

Attachment 12- Carousel Mall Demolition

Mitigation of Environmental Concerns

Potential Concerns	Mitigation Measure	Responsibility for Implementation	Oversight of Implementation
Noise	All work with heavy equipment will be restricted to between the hours of 7:00AM and 5:00PM Monday through Friday, and 9:00AM and 6:00PM Saturday. No work will be performed on Sunday except in emergency situations.	REI	City of SB
	All construction/demolition equipment will be properly muffled according to manufacturer specifications.	REI	City of SB
	Noise-generating construction equipment, the operation of heavy equipment, construction worker parking, and staging areas will be located as far away as feasible from sensitive areas.	REI	City of SB
	Heavily loaded trucks will be routed away from residential streets to the greatest extent possible.	REI	City of SB
	Neighboring businesses and community residents located within 500 feet of the Project area boundary will be sent a notice, at least 15 days prior to the beginning of demolition, regarding the construction schedule of the Project. Signs will be posted at the construction site listing Resource contact names, telephone numbers, email addresses, and schedule information.	REI	City of SB
Traffic	Development of a Construction Impact Mitigation Plan as part of Design-Build Construction Documents - designed to prevent traffic impacts on the surrounding roadway network, minimize parking impacts both to public parking and access to private parking, ensure safety for construction/demolition personnel and the public, and prevent substantial truck traffic through residential neighborhoods.	REI	City of SB
	Development of a Traffic Control Plan as part of Design-Build Construction Documents. TCP to include designated haul route and staging area(s), traffic control procedures, signage, gates, flaggers, emergency access provisions, and construction crew parking.	REI	City of SB
	Concrete to be crushed on-site. This reduces potential truck traffic by greater than 90% compared to off-hauling concrete. The mall is a concrete structure. Trucking will be limited to metals and construction/demolition debris. Hazardous materials will be placed in sealed, lock-tight bins and picked up/delivered on a recurring basis by roll-off trucks.	REI	City of SB
	Lane closures, detours, on-street staging areas, or temporary changes in public traffic are not anticipated. If the need arises, approval will be obtained.	REI	City of SB
	Deployment of traffic control procedures as appropriate, include traffic cones, temporary signs,	REI	City of SB

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	changeable message signs, and flagmen – in accordance with City of San Bernardino standards.		
	Flaggers to be maintained at all construction entrances when gates are in use. Gates to be kept closed at all times except during delivery or off-haul.	REI	City of SB
	Deliveries, haul trips, and construction employee trips will be minimized to the greatest extent feasible from the hours of 7AM to 9AM and 4PM to 6PM.	REI	City of SB
	Haul routes shall be restricted to truck routes approved by the City of San Bernardino. Trucks will be directed to use commercial streets and highways, minimizing the use of residential streets.	REI	City of SB
	The Carousel Mall asphalt parking lot will be used for construction parking to minimize impacts to surrounding public parking.	REI	City of SB
	ADA paths will remain accessible during construction activities.	REI	City of SB
	Sidewalk closures are not anticipated to be needed. Should the need arise, alternative walkways with signage and pedestrian protection will be provided.	REI	City of SB
Dust & Debris	All areas of disturbance will be kept sufficiently wet to control dust caused by demolition, crushing, hauling, and wind in compliance with rigorous SCAQMD dust emission standards. Water trucks and attached fire hoses will be utilized to direct a localized water spray to the source of demolition activities – preventing the release of airborne dust particles. Water trucks will also continuously spray construction roads and debris piles to keep them damp in the event of wind or disturbance. A 20,000-gallon water tower will be installed on-site to allow for rapid filling of water trucks.	REI	SCAQMD City of SB
	A proper backflow device will be installed at hydrant locations.	REI	City of SB
	Windscreen will be installed along the perimeter fencing of the Project site as further containment of the site.	REI	SCAQMD City of SB
	All trucks hauling demolition debris will be covered to with a tarpaulin or other secure covering to prevent dust emissions and to prevent spillover of material from the Project site onto adjacent streets.	REI	City of SB
	No demolition work will be allowed when winds exceed 40 MPH.	REI	SCAQMD City of SB
Asbestos & Lead	Resource has retained an independent, third-party Certified Asbestos Consultant (CAC). Asbestos, lead, and universal waste testing of all structures has already been completed. A full SCAQMD-, OSHA-, and EPA- compliant Hazardous Material Report will be prepared and submitted to the City of San Bernardino for review.	REI CAC	CAC SCAQMD City of SB
	Visual inspection and laboratory testing indicates a significant portion of the abatement work for the Project will be subject to an SCAQMD Procedure 5 Workplan. Intact materials are to be abated via	REI CAC	CAC SCAQMD City of SB

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	Procedure 1-3 methods under the direction and monitoring of the CAC.		
	<p>A Procedure 5 Workplan is required by SCAQMD for the cleanup of disturbed Asbestos Containing Materials. This plan must be developed by the independent, third-party Certified Asbestos Consultant.</p> <p>Procedure 5 Workplans must outline the project scope, including cause of disturbance, extent of contamination, and CAC observations, findings, recommendations, and response actions; asbestos materials at the site, their condition, type, amount, and specific locations; abatement project stages; provisions for site preparation and control; provisions for the prevention of contamination migration, including ingress/egress zones; engineering work practices and asbestos emission controls; procedures for work area clean-up and decontamination after bulk removal; provisions for handling, storing, transporting, and disposing of the asbestos-containing waste; air monitoring type(s) and clearance level to be achieved; and the recommended disposition of asbestos-contaminated contents/property.</p> <p>SCAQMD must approve every Procedure 5 workplan. SCAQMD's approval indicates their agreement that the public is adequately protected from exposure to asbestos. SCAQMD will visit the site regularly to ensure compliance.</p> <p>The CAC will be on-site to ensure the workplan is adhered to. Deviations from the workplan can result in penalties for the CAC and contractor.</p>	REI CAC	CAC SCAQMD City of SB
	The CAC will set up site perimeter air monitoring to record asbestos levels outside of containments and outside of the building. Evidence will be available that the public is not being exposed to asbestos hazards. Resource will perform air sampling in the work zones to ensure asbestos levels are acceptable.	REI CAC	CAC SCAQMD City of SB
	Asbestos abatement will be performed under full containment with negative air pressure. The majority of the abatement will be performed while perimeter walls and roofs are standing. If a wall is demolished that exposes the building to the outside, containment and negative air pressure will be maintained with scaffolding and polyethylene plastic for the full length of the opening. The containment prevents any asbestos airborne dust from being released into the public.	REI	CAC SCAQMD City of SB
	All supervisors will possess a current EPA-approved certification as an Asbestos Contractor Supervisor. All Resource field personnel have completed an asbestos worker training course in conformance with the requirements of 40 CFR 76, the US EPA AHEA. Access to areas under	REI	CAC SCAQMD City of SB

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	containment will be limited to individuals with these certifications and proper Personal Protective Equipment. Containment area entry/exit logs will be maintained.		
	All friable asbestos waste will be double wrapped/bagged with polyethylene plastic, labeled, and placed into lined, lockable, secure bins. It will then be transported to a hazardous waste facility.	REI	CAC SCAQMD City of SB
	When abatement is complete in each area/containment, the CAC will perform clearances to ensure the area is free of asbestos and safe for demolition.	REI CAC	CAC SCAQMD City of SB
	All lead-based paint will be stabilized and rendered safe for demolition and disposal. The facility will be chosen based on composite sampling results.	REI	CAC SCAQMD City of SB
	All electronic waste, light tubes, mercury thermometers, and other universal waste will be packaged and transported to licensed receiving facilities.	REI	CAC SCAQMD City of SB
Contaminated Soil	The testing and removal of soil are not part of the Project scope and will not be included in the Design-Build Construction documents.	REI	City of SB
	If soil is to be disturbed, wet methods will continue to be utilized to prevent dust emissions.	REI	City of SB
	The Phase I ESA identifies areas of the Project site that were previously found to be contaminated. This is primarily in the outer buildings and was previously remediated. As a safety precaution, slabs and foundation systems will be left in place in areas of concern.	REI	City of SB
Erosion/ Runoff	A Colorado River Regional Water Quality Control Board (SARWQCB) compliant Stormwater Pollution and Prevention Plan (SWPPP) prepared by a Qualified SWPPP Developer (QSD) will be developed. The site will be monitored weekly by a Qualified SWPPP Practitioner (QSP) in compliance with regulations.	REI	SARWQCB City of SB
	Best Management Practices (BMPs) such as fiber rolls and filter fabric will be installed around the perimeter of the site and at storm drain inlets to mitigate potential runoff.	REI	QSP SARWQCB City of SB
	The crushed material will be spread throughout the site at the end of the Project. Crushed concrete/aggregate is one of the most effective erosion control measures and will allow for the SWPPP to be terminated with the State at Project completion.	REI	QSP SARWQCB City of SB
	If any area is to remain exposed, hydroseeding will be provided.	REI	QSP SARWQCB City of SB
	A temporary storm drain has been proposed as an allowance to avoid ponding and potential excess water impacting buildings to remain.	REI	QSP SARWQCB City of SB
Cultural & Archaeological	In the event of an inadvertent discovery of archaeological or tribal cultural resources, all work will cease, and the City of San Bernardino will be notified.	REI	City of SB

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	If human remains are found, in compliance with CA H&S Code 7050.5, all work will cease, and the County Coroner will be contacted to determine the nature of the remains. In the event the remains are determined to be Native American, the Coroner will be required to contact the NAHC.	REI	City of SB
Historical	The Harris Building and the Andersen/Enterprise Building are to be protected in place. A structural engineer has been retained to assist in supporting the structures during the mall demolition.	REI	Struc. Engr. City of SB
	The structural engineer will confirm the buildings are seismically separated. If a basement exists, an equipment standoff distance will be utilized to avoid surcharging basement walls with loads they were not originally designed. Surgical/hand demolition may be required in these areas.	REI	Struc. Engr. City of SB
	Openings to both buildings will be sealed with new, waterproofed walls.	REI	Struc. Engr. City of SB
Sustainability	All concrete will be crushed on-site for reuse as fill and sediment control. This avoids sending nearly 50,000 tons of concrete to a landfill and avoids the use of 2,500 diesel-guzzling truck loads. The Project will yield a 95% diversion from landfills.	REI	City of SB
	All equipment will be California Air Resources Board compliant with Tier 4 engines. No equipment will be permitted to idle in excess of 10 minutes.	REI	SCAQMD City of SB
Security	The site will be fenced with construction fencing and windscreen.	REI	City of SB
	Security guards will be provided during all non-working hours. Reports will be provided to Resource daily and will be available to the City upon request.	REI	City of SB