APPENDIX M

HYDROLOGY ASSESSMENT OF PROJECT ALTERNATIVES TECHNICAL MEMORANDUM

TAJIGUAS RESOURCE RECOVERY PROJECT HYDROLOGIC ASSESSMENT OF PROJECT ALTERNATIVES

September 23, 2013

Revised July 15, 2014

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Executive Summary

The purpose of this Technical Memorandum is to provide a qualitative analysis of potential hydrologic impacts of the alternative to the Tajiguas Resource Recovery Project (TRRP) in Santa Barbara County, California.

The proposed MarBorg Industries MRF site is located in floodplain Zone A. The building is proposed to be, and majority of the access road are above the floodplain. The access road at the southwest corner is below the floodplain which may impact access to the facility. It is not anticipated that onsite improvements will adversely impact the floodplain. The proposed MarBorg site will not be impacted by sea level rise (year 2050) within the project life expectancy. The MarBorg facilities will not be impacted by the long term (up to year 2100) sea level rise, which exceeds the project life expectancy. For the long-term projection (year 2100), a portion of the access road at the southwest corner may be further inundated for the high end projection. If the project needs to be extended over the current design life expectancy, additional planning and risk management regarding the sea level rise may need to be considered for the MarBorg site.

The assessment determined the South Coast Recycling and Transfer Station (SCRTS), Off-site Aerobic Composting (Engel and Gray), Tajiguas Landfill Expansion and Waste Export to the Santa Maria Integrated Waste Management Facility alternatives will not have hydrologic impact due to local drainage, floodplains or sea level rise.

For Waste Export to the Simi Valley Landfill and Recycling Center alternative, the proposed landfill expansion would fill the Alamos Canyon tributary creek and substantially change the drainage performance of the drainage area, effectively eliminating the existing 100- year flood storage capacity of the tributary creek. In addition, a portion of the proposed waste disposal area is located in floodplain Zone A. According to the Final EIR prepared for the project,

surface runoff from the site is proposed to be controlled by project-related drainage features, including a detention basin, therefore, flooding would not occur within the landfill expansion area during landfill operations, resulting in less than significant impacts. In addition, because 100-year storm flow rates would be reduced to less than or equal to existing flood flows, as a result of the detention basin, less than significant impacts would occur with respect to contributing flood flow to Alamos Canyon Creek. This site will not have hydrologic impact due to local drainage or sea level rise.

Hydrologic Assessment

The County of Santa Barbara Resource Recovery and Waste Management Division (RRWMD) is proposing to develop the Tajiguas Resource Recovery Project (TRRP). The project involves the construction and operation of a Materials Recovery Facility (MRF), Anaerobic Digestion Facility (ADF) and Composting Area (CA) to meet the communities' long-term waste disposal needs, further recover recyclables from the municipal solid waste stream and generated green energy. To meet the requirements of the California Environmental Quality Act (CEQA), in addition to analyzing the impacts of the project, an analysis of project alternatives must be conducted. Seven project alternatives have been identified as a part of the CEQA review including two urban area alternative locations for the MRF, aerobic composting as alternative to the ADF, expansion of the Tajiguas Landfill, and exportation to either the Simi Landfill (currently proposed for expansion) or the proposed new Santa Maria Landfill (Santa Maria Integrated Waste Management Facility [SMIWMF]). A qualitative assessment of the potential hydrologic impacts was evaluated for the alternatives. A detailed analysis of downstream system impacts was not performed. The hydrologic assessment includes impacts on and from local drainage, regional floodplains and potential sea level rise (see further discussion of sea level rise below). The seven alternatives are as following:

1. No Project Alternative
2. Urban Area MRF Alternative 1 (MarBorg Industries MRF) (Figure 1)
3. Urban Area MRF Alternative 2 (SCRTS MRF) (Figure 2)
4. Off-Site Aerobic Composting (Engel and Gray) (Figure 3)
5. Tajiguas Landfill Expansion (Figure 4)
6. Waste Export to the Simi Valley Landfill and Recycling Center (Figure 5)
7. Waste Export to the Santa Maria Integrated Waste Management Facility (Figure 6)

The proposed alternative boundaries were digitized based on data provided by RRWMD. The alternative plans are included in Appendix B.

Sea Level Rise Considerations

The State of California Ocean Protection Council (OPC, 2013) presented updated sea level rise guidance in 2013 - *State of California Sea-Level Rise Guidance Document* (Guidance Document, 2013). The California Coastal Commission (CCC, 2013) also prepared *Draft Sea-Level Rise Policy Guidance* (Policy Guidance, 2013). Both guidelines project sea level rise following the National Research Council (NRC) 2012 sea level rise study of the U.S west coast. Table 1 is extracted from both guidelines. The projections show a wide range due to the uncertainties of climate change, and the modeling of land ice melting rates. Until 2050, there is a strong agreement among the various climate models for the amount of sea level rise that is likely to occur. After 2050, projections of sea level rise become more uncertain (Guidance Document, 2013). The Guidelines recommend selecting the sea level rise values based on the agency and context-specific considerations of risk tolerance and adaptive capacity.

For Tajiguas Resource Recovery Project alternatives, the expected operational timeframe is approximately 20 years. Therefore 2050 sea level projection is assumed appropriate for the alternative analysis (although the 2030 and 2100 values are evaluated as well). The Mean Higher High Water (MHHW) tide elevation of 5.67 feet (NAVD) based on Santa Barbara station (NOAA 2012) is used as current sea level elevation. To be conservative, the high end values of the sea level rise projections were selected for the analysis.

Table 1. OPC Sea Level Rise Projections using 2000 as the Baseline

Time Period	South of Cape Mendocino
2000-2030	4 to 30 cm (0.13 to 0.98 ft)
2000-2050	12 to 61 cm (0.39 to 2.0 ft)
2000-2100	42 to 167 cm (1.38 to 5.48 ft)

No Project Alternative

This Alternative involves continued disposal of MSW at the existing, permitted Tajiguas Landfill until the disposal capacity is reached in approximately year 2026. As the Santa Barbara County (County) is required to provide waste disposal services for the communities currently served by the Tajiguas Landfill, after year 2026 the County would need to provide other disposal options. Absent implementation of the proposed project, the County would likely either pursue an expansion of the Tajiguas Landfill or export waste to another landfill.

Urban Area MRF Alternative 1 (MarBorg Industries MRF)

This Alternative would involve construction and operation of the proposed MRF component of the TRRP at the MarBorg Industries site at the southeast corner of Quinientos Street and Calle Cesar Chavez (620 Quinientos Street) located in the City of Santa Barbara, California. See Figure 1 for MarBorg site location. The MRF would be located on several parcels (APN 017-

113-025 to -028 and a portion of -031) encompassing a total area of 4.19 acres. This site currently includes a 1.1 acre green-waste chipping and inert materials processing facility, a concrete batch plant for ready-mix concrete (leased to Vulcan), vehicle and equipment storage and inert material storage. Additionally, Lash Construction is a concrete, paving, and asphalt contractor that leases part of the property. MarBorg Industries green-waste and inerts processing facility operates under a Notification Tier Solid Waste Facility Permit. Under this Alternative the ADF and CA would continue to be located at the Tajiguas Landfill, with disposal of residual waste also at the Tajiguas Landfill.

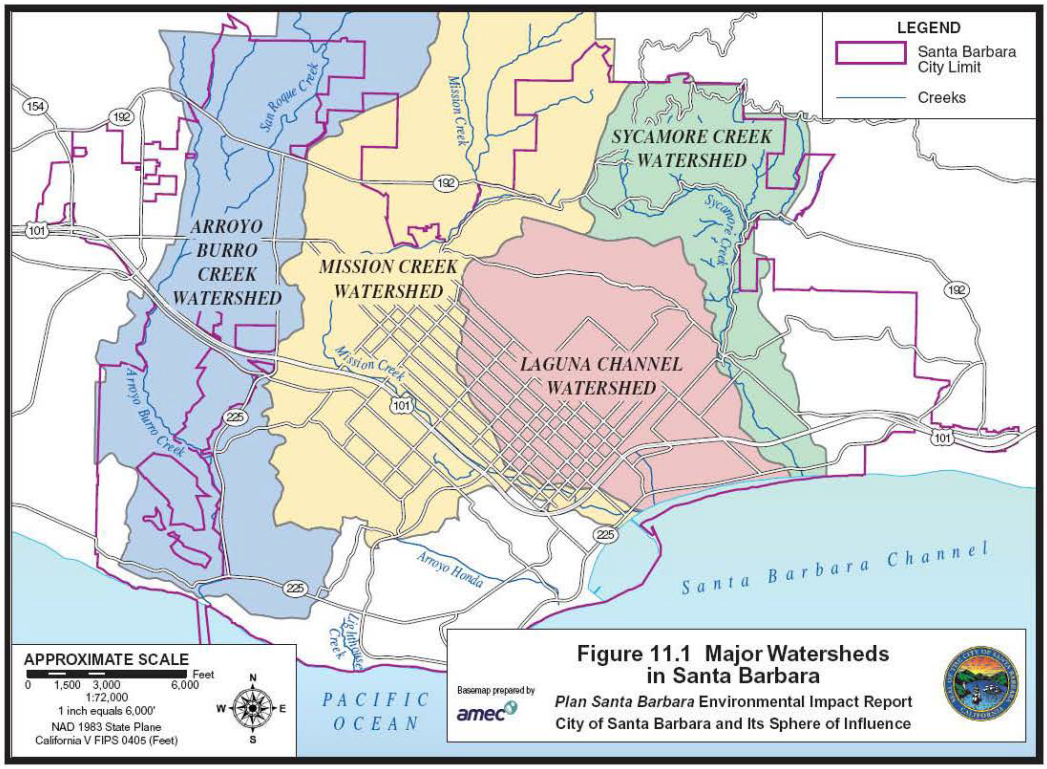
Local Drainage Impact

The MarBorg site is located within the City of Santa Barbara and drainage from the site is collected by the City's storm drain network. Storm water runoff from the roofs and paved areas drains to the City storm drain system. In the vicinity of the project site the storm drains ultimately discharge into the Laguna Channel. The Laguna Channel Watershed is comprised of approximately 2,020 acres of almost entirely urban land on the southeast side of Santa Barbara. The watershed is bounded on the north by the foothills, on the east by Quarantina Street, on the west by State Street, and on the south by the Santa Barbara Channel. Near the foothills is a small upland area with oak woodland and chaparral vegetation; most of the remaining portion of the watershed is residential, with the area nearest Laguna Creek and just above and below Highway 101, commercial.

Flooding is a major concern in this watershed, in part from flood flows that break out of lower Mission Creek. Laguna Creek is a remnant of a large estuarine area that was originally located on the east side of downtown. The channel contains both earthen and fully lined concrete reaches. There is a tide gate at the mouth of the channel to prevent tidal influx. The creek empties at the beach across from Chase Palm Park. Most of the runoff from the highly developed east side of the City is conveyed to Laguna Creek through underground storm drains. The channel has a very low gradient and the upstream areas are prone to flooding. The area upstream of the park, behind El Estero Wastewater Treatment Plant, is mixed-use commercial and industrial. The remainder of the creek upstream of this area (within the central portion of the City) is in a culvert or otherwise underground; only the lower 3,100 feet of the Laguna Creek remains open, although this channel has been substantially altered and straightened. There are also several secondary tributary channels south of Alameda Padre Serra that feed into the Laguna drainage system. The figure below shows the major watersheds in Santa Barbara County. (City of Santa Barbara, 2010).

The majority of the MarBorg site is paved/impervious or highly compacted. However, because much of the site is covered by demolition debris and/or by stored materials it is difficult to determine if the entire site is comprised of an impermeable cover. Construction of the MRF at this location would involve the installation of approximately 166,400 square feet of new development and pavement which may result in an increase in runoff from the site. The MarBorg MRF alternative would be required to meet the City's storm water management requirements which have been developed to comply with the State NPDES General Municipal

Storm Water Permit Program. The City of Santa Barbara has implemented a peak runoff discharge rate requirement, a volume reduction requirement, and a treatment requirement for storm water runoff. Since the existing MarBorg site is developed, construction of the MRF at this site would be considered redevelopment under the City's definitions. Therefore, best management practices (BMPs) would need to be implemented to provide detention of the net increase in flows from the site such that the post-development peak storm water runoff discharge rate does not exceed the pre-development rate for the 2-, 5-, 10-, and 25-year 24-hour storm events. Any net increase in the volume of flow would also be required to be retained to eliminate off-site drainage impacts. On a conceptual basis, the MarBorg site plans include several bioswales and bioretention facilities to address treatment requirements. MarBorg site grading and drainage figures are included in the Appendix B The ability of these facilities to convey the peak discharge and volume and flow requirements has not yet been determined and site conditions (low permeability soils and high groundwater levels) may limit the ability to infiltrate detained storm water. To ensure that the project does not result in a local drainage impact the following mitigation measure is required:



Mitigation Measure MarBorg: Storm Water Detention Plan. All project runoff waters shall be detained/retained in compliance with the City of Santa Barbara's Storm Water Management Plan/Program (SWMP). A drainage study shall be prepared to determine the change in runoff volumes and peak runoff rates and BMPs (such as those included in the City's Best Management Practices Manual (2013)) shall be incorporated into the site design and shall be

properly sized to ensure that post development runoff from the site complies with the following City's standards:

- Provide detention such that the post-development peak storm water runoff discharge rate shall not exceed the pre-development rate for the 2-, 5-, 10-, and 25-year 24-hour storm events.

- Retain on-site the larger of the following two volumes from the entire project site:

    - The volume difference between the pre- and post-conditions for the 25-year, 24-hour design storm (for redevelopment, the pre-condition is the predevelopment condition).

    - The volume difference between the pre- and post-conditions generated from a one-inch, 24-hr storm event.

The selection of BMPs shall consider site constraints such as available land area, presence of high groundwater levels, permeability of existing soils, presence of a portion of the site within the 100-year floodplain and other site specific factors. With implementation of this measure, local drainage impacts would be potentially significant but mitigable.

Floodplain Impact

The MarBorg site is located within Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 06083C Panel 1391G dated December 4, 2012, which is available in Appendix A. A portion of the MarBorg site is located in Zone A with no Base Flood Elevation (BFE) identified. A Letter of Map Amendment (LOMA), case number 13-09-0266A, was filed to remove a structure at 2 Quarantina Street from the Special Flood Hazard Area (SFHA). This location is approximately 200 feet north of the MarBorg site and both are located in the same SFHA. The supporting data for this LOMA was requested from FEMA in May 2013, which is available in Appendix A. Based on the hydraulic analysis in the LOMA, the 100-year water surface at the MarBorg site is at 12.8 feet (NAVD). Per FEMA comment, this water surface may be slightly low due to the methodology used for analysis. The 100-year water surface will be below the proposed MRF building at elevation 16.5 feet and Office Building at elevation 15 feet. The existing road on the north side of the site (Quinientos Street) is above the floodplain; however, the existing road on the east side (South Calle Cesar Chavez) is below the 100-year water surface elevation. This condition could limit access to the site at the southwest corner during a major storm event. It is anticipated that the duration of flooding at this location would be less than significant; however, a mitigation plan may be warranted if no alternative access to the site (or alternate site) is available. With implementation of this measure, floodplain impacts would be potentially significant but mitigable.

The MarBorg site drainage and grading plans are included in Appendix B. The MRF building is proposed to be raised above the floodplain, this would result in a minimal (less than significant)

impact on the floodplain. This is because the flooding is principally due to backwater ponding, and the MarBorg site is partially located within the conveyance shadow (i.e. ineffective flow area) of the existing upstream buildings (2 Quarantina Street).

Sea Level Rise Impact

Table 2 shows the high and low end sea level rise projections for 2030, 2050 and 2100 (see Sea Level Rise discussion above). The MarBorg site plan (provided by Penfield & Smith, dated April, 2013 – see Appendix B) shows the lowest finish floor of the structure (Office Building) at elevation 15.0 feet.

The sea level rise high end projection results indicate the MarBorg facilities will not be impacted by the future (up to year 2100) sea level rise, which exceeds the project life expectancy. Within the project life expectancy, the project area including the access roads and parking area, will not be impacted by the future sea level rise high end projection (up to year 2050).If the project life expectancy needs to be extended, for the long-term high end projection (year 2100), a portion of the access road at the southwest corner may be inundated, which could create additional challenges to ensure reliable access and transportation routes are available. It is anticipated that the duration of flooding at this location would be less than significant; however, a mitigation plan may be warranted if no alternative access to the site (or alternate site) is available. With implementation of this measure, sea level rise impacts would be potentially significant but mitigable.

The sea level rise low end project results indicate the MarBorg project site will not be impacted by the future (up to year 2100) sea level rise.

Table 2. MRF Sites Sea Level Rise Projection using 2000 as the Baseline

Year	Sea Level Rise Projection (High End)	MHHW[1]+ Sea Level Rise Projection (High End)	Sea Level Rise Projection (Low End)	MHHW[1]+ Sea Level Rise Projection (Low End)
2030	30 cm (0.98 ft)	202.8 cm (6.65 ft)	4 cm (0.13 ft)	176.8 cm (5.80 ft)
2050	61 cm (2.00 ft)	233.8 cm (7.67 ft)	12 cm (0.39 ft)	184.8 cm (6.06 ft)
2100	167 cm(5.48 ft)	339.8 cm (11.15 ft)	42 cm(1.38 ft)	214.8 cm (7.05 ft)

1. MHHW – Mean Higher High Water

Urban Area MRF Alternative 2 (SCRTS MRF)

This alternative would involve construction and operation of the MRF component of the TRRP at the existing County-owned and operated SCRTS site located at 4430 Calle Real in Santa Barbara, California. See Figure 2 for the SCRTS location. The ADF and CA would be located at the Tajiguas Landfill, with disposal of residual waste at the Tajiguas Landfill. Under this Alternative, the MRF would be integrated with the existing solid waste operations at the SCRTS.

Local Drainage Impact

The proposed project site is in the unincorporated urban area of Santa Barbara County between the cities of Santa Barbara and Goleta. The site drains to an existing storm drain system under County Road which outlets to Hospital Creek. Hospital Creek joins Atascadero Creek which flows to Goleta Slough and the Pacific Ocean approximately 6 miles from the site. The municipal storm drain network in this area is maintained and operated by the Santa Barbara County Flood Control District. Most of the SCRTS site is currently paved/impervious and the MRF would be located within this paved area. One component of the MRF, the biofilters, is proposed to be located on an undeveloped slope west of the MRF building. The biofilters would occupy an area of approximately 0.5 acres with 100% impervious cover that could increase runoff and potentially create surcharge to the municipal storm drain. John Kular Consulting conducted the local drainage analysis (see Appendix B). The analysis indicates a maximum 100-year flow increase due to the proposed development of 1 cubic feet per second (cfs). This flow increase is insignificant and would have little to no impact to the existing downstream storm drain.

Floodplain Impact

The proposed SCRTS site is not located within a FEMA floodplain. The site is shown in FEMA FIRM 06083C Panel 1359G dated December 4, 2012, which is available in Appendix A. There are no anticipated impacts to or from a floodplain at this site.

Sea Level Rise Impact

The lowest spot at the SCRTS site is at the southeast corner of MRF facility. The lowest elevation is at 258 feet, which is well above sea level. Therefore, there will be no short or long-term impact to the SCRTS MRF from future sea level rise.

Off-Site Aerobic Composting (Engel and Gray)

This Alternative would involve processing organic waste recovered in the MRF using open air aerobic composting methods at Engel and Gray's existing composting facility in the City of Santa Maria, instead of enclosed dry fermentation anaerobic digestion at the Tajiguas Landfill. Under this alternative, the MRF would still be constructed at the Tajiguas Landfill and residual waste would still be disposed of at the Landfill but the ADF and CA would not be constructed. See Figure 3 for Engel and Gray location. The Engel & Gray facility is comprised of two parcels (APNs 113-120-17, -21) encompassing 40.15 acres. The site is located approximately 0.3 miles south of the State Route 166/Ray Road intersection, and about 2.5 miles west of residential areas located at Black Road.

Local Drainage Impact

The Engel and Gray composting facility uses open air aerobic windrow composting methods on a compacted dirt surface. According to the facility's Waste Discharge Requirements (Central Coast Regional Water Quality Control Board, 1999), mean surface elevation at the Engel and

Gray site is 155 feet and the topography is nearly flat. No named surface water features are located within proximity to the site. Surface water run on/off is controlled by a series of berms which separate the composting site from the adjacent land uses. Internally the site is hydraulically split in half with surface water from each sub-area collected in grass-lined swales that drain to one of two retention/percolation basins located at the west end of the site. The composting facility's precipitation control facilities are required to be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, washout, and over-topping due to a 24-hour precipitation event with a predicted frequency of once in 100 years. Under the proposed alternative, the additional organic waste recovered from MSW at the proposed MRF would be transported to the Engel and Gray site for aerobic composting. Engel and Gray has indicated that the additional material could be processed within the existing permitted area and capacity. Per CEQA determination finding memorandum (2008), the modified Engel and Gray Composting Facility Project would not:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Therefore, no change in the site condition pervious cover is anticipated from what was previously analyzed and no additional impact to local drainage is anticipated.

Floodplain Impact

The proposed Engel and Gray site is located within a FEMA floodplain Zone X. The site is shown in FEMA FIRM 06083C Panel 0160F dated September 30, 2005, which is available in Appendix A. There are no anticipated impacts to or from a floodplain at this site. Some of the roads surrounding the facility experience localized flooding during storm events which could impact access to the site. However, due to the limited duration and localized impact, the impact is not considered significant.

Sea Level Rise Impact

The site is located approximately at elevation 155 feet, which is well above sea level. Therefore, there will be no short or long-term impact to the offsite aerobic composting (Engel and Gray) from future sea level rise.

Tajiguas Landfill Expansion

This Alternative would involve expansion of the Tajiguas Landfill to extend its life by approximately 10 years from the currently projected closure in approximately 2026 to approximately 2036. See Figure 4 for the Tajiguas Landfill Expansion location. The expansion would provide additional disposal capacity to extend the life of the Tajiguas Landfill as compared to the proposed TRRP which would reduce the quality of material being disposed through the recovery of additional recyclable materials and organics and utilize the existing permitted capacity to achieve the same extension of Landfill life. The additional capacity would be provided by expanding the Landfill footprint in the back canyon area of the landfill property in the area of the landfill reconfiguration project that was approved in 2009. This alternative has been designed to preserve the existing North Sedimentation Basin and to avoid additional impacts to the Pila Creek channel. The existing landfill would be expanded both vertically and horizontally to provide the additional disposal capacity and additional area in the upper reaches of the Landfill property would be disturbed due to the additional area needed to stockpile soil. No additional recovery of recyclable material or production of green energy would occur under this alternative.

Local Drainage Impact

On-site drainage features would be designed and constructed in the expanded landfill area to control storm water runoff from landfill surfaces and run-on from the surrounding watershed. Storm water from landfill expansion area would be directed to the existing North Sedimentation Basin which discharges into the concrete-lined portion of upper Pila Creek. Due to the similar runoff characteristics of the proposed landfill cover-type and the existing cover-type, and the storage effects of the North Sedimentation Basin, as well as within Pila Creek, the expansion would not increase the runoff peak flow and, therefore, not have any significant impact on local drainage.

Floodplain Impact

The proposed Tajiguas Landfill Expansion site is not located within a FEMA floodplain. The site is shown in FEMA FIRM 06083C Panel 1285G dated December 4, 2012, which is available in Appendix A. There are no anticipated impacts to or from a floodplain at this site.

Sea Level Rise Impact

The site is located approximately at elevation 260 feet, which is well above sea level. Therefore, there will be no short or long-term impact to the expanded landfill area from future sea level rise.

Waste Export to the Simi Valley Landfill and Recycling Center

This Alternative would involve transportation of all MSW generated in the Tajiguas Landfill wasteshed to the Simi Valley Landfill and Recycling Center (SVLRC), when the Tajiguas Landfill reaches its permitted capacity (approximately year 2026). The SVLRC is located at

2801 Madera Road, Simi Valley, California approximately 65 miles from the City of Santa Barbara. See Figure 5 for the SVLRC location. The basis of this Alternative is to provide 10 additional years of MSW disposal capacity equivalent to the proposed project. No additional recovery of recyclable material or production of green energy would occur under this alternative. A Final Environmental Impact Report (EIR) has been prepared for the expansion of the Simi Landfill (Ventura County, 2010) and drainage and flooding information from this EIR is summarized below.

Local Drainage Impact

Per Simi Valley Landfill and Recycling Center Expansion Project Final EIR (2010), surface runoff from completed landfill surface is captured on benches along the face of the landfill and diverted to various collection pipes located below the toe of the site. These collection points in turn discharge into the perimeter collection system on the southern perimeter of the landfill proper. From this collection system, surface water flows through a 78-inch corrugated metal pipe (CMP) under the access roadway. From there, the water is directed under SR-118 in an 84-inch CMP and into the Arroyo Simi. Three other small flow discharge points are located in the northeast, southeast, and west portions of the landfill. Drainage to these discharge points accumulates within the CUP boundary, but outside the waste footprint. Permanent landfill drainage facilities are designed to carry 100-year storm runoff volumes as required by Title 27 California Code of Regulations (27 CCR) §20365.

A detention/sedimentation basin is located on the property north of SR-118 and south of the SVLRC entrance road. The detention/sedimentation basin was designed to accommodate surface water flows from the facility and allow sediments to settle out prior to off-site discharge. The detention/sedimentation basin is maintained for adequate desilting capacity. During landfill operations, temporary berms and V ditches are placed near active refuse fill areas to control surface water runoff. The temporary berms and V-ditches direct surface water around exposed refuse and prevent it from ponding on the refuse fill. Surface water runoff is carried over temporary refuse fill slopes via oversized drains comprised of metal flumes, corrugated metal pipe, ABS plastic pipe, or plastic-lined trenches.

The proposed project would not increase the net utilization of surface water in a hydraulic unit that is overdrafted or adversely impact an overdrafted hydraulic unit. Surface runoff within the proposed CUP boundary would continue to be collected at the perimeter of the fill area. This runoff, along with sheet flow generated on the fill area itself, would continue to be diverted through a combination of lined and unlined ditches, sediment traps, and slope benches, with the runoff culminating in six detention basins around the perimeter of the landfill. Surface water would subsequently be discharged from these basins to downstream drainage features. Drainage to these discharge points would accumulate within the proposed CUP project boundary, but outside the proposed waste disposal area. Surface runoff would not be utilized for any project-related purpose.

Based on this information , waste exported from the Tajiguas Landfill to the existing SVLRC will not create additional local drainage impact.

Floodplain Impact

The Existing CUP and majority of the Proposed Waste Disposal Area are located within a FEMA floodplain Zone X. A portion of the Proposed Waste Disposal Area is located within FEMA floodplain Zone A with no BFE indicated. The Zone A in the Proposed Waste Disposal Area is the tributary to the Alamos Canyon. The site is shown in FEMA FIRM 06111C Panel 0841E dated January 20, 2010, which is available in Appendix A. The area located within Zone X will not have impacts to or from a floodplain, but the landfill expansion -area located within Zone A would have the potential to result in increased flooding. As discussed in the Final EIR, the west end of the northern expansion area is located within a 100-year flood plain, as designated by the Federal Emergency Management Agency (FEMA) (FEMA 2008). This floodplain merges westward with the floodplain of upper Alamos Canyon Creek. The proposed landfill expansion would fill the Alamos Canyon tributary creek and substantially change the drainage performance of the drainage area, effectively eliminating the existing 100- year flood storage capacity of the tributary creek. However, because surface runoff within this tributary canyon (to Alamos Canyon Creek) would be controlled by project-related drainage features, including a detention basin, flooding would not occur within the landfill expansion area during landfill operations, resulting in less than significant impacts. In addition, because 100-year storm flow rates would be reduced to less than or equal to existing flood flows, as a result of the detention basin, less than significant impacts would occur with respect to contributing flood flow to Alamos Canyon Creek. The structural integrity of the detention basin could be undermined by erosive floodwaters along Alamos Canyon Creek, resulting in potentially significant flooding impacts. Mitigation Measure WR-3, Detention/Sedimentation Basin Armoring, would be implemented to reduce potentially significant impacts associated with the potential erosive undercutting of the detention basin bank, due to 100-year flood along Alamos Canyon Creek to a less than significant level. In addition, construction of the detention/sedimentation basin partially within the floodplain could result in downstream erosion within Alamos Canyon Creek. Mitigation Measure WR-4, Downstream Erosion Control Measures and/or Redesign of Detention/Sedimentation Basin, would be implemented to reduce potential downstream erosion impacts.

Sea Level Rise Impact

The site is located approximately at elevation 880 feet, which is well above sea level. Therefore, there will be no short or long-term impact to the SVLRC from future sea level rise.

Waste Export to the Santa Maria Integrated Waste Management Facility

This Alternative would involve transportation of all MSW generated in the Tajiguas Landfill wasteshed to the proposed Santa Maria Integrated Waste Management Facility (Santa Maria IWMF), when the Tajiguas Landfill reaches its permitted capacity (approximately 2026). See Figure 6 for Santa Maria IWMF location. The Santa Maria IWMF is proposed to be located on

a 1,774 acre site, approximately 7 miles south of the Santa Maria City Center (approximately 70 miles from the City of Santa Barbara) and one mile east of U.S. 101. A final EIR has been prepared for the Santa Maria Integrated Waste Management Facility (2010). The drainage information from this EIR is summarized below.

Local Drainage Impact

The proposed project would introduce approximately 313.7 acres of impervious surfaces, which would increase stormwater runoff and potentially result in downstream flooding and degraded water quality. However, proposed on-site detention basins would reduce runoff rates and filter contaminants, which would reduce impacts to a less than significant level.

CCR Title 27, Section 20310 requires that Class III landfills have containment structures which are capable of preventing degradation of water of the state, and that containment structures be designed by, and construction be supervised by, a registered civil engineer or a certified engineering geologist. CCR Title 27, Section 20365 outlines performance standards for diversion and drainage facilities on landfills. According to Section 20365, Class III landfills shall have permanent drainage control facilities with the capacity carry 100-year, 24-hour storm event runoff volumes.

In addition, the project would include a surface water drainage control system that would divert and convey stormwater flows in a controlled manner in order to minimize erosion, and to inhibit the potential infiltration of surface water run-on or precipitation into the refuse disposal areas. While the landfill is active, interim drainage control features would be constructed on an as needed, temporary basis. These features would include compacted earth berms, silt fences and sandbags, all of which would surround the active refuse area and be constructed in a way to divert runoff into downdrains and perimeter drains, which are part of the permanent drainage system to control runoff upon closure of the landfill. Detention basins to control stormwater runoff would be constructed during the active phases of the landfill on an as needed basis. Upon closure of the landfill, the permanent drainage control facilities would carry 100-year, 24-hour storm event runoff volumes, as required by CCR 27, Section 20365. Permanent berms would intercept stormwater flows and direct the water into the downdrains, which would convey the water to the perimeter drainage channels. The downdrains would outlet into the perimeter system drain which would consist of trapezoidal drainage channels of reinforced concrete around the landfill footprint perimeter. The outflows of those drainage channels would be directed into detention basins.

A Hydrology Analysis prepared for the project examined whether the proposed drainage system would adequately control peak flow stormwater runoff once the final cover is place over the refuse. According to this report, the proposed drainage plan would regulate the quantities of storm water flows leaving the site during inactive conditions such that they are less than pre-landfill conditions (refer to EIR Appendix E for complete text of the Hydrology Analysis).

Floodplain Impact

The proposed Santa Maria IWMF site is not located within a FEMA floodplain. The site is shown in FEMA FIRM 06083C Panel 0480G dated December 4, 2012, which is available in Appendix A. There are no anticipated impacts to or from a floodplain at this site.

Sea Level Rise Impact

The site is located approximately at elevation 1,000 feet, which is well above sea level. Therefore, there will be no short or long-term impact to the SMIWMF from future sea level rise.

References

1. California Coastal Commission, *Draft Sea-Level Rise Policy Guidance*, October 2013

2. City of Santa Barbara, *Santa Barbara General Plan Proposed Safety Element*, April 2013

3. City of Santa Barbara, *Program Environmental Impact Report For the Plan Santa Barbara General Plan Update, SCH 2009011031*, Sept 2010 http://www.santabarbaraca.gov/civicax/filebank/blobdload.aspx?BlobID=16926

4. Community Development Department, *CEQA Determination Finding that CEQA Section 15164 (Addendum) Applies to SP-94-28 Engel and Gray Composting Facility*, July 3, 2008

5. County of Ventura Planning Division, *Simi Valley Landfill and Recycling Center Expansion Project Final EIR*, December 2010

6. HDR Engineering, *Hydrology and Hydraulic Analysis Report for Pila Creek at Tajiguas Landfill*, June 2008

7. HDR Engineering, *Tajiguas Landfill Interim Hydraulic Analysis*, November, 2011

8. HDR Engineering, *Hydrology and Hydraulic Analysis Report for Pila Creek at Tajiguas Landfill*, June 2008

9. NOAA, *Gage Data for Station 9411340 –Santa Barbara, California.* http://tidesandcurrents.noaa.gov, 2007

10. NOAA *Technical Report NOS CO-OPS 53, Sea Level Variations of the Untied States 1854-12006*

11. National Research Council, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: past, Present, and Future*, 2012

12. Rincon Consultants, Inc. *City of Santa Maria Integrated Waste Management Facility Project Final EIR*, April 2010

13. Santa Barbara County, *Tajiguas Landfill Resource Recovery Project Internal Draft Subsequent EIR*, 2013

14. State of California Ocean Protection Council, *State of California Sea-Level Rise Guidance Document*, March 2013

15. SWT Engineering, Tajiguas Sanitary Landfill Phase IIIA Groundwater Protection System Construction Drawings, Project number 828356, 2011

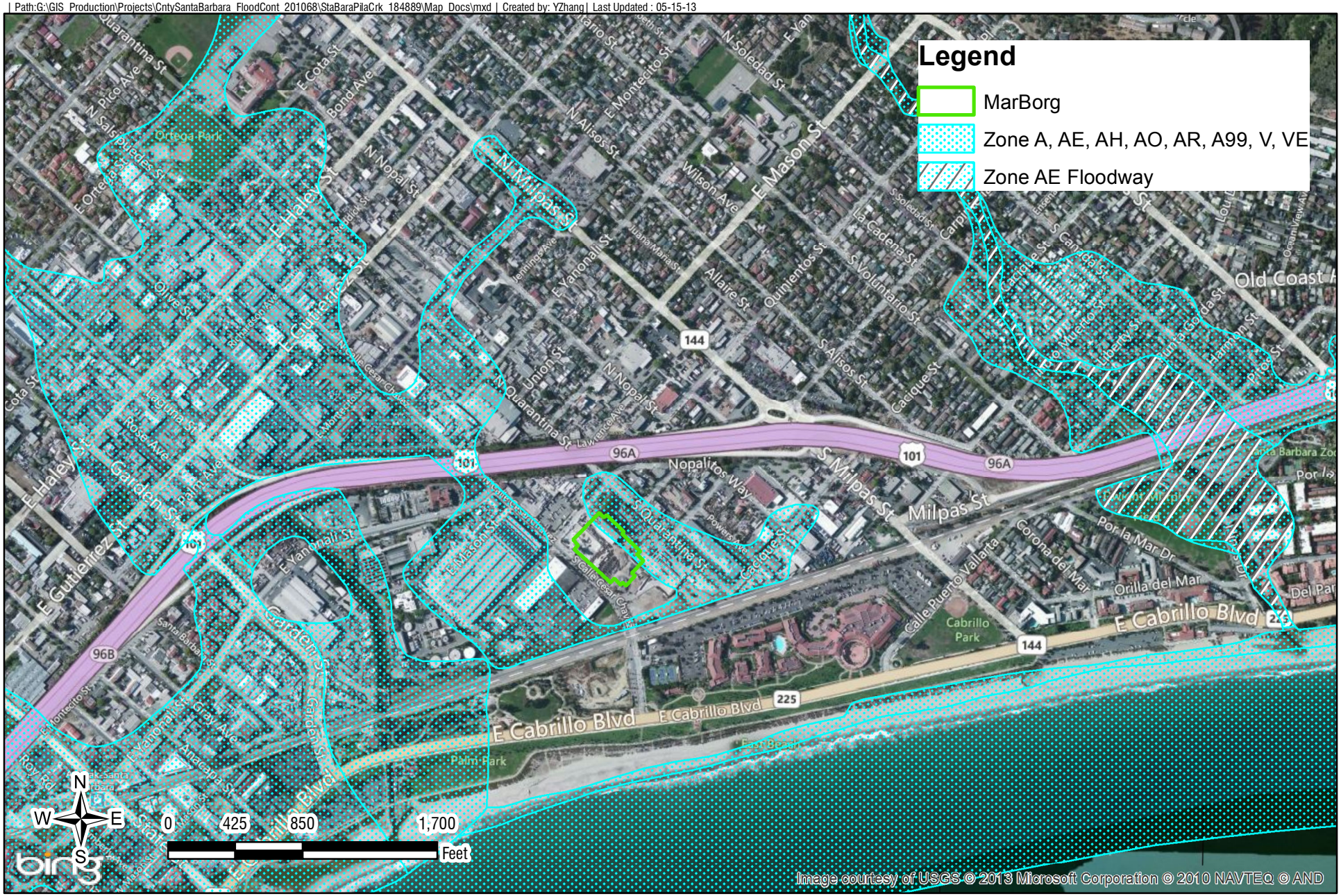
16. University of California, Santa Cruz, City of Santa Barbara Sea-Level Rise Vulnerability Study, July 2012

Figures

Appendices

Figures

| Path:G:\GIS_Production\Projects\CntySantaBarbara_FloodCont_201068\StaBaraPilaCrk_184889\Map_Docs\mxd | Created by: YZhang | Last Updated : 05-15-13



HDR
ONE COMPANY | *Many Solutions*

MarBorg MRF Alternative

FIGURE 1

Santa Barbara County | Tajiguas Landfill | Alternatives

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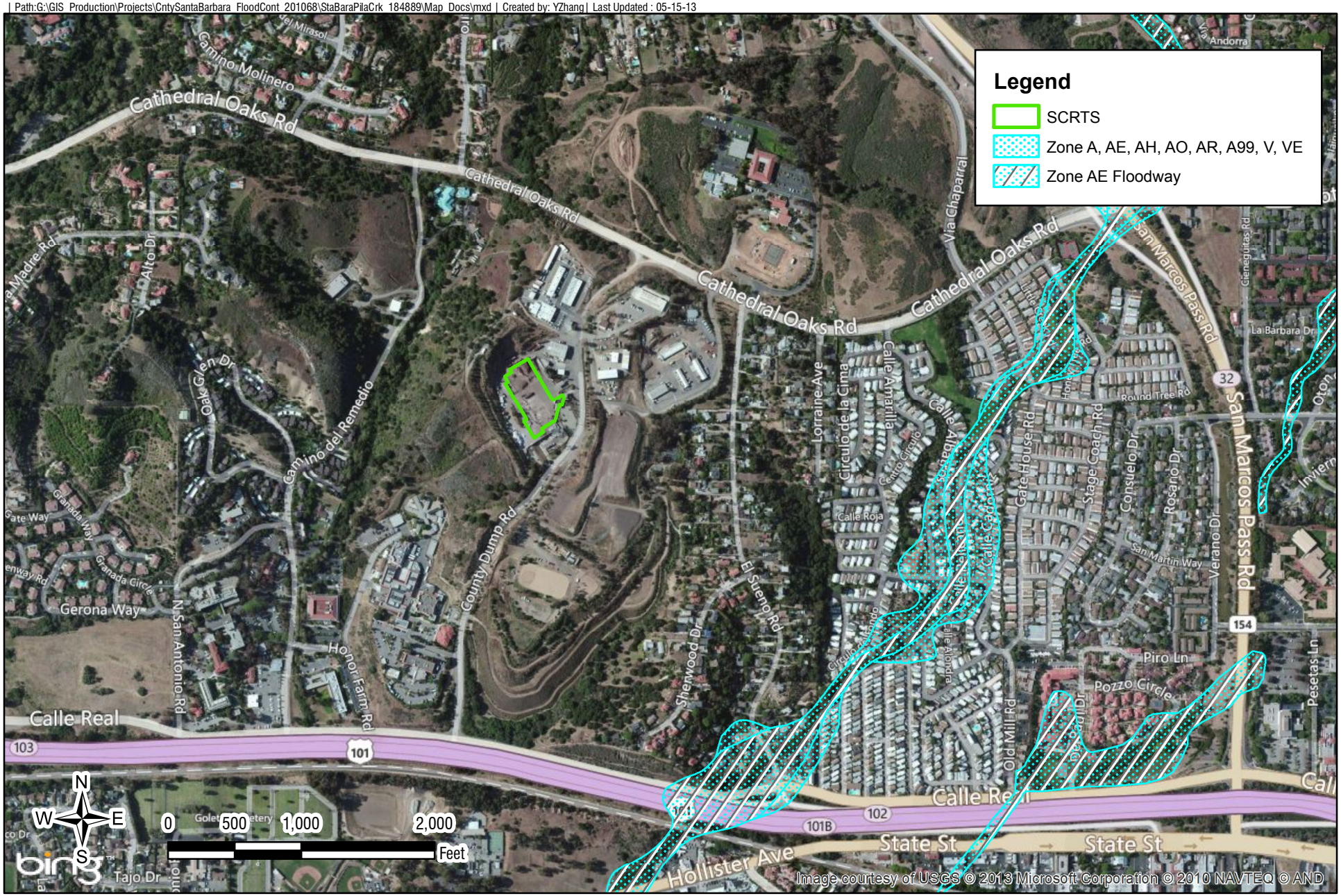


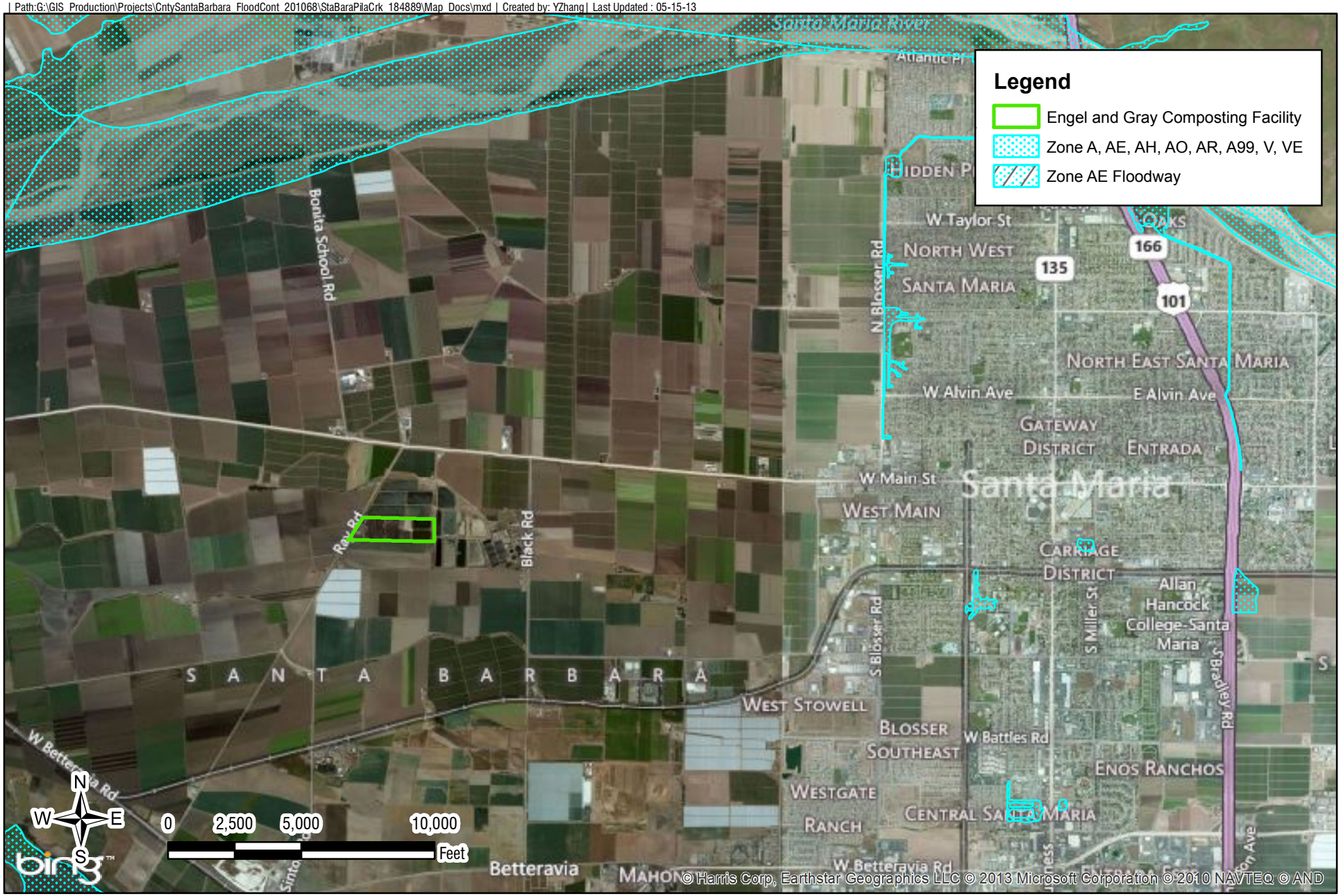
HDR
ONE COMPANY | *Many Solutions*℠

SCRTS MRF Alternative

FIGURE 2

Santa Barbara County | Tajiguas Landfill | Alternatives

| Path:G:\GIS_Production\Projects\CntySantaBarbara_FloodCont_201068\StaBaraPilaCrk_184889\Map_Docs\mxd | Created by: YZhang | Last Updated : 05-15-13



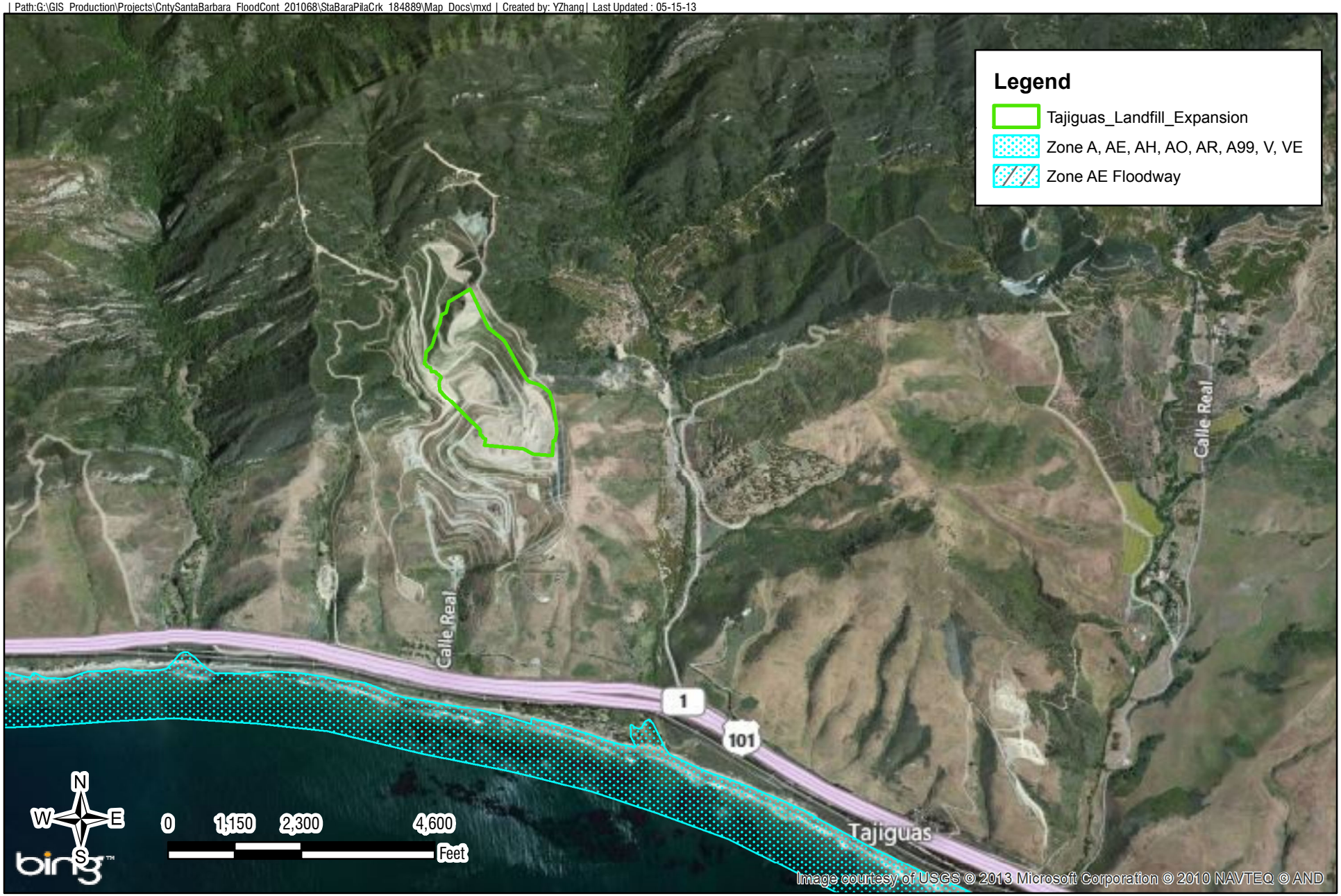
Off-Site Aerobic Composting Alternative

FIGURE 3

Santa Barbara County | Tajiguas Landfill | Alternatives

HDR
ONE COMPANY | *Many Solutions*

| Path:G:\GIS_Production\Projects\CntySantaBarbara_FloodCont_201068\StaBaraPilaCrk_184889\Map_Docs\mxd | Created by: YZhang | Last Updated : 05-15-13



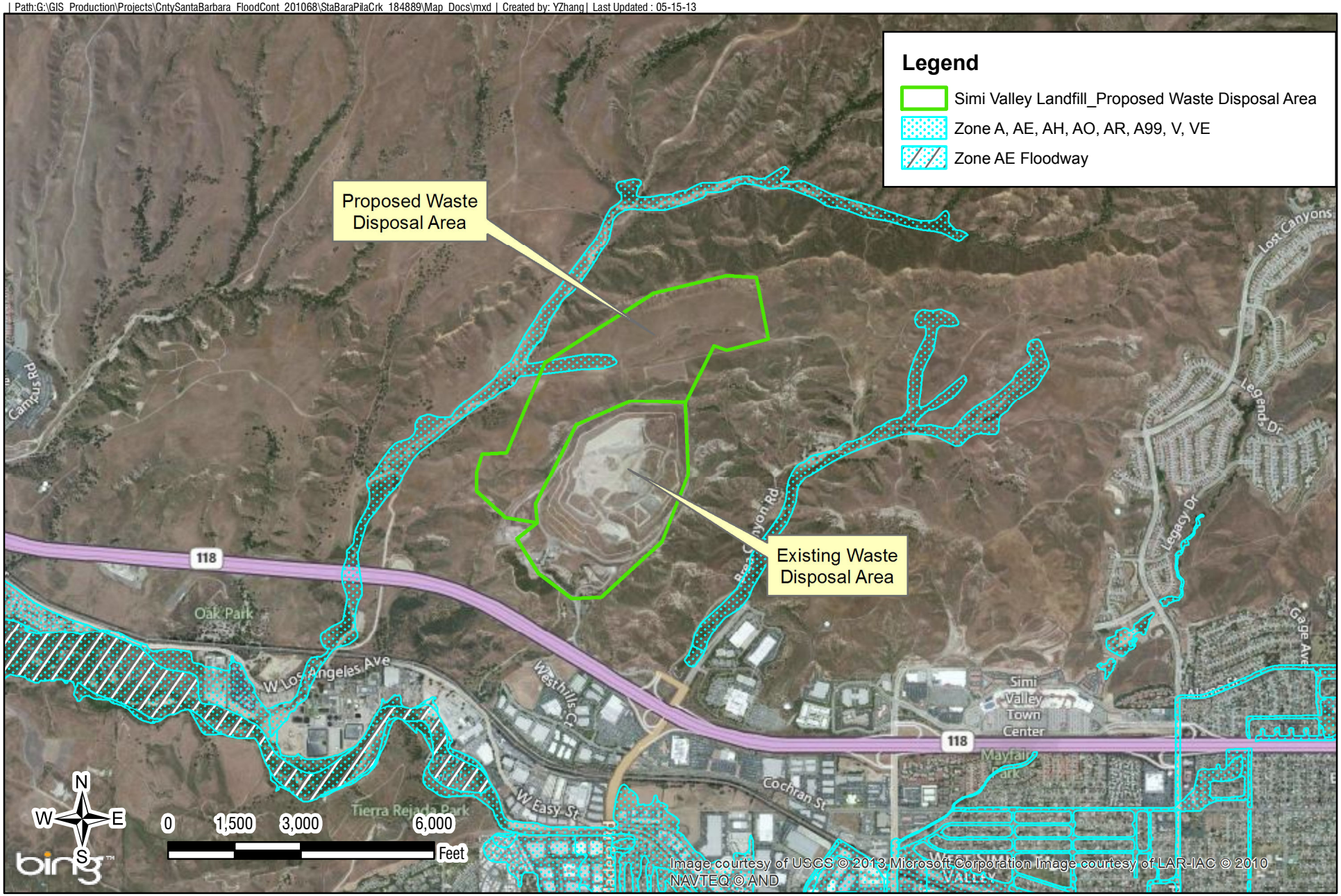
Tajiguas Landfill Expansion Alternative

FIGURE 4

Santa Barbara County | Tajiguas Landfill | Alternatives

HDR
ONE COMPANY | *Many Solutions*℠

| Path:G:\GIS_Production\Projects\CntySantaBarbara_FloodCont_201068\StaBaraPilaCrk_184889\Map_Docs\mxd | Created by: YZhang | Last Updated : 05-15-13



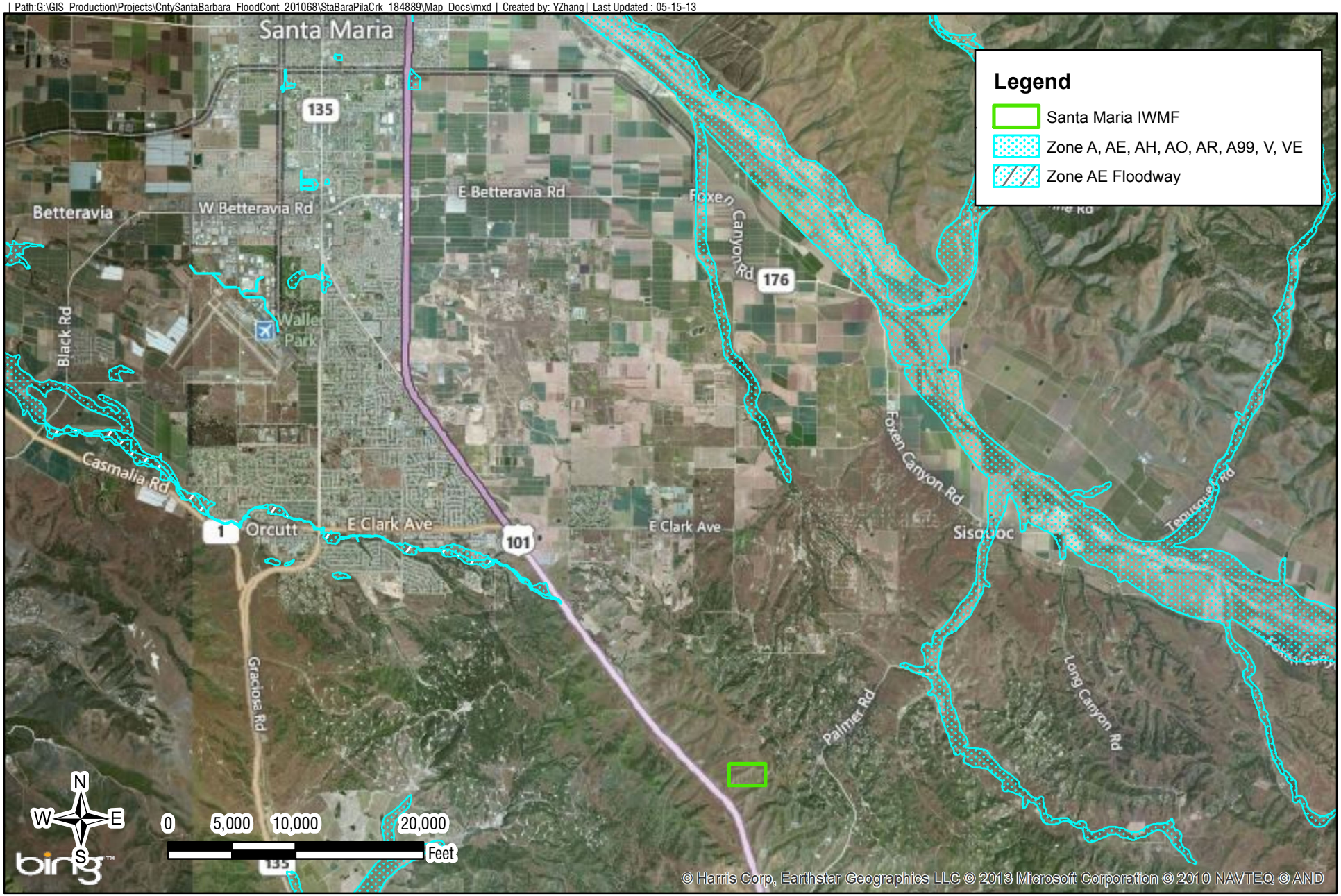
Waste Export to the Simi Valley Landfill and Recycling Center Alternative

FIGURE 5

Santa Barbara County | Tajiguas Landfill | Alternatives

HDR
ONE COMPANY | *Many Solutions*

| Path:G:\GIS_Production\Projects\CntySantaBarbara_FloodCont_201068\StaBaraPilaCrk_184889\Map_Docs\mxd | Created by: YZhang | Last Updated : 05-15-13



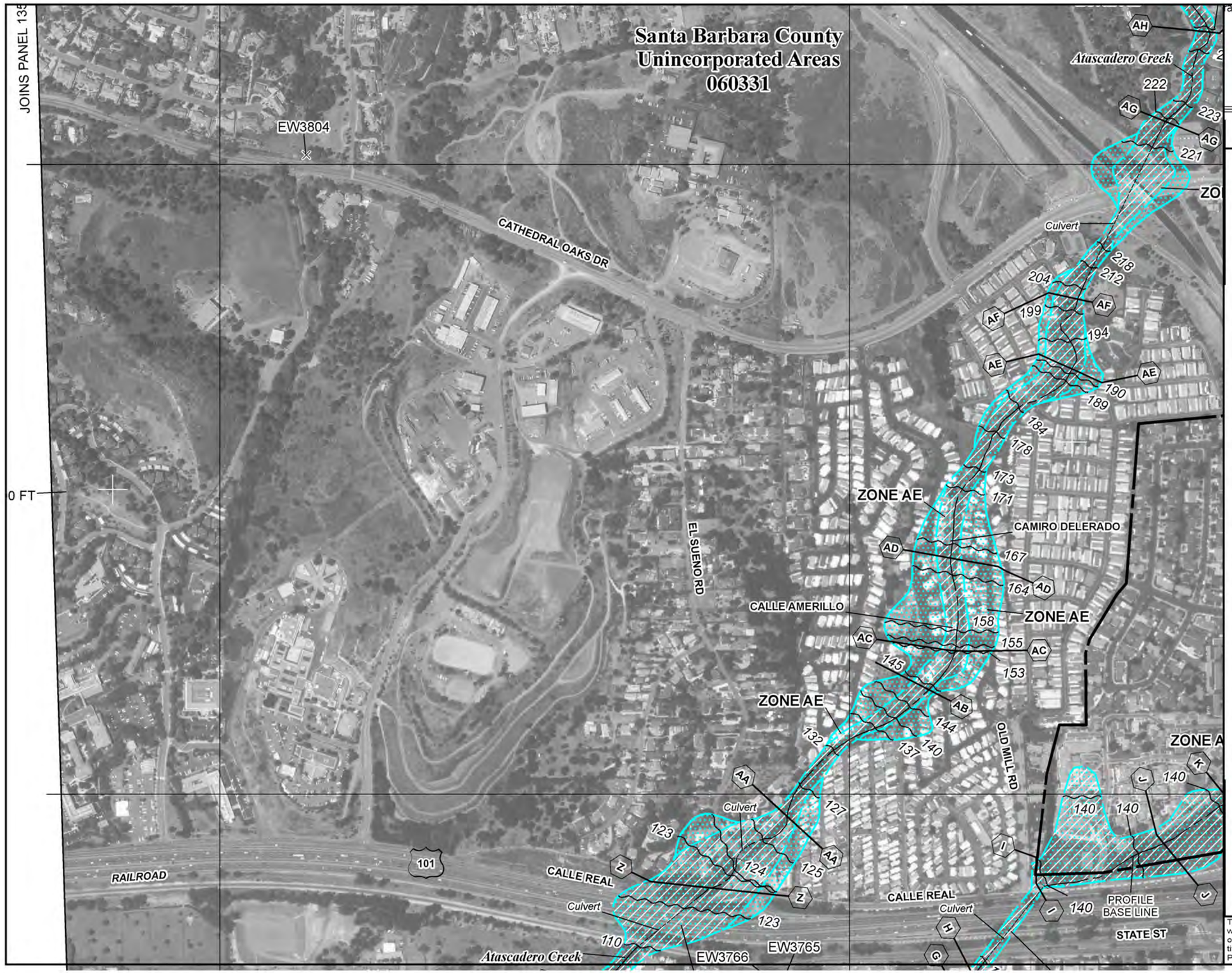
Waste Export to the Santa Maria IWMF Alternative

FIGURE 6

Santa Barbara County | Tajiguas Landfill | Alternatives

HDR
ONE COMPANY | *Many Solutions*

APPENDIX A – FEMA DATA



rance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

0 250 500 750 1,000 FEET

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1359G

FIRM

FLOOD INSURANCE RATE MAP

SANTA BARBARA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1359 OF 1835

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SANTA BARBARA COUNTY	060331	1359	G
SANTA BARBARA, CITY OF	060335	1359	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06083C1359G

MAP REVISED
DECEMBER 4, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

e Program at 1-800-638-6620.

MAP SCALE 1" = 500'

0 250 500 750 1,000 FEET

060335

JOINS PANEL 1387

FT

ZONE A

ZONE AE

ZONE VE (EL 11)

REDDICK

GUTIERREZ ST

EDISON AVE

YANONALI ST

JUANA MARIA

MILPAS ST

QUINIENTOS ST

SOLEDAD ST

LA CADENA

ENSENADA S

CACIQUE ST

INDIO MUERTO ST

SALINAS ST

LOU DIL

OCEAN

PUNTA GORDA S

LIBERTY ST

Bridge

UNION AVE

MASON ST

ALISOS ST

M M0.5

VOLUNTARIO ST

Culvert

EW3739

101

KIMBALL AVE

CARPENTERIA ST

OLD STATE HIGHWAY 101

RAILROAD

PROFILE BASE LINE

YANONALI

QUARANTINA ST

CACIQUE ST

QUINIENTOS

CALLE PUERTO VALLARTA

ORRILA DEL MAR DR

CABRILLO BLVD EAST

City of Santa Barbara 060335

EAST BEACH

EW3748

EW6796

36 35 32 29 28 26 24 21 20 14 11

A B C

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1391G

FIRM

FLOOD INSURANCE RATE MAP

SANTA BARBARA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1391 OF 1835

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SANTA BARBARA COUNTY	060331	1391	G
SANTA BARBARA, CITY OF	060335	1391	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 06083C1391G

MAP REVISED DECEMBER 4, 2012

Federal Emergency Management Agency

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP AMENDMENT
DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CITY OF SANTA BARBARA, SANTA BARBARA COUNTY, CALIFORNIA	A portion of Block 333, City of Santa Barbara, as described in the Grant Deed recorded as Document No. 2006-0081393, in the Office of the Recorder, Santa Barbara County, California
	COMMUNITY NO.: 060335	
AFFECTED MAP PANEL	NUMBER: 06083C1391G	
	DATE: 12/4/2012	

FLOODING SOURCE: LOCAL FLOODING

APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 34.419, -119.681
SOURCE OF LAT & LONG: GOOGLE EARTH PRO **DATUM: NAD 83**

DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
--	333	City of Santa Barbara	2 Quarantina Street	Structure	X (unshaded)	--	16.0 feet	--

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

PORTIONS REMAIN IN THE SFHA
ZONE A
STUDY UNDERWAY

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP AMENDMENT
DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

ZONE A (This Additional Consideration applies to the preceding 1 Property.)

The National Flood Insurance Program map affecting this property depicts a Special Flood Hazard Area that was determined using the best flood hazard data available to FEMA, but without performing a detailed engineering analysis. The flood elevation used to make this determination is based on approximate methods and has not been formalized through the standard process for establishing base flood elevations published in the Flood Insurance Study. This flood elevation is subject to change.

STUDY UNDERWAY (This Additional Consideration applies to all properties in the LOMA DETERMINATION DOCUMENT (REMOVAL))

This determination is based on the flood data presently available. However, the Federal Emergency Management Agency is currently revising the National Flood Insurance Program (NFIP) map for the community. New flood data could be generated that may affect this property. When the new NFIP map is issued it will supersede this determination. The Federal requirement for the purchase of flood insurance will then be based on the newly revised NFIP map.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency

Washington, D.C. 20472

January 02, 2013

[redacted]

PENFIELD & SMITH
111 E. VICTORIA STREET
SANTA BARBARA, CA 93110

CASE NO.: 13-09-0266A
COMMUNITY: CITY OF SANTA BARBARA, SANTA BARBARA COUNTY, CALIFORNIA
COMMUNITY NO.: 060335

DEAR MR. [redacted]

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property described in the enclosed document is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Amendment (LOMA) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMAs. Please see the List of Enclosures below to determine which documents are enclosed. Other attachments specific to this request may be included as referenced in the Determination/Comment document. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605.

Sincerely,

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

LIST OF ENCLOSURES:

LOMA DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator
Community Map Repository
Region

Federal Emergency Management Agency

Washington, D.C. 20472

January 02, 2013

[redacted]
PENFIELD & SMITH
111 E. VICTORIA STREET
SANTA BARBARA, CA 93110

CASE NO.: 13-09-0266A
COMMUNITY: CITY OF SANTA BARBARA, SANTA BARBARA COUNTY, CALIFORNIA
COMMUNITY NO.: 060335

DEAR MR. [redacted]

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property described in the enclosed document is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Amendment (LOMA) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMAs. Please see the List of Enclosures below to determine which documents are enclosed. Other attachments specific to this request may be included as referenced in the Determination/Comment document. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605.

Sincerely,

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

LIST OF ENCLOSURES:
LOMA DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator
Community Map Repository
Region

bcc: LOMC Subscription Service
PTS Case File
PTS Project File

AMENDMENTS PROJECT DATA SHEET

	Case No.: 13-09-0266A
	Service Order Number:

Organization Name: BakerAECOM

Date Received	Request Date	All Data Date	LOMC Type	Property Type	Longitude	Latitude
10/26/2012	10/26/2012	11/20/2012	LOMA	Single structure	-119.681	34.419

Requestor's Name: [redacted] Requestor's Address: 111 E. Victoria Street
Santa Barbara, CA 93110

Legal Property Description: A portion of Block 333, City of Santa Barbara, as described in the Grant Deed recorded as Document No. 2006-0081393, in the Office of the Recorder, Santa Barbara County, California

Flooding Source: LOCAL FLOODING

Community ID	Community Name	County	State	Region
060335	SANTA BARBARA, CITY OF	Santa Barbara County	CA	9

Map Panel No.	Effective Date
06083C1391G	12/04/2012

Annexation? Y (N) If yes, From _____ To _____

Revisions or RFIS in progress? Y (N) If yes, explain: _____

Use Study Underway Paragraph? (Y) N Are there backup data? Y (N) If yes, explain: _____

Is the requested revision Mappable? Y (N) Date future file update: _____ Initials: _____

BASE FLOOD ELEVATIONS at property location

100-Yr BFE	100-Yr BFE Datum	500-Yr BFE	500-Yr BFE Datum
	NAVD 1988		NAVD 1988

PROPERTY ELEVATIONS

Lowest Adj Grade	Lowest Lot Elev	Datum
16.0		NAVD 1988

Analyst Name	Analyst Date Completed	Lead Analyst	Lead Analyst Date Completed
Rachel Maloy	12/31/2012		

Reviewer Comments:

SOMA Information:

Revalidation (Y/N):

Large enough to map (Y/N):

Reason for supersede:

Determination:

SOMA Category:

Revalidation Case Number:

New Panel Number:

AMENDMENTS PROJECT DATA SHEET

SOMA Comments:	
Review Violation Comments:	
Suspension Comments:	
Process Request Comments:	- BFE from submitted study - S-REM Zone A-->X (u) - Portions SFHA
Process Admin Comments:	

DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY APPLICATION FORM FOR SINGLE RESIDENTIAL LOT OR STRUCTURE AMENDMENTS TO NATIONAL FLOOD INSURANCE PROGRAM MAPS	*O.M.B. NO. 1660-0015* *Expires February 28, 2014*

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average 2.4 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. This collection of information is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0015) **NOTE: Do not send your completed form to this address.**

This form should be used to request that the Department of Homeland Security's Federal Emergency Management Agency (FEMA) remove a single structure or legally recorded parcel of land or portion thereof, described by metes and bounds, certified by a registered professional engineer or licensed land surveyor, from a designated Special Flood Hazard Area (SFHA), an area that would be inundated by the flood having a 1%-chance of being equaled or exceeded in any given year (base flood), via Letter of Map Amendment (LOMA). It shall not be used for requests submitted by developers, for requests involving multiple structures or lots, for property in alluvial fan areas, for property located within the regulatory floodway, or requests involving the placement of fill. (NOTE: Use MT-1 forms for such requests). Fill is defined as material from any source (including the subject property) placed that raises the grade to or above the Base Flood Elevation (BFE). The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered the placement of fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE. Also, fill that is placed before the date of the first National Flood Insurance Program (NFIP) map showing the area in an SFHA is considered natural grade.

LOMA:	**A letter from DHS-FEMA stating that an existing structure or parcel of land that has not been elevated by fill would not be inundated by the base flood.**

A – This section may be completed by the property owner or by the property owner's agent. In order to process your request, all information on this form must be completed ***in its entirety***, unless stated as optional. **Incomplete submissions will result in processing delays.**

1. Has fill been placed on your property to raise ground that was previously below the BFE?

   ☒ No ☐ Yes – If Yes, **STOP!! – You must complete the MT-1 application forms; visit** http://www.fema.gov/plan/prevent/fhm/dl_mt-1.shtm **or call the FEMA Map Information eXchange toll free: (877-FEMA MAP) (877-336-2627)**

2. Legal description of Property (Lot, Block, Subdivision or abbreviated description from the Deed) ***and*** street address of the Property (required):
   Portion of City Block 333 being Assessor's Parcel 017-113-024
   2 Quarantine St., Santa Barbara, CA

3. Are you requesting that a flood zone determination be completed for (check one):

   ☒ A structure on your property? What is the date of construction? Pre 1965 (MM/YYYY) Building evident on topo dated June 3, 1965

   ☐ A portion of your legally recorded property? (A certified metes and bounds description and map of the area to be removed, certified by a registered professional engineer or licensed land surveyor, are **required**. For the preferred format of metes and bounds descriptions, please refer to the MT-EZ Instructions.)

   ☐ Your entire legally recorded property?

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Applicant's Name (required):	**E-mail address (optional) (☒ By checking here you may receive correspondence electronically at the email address provided):**
[redacted]	[redacted]
Mailing Address (include Company name if applicable) (required): Penfield & Smith 111 E. Victoria St. Santa Barbara CA 93110	**Daytime Telephone No. (required):** [redacted] **Fax No. (optional):** 805-966-9801
Signature of Applicant (required) [redacted]	**Date (required)** 10/23/2012

End of Section A

Recorder's Office
County of
Santa Barbara

[redacted]

County Clerk Recorder

1 OFFICIAL RECORD, CERTIFIED C	12.00
1 CREDIT CARD TRANSACTION FEE	1.50
TOTAL	13.50
CREDIT CARD 014379	13.50
CHANGE	0.00

11/13/2012 9:15AM
KM

2012111300104
MXL0221WNR

Thank You
Have a Nice Day!

Requested By:
penfield & smith

15514.02
JRJ

RESTRICTIVE COVENANT COVER PAGE TO BE ATTACHED TO ALL PUBLIC AND OFFICIAL RECORDS COPIES

12956.1. (a) As used in this section, "association," "governing documents," and "declaration" have the same meanings as set forth in Section 1351 of the Civil Code.

(b) (1) A county recorder, title insurance company, escrow company, real estate broker, real estate agent, or association that provides a copy of a declaration, governing document, or deed to any person shall place a cover page or stamp on the first page of the previously recorded document or documents stating, **in at least 14-point boldface type, the following:**

"If this document contains any restriction based on race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, genetic information, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of Section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to Section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

2006-0081393

RECORDING REQUESTED BY:
CHICAGO TITLE

AND WHEN RECORDED MAIL TO

[redacted]
Seed Mackall LLP
1332 Anacapa Street, Suite 200
Santa Barbara, CA 93101

Escrow No.:
Locate No.:
Title No.:

Recorded
Official Records
County of
Santa Barbara

[redacted]

08:00AM 18-Oct-2006

REC FEE 16.00
CONFORMED COPY 1.00
NA
Page 1 of 4

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

This Grant Deed is being re-recorded to correct a scrivener's error in the name of the General Partner of the Grantor.

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION
(Additional recording fee applies)

(recoverch)(10-04)

2003-0151833

Recorded
Official Records
County Of
SANTA BARBARA
JOSEPH E. HOLLAND
Recorder

REC FEE 13.00
CC1 CON 1.00

mla
01:32PM 04-Nov-2003 | Page 1 of 3

RECORDING REQUESTED BY

Recordan Real Estate Development

AND WHEN RECORDED MAIL THIS DEED
AND MAIL TAX STATEMENTS TO:

Pride of Ownership Property, LLC
P.O. Box 1058
Summerland, CA 93067

3 cl

APN: 017-113-024 ✓

GRANT DEED

The Undersigned Grantor declares that the Documentary Transfer Tax is $0.00, No Consideration.
Calgon Tanglewood, Ltd. has the same owner as Railroad Storage, Ltd.

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Calgon Tanglewood, Ltd., a Texas limited partnership does hereby grant, remise and convey to Railroad Storage, Ltd., a California limited partnership its entire interest in that certain parcel of real property located in the County of Santa Barbara, State of California, described in Exhibit "A" attached hereto and incorporated herein by this reference.

Dated: 10-0-2003

Calgon Tanglewood, Ltd.,
a Texas limited partnership

By: Railroad Storage* LLC, a California limited liability comapny
Its: General Partner

By: Marc Recordan
Marc Recordan, Manager

CM

* This Grant Deed is being re-recorded to correct a scrivener's error in the name of the General Partner of the Grantor.

\prop\msc\recordan

Mail Tax Statements As Directed Above

STATE OF CALIFORNIA)
: ss.
COUNTY OF SANTA BARBARA)

On this 27 day of October, 2003, before me Dorothea Amezaga the undersigned, a Notary Public in and for said state and county, personally appeared Marc Recordan, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the persons, or the entity upon behalf of which the persons acted, executed the instrument.

Witness my hand and official seal. (seal)

DCB

DOROTHEA BRADFORD AMEZAGA
Commission # 1252270
Notary Public - California
Santa Barbara County
My Comm. Expires Feb 29, 2004

\prop\msc\recordan

Mail Tax Statements As Directed Above

Exhibit "A"

LOT ONE:

That portion of Block 333, in the City of Santa Barbara, County of Santa Barbara, State of California, according to the Official Map thereof, described as follows:

Commencing at the intersection of the centerline of Quinientos Street with a line parallel with and distant southwesterly 257.00 feet, measured at right angles, from the southwesterly line of Quarantina Street, sixty (60.00) feet wide;

Thence along said parallel line South 47°38'08° East, 434.00 feet;

Thence at right angles to said parallel line, North 42°21'52° East, 257.00 feet to said southwesterly line of Quarantina Street;

Thence, along the southwesterly line of Quarantina Street North 47°38'08° West, 24.00 feet to a line parallel with and distant northwesterly 24.00 feet, measured at right angles, from the previous course described herein to the True Point of Beginning;

Thence 1st, along said parallel line South 42°21'52° West, 144.00 feet to a line parallel with and distant southwesterly 144.00 feet, measured at right angles, from said southwesterly line of Quarantina Street;

Thence 2nd, along said parallel line North 47°38'08° West, 379.91 feet to the southeasterly line of Quinientos Street, sixty (60.00) feet wide;

Thence 3rd, along said southeasterly line of Quinientos Street North 42°24'27° East, 144.00 feet to the southwesterly line of Quarantina Street;

Thence 4th, along the said southwesterly line of Quarantina Street South 47°38'08° East, 379.81 feet to point of beginning.

Containing 1.256 acres, more or less.

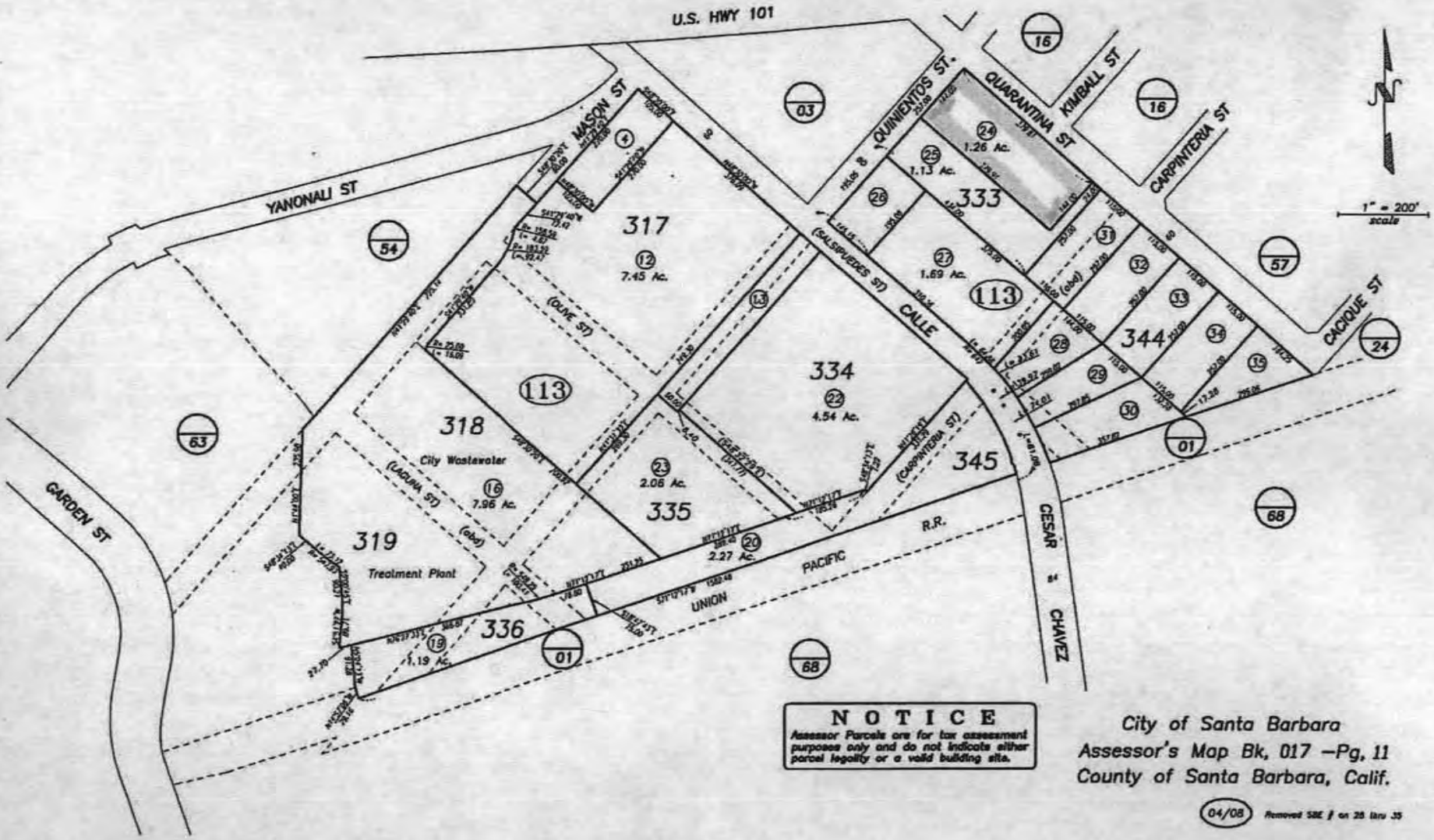
This is a true certified copy of the original document on file or of record in my office. It bears the seal and signature, imprinted in purple ink of the County Clerk, Recorder and Assessor.

Joseph E. Holland

COUNTY CLERK, RECORDER AND ASSESSOR, SANTA BARBARA CALIFORNIA
DATE: 11-13-2012 BY DEPUTY: Kathy Miller

POR. PUEBLO LANDS

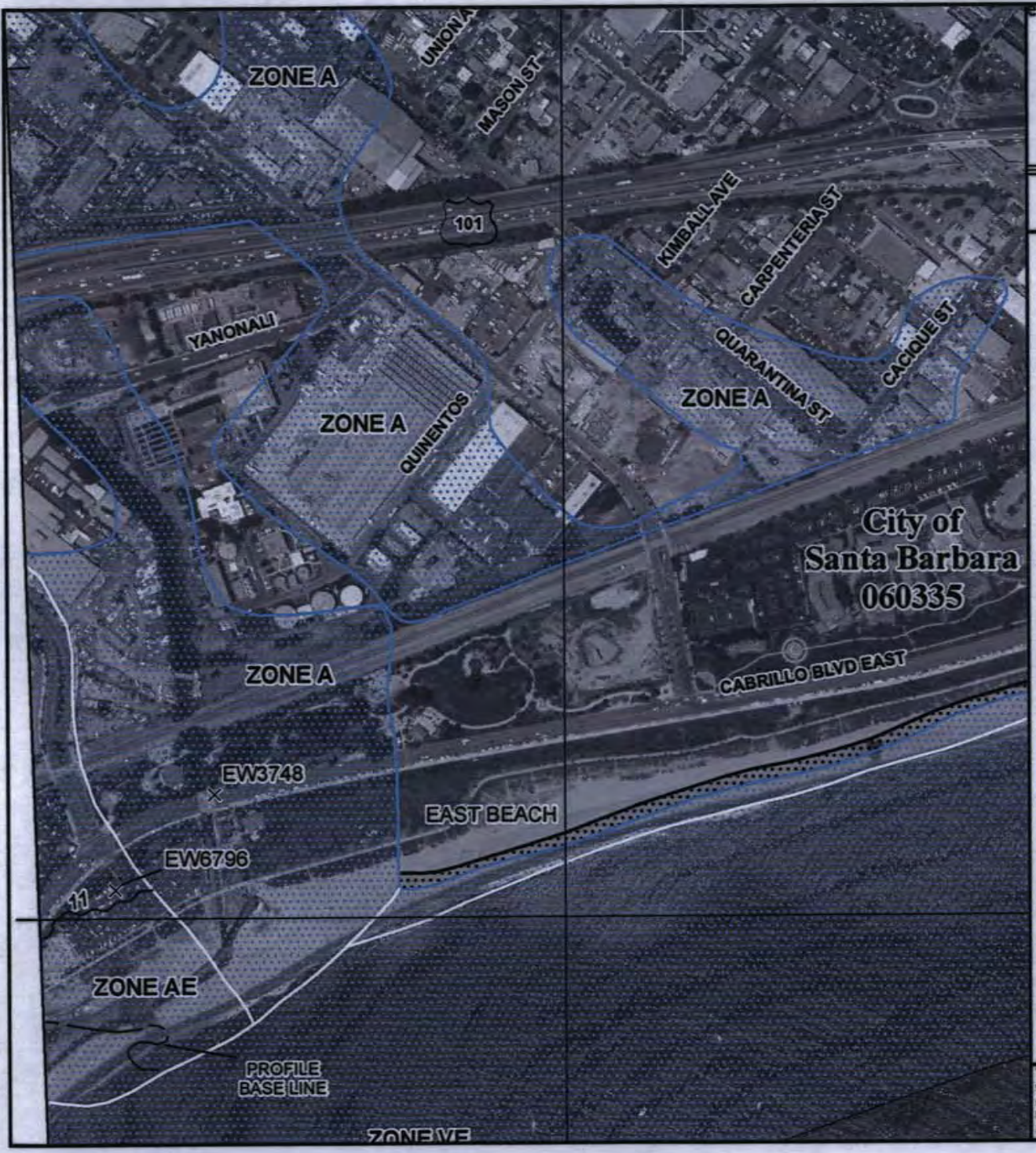
017–11



NOTICE
Assessor Parcels are for tax assessment purposes only and do not indicate either parcel legality or a valid building site.

City of Santa Barbara
Assessor's Map Bk, 017 –Pg, 11
County of Santa Barbara, Calif.

04/08 Removed SBE # on 25 thru 35



e Program at 1-800-638-6620.

MAP SCALE 1" = 500'

0 250 500 750 1,000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1391G

FIRM

FLOOD INSURANCE RATE MAP

SANTA BARBARA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1391 OF 1835

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SANTA BARBARA COUNTY	060331	1391	G
SANTA BARBARA, CITY OF	060335	1391	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06083C1391G

MAP REVISED
DECEMBER 4, 2012

Federal Emergency Management Agency

FEDERAL EMERGENCY MANAGEMENT AGENCY
NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

O.M.B. No. 3067-0077
Expires December 31, 2005

Important: Read the instructions on pages 1 - 7.

SECTION A - PROPERTY OWNER INFORMATION

For Insurance Company Use:

BUILDING OWNER'S NAME
Pride of Ownership LLC

Policy Number

BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO.
2 Quarantina Street

Company NAIC Number

CITY	STATE	ZIP CODE
Santa Barbara	CA	93103

PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Portion of City Block 333 being APN 17-113-24

BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use a Comments area, if necessary.)
Commercial

LATITUDE/LONGITUDE (OPTIONAL) 34.4193 / 119.6809 ☐ NAD 1927 HORIZONTAL DATUM: ☒ NAD 1983 SOURCE: ☐ GPS (Type):____ ☒ USGS Quad Map ☐ Other:____

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP COMMUNITY NAME & COMMUNITY NUMBER	B2. COUNTY NAME	B3. STATE
City of Santa Barbara - 060335		

B4. MAP AND PANEL NUMBER	B5. SUFFIX	B6. FIRM INDEX DATE	B7. FIRM PANEL EFFECTIVE/REVISED DATE	B8. FLOOD ZONE(S)	B9. BASE FLOOD ELEVATION(S) (Zone AO, use depth of flooding)
060335 0005	D	Dec 3, 1991	Dec 3, 1991	A	12.00

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9.
☐ FIS Profile ☐ FIRM ☒ Community Determined ☐ Other (Describe):____

B11. Indicate the elevation datum used for the BFE in B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other (Describe):____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date____

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

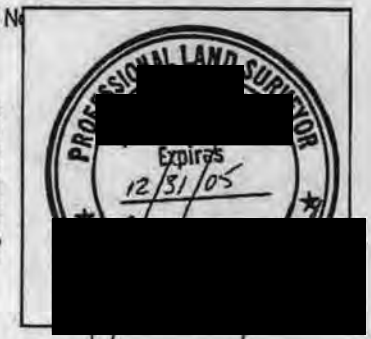
C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Building Diagram Number 1 (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)

C3. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO
Complete Items C3.-a-i below according to the building diagram specified in Item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion.
Datum NAVD 1988 Conversion/Comments Minus 2.6' to obtain NGVD 1929
Elevation reference mark used Sta 26 per 146 RS 72 Does the elevation reference mark used appear on the FIRM? ☐ Yes ☒ N

☐ a) Top of bottom floor (including basement or enclosure)	17. 16 ft.(m)
☐ b) Top of next higher floor	NA. __ ft.(m)
☐ c) Bottom of lowest horizontal structural member (V zones only)	NA. __ ft.(m)
☐ d) Attached garage (top of slab)	NA. __ ft.(m)
☐ e) Lowest elevation of machinery and/or equipment servicing the building (Describe in a Comments area)	NA. __ ft.(m)
☐ f) Lowest adjacent (finished) grade (LAG)	16. 04 ft.(m)
☐ g) Highest adjacent (finished) grade (HAG)	16. 72 ft.(m)
☐ h) No. of permanent openings (flood vents) within 1 ft. above adjacent grade NA	
☐ i) Total area of all permanent openings (flood vents) in C3.h NA sq. in. (sq. cm)	

License Number, Embossed Seal, Signature, and Date



SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.
I certify that the information in Sections A, B, and C on this certificate represents my best efforts to interpret the data available.
I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME [redacted] LICENSE NUMBER PLS 7807

TITLE Project Surveyor COMPANY NAME Penfield & Smith Engineers & Surveyors

ADDRESS	CITY	STATE	ZIP CODE
101 E. Victoria Street	Santa Barbara	CA	93101

SIGNATURE [redacted] DATE August 19, 2003 TELEPHONE [redacted]

IMPORTANT: In these spaces, copy the corresponding information from Section A.			For Insurance Company Use:
BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO. 2 Quarantina Street			Policy Number
CITY Santa Barbara	STATE CA	ZIP CODE 93103	Company NAIC Number

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

COMMENTS
Elev of finished floor 17.16 NAVD 1988

Exceeds BFE of community by 5.16'

BFE provided by County of Santa Barbara based on BFE determination of nearby property on 1/24/2002

☐ Check here if attachments

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zone AO and Zone A (without BFE), complete Items E1 through E4. If the Elevation Certificate is intended for use as supporting information for a LOMA or LOMR-F, Section C must be completed.

E1. Building Diagram Number _(Select the building diagram most similar to the building for which this certificate is being completed – see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)

E2. The top of the bottom floor (including basement or enclosure) of the building is __ft.(m) __in.(cm) ☐ above or ☐ below (check one) the highest adjacent grade. (Use natural grade, if available).

E3. For Building Diagrams 6-8 with openings (see page 7), the next higher floor or elevated floor (elevation b) of the building is __ft.(m) __in.(cm) above the highest adjacent grade. Complete items C3.h and C3.i on front of form.

E4. The top of the platform of machinery and/or equipment servicing the building is __ft.(m) __in.(cm) ☐ above or ☐ below (check one) the highest adjacent grade. (Use natural grade, if available).

E5. For Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?
☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, C (Items C3.h and C3.i only), and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. *The statements in Sections A, B, C, and E are correct to the best of my knowledge.*

PROPERTY OWNER'S OR OWNER'S AUTHORIZED REPRESENTATIVE'S NAME
Pride of Ownership LLC ATTN Nigel Buxton

ADDRESS	CITY	STATE	ZIP CODE
P. O. Box 1058	Summerland	CA	93067
SIGNATURE	DATE August 19, 2003	TELEPHONE 805-563-2453	

COMMENTS

☐ Check here if attachments

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below.

G1. ☐ The information in Section C was taken from other documentation that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by state or local law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4-G9) is provided for community floodplain management purposes.

G4. PERMIT NUMBER	G5. DATE PERMIT ISSUED	G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building is: ___._ ft.(m) Datum: ____

G9. BFE or (in Zone AO) depth of flooding at the building site is: ___._ ft.(m) Datum: ____

LOCAL OFFICIAL'S NAME	TITLE
COMMUNITY NAME	TELEPHONE
SIGNATURE	DATE

COMMENTS

☐ Check here if attachments

B – This section *must* be completed by a registered professional engineer or licensed land surveyor. Incomplete submissions will result in processing delays.

NOTE: If the request is to have a flood zone determination completed for the structure, and an Elevation Certificate has been completed for this property, it may be submitted in lieu of Section B. If the request is to have a flood zone determination completed for the entire legally recorded property, or a portion thereof, the lowest elevation on the lot or described portion must be provided in Section B.

Applicable Regulations
The regulations pertaining to LOMAs are presented in the National Flood Insurance Program (NFIP) regulations under Title 44, Chapter I, Parts 70 and 72, Code of Federal Regulations. The purpose of Part 70 is to provide an administrative procedure whereby DHS-FEMA will review information submitted by an owner or lessee of property who believes that his or her property has been inadvertently included in a designated SFHA. The necessity of Part 70 is due in part to the technical difficulty of accurately delineating the SFHA boundary on an NFIP map. Part 70 procedures shall not apply if the topography has been altered to raise the original ground to or above the BFE since the effective date of the first NFIP map [e.g., a Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map (FHBM)] showing the property to be within the SFHA.

Basis of Determination
DHS-FEMA's determination as to whether a structure or legally recorded parcel of land, or portion thereof, described by metes and bounds, may be removed from the SFHA will be based upon a comparison of the Base (1%-annual-chance) Flood Elevation (BFE) with certain elevation information. The elevation information required is dependent upon what is to be removed from the SFHA. For Zones A and AO, please refer to Page 7 of the MT-EZ Form Instructions for information regarding BFE development in those areas and supporting data requirements.

Determination Requested For: (check one)	Elevation Information Required: (complete Item 5)
☒ Structure located on natural grade (LOMA)	Lowest Adjacent Grade to the structure (the elevation of the lowest ground touching the structure including attached patios, stairs, deck supports or garages)
☐ Legally recorded parcel of land, or portion thereof (LOMA)	Elevation of the lowest ground on the parcel or within the portion of land to be removed from the SFHA

1. PROPERTY INFORMATION

Property Description (Lot and Block Number, Tax Parcel Number, or Abbreviated Description from the Deed, etc.):
Portion of City Block 333 being APN 017-113-024

2. STRUCTURE INFORMATION

Street Address (including Apt. Unit, Suite, and/or Bldg. No.):
2 Quarantina St., Santa Barbara, CA

What is the type of construction? (check one) ☐ crawl space ☒ slab on grade ☐ basement/enclosure

☐ other (explain):

3. GEOGRAPHIC COORDINATE DATA

Please provide the Latitude and Longitude of the most upstream edge of the ***structure*** (in decimal degrees to nearest fifth decimal place)
Indicate Datum: ☐ WGS84 ☒ NAD83 ☐ NAD27 Lat. 34.41940 Long. -119.68117

Please provide the Latitude and Longitude of the most upstream edge of the ***property*** (in decimal degrees to nearest fifth decimal place)
Indicate Datum: ☐ WGS84 ☒ NAD83 ☐ NAD27 Lat. 34.41940 Long. -119.68117

4. FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

NFIP Community Number:	Map Panel Number:	Base Flood Elevation (BFE):	Source of BFE:
060833 060335	1391 F	~~12 FT~~ NAVD1988	Attach Calculations ~~County flood elevation determination~~

5. ELEVATION INFORMATION (SURVEY REQUIRED)

12.86

- Lowest Adjacent Grade (LAG) to the structure (to the nearest 0.1 foot or meter) 16.04 ft. ☒ See attached Elevation Cert.
- Elevation of the lowest grade on the property; or within metes and bounds area (to the nearest 0.1 foot or meter) . ft. (m)
- Indicate the datum (if different from NGVD 29 or NAVD 88 attach datum conversion) ☐ NGVD 29 ☒ NAVD 88 ☐ Other (add attachment)
- Has FEMA identified this area as subject to land subsidence or uplift? ☒ No ☐ Yes (provide date of current releveling):

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: [redacted]	License No.: PLS 7911	Expiration Date: 12-31-2013	[redacted] Seal (optional) No. 7911
Company Name: PENFIELD & SMITH ENGINEERS	Telephone No.: [redacted]	Fax No.: 805-963-9801	
Email: [redacted]			
Signature: [redacted]		Date: 10-23-2012	

Determine the 100-year Water Surface Elevation at 2 S Quarantina Street

Method: HEC-RAS Analysis

Control: Railroad Tracks

Results:

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Alignment	0	PF 1	1490	9.3	9.84	9.84	10.04	0.163498	3.59	414.69	1050.11	1.01
Alignment	50	PF 1	1490	7.65	10.17		10.17	0.000424	0.49	3042.56	1755.71	0.07
Alignment	150	PF 1	1490	8.25	10.96	10.96	11.51	0.114761	5.93	251.27	245.67	1
Alignment	250	PF 1	1490	9.87	12.55	11.3	12.57	0.003025	0.99	1500.33	1405.17	0.16
Alignment	350	PF 1	1490	7.83	12.66	9.48	12.66	0.000452	0.55	2694.69	1435.08	0.07
Alignment	450	PF 1	1490	6	12.7	8.9	12.7	0.000367	0.54	2758.9	1406.48	0.06
Alignment	550	PF 1	1490	8	12.73	9.08	12.74	0.000281	0.49	3047.19	1543.17	0.06
Alignment	650	PF 1	1490	8	12.75		12.75	0.000108	0.34	4170.28	1429.82	0.04
Alignment	750	PF 1	1490	8	12.77	9.31	12.77	0.000237	0.49	3054.43	1299.45	0.05
Alignment	850	PF 1	1490	8	12.8	9.96	12.81	0.000549	0.7	2117.13	973.03	0.08
Alignment	950	PF 1	1490	8.67	12.86	10.52	12.88	0.00083	0.81	1839.76	954.62	0.1
Alignment	1050	PF 1	1490	9.75	12.97	10.87	12.98	0.001346	0.98	1514.64	777.14	0.12

Conclusion:

$WSEL_{100}$ = 12.86 ft NAVD88

OK to remove structure. Affected by limited DA as per submitted topo. HEC-RAS submitted is a slightly low BFE due to the methodology used for analysis, which was long cross sections overland through the area. Omit BFE from determination.

[redacted]

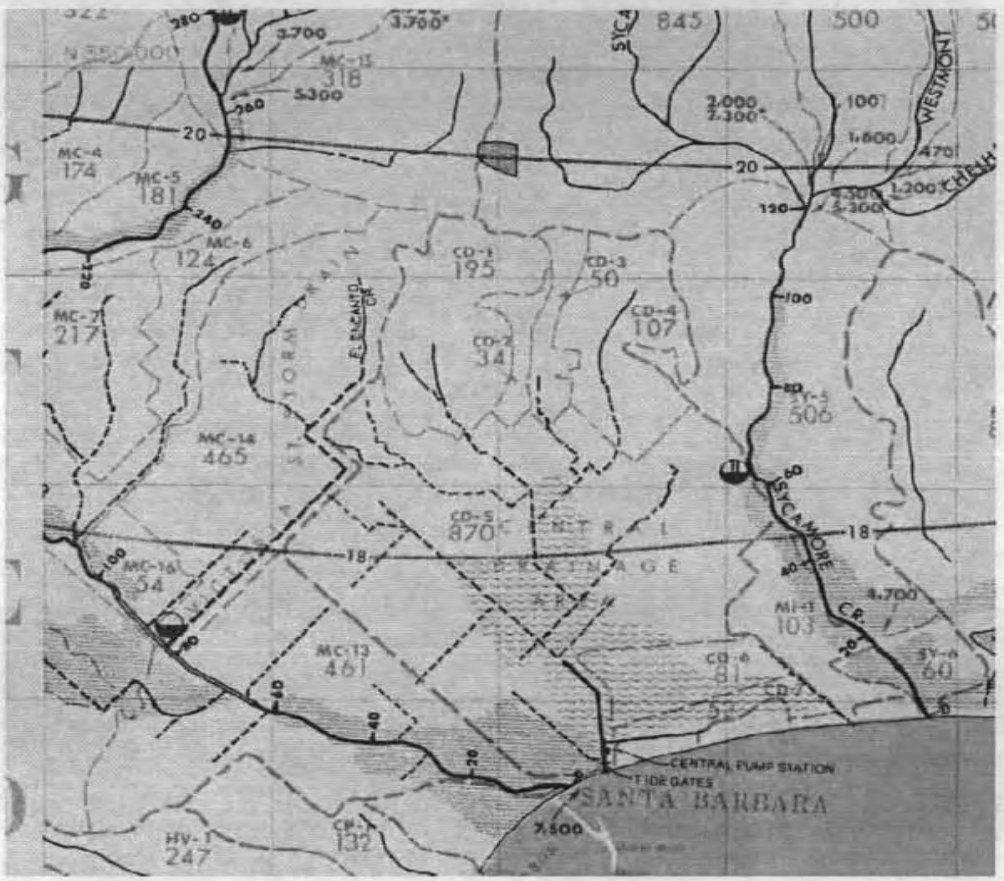
DETAILED ANALYSIS FOR 2 QUARANTINA STREET

Determine drainage area

Source: South Coast Watershed Map (Easterly Section)
Published by Santa Barbara County Flood Control District
1975

Tributary V' A

Subarea	Area ac		
CD-1	195		
CD-2	34		
CD-3	50		
CD-4	107		
CD-5	870		
CD-6	81		
CD-7	52		
Total	1389	=	2.17 sq.mi.


MC-4
174
MC-5
181
MC-6
124
MC-7
217
MC-14
465
MC-16
54
MC-13
461
MC-15
318
CD-1
195
CD-2
34
CD-3
50
CD-4
107
CD-5
870
CD-6
81
PK-5
506
MI-1
103
SY-6
60
HV-1
247
CP-1
132
EL ENCANTO CR.
SYCAMORE CR.
WESTMONT
CENTRAL PUMP STATION
TIDE GATES
SANTA BARBARA
3,700
5,300
2,000
2,300
1,600
4,700
7,500

Determine 100-Year Peak Flow Rate

National Streamflow Statistics Program
Version 6
Based on Techniques and Methods Book 4-A6
Equations from database C:\Program Files (x86)\NSS\data\NSS_v6_2012-05-09.mdb
Updated by tkoenig 4/3/2012 at 11:08:29 AM fix discrepency between ARTAU_x and TAU_x statistics

Site: Central Drainage Area, California
User: [redacted]
Date: Tuesday, November 13, 2012 03:04 PM

Results for: Urban 1

Equations used.

PK2 = 2.95 * (Rural_Dis)^0.67 * (Rural_DA)^0.41 * (CSL10_85)^0.17 * (I1H2Y+3)^1.04 * (STORAGE+8)^(-0.45) * (-1*(BDF-13))^(-0.92) * (IMPERV)^0.15
PK5 = 2.7 * (Rural_Dis)^0.54 * (Rural_DA)^0.35 * (CSL10_85)^0.16 * (I2H2Y+3)^1.86 * (STORAGE+8)^(-0.55) * (-1*(BDF-13))^(-0.31) * (IMPERV)^0.11
PK10 = 2.99 * (Rural_Dis)^0.58 * (Rural_DA)^0.32 * (CSL10_85)^0.15 * (I2H2Y+3)^1.75 * (STORAGE+8)^(-0.57) * (-1*(BDF-13))^(-0.3) * (IMPERV)^0.09
PK25 = 2.78 * (Rural_Dis)^0.6 * (Rural_DA)^0.31 * (CSL10_85)^0.15 * (I2H2Y+3)^1.76 * (STORAGE+8)^(-0.55) * (-1*(BDF-13))^(-0.29) * (IMPERV)^0.07
PK50 = 2.67 * (Rural_Dis)^0.62 * (Rural_DA)^0.29 * (CSL10_85)^0.15 * (I2H2Y+3)^1.74 * (STORAGE+8)^(-0.53) * (-1*(BDF-13))^(-0.28) * (IMPERV)^0.06
PK100 = 2.6 * (Rural_Dis)^0.63 * (Rural_DA)^0.29 * (CSL10_85)^0.15 * (I2H2Y+3)^1.76 * (STORAGE+8)^(-0.52) * (-1*(BDF-13))^(-0.28) * (IMPERV)^0.06
PK500 = 2.27 * (Rural_Dis)^0.63 * (Rural_DA)^0.25 * (CSL10_85)^0.16 * (I2H2Y+3)^1.86 * (STORAGE+8)^(-0.54) * (-1*(BDF-13))^(-0.27) * (IMPERV)^0.05

Statistic	Value, cfs	Standard Error, %
PK2	173	36
PK5	361	37
PK10	530	38
PK25	839	40
PK50	1160	42
PK100	1490	44
PK500	2500	49

maximum: 11600 (for C&B region 17)

Conclusion:

Q_{100} = 1490 cfs

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Rainfall Intensity Record

(Maximum Short-Depth-Duration Rainfall, with Average Recurrence Intervals)

Station Number: 234 **Latitude:** 342531 **Longitude:** 1194212

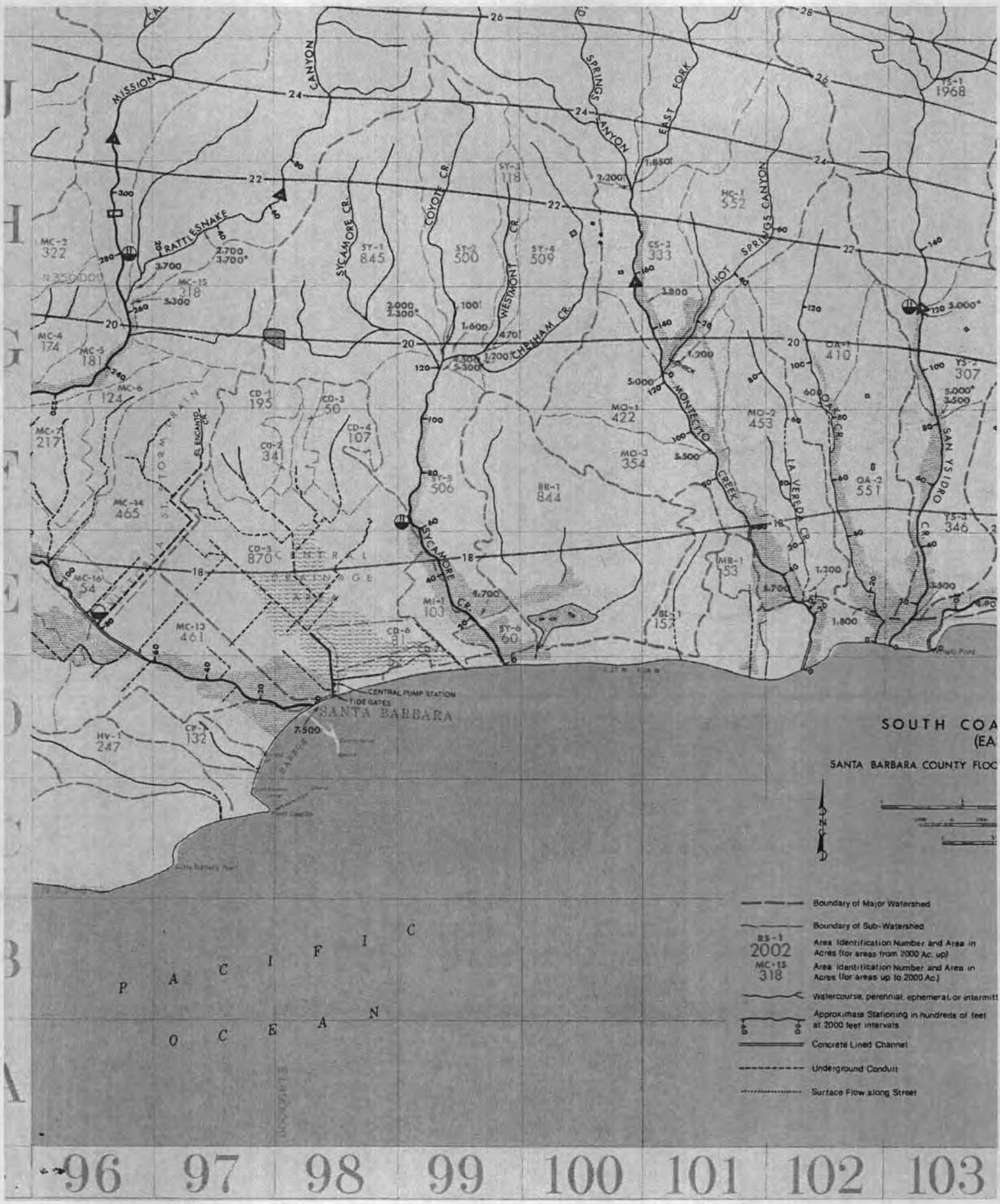
Station Name: Santa Barbara (Downtown-County Building) **Elevation (ft):** 100 **Rainfall (in.)**

WY	5min	10min	15min	30min	1hr	2hr	3hr	6hr	8hr	12hr	24hr	WY Total
1952-1953					1.19	1.69	2.12	3.15	3.19	3.19	3.39	13.40
1953-1954	0.16	0.31	0.43	0.71	1.01	1.48	1.75	2.32	2.32	2.32	2.34	15.46
1954-1955	0.13	0.23	0.25	0.29	0.39	0.62	0.82	1.30	1.36	1.67	1.72	16.91
1955-1956	0.08	0.11	0.16	0.31	0.55	0.74	0.89	1.39	1.59	2.00	3.65	19.83
1956-1957	0.13	0.24	0.29	0.40	0.54	0.72	0.84	1.22	1.59	1.99	2.36	13.86
1957-1958	0.16	0.30	0.35	0.61	0.80	1.27	1.75	2.40	2.45	2.78	3.24	31.96
1958-1959	0.16	0.25	0.32	0.44	0.59	0.89	1.17	1.80	2.10	2.23	2.66	9.14
1959-1960	0.10	0.14	0.17	0.25	0.41	0.68	0.88	1.47	1.70	1.91	1.91	10.82
1960-1961	0.15	0.22	0.29	0.54	0.86	1.51	2.02	2.12	2.12	2.12	2.12	10.00
1961-1962	0.15	0.25	0.34	0.55	0.93	1.56	1.92	2.29	2.47	2.71	3.48	26.17
1964-1965	0.12	0.14	0.20	0.35	0.51	0.76	1.00	1.44	1.89	2.20	2.81	18.19
1965-1966	0.26	0.34	0.43	0.62	1.00	1.40	1.61	2.79	2.99	3.32	3.80	14.15
1966-1967	0.25	0.36	0.40	0.60	1.14	2.07	2.68	3.58	3.98	4.61	4.99	23.25
1967-1968	0.17	0.26	0.30	0.45	0.53	0.76	1.03	1.67	2.10	2.73	3.01	13.55
1968-1969	0.16	0.27	0.35	0.53	0.74	1.08	1.33	2.18	2.64	3.42	4.19	30.46
1969-1970	0.16	0.23	0.29	0.44	0.55	0.68	0.98	1.43	1.43	1.57	1.92	11.88
1970-1971	0.18	0.24	0.25	0.36	0.51	0.68	0.93	1.58	1.90	2.57	2.66	14.00
1971-1972	0.09	0.14	0.16	0.24	0.37	0.56	0.78	1.34	1.60	1.80	1.98	8.64
1972-1973	0.24	0.34	0.37	0.48	0.75	1.29	1.63	2.32	2.57	2.74	2.78	24.69
1973-1974	0.17	0.27	0.40	0.50	0.70	0.90	1.08	1.40	1.54	1.83	2.46	17.27
1974-1975	0.12	0.19	0.28	0.50	0.92	1.47	1.92	3.13	3.82	4.62	4.75	19.41
1975-1976	0.12	0.21	0.27	0.46	0.80	1.15	1.29	1.69	2.16	2.21	3.32	9.51
1976-1977	0.21	0.29	0.38	0.57	0.94	1.47	1.96	2.42	2.54	2.57	2.57	14.89
1977-1978	0.41	0.77	1.18	1.44	1.63	1.80	2.17	2.70	2.79	3.21	4.94	42.34
1978-1979	0.20	0.34	0.46	0.74	0.81	0.83	1.06	1.91	2.34	2.41	2.41	21.72
1979-1980	0.24	0.34	0.46	0.65	0.94	1.58	1.96	2.90	3.42	4.20	4.51	24.64
1980-1981	0.11	0.19	0.24	0.30	0.45	0.74	1.01	1.55	1.85	2.17	2.22	14.30
1981-1982	0.18	0.21	0.27	0.45	0.62	0.77	0.85	1.10	1.28	1.31	1.42	16.28
1982-1983	0.24	0.41	0.62	0.95	1.22	1.57	1.66	2.80	3.35	3.73	4.04	41.41
1983-1984	0.21	0.28	0.33	0.45	0.68	1.06	1.59	2.14	2.27	2.59	3.30	13.35
1984-1985	0.21	0.25	0.26	0.26	0.34	0.63	0.86	1.57	1.91	2.24	2.53	11.96
1985-1986	0.19	0.33	0.44	0.62	0.86	1.08	1.25	1.86	2.22	2.60	3.14	22.85
1986-1987	0.18	0.20	0.22	0.34	0.61	0.70	0.94	1.05	1.24	1.50	2.47	11.62
1987-1988	0.15	0.20	0.28	0.44	0.55	0.93	1.12	1.37	1.53	1.53	1.87	13.41
1988-1989	0.14	0.16	0.20	0.29	0.55	0.80	0.86	1.06	1.07	1.08	1.56	9.35
1989-1990	0.09	0.14	0.16	0.29	0.56	0.89	1.18	1.58	1.66	1.66	1.66	6.92
1990-1991	0.11	0.16	0.21	0.37	0.47	0.75	1.03	1.56	1.73	2.30	3.73	17.73
1991-1992	0.18	0.33	0.49	0.87	1.23	1.60	1.69	1.85	1.94	2.05	2.19	19.79
1992-1993	0.36	0.47	0.61	0.88	1.30	1.48	2.04	2.19	2.51	2.83	3.91	31.71
1993-1994	0.15	0.29	0.37	0.55	0.70	0.96	1.22	1.64	1.68	1.79	1.79	13.02
1994-1995	0.40	0.74	1.06	1.40	1.75	2.31	3.11	4.25	5.59	6.51	7.45	38.52
1995-1996	0.09	0.13	0.17	0.29	0.43	0.68	0.98	1.36	1.62	2.40	3.61	17.78
1996-1997	0.22	0.40	0.48	0.65	0.67	0.72	0.91	1.39	1.92	2.45	2.83	19.10
1997-1998	0.48	0.84	1.07	1.18	1.22	1.34	1.67	2.53	2.78	3.41	4.66	46.97
1998-1999	0.10	0.20	0.24	0.28	0.39	0.56	0.76	1.14	1.27	1.49	1.56	10.99
1999-2000	0.35	0.54	0.70	0.93	1.20	1.60	1.86	2.67	2.89	3.30	3.67	22.75

Station Number: 234 **Latitude:** 342531 **Longitude:** 1194212

Station Name: Santa Barbara (Downtown-County Building) **Elevation (ft):** 100 **Rainfall (in.)**

WY	5min	10min	15min	30min	1hr	2hr	3hr	6hr	8hr	12hr	24hr	WY Total
2000-2001	0.21	0.35	0.47	0.61	0.69	1.04	1.53	2.74	3.29	3.91	4.28	25.81
2001-2002	0.12	0.21	0.28	0.48	0.84	1.06	1.19	1.38	1.40	1.40	1.40	9.01
2002-2003	0.14	0.25	0.36	0.66	1.23	2.23	2.47	3.35	4.12	4.30	5.50	24.98
2003-2004	0.09	0.16	0.23	0.43	0.83	1.43	1.88	2.84	3.04	3.34	3.50	10.70
2004-2005	0.24	0.37	0.41	0.54	0.90	1.23	1.79	2.23	2.36	2.70	4.53	36.94
2005-2006	0.16	0.20	0.28	0.48	0.92	1.64	1.95	2.11	2.16	2.56	2.86	22.44
2006-2007	0.16	0.24	0.28	0.32	0.44	0.56	0.68	0.72	0.72	0.80	1.12	6.41
2007-2008	0.30	0.44	0.50	0.58	0.75	1.41	2.00	3.09	3.43	3.78	3.87	17.62
2008-2009	0.20	0.26	0.29	0.38	0.71	0.86	0.89	1.06	1.29	1.68	1.69	11.83
2009-2010	0.13	0.20	0.24	0.37	0.70	1.13	1.55	2.31	2.60	2.97	3.69	20.44
2010-2011	0.22	0.33	0.40	0.60	0.82	1.05	1.39	2.32	2.74	3.34	5.20	28.49
2011-2012	0.11	0.20	0.28	0.44	0.61	0.76	1.00	1.51	1.51	1.59	1.68	11.62
Total	10.54	16.46	21.22	30.71	45.35	65.21	82.48	116.26	131.57	150.24	178.90	1102.24
N	57	57	57	57	58	58	58	58	58	58	58	58
Mean	0.18	0.29	0.37	0.54	0.78	1.12	1.42	2.00	2.27	2.59	3.08	19.00
Max	0.48	0.84	1.18	1.44	1.75	2.31	3.11	4.25	5.59	6.51	7.45	46.97
Min	0.08	0.11	0.16	0.24	0.34	0.56	0.68	0.72	0.72	0.80	1.12	6.41
STDev	0.08	0.15	0.21	0.26	0.31	0.44	0.54	0.74	0.88	1.02	1.25	9.36
Reg CV	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.431
Reg Skew	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.20
Average Recurrence Intervals (in Years)												
2	0.17	0.26	0.34	0.49	0.71	1.02	1.29	1.82	2.06	2.36	2.81	17.37
5	0.24	0.38	0.49	0.71	1.02	1.47	1.86	2.63	2.97	3.39	4.04	24.98
10	0.29	0.46	0.59	0.85	1.23	1.77	2.24	3.16	3.58	4.08	4.86	29.98
25	0.35	0.55	0.71	1.03	1.49	2.14	2.71	3.82	4.33	4.94	5.88	36.12
50	0.40	0.62	0.80	1.16	1.68	2.42	3.05	4.31	4.87	5.56	6.63	40.55
100	0.44	0.69	0.89	1.28	1.86	2.68	3.38	4.77	5.40	6.17	7.34	44.80
200	0.48	0.75	0.97	1.41	2.04	2.94	3.72	5.24	5.93	6.77	8.06	48.98
500	0.55	0.85	1.10	1.59	2.31	3.32	4.20	5.92	6.70	7.65	9.11	55.37
1000	0.58	0.90	1.17	1.69	2.45	3.52	4.46	6.28	7.11	8.12	9.66	58.40
10000	0.71	1.11	1.44	2.08	3.01	4.33	5.48	7.73	8.75	9.99	11.89	71.51


SOUTH COA
(EA
SANTA BARBARA COUNTY FLOC
MISSION CANYON
RATTLESNAKE
SYCAMORE CR.
COYOTE CR.
WESTMONT CR.
CHELHAM CR.
SPRINGS CANYON
EAST FORK
HOT SPRINGS CANYON
MONTECITO CREEK
LA VERDA CR.
OAK CR.
SAN YSIDRO
EL ENCANTO CR.
MISSION CREEK
SYCAMORE CR.
CENTRAL PUMP STATION
TIDE GATES
SANTA BARBARA
MC-2 322
MC-15 318
MC-4 174
MC-5 181
MC-6 124
MC-7 217
MC-14 465
MC-16 54
MC-13 461
HV-1 247
CP-1 132
CD-1 195
CD-3 50
CD-4 107
CD-2 341
CD-5 870
CD-6 81
SY-1 845
SY-2 500
SY-3 118
SY-4 509
SY-5 506
MI-1 103
ST-6 60
BR-1 844
MO-1 422
MO-2 453
MO-3 354
CS-1 333
HC-1 552
MR-1 53
BE-1 152
OA-1 410
OA-2 551
YS-1 1968
YS-2 307
YS-3 346
Boundary of Major Watershed
Boundary of Sub-Watershed
RS-1 2002 Area Identification Number and Area in Acres (for areas from 2000 Ac. up)
MC-15 318 Area Identification Number and Area in Acres (for areas up to 2000 Ac.)
Watercourse, perennial, ephemeral, or intermitt
Approximate Stationing in hundreds of feet at 2000 feet intervals
Concrete Lined Channel
Underground Conduit
Surface Flow along Street
PACIFIC OCEAN
96 97 98 99 100 101 102 103


34.4192, -119.6812
CITY OF SANTA BARBARA
06083C1391G
Mission Creek
East Beach
N Quarantina St
S Quarantina St
El Camino Real
N Calle Cesar Chavez
S Calle Cesar Chavez
Yanonali St
S Olive St
Quinientos St
Carpinteria St
Cacique Street
Powers Ave
Ashley Ave
N Nopal St
Lawrence St
E Cabrillo Blvd
693 ft
Image U.S. Geological Survey
Image © 2012 GeoEye
© 2012 Google
2010 Google
lat 34.418025° lon -119.681136° elev 0 ft
Eye alt 2998 ft

Federal Emergency Management Agency

Washington, D.C. 20472

October 26, 2012

Case No.: **13-09-0266A**
216-A

We have received your request that the Federal Emergency Management Agency determine if the property identified below is located within an identified Special Flood Hazard Area on the applicable National Flood Insurance Program map.

PORTION OF CITY BLOCK 333 -- 2 QUARANTINE STREET

We are reviewing your submitted data and will contact you if additional information is required to process your request. If additional information is not required, we will issue a final letter of determination within 30-60 days. Inquiries concerning the status of your request should be made by calling the FEMA Map Assistance Center toll free at (877)-336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Please be assured we will do our best to respond to all inquiries in a timely manner.

Federal Emergency Management Agency
Washington, D.C. 20472

Official Business

[redacted]
111 E. Victoria Street
Santa Barbara, CA 93110

13-09-0266A

Penfield & Smith

111 East Victoria Street
Santa Barbara, CA 93101

tel 805-963-9532
fax 805-966-9801

www.penfieldsmith.com

Santa Barbara
Camarillo
Santa Maria
Lancaster

Civil Engineering
Land Surveying
Land Use Planning
Construction Management & Inspection
Traffic & Transportation Engineering
Transportation Planning
Structural Engineering
Water Resources Engineering
GIS

W.O. 15514.02

NOTICE OF TRANSMITTAL

DATE: October 23, 2012

TO: LOMC Clearinghouse
847 South Pickett Street
Alexandria, VA 22304-4605

RECEIVED
OCT 26 2012
BY:

ATTENTION: LOMA Manager

SUBJECT: MT-EZ LOMA, Santa Barbara, CA

BY HAND: ☐
MAIL: ☒
: ☐

WE ARE TRANSMITTING HEREWITH THE FOLLOWING:

One (1) CD with submittal information including forms, exhibits, and elevation certificate

PURPOSE: For your review and approval

PENFIELD & SMITH

By: [redacted]

RECEIVED
OCT 29
Michael B

Penfield & Smith

111 East Victoria Street
Santa Barbara, CA 93101

tel 805-963-9532
fax 805-966-9801

www.penfieldsmith.com

Santa Barbara
Camarillo
Santa Maria
Lancaster

Civil Engineering
Land Surveying
Land Use Planning
Construction Management & Inspection
Traffic & Transportation Engineering
Transportation Planning
Structural Engineering
Water Resources Engineering
GIS

W.O. 15514.02

NOTICE OF TRANSMITTAL

DATE: November 16, 2012

TO: LOMC Clearinghouse
847 South Pickett Street
Alexandria, VA 22304-4605

ATTENTION: Engineering Library

SUBJECT: MT-EZ LOMA, Santa Barbara, CA
Case No: 13-09-0266A
Submittal 2

BY HAND: ☐
MAIL: ☒
: ☐

WE ARE TRANSMITTING HEREWITH THE FOLLOWING:

One (1) CD with revised submittal information including forms, exhibits, and elevation certificate
One (1) signed and stamped plan
One (1) copy of FEMA response letter dated November 6, 2012

PURPOSE: For your review and approval

PENFIELD & SMITH

By: [redacted]

RECEIVED
NOV 21 2012
BY:

RECEIVED
NOV 20 2012
BY:

Federal Emergency Management Agency

Washington, D.C. 20472

November 06, 2012

[redacted]
Penfield & Smith
111 E. Victoria Street
Santa Barbara, CA 93110

IN REPLY REFER TO:
CASE NO: 13-09-0266A
COMMUNITY: CITY OF SANTA BARBARA, SANTA BARBARA COUNTY, CALIFORNIA
COMMUNITY NO: 060335
216-AD

RE: CITY BLOCK 333 -- 2 QUARANTINE STREET

Dear Mr. [redacted]

This is in response to your request for a Letter of Map Amendment for the property referenced above.

The Federal Emergency Management Agency (FEMA) uses detailed application/certification forms for revision requests or amendments to the National Flood Insurance Program (NFIP) maps. The forms provide step-by-step instructions for requestors to follow, and are comprehensive, ensuring that the requestors' submissions are complete and more logically structured. Therefore, we can complete our review more quickly and at lower cost to the NFIP. While completing the forms may seem burdensome, the advantages to requestors outweigh any inconvenience.

The following forms or supporting data, which were omitted from your previous submittal, must be provided:

- A copy of the deed (with recordation data and stamp of the Recorder's office).
- In order to accept the submitted community determined Base Flood Elevation (BFE), all supporting data and calculations used by the community to develop the BFE for your property and/or structure must be submitted. In the event that the community cannot furnish those calculations and data, a BFE can be developed by FEMA for your property at your request. This BFE will be developed using the best available resources. If FEMA is requested to develop a BFE for the requested property, any available hydrological and hydraulic information for the flooding source could be useful. It is recommended to contact your community engineering department for assistance in obtaining available information that may aid in processing your request.

Please note that if all of the required items are not submitted within 90 days of the date of this letter, any subsequent request will be treated as an original submittal and will be subject to all submittal procedures.

When you write to us concerning your request, please include the case number referenced above in your letter. All required items and questions concerning your request are to be directed to Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605.

LOMC CASE TRACKING

Project ID: CITY BLOCK 333 -- 2 QUARANTINE STREET **Case No.:** 13-09-0266A

Case Received Date: 10/26/2012
Analyst/Engineer Name: [redacted]
Project Work Group: MT 1 BakerAECOM Region 4
Organization Name: BakerAECOM

LOMC Type: LOMA
Projected Due Date:
Project Status: Active

Community Information

Community ID	Community Name	County Name	State	Region
060335	SANTA BARBARA, CITY OF	Santa Barbara County	CA	9

Flood Source Information

Fee Information

Fee Type	Fee Amount	Invoice Amount	Fee Amount Received	Fee Received Date
Not applicable				

Balance: **Sub Total:**

Payment Comments

Project Workflow Information

Workflow Process Step	Actual Completion Date
Assign Project Resource	10/31/2012
Review Data Received	11/06/2012
Receive Additional Data	11/20/2012
Review Data Received	

Correspondence Information

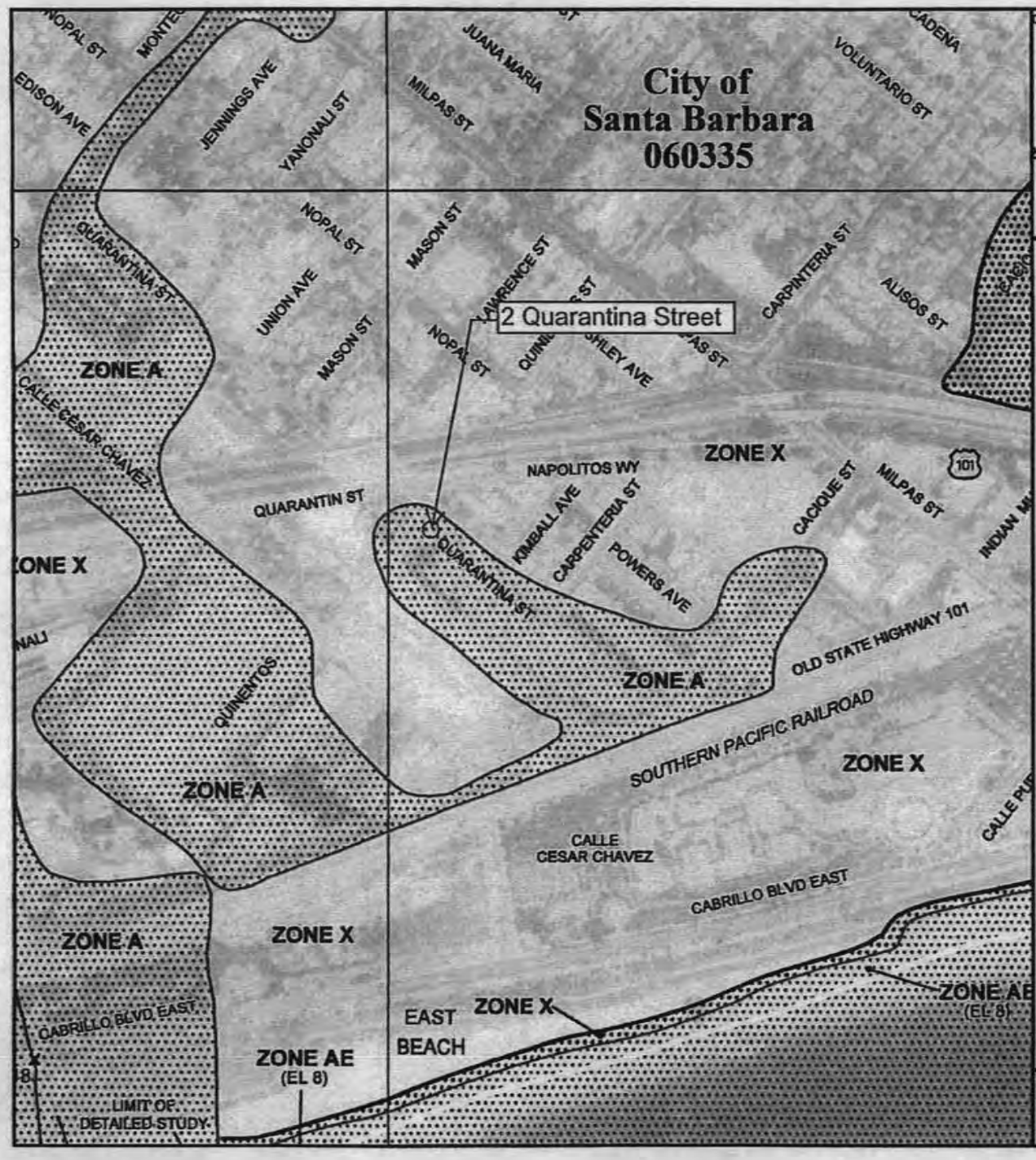
Letter Type Sent	Letter Date
Acknowledge receipt of request	10/26/2012
Request for additional data/fee	11/06/2012

Additional Data Requests

Data Item Requested	Date Requested	Date Received	Comments
BFE data	11/06/2012		
Recorded Deed	11/06/2012		

Determination Information

Community Name	State	Determination Type	Letter Issue Date	Effective Date	Appeal Begins Date	Appeal Ends Date	116 Letter Date



onal Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1391F

FIRM

FLOOD INSURANCE RATE MAP

SANTA BARBARA COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1391 OF 1835

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SANTA BARBARA, CITY OF	060335	1391	F
SANTA BARBARA COUNTY	060336	1391	F

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06083C1391F

EFFECTIVE DATE
SEPTEMBER 30, 2005

Federal Emergency Management Agency

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Alignment	0	PF 1	1490	9.3	9.84	9.84	10.04	0.163498	3.59	414.69	1050.11	1.01
Alignment	50	PF 1	1490	7.65	10.17		10.17	0.000424	0.49	3042.56	1755.71	0.07
Alignment	150	PF 1	1490	8.25	10.96	10.96	11.51	0.114761	5.93	251.27	245.67	1
Alignment	250	PF 1	1490	9.87	12.55	11.3	12.57	0.003025	0.99	1500.33	1405.17	0.16
Alignment	350	PF 1	1490	7.83	12.66	9.48	12.66	0.000452	0.55	2694.69	1435.08	0.07
Alignment	450	PF 1	1490	6	12.7	8.9	12.7	0.000367	0.54	2758.9	1406.48	0.06
Alignment	550	PF 1	1490	8	12.73	9.08	12.74	0.000281	0.49	3047.19	1543.17	0.06
Alignment	650	PF 1	1490	8	12.75		12.75	0.000108	0.34	4170.28	1429.82	0.04
Alignment	750	PF 1	1490	8	12.77	9.31	12.77	0.000237	0.49	3054.43	1299.45	0.05
Alignment	850	PF 1	1490	8	12.8	9.96	12.81	0.000549	0.7	2117.13	973.03	0.08
Alignment	950	PF 1	1490	8.67	12.86	10.52	12.88	0.00083	0.81	1839.76	954.62	0.1
Alignment	1050	PF 1	1490	9.75	12.97	10.87	12.98	0.001346	0.98	1514.64	777.14	0.12

FOR REDUCED PLANS
ORIGINAL SCALE IN INCHES
0 1 2 3

NO.	DATE	REVISIONS	APPD.

Penfield & Smith
Engineering · Surveying · Planning · Construction Management ·
111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

DESIGN _____ CHECKED _____
PROJECT ENGINEER DATE: _____
PROJECT ENGINEER
R.C.E.

[redacted]

NAME OF REVIEWING AGENCY
REVIEWED BY: NAME OF REVIEWER
SIGNATURE DATE

FLOOD ANALYSIS
HEC-RAS SECTION LAYOUT AND RESULTS
2 SOUTH QUARANTINA ST
SANTA BARBARA, CALIFORNIA

P&S PROJECT NO. 15514.02
SHEET 1 OF 1
PLAN DATE 16NOV2012

C36-ENG SAVE DATE:11/16/2012 9:28:18 AM PLOT BY:Craig Steward PLOT DATE:11/16/2012 11:39:55 AM PLOT SCALE:1:1

DRAWING:r:\ocad\work\15514\base quarantina.dwg

APPENDIX B –

PLANS

SCRTS LOCAL DRIANGE CALCULATIONS

STORM WATER QUALITY SUMMARY

THE PROPOSED PROJECT REPLACES AN EXISTING FACILITY THAT IS NEARLY 100% IMPERVIOUS WITH AN INDUSTRIAL FACILITY, OFFICE SPACE AND ASSOCIATED PARKING ALONG WITH ROUGHLY 14,500 SQ. FT. OF LANDSCAPE AREA. THE MAJORITY OF THE OPEN SPACE AREA WILL ALSO SERVE AS AREAS OF STORM WATER TREATMENT. BECAUSE THE PROPOSED FACILITY REDUCES THE AMOUNT OF IMPERVIOUS AREA, IT IS ANTICIPATED THAT ON SITE VOLUME RETENTION IS NOT REQUIRED.

TO MEET THE STORM WATER TREATMENT REQUIREMENTS OF THE CITY'S STORM WATER MANAGEMENT PROGRAM THE PROJECT PROPOSES SEVERAL METHODS OF STORM WATER TREATMENT:

ROOF TREATMENT: ROOF DOWNSPOUT FILTERS
PAVEMENT RUNOFF: VEGETATED SWALES, BIO-RETENTION

SEE MAP FOR TREATMENT LOCATIONS.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- GRADE BREAK
- SD — PROPOSED STORM DRAIN
- PROPOSED RETAINING WALL
- EXISTING FENCE
- 12.4 — EXISTING GRADE
- FS — FINISHED SURFACE
- TC — TOP OF CURB
- SD — FLOWLINE
- PROPOSED PAVEMENT
- PROPOSED STRUCTURE ROOF
- LANDSCAPED AREA
- ROOF SLOPE
- PAVEMENT DRAINAGE AREA
- ROOF DRAINAGE AREA
- VEGETATED STORM WATER TREATMENT
- ROOF DOWNSPOUT FILTER LOCATION

MARBORG MATERIALS RECOVERY FACILITY
CONCEPTUAL DRAINAGE PLAN
620 QUINIENTOS STREET

CITY OF SANTA BARBARA, CALIFORNIA
APRIL, 2013

TRUE NORTH
ARCHITECTURAL REFERENCE NORTH
SCALE: 1"=30'
0 30 60 90

Penfield & Smith
Engineering · Surveying · Planning
· Construction Management ·
111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

42-EXB SAVE DATE: 4/30/2013 2:15:23 PM PLOT BY: Michael Hamilton PLOT DATE: 5/2/2013 10:59:53 AM PLOT SCALE: 1:1
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PROJECT SUMMARY

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A ROUGHLY 103,000 SQUARE FOOT INDUSTRIAL FACILITY WITH A 4,000 SQ. FT. OFFICE WITH ASSOCIATED PARKING. THE FACILITY SHALL BE USED AS A MATERIALS RECYCLING FACILITY FOR TRASH COLLECTION AND SEPARATION FOR RECYCLING AND/OR DISPOSAL. TRASH VEHICLES WILL ENTER THE FACILITY AND UNLOAD INTO THE FACILITY WHERE IT WILL BE MECHANICALLY SEPARATED AND TAKEN BY TRUCK TO DISPOSAL AND RECYCLING FACILITIES.

THE NATURE OF THE FACILITY REQUIRES THAT FINISH FLOOR OF THE FACILITY BE SET 48" ABOVE GRADE FOR DOCK LOADING CAPABILITY. FEMA MAPS INDICATE 100-YEAR FLOOD HAZARD LIMIT WITHIN THE PROJECT SITE – ELEVATING THE PROPOSED FACILITY 4' ABOVE GRADE ALLEVIATES FLOOD HAZARD CONCERNS.

ESTIMATED EARTHWORK

THE MAJORITY OF THE EARTHWORK REQUIRED TO CONSTRUCT THE FACILITY WILL COME FROM THE FILL REQUIRED TO BRING THE PROPOSED FACILITY 48" ABOVE EXISTING GRADE. THE FOLLOWING REPRESENTS THE ESTIMATED AMOUNT OF IMPORT:

AVERAGE EXISTING GRADE ELEVATION: 11.9

ASSUMED FLOOR STRUCTURAL SECTION: 12"

INDUSTRIAL STRUCTURE AREA: 103,290 SQ.FT.

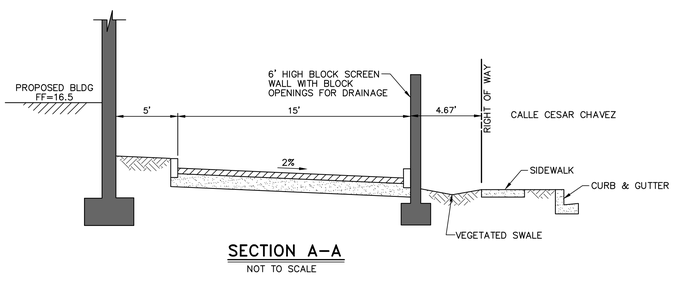
PROPOSED MRF FINISH FLOOR ELEVATION: 16.5

TOTAL FILL = ((16.5–11.9–1)*(103,290))/27 = 13,800 CU.YD.

PROPOSED OFFICE FF = 15.0 TOTAL FILL = 150 CU. YD.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- GRADE BREAK
- SD — PROPOSED STORM DRAIN
- PROPOSED RETAINING WALL
- EXISTING FENCE
- 12.4 — EXISTING GRADE
- FS — FINISHED SURFACE
- TC — TOP OF CURB
- SD — FLOWLINE
- PROPOSED PAVEMENT
- PROPOSED STRUCTURE
- PROPOSED RAMP
- LANDSCAPED AREA
- TRUCK PATH OF TRAVEL
- DRAINAGE FLOW
- PROPOSED SCREEN WALL



SECTION A–A
NOT TO SCALE

MARBORG MATERIALS RECOVERY FACILITY
CONCEPTUAL GRADING PLAN
620 QUINIENTOS STREET

CITY OF SANTA BARBARA, CALIFORNIA
APRIL 2013

TRUE NORTH
ARCHITECTURAL REFERENCE NORTH
SCALE: 1"=30'
0 30 60 90

Penfield & Smith
Engineering • Surveying • Planning • Construction Management •
111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

C–1

42-EXB SAVE DATE: 4/30/2013 2:17:24 PM PLOT BY: Michael Hamilton PLOT DATE: 5/2/2013 11:01:18 AM PLOT SCALE: 1:1
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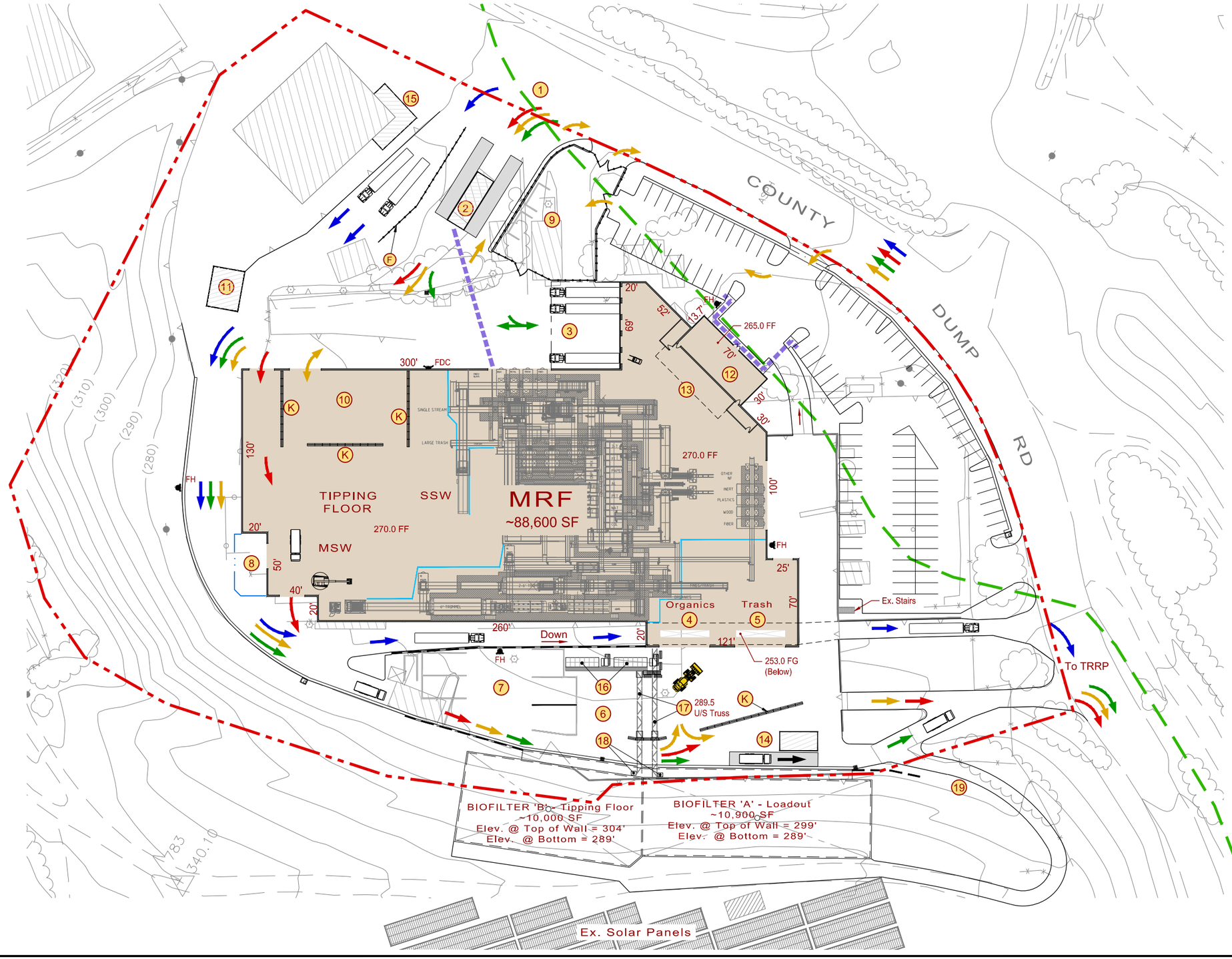

DRAFT

KEYNOTES

1. Entrance
2. Weigh Scales & Scale House (675 SF)
3. Recyclable Loadout Dock (with canopy or office over)
4. Organic Waste Loadout
5. Trash Loadout
6. Green Waste Drop-off & Mulch Area
7. Rubble
8. Various
9. Self-Recycleables, E-Waste & Universal Waste
10. Self-Haul Drop Off
11. Wash Rack
12. 3 Story Annex (offices, employee area, visitor center, 3rd floor is 50' x 70') Total Office 7,700 SF
13. Bale Storage (Office Above)
14. Weigh Scale & Scale House (450 SF)
15. 1 Story Addition to Maintenance Bldg. (~750 SF)
16. Dust Collection Units (2 - 26' x 7.5')
17. 3' Dia. Duct in 4' x 4' Box Truss (Overhead)
18. Humidification Units (2 - 3' x 4')
19. Biofilter Access Road (12' Wide, Paved)
- F. Proposed Fence
- K. Proposed K-Rail Barrier

LEGEND

- Existing SCRTS Permit Area (8.3 ac.)
- Reported Refuse Limit (Approximate)
- ADA Access Route
- Interior Partition Wall
- MRF Delivery
- Waste Loadout
- Recycleable Loadout
- Self Haul / Green Waste Delivery

SCALE: 1"=80'
0' 80' 160'

Prepared by
John Kular Consulting
10901 Rockridge Way, Bakersfield, CA 93311
661-663-7732 *kularconsult.com*

Urban Area MRF Alternative 2
South Coast Recycling and Transfer Station

Figure 5.6 - Preliminary Site Plan

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Grading Volume Report		
Cut	13,300	cu.yds.
Fill	10,215	
Net	3,085	Export

Legend

- Existing Permit Area
- Refuse Limit
- Proposed Storm Drain
- Existing Storm Drain
- (289) Existing Ground Contours
- 290 Proposed Grading Contours

PROPOSED
SCRTS MRF
~88,600 SF
FF=270.0

FF=265.0

BIOFILTER
FF=289.0

BIOFILTER
FF=289.0

SCALE HOUSE
270.0FF

SCALE HOUSE
267.0FF

SCALE

SCALE

MH

MH

ASPH

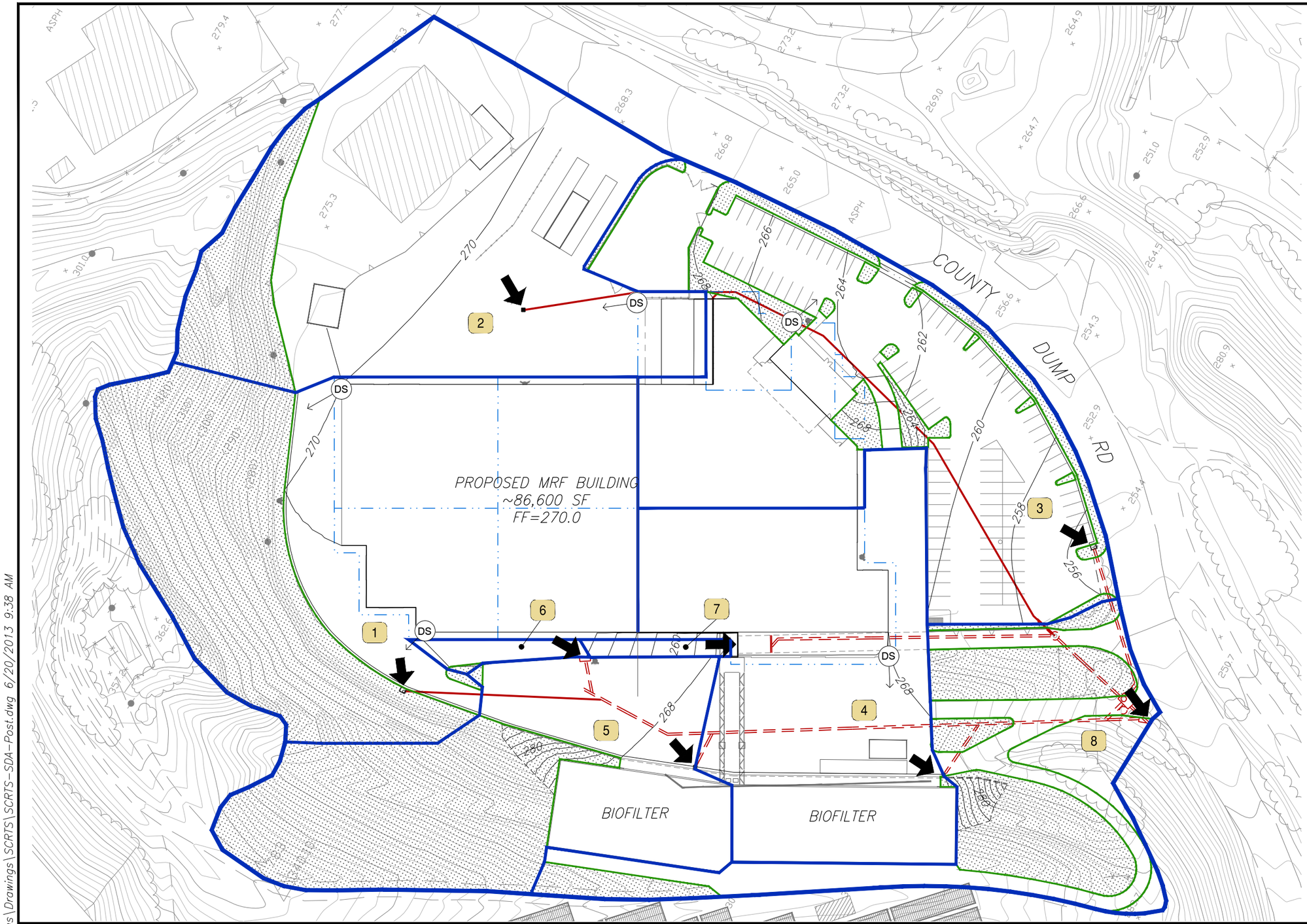
SCALE: 1"=60'
0' 60' 120'

DRAFT

Prepared by:
John Kular Consulting
10901 Rockridge Way, Bakersfield, CA 93311
661-663-7732 kularconsult.com

Urban Area MRF Alternative 2
South Coast Recycling and Transfer Station

Figure 5.7 - Preliminary Grading Plan



Legend

- 1 → Drainage Area Label & Outlet Location
- Drainage Areas
- Pervious Areas
- Proposed Storm Drain
- Existing Storm Drain
- DS → Down Spout Location & Flow Direction

DRAFT

Drainage Areas			
	Pervious	Impervious	Area (acres)
1	0.936	1.411	2.347
2	0.265	1.653	1.918
3	0.246	1.617	1.863
4	0.000	1.368	1.368
5	0.713	0.556	1.269
6	0.003	0.053	0.056
7	0.000	0.038	0.038
8	0.632	0.398	1.030
		Total Area	9.889

Prepared by:

John Kular Consulting

10901 Rockridge Way, Bakersfield, CA 93311

661-663-7732 kularconsult.com

SCALE: 1"=80'

0' 80' 160'

South Coast Recycling & Transfer Station

MRF

Post-Development Drainage Areas

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Santa Barbara County Flood Control and Water Conservation District

Program Rational - XL

User Data:

Project Name:	SCRTS	**Project Number:**	
Date of Run:	6/20/2013	**Run By:**	JKC
Notes:	Pre- Development 62% impervious		

Input Data:

Location:	South Coast	Land Use Type:	Commercial
Area (Acres):	9.889	Time of Concentration (Min.):	12

	Q10:	Q25:	Q50:	Q100:
Calculated Runnoff Coefficient:	0.73	0.76	0.79	0.80
User Selected Runoff Coefficient (Optional):	0.70	0.73	0.76	0.77

Calculate

For Large Lot Subdivisions (>10,000 sq. ft.):

	Low Value:	High Value:	User Selected:
Q10:			
Q25:			
Q50:			
Q100:			

Enter Selection

Results:

	Rainfall Intensity:	Runoff Coef:	Q (cfs):
Q10:	2.61	0.70	18
Q25:	3.18	0.73	23
Q50:	3.68	0.76	28
Q100:	4.03	0.77	31

View RI Curves

View RC Curves

Print

Exit

Santa Barbara County Flood Control and Water Conservation District

Program Rational - XL

User Data:

Project Name:	SCRTS	**Project Number:**	
Date of Run:	6/20/2013	**Run By:**	JKC
Notes:	Post Development 72% impervious		

Input Data:

Location:	South Coast	Land Use Type:	Commercial
Area (Acres):	9.889	Time of Concentration (Min.):	12

	Q10:	Q25:	Q50:	Q100:
Calculated Runnoff Coefficient:	0.73	0.76	0.79	0.80
User Selected Runoff Coefficient (Optional):				

Calculate

For Large Lot Subdivisions (>10,000 sq. ft.):

	Low Value:	High Value:	User Selected:
Q10:			
Q25:			
Q50:			
Q100:			

Enter Selection

Results:

	Rainfall Intensity:	Runoff Coef:	Q (cfs):
Q10:	2.61	0.73	19
Q25:	3.18	0.76	24
Q50:	3.68	0.79	29
Q100:	4.03	0.80	32

View RI Curves

View RC Curves

Print

Exit

Off-site Aerobic Composting
Engel and Gray

N

SCALE

400' 0 400'

LEGEND

- CURRENT WASTE DISPOSAL AREA
- 600 REMAINING WASTE FILL COUNTOURS
- PROPOSED ADDITIONAL WASTE DISPOSAL AREA
- 620 PROPOSED ADDITIONAL WASTE FILL CONTOURS
- PROPOSED ADDITIONAL BORROW AREA/STOCKPILE AREA

LANDFILL PROPERTY BOUNDARY

LIMIT OF EXCAVATION

NORTH BORROW/
STOCKPILE AREA

DRAINAGE FILL

LIMIT OF PERMITTED
WEST BORROW AREA

RIDGE

PHOTO DATE: 9/2012

COUNTY OF SANTA BARBARA
RESOURCE RECOVERY & WASTE MGMT. DIV.

TAJIGUAS LANDFILL
EXPANSION ALTERNATIVE
CONCEPTUAL FILL PLAN
ADDITIONAL DISPOSAL CAPACITY=3,700,000CY

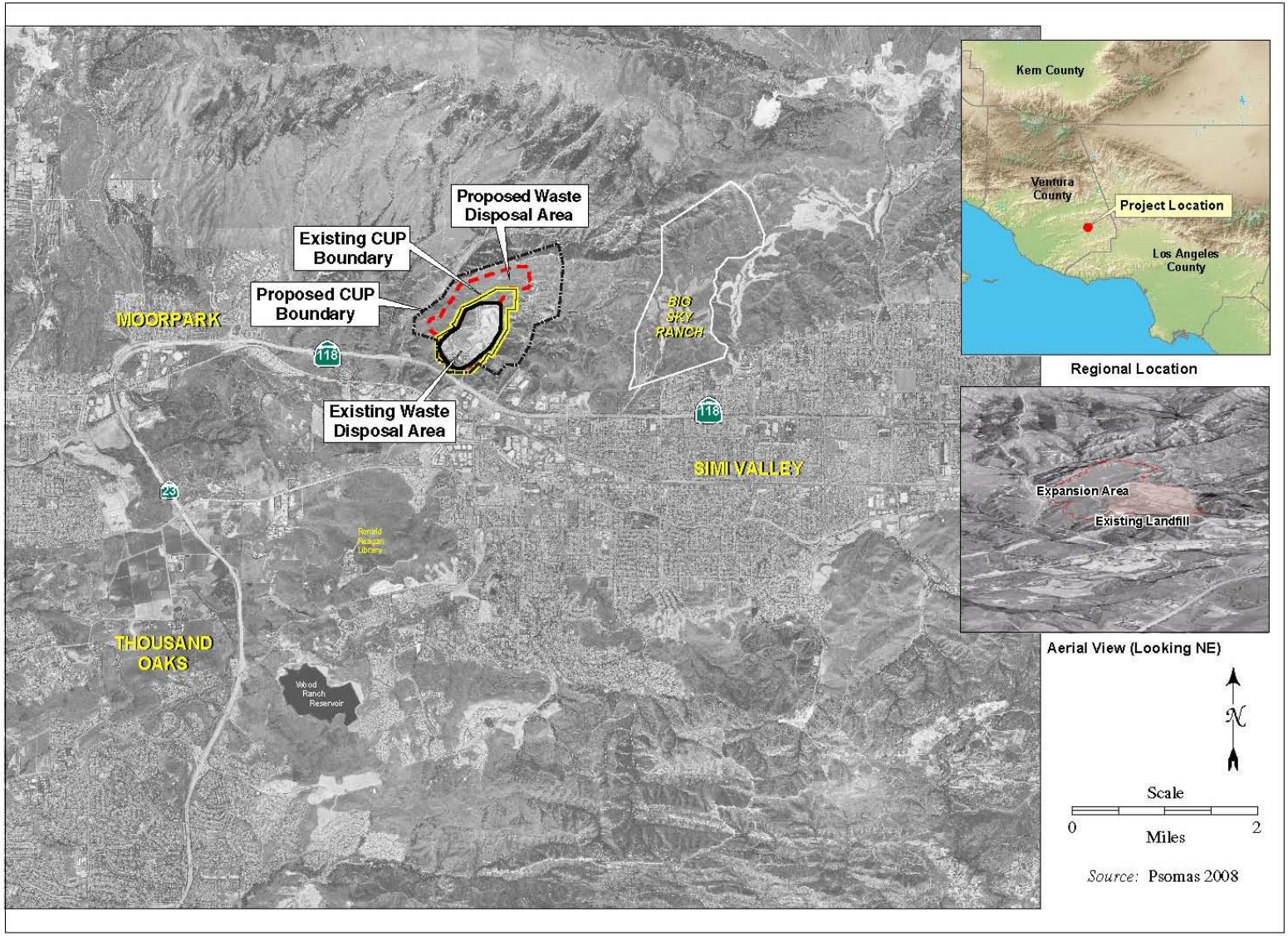


Figure 2.1-1. Project Location

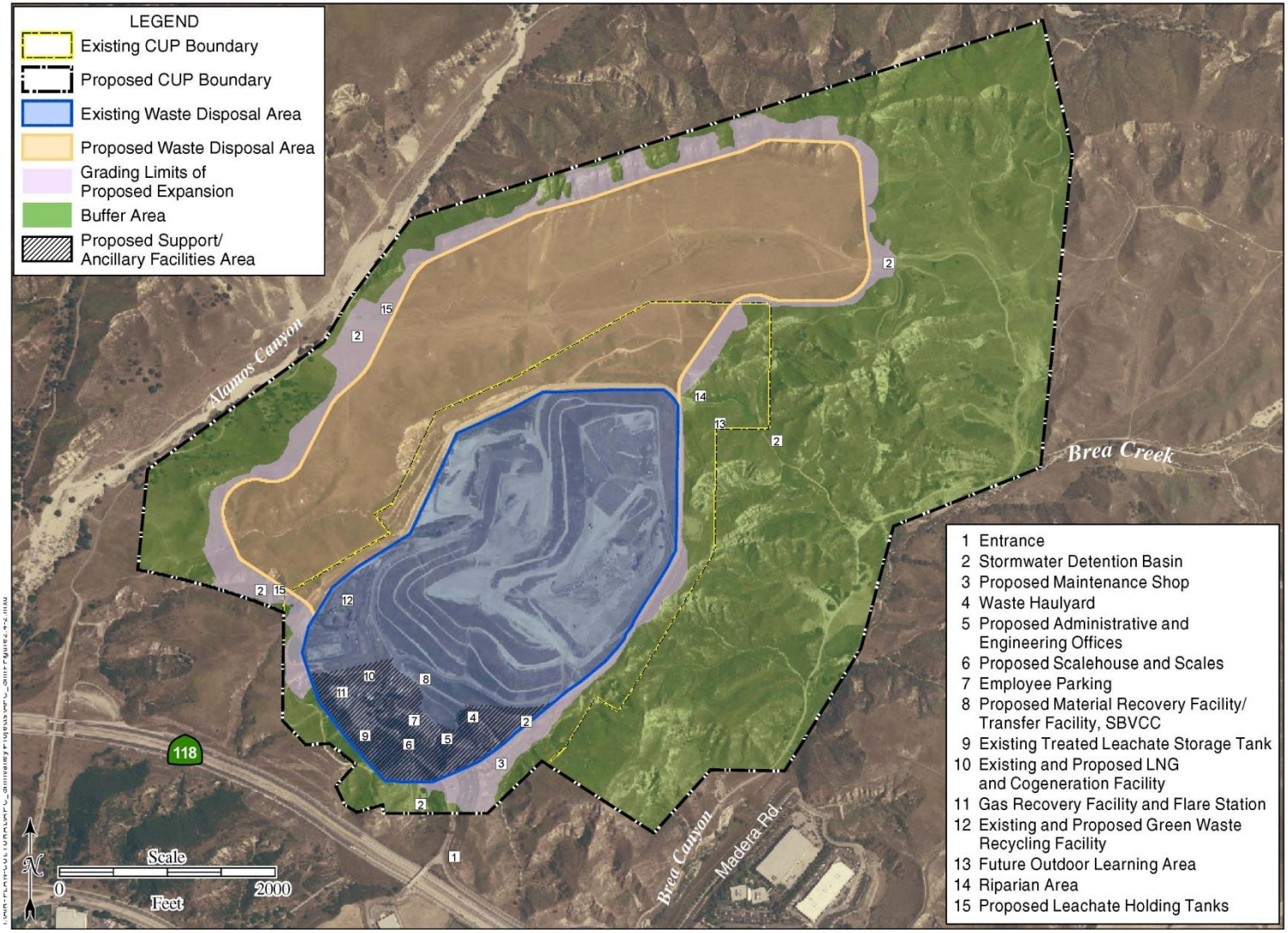
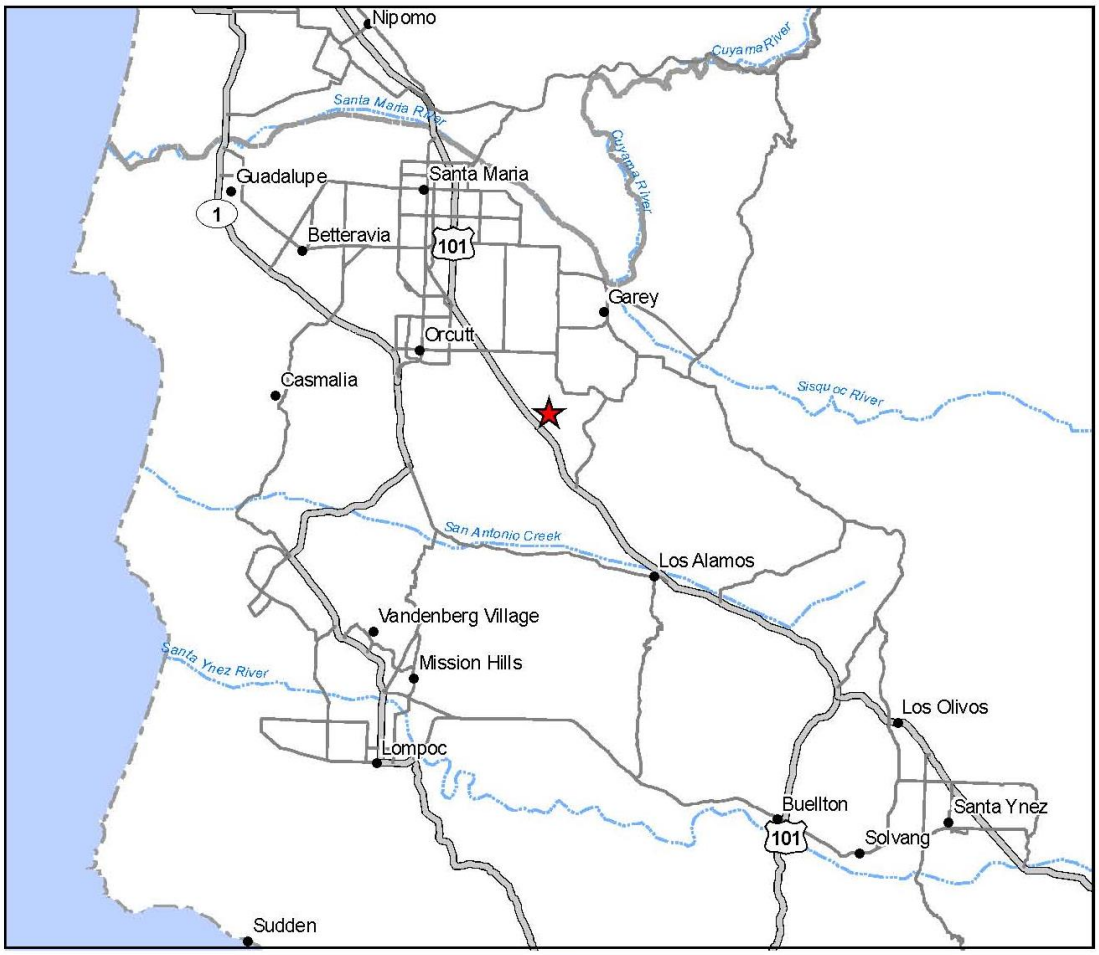


Figure 2.4-1. Proposed and Existing Site Boundaries and Proposed Site Layout

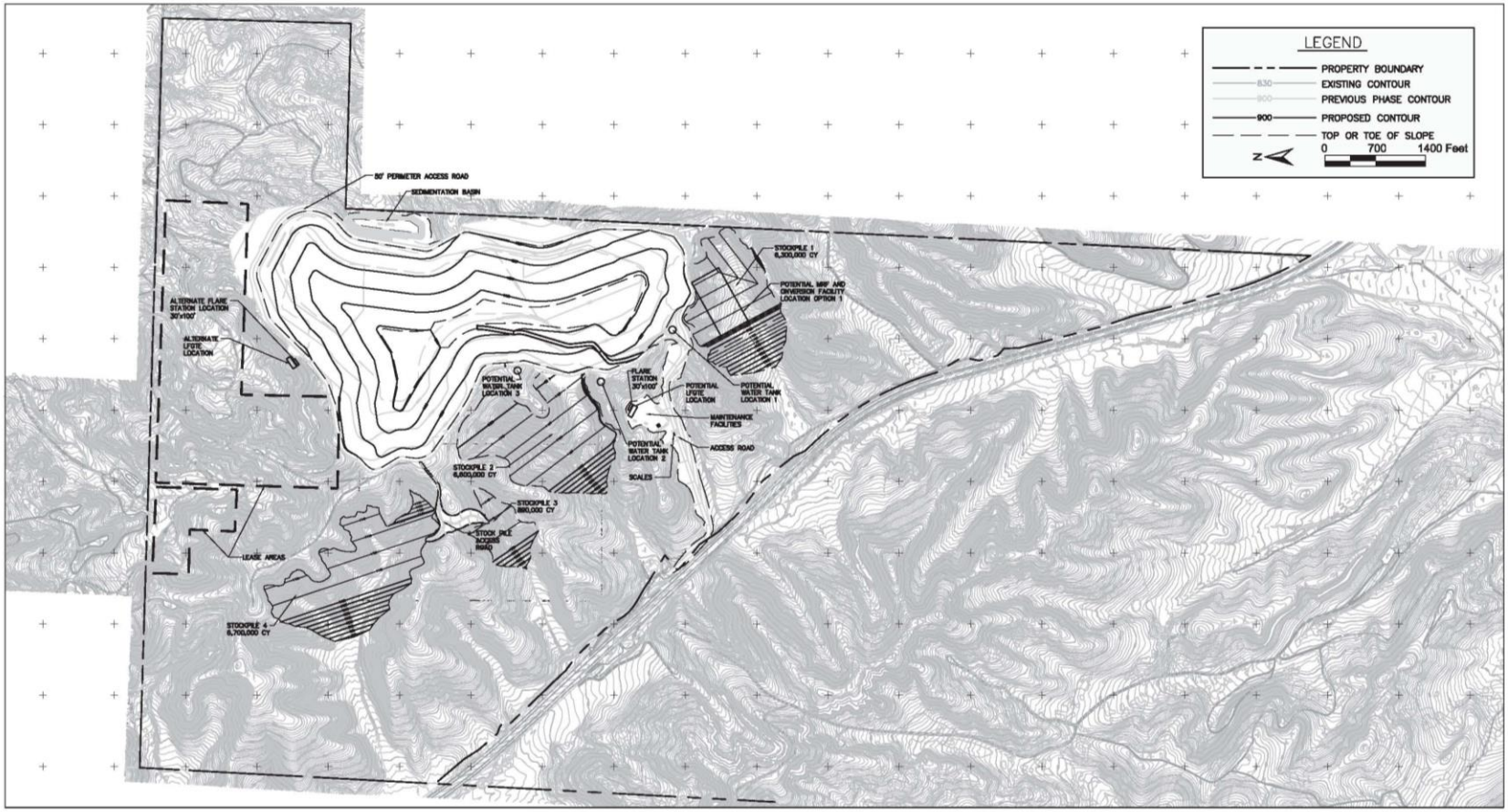


Sources: U.S. Bureau of the Census Tiger 2000 data and ESRI, 2004.

Regional Location — Figure II-1

City of Santa Maria

Waste Export to the Santa Maria Integrated Waste Management Facility



Conceptual Site Plan

Figure ES-1

Base drawing source: Bryan A. Stirrat & Associates, 2009.

City of Santa Maria

Waste Export to the Santa Maria Integrated Waste Management Facility