities. Digital technology provides a high level of performance and a large feature set. Following are some of the system features:

- Clear, crisp, and intelligible communications are coupled with functions such as audio level alarm detection and discrete audio monitoring to provide a powerful communications system.
- A flexible, distributed architecture. A software-based configuration ensures that a digital intercom system is flexible enough to meet future operational needs. Configuration software allows the system operation to be changed for different times of the week and different times of the day. Modular construction provides the option to easily expand the system at a future date.
- Rugged construction, fault tolerant design, and comprehensive diagnostics make a digital intercom system easier to install and maintain. Modular construction simplifies the coordination of phased construction and facility renovations.
- Excellent speech quality reduces operator stress and minimizes safety concerns. Individual audio level adjustments and digital filters help to balance a system and compensate for varying room acoustics.

- CAT6 cable shall be used to connect each intercom stations to intercom and paging system controller/server.

New intercom stations will be designed for mounting on standard 2-gang outlet boxes. Faceplates will be constructed of 11 gauge brushed stainless. Internal steel offset grilles will restrict inserting objects through speaker grilles. Stations shall be ruggedly constructed and resistant to damage from soil and sprays.

The paging system will provide one-way audible announcements to selected areas or zones. Selected areas include corridors, staff facilities and inmate areas. Each control station will have the capability of paging the areas which are under their control at the time of page. The intercom and paging system will be capable of providing interface with the facility's phone system to allow paging to selected areas through the phone system.

## Electronic Security Control System

All electronic security system field devices will be routed to electronic security equipment rooms and terminated to the electronic security head-end equipment (relays, PLC, power supplies, network switches, etc.).

The electronic security system shall function as an integrated system. The control and monitoring stations shall function as a single control point, appearing to function as a single system.

The system will be made up of multiple Programmable Logic Controllers (PLC) connected to the electronic control system network (ECSN). New PLC will be provided with the hot backup unit that will allow uninterruptible operation even if one PLC is down. PLC CPU, I/O modules shall be installed in each equipment room.

The ECSN shall be a high speed, fault tolerant, self-healing, and Ethernet based industrial data communications network. The interaction time between system input at the control station and the activation of a field device shall not exceed 0.5 second.

Network Switches shall be of heavy-duty design with fault tolerance by means of redundant power supplies. Switches shall consist of 1000 Mbps backplane with multiple 1000 Mbps ports for connection to PLCs and 1000 Mbps port for connection to other integrated system CPUs.

The electronic security systems for the facility will incorporate current technology in an integrated system and will be engineered to support the operations of the facility. Reliability, flexibility, and maintainability will be the hallmark of the systems.

## Touch Screen Control and Management System

Each new control station shall be provided with a control system that will use touch screen technology on 24-inch TS monitors. The system will be configured in a network for sharing of data and files. The network shall be configured in a client-server arrangement. The server will be provided for archival of data and storage of software and station configurations. The system will allow management of task groups to allow balancing of the workload among stations. In consideration of future software upgrades, network interfaces, and maintenance, the software for the stations and the network shall be specified to operate in Microsoft Windows 10 environment. Each control station will be ergonomically designed to maximize the

operator's efficiency and to minimize stress and eyestrain. It needs to be noted that cross training and relief plans for operators needs to be built into the operational plan.

The system shall consist of multiple touch screen control stations, administration station, file server, report printer. The touch screen control stations, the administration station, and the file servers shall be connected to the Ethernet network for communications and control.

The touch screen control stations shall be for the purpose of control and monitoring of security systems in the facility. The administration station shall be used for administrative functions such as diagnostics, software and file back-up and restoration, report generation, etc. The report printer shall be connected to the administrative station. The file server will be used for storage of all database information, restoration of touch screen stations, and software back-ups.

The goal of the presentation to the touch screen operator is to provide intuitive operations through visual simplicity, fast orientation, similarity of functions and ergonomics. Consideration shall be given for operators that are visually color impaired.

Graphic displays shall be created for welcome, log-on, utilities, special functions, and building floor plans of all areas of the facility, including site conditions. The display system shall convey an accurate plan of all areas of the facility. Salient characteristics pertaining to colors, icons, and graphics shall be confirmed during the submittal process.

Graphic screen hierarchy and access shall be both operator and event driven. The system shall allow the operator to move between functional area maps via the floor, building and site maps, and move between maps within a functional area by touching the area of the functional map that is desired. The system shall also allow events to drive movement between screens.

The touch screen control and management system shall be compatible with the ECSN and function in conjunction with all electronic security systems to display, control and monitor all devices and functions in a Graphic User Interface (GUI) environment.

Pre-recorded audio messages shall be linked to alarms based on alarm type, and alarm location. Audio message content shall be selected by the User.

Control shall be by selection using touch or a pointing device (i.e. mouse, trackball).

The offender management systems and touch screen control system shall be interfaced in order to provide up-to-date inmate information on the touch screen control stations.

The interface will be capable of displaying any field stored in the OMS on to the touch screen maps. The interface will allow the operator to verify and monitor many inmate aspects as well as locally track the inmate when he or she is out of their cell. Some of the information that will be shared between IMS and touch screen system include the following:

1. Inmate Name
2. Inmate Number
3. Case manager name
4. ADA status
5. Special Concerns (Diet, Medical, Violent Status, etc.)
6. Work Assignment (Color coded)

## 7. Inmate Location (based on IMS input)

### Video Management and Recording System

The purpose of the video management and recording system is to provide visual confirmation of movement through security barriers and general surveillance of movement. The video management and recording system shall be an IP network-based, fully distributed digital video system. The security video system will utilize local area networks (LAN) as a transmission medium for video, configuration, as well as storage of all data. The IP video management system shall provide support for IP cameras from multiple manufacturers and shall support standard resolution and megapixel HD IP cameras. Network storage shall be configured using fault-tolerant RAID-6 drive arrays.

All new cameras shall use Cat6 cable for connection to network switches. Where distance between camera or viewing station and network switch exceeds 300', new fiber optic cables shall be used. All new cameras shall be connected to the video network to allow display of any camera on any video viewing station. All cameras shall be recorded, and video storage shall be sized to retain recording for 365 days. All cameras shall be continuously recorded at native resolution, 15 images per second. Quiet time recording (no motion) shall be at native resolution, 2 images per second for all cameras. The motion should be estimated at 70%. All new video management and recording devices and equipment shall communicate over 10G network consisting of L2 and L3 network switches connected via new fiber optic backbone.

The system shall provide full video control at the Mono County Jail, with additional full selection capability at any point within the network from a workstation or a video console display. The security video system shall provide expansion capability for the addition or modification of the system.

New IP Based video management system software shall provide a built-in Digital Video Virtual Matrix Switcher feature. The IP video management system shall support the ability to switch any camera in the system to any monitor in the system, either through a PC Keyboard/Mouse or a joystick controller. The video management system shall allow for users to be restricted via software to logical configurable groups of cameras, monitors and system operation. The video management system shall manage system security, functioning as a key manager for user and device authentication, and it shall route communication between all devices on large, sub-netted security networks. The video management system shall store and administer secure keys and shall have multi-level and user permission management.

The Digital Video Storage Array will be designed for high-speed, high capacity digital video storage and high-performance play back applications. The storage array will be a full featured RAID 6 configuration. The digital disk storage array will be of modular design to improve the serviceability of the unit and minimize downtime. The storage array will be built for the security industry's most demanding digital video storage applications providing high capacity, unlimited flexibility, and reliability.

Cameras shall be capable of processing and analyzing video within the camera itself, with no extra hardware required. State-of-the-art intelligent video analysis shall reliably detect, track, and analyze moving objects while suppressing unwanted alarms from spurious sources in the image. Analytics shall intelligently adapt to difficult conditions like changes in lighting or environment such as rain, snow, clouds, and leaves blowing in the wind. The built-in tamper detection generates alarms on camera hooding/masking, blinding, defocusing, and repositioning. To enhance robustness, analytics shall be capable of being configured to ignore specified image areas and small objects. Calibrated cameras shall

automatically distinguish between upright persons, bikes, cars, and trucks. Furthermore, object size, speed, two-way direction, aspect ratio, and color filters shall be available for use in any combination to create specific detection rules for exactly the objects you are looking for. Statistics on object properties shall be stored and capable of being displayed for fine tuning the object filters. Object properties shall also be able to be defined by selecting an appropriately similar object in the video.

Cameras shall be strategically placed to monitor movement throughout the facility. Cameras shall be provided in the holding cells to monitor suicidal inmates.

## Access Control System

The purpose of the access control system is to allow a level of free movement within the facility for authorized staff. Movement through security barriers is accomplished by presentation of an access card to the card reader. A valid read shall cause the door to unlock and/or open. The authorization process is initiated at the access control system and validated by the electronic control system. The touch screen control system shall be capable of enabling or disabling the card reader function. The access control system shall be used in the Sheriff's office/Admin area and other lower security areas.

Access control cards shall be proximity type. The proximity card needs to be presented to within 6 to 8 inches of the reader.

The system will be a computer-based Building/Facility Management and Monitoring System used to control and monitor personnel and alarm activity. Access control panels (controllers) shall use fully distributed database architecture with real-time processing performed at each panel (controller). The fully distributed processing shall provide that all information (time, date, valid codes, access levels, etc.) is downloaded to the controllers so that each controller makes its own access control decisions. There shall be no hierarchical or intermediate processors to make decisions for the controllers. Also the access control system server/workstation shall not be required to make any decisions for the controllers including any global functions, shall provide instant response to card reads regardless of system size and provide for no degradation of system performance in the event of communication loss to the host (or actual loss of host). All time zones, access levels, linking events, holiday schedules, and global functions shall remain operational. Upon communication loss to the host, all controllers shall automatically buffer event transactions until the host communications is restored, at which time the buffered events shall be automatically uploaded to the host. The system shall maintain full feature capability regardless of the style of the communications from the server.

The access control system in the Mono County Jail shall be an expansion of the existing Brivo access control platform that is currently used in some of the existing county buildings.

The system will be a computer-based Building/Facility Management and Monitoring System used to control and monitor personnel and alarm activity. Access control panels (controllers) shall use fully distributed database architecture with real-time processing performed at each panel (controller). The fully distributed processing shall provide that all information (time, date, valid codes, access levels, etc.) is downloaded to the controllers so that each controller makes its own access control decisions. There shall be no hierarchical or intermediate processors to make decisions for the controllers. Also, the access control system server/workstation shall not be required to make any decisions for the controllers including any global functions, shall provide instant response to card reads regardless of system size and provide for no degradation of system performance in the event of communication loss to the host (or actual loss of host). All time zones, access levels, linking events, holiday schedules, and global functions shall remain



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The access control system in the Mono County Jail shall be an expansion of the existing Brivo access control platform that is currently used in some of the existing county buildings.

## Uninterruptible Power System (UPS)

Uninterruptible power for back-up shall be provided for all control and monitoring systems except electro-mechanical locks, and electrically operated gates or overhead doors. Each new equipment room shall be provided with the new UPS unit that will be sized to back up electronic security head-end equipment.

Each UPS system shall independently receive its power supply directly from the main/emergency power supply of the facility.

Each UPS system shall be provided with an alarm panel for indication of individual system alarms. Each UPS system shall be sized for a minimum of twenty (20) minutes of stand-by power under full connected load.

## New Control Locations

1. Central Control Room
  - a. Two (2) Control Stations.
  - b. Four (4) 55" LED monitors for video display
2. Intake and Booking Area
  - a. No control stations. This area shall be controlled from the Central Control Room
  - b. Electric Key (LEK) function shall be used for the local door control
  - c. Master Intercom Stations shall be used to allow audio communication between cell intercoms and control area
  - d. Two (2) 27" LED video monitors for video display

Each control station shall be provided with one (1) control monitor (24" LED), two (2) video monitors (27" LED) and one (1) audio communication interface. The control station and video viewing station (two monitors) will have their own CPU(s) to allow faster processing of the data.

The system shall be configured to allow control transfer between all control stations.

## Central Control Room

The Central Control Room security control and monitoring functions and operation shall include the following:

- a. Control and monitoring of all remotely controlled (electric locks) interior and exterior movement doors

- b. Control and monitoring of all remotely controlled (electric gate operators) site gates. There will be three (3) exterior site gates that will be controlled from the CCR. The gates will be equipped with pedestal mounted intercoms, card readers and cameras.
- c. Control and monitoring of all remotely controlled (electric locks) cell doors in Booking/Intake areas. The control stations shall be able to disable electric key (LEK) function at Booking/Intake areas.
- d. Override/Takeover and Lockdown operations of all other touch screen control locations
- e. Video Monitoring and Recording of all cameras in the new jail.
- f. Monitor fire alarm system trouble and alarm conditions
- g. Intercom and Paging communication operations
- h. Event report generation and printing
- i. Emergency Door Release Function
- j. Control and monitoring of all cell doors in the area of control
- k. Control and monitoring of rec yard and multipurpose doors in the area of control
- l. Inmate management system interface to allow pop-up window with inmate information at each cell.
- m. Watch Tour/Guard Tour system monitoring
- n. Utility Controls (lights, power, phone)
- o. Group Door Release Function

## Typical Door Control Operations

All movement doors (interior and exterior) and cell doors shall be provided with electric locks and capability of remote control and monitoring. The remotely controlled and monitored doors will be provided with the following functions:

- a. Normal operation of detention swing door(s) or a manual sliding door(s) with electric locking device(s) shall be such that touching the associated UNLOCK icon shall initiate an unlock command. The locking device(s) shall be controlled to withdraw the lock bolt and hold bolt withdrawn for a preset period of time and then released.
- b. Emergency release operation of detention swing door(s) or a manual sliding door(s) with an electric locking device shall be such that touching a HOLD UNLOCK icon shall initiate a hold unlock command. The locking device(s) shall be controlled to withdraw the lock bolt and hold withdrawn until the LOCK icon is touched or a global site, floor, or area emergency release mode reset is selected from Utility Screens. When emergency release of a group of doors is provided, the total group select mode of operation time shall not exceed ten (10) seconds.
- c. Normal and emergency release operation of full operable electric sliding devices shall be such that touching the OPEN icon associated with a door will cause the door to stop momentarily (if moving) and then open. Touching the STOP icon while the door is in movement shall cause the door to stop. Touching the CLOSE icon when the door is not secure shall cause the door to stop momentarily (if moving) and then close to a secure condition.
- d. Selective group release and/or inmate access of cell doors
- e. A door prop alarm shall be provided for each electrically controlled door. Any door left non-secure after its assigned time period shall generate an alarm to the Activity List. Cell doors may be excluded (based on the facility operation).
- f. An unauthorized access alarm shall be provided for each controlled or monitored door except where indicated on drawings. Any door that becomes non-secure without a command from the electronic security systems shall generate an alarm to the Activity List.
- g. A shunt function shall be provided for each door and alarm device (i.e. motion detector).
- h. An interlock override function shall be provided for each door that is part of one or more interlock groups. An interlock shall prevent more than one door of a group from being opened/unlocked

electrically. An interlock override function shall provide the means to defeat the interlock and electrically open/unlock more than one door of an interlock group.

- i. A function for enable/disable of card reader shall be provided for each door for which a card reader is provided.
- j. A function for enable/disable of electric key shall be provided for each door which an electric key cylinder is provided.

## Typical Intercom and Paging Control Operations

All movement doors (interior and exterior) and cells shall be provided with intercom stations for audio communication between control centers and remote locations. Paging speakers shall be provided throughout all areas of the facility to allow emergency and group announcements. The Intercom and Paging Control Operations:

- a. The control of intercoms shall be within the functional group icon for the associated door. The status of the intercom shall be indicated by a speaker shaped icon at the intercom location. The status icon shall be gray when the intercom is inactive and yellow when the intercom is active. Icon in active state shall be graphically different than in inactive state.
- b. The status of paging function shall be indicated by a speaker shaped icon at the paging location. The status icon shall be gray when the paging is inactive, and yellow when the paging is active. Icon in active state shall be graphically different than in inactive state.
- c. Intercom pushbuttons in cells in the general housing areas may be programmed for dual operation to unlock doors in the “day mode” or to place an intercom call in “night mode”.

# FOOD SERVICE

## **NARRATIVE BY:**

The Marshall Associates  
3000 Danville Blvd, Suite F344  
Alamo, CA 94507  
(415) 677-1200  
Contact: Stacey Jennings  
Mark Walsh  
Steve Marshall

## FOOD SERVICE OVERVIEW

The Kitchen at the Mono County Jail will be approximately 1400 square feet. The kitchen will prepare a hot or cold breakfast, hot lunch, and a hot dinner (7 days per week) for 48 inmates.

The 48 inmates at the main Mono County Jail will be served three (3) times per day, seven (7) days per week. This totals 144 meals per day; 1,008 meals per week.

The new 1,400 square foot central kitchen and storage facility is planned as a cook-serve facility that will be able to support the current planned population of 48 inmates.

The 1,400 square foot central kitchen will include:

- Receiving entry area with a 4'-0" wide door.
- 5-tier dry and secure storage – 100 linear feet of shelving
- 5-tier walk-in cooler – 145 linear feet of shelving
- 5-tier walk-in freezer – 100 linear feet of shelving
- Management office will be centrally located with full view of production kitchen, preparation, storage, inmate break, plating and receiving.
- Vegetable/salad/sandwiches preparation will include all required slicers, mixers, cutters, worktables, and sinks, with direct access to walk-in cooler/freezer and in full view of management offices.
- Production cooking will include one (1) 3'-0" griddle with oven base, one (1) 3'-0 six burner gas range with oven, one (1) 3'-0" broiler on stand, a dual basket fryer/filter unit, two (2) double stack convection ovens, stainless steel worktables and hot holding cabinets.
- Meat and dairy preparation will be done on stainless steel worktables with sinks, mixers, and cutters with direct access to walk-in coolers.
- The dish up counter is where all meals will be assembled on to domed, insulated trays. There will be support equipment located there for tray line, including drop in hot wells, cold well and hot cabinets. A typical hot tray would include an entrée, starch, and vegetable. A typical cold portion would include salad, fruit, bread / roll with butter and dessert. The pre-plated meals will be in stacking insulated trays. The trays will be stacked in an enclosed transport cart. Each cart will hold approximately 25-30 trays per cart and transported to day rooms to serve.
- Soiled trays and carts will return to the dish room after dispensing meals in the day rooms. The dish room will include a 3-compartment sink, high door dish machine, clean/soiled dish tables, hand sink and tray drying racks. Once carts are wiped down, they will return to tray assembly area for staging.
- The kitchen will also include a designated staff toilet, a designated inmate toilet, and an inmate break area.

# LAUNDRY

## **NARRATIVE BY:**

The Marshall Associates  
3000 Danville Blvd, Suite F344  
Alamo, CA 94507  
(415) 677-1200  
Contact: Stacey Jennings  
Mark Walsh  
Steve Marshall

## LAUNDRY OVERVIEW

The central laundry at the Mono County Jail will be approximately 800 square feet.

The central laundry will include the following:

- Two (2) 50 lb. rigid washer / extractors
- Two (2) 75 lb. electric dryers.
- Daily linen storage and shoe storage. No inmate property will be held within the laundry space.
- A central lint collector may be designed for the dryers, depending on space availability, with an alarm to signify when collector bags need to be changed.
- No steam will be required for the laundry.
- No sewing equipment will be required for the laundry.

Laundry Structural Required:

- 18" wide x 18" deep x 7'-6" long concrete wastewater/water reuse trench drain at washers.
- 24" thickened slab (5000PSI) below washers for dynamic load.

# RADIO

## **NARRATIVE BY:**

CSI Telecommunication, Inc.  
6 Hamilton Landing Ste 170  
Novato, CA 94949  
(530) 746-2454  
Contact: Craig Trygstad



## RADIO OVERVIEW

The project will be provided with a Distributed Antenna System (DAS) to support public safety radio communications throughout the campus. Coverage of two VHF Channels, one for correctional officers and sheriff deputies, and one for fire will be extended throughout the Jail.

The current situation related to discussions with the State of California and the use of the CRIS (California Radio Interoperability System) has created two different scenarios for the placement of radio equipment for these two channels. Scenario one is that there will not be a tower and shelter constructed on or near the property of the new Jail and that the radio equipment will be placed in the MDF room of the new Jail. The second scenario is that a new tower and shelter will be placed near the Jail and the radio equipment will be placed there.

The other unresolved question is the location of the Dispatch Center. Currently, it is located in the existing Jail and personnel performs duties of both Correctional Officers in the Control Room as well as Telecommunicators for the Mono County PSAP (Public Safety Answering Point). The impact to connections to the radio equipment are discussed in the two scenarios. The Dispatch Center itself is not included at this point in this narrative.

## BASIS OF DESIGN

### Codes and Standards

The project will be designed based on the following:

1. National Fire Protection Association (NFPA) Codes and Standards:
  - a. NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Communications Systems 2019 Edition
  - b. NFPA 72: National Fire Alarm and Signaling Code 2019 Edition
2. 2019 California Fire Code Title 24 Part 9 Section 510: Emergency Responder Radio Coverage
3. FCC 47 CFR Part 90 Private Land Mobile Radio Services
4. ATIS 0600333 Grounding and Bonding of Telecommunications Equipment

## SYSTEM NARRATIVE

### Scenario 1: VHF Repeaters in the Jail (no tower or shelter)

Two VHF channels, one fire and one law enforcement/corrections, will be supported by the DAS. Each channel will utilize an on-site analog conventional repeater located in the MDF room. These repeaters will utilize -48VDC power. A cavity combining system will be provided to couple the two transmitters and two receivers onto a common cable. That cable will then be connected to the DAS via a cross-band coupler. A network of in-building antennas will be placed strategically throughout the building. Radiating coaxial cable may be included as part of the overall design. In this scenario, CAT-6 cable will be used to connect the two repeaters to the Dispatch Center or to a link (microwave and/or leased line) to a Dispatch Center external to the Jail, depending on the final location of the Dispatch Center. A rooftop antenna will be part of the DAS to enhance coverage in areas immediately outside the Jail.

## Scenario 2: VHF Repeaters in Nearby Shelter

If a tower and shelter are placed onsite, the repeaters and associated equipment will be located in the shelter and one to two antennas will be placed on the tower. One or more VHF “donor” antenna(s) will be placed on the roof. The donor antenna(s) will be connected to a DAS network of interior antennas as needed to ensure adequate signal level within all of the Jail. If the Dispatch Center is within the Jail, a fiber link will connect the radio shelter to the console equipment. If the Dispatch Center is elsewhere, a microwave or leased line will be used from the shelter to the Dispatch Center.

### Lightning Protection

Lightning suppressors and appropriate grounding will be used with any exterior antenna to protect equipment and staff in the event of a lightning strike.

### Housing

One 90” tall 19” EIA rack will be used to house the two repeaters, combining equipment, power, and ancillary equipment.

### Power

A -48VDC power system will be provided to support the repeaters and any associated equipment. The batteries will be sized for 12 hours of reserve power, assuming a transmit duty cycle of 40% for the two VHF repeaters. The power supply/battery charger will be configured for n+1 redundant rectifiers so that the system can fully operate if a rectifier or its feeder circuit fails.

### Control

The Dispatch Console will have wireline control of the two repeaters regardless of the final locations of the Dispatch Center and the final location of the repeaters.

***DRAFT* GEOTECHNICAL INVESTIGATION**  
**MONO COUNTY JAIL**  
**BRIDGEPORT, CALIFORNIA**



**CONSTRUCTION  
MATERIALS  
ENGINEERS, INC.**



*PREPARED FOR:*

**LIONAKIS**

**APRIL 2021  
FILE: 2753**



300 Sierra Manor Drive, Suite 1  
Reno, NV 89511

April 19, 2021  
File: 2753

Mr. Mike Davey, AIA  
**LIONAKIS**  
1919 Nineteenth Street  
Sacramento, CA 95811

**RE: DRAFT Geotechnical Investigation**  
**Mono County Jail**  
**221 Twin Lakes Road**  
**APN 08-080-007**  
**Bridgeport, Mono County, California**

Dear Mr. Davey:

Construction Materials Engineers Inc. (CME) is pleased to submit our **DRAFT** geotechnical investigation report for the proposed Mono County Jail site to be located at 221 Twin Lakes Road, Bridgeport, Mono County, California.

The following report includes the results of our field investigation, laboratory testing and presents construction recommendations related to the subsurface fiber optic installation. We wish to thank you for the opportunity to provide our services and look forward to working on future endeavors together.

Please feel free to call us should you have any questions or require additional information.

Sincerely,

**CONSTRUCTION MATERIALS ENGINEERS, INC.**

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# **DRAFT GEOTECHNICAL INVESTIGATION**

## **MONO COUNTY JAIL**

### **APN 08-080-007**

#### **BRIDGEPORT, MONO COUNTY, CALIFORNIA**

## **1.0 INTRODUCTION**

Presented herein are the results of Construction Materials Engineers Inc. (CME) geotechnical exploration, laboratory testing, and associated geotechnical design recommendations for the Mono County Jail project.

Recommendations contained herein are based on surface/subsurface conditions encountered during our field exploration and on details of the proposed project as described in this report. The objectives of this study were to:

1. Investigate general geologic and groundwater conditions pertaining to design and construction of the proposed development.
2. Provide geotechnical recommendations for design and construction of the project.

The area covered by this report is included on Plate A-1 (Exploration Location Map) in Appendix A. Our study included subsurface exploration, laboratory testing, and engineering analysis to identify the physical and mechanical properties of the various on-site materials. Results of our field exploration and testing programs are included in this report and form the basis for all conclusions and recommendations presented herein.

## **2.0 PROJECT DESCRIPTION AND SITE CONDITIONS**

### **2.1 PROJECT DESCRIPTION**

The project is currently in the conceptual planning phases; however, it is understood that site improvements will include:

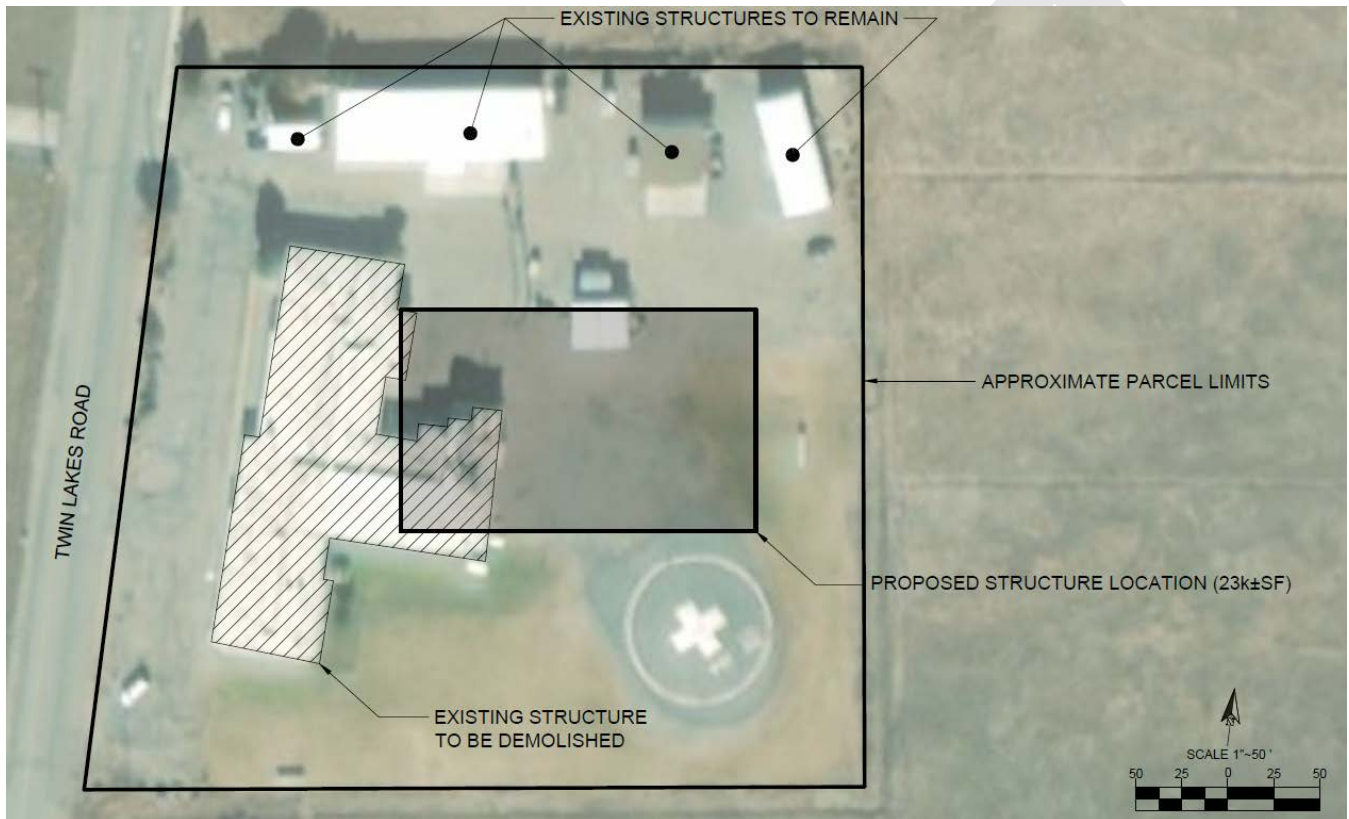
- Demolition of the existing structure and construction of the proposed jail facility;
- Earthwork cuts and fills less than 3 feet are anticipated to provide level building pad and promote positive drainage across the site;
- Construction of a single story 23,000 square foot (sf) concrete masonry unit (CMU) structure with slab-on-grade construction;
- Structure loading is anticipated to be on the order of 2 to 4 kips per linear foot for continuous spread footings and up to 60 kips for isolated column footings;
- Appurtenant construction may include:
  - Paved parking, entrance driveway;
  - Underground utilities; and
  - Sidewalks with curb and gutter.



## 2.2 GENERAL SITE DESCRIPTION

The site consists of a 3.4 acre parcel located on the east side of Twin Loads Road approximately ¼-mile south of Main Street (US 395) in Bridgeport, California.

Currently, the existing structures serve as a multipurpose medical/fire response facility. Structures located on the northern edge of the parcel, which are associated with paramedics and the fire department, will remain. The existing 19,000± sf structure, previously used as a medical center, will be demolished to allow the construction of the new facility. Figure 1 presents a site layout.



**Figure 1: Site Plan**

Except for the southeast quadrant of the site, the majority of the parcel, outside the structure footprints, is paved. The southeast quadrant is unpaved except for the helicopter pad. The existing pavement is generally in a failed condition.

It appears the parcel was raised with structural fill above the existing grade, as the site perimeter, except for the west side adjacent to Twin Lakes Road, is approximately 3± feet higher than the undeveloped land.

The new jail pad site appears to drain to the east, as site topography within the proposed jail footprint generally varies from elevation 6,479 feet to 6,477 (west to east). The existing embankment pad fill slope gradients are located on the northern, eastern, and southern edges of the pad at 2H:1V to 3H:1V.



## 3.0 SUBSURFACE EXPLORATION

### 3.1 EXPLORATORY BORINGS

The subsurface exploration was performed on March 25<sup>th</sup> and March 29<sup>th</sup>, 2021. Exploration included four (4) vertical test borings using solid stem auger, hollow stem auger, and mud rotary techniques drilled to depths of up to 60 feet below the existing ground surface (bgs). The soil profile encountered was sampled in-place at approximate 2½ to 5 foot intervals using split spoon samplers<sup>1</sup> to the termination depth at each exploration location.

Soil samples were visually examined and classified during exploration in general accordance with ASTM D2488 and subsequently updated in general accordance with ASTM D2487 where applicable. Exploration locations (Plate A-1), boring logs (Plate A-2), USCS chart (Plate A-3), and rock description chart (Plate A-4) are included as Appendix A.

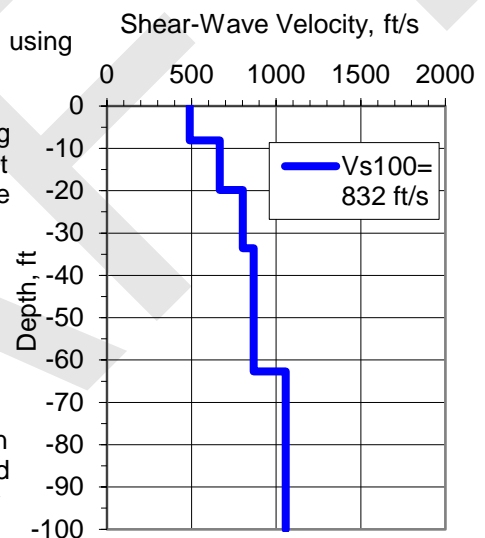
### 3.2 GEOPHYSICAL (REMI) TESTING

Our firm completed one shear wave (S-wave) velocity measurements using the Refraction Microtremor (ReMi) at the subject site.

The DAQlink 4 24-bit acquisition system (Seismic Source/Optim) utilizing a multichannel geophone cable with twelve (12) geophones, placed at an approximate spacings of 25 feet, was used to obtain surface wave data.

Vertical geophones with resonant frequencies of 10 Hz measure surface wave energy from broad band ambient site noise across the geophone array (i.e. ReMi setup location) for multiple 30-second iterations.

The Vs100' represents the average shear wave velocity profile based on travel time from the ground surface to a depth of 100 feet at the tested location. Based on the ReMi, the Vs100' for the site is approximately 832 feet per second (fps).



## 4.0 LABORATORY TESTING

Soil testing performed in CME's laboratory was conducted in general accordance with the standards and methodologies described in Volume 4.08 of the ASTM Standards. Significant soil types were selected and analyzed to determine index properties. The following laboratory tests were completed as part of this investigation:

- In situ moisture content (ASTM D2216);
- Grain size distribution (ASTM D6913);
- Plasticity index (ASTM D4318);
- R-value (ASTM D2844);
- Water-Soluble Sulfate Content (ASTM C1580).

Laboratory test results for the subsurface exploration are presented included in Appendix A & B.

<sup>1</sup> The number of blows to drive the sampler the final 12 inches of an 18-inch penetration into undisturbed soil is an indication of the density and consistency of the material (Standard Penetration Test (SPT) - ASTM D1586). Boring logs indicate the type of sampler used for each boring and sample.

## 5.0 SUBSURFACE CONDITIONS

### 5.1 GENERAL SUBSURFACE PROFILE

Based on a review of the *Geologic map of the Bodie Hills, California and Nevada* (John et al, 2015, 1:50,000), the site is mapped as alluvium (Qal). In general, the subsurface profile appears to be consistent with the mapped site geology. A generalized description and summary of the soil profile encountered, separated by boring locations, is described below:

**Table 1: General Soil Profile Description Summary**

Layer Description	Geologic Unit	Elevation Ranges and Corresponding Thicknesses (feet)				
		Average Elevation (Thickness)	B-1	B-2	B-3	B-4
SILTY, CLAYEY SAND ( <b>SC-SM</b> ), dense [UNDOCUMENTED FILL]	UF	6479-6475± (3-4±)	6479-6475±	6479-6475±	6479-6475±	6478-6475±
POORLY GRADED SAND WITH SILT ( <b>SP-SM</b> ), loose to medium dense	Qal	6475-6470± (4-5±)	6475-6470±	6475-6470±	6475-6470±	6475-6471±
POORLY GRADED SAND WITH SILT AND GRAVEL ( <b>SP-SMg</b> ), very dense	Qal	6470-6438± (31-34±)	6470-BOB±	6470-6436±	6470-BOB±	6471-6440±
SILTY TO CLAYEY SAND ( <b>SC/SM</b> ), dense to very dense	Qal	6438-6433± (5-6±)		6436-6431±		6440-6434±
POORLY GRADED SAND WITH SILT AND GRAVEL ( <b>SP-SMg</b> ), very dense	Qal	6433-6422± (11-12±)		6431-BOB±		6434-6422±
BEDROCK, granitic	Twa	6422-BOB±				6422-BOB±
Groundwater	-	6471.5±	6473.0	6470.5	6471.5	6471.0

**NOTES**

- Soil descriptions are a generalization of the exploration logs; for detailed descriptions, see Appendix A.
- BOB = Bottom of Boring

A more detailed soil profile is presented as Plate A-1b.

### 5.2 GROUNDWATER AND SOIL MOISTURE

Soil moisture content varied but was generally encountered in a moist to wet condition. Groundwater was encountered in each boring during the subsurface exploration. Groundwater depths ranged from approximately 6 to 9 feet bgs.

Construction planning should include the assumption that groundwater fluctuations may occur due to precipitation, temperature, runoff, adjacent irrigation, or where conduits such as utility trenches are present. Depending on the season of construction, seepage may be encountered, especially during spring runoff. The contractor should anticipate this condition and be prepared for dewatering during construction.

## 6.0 SEISMIC CONSIDERATIONS

### 6.1 FAULTING

To determine the location of mapped earthquake faulting trending through or near the project site, a review of the Fault Activity Map of California (<https://maps.conservation.ca.gov/cgs/fam/>) was completed.

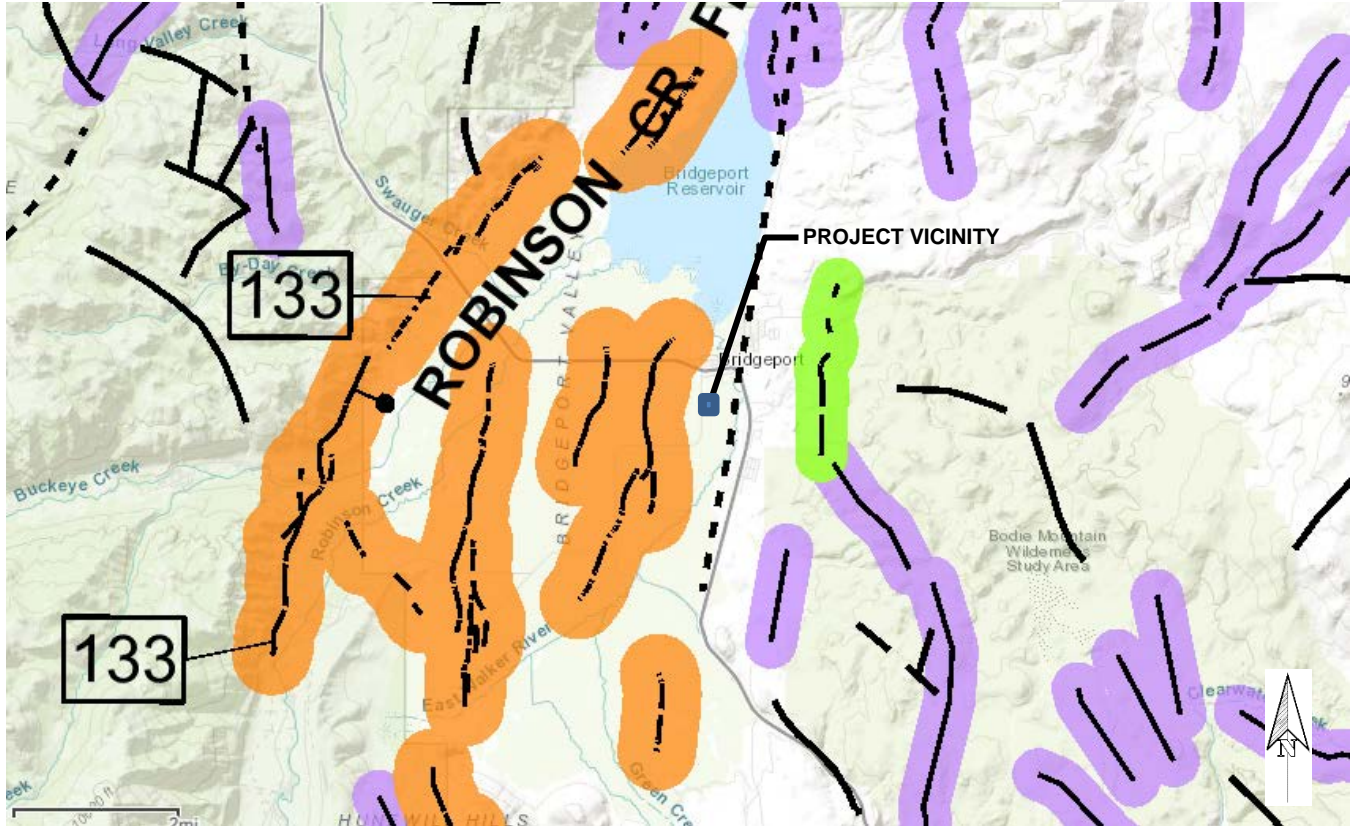
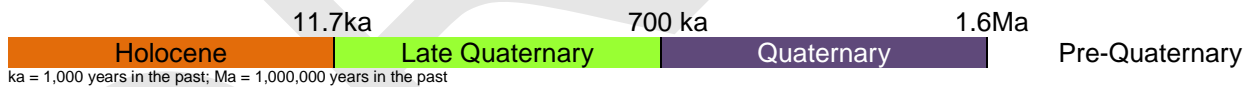


Figure 2: Excerpt from the Fault Activity Map of California



The project site is located in the Robinson Creek Fault Zone. The closest mapped fault is approximately 1-mile to the west of the project site. No mapped faults were noted transecting the project site. The site lies outside of an Alquist-Priolo (AP) Act Special Studies Zone boundary. The likelihood of fault rupture at the site is very low.

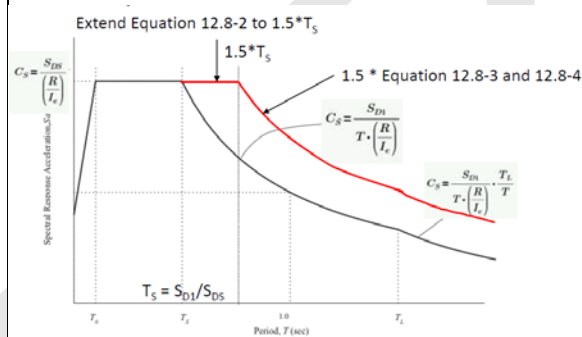
## 6.2 SEISMIC DESIGN PARAMETERS

Seismic design parameters presented in this report are based on the provisions listed under the 2019 CBC. Seismic design parameters are based on the site classification performed in general accordance with ASCE 7-16, Section 20.1 (Site Classification).

Based on the geophysical testing performed (refer to Section 3.2), a site class D is recommended for project design. Table 2 (Seismic Design Parameters (2019 CBC)) provides a summary of seismic design parameters including correction factors  $F_a$  &  $F_v$  for a Site Classification of D. A copy of the seismic design parameters is provided in Appendix C.

**Table 2: Seismic Design Parameters (2019 CBC)**

Approximate Latitude of Site		38.2531°
Approximate Longitude of Site		-119.2308°
Site Class Selected for this Site		D
Risk Category		III
<b>S<sub>s</sub></b>	Spectral Response Acceleration at Short Period (0.2 sec.)	1.196
<b>S<sub>1</sub></b>	Spectral Response Acceleration at 1-second Period (see Notes)	0.390
<b>F<sub>a</sub></b>	Site amplification factor at Short Period (0.2 sec.)	1.022
<b>F<sub>v</sub></b>	Site amplification factor at 1-second Period (refer Table 11.4-2, ASCE 7-16)	1.910
<b>S<sub>DS</sub></b>	Design Spectral Response Acceleration at Short Period (0.2 sec.)	0.814
<b>S<sub>D1</sub></b>	Design Spectral Response Acceleration at 1-second Period	0.497
<b>S<sub>MS</sub></b>	Site-modified spectral acceleration value at Short Period (0.2 sec.)	1.222
<b>S<sub>M1</sub></b>	Site-modified spectral acceleration value at 1-second Period	0.745
<b>T<sub>L</sub></b>	Long-period transition period in seconds	6
<b>PGA</b>	MCEG peak ground acceleration	0.523
<b>PGAM</b>	Site modified peak ground acceleration	0.576



Reference SEAU 6<sup>th</sup> Annual Education Conference, February 2018)

### Notes:

A site-specific ground motions analysis was not included in the proposed scope of work (refer to Section 11.4.8 of ASCE 7-16). A site-specific spectral response under these provisions is **not** required under Section 11.4.8, provided the structure complies with the following Exception:

**11.4.8 Exception 2:** "Structures on Site Class D sites with  $S_1$  greater than or equal to 0.2, provided the value of the seismic response coefficient  $C_s$  is determined by Eq. (12.8-2) for values of  $T \leq 1.5 * T_s$  and taken as equal to 1.5 times the value computed in accordance with either:

$$\text{Eq. (12.8-3) for } 1.5T_s \leq T \leq T_L$$

or

$$\text{Eq. (12.8-4) for } T > T_L$$

A separate proposal to complete a site-specific ground motions analysis can be prepared upon request. This scope of work would require subsurface exploration to depths of up to 100 feet.

### 6.3 LIQUEFACTION ANALYSIS

Liquefaction analysis was performed in general accordance with *Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils* by Youd et al, 2001. Seismic parameters (e.g. ground acceleration, moment magnitude of earthquake, and distance to seismic sources) are based on a time period consistent with the 2019 CBC (i.e. a 2% in 50-year occurrence or 2475-year return period). Detailed liquefaction analyses are attached in Appendix D.

Table 3 summarizes soil liquefaction results:

Table 3: Liquefaction Results Summary				
	B-1	B-2	B-3	B-4
Liquefiable Soil Layer Elevation (ft)	6473-6470±ft	6473-6470±ft	6473-6470±ft	N/A
Liquefiable Soil Layer Thickness (ft)	3±ft	3±ft	3±ft	N/A
Residual Shear Strength (psf)	100±psf	400±psf	100±psf	N/A
Liquefaction Induced Settlement (in)	0.7±in	0.5±in	1.0±in	N/A
<b>NOTES:</b>				
1. This table is intended to be a summary of the liquefaction results. For detailed analysis, refer to Appendix D.				

Due to the shallow depth of liquefaction, near complete shear strength loss and subsequent near complete bearing capacity loss of the foundation is anticipated during a significant seismic event. Therefore, liquefaction mitigation is recommended. Section 9.1.2.2 summarizes various liquefaction mitigation options.



## 7.0 DISCUSSION AND RECOMMENDATIONS

The recommendations provided herein are intended to reduce risks of structural distress related to liquefaction or consolidation/expansion of native soil and/or structural fill.

### 7.1 GENERAL DISCUSSION

The following definitions are applicable for the general recommendations for design and construction of the project:

**Table 4: General Definitions for Report Recommendations**

<b>Fine Grained Soil</b>	<ul style="list-style-type: none"> <li>• Soil with more than 40 percent by weight passing the number 200 sieve and a plasticity index less than 15.</li> </ul>
<b>Clay Soil</b>	<ul style="list-style-type: none"> <li>• Clay soil is defined as any soil having more than 15 percent by weight passing the number 200 sieve and a plasticity index greater than 15.</li> </ul>
<b>Granular Soil</b>	<ul style="list-style-type: none"> <li>• Soil not meeting the requirement for a fine-grained or clay soil with:             <ul style="list-style-type: none"> <li>○ A particle size of 4-inches or less,</li> <li>○ A percent passing the No. 200 Sieve of less than 35 percent;</li> <li>○ A plasticity index less than 15.</li> <li>○ Existing onsite material meeting the requirements of a granular soil may be reused as structural fill provided it is free of organics or deleterious materials.</li> </ul> </li> </ul>
<b>Structural Fill</b>	<ul style="list-style-type: none"> <li>• Soil generated from onsite grading may be reused as structural fill provided it meets the requirements of a granular soil;</li> <li>• Structural fill is the supporting soil placed in densified lifts below foundations, concrete slabs-on-grade, pavements, or any structural element that derives support from the underlying sub-soils material;</li> </ul>
<b>Structural Areas</b>	<ul style="list-style-type: none"> <li>• Includes all areas that will be used for the support of concrete slabs, flatwork, foundations, and pavements.</li> </ul>
<b>Subgrade</b>	<ul style="list-style-type: none"> <li>• The elevation directly below the aggregate base layer for both concrete slabs-on-grade and pavements;</li> <li>• Bottom of excavation for foundations bottomed on native soil materials, and structural fill;</li> <li>• The native soil surface elevation below structural fill.</li> </ul>
<b>Relative Compaction</b>	<ul style="list-style-type: none"> <li>• The dry density of soil after compaction and placement in the field, expressed as a percentage of the maximum dry density.</li> <li>• Relative compaction shall be in accordance with ASTM D1557.</li> </ul>
<b>Standard Specifications</b>	<ul style="list-style-type: none"> <li>• In general accordance with the 2012 Revision 8 Standard Specifications for Public Works Construction (SSPWC) or the 2018 Caltrans Standard Specifications.</li> </ul>

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### 7.1.1 CONSTRUCTION CONSIDERATIONS

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Based on the subsurface conditions encountered, the following construction considerations should be noted:

1. Undocumented fill is present in the upper 3-4 feet (elevation 6479-6475±feet) and appears to be granular such that it may be reused as structural fill.
2. A 3-foot thick liquefiable soil is present from approximately elevation 6473-6470±feet. Due to the shallow depth of this liquefiable soil layer, near complete shear strength/bearing capacity loss is anticipated during a significant seismic event potentially causing severe structural damage. . Therefore, liquefaction mitigation is recommended as summarized in Section 9.1.2.
3. Groundwater was encountered at approximately 6-9 feet bgs (elevation 6473-6471±feet). Construction planning should anticipate shallow groundwater and will be a construction consideration for determining the most economical soil liquefaction mitigation option.

DRAFT

## 8.0 GEOTECHNICAL DESIGN RECOMMENDATIONS

### 8.1 SHALLOW FOUNDATIONS

Shallow foundations with concrete slab-on-grade flooring is anticipated for the jail structure. Structural loading was not available at the time this report was prepared; however, the following structural loading assumptions were used for our analysis and should be confirmed by the structural engineer prior to finalizing design of the project.

- Loads along continuous footing will be on the order of 2 to 4 kips per linear foot; and
- Maximum loads of up to 60 kips for isolated pad foundations.

Foundation design parameters presented in Table 5 (Foundation Design Parameters) may be utilized for the design of individual footings or rigid slabs provided the recommendations in this report are adhered to.

<b>Table 5: Foundation Design Parameters</b>	
<b>Allowable Bearing Pressures (psf)</b>	
Footings bottomed at least 2 feet <sup>(3)</sup> below the proposed finished grade supporting by structural fill	2,000
<b>Allowable Friction Coefficient</b>	
Between foundation bottom and supporting soil consisting of structural fill	0.45
<b>Allowable Passive Soil Pressure (psf)</b>	
Backfill soil consisting of structural fill	300
<b>NOTES:</b>	
<ol style="list-style-type: none"><li>1. (psf)-Pounds per square foot</li><li>2. The allowable bearing pressure may be increased by one-third for total loading conditions including wind and seismic forces. The allowable bearing pressure is a net value; therefore, the weight of the foundation which extends below grade and backfill may be neglected when computing dead loads. The allowable bearing pressure includes a FOS of 3.0 against bearing failure.</li><li>3. Allowable bearing pressures may be increased for foundations bottomed at greater depths. Once the final loads and footing elevations have been determined, the project geotechnical engineer should be contacted to evaluate the net allowable bearing pressure. Lateral loads (such as wind or seismic) may be resisted by passive soil pressure and friction at the bottom of the footing.</li><li>4. A factor of safety of 1.5 has been applied.</li><li>5. A unit weight of 125 pounds per cubic foot may be assumed for backfill soil consisting of properly densified structural fill.</li><li>6. The upper one-foot of the soil profile should be neglected when designing for passive pressure, unless confined by a concrete slab or pavement. Design values are based on footings backfilled with properly compacted structural fill having a 2 percent slope for a lateral distance of 5 feet. Where sloping backfill will be used near foundations, the design engineer shall contact the geotechnical engineer for additional recommendations.</li><li>7. For frost protection, exterior footings &amp; piers shall be bottomed at least 2 feet below finished grade. Interior footings &amp; piers shall be bottomed at least 18-inches below finished grade.</li></ol>	

It is recommended that footing excavations be observed by the project soil engineer prior to placing concrete reinforcing steel to confirm the subsurface conditions are similar to those described in this report.

#### 8.1.1 STATIC SETTLEMENT

An elastic settlement response is expected for foundations bottomed on structural fill. The majority of the settlement is expected to occur rapidly, generally during the construction timeframe.

Based on the loading assumptions of this report and the anticipated foundation grade material, settlement on the order of 1-inch or less is anticipated.



Provided recommendations in this report are followed, differential settlement for foundations with similar loads is anticipated to be about ½ of the total settlement provided the foundations are all bottomed on similar material.

## 8.2 ASPHALT STRUCTURAL SECTION DESIGN

Following desired site grading, the recommended structural section for the proposed parking lot and drive lanes is presented in Table 6 (Recommended Structural Section Thickness).

Table 6: Recommended Structural Section Thickness		
Location	Minimum Thickness of Asphalt Concrete Pavement (in)	Minimum Aggregate Base <sup>1</sup> (in)
Parking Lot	3.0	6.0
Drive Lanes and Aisles	4.0	8.0
<b>NOTES:</b>		
1. Refer to Section 9.5.2.		
2. Assumes a subgrade soil R-value of 30 or greater.		

## 9.0 EARTHWORK AND CONSTRUCTION RECOMMENDATIONS

### 9.1 EARTHWORK RECOMMENDATIONS

#### 9.1.1 SITE CLEARING

The site is currently partially developed and based on our understanding, has an existing grounding grid. During site preparation and construction, the existing grounding grid should be located and marked to avoid unintended contact. In general, site preparation shall include following:

<b>Demolition</b>	<ul style="list-style-type: none"> <li>Demolition and/or removal of structures and utilities to be demolished. Where structural elements are proposed, removal of the entire foundation, slab, or other subsurface infrastructure is required.</li> <li>Existing paved areas could be pulverized and mixed with underlying base aggregate or structural fill to be reused as structural fill.</li> <li>All existing utilities should be either removed or properly abandoned in place as directed by the design engineer in general accordance with local governing standards (refer to 2012 Revision 8 SSPWC or 2018 Caltrans Standard Specifications).</li> <li>All materials generated during demolition shall be hauled offsite and disposed of in a lawful manner.</li> </ul>
<b>Stripping and Grubbing (Limited to Landscape Areas)</b>	<ul style="list-style-type: none"> <li>Topsoil, surface vegetation, and vegetation root balls shall be completely removed and disposed of outside the construction limits or stockpiled onsite for use in non-structural landscape areas.</li> <li>Stripped and/or grubbed material shall not be incorporated into structural fill.</li> </ul>

#### 9.1.2 REMEDIAL EARTHWORK

Remedial earthwork is recommended for two primary reasons:

1. Undocumented fill (refer to Section 9.1.2.1).
2. Liquefiable soil (refer to Section 9.1.2.2).

### 9.1.2.1 UNDOCUMENTED FILL

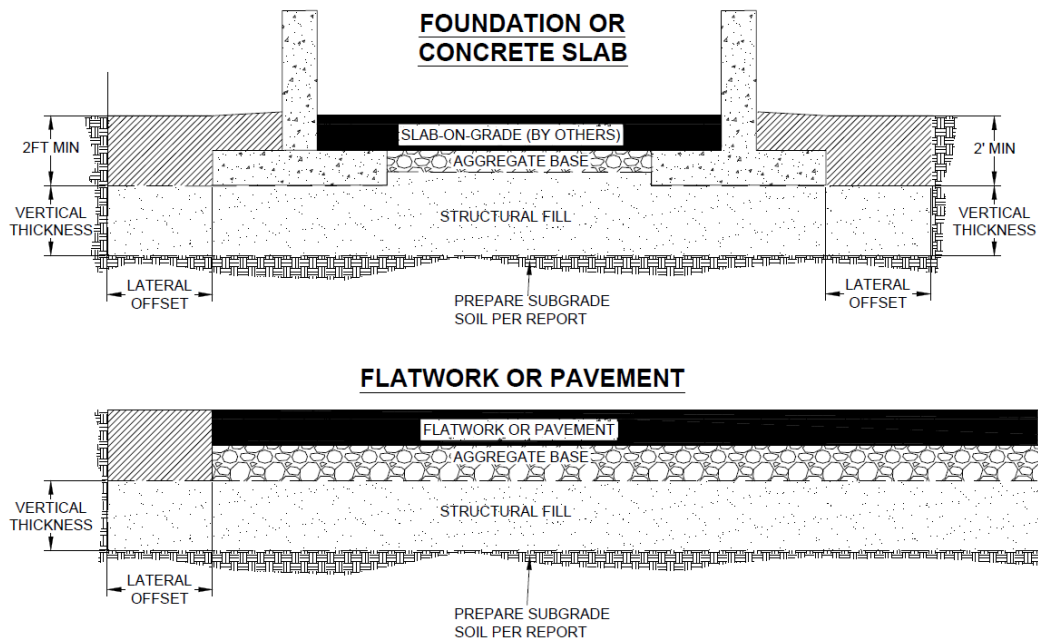
CME understands site grading is anticipated to include cuts and fills on the order of 1-foot below the building pad. Structure foundations will be bottomed at a minimum of 2 feet below the proposed finished grade elevation. Table 7 (Overexcavation Summary for Undocumented Fill) summarizes the recommended minimum vertical and lateral offsets for pavement structural sections and the building structure footprint.

Table 7: Overexcavation Summary for Undocumented Fill		
Typical Structural Area <sup>1,2,3</sup>	Minimum Recommended Overexcavation <sup>4</sup>	
	Vertical Depth Below Structural Element (ft)	Minimum Lateral Offset From Exterior Edge of Structural Element (ft)
Building Structure Footprint (includes perimeter foundations, interior column footings, and interior concrete slabs)	Complete removal below foundations	4.0
Flatwork pavement (i.e. sidewalk and parking areas)	1.0	1.0
Flatwork and Pavement (i.e. sidewalk and parking areas)	1.0	1.0

**NOTES:**

1. The overexcavation shall encompass the entire structure area footprint and extend laterally beyond the structural element a distance equal to the minimum lateral offset presented for each structural area.
2. For pavement, flatwork, and interior concrete slabs, the vertical offsets shall begin at the base of the aggregate base and lateral offset shall be from the exterior edge of the pavement structural section.
3. For foundations the vertical and lateral offsets are in reference to the exterior perimeter of the foundation.
4. The depth of overexcavation may increase in areas where undocumented fill thicknesses are in excess of those encountered during the current exploration. Where questionable soils are encountered, the project geotechnical engineer shall be notified.
5. If site grading modifications presented in this report change, the project geotechnical engineer shall be notified to confirm recommendations in this section.

A typical overexcavation schematic based on the proposed structure type is presented as Figure 3 (Typical Overexcavation Detail).



**Figure 3: Typical Overexcavation Detail**

### 9.1.2.2 LIQUEFIABLE SOIL

Remedial earthwork of the liquefiable soil layer is recommended. Based on our investigation, the liquefiable soil layer is about 3 feet thick and was encountered from elevation 6473-6470±feet. The following list are preliminary recommendation options for liquefiable soil remediation:

**1. Option 1: Complete Overexcavation**

Overexcavate the liquefiable zone in its entirety below and adjacent to structural areas. This would require shallow dewatering and overexcavation of the liquefiable layer (to 9±feet below existing ground surface).

**2. Option 2: Reinforced Earth Mat Foundation.**

Construct a reinforced earth mat foundation. This recommendation entails placement of geogrid reinforcement at specified layering extending from 2 to 6± feet below foundation grade. The intent of the geogrid reinforcement is to spread the foundation load over a larger area and increase the strength of the bearing soils to mitigate the potential of a bearing failure.

**3. Option 3: Pressure Grouting**

Pressure grouting would be completed at specified locations below the foundation footprint. The intent of the pressure grouting is to displace and densify the potential liquefiable soils and increase the bearing capacity of these soils.

**4. Option 4: Stone Column Remediation**

Geopiers or stone columns could be used to mitigate liquefaction. Geopiers consist of a rammed or vibrated compacted aggregate column that would both densify the native soils between the columns and provide a drainage to alleviate excess pore water pressure during a seismic event (the cause of soil liquefaction).

Upon receiving feedback from the design engineer, these remediation recommendations may be refined.

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### 9.1.3 SUBGRADE PREPARATION

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All areas to receive structural fill, aggregate base, or structural loading shall be prepared in general accordance with the following recommendations:

- Uniform mixing of the site or import soils to achieve recommended soil moisture contents may be required. It is recommended that the moisture content of the in-situ and import soils be determined during construction to evaluate the extent of moisture conditioning required. After the densification process, a firm, stable surface should be produced.
- Prior to placement of structural fill (unless unstable saturated subgrade is present) subgrade soil preparation shall consist of the following:
  - Granular soils (particle sizes are on the order of 8-inches nominal diameter or less) shall be scarified to a depth of 12 inches, moisture conditioned to plus or minus 3 percent of optimum moisture (ASTM D1557), and densified to 90 percent relative compaction.
  - Clay soils should be moisture conditioned to 1 to 3 percent over optimum (ASTM D1557), prior to densification. It is mandatory that this moisture content be maintained by periodic surface wetting, or other methods, until the surface is covered by at least one lift of fill. Moisture contents above 3 percent of optimum moisture will be acceptable if the soil horizon maintains its stability when subjected to construction equipment loads and density can be achieved in subsequent structural fill lifts. Clay soils shall be compacted to 90 percent relative compaction.
- Densification methodology will be dependent on soil type:
  - Granular soils are not considered cohesive and the particles generally require shaking or vibratory action (i.e. smooth drum roller) for densification.
  - Clay soil is considered cohesive and particles are best densified using high impact ram or sheepsfoot roller compactors.
- Unstable soils (includes pumping soils and oversaturated materials) should be removed and replaced with either structural fill or stabilizing fill. To determine potential unstable soil areas, subgrade should be proof-rolled with heavy rubber-tired construction equipment such as a fully loaded water truck. The depth of soil removal will be determined during construction but is anticipated to be 18 inches or less.

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### 9.1.4 REUSE OF ONSITE MATERIALS

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Onsite materials can be stockpiled for numerous site applications such as topsoil for landscape areas (non-structural fill), and structural fill.

1. **Non-Structural Fill:** Stripped topsoil, grubbed material, and non-structural fill should be carefully processed to remove oversized material and stockpiled onsite for future use in non-structural landscape areas to promote revegetation of disturbed areas. Care should be taken not to mix topsoil with the onsite granular fill material.
2. **Structural Fill:** The existing onsite material screened to remove particles greater than 4-inches nominal diameter, meeting the requirements of a granular soil (refer to Section 7.1) may be reused as structural fill. In general, it is expected that a majority of the site soils do comply with a granular soil designation and may be reused as structural fill.

Stockpile areas should be protected from erosion and runoff. Temporary erosion control measures should be implemented during project construction.

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### 9.1.5 STRUCTURAL FILL

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Structural fill is defined as supporting soil placed below foundations, concrete slabs-on-grade, pavements, or any structural element that derives support from the underlying sub-soils. Structural fill shall be free of vegetation, organic matter, and other deleterious material. Material generated onsite proposed for reuse as structural fill shall meet the requirements of a granular soil as defined in Section 7.1 (General Discussion).

Imported structural fill shall comply with the specifications presented in Table 8 (Guideline Specification for Imported Structural Fill).

<b>Table 8: Guideline Specification for Imported Structural Fill</b>		
<b>Sieve Size</b>		<b>Percent by Dry Weight Passing</b>
4-inches		100
¾-inch		70 – 100
No. 40		15 – 65
<b>Percent Passing No. 200</b>	<b>Maximum Liquid Limit</b>	<b>Maximum Plastic Index</b>
5 – 15	45	14
16 – 35	40	10
<b>R-Value (Traffic Areas Only)</b>		
30		
<b>NOTES:</b>		
1. R-Value is required for materials placed in roadways or areas to receive vehicular traffic only. Not required for building foundations or ancillary improvements outside of traffic areas.		

Structural fill shall be uniformly moisture conditioned within 2 percent of optimum moisture content, placed in layers of 8-inches or less in loose thickness, and densified to at least 90 percent relative compaction per ASTM D1557. Thicker structural fill lifts, up to 12-inches, are acceptable, if the contractor can demonstrate achieving required density. Moisture contents greater than 2 percent of optimum moisture for granular structural fills are acceptable if the soil lift is stable and required relative compaction can be attained in the soil lift and succeeding lifts. Fill material shall not be placed, spread or rolled while it is frozen, thawing, or during unfavorable weather conditions.

## 9.2 SITE DRAINAGE CONSIDERATIONS

Final grades should be planned such that surface drainage is constructed and maintained to fall away from structure foundations. A permanent finished slope grade of at least 2 percent for a minimum distance of 10 feet away is recommended.

## 9.3 CONCRETE SLABS

All concrete slabs shall be directly underlain by aggregate base in accordance with Section 9.5.2. The minimum thickness of base material shall comply with the following:

Structure Type	Aggregate Base Minimum Thickness (in)
Curb and Gutter	6
Exterior Sidewalks and Slabs	4
Interior Structure Slabs	6

Aggregate base courses should be densified to at least 95 percent relative compaction. Subgrade soils below the aggregate base should be prepared in accordance with the recommendations of this report.

The contractor should submit a concrete mix design to the owner at least 10 working days prior to construction for approval. Concrete mix proportions and construction techniques, including the addition of excess water and improper curing, can adversely affect the finished quality of the concrete resulting in cracking, curling and spalling of slabs. We recommend that all placement and curing be performed in accordance with procedures outlined by the American Concrete Institute. Special considerations should be given to concrete placed and cured during hot or cold weather conditions. Proper control joints and reinforcing should be provided to minimize any damage resulting from shrinkage.

## 9.4 GENERAL RECOMMENDATIONS FOR CONSTRUCTION OF OPEN CUT EXCAVATIONS

### 9.4.1 TRENCHING AND CONFINED EXCAVATIONS

It is anticipated that trenching and confined excavations may be performed using conventional excavation equipment such as a standard backhoe, track mounted excavator or similar equipment. All excavations regardless of depth shall be evaluated for stability including scaling trench sidewalls (if exposed) to remove loose material prior to occupation by construction personnel.

Excavations should comply with current OSHA safety requirements (Federal Register 29 CFR, Part 1926)<sup>2</sup>. Materials are classified as Stable Rock, Type A, B or C, which requires different temporary excavation, cut slope gradients (Table 9: Maximum Allowable Temporary Slopes).

Table 9: Maximum Allowable Temporary Slopes		
Soil or Rock Type	Maximum Allowable Slopes <sup>1</sup> For Excavations Less Than 20 Feet Deep <sup>2</sup>	
Stable Rock	Vertical	90°
Type A	3H:4V	53°
Type B	1H:1V	45°
Type C	3H:2V	34°

**NOTES:**

1. Angles expressed in degrees from the horizontal and have been rounded off.
2. Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.
3. For detailed description of the soil types outlined above visit the US Department of Labor Safety and Health Topics website at: <https://www.osha.gov/SLTC/trenchingexcavation/construction.html>

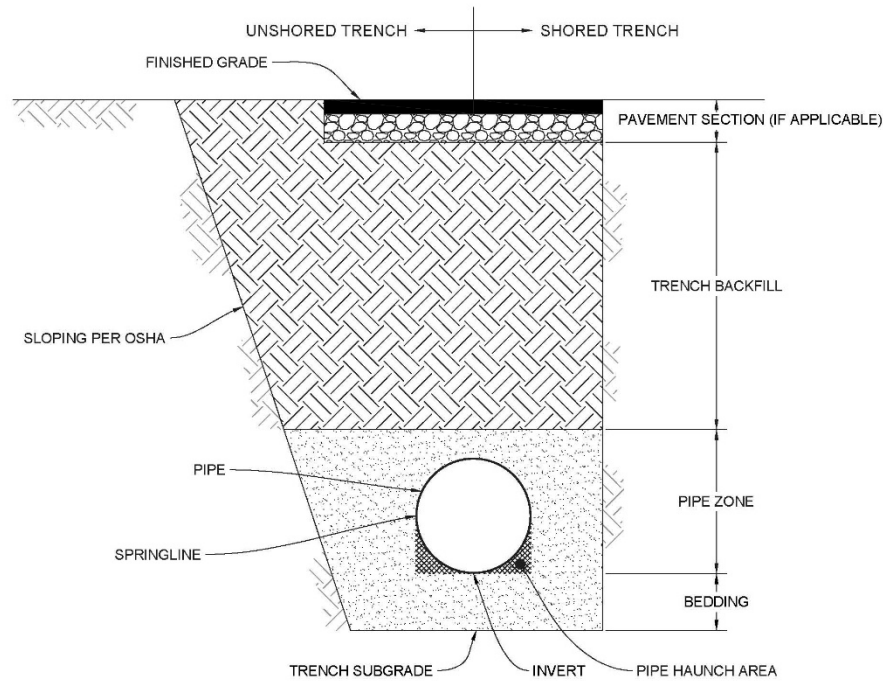
The predominate soil types are anticipated to correspond with OSHA safety requirements for *Type C* soils (Federal Register 29 CFR, Part 1926), which should be adjusted as needed for compliance during construction.

<sup>2</sup> Deeper excavations where layered geotechnical strata is encountered can be evaluated by the project geotechnical engineer to determine the maximum allowable slope configuration for the layered system.



## 9.4.2 RECOMMENDATIONS FOR TRENCH BEDDING AND BACKFILL

For the purposes of this report, the terminology shown in Figure 4 shall be referenced.



**Figure 4: Typical Trench Detail (N.T.S)**

Any material used as pipe bedding, pipe zone, or trench backfill should meet the minimum requirements of the 2012 Revision 8 SSPWC or 2018 Caltrans Standard Specifications.

### 9.4.2.1 PIPE ZONE & PIPE BEDDING

Where the pipe zone is above groundwater, pipe bedding and pipe zone material shall conform to the requirements of a Class A backfill (Section 200.03.02 of the 2012 Revision 8 SSPWC) or sand bedding (Section 19-3.02F(2) of the 2018 Caltrans Standard Specifications).

Where the pipe zone is at or below groundwater, pipe bedding and pipe zone material shall completely encapsulated in an 8-ounce non-woven geotextile and shall conform to the requirements of a Class C backfill (Section 200.03.04 of the 2012 Revision 8 SSPWC).

### 9.4.2.2 TRENCH BACKFILL

Where above groundwater, intermediate trench backfill shall consist of structural fill per Section 9.1.5. Where at or below groundwater, intermediate trench backfill shall consist of material consistent with the recommendations in Section 9.4.2.1.



## 9.5 PAVEMENT STRUCTURAL SECTION CONSTRUCTION

### 9.5.1 STRUCTURAL SECTION SUBGRADE PREPARATION

Subgrade soil should be prepared in accordance with the recommendations of Section 9.1.3 (Subgrade Preparation).

### 9.5.2 AGGREGATE BASE MATERIAL

Aggregate base material shall meet the specifications of a Type 2, Class B aggregate base (Section 200.01 of the 2012 Revision 8 SSPWC) or a Class 2 aggregate base (Section 26 of the 2018 Caltrans Standard Specifications). Aggregate base shall be moisture conditioned within 2 percent (%) of optimum moisture content, and densified to at least 95 percent relative compaction.

### 9.5.3 ASPHALT CONCRETE PAVEMENT

Aggregate used for asphalt concrete pavement shall comply with the requirements of Table 200.02.03-I of the 2012 Revision 8 SSPWC.

Pavement Area	Recommended Plantmix Aggregate Type
Parking Lots	Type 3
Interior Drive Lanes Subjected to Transport Vehicles, Delivery Trucks, or Trash Trucks	Type 2

Densification of asphalt concrete pavement should be performed in accordance with the 2012 Revision 8 SSPWC or the 2018 Caltrans Standard Specifications.

The contractor should submit a pavement mix design to the owner at least 10 working days prior to construction for approval. It is recommended that when pavement is placed adjacent to concrete flatwork, the finish compacted grade of the pavement be at least  $\frac{1}{4}$  to  $\frac{1}{2}$  of an inch higher than the edge of adjacent concrete surface. This is to allow adequate compaction of the pavement without damaging the concrete.

### 9.5.4 PAVEMENT MAINTENANCE

Maintenance is mandatory to long-term pavement performance. Maintenance refers to any activity performed on the pavement that is intended to preserve its original service life or load-carrying capacity. Examples of maintenance activities include patching, crack or joint sealing, and seal coats. If these maintenance activities are ignored or deferred, premature failure of the pavement will occur.

The cost associated with proper maintenance is generally much less than the cost for reconstruction due to premature failure of the pavement. Therefore, since pavement quality is an integral consideration in the formulation of our design recommendations, we strongly recommend the owner/project manager implement a pavement management program.

## 9.6 POTENTIAL FOR SULFATE ATTACK ON CONCRETE

Soil chemistry test results are included in Appendix B and Table 10.

**Table 10: Soil Sulfate Content Results**

Exploration Designation	Sample ID	Sample Depth (ft)	Sulfate Content (%)	Severity of Potential Exposure	Water Cement Ratio by mass, maximum	Permitted Cement Type
B-1	1-SG	0.0-2.5	<0.02	S0	No Restriction	Type II

**NOTES:**

1. Recommendations based on ACI 201.2R-16.
2. A corrosion specialist should be consulted to determine if the site soil conditions warrant further investigation or if proposed structures require corrosion protection.

## 10.0 TESTING AND DOCUMENTATION

The recommendations presented in this report are based on the assumption that the owner/project manager provides sufficient field testing and construction review during all phases of construction. These construction observations and testing services should include but not be limited to:

- Grading and earthwork;
- Remedial earthwork;
- Liquefaction mitigation;
- Foundation rebar inspection;
- Concrete testing and observation;
- Paving.

CME employs a large staff of certified inspectors and testers to provide these services. Prior to construction, the owner/project manager should schedule a preconstruction conference to include, but not be limited to: owner/project manager, project engineer, general contractor, earthwork and materials subcontractors, and geotechnical engineer. It is the owner's/project manager's responsibility to set-up this meeting and contact all responsible parties. The conference will allow parties to review the project plans, specifications, and recommendations presented in this report, and discuss applicable material quality and mix design requirements. All quality control reports should be submitted to the owner/project manager for review and distributed to the appropriate parties.

Additionally, all plans and specifications should be reviewed by the engineer responsible for this geotechnical report to determine if design aspects of the project are in accordance with the recommendations contained herein. It is the owner's/project manager's responsibility to provide the plans and specifications to the geotechnical engineer.

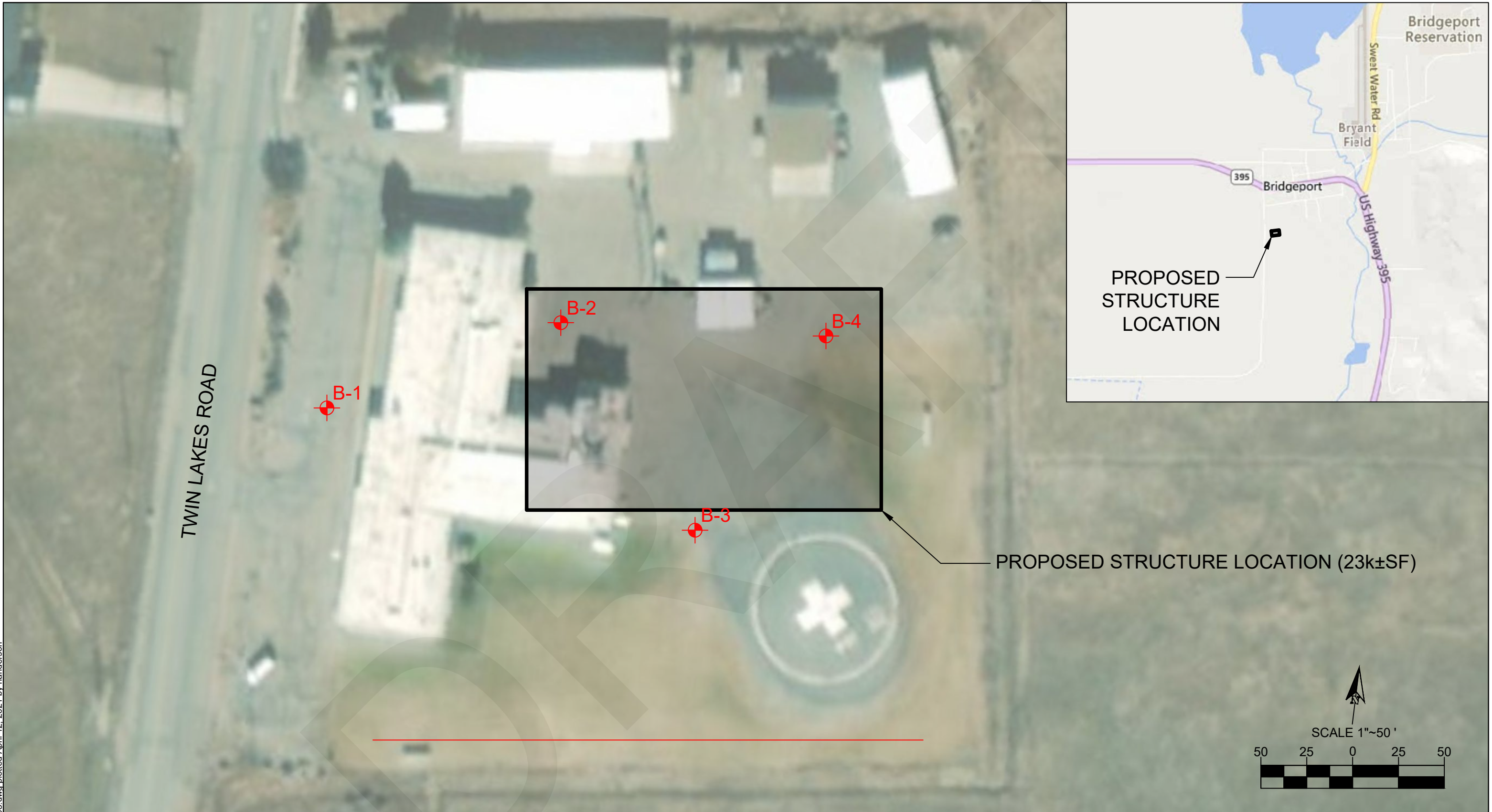
## 11.0 LIMITATIONS

<b>Exploration Location and Geologic Variations</b>	<ul style="list-style-type: none"> <li>This report has been prepared in accordance with generally accepted local geotechnical practices. The conclusions and recommendations of this report are provided for the design and construction of the proposed project as described in this report. The analyses and recommendations contained herein are based upon field exploration locations included on Plate A-1.</li> <li>Exploration locations included as part of this report should be considered accurate only to the degree implied by the methods used. This report does not reflect soil, rock, or groundwater variations that may become evident during the construction period, at which time re-evaluation of the recommendations may be necessary.</li> </ul>
<b>General Intent and Information Distribution</b>	<ul style="list-style-type: none"> <li>The intent of this report is to provide geotechnical information related to construction and design of the project. The owner/project manager is responsible for distribution of this report to all designers and contractors whose work is affected by geotechnical recommendations provided. In the event of changes in the design, location, or ownership of the project prior to construction, our recommendations should be reviewed by our geotechnical representative.</li> <li>If our engineer is not accorded the privilege of making this recommended review, the CME can assume no responsibility for misinterpretation or misapplication of his recommendations or their validity in the event changes have been made in the original design concept without our prior review.</li> </ul>
<b>Warranties</b>	<ul style="list-style-type: none"> <li>CME makes no other warranties, either expressed or implied, as to the professional advice provided under the terms of this agreement and included in this report. Any use, reliance on, or decisions, which a third party makes based upon the information contained in this report, are the sole responsibility of such third parties. CME accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.</li> </ul>
<b>Clay Soil Clause</b>	<ul style="list-style-type: none"> <li>Clay soils may be present in discontinuous areas below the proposed improvements. Clay soils may potentially shrink or swell (volume changes) in response to changes in the moisture content of the soil. Moisture changes in these soils can occur as a result of seasonal variations in precipitation, poor site drainage, landscape irrigation, leaking underground pipes, capillary action, or from other sources. Volume changes in clay soils can cause differential movements in structural elements constructed in the sphere of influence or bearing on the clay soil. The project geotechnical engineer shall be notified where questionable soils are encountered.</li> </ul>
<b>Standard Owner Maintenance and Monitoring Responsibility</b>	<ul style="list-style-type: none"> <li>All structures are subjected to deterioration from environmental and manmade exposures. As a result, all structures require frequent monitoring and regular maintenance to prevent damage and/or deterioration. Such monitoring and maintenance are the sole responsibility of the Owner. CME, Inc. shall have no responsibility for such issues or resulting damages.</li> </ul>
<b>Environmental Hazards Evaluation</b>	<ul style="list-style-type: none"> <li>Any evaluation of the site for the presence of surface or subsurface hazardous substances is beyond the scope of this study. When suspected hazardous substances are encountered during routine geotechnical investigations, they are noted in the exploration logs and reported to the client.</li> </ul>

DRAFT

**APPENDIX A**





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**CME CONSTRUCTION MATERIALS ENGINEERS INC.**  
 300 Sierra Manor Drive, Suite 1  
 Reno, NV 89511

LIONAKIS  
 MONO COUNTY JAIL  
 EXPLORATION LOCATION MAP  
 BRIDGEPORT, CA

PROJECT NO.: 2753      DATE: 4/12/2021

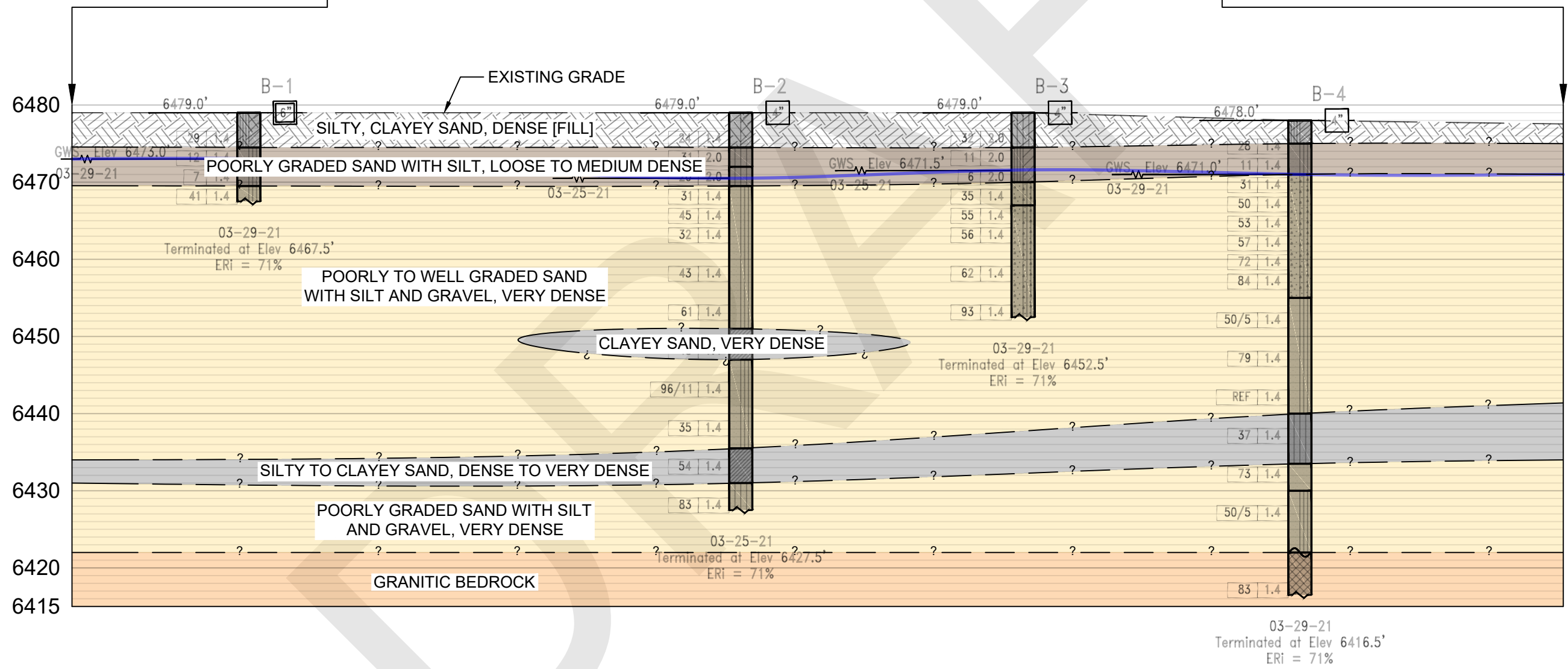
**LEGEND**

APPROXIMATE BORING LOCATION

APPROXIMATE REMI LINE LOCATION

PLATE  
**A-1A**





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**CME CONSTRUCTION MATERIALS ENGINEERS INC.**  
 300 Sierra Manor Drive, Suite 1  
 Reno, NV 89511

**LIONAKIS**  
**MONO COUNTY JAIL**  
**GEOLOGIC CROSS SECTION**  
**BRIDGEPORT, CA**

PROJECT NO.: 2753      DATE: 4/12/2021

**LEGEND**  
 APPROXIMATE BORING LOCATION

PLATE  
**A-1B**

## LOG OF BORING B-1

PROJECT NO: 2753	DRILLING CONTRACTOR: TABER	BEGIN DATE: 3/29/2021
PROJECT: MONO COUNTY JAIL	DRILLING METHOD: HOLLOW-STEM AUGER	COMPLETION DATE: 3/29/2021
LOCATION: WEST BORING (38.25257, -119.23116)	DRILL RIG: CME 75 - ORANGE	SURFACE ELEVATION: 6479 (ft)
	SAMPLER TYPE & SIZE: Bulk, SPT (1.4")	BACKFILL METHOD: BENTONITE CEMENT GROUT
CLIENT: LIONAKIS	HAMMER TYPE: AUTO, 140-LB, 30-INCH	WATER DEPTH: 6.0 (ft)
LOGGED BY: NRA	HAMMER EFFICIENCY: 71%	READING TAKEN: 3/29/2021

DRILL METHOD	CASING DEPTH	ELEVATION (ft)	DEPTH (ft)	FIELD				GRAPHIC LOG	DESCRIPTION	RECOVERY (%)	LABORATORY					REMARKS						
				SAMPLE	SAMPLE NO	BLOWS PER 6 IN.	BLOWS PER FOOT				POCKET PEN. (TSF)	RQD (%)	LIQUID LIMIT	PLASTIC LIMIT	MOISTURE (%)		D. DENSITY (PCF)	% PASSING 200 SIEVE				
		6477	1	SG																		
		6475	3	A		13 12 17	29			100												
		6473	5	B		9 7 5	12			89												
		6471	7	C		3 2 5	7			44		NV	NP	8.7								
		6469	9	D		6 21 20	41			89												
			11.5																			
			12																			
			13																			
			14																			
			15																			
			16																			
			17																			
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			25																			
			26																			
			27																			
			28																			
			29																			

	<b>CONSTRUCTION MATERIALS ENGINEERS, INC.</b>	<b>Construction Materials Engineers, Inc.</b> 300 Sierra Manor Drive, Suite 1 Reno, Nevada 89511 (775) 851-8205	PROJECT NUMBER: 2753 PROJECT: MONO COUNTY JAIL EXPLORATION: B-1 ENTRY BY: CHECKED BY:
			SHEET 1 of 1

## LOG OF BORING B-2

PROJECT NO: 2753	DRILLING CONTRACTOR: TABER	BEGIN DATE: 3/25/2021
PROJECT: MONO COUNTY JAIL	DRILLING METHOD: ROTARY WASH	COMPLETION DATE: 3/25/2021
LOCATION: NORTH CENTRAL BORING (38.25276, -119.23073)	DRILL RIG: CME 75 - ORANGE	SURFACE ELEVATION: 6479 (ft)
	SAMPLER TYPE & SIZE: Bulk, SPT (1.4")	BACKFILL METHOD: BENTONITE CEMENT GROUT
CLIENT: LIONAKIS	HAMMER TYPE: AUTO, 140-LB, 30-INCH	WATER DEPTH: 8.5 (ft)
LOGGED BY: NRA	HAMMER EFFICIENCY: 71%	READING TAKEN: 3/25/2021

DRILL METHOD CASING DEPTH	ELEVATION (ft)	DEPTH (ft)	FIELD				GRAPHIC LOG	DESCRIPTION	RECOVERY (%)	LABORATORY					REMARKS	
			SAMPLE	SAMPLE NO	BLOWS PER 6 IN.	BLOWS PER FOOT				POCKET PEN. (TSF)	RQD (%)	LIQUID LIMIT	PLASTIC LIMIT	MOISTURE (%)		D. DENSITY (PCF)
	6477	1	SG					Poorly graded SAND with SILTY CLAY (SP-SC); grayish orange; moist to wet; about 10% fine, subrounded to rounded GRAVEL, up to 1/2 in. nominal diameter; about 80% coarse to fine, subrounded SAND; about 10% nonplastic to low plasticity fines [UNDOCUMENTED FILL].								
	6475	3	A		8 11 13	24			89	21	17	12.6		11.3		
	6473	5	B		8 12 19	31		SILTY SAND (SM); dark gray; moist to wet; about 5% fine, subrounded to rounded GRAVEL, up to 1/2 in. nominal diameter; about 75% coarse to fine, subrounded SAND; about 20% nonplastic to low plasticity fines.	67							
	6471	7	C		6 9 11	20		SILTY SAND with GRAVEL (SM); dark gray; moist to wet; about 25% fine, subrounded to rounded GRAVEL, up to 3/4 in. nominal diameter; about 60% coarse to fine, subrounded SAND; about 15% nonplastic fines.	28							
	6469	9						Poorly graded SAND with SILT (SP-SM); grayish tan; wet; about 90% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines.	100							With casing at 9.5ft, mud coming out of casing annulus Abundant caving in upper 10ft due to gravel Sample D has 10-inches of slough
	6467	11	D		4 12 19	31										
	6465	13	E		10 22 23	45		About 10% fine, subrounded to rounded GRAVEL, up to 1/2 in. nominal diameter; about 80% SAND.	78							
	6463	15	F		4 11 21	32			44			13.4		9.0		Sample E has 6-inches of slough
	6461	17														Losing circulation Drilled past Sample G on accident
	6459	19	G													
	6457	21	H		4 18 25	43			17							Sample H has 12-inches of slough
	6455	23														Gravel chatter
	6453	25	I		28 27 34	61			44							Sample I has 6-inches of slough
	6451	27														
		29						CLAYEY SAND (SC); dark gray; wet; about 70% coarse to fine, subangular to subrounded SAND; about 30% medium plasticity fines.								



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PROJECT NUMBER: 2753  
 PROJECT: MONO COUNTY JAIL  
 EXPLORATION: B-2  
 ENTRY BY:  
 CHECKED BY:



DRILL METHOD CASING DEPTH	FIELD						GRAPHIC LOG	DESCRIPTION	RECOVERY (%)	LABORATORY						REMARKS
	ELEVATION (ft)	DEPTH (ft)	SAMPLE	SAMPLE NO.	BLOWS PER 6 IN.	BLOWS PER FOOT				POCKET PEN. (TSF)	RQD (%)	LIQUID LIMIT	PLASTIC LIMIT	MOISTURE (%)	D. DENSITY (PCF)	
	6447	31	X	J	4 17 31	48		CLAYEY SAND (SC) (continued).	44						Sample J has 6-inches of slough	
	6445	32						Poorly graded SAND with SILT and GRAVEL (SP-SM); brownish orange; wet; about 35% coarse to fine, subrounded to rounded GRAVEL, up to 1 in. nominal diameter; about 55% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines.							Gravel chatter	
	6443	35	X	K	26 46 50/5	96/11			82			10.9	9.5			
	6439	40	X	L	22 14 21	35		Orange and dark gray gravel.	33						Cobbles present per driller	
	6435	44						CLAYEY SAND with GRAVEL (SC); orangish tan; wet; about 20% fine, subrounded to rounded GRAVEL, up to 1/2 in. nominal diameter; about 40% coarse to fine SAND; about 40% medium to high plasticity, medium to high toughness fines.	28							
	6433	45	X	M	15 26 28	54										
	6431	48						SILTY SAND with GRAVEL (SM); olive tan; wet; about 20% coarse to fine, subrounded to rounded GRAVEL, up to 1 in. nominal diameter; about 65% coarse to fine, subangular to subrounded SAND; about 15% nonplastic fines.								
	6429	50	X	N	37 35 48	83			78							
	6427	52	Bottom of borehole at 51.5 ft bgs													
	6425	54														
	6423	56														
	6421	58														
	6419	60														
	6417	62														
	6415	64														
	6413	66														



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PROJECT NUMBER: 2753  
 PROJECT: MONO COUNTY JAIL  
 EXPLORATION: B-2  
 ENTRY BY:  
 CHECKED BY:

## LOG OF BORING B-3

PROJECT NO: 2753	DRILLING CONTRACTOR: TABER	BEGIN DATE: 3/25/2021
PROJECT: MONO COUNTY JAIL	DRILLING METHOD: ROTARY WASH	COMPLETION DATE: 3/29/2021
LOCATION: SOUTH CENTRAL BORING (38.25246, -119.23047)	DRILL RIG: CME 75 - ORANGE	SURFACE ELEVATION: 6479 (ft)
CLIENT: LIONAKIS	SAMPLER TYPE & SIZE: Bulk, SPT (1.4")	BACKFILL METHOD: BENTONITE CEMENT GROUT
LOGGED BY: NRA	HAMMER TYPE: AUTO, 140-LB, 30-INCH	WATER DEPTH: 7.5 (ft)
	HAMMER EFFICIENCY: 71%	READING TAKEN: 3/25/2021

DRILL METHOD CASING DEPTH	ELEVATION (ft)	DEPTH (ft)	FIELD				GRAPHIC LOG	DESCRIPTION	RECOVERY (%)	LABORATORY					REMARKS				
			SAMPLE	SAMPLE NO	BLOWS PER 6 IN.	BLOWS PER FOOT				POCKET PEN. (TSF)	RQD (%)	LIQUID LIMIT	PLASTIC LIMIT	MOISTURE (%)		D. DENSITY (PCF)	% PASSING 200 SIEVE		
		1		SG															
	6477	2						SILTY SAND (SM); gray; moist to wet; about 75% coarse to fine SAND; about 25% nonplastic to low plasticity fines; rootlets within [UNDOCUMENTED FILL].			28	25	19.7		23.6				
		3		A	8	32			56										
	6475	4			16														
		5			6														
	6473	6		B	6	11		SILTY, CLAYEY SAND (SC-SM); gray; moist to wet; about 65% coarse to fine SAND; about 35% low to medium plasticity fines.	0										Soil logged based on soil cuttings
		7			6														
	6471	8		C	2	6		Wet.	0										
		9			2														
	6469	10			4			Well-graded SAND with SILT (SW-SM); orange gray; wet; about 90% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines.											Gravel chatter
		11		D	9	35			78										
	6467	12			14														
		13			21			Well-graded SAND with SILT and GRAVEL (SW-SM); orange gray; wet; about 20% fine, subrounded to rounded GRAVEL, up to 3/4 in. nominal diameter; about 70% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines.											
	6465	14		E	26	55			89										
		15			29														
	6463	16		F	15	56			89										Autohammer hydraulic hose broke with no replacement in town
		17			26														
	6461	18			30														
		19		G															Drilled past Sample G on accident
	6459	20																	
		21																	
	6457	22		H	15	62			89		NV	NP	12.9		9.6				Sample H has 3-inches of slough
		23			30														
	6455	24			32														
		25																	
	6453	26		I	13	93		Olive tan; coarse to fine GRAVEL, up to 1 in. nominal diameter.	78										Sample I has 6-inches of slough
		27			45														
	6451	28			48			Bottom of borehole at 26.5 ft bgs											
		29																	



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PROJECT NUMBER: 2753  
 PROJECT: MONO COUNTY JAIL  
 EXPLORATION: B-3  
 ENTRY BY:  
 CHECKED BY: SHEET 1 of 1

## LOG OF BORING B-4

PROJECT NO: 2753	DRILLING CONTRACTOR: TABER	BEGIN DATE: 3/29/2021
PROJECT: MONO COUNTY JAIL	DRILLING METHOD: ROTARY WASH	COMPLETION DATE: 3/29/2021
LOCATION: EAST BORING (38.25283, -119.23016)	DRILL RIG: CME 75 - ORANGE	SURFACE ELEVATION: 6478 (ft)
	SAMPLER TYPE & SIZE: Bulk, SPT (1.4")	BACKFILL METHOD: BENTONITE CEMENT GROUT
CLIENT: LIONAKIS	HAMMER TYPE: AUTO, 140-LB, 30-INCH	WATER DEPTH: 7.0 (ft)
LOGGED BY: NRA	HAMMER EFFICIENCY: 71%	READING TAKEN: 3/29/2021

DRILL METHOD CASING DEPTH ELEVATION (ft)	DEPTH (ft)	FIELD					GRAPHIC LOG	DESCRIPTION	RECOVERY (%)	LABORATORY					REMARKS
		SAMPLE	SAMPLE NO	BLOWS PER 6 IN.	BLOWS PER FOOT	POCKET PEN. (TSF)				RQD (%)	LIQUID LIMIT	PLASTIC LIMIT	MOISTURE (%)	D. DENSITY (PCF)	
6476	1	SG						SILTY, CLAYEY SAND (SC-SM); orange; moist; about 10% coarse to fine GRAVEL, up to 1 in. nominal diameter; about 70% coarse to fine, subangular to subrounded SAND; about 20% low plasticity fines [UNDOCUMENTED FILL].		23	16	8.6		20.8	
6474	3	A	4	10	18	28		Poorly graded SAND with SILT (SP-SM); dark gray; moist to wet; about 30% fine, subrounded to rounded GRAVEL, up to 3/4 in. nominal diameter; about 60% coarse to fine, subangular to subrounded SAND; about 10% nonplastic to low plasticity fines.	78						
6472	5	B	8	6	5	11		Dark tan; about 10% GRAVEL; about 15% fines.	67	14	13	5.8		10.2	
6470	7	C	8	16	15	31		Well-graded SAND with SILT and GRAVEL (SW-SM); tan; wet; about 20% fine, subrounded to rounded GRAVEL, up to 3/4 in. nominal diameter; about 70% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines.	83						
6468	9	D	11	24	26	50			78						
6466	11	E	16	26	27	53			78			12.1		8.2	
6464	13	F	19	27	30	57			89						
6462	15	G	21	28	44	72			100						
6460	17	H	23	36	48	84		About 15% coarse to fine GRAVEL, up to 1 in. nominal diameter; about 75% SAND; about 10% fines.	89						
6458	19														
6456	21														
6454	23							Poorly graded SAND with SILT and GRAVEL (SP-SM); tan; wet; about 25% coarse to fine, subrounded to rounded GRAVEL, up to 1 in. nominal diameter; about 65% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines.							Gravel and cobble chatter
6452	25	I	45	50/5	50/5	50/5			61						
6450	27														28-28.5: soft drilling
	29														Cobble or boulder per driller



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PROJECT NUMBER: 2753  
 PROJECT: MONO COUNTY JAIL  
 EXPLORATION: B-4  
 ENTRY BY:  
 CHECKED BY:

DRILL METHOD	CASING DEPTH	FIELD					GRAPHIC LOG	DESCRIPTION	RECOVERY (%)	LABORATORY					REMARKS
		ELEVATION (ft)	DEPTH (ft)	SAMPLE	SAMPLE NO.	BLOWS PER 6 IN.				BLOWS PER FOOT	POCKET PEN. (TSF)	RQD (%)	LIQUID LIMIT	PLASTIC LIMIT	
	6446	31	J	48 42 37	79		<p>About 30% fine, subrounded to rounded GRAVEL, up to 3/4 in. nominal diameter; about 20% SAND. Poorly graded SAND with SILT and GRAVEL (SP-SM) (continued).</p>	89	NV	NP	11.3		10.1	Soft drilling	
	6444	32													
	6442	35	K	50/5	REF			24						Soft drilling	
	6440	36													
	6438	40	L	7 16 21	37	4.5+	<p><b>SILTY SAND (SM)</b>; dark gray; wet; about 55% fine SAND; about 45% nonplastic fines.</p>	44	NV	NP	22.1		43.6	Gravel chatter	
	6436	41													
	6434	45	M	24 36 37	73		<p><b>Poorly graded SAND (SP)</b>; grayish tan; wet; about 95% coarse to fine, subangular to subrounded SAND; about 5% nonplastic fines.</p>	100						Gravel chatter	
	6432	46													
	6430	49	N	24 50/5	50/5		<p><b>Poorly graded SAND with SILT (SP-SM)</b>; tan; wet; about 10% fine, subrounded to rounded GRAVEL, up to 3/4 in. nominal diameter; about 80% coarse to fine, subangular to subrounded SAND; about 10% nonplastic fines; weak cementation; slight decomposed granite structure.</p>	44						Very tough drilling	
	6428	50													
	6426	56					<p><b>IGNEOUS ROCK (GRANITE)</b>, orange and white, very intensely weathered, very weak, soft.</p>							Very tough drilling	
	6424	57													
	6422	60	O	24 34 49	83			56							
	6418	61													
	6416	62	Bottom of borehole at 61.5 ft bgs												
	6414	63													
	6412	64													
		65													
		66													



SOIL CLASSIFICATION CHART					
MAJOR DIVISIONS			SYMBOLS		TYPICAL CLASSIFICATION NAMES
			GRAPH	LETTER	
Course grained soils	Gravel and gravelly soils	Clean gravels		GW	Well-graded gravels, gravel-sand mixtures, few or no fines
		Gravels with fines		GP	Poorly-graded gravels, gravel-sand mixtures, few or no fines
				GM	Silty gravels, gravel-sand-silt mixtures
	Sand and sandy soils	Clean sands		SW	Well-graded sands, gravelly sands, few or no fines
			SP	Poorly-graded sands, gravelly sands, few or no fines	
Sands with fines			SM	Silty sands, sand-silt mixtures	
			SC	Clayey sands, sand-clay mixtures	
			SC	Clayey sands, sand-clay mixtures	
Fine grained soils	Silt and silty soils		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
			OL	Organic silts and organic silt-clays of low plasticity	
	Clays		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
			CH	Inorganic clays of medium to high plasticity	
			OH	Organic clays of medium to high plasticity	
			PT	Peat or other highly organic soils	

**NOTES:**  
1. Dual classifications may occur (e.g. SP-SM, CL-ML, GP-GC)

PARTICLE ANGULARITY	
Angular	Particles have sharp edges and relatively plane sides with unpolished surfaces
Subangular	Particles are similar to angular, but have rounded edges
Subrounded	Particles have nearly plane sides, but have well-rounded corners and edges
Rounded	Particles have smoothly curved sides and no edges

PARTICLE SHAPE	
Flat	Particles with width/thickness >3
Elongated	Particles with length/width >3
Flat and Elongated	Particles meet criteria for both flat and elongated

MOISTURE	
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

CEMENTATION	
Weak	Crumbles or breaks with handling or light finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

PARTICLE SIZE, Ps	
Boulders	Ps > 12"
Cobbles	3" < Ps ≤ 12"
Gravel	coarse 3/4" < Ps ≤ 3"
	fine 1/4" < Ps ≤ 3/4"
Sand	coarse 1/16" < Ps ≤ 1/8"
	medium 1/64" < Ps ≤ 1/16"
	fine 1/300" < Ps ≤ 1/64"
Fines	Ps ≤ 1/300"

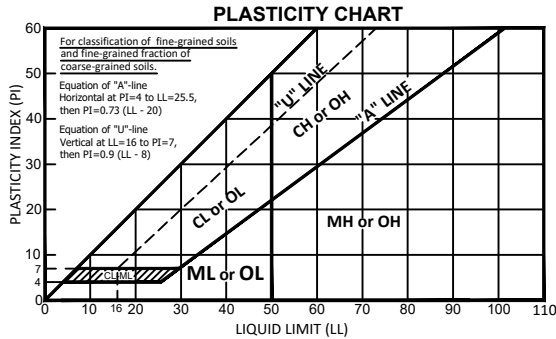
PERCENT OF SOIL, Pp	
Trace	Pp < 5%
Few	5 ≤ Pp ≤ 15%
Little	15 ≤ Pp ≤ 30%
Some	30 ≤ Pp ≤ 50%
Mostly	50 ≤ Pp ≤ 100%

**SOIL SAMPLE TYPES**

- Bulk Sample
- Standard Penetration Test (2.0" OD, 1.42" ID)
- California Modified Sampler (3.0" OD, 2.42" ID)
- Thin walled Shelby Tube (3.0" OD)
- Rock Core

**GROUNDWATER SYMBOLS**

- Water level during drilling
- Water level after drilling



APPARENT DENSITY OF COHESIONLESS SOIL	
	SPT (1.4" ID) N <sub>60</sub>
Very Loose	< 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	> 50

Based on 60% energy ratio (ER).  $N_{60} = N_{measured} * (ER/60)$   
California Modified Sampler can be corrected to SPT by multiplying by 0.62

CONSISTENCY OF COHESIVE SOIL			
	SPT (1.4"ID) N <sub>60</sub>	Unconfined Compressive Strength (psf)	Pocket Penetrometer (tsf)
Very Soft	0 - 1	< 500	< 0.25
Soft	2 - 4	500 - 1,000	0.25 - 0.5
Medium Stiff	5 - 8	1,000 - 2,000	0.5 - 1.0
Stiff	9 - 15	2,000 - 4,000	1.0 - 2.0
Very Stiff	16 - 30	4,000 - 8,000	2.0 - 4.0
Hard	31 - 60	8,000 - 16,000	> 4.0
Very Hard	> 60	> 16,000	

**BEDDING SPACING, Sb**

Massive	10' < Sb
Very Thickly Bedded	3' < Sb ≤ 10'
Thickly Bedded	1' < Sb ≤ 3'
Moderately Bedded	4" < Sb ≤ 1'
Thinly Bedded	1" < Sb ≤ 4"
Very Thinly Bedded	½" < Sb ≤ 1"
Laminated	Sb ≤ ¼"

**ROCK HARDNESS**

Extremely Hard	Cannot be scratched with a pocketknife or sharp pick. Can only be chipped with repeated heavy hammer blows.
Very Hard	Cannot be scratched with a pocketknife or sharp pick. Breaks with repeated heavy hammer blows.
Hard	Can be scratched with a pocketknife or sharp pick with difficulty (heavy pressure). Breaks with heavy hammer blows.
Moderately Hard	Can be scratched with a pocketknife or sharp pick with light or moderate pressure. Breaks with moderate hammer blows.
Moderately Soft	Can be grooved 1/16 in. deep with a pocketknife or sharp pick with moderate or heavy pressure. Breaks with light hammer blow or heavy manual pressure.
Soft	Can be grooved or gouged easily with a pocketknife or sharp pick with light pressure, can be scratched with fingernail. Breaks with light to moderate manual pressure.
Very Soft	Can be readily indented, grooved or gouged with fingernail, or carved with a pocketknife. Breaks with light manual pressure.

**WEATHERING FOR INTACT ROCK**

Description	Diagnostic Features					General Characteristics
	Chemical weathering-discoloration and/or oxidation		Mechanical weathering-grain boundary conditions	Texture and leaching		
	Body of rock	Fracture surfaces		Texture	Leaching	
Fresh	No discoloration, not oxidized.	No discoloration or oxidation.	No separation, intact (tight).	No change	No leaching	Hammer rings when crystalline rocks are struck.
Slightly Weathered	Discoloration or oxidation is limited to surface of, or short distance from, fractures; some feldspar crystals are dull.	Minor to complete discoloration or oxidation of most surfaces.	No visible separation, intact (tight).	Preserved	Preserved	Hammer rings when crystalline rocks are struck. Body of rock not weakened.
Moderately Weathered	Discoloration or oxidation extends from fractures usually throughout; Fe-Mg minerals are "rusty" feldspar crystals are "cloudy".	All fracture surfaces are discolored or oxidized.	Partial separation of boundaries visible.	Generally preserved	Generally preserved	Hammer does not ring when rock is struck. Body of rock is slightly weakened.
Intensely Weather	Discoloration or oxidation throughout; all feldspars and Fe-Mg minerals are altered to clay to some extent; or chemical alteration produces in situ disaggregation, see grain boundary conditions.	All fracture surfaces are discolored or oxidized, surfaces friable.	Partial separation, rock is friable; in semiarid conditions granitics are disaggregated.	Texture altered by chemical disintegration (hydration, argillation).	Leaching of soluble minerals may be complete.	Dull sound when struck with hammer, usually can be broken with moderate to heavy manual pressure or by light hammer blow without reference to planes of weakness such as incipient or hairline fractures, or veinlets.
Decomposed	Discolored or oxidized throughout, but resistant minerals such as quartz may be unaltered; all feldspars and Fe-Mg minerals are completely altered to clay.		Complete separation of grain boundaries (disaggregated).	Resembles a soil, partial or complete remnant rock structure may be preserved; leaching of soluble minerals usually complete.		Can be granulated by hand. Resistant minerals such as quartz may be present as "stringers" or "dikes."

**CORE RECOVERY**

The core recovery value (REC) provides an indication of the success of the coring operation in recovering the cored rock. Diminished core recovery can be attributed to voids within the rock mass or loss of rock mass due to drilling fluids.

$$REC = \frac{\sum(\text{Length of recovered core pieces})(100\%)}{\text{Total length of the core run}}$$

**ROCK QUALITY DESIGNATION**

Rock Quality Designation is a measure of the fracturing in a rock mass as observed in a core specimen. A high value of RQD indicates few or widely spaced fractures. RQD is valid for core diameters from 1.4 to 3.335 inches. RQD is based on ASTM D6032.

$$REC = \frac{\sum(\text{Length of intact core pieces} \geq 4 \text{ inches})(100\%)}{\text{Total length of the core run}}$$

**FRACTURE DENSITY**

Unfractured	No fractures.
Very Slightly Fractured	Core lengths greater than 3 ft.
Slightly Fractured	Core lengths mostly from 1 to 3 ft.
Moderately Fractured	Core lengths mostly from 4 in. to 1 ft.
Intensely Fractured	Core lengths mostly from 1 to 4 in.
Very Intensely Fractured	Mostly chips and fragments.

Note: exclude mechanical breaks

**FRACTURE FILLING, FF**

Clean	No visible separation
Very Thin	FF < ¼"
Moderately Thin	¼" ≤ FF < ½"
Thin	½" ≤ FF < ¾"
Moderately Thick	¾" ≤ FF < 1"
Thick	1" ≤ FF

**FRACTURE HEALING**

Totally Healed	Fracture is completely healed or recemented to a degree at least as hard as surrounding rock.
Moderately Healed	Greater than 50 percent of fracture is healed or recemented.
Partly Healed	Less than 50 percent of fractured material, filling, or fracture surface is healed or recemented
Not Healed	Fracture surface filling is not healed or recemented.

**FRACTURE ROUGHNESS**

Stepped	Near-normal steps and ridges occur on the fracture surface.
Rough	Large, angular asperities can be seen.
Moderately Rough	Asperities are clearly visible and fracture surface feels abrasive.
Slightly Rough	Small asperities on the fracture surface are visible and can be felt.
Smooth	No asperities, smooth to the touch.

**ROCK STRENGTH**

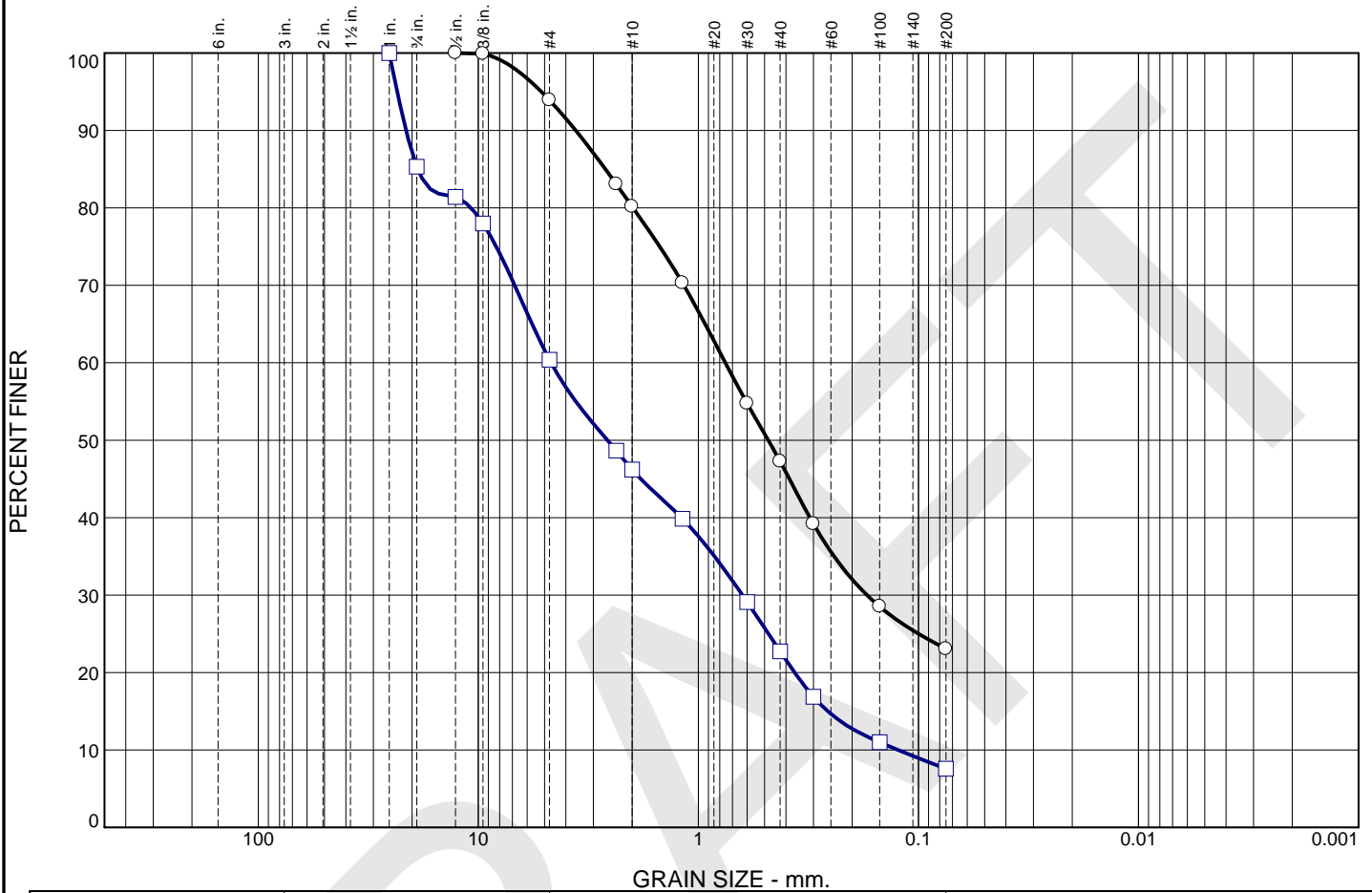
Plastic	Plastic or very low strength
Friable	Crumbles easily by rubbing with fingers
Weak	An unfractured specimen will crumble under light hammer blows
Moderately Strong	Specimen will withstand a few heavy hammer blows before breaking
Strong	Specimen will withstand a few heavy ringing hammer blows and will yield with difficulty only dust and small flying pieces
Very Strong	Specimen will resist heavy ringing hammer blows and will yield with difficulty dust and small flying fragments

DRAFT

**APPENDIX B**



# Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	6.1	13.7	32.9	24.3	23.0	
□	0.0	14.7	24.9	14.2	23.5	15.1	7.6	

	LL	PL	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
○	21	15	2.6448	0.7540	0.4813	0.1712				
□	NV	NP	18.8494	4.6695	2.5877	0.6309	0.2580	0.1237	0.69	37.75

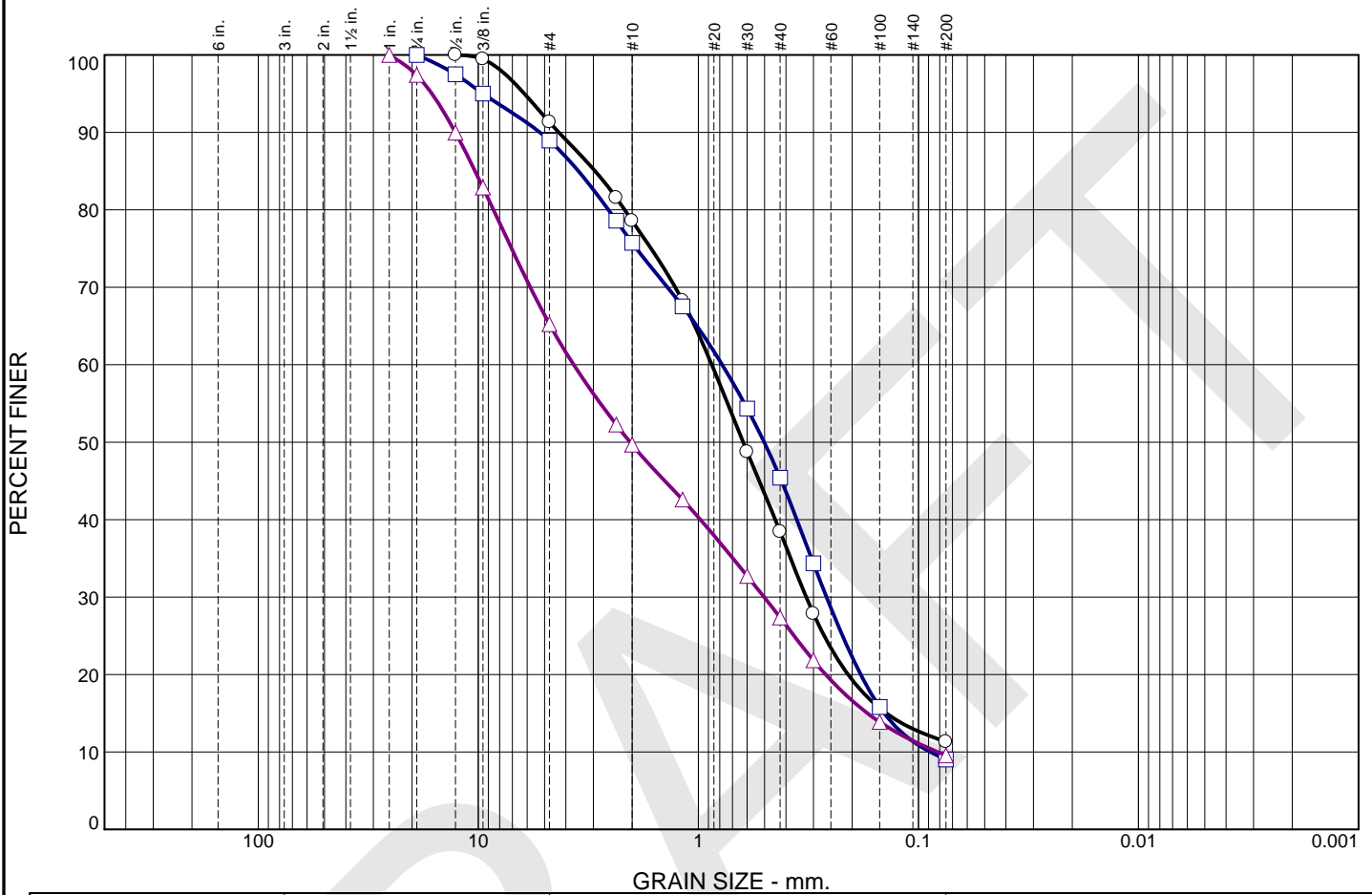
MATERIAL DESCRIPTION			TEST DATE	USCS	NM
○	silty, clayey sand		4/1/2021	SC-SM	8.5
□	poorly graded sand with silt and gravel		4/1/2021	SP-SM	8.7

<p><b>Project No.</b> 2753      <b>Client:</b> LIONAKIS</p> <p><b>Project:</b> MONO COUNTY JAIL</p> <p>○ <b>Source of Sample:</b> B-1      <b>Depth:</b> 0.0      <b>Sample Number:</b> SG</p> <p>□ <b>Source of Sample:</b> B-1      <b>Depth:</b> 7.5      <b>Sample Number:</b> C</p>	<p><b>Remarks:</b></p>          <p style="text-align: right;"><b>PLATE</b></p>

Tested By: SS



# Particle Size Distribution Report



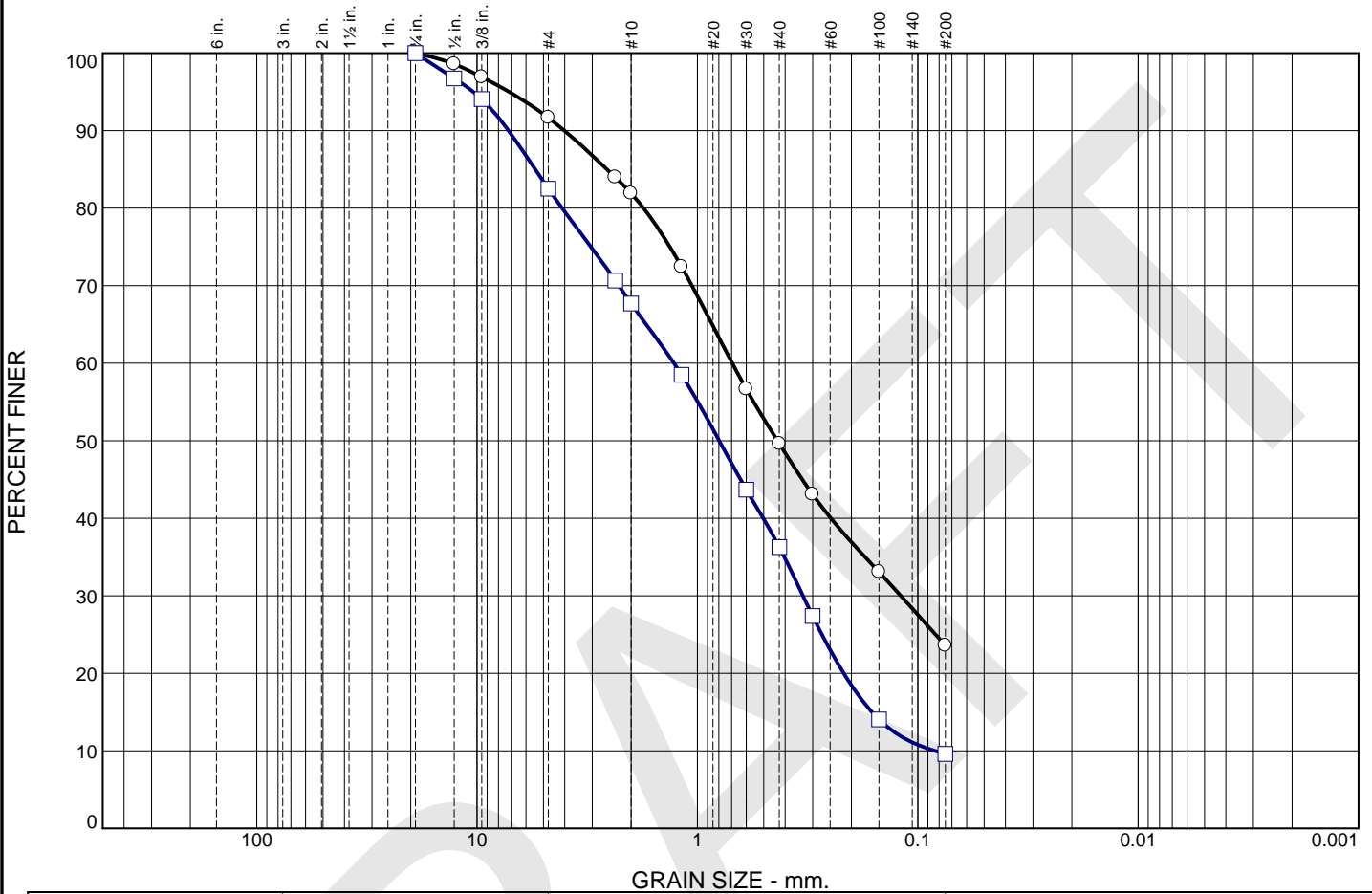
	% +3"	% Gravel		% Sand			% Fines			
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay		
○	0.0	0.0	8.7	12.7	40.2	27.1	11.3			
□	0.0	0.0	11.1	13.2	30.3	36.4	9.0			
△	0.0	2.6	32.2	15.5	22.3	17.9	9.5			
	LL	PL	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
○	21	17	2.9457	0.8691	0.6256	0.3236	0.1401			
□			3.5074	0.7792	0.5022	0.2616	0.1431	0.0883	0.99	8.82
△			10.3466	3.6873	2.0440	0.5025	0.1705	0.0818	0.84	45.10

MATERIAL DESCRIPTION							TEST DATE	USCS	NM
○	poorly graded sand with silty clay						4/1/2021	SP-SC	12.6
□	poorly graded sand with silt						4/1/2021		13.4
△	poorly graded sand with silt and gravel						4/1/2021		10.9

<b>Project No.</b> 2753 <b>Project:</b> MONO COUNTY JAIL	<b>Client:</b> LIONAKIS	<b>Remarks:</b>   
○ <b>Source of Sample:</b> B-2 <b>Depth:</b> 2.5 <b>Sample Number:</b> A □ <b>Source of Sample:</b> B-2 <b>Depth:</b> 15.0 <b>Sample Number:</b> F △ <b>Source of Sample:</b> B-2 <b>Depth:</b> 35.0 <b>Sample Number:</b> K		
		<b>PLATE</b>

Tested By: SS

# Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
<input type="radio"/>	0.0	0.0	8.3	9.8	32.3	26.0	23.6	
<input type="checkbox"/>	0.0	0.0	17.5	14.8	31.4	26.7	9.6	

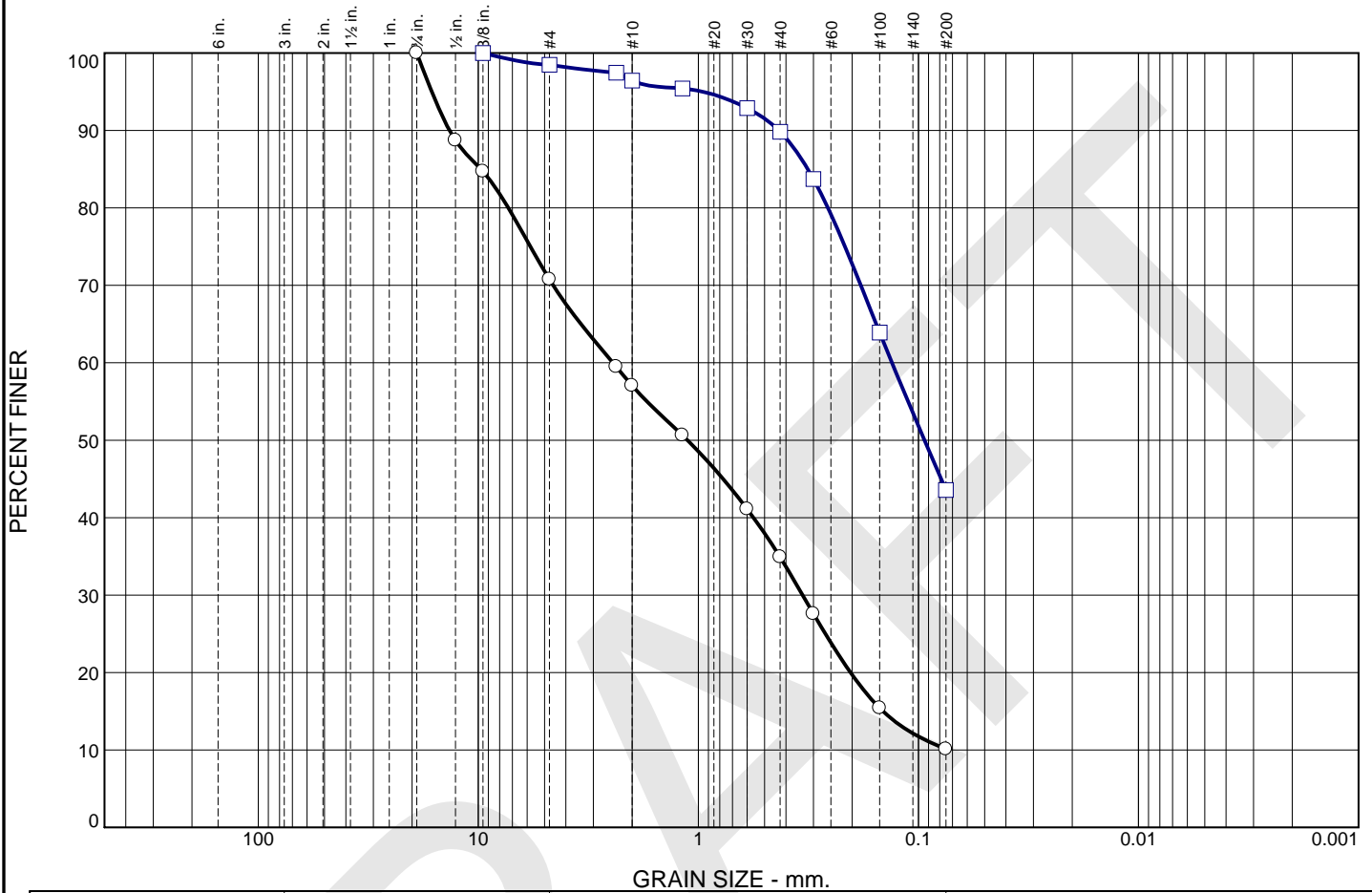
	LL	PL	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
<input type="radio"/>	28	25	2.5742	0.6950	0.4335	0.1195				
<input type="checkbox"/>	NV	NP	5.4467	1.2772	0.7962	0.3320	0.1615	0.0835	1.03	15.29

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
<input type="radio"/> silty sand	4/1/2021	SM	19.7
<input type="checkbox"/> well-graded sand with silt and gravel	4/1/2021	SW-SM	12.9

<b>Project No.</b> 2753 <b>Client:</b> LIONAKIS <b>Project:</b> MONO COUNTY JAIL	<b>Remarks:</b>          <div style="text-align: right; font-weight: bold;">PLATE</div>
<input type="radio"/> <b>Source of Sample:</b> B-3 <b>Depth:</b> 0.0 <b>Sample Number:</b> SG <input type="checkbox"/> <b>Source of Sample:</b> B-3 <b>Depth:</b> 20.0 <b>Sample Number:</b> H	

Tested By:  SS    AS

# Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	29.2	13.8	22.1	24.8	10.1	
□	0.0	0.0	1.5	2.1	6.6	46.2	43.6	

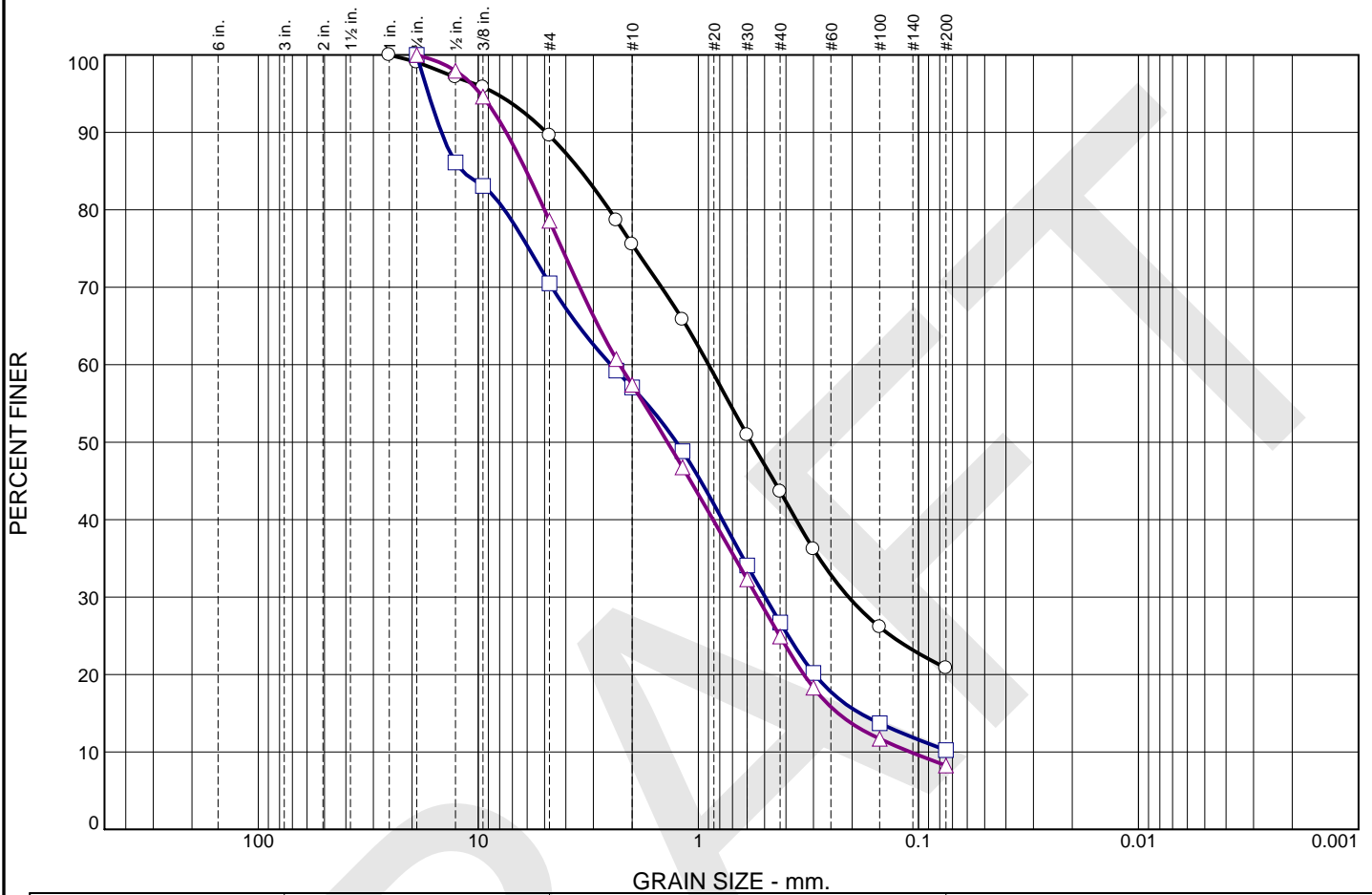
	LL	PL	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
○	NV	NP	9.7218	2.4446	1.1211	0.3360	0.1449			
□	NV	NP	0.3181	0.1319	0.0938					

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ poorly graded sand with silt and gravel	4/1/2021	SP-SM	11.3
□ silty sand	4/1/2021	SM	22.1

<p><b>Project No.</b> 2753      <b>Client:</b> LIONAKIS</p> <p><b>Project:</b> MONO COUNTY JAIL</p> <p>○ <b>Source of Sample:</b> B-4      <b>Depth:</b> 30.0      <b>Sample Number:</b> J</p> <p>□ <b>Source of Sample:</b> B-4      <b>Depth:</b> 40.0      <b>Sample Number:</b> L</p>	<p><b>Remarks:</b></p> <p style="text-align: right; font-weight: bold;">PLATE</p>

Tested By: ○ SS    □ AS

# Particle Size Distribution Report



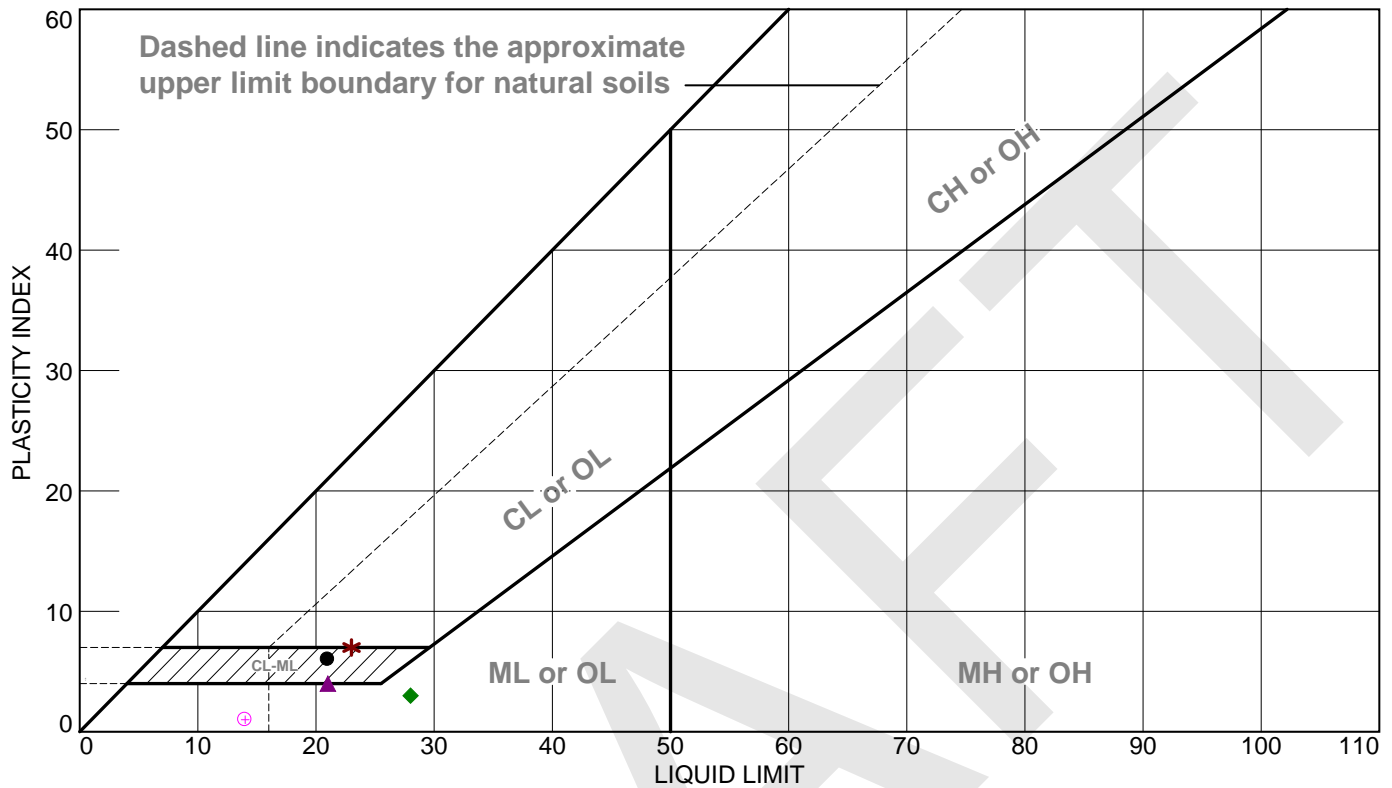
	% +3"	% Gravel		% Sand			% Fines			
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay		
○	0.0	1.0	9.4	14.1	31.9	22.8	20.8			
□	0.0	0.0	29.5	13.4	30.4	16.5	10.2			
△	0.0	0.0	21.4	21.2	32.5	16.7	8.2			
	LL	PL	D <sub>85</sub>	D <sub>60</sub>	D <sub>50</sub>	D <sub>30</sub>	D <sub>15</sub>	D <sub>10</sub>	C <sub>c</sub>	C <sub>u</sub>
○	23	16	3.4193	0.8986	0.5747	0.2076				
□	14	13	11.8169	2.4983	1.2576	0.4973	0.1843			
△			6.0498	2.2789	1.3811	0.5398	0.2320	0.1089	1.17	20.93

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ silty, clayey sand	4/1/2021	SC-SM	8.6
□ poorly graded sand with silt and gravel	4/1/2021	SP-SM	5.8
△ well-graded sand with silt and gravel	4/1/2021		12.1

<b>Project No.</b> 2753 <b>Project:</b> MONO COUNTY JAIL	<b>Client:</b> LIONAKIS	<b>Remarks:</b>   
○ <b>Source of Sample:</b> B-4 <b>Depth:</b> 0.0 <b>Sample Number:</b> SG □ <b>Source of Sample:</b> B-4 <b>Depth:</b> 5.0 <b>Sample Number:</b> B △ <b>Source of Sample:</b> B-4 <b>Depth:</b> 12.5 <b>Sample Number:</b> E		
		<b>PLATE</b>

Tested By: SS

# LIQUID AND PLASTIC LIMITS TEST REPORT



## SOIL DATA

	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LIQUIDITY INDEX	USCS
●	B-1	SG	0.0	8.5	15	21	6	-1.1	SC-SM
■	B-1	C	7.5	8.7	NP	NV	NP		SP-SM
▲	B-2	A	2.5	12.6	17	21	4	-1.1	SP-SC
◆	B-3	SG	0.0	19.7	25	28	3	-1.8	SM
▼	B-3	H	20.0	12.9	NP	NV	NP		SW-SM
*	B-4	SG	0.0	8.6	16	23	7	-1.1	SC-SM
⊕	B-4	B	5.0	5.8	13	14	1	-7.2	SP-SM
⊕	B-4	J	30.0	11.3	NP	NV	NP		SP-SM
⊗	B-4	L	40.0	22.1	NP	NV	NP		SM



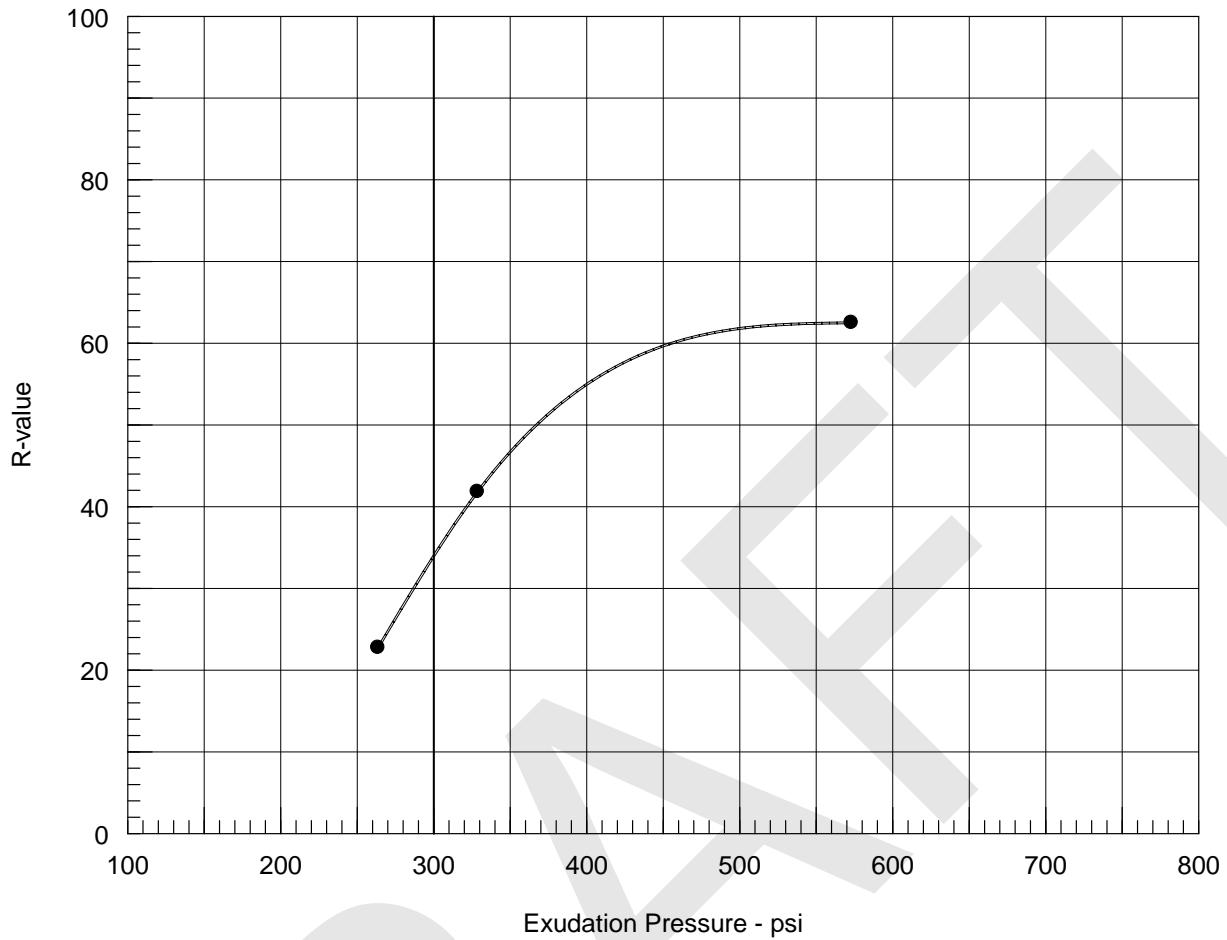
**Client:** LIONAKIS  
**Project:** MONO COUNTY JAIL

**Project No.:** 2753

**PLATE**

Tested By: AS

# R-VALUE TEST REPORT



## Resistance R-Value and Expansion Pressure - ASTM D2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	150	130.3	10.1	0.00	104	2.50	264	22.8	22.8
2	200	132.5	9.2	0.00	72	2.50	329	41.8	41.8
3	300	133.2	8.7	0.00	43	2.50	573	62.5	62.5

### Test Results

R-value at 300 psi exudation pressure = 34.0

### Material Description

silty, clayey sand

**Project No.:** 2753

**Project:** MONO COUNTY JAIL

**Source of Sample:** B-1      **Depth:** 0.0

**Sample Number:** SG

**Date:** 4/5/2021

**Tested by:** MP

**Checked by:** NRA

**Remarks:**



Silver State Labs-Reno  
 1135 Financial Blvd  
 Reno, NV 89502  
 (775) 857-2400 FAX: (888) 398-7002  
 www.ssalabs.com

# Analytical Report

Workorder#: 21031505  
 Date Reported: 4/13/2021

**Client:** CME-Construction Materials Engineers, Inc  
**Project Name:** 2753/ Mono County Jail/ B-1 1-SG @ 0.0 - 2.5  
**PO #:** 2663

**Sampled By:** Client

**Laboratory Accreditation Number:** NV015/CA2990

<b>Laboratory ID</b>	<b>Client Sample ID</b>	<b>Date/Time Sampled</b>	<b>Date Received</b>
21031505-01	B-1 1-SG @ 0.0 - 2.5	03/25/2021 0:00	3/31/2021

Parameter	Method	Result	Units	PQL	Analyst	Date/Time Analyzed	Data Flag
Sulfate	ASTM 1580C	< 0.02	%	0.02	AC	04/09/2021 14:37	

**CME**

**CONSTRUCTION  
MATERIALS  
ENGINEERS, INC.**

**DRAFT**

**APPENDIX C**

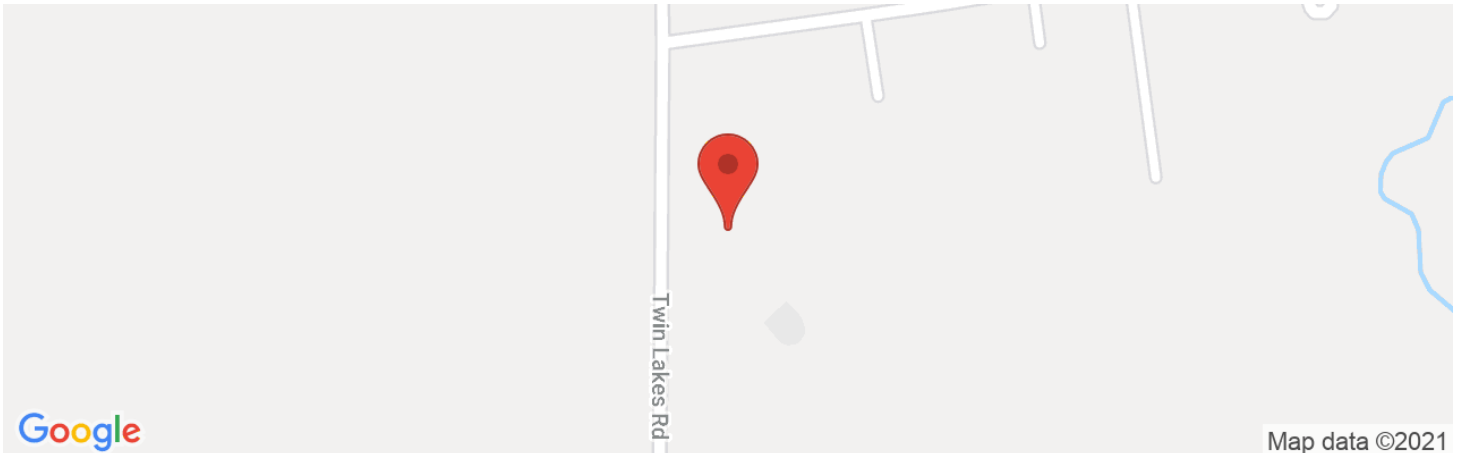




# Mono County Jail

221 Twin Lakes Rd, Bridgeport, CA 93517, USA

Latitude, Longitude: 38.2530812, -119.2307617



<b>Date</b>	4/12/2021, 10:40:05 AM
<b>Design Code Reference Document</b>	ASCE7-16
<b>Risk Category</b>	III
<b>Site Class</b>	D - Stiff Soil

Type	Value	Description
$S_S$	1.196	$MCE_R$ ground motion. (for 0.2 second period)
$S_1$	0.39	$MCE_R$ ground motion. (for 1.0s period)
$S_{MS}$	1.222	Site-modified spectral acceleration value
$S_{M1}$	null -See Section 11.4.8	Site-modified spectral acceleration value
$S_{DS}$	0.814	Numeric seismic design value at 0.2 second SA
$S_{D1}$	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
$F_a$	1.022	Site amplification factor at 0.2 second
$F_v$	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.523	$MCE_G$ peak ground acceleration
$F_{PGA}$	1.1	Site amplification factor at PGA
$PGA_M$	0.576	Site modified peak ground acceleration
$T_L$	6	Long-period transition period in seconds
$S_sRT$	1.196	Probabilistic risk-targeted ground motion. (0.2 second)
$S_sUH$	1.332	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
$S_sD$	1.92	Factored deterministic acceleration value. (0.2 second)
$S_1RT$	0.39	Probabilistic risk-targeted ground motion. (1.0 second)
$S_1UH$	0.432	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
$S_1D$	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.769	Factored deterministic acceleration value. (Peak Ground Acceleration)
$C_{RS}$	0.897	Mapped value of the risk coefficient at short periods
$C_{R1}$	0.903	Mapped value of the risk coefficient at a period of 1 s

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**CME**

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ENGINEERS, INC.**

DRAFT

**APPENDIX D**









# Unified Hazard Tool



Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the [U.S. Seismic Design Maps web tools](#) (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

## ^ Input

### Edition

### Spectral Period

### Latitude

Decimal degrees

### Time Horizon

Return period in years

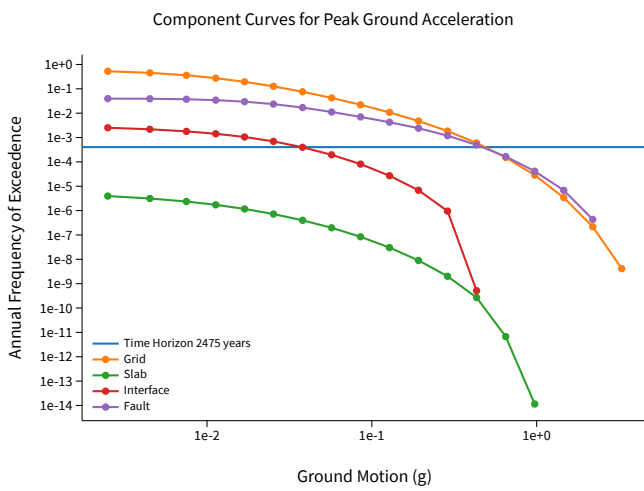
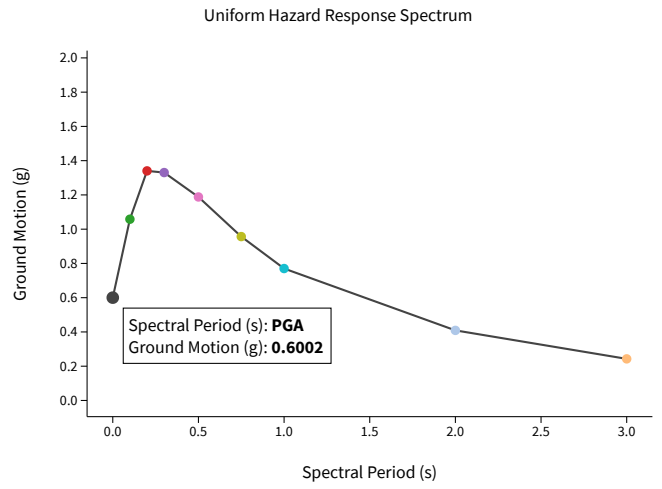
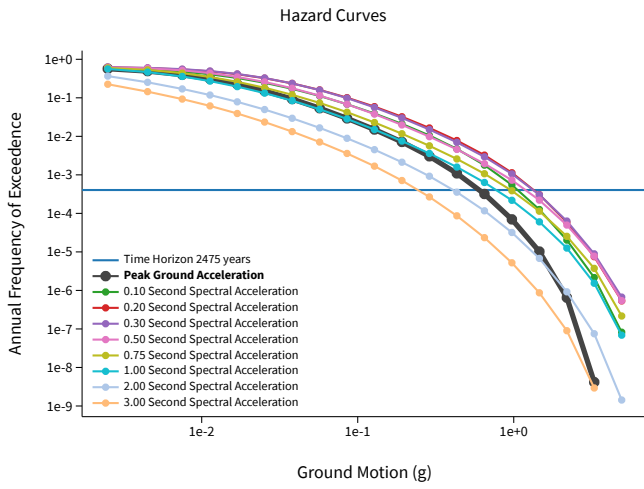
### Longitude

Decimal degrees, negative values for western longitudes

### Site Class



# ^ Hazard Curve

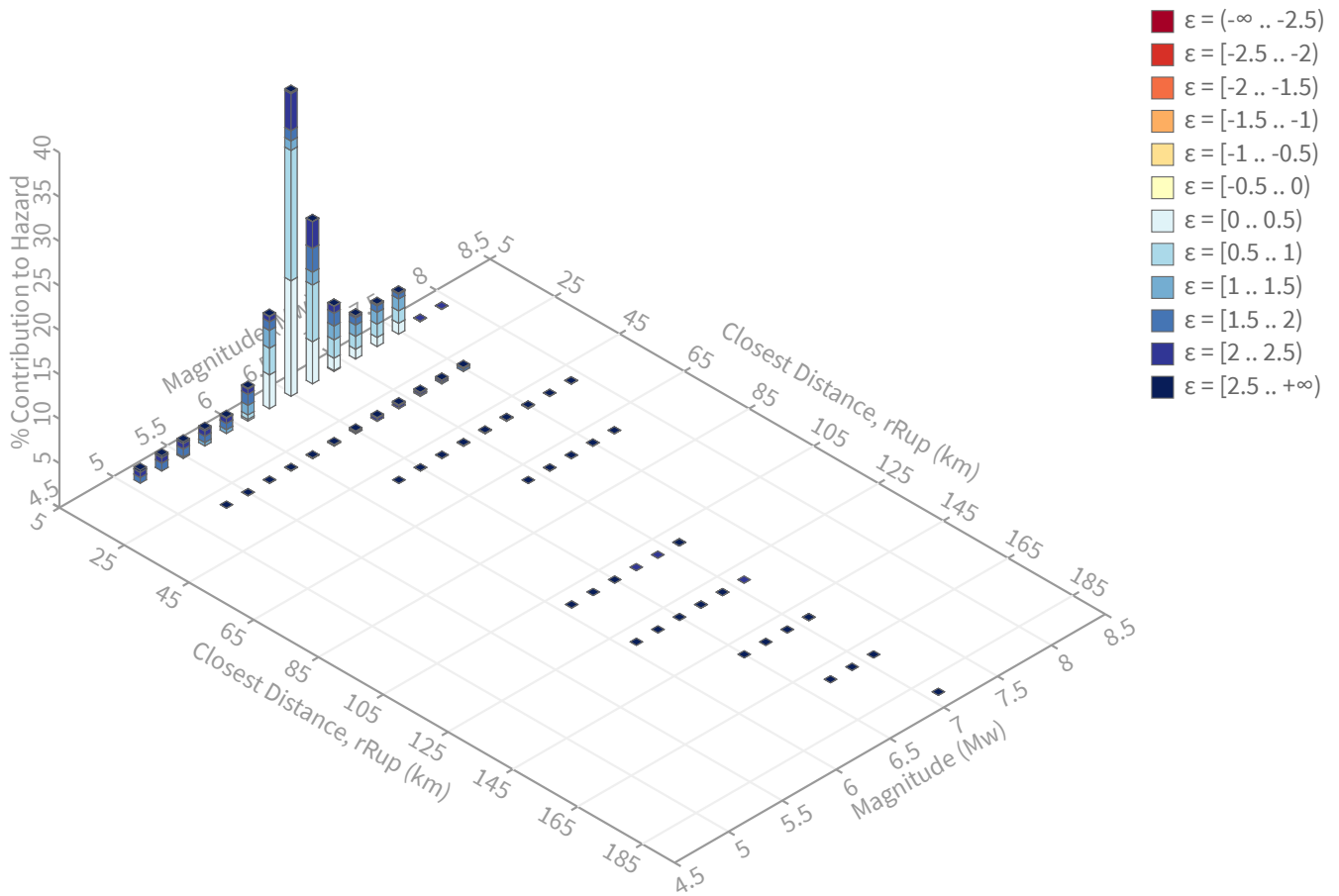


[View Raw Data](#)

# ^ Deaggregation

## Component

Total



## Summary statistics for, Deaggregation: Total

### Deaggregation targets

---

**Return period:** 2475 yrs

**Exceedance rate:** 0.0004040404 yr<sup>-1</sup>

**PGA ground motion:** 0.60022663 g

### Recovered targets

---

**Return period:** 2757.1682 yrs

**Exceedance rate:** 0.00036269097 yr<sup>-1</sup>

### Totals

---

**Binned:** 100 %

**Residual:** 0 %

**Trace:** 0.03 %

### Mean (over all sources)

---

**m:** 6.56

**r:** 7.46 km

**ε<sub>0</sub>:** 1.07 σ

### Mode (largest m-r bin)

---

**m:** 6.47

**r:** 5.82 km

**ε<sub>0</sub>:** 0.8 σ

**Contribution:** 34.25 %

### Mode (largest m-r-ε<sub>0</sub> bin)

---

**m:** 6.46

**r:** 4.48 km

**ε<sub>0</sub>:** 0.8 σ

**Contribution:** 14.69 %

### Discretization

---

**r:** min = 0.0, max = 1000.0, Δ = 20.0 km

**m:** min = 4.4, max = 9.4, Δ = 0.2

**ε:** min = -3.0, max = 3.0, Δ = 0.5 σ

### Epsilon keys

---

**ε0:** [-∞ .. -2.5)

**ε1:** [-2.5 .. -2.0)

**ε2:** [-2.0 .. -1.5)

**ε3:** [-1.5 .. -1.0)

**ε4:** [-1.0 .. -0.5)

**ε5:** [-0.5 .. 0.0)

**ε6:** [0.0 .. 0.5)

**ε7:** [0.5 .. 1.0)

**ε8:** [1.0 .. 1.5)

**ε9:** [1.5 .. 2.0)

**ε10:** [2.0 .. 2.5)

**ε11:** [2.5 .. +∞]

## Deaggregation Contributors

Source Set ↴ Source	Type	r	m	$\epsilon_0$	lon	lat	az	%
bFault.ch	Fault							34.20
Robinson Creek 50		4.49	6.50	0.48	119.303°W	38.239°N	256.06	27.87
Mono Lake 50		12.01	6.69	2.11	119.189°W	38.150°N	162.41	6.34
shear4.in	Grid							28.68
PointSourceFixedStrike: -119.300, 38.300		1.16	6.89	0.40	119.300°W	38.300°N	310.98	3.59
PointSourceFixedStrike: -119.200, 38.200		2.49	6.89	0.62	119.200°W	38.200°N	155.48	2.82
PointSourceFixedStrike: -119.100, 38.200		4.11	6.91	0.84	119.100°W	38.200°N	117.15	2.08
PointSourceFixedStrike: -119.400, 38.400		3.44	7.09	0.69	119.400°W	38.400°N	317.99	1.73
PointSourceFixedStrike: -119.200, 38.300		5.66	6.92	1.03	119.200°W	38.300°N	26.91	1.56
PointSourceFixedStrike: -119.100, 38.100		5.45	7.03	0.97	119.100°W	38.100°N	146.05	1.41
PointSourceFixedStrike: -119.400, 38.300		7.06	6.94	1.19	119.400°W	38.300°N	289.63	1.19
PointSourceFixedStrike: -119.000, 38.100		4.87	7.16	0.84	119.000°W	38.100°N	130.04	1.15
PointSourceFixedStrike: -119.300, 38.400		7.73	6.96	1.25	119.300°W	38.400°N	339.73	1.04
bFault.gr	Fault							18.82
Robinson Creek 50		4.50	6.46	0.56	119.303°W	38.239°N	256.06	15.50
Mono Lake 50		13.17	6.61	2.18	119.189°W	38.150°N	162.41	3.32
EXTmap.ch.in (opt)	Grid							11.44
PointSourceFinite: -119.231, 38.302		7.22	5.76	1.58	119.231°W	38.302°N	0.00	3.22
PointSourceFinite: -119.231, 38.329		9.01	5.87	1.76	119.231°W	38.329°N	0.00	2.80
PointSourceFinite: -119.231, 38.311		7.79	5.80	1.64	119.231°W	38.311°N	0.00	2.58
PointSourceFinite: -119.231, 38.365		11.70	6.02	1.98	119.231°W	38.365°N	0.00	1.23
EXTmap.gr.in (opt)	Grid							5.72
PointSourceFinite: -119.231, 38.302		7.22	5.76	1.58	119.231°W	38.302°N	0.00	1.61
PointSourceFinite: -119.231, 38.329		9.01	5.87	1.76	119.231°W	38.329°N	0.00	1.40
PointSourceFinite: -119.231, 38.311		7.79	5.80	1.64	119.231°W	38.311°N	0.00	1.29

**GROUP**



**DELTA**

**HAZARDOUS BUILDING MATERIALS ABATEMENT  
SPECIFICATIONS**

**Future Mono County Jail/Old Hospital**

**Bridgeport, California**

**Submitted to**

**LIONAKIS**

**1919 19th Street**

**Sacramento, California, 95811**

**June 3, 2021**

**Group Delta Project No.**

**EN8119**



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## TECHNICAL ASBESTOS ABATEMENT SPECIFICATION

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## TECHNICAL ASBESTOS ABATEMENT SPECIFICATION

### PART 1 - GENERAL

#### 1.1 PROJECT SITE

- A. The project site is identified as the Old Hospital at the future site of the Mono County Jail, 221 Twin Lakes Rd., Bridgeport, California, California. The subject site building is planned for demolition.

#### 1.2 SCOPE OF WORK

- A. All work shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of asbestos abatement and the handling of asbestos waste, asbestos containing, and contaminated materials and the subsequent cleaning of asbestos contaminated areas.
- B. Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling and transportation of asbestos containing material), and equipment which is specified, shown or reasonably implied for the removal, transport, and disposal of the following asbestos contaminated/containing materials from the building locations as indicated (all quantities are approximate):

#### Asbestos-Containing Material Removal:

- C. The Work includes the abatement, removal, transport and disposal of the following asbestos-containing materials (ACMs) and asbestos-containing construction materials (ACCMs), as per the architectural drawings as materials to be impacted during the building renovation activities for modernization. A hazardous materials survey prepared by Group Delta is included as Appendix A and was reviewed as part of this specification design. The following table lists the ACMs and/or ACCMs identified within the subject site building, including the location, condition, and the estimated total quantity of the identified hazardous materials:

Table 1 of 1

Sample #	Material	Building/Location	Asbestos	Amount	Friability	Qty
MCH-001	9" Brown Vinyl Floor Tile	Hospital/Floor East/West Hall	Chrysotile	Trace (<1 %)	NF	8,000 SF
MCH-001	9" Brown Vinyl Floor Tile & Black Mastic	Hospital/Floor East/West Hall	Chrysotile	Trace - 5 %	NF	See Above
MCH-002	9" Brown Vinyl Floor Tile & Black Mastic	Hospital - Kitchen Floor	Chrysotile	3-5 %	NF	See 001



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MCH-003	9" Brown Vinyl Floor Tile & Black Mastic	Hospital – Locker Room	Chrysotile	3-5 %	NF	See 001
MCH-004	9" Brown Vinyl Floor Tile & Black Mastic	Hospital, Equip. Storage	Chrysotile	3-5 %	NF	See 001
MCH-005	9" Gray Vinyl Floor Tile & Black Mastic	Hospital, Dressing Room	Chrysotile	3-5 %	NF	See 001
MCH-006	9" Green Vinyl Floor Tile & Black Mastic	Hospital, Doctors Work Room	Chrysotile	3-5 %	NF	See 001
MCH-007	12" Tan Vinyl Floor Tile & Black Mastic	Hospital, N.E. Corner - Hall	Chrysotile	5 %	NF	6,000 SF
MCH-008	12" Brown Vinyl Floor Tile & Black Mastic	Hospital, Office	Chrysotile	5 %	NF	See 007
MCH-009	12" Brown Vinyl Floor Tile & Black Mastic	Hospital, Restroom	Chrysotile	5 %	NF	See 007
MCH-010	12" Tan Vinyl Floor Tile & Black Mastic	Hospital, - South End N.S. East Hall	Chrysotile	5 %	NF	See 007
MCH-012	Brown Carpet Adhesive/Mastic	Hospital - Admin Office	Chrysotile	2 %	NF	3,000 SF
MCH-020	9" Brown Vinyl Floor Tile and Black Mastic	Hospital – CAO Office	Chrysotile	3-5 %	NF	See 001
MCH-033, 034, 035	Sprayed-On Acoustic Ceiling Coating (ACS)	Hospital - N.S. East Hall	Chrysotile	6 %	F	2,200 SF
MCH-039	Wood Panel Glue	Hospital – Lobby	Chrysotile	5 %	NF	500 SF
MCH-042	12" Ceiling Tile Mastic	Hospital – Nurses Station	Tremolite	0.2% by Point Count	NF	1,100 SF
MCH-043	Transite (2' x 2') Panels	Hospital - Ceiling Soffit Above Kitchen Sink	Chrysotile	25 %	NF	50 SF
MCH-044	Thermal System Insulation (TSI) - Pipe Run	Hospital - Heater Tank at Sterile Room	Amosite	5%	F	6 LF
MCH-045	Window Putty	Hospital – Exterior	Chrysotile	2%	NF	6 LF
MCH-053	Fire Door Insulation	Hospital - Mech. Rm. 'D'	Chrysotile	3%	F	4 SF
MCH-059, 065	6" TSI Elbows	Hospital – Mech. Rms. A and B	Chrysotile	20-25%	F	75 Ea.
MCH-066	HVAC Unit Duct Gasket/ Black	Hospital – Mech. Rm. B, HVAC Units	Chrysotile	5%	NF	180 SF



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MCH-067	Boiler Tank Insulation	Hospital – Mech. Rm. C	Chrysotile	25%	F	80 SF
MCH-069, 072	3" TSI Elbow/ Gray	Hospital – Mech. Rm. C	Chrysotile & Amosite	5-10%	F	100 Ea.
MCH-070, 071	6" TSI Elbow/ Gray	Hospital – Mech. Rms. C & D	Chrysotile	2-5%	F	75 Ea.
MCH-079	HVAC Unit Duct Gasket Material	Hospital – Mech. Rm. D	Chrysotile	5%	NF	40 SF
MCH-080	4" TSI Pipe Run/ Wrap / White/ Gray	Hospital – Kitchen	Amosite	25%	F	25 LF

At no time should the identified ACMs or ACCMs be drilled, cut, sanded, scraped or otherwise disturbed by untrained personnel. These materials should be removed prior to any activities which will impact these materials. Asbestos disturbance and/or removal operations must be conducted by a California Occupational Safety and Health Administration (Cal/OSHA)-registered and State licensed asbestos removal contractor. Disturbance and/or abatement operations should be performed under the direct observation of a California Certified Asbestos Consultant.

Construction activities involving the potential for impacting ACMs should be conducted in accordance with the requirements of Title 8 of the California Code of Regulations, Section 1529 (8 CCR 1529).

For abatement activities which will involve the removal of at least 100 square or linear feet of identified friable ACMs and/or regulated ACMs, notification must be made to the Great Basin Unified Air Pollution Control District (GBUAPCD). Notification to the GBUAPCD must be accomplished ten working days prior to the initiation of such activities.

For abatement activities which will involve asbestos-related work of at least 100 square or linear feet, written notification must be made to the Cal/OSHA. Notification to the Cal/OSHA must be accomplished 24 hours prior to the initiation of such activities.

Notification to employees and contractors working within the building should be made in accordance with the California Health and Safety Code, Section 25915 *et. seq.* and Proposition 65.

- D. Other items of work shall include:
  1. The Contractor shall use potable water for dust control purposes. Water is available on site.
  2. Owner shall provide electrical power. If additional temporary electrical power is needed for construction purposes, temporary electrical power shall conform to all federal, state and local regulation regarding the installation, operation and demobilization of temporary electrical power systems. All electrical temporary electrical wiring shall be installed by a state licensed and





certified electrician.

3. Contractor shall provide Occupational Safety and Health Administration (OSHA) required asbestos personal exposure air monitoring during all phases of work associated with this contract.

E. Replacement of removed materials:

1. Not applicable.

F. Damages caused during the performance of abatement activities shall be repaired by Contractor (e.g.) paint peeled off by barrier tape, nail holes, water damage, etc.) at no additional expense to Owner, unless other arrangements and approval have been provided by the Owner.

### **1.3 WORK TO BE PERFORMED BY OTHERS**

A. Owner will determine work to be determined by others.

### **1.4 RESPONSIBILITIES OF THE OWNER**

A. A Certified Asbestos Consultant (CAC) for the Owner will provide abatement oversight, contractor observation, air monitoring, related testing and analysis, visual inspection, and clearance sampling associated with the asbestos abatement activities.

B. The Owner will pre-approve the contractor's selection of a landfill for the disposal of asbestos containing and contaminated waste.

### **1.5 REQUIRED LICENSURE**

A. ~~The Contractor shall be licensed by the State of California, Contractors State License Board and be registered to perform asbestos related work with the Division of Occupational Safety and Health, Department of Industrial Relations. At a minimum contractor shall hold the following license classifications:~~

1. ASB - Asbestos Certification

B. Transportation of Friable/Non-Friable Asbestos Containing Materials: Contractor shall itself be or have a subcontractor who is a registered hazardous waste transporter with the State of California, Department of Toxic Substances Control. The Owner reserves the right to approve all waste haulers.



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- C. Subcontractors shall hold all licenses applicable to specified trade work.

## 1.6 PERMITS

- A. Proper permits shall be in place as required by other agencies governing demolition, renovation and/or abatement.

## 1.7 NOTIFICATIONS

- A. Contractor shall make all required written notifications to regulatory agencies including the following:
  - 1. California Occupational Safety and Health Administration
  - 2. GBUAPCD

## 1.8 INSURANCE REQUIREMENTS

- A. Owner will determine insurance requirements.

## 1.9 PROJECT SCHEDULE

- A. All work shall be performed as determined by the Owner.
- B. The Contractor shall start work and complete work on dates as defined by the Owner:
- C. For the purposes of this Work Plan "submittal due date" shall mean the day on which submittals required by Article 1.11 shall be received by the CAC. The "start work" shall mean the day Contractor arrives on the project site. The "complete work" shall mean the day Contractor leaves the project site including clearance by the CAC (testing and/or visual inspection) and demobilization.

---

## 1.10 PROCEDURES

- A. Contractor shall perform all Work in compliance with the most recent edition of all applicable federal, state, and local regulations, standards and codes governing asbestos abatement, transport, and disposal of asbestos containing/contaminated materials and contaminated materials and all activities related to demolition operations.
  - 1. Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.



- B. Regulations, Standards, and Codes (General):
1. General applicability of federal, state, and local regulations, standards and codes governing hazardous materials abatement, demolition, transport and disposal, except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable regulations, standards, and codes have the same force and effect and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith.
- C. Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to work practices and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The contractor is responsible for providing training, medical examinations and maintaining training/medical records of personnel as required by the applicable federal, state, and local regulations.

The Contractor shall hold the Owner and the CAC harmless for failure to comply with any applicable hazardous materials abatement, transport, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

## 1.11 SUBMITTALS

- A. At least one week prior to commencement of work, Contractor shall submit (two copies) to the CAC of documentation that includes, without limitation, the following (**Note: No work will begin on this project until the CAC approves, in writing, these submittals and provides the Owner with a signed acceptance**):
1. Submit copies of licenses and registrations required by Article 1.5 Required Licensure (include copies of subcontractor's licenses).
  2. Submit copies of written notification to the following regulatory agencies:
    - a. California Occupational Safety and Health Administration
    - b. GBUAPCD
  3. Submit proof of insurance coverage required by Article 1.8 Insurance Requirements (include proof of insurance for subcontractors).



4. Submit proof of legal right to use patented equipment or processes.
5. Manufacturer's certification that HEPA vacuums, differential pressure, air filtration devices and other local exhaust ventilation equipment conform to ANSI Z9.2-79 (if used on-site).
6. Prior to the start of work, the Contractor shall submit to the CAC, for approval, a site-specific work plan detailing asbestos removal method to be utilized.
7. Submit full manufacturer's product data and material safety data sheet for all chemical products to be used on site.
8. Submit a construction schedule indicating milestones and dates of completion for each phase of the Work. Submit the schedule at least two days prior to Job Start.
9. Submit documentation that Contractor's employees, including foreman, supervisor, and any other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of abatement activities, have received training as required by 29 CFR 1926.1101
10. Submit documentation from Physician that all employees or agents who may be exposed to airborne asbestos fibers in excess of background levels have received medical monitoring in accordance with 29 CFR 1926.1101 to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g. high temperatures, humidity, and chemical contaminants) that may impact on the employee's ability to perform work activities.
11. Submit documentation of respirator fit testing for all Contractor employees and agents who must enter the work area. This fit testing shall be conducted annually and in accordance with qualitative procedures as required by 8 CCR 5144 or be quantitative in nature.
12. Submit an emergency preparedness plan as required by Article 1.14 - Emergency Planning.





13. Submit documentation of previous fiber concentrations exposure levels from similar abatement projects for the proposed Contractor's employees and agents who must enter the work area. This documentation shall at a minimum meet the requirements of 29 CFR 1926.1101 Negative Hazard Assessment and 8 CCR 1529 as required by OSHA regulations.

B. During abatement activities, Contractor shall submit to the CAC documentation that includes, without limitation, the following:

1. Submit copies of the work area entry/exit logbook. Logbook must record name, affiliation, time in, and time out for each entry into the work area.
2. Submit copies of logs documenting filter changes on respirators, HEPA vacuums, differential pressure, air filtration devices, water filtration device, and other engineering controls (if used on site).
3. Submit copies of Material Safety Data Sheets (MSDS) for solvents, encapsulants, wetting agents and replacement materials, as necessary.
4. Submit and post on site (within 24 hours of collection completion) results of all required OSHA air monitoring.
5. Submit copies of all accident/incident reports where injury or damage has occurred on or to the Owner's property.
6. Submit copies of daily logs indicating location(s) worked, type of materials removed, quantity of materials removed and number of personnel conducting the aforementioned activities.
7. Submit copies of all transport manifests, trip tickets and disposal receipts for all hazardous materials removed from the work area within 24 hours of the transport to the Owner.

## 1.12 NOTICES

- A. Post in the clean room area of the worker decontamination enclosure a list containing the names, and telephone numbers of appropriate personnel (if used on site).
- B. Post in the clean room area of the worker decontamination enclosure a list of all persons authorized to enter the work area (if used on site).



- C. Additional postings shall include:
  - 1. Visitor Entry and Exit Log.
  - 2. Employee Daily Sign in Log.
  - 3. Entry and Exit Procedures.
  - 4. Emergency Procedures.
  - 5. As required by the Department of Labor

## 1.13 SITE USE AND SECURITY

- A. Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond which areas on which work is indicated are not to be disturbed.
- B. The work area shall be restricted only to authorized, trained and protected personnel, including Contractor, Contractor's employees, Owner employees, Building Management, and the CAC, State and Local inspectors.
- C. Entry into the work area by unauthorized individuals shall be reported immediately to the CAC.
- D. Contractor shall be responsible for Project site security during abatement operations in order to protect work efforts and equipment.

## 1.14 EMERGENCY PLANNING

- A. Emergency planning and procedures shall be developed by Contractor prior to abatement initiation.
- B. Emergency procedures shall be in written form and prominently posted. Contractor shall ensure that all persons entering the work area read these procedures and understand the Project site layout, location of emergency exits and emergency procedures.
- C. Emergency planning shall include considerations of fire, explosion, electrical hazards, slips, trips and falls, confined spaces, and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided by Contractor.
- D. Employees shall be trained in evacuation procedures in the event of work place emergencies.



1. For non-life-threatening situations, employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the work place to obtain proper medical treatment.
2. For life-threatening injury or illness, worker decontamination shall take least priority. After measures to stabilize the injured worker, remove him from the work place and secure proper medical treatment.
3. Telephone numbers of all emergency response personnel shall be prominently posted in the clean and equipment rooms.

## 1.15 FIRE PROTECTION

- A. All plastic, spray-on strippable coatings, and structural materials used in the asbestos abatement process shall be UL approved and certified as fire retardant or noncombustible.
- B. Wood shall be pressure impregnated and certified as fire retardant.
- C. Material Safety Data Sheets (MSDS) for fire retardant materials shall be made available upon request.
- D. All combustible rubbish and debris, including properly bagged asbestos shall be properly disposed of at the end of each working day.
- E. A minimum of one (1) 4A/60BC dry-chemical extinguisher shall be maintained at each of the following locations:
  1. At each corner of the work area, where no clear corners exist, four (4) extinguishers shall be placed around the exterior wall of the work area so that they are approximately 25 percent of the total distance apart.
    - a. Exception: Where the total abatement containment area is less than 1,000 square feet, two (2) 4A/60BC extinguishers shall be provided. All extinguishers shall be clearly identified with red tape.
  2. Contractor shall ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.
- F. All existing fire detection, alarm systems, connections and standpipes shall remain in place, active and unobstructed. The CAC must approve any alteration



to this equipment.

- G. Contractor shall conduct activities in accordance with all procedures and requirements as outlined in Local Fire Department Requirement.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. General: Contractor shall carefully adhere to the following, if applicable:

1. All plastic, spray-on strippable coatings and structural materials used shall be UL certified as fire retardant or non-combustible.
2. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name (where applicable).
3. Polyethylene sheeting utilized for worker decontamination and barriers shall be black or opaque in color and shall be a minimum of 6 mil. thick.
4. Disposal bags shall be doubled 6-mil. Polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (i) (iv), CAL-OSHA Title 8 CCR Section 5208, and if applicable Title 22 CCR Section 66504.
5. Stick-on labels shall be used as per EPA or Cal/OSHA requirements for disposal drums.
6. Warning signs as required by Cal/OSHA shall be utilized.

- B. Removal and Encapsulation, if applicable:

1. Surfactant (wetting agent) shall be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in proportion of 1 fluid ounce to 5 gallons.
2. The encapsulating agent to be applied shall adhere to the substrate surfaces from which asbestos-containing material has been stripped.
3. The encapsulating agent shall not be flammable and should not be solvent-based or utilize a vehicle (the liquid in which the solid parts of the encapsulant are suspended) consisting of hydrocarbon.



C. Replacement:

1. Not Applicable.

## 2.2 EQUIPMENT

A. General:

1. A sufficient quantity of HEPA vacuums and/or differential pressure air filtration devices equipped with HEPA filtration and operated in accordance with ANSI Z9.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos Containing Materials in Buildings. To calculate total air flow requirement, use the following equation:

$$\text{Total ft}^3/\text{min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{15 \text{ min}}$$

To calculate the number of units needed for the abatement, use the following equation:

$$\text{Number of units needed} = \frac{\text{[total ft}^3/\text{min]}}{\text{[Capacity of unit in ft}^3/\text{min]}}$$

2. Type "B" powered air-purifying respirators (PAPR) may be utilized during removal of any friable asbestos containing material if requested by worker.
3. Air purifying respirators with dual HEPA/organic cartridges shall be utilized during mastic removal.
4. Respirators shall be furnished to the abatement workers by Contractor. The respirators shall have been tested and approved by National Institute of Occupational Safety and Health (NIOSH) for use in asbestos contaminated atmospheres.
5. Contractor shall provide full body disposable protective clothing, including head, body, and foot coverings to abatement workers and visitors in sizes adequate to accommodate movement without tearing.
6. In accordance with 8 CCR 1514, the following additional safety equipment; (e.g. hard hats meeting the requirements of 8 CCR 1515, eye protection meeting the requirements of 8 CCR 1516, safety shoes meeting the requirements of 8 CCR 1517, hand protection meeting the





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requirements of 8 CCR 1520, hearing protection meeting the requirements of 8 CCR 1521 and body protection meeting the requirements of 8 CCR 1522), as necessary, shall be furnished by the Contractor to all workers and authorized visitors.

7. Non-skid footwear shall be furnished to all abatement workers by the Contractor. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
8. Furnish a sufficient supply of disposable mops, rags, and sponges for work area decontamination.

**B. Removal:**

1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g., scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be furnished by the Contractor as needed.
2. Rubber dustpans and rubber squeegees shall be furnished by the Contractor for cleanup.
3. Brushes utilized for removing loose asbestos containing material shall have nylon or fiber bristles, not metal.
4. A sufficient supply of HEPA filtered vacuum systems shall be furnished by the Contractor during cleanup.

**C. Encapsulation, if applicable:** Encapsulants shall be sprayed by the Contractor, using airless spray equipment or hand pressurized sprayer.

**D. Enclosure, if applicable:** Hand tools equipped with HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports if there is any need to disturb asbestos containing materials during this process. As an alternative asbestos material may be partially removed following controlled removal procedures approved by the CAC.

## **PART 3 - EXECUTION**

### **3.1 ASBESTOS REMOVAL PREPARATION**

- A. Contractor shall coordinate all items of work with the CAC.
- B. Contractor shall shut down and lock out all heating, cooling, and air conditioning



system (HVAC) components that are in, supply, or pass through the work area. The HVAC system shall remain off during project.

- C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power (if needed) and lighting sources, insure safe installation of temporary power sources (if needed) and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel. Do not use outlet type GFCI devices. The temporary electrical service shall provide 150% of the maximum capacity of all of the Contractors equipment.
- D. Install worker decontamination unit described in Article 3.3 and/or 3.4 or as agreed upon with the CAC.
- E. Post warning signs meeting the specifications of Cal/OSHA General Industry Safety Order Section 1529 and 29 CFR 1926.1101 at any location and approaches to a location where airborne concentration of asbestos fibers may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.
- F. Asbestos Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.
- G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning techniques as appropriate. Contractor shall not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters and shall not disturb asbestos containing materials during the pre-cleaning phase.
- H. ~~Seal off all openings between the Work Area and uncontaminated areas outside of the Work Area with two layers of 6-mil polyethylene sheeting and tape to ensure a leak tight containment under negative pressure.~~
- I. Perform all removal/demolition of asbestos containing/contaminated material in accordance with Article 3.2 – Asbestos Removal Procedures.

### **3.2. ASBESTOS REMOVAL PROCEDURES**

- A. Post warning signs meeting the specifications of Cal/OSHA General Industry Safety Order Section 1529 and 29 CFR 1926.1101 at any location and approaches to a location where airborne concentration of asbestos fibers may exceed



ambient background levels. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.

- B. Install worker decontamination unit described in Article 3.3 and/or 3.4 or as agreed upon with the CAC.
- C. Asbestos handlers involved in removal procedures shall wear disposable suits, including gloves, hood and footwear. Minimum respiratory protective equipment shall be half face negative pressure dual cartridge air-purifying respirator. Upon exiting the work area the handlers shall HEPA vacuum the suit and dispose of as asbestos contaminated waste and proceed to the shower room for full decontamination.
- D. Isolate work area by installing critical barriers across all openings where airborne asbestos migration may cause secondary contamination.
- E. Thoroughly wet materials to be removed with amended water. Spray material continuously during the removal process to maintain a wet condition.
- F. The Contractor shall carry out all asbestos containing material removal in a manner that will minimize pulverizing, breaking or abrading.
- G. Manually remove asbestos containing material by prying, cutting or scraping material from substrate.
- H. Dispose of all asbestos containing/contaminated waste in accordance with Article 3.6 – Asbestos Disposal Procedures.

### 3.3 WORKER DECONTAMINATION SYSTEMS

- A. ~~Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area.~~
- B. Worker decontamination enclosure systems constructed at the Project site shall utilize 6-mil. black or opaque polyethylene sheeting, or other approved materials for privacy.
- C. The Personnel Decontamination Unit shall not be located inside the work area unless otherwise authorized by the CAC.
- D. Alternate methods of providing Decontamination facilities may be submitted to the CAC for approval. Do not proceed with any such method(s) without obtaining the CAC's written authorization.





- E. The worker decontamination enclosure system shall consist of at least a three-stage decontamination unit.
- F. The decontamination unit dirty/equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for filtration equipment, extra tools, containers or surfactant and other materials and equipment that may be required during the abatement may also be stored here as needed. A labeled 6-millimeter Polyethylene bag for collection of disposable clothing shall be located in this room. Contaminated footwear shall be stored in this area for reuse the following workday.

### 3.4 ASBESTOS CLEAN-UP PROCEDURES

- A. Remove and containerize all visible accumulations of asbestos containing material and contaminated debris utilizing rubber dustpans and rubber squeegees to move material around. Do not use metal shovels to pick up or move accumulated waste. Asbestos containing/contaminated waste shall be placed in disposal bags. Disposal bags shall be doubled 6-mil. Polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (I) (iv), Cal/OSHA Title 8 CCR Section 1529, and if applicable Title 22 CCR Section 66504.
- B. Wet clean and HEPA vacuum all surfaces in the work area using rags, mops and sponges as appropriate.
- C. Decontamination enclosure systems shall remain in place and be utilized.
- D. Remove all containerized waste from the work area and waste container pass-out airlock.
- E. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.
- F. The CAC will inspect the work area for visible residue. If any accumulation of residue is observed, it will be assumed to be asbestos and a second cleaning cycle repeated at no additional cost to Owner.
- G. Following the satisfactory completion of visual inspection and environmental air monitoring, the remaining barriers may be removed and prepared for proper disposal. A final visual inspection by the CAC will be performed. Unsatisfactory conditions may require additional cleaning and air monitoring at no additional cost to Owner.



### 3.5 REESTABLISHMENT OF ASBESTOS ABATEMENT WORK AREAS

- A. Reestablishment of the work area shall only occur following the completion of clean-up procedures, visual inspection and final clearance air monitoring has been achieved as per Asbestos Hazard Emergency Response Act (AHERA) protocol and to the satisfaction of the CAC.
- B. Polyethylene barriers shall be removed from walls, ceilings, and floors, maintaining decontamination enclosure systems and critical barriers over doors, window, etc. as required.
- C. The Contractor and the CAC shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning and air monitoring requirements at no additional cost to Owner, until approved by the CAC.
- D. Upon approval by the CAC, Contractor shall remove remaining polyethylene sheeting, critical barriers, and decontamination unit, if applicable.
- E. Repair all areas of damage that occurred as a result of abatement activities at no additional cost to Owner.

### 3.6 ASBESTOS DISPOSAL PROCEDURES

- A. All friable and non-friable asbestos containing/contaminated waste shall be placed and stored in sealed and labeled containers and transported to a certified land fill pre-approved by the owner, for disposal.
- B. All friable ACM must be disposed of as required by the regulations by a certified waste hauler. ~~Waste haulers may require pre-approval by EASI.~~
- C. All asbestos waste manifests or non-hazardous material data forms shall be delivered to the CAC. Record keeping format shall utilize a chain of custody form which includes the names and addresses of the Generator (Owner), Contractor, Waste Hauler, pickup site, disposal site, the estimated quantity of the asbestos waste and the type of containers used. The forms shall be signed by the Owner's Representative.

### 3.7 ALTERNATE PROCEDURES



- A. If specified procedures cannot be utilized, a request shall be made in writing to the CAC providing details of the problem encountered and recommended alternatives.
- B. Alternative procedures shall provide equivalent or greater protection than procedures that are replaced.
- C. Any alternative procedure must be approved in writing by the CAC prior to the implementation of the procedure.

### 3.8 OWNER PERFORMED AIR SAMPLING AND TESTING

#### A. ASBESTOS RELATED:

1. Air monitoring will be conducted by the CAC on behalf of the Owner to verify that the building beyond the contamination area and the outside environment remains uncontaminated.
2. Background Air Monitoring: The CAC will conduct pre-abatement (background) air monitoring to determine ambient asbestos fiber levels prior to abatement. The analytical method for asbestos shall be Phase Contrast Microscopy (PCM) using the NIOSH 7400 Method.
3. Area Air Monitoring: The CAC will conduct in-progress air monitoring daily to determine area contaminant levels outside and inside of containment areas. The analytical method for asbestos shall be PCM using the NIOSH 7400 Method.
4. Environmental Air Sampling: On each shift environmental air samples (outside the containment) are taken and analyzed to indicate fiber migration from the containment area to the environment. Should any environmental sample exceed the asbestos base line of 0.01 f/cc as determined by PCM analysis, all work will be immediately halted except for corrective work. The CAC shall inspect and determine the source of the high fiber count and notify the contractor with directions for the appropriate corrective action. At the very least, all affected areas will be decontaminated by wet cleaning and HEPA vacuuming. Where necessary, the affected area will be sealed off by the construction of critical barriers.
5. Visual Clearance Inspection/Clearance Air Sampling:



- a. Following the completion of the asbestos abatement and clean-up operations, The CAC will perform a visual clearance inspection verifying the removal of ACMs/ACCMs as needed for the scope of work, prior to encapsulating activities.
- b. Final clearance air sampling will be conducted by the CAC and the analytical method shall be PCM using the NIOSH 7400 Method. All PCM air sample results must be below 0.01 f/cc, the USEPA's recommended re-occupancy level for unprotected workers.

It is the contractor's responsibly to confirm the asbestos material quantities present prior to initiating renovation or demolition activities at the subject buildings. Should materials similar to those identified in this report, or other forms of suspect asbestos materials be present or identified, personnel should be instructed to immediately cease work activities which may initiate a fiber release episode, and notify the appropriate management personnel and the CAC. Suspect asbestos materials encountered during renovation or demolition activities that have not been assessed either may be assumed to be asbestos and handled accordingly, or may be sampled by the CAC and analyzed to assess whether they are asbestos.

Specification prepared for Lionakis by:

Jerry R. Sherman, LEED AP  
Hazardous Materials Service Manager  
Certified Asbestos Consultant #97-2324



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February 17, 2021

**Jerry Robert Sherman**

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please notify our office via U.S. Postal Service or other carrier of any changes in your mailing or work address within 15 days of the change.

Sincerely,

Jeff Ferrell  
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 06/2020)

State of California Division of Occupational Safety and Health <b>Certified Asbestos Consultant</b>	
<b>Jerry Robert Sherman</b> <small>Name</small>	
	Certification No. <u>97-2324</u>
	Expires on <u>02/06/22</u>
<small>This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.</small>	



State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

**Kirk J Hopka**

Name

Certification No. **96:2078**

Expires on **11/08/21**



This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7100 et seq. of the Business and Professions Code.

## TECHNICAL LEAD-RELATED CONSTRUCTION SPECIFICATION

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## TECHNICAL LEAD-RELATED CONSTRUCTION SPECIFICATION

### PART 1 - GENERAL

#### **1.1 PROJECT SITE**

A. The project site is identified as the Old Hospital at the future site of the Mono County Jail, 221 Twin Lakes Rd., Bridgeport, California. The subject site building is planned for demolition.

#### **1.2 SCOPE OF WORK**

- A. All work shall be supervised by experienced certified persons trained, knowledgeable and qualified in the techniques of lead removal, stabilization, and handling of lead-based paints (LBPs), lead waste, and lead-contaminated materials and the subsequent cleaning of lead contaminated areas.
- B. Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling of lead waste), disposal of said waste, waste characterization of all potentially hazardous materials and equipment which is specified, shown or reasonably implied for the removal of all lead containing/contaminated materials from the buildings as specified, shown or reasonably implied on project drawings and documents.
- C. The Group Delta Survey Report is included as Appendix A. The work includes, but is not limited to, the removal, handling, waste characterization, disposal and/or stabilization of the following hazardous materials:

**Table 1 of 1**

Sample #	Location	Component	Color	Substrate	Condition	mg/cm2	Quantity
11	Exterior North loading dock	Bollard	Yellow	Metal	Intact	2.6	4 EA
55	Bathroom	Oversize toilet	White	Porcelain	Intact	3.9	10 EA
59	Nurses shower area	Wall tile	Pink	Ceramic	Intact	7.8	1700 SF





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60	Nurses shower area	Wall tile	Red	Ceramic	Intact	8.6	300 SF
62	X-ray Room	Wall lead shield	White	Metal	Intact	1.2	1000 SF
64	X-ray Room	Wall lead shield	White	Metal	Intact	2.9	500 SF
67	Bathroom	Sink	White	Porcelain	Intact	20.4	20 EA
73	Work room	Double sink	White	Porcelain	Intact	18.4	10 EA
88	Patient bathroom West side	Ceiling	White	Ceramic	Intact	11.3	500 SF
89	Patient bathroom West side	Wall tile	Beige	Ceramic	Intact	8.3	400 SF
90	Patient bathroom West side	Wall tile	Red	Ceramic	Intact	11.3	100 SF
96	Sheriff's shower	Wall tile	Pink	Ceramic	Intact	7.7	100 SF
97	Sheriff's shower	Wall tile	Red	Ceramic	Intact	8.5	40 SF
121	North east hall bathroom	Wall base	Beige	Ceramic	Intact	8.9	40 SF
122	North east hall bathroom	Wall base	White	Ceramic	Intact	6.3	40 SF
152	Lobby bathrooms	Wall tile	Beige	Ceramic	Intact	9.6	550 SF
164	Exterior North	Generator	Green	Metal	Fair	2.8	2 EA

At present there is no state or federal regulation requiring mandatory lead removal or abatement prior to disturbance or demolition of structures with identified lead materials. However, there are applicable Cal/OSHA worker protection and training requirements; California Environmental Protection Agency



(Cal/EPA) waste disposal requirements, California Department of Public Health (CDPH) requirements for public and residential buildings, and Senate Bill (SB) 460 lead hazard regulations that apply to lead-related construction activities, abatement activities and their associated wastes. The following is a brief discussion and summary of applicable regulatory requirements:

- **Cal/OSHA:** Title 8, California Code of Regulation (CCR), Section 1532.1 (8 CCR 1532.1) governs occupational exposure to lead. This regulation requires that prior to initiation of certain activities, referred to as “trigger tasks”, workers must be trained, medically evaluated, and properly fitted with respiratory protection, and protective clothing until statistically reliable personal eight-hour time weighted average (TWA) results indicate lead exposure levels below the Personal Exposure Limit (PEL) for each unique task which disturbs lead-based and lead-containing coatings. This process is known as a Negative Exposure Assessment or NEA. If the result of the exposure assessment is above the Action Level (AL) additional monitoring is required and if the result is above the PEL additional exposure monitoring, worker protection (including respirator protection and PPE), training and medical requirements apply. However even where the NEA criteria is met, certain hazard communication training and work practice controls still apply where lead is disturbed.

“Trigger tasks” are tasks that are assumed to exceed the PEL pending an exposure assessment and they encompass the majority of construction activities that disturb surface coatings. Examples of “trigger” tasks range from manual paint scraping as a lower expected exposure up to hot work and abrasive blasting as the highest expected exposures, and include any non-listed task that the employer determines may potentially expose employees to lead levels above the AL.

**NOTE – “OSHA does not consider any method that relies solely on the analysis of bulk materials or surface content of lead (or other toxic material) to be acceptable for safely predicting employee exposure to airborne contaminants. Without air monitoring results or without the benefit of historical or objective data (including air sampling which clearly demonstrates that the employee cannot be exposed above the action level during any process, operation, or activity) the analysis of bulk or surface samples cannot be used to determine employee exposure.” OSHA Standard Interpretation 5/8/2000.**

Furthermore, OSHA states that these rules apply to “any detectable concentration of lead” without a specified detection level. Due to the Consumer Product Safety Commission currently allowing paint to contain up to 90 parts per million (ppm) of lead, the variation of lead content due to aging and weathering, and the variation of detection limits associated with both paint chip and x-ray fluorescence (XRF) analysis, it is recommended that all painted or coated surfaces be treated as potentially containing lead. Clearly, positive analytical results by either method can be used to indicate that detectable lead is present but negative results cannot be interpreted as conclusively demonstrating the absence of lead. Analytical data of bulk paint/coating materials or surface content (by XRF) of lead can be helpful in evaluation of lead-related environmental risks



in general but cannot be used to calculate worker exposures and are not a substitute for employee exposure monitoring.

As a result of the above, any employee that works around potential lead-based or lead-containing coatings must have HAZCOM training and personal exposure air monitoring is additionally required for employees that disturb such coatings. Significant additional certification, notification, and work practices are required for materials found to be “lead-based”.

- Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354 and 8 CCR 1537. These regulations require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application.
- **Cal/EPA** through the Division of Toxic Substance Control (DTSC) regulates disposal of lead hazardous waste (Title 22 Division 4.5, Environmental Health Standards for the Management of Hazardous Waste). DTSC has issued guidance indicating that architectural debris with intact lead paint is normally expected to be handled as general construction waste. However, waste stream segregation and analysis is still required for all paint or coating debris regardless of if the paint or coating is intact on a building component or not. The resulting wastes may be hazardous under California and federal RCRA standards for lead and therefore require proper handling, packaging, labeling, and transportation under a proper manifest to a permitted hazardous waste storage, treatment and disposal facility.
- **CDPH:** The California Department of Public Health (CDPH) has specific requirements (Title 17 Sections 35001 thru 36100 et. al.) for hazard assessment and work in public or residential structures. These regulations require special certifications, work practices, and notification for such activities.
- **Senate Bill 460 (SB 460):** An act to amend Section 1941.1 of the Civil Code, and to amend Sections 17961, 17980, and 124130 of, and to add Sections 17920.10, 105251, 105252, 105253, 105254, 105255, 105256, and 105257 to, the Health and Safety Code, relating to lead abatement. This bill allows for fines and criminal penalties to be levied on any person who is found to have performed lead abatement without containment or created a measurable lead hazard based upon current CDPH standards. The testing for this determination can be initiated by any local or state building inspector, health department inspector, or other designated state or local official. A determination of a lead hazard is not solely based upon the lead content of the paint or coating and can be the result of the disturbance of such materials with low concentrations of lead.

Written notification to Cal/OSHA must be accomplished should LBP activities involve more than 100 square or linear feet of removal in accordance with the requirements of 8 CCR 1532.1. Proper written





notification to CDPH may be required, depending upon the nature of the activity.

Proper waste characterization and disposal of lead-containing materials and lead-contaminated debris should be conducted in accordance with Title 22 of the California Code of Regulations and the California Health and Safety Code, Section 25157.8.

D. Other items of work shall include:

1. Contractor shall provide OSHA required lead personal exposure air monitoring and applicable compliance requirements as identified in Title 8 CCR 1532.1 and 17 CCR 35001-36100.

### 1.3 REFERENCES

- A All work shall conform to the standards set by applicable Federal, State, and local laws, regulations ordinances, and guidelines in such form in which they exist at the time of the work on the contract and as may be required by subsequent regulations. General - Codes, regulations and references applicable to lead removal, abatement or stabilization work include, but are not limited to the following:

1. American National Standards Institute (ANSI) publications;  
Z9.2-79 Fundamentals Governing the Design and Operation of Local Exhaust Systems.  
Z87.1-2003 Occupational and Educational Eye and Face Protection.  
Z88.2-92 Practices for Respiratory Protection.  
Z89.1-86 Requirements for Protective Headgear for Industrial Workers.  
Z41-91 Personal Protection - Protective Footwear.  
Z88.6-84 Respiratory Protection - Respiratory Use Physical Qualifications for Personnel.
2. American Society for Testing and Materials (ASTM) publications;  
D1331-89 Surface and Interfacial Tensions of Solutions of Surface-Active Agents.
3. Code of Federal Regulations (CFR);  
29 CFR 1910.12 Construction Work.  
29 CFR 1910.134 Subpart I, Personal Protective Equipment.  
29 CFR 1910.145 Specifications for Accident Prevention Signs and tags.  
29 CFR 1910.1025 Lead, General Industry.  
29 CFR 1910.1020 General Safety and Health Provisions Access to Employee Exposure and Medical Records.



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29 CFR 1910.1200 Hazard Communication  
29 CFR 1926.55 Gases, Vapors, Fumes, Dusts and Mists  
29 CFR 1926.62 Lead – Construction Industry  
40 CFR 61 Subpart A and Subpart M, USEPA, National Emission Standards for Hazardous Air Pollutants (NESHAPS).

4. Compressed Gas Association, Inc.:  
G-7.1 Commodity Specification for Air (1990).
5. National Fire Protection Association (NFPA):  
No. 70.1984 National Electrical Code.
6. Underwriters Laboratories (UL), Inc.  
UL 586-96 (R1996) Test Performance of High Efficiency Particulate Air (HEPA) Filter Units (8th Ed.; Rev. 1996).
7. National Institute for Occupation Safety and Health (NIOSH):  
4th. Ed., Vol. 1, Manual of Analytical Methods, Method 7400 Fibers.
8. California Code of Regulations (CCR):  
Title 8, Section 1532.1 Lead in the Construction Industry  
Title 8, Section 5216 General Industry Safety Orders, Lead Regulations.  
Title 17 Sections 35001-36100 Accreditation, Certification and Work Practices for Lead Based Paint and Lead Hazards  
Title 22, Division 4, Minimum Standards for Management of hazardous and extremely hazardous waste.
9. Local Air Pollution Control District
10. Other Local Regulations

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In addition to any detailed requirements of the Specification, the Contractor shall at his own cost and expense comply with all laws, ordinances, rules, regulations, and guidelines of Federal, State, regional, and local authorities regarding handling and storing of lead waste material.

All regulations by the above and other governing agencies in their most current version are applicable throughout this project. Where there is a conflict between this Specification and the cited Federal, State, or local regulations or guidelines, the more restrictive or stringent requirements shall prevail. This Section refers to many requirements found in these references, but in no way is it intended to cite or reiterate all provisions therein or elsewhere. It is the Contractor's responsibility to know, understand, and abide by all such regulations, guidelines, and common practices.



## **1.4 WORK TO BE PERFORMED BY OTHERS**

A. Owner will determine work to be performed by others.

## **1.5 RESPONSIBILITIES OF THE OWNER**

A. The Certified Lead-Related Project Monitor for the Owner will provide lead removal and stabilization oversight, contractor observation, related monitoring, related testing and analysis, visual inspection, and clearance sampling associated with lead removal and stabilization activities.

B. The Owner will pre-approve the Contractor's selection of a landfill for the disposal of lead containing and contaminated waste.

C. The Owner will provide water.

D. The Owner will provide electrical power.

## **1.6 REQUIRED LICENSURE**

A. Contractor shall be licensed by the State of California, Contractors State License Board.

B. Subcontractors shall hold all licenses applicable to specified trade work.

C. Contractor employees shall hold applicable CDPH certifications.

## **1.7 PERMITS**

A. Proper permits shall be in place as required by other agencies governing demolition, renovation and/or removal.

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## **1.8 NOTIFICATIONS**

A. Contractor shall make all required written notifications to regulatory agencies including the following:

1. California Occupational Safety and Health Administration
2. California Department of Public Health - Childhood Lead Poisoning Prevention Branch



## **1.9 INSURANCE REQUIREMENTS**

A. As required by Owner.

## **1.10 BONDING REQUIREMENTS**

A. As required by Owner.

## **1.11 PROJECT SCHEDULE**

A. Work hours will be determined by the Owner and the contractor.

B. If Contractor elects to work in excess of the aforementioned work hours and days and Owner concurs, Contractor shall pay for monitoring, as required, performed by the Certified Lead-Related Project Monitor, associated with the additional hours, including testing, laboratory analysis and project related expense.

C. The Contractor shall start work and complete work on the following dates, as defined by the Owner:

1. SUBMITTAL DUE DATE - TO BE DETERMINED

2. START DATE - TO BE DETERMINED

3. COMPLETION DATE - TO BE DETERMINED

D. For the purposes of this Work Plan "submittal due date" shall mean the day on which submittals required by Article 1.14 shall be received by the Certified Lead-Related Project Monitor "start work" shall mean the day Contractor arrives on the project site, and "complete work" shall mean the day Contractor leaves the project site including final clearance testing and demobilization.

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## **1.12 PROCEDURES**

A. Contractor shall perform all Work in compliance with the most recent edition of all applicable Federal, State, and local regulations, standards and codes governing lead abatement.

1. Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

B. Regulations, Standards, and Codes (General):



1. General applicability of Federal, State, and local regulations, standards and codes governing lead abatement, except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable regulations, standards, and codes have the same force and effect and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith.
  2. Cal-OSHA, Title 8 of the California Code of Regulations, Section 1532.1 and Title 17 of the California Code of Regulations, Sections 35001-36100, shall apply to LBP removal activities, respectively, and shall have the same force and effect and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith.
- C. Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to work practices and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The contractor is responsible for providing training, medical examinations and maintaining training/medical records of personnel as required by the applicable federal, state, and local regulations. The Contractor shall hold the Owner and the Certified Lead-Related Project Monitor harmless for failure to comply with any applicable lead abatement, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

## 1.13 SUBMITTALS

- A. PRIOR to commencement of work, the Contractor shall submit two (2) copies to the Owner and the Certified Lead-Related Project Monitor of documentation for approval that includes, without limitation, the following:
1. Submit copies of licenses and registrations required including subcontractor's licenses.
  2. Submit copies of written notification to the following regulatory agencies:
    - a. California Division of Occupational Safety and Health.
    - b. California Department of Public Health - Childhood Lead Poisoning Prevention Branch
  3. Submit proof of insurance coverage required including proof of insurance for subcontractors.
  4. Submit proof of legal right to use patented equipment or processes.





5. Manufacturer's certification that HEPA vacuums, differential pressure air filtration devices and other local exhaust ventilation equipment conform to ANSI Z9.2-79.
6. Prior to the start of work, the Contractor shall submit to the Certified Lead-Related Project Monitor, for approval, a site-specific work plan detailing paint film stabilization (PFS) and related removal methods to be utilized and measures to prevent the release of lead contaminated materials to soil, water, air, and other environmental media.
7. Submit full manufacturers' product data and material safety data sheet for all chemical products to be used on site.
8. Submit a construction schedule indicating milestones and dates of completion for each phase of the Work. Submit the schedule to Owner Project Manager or their representative prior to the Pre-Construction Meeting.
9. Submit documentation that Contractor's employees performing PFS, removal, disposal, and air sampling operations have received training in accordance with 8 CCR 1532.1 and 17 CCR 35001-36100.
10. Submit documentation from Physician that all employees or agents who may be exposed to airborne lead in excess of background levels have received medical surveillance in accordance with 8 CCR 1532.1 to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g. high temperatures, humidity, chemical contaminants) that may impact on the employee's ability to perform work activities.
11. Submit documentation from a Physician that all employees or agents who may be exposed to lead contaminated dust have received a comprehensive medical examination as required by 29 CFR 1926.62 and Title 8 CCR 1532.1. In addition, the Contractor is to provide Blood Lead Tests on each employee within a two-week period prior to the commencement of said work and within a two-week period of the completion of this project.
12. Submit documentation of respirator fit testing for all Contractor employees and agents who must enter the work area. This fit testing shall be in accordance with qualitative procedures as required by Title 8 CCR 1532.1 regulations or be qualitative in nature and conducted at least annually.
13. Submit an emergency preparedness plan as required by Article 1.17 - Emergency Planning.



- B. During abatement activities, Contractor shall submit to the Certified Lead-Related Project Monitor documentation that includes, without limitation, the following:
1. Submit copies of the work area entry/exit log book. Log book must record name, affiliation, time in, and time out for each entry into the work area.
  2. Submit copies of logs documenting filter changes on respirators, HEPA vacuums, water filtration device, and other engineering controls.
  3. Submit copies of Material Safety Data Sheets (MSDS) for solvents, encapsulants, wetting agents and replacement materials, as necessary.
  4. Submit and post on site (within 48 hours) results of all required OSHA air monitoring.
  5. Submit copies of all accident/incident reports where injury or damage has occurred on or to the Owner's property.

## 1.14 NOTICES

- A. Post in the clean room area of the worker decontamination enclosure a list containing the names, and telephone numbers of the Owner's Project Manager and the Certified Lead-Related Project Monitor.
- B. Post in the clean room area of the worker decontamination enclosure, or other approved prominent location, a list of all persons authorized to enter the work area.
- C. Additional postings shall include:
1. Visitor Entry and Exit Log.
  2. Employee Daily Sign in Log.
  3. Entry and Exit Procedures.
  4. Emergency Procedures.
  5. As required by the Department of Labor.
  6. Cal/OSHA Lead Notification form.

## 1.15 SITE USE AND SECURITY



- A. Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond which areas on which work is indicated are not to be disturbed.
- B. The work area shall be restricted only to authorized, trained and protected personnel, including Contractor, Contractor's employees, Owner's employees, the Certified Lead-Related Project Monitor, Federal, State, and Local inspectors.
- C. Entry into the work area by unauthorized individuals shall be reported immediately to the Consultant.
- D. Contractor shall be responsible for project site security during abatement operations in order to protect work efforts and equipment. Contractor shall remove and clean areas prior to leaving the site each day. Contractor is responsible for any containment or equipment left beyond the scheduled shift. Contractor will secure the site beyond the scheduled shift if materials are left by either erecting a security fence or providing 24-hour site supervision.

## **1.16 EMERGENCY PLANNING**

- A. Emergency planning and procedures shall be developed by Contractor prior to abatement initiation.
- B. Emergency procedures shall be in written form and prominently posted. Contractor shall ensure that all persons entering the work area read these procedures and understand the Project site layout, location of emergency exits and emergency procedures.
- C. Emergency planning shall include considerations of fire, explosion, electrical hazards, slips, trips and falls, confined spaces, earthquakes and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided by Contractor.
- D. Employees shall be trained in evacuation procedures in the event of work place emergencies.
  - 1. For non-life-threatening situations, employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the work place to obtain proper medical treatment.
  - 2. For life-threatening injury or illness, worker decontamination shall take least priority. After measures to stabilize the injured worker, remove him from the work place and secure proper medical treatment.
    - a. Telephone numbers of all emergency response personnel shall be prominently posted in the clean and equipment rooms.



## 1.17 FIRE PROTECTION

- A. All plastic, spray-on strippable coatings, and structural materials used in the lead abatement process shall be UL approved and certified as fire retardant or noncombustible.
- B. Wood shall be pressure treated and certified as fire retardant.
- C. Material Safety Data Sheets (MSDS) for fire retardant materials shall be made available upon request.
- D. All combustible rubbish and debris, including properly bagged lead associated waste shall be properly disposed of at the end of each working day.
- E. A minimum of one (1) 4A/60BC dry-chemical extinguisher shall be maintained at the entrance to the work area and inside the work area as needed.
  - 1. Contractor shall ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Contractor shall carefully adhere to the following:
    - 1. All plastic, spray-on strippable coatings and structural materials used shall be UL certified as fire retardant or non-combustible.
    - 2. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name (where applicable).
    - 3. Polyethylene sheeting utilized for worker decontamination and barriers shall be black or opaque in color and shall be a minimum of 6 mil. thick.
- 
- 4. Disposal bags shall be doubled 6-mil. polyethylene, pre-printed with labels as required by 8 CCR Section 1532.1, and if applicable 22 CCR Section 66504.
  - 5. Stick-on labels as per the Environmental Protection Agency (EPA), Department of Transportation (DOT) and the Cal/OSHA requirements for disposal drums.
  - 6. Warning signs as required by CAL-OSHA shall be utilized at each regulated work area.



7. Postings at all entrances to the structure(s) undergoing disturbance of lead-based or lead containing paint as per Title 17 CCR 35001-36100.

## B. Lead Removal:

1. Furnish all MSDS sheets for applicable materials. Non-phosphate based cleaning agents, such as "Lead Dissolve", shall be used for clean-up applications.

## 2.2 EQUIPMENT

### A. General:

1. Respirators shall be furnished to the abatement workers by Contractor. The respirators shall have been tested and approved by National Institute of Occupational Safety and Health (NIOSH) for use in lead-contaminated atmospheres.
2. Contractor shall provide full body disposable protective clothing, including head, body, and foot coverings to all workers and visitors working in and/or inspecting the work area where exposure to lead dust may exist, in sizes adequate to accommodate movement without tearing.
3. Additional safety equipment (e.g. hard hats, eye, safety, and disposable gloves), as necessary, shall be furnished to all workers and authorized visitors and shall comply with 8 CCR 1500-1938 and 3300-3416.
4. Non-skid footwear shall be worn by all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
5. Furnish a sufficient supply of disposable mops, rags, and sponges for work area decontamination.

### B. Removal:

1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g., scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be furnished as needed.
2. Rubber dustpans and rubber squeegees shall be furnished for cleanup.
3. Brushes utilized for removing loose lead containing material shall have nylon or fiber bristles, not metal.
4. A sufficient supply of HEPA filtered vacuum systems shall be furnished during cleanup.





- C. Encapsulation: Encapsulants shall be sprayed using airless spray equipment or hand pressurized sprayer. All encapsulants must be compatible with new paint and must form a sealable bond between the two.
- D. Enclosure: Powered tools equipped with HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports if there is any need to disturb lead-containing materials during this process. As an alternative, lead material may be partially removed following controlled removal procedures approved by the Owner or their representative.

## **PART 3 EXECUTION**

### **3.1 REMOVAL PREPARATION**

- A. All lead abatement workers shall be provided with the following:
  - 1. A clean changing area.
  - 2. Wash basins equipped with soap, clean water and towels.
  - 3. Proper respiratory protection.
  - 4. Training on proper techniques in decontamination and personal hygiene requirements.
  - 5. Training on the health hazards of lead exposure including ingestion of lead-contaminated food.
- B. Preparation for Interior Operations:
  - 1. Provide warning/danger signs and required postings at all approaches to lead control areas and entrances to the structures, respectively. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 8 CCR 1532.1 and 17 CCR 35001-36100.
  - 2. Pre-clean areas around loose or peeling paint using a HEPA-filtered vacuum and/or wet cleaning (with non-phosphate detergents) as appropriate. Contractor shall not use any methods that would raise dust such as dry sweeping or otherwise disturb LBP during the pre-cleaning phase.
  - 3. Cover floors directly underneath areas scheduled for removal with polyethylene sheeting.



- a. Floor shall be covered with one layer of 6-mil (minimum) sheeting extending at least five (5) feet in each direction from the area of removal.

## C. Exterior Preparation:

1. Set up a lead control area by cordoning abatement area off with warning tape bearing bold, 2-inch lettering stating the following: "CAUTION-LEAD HAZARD-DO NOT ENTER WORK AREA UNLESS AUTHORIZED".
2. Install remote worker decontamination unit described in Article 3.6 or as agreed upon with the Owner or their representative.
3. Lead Abatement Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.
4. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-filtered vacuum and/or wet cleaning (with non-phosphate detergents) as appropriate. Work area includes, but is not limited to the exterior of the building and the interior of all windows and associated areas under the interior polyethylene. Contractor shall not use any methods that would raise dust such as dry sweeping or otherwise disturb LBP during the pre-cleaning phase.
5. HEPA vacuum all surfaces below for a distance of three feet in all directions from the intended building component on which removal is to be conducted, removing all pre-existing paint debris.
6. Place 6-mil. Polyethylene sheeting on the ground attached to the foundation, or the exterior floors (i.e., deck or porch) when applicable.
7. Extend plastic sheeting at least ten (10) feet out from the foundation for a single story and an additional one (1) foot per foot above 10 feet being abated.
8. Weight down the polyethylene sheeting at the foundation, and along all edges and seams.
9. Do not perform exterior removal on days when the constant wind speed is 20 miles per hour or over. If the removal procedure is producing dry waste in which visible movement along polyethylene sheeting is evident erect vertical shrouds around the perimeter of the work area.
10. Perform removal activities in accordance with Article 3.2 - LBP REMOVAL PROCEDURES.

## 3.2 LBP REMOVAL PROCEDURES



- A. Prior to the start of work the Contractor shall submit to the Owner or their representative, for approval, a site specific work plan detailing LBP removal methods to be utilized and measures to prevent the release of lead contaminated materials to soil, water, air, and other environmental media as required in Article 1.14 - Submittals.
- B. LBP shall be stabilized via removal on all surfaces using methods that reduce the amount of airborne lead particulates generated and the amount of waste for disposal.
- C. For health and safety reasons the following LBP removal methods shall not be used:
  - 1. Chemical removal methods that produce liquid waste that is regulated under present United States Environmental Protection Agency, RCRA, state and local hazardous waste regulations, unless approved by the Owner.
  - 2. Burning of lead-based paint with an open flame torch, or equivalent method that will generate airborne lead fumes/particles.
  - 3. Dry sanding lead-based paint with an abrasive electric or air-powered sander without HEPA vacuum filtration equipment.
  - 4. Uncontained water blasting.

### 3.3 LEAD WASTE HANDLING PROCEDURES

- A. Maintain surfaces within the lead control area free of accumulations of paint chips and dust. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each work shift and when the lead removal operation has been completed, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner and/or wet mopping the area.
- B. All disposable personal protective equipment, respirator cartridges, and HEPA vacuum filters shall be disposed of upon completion of the work shift and when the lead removal operation has been completed.
- C. All removed LBP, lead-contaminated clothing and equipment, and lead-containing dust/debris shall be placed into a United States Department of Transportation 49 CFR 178 approved 55-gallon drum.
  - 1. Waste streams shall be segregated for required disposal testing. Contractor is responsible to test said materials in accordance with all Federal, State and local laws. Contractor must





separate non-hazardous waste from hazardous waste. Contractor is to test all wastewater prior to release into the sanitary storm drain in accordance with local and State water standards. The Certified Lead-Related Project Monitor must be notified in writing at least 48 hours in advance of testing, so testing can be verified. A copy of the test results shall be sent to Owner and the Certified Lead-Related Project Monitor prior to waste removal.

- D. Properly label each drum to identify the type of waste per 49 CFR 172 and the date lead-contaminated wastes were first put into the drum.
- E. The Contractor shall make provisions for the safe storage of waste on site for waste characterization and eventual disposal. For health and safety reasons, waste storage areas must be treated as lead control areas with restricted access.
- F. All lead waste or lead-contaminated waste shall be characterized by performing Total Threshold Level Limit Concentration (TTL), Soluble Threshold Limit Concentration (STLC) and/or Toxicity Characteristic Leaching Procedure (TCLP) tests prior to disposal. STLC or TCLP results indicating 5 parts per million or more shall be disposed of as (RCRA) regulated hazardous waste. Lead waste characterization and disposal shall be the responsibility of the Contractor.

### 3.4 LEAD WORK AREA CLEAN UP PROCEDURE

- A. After all work activities on the LBP have been completed from the specified building components, the Contractor shall clean all identified surfaces and remove any "settled" lead dust/debris. The following procedures shall be used:
  - 1. HEPA vacuum all surfaces in the work area including woodwork, walls, windows, window wells, and floors.
  - 2. Wash all surfaces in the work area with a solution containing non-phosphate detergents. Prepare solution using hot water. Workers shall use towels, sponges, and mops to clean all surfaces including all areas that had been covered with polyethylene sheeting. Cleaning shall start at the ceiling and work down to the floors. Mix up a new cleaning solution frequently so it remains relatively clean.
  - 3. Discard all items used for cleaning (towels, sponges, rags, mop heads, etc.) in a plastic bag for later disposal into steel drums.
  - 4. After the surfaces have dried, HEPA vacuum all surfaces a second time until no dust or residue can be seen.



## 3.5 FINAL INSPECTION

- A. The following two inspections shall be performed by the Certified Lead-Related Project Monitor with the assistance of the Contractor:
1. A visual inspection after all LBP work is completed. This inspection will determine that all required surfaces have been properly removed and/or stabilized. The inspection will occur at a minimum of 24 hours after all wet methods have been used to assure that delamination caused by the water has not occurred.
  2. After the final cleanup of the work areas a visual inspection and dust-wipe clearance sampling will be conducted.
  3. Dust-wipe clearance criteria:
    - a. Interior Floors = 10 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ )
    - b. Interior Window Surfaces/Sills = 100  $\mu\text{g}/\text{ft}^2$
    - c. Exterior Horizontal Window Troughs and Floors = 400  $\mu\text{g}/\text{ft}^2$

## 3.6 LEAD WORKER DECONTAMINATION SYSTEMS

- A. Worker decontamination enclosure systems shall be provided for all locations where workers will enter or exit the work area. As a minimum, one system at a single location is required.
- B. Worker decontamination enclosure systems constructed at the Project site shall utilize 6-mil. black or opaque polyethylene sheeting, or other approved materials for privacy.
- C. Alternate methods of providing Decontamination facilities may be submitted to the Owner for approval. Do not proceed with any such method(s) without the written authorization of the Certified Lead-Related Project Monitor.
1. Prior to the receipt of negative exposure assessments as required in 8 CCR 1532.1, the worker decontamination enclosure system shall consist of at least a clean room, wash room, and an equipment room, each separated from the other and from the work area by airlocks.
  2. Clean rooms shall be sized to adequately accommodate the work crew. Space for storing respirators shall be provided in this area. Clean work clothes, clean disposable clothing, replacement filters for respirators, towels and other necessary items shall be provided in adequate supply at the clean room. A location for posting notices shall also be provided in this area.



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3. Wash room shall contain one or more washbasins as necessary to adequately accommodate workers. An adequate supply of soap, shampoo and towels shall be supplied by Contractor and available at all times.
4. The equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for filtration equipment, extra tools, containers or surfactant and other materials and equipment that may be required during the abatement may also be stored here as needed. A walk-off pan (a small children's swimming pool or equivalent filled with water shall be located in the room for workers to clean off foot coverings after leaving the work area and prevent excessive contamination of the worker decontamination enclosure system. A drum lined with a labeled 6-mil. polyethylene bag for collection of disposable clothing shall be located in this room. Contaminated footwear shall be stored in this area for reuse the following workday.

## 3.7 ALTERNATE PROCEDURES

- A. If specified procedures cannot be utilized, a request shall be made in writing to the Certified Lead-Related Project Monitor providing details of the problem encountered and recommended alternatives.
- B. Alternative procedures shall provide equivalent or greater protection than procedures that are replaced.
- C. Any alternative procedure must be approved in writing by the Certified Lead-Related Project Monitor prior to the implementation of the procedure.

## 3.8 OWNER PERFORMED SAMPLING AND TESTING

- A. The Owner and the Certified Lead-Related Project Monitor may, at its discretion, perform environmental air, soil, and dust-wipe sampling for lead. Contractor shall control lead levels outside the work boundary or lead control area so that the airborne lead level, soil levels, and ground surface levels does not exceed established background levels.

## 3.9 OSHA PERSONNEL AIR MONITORING

- A The contractor is responsible for providing daily OSHA compliance monitoring as required by 29 CFR 1926.62 and 8 CCR 1532.1.
  1. At minimum, Contractor shall conduct breathing zone personal air monitoring of each and every different job category/task (i.e. preparation, wet scraping, feathering, priming,



# GROUP DELTA

clean-up, etc.) Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 6 to 9 inches from the center at the nose or mouth of an employee.

2. Monitoring shall be conducted by a qualified professional experienced and knowledgeable about the methods of air monitoring and in accordance with 29 CFR 1926.62 and 8 CCR 1532.1.
3. Monitoring results and appropriate laboratory analysis reports shall be submitted to the Owner and the Certified Lead-Related Project Monitor within forty-eight (48) hours of the monitoring work.

It is the contractor's responsibly to confirm the hazardous material quantities present prior to initiating renovation or demolition activities at the subject buildings. Should materials similar to those identified in this report, or other forms of suspect hazardous materials be present or identified, personnel should be instructed to immediately cease work activities which may initiate a fiber release episode and notify the appropriate management personnel and the Certified Lead-Related Project Monitor. Suspect hazardous materials encountered during renovation or demolition activities that have not been assessed either may be assumed to be hazardous and handled accordingly or may be sampled by the Certified Lead-Related Project Monitor and analyzed to assess whether they are hazardous.

Specification prepared and reviewed for the Grossmont Union High School District by:

Kirk Hopka  
Hazardous Materials Project Manager  
CDPH Lead I/A, P/M #LRC00004527, LRC00004526

Jerry R. Sherman, LEED AP  
Hazardous Materials Service Manager  
CDPH Lead Inspector-Assessor #LRC00004015



STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH



# LEAD-RELATED CONSTRUCTION CERTIFICATE

**INDIVIDUAL:**



**Kirk Hopka**

**CERTIFICATE TYPE:**

Lead Inspector/Assessor  
Lead Project Monitor

**NUMBER:**

LRC-00004527  
LRC-00004526

**EXPIRATION DATE:**

1/31/2022  
1/31/2022

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at [www.cdph.ca.gov/programs/clppb](http://www.cdph.ca.gov/programs/clppb) or calling (800) 597-LEAD.





STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH



## LEAD-RELATED CONSTRUCTION CERTIFICATE

**INDIVIDUAL:**



**Jerry Sherman**

**CERTIFICATE TYPE:**

Lead Inspector/Assessor

**NUMBER:**

LRC-00004015

**EXPIRATION DATE:**

1/7/2022

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at [\\*\\*\\*.cdph.ca.gov/programs/clppb\\_or\\_calling \(800\) 597-LEAD](http://***.cdph.ca.gov/programs/clppb_or_calling_(800)_597-LEAD).

TECHNICAL UNIVERSAL, REGULATED AND HAZARDOUS WASTE ABATEMENT  
SPECIFICATION

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## UNIVERSAL, REGULATED AND HAZARDOUS WASTE REMOVAL SPECIFICATION

### PART 1 - GENERAL

#### **1.1 PROJECT SITE**

- A. The project site is identified as the Old Hospital at the future site of the Mono County Jail, 221 Twin Lakes Rd., Bridgeport, California, California. The subject site building is planned for demolition.

#### **1.2 SCOPE OF WORK**

- A. All work shall be supervised by experienced persons trained, knowledgeable and qualified in the techniques of URHW material abatement and the handling of associated waste and contaminated materials and the subsequent cleaning of the contaminated areas.
- B. Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling and transportation of hazardous material), and equipment which is specified, shown or reasonably implied for the removal, transport, and disposal of the following materials from the building locations as indicated (all quantities are approximate):

#### **UNIVERSAL, REGULATED AND HAZARDOUS WASTE (URHW)**

This section applies to the removal of all URHW Rule items, such as fluorescent light fixture ballasts, non-incandescent lamps (fluorescent light tubes), emergency lights, mercury switches and thermostats, as well as other commonly encountered items, such as refrigerants and other URHW.

A. All fluorescent light fixtures to be disposed of shall be disassembled in a non-destructive manner. All fluorescent light tubes shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

B. Once fluorescent light tubes have been removed from light fixtures to be disposed of, ballasts shall be visually inspected. All ballasts which are not clearly marked "No PCBs" or "PCB Free" shall be assumed to contain PCBs, and shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code. Any ballasts which are observed to be leaking shall be containerized, and shall be disposed via incineration as per 40 CFR 761. All other ballasts may be incinerated or recycled, in accordance with 40 CFR 761. In spite of the small capacitor variance, land disposal of PCB-containing ballasts shall not be considered an acceptable disposal method, under any circumstances.



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C. Mercury switches identified in thermostat controls, thermometers and/or any other electrical switching equipment to be demolished shall be removed intact, packaged, and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code. The Owner’s preferred method of disposal shall be recycling.

D. All identified refrigerants shall be collected and disposed of in accordance with all applicable GBUAPCD and federal EPA guidelines. The Owner’s preferred method of disposal shall be recycling.

E. All other URHW wastes shall be removed intact, where feasible, and shall be packaged and disposed of in accordance with Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

F. Contractor shall utilize employees with HAZWOPER training, as outlined in 29 CFR 1910.120 and 8 CCR 5192, when handling all URHW, including fluorescent light ballasts and tubes, mercury switches and thermometers, refrigerants, batteries, and the like.

G. Contractor shall furnish all labor, materials, services, insurance (specifically covering the handling and transportation of a URHW), and equipment which is specified, shown or reasonably implied for the removal, transport, and disposal of the hazardous materials identified.

All URHW shall be containerized as appropriate and disposed of in a manner that satisfies the requirements for waste characterization and disposal in accordance with the requirements of Title 22 of the California Code of Regulations, Sections 66243, et seq., and Sections 25157.8, et al, of the California Health and Safety Code.

Contractor shall submit a work plan for the removal, handling, and disposal of all URHW materials, including but not limited to fluorescent light ballasts and tubes, mercury switches, refrigerants, batteries, and potentially radioactive smoke detector or exit sign sources

Table 1 of 1

LOCATION	Universal, Regulated and Hazardous Waste (URHW)	APPROXIMATE QUANTITY
Old Hospital Building - Throughout	Fluorescent Light Tubes (Mercury)	400
Old Hospital Building - Throughout	FLT Ballasts (PCBs)	160



LOCATION	Universal, Regulated and Hazardous Waste (URHW)	APPROXIMATE QUANTITY
Old Hospital Building - Throughout	Smoke alarms	25
Old Hospital Building - Throughout	Emergency lights	1
Old Hospital Building - Throughout	Metal halide and halogen lights	4
Old Hospital Building - Throughout	Thermostat switches (Mercury)	4
Old Hospital Building - Throughout	A/C units (Freon)	4
Maintenance Building - Throughout	Fluorescent Light Tubes (Mercury)	20
Maintenance Building - Throughout	FLT Ballasts (PCBs)	6
Maintenance Building - Throughout	Televisions	2
Maintenance Building - Throughout	Generators	2
Maintenance Building - Throughout	Direct TV dish	1
Maintenance Building - Throughout	Satellite dish	1

At no time should the identified URHW be disturbed by untrained personnel. These materials should be removed prior to any activities which will impact these materials.

### 1.3 WORK TO BE PERFORMED BY OTHERS

- A. Owner will determine work to be determined by others.

### 1.4 RESPONSIBILITIES OF THE OWNER

- A. An independent Consultant for the Owner will provide removal oversight, contractor observation, and visual inspection, associated with the URHW removal activities.
- B. The Owner will pre-approve the contractor’s selection of a landfill for the disposal of contaminated waste.

### 1.5 REQUIRED LICENSURE



- A. The Contractor shall be licensed by the State of California, Contractors State License Board.

The Owner reserves the right to approve all waste haulers.

- B. Subcontractors shall hold all licenses applicable to specified trade work.

## 1.6 PERMITS

- A. Proper permits shall be in place as required by other agencies governing demolition, renovation and/or abatement.

## 1.7 NOTIFICATIONS

- A. Contractor shall make all required written notifications

## 1.8 INSURANCE REQUIREMENTS

- A. Owner will determine insurance requirements.

## 1.9 PROJECT SCHEDULE

- A. All work shall be performed as determined by the Owner.
- B. The Contractor shall start work and complete work on dates as defined by the Owner:

## 1.10 PROCEDURES

- 
- A. Contractor shall perform all Work in compliance with the most recent edition of all applicable federal, state, and local regulations, standards and codes governing URHW, transport, and disposal.

- 1. Requirements may include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

- B. Regulations, Standards, and Codes (General):

- 1. General applicability of federal, state, and local regulations, standards and codes governing URHW abatement, demolition, transport and disposal, except to the extent that more explicit or more stringent



requirements are written directly into the contract documents, all applicable regulations, standards, and codes have the same force and effect and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith.

- C. **Contractor Responsibility:** The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to work practices and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The contractor is responsible for providing training, medical examinations and maintaining training/medical records of personnel as required by the applicable federal, state, and local regulations.

The Contractor shall hold the Owner and the Independent Consultant harmless for failure to comply with any applicable hazardous materials abatement, transport, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

## 1.11 SUBMITTALS

- A. At least one week prior to commencement of work, Contractor shall submit (two copies) to the Independent Consultant of documentation that includes, without limitation, the following:
1. Submit copies of licenses and registrations required by Article 1.5 Required Licensure (include copies of subcontractor's licenses).
  2. Submit copies of written notification to the following regulatory agencies if applicable.
  3. Submit proof of insurance coverage required by Article 1.8 Insurance Requirements (include proof of insurance for subcontractors).
  4. Submit proof of legal right to use patented equipment or processes.
  5. Manufacturer's certification that HEPA vacuums, differential pressure, air filtration devices and other local exhaust ventilation equipment conform to ANSI Z9.2-79 (if used on-site).
  6. Prior to the start of work, the Contractor shall submit to the Independent Consultant, for approval, a site-specific work plan detailing removal methods to be utilized.





7. Submit full manufacturer's product data and material safety data sheet for all chemical products to be used on site.
  8. Submit a construction schedule indicating milestones and dates of completion for each phase of the Work. Submit the schedule at least two days prior to Job Start.
  9. Submit documentation that Contractor's employees, including foreman, supervisor, and any other company personnel or agents who may be exposed.
  10. Submit documentation from Physician that all employees or agents who may be exposed to URHW materials have received medical monitoring in accordance with 29 CFR 1926.1101 to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g. high temperatures, humidity, and chemical contaminants) that may impact on the employee's ability to perform work activities.
  11. Submit documentation of respirator fit testing for all Contractor employees and agents who must enter the work area. This fit testing shall be conducted annually and in accordance with qualitative procedures as required by 8 CCR 5144 or be quantitative in nature.
  12. Submit an emergency preparedness plan as required by Article 1.14 - Emergency Planning.
  13. Submit documentation of previous of exposure levels from similar URHW abatement projects for the proposed Contractor's employees and agents who must enter the work area.
- 
- B. During abatement activities, Contractor shall submit to the Independent Consultant documentation that includes, without limitation, the following:
1. Submit copies of the work area entry/exit logbook. Logbook must record name, affiliation, time in, and time out for each entry into the work area.
  2. Submit copies of logs documenting filter changes on respirators, HEPA vacuums, differential pressure, air filtration devices, water filtration device, and other engineering controls (if used on site).



3. Submit copies of Material Safety Data Sheets (MSDS) for materials, as necessary.
4. Submit and post on site (within 24 hours of collection completion) results of all required OSHA air monitoring.
5. Submit copies of all accident/incident reports where injury or damage has occurred on or to the Owner's property.
6. Submit copies of daily logs indicating location(s) worked, type of materials removed, quantity of materials removed and number of personnel conducting the aforementioned activities.
7. Submit copies of all transport manifests, trip tickets and disposal receipts for all URHW materials removed from the work area within 24 hours of the transport to the Owner.

## 1.12 NOTICES

- A. Post in the clean room area of the worker decontamination enclosure a list containing the names, and telephone numbers of appropriate personnel (if used on site).
- B. Post in the clean room area of the worker decontamination enclosure a list of all persons authorized to enter the work area (if used on site).
- C. Additional postings shall include:
  1. Visitor Entry and Exit Log.
  2. Employee Daily Sign in Log.
  3. Entry and Exit Procedures.
  4. Emergency Procedures.
  5. As required by the Department of Labor

## 1.13 SITE USE AND SECURITY

- A. Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond which areas on which work is indicated are not to be disturbed.
- B. The work area shall be restricted only to authorized, trained and protected personnel, including Contractor, Contractor's employees, Owner employees, Building Management, and the Independent Consultant, State and Local inspectors.





- C. Entry into the work area by unauthorized individuals shall be reported immediately to the Independent Consultant.
- D. Contractor shall be responsible for Project site security during abatement operations in order to protect work efforts and equipment.

## 1.14 EMERGENCY PLANNING

- A. Emergency planning and procedures shall be developed by Contractor prior to URHW abatement initiation.
- B. Emergency procedures shall be in written form and prominently posted. Contractor shall ensure that all persons entering the work area read these procedures and understand the Project site layout, location of emergency exits and emergency procedures.
- C. Emergency planning shall include considerations of fire, explosion, electrical hazards, slips, trips and falls, confined spaces, and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided by Contractor.
- D. Employees shall be trained in evacuation procedures in the event of work place emergencies.
  - 1. For non-life-threatening situations, employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the work place to obtain proper medical treatment.
  - 2. For life-threatening injury or illness, worker decontamination shall take least priority. After measures to stabilize the injured worker, remove him from the work place and secure proper medical treatment.
  - 3. Telephone numbers of all emergency response personnel shall be prominently posted in the clean and equipment rooms.

## 1.15 FIRE PROTECTION

- A. All plastic, spray-on strippable coatings, and structural materials used in the asbestos abatement process shall be UL approved and certified as fire retardant or noncombustible.
- B. Wood shall be pressure impregnated and certified as fire retardant.



- C. Material Safety Data Sheets (MSDS) for fire retardant materials shall be made available upon request.
- D. All combustible rubbish and debris, including properly bagged asbestos shall be properly disposed of at the end of each working day.
- E. A minimum of one (1) 4A/60BC dry-chemical extinguisher shall be maintained at each of the following locations:
  - 1. At each corner of the work area, where no clear corners exist, four (4) extinguishers shall be placed around the exterior wall of the work area so that they are approximately 25 percent of the total distance apart.
    - Exception: Where the total containment area is less than 1,000 square feet, two (2) 4A/60BC extinguishers shall be provided. All extinguishers shall be clearly identified with red tape.
  - 2. Contractor shall ensure that on site personnel are aware of the location and proper use of all extinguishers and other fire/life safety equipment.
- F. All existing fire detection, alarm systems, connections and standpipes shall remain in place, active and unobstructed. The Independent Consultant must approve any alteration to this equipment.
- G. Contractor shall conduct activities in accordance with all procedures and requirements as outlined in Local Fire Department Requirement.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- 
- A. General: Contractor shall carefully adhere to the following, if applicable:
    - 1. All plastic, spray-on strippable coatings and structural materials used shall be UL certified as fire retardant or non-combustible.
    - 2. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and brand name (where applicable).
    - 3. Polyethylene sheeting utilized for worker decontamination and barriers shall be black or opaque in color and shall be a minimum of 6 mil. thick.



4. Disposal bags shall be doubled 6-mil. Polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (i) (iv), CAL-OSHA Title 8 CCR Section 5208, and if applicable Title 22 CCR Section 66504.
5. Stick-on labels shall be used as per EPA or Cal/OSHA requirements for disposal drums.
6. Warning signs as required by Cal/OSHA shall be utilized.

**B. Removal and Encapsulation, if applicable:**

1. Surfactant (wetting agent) shall be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in proportion of 1 fluid ounce to 5 gallons.
2. The encapsulating agent to be applied shall adhere to the substrate surfaces from which asbestos-containing material has been stripped.
3. The encapsulating agent shall not be flammable and should not be solvent-based or utilize a vehicle (the liquid in which the solid parts of the encapsulant are suspended) consisting of hydrocarbon.

**C. Replacement:**

1. Not Applicable.

## 2.2 EQUIPMENT

**A. General:**

1. If applicable, a sufficient quantity of HEPA vacuums and/or differential pressure air filtration devices equipped with HEPA filtration and operated in accordance with ANSI Z9.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos Containing Materials in Buildings. To calculate total air flow requirement, use the following equation:

$$\text{Total ft}^3/\text{min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{15 \text{ min}}$$



# GROUP DELTA

To calculate the number of units needed for the abatement, use the following equation:

$$\text{Number of units needed} = \frac{\text{[total ft}^3\text{/min]}}{\text{[Capacity of unit in ft}^3\text{/min]}}$$

2. Type "B" powered air-purifying respirators (PAPR) at minimum shall be utilized during removal of any friable asbestos containing material.
  3. Air purifying respirators with dual HEPA/organic cartridges may be utilized during URHW removal.
  4. Respirators shall be furnished to the abatement workers by Contractor. The respirators shall have been tested and approved by National Institute of Occupational Safety and Health (NIOSH) for use in URHW contaminated atmospheres.
  5. Contractor shall provide full body disposable protective clothing, including head, body, and foot coverings to abatement workers and visitors in sizes adequate to accommodate movement without tearing.
  6. In accordance with 8 CCR 1514, the following additional safety equipment;  
(e.g. hard hats meeting the requirements of 8 CCR 1515, eye protection meeting the requirements of 8 CCR 1516, safety shoes meeting the requirements of 8 CCR 1517, hand protection meeting the requirements of 8 CCR 1520, hearing protection meeting the requirements of 8 CCR 1521 and body protection meeting the requirements of 8 CCR 1522), as necessary, shall be furnished by the Contract to all workers and authorized visitors.
  7. ~~Non-skid footwear shall be furnished to all abatement workers by the Contractor. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.~~
  8. Furnish a sufficient supply of disposable mops, rags, and sponges for work area decontamination.
- B. Removal, if applicable:
1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g., screw drivers, pliers, etc.) shall be furnished by the Contractor as needed.
  2. Rubber dustpans and rubber squeegees shall be furnished by the



Contractor for cleanup.

3. Brushes utilized for cleaning shall have nylon or fiber bristles, not metal.
  4. A sufficient supply of HEPA filtered vacuum systems shall be furnished by the Contractor during cleanup.
- C. Encapsulation, if applicable: Encapsulants shall be sprayed by the Contractor, using airless spray equipment or hand pressurized sprayer.
- D. Enclosure, if applicable: Hand tools equipped with HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports if there is any need to disturb asbestos containing materials during this process.

## **PART 3 - EXECUTION**

### **3.1 URHW REMOVAL PREPARATION**

- A. Contractor shall coordinate all items of work with the Independent Consultant.
- B. Contractor shall shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in, supply, or pass through the work area. The HVAC system shall remain off during project.
- C. Contractor shall shut down and lock out electric power to all Work Areas. Contractor shall provide temporary power (if needed) and lighting sources, insure safe installation of temporary power sources (if needed) and equipment by compliance with all applicable electrical code requirements and Cal/OSHA requirements for temporary electrical systems. Protect each circuit with a Ground Fault Circuit Interrupter (GFCI) of proper size located in the temporary panel. Do not use outlet type GFCI devices. The temporary electrical service shall provide 150% of the maximum capacity of all of the Contractors equipment.
- D. Install worker decontamination unit described in Article 3.3 and/or 3.4 or as agreed upon with the Independent Consultant.
- E. Post warning signs meeting the specifications of Cal/OSHA. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.
- F. URHW Materials Handlers shall don personnel protective equipment as required in Article 2.2 - Equipment.
- G. Pre-clean all vertical and horizontal surfaces within the work area using a HEPA-





filtered vacuum and/or wet cleaning techniques as appropriate. Contractor shall not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters and shall not disturb asbestos containing materials during the pre-cleaning phase.

- H. Seal off all openings between the Work Area and uncontaminated areas outside of the Work Area.
- I. Perform all removal material in accordance with Article 3.2 – Universal, Regulated and Hazardous Materials Removal Procedures.

### **3.2. URHW REMOVAL PROCEDURES**

- A. Post warning signs meeting the specifications of Cal/OSHA. Signs shall be posted at a distance sufficiently far enough away from a work area to permit a person to read the sign and take necessary protective measures to avoid exposure.
- B. Install worker decontamination unit described in Article 3.3 and/or 3.4 or as agreed upon with the Independent Consultant.
- C. URHW handlers involved in removal procedures shall wear disposable suits, including gloves, hood and footwear. Minimum respiratory protective equipment shall be half face negative pressure dual cartridge air-purifying respirator. Upon exiting the work area the handlers shall HEPA vacuum the suit and dispose of as contaminated waste and proceed to the shower room for full decontamination.
- D. Isolate work area by installing critical barriers across all openings where there may be secondary contamination.
- E. Remove materials without dropping materials.
- F. ~~The Contractor shall carry out all removed material removal in a manner that will minimize breaking or spills.~~
- G. Manually remove material by unfastening material from substrate.
- H. Dispose of all waste in accordance with Article 3.6 – Disposal Procedures.

### **3.3 WORKER DECONTAMINATION SYSTEMS**

- A. Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area.
- B. Worker decontamination enclosure systems constructed at the Project site shall



utilize 6-mil. black or opaque polyethylene sheeting, or other approved materials for privacy.

- C. The Personnel Decontamination Unit shall not be located inside the work area unless otherwise authorized by the Independent Consultant.
- D. Alternate methods of providing Decontamination facilities may be submitted to the Independent Consultant for approval. Do not proceed with any such method(s) without obtaining the Independent Consultant's written authorization.
- E. The worker decontamination enclosure system shall consist of at least a three-stage decontamination unit.
- F. The decontamination unit dirty/equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for filtration equipment, extra tools, containers or surfactant and other materials and equipment that may be required during the abatement may also be stored here as needed. A labeled 6-millimeter Polyethylene bag for collection of disposable clothing shall be located in this room. Contaminated footwear shall be stored in this area for reuse the following workday.

### 3.4 URHW CLEAN-UP PROCEDURES

- A. Remove and containerize all visible accumulations of removed material and contaminated debris utilizing rubber dustpans and rubber squeegees to move material around. Do not use metal shovels to pick up or move accumulated waste. Asbestos containing/contaminated waste shall be placed in disposal bags. Disposal bags shall be doubled 6-mil. Polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (1) (iv), Cal/OSHA Title 8 CCR Section 1529, and if applicable Title 22 CCR Section 66504.
- B. Wet clean and HEPA vacuum all surfaces in the work area using rags, mops and sponges as appropriate.
- C. Decontamination enclosure systems shall remain in place and be utilized.
- D. Remove all containerized waste from the work area and waste container pass-out airlock.
- E. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.





- F. The Independent Consultant will inspect the work area for visible residue.

### 3.5 REESTABLISHMENT OF WORK AREAS

- A. Reestablishment of the work area shall only occur following the completion of clean-up procedures and visual inspection.
- B. Polyethylene barriers shall be removed from walls, ceilings, and floors, maintaining decontamination enclosure systems and critical barriers over doors, window, etc. as required.
- C. The Contractor and the Independent Consultant shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning.
- D. Upon approval by the Independent Consultant, Contractor shall remove remaining polyethylene sheeting, critical barriers, and decontamination unit, if applicable.
- E. Repair all areas of damage that occurred as a result of abatement activities at no additional cost to Owner.

### 3.6 URHW DISPOSAL PROCEDURES

- A. All waste shall be placed and stored in sealed and labeled containers and transported to a certified land fill pre-approved by the owner, for disposal.
- B. All URHW must be disposed of as required by the regulations by a certified waste hauler.
- C. All URHW data forms shall be delivered to the Independent Consultant. Record keeping format shall utilize a chain of custody form which includes the names and addresses of the Generator (Owner), Contractor, Waste Hauler, pickup site, disposal site, the estimated quantity of the materials removed. The forms shall be signed by the Owner's Representative if necessary.

### 3.7 ALTERNATE PROCEDURES

- A. If specified procedures cannot be utilized, a request shall be made in writing to the Independent Consultant providing details of the problem encountered and



recommended alternatives.

- B. Alternative procedures shall provide equivalent or greater protection than procedures that are replaced.
- C. Any alternative procedure must be approved in writing by the Independent Consultant prior to the implementation of the procedure.

### **3.8 OWNER PERFORMED VISUAL INSPECTION**

A. Visual Clearance Inspection:

- a. Following the completion of the URHW abatement and clean-up operations, The Independent Consultant will perform a visual clearance inspection verifying the removal of the materials.

It is the contractor's responsibly to confirm the URHW quantities present prior to initiating renovation or demolition activities at the subject buildings.

Specification prepared for Lionakis by:

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Jerry R. Sherman, LEED AP  
Hazardous Materials Service Manager  
OSHA HAZWOPER Supervisor

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**APPENDIX A**  
**GROUP DELTA CONSULTANTS**  
**HAZARDOUS BUILDING MATERIALS SURVEY**

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**GROUP**



**DELTA**

**HAZARDOUS MATERIALS SURVEY**  
**Future Mono County Jail/Old Hospital**  
Bridgeport, California

Submitted to

**LIONAKIS**  
**1919 19<sup>th</sup> Street**  
**Sacramento, California, 95811**

Prepared by

**GROUP DELTA CONSULTANTS, INC.**

32 Mauchly #B  
Irvine, California 91618

Project No. EN8119  
May 5, 2021



# GROUP DELTA

May 5, 2021

LIONAKIS  
1919 19<sup>th</sup> Street  
Sacramento, California, 95811

Attention: Mr. Mike Davey AIA Principal

Subject: Hazardous Materials Survey  
Future Mono County Jail/Old Hospital, 221 Twin Lakes Rd., Bridgeport, CA.  
Group Delta Project No. EN8119

Dear Mr. Davey:

Group Delta Consultants, Inc. (Group Delta) is pleased to submit this Hazardous Materials Survey Report for the Old Hospital Site located at 221 Twin Lakes Rd., Bridgeport, California.

The purpose of the testing and this report is to provide locations of asbestos-containing materials (ACM), lead based paint (LBP) and Universal Waste Rule (UWR) materials at the Hospital Building, the Maintenance Building and the Helipad to the east side of the Hospital Building (the Site).

We appreciate your selection of Group Delta for this project and look forward to assisting you further on this and other projects. If you have any questions, please do not hesitate to contact us.

Very truly yours,  
**GROUP DELTA CONSULTANTS, INC.**

Kirk Hopka, CAC, CDPH, HAZWOPER Certified  
Hazardous Materials Project Manager

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Figures Asbestos Sample Location and XRF Positive Lead Sample Location Map

## ATTACHMENTS

Asbestos Analytical Data and Sample Chain of Custody Record Forms  
Consultant Certificates  
XRF Table for Lead-based Paint  
Form 8552



## 1.0 INTRODUCTION

Group Delta Consultants performed a Hazardous Materials survey at the Site in support of the proposed demolition project. The purpose of this survey was to test for ACM and LBP in building materials and perform visual inspections for UWR materials and to quantify these materials anticipated to be impacted by demolition activities. Samples were collected throughout interior, exterior, and roof areas of the buildings. All work completed is compliant with federal, state, and local air quality regulations.

Group Delta's on-site hazardous materials survey was performed March 24 through March 26, 2021. On-site survey work was completed by Group Delta employees, Mr. Michael Toomey and Mr. Chris Lemaster. Mr. Toomey is a Cal/OSHA Certified Asbestos Consultant (CAC) and CDPH Certified Lead Inspector/Risk Assessor/Project Monitor. Mr. Lemaster is a Cal/OSHA Certified Site Surveillance Technician (CSST) and a CDPH Certified Lead Sampling Technician. Report was prepared by Mr. Kirk Hopka and Jerry Sherman, Cal/OSHA Certified Asbestos Consultants (CAC) and CDPH Certified Lead Inspector/Risk Assessors. This report summarizes our assessment findings.

## 2.0 BUILDING DESCRIPTION

Group Delta surveyed the buildings scheduled for demolition at the Site. All interior, exterior, and roof areas of the structures were included in our survey.

The Hospital Building consists of a single-story concrete structure, finished with drywall, plaster, floor tiles, carpet, ceiling tiles, acoustic ceiling material, stucco and built-up roofing materials. The Maintenance Building is metal framed with metal siding. The Helipad is asphalt.

## 3.0 METHODOLOGY

The survey was based on sampling of suspect ACM, a screening of representative painted surfaces and coatings for LBP and a visual inspection for UWR materials. Specific survey procedures followed by Group Delta for this survey are provided in the following paragraphs. Laboratory reports for the samples collected are included in Attachments.

### 3.1 Asbestos – Survey Methodology

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Identification of suspect ACM was performed by visually surveying accessible structural and architectural components and finishes at interior, exterior, and roof building areas. No excavation or subsurface investigation was conducted to discover buried insulated piping and/or asbestos cement pipes concealed below the surface. All findings, conclusions, and analytical data presented in this report are based on visual inspection and the results of the sampling and analysis of suspected ACM discovered during the survey.

Suspect ACM identified during this survey was bulk sampled using sampling guidelines established by the Environmental Protection Agency (EPA) and by generally following the methods described in Appendix K of title 8, CCR, Section 1529 of the California Code of Regulations for sample collection. The following summarizes the sampling procedures utilized.

- Visually identified suspect ACM were categorized into homogeneous material areas. A homogeneous material is defined as being a surfacing material, thermal system insulation, or miscellaneous material which is uniform in color and texture.



- A sampling scheme was developed based upon the location and quantity of the various homogeneous materials.
- Trained and certified personnel using appropriate sampling tools and leak-tight containers collected bulk samples.
- Bulk sample collection tools were decontaminated after the collection of each bulk sample to prevent the spread of secondary contamination to subsequent bulk samples.
- Each bulk sample was labeled with a unique sample identification number and recorded on a bulk sample log.
- Bulk samples collected were submitted to a laboratory with a chain of custody record.

All material quantities reported herein are rough order of magnitude estimates and should not be used for bidding purposes without review of available record drawings and on-site field verification by the bidder. The information provided in this report should be used in conjunction with construction documents and the contractor's own field verification of the abatement scope of work including location and extent of removal required for the renovation/demolition project being undertaken at the site. In the event, concealed suspect ACM not previously identified are discovered, the contractor is obligated to stop and notify the owner immediately in compliance with applicable regulations.

### **3.2 Asbestos Analytical Methodology**

Bulk samples of suspect ACM were sent to Amerisci, Inc. in Carson, California. Amerisci is a laboratory accredited under the National Institute of Standards and Technology (NIST)/National Voluntary Laboratory Accreditation Program (NVLAP) and the California Environmental Laboratory Accreditation Program (Cal-ELAP) for bulk asbestos sample analysis. The samples were submitted for analysis by Polarized Light Microscopy (PLM) utilizing dispersion staining techniques in accordance with the EPA's "Method for the Determination of Asbestos in Bulk Building Materials" U.S. EPA/600/R-93/116, dated July 1993 and adopted by the NVLAP as Test Method Code 18/A01.

The standard PLM analytical method has a limit of quantification of 1% asbestos. For materials with asbestos detected at trace levels or below 1% by standard PLM, the material must be considered above 1% (ACM) unless re-analyzed and found to be less than 1% by the PLM point count method (400 points minimum but recommended at 1,000 points). Each sample of a homogeneous area material with trace result(s) must be re-analyzed by point count and found to be less than 1% or assumed to be an ACM per EPA regulation

### **3.3 Lead Testing – Survey and Analytical Methodology**

LBP is defined as any painted surface with lead levels exceeding 5,000 parts per million (ppm), 1.0 milligrams per square centimeter (mg/cm<sup>2</sup>) or greater than 0.5 percent by weight (wt%), as set forth in the Department of Housing and Urban Development (HUD) guidelines and California Department of Public Health (CDPH) regulations. Lead-Containing Paints (LCPs) are paints and coatings that contain any amount of detectable lead as defined by Cal/OSHA. Most paints and coatings on pre-1978 buildings contain some detectable lead subject to Cal/OSHA regulation. Therefore, the exhaustive testing required to prove painted coatings do not contain lead is not practical or cost effective. Consequently, all paints and architectural coatings must be considered to contain some detectable levels of lead unless proven otherwise by laboratory analysis.

This survey was based on screening level LBP testing for characterizing the general presence of lead in existing paints and coatings. A Heuresis XRF Analyzer direct read lead testing instrument was used for paint analysis. The results presented herein are anticipated to be representative of typical conditions but are not inclusive of all painted/coated surfaces present at the buildings. The results of this survey should assist with compliance to the Cal/OSHA lead construction standard and preliminary evaluation of potential construction waste streams.

### 3.4 Other Suspected Hazardous Materials (UWR materials) Methodology

The building was visually surveyed for other hazardous materials that could impact planned renovation, and restoration work. These suspected hazardous materials included, mercury containing lighting tubes, PCB ballasts, batteries, as well as other hazardous waste and contamination components considered to be “universal wastes” upon disposal. Other suspect hazardous materials include refrigerants, battery operated devices, and lights.

## 4.0 RESULTS

### 4.1 Asbestos Survey

Group Delta collected 96 bulk samples of suspect ACM analyzed by PLM analysis. All suspect ACM sampled during this survey are summarized below. The analytical laboratory results for sampled suspect ACMs are listed in Appendix A – Analytical Laboratory Reports. Below is a summary of suspect asbestos containing materials sampled. Additionally, the samples reported to be <1% asbestos were submitted for 1,000-point count analysis to ascertain what their true results were. Point Count analysis supersedes standard PLM analysis.

#### Materials Sampled with Asbestos Reported:

Sample #	Material	Building/Location	Asbestos	Amount	Friability	Qty
MCH-001	9" Brown Vinyl Floor Tile	Hospital/Floor East/West Hall	Chrysotile	Trace (<1 %)	NF	8,000 SF
MCH-001	9" Brown Vinyl Floor Tile & Black Mastic	Hospital/Floor East/West Hall	Chrysotile	Trace - 5 %	NF	See Above
MCH-002	9" Brown Vinyl Floor Tile & Black Mastic	Hospital - Kitchen Floor	Chrysotile	3-5 %	NF	See 001
MCH-003	9" Brown Vinyl Floor Tile & Black Mastic	Hospital – Locker Room	Chrysotile	3-5 %	NF	See 001
MCH-004	9" Brown Vinyl Floor Tile & Black Mastic	Hospital, Equip. Storage	Chrysotile	3-5 %	NF	See 001
MCH-005	9" Gray Vinyl Floor Tile & Black Mastic	Hospital, Dressing Room	Chrysotile	3-5 %	NF	See 001
MCH-006	9" Green Vinyl Floor Tile & Black Mastic	Hospital, Doctors Work Room	Chrysotile	3-5 %	NF	See 001

MCH-007	12" Tan Vinyl Floor Tile & Black Mastic	Hospital, N.E. Corner - Hall	Chrysotile	5 %	NF	6,000 SF
MCH-008	12" Brown Vinyl Floor Tile & Black Mastic	Hospital, Office	Chrysotile	5 %	NF	See 007
MCH-009	12" Brown Vinyl Floor Tile & Black Mastic	Hospital, Restroom	Chrysotile	5 %	NF	See 007
MCH-010	12" Tan Vinyl Floor Tile & Black Mastic	Hospital, - South End N.S. East Hall	Chrysotile	5 %	NF	See 007
MCH-012	Brown Carpet Adhesive/Mastic	Hospital - Admin Office	Chrysotile	2 %	NF	3,000 SF
MCH-020	9" Brown Vinyl Floor Tile and Black Mastic	Hospital – CAO Office	Chrysotile	3-5 %	NF	See 001
MCH-033, 034, 035	Sprayed-On Acoustic Ceiling Coating (ACS)	Hospital - N.S. East Hall	Chrysotile	6 %	F	2,200 SF
MCH-039	Wood Panel Glue	Hospital – Lobby	Chrysotile	5 %	NF	500 SF
MCH-042	12" Ceiling Tile Mastic	Hospital – Nurses Station	Tremolite	0.2% by Point Count	NF	1,100 SF
MCH-043	Transite (2' x 2') Panels	Hospital - Ceiling Soffit Above Kitchen Sink	Chrysotile	25 %	NF	50 SF
MCH-044	Thermal System Insulation (TSI) - Pipe Run	Hospital - Heater Tank at Sterile Room	Amosite	5%	F	6 LF
MCH-045	Window Putty	Hospital – Exterior	Chrysotile	2%	NF	6 LF
MCH-053	Fire Door Insulation	Hospital - Mech. Rm. 'D'	Chrysotile	3%	F	4 SF
MCH-059, 065	6" TSI Elbows	Hospital – Mech. Rms. A and B	Chrysotile	20-25%	F	75 Ea.
MCH-066	HVAC Unit Duct Gasket/ Black	Hospital – Mech. Rm. B, HVAC Units	Chrysotile	5%	NF	180 SF
MCH-067	Boiler Tank Insulation	Hospital – Mech. Rm. C	Chrysotile	25%	F	80 SF
MCH-069, 072	3" TSI Elbow/ Gray	Hospital – Mech. Rm. C	Chrysotile & Amosite	5-10%	F	100 Ea.
MCH-070, 071	6" TSI Elbow/ Gray	Hospital – Mech. Rms. C & D	Chrysotile	2-5%	F	75 Ea.
MCH-079	HVAC Unit Duct Gasket Material	Hospital – Mech. Rm. D	Chrysotile	5%	NF	40 SF
MCH-080	4" TSI Pipe Run/ Wrap / White/ Gray	Hospital – Kitchen	Amosite	25%	F	25 LF

Material locations can be found in the attached Sample Location Drawings. All analytical data can be found in the attachments. Materials with <1% asbestos are considered ACM unless PLM point count analysis was conducted to confirm <1% asbestos.

**Materials sampled with no asbestos reported:**

**Hospital Building**

- Roof Core
- Concrete Under Roofing
- Vibration Damper
- Roof Penetration Sealant
- Roof Vent Pipe Sealant
- Roof Penetration mastic
- Roof HVAC Duct Tape
- Base Board & Mastic
- Wallpaper
- Drywall & Joint Compound
- Wall Covering Material
- Terrazzo Floor
- Plaster Walls and Ceilings
- Thick Ceiling Insulation
- Fissured Acoustic Ceiling Tile & Mastic
- 12" Smooth Acoustic Ceiling Tile & Mastic
- 12" Fissured Ceiling Tile & Mastic
- Window & Door Frame Sealant (Not Putty)
- Duct Tape in Laundry Room
- Concrete
- Mortar
- Fiberglass Pipe Insulation
- Duct Wrap & Duct Tape (Mech. Rm. B)
- Exterior Vapor Barrier
- Exterior Stucco/Plaster

---

**Maintenance Building**

- Window and Door Sealant

**Helipad**

- Asphalt



Refer to **Attachments** for a complete set of the laboratory results and **Figures** for sample locations.

#### 4.2 Lead Containing Paints, Coatings, and Materials

Group Delta performed a total of 158 XRF lead tests, including calibrations, from the interior and exterior building areas. The following is a summary of building components tested for LBP by XRF:

##### Materials tested with lead-based paint detected

Sample #	Location	Component	Color	Substrate	Condition	mg/cm2	Quantity
11	Exterior North loading dock	Bollard	Yellow	Metal	Intact	2.6	4 EA
55	Bathroom	Oversize toilet	White	Porcelain	Intact	3.9	10 EA
59	Nurses shower area	Wall tile	Pink	Ceramic	Intact	7.8	1700 SF
60	Nurses shower area	Wall tile	Red	Ceramic	Intact	8.6	300 SF
62	X-ray Room	Wall lead shield	White	Metal	Intact	1.2	1000 SF
64	X-ray Room	Wall lead shield	White	Metal	Intact	2.9	500 SF
67	Bathroom	Sink	White	Porcelain	Intact	20.4	20 EA
73	Work room	Double sink	White	Porcelain	Intact	18.4	10 EA
88	Patient bathroom West side	Ceiling	White	Ceramic	Intact	11.3	500 SF
89	Patient bathroom West side	Wall tile	Beige	Ceramic	Intact	8.3	400 SF
90	Patient bathroom West side	Wall tile	Red	Ceramic	Intact	11.3	100 SF
96	Sheriff's shower	Wall tile	Pink	Ceramic	Intact	7.7	100 SF

97	Sheriff's shower	Wall tile	Red	Ceramic	Intact	8.5	40 SF
121	North east hall bathroom	Wall base	Beige	Ceramic	Intact	8.9	40 SF
122	North east hall bathroom	Wall base	White	Ceramic	Intact	6.3	40 SF
152	Lobby bathrooms	Wall tile	Beige	Ceramic	Intact	9.6	550 SF
164	Exterior North	Generator	Green	Metal	Fair	2.8	2 EA

**Materials tested with no lead-based paint detected can be found in the attached XRF table.**

**General Interpretations of Lead-Containing Paint Findings Reported:**

All painted components must be presumed to contain some detectable levels of lead regardless of non – detection by the XRF method unless exhaustively tested by paint chip analysis. Untested painted/coated components must be presumed to contain some lead at detectable levels. Some surfaces tested contained levels of lead considered to be LBP and most of the remaining surfaces contained some detectable lead. The tested surfaces that reported low levels of detected lead must be considered lead-containing paints (LCP) and coatings in the absence of exhaustive testing by wet chemistry methods.

**Paint Condition Findings:**

The condition of paint at this site is generally in intact condition. Since even low levels of paint may exhibit hazardous waste characteristics, care must be taken to eliminate loose and peeling paint prior to general building demolition. Any loose, peeling or flaking paint should be removed and disposed of as lead hazardous waste.

**4.3 Other Suspected Hazardous Materials (UWR Materials)**

**UWR Materials:**

Group Delta visually inspected readily accessible areas for universal wastes and other potential hazardous materials, as described in Section 3.4. No attempt to disassemble equipment or sample these suspect materials was performed. Any suspect hazardous material must be presumed hazardous pending complete identification. For example, fluorescent lighting fixture ballasts and transformers must be presumed to contain PCBs pending removal and disassembly of each unit to determine ballast type and/or labeling in the absence of other explicit product specific information to the contrary. Quantities provided are approximate, contractors bidding on work should field verify location and extent. See attachments for quantities and locations of UWR Materials.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Asbestos Containing Materials

Prior to demolition construction activities, known or assumed ACMs and ACCMs that are likely to be disturbed by those activities must be removed and disposed of in accordance with all applicable regulations including to the Great Basin Unified Air Pollution Control District (GBUAPCD), the federal National Emissions Standard for Hazardous Air Pollutants (NESHAPS) and Cal/OSHA. A Cal-OSHA registered, and State licensed, asbestos abatement contractor is required for removal of ACM prior to general demolition.

Where known or suspected asbestos contaminated spaces must be accessed and entered, the Contractor shall either abate the contamination throughout the space or employ a contractor assist type approach using asbestos qualified and protected trades personnel assisted by the contractor to access the area safely to perform the work and leave the contaminated area through a decontamination containment in a manner that does not allow the exposure to personnel or spread of contamination outside the contaminated work space.

The following additional requirements should be adhered to for any maintenance, renovation, or demolition projects requiring asbestos disturbance and/or removal:

- *All asbestos-containing wastes shall be manifested as either hazardous or non-hazardous based on asbestos content, friability, and actual waste stream classification.*
- *All asbestos removal should be overseen by a qualified independent third party, retained by the building owner or manager of the building to ensure proper removal, clean up, work area clearance, and review waste shipping and disposal documentation.*
- *Contractor should perform all work in compliance with contract documents and the most recent edition of all applicable Federal, State, and local regulations, standards, and codes governing abatement, transport, and disposal of asbestos.*

### 5.2 Lead Containing Paints and Coatings

The painted components tested at the subject buildings typically had detectable levels of lead and should be considered LCP coated. LBP was detected on several areas of the building. All paints and coatings should be considered LCP or coatings in the absence of exhaustive sampling and laboratory analysis. The disturbance of these components during demolition activities will require use of personnel trained in lead hazards for construction and will require compliance with applicable Cal/OSHA and Cal/EPA regulation.

At the present time, there is no state or federal regulation requiring mandatory lead removal or abatement prior to disturbance, demolition or renovation of structures with identified lead materials. However, prior to hot work on painted metal, the paint either needs to be removed or supplied air respirators worn during welding or cutting operation. In addition, there are applicable lead specific Cal/OSHA worker protection requirements and Cal/EPA waste disposal requirements that do apply to lead-related construction activities and associated wastes:

- ◆ **Cal/OSHA:** The Cal/OSHA regulation, Title 8, CCR, Section 1532.1 Lead governs occupation exposure to lead. This regulation requires that any task that may potentially expose workers to



any concentration of lead, be monitored to determine workers eight-hour time weighted average (TWA) exposure to lead. Prior to initiation of certain activities, referred to as “trigger tasks”, that are believed to have the capability of creating an excessive lead exposure, such workers must be properly fitted with respiratory protection and protective clothing until personal eight-hour TWA results reveal exposures within acceptable levels. Pertinent examples of trigger tasks are manual demolition, manual paint scraping and power tool removal, and hot work involving lead-containing coatings or materials. Cal/OSHA also has agency pre-start notification requirements and worker training and certification depending on exposure levels. Clearly these requirements will apply to demolition, patch and repair, paint removal, and surface preparation work at this site.

- ◆ **Cal/EPA:** Cal/EPA regulates disposal of lead hazardous waste (22 CCR Division 4.5, Environmental Health Standards for the Management of Hazardous Waste). The Cal/EPA Department of Toxic Substance Control (DTSC) has issued guidance indicating that architectural debris with intact lead paint is normally anticipated to be handled as general construction waste. Since detected LCP was generally in fair to good condition and most paint coatings tested had low to moderate lead content, it is unlikely that most of the demolition debris will be hazardous as a composite sample. However, all lead containing waste streams should be considered potentially lead hazardous pending waste testing. Further, all surface preparation and paint removal wastes must be considered hazardous wastes due to the likelihood of paint chip lead levels exceeding 1,000 total lead or 5 ppm soluble lead.

All construction activities impacting lead must be performed in compliance with the most recent edition of all applicable Federal, State, and local regulations, standards, and codes governing abatement, transport, and disposal of lead containing/contaminated materials. Selective and general demolition activities will involve disturbing lead and possibly creating lead hazardous wastes. These construction activities must be controlled to prevent uncontrolled release of lead contamination and for environmental protection.

The Contractor conducting building demolition controls the means and methods used and therefore should be required by the contract document to ensure that the demolition processes are conducted in a manner that creates the minimum amount of hazardous waste and leaves the site free of lead contamination exceeding regulatory levels.

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### 5.3 Universal Wastes and Other Hazardous Materials

**Universal Wastes:** All potential and identified mercury-containing light tubes should be removed and recycled or disposed of in accordance with the guidelines established by the California Department of Toxic Substance Control Universal Waste Rule, as state in 22 CCR Sections 66261.9 and 66273.1 thru 66273.90.

**PCB Lighting Ballasts/Transformers:** Group Delta’s limited visual inspection indicated that fluorescent light fixtures may contain PCB ballasts are present in the building. However, as it is not practically feasible to check each ballast for labeling prior to renovation, Group Delta recommends that all light fixtures be visually inspected by the Contractor upon removal to determine if they contain PCB’s. Electronic ballasts and ballasts marked “No PCB’s” or “PCB Free” should be considered non-hazardous and recycled or disposed of accordingly. However, ballasts and transformers that are unmarked must be considered PCB-containing and properly handled, collected, stored, transported, and recycled or disposed of by an

approved recycling or disposal facility in accordance with the requirements of 22 CCR, Section 67426.1 and the contract.

## 6.0 LIMITATIONS

Group Delta conducted this asbestos and lead survey in support of the upcoming demolition project. No excavation or subsurface investigation was conducted to discover buried insulated piping and/or asbestos cement pipes concealed below the surface.

## 7.0 CLOSING

Group Delta Consultants performed the hazardous materials survey services in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

Conclusions and recommendations made regarding hazardous materials were based upon information obtained from samples and tests collected at specific locations, review of information provided to us, and professional judgment. Recommendations in this report were made based on conditions that Group Delta reasonably infer to exist between sampling points.

This report is intended as an informational resource for Lionakis. Any contractor using this document assumes all responsibility for reviewing all available information and for verifying existing site conditions including location and extent of hazardous materials present at the Site.

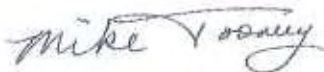
Should any significant discrepancy between this report and existing conditions be discovered, the contractor shall notify the project manager, contracting officer, or inspector immediately.

If you have any questions or concerns regarding this document, please do not hesitate to contact us.

## 8.0 SIGNATURES AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

---

Report prepared for  
Lionakis by:



Mike Toomey, CAC CDPH  
Sr. Field Technician  
Certified Asbestos Consultant #12-4909  
CDPH Lead Inspector/Assessor/PM #6062/6063

Report reviewed for  
Lionakis by:

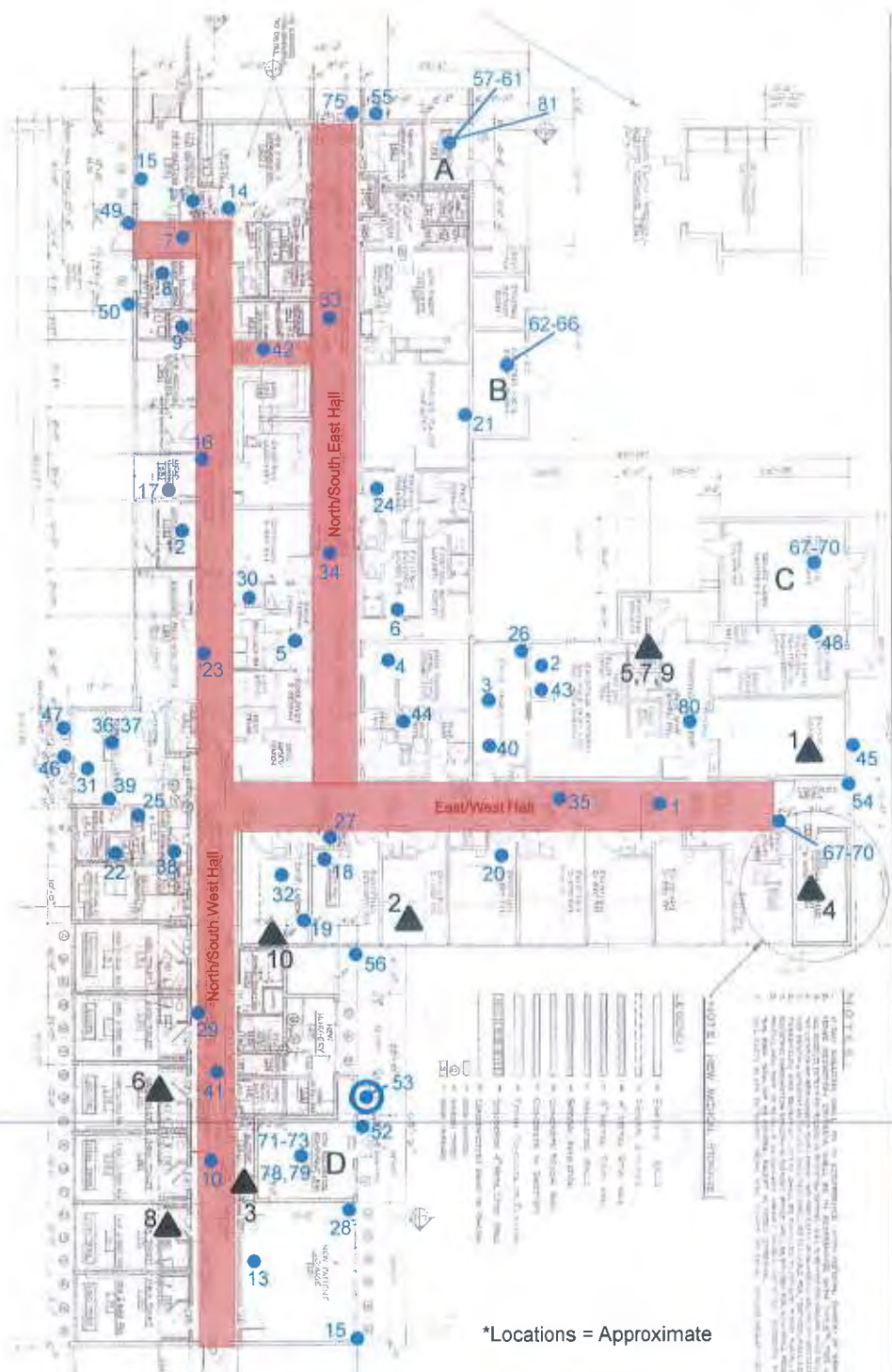


Kirk Hopka, CAC, CDPH  
Hazardous Materials Project Manager  
Certified Asbestos Consultant #96-2078  
CDPH Lead Inspector/Assessor #4526

*Figures*

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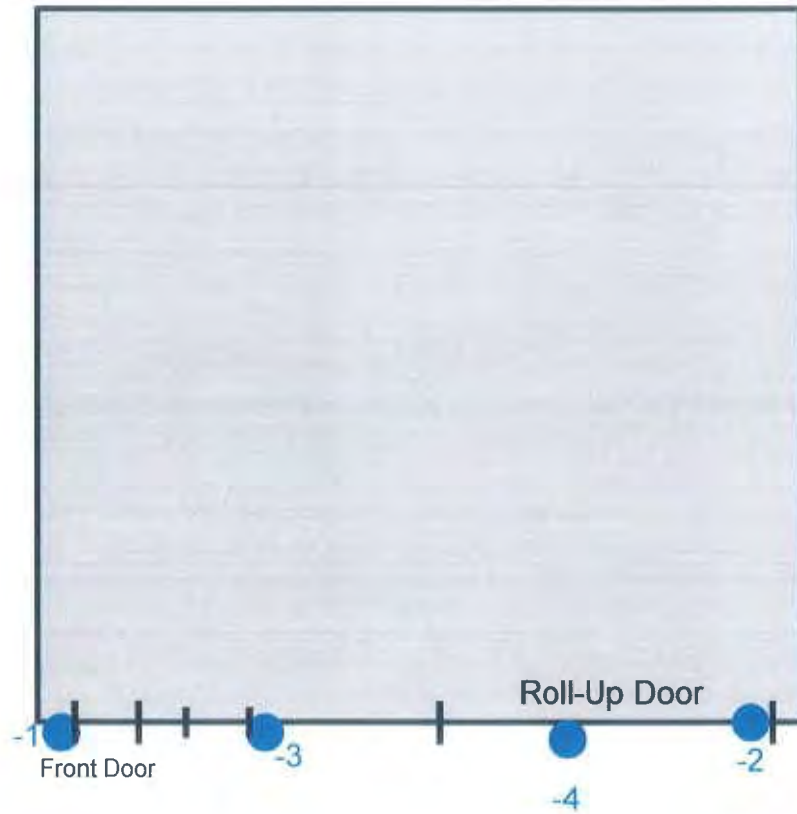


- = Bulk Sample
- ▲ = Bulk Roof Sample

Sampled 3/24-26/2021



GDC Project No. EN8119
<b>Asbestos Sample Location Map</b> <b>Mono County Old Hospital</b>



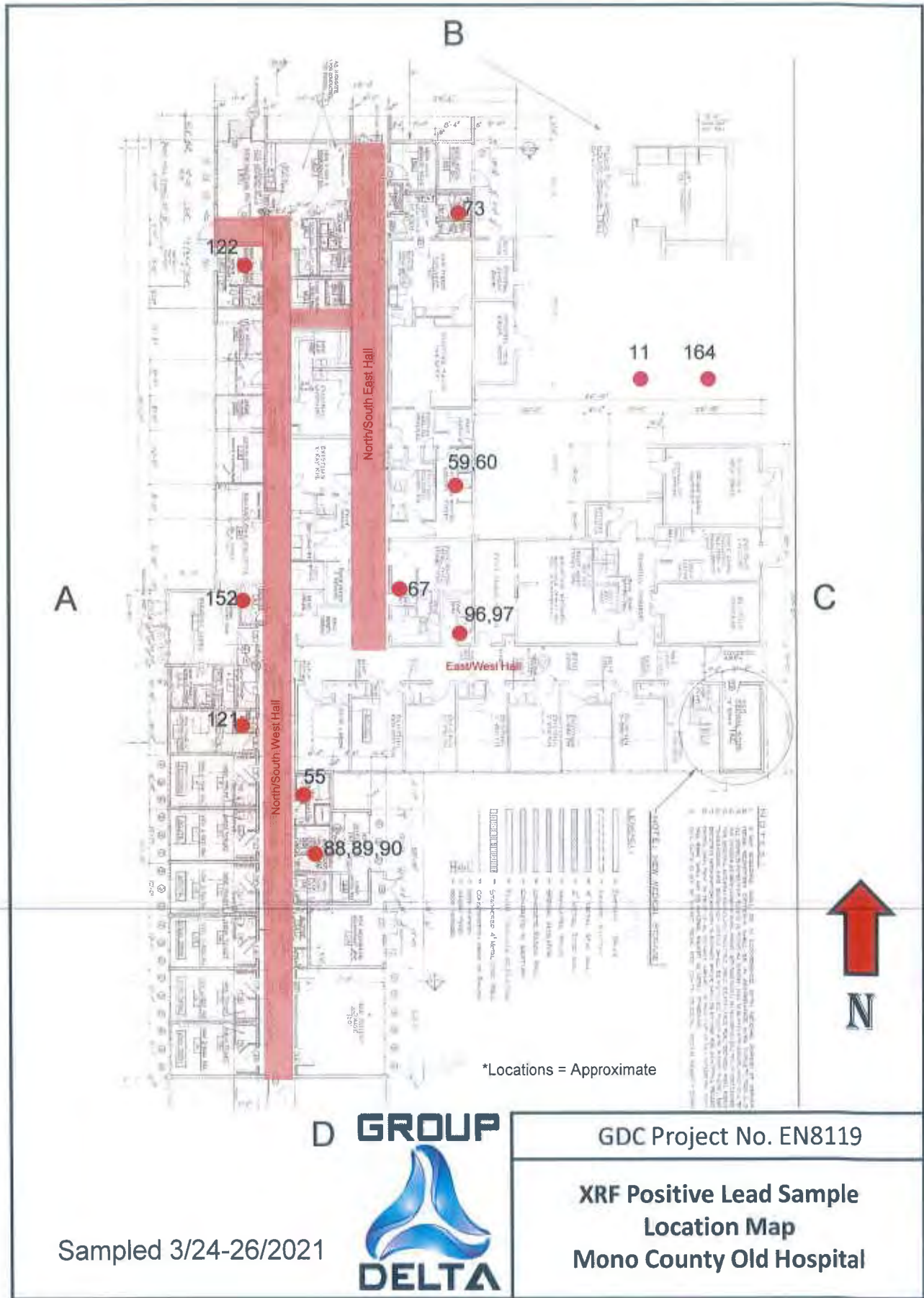
● Bulk Sample

Sampled 3/24-26/2021



GDC Project No. EN8119
<b>Asbestos Sample Location Map</b> Maintenance Building





Sampled 3/24-26/2021



GDC Project No. EN8119

**XRF Positive Lead Sample Location Map**

**Mono County Old Hospital**

*Attachments*

---





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Carson, California 90745

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**To:** Jerry Sherman  
Group Delta Consultants  
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**Email:** jerrys@groupdelta.com,miket@groupdelta.com,kirkh@groupdelta.com,chrisl@groupdelta.com

**From:** Johana Perez  
**AmeriSci Job #:** 921031750  
**Subject:** PLM 3 day Results  
**Client Project:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

**Date:** Friday, April 2, 2021

**Time:** 11:08:44

**Comments:**

**Number of Pages:** 5  
(including cover sheet)

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## PLM Bulk Asbestos Report

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

**Date Received** 03/29/21  
**Date Examined** 04/02/21

**AmeriSci Job #** 921031750  
**P.O. #**  
**Page** 1 of 3

**RE:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCHR-001	921031750-01	No	NAD
<b>Location:</b> Roof Core East / Built Up Roof Core / White / Yellow / Black			(by CVES) by Johana Perez on 04/02/21
<b>Analyst Description:</b> Yellow/Black/White, Heterogeneous, Non-Fibrous, Bulk Material			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Cellulose Trace, Non-fibrous 100 %			
MCHR-002	921031750-02	No	NAD
<b>Location:</b> Roof - South East / Built Up Roof Core / White / Yellow / Black			(by CVES) by Johana Perez on 04/02/21
<b>Analyst Description:</b> Yellow/Black/White, Heterogeneous, Non-Fibrous, Bulk Material			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Cellulose Trace, Non-fibrous 100 %			
MCHR-003	921031750-03	No	NAD
<b>Location:</b> Roof - South / Built Up Roof Core / White / Yellow / Black			(by CVES) by Johana Perez on 04/02/21
<b>Analyst Description:</b> Yellow/Black/White, Heterogeneous, Non-Fibrous, Bulk Material			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Cellulose Trace, Non-fibrous 100 %			
MCHR-004	921031750-04	No	NAD
<b>Location:</b> Roof - Below Core / Concrete / Gray			(by CVES) by Johana Perez on 04/02/21
<b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Cementitious, Concrete			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Non-fibrous 100 %			
MCHR-005	921031750-05	No	NAD
<b>Location:</b> HVAC Roof Unit / Vibration Dampner / Black			(by CVES) by Johana Perez on 04/02/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, HVAC			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Cellulose 3 %, Non-fibrous 97 %			

See Reporting notes on last page

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCHR-006	921031750-06	No	NAD
Location: Vent Base (Roof) / Vent Penetration Sealant / Gray			(by CVES) by Johana Perez on 04/02/21
Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCHR-007	921031750-07	No	NAD
Location: HVAC Roof Unit / HVAC Duct Tape / Wrap / White			(by CVES) by Johana Perez on 04/02/21
Analyst Description: White, Homogeneous, Non-Fibrous, HVAC			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
MCHR-008	921031750-08	No	NAD
Location: Roof @ Penetration / Mastic / Black / Yellow			(by CVES) by Johana Perez on 04/02/21
Analyst Description: Yellow/Black, Homogeneous, Non-Fibrous, Foam			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
Comment: No mastic detected.			
MCHR-009	921031750-09	No	NAD
Location: HVAC Roof Unit / HVAC Duct Tape / Wrap / White			(by CVES) by Johana Perez on 04/02/21
Analyst Description: White, Homogeneous, Non-Fibrous, HVAC			
Asbestos Types:			
Other Material: Cellulose 5 %, Non-fibrous 95 %			
MCHR-010	921031750-10	No	NAD
Location: Roof Core - S.E. Central Corner / Built-Up Roof Core / White / Yellow / Black			(by CVES) by Johana Perez on 04/02/21
Analyst Description: Yellow/Black/White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100 %			


Client Name: Group Delta Consultants

# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

---

## Reporting Notes:

Analyzed By: Johana Perez ; Date Analyzed: 4/2/2021 <sup>4.2.21</sup>  
\*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 



921031750



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24 ~ 3/26/2001

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC of CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCHR-001	ROOF CORE EAST	BUILT UP ROOF CORE	<del>WHITE</del> <del>YELLOW</del> BLACK	G	13000 1 SF	NF
MCHR-002	ROOF - SOUTH EAST	↓	↓	↓	↓	NF
MCHR-003	ROOF - SOUTH	↓	↓	↓	↓	NF
MCHR-004	ROOF - BELOW CORE	CONCRETE	GRAY	G	13,000 SF	NF
MCHR-005	HVAC ROOF UNIT	VIBRATION DAMPNER	BLACK	G		NF
MCHR-006	VENT BASE (ROOF)	VENT PENETRATION SEALANT	GRAY	G	10 SF/unit	NF
MCHR-007	HVAC ROOF UNIT	HVAC DUCT TAPE/WRAP	WHITE	G	40 SF/unit	NF
MCHR-008	ROOF @ PENETRATION	MASTIC?	<del>BLACK</del> <del>YELLOW</del>	G	4 SF/unit	NF
MCHR-009	HVAC ROOF UNIT	HVAC DUCT TAPE/WRAP	WHITE	G	40 SF/unit	NF
MCHR-010	ROOF CORE S.E. CENTRAL CORNER	BUILT-UP ROOF CORE	<del>WHITE</del> <del>YELLOW</del> BLACK	G	13000 1 SF	NF

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirrh@groupdelta.com](mailto:kirrh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

- MASLENDER CSST - 07-4204  
 Print/Signature Title
- Glenda L. [Signature]  
 Print/Signature Title
- \_\_\_\_\_  
 Print/Signature Title

Inclusive Dates  
3/29/21 e 9:00  
 Inclusive Dates  
 \_\_\_\_\_  
 Inclusive Dates

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Group Delta Consultants  
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**From:** Dennis Liu  
**AmeriSci Job #:** 921031751  
**Subject:** PLM 3 day Results  
**Client Project:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

**Date:** Monday, April 5, 2021

**Time:** 14:03:30

**Comments:**

**Number of Pages:** 14

(including cover sheet)

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**PLM Bulk Asbestos Report**

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

**Date Received** 03/29/21    **AmeriSci Job #** 921031751  
**Date Examined** 04/01/21    **P.O. #**  
**Page** 1 of 10  
**RE:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-001	921031751-01L1 Location: Floor East/West Hall / 9"x9" Vinyl Floor Tile/Mastic / Brown/Black	Yes	Trace (<1 %) (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> Chrysotile <1. % <b>Other Material:</b> Non-fibrous 100 %			
MCH-001	921031751-01L2 Location: Floor East/West Hall / 9"x9" Vinyl Floor Tile/Mastic / Brown/Black	Yes	5 % (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-002	921031751-02L1 Location: Floor - Kitchen / 9"x9" Vinyl Floor Tile/Mastic / Tan/Black	Yes	3 % (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> Chrysotile 3.0 % <b>Other Material:</b> Non-fibrous 97 %			
MCH-002	921031751-02L2 Location: Floor - Kitchen / 9"x9" Vinyl Floor Tile/Mastic / Tan/Black	Yes	5 % (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-003	921031751-03L1 Location: Floor - Locker Room / 9"x9" Vinyl Floor Tile/Mastic / Gray/Black	Yes	3 % (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> Chrysotile 3.0 % <b>Other Material:</b> Non-fibrous 97 %			

See Reporting notes on last page



## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-003	921031751-03L2	<b>Yes</b>	5 %
<b>Location:</b> Floro - Locker Room / 9"x9" Vinyl Floor Tile/Mastic / Gray/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-004	921031751-04L1	<b>Yes</b>	3 %
<b>Location:</b> Floor - Equipmt. Storage / 9"x9" Vinyl Floor Tile/Mastic / Lt. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> Chrysotile 3.0 % <b>Other Material:</b> Non-fibrous 97 %			
MCH-004	921031751-04L2	<b>Yes</b>	5 %
<b>Location:</b> Floor - Equipmt. Storage / 9"x9" Vinyl Floor Tile/Mastic / Lt. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-005	921031751-05L1	<b>Yes</b>	3 %
<b>Location:</b> Floor - Dressing Rm / 9"x9" Vinyl Floor Tile/Mastic / Dk. Gray/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Grey, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> Chrysotile 3.0 % <b>Other Material:</b> Non-fibrous 97 %			
MCH-005	921031751-05L2	<b>Yes</b>	5 %
<b>Location:</b> Floor - Dressing Rm / 9"x9" Vinyl Floor Tile/Mastic / Dk. Gray/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-006	921031751-06L1	<b>Yes</b>	3 %
<b>Location:</b> Floor - Drs. Work Room / 9"x9" Vinyl Floor Tile/Mastic / Green/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Green, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> Chrysotile 3.0 % <b>Other Material:</b> Non-fibrous 97 %			

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-006	921031751-06L2	Yes	5 %
<b>Location:</b> Floor - Drs. Work Room / 9"x9" Vinyl Floor Tile/Mastic / Green/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-007	921031751-07L1	No	NAD
<b>Location:</b> Floor - N.E. Corner - Hall / 12"x12" Vinyl Floor Tile Mastic / Tan/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Tan, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-007	921031751-07L2	Yes	5 %
<b>Location:</b> Floor - N.E. Corner - Hall / 12"x12" Vinyl Floor Tile Mastic / Tan/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-008	921031751-08L1	No	NAD
<b>Location:</b> Floor - Office / 12"x12" Vinyl Floor Tile Mastic / Lt. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-008	921031751-08L2	Yes	5 %
<b>Location:</b> Floor - Office / 12"x12" Vinyl Floor Tile Mastic / Lt. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-009	921031751-09L1	No	NAD
<b>Location:</b> Floor - Restroom / 12"x12" Vinyl Floor Tile Mastic / Brown/Black			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			

Client Name: Group Delta Consultants

**PLM Bulk Asbestos Report**EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-009	921031751-09L2	<b>Yes</b>	5 %
Location: Floor - Restroom / 12"x12" Vinyl Floor Tile Mastic / Brown/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Black, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types: Chrysotile 5.0 %			
Other Material: Non-fibrous 95 %			
MCH-010	921031751-10L1	<b>No</b>	NAD
Location: Floor - South End N.S. East Hall / 12"x12" Vinyl Floor Tile Mastic / Tan/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Vinyl Flooring			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-010	921031751-10L2	<b>Yes</b>	5 %
Location: Floor - South End N.S. East Hall / 12"x12" Vinyl Floor Tile Mastic / Tan/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types: Chrysotile 5.0 %			
Other Material: Non-fibrous 95 %			
MCH-011	921031751-11	<b>No</b>	NAD
Location: Below Carpet - Waiting Rm. / Carpet Mastic / Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-012	921031751-12	<b>Yes</b>	2 %
Location: Below Carpet - Admin Office / Carpet Mastic / Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Carpet Mastic			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			
MCH-013	921031751-13	<b>No</b>	NAD
Location: Below Carpet - Patient Lounge / Carpet Mastic / Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Carpet Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-014	921031751-14L1	No	NAD <sup>1</sup>
Location: Wall Base - X-Ray Office / 3" Base Board w/Mastic / Tan/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Baseboard			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-014	921031751-14L2	Yes	Trace (<1 %) <sup>1</sup>
Location: Wall Base - X-Ray Office / 3" Base Board w/Mastic / Tan/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown/Tan, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			
MCH-015	921031751-15L1	No	NAD
Location: Wall Base - North Waiting Rm. / 3" Base Board w/Mastic / Gray/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Grey, Homogeneous, Non-Fibrous, Baseboard			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-015	921031751-15L2	Yes	Trace (<1 %) <sup>1</sup>
Location: Wall Base - North Waiting Rm. / 3" Base Board w/Mastic / Gray/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			
MCH-015	921031751-15L3	No	NAD
Location: Wall Base - North Waiting Rm. / 3" Base Board w/Mastic / Gray/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Yellow, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-016	921031751-16L1	No	NAD
Location: Wall Base - N.S. West Hall / 3" Base Board w/Mastic / Off-White/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Beige, Homogeneous, Non-Fibrous, Baseboard			
Asbestos Types:			
Other Material: Non-fibrous 100 %			



## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-016	921031751-16L2	Yes	Trace (<1 %)
Location: Wall Base - N.S. West Hall / 3" Base Board w/Mastic / Off-White/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			
MCH-016	921031751-16L3	No	NAD
Location: Wall Base - N.S. West Hall / 3" Base Board w/Mastic / Off-White/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Yellow, Heterogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-017	921031751-17L1	No	NAD
Location: Wall Base - Head Nurse Office / 6' Base Board w/Mastic / Dk. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Baseboard			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-017	921031751-17L2	Yes	5 %
Location: Wall Base - Head Nurse Office / 6' Base Board w/Mastic / Dk. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types: Chrysotile 5.0 %			
Other Material: Non-fibrous 95 %			
MCH-018	921031751-18L1	No	NAD
Location: Wall Base - Labor Office / 3" Base Board w/Mastic / Marroon/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Maroon, Homogeneous, Non-Fibrous, Baseboard			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-018	921031751-18L2	No	NAD
Location: Wall Base - Labor Office / 3" Base Board w/Mastic / Marroon/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-019	921031751-19L1	No	NAD
Location: Wall Base - Recovery Office / 3" Base Board w/Mastic / Dk. Brown/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			
MCH-019	921031751-19L2	Yes	Trace (<1 %)
Location: Wall Base - Recovery Office / 3" Base Board w/Mastic / Dk. Brown/Brown			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile <1. % Other Material: Non-fibrous 100 %			
MCH-020	921031751-20L1	Yes	3 %
Location: Floor - CAO-Office / 9"x9" Vinyl Floor Tile/Mastic / Dk. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown, Heterogeneous, Non-Fibrous, Vinyl Flooring Asbestos Types: Chrysotile 3.0 % Other Material: Non-fibrous 97 %			
MCH-020	921031751-20L2	Yes	5 %
Location: Floor - CAO-Office / 9"x9" Vinyl Floor Tile/Mastic / Dk. Brown/Black			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 5.0 % Other Material: Non-fibrous 95 %			
MCH-021	921031751-21	No	NAD
Location: Wall Paper - Surgery Room / Wall Covering Material / Olive			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Green, Heterogeneous, Non-Fibrous, Wallpaper Asbestos Types: Other Material: Cellulose 40 %, Non-fibrous 60 %			
MCH-022	921031751-22	No	NAD
Location: Wall Restroom W. / Wall Covering Material / Yellow			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Yellow/White, Heterogeneous, Non-Fibrous, Wall Covering Asbestos Types: Other Material: Synthetic fibers 40 %, Non-fibrous 60 %			

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-023	921031751-23	No	NAD
Location: Wall - Hallways & Offices / Wall Covering Material / Off-White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Beige/White, Heterogeneous, Non-Fibrous, Wall Covering			
Asbestos Types:			
Other Material: Synthetic fibers 60 %, Non-fibrous 40 %			
MCH-024	921031751-24	No	NAD
Location: Floor - Surg. Rooms / Terrazzo Floor / Terrazzo			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Green, Heterogeneous, Non-Fibrous, Terrazzo			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-025	921031751-25.1	No	NAD
Location: Walls/Ceiling Throughout / Plaster Walls / Gray/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-025	921031751-25.2	No	NAD
Location: Walls/Ceiling Throughout / Plaster Walls / Gray/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-026	921031751-26.1	Yes	Trace (<1 %)
Location: Walls/Ceilings Throughout / Drywall/ Joint Compound Tape / White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types: Chrysotile <1. %			
Other Material: Non-fibrous 100 %			
MCH-026	921031751-26.2	No	NAD
Location: Walls/Ceilings Throughout / Drywall/ Joint Compound Tape / White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown/White, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 20 %, Non-fibrous 80 %			



## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-027	921031751-27.1	<b>Yes</b>	Trace (<1 %)
Location: Walls/Ceilings Throughout / Drywall/Joint Compound Tape / White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Beige, Homogeneous, Non-Fibrous, Joint Compound			
Asbestos Types: Chrysotile <1. %			
Other Material: Non-fibrous 100 %			
MCH-027	921031751-27.2	<b>No</b>	NAD
Location: Walls/Ceilings Throughout / Drywall/Joint Compound Tape / White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Brown/White, Heterogeneous, Fibrous, Drywall			
Asbestos Types:			
Other Material: Cellulose 20 %, Non-fibrous 80 %			
MCH-028	921031751-28.1	<b>No</b>	NAD
Location: Walls/Ceiling Throughout / Plaster/Skim Coat / Gray/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-028	921031751-28.2	<b>No</b>	NAD
Location: Walls/Ceiling Throughout / Plaster/Skim Coat / Gray/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-029	921031751-29.1	<b>No</b>	NAD
Location: Walls/Ceiling Throughout / Plaster/Skim Coat / Gray/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-029	921031751-29.2	<b>No</b>	NAD
Location: Walls/Ceiling Throughout / Plaster/Skim Coat / Gray/White			(by CVES) by Dennis Liu on 04/01/21
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-030	921031751-30.1	<b>Yes</b>	Trace (<1 %) (by CVES) by Dennis Liu on 04/01/21
<p><b>Location:</b> Walls/Ceiling Throughout /Drywall/Joint Compound Tape / White</p> <p><b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Joint Compound  <b>Asbestos Types:</b> Chrysotile &lt;1. %  <b>Other Material:</b> Non-fibrous 100 %</p>			
MCH-030	921031751-30.2	<b>No</b>	NAD (by CVES) by Dennis Liu on 04/01/21
<p><b>Location:</b> Walls/Ceiling Throughout /Drywall/Joint Compound Tape / White</p> <p><b>Analyst Description:</b> Brown/White, Heterogeneous, Fibrous, Drywall  <b>Asbestos Types:</b>  <b>Other Material:</b> Cellulose 20 %, Non-fibrous 80 %</p>			

**Reporting Notes:**

(1) Physically inseparable layers in sample. Sample composited for analysis.

Analyzed By: Dennis Liu  Date Analyzed: 4/1/2021 4-1-21

\*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 

921031751



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC of CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-001	FLOOR - EAST/WEST HALL	9" X 9" VINYL FLOOR TILE/MASTIC	<del>BROWN</del> BLACK	D	5000 SF+	NF
MCH-002	FLOOR - KITCHEN		TAN BLACK	G	*SEE #001	
MCH-003	FLOOR - LOCKER ROOM		GRAY BLACK		*SEE #001	
MCH-004	FLOOR - EQUIPMT. STORAGE		LT. BROWN BLACK			
MCH-005	FLOOR - DRESSING RM		DR. GRAY BLACK			
MCH-006	FLOOR - DRS. WORK ROOM		GREEN BLACK			
MCH-007	FLOOR - N.E. CORNER - HALL	12" X 12" VINYL FLOOR TILE/MASTIC	TAN BLACK	G	6,000 SF	NF
MCH-008	FLOOR - OFFICE		LT. BROWN BLACK		*SEE #007	
MCH-009	FLOOR - REST ROOM		BROWN BLACK			
MCH-010	FLOOR - SOUTH END N.S. EAST HALL		TAN BLACK			

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1. <u>Chris Lancaster</u> Print/Signature	<u>CSST-07-4204</u> Title	Inclusive Dates
2. <u>Calendac. YW</u> Print/Signature	_____ Title	<u>3/29/21 08:00</u> Inclusive Dates
3. _____ Print/Signature	_____ Title	_____ Inclusive Dates

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921031751



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)		
MCH-011	BELOW CARPET - WAITING RM.	CARPET MASTIC	BROWN	G	3000 SF	NF		
MCH-012	BELOW CARPET - ADMIN OFFICE	↓	↓	↓	*SEE # 011	↓		
MCH-013	BELOW CARPET - PATIENT LOUNGE				↓		↓	
MCH-014	WALL BASE - X-RAY OFFICE				3" BASE BOARD W/MASTIC		TAN / BROWN	G
MCH-015	WALL BASE - NORTH WAITING RM.	↓	↓	↓	*SEE # 014	↓		
MCH-016	WALL BASE - N.S. WEST HALL				GRAY / BROWN		OFF WHITE / BROWN	↓
MCH-017	WALL BASE - HEAD NURSE OFFICE				6" BASE BOARD W/MASTIC		DK. BROWN / BLACK	
MCH-018	WALL BASE - LABOR OFFICE	3" BASE BOARD W/MASTIC	NARROW WHITE	↓	*SEE # 14	↓		
MCH-019	WALL BASE - RECOVERY OFFICE				DK. BROWN		BROWN	
MCH-020	FLOOR - CAO-OFFICE	9" X 9" VINYL FLOOR TILE / MASTIC	DK. BROWN / BLACK	G	*SEE # 001	↓		

Analytical Method: PLM

Turnaround Time: Same Day - 24-hr - 3 Day - 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1. <u>[Signature]</u> Print/Signature	<u>CSST-07-4204</u> Title	<u>3/24/21 8:00</u> Inclusive Dates
2. <u>Alenda [Signature]</u> Print/Signature	_____ Title	_____ Inclusive Dates
3. _____ Print/Signature	_____ Title	_____ Inclusive Dates

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# Asbestos Bulk Sample Log

Client: LIONAKIS Date: 3/24 ~ 3/26/21  
 Location: Mono County Jail Hospital - Bridgeport, CA Project Number: EN8119  
 Collected By: CL/MT CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-021	WALL PAPER - SURGERY ROOM	WALL COVERING MATERIAL	OLIVE	G/D	60 SF	NF
MCH-022	WALL - REST ROOM W.		YELLOW	G	100 SF	
MCH-023	WALL - HALLWAYS & OFFICES		OFF-WHITE		8,000 SF	
MCH-024	FLOOR - SURG. ROOMS	TERRAZZO FLOOR	TERRAZZO	G	500 SF	NF
MCH-025	WALLS/CEILING THROUGHOUT	PLASTER/COAT WALLS/CEILING	GRAY WHITE	G	16,000 SF	NF
MCH-026		DRYWALL/JOINT COMPOUND/TAPE	WHITE		15,000 SF	
MCH-027					SEE # 026	
MCH-028	WALLS/CEILING THROUGHOUT	PLASTER/SKIM COAT	GRAY WHITE	G	SEE # 025	NF
MCH-029						
MCH-030		DRYWALL/JOINT COMPOUND/TAPE	WHITE		SEE # 026	

Analytical Method: PLM Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

- Print/Signature: [Signature] Title: CSST-07-4204  
 Inclusive Dates: \_\_\_\_\_
- Print/Signature: Glenda L. [Signature] Title: \_\_\_\_\_  
 Inclusive Dates: 3/29/21 to 8:00
- Print/Signature: \_\_\_\_\_ Title: \_\_\_\_\_  
 Inclusive Dates: \_\_\_\_\_

60226102





Please Reply To:

**AmeriSci Los Angeles**

24416 S. Main Street, Ste 308

Carson, California 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jerry Sherman  
Group Delta Consultants

**Fax #:**

**Email:** jerrys@groupdelta.com, miket@groupdelta.com, kirkh@groupdelta.com, chrisl@groupdelta.com

**From:** Dennis Liu  
**AmeriSci Job #:** 921031752

**Subject:** PLM 3 day Results

**Client Project:** EN8119; LIONAKIS; Mono  
County Jail Hospital - Bridgeport,  
CA

**Date:** Saturday, April 3, 2021

**Time:** 15:10:33

**Comments:**

**Number of Pages:** 1

(including cover sheet)

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## PLM Bulk Asbestos Report

Group Delta Consultants  
 Attn: Jerry Sherman  
 9245 Activity Road  
 Suite 103  
 San Diego, CA 92126

Date Received 03/29/21 AmeriSci Job # 921031752  
 Date Examined 04/01/21 P.O. #  
 Page 1 of 7  
 RE: EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
 CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-031	921031752-01L1	No	NAD
Location: Ceiling - Throughout 85% Of Bldg. / 12" x 12" Acoustic Ceiling Tile - Random P.H. With Mastic / Gray / White / Dk. Brown (by CVES) by Dennis Liu on 04/01/21 Analyst Description: Grey/White, Heterogeneous, Non-Fibrous, Ceiling Tile Asbestos Types: Other Material: Cellulose 40 %, Fibrous glass 10 %, Non-fibrous 50 %			
MCH-031	921031752-01L2	No	NAD
Location: Ceiling - Throughout 85% Of Bldg. / 12" x 12" Acoustic Ceiling Tile - Random P.H. With Mastic / Gray / White / Dk. Brown (by CVES) by Dennis Liu on 04/01/21 Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
MCH-032	921031752-02L1	No	NAD
Location: Ceiling - 5% Of Bldg. / 12" x 12" Acoustic Ceiling Tile - Random P.H. With Mastic / White / Brown. / Dk. Brown (by CVES) by Dennis Liu on 04/01/21 Analyst Description: Yellow/Beige, Heterogeneous, Fibrous, Ceiling Tile Asbestos Types: Other Material: Fibrous glass 70 %, Non-fibrous 30 %			
MCH-032	921031752-02L2	No	NAD
Location: Ceiling - 5% Of Bldg. / 12" x 12" Acoustic Ceiling Tile - Random P.H. With Mastic / White / Brown. / Dk. Brown (by CVES) by Dennis Liu on 04/01/21 Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
MCH-033	921031752-03	Yes	6 %
Location: Ceiling - N.S. East Hall / Sprayed-On Acoustic Ceiling Coating / White (by CVES) by Dennis Liu on 04/01/21 Analyst Description: White, Heterogeneous, Non-Fibrous, Spray-On Ceiling Asbestos Types: Chrysotile 6.0 % Other Material: Cellulose 30 %, Non-fibrous 64 %			

See Reporting notes on last page

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-034	921031752-04	Yes	6 %
<b>Location:</b> Ceiling - N.S. East Hall / Sprayed-On Acoustic Ceiling Coating / White			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Non-Fibrous, Spray-On Ceiling <b>Asbestos Types:</b> Chrysotile 6.0 % <b>Other Material:</b> Cellulose 30 %, Non-fibrous 64 %			
MCH-035	921031752-05	Yes	6 %
<b>Location:</b> Ceiling - East / West Hall / Sprayed-On Acoustic Ceiling Coating / White			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Non-Fibrous, Spray-On Ceiling <b>Asbestos Types:</b> Chrysotile 6.0 % <b>Other Material:</b> Cellulose 30 %, Non-fibrous 64 %			
MCH-036	921031752-06	No	NAD
<b>Location:</b> Above Ceiling - Front Lobby / Office / Thick Ceiling Insulation / Brown			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Insulation <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 60 %, Non-fibrous 40 %			
MCH-037	921031752-07L1	No	NAD
<b>Location:</b> Ceiling - Lobby Office / 12" x 12" Acoustic Ceiling Tile / Mastic Fissure / White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Tile <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 40 %, Fibrous glass 10 %, Non-fibrous 50 %			
MCH-037	921031752-07L2	No	NAD
<b>Location:</b> Ceiling - Lobby Office / 12" x 12" Acoustic Ceiling Tile / Mastic Fissure / White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Tan, Heterogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-038	921031752-08L1	No	NAD
<b>Location:</b> Ceiling - Office / 12" x 12" ACT Smooth P.H. / White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Material <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 40 %, Fibrous glass 10 %, Non-fibrous 50 %			

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-038	921031752-08L2	Yes	Trace (<1 %)
<b>Location:</b> Ceiling - Office / 12" x 12" ACT Smooth P.H. / White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Tremolite <1. % <b>Other Material:</b> Non-fibrous 100 %			
MCH-039	921031752-09	Yes	5 %
<b>Location:</b> Behind Wood Panel Wall - Lobby / Wood Panel Glue / Dk. Brown			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Glue <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Non-fibrous 95 %			
MCH-040	921031752-10L1	No	NAD
<b>Location:</b> Ceiling At Kitchen Entrance / 12" x 12" Acoustic Ceiling Panel / Mastic - Fissure / White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/03/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Panel <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 40 %, Fibrous glass 10 %, Non-fibrous 50 %			
MCH-040	921031752-10L2	Yes	Trace (<1 %)
<b>Location:</b> Ceiling At Kitchen Entrance / 12" x 12" Acoustic Ceiling Panel / Mastic - Fissure / White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/03/21
<b>Analyst Description:</b> Brown, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Tremolite <1. % <b>Other Material:</b> Non-fibrous 100 %			
MCH-041	921031752-11L1	No	NAD
<b>Location:</b> Ceiling - South Hallway - N.S.W. / 12" x 12" Acoustic Ceiling Tile / Mastic - Random P.H. White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/03/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Tile <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 40 %, Fibrous glass 10 %, Non-fibrous 50 %			
MCH-041	921031752-11L2	Yes	Trace (<1 %)
<b>Location:</b> Ceiling - South Hallway - N.S.W. / 12" x 12" Acoustic Ceiling Tile / Mastic - Random P.H. White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/03/21
<b>Analyst Description:</b> Brown, Homogeneous, Non-Fibrous, Mastic <b>Asbestos Types:</b> Tremolite <1. % <b>Other Material:</b> Non-fibrous 100 %			



**PLM Bulk Asbestos Report**EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-042	921031752-12L1	No	NAD
Location: Ceiling - Nurses Station/ 12" x 12" Acoustic Ceiling Tile / Mastic - Random P.H. White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Grey/White, Heterogeneous, Non-Fibrous, Ceiling Tile			
Asbestos Types:			
Other Material: Cellulose 40 %, Fibrous glass 10 %, Non-fibrous 50 %			
MCH-042	921031752-12L2	Yes	Trace (<1 %)
Location: Ceiling - Nurses Station/ 12" x 12" Acoustic Ceiling Tile / Mastic - Random P.H. White / Gray / Dk. Brown			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Brown, Homogeneous, Non-Fibrous, Mastic			
Asbestos Types: Tremolite <1. %			
Other Material: Non-fibrous 100 %			
MCH-043	921031752-13	Yes	25 %
Location: Ceiling Soffit Above Kitchen Sink / Transite (2' x 2') Panels / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Grey/White, Heterogeneous, Non-Fibrous, Transite			
Asbestos Types: Chrysotile 25.0 %			
Other Material: Cellulose 20 %, Non-fibrous 55 %			
MCH-044	921031752-14	Yes	5 %
Location: Heater Tank At Sterile Room / Thermal System Insulation - Pipe Run / White			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: White, Heterogeneous, Fibrous, Insulation			
Asbestos Types: Amosite 5.0 %			
Other Material: Cellulose 30 %, Non-fibrous 65 %			
MCH-045	921031752-15	Yes	2 %
Location: Ext. Windows - East End / Ext. Window Putty / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Window Putty			
Asbestos Types: Chrysotile 2.0 %			
Other Material: Non-fibrous 98 %			
MCH-046	921031752-16	No	NAD
Location: Ext. Windows Main Entrance / Window Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-047	921031752-17	No	NAD
Location: Ext. Door Main Entrance / Door Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-048	921031752-18	No	NAD
Location: Laundry Room Dryer At Wall / Duct Tape / White			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: White, Heterogeneous, Non-Fibrous, Duct Wrap			
Asbestos Types:			
Other Material: Synthetic fibers 60 %, Non-fibrous 40 %			
MCH-049	921031752-19	No	NAD
Location: Ext. Door N.W. Entrance / Door Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: White, Heterogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-050	921031752-20	No	NAD
Location: Ext. Windows N.W. Corner / Window Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Beige/Grey, Heterogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-051	921031752-21	No	NAD
Location: Ext. Windows S.E. Corner / Window Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Grey/White, Heterogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
MCH-052	921031752-22	No	NAD
Location: Ext. Door Mech. Rm. 'D' / Door Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/03/21
Analyst Description: Brown/White, Heterogeneous, Non-Fibrous, Sealant			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-053	921031752-23	Yes	3 %
<b>Location:</b> On Ground - Separated At Mech. Rm. 'D' / Fire Block Door Insulation / Tan			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Tan, Heterogeneous, Non-Fibrous, Insulation <b>Asbestos Types:</b> Chrysotile 3.0 % <b>Other Material:</b> Non-fibrous 97 %			
MCH-054	921031752-24	No	NAD
<b>Location:</b> Floor - East / West Entrance / Concrete / Gray			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Beige/Grey, Heterogeneous, Non-Fibrous, Cementitious, Concrete <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-055	921031752-25L1	No	NAD
<b>Location:</b> Ext. Walls Throughout / Brick / Mortar / Red / Gray			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Red, Heterogeneous, Non-Fibrous, Brick <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-055	921031752-25L2	No	NAD
<b>Location:</b> Ext. Walls Throughout / Brick / Mortar / Red / Gray			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Grey, Heterogeneous, Non-Fibrous, Mortar <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-056	921031752-26	No	NAD
<b>Location:</b> Ext. Windows South East Hall / Ext. Window Frame Sealant / Gray			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Sealant <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-057	921031752-27	No	NAD
<b>Location:</b> HVAC Unit At Mech. Rm. 'A' / Duct / Wall HVAC Tape / White			(by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Beige, Heterogeneous, Non-Fibrous, Duct Insulation <b>Asbestos Types:</b> <b>Other Material:</b> Synthetic fibers 40 %, Non-fibrous 60 %			




# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-058	921031752-28 Location: Pipes At Mech. Rm. 'A' / TSI Elbow's (3") / White	No	NAD (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Non-Fibrous, TSI <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
MCH-059	921031752-29 Location: Pipes At Mech. Rm. 'A' / 6" TSI Elbow / Gray	Yes	20 % (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Grey, Heterogeneous, Non-Fibrous, TSI <b>Asbestos Types:</b> Chrysotile 20.0 % <b>Other Material:</b> Cellulose 30 %, Non-fibrous 50 %			
MCH-060	921031752-30 Location: Pipes At Mech. Rm. 'A' / Soft Runs Wrap / FG / White / Yellow	No	NAD (by CVES) by Dennis Liu on 04/01/21
<b>Analyst Description:</b> Yellow/White, Heterogeneous, Non-Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Fibrous glass 60 %, Synthetic fibers 30 %, Non-fibrous 10 %			

**Reporting Notes:**

Analyzed By: Dennis Liu ; Date Analyzed: 4/1/2021 4-5-21  
 \*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 

021031752



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date 3/24 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number EN8119

Collected By: CI/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-031	CEILING - THROUGHOUT 80% OF BLDG.	12"X12" ACOUSTIC	GRAY/WHITE	G	11,000 SF	NF
MCH-032	CEILING - 5% OF BLDG.	CEILING TILE - RANDOM P.H. WITH MASTIC	DK. BROWN WHITE/BROWN	↓	700 SF	↓
MCH-033	CEILING - N.S. EAST HALL	SPRAYED-ON ACOUSTIC CEILING COATING	WHITE	G	2,200	F
MCH-034	↓	↓	↓	↓	↓	↓
MCH-035	CEILING - EAST/WEST HALL	↓	↓	↓	↓	↓
MCH-036	ABOVE CEILING FRONT LOBBY/OFFICE	THICK CEILING INSULATION	BROWN	G	350 SF	NF
MCH-037	CEILING - LOBBY OFFICE	12"X12" ACOUSTIC CEILING TILE / MASTIC	WHITE GRAY/WHITE	G	20 SF	NF
MCH-038	CEILING - OFFICE	12"X12" ACOUSTIC CEILING TILE / MASTIC	WHITE GRAY/WHITE	G	2,000 SF	NF
MCH-039	BEHIND WOOD PANEL WALL - LOBBY	WOOD PANEL GLUE	DK. BROWN	G	500 SF	NF
MCH-040	CEILING AT KITCHEN ENTRANCE	12"X12" ACOUSTIC CEILING PANEL / MASTIC - FIBRE	WHITE GRAY DK. BROWN	G	25 SF	NF

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

- [Signature]  
Print/Signature
- CI/MT  
Print/Signature
- \_\_\_\_\_  
Print/Signature

CSST-07-4204  
Title  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Title

Inclusive Dates  
3/29/21 - 3/30/21  
Inclusive Dates  
\_\_\_\_\_  
Inclusive Dates

GAD



021031752



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24/2021 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-041	CEILING - SOUTH HALLWAY - N.S.W.	12"X12" Acoustic Ceiling Tiles/Mastic - Random - Pkt.	White/Gray	G	*SEE #031	NF
MCH-042	CEILING - NURSES STATION	↓	DK. Brown	↓	↓	↓
MCH-043	CEILING SOFFIT ABOVE KITCHEN SINK	TRANSITE (2X2) PANELS	GRAY	G	48 SF	NF
MCH-044	HEATER TANK AT STERIL ROOM	THERMAL SYSTEM INSULATION - PIPE	WHITE	G	6 LF	NF
MCH-045	EXT. WINDOWS - EAST END	EXT. WINDOW PUTTY	GRAY	G	6 LF	NF
MCH-046	EXT. WINDOWS MAIN ENTRANCE	WINDOW FRAME SEALANT	GRAY	G	1200 LF	NF
MCH-047	EXT. DOOR MAIN ENTRANCE	DOOR FRAME SEALANT	GRAY	G	200 LF	NF
MCH-048	LAUNDRY ROOM DRYER AT WALL	DUCT TAPE	WHITE	G	10 SF	NF
MCH-049	EXT. DOOR N.W. ENTRANCE	DOOR FRAME SEALANT	GRAY	G	*SEE #047	NF
MCH-050	EXT. WINDOWS N.W. CORNER	WINDOW FRAME SEALANT	↓	↓	*SEE #046	NF

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

### CHAIN OF CUSTODY:

- [Signature]  
Print/Signature

CL/MT - 07-4204  
Title
- Glenda L. [Signature]  
Print/Signature

\_\_\_\_\_  
Title
- \_\_\_\_\_  
Print/Signature

\_\_\_\_\_  
Title

Inclusive Dates  
3/29/21  
Inclusive Dates  
\_\_\_\_\_  
Inclusive Dates

GD3

021031752



# Asbestos Bulk Sample Log

Client: LIONAKIS Date: 3/24/2021 - 3/26/2021  
 Location: Mono County Jail Hospital - Bridgeport, CA Project Number: EN8119  
 Collected By: CL/MT CAC of CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-051	EXT. WINDOWS S.E. CORNER	WINDOW FRAME SEALANT	GRAY	G	# SEE #046	NF
MCH-052	EXT. DOOR MECH. RM. 'D'	DOOR FRAME SEALANT	GRAY	G	# SEE #047	NF
MCH-053	ON GROUND - SEPARATED AT MECH. RM. 'D'	FIRE BLOCK DOOR INSULATION	TAN	G/D	4 SF	F
MCH-054	FLOOR - EAST/WEST ENTRANCE	CONCRETE	GRAY	G	13,000 SF	NF
MCH-055	EXT. WALLS THROUGHOUT	BRICK/MORTAR	RED/GRAY	G	6,000 SF	NF
MCH-056	EXT. WINDOWS SOUTH EAST HALL	EXT. WINDOW FRAME SEALANT	GRAY	G	# SEE #046	NF
MCH-057	HVAC UNIT AT MECH. RM. 'A'	DUCT/WALL HVAC TAPE	WHITE	G	150 SF	NF
MCH-058	PIPES AT MECH. RM. 'A'	T.S.F. ELBOWS (3")	WHITE	G	100 EA	F
MCH-059	↓	6" T.S.F. ELBOW	GRAY	G	75 EA.	F
MCH-060	↓	SOFTRYNS WRAP/FG	WHITE/YELLOW	G	1,000 LF	NF

Analytical Method: PLM Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1. [Signature] Title: CSST-074204  
 2. [Signature] Title: \_\_\_\_\_ Inclusive Dates: 3/24/21 - 8:00  
 3. \_\_\_\_\_ Title: \_\_\_\_\_ Inclusive Dates: \_\_\_\_\_

GUD3





Please Reply To:

**AmeriSci Los Angeles**

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Carson, California 90745  
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**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jerry Sherman  
Group Delta Consultants  
**Fax #:**  
**Email:** jerrys@groupdelta.com, miket@groupdelta.com, kirkh@groupdelta.com, chrisl@groupdelta.com

**From:** Thu M. Nguyen  
**AmeriSci Job #:** 921031753  
**Subject:** PLM 3 day Results  
**Client Project:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

**Date:** Thursday, April 1, 2021  
**Time:** 23:06:52  
**Comments:**

**Number of Pages:** 10  
(including cover sheet)

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# PLM Bulk Asbestos Report

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

Date Received 03/29/21  
Date Examined 04/01/21

AmeriSci Job # 921031753

P.O. #

Page 1 of 7

RE: EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-061 <b>Location:</b> Pipe System Mech. Rm. A / 'Soft' Pipe Run Wrap / Fiberglass / White / Orange <b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %	921031753-01L1	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
MCH-061 <b>Location:</b> Pipe System Mech. Rm. A / 'Soft' Pipe Run Wrap / Fiberglass / White / Orange <b>Analyst Description:</b> Yellow, Heterogeneous, Fibrous, Fibrous Glass <b>Asbestos Types:</b> <b>Other Material:</b> Fibrous glass 98 %, Non-fibrous 2 %	921031753-01L2	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
MCH-062 <b>Location:</b> HVAC Units Mech. Room 'B' / Duct Tape Wrap / 2 Layers / White / Gray <b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %	921031753-02L1	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
MCH-062 <b>Location:</b> HVAC Units Mech. Room 'B' / Duct Tape Wrap / 2 Layers / White / Gray <b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Duct Tape <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 25 %, Non-fibrous 75 %	921031753-02L2	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
MCH-063 <b>Location:</b> Pipe System Mech. Rm. 'B' / 'Soft' Pipe Run Wrap / Fiberglass / White / Yellow <b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %	921031753-03L1	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21

See Reporting notes on last page



# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-063	921031753-03L2	No	NAD
Location: Pipe System Mech. Rm. 'B' / 'Soft' Pipe Run Wrap / Fiberglass / White / Yellow			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: Yellow, Heterogeneous, Fibrous, Fibrous Glass Asbestos Types: Other Material: Fibrous glass 98 %, Non-fibrous 2 %			
MCH-064	921031753-04	No	NAD
Location: Pipe System Mech. Rm. 'B' / 3" TSI Elbows / White			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: White, Heterogeneous, Fibrous, TSI Asbestos Types: Other Material: Cellulose 30 %, Non-fibrous 70 %			
MCH-065	921031753-05L1	Yes	25 %
Location: Pipe System Mech. Rm. 'B' / 6" TSI Elbows / White / Gray			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: Grey, Heterogeneous, Fibrous, TSI Asbestos Types: Chrysotile 25.0 % Other Material: Non-fibrous 75 %			
MCH-065	921031753-05L2	No	NAD
Location: Pipe System Mech. Rm. 'B' / 6" TSI Elbows / White / Gray			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: White, Heterogeneous, Fibrous, Wrap Asbestos Types: Other Material: Cellulose 85 %, Non-fibrous 15 %			
MCH-066	921031753-06	Yes	5 %
Location: HVAC Units Mech. B / HVAC Unit Duct Gasket / Black			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: Black, Heterogeneous, Fibrous, Gasket Asbestos Types: Chrysotile 5.0 % Other Material: Non-fibrous 95 %			
MCH-067	921031753-07L1	Yes	25 %
Location: Mech. Rm. 'C' Boiler Tank / Boiler Tank Insulation / White			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: White, Heterogeneous, Fibrous, Insulation Asbestos Types: Chrysotile 5.0 %, Amosite 20.0 % Other Material: Non-fibrous 75 %			

**PLM Bulk Asbestos Report**EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-067	921031753-07L2 Location: Mech. Rm. 'C' Boiler Tank / Boiler Tank Insulation / White	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			
MCH-068	921031753-08L1 Location: Pipe System Mech. Rm. 'C' / 'Soft' Pipe Run Wrap / Fiberglass / White / Orange	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> Yellow, Heterogeneous, Fibrous, Fibrous Glass <b>Asbestos Types:</b> <b>Other Material:</b> Fibrous glass 98 %, Non-fibrous 2 %			
MCH-068	921031753-08L2 Location: Pipe System Mech. Rm. 'C' / 'Soft' Pipe Run Wrap / Fiberglass / White / Orange	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			
MCH-069	921031753-09L1 Location: Pipe System Mech. Rm. 'C' / 3" TSI Elbow / Gray	Yes	5 % (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> Grey, Heterogeneous, Fibrous, TSI <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Mineral Wool 40 %, Non-fibrous 55 %			
MCH-069	921031753-09L2 Location: Pipe System Mech. Rm. 'C' / 3" TSI Elbow / Gray	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			
MCH-070	921031753-10L1 Location: Pipe System Mech. Rm. 'C' / 6" TSI Elbow / Gray	Yes	5 % (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> Grey, Heterogeneous, Fibrous, TSI <b>Asbestos Types:</b> Chrysotile 5.0 % <b>Other Material:</b> Mineral Wool 40 %, Non-fibrous 55 %			

**PLM Bulk Asbestos Report**EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-070	921031753-10L2 Location: Pipe System Mech. Rm. 'C' / 6" TSI Elbow / Gray	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			
MCH-071	921031753-11L1 Location: Pipe System Mech. Rm. 'D' / 6" TSI Elbow / White	Yes	2 % (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, TSI <b>Asbestos Types:</b> Chrysotile 2.0 % <b>Other Material:</b> Mineral Wool 30 %, Non-fibrous 68 %			
MCH-071	921031753-11L2 Location: Pipe System Mech. Rm. 'D' / 6" TSI Elbow / White	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			
MCH-072	921031753-12 Location: Pipe System Mech. Rm. 'D' / 3" TSI Elbow / White	Yes	10 % (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, TSI <b>Asbestos Types:</b> Chrysotile 5.0 %, Amosite 5.0 % <b>Other Material:</b> Non-fibrous 90 %			
MCH-073	921031753-13L1 Location: Pipe System Mech. Rm. 'D' / 'Soft' Pipe Run Wrap / Fiberglass / White / Pink	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> Yellow, Heterogeneous, Fibrous, Fibrous Glass <b>Asbestos Types:</b> <b>Other Material:</b> Fibrous glass 98 %, Non-fibrous 2 %			
MCH-073	921031753-13L2 Location: Pipe System Mech. Rm. 'D' / 'Soft' Pipe Run Wrap / Fiberglass / White / Pink	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Analyst Description:</b> White, Heterogeneous, Fibrous, Wrap <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			

See Reporting notes on last page



**PLM Bulk Asbestos Report**EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-074	921031753-14L1	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Location:</b> Ext. East / West Hall Entrance / 2-Layer Vapor Barrier / Black / Brown			
<b>Analyst Description:</b> Black, Heterogeneous, Fibrous, Vapor Barrier			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Cellulose 80 %, Non-fibrous 20 %			
MCH-074	921031753-14L2	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Location:</b> Ext. East / West Hall Entrance / 2-Layer Vapor Barrier / Black / Brown			
<b>Analyst Description:</b> Brown, Heterogeneous, Fibrous, Vapor Barrier			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Cellulose 90 %, Non-fibrous 10 %			
MCH-075	921031753-15.1	Yes	Trace (<1 %) (by CVES) by Thu M. Nguyen on 04/01/21
<b>Location:</b> Ext. East / West Hall Entrance / Ext. Stucco Plaster / Text. Coat / White / Gray			
<b>Analyst Description:</b> Tan/White, Heterogeneous, Fibrous, Texture Coat			
<b>Asbestos Types:</b> Chrysotile <1. %			
<b>Other Material:</b> Non-fibrous 100 %			
MCH-075	921031753-15.2	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Location:</b> Ext. East / West Hall Entrance / Ext. Stucco Plaster / Text. Coat / White / Gray			
<b>Analyst Description:</b> Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Non-fibrous 100 %			
MCH-076	921031753-16.1	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Location:</b> Int. Wall - East / West Hall Ent. / Int. Stucco Plaster / White / Gray			
<b>Analyst Description:</b> Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Non-fibrous 100 %			
MCH-076	921031753-16.2	No	NAD (by CVES) by Thu M. Nguyen on 04/01/21
<b>Location:</b> Int. Wall - East / West Hall Ent. / Int. Stucco Plaster / White / Gray			
<b>Analyst Description:</b> White, Heterogeneous, Non-Fibrous, Plaster			
<b>Asbestos Types:</b>			
<b>Other Material:</b> Non-fibrous 100 %			

# PLM Bulk Asbestos Report

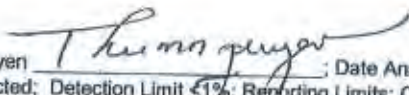
EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-077	921031753-17.1	No	NAD
Location: Ext. Wall At North Entrance / Ext. Stucco / Plaster / Text. Coat / White / Gray			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: Grey, Heterogeneous, Non-Fibrous, Cementitious, Stucco Asbestos Types: Other Material: Non-fibrous 100 %			
MCH-077	921031753-17.2	No	NAD
Location: Ext. Wall At North Entrance / Ext. Stucco / Plaster / Text. Coat / White / Gray			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: Beige/White, Heterogeneous, Non-Fibrous, Plaster Asbestos Types: Other Material: Non-fibrous 100 %			
MCH-078	921031753-18	No	NAD
Location: HVAC Units - Mech. Rm. 'D' / Duct Tape Wrap / White			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: White, Heterogeneous, Non-Fibrous, Cementitious, Wrap Asbestos Types: Other Material: Cellulose 85 %, Non-fibrous 15 %			
MCH-079	921031753-19	Yes	5 %
Location: HVAC Units - Mech. Rm. 'D' / HVAC Unit Duct Gasket Material / Black / Silver			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: Black, Homogeneous, Fibrous, Gasket Asbestos Types: Chrysotile 5.0 % Other Material: Non-fibrous 95 %			
MCH-080	921031753-20L1	Yes	25 %
Location: Pipe System - Kitchen / 4" TSI Pipe Run / Wrap / White / Gray			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: White, Heterogeneous, Fibrous, TSI Asbestos Types: Amosite 25.0 % Other Material: Non-fibrous 75 %			
MCH-080	921031753-20L2	No	NAD
Location: Pipe System - Kitchen / 4" TSI Pipe Run / Wrap / White / Gray			(by CVES) by Thu M. Nguyen on 04/01/21
Analyst Description: White, Heterogeneous, Fibrous, Wrap Asbestos Types: Other Material: Cellulose 85 %, Non-fibrous 15 %			

# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

**Reporting Notes:**

Analyzed By: Thu M. Nguyen ; Date Analyzed: 4/1/2021 4-1-21  
 \*NAD = no asbestos detected; Detection Limit 1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 



02031753



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24-3/26/2001

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SO)	Quantity (SF/LF)	Friability (F/NF)
MCH-061	PIPE SYSTEM MECH. RM. 'A'	'SOFT' PIPE RUN WRAP / FIBERGLASS	WHITE / ORANGE	G	2000 LF	NF
MCH-062	HVAC UNITS MECH. ROOM 'B'	DUCT TAPE WRAP	2 LAYERS WHITE/GRAY	G	50 LF P/UNIT	NF
MCH-063	PIPE SYSTEM MECH. RM. 'B'	'SOFT' PIPE RUN WRAP / FIBERGLASS	WHITE / YELLOW	G	*SEE #061	NF
MCH-064	↓	3" T.S.I. ELBOWS	WHITE	G	*SEE #058	F
MCH-065	↓	6" T.S.I. ELBOWS	WHITE-GRAY	G	*SEE #059	F
MCH-066	HVAC UNITS MECH. RM. 'B'	HVAC UNIT DUCT GASKET	BLACK	G	40 SF P/UNIT	NF
MCH-067	MECH. RM. 'C' BOILER TANK	BOILER TANK INSULATION	WHITE	G	80 SF	F
MCH-068	PIPE SYSTEM MECH. RM. 'C'	'SOFT' PIPE RUN WRAP / FIBERGLASS	WHITE / ORANGE	G	*SEE #061	NF
MCH-069	↓	3" T.S.I. ELBOW	GRAY	G	*SEE #058	F
MCH-070	↓	6" T.S.I. ELBOW	GRAY	G	*SEE #059	F

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

- CHRIS L...

Print/Signature: \_\_\_\_\_ Title: OST - 07/14/01
- Glenda L...

Print/Signature: \_\_\_\_\_ Title: \_\_\_\_\_
- \_\_\_\_\_

Print/Signature: \_\_\_\_\_ Title: \_\_\_\_\_

Inclusive Dates: 3/29/21e800  
 Inclusive Dates: \_\_\_\_\_  
 Inclusive Dates: \_\_\_\_\_

GDA

021031753



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SB)	Quantity (SF/LF)	Friability (F/NF)
MCH-071	PIPE SYSTEM MECH. RM. 'D'	6" T.S.I. ELBOW	WHITE	G	*SEE #059	F
MCH-072	↓	3" T.S.I. ELBOW	WHITE	G	*SEE #058	F
MCH-073	↓	'SOFT' PIPE RUN WRAP/FIBERGLASS	WHITE PINK	G	*SEE #061	NF
MCH-074	EXT. EAST/WEST MAIL ENTRANCE	2-LAYER VAPOR BARRIER	BLACK BROWN	G	10000 SF	NF
MCH-075	↓	EXT. STUCCO/PLASTER/TEXT. COAT	WHITE GRAY	G	200 SF	NF
MCH-076	INT. WALL - EAST/WEST MAIL EXT.	INT. STUCCO PLASTER	↓	↓	↓	NF
MCH-077	EXT. WALL AT NORTH ENTRANCE	EXT. STUCCO/PLASTER/TEXT. COAT	↓	G	200 SF	NF
MCH-078	HVAC UNITS - MECH. RM. 'D'	DUCT TAPE WRAP	WHITE	G	50 LF / UNIT	NF
MCH-079	↓	HVAC UNIT DUCT GASKET MATERIAL	BLACK SILVER	G	40 SF	NF
MCH-080	PIPE SYSTEM - KITCHEN	4" T.S.I. PIPE RUN/WRAP	WHITE GRAY	G	25 LF	F

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

- [Signature]  
Print/Signature
- Gloria L. [Signature]  
Print/Signature
- \_\_\_\_\_  
Print/Signature

CSST-07-4204  
Title  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Title

Inclusive Dates  
3/24/21 - 3/26/21  
Inclusive Dates  
\_\_\_\_\_  
Inclusive Dates





Please Reply To:

**AmeriSci Los Angeles**

24416 S. Main Street, Ste 308  
Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jerry Sherman  
Group Delta Consultants

**Fax #:**

**Email:** jerrys@groupdelta.com, miket@groupdelta.com, kirkh@groupdelta.com, chrisl@groupdelta.com

**From:** Madeline Cumad  
**AmeriSci Job #:** 921031761  
**Subject:** PLM 3 day Results  
**Client Project:** EN8119; LIONAKIS; Mono  
County Jail Hospital - Bridgeport,  
CA

**Date:** Thursday, April 1, 2021  
**Time:** 07:08:01  
**Comments:**

**Number of Pages:** 4  
(including cover sheet)

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TEL: (310) 834-4868 • FAX: (310) 834-4772

### PLM Bulk Asbestos Report

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

Date Received 03/29/21      AmeriSci Job # 921031761  
Date Examined 04/01/21      P.O. #  
Page 1 of 2  
RE: EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCHMB-01 <i>Location: Maint. Bldg. Wall Base / Wall Base Sealant / Gray</i>	921031761-01	Yes	Trace (<1 %) (by CVES) by Madeline Cumad on 04/01/21
<i>Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant</i>			
<i>Asbestos Types: Chrysotile &lt;1. %</i>			
<i>Other Material: Non-fibrous 100 %</i>			
MCHMB-02 <i>Location: Maint. Bldg. R.U Door Frame / Door Frame Sealant / Gray</i>	921031761-02	Yes	Trace (<1 %) (by CVES) by Madeline Cumad on 04/01/21
<i>Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant</i>			
<i>Asbestos Types: Chrysotile &lt;1. %</i>			
<i>Other Material: Non-fibrous 100 %</i>			
MCHMB-03 <i>Location: Maint. Bldg. Windows / Window Frame Sealant / Gray</i>	921031761-03	Yes	Trace (<1 %) (by CVES) by Madeline Cumad on 04/01/21
<i>Analyst Description: Grey, Homogeneous, Non-Fibrous, Sealant</i>			
<i>Asbestos Types: Chrysotile &lt;1. %</i>			
<i>Other Material: Non-fibrous 100 %</i>			
MCHMB-04 <i>Location: Floor Maint. Bldg. Base Slab / Concrete / Gray</i>	921031761-04	No	NAD (by CVES) by Madeline Cumad on 04/01/21
<i>Analyst Description: Grey/Beige, Heterogeneous, Non-Fibrous, Cementitious, Concrete</i>			
<i>Asbestos Types:</i>			
<i>Other Material: Non-fibrous 100 %</i>			
MCHHP-1 <i>Location: Heliport Ext. Surface / Asphalt / Black</i>	921031761-05	No	NAD (by CVES) by Madeline Cumad on 04/01/21
<i>Analyst Description: Black, Heterogeneous, Non-Fibrous, Cementitious, Asphalt</i>			
<i>Asbestos Types:</i>			
<i>Other Material: Non-fibrous 100 %</i>			

See Reporting notes on last page

# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-081	921031761-06	No	NAD
Location: HVAC Unit Mech. Room "A" / Vibration Dampner / Black			(by CVES) by Madeline Cumad on 04/01/21
<b>Analyst Description:</b> White/Black, Homogeneous, Fibrous, Vibration Dampener <b>Asbestos Types:</b> <b>Other Material:</b> Fibrous glass 5 %, Non-fibrous 95 %			

**Reporting Notes:**

Analyzed By: Madeline Cumad MC; Date Analyzed: 4/1/2021 4/1/21  
 \*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced, except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: MC



021031761



# Asbestos Bulk Sample Log

Client: LIONAKIS Date: 3/24 ~ 3/26/2021  
 Location: Mono County Jail Hospital - Bridgeport, CA Project Number: EN8119  
 Collected By: CL/MT CAC of CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCHMB-01	MAINT. BLDG. WALK BASE	WALK BASE SEALANT	GRAY	G	500 SF TOTAL	NF
MCHMB-02	MAINT. BLDG. R-U. DOOR FRAME	DOOR FRAME SEALANT	↓	↓	↓	↓
MCHMB-03	MAINT. BLDG. WINDOWS	WINDOW FRAME SEALANT	↓	↓	↓	↓
MCHMB-04	FLOOR-MAINT. BLDG. BASE SLAB	CONCRETE	GRAY	G	2500 SF	NF
MCHHP-1	AIRPORT EXT. SURFACE	ASPHALT	BLACK	G	15000 SF	NF
MCH-081	HVAC UNIT MECH. ROOM 'A'	VIBRATION DAMPNER	BLACK	G	40 SF	NF

Analytical Method: PLM Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [christ@groupdelta.com](mailto:christ@groupdelta.com)

### CHAIN OF CUSTODY:

1. [Signature] Title: CSST - 07-4204  
 2. Glenda L. [Signature] Title: \_\_\_\_\_ Inclusive Dates: 3/20/21 to 8:00  
 3. \_\_\_\_\_ Title: \_\_\_\_\_ Inclusive Dates: \_\_\_\_\_

GDD





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24416 S. Main Street, Ste 308

Carson, California 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jerry Sherman  
Group Delta Consultants

**Fax #:**

**Email:** jerrys@groupdelta.com, miket@groupdelta.com, kirkh@groupdelta.com, chrisl@groupdelta.com

**From:** Thu M. Nguyen

**AmeriSci Job #:** 921041229

**Subject:** PLM 1000 point count 3 day Result

**Client Project:** EN8119; LIONAKIS; Mono  
County Jail Hospital - Bridgeport,  
CA

**Date:** Thursday, April 15, 2021

**Time:** 19:56:38

**Comments:**

**Number of Pages:** \_\_\_\_\_

(including cover sheet)

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**PLM Bulk Asbestos Report**

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

Date Received 04/12/21 AmeriSci Job # 921041229  
Date Examined 04/15/21 P.O. #  
Page 1 of 1  
RE: EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-075	921041229-01	Yes	Trace (<0.1 % pc)
Location: Ext. East / West Hall Entrance / Ext. Stucco Plaster / Text. Coat / White / Gray			(by 1000 pt ct) by Thu M. Nguyen on 04/15/21
Analyst Description: Tan/White, Heterogeneous, Fibrous, Texture Coat			
Asbestos Types: Chrysotile <0.1 % pc			
Other Material: Non-Asbestos/Inert 48.7 %			

**Reporting Notes:**

Analyzed By: Thu M. Nguyen *Thu M. Nguyen*; Date Analyzed: 4/15/2021 *4.15.21*

\*NAD = no asbestos detected; Detection Limit < 1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: \_\_\_\_\_

921041229

**Subject:** Point Cunt Request  
**From:** Kirk Hopka <kirkh@groupdelta.com>  
**Date:** 4/12/2021, 12:18  
**To:** "ameriscila@amerisci.com" <ameriscila@amerisci.com>

Can you please perform 3 day TAT 1,000 pt. ct. on sample:  
MCH-075



**Kirk Hopka** | Hazardous Materials Project Manager  
Group Delta  
370 Amapola Ave., Suite 212  
Torrance, CA 90501  
Office: (310) 320-5100  
Mobile: (951) 907-1553  
Email: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com)  
Visit us on the web at <http://www.GroupDelta.com>



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Attachments:

921031753E.pdf

483 KB

0210317530m

# Asbestos Bulk Sample Log

# 924041229



Client: LIONAKIS

Date: 3/24~3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample #	Sample Location	Material	Color	Condition (G/D)	Quantity (SF)	Friability (F/NF)
MCH-071	PIPE SYSTEM MECH. RM. 'D'	6" T.S.I. ELBOW	WHITE	G	*SEE #059	F
MCH-072	↓	3" T.S.I. ELBOW	WHITE	G	*SEE #058	F
MCH-073	↓	'SOFT' PIPE RUN WRAP/FIREGLASS	WHITE PINK	G	*SEE #061	NF
MCH-074	EXT. EAST/WEST HAIL ENTRANCE	2-LAYER VAPOUR BARRIER	BLACK BROWN	G	1000 SF	NF
MCH-075	↓	EXT. STUCCO/ PLASTER/TEXT. CONT	WHITE GRAY	G	200 SF	NF
MCH-076	INT. WALL - EAST/ WEST HAIL ENT.	INT. STUCCO PLASTER	↓	↓	↓	NF
MCH-077	EXT. WALL AT NORTH ENTRANCE	EXT. STUCCO/ PLASTER/TEXT. CONT	↓	G	200 SF	NF
MCH-078	HVAC UNITS - MECH. RM. 'D'	DUCT TAPE WRAP	WHITE	G	50 LF #1 UNIT	NF
MCH-079	↓	HVAC UNIT DUCT GASKET MATERIAL	BLACK SILVER	G	40 SF	NF
MCH-080	PIPE SYSTEM - KITCHEN	4" T.S.I. PIPE RUN/WRAP	WHITE GRAY	G	25 LF	F

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

### CHAIN OF CUSTODY:

- [Signature]  
Print/Signature
- Glenda L. [Signature]  
Print/Signature
- \_\_\_\_\_  
Print/Signature

CSST-07-4204  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Inclusive Dates  
3/24/21 to 3/26/21  
Inclusive Dates

\_\_\_\_\_  
Inclusive Dates





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TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jerry Sherman  
Group Delta Consultants  
**Fax #:**  
**Email:** jerrys@groupdelta.com, miket@groupdelta.com, kirkh@groupdelta.com, chrisl@groupdelta.com

**From:** Thu M. Nguyen  
**AmeriSci Job #:** 921041233  
**Subject:** PLM 1000 point count 3 day Result  
**Client Project:** EN8119; LIONAKIS; Mono  
County Jail Hospital - Bridgeport,  
CA

**Date:** Saturday, April 17, 2021  
**Time:** 09:43:38  
**Comments:**

**Number of Pages:** 7  
(including cover sheet)

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## PLM Bulk Asbestos Report

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

**Date Received** 04/12/21    **AmeriSci Job #** 921041233  
**Date Examined** 04/17/21    **P.O. #**  
**Page** 1 of 2  
**RE:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-014	921041233-01	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<b>Location:</b> Wall Base - X-Ray Office / 3" Base Board w/Mastic / Tan/Brown			
<b>Analyst Description:</b> Brown, Heterogeneous, Non-Fibrous, Mastic			
<b>Asbestos Types:</b> Tremolite <0.1 % pc			
<b>Other Material:</b> Non-Asbestos/Inert 74.5 %			
<b>Comment:</b> Heat Sensitive (organic): 48.6%; Acid Soluble (inorganic): <<<<%; Inert (Non-asbestos): 74.5%			
MCH-015	921041233-02	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<b>Location:</b> Wall Base - North Waiting Rm. / 3" Base Board w/Mastic / Gray/Brown			
<b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Mastic			
<b>Asbestos Types:</b> Tremolite <0.1 % pc			
<b>Other Material:</b> Non-Asbestos/Inert 72 %			
<b>Comment:</b> Heat Sensitive (organic): 43.6%; Acid Soluble (inorganic): <<<<%; Inert (Non-asbestos): 72.0%			
MCH-016	921041233-03	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<b>Location:</b> Wall Base - N.S. West Hall / 3" Base Board w/Mastic / Off-White/Brown			
<b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Mastic			
<b>Asbestos Types:</b> Tremolite <0.1 % pc			
<b>Other Material:</b> Non-Asbestos/Inert 18.1 %			
<b>Comment:</b> Heat Sensitive (organic): 38.4%; Acid Soluble (inorganic): 43.5%; Inert (Non-asbestos): 18.1%			
MCH-019	921041233-04	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<b>Location:</b> Wall Base - Recovery Office / 3" Base Board w/Mastic / Dk. Brown/Brown			
<b>Analyst Description:</b> Brown, Homogeneous, Non-Fibrous, Mastic			
<b>Asbestos Types:</b> Chrysotile <0.1 % pc			
<b>Other Material:</b> Non-Asbestos/Inert 35.6 %			
<b>Comment:</b> Heat Sensitive (organic): 41.9%; Acid Soluble (inorganic): 22.5%; Inert (Non-asbestos): 35.6%			



# PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-026	921041233-05	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<p><b>Location:</b> Walls/Ceilings Throughout / Drywall/ Joint Compound Tape / White</p> <p><b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Joint Compound</p> <p><b>Asbestos Types:</b> Chrysotile &lt;0.1 % pc</p> <p><b>Other Material:</b> Non-Asbestos/Inert 31.5 %</p> <p><b>Comment:</b> Heat Sensitive (organic): 30.1%; Acid Soluble (inorganic): 38.4%; Inert (Non-asbestos): 31.5%</p>			
MCH-027	921041233-06	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<p><b>Location:</b> Walls/Ceilings Throughout / Drywall/Joint Compound Tape / White</p> <p><b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Joint Compound</p> <p><b>Asbestos Types:</b> Chrysotile &lt;0.1 % pc</p> <p><b>Other Material:</b> Non-Asbestos/Inert 34.7 %</p> <p><b>Comment:</b> Heat Sensitive (organic): 28.0%; Acid Soluble (inorganic): 37.3%; Inert (Non-asbestos): 34.7%</p>			
MCH-030	921041233-07	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Thu M. Nguyen on 04/17/21
<p><b>Location:</b> Walls/Ceiling Throughout /Drywall/Joint Compound Tape / White</p> <p><b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Joint Compound</p> <p><b>Asbestos Types:</b> Chrysotile &lt;0.1 % pc</p> <p><b>Other Material:</b> Non-Asbestos/Inert 34.2 %</p> <p><b>Comment:</b> Heat Sensitive (organic): 11.8%; Acid Soluble (inorganic): 54.0%; Inert (Non-asbestos): 34.2%</p>			

**Reporting Notes:**

(1) EPA 1000 Point Count Analysis performed on inert residue remaining after 480C heat and HCl acid treatments.

Analyzed By: Thu M. Nguyen *Thu M. Nguyen* Date Analyzed: 4/17/2021 4.17.21  
 \*NAD = no asbestos detected; Detection Limit <1% Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: *[Signature]*

92104/233

**Subject:** Point Count Request  
**From:** Kirk Hopka <kirkh@groupdelta.com>  
**Date:** 4/12/2021, 12:29  
**To:** "ameriscila@amerisci.com" <ameriscila@amerisci.com>  
**CC:** Jerry Sherman <jerrys@groupdelta.com>

Can you please perform 3 day TAT 1,000 pt. ct. on samples:

MCH-014

MCH-015

MCH-016

MCH-019

MCH-026, MCH-027, MCH-030 Joint Compound (Stop at 1<sup>st</sup> positive above 0.1%)



**Kirk Hopka** | Hazardous Materials Project Manager  
Group Delta  
370 Amapola Ave., Suite 212  
Torrance, CA 90501

Office: (310) 320-5100  
Mobile: (951) 907-1553  
Email: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com)  
Visit us on the web at <http://www.GroupDelta.com>



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Rec'd by PJ  
4/12/21 12:30  
4/12/2021, 12:30

021041233  
 921031751



# Asbestos Bulk Sample Log

Client: LIONAKIS Date: 3/24 ~ 3/26/2021  
 Location: Mono County Jail Hospital - Bridgeport, CA Project Number: EN8119  
 Collected By: CL/MT CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-001	FLOOR - EAST/WEST HALL	9" X 9" VINYL FLOOR TILE/MASSE	<del>BROWN</del> BLACK	D	8000 SF+	NF
MCH-002	FLOOR - KITCHEN		TAN BLACK	G	*SEE #001	
MCH-003	FLOOR - LOCKER ROOM		GRAY BLACK		*SEE #001	
MCH-004	FLOOR - EQUIPMT. STORAGE		LT. BROWN BLACK			
MCH-005	FLOOR - PRESSING RM		DK. GRAY BLACK			
MCH-006	FLOOR - DRS. WORK ROOM		GREEN BLACK	↓	↓	↓
MCH-007	FLOOR - N.E. CORNER - HALL	12" X 12" VINYL FLOOR TILE/MASSE	TAN BLACK	G	6,000 SF	NF
MCH-008	FLOOR - OFFICE		LT. BROWN BLACK		*SEE #007	
MCH-009	FLOOR - REST ROOM		BROWN BLACK			
MCH-010	FLOOR - SOUTH END N.S. EAST HALL		TAN BLACK	↓	↓	↓

Analytical Method: PLM Turnaround Time: Same Day 24-hr 3 Day 5 Day  
 Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1. <u>Chris Lowmaster</u> Print/Signature	<u>CSST-07-4204</u> Title	Inclusive Dates
2. <u>Calinda C. ...</u> Print/Signature	_____ Title	<u>3/29/21 08:00</u> Inclusive Dates
3. _____ Print/Signature	_____ Title	_____ Inclusive Dates

GDZ



92104/233  
 92103/175



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No.: 07-4204

Sample No	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-011	BELOW CARPET - WAITING RM.	CARPET MASTIC	BROWN	G	3000 SF	NF
MCH-012	BELOW CARPET - ADMIN OFFICE				*SEE #011	
MCH-013	BELOW CARPET - PATIENT LOUNGE					
MCH-014	WALL BASE - X-RAY OFFICE	3" BASE BOARD w/MASTIC	TAN / BROWN	G	6000 LF	NF
MCH-015	WALL BASE - NORTH WAITING RM.		GRAY / BROWN		*SEE #014	
MCH-016	WALL BASE - NLS. WEST HALL		OFF WHITE / BROWN			
MCH-017	WALL BASE - HEAD NURSE OFFICE	6" BASE BOARD w/MASTIC	DK. BROWN / BLACK		500 LF	
MCH-018	WALL BASE - LABOR OFFICE	3" BASE BOARD w/MASTIC	NARROW N / WHITE		*SEE #14	
MCH-019	WALL BASE - RECOVERY OFFICE		DK. BROWN / BROWN			
MCH-020	FLOOR - CAO-OFFICE	9" X 9" VINYL FLOORING/MASTIC	DK. BROWN / BLACK	G	*SEE #001	

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1. <u>[Signature]</u> Print/Signature	<u>CSST-07-4204</u> Title	<u>3/24/21 9:00</u> Inclusive Dates
2. <u>Alenda L. [Signature]</u> Print/Signature	_____ Title	_____ Inclusive Dates
3. _____ Print/Signature	_____ Title	_____ Inclusive Dates

GDZ

021041233  
021031151



# Asbestos Bulk Sample Log

Client: LIONAKIS

Date: 3/24 ~ 3/26/21

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-021	WALL PAPER - SURGERY ROOM	WALL COVERING MATERIAL	OLIVE	G/D	60 SF	NF
MCH-022	WALL - REST ROOM W.		YELLOW	G	100 SF	
MCH-023	WALL - HALLWAYS & OFFICES		OFF-WHITE		8,000 SF	
MCH-024	FLOOR - SURG. ROOMS	TERRAZZO FLOOR	TERRAZZO	G	500 SF	NF
MCH-025	WALLS/CEILING THROUGHOUT	PLASTER/COAT WALLS/CEILING	GRAY WHITE	G	16,000 SF	NF
MCH-026		DRYWALL/JOINT COMPOUND/TAPE	WHITE		5,000 SF	
MCH-027					SEE # 026	
MCH-028	WALLS/CEILING THROUGHOUT	PLASTER/SKIM COAT	GRAY WHITE	G	SEE # 025	NF
MCH-029						
MCH-030		DRYWALL/JOINT COMPOUND/TAPE	WHITE		SEE # 026	

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1.	<u>CSST-07-4204</u>	
Print/Signature	Title	Inclusive Dates
2. <u>Glenda L. [Signature]</u>		<u>3/29/21 8:00</u>
Print/Signature	Title	Inclusive Dates
3. _____	_____	_____
Print/Signature	Title	Inclusive Dates

61026102





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24416 S. Main Street, Ste 308  
Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

<b>To:</b> Jerry Sherman Group Delta Consultants	<b>From:</b> Madeline Cumad
<b>Fax #:</b>	<b>AmeriSci Job #:</b> 921041234
<b>Email:</b> jerrys@groupdelta.com, miket@groupdelta.com, kirkh@groupdelta.com, chrisl@groupdelta.com	<b>Subject:</b> PLM 1000 point count 3 day Result
	<b>Client Project:</b> EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

**Date:** Friday, April 16, 2021  
**Time:** 13:51:30  
**Comments:**

**Number of Pages:** 4  
(including cover sheet)

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Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

**PLM Bulk Asbestos Report**

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

**Date Received** 04/12/21  
**Date Examined** 04/16/21

**AmeriSci Job #** 921041234  
**P.O. #**  
**Page** 1 of 2

**RE:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCH-038	921041234-01L1 <b>Location:</b> Ceiling - Office / 12" x 12" ACT Smooth P.H. / White / Gray / Dk. Brown	<b>Yes</b>	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Material			
<b>Asbestos Types:</b> Tremolite <0.1 % pc			
<b>Other Material:</b> Non-fibrous 47.9 %			
<b>Comment:</b> Heat Sensitive (organic): 50.9%; Acid Soluble (inorganic): 1.1%; Inert (Non-asbestos): 47.9%			
MCH-040	921041234-02L1 <b>Location:</b> Ceiling At Kitchen Entrance / 12" x 12" Acoustic Ceiling Panel / Mastic - Fissure / White / Gray / Dk. Brown	<b>Yes</b>	0.1 % pc <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Panel			
<b>Asbestos Types:</b> Tremolite 0.1 %			
<b>Other Material:</b> Non-fibrous 47.7 %			
<b>Comment:</b> Heat Sensitive (organic): 47.6%; Acid Soluble (inorganic): 4.6%; Inert (Non-asbestos): 47.7%			
MCH-041	921041234-03L1 <b>Location:</b> Ceiling - South Hallway - N.S.W. / 12" x 12" Acoustic Ceiling Tile / Mastic - Random P.H. White / Gray / Dk. Brown	<b>Yes</b>	0.1 % pc <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Tile			
<b>Asbestos Types:</b> Tremolite 0.1 %			
<b>Other Material:</b> Non-fibrous 48.6 %			
<b>Comment:</b> Heat Sensitive (organic): 45.5%; Acid Soluble (inorganic): 5.8%; Inert (Non-asbestos): 48.6%			
MCH-042	921041234-04L1 <b>Location:</b> Ceiling - Nurses Station/ 12" x 12" Acoustic Ceiling Tile / Mastic - Random P.H. White / Gray / Dk. Brown	<b>Yes</b>	0.2 % pc <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey/White, Heterogeneous, Non-Fibrous, Ceiling Tile			
<b>Asbestos Types:</b> Tremolite 0.2 %			
<b>Other Material:</b> Non-fibrous 48.7 %			
<b>Comment:</b> Heat Sensitive (organic): 49.8%; Acid Soluble (inorganic): 1.4%; Inert (Non-asbestos): 48.7%			

Client Name: Group Delta Consultants

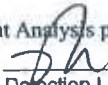
## PLM Bulk Asbestos Report

EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport,  
CA

---

### Reporting Notes:

(1) EPA 1000 Point Count Analysis performed on inert residue remaining after 480C heat and HCl acid treatments.

Analyzed By: Madeline Cumad ; Date Analyzed: 4/16/2021 4-16-21  
\*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: 

921041234

**Subject:** Point Count Request  
**From:** Kirk Hopka <kirkh@groupdelta.com>  
**Date:** 4/12/2021, 12:10  
**To:** "ameriscila@amerisci.com" <ameriscila@amerisci.com>

Can you please perform 3 day TAT 1,000 pt. ct. on samples:  
MCH-038  
MCH-040  
MCH-041  
MCH-042  
Stop at 1<sup>st</sup> positive above 0.1%



**Kirk Hopka** | Hazardous Materials Project Manager  
Group Delta  
370 Amapola Ave., Suite 212  
Torrance, CA 90501

Office: (310) 320-5100  
Mobile: (951) 907-1553  
Email: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com)  
Visit us on the web at <http://www.GroupDelta.com>



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Attachments:

921031752E.pdf

548 KB



~~021031752~~ *EM*



# Asbestos Bulk Sample Log

921041234

Client: LIONAKIS

Date: 3/24/~3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number: EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCH-041	CEILING - SOUTH HALLWAY - N.S.W.	12"X12" ACOUSTIC CEILING TILE/INSULATION - RANDOM - PLT	white/gray DK. Brown	G	*SEE #031	NF
MCH-042	CEILING - NURSES STATION	↓	↓	↓	↓	↓
MCH-043	CEILING SOFFIT ABOVE KITCHEN SINK	TRANSITE (2X3) PANELS	GRAY	G	48 SF	NF
MCH-044	HEATER TANK AT STERIL ROOM	THERMAL SYSTEM INSULATION - PIPE RUN	WHITE	G	6 LF	NF
MCH-045	EXT. WINDOWS - EAST END	EXT. WINDOW PUTTY	GRAY	G	6 LF	NF
MCH-046	EXT. WINDOWS MAIN ENTRANCE	WINDOW FRAME SEALANT	GRAY	G	1200 LF	NF
MCH-047	EXT. DOOR MAIN ENTRANCE	DOOR FRAME SEALANT	GRAY	G	200 LF	NF
MCH-048	LAUNDRY ROOM DRYER AT WALL	DUCT TAPE	WHITE	G	10 SF	NF
BACH-049	EXT. DOOR N.W. ENTRANCE	DOOR FRAME SEALANT	GRAY	G	*SEE #047	NF
MCH-050	EXT. WINDOWS N.W. CORNER	WINDOW FRAME SEALANT	↓	↓	*SEE #046	NF

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

### CHAIN OF CUSTODY:

1. <u><i>[Signature]</i></u> Print/Signature	<u>PLM - 07-4204</u> Title	<u>3/29/21 08:20</u> Inclusive Dates
2. <u><i>[Signature]</i></u> Print/Signature	_____ Title	_____ Inclusive Dates
3. _____ Print/Signature	_____ Title	_____ Inclusive Dates

G03

07/04/2021 11:20

921031752 



# Asbestos Bulk Sample Log

921041234

Client: LIONAKIS

Date 3/24 ~ 3/26/2021

Location: Mono County Jail Hospital - Bridgeport, CA

Project Number EN8119

Collected By: CL/MT

CAC or CSST No: 07-4204

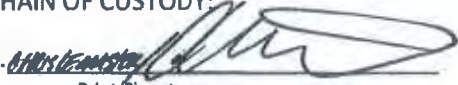
Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Integrity (F/NF)
MCH-031	CEILING - THROUGHOUT 80% OF BLDG.	12"X12" ACOUSTIC CEILING TILE-RANDOM MAT. WITH MATSIC	GRAY/WHITE DK. BROWN	G	11,000 SF	NF
MCH-032	CEILING - 5% OF BLDG.	↓	WHITE/BROWN DK. BROWN	↓	700 SF	↓
MCH-033	CEILING - N.S. EAST HALL	SPRAYED-ON ACOUSTIC CEILING COATING	WHITE	G	2,200	F
MCH-034	↓	↓	↓	↓	↓	↓
MCH-035	CEILING - EAST/WEST HALL	↓	↓	↓	↓	↓
MCH-036	ABOVE CEILING - FRONT LOBBY/OFFICE	THICK CEILING INSULATION	BROWN	G	350 SF	NF
MCH-037	CEILING - LOBBY OFFICE	12"X12" ACOUSTIC CEILING TILE/MATSIC	WHITE GRAY/DK. BROWN	G	20 SF	NF
MCH-038	CEILING - OFFICE	12"X12" ACOUSTIC SMOOTH P.H.	↓	G	2,000 SF	NF
MCH-039	BEHIND WOOD PANEL WALL - LOBBY	WOOD PANEL GLUE	DK. BROWN	G	500 SF	NF
MCH-040	CEILING AT KITCHEN ENTRANCE	12"X12" ACOUSTIC CEILING PANEL/MATSIC - FIBRE	WHITE GRAY DK. BROWN	G	25 SF	NF

Analytical Method: PLM

Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1.  Print/Signature	<u>CSST-07-4204</u> Title	<u>3/29/21-8-0</u> Inclusive Dates
2. <u>clental-ym</u> Print/Signature	_____ Title	_____ Inclusive Dates
3. _____ Print/Signature	_____ Title	_____ Inclusive Dates

GAB

3/24/21 11:00 AM





Please Reply To:

**AmeriSci Los Angeles**

24416 S. Main Street, Ste 308

Carson, California 90745

TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jerry Sherman  
Group Delta Consultants  
**Fax #:**  
**Email:** jerrys@groupdelta.com,miket@groupdelta.com,kirkh@groupdelta.com,chrisl@groupdelta.com

**From:** Madeline Cumad  
**AmeriSci Job #:** 921041235  
**Subject:** PLM 1000 point count 3 day Result  
**Client Project:** EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

**Date:** Friday, April 16, 2021  
**Time:** 14:20:00  
**Comments:**

**Number of Pages:** \_\_\_\_\_  
(including cover sheet)

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Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

**PLM Bulk Asbestos Report**

Group Delta Consultants  
Attn: Jerry Sherman  
9245 Activity Road  
Suite 103  
San Diego, CA 92126

Date Received 04/12/21 AmeriSci Job # 921041235  
Date Examined 04/16/21 P.O. #  
Page 1 of 1  
RE: EN8119; LIONAKIS; Mono County Jail Hospital - Bridgeport, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MCHMB-01 Location: Maint. Bldg. Wall Base / Wall Base Sealant / Gray	921041235-01	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Sealant <b>Asbestos Types:</b> Chrysotile <0.1 % pc <b>Other Material:</b> Non-fibrous 10.1 % <b>Comment:</b> Heat Sensitive (organic): 47.9%; Acid Soluble (inorganic): 42.0%; Inert (Non-asbestos): 10.1%			
MCHMB-02 Location: Maint. Bldg. R.U Door Frame / Door Frame Sealant / Gray	921041235-02	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Sealant <b>Asbestos Types:</b> Chrysotile <0.1 % pc <b>Other Material:</b> Non-fibrous 10.6 % <b>Comment:</b> Heat Sensitive (organic): 47.5%; Acid Soluble (inorganic): 41.9%; Inert (Non-asbestos): 10.6%			
MCHMB-03 Location: Maint. Bldg. Windows / Window Frame Sealant / Gray	921041235-03	Yes	Trace (<0.1 % pc) <sup>1</sup> (by 1000 pt ct) by Madeline Cumad on 04/16/21
<b>Analyst Description:</b> Grey, Homogeneous, Non-Fibrous, Sealant <b>Asbestos Types:</b> Chrysotile <0.1 % pc <b>Other Material:</b> Non-fibrous 5.1 % <b>Comment:</b> Heat Sensitive (organic): 47.1%; Acid Soluble (inorganic): 47.9%; Inert (Non-asbestos): 5.1%			

**Reporting Notes:**

(1) EPA 1000 Point Count Analysis performed on inert residue remaining after 480C heat and HCl acid treatments.

Analyzed By: Madeline Cumad MC; Date Analyzed: 4/16/2021 4/16/21  
\*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/R-93/116, including requirements for EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: MC

92104 1235  
 021051761



# Asbestos Bulk Sample Log

Client: LIONAKIS Date: 3/24 ~ 3/26/2021  
 Location: Mono County Jail Hospital - Bridgeport, CA Project Number: EN8119  
 Collected By: CL/MT CAC or CSST No: 07-4204

Sample No.	Sample Location	Material	Description	Condition (G/D/SD)	Quantity (SF/LF)	Friability (F/NF)
MCHMB - 01	MAINT. BLDG. WALL BASE	WALL BASE SEALANT	GRAY	G	500 SF TOTAL	NF
MCHMB - 02	MAINT. BLDG. R.U. DOOR FRAME	DOOR FRAME SEALANT	↓	↓	↓	↓
MCHMB - 03	MAINT. BLDG. WINDOWS	WINDOW FRAME SEALANT	↓	↓	↓	↓
MCHMB - 04	FLOOR-MAINT. BLDG. BASE SLAB	CONCRETE	GRAY	G	2,500 SF	NF
MCHMP - 1	HQ/PORT EXT. SURFACE	ASPHALT	BLACK	G	1,500 SF	NF
MCH - 081	HVAC UNIT MECH. ROOM 'A'	VIBRATION DAMPNER	BLACK	G	40 SF	NF

Analytical Method: PLM Turnaround Time: Same Day 24-hr 3 Day 5 Day

Lab Results: Please E-mail results to: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com), [jerrys@groupdelta.com](mailto:jerrys@groupdelta.com), and [chrisl@groupdelta.com](mailto:chrisl@groupdelta.com)

CHAIN OF CUSTODY:

1. [Signature] CSST - 07-4204  
 Print/Signature Title  
 2. Granda L. Gyr  
 Print/Signature Title  
 3. \_\_\_\_\_  
 Print/Signature Title

Inclusive Dates  
3/29/21 8:00  
 Inclusive Dates  
 \_\_\_\_\_  
 Inclusive Dates

GDD

Point Count Request

921041235

**Subject:** Point Count Request  
**From:** Kirk Hopka <kirkh@groupdelta.com>  
**Date:** 4/12/2021, 12:42  
**To:** "ameriscila@amerisci.com" <ameriscila@amerisci.com>  
**CC:** Jerry Sherman <jerrys@groupdelta.com>

Can you please perform 3 day TAT 1,000 pt. ct. on samples:  
MCHMB-01  
MCHMB-02  
MCHMB-03  
Stop at 1<sup>st</sup> positive above 0.1%



**Kirk Hopka** | Hazardous Materials Project Manager  
Group Delta  
370 Amapola Ave., Suite 212  
Torrance, CA 90501

Office: (310) 320-5100  
Mobile: (951) 907-1553  
Email: [kirkh@groupdelta.com](mailto:kirkh@groupdelta.com)  
Visit us on the web at <http://www.GroupDelta.com>



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Attachments:

921031761E.pdf

184 KB

Rec'd by JSH  
4/12/21 @ 13:15



State of California  
Division of Occupational Safety and Health  
**Certified Site Surveillance Technician**

**Chris A Lemaster**



Name  
Certification No. 07-4204  
Expires on 07/19/21

This certification was issued by the Division of Occupational Safety and Health as authorized by Section 7140 of title 8 of the Business and Professions Code.



STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH



## LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



**Christopher Lemaster**

CERTIFICATE TYPE:

Lead Sampling Technician

NUMBER:

LRC-00007564

EXPIRATION DATE:

9/29/2021

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at [www.cdoh.ca.gov/programs/clob](http://www.cdoh.ca.gov/programs/clob) or calling (800) 597-LEAD.



State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**



**Kirk J Hopka**

Name

**Certification No. 96-2078**

**Expires on 11/08/21**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7100 et seq. of the Business and Professions Code.



STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH



# LEAD-RELATED CONSTRUCTION CERTIFICATE

**INDIVIDUAL:**



**Kirk Hopka**

**CERTIFICATE TYPE:**

Lead Inspector/Assessor  
Lead Project Monitor

**NUMBER:**

LRC-00004527  
LRC-00004526

**EXPIRATION DATE:**

1/31/2022  
1/31/2022

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at [www.cdph.ca.gov/programs/clppb](http://www.cdph.ca.gov/programs/clppb) or calling (800) 597-LEAD.

State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

**Michael Fitzsimons Toomey**

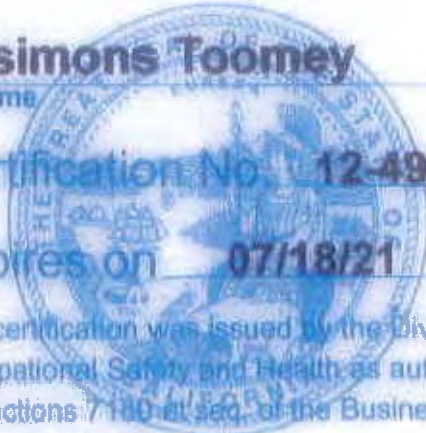
Name



Certification No. **12-4909**

Expires on **07/18/21**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7100 et seq. of the Business and Professions Code.





STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC HEALTH



# LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
	Lead Inspector/Assessor	LRC-00006063	5/11/2021
<b>Michael Toomey</b>	Lead Project Monitor	LRC-00006062	5/11/2021

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at [www.cdph.ca.gov/programs/clppb](http://www.cdph.ca.gov/programs/clppb) or calling (800) 597-LEAD.

\* \* Transmit Confirmation Report \* \*

P1

05/04/2021 05:38

Distant Station	Resolution	Start Time	Time	Page	Kind	Result	Error Code	Message
15106205656	Normal	05/04 05:37	00'10"	1		#	OK	

State of California—Health and Human Services Agency

California Department of Public Health

**LEAD HAZARD EVALUATION REPORT**

**Section 1 — Date of Lead Hazard Evaluation:** 04/08/2021

**Section 2 — Type of Lead Hazard Evaluation (Check one box only)**  
 Lead Inspection     Risk Assessment     Clearance     Other (specify): Limited Lead Inspection

**Section 3 — Structure Where Lead Hazard Evaluation Was Conducted**

Address (number, street, apartment (if applicable)) 221 Twin Lakes Rd.		City Bridgeport	County Mono	Zip Code 92584
Construction date (year) of structure 1060	Type of structure <input type="checkbox"/> Multi-unit building <input type="checkbox"/> School or daycare <input type="checkbox"/> Single family dwelling <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Other (specify): Hospital	Children living in structure? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't know		

**Section 4 — Owner of Structure (if business/agency, list contact person)**

Name County of Mono-Mono Gen. Hospital	Telephone number (760) 932-5440	
Address (number, street, apartment (if applicable)) 74 North School Street, PO Box 467	City Bridgeport	State California

**Section 5 —**

No lead-based paint     Intact lead-based paint     Deteriorated lead based paint

No lead hazards detected     Lead-contaminated dust found     Lead-contaminated soil found     Other

**Section 6 — Individual Conducting Lead Hazard Evaluation**

Name Mike Toomey	Telephone number (858) 536-1000		
Address (number, street, apartment (if applicable)) 9245 Actvity Road, Suite 103	City San Diego	State CA	Zip Code 92126
CDPH certification number LRC-000006083	Signature <i>Mike Toomey</i>	Date 05/04/21	

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

**Section 7 — Attachments**

A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;

B. Each testing method, device, and sampling procedure used;

C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone

First copy and attachments retained by inspector

Third copy only (no attachments) mailed or faxed to:

Second copy and attachments retained by owner

California Department of Public Health  
 Childhood Lead Poisoning Prevention Branch Reports  
 850 Marina Bay Parkway, Building P, Third Floor  
 Richmond, CA 94804-6403  
 Fax: (510) 620-5656



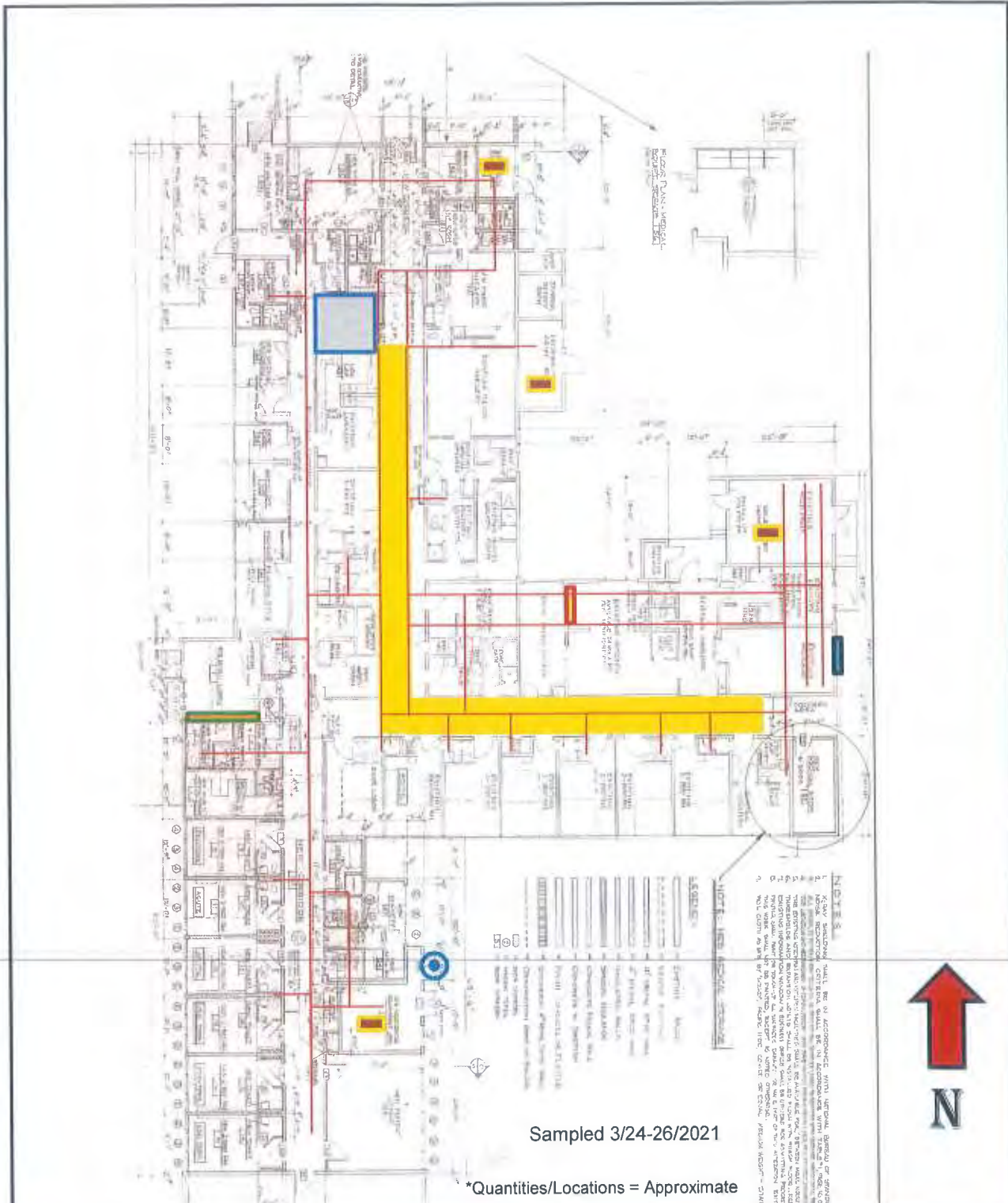
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APPENDIX B  
ABATEMENT DRAWINGS

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Sampled 3/24-26/2021

\*Quantities/Locations = Approximate

- ACM Pipe Runs/Elbows
- ACM Acoustic Ceiling
- ACM HVAC Duct Gasket(s)
- ACM Wall Panel Glue (Lobby)
- ACM 12"x12" ACT
- ACM Window Putty
- ACM Transite
- ACM Fire Door (freestanding)

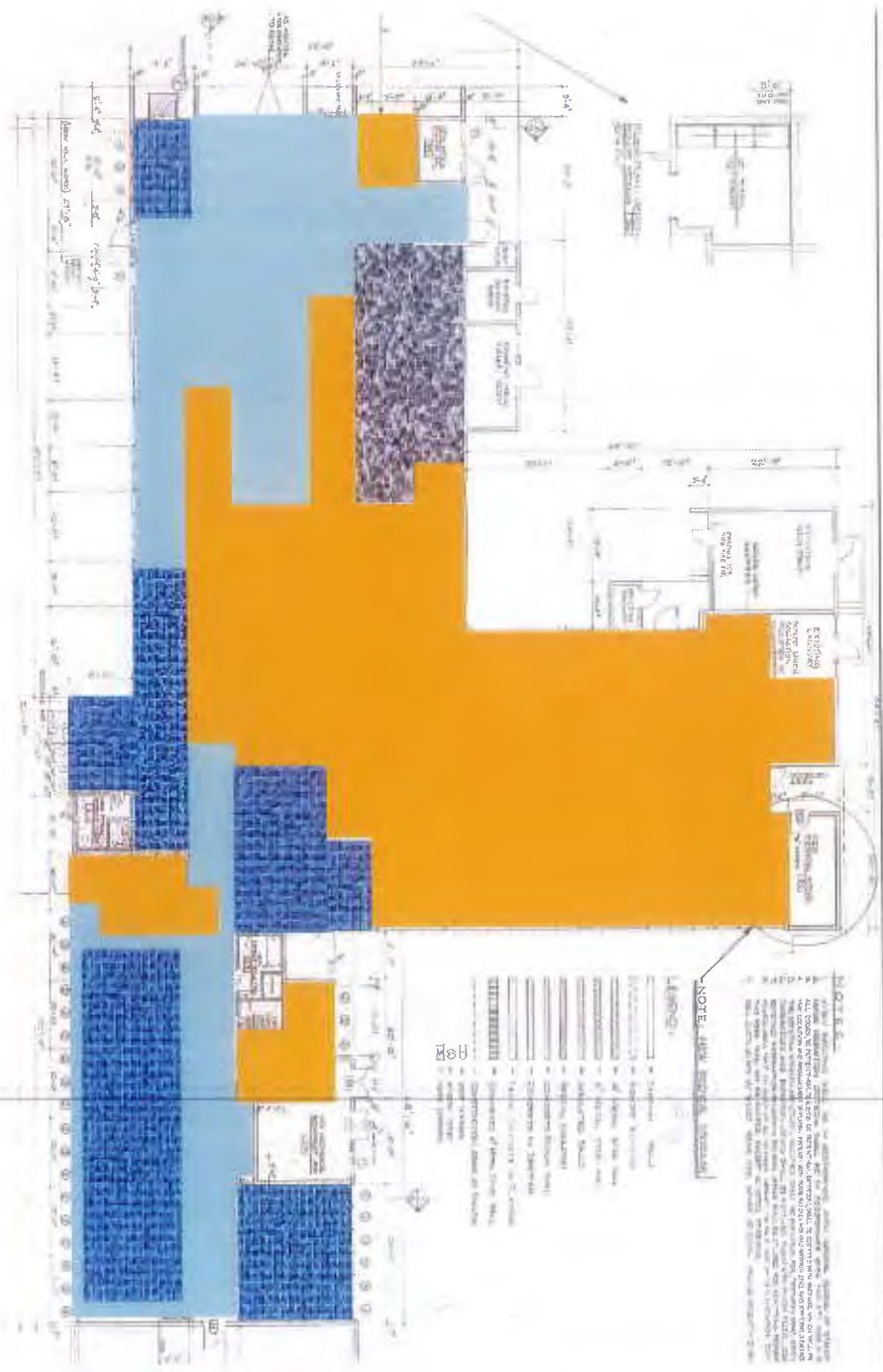


**GDC Project No. EN8119**

**Asbestos Materials Location Map  
Mono County Old Hospital**

**NOTES**

1. Heavy structural shall not be abraded with vertical banding or staining.
2. Most structural concrete shall be in accordance with ACI 308.2R-03.
3. The application of protective or repair materials shall be in accordance with ACI 308.2R-03.
4. The application of repair materials shall be in accordance with ACI 308.2R-03.
5. The application of repair materials shall be in accordance with ACI 308.2R-03.
6. The application of repair materials shall be in accordance with ACI 308.2R-03.
7. The application of repair materials shall be in accordance with ACI 308.2R-03.
8. The application of repair materials shall be in accordance with ACI 308.2R-03.
9. The application of repair materials shall be in accordance with ACI 308.2R-03.



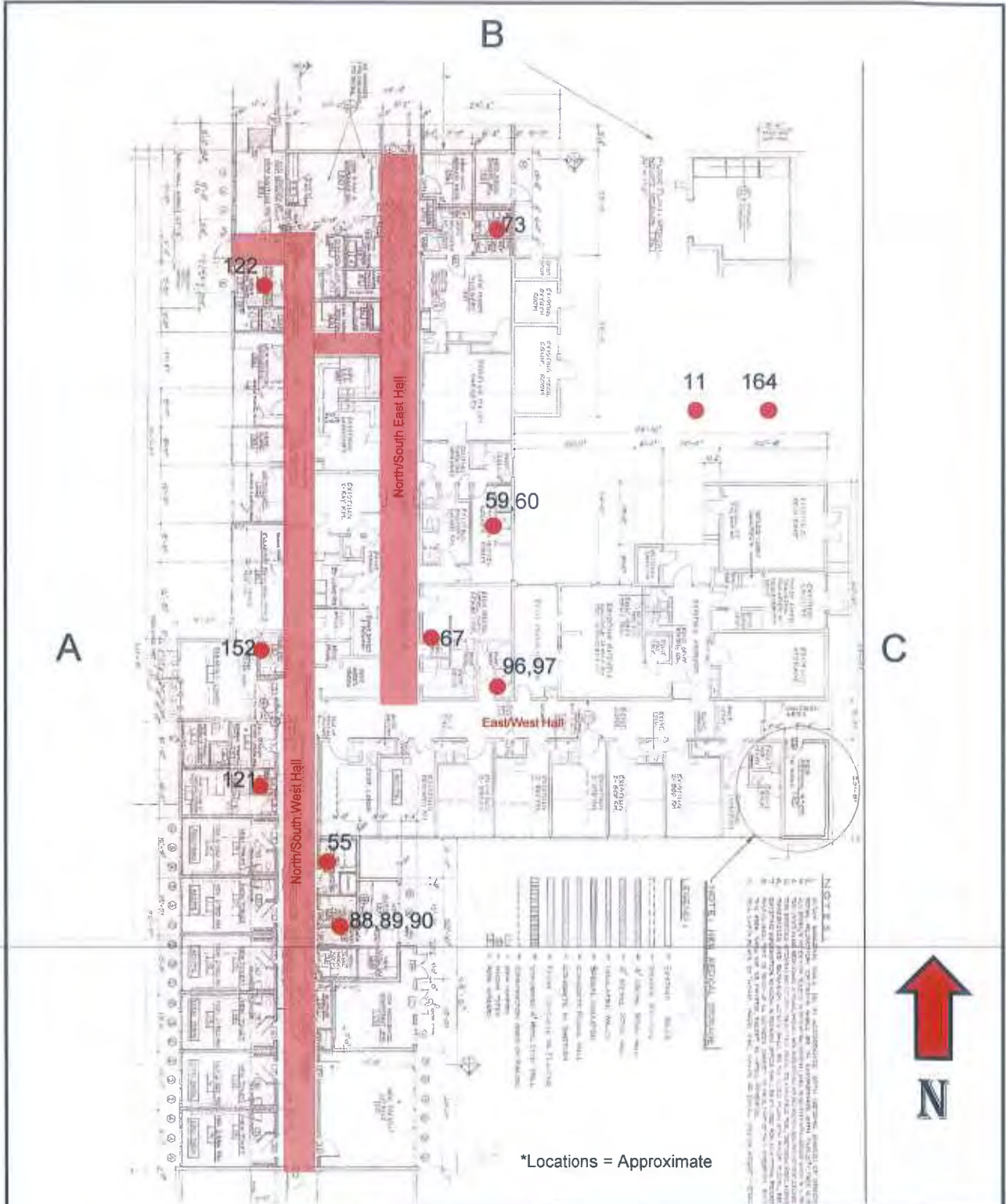
- = 9"x9" VFT/M (Multiple Colors)
- = 12"x12" VFT/M (Several Colors)
- = Terrazzo Flooring
- = Carpet – Mostly over Concrete

Sampled 3/24-26/2021



<p><b>GDC Project No. EN8119</b></p> <p><b>Asbestos Flooring Distribution</b></p> <p><b>Map</b></p> <p><b>Mono County Old Hospital</b></p> <p>Locations and Amounts appx. to scale</p>
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A

B

C



Sampled 3/24-26/2021

GDC Project No. EN8119

**XRF Positive Lead Sample  
Location Map  
Mono County Old Hospital**