The City of San Diego

STANDARD DEVELOPMENT PROJECT (SDP) STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR

COSOY LOT SPLIT
PTS 529221
Drawing Number (If Applicable) & Internal Order Number (If Applicable)

ENGINEER OF WORK:

REGISTERED PROFESSIONAL ENGINEER
DAVID H. YEH
No. 62717
Exp. 6-30-20 18
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STATE OF CALIFORNIA

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DATE:
August 15, 2017

Approved by: City of San Diego Date

Source Control BMP Checklist for Standard Projects			Form I-4
All development projects must implement source control BMPs SC-1 through SC-6 and. Refer to Chapter 4 and Appendix E of the BMP Design Manual for information to implement BMPs shown in this checklist. **Note: All selected BMPs must be shown on the construction plans.**			
Source Control Requirement	Applied[1]?		
SC-1 Prevention of Illicit Discharges into the MS4	☒ Yes	☐ No	☐ N/A
SC-2 Storm Drain Stenciling or Signage	☐ Yes	☐ No	☒ N/A
SC-3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☐ Yes	☐ No	☒ N/A
SC-4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☐ Yes	☐ No	☒ N/A
SC-5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☐ Yes	☐ No	☒ N/A
SC-6 BMPs based on Potential Sourcres of Runoff Pollutants			
On-site storm drain inlets	☐ Yes	☐ No	☒ N/A
Interior floor drains and elevator shaft sump pumps	☐ Yes	☐ No	☒ N/A
Interior parking garages	☐ Yes	☐ No	☒ N/A
Need for future indoor & structural pest control	☒ Yes	☐ No	☐ N/A
Landscape/Outdoor Pesticide Use	☒ Yes	☐ No	☐ N/A
Pools, spas, ponds, decorative fountains, and other water features	☐ Yes	☐ No	☒ N/A
Food service	☐ Yes	☐ No	☒ N/A
Refuse areas	☐ Yes	☐ No	☒ N/A
Industrial processes	☐ Yes	☐ No	☒ N/A
Outdoor storage of equipment or materials	☐ Yes	☐ No	☒ N/A
Vehicle/Equipment Repair and Maintenance	☐ Yes	☐ No	☒ N/A
Fuel Dispensing Areas	☐ Yes	☐ No	☒ N/A
Loading Docks	☐ Yes	☐ No	☒ N/A
Fire Sprinkler Test Water	☐ Yes	☐ No	☒ N/A
Miscellaneous Drain or Wash Water	☐ Yes	☐ No	☒ N/A
Plazas, sidewalks, and parking lots	☐ Yes	☐ No	☒ N/A
SC-6A: Large Trash Generating Facilities	☐ Yes	☐ No	☒ N/A
SC-6B: Animal Facilities	☐ Yes	☐ No	☒ N/A
SC-6C: Plant Nurseries and Garden Centers	☐ Yes	☐ No	☒ N/A
SC-6D: Automotive-related Uses	☐ Yes	☐ No	☒ N/A
Discussion / justification for **all** "No" answers shown above: There are no nearby storm drain inlets for stenciling. No materials storage areas are proposed. No outdoor materials storage areas, outdoor work areas, or trash storage areas proposed.			

Site Design BMP Checklist for Standard Projects			Form I-5
All development projects must implement site design BMPs SD-1 through SD-8. Refer to Chapter 4 and Appendix E of the BMP Design Manual for information to implement BMPs shown in this checklist. **Note: All selected BMPs must be shown on the construction plans.**			
Site Design Requirement	Applied[1]?		
SD-1 Maintain Natural Drainage Pathways and Hydrologic Features	☐ Yes	☐ No	☒ N/A
SD-2 Conserve Natural Areas, Soils, and Vegetation	☐ Yes	☐ No	☒ N/A
SD-3 Minimize Impervious Area	☒ Yes	☐ No	☐ N/A
SD-4 Minimize Soil Compaction	☒ Yes	☐ No	☐ N/A
SD-5 Impervious Area Dispersion	☒ Yes	☐ No	☐ N/A
SD-6 Runoff Collection	☐ Yes	☒ No	☐ N/A
SD-7 Landscaping with Native or Drought Tolerant Species	☒ Yes	☐ No	☐ N/A
SD-8 Harvesting and Using Precipitation	☐ Yes	☐ No	☒ N/A
Discussion / justification for **all** "No" answers shown above: No natural drainage pathways or hydrologic features. Previously, the site was graded and landscaped so no natural areas exist. Runoff will not be collected, but instead will be directed from the rooftops and other hardscape into adjacent landscaping and earthen swales.			

[1] Answer for each source control and site design category shall be pursuant to the following:

- "Yes" means the project will implement the BMP as described in Chapter 4 and/or Appendix E of the BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.

Cosoy Lot Split (TM 1867767) Project

Archaeological Resources Report Form

January 2018

Prepared for:

City of San Diego
Transportation & Storm Water Department
2781 Caminito Chollas
San Diego, CA 92105

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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LIST OF ATTACHMENTS

CONFIDENTIAL APPENDICES
(Bound Separately)

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I. PROJECT DESCRIPTION

This letter report documents the cultural resources study for the proposed Cosoy Lot Split Project (project; Tentative Map [TM] number 1867767). The project is located south of Interstate (I)-8 and east of I-5, within the Mission Hills neighborhood of the Uptown Community Plan Area of the City of San Diego (City). The project site is within an unsectioned portion of the Pueblo Lands of San Diego, on the U.S. Geological Survey (USGS) 7.5' La Jolla quadrangle (Figures 1 and 2, *Regional Location* and *USGS Topography*, respectively; Attachment C).

The project includes the proposed subdivision of two existing parcels located on Cosoy Way and Presidio Drive (Assessor's Parcel Number [APN] 442-663-05 and 442-663-09), into three lots (Figures 3 and 4, Attachment C). A single-family residence is proposed on the resulting 5,363 square foot Parcel 2. Grading is proposed for a 5,760-square foot area, with 975 cubic yards of cut soil. A 13-foot tall retaining wall is also proposed along the eastern boundary of Parcel 2. The existing utilities are located within paved City right-of-way or within the residential project parcels; all proposed onsite utilities will be private and installed underground.

This report details the methods and results of the cultural resources study for the proposed lot split, which included a records search, a Sacred Lands File (SLF) search, a review of historic maps and aerial photographs, and a field survey with a Native American monitor. It also recommends measures to protect undetected historic resources which may occur on the parcels.

II. SETTING

REGULATORY SETTING

California Environmental Quality Act

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance (Office of Historic Preservation 1995). Significant resources are those resources which have been found eligible to the California Register of Historical Resources (CRHR).

The California Environmental Quality Act (CEQA), Public Resources Code 21084.1 and CEQA Guidelines, California Code of Regulations Title 14 Section 15064.5 defines a "historical resource" as follows:

- resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the CRHR (14 CCR Section 15064.5[a][1])
- resource(s) either listed in the NRHP [National Register of Historic Places] or in a "local register of historical resources" or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless "the preponderance of evidence demonstrates that it is not historically or culturally significant" (14 CCR Section 15064.5[a][2])
- resources determined by the Lead Agency to meet the criteria for listing on the CRHR (14 CCR Section 15064.5[a][3])

For listing in the CRHR, a historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;
4. It has yielded or has the potential to yield information important to the prehistory or history of the local area, California, or the nation.

Under 14 CCR Section 15064.5(a)(4), a resource may also be considered a "historical resource" at the discretion of the lead agency.

All resources that are eligible for listing must have integrity, which is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. In an archaeological deposit, integrity is assessed with reference to the preservation of material constituents and their culturally and historically meaningful spatial relationships. A resource must also be judged with reference to the particular criteria under which it is proposed for nomination.

California State Assembly Bill 52 (AB 52) revised PRC Section 21074 to include Tribal Cultural Resources as an area of CEQA environmental impact analysis. Further, per new PRC Section 21080.3, a CEQA lead agency must consult with any California Native American tribe that requests consultation and that is traditionally and culturally affiliated with the geographic area of a proposed project to identify resources of cultural or spiritual value to the tribe, even if such resources are already eligible as historical resources as a result of cultural resources studies.

City of San Diego Historical Resources Guidelines

The purpose and intent of the City's Historical Resources Guidelines (HRG), located in the City's Land Development Manual (City of San Diego 2001) is to protect, preserve and, where damaged, restore the historical resources of San Diego. The HRG states that if a project will potentially impact a resource, the resource's significance must be determined, even if it is not listed in or previously considered eligible for the California Register or a local register (Section II.D.5).

In order to be designated as a City of San Diego historically significant site, one or more of the following criteria must be met:

(A) Exemplifies or reflects special elements of the City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development.

(B) Is identified with persons or events significant in local, state or national history.

(C) Embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship.

(D) Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman.

(E) Is listed or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the California Office of Historic Preservation for listing on the California Register of Historical Resources.

(F) Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

Properties or sites are designated to the City's Register of Designated Historical Resources by the City's Historical Resources Board (HRB) at a publicly noticed hearing.

NATURAL ENVIRONMENT

The project area is situated in the coastal plain of western San Diego County, where the climate is characterized as semi-arid, with warm, dry summers and cool, moist winters (Hall 2007; Pryde 2004). The project is situated on the south side of the San Diego River, on the southwest facing hillside of the San Diego Mesa. The elevation of the project area ranges from approximately 140 to 180 feet above mean sea level (AMSL).

Geologically, the immediate project area is underlain by undivided San Diego Formation dating from the early Pleistocene and late Pliocene, with Pleistocene age old and very old terrace deposits surrounding the small area of geologic formation (Kennedy and Tan 2008). Within the Uptown Community Plan area, the San Diego Formation is typically exposed on slopes along drainages and underlies the very old terrace deposits, which are present across the top of the San Diego Mesa (City of San Diego 2016). The San Diego Formation consists of yellow-brown, fine- to medium-grained, sandstone. Colluvium (unmapped), which is generally soft, loose, and/or expansive, is present on sloping and natural hillsides within the project region (City of San Diego 2016).

One soil type, Olivenhain-Urban land complex (9 to 30 percent slopes), is found within the project area (Web Soil Survey 2017). The Olivenhain series consists of well-drained, moderately deep to deep cobbly loams that have a very cobbly clay subsoil. In mainly uncultivated areas, the soil supports vegetation of mainly chamise, scrub oak, flattop buckwheat, wild oats, sugarbush, soft chess, and cactus (Bowman 1973).

Prior to historic and modern activities, the native vegetation within the project vicinity consisted of chamise chaparral (*Adenostoma fasciculatum*), coastal sage scrub, and mixed chaparral vegetation communities; however, these communities may have been less extensive than in modern undeveloped areas because of intentional burning and management by native peoples (AECOM 2015a). As a result, the area was likely interspersed with native grasslands (*Stipa, Elymus, Poa, Muhlenbergia*). Major drainages such as the San Diego River valley would have contained extensive stands of the riparian community, with plants such as sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), and willow (*Salix* sp.) (Beauchamp 1986; Munz 1974). Many of the native plant species found in the project vicinity are known to have been used by native populations for food, medicine, tools, and ceremonial and other uses (Hedges and Beresford 1986; Luomala 1978).

CULTURAL SETTING

Prehistoric Period

The earliest well-documented sites in the San Diego area belong to the San Dieguito Tradition, dating to over 9,000 years ago (Warren 1967; Warren et al. 1998). The San Dieguito Tradition is thought by most researchers to have an emphasis on big game hunting and coastal resources (Warren 1967). Diagnostic material culture associated with the San Dieguito complex includes scrapers, scraper planes; choppers; large blades, and large projectile points (Rogers 1939; Warren 1967). In the southern coastal region, the traditional view of San Diego prehistory has the San Dieguito Tradition followed by the Archaic Period, dating from circa 8600 years Before Present (BP) to circa 1300 BP (Warren et al. 1998).

A large number of archaeological site assemblages dating to this period have been identified at a range of coastal and inland sites. These assemblages, designated as the La Jolla/Pauma complexes, are considered part of Warren's (1968) "Encinitas tradition" and Wallace's (1955) "Early Milling Stone Horizon." The Encinitas tradition is generally "recognized by millingstone assemblages in shell middens, often near sloughs and lagoons" (Moratto 1984:147), and brings a shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic period are called the La Jollan complex along the coast and the Pauma complex inland. Pauma complex sites lack the shell that dominates many La Jollan complex site assemblages. Sites dating to the Archaic Period are numerous along the coast, near-coastal valleys, and around estuaries. In the inland areas of San Diego County, sites associated with the Archaic Period are less common relative to the Late Prehistoric complexes that succeed them (Cooley and Barrie 2004; Laylander and Christenson 1988; Raven-Jennings and Smith 1999; True 1970). The La Jolla complex tool assemblage is dominated by rough cobble tools, especially choppers and scrapers (Moriarty 1966). The La Jolla complex tool assemblage also include manos and metates; terrestrial and marine mammal remains; flexed burials; doughnut stones; discoidals; stone balls; plummets; biface points; beads; and bone tools (True 1958, 1980).

While there has been considerable debate about whether San Dieguito and La Jollan patterns might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns (e.g., Bull 1983; Ezell 1987; Gallegos 1987; Warren et al. 1998), abrupt shifts in subsistence and new tool technologies occur at the onset of the Late Prehistoric Period (1500 BP to AD 1769). The Late Prehistoric period is characterized by higher population densities and intensification of social, political, and technological systems. The Late Prehistoric period is represented by the San Luis Rey complex in the northern portion of San Diego County and the Cuyamaca complex in the southern portion. Late prehistoric artifactual material is characterized by Tizon Brownware pottery, various cobble-based tools (e.g., scrapers, choppers, and hammerstones), arrow shaft straighteners, pendants, manos and metates, and mortars and pestles. The arrow point assemblage is dominated by the Desert Side-notched series, but the Cottonwood series and the Dos Cabazas Serrated type also occur. Subsistence is thought to be focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast where they assumed primary importance (Bean and Shipek 1978; Luomala 1978; Sparkman 1908). The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

Based on ethnographic data, including the areas defined for the Hokan-based Yuman-speaking peoples at the time of contact, it is now generally accepted that the Cuyamaca complex is associated with the Kumeyaay people, also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcalá).

Agua Hedionda Creek is often described as the division between the territories of the Luiseño (Takic Shoshonean-speaking peoples) and the Kumeyaay people (Bean and Shipek 1978; Luomala 1978), although various archaeologists and ethnographers use slightly different boundaries.

Ethnohistoric Period

The project area is in the traditional territory of the Kumeyaay people. At the time of Spanish contact, Yuman-speaking Kumeyaay bands occupied southern San Diego and southwestern Imperial counties and northern Baja California. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Most rancherias were the seat of a clan, although it is thought that, aboriginally, some clans had more than one rancheria and some rancherias contained more than one clan, often depending on the season within the year (Luomala 1978). Several sources indicate that large Kumeyaay villages or rancherias were located in river valleys and along the shoreline of coastal estuaries (Bean and Shipek 1978; Brackett 1951; Hoover et al. 1966; Kroeber 1925).

Historic Period

Spanish Period (1769–1821)

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. During the mid-eighteenth century, Spain had escalated its involvement in California from exploration to colonization (Weber 1992), and it was that year that the Royal Presidio of San Diego was founded on a hill overlooking the San Diego River. There were three types of settlements in Spanish Alta California: presidial, mission, and civic. San Diego was the first and was the presidial type, that is, it was administered by the military based at the presidio (Rolle 1998). Initially, both a mission and a military presidio were located on Presidio Hill overlooking the San Diego River. A small pueblo, now known as Old Town San Diego, developed below the presidio. The Mission San Diego de Alcalá was constructed in its current location five years later.

The economy of Alta California during the Spanish period was based on cattle ranching at the missions and a few Spanish land grant ranchos. A minor amount of agriculture and commerce took place in and around San Diego.

Mexican Period (1821–1848)

Mexico, including Alta California, gained its independence from Spain in 1821, but Spanish culture and influence remained as the missions continued to operate as they had in the past, and laws governing the distribution of land were also retained for a period of time.

Following secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals. The society made a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With numerous new ranchos, cattle ranching expanded and prevailed over agricultural activities. These ranches put new pressures on California's native populations, as grants were made for inland areas still occupied by the Kumeyaay, forcing them to acculturate or relocate farther into the backcountry. In rare instances, former mission neophytes were able to organize pueblos and attempt to live within the new confines of Mexican governance and culture. The most successful of these was the Pueblo of San Pasqual, located inland along the San Dieguito River Valley, founded by Kumeyaay who were no longer able to live at the Mission San Diego de Alcalá (Carrico 2008; Farris 1994).

American Period (1848–Present)

The Mexican period ended when Mexico ceded California to the United States after the Mexican-American War (1846–1848), which concluded with the Treaty of Guadalupe Hidalgo. Terms of the Treaty brought about the creation of the Lands Commission in response to the Homestead Act of 1851, which was adopted as a means of validating and settling land ownership claims. A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors including the discovery of gold in the state in 1849, the end of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions, and greatly increased the rate of population decline among Native American communities.

At the beginning of the American Period, Old Town remained the center of civic life in the area; however, the San Diego River was prone to major floods, and in the 1870s, downtown San Diego, then known as Horton's Addition, become the urban center (AECOM 2015b).

The 1880s saw "boom and bust" cycles that brought thousands of people to the area of San Diego County. By the end of the decade, many had left, although some remained to form the foundations of small communities based on dry farming, orchards, dairies, and livestock ranching. During the late nineteenth and early twentieth centuries, rural areas of San Diego County developed small agricultural communities centered on one-room schoolhouses. Such rural farming communities consisted of individuals and families tied together through geographical boundaries, a common schoolhouse, and a church. The influence of military development, beginning in 1916 and 1917 during World War I, moved much of the population away from this life, and the need to fight a two-ocean war during World War II resulted in substantial development in infrastructure and industry to support the military and accommodate soldiers, sailors, and defense industry workers.

Cosoy

The Kumeyaay village of *Cosoy* (also known as *Kosaii, Kosa'aay, or Kosoi*) has been identified within the vicinity of the project area and documented as site CA-SDI-41, primarily based on the research conducted by N. C. Nelson (n.d.) and A.L. Kroeber (1925) in the early 1900s. *Kosaii* is a Kumeyaay word for dry place, or drying place (Dumas 2011, cited in AECOM 2015b). According to the Uptown Community Plan Update (AECOM 2015a), the San Diego River was an important resource as a source of water and as a transportation route, and several Kumeyaay villages, including *Cosoy*, were situated along its route.

> Major coastal villages were known to have existed along the San Diego River, including the village of *Cosoy*/*Kosaii*/*Kosa'aay* near the mouth of the San Diego River (Kroeber 1925). Although the actual location of the village is unknown, Bancroft (1884) reported that a site called *Cosoy*/*Kosaii*/*Kosa'aay* by the Native Americans was in the vicinity of Presidio Hill and Old Town, located less than 1 mile west of the community planning area boundary. Several investigations have identified possible locations for the village of *Cosoy*/*Kosaii*/*Kosa'aay* (Clement and Van Bueren 1993; Felton 1996); however, the actual site has never been found [AECOM 2015a:15].

According to the site form for CA-SDI-41, Nelson described the "Old Rancheria" as northwest of Old Town. A recent article analyzes letters written in 1769 by Lt. Miguel Costansó of the Portolá Expedition, and places the village location west or southwest of Presidio Hill, within what is now the Presidio Hills Golf Course, or within the area north of the golf course and south of the river (Mogilner 2016).

III. AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for this project includes two existing parcels, APN 442-663-05 and 442-663-05, with a total acreage of 0.63 acres. While both parcels were included in the study, the primary focus was the area proposed for grading (a 5,760-square foot area) and Parcel 2, where a new single-family residence is proposed (0.12 acres). The remaining acreage is occupied by two existing residences that will remain as part of Parcel 1 and Parcel 3 (Figure 4).

IV. STUDY METHODS

Archival Research

HELIX archaeologist Stacie Wilson conducted a records search at the South Coastal Information Center (SCIC) on December 21, 2017, for the proposed project area and a quarter-mile radius. The records search included the identification of previously recorded cultural resources, locations and citations for previous cultural resources studies, and a review of the state Office of Historic Preservation (OHP) historic properties directory. A review of resources listed in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks (CHL), California Points of Historic Interest, and the City of San Diego Historical Landmarks Designations was also conducted. The records search maps can be found in Confidential Appendix A, bound separately.

Historical maps and aerial photographs were reviewed to assess the potential for historical structural resources and historical archaeological resources, including the 1903 USGS 15-minute La Jolla topographic map (revised 1930), the 1943 La Jolla (1:31,680) topographic map, and the 1953 and 1967 USGS 7.5-minute La Jolla quadrangle.

Native American Contact Program

HELIX contacted the Native American Heritage Commission (NAHC) on December 22, 2017 to request a search of its SLF. As a result of the correspondence received from the NAHC, the Viejas Band of Mission Indians was contacted on January 8, 2018 to obtain more information regarding the tribal cultural resources identified during the search of the SLF. The City will be sending AB 52 Notification to Tribal Representatives for the project. No additional outreach was conducted by HELIX.

Field Survey

The project APE was surveyed by HELIX archaeologist Stacie Wilson and Native American monitor, Rachel Smith of Red Tail Monitoring and Research (Kumeyaay), on January 5, 2018. The area of the proposed Parcel 2 and the area proposed for grading (a 5,760-square foot area) were walked and inspected by the surveyors. The remainder of the APE is occupied by existing residential structures, patios, and driveways, and will not be impacted by the proposed project.

V. RESULTS OF STUDY

ARCHIVAL RESEARCH

SCIC has a record of 144 studies previously conducted within the quarter-mile search area; two of the studies (SD-10444 and SD-13537) cover the project location (Attachment D and Confidential Appendices, bound separately). SD-10444 is the *Uptown Historic Architectural and Cultural Landscape Reconnaissance Survey* (Stiegler and May 2006), and SD-13537 is the *Cultural Resource Monitoring Report for the Mission Hills Block 2E (Jobs 3 & 4) Utility Undergrounding Project* (Aguilar and Pigniolo 2012). The project area does not appear to be within any of the proposed thematic historic districts, geographic historic districts, or conservations areas presented in the Stiegler and May (2006) report. The monitoring program utility undergrounding project did not identify any historic or prehistoric cultural material within the project alignment, except for the discovery of a single isolated Willow Ware bowl fragment. While the utility undergrounding project covered several streets with the Mission Hills community, none of the trench excavations occurred within Cosoy Way or Presidio Drive where the current project area is located.

A total of 38 cultural resources have been recorded within the quarter-mile search radius (Attachment E and Confidential Appendices, bound separately). SCIC has site CA-SDI-18591 (P-37-028600) erroneously mapped within the project APE. This resource is Casa de Estudillo, which is located within the Old Town State Historic Park, approximately 1,000 feet to the southwest of the project site. No other resources are documented within the project site.

Several resources and districts located near the project site have been designated by the City's HRB as a Historical Landmark, many of which are also listed in the NRHP or CRHR, or have been designated as a CHL or a California Point of Historic Interest. These include Fort Stockton (HRB #3; CHL #54), the San Diego Presidio (HRB #4; CHL #59, NR; National Historic Landmark [NHL]), the Presidio Excavation Site (HRB #35; CHL #59; NHL), Old Town San Diego Historic State Park (HRB #14; CHL #830; NRHP), Heritage Park (HRB #8, 82 [NRHP], and 114), Presidio Park (HRB # 240), Franciscan Garden Site (HRB #44), Junipero Serra Museum (HRB #237), and several individual structures within the Old Town area.

In 1968, a portion of Old Town was transferred to the State of California to become a California Historic Park. In 1971, the area was added to the NRHP as the "Old Town San Diego Historic District." Several buildings within the district are individually listed as CHLs and as San Diego Historical Landmarks under the Old Town San Diego Historic State Park HRB listing.

On the 1903 topographic map, the area surrounding the project location is shown as developed, with several roads, structures, and railways in the vicinity. This includes the area of Old Town, but a grid of streets is also depicted to the east of the project parcels, on the top of the mesa, along with a few structures. Jackson Street and Cosoy Way are depicted leading up the hill, running adjacent to the project, to a structure located on top of the mesa edge. The revised 1930 topographic map illustrates similar conditions as 1903, but with several more streets, and many more structures, shown. The 1943, 1953, and 1967 topographic maps show the Old Town and Mission Hills vicinities as urban lands, with only community buildings such as schools, churches, and hospitals shown as individual structures.

While Cosoy Way is in existence and illustrated on the earliest topographic map available (1903), no structures are shown within the project parcels on any of the early topographic maps. A house within APN 442-663-05 (proposed Parcel 1) is shown on historic aerials from 1953 (NETR Online 2017);

however, the structure that is currently existing within the parcel was built in 1976 (Figure 4). The house located within APN 442-663-09 was constructed in 1974. Both of these structures are less than 45 years in age and will remain in place with no modifications as a result of the project.

Photos provided by the project applicant dating to approximately 30 years ago, show that the majority of the proposed Parcel 2 area and the area proposed for grading (a 5,760-square foot area) were disturbed for the preparation of gardens and landscaping (Attachment F).

Native American Contact Program

The NAHC responded to the SLF search request on January 4, 2018. The NAHC correspondence contains confidential information that was specified to not be included in public documents. The NAHC correspondence can be found in Confidential Appendix B, bound separately.

Field Survey

The pedestrian survey did not result in the identification of any cultural material. Several garden beds and planters were situated throughout the area of the proposed Parcel 2 and the area proposed for grading (a 5,760-square foot area). The area is also separated by a wooden fence between APN 442-663-05 and APN 442-663-09, with an approximately three- to four-foot open gate located in the fence line.

Within the area proposed to be subdivided into Parcel 2, the southern portion within APN 442-663-09 contains a small hot house that was devoid of plants with dirt and tiles at the ground surface, several dirt walkways, landscaping vegetation, and fruit trees located within cinder block planters. The area, located on a hillside, has been terraced, with cinder block walls two courses high separating the terraces. The northern portion, within APN 442-663-05, contains a larger portion of the proposed Parcel 2 (Figure 4). The area within this parcel contains several garden and landscaping beds, with the area being terraced from east to west towards Cosoy Way. Grass covers much of the yard area. Along Cosoy Way, the project area has been cut into the hillside, with a slope approximately eight to 10 feet tall being present.

Photos of the study area are provided in Attachment F.

VI. RECOMMENDATIONS

According to the Uptown Community Plan Update (AECOM 2015a), the majority of the Uptown community area is rated with a low cultural sensitivity rating, due to the majority of the community being developed. The area along base of the San Diego Mesa adjacent to the San Diego River, is rated with a high cultural sensitivity, due to the potential for cultural resources to be present at the base of canyons, particularly in areas that are in proximity to the area of Old Town and the Presidio. The project area lies within this high sensitivity area. However, the community plan update notes that due to the steepness of the canyons themselves, the cultural sensitivity for those areas is low.

No cultural resources have been identified in the APE. Therefore, based on the results of the survey, no historical resources will be affected by the proposed project. Additionally, because of the disturbed condition of the project area and the location of the project site being situated on the hillside of the mesa, the potential for subsurface cultural material to be present is quite low. As illustrated in the photographs in Attachment F, the project site has been terraced in the past. This terracing, in combination with the grading for the existing residences, has removed topsoil that may have contained cultural material. Due to the cultural sensitivity of the project vicinity, the Native American monitor present during the survey

recommended that an archaeologist and a Native American monitor observe initial grading activities to check for features or artifact deposits. Additionally, in a response received from the Viejas Band of Kumeyaay Indians "Viejas," dated January 8, 2018, the Tribe indicated that the project site has cultural significance or ties to Viejas and request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities. However, as addressed above, the potential for encountering cultural material within the project site is quite low, due to the steepness of the original slope and the degree of past grading/disturbance. As such, archaeological monitoring is not recommended for the project activities.

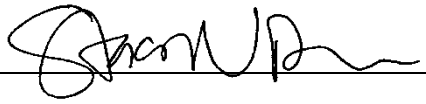
Although there is no evidence to suggest the presence of human remains, in the unlikely event that human remains are encountered during ground-disturbing activities, all work shall cease, and the county coroner shall be contacted, per the California Public Resources Code. Should the remains be identified as Native American, the NAHC shall be contacted within 48 hours to provide a most-likely descendant to determine appropriate actions.

VII. SOURCES CONSULTED DATE

National Register of Historic Places	Month and Year: January 2018
California Register of Historical Resources Register	Month and Year: January 2018
Archaeological/Historical Site Records: South Coastal Information Center	Month and Year: December 2017

Other Sources Consulted:

- California Historical Landmarks (January 2018)

VIII. CERTIFICATION	
Preparer: Stacie Wilson, M.S., RPA	Title: Senior Archaeologist
Signature: 	Date: 1/15/2018

VIII. ATTACHMENTS

A National Archaeological Data Base Information
B Bibliography
C Maps/Figures
- Regional Location
- USGS Topography
- Aerial Photograph
- Site Plan

D List of Previous Investigations Conducted within a Quarter-Mile Radius of the Project Area
E List of Previously Recorded Cultural Resources within a Quarter-Mile Radius of the Project Area
F Photographs of Study Area

IX. CONFIDENTIAL APPENDICES (BOUND SEPARATELY)

A Records Search Result Maps
B NAHC and Native American Correspondence

Attachment A

National Archaeological Database Information

NATIONAL ARCHAEOLOGICAL DATA BASE INFORMATION

Authors:	Stacie Wilson
Consulting Firm:	HELIX Environmental Planning, Inc., 7578 El Cajon Blvd., La Mesa, CA 91942, (619) 462-1515
Report Date:	January 2018
Report Title:	Cultural Resources Assessment for the Cosoy Lot Split (TM 7867767), San Diego, California
Submitted to:	City of San Diego, Development Services, 1222 First Avenue, San Diego, CA 92101
Prepared for:	Mr. Konstantin Dubinin, 4211 Cosoy Way, San Diego, CA, 92013
Contract number:	HELIX Project No. CCR-01
USGS quadrangles:	La Jolla (7.5' series)
Acreage:	<1 acre
Keywords:	Archaeological study; City of San Diego; Uptown; Cosoy; no resources

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Attachment B

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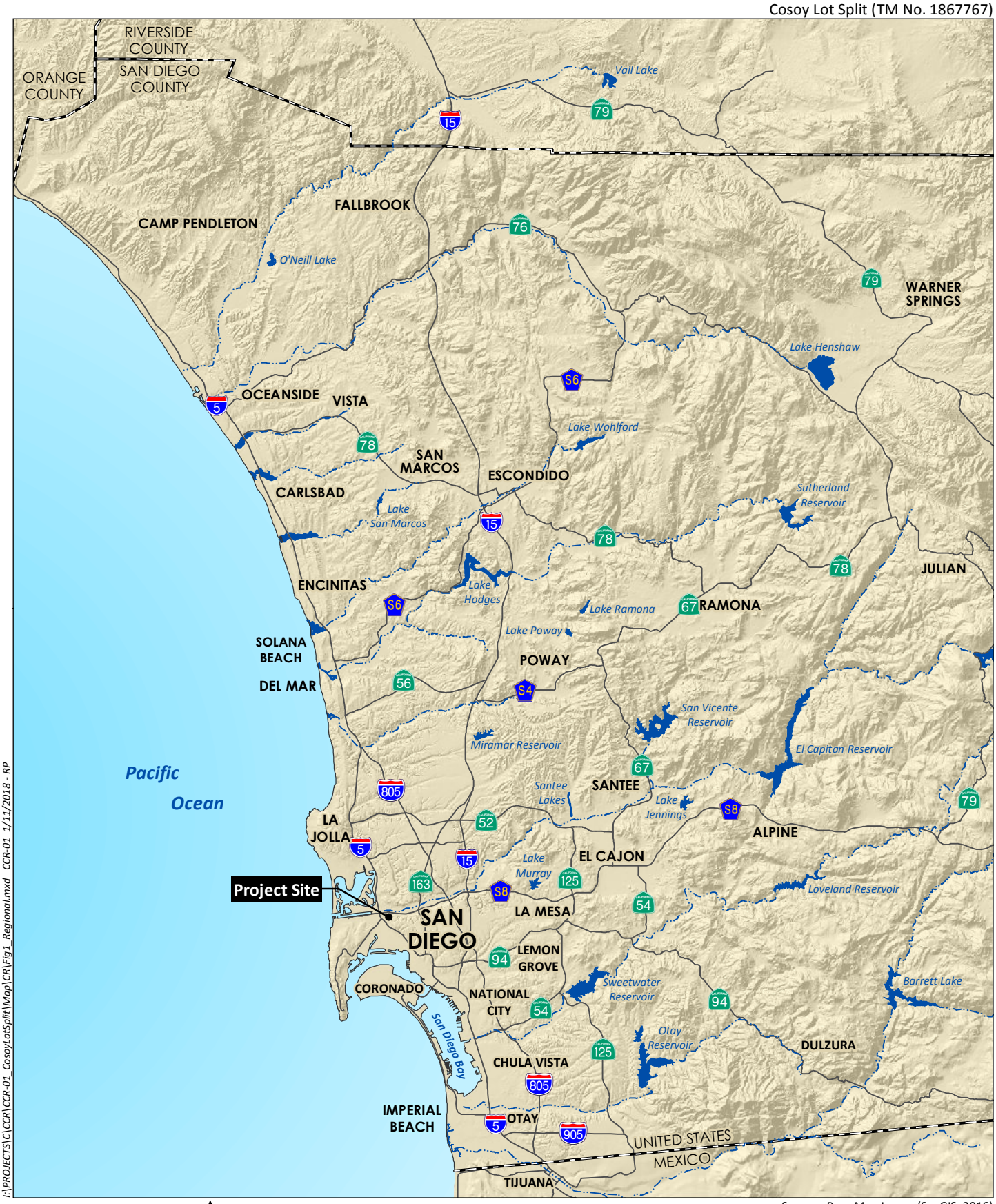
Attachment C

Maps/Figures



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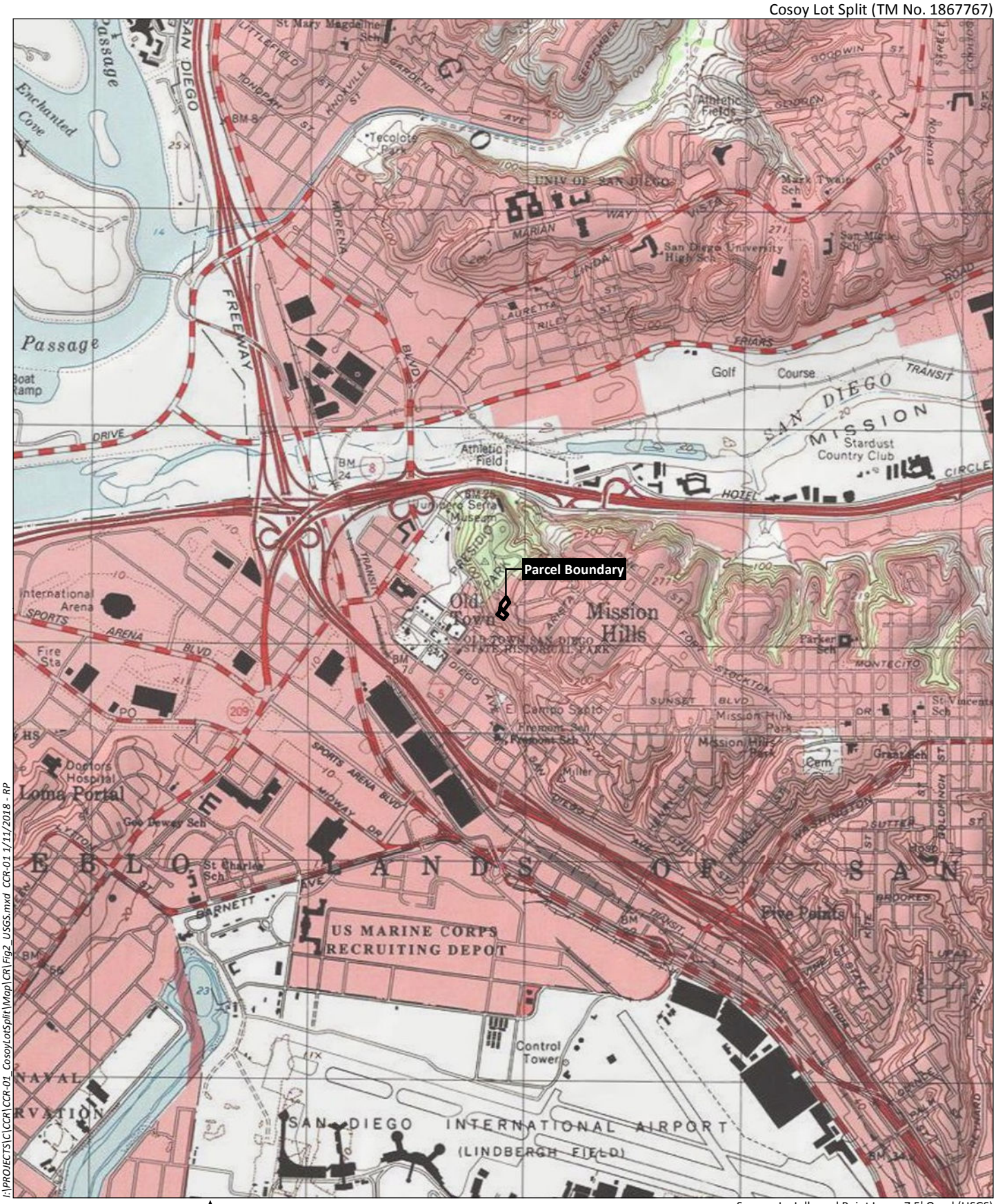
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



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0 2,000 Feet

Source: La Jolla and Point Loma 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

I:\PROJECTS\C\CCR\CCR-01_CosoyLotSplit\Map\CR\Fig3_Aerial.mxd CCR-01 1/11/2018 - RP

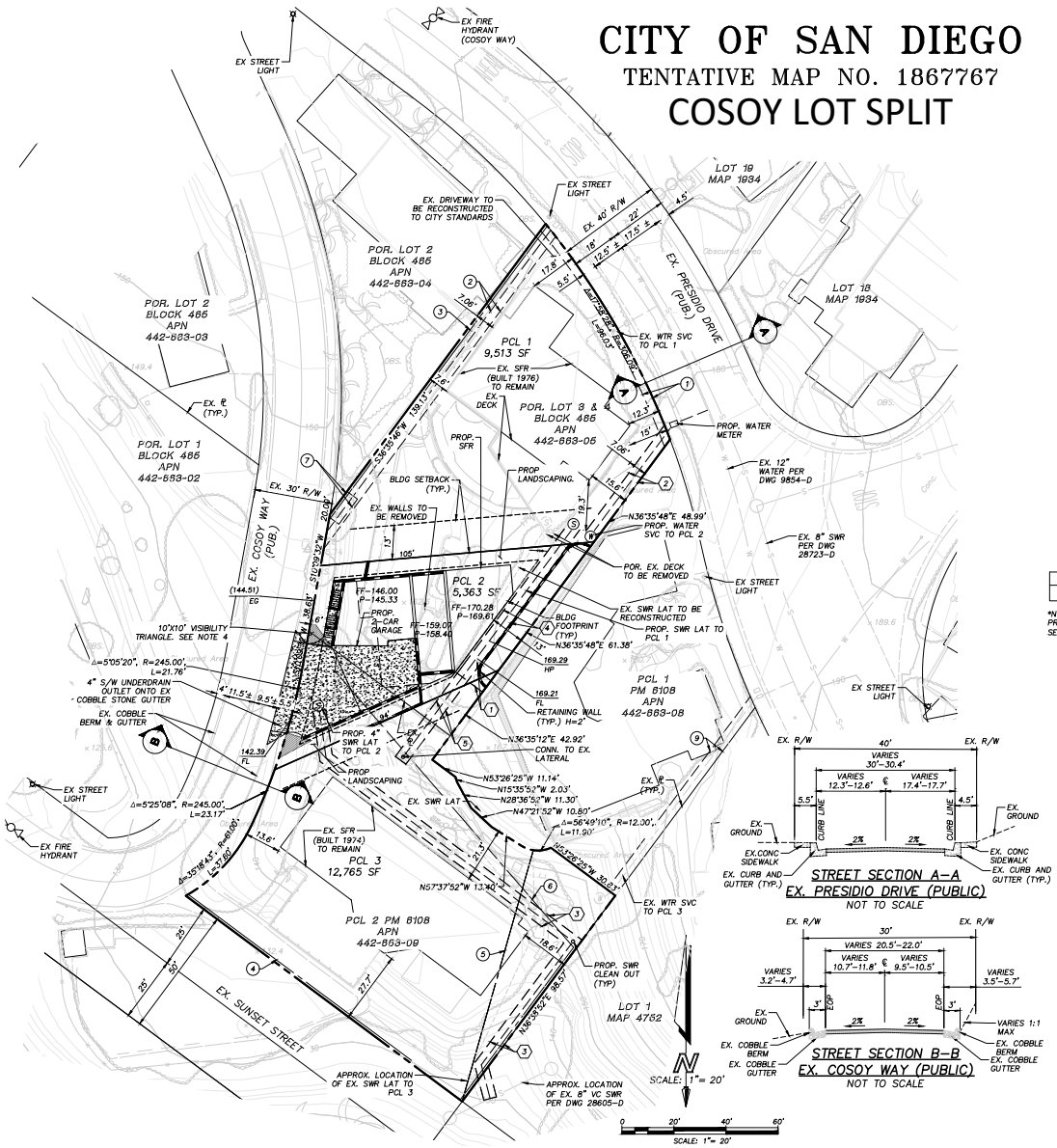
0 50 Feet

Source: Aerial (SanGIS, 2014)

HELIX Environmental Planning

Aerial Photograph

Figure 3



VICINITY MAP
N.T.S.

ENGINEER OF WORK

LANDMARK CONSULTING
9555 GENESEE AVE. STE 200
SAN DIEGO, CA. 92121
PHONE: (858)-587-8070 FAX: (858)-587-8750

MARK A. BRENCICK R.C.E. 48153 — 1/30/2017 DATE

OWNERS

KONSTANTIN DUBININ
4211 COSOY WAY
SAN DIEGO, CA 92013

ROBERT A. GILES
2521 PRESIDIO DRIVE
SAN DIEGO, CA 92013

BY _____ DATE
KONSTANTIN DUBININ, OWNER

BY _____ DATE
ROBERT A. GILES, OWNER

PARCEL AREAS

RESIDENTIAL PARCELS		
PCL	GROSS & NET AREA (SF)	GROSS & NET AREA (AC)
1	9,513	0.22
2	5,363	0.12
3	12,765	0.29
TOTAL	27,642	0.63

REQ'D AND PROP. SETBACKS

PARCEL	FRONT	SIDE	REAR
2	6.00*	5.56	13.00

*NOTE: SINCE THE EX. SLOPE WITHIN THE FIRST 50' OF THE PROPERTY IS GREATER THAN 25%, THE REQUIRED FRONT SETBACK IS REDUCED FROM 15' TO 6'

ABBREVIATIONS

PVT	PRIVATE	SWR	SEWER
ELEV.	ELEVATOR	SVC	SERVICE
EOP	END OF PAVEMENT	LAT	LATERAL
HP	HIGH POINT	EX	EXISTING
H	HEIGHT	FF	FINISH FLOOR
TG	TOP OF GRATE	P	PAD
FL	FLOW LINE	FS	FINISH SURFACE
ESMT	EASEMENT	PCL	PARCEL
BLDG	BUILDING	INV.	INVERT
PROP.	PROPOSED	CONC.	CONCRETE
PUB.	PUBLIC	℄	PROPERTY LINE
TYP.	TYPICAL	IE	INVERT ELEVATION
PVC	POLYVINYL CHLORIDE		
APN	ASSESSOR'S PARCEL NUMBER		
SFR	SINGLE-FAMILY RESIDENCE		

NOTES

1. NO OVERHEAD ELECTRICAL UTILITIES ON SITE
2. ARCHITECTURE SHOWN ON PCL 2 IS PRELIMINARY ONLY AND IS SUBJECT TO CHANGE.
3. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
4. NO OBSTRUCTION INCLUDING SOLID WALLS IN THE VISIBILITY AREA SHALL EXCEED 3 FEET IN HEIGHT, PLANT MATERIAL, OTHER THAN TREES, WITHIN THE PUBLIC RIGHT-OF-WAY THAT IS LOCATED WITHIN VISIBILITY AREAS SHALL NOT EXCEED 24" IN HEIGHT, MEASURED FROM THE TOP OF THE ADJACENT CURB.
5. ALL ONSITE WATER AND SEWER FACILITIES WILL BE PRIVATE AND SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THE CALIFORNIA UNIFORM PLUMBING CODE AND SHALL BE REVIEWED AS PART OF THE BUILDING PERMIT PLAN CHECK.

MAPPING NOTES

1. A PARCEL MAP SHALL BE FILED AT THE COUNTY RECORDER'S OFFICE PRIOR TO THE EXPIRATION OF THE TENTATIVE MAP, IF APPROVED. A DETAILED PROCEDURE OF SURVEY SHALL BE SHOWN ON THE PARCEL MAP AND ALL PROPERTY CORNERS SHALL BE MARKED WITH DURABLE SURVEY MONUMENTS.

GENERAL NOTES:

PROJECT NAME:	COSOY LOT SPLIT	
	APN: 442-663-05 & 09	
1. PROJECT LOCATION:	COSOY WAY SAN DIEGO, CA 92103	
2. PROJECT AREA:	GROSS: 0.63 ACRES±	
	NET: 0.63 ACRES±	
3. EXISTING LOTS:	2	
4. PROPOSED LOTS:	3	
5. ZONING:	EXISTING:	RS-1-7
	PROPOSED:	RS-1-7
6. PUBLIC UTILITIES AND DISTRICTS:	GAS AND ELECTRICITY:	SDG&E
	TELEPHONE:	AT&T
	FIRE AND POLICE:	CITY OF SAN DIEGO
	SCHOOL DISTRICT:	SAN DIEGO UNIFIED SCHOOL DISTRICT
	WATER AND SEWER:	CITY OF SAN DIEGO
	STORM DRAIN:	CITY OF SAN DIEGO
7. TOPOGRAPHY SOURCE: AERIAL SURVEY, DATED: 6-27-2016 SOURCE: INLAND AERIAL SURVEYS, INC.		
8. NAD 27	214-1709	
NAD 83	1854-6269	

GRADING QUANTITIES

GRADED AREA	x5,760	SQ FT
CUT (1.5:1 MAX)	x975	CY
FILL (2:1 MAX)	x35	CY
EXPORT	x940	CY
MAX CUT HEIGHT	x18.6	FT
MAX FILL HEIGHT	x4.2	FT
RETAINING WALLS (13' MAX HT)	x385	LF

DEVELOPMENT SUMMARY

A PROPOSED SUBDIVISION FROM 2 EXISTING PARCELS INTO 3 PARCELS. A SINGLE-FAMILY RESIDENCE IS PROPOSED ON PARCEL 2.

LEGAL DESCRIPTION

THAT PORTION OF LOTS 3 AND 4, IN BLOCK 465 OF OLD SAN DIEGO, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF MADE BY JAMES PASCOE. IN MARCH 1870. AND ALL OF PARCEL 2 PER PARCEL MAP 6108.

BASIS OF BEARINGS

GPS 1040 TO GPS 1038
N50°39'00"W, HD 3381.60 FT
CCS 83 (EPOCH 1991.35) PER ROS 14492

BENCHMARK

CITY OF SAN DIEGO VERTICAL CONTROL: NORTH LINE MONUMENT, HARNEY STREET AND SUNSET BOULEVARD.
ELEVATION: 127.94 M.S.L. DATUM: NGVD 29

APN

442-663-05 & 09

LEGEND

PROPERTY LINE/TM BOUNDARY
PROPOSED PROPERTY LINE
EXISTING PROPERTY LINE
EXISTING WATER MAIN
EXISTING SEWER MAIN
EXISTING CONTOUR
PROPOSED CONTOUR
BUILDING SETBACK
PROPOSED SLOPE
RETAINING WALL
CONC. DRIVEWAY
PRIVATE SEWER LATERAL
WATER SERVICE
CONC. PATIO
EARTHEN SWALE
GRATED INLET
3" PVC STORM DRAIN

SOURCE CONTROL/SITE DESIGN NOTES

1. LANDSCAPE TO BE DROUGHT & PEST TOLERANT SPECIES. (SD-6, SD-7)
2. RUNOFF FROM HARDSCAPE/ROOFTOPS TO BE DIRECTED TO LANDSCAPED AREAS. (SD-5)
3. MINIMIZE SOIL COMPACTION WHERE PRACTICAL. (SD-4)
4. PREVENT ILLICIT DISCHARGES INTO MS4. (SC-1)

EASEMENTS

(1) PROPOSED PRIVATE USE EASEMENT
(2) PROPOSED 5' PRIVATE WATER EASEMENT
(3) PROPOSED 5' PRIVATE SEWER EASEMENT
(4) PROPOSED 5' PRIVATE SEWER EASEMENT
(5) PROPOSED 5' PRIVATE SEWER EASEMENT

(1) EX. PUBLIC UTILITY EASEMENT
(2) EX. PVT SEWER & WATER EASEMENT
(3) ℄ EX. PUBLIC UTILITY EASEMENT, WIDTH NOT GIVEN
(4) ℄ EX. ELECTRIC TRANSMISSION EASEMENT
(5) ℄ EX. PVT SEWER EASEMENT
(6) ℄ EX. SDG&E EASEMENT
(7) EX. SDG&E EASEMENT
(8) EX. SDG&E EASEMENT PER DOC NO. 1996-0143239 (NOT PLOTTABLE)
(9) EX. 4' WTR LINE ESMT PER DOC NO 73-235585

REGISTERED PROFESSIONAL ENGINEER
MARK A. BRENCICK
NO. 48153
EXP. 6/30/18
CIVIL
STATE OF CALIFORNIA

DATE OF PREPARATION:

NO.	DATE	REVISION
1	1-30-2017	ORIGINAL SUBMITTAL
2		
3		
4		

I:\PROJECTS\C\CCR\CCR-01_CosoyLotSplit\Map\CR\Fig4_SitePlan.indd CCR-01 01/11/18 - RP

Source: Landmark Consulting, 2018

HELIX Environmental Planning

Site Plan

Figure 4

Attachment D

List of Previous Investigations Conducted within a Quarter-Mile Radius of the Project Area

Report List

Cosoy Lot Split

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SD-00278	NADB-R - 1120278; Voided - CARRICO59	1978	Carrico, Richard	Historical Study of the Proposed Old Town Square San Diego, California	Westec Services, Inc	
SD-00639	NADB-R - 1120639; Voided - FIR 31		Flower, Douglas, Darcy Ike, and Linda Roth	Archaeological Investigation at Old Town San Diego State Historic Park Volume 1, Historical Research and Field Investigation	Flower, Ike and Roth Archaeological Consultants	
SD-00975	NADB-R - 1120975; Voided - HECTOR 23	1985	Hector, Susan	Historical and Archaeological Survey of the Old Town Office Project Area (RECON Number R-1557)	RECON	
SD-03283	NADB-R - 1123283; Other - 11030-113161; Voided - CLEMENT 01	1993	CLEMENT, DORENE and VANBUEREN, THAD M.	HISTORIC ARCHITECTURAL SURVEY REPORT AND HISTORIC STUDY REPORT FOR THE CALTRANS DISTRICT 11 OFFICE COMPLEX OLD TOWN, SAN DIEGO CITY/COUNTY	DORENE CLEMENT	
SD-03470	NADB-R - 1123470; Voided - CLEVENGE18	1994	CLEVENGER, JOYCE, KATHLEEN CRAWFORD, and RICHARD L CARRICO	CULTURAL RESOURCE MONITORING AND TESTING PROGRAM DODSON'S CORNER OLD TTOWN STATE HISTORIC PARK SAN DIEGO, CALIFORNIA	OGDEN ENVIRONMENTAL AND ENERGY SERVICES (OGDEN)	
SD-03715	NADB-R - 1123715; Voided - CHEEVER63	1997	CHEEVER, DAYLE M.	CULTURAL RESOURCE MONITORING AND RECOVERY OF HISTORIC-ERA RESOURCES AT 2470 SAN DIEGO AVENUE	TRIARC ASSET MANAGEMENT	
SD-04601	NADB-R - 1124601; Voided - CITYSD55	1991	CITY OF SAN DIEGO	MITIGATED NEGATIVE DECLARATION GROUP JOB NO. 468	CITY OF SAN DIEGO	
SD-04786	NADB-R - 1124786; Voided - GALLEGO130	2001	GALLEGOS, DENNIS R.	CASA DE AGUIRRE 1853-1914; DATA RECOVERY PROGRAM SAN DIEGO, CA 96-7903	GALLEGOS AND ASSOCIATES	
SD-05073	NADB-R - 1125073; Voided - CHEEVER77	2001	CHEEVER, DAYLE	CULTURAL RESOURCE EVALUATIONS FOR THE HACIENDA HOTEL, HARNEY STREET ADDITION, OLD TOWN, SAN DIEGO, CA	DAYLE CHEEVER	
SD-05164	NADB-R - 1125164; Other - Archaeos Job #745; Voided - ALTER61	2001	Alter, Ruth	Cultural Resources Report for the Historic Assessment of the House at 4230 Arista Street, San Diego, California	John and Laura Stoia	
SD-05169	NADB-R - 1125169; Voided - CHEEVER81	1997	Cheever, Dayle	Cultural Resource Monitoring and Recovery of Historic-Era Resources at 2470 San Diego Avenue	RECON	
SD-05292	NADB-R - 1125292; Voided - KYLE112	1996	KYLE, CAROLYN, ROXANA PHILLIPS, SUSAN BUGBEE, and DENNIS GALLEGOS	HISTORICAL/ARCHAEOLOGICAL TEST FOR OLD TOWN HITCHING POST PROJECT A PORTION OF LOT 1 BLOCK 481 (27) OLD TOWN SAN DIEGO, CALIFORNIA	GALLEGOS & ASSOC.	37-015556
SD-05596	NADB-R - 1125596; Voided - CITYSD 224	1992	CITY OF SAN DIEGO	MITIGATED NEGATIVE DECLARATION FOR GROUP JOB 600	CITY OF SAN DIEGO	
SD-05811	NADB-R - 1125811; Voided - PIERSON42	2001	PIERSON, LARRY	An Archaeological Survey of the Follett Residence Project	Larry Pierson	

Report List

Cosoy Lot Split

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SD-05902	NADB-R - 1125902; Voided - CITYSD 272	1992	CITY OF SAN DIEGO	PROPOSED NEGATIVE DECLARATION FOR OLD TOWN COMMERCIAL	CITY OF SAN DIEGO	
SD-05976	NADB-R - 1125976; Voided - CITYSD 305	2000	CITY OF SAN DIEGO	MITIGATED NEGATIVE DECLARATION FOR 2415 SAN DIEGO AVE.	CITY OF SAN DIEGO	
SD-06185	NADB-R - 1126185; Voided - PHILLIPS11	1998	PHILLIPS, ROXANA L., CAROLYN KYLE, KATHLEEN FLANIGAN, and SUSAN ALTER	HISTORICAL/ARCHAEOLOGICAL TEST OF THE FORMER SITE OF THE CASA DE AGUIRRE SAN DIEGO, CALIFORNIA	GALLEGOS & ASSOC.	37-015938
SD-06389	NADB-R - 1126389; Voided - CITYSD 418	1996	CITY OF SAN DIEGO	PROPOSED MITIGATED NEGATIVE DECLARATION FOR OLD TOWN POTTERY COURTYARD	CITY OF SAN DIEGO	
SD-06752	NADB-R - 1126752; Voided - BURKE 23	1996	BURKE-LIA, MARIE	ST. JOSEPH'S RECTORY/OLD TOWN CONVENT, SITE #369 AND CASA DE AGUIRRE, SITE #42; HISTORICAL SITE REDEVELOPMENT PLAN	MARIE BURKE-LIA	
SD-06995	NADB-R - 1126995; Voided - CITYSD 595	2000	CITY OF SAN DIEGO	PUBLIC NOTICE OF PROPOSED MITIGATED NEGATIVE DECLARATION OLD TOWN TROLLEY	CITY OF SAN DIEGO	
SD-07056	NADB-R - 1127056; Voided - CITYSD 695	1998	CITY OF SAN DIEGO	PUBLIC NOTICE OF PROPOSED MITIGATED NEGATIVE DECLARATION-AASE RESIDENCE	CITY OF SAN DIEGO	
SD-07200	NADB-R - 1127200; Voided - CITYSD 757	1999	CITY OF SAN DIEGO	PUBLIC NOTICE OF PROPOSED MITIGATED NEGATIVE DECLARATION SEWER AND WATER GROUP JOB 601	CITY OF SAN DIEGO	
SD-07546	NADB-R - 1127546; Other - DEP NO. 90-0329; Voided - SCHAEFER04	1990	SCHAEFER, JERRY	ARCHAEOLOGICAL & HISTORICAL INVESTIGATIONS AT EL CAMPO SANTA CEMETERY & MISSION HILLS, SAN DIEGO	BRIAN F. MOONEY ASSOC.	
SD-07608	NADB-R - 1127608; Voided - KYLE 147	1994	KYLE, CAROLYN	HISTORICAL/ARCHAEOLOGICAL TEST FOR THE CASA DE AGUIRRE ADOBE SITE CITY OF SAN DIEGO, CA	GALLEGOS & ASSOC.	
SD-07694	NADB-R - 1127694; Voided - PIERSON 57	2001	LARRY PIERSON	AN ARCHAEOLOGICAL REPORT FOR THE MITIGATION, MONITORING, AND REPORTING PROGRAM AT SEWER AND WATER GROUP 601, CITY OF SAN DIEGO	BRIAN F. SMITH AND ASSOCIATES	37-023941, 37-023942
SD-09289	NADB-R - 1129289; Voided - MAYR68	2003	MAY, RONALD V., DALE BALLOU MAY, LELAND BIBB, JANEY CHADWICK, RICHARD M. GADLER, SUSAN FLOYD, and MARY PLATTER RIEGER	HISTORICAL NOMINATION OF THE GERTRUDE H. AND CLARENCE N. BEATTY - WAYNE D. MCALLISTER HOUSE, 4356 TRIAS STREET IN MISSION HILLS	LEGACY 106, INC.	
SD-09516	NADB-R - 1129516; Voided - CATERINO01	2005	Caterino, David	The Cemeteries and Gravestones of San Diego County: An Archaeological Study	David Caterino	

Report List

Cosoy Lot Split

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SD-10444	NADB-R - 1130444; Voided - MAYV17	2006	May, Vonn Marie	UPTOWN HISTORIC ARCHITECTURAL AND CULTURAL LANDSCAPE RECONNAISSANCE SURVEY	IS Architecture	
SD-10524	NADB-R - 1130524; Voided - ARBUCKLE05	1980	ARBUCKLE, J. and GEORGE TAYS	SURVEY OF THE ADOBE CHAPEL OF THE IMMACULATE CONCEPTION	J. ARBUCKLE	
SD-10608	NADB-R - 1130608; Voided - PRICEH16	2006	PRICE, HARRY J.	SCRIPPS MERCY HOSPITAL CONITIONAL USE PERMIT - HISTORIC RESOURCES REVIEW (RECON NUMBER 4213A)	RECON	
SD-10818	NADB-R - 1130818; Voided - HISTORIC91		VARIOUS	FORT STOCKTON SITE		
SD-10849	NADB-R - 1130849; Voided - HISTORI115		VARIOUS	CASA DE BANDINI, 2660 CALHOUN STREET, SAN DIEGO, CALIFORNIA		
SD-10875	NADB-R - 1130875; Voided - HISTORI130		VARIOUS	SURVEY OF THE DERBY-PENDLETON HOUSE		
SD-10894	NADB-R - 1130894; Voided - BEVIL30	1998	BEVIL, ALEXANDER D.	HISTORICAL SITE DESIGNATION REPORT ALEXANDER AND NANCY HIGHLAND HOUSE, 2400 PRESIDIO DRIVE, SAN DIEGO, CALIFORNIA 92103-1018		
SD-10915	NADB-R - 1130915; Voided - HISTORI149	1998	BEVIL, ALEXANDER D.	HISTORICAL SITE DESIGNATION REPORT FOR THE ALEXANDER AND NANCY HIGHLAND HOUSE	ALEXANDER D. BEVIL	
SD-11031	NADB-R - 1131031; Voided - HISTORI203		VARIOUS	EL CAMPO SANTO / OLD SPANISH CEMETARY, OLD TOWN, LA JOLLA AVENUE AT SAN DIEGO AVENUE, SAN DIEGO, CALIFORNIA		
SD-11231	NADB-R - 1131231; Voided - HISTORI219		VARIOUS	OLD TOWN - ESTUDILLO HOUSE, CHAPEL OF THE IMMACULATE CONCEPTION, GILLA HOUSE SITE, WHALEY HOUSE, EXCHANGE HOTEL, JOHNSON HOUSE, MASON ST. SCHOOL, SAN BLAS BELL, EXCHANGE HOTEL, CASA DE MACHADO-STEWART, CASA DE MACHADO-SILVAS…		
SD-11232	NADB-R - 1131232; Voided - HISTORI220		VARIOUS	OLD TOWN - MISCELLANEOUS DOCUMENTS		
SD-11237	NADB-R - 1131237; Voided - HISTORI224		VARIOUS	PRESIDIO OF SAN DIEGO		
SD-11238	NADB-R - 1131238; Voided - HISTORI225		VARIOUS	PRESIDIO HILLS GOLF COURSE		
SD-11479	NADB-R - 1131479; Voided - MAYR116	2005	MAY, RONALD V. and DALE BALLOU MAY	HISTORICAL EVALUATION, THE FRANK AND EMMA CONNORS HOUSE, 2540 CONGRESS STREET, SAN DIEGO, CALIFORNIA 92110	LEGACY 106, INC.	

Report List

Cosoy Lot Split

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SD-11540	NADB-R - 1131540; Voided - PIERSON183	2007	PIERSON, LARRY J.	ARCHAEOLOGICAL RESOURCE REPORT FORM: ARCHAEOLOGICAL SURVEY OF THE FREDERICKSON RESIDENCE PROJECT	BRIAN F. SMITH AND ASSOCIATES	
SD-11670	NADB-R - 1131670; Voided - MOOMJIA141	2006	MOOMJIAN, SCOTT A.	HISTORICAL ASSESSMENT OF THE R.R. WEST / WEST-KING-PETERSON LUMBER COMPANY "SPEC" HOUSE #1, 4285 ALTAMIRANO WAY, SAN DIEGO, CALIFORNIA 92103	SCOTT A. MOOMJIAN, ESQ.	
SD-12156	NADB-R - 1132156; Voided - JOHNSNP06	2007	JOHNSON, PAUL and SARAI JOHNSON	THE BOLAM HOUSE HISTORICAL DESIGNATION REPORT	JOHNSON AND JOHNSON ARCHITECTURE	
SD-12159	NADB-R - 1132159; Voided - MAYV38	2007	MAY, VONN MARIE and TRICIA OLSEN	THE IRVINE M. AND FLORA SCHULMAN / LOUIS PREIBISIUS HOUSE 2540 PRESIDIO DRIVE SAN DIEGO, CA 92103	VONN MARIE MAY	
SD-12329	NADB-R - 1132329; Voided - MOOMJIA174	2007	MOOMJIAN, SCOTT A.	HISTORICAL ASSESSMENT OF THE JOHN AND CAROLINE BOSTICK HOUSE 2436 PRESIDIO DRIVE SAN DIEGO, CALIFORNIA 92103	SCOTT A. MOOMJINA, ESQ.	
SD-12334	NADB-R - 1132334; Voided - SMITHE01	2009	SMITH, ERIN, MICHAEL SAMPSON, and RACHEL RUSTON	ARCHAEOLOGICAL FINDINGS FOR THE COMFORT STATION #2 REPLACEMENT PROJECT, OLD TOWN SAN DIEGO SHP	CALIFORNIA STATE PARKS	37-028600
SD-12544	NADB-R - 1132544; Voided - BONNEW252	2008	BONNER, WAYNE, SARAH WILLIAMS, and KATHLEEN CRAWFORD	CULTURAL RESOURCE RECORDS SEARCH RESULTS AND SITE VISIT FOR T-MOBILE USA CANDIDATE SD002867 (PRESIDIO PARK), WHITMAN STREET NEAR TAYLOR STREET AND MORENO BOULEVARD, SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA	MICHAEL BRANDMAN ASSOCIATES	
SD-12876	NADB-R - 1132876; Voided - CASER99	2010	CASE, ROBERT, SPENCER BIETZ, and CAROL SERR	ARCHAEOLOGICAL MONITORING TEST, AND EVALUATION REPORT FOR THE AT&T UTILITY UNDERGROUNDING PROJECT OLD TOWN SAN DIEGO STATE HISTORIC PARK CITY OF SAN DIEGO, CALIFORNIA	LAGUNA MOUNTAIN ENVIRONMENTAL, INC.	
SD-13195	NADB-R - 1133195; Voided - CALTRANS87	2011	CALTRANS	DISPOSAL OF THE FORMER CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT OFFICE COMPLEX	CALTRANS	
SD-13537	NADB-R - 1133537; Voided - AGUILJ02	2012	AGUILAR, JOSE "PEPE" and ANDREW R. PIGNIOLO	CULTURAL RESOURCE MONITORING REPORT FOR THE MISSION HILLS BLOCK 2E (JOBS 3 & 4) UTILITY UNDERGROUNDING PROJECT, CITY OF SAN DIEGO, CALIFORNIA	LAGUNA MOUNTAIN ENVIRONMENTAL	37-023941, 37-025653
SD-13681	NADB-R - 1133681; Voided - ROSENBE76	2008	ROSENBERG, SETH A.	MONITORING REPORT FOR CULTURAL RESOURCES MONITORING AT 2510 JUAN STREET	E2M	

Report List

Cosoy Lot Split

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SD-13746	NADB-R - 1133746; Voided - CASER104	2011	CASE, ROBERT P. and CAROL SERR	ARCHAEOLOGICAL MONITORING, TEST, AND EVALUATION REPORT FOR THE FIESTA DE REYES REMODELING PROJECT OLD TOWN SAN DIEGO STATE HISTORIC PARK CITY OF SAN DIEGO, CALIFORNIA	LAGUNA MOUNTAIN ENVIRONMENTAL, INC.	37-032538
SD-13927	NADB-R - 1133927; Voided - MOOMJIA221	2012	MOOMJIAN, SCOTT A.	HISTORICAL RESOURCE RESEARCH REPORT FOR THE J. REX MURRAY AND ALICE M. MURRAY SPEC HOUSE 4266 ARISTA STREET SAN DIEGO, CALIFORNIA 92103	SCOTT A. MOOMJIAN	
SD-14033	NADB-R - 1134033; Voided - PHAM01	2012	PHAM, ANGELA N. and JAMES T. DANIELS	A NEGATIVE MONITORING REPORT USING THE ARCHAEOLOGICAL RESOURCES REPORT FORM (APPENDIX D) FOR THE JUAN STREET REHABILITATION PROJECT, SAN DIEGO, CALIFORNIA	ASM AFFILIATES, INC.	
SD-14163	NADB-R - 1134163; Voided - SMITHB649	2012	SMITH, BRIAN F.	PHASE I ARCHAEOLOGICAL SURVEY OF THE OLD TOWN COMMUNITY CHURCH PROJECT	BRIAN F. SMITH AND ASSOCIATES, INC.	

Attachment E

List of Previously Recorded Cultural Resources within a Quarter-Mile Radius of the Project Area

Resource List

Cosoy Lot Split

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-37-000038	CA-SDI-000038						SD-04769, SD-05495, SD-06015, SD-08458
P-37-009292	CA-SDI-009292						
P-37-011824	CA-SDI-011824						SD-04554
P-37-012131	CA-SDI-012131						
P-37-012469	CA-SDI-012469						
P-37-013664	CA-SDI-013664						
P-37-013665	CA-SDI-013665						SD-03670, SD-12977
P-37-013666	CA-SDI-013666						
P-37-013667	CA-SDI-013667						
P-37-014247	CA-SDI-014074	Other - Juan/Taylor Streets Dump				(Walter Enterprises)	SD-03246, SD-14815
P-37-014689	CA-SDI-014292	Other - Aguilar/Serrano Adobe Site				(California Department of Parks & Recreation)	SD-04554
P-37-015556	CA-SDI-014307	Other - Old Town Congress & Harney				(Gallegos & Associates)	SD-04822, SD-05292
P-37-015809	CA-SDI-014427					1997 (RECON)	
P-37-015821	CA-SDI-013712					1997 (Affinis)	SD-04542, SD-13035
P-37-015938	CA-SDI-014527					1997 (Gallegos)	SD-06185, SD-08067
P-37-020914	CA-SDI-021062	OHP PRN - 2138-0014-0004; Other - Machado-Stewart Adobe, on Congress St.; Other - Casa de Machado y Stewart				2002 (N/A); 2013 (Laguna Mountain)	
P-37-020915	CA-SDI-021087	OHP PRN - 2138-0014-0005; Other - 2616 San Diego Ave., Pedrorena Adobe; Other - Pedrorena-Altamirano and the San Diego Union Building				2002 (N/A); 2014 (Department of Parks and Rec)	
P-37-021853		OHP PRN - 2138-0849-0000; Other - 2482 San Diego Ave., Whaley House				2002 (Compushare)	
P-37-023941		Other - Group 601, Temp 1				2001 (Brian F. Smith and Associates)	SD-07694, SD-13537
P-37-023942		Other - Group 601, Temp 2				2001 (Brian F. Smith and Associates)	SD-07694
P-37-026553	CA-SDI-017418	Other - 2470 San Diego Avenue				2005 (Cheever, Collett, and Gilmer)	

Resource List

Cosoy Lot Split

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-37-028431	CA-SDI-018352	Other - Fort Stockton				2007 (N/A)	
P-37-028444		Other - Derby Dike Site				2007 (N/A)	
P-37-028573	CA-SDI-018383	Other - El Fandango Site				2007 (ASM Affiliates, Inc.)	
P-37-028595	CA-SDI-021348	Other - Casa de Cota Site	Site	Historic	AH04 (Privies/dumps/trash scatters)	2007 (Historic Preservaion Dept.); 2014 (Erica Pawlowski, DPR, Southern Service Center)	
P-37-028600	CA-SDI-018591	Other - Casa De Estudillo; Other - Casa de Estudillo				2007 (State of Califonia District Preservation Officer); 2008 (Department of Parks and Recreation)	SD-12334
P-37-028797	CA-SDI-018507	Other - Gila House Site				2007 (N/A)	
P-37-032538	CA-SDI-020661	Other - FDR-S-1				2012 (Laguna Mountain Environmental, Inc.)	SD-13746
P-37-033486		Other - FL-016				2013 (ECORP)	
P-37-033490	CA-SDI-021063	Other - Casa de Rodriguez/Racine & Laramie GDP #5				2013 (Laguna Mountain)	
P-37-033491	CA-SDI-021064	Other - San Diego Courthouse				2013 (Laguna Mountain)	
P-37-033537	CA-SDI-021080	Other - ISO-G799-1				2014 (Brian F. Smith & Associates)	
P-37-034095	CA-SDI-021346	Other - Alvarado's Lot; Other - Casa de Alvarado (GDP 19A); Other - Johnson Building (GDP 19); Other - Alvarado Saloon (GDP 63); Other - Alvarado-Llucia; Other - "French Bakery"; Other - Nottage Tin Shop and Residence (GDP 20A); Other - Bradshaw and Anderson's Saloon (GDP 20B)	Site	Historic	AH02 (Foundations/structure pads) - foundations; AH04 (Privies/dumps/trash scatters) - trash dump	2014 (Bethany Weisberg, California Department of Parks and Recreation, Soutehrn Service Center)	
P-37-034096	CA-SDI-021347	Other - Casa de Serrano; Other - GDP#28A; Other - Casa de Rafaela Serrano; Other - Serrano-Soto-Rose; Other - Ensworth Store	Site	Historic	AH02 (Foundations/structure pads) - foundation	2014 (Bethany Weisberg, California Department of Parks and Recreation, Southern Service Center)	
P-37-034097	CA-SDI-021349	Other - Church-Asher; Other - GDP #60 - Church's Lot; Other - Church-Wallack-Asher	Site	Historic	AH02 (Foundations/structure pads) - foundation; AH04 (Privies/dumps/trash scatters) - trash dump	2014 (Bethany Weisberg, California Department of Parks and Recreation, Southern Service Center)	

Resource List

Cosoy Lot Split

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-37-034098	CA-SDI-021350	Other - La Tienda General (General Store); Other - Casa de Alvarado; Other - GDP#37	Site	Historic	AH02 (Foundations/structure pads) - foundation; AH04 (Privies/dumps/trash scatters) - trash dump	2014 (Nicole Turner, Bethany Weisberg, California Department of Parks and Recreation, Southern Service Center)	
P-37-034099	CA-SDI-021351	Other - Wallack Store & May's Saddle Shop; Other - GDP#09 (Unidentified Store); Other - GDP#09A (May's Saddle Shop)	Site	Historic	AH04 (Privies/dumps/trash scatters) - trash dump	2014 (Bethany Weisberg, California Department of Parks and Recreation, Southern Service Center)	
P-37-034100	CA-SDI-021352	Other - Ybarra-Wilder-Smith; Other - GDP#29; Other - Machado-Smith House; Other - Machado-Wilder-Smith; Other - The Machado-Albert B. Smith House	Site	Historic	AH02 (Foundations/structure pads) - foundations; AH04 (Privies/dumps/trash scatters) - trash scatters	2014	

Attachment F

Photographs of Project Area

PHOTOGRAPHS OF PROJECT AREA

Photograph of the project area, approximately 30 years ago, view to the southwest.

Photograph of the project area, approximately 30 years ago, view to the south.

Overview of proposed Parcel 2 within APN 442-663-09, view to the northwest.

Overview of proposed Parcel 2 within APN 442-663-05, view to the south.

Overview of fence line between APN 442-663-05 and APN 442-663-09, view to the west.

Overview of proposed Parcel 2 from Cosoy Way, view to the northeast.

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ALLIED EARTH TECHNOLOGY

7915 SILVERTON AVENUE, SUITE 317
SAN DIEGO, CALIFORNIA 92126
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ROBERT CHAN, P.E.

LIMITED GEOTECHNICAL INVESTIGATION

PROPOSED PARCEL MAP SITE

COSOY PARCEL MAP

SAN DIEGO, CALIFORNIA

FOR

MR. KONSTANTIN DUBININ

PROJECT NO. 16-1268F

FEBRUARY 3, 2017

ALLIED EARTH TECHNOLOGY

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ROBERT CHAN, P.E.

February 3, 2017

Mr. Konstantin Dubinin
4211 Cosoy Way
San Diego, CA. 92013

Subject : Project No. 17-1268F5
Limited Geotechnical Investigation
Proposed Parcel Map Site
Cosoy Parcel Map
San Diego, California

Dear Mr. Dubinin :

In accordance with your request, we have performed a limited geotechnical investigation for the proposed minor subdivision of subject property. Subject property is more specifically referred to as being Assessor's Parcel Nos. 443-663-05 and 09-00, in the City and County of San Diego, State of California.

It is our understanding that subject property, consisting of 0.63 acres, is to be subdivided into 3 separate parcels. The two existing residences will be located within proposed Parcel Nos. 1 and 3, with a vacant Parcel No. 2.

Our limited geotechnical investigation will be limited to the vacant Parcel No. 2.

A Geologic Reconnaissance Report prepared by Michael W. Hart, Engineering Geologist, has been made available to us for review in preparing this Limited Geotechnical Investigation Report.

The approximate location of subject property is shown on Figure No. 1, entitled, "Site Location Map".

The purpose of this limited geotechnical investigation was to inspect and determine the subsurface geotechnical conditions and certain physical engineering properties of the soils beneath the site, so that engineering recommendations could be presented for the safe and economical development of the site as proposed.

In order to accomplish this purpose, representatives of our firm visited the property on January 20 2017, to review the topography and general site conditions. Two exploratory borings were drilled with a portable continuous flight auger at locations on the site where the most useful information relative to subsurface soil conditions may be obtained.

The approximate location of the exploratory borings is shown on Figure No. 2, entitled, "Approximate Location of Exploratory Borings".

The exploratory borings were excavated to a depth of 6 feet below existing ground surface. The soils encountered in the exploratory borings were logged by our field representative, and the results summarized on Figure Nos. 3 and 4, each entitled, "Boring Log Sheet".

Samples of the soils encountered were obtained for laboratory testing and analysis, as more fully described on page L-1 attached hereto.

1. From the site inspection, it was determined that :

   a. Subject property is a quadrangular-shaped property of 5,667 square feet, situated on the east side of Cosoy Way. The site is bounded by 2521 Presidia Drive to the north, and 4211 Cosoy Way to the south.

   b. The general terrain on the site may be described as relatively level, with surface in a general westerly direction towards Cosoy Way. Two small decorative retaining walls were noted along the east portion of the site. The west end of the property is bounded by a 7-foot maximum height retaining wall. Beyond the retaining wall is a combined road cut/fill slope on the order of 10 to 12 feet high.

   c. According to the Geologic Reconnaissance Report prepared by Michael W. Hart, the site is underlain by the San Diego Formation, encountered in the form of light brown, moderately cemented, very fine sandstone in Boring No. 1, and as observed on the combined cut/fill slope along Cosoy Way.

The San Diego Formation was overlain by undocumented fill soils similar to those encountered in Boring No. 2 and on the combined cut/fill slope. Total maximum depth along the west side of the property is on the order of 12 feet. These undocumented fill soils consist primarily of brown/dark brown silty fine sands, and are at best erratic in the degree of compaction.

A geologic cross-section of the property is shown on Figure No. 5

d. The undocumented fill soils encountered on the site are not considered to be capable of providing safe and reliable support to the proposed structures and/or improvements.

e. The soils encountered on the site possess low expansion index (Expansion Index = 23); and are subject to moderate sulfate exposure (500 ppm).

f. No groundwater was encountered in the exploratory borings to the maximum depth of exploration at 6 feet, and no springs or seepage were observed on the combined cut/fill slope along Cosoy Way..

g. The site is suitable for the intended use for a residential building.

2. Based on the results of the investigation, there appear to be no significant geotechnical hazard constraints on site that preclude the proposed development, and it is our opinion that the development is feasible from a geotechnical engineering standpoint, provided that the recommendations presented in this report are incorporated into the design plan(s) and are properly implemented during the construction phase :

Grading

a. It is recommended that all earthwork be accomplished in accordance with the Grading Ordinance of the City of San Diego, current edition of the California Building Code, Appendix I attached hereto, entitled, "General Grading and Earthwork Specifications", and recommendations as presented in this Section.

b. Where the recommendations of this Section of the Report conflict with those of Appendix I, this Section of the report takes precedence.

c. Grading operations should begin with demolition of the existing retaining structures and improvements on site; and grubbing of the site. All debris should be hauled away to a City approved dump site.

d. The undocumented fill soils will be removed from the garage level of the proposed structure, which is at the street level of Cosoy Way. The excavated soils should be exported and disposed of at a City approved dump site.

e. Any undocumented fill soils remaining below finished grade at the various levels of the proposed residence should be removed. The area of removal should extend at least 5 feet outside the foundation line of the proposed structure. The removed soils should then be properly moisture conditioned, replaced and uniformly compacted in lifts on the order of 6 to 8 inches until finished grade is achieved.

f. All fill soils are to be compacted to at least 90 percent of maximum dry density in accordance with ASTM D1557.

Temporary Excavations

g. Temporary excavations for the propose basement retaining walls in the undocumented fill soils may be accomplished at a slope ratio of 1 : 1 (horizontal : vertical) or flatter.

h. Temporary excavations in the dense, cemented San Diego Formation may be accomplished at a vertical inclination for a height up to 5 feet. Above a height of 5 feet, the temporary excavation should be flattened to a slope ratio of 1 : 1 (horizontal : vertical)

Retaining Wall Design

i. It is recommended that retaining walls be designed to withstand the pressure exerted by equivalent fluid weights given below :

Backfill Surface (horizontal : vertical)	Equivalent Fluid Pressure (pcf)
Level	35
2 : 1	50
1 ½ : 1	58

The above values assume that the retaining walls are unrestrained from movement, and have a granular backfill. For retaining walls restrained from movement at the top, such as basement retaining walls, an uniform horizontal pressure of 7H (where H is the height of the retaining wall in feet) should be applied in addition to the active pressures recommended above.

j. All retaining walls should be supplied with a backfill drainage system adequate to prevent the buildup of hydrostatic pressure. The subdrain should consist of one-inch gravel and a perforated pipe near the bottom of the retaining wall. The width of this subdrain should be at least 12 inches, and extend at least 2/3 height of the retaining wall. The subdrain should be enclosed in a geotextile fabric such as Mirafi 140N or equal.

Seismic Earth Pressure

k. Seismic earth pressures can be taken as an inverted triangular distribution with Kh equal to 0.30. This pressure is in addition to the static design wall load. The allowable passive pressure and bearing capacity can be increased by 1/3 in determining the stability of the wall. A factor-of-safety of 1.2 can be used in determining the stability of the retaining wall under seismic conditions.

Lateral Loading

l. To resist lateral loads, it is recommended that the pressure exerted by an equivalent fluid weight of 300 pcf be used for footings or shear keys poured neat against competent natural or compacted fill soils. The upper 12 inches of material in areas not protected by floor slabs or pavements should not be included in the design for passive resistance. This value assumes that the horizontal distance of the soil mass extends at least 10 feet or three times the height of the surface generating the passive pressure, whichever is greater.

m. A coefficient of sliding friction of 0.38 may be used for cast-in-place concrete on competent natural or compacted fill soils. Footings can be designed to resist lateral loads by using a combination of sliding friction and passive resistance. The coefficient of friction should be applied to dead load forces only.

n. All backfil l soils behind the retaining wall should consist of soils having low expansion potential (Expansion Index < 50), and be compacted at least 90 percent of maximum dry density.

Foundation and Slab Design

o. It is recommended that a safe allowable soil bearing value of 2,000 pounds per square foot be used for the design and checking of continuous and spread footings that are a minimum of 12 inches in minimum horizontal dimension, and are embedded at least 12 inches below the surface of the competent natural or compacted fill soils.

p. The above safe allowable soil bearing value may be increased by one-third when considering wind and/or seismic forces.

q. The settlement of foundations, when designed and loaded as outlined above, is within acceptable tolerance limits for light residential buildings of this type.

r. It is recommended that all continuous footings be reinforced with a minimum of 4 #5 rebars; two rebars located near the top, and the other two rebars near the bottom of the footings. All isolated pier footings should be reinforced with a minimum of 2 #5 rebars in both directions, placed near the bottom of the footings.

s. The concrete slab-on-grade should be 4 inches in thickness, and be reinforced with #3 rebars @ 18 inches on center in both directions, placed at mid-height of concrete slab. The concrete slab should be underlain by 4 inches of clean sand. The above foundation and slab reinforcement requirements are based on soil characteristics, and should be superseded by the requirements of the project architect.

t. It is recommended that all footings placed on any steeep slope be setback such that the bottom of the footing at the outer edge is at least 7 feet back from the face of slope at that level. For footings for structures subject to lateral forces, such as those of a retaining wall, the above setback should be increased to 10 feet.

u. It is recommended that our firm inspect the foundation trench excavations for the proposed residential structure to ensure proper embedment into competent natural or compacted fill soils.

v. The on-site soils are subject to moderate sulfate exposure (sulfate content = 500 ppm). It is recommended that the requirements of Table 4.3.1 of the current California Building Code be followed.

Seismic Coefficients

w. The seismic design factors were determined in accordance with 2013 California Building Code, and presented as follows :

Site Coordinates	Latitude	=	32.7552
	Longitude	=	- 117.1933
Site Class		=	C
Spectral Response Acceleration			
At Short Periods	Ss	=	1.275
Spectral Response Acceleration			
At 1 Sec. Periods	S1	=	0.493
	Sms	=	1.275
	Sm1	=	0.645
	Sds	=	0.850
	Sd1	=	0.430

Liquefaction Potential

x. In consideration of the competent natural soils underlying the site, and the lack of a permanent groundwater table near the ground surface, it is our opinion that soil liquefaction does not present a significant geotechnical hazard for the proposed site development.

y. It is further recommended that the proposed site development be accomplished in accordance with the approved plans and applicable regulations, except where items 2(a) to (x) above are more stringent.

Page L-1, Figure Nos. 1 to 5, and Appendix I are parts of this report.

Respectfully submitted,
ALLIED EARTH TECHNOLOGY

ROBERT CHAN, P.E.

LABORATORY TEST RESULTS
==========

1. The maximum dry density and optimum moisture content of the upper soils encountered were determined in accordance with A.S.T.M. D1557, Method A. The results of the tests are presented as follows :

Soil Type	Soil Description	Maximum Dry Density (lbs./cu.ft.)	Optimum Moisture Content (% Dry Wt.)
1	Light brown/tan silty fine sands (SM)	118.0	12.5

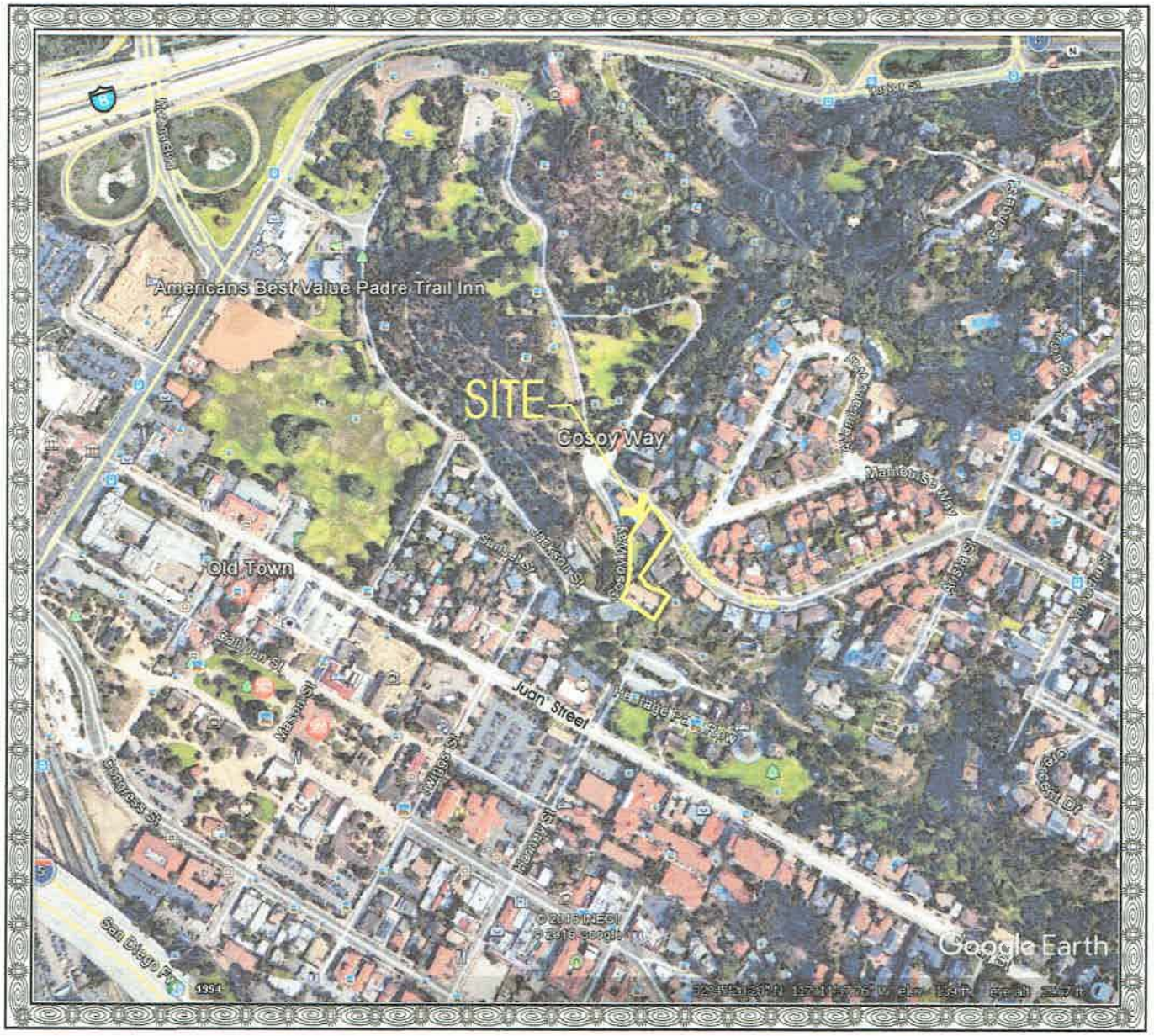
1. The Expansion Index of the most clayey soils was determined in accordance with ASTM D4928-108. The results of the test are presented as follows:

Soil Type	Soil Description	Expansion Index
1	Light brown/tan silty fine sands (SM)	23*

*Considered to possess low expansion potential

3. The sulfate content of the soils encountered were determined in accordance with California Test No. 317. The results are presented below :

Soil Type	Soil Description	Sulfate Content (ppm)	
1	Light brown/tan silty fine sand (SM)	500	Moderate

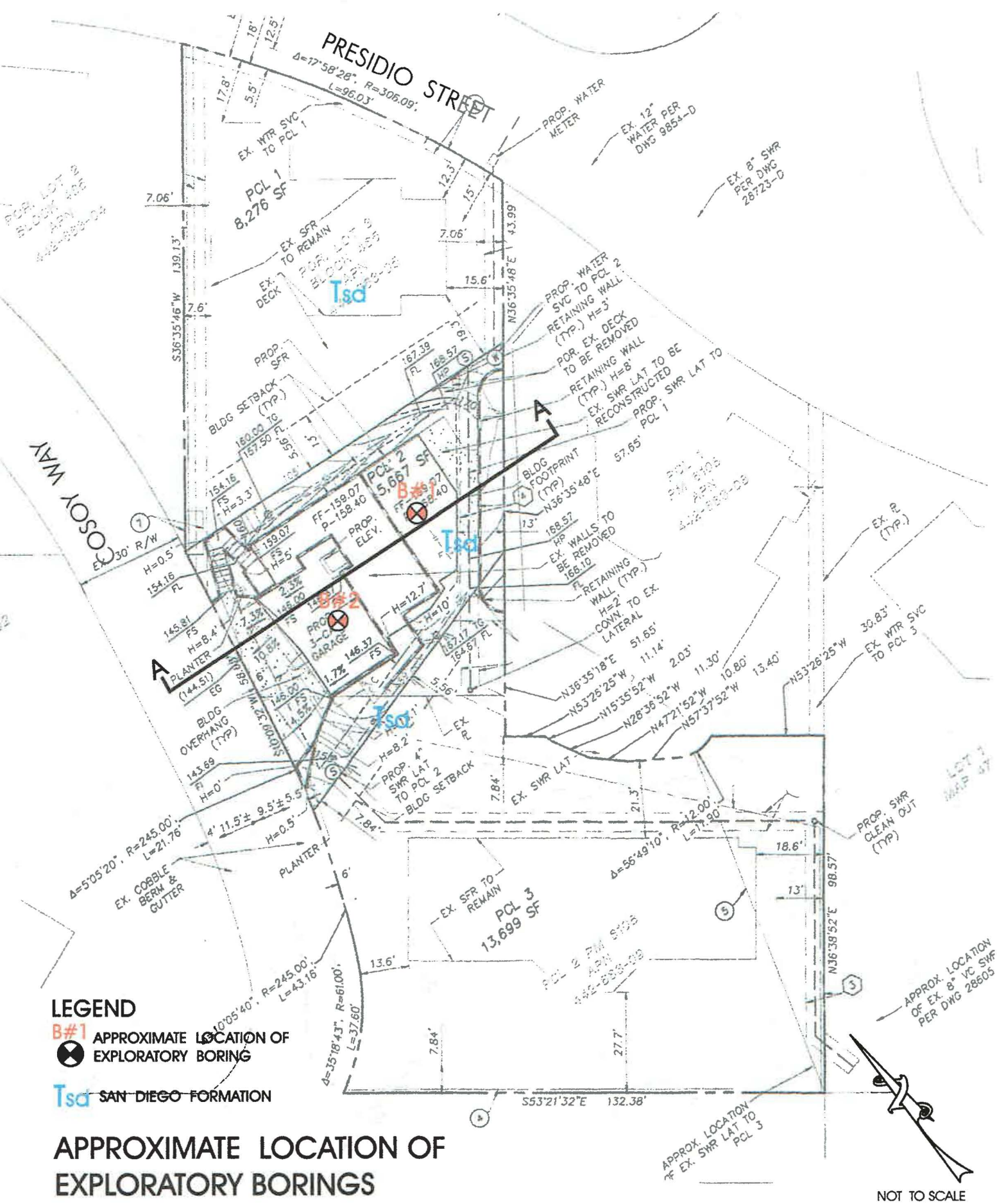


SITE LOCATON MAP

NOT TO SCALE

PROJECT NO. 174-1268 F5

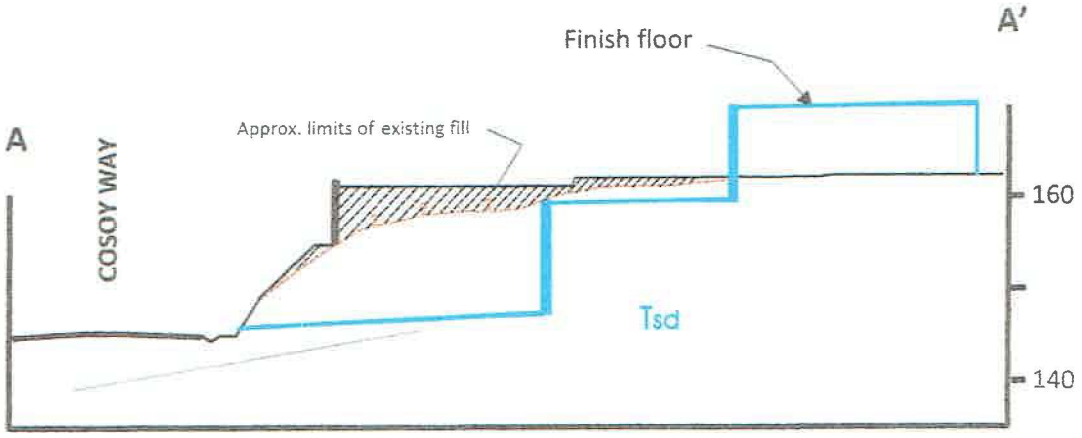
FIGURE NO.1



APPROXIMATE LOCATION OF EXPLORATORY BORINGS

PROJECT NO. 17-1268 F5

FIGURE NO.2



GEOLOGIC SECTION A – A'
COSOY LOT SPLIT, SAN DIEGO, CALIFORNIA

Legend

Tsd : San Diego Formation; moderately cemented, light brown, very fine sandstone

PROJECT NO. 17-1268 F5

FIGURE NO.3

BORING LOG SHEET

BORING NO. 1
ELEV. 169 'msl

FT.		DESCRIPTION	SOIL TYPE
0 1 2 3 4		Brown, dry, loose (undocumented fill soils)	SILTY FINE SAND (SM)
5 6	(1)	Light brown/tan, moist medium dense, cemented (San Diego Formation) Dense	SILTY FINE SAND (SM)

Bottom of Boring (No Refusal)

LEGEND
=======

○ - Indicates representative sample

Project No. 17-1268F5

Figure No. 4

BORING LOG SHEET

BORING NO. 2
ELEV. 121' msl

FT.	DESCRIPTION	SOIL TYPE
0	Brown, damp, slightly dene to loose	SILTY FINE SAND (SM)
1	(Undocumented Fill Soils)	
2		
3	Moist	
4		
5		
6		

Bottom of Boring (No Refusal)

Project No. 17-1268F5-1288J1

Figure No. 5

MICHAEL W. HART
ENGINEERING GEOLOGIST
P.O. BOX 261227 • SAN DIEGO • CALIFORNIA • 92196 • 858 578-4672

File No. 1026
January 28, 2017

Mr. Konstantin Dubinin
4211 Cosoy Way
San Diego, California
92013

Subject: Cosoy Lot Split
Cosoy Way,
San Diego, California
GEOLOGIC RECONNAISSANCE

Dear Mr. Dubinin:
In accordance with our agreement, I have completed a geologic reconnaissance for the proposed residential parcel located on the east side of Cosoy Way in San Diego, California. Based on the results of the following study it is concluded that there is no evidence to indicate the site is traversed by an active or potentially active fault nor is evidence of landsliding present. It is concluded that if the recommendations of this report are followed that from a geotechnical standpoint, the development of the property is feasible.

The opportunity to provide consulting services on this project was appreciated. Should you have any questions regarding the report, please contact the undersigned at your convenience.

Respectfully submitted,

Michael W. Hart
Engineering Geologist
CEG 706

1cc addressee

GEOLOGIC RECONNAISSANCE
COSOY LOT SPLIT
San Diego, California

INTRODUCTION AND SCOPE

This report presents the results of a geologic reconnaissance for the proposed residential property located on the east side of Cosoy Way just north of Jackson Street in San Diego, California (Figure 1). The primary purpose of this study was to describe the geologic characteristics of the site as well as the potential geologic hazards to which the site may be susceptible. The scope of this reconnaissance included geologic mapping, a study of stereographic pairs of aerial photographs, and a review of readily available geologic literature. A more detailed investigation that would require borings or trenches was not performed and is not within the scope of a report of geologic reconnaissance.

SITE AND PROPOSED PROJECT DESCRIPTION

The proposed residential lot is currently part of two single-family residential properties that are to be split into an additional lot as shown on Figure 2. The proposed new trapezoidal shaped lot will have a frontage of approximately 80 feet along Cosoy Way and will extend to the east approximately 100 feet (Figure 2). The site is bounded on the south, east, and north by similar residential properties. Most of the proposed lot is nearly level and bounded on the west by a retaining wall and an approximately 10 to 12 feet high compound road cut and fill slope.

GENERAL GEOLOGY AND GEOLOGIC SETTING

The site is located within the coastal plain section of the Peninsular Range Geomorphic Province of California. The coastal plain generally consists of subdued landforms underlain by sedimentary bedrock. Near-surface bedrock exposed in the vicinity of the site consists of the San Diego Formation (Kennedy, 1975). This unit may be observed in an approximately 4 to 6 feet high road cut on the east side of Cosoy Way (western boundary of the property).

The San Diego Formation is well-exposed in the road cut for nearly the entire length of the western property line. Here the San Diego Formation consists of light brown, moderately cemented, very fine sandstone. While this unit exhibits closely spaced near-vertical northwest

trending joints) and horizontal to gently southwest dipping bedding shown in the photograph below, no faults were observed.

Photograph of San Diego Formation dipping 10 degrees to the southwest in Cosoy Way road cut.

GEOLOGIC HAZARDS AND SEISMICITY

Additional geologic hazards addressed for this report include the potential for ground shaking from local and regional active faults, landsliding, liquefaction, and seismically induced settlement. Each of these potential geologic hazards is discussed below.

Local Faulting:

City of San Diego Geologic Hazard and Fault Map No. 20 indicates the site lies 100 feet east of Geologic Hazard Zone 12 that defines a 200 feet wide zone around a Potentially Active fault that in this location is a strand, or branch, of the Rose Canyon fault Zone. The term "Potentially

Active" describes fault activity as "inactive, presumed inactive, or activity unknown". Additional strands of the Rose Canyon fault are located several hundred feet to the west (Figure 1).

According to the Geologic Map of the La Jolla Quadrangle by Kennedy (1975) the Rose Canyon fault in this area of San Diego consists of three primary strands including a relatively short unnamed strand located near the center of Old Town and two others named the Old Town fault and the Mission Bay Fault. The location of these faults is not known with certainty because of lack of outcrops. Recent trenching by Rockwell (personal communication, 2010, 2016) indicates that a previously unmapped fault strand, possibly the main trace of the Rose Canyon fault, was found by trenching in the Old Town golf Course east of Juan Street. This fault parallels one of the unnamed fault strands mapped by Kennedy (1975) and is apparently located to the west of the fault zone discovered by Leighton and Associates during a fault investigation for the Mormon Battalion Historic Center located at the northeast corner of Juan and Harney Streets (Figure 3). As can be observed by inspection of Figures 2 and 3, none of the mapped faults are located on or adjacent to the proposed residential property.

Regional Faulting and Seismicity:

A detailed seismicity evaluation for the site is beyond the scope of this report, however, a summary of relevant faults and a brief discussion of the potential for seismic shaking is included herein. The site will be affected by seismic shaking as a result of earthquakes on major local and regional active faults located throughout the southern California area. The site lies near the central portion of the Mission Bay segment of the Rose Canyon fault zone that extends from San Diego Bay on the south to La Jolla on the north. The Del Mar segment extends from La Jolla to the vicinity of Oceanside. According to Lindvall and Rockwell (1995), the Mission Bay fault segment is capable of generating a M_w6.4 earthquake with an estimated recurrence time of approximately 720 years. The Rose Canyon fault system is capable of producing a M_w6.9 event if the Mission Bay and Del Mar segments both break simultaneously. The recurrence interval for such an event is estimated to be approximately 1800 years (Lindvall and Rockwell, 1995). Such an event could produce ground shaking at the site on the order of 0.6 to 0.8g.

Other regional active faults, the Coronado Bank, Elsinore, San Jacinto, and San Andreas faults lie approximately 12, 42, 65, and 92 miles, respectively, from the site. Ground shaking resulting from major earthquakes on these faults will occur more frequently than shaking produced from

the Rose Canyon fault zone but since these faults are located at greater distances, the intensity of shaking will be lower.

Liquefaction and Seismically Induced Settlement:

The site is underlain by the San Diego Formation that consists of dense to medium dense, fine to medium-grained, silty to clayey sands that are not susceptible to seismically induced liquefaction or settlement.

Landsliding and Slope Stability:

Review of topographic maps (Scale 1" = 2000') and aerial photographs indicates there is no geomorphic evidence to suggest the presence of ancient deep-seated landsliding on or immediately adjacent to the site. Bedding in the San Diego Formation as exposed in the road cut on Cosoy Way dips out-of-slope to the west at an inclination of 8 to 10 degrees. Cut slopes that are oriented in a northerly direction could be subject to bedding plane failures; particularly if weak clayey beds are encountered. It is therefore recommended that all cut slopes be inspected during future grading operations by an engineering geologist to determine if mitigation such as additional retaining walls or buttressing is required.

CONCLUSIONS AND RECOMMENDATIONS

1. The site is underlain by the San Diego Formation consisting primarily of friable, moderately-cemented, very fine grained, light-brown sandstone. These soils are locally overlain by undocumented fill in slope along Cosoy Way and in the central portion of the site behind an existing retaining wall. Determination of the thickness and areal extent of the fill was beyond the scope of this report.

2. Inspection of the road cut along Cosoy Way, trenching by Rockwell (personal communication, 2010, 2016) and published geologic maps (Kennedy, 1975, City of San Diego Geologic and Fault Map, No. 20) indicate that there is no evidence to suggest that faulting is present on or adjacent the site.

3. The results of this reconnaissance indicate there is no evidence of ancient deep-seated landsliding on the property. The site is underlain by the San Diego formation that is generally not prone to landsliding.

4. It is recommended that future geotechnical studies determine the extent of undocumented fill on the site. Uncompacted fill, if present, should be removed and compacted under the direction of the project geotechnical engineer. Cut slopes that are oriented in a northerly direction could be subject to bedding plane failures; particularly if weak clayey beds are encountered. It is therefore recommended that all cut slopes be inspected during future grading operations by an engineering geologist to determine if mitigation such as additional retaining walls or buttressing is required.

REFERENCES

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Kennedy, M.P., 1975, Geology of the San Diego Metropolitan area, California, California, Calif. Div. Mines and Geology, Bull. 200.

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Lindvall, S.C., and Rockwell, T.K., 1995, Holocene activity of the Rose Canyon fault zone in San Diego, California, Jour. Geophysical Research, vol. 100, no. B12, Pages 24,121-24-132.

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Tan, S.S., 1995, Landslide hazards in the southern part of the San Diego metropolitan area, San Diego County, California, Calif. Div. Mines and Geology Open file report 95-03, pp. 1-6.

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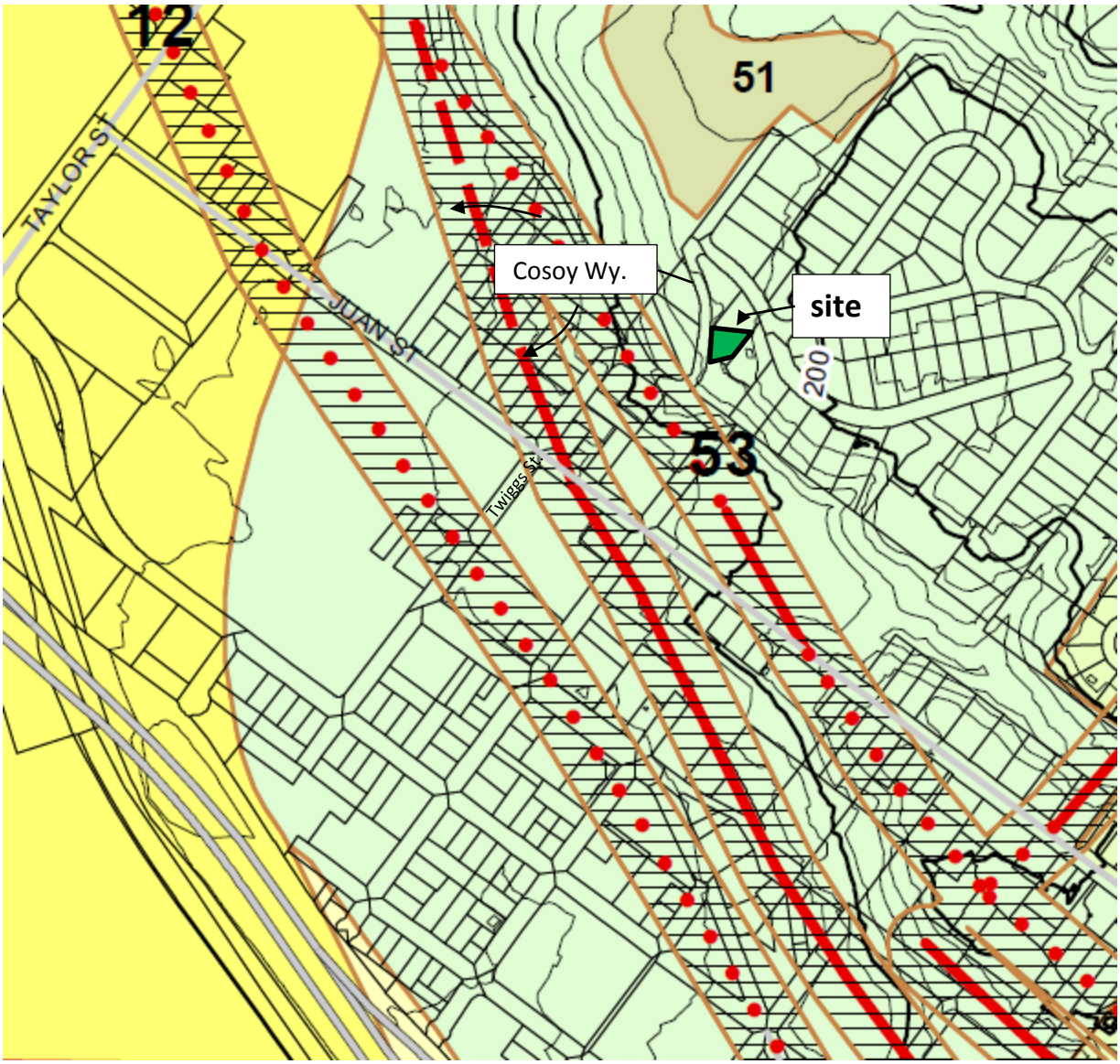


SITE LOCATION AND SEISMIC HAZARD MAP
COSOY LOT SPLIT
COSOY WAY, SAN DIEGO, CALIFORNIA

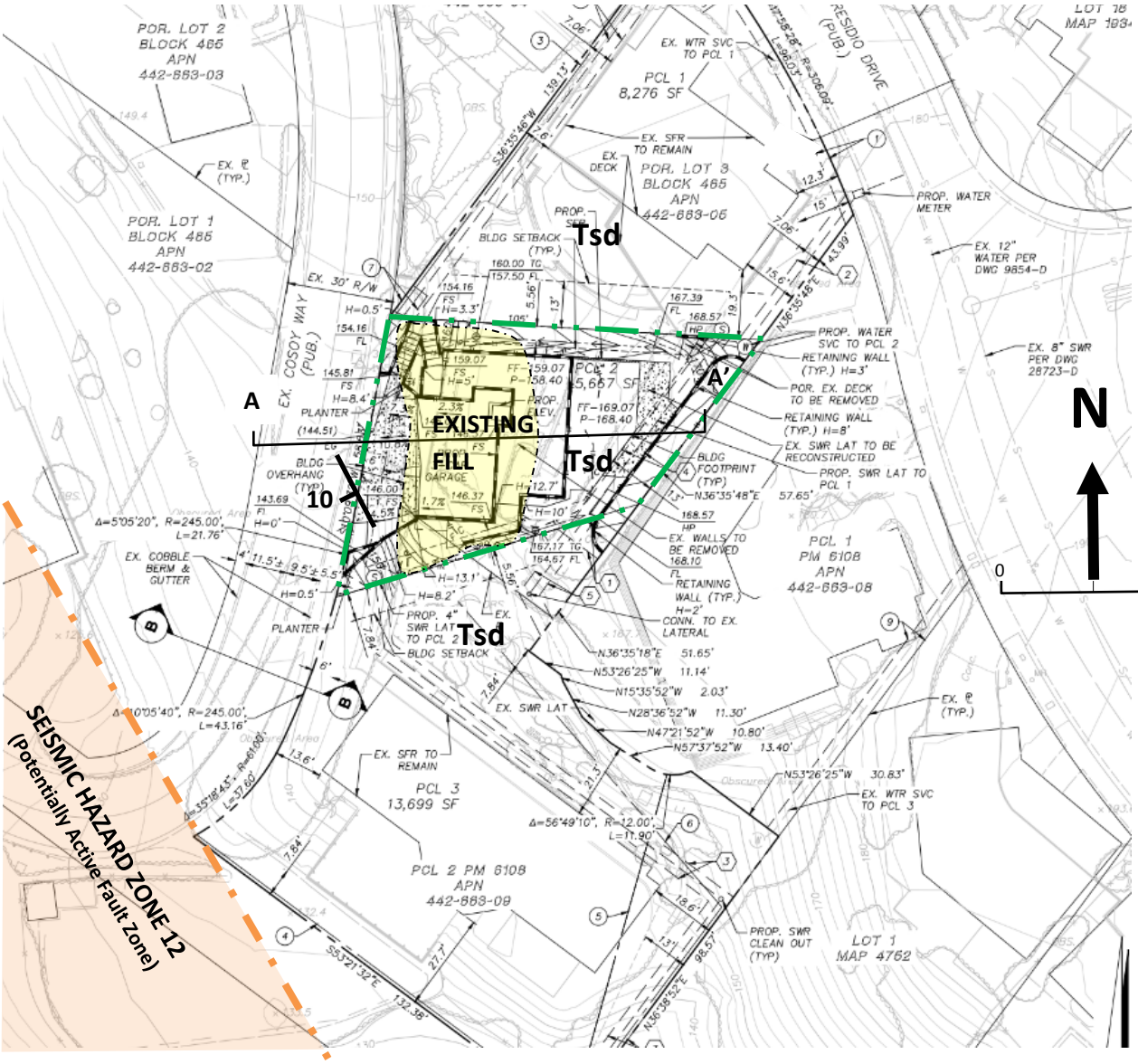
(modified after City of San Diego Seismic Safety Study map No. 20)

Legend

12 Potentially Active fault zone, inactive, presumed inactive, or activity unknown

53 Level or sloping terrain, unfavorable geologic structure, low to mod. risk

MICHAEL W. HART, ENGINEERING GEOLOGIST
P.O. BOX 261227 • SAN DIEGO • CALIFORNIA • 92196 • (858)-578-4672



GEOLOGIC MAP AND SITE PLAN
COSOY LOT SPLIT
COSOY WAY, SAN DIEGO, CALIFORNIA

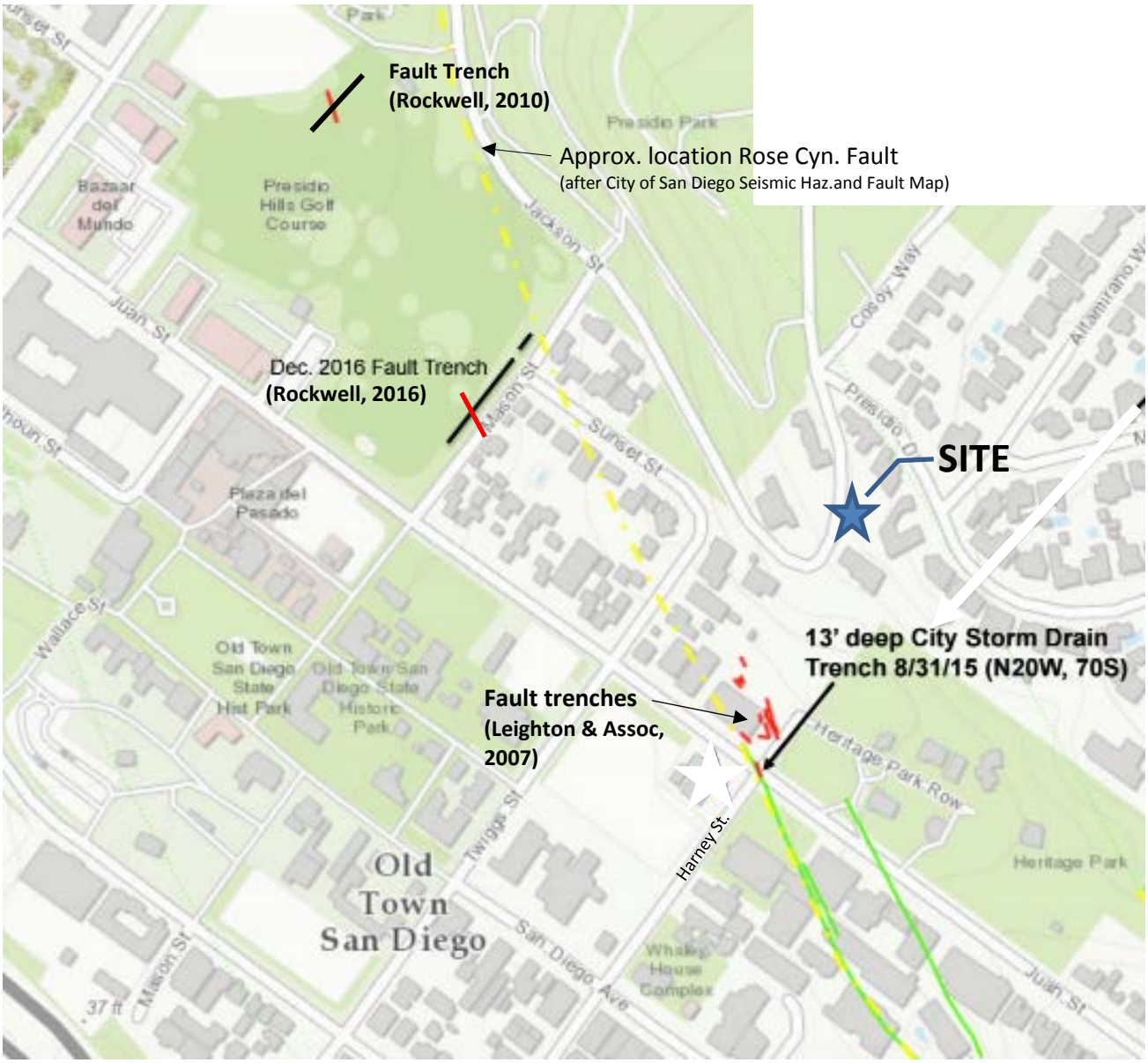
LEGEND

Existing fill (approximate limits)

Tsd San Diego Formation

MICHAEL W. HART, ENGINEERING GEOLOGIST
P.O. BOX 261227 • SAN DIEGO • CALIFORNIA • 92196 • (858)-578-4672

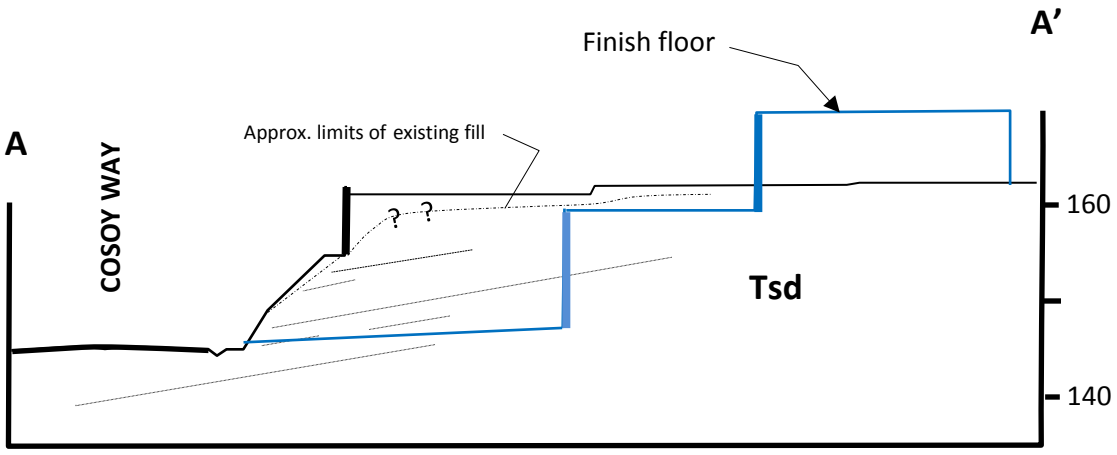
Figure 2



COSOY LOT SPLIT
LOCATION MAP SHOWING RECENT FAULT TRENCHES
AND THE ROSE CANYON FAULT

MICHAEL W. HART, ENGINEERING GEOLOGIST
P.O. BOX 261227 • SAN DIEGO • CALIFORNIA • 92196 • (858)-578-4672

Figure 3



GEOLOGIC SECTION A – A'
COSOY LOT SPLIT, SAN DIEGO, CALIFORNIA

Legend

Tsd: San Diego Formation; moderately cemented, light brown, very fine sandstone

MICHAEL W. HART, ENGINEERING GEOLOGIST
P.O. BOX 261227 • SAN DIEGO • CALIFORNIA • 92196 • (858)-578-4672

Figure 4

MICHAEL W. HART
ENGINEERING GEOLOGIST
P.O. BOX 261227 • SAN DIEGO • CALIFORNIA • 92196 • 858 578-4672

July 25, 2017
File No. 1026-2017

Mr. Kreg Mills, Geologist
City of San Diego Development Services Dept.
1222 First Avenue, San Diego, California
92101-4154

Subject: Cosoy Lot Split,
San Diego, California
Parcel Map No. 1867767
(CITY OF SAN DIEGO PROJECT NBR L64A-003A)

Dear Mr. Mills:
This letter is in response to your review of the subject project dated 04/10/2017. The following responses for Issues numbered 3 and 4 listed in your review letter (Page 14) that pertain to the geologic reconnaissance for the property are addressed below. Responses to other issues will be addressed by the civil engineers and/or architect.

City Issue No.3.
The proposed tentative Parcel Map is located geologic hazard (GHC) 53 as shown on the City's Seismic Safety Study Geologic hazard Maps. GHC 53 is characterized by sloping terrain, unfavorable geologic structure, and variable slope stability. The geotechnical consultant must indicate if the geologic structure at the site is favorable or unfavorable with respect to slope stability.

Reply: As stated in the report of Geologic Reconnaissance, bedding in the San Diego Formation as exposed in the road cut on Cosoy Way dips to the west/southwest at an inclination of 8 to 10 degrees. Cut slopes that face in a westerly direction could be subject to bedding plane failures; particularly if weak clayey beds are encountered. It is not currently anticipated that unsupported cut slopes will be oriented such that they would be subject to such failures, however, It is recommended that all cut slopes be inspected during future grading operations by an engineering geologist to determine if mitigation such as additional retaining walls or buttressing is required.

City Issue No. 4. The proposed Tentative Parcel Map is partially located in geologic hazard category (GHC) 12 as shown on the City's Seismic Safety Study Geologic Hazard Maps. GHC 12 is a fault buffer zone characterized by potentially active, inactive, or activity unknown faults with a low to moderate risk. Provide an explicit opinion whether or not an active or potentially active fault trace passes beneath the proposed Tentative Parcel Map.

Reply: The eastern boundary of GHC 12 just touches the extreme west corner of Parcel 3 as shown on Figures 1-3 of the report of geologic reconnaissance. Parcel 3 is occupied by an existing residence that is to remain with no additional construction or additions. Parcel 2 will be the new parcel that is to receive a new single-family residence. This parcel is located approximately 70 feet from the eastern margin of Zone 12 and it is therefore my opinion that it is not located on or adjacent to an active or potentially active fault. It is also my opinion based on the results of the

geologic reconnaissance and the City of San Diego Seismic Safety Study Geologic Hazard Maps that no active or potentially active fault traces passes beneath any of the proposed parcels shown on Parcel Map 1867767.

Respectfully submitted,

Michael W. Hart, Engineering Geologist
CEG 706

PRELIMINARY HYDROLOGY REPORT FOR:

COSOY LOT SPLIT

P.T.S. NO. 529221

San Diego, California

PREPARED FOR:

KONSTANTIN DUBININ
4211 COSOY WAY
SAN DIEGO, CA 92103
REV. 4/24/2018

PREPARED BY:

LANDMARK CONSULTING
9555 GENESEE AVE, STE 200
SAN DIEGO, CA 92121

DAVID YEH, RCE 62717
EXP. 6-30-18

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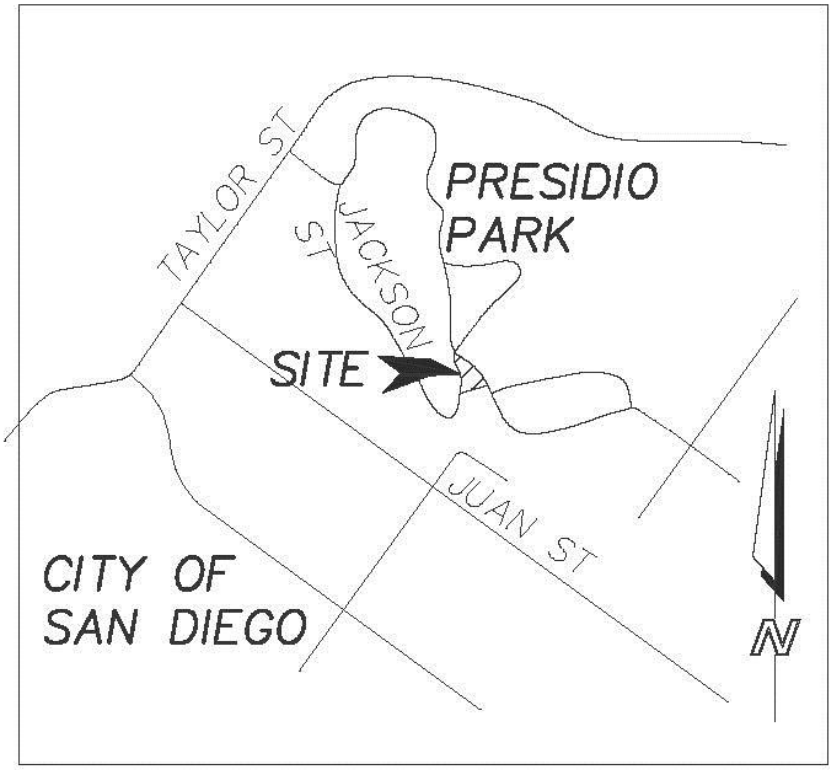
APPENDICIES



VICINITY MAP

N.T.S.

INTRODUCTION

The site is located at 2524 Presidio Drive, adjacent to Cosoy Way in the City of San Diego, County of San Diego, State of California.

The proposed project consists of the split of two existing parcels into three parcels and the construction of a 3-story, single-family residence and driveway. The proposed development will require the demolition of existing retaining walls on site and also site grading.

Under the existing conditions, the site consisted two-single family residences with landscaping, concrete walkways and driveways. There are also several retaining walls on site. The site has a general sloping trend from northeast to southwest with areas of moderately to steeply sloping terrain, especially adjacent to Cosoy Way. The runoff from half of the northerly property will sheet flow from the rooftops and adjacent landscapes areas and onto existing Presidio Drive. The runoff is then conveyed northwesterly along an existing curb on Presidio Drive. Runoff from the remaining northerly property and the westerly half of the southerly residence will sheet flow from the northeast to the southwest and eventually reach the cobble stone-lined gutter at the southwesterly portion of the project site. Runoff from the remaining portion of the southerly lot, along with the adjacent sloping areas, will sheet flow southerly into an existing concrete ditch.

Under the proposed conditions, a single-family residence will be constructed between the two existing houses. The runoff from this development will be conveyed from the rooftops to the adjacent landscaped areas and then southwesterly into the existing cobblestone-lined gutter, matching the pre-development runoff pattern. Overall, the post-development drainage pattern will match the pre-development conditions.

The runoff coefficient, C, is based on the actual impervious percent of the tributary area. The weighted C value is calculated in accordance to the current City of San Diego Hydrology Manual and presented in this report.

Since the land disturbance is less than 1 acre, and the project discharges onto an existing public street then into an existing underground system, neither a 404 permit nor a 401 certification is required for the project.

METHOD OF ANALYSIS

Rational Method and Modified Rational Method

A.1. Rational Method (RM)

The Rational Method (RM) is a mathematical formula used to determine the maximum runoff rate from a given rainfall. It has particular application in urban storm drainage where it is used to estimate peak runoff rates from small urban and rural watersheds for the design of storm drains and drainage structures. The RM is recommended for analyzing the runoff response from drainage areas for watersheds less than 0.5 square miles. It should not be used in instances where there is a junction of independent drainage systems or for drainage areas greater than approximately 0.5 square mile in size. In these instances, the Modified Rational Method (MRM) should be used for junctions of independent drainage systems in watersheds up to approximately 1 square mile in size (see Section A.2); or the NRCS Hydrologic Method should be used for watersheds greater than approximately 1 square mile in size (see Appendix B).

A1.1. Rational Method Formula

The RM formula estimates the peak rate of runoff at any location in a watershed as a function of the drainage area (A), runoff coefficient (C), and rainfall intensity (I) for a duration equal to the time of concentration (T_c), which is the time required for water to flow from the most remote point of the basin to the location being analyzed. The RM formula is expressed in Equation A-1.

Equation A-1. RM Formula Expression

$$Q = C\ I\ A$$

where: =

Q		peak discharge, in cubic feet per second (cfs)
C	=	runoff coefficient expressed as that percentage of rainfall which becomes surface runoff (no units); Refer to Appendix A.1.2
I	=	average rainfall intensity for a storm duration equal to the time of concetrnatation (T_c) of the contributing draiange area, in inches per hour; Refer to Appendix A.1.3 and Appendix A.1.4
A	=	drainage area contributing to the design location, in acres

Combining the units for the expression CIA yields:

$$\left(\frac{1 \text{ acre} \times \text{inch}}{\text{hour}}\right)\left(\frac{43{,}560 \text{ ft}^2}{\text{acre}}\right)\left(\frac{1 \text{ foot}}{12 \text{ inches}}\right)\left(\frac{1 \text{ hour}}{3{,}600 \text{ seconds}}\right) \Rightarrow 1.008 \text{ cfs}$$

For practical purposes, the unit conversion coefficient difference of 0.8% can be ignored.

The RM formula is based on the assumption that for constant rainfall intensity, the peak discharge rate at a point will occur when the raindrop that falls at the most upstream point in the tributary drainage basin arrives at the point of interest.

Unlike the MRM (discussed in Appendix A.2) or the NRCS hydrologic method (discussed in Appendix B), the RM does not create hydrographs and therefore does not add separate subarea hydrographs at collection points. Instead, the RM develops peak discharges in the main line by increasing the T_c as flow travels downstream.

Characteristics of, or assumptions inherent to, the RM are listed below:

1. The discharge resulting from any I is maximum when the I lasts as long as or longer than the T_c.
2. The storm frequency of peak discharges is the same as that of I for the given T_c.
3. The fraction of rainfall that becomes runoff (or the runoff coefficient, C) is independent of I or precipitation zone number (PZN) condition (PZN Condition is discussed in the NRCS method).
4. The peak rate of runoff is the only information produced by using the RM.

A.1.2. Runoff Coefficient

The runoff coefficients are based on land use (see Table A–1). Soil type “D” is used throughout the City of San Diego for storm drain conveyance design. An appropriate runoff coefficient (C) for each type of land use in the subarea should be selected from this table and multiplied by the percentage of the total area (A) included in that class. The sum of the products for all land uses is the weighted runoff coefficient (Σ[CA]). Good engineering judgment should be used when applying the values presented in Table A–1, as adjustments to these values may be appropriate based on site-specific characteristics.

Table A-1. Runoff Coefficients for Rational Method

Land Use	Runoff Coefficient (C)
	Soil Type [1]
Residential:	
Single Family 50% Impervious	0.55
Multi–Units 65% Impervious	0.70
Mobile Homes	0.65
Rural (lots greater than ½ acre)	0.45
Commercial [2]	
80% Impervious	0.85
Industrial [2]	
90% Impervious	0.95

Note:
[1] Type D soil to be used for all areas.
[2] Where actual conditions deviate significantly from the tabulated imperviousness values of 80% or 90%, the values given for coefficient C, may be revised by multiplying 80% or 90% by the ratio of actual imperviousness to the tabulated imperviousness. However, in no case shall the final coefficient be less than 0.50. For example: Consider commercial property on D soil.

Actual imperviousness	=	50%
Tabulated imperviousness	=	80%
Revised C = (50/80) x 0.85	=	0.53

The values in Table A–1 are typical for urban areas. However, if the basin contains rural or agricultural land use, parks, golf courses, or other types of nonurban land use that are expected to be permanent, the appropriate value should be selected based upon the soil and cover and approved by the City.

A.1.3. Rainfall Intensity

The rainfall intensity (I) is the rainfall in inches per hour (in/hr.) for a duration equal to the T_c for a selected storm frequency. Once a particular storm frequency has been selected for design and a T_c calculated for the drainage area, the rainfall intensity can be determined from the Intensity-Duration-Frequency Design Chart (Figure A-1).

HYDROLOGY CALCULATIONS

WEIGHTED C VALUES

Pre-Development Conditions

BASIN-1					
TOTAL AREA	IMP AREA	ACTUAL IMPERVIOUSNESS	TABULATED IMPERVIOUSNESS	TABULATED C VALUE	WEIGHTED C
(SF)	(SF)				
3211	1460	0.45	0.5	0.55	0.50

BASIN-2					
TOTAL AREA	IMP AREA	ACTUAL IMPERVIOUSNESS	TABULATED IMPERVIOUSNESS	TABULATED C VALUE	WEIGHTED C
(SF)	(SF)				
20308	5650	0.28	0.5	0.55	0.31

BASIN-3					
TOTAL AREA	IMP AREA	ACTUAL IMPERVIOUSNESS	TABULATED IMPERVIOUSNESS	TABULATED C VALUE	WEIGHTED C
(SF)	(SF)				
9732	1580	0.16	0.5	0.55	0.18

Post-Development Conditions

BASIN-1					
TOTAL AREA	IMP AREA	ACTUAL IMPERVIOUSNESS	TABULATED IMPERVIOUSNESS	TABULATED C VALUE	WEIGHTED C
(SF)	(SF)				
3211	1460	0.45	0.5	0.55	0.50

BASIN-2					
TOTAL AREA	IMP AREA	ACTUAL IMPERVIOUSNESS	TABULATED IMPERVIOUSNESS	TABULATED C VALUE	WEIGHTED C
(SF)	(SF)				
20308	9440	0.46	0.5	0.55	0.51

BASIN-3					
TOTAL AREA	IMP AREA	ACTUAL IMPERVIOUSNESS	TABULATED IMPERVIOUSNESS	TABULATED C VALUE	WEIGHTED C
(SF)	(SF)				
9732	1580	0.16	0.5	0.55	0.18

RUNOFF DISCHARGE

Pre-Development Conditions

BASIN-1

PRE-DEVELOPMENT CONDITIONS					
	AREA (AC)	C	I (IN/HR)	TC (MIN)	Q (CFS)
100-YR	0.07	0.50	3.4	10	0.12
50-YR	0.07	0.50	3.2	10	0.11
10-YR	0.07	0.50	2.6	10	0.09
5-YR	0.07	0.50	2.2	10	0.08

BASIN 2

PRE-DEVELOPMENT CONDITIONS					
	AREA (AC)	C	I (IN/HR)	TC (MIN)	Q (CFS)
100-YR	0.47	0.31	3.4	10	0.50
50-YR	0.47	0.31	3.2	10	0.47
10-YR	0.47	0.31	2.6	10	0.38
5-YR	0.47	0.31	2.2	10	0.32

BASIN 3

PRE-DEVELOPMENT CONDITIONS					
	AREA (AC)	C	I (IN/HR)	TC (MIN)	Q (CFS)
100-YR	0.22	0.18	3.4	10	0.13
50-YR	0.22	0.18	3.2	10	0.13
10-YR	0.22	0.18	2.6	10	0.10
5-YR	0.22	0.18	2.2	10	0.09

Post-Development Conditions

BASIN-1

POST-DEVELOPMENT CONDITIONS					
	AREA (AC)	C	I (IN/HR)	TC (MIN)	Q (CFS)
100-YR	0.07	0.50	3.4	10	0.12
50-YR	0.07	0.50	3.2	10	0.11
10-YR	0.07	0.50	2.6	10	0.09
5-YR	0.07	0.50	2.2	10	0.08

BASIN 2

POST-DEVELOPMENT CONDITIONS					
	AREA (AC)	C	I (IN/HR)	TC (MIN)	Q (CFS)
100-YR	0.47	0.51	3.4	10	0.81
50-YR	0.47	0.51	3.2	10	0.77
10-YR	0.47	0.51	2.6	10	0.62
5-YR	0.47	0.51	2.2	10	0.53

BASIN 3

POST-DEVELOPMENT CONDITIONS					
	AREA (AC)	C	I (IN/HR)	TC (MIN)	Q (CFS)
100-YR	0.22	0.18	3.4	10	0.13
50-YR	0.22	0.18	3.2	10	0.13
10-YR	0.22	0.18	2.6	10	0.10
5-YR	0.22	0.18	2.2	10	0.09

SUMMARY

Increase in flow (cfs)

BASIN 1

RUNOFF SUMMARY TABLE			
	PRE-DEV,Q (CFS)	POST-DEV,Q (CFS)	INCREASE, Q (CFS)
100-YR	0.12	0.12	0.00
50-YR	0.11	0.11	0.00
10-YR	0.09	0.09	0.00
5-YR	0.08	0.08	0.00

BASIN 2

RUNOFF SUMMARY TABLE			
	PRE-DEV,Q (CFS)	POST-DEV,Q (CFS)	INCREASE, Q (CFS)
100-YR	0.50	0.81	0.32
50-YR	0.47	0.77	0.30
10-YR	0.38	0.62	0.24
5-YR	0.32	0.53	0.21

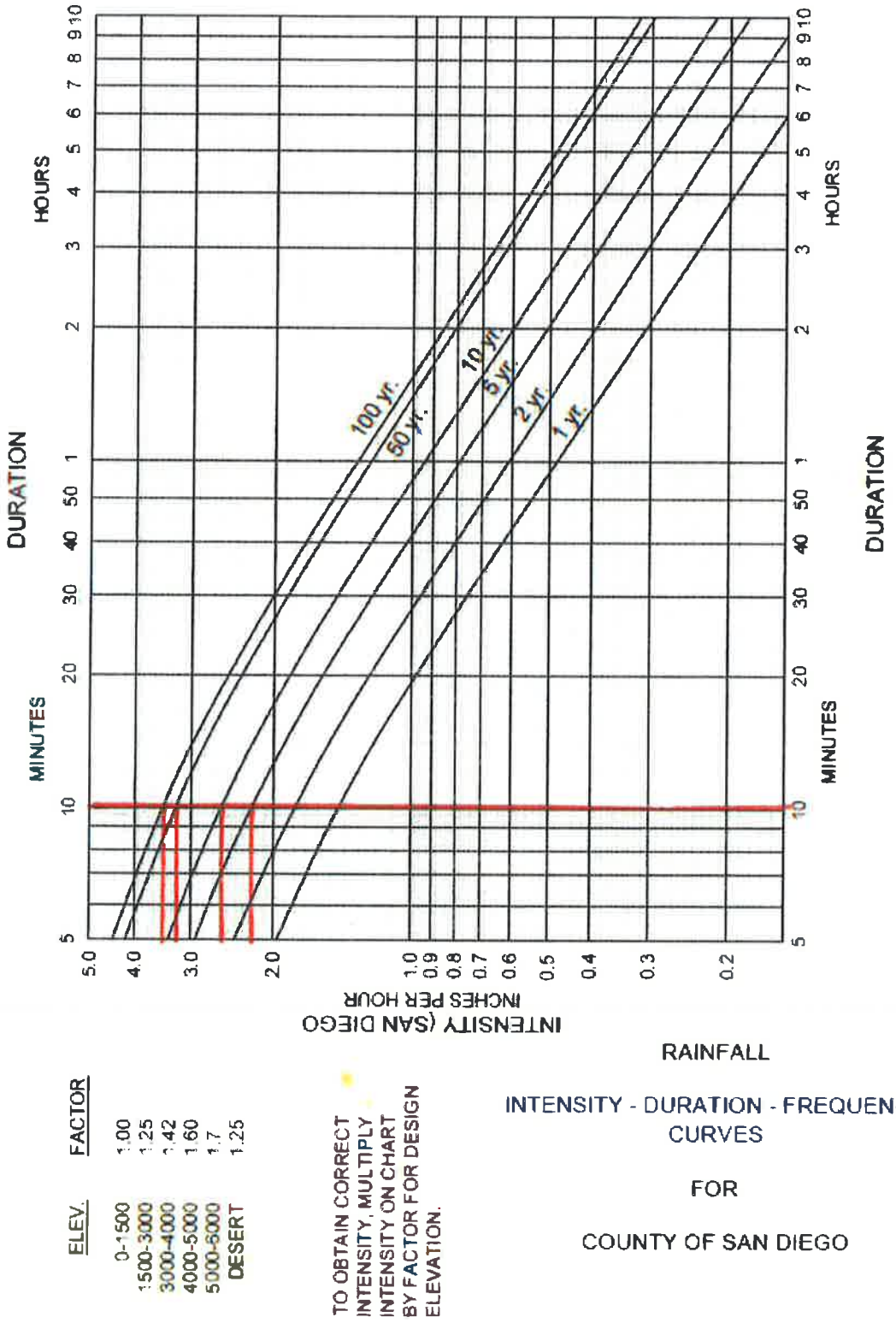
BASIN 3

RUNOFF SUMMARY TABLE			
	PRE-DEV,Q (CFS)	POST-DEV,Q (CFS)	INCREASE, Q (CFS)
100-YR	0.13	0.13	0.00
50-YR	0.13	0.13	0.00
10-YR	0.10	0.10	0.00
5-YR	0.09	0.09	0.00

CONCLUSION

Based on the hydrology calculations presented in this report, the proposed development will increase runoff from the site by 0.32cfs for the 100-year storm event. The increased runoff intensity is caused by the construction of a new single-family residence on previously landscaped areas. This small increase in runoff from the proposed development is not anticipated to have any adverse effects on downstream storm water facilities and adjacent properties.

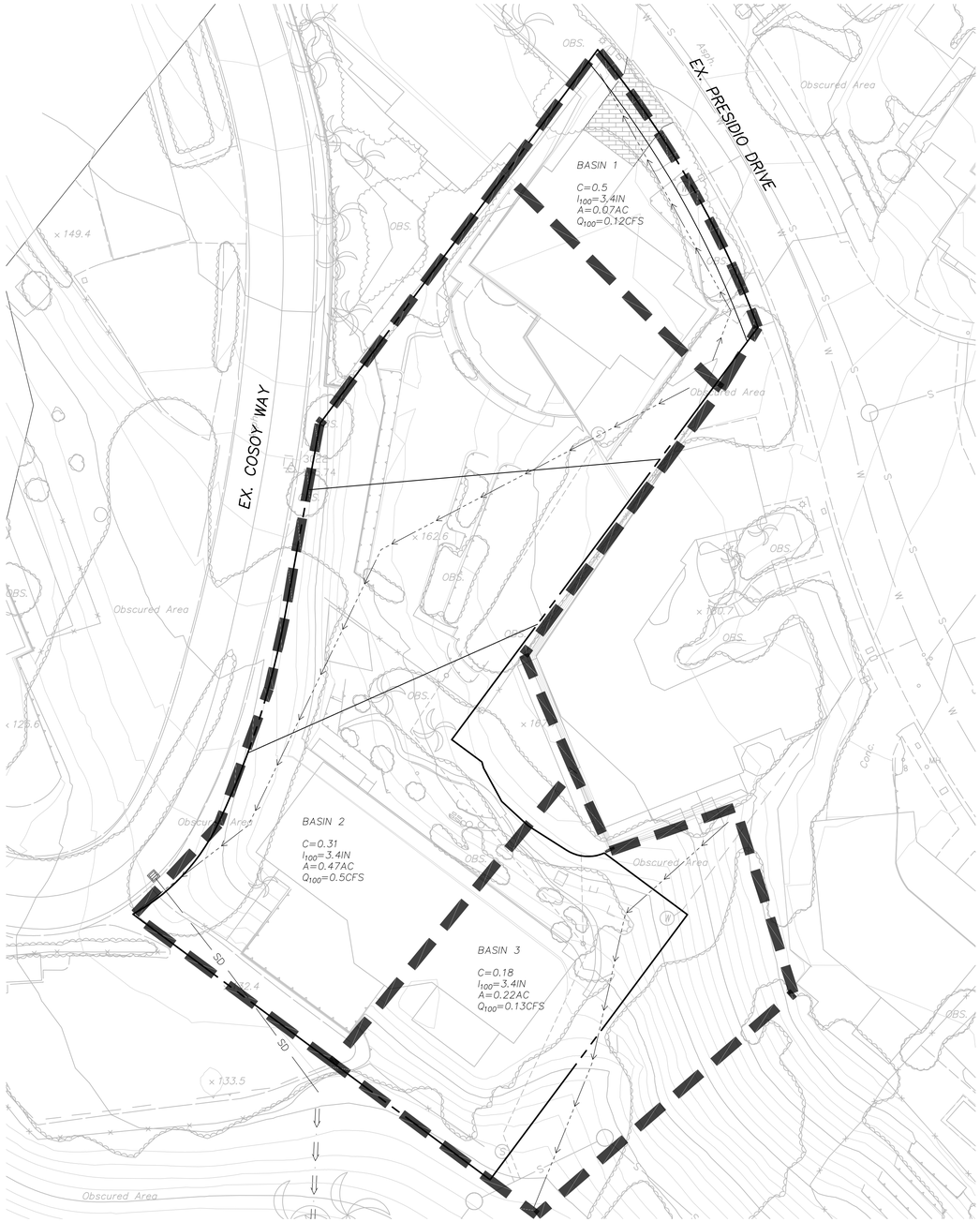
APPENDIX A
RATIONAL METHOD AND MODIFIED RATIONAL METHOD



$I_{100} = 3.4$ in/hr
$I_{50} = 3.2$ in/hr
$I_{10} = 2.6$ in/hr
$I_5 = 2.2$ in/hr

Figure A-1. Intensity-Duration-Frequency Design Chart

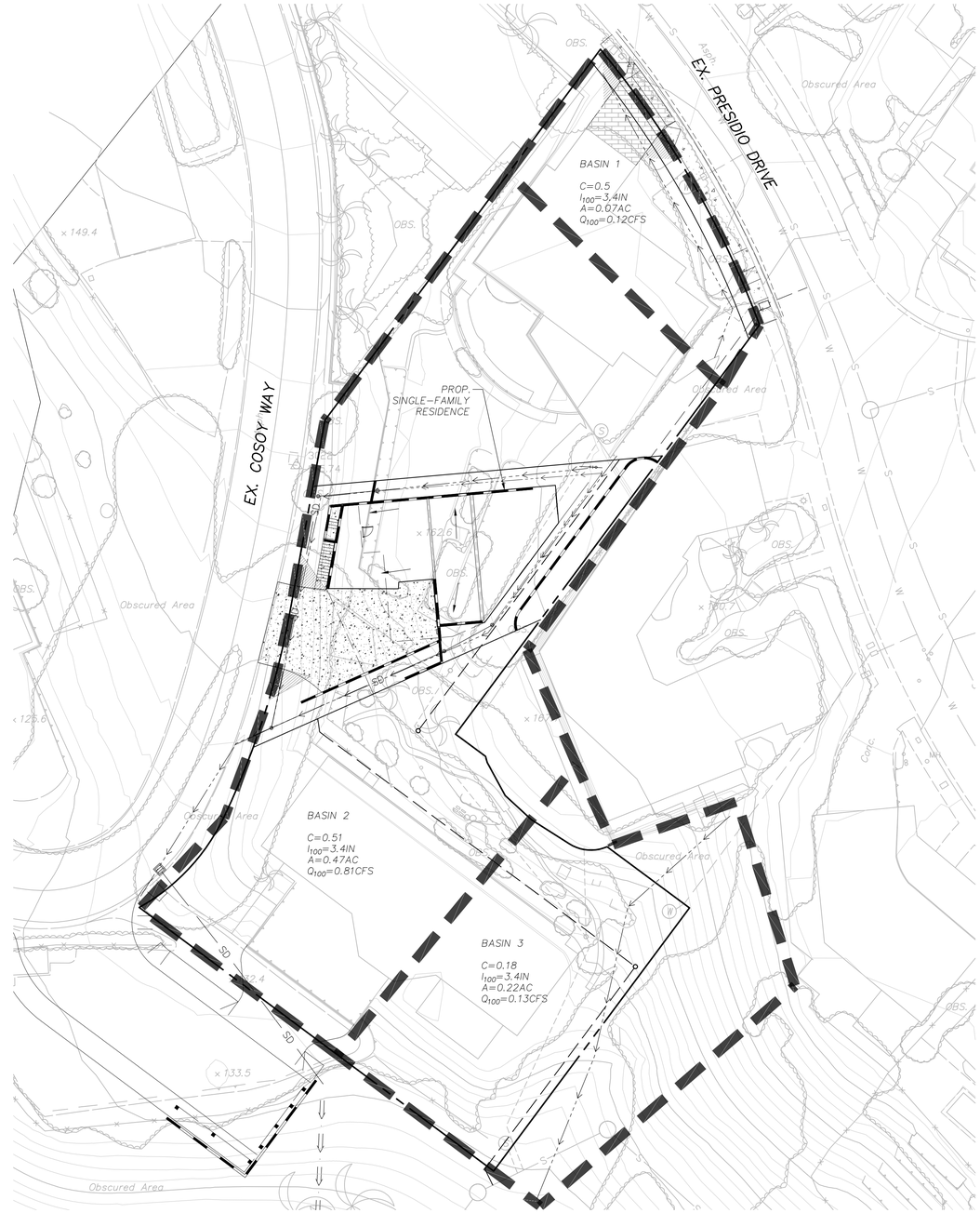
APPENDIX B
PRE DEVELOPMENT AND POST DEVELOPMENT HYDROLOGY MAP



PRE–DEVELOPMENT HYDROLOGY MAP

SCALE: 1"=20'

SCALE: 1"= 20'



POST–DEVELOPMENT HYDROLOGY MAP

SCALE: 1"=20'

LEGEND

PROJECT BOUNDARY

DRAINAGE BASIN BOUNDARY

DIRECTION OF FLOW

OR

LANDMARK
CONSULTING
Planning Engineering Surveying
9555 Genesee Avenue, Suite 200
San Diego, CA 92121, (858) 587-8070

HYDROLOGY MAPS FOR: PRESIDIO TPM

Water Pollution Control Plan

for Project: COSOY LOT SPLIT

Located at:

Address: **2524 PRESIDIO DRIVE**

WPCP Prepared by:

Company: **Landmark Consulting**

Individual: **David Yeh**

Address: **9555 Genesee Avenue, Suite 200**

Preparation Date: **11/14/2016**

Prepared for:

City of San Diego

Department: **DSD**

Address: **1222 1st Avenue, San Diego, CA 92101**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SEMPER VIGILANS

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A SITE MAP (TO BE COMPLETED BY APPLICANT)
B CERTIFICATION
C CITY OF SAN DIEGO FORM DS-560, STORM WATER REQUIREMENTS APPLICABILITY CHECKLIST
D RELEVANT BMP FACT SHEETS FROM CASQA OR CALTRANS

LIST OF TABLES

1.0 PROJECT INFORMATION

1.1 INTRODUCTION

The San Diego Regional Water Quality Control Board (RWQCB) adopted Order No. R9-2013-0001, *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region* on May 8, 2013 (MS4 Permit). The MS4 Permit requires the City of San Diego (City) to necessitate implementing effective best management practices (BMPs) to reduce discharges of pollutants in storm water from construction sites to the maximum extent practicable and effectively prohibit non-storm water discharges from construction sites into the MS4. These BMPs must be site specific, seasonally appropriate, and construction phase appropriate. BMPs must be implemented at each construction site year-round. Dry season BMP implementation must plan for and address unseasonal rain events that may occur during the dry season (May 1 through September 30).

Construction projects that result in disturbance of one acre or more of total land area or are part of a larger common plan of development or sale must obtain coverage under the State Water Resource Control Board's (SWRCB's) *NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ* NPDES No. CAS000002 (Construction General Permit). The Construction General Permit requires developing and implementing a Storm Water Pollution Prevention Plan (SWPPP).

A Water Pollution Control Plan (WPCP) must be developed and implemented for construction projects that:

- Result in disturbance of less than one acre of total land area and are not part of a larger common plan of development or sale; and

- Have *Grading*, *Public Right-of-Way*, and *Demolition/Removal* approval types (see the City's Form DS-560) or require submittal for a Drainage and Grades review.

This template may be utilized to meet the City's WPCP requirement.

A Minor Water Pollution Control Plan (MWPCP) (see the City's Form DS-570) may be developed and implemented for projects that disturb less than 5,000 square feet and have less than a 5 foot elevation differential over the entire project area. Some construction project types, such as interior plumbing, electrical and mechanical work, may be considered exempt. The City's Form DS-560, *Storm Water Requirements Applicability Checklist* can be used to determine the storm water requirements for the project (see Appendix C).

NOTE: It is the responsibility of the project owner to ensure that all construction activities comply with local and state regulations, including San Diego Municipal Code Sect. 43.03. The guidance and template provided here is for the applicant's convenience and do not alleviate responsibility on part of the project owner to determine the appropriate level of BMP planning and implementation to prevent pollutant discharges.

The WPCP developer should complete the text and check boxes. Additional completion information is provided in red font.

1.2 OBJECTIVES

The main objectives of the WPCP are:

- To identify all pollutant sources which may affect the quality of storm water discharges from the site associated with construction activities;
- To identify non-storm water discharges and eliminate unauthorized non-storm water discharges, illicit connections, and dumping;
- To establish, construct, implement, and maintain best management practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non–storm water discharges from the construction site; and
- To develop an inspection program to determine the effectiveness of site BMPs.

1.3 GENERAL PROJECT INFORMATION

This section provides project information relevant to the development of this WPCP.

1.3.1 Project Location

The project location and identifying information are provided in Table 1.

[Complete Table 1.]

Table 1
Project Location and Contact Information

Contact Information			
Applicant Name: **Landmark Consulting**	**Contact Name**: **David Yeh**		
Mailing Address: **9555 Genesee Ave. Suite 200**	**City**: San Diego	**State**: CA	**Zip Code: 92121**
Telephone No.: **(858)587-8070**	**Email address**: **David@lmco.net**		
Project Information			
Address:2524 Presidio Drive	**City:** San Diego	**State:** CA	**Zip Code:**
APN No.:442-663-05 & 09	**Permit Application No.For CIP use WBS#**		
Contractor Company Name:		**Contact Name:**	
Address:	**City**:	**State: CA**	**Zip Code:**
Telephone No.:	**Email address**:		
Qualified Contact Person (QCP):			
Telephone No.:	**Email address**:		

1.3.2 Project Description

The project description is provided in Table 2.

[Complete Table 2.]

Table 2
Project Description

Project Scope:	**The proposed development consists of splitting 2 existing parcels into 3 parcels. A single-family residence is proposed on prarcel 2. Retaining walls will be constructed and landscaping will be added throughout the project.**
Land Use Type:	**Single-family residential**
Watershed:	**Lower San Diego 907.1, Mission San Diego 907.11**
Receiving Water Body:	**Lower San Diego River, Pacific Ocean**
303(d) Listed Impairments	**Fecal Indicator Bacteria, Nutirents, Metals, Salinity, Toxicity**
Soil Type:	**D**
Slope Inclination:	**Moderate to Steep**
Slope Aspect:	**30%**
Fill Material and Borrow Area Location(s):	**From Site**
Storm Water Conveyance:	**Earthen Swale**
Existing and Planned Storm Water Features:	**No existing facilities. Proposed consists of roof drains and earthen swales.**
Sources of Run-on to the Site:	**None**

Discharge Locations:	**Swale to existing Cosoy Way.**
Other Site Features:	

1.3.3 Project Size

The size of the project and disturbed area is described in Table 3, as well as the elevation differential over the project area.

[Complete Table 3.]

Table 3
Project Size

Total Project Size (in ac):0.63	**Estimated Amount of Disturbed Area (ac):0.13**
Estimated Elevation Differential over Entire Project Area (ft):44	

1.3.4 Construction Schedule

The construction schedule is provided in Table 4, including an indication of activities to be performed in the rainy season and the phase of construction (Grading and Land Development, Streets and Utilities, Vertical Construction, or Post-Construction). The rainy season is October 1 through April 30 of each year. The schedule shall include dates for installation and removal of construction BMPs. In addition, the schedule shall identify periods of inactivity exceeding 14 days (Slope stabilization is required on all inactive slopes during the rainy season).

[Complete Table 4.]

Table 4
Construction Schedule

Construction Activity	Start Date	Finish Date	Rainy Season (Y/N)	Phase of Construction

1.3.5 Site Priority

Select the site priority identified on the City's Form DS-560 (see Appendix C) in Table 5.

Table 5
Site Priority

Site Priority	Check One
ASBS: Projects located in the ASBS watershed.	☐
High: Projects 1 acre or more determined to be Risk Level 2 or Risk Level 3 per the Construction General Permit and not located in the ASBS watershed; Projects 1 acre or more determined to be LUP Type 2 or LIP Type 3 per the Construction General Permit and not located in the ASBS watershed.	☐
Medium: Projects 1 acre or more but not subject to an ASBS or high priority designation.	☐
Low: Projects requiring a WPCP, but not subject to an ASBS, medium, or high priority designation.	☒
If "High", is the project covered under an Erosivity Waiver by the RWQCB?	Yes ☐ No ☐
If "Yes", provide WDID# and include a copy of the NOI in the Appendix.	

1.3.6 Site Features, Construction Activities, and Associated Potential Pollutants

Potential pollutant sources may stem from construction materials used on-site that are not designed to be outdoors and exposed to environmental conditions (i.e., are used in the process of construction, but are not the final product). Construction materials have the potential to come into contact with storm water when stored or used outdoors on the site.

[The questions in Table 6 are designed to assist with selecting appropriate BMPs for the site; please check "Yes" or "No" and provide additional information if needed.]

Table 6
Determination of Site Features, Activities, and Potential Pollutants

No.	Site Feature Question	No	Yes	If *Yes*, Select BMPs from Table:
1	Is there run-on to the site from surrounding areas?	☒	☐	14
2	Are storm drain inlets located within the project boundary and/or will the site discharge storm water to nearby storm drain inlets?	☐	☒	12 and 14
3	Will concentrated flows and/or large accumulations of water occur on-site?	☒	☐	14
4	Is the site adjacent to a waterway or sensitive habitat (i.e., wetland, vernal pool, etc.)? Note: additional permitting may be required.	☒	☐	11
5	Is the site likely to discharge to impaired or sensitive water bodies (tributary to a Clean Water Act Section 303[d]-listed/impaired water body segments), adjacent to or discharging directly to coastal lagoons, or other receiving waters in Environmentally Sensitive Areas (as defined in Attachment C of the San Diego Municipal Storm Water Permit, Order No R9-2013-0001)?	☒	☐	See *Storm Water Standards*
6	Will the site have exposed/disturbed slopes greater than 5 percent?	☐	☒	7, 8, 9, 10, and 12

Table 6 (Continued)
Determination of Site Features, Activities, and Potential Pollutants

No.	Site Activity Question	No	Yes	If *Yes*, Select BMPs from Table:	Potential Pollutant Sources (add, if not listed)
7	Will there be soil-disturbance activities (grading, stockpiling, trenching, etc.)?	☐	☒	7, 8, 9, 10, 12, and 13	Sediment
8	Will there be asphalt paving, cutting, and/or patching?	☐	☒	17	Asphalt, aggregate
9	Will there be stockpiling (i.e., soil, concrete, solid waste, etc.) for over 24 hours?	☐	☒	7 and 16	Stockpiled material, *please specify:* **Soil, concrete**
10	Will there be slurries from concrete or mortar mixing, coring, or saw cutting?	☐	☒	15, 16, and 17	Concrete materials, aggregate, slurry water
11	Will wash water or liquid waste be generated from this project?	☒	☐	15, 16, and 19	Liquid waste, *please specify:*
12	Will there be dewatering operations?	☒	☐	19	Dewatering water, *please specify:*
13	Will there be on-site storage of construction materials such as mortar mix, raw landscaping and soil stabilization materials, treated lumber, rebar, and plated metal fencing materials?	☐	☒	17	Construction materials, *please specify:* **Mortar Mix, Landscaping materials**
14	Will trash or solid wastes (including landscaping wastes) be generated from this project?	☐	☒	16	Solid waste, *please specify:* **Soils, concrete**
15	Will hazardous materials or wastes, including paint, be stored or handled on-site?	☐	☒	16	Hazardous material, *please specify:* **paint**
16	Will construction equipment and/or vehicles be stored, fueled, maintained, or washed on- site?	☒	☐	15, 18, and 19	Engine fluids, fuels, oil, grease, wash water
17	Will portable sanitary facilities (“Porta-potties”) be used on the site?	☐	☒	15 and 16	Sanitary waste
18	Are underlying soils potentially contaminated?	☒	☐	16	Contaminated soil

Table 6 (Continued)
Determination of Site Features, Activities, and Potential Pollutants

No.	Site Activity Question	No	Yes	If *Yes*, Select BMPs from Table:	Potential Pollutant Sources (add, if not listed)
19	Will dust (i.e., from grading, driving on unpaved roads, etc.) or particulates (i.e., from sandblasting, concrete cutting, painting, etc.) be generated from this project?	☐	☒	20	Sediment, particulate construction materials, *please specify:* **Concrete cutting, grading**
20	Other activities will be performed that are not described above?	☒	☐	Select applicable BMPs from Tables 7-20	*Please specify:*
21	Final stabilization of the site is required.		☒	21	Not applicable

1.4 RESPONSIBILITY FOR WPCP DEVELOPMENT AND IMPLEMENTATION

This WPCP shall be completed and certified by a Qualified Contact Person (QCP). A QCP will also be responsible for amending this WPCP. The QCP is responsible for WPCP implementation and self-inspections (see Section 3.0).

1.5 AVAILABILITY

This WPCP shall remain on-site at all times during business hours and readily available for review by the U.S. Environmental Protection Agency (EPA), SWRCB, San Diego RWQCB, City of San Diego representatives, and all operating personnel for the duration of the project. Authorized representatives from the U.S. EPA, SWRCB, San Diego RWQCB, and the City of San Diego shall be permitted entry to the site for reviewing this WPCP, inspecting the site, and/or collecting storm water samples.

1.6 AMENDMENTS

This WPCP shall be amended whenever there is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater, or to the City's MS4 or are deemed necessary by the Resident Engineer or Building Inspector.

1.7 NON-STORM WATER DISCHARGES

Discharging any material other than storm water to Waters of the State or to the City's MS4 is prohibited. However, certain exceptions apply.

According to the SWRCB ASBS Resolution No. 2012-0031, existing storm water discharges into an ASBS are allowed only under the following conditions:

1. The discharges are authorized by an NPDES permit issued by the SWRCB or Regional Water Board;
2. The discharges comply with all of the applicable terms, prohibitions, and special conditions contained in these Special Protections; and
3. The discharges:

a. Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;
b. Are designed to prevent soil erosion;
c. Occur only during wet weather; and
d. Are composed of only storm water runoff.

Furthermore, the following non-storm water discharges are allowed, provided that the discharges are essential for emergency response purposes, structural stability, slope stability or occur naturally:

1. Discharges associated with emergency firefighting operations.
2. Foundation and footing drains.
3. Water from crawl space or basement pumps.
4. Hillside dewatering.
5. Naturally occurring groundwater seepage via a storm drain.
6. Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

See the City's Storm Water Standards – Construction BMP Standards to determine applicable non-storm water regulations.

1.8 SITE MAP DEVELOPMENT

A Site Map must be developed and included as Appendix A of this WPCP. The site map should be neat and legible. Several sheets may be used to illustrate the phasing of BMP implementation as construction progresses over time. When two or more sheets are used to illustrate the plan view, an index sheet is required. The Site Map must include all of the following, where applicable:

- Legend, north arrow, and scale of the drawing
- The site boundary and limits of construction;
- Key site features such as steep slopes, highly erodible soils, etc., including State and federal wetlands, if any;
- Storm water conveyance features including, but not limited to all streams and drainage ways delineated, all storm drain inlets and outlets, curb and gutter, swales and channels.
- Anticipated discharge points for construction wastewater (i.e. stormwater, groundwater, and construction wastewater such as dewatering byproducts);
- Drainage areas and direction of flow
- Location of nearby water bodies (including Clean Water Act Section 303(d) List of Impaired Segments in the site's vicinity)
- Location of entrance/exits to the project area
- Areas of soil disturbance and potential pollutant sources;
- Material, stockpile, and waste storage areas(e.g., trash, soil, fuel, construction materials);
- Vehicle and equipment fueling, wash and maintenance areas;

- Locations of portable sanitary facilities;
- Locations where underlying soil is potentially contaminated; and
- Locations of all BMP implementation areas (types of erosion and sediment controls, as well as dewatering and soil stabilization controls, where applicable).
- Location of building and activity areas (e.g., fueling islands, garages, waste container area, wash racks, hazardous material storage areas)

[Develop a Site Map that includes all the features listed above and include as Appendix A. Update as necessary.]

2.0 BEST MANAGEMENT PRACTICES

The BMPs listed in this WPCP will be implemented on a year-round basis throughout the project duration, not solely during seasons in which the probability of a rain event is high. All areas not in use for 14 days will be stabilized (i.e., exposed soil will be covered). Sufficient BMP materials will be maintained on-site to allow implementation with this WPCP and emergency installation in the event of a breech. Locations where BMPs will be implemented are to be shown on the Site Map in Appendix A.

BMPs must be implemented on construction sites to reduce pollution to the maximum extent practicable. The City's *Storm Water Standards*, which is available online at http://www.sandiego.gov/stormwater/regulations/index.shtml outlines the requirements for construction storm water BMPs. The following BMP categories must be addressed:

- Erosion control;
- Sediment control;
- Run-on and site storm water management;
- Materials management;
- Non-storm water management;
- Particulate and dust control; and
- Final stabilization.

BMPs from each of the above categories must be used together as a system in order to prevent potential pollutant discharges. Each category is generally described and applicable BMPs are listed in the following sections. Projects containing site features identified with a "yes" answer in Table 6 must utilize BMPs from the applicable BMP table(s). If no BMPs from a specific table are selected, an explanation must be provided. For BMP implementation details, refer to:

- California Stormwater Quality Association (CASQA) *Construction BMP Handbook Portal*, 2010, online at: http://www.casqa.org/LeftNavigation/ConstructionBMPHandbookPortalSWPPPTemplate/tabid/200/Default.aspx, (subscription required); and
- California Department of Transportation (Caltrans) *Construction Site BMP Handbook*, 2003, online at: http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM_303_Final.pdf.

2.1 EROSION CONTROL

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles and many have the secondary effect of increasing water infiltration. Erosion controls are provided in Table 7–9.

Erosion controls must be used in conjunction with sediment controls. Apply erosion controls as soon as grading and/or excavation are completed for any portion of the site, but no longer than 14 days after activity has ceased. Prior to and during rain events, slopes must be stabilized and erosion control BMPs must be maintained. Loose construction and landscaping materials, including stockpiles, must be covered and

bermed at the end of each work day. Plastic sheeting for erosion control should be avoided for long term use, except to cover stockpiles prior to rain events. Exposed areas shall be inspected frequently and if signs of erosion are observed, additional erosion control BMPs shall be implemented.

Scheduling/phasing construction is required on all sites to minimize soil exposure and soil disturbance during the rainy season. When planning grading activities, minimize slope length and gradient to the greatest extent possible to avoid erosion and to promote vegetation establishment. Ensure slopes are set back from the property boundary whenever possible. Inactive stockpiles should be covered and bermed (with jute netting and fiber rolls or similar).

[Select from the general erosion control BMPs from Table 7].

Table 7
General Erosion Control BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Scheduling/Phasing Construction	EC-1	SS-1	☒
Minimize Slope Length and Gradient	-	-	☐
Manage Soil Stockpiles	WM-3	WM-3	☐
If no BMPs were selected, explain the rationale:			
Describe any additional erosion control BMPs to be implemented:			
Describe where erosion and sediment control BMPs will be implemented/installed:			

2.1.1 Physical Stabilization

Physical stabilization consists of materials other than vegetation used to temporarily or permanently stabilize exposed areas. Materials used for physical stabilization should be determined based on site conditions. For example, geotextiles are generally installed where runoff is concentrated and are left in place long term. Jute erosion control blankets, hydraulic mulch, and soil binders are usually installed as temporary BMPs. Permanent physical stabilization may be necessary where vegetation cannot establish, such as on steep slopes, where topsoil has been removed, or where there is lack of water. Projects likely to discharge to Environmentally Sensitive Areas shall use high performance erosion control methods, such as bonded fiber matrix or anchored erosion control blankets on all exposed slopes.

Erosion control blankets, which can consist of jute, straw, coconut, and/or wood fiber, are common BMPs for stabilizing slopes. The type of blanket used usually depends on the longevity needed (see BMP references for details). Blankets need to be staked into the soil as specified by the manufacturer, keyed in on the top of the slope, and must have good soil contact to be effective (i.e., generally not suitable for rocky sites). Turf reinforced mats are installed in swales and ditches and are used in conjunction with vegetation (the roots lock the mat into the soil and further reduce erosion from high velocity flows).

Hydraulic mulch usually consists of wood fiber mulch, water, and sometimes soil binder. Bonded fiber matrix is similar, but the mulch material is long strand wood fibers that lock together with a bonding agent

and is also applied hydraulically. Soil binders can consist of natural materials, such as guar, or man-made polymers (although some may not function well on sandy soils). The longevity varies with different products; see the BMP references for details.

Straw is generally the material used for mulch; it should be punched into soil or covered with soil binder so that it does not blow or wash away. Chipped brush and trees may also be used as mulch and usually doesn't required application of soil binder. Vegetation grubbed from the site, chipped, and reapplied to exposed soils may also provide a seed bank for vegetation establishment. Mulch used in conjunction with seeding may also enhance vegetation establishment.

A compost blanket (a layer of compost on the soil surface) can be a very effective BMP and can be used on rocky slopes. An added benefit of compost is that can enhance vegetation establishment while protecting again erosion. The thickness of the compost layer needed is dependent upon the slope gradient (see BMP resources for details). Soil binder in conjunction with compost blanket is usually not necessary. Compost can be applied by hand, with a compost blower, or hydraulically (certain proprietary brands are designed to be applied with hydroseeding equipment).

Roughening a slope reduces the slope's erodibility. Although when used alone, soil roughening does not meet final stabilization requirements and, therefore, is generally used to prepare soil for seeding application, as it provides micro-sites for seed germination. This is performed by mechanical methods such as track-walking, sheep's foot rolling, scarifying, etc.

Reapplying topsoil consists of removing and stockpiling topsoil in areas to be graded or cut. Reapplying the topsoil after grading is completed can provide seed, organic matter, symbiotic fungi, and other elements beneficial to vegetation establishment. The topsoil stockpile must be covered if it will be inactive for over 14 days; however, plastic materials should not be used, as they can sterilize the soil. Jute or straw erosion control blankets are recommended.

Permanent stabilization may consist of retaining walls, rock gabions (wire mesh blocks filled with rock that can be stacked), rock, etc. These features are used on or to support steep slopes or where water velocities/wave action is high (i.e., sea walls, etc.)

[Select physical stabilization BMPs from Table 8.]

Table 8
Physical Stabilization BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Erosion Control Blankets and Turf Reinforced Mats	EC-7	SS-7	☒
Hydraulic Mulch and Bonded Fiber Matrix	EC-3, EC-5	SS-3	☐
Soil Binders	EC-5	SS-5	☐
Mulch	EC-6, EC-8, EC-14	SS-6, SS-8	☐
Compost Blankets	EC-14	-	☐
Soil Roughening	EC-15	-	☐

Table 8 (Continued)
Physical Stabilization BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Topsoil Reapplication	-	-	☐
Permanent Stabilization (i.e., retaining walls, rock gabions, rock riprap, etc.)	-	-	☐
Other Material (to be approved by the City)	EC-16	-	☐
If no BMPs were selected, explain the rationale:			
Describe any additional physical stabilization BMPs to be installed:			
Describe where physical stabilization BMPs will be installed:			

2.1.2 Vegetation Stabilization

Vegetation must be installed, irrigated, and established (to uniform vegetative coverage with 70 percent coverage) prior to October 1. In the event that stabilizing vegetation has not been established by October 1, other forms of physical stabilization (see previous section) must be employed to prevent erosion until the vegetation is established.

Preserving existing vegetation to the maximum extent possible reduces the need for vegetation re-establishment and is recommended. Areas where vegetation is to be protected need to be clearly marked on the site to avoid accidental removal. Where preservation is not feasible, interim and permanent vegetation/landscaping can be established by seeding; hydroseeding; and installing plugs, sod, or container stock. Begin re-establishing permanent vegetation as early in the project as feasible. The soil should be prepared prior to seeding and the use of compost blankets or straw mulch in conjunction with seeding is recommended. Streambank stabilization is often accomplished with willow staking and live brush mats (see BMP references for details).

[Select from the vegetation stabilization BMPs from Table 9.]

Table 9
Vegetation Stabilization BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Preserve Existing Vegetation	EC-2	SS-2	☐
Establish Interim Vegetation	EC-4	SS-4	☐
Establish Permanent Landscaping	-	-	☒

Table 9 (Continued)
Vegetation Stabilization BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Streambank Stabilization	EC-12	SS-12	☐
If no BMPs were selected, explain the rationale:			
Describe any additional vegetation stabilization BMPs to be implemented:			
Describe where vegetation stabilization BMPs will be installed:			

2.2 SEDIMENT CONTROL

The goal of sediment control is to capture soil particles which have become detached from disturbed areas by water or wind. Sediment controls, consisting of perimeter control, resource protection, sediment capture, and off-site sediment tracking control (as described below) are required year-round and must be installed and maintained to comply with performance standards of the *Storm Water Standards* (City of San Diego 2012), Section 5.1. Sediment control BMPs are provided in Tables 10–13. They should be used in conjunction with erosion controls.

2.2.1 Perimeter Control

Perimeter control BMPs must be installed and maintained year round and upgraded during the rainy season to comply with performance standards from the *Storm Water Standards* (City of San Diego 2012), Section 5.1. They may consist of silt fencing, gravel bag barriers, fiber rolls (straw wattles), or compost socks/berms. All of the BMPs listed, except gravel bag barriers and compost socks, must be trenched in and backfilled to be effective. Gravel bags and fiber rolls should be stacked if necessary so that storm water cannot flow over the top. Sand bags are not recommended; if the bag is compromised, the sand can be a pollutant source. Certain types of compost socks may also be effective at filtering pollutants other than sediment, including metals and oil/grease.

[Select perimeter control BMPs from Table 10.]

Table 10
Perimeter Control BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Silt Fencing	SE-1	SC-10	☒
Gravel Bag Barriers	SE-6	SC-6	☐
Fiber Rolls or Straw Wattles	SE-5	SC-5	☐

Table 10 (Continued)
Perimeter Control BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Compost Socks and Berms	SE-13	-	☐
If no BMPs were selected, explain the rationale:			
Describe any additional perimeter control BMPs to be implemented:			
Describe where perimeter control BMPs will be installed:			

2.2.2 Resource Protection

Year-round protection of waterways and sensitive areas is required. Linear protection may be installed using silt fencing, gravel bag barriers, fiber rolls, and/or compost socks/berms. Linear protection should be installed between the construction area and the sensitive area. However, it should not be installed up and down a slope, which can cause erosion.

The *Storm Water Standards*, Section 5.1.2 requires preserving natural hydraulic features and riparian area buffers where possible. Additionally, BMPs must be implemented for performing demolition adjacent to a water body (such as installing turbidity curtains) and crossing waterways, dry conveyances, or areas where storm water flows.

[Select at least one BMP from Table 11 if resources, such as water bodies and sensitive areas, are located within or adjacent to the site.]

Table 11
Resource Protection BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Linear Protection	SE-1, SE-6, SE-5, SE-13	SC-10, SC-6, SC-5	☒
Preserve Natural Hydraulic Features and Riparian Area Buffers	-	-	☐
Demolition Adjacent to Water	NS-15	NS-15	☐

Table 11 (Continued)
Resource Protection BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Temporary Stream Crossing	NS-4	-	☐
If no BMPs were selected, explain the rationale:			
Describe any additional resource protection BMPs to be implemented:			
Describe where resource protection BMPs will be installed:			

2.2.3 Sediment Capture

Sediment in storm water is generally captured by gravity-based (i.e., sediment traps and basins) and passive filtration systems (i.e., silt fence, fiber rolls, etc.). Active treatment systems, which use chemical to flocculate sediments from the water, can be used; however, an additional plan and operator certifications are needed.

Storm drain inlet filters are considered "last resort" BMPs, which are designed to capture only small amounts of sediment. Controlling sediment should begin upstream of the storm drain inlet, via erosion and sediment controls installed at the source. Good housekeeping (i.e., street sweeping and maintaining stabilized entrances/exits) should be performed throughout the life of the project. Check dams may also be installed in the gutter upstream of the drain to slow the velocity of runoff and pre-filter before reaching the drain. Block and gravel filters, which will likely allow higher velocities of runoff to flow through than gravel bags, and compost socks, which allow for moderate runoff flow-through and also may filter metals and oil/grease are recommended.

Sediment basins must be designed in accordance with an industry standard, such as Caltrans's *Construction Site Best Management Practices Manual* (2003). If the project is 1 acre or greater, basins must be designed according to CASQA's *Construction BMP Guidance Handbook*, as per the Construction General Permit. See also, County of San Diego's *Standard Lot Perimeter Protection Design System*, PDS# 659, which allows runoff retention of storm water on flat (less than 3 percent slope) sites, less than an acre in size with applicable perimeter controls, outlet protection, maximum detention time, and inspection/maintenance. If utilizing an active treatment system on-site, refer to Construction General Permit, Attachment F and *Storm Water Standards* (City of San Diego 2012), Section 5.4.2.

[Select from the sediment capture BMPs from Table 12.]

Table 12
Sediment Capture BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Storm Drain Inlet Protection	SE-10	SC-10	☒
Sediment Trap	SE-3	SC-3	☐
Sedimentation Basin	SE-2	SC-2	☐
Active Treatment System	SE-11	-	☐
If no BMPs were selected, explain the rationale:			
Describe any additional sediment capture BMPs to be implemented:			
Describe where sediment capture BMPs will be implemented/installed:			

2.2.4 Off-Site Sediment Tracking

Off-site sediment tracking BMPs must be installed and maintained year-round at entrances/exits to comply with performance standards from the *Storm Water Standards* (City of San Diego 2012), Section 5.1. The construction site entrance/exit needs to be stabilized to ensure tracking does not occur. If minimal amounts of sediment tracking are anticipated, shaker plates or similar may be used. However, if larger amounts of sediment tracking or clayey soils are expected, the entrance/exits should be stabilized with 3-6-inch rock overlaying filter fabric, 50 feet by 30 feet minimum, with the length corresponding to the anticipated level of tracking. A tire wash may be installed, if necessary, but must be frequently inspected and maintained to ensure non-storm water discharges to not occur. The entrance/exit should be designed so that vehicles and equipment cannot be driven around the stabilization measures. Construction roads should be stabilized with road base or soil binder to prevent wind and water erosion.

Roads adjacent to the site should be swept or vacuumed when sediment or construction debris has been deposited. Adjacent roads should be inspected daily to ensure tracking is not occurring.

[Select from the off-site sediment tracking BMPs from Table 13.]

Table 13
Off-Site Sediment Tracking BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Construction Entrance/Exit Stabilization	TC-1	TC-1	☒
Construction Road Stabilization	TC-2	-	☐
Tire Wash	TC-3	TC-3	☐

Table 13 (Continued)
Off-Site Sediment Tracking BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Street Sweeping and Vacuuming	SE-7	SC-7	☒
If no BMPs were selected, explain the rationale:			
Describe any additional off-site sediment tracking BMPs to be implemented:			
Describe where off-site sediment tracking BMPs will be implemented/installed:			

2.3 RUN-ON AND SITE STORM WATER MANAGEMENT CONTROLS

All run-on, runoff within the site, and runoff that discharges off-site, must be managed to prevent erosive flows. Run-on and site storm water management BMPs are provided in Table 14. Runoff from the site must be directed away from all disturbed areas. If runoff or dewatering operation discharges are concentrated, velocity must be controlled using an energy dissipater. Discharge points and discharge flows must be free of pollutants, including sediment.

Run-on to the site should be diverted around the site if possible. Check dams are used to reduce velocity of concentrated flows, limit erosion in channels, and trap sediment. They can be installed in gutter to reduce sediment loading to storm drain inlets. Slope drains and drainage swales should be used to convey runoff downslope without causing erosion. Slope drains and sediment trap/basin outlets require outlet protection to prevent erosion in this area.

[Select run-on and site storm water management BMPs from Table 14.]

Table 14
Run-On and Site Storm Water Management BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Divert Run-on from Surrounding Areas	EC-9, SE-5, SE-6, SE-13	SC-5, SS-9, SC-6, NS-5	☐
Check Dams	SE-4	SC-4	☐
Slope Drains and/or Stabilized Drainage Swales	EC-9, EC-11	SS-9, SS-11	☐
Outlet Protection	EC-10	SS-10	☒
If no BMPs were selected, explain the rationale:			
Describe any additional run-on and site storm water management BMPs to be implemented:			
Describe where run-on and site storm water management BMPs will be implemented/installed:			

2.4 MATERIALS AND WASTE MANAGEMENT CONTROLS

BMPs must be installed to control all construction and waste materials. Additionally, construction-related materials, spills, and residues must be prevented from entering the MS4. Materials and waste management BMPs are provided in Table 15–18. Keep an inventory of construction materials that will be used outdoors and exposed to precipitation, other than those designed for this purpose (i.e., poles, bricks, etc.). Designate materials loading, unloading, and storage areas. Do not perform activities during a rain event that may contribute to storm water pollution (i.e., loading/ unloading, etc.) and minimize exposure of construction materials to precipitation.

2.4.1 Spill Control

Post procedures for storage, clean-up, and spill-reporting for hazardous materials and wastes in open, conspicuous, and accessible locations adjacent to storage areas. Ensure all on-site staff receives spill prevention, control, and reporting training. Ample spill controls materials should be stored on-site. Significant spills must be reported to the City Enforcement Agency within 24 hours.

[Select spill control BMPs from Table 15.]

Table 15
Spill Control BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Spill Prevention and Control	WM-4	WM-4	☒
Reporting Significant Spills	-	-	☐
If no BMPs were selected, explain the rationale:			
Describe any additional spill control BMPs to be implemented:			
Describe where spill control BMPs will be implemented/installed:			

2.4.2 Waste Management

Wastes must be fully managed to prevent discharges to the MS4. Properly designate and protect waste storage areas. Waste disposal containers must be free of leaks and covered at the end of every business day and during rain events.

Liquid waste management includes, but is not limited to, wash water, or accumulated storm water that has come into contact with pollutants. In some cases, a system to collect liquid wastes from the ground (via vacuuming or collecting in a temporary capture device) may be necessary.

Install secondary containment for, and stake down, portable restrooms to prevent leaks and blow-over. Portable restrooms must be located away from storm water conveyance features and vehicle/equipment traffic. Stockpiled waste materials must be secure and protected from wind and rain at all times unless actively being used. Waste stockpiles must be covered and bermed unless actively being used. Remove waste stockpiles from the site as soon as possible.

[Select waste management BMPs from Table 16].

Table 16
Waste Management BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Solid Waste Management	WM-5	WM-5	☒
Liquid Waste Management	WM-10	WM-10	☒
Contaminated Soil Management	WM-7	WM-7	☐
Sanitary Waste Management	WM-9	WM-9	☒
Concrete Waste Management	WM-8	WM-8	☒
Hazardous Waste Management	WM-6	WM-6	☒
Stockpiled Waste Management	WM-3	WM-3	☒
If no BMPs were selected, explain the rationale:			
Describe any additional waste management BMPs to be implemented:			
Describe where waste management BMPs will be implemented installed:			

2.4.3 Material Storage and Handling

Manage and store construction materials, chemicals (including paints, solvents, glue/epoxy, primers thinners, liquid asphalts and emulsions, and hazardous materials) so that they will not spill or leak and will not pollute storm water. Cover or store materials indoors and provide secondary containment for materials not designed to come into contact with storm water. Paving and concrete materials should be properly contained and covered if necessary. Slurries from cutting activities should be vacuumed and disposed of off-site. Storm drain inlets downstream of paving and concrete activities should be covered while handling or using materials that could discharge to the storm drain system.

[Select material storage and handling BMPs from Table 17.]

Table 17
Material Storage and Handling BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Material Storage	WM-1	WM-1	☒
Material Handling	WM-2	WM-1	☒

Table 17 (Continued)
Material Storage and Handling BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Paving and Grinding Operations	NS-3	NS-3	☒
Concrete Management	NS-12, NS-13, NS-16	NS-12, NS-14	☒
If no BMPs were selected, explain the rationale:			
Describe any additional material storage and handling BMPs to be implemented:			
Describe where material storage and handling BMPs will be implemented/installed:			

2.4.4 Vehicle and Equipment Management

Vehicle and equipment management BMPs are needed if these will be used, fueled, maintained, and/or parked onsite. Storage, service, cleaning, and maintenance areas for vehicles and equipment shall be identified with signage and fully contained. Spill materials should always be available during fueling and fueling operations should not be left unattended. If fueling or maintaining equipment in the field is performed, drip pans should be used to capture spills. Also utilize drip pans under leaking equipment or vehicles, inspect the pans regularly to prevent overflow, and remove leaking vehicles/ equipment from the site as soon as feasible.

[Select vehicle and equipment management BMPs from Table 18.]

Table 18
Vehicle and Equipment Management BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Vehicle and Equipment Fueling	NS-9	NS-9	☐
Vehicle and Equipment Maintenance	NS-10	NS-10	☐
If no BMPs were selected, explain the rationale:			
Describe any additional vehicle and equipment management BMPs to be implemented:			
Describe where vehicle and equipment management BMPs will be implemented/installed:			

2.5 NON-STORM WATER MANAGEMENT CONTROLS

Non-storm water discharges are defined as any discharges to the storm water conveyance system that is not entirely composed of storm water. Non-storm water management BMPs are provided in Table 19. Non-storm water discharges must be eliminated or controlled to the maximum extent practicable. See Section 1.7 for a list of allowable discharges to the City's MS4. All non-storm water discharges shall be controlled by implementing water conservation practices, implementing good housekeeping techniques, and implementing a program to detect and eliminate illicit discharges.

The site should be inspected frequently for illicit connections and discharges. If observed, action should be taken as soon as possible to halt the connection/discharge. Illicit discharges to the City's MS4 should be reported to the City Enforcement Agency within 24 hours. Overspray and overwatering of vegetation for erosion control and landscaping should be avoided. Water line breaks should be repaired as soon as possible. Vehicle and equipment cleaning should be performed off-site if possible or otherwise in a location where wash water will drain to the sanitary sewer.

Dewatering uncontaminated (i.e., free of sediment or any other pollutant) groundwater is allowable, but may require additional permitting depending on the discharge location (i.e., see the San Diego RWQCB's Order No. R9-2007-0034, Order No. R9-2008-0002 and General Conditional Waiver No. 2). If discharging groundwater to the sanitary sewer, a Request for Authorization must be submitted to the City Public Utilities Department. Dewatering of accumulated, uncontaminated storm water is allowable if the discharges are monitored/visually observed.

[Select non-storm water management BMPs from Table 19.]

Table 19
Non-Storm Water Management BMPs

Best Management Practices	References		Check at least one BMP
	CASQA BMP	Caltrans BMP	
Illicit Connection/Discharge Control	NS-6	NS-6	☒
Potable Water/Irrigation	NS-7	NS-7	☒
Vehicle and Equipment/Cleaning	NS-8	NS-8	☐
Water Conservation Practice	NS-1	NS-1	☐
Dewatering Operations	NS-2	NS-2	☐
If no BMPs were selected, explain the rationale:			
Describe any additional non-storm water management BMPs to be implemented:			
Describe where non-storm water management BMPs will be implemented/installed:			

2.6 PARTICULATE AND DUST CONTROL

Wind erosion control BMPs are implemented to prevent the air deposition of site materials and site operations. Particulate and dust control BMPs are provided in Table 20. Such particulates can include sediment, nutrients, trash, metals, bacteria, oil/grease, and organics. Ensure a water truck is available

while construction activities are being performed, especially when soil and stockpiled material is being handled. Spray exposed soils with water or soil binder via water truck. Ensure construction materials are not discharged through the air. Do not perform activities that may discharge particulates on windy days.

[Select particulate and dust control BMPs from Table 20.]

Table 20
Particulate and Dust Control BMPs

Best Management Practices	References		Check BMP, if applicable
	CASQA BMP	Caltrans BMP	
Wind Erosion Control	WE-1	WE-1	☒
If no BMPs were selected, explain the rationale:			
Describe any additional particulate and dust control BMPs to be implemented:			
Describe where particulate and dust control BMPs will be implemented:			

2.7 FINAL STABILIZATION

For a construction project to be considered complete, all of the following conditions must be met:

- The site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity.
- There is no potential for construction-related storm water pollutants to be discharged into site runoff.
- Final stabilization has been reached by one of the following:
  - Attaining 70 percent uniform vegetative cover or equivalent stabilization measures[1], such as: erosion control blankets, reinforced channel liners, and geotextiles;
  - Calculating annual average soil loss with the Revised Universal Soil Loss Equation (RUSLE) or RUSLE2 for pre- and post-construction to demonstrate that the site will not yield more sediment than prior to construction; or
  - Otherwise demonstrating that final stabilization has been achieved.

[1] Where background native vegetation covers less than 100 percent of the surface, the 70 percent coverage criteria is adjusted as follows: if the native vegetation covers 50 percent of the ground surface, 70 percent of 50 percent (0.70 X 0.50 = 0.35) would require 35 percent total uniform surface coverage.

- Construction materials, temporary BMPs, and wastes have been removed from the site.
- Post-construction BMPs, if required, have been effectively implemented.

Final stabilization BMPs are provided in Table 21.

[Select the final stabilization BMP in Table 21.]

Table 21
Final Stabilization BMP

Best Management Practices	References		Check BMP
	CASQA BMP	Caltrans BMP	
Final Stabilization	-	-	☒
Describe final stabilization BMPs: Entire site will be paved or covered with landscaping.			
Describe where final stabilization BMPs will be installed:			

3.0 BEST MANAGEMENT PRACTICE MAINTENANCE AND INSPECTION

Construction is a dynamic operation where changes are expected. Construction site activities can damage BMPs. Storm water BMPs for construction sites are typically temporary measures that require frequent maintenance to maintain effectiveness. BMPs facilities may require relocation, revision and re-installation, particularly as project grading progresses.

3.1 BMP MAINTENANCE

Best management practice maintenance requirements are listed in Table 22. The following subsections describe the inspection program responsibilities and requirements.

Table 22
BMP Maintenance Requirements

Best Management Practices	Maintenance Requirements
Scheduling/Phasing Construction	Periodically review construction schedule to determine if activity during the rainy season can be minimized.
Minimize Slope Length and Gradient	Not applicable.
Manage Soil Stockpiles	Replace compromised covers and berms. Ensure stockpiled material is within the bermed area. Store ample supplies of cover material and fiber rolls on site.
Erosion Control Blankets and Turf Reinforced Mats	Replace compromised blankets and mats. Ensure good soil contact.
Hydraulic Mulch and Bonded Fiber Matrix	Reapply if signs of erosion are observed.
Soil Binders	Reapply if signs of erosion are observed.
Mulch	Reapply where soil is exposed.
Compost Blankets	Reapply where soil is exposed.
Soil Roughening	Not applicable.
Topsoil Reapplication	Not applicable.
Permanent Stabilization (i.e., retaining walls, rock gabions, rock riprap, etc.)	Remove accumulated sediment and debris.
Other Material (to be approved by the City)	Remove accumulated sediment and debris.
Preserve Existing Vegetation	Ensure protected vegetation is clearly marked.
Establish Interim Vegetation	Reapply seed or replant stock if vegetation does not establish.
Establish Permanent Landscaping	Reapply seed or replant stock if vegetation does not establish.
Streambank Stabilization	Reinstall if stabilization does not establish.

Table 22 (Continued)
BMP Maintenance Requirements

Best Management Practices	Maintenance Requirements
Silt Fencing	Replace compromised silt fence. Ensure fence is trenched and backfilled. Removed sediment accumulated to 1/3 the fence height.
Gravel Bag Barriers	Replace every 2-3 months as bags degrade. Remove sediment accumulated to 1/3 the bag height.
Fiber Rolls or Straw Wattles	Replace compromised rolls. Ensure rolls are trenched in and backfilled. Remove sediment accumulated to 1/3 the roll height.
Compost Socks and Berms	Replace compromised socks. Remove sediment accumulated to 1/3 the sock height.
Linear Protection	See applicable BMPs.
Preserve Natural Hydraulic Features and Riparian Area Buffers	Not applicable.
Demolition Adjacent to Water	Empty debris-catching devices daily. Ensure collected debris is stored away from the watercourse.
Temporary Stream Crossing	Repair if signs of erosion are observed. Replace displaced aggregate from culvert inlets and outlets.
Storm Drain Inlet Protection	Repair compromised protection. Remove accumulated sediment and debris.
Sediment Trap	Corrective measures should be taken if the BMP does not dewater completely in 96 hours or less to prevent vector production. Repair if trap is compromised or signs of erosion are noted at the outlet. Remove accumulated sediment when it reaches 1/3 capacity.
Sedimentation Basin	Corrective measures should be taken if the BMP does not dewater completely in 96 hours or less to prevent vector production. Repair if trap is compromised or signs of erosion are noted at the outlet. Remove accumulated sediment when it reaches 1/3 capacity.
Active Treatment System	See manufacturer's recommendations and CASQA guidance.
Construction Entrance/Exit Stabilization	Install prior to construction start; replace gravel when surface voids are visible; remove post-construction.
Construction Road Stabilization	Install prior to construction start; replace gravel when surface voids are visible; remove post-construction.
Tire Wash	Remove accumulated sediment to maintain system performance. Ensure non-storm water discharges are not occurring.
Street Sweeping and Vacuuming	Implement as soon as possible upon sediment deposition.

Table 22 (Continued)
BMP Maintenance Requirements

Best Management Practices	Maintenance Requirements
Divert Run-on from Surrounding Areas	Ensure that diversions are effective.
Check Dams	Remove accumulated sediment and debris when it reaches 1/3 the height of the dam.
Slope Drains and/or Stabilized Drainage Swales	Replace/repair if visible signs of erosion are observed.
Outlet Protection	Remove accumulated sediment and debris when observed in protection devices.
Spill Prevention and Control	Ensure that ample supplies of spill cleanup materials are stored onsite and within vehicles and equipment.
Reporting Significant Spills	Ensure that on-site staff receives spill cleanup and reporting training.
Solid Waste Management	Arrange for waste collection as necessary; remove deposited solids in containment areas and collection devices; inspect and repair containment areas and capturing devices.
Liquid Waste Management	Arrange for waste collection as necessary; remove liquid wastes containment areas and collection devices; inspect and repair containment areas and capturing devices.
Contaminated Soil Management	Ensure that contaminated soil stored on-site is covered and bermed at all times and does not have the potential to contact storm water or groundwater.
Sanitary Waste Management	Coordinate with a local contractor for frequent inspection and maintenance.
Concrete Waste Management	Repair concrete washout when compromised. Ensure adequate freeboard prior to rain events. Remove accumulated waste when 1/3 capacity.
Hazardous Waste Management	Keep storage areas clean and organized; store ample cleanup supplies on site; control storage area perimeter; repair containment structures, covers, and liners as necessary.
Stockpiled Waste Management	Ensure that stockpiled waste is covered and bermed at all times, unless actively using.
Material Storage and Handling	Store ample supplies of spill cleanup materials onsite; clean and organize storage areas; repair perimeter controls, containment structures, covers, and liners; spot check materials use throughout the construction period to ensure proper practices are utilized.
Paving and Grinding Operations	Arrange for regular collection of paving wastes. Inspect storm drains near paving to ensure their cover.

Table 22 (Continued)
BMP Maintenance Requirements

Best Management Practices	Maintenance Requirements
Concrete Management	Remove and dispose of hardened concrete as needed. Concrete waste facilities must be cleaned, or new facilities must be constructed and ready for use once facilities are 75% full. Inspect concrete waste facilities for damage (e.g. torn liner, evidence of leaks, signage, etc.). Repair all identified damage.
Vehicle and Equipment Fueling	Resupply on-site spill cleanup materials; clean up spills, properly dispose of contaminated soil and clean up materials;
Vehicle and Equipment Maintenance	Inspect vehicles and equipment for leaks; if possible, prohibit washing vehicles on-site; ensure equipment wash water discharges to the sanitary sewer.
Illicit Connection/Discharge Control	Prohibit staff and subcontractors from disposing of debris on site; notify owner/operator of illicit connections or discharge incidents immediately.
Potable Water/Irrigation	Repair broken lines and correct irrigation overspray as soon as possible.
Vehicle and Equipment/Cleaning	Ensure washing discharges to not leave the site.
Water Conservation Practice	Repair water equipment as needed to prevent non-storm water discharges.
Dewatering Operations	Ensure dewatering is not causing erosion, discharges do not contain pollutants, and activities are continuously monitored.
Final Stabilization	Not applicable.

3.2 BMP INSPECTIONS

Routine inspections are necessary to ensure the integrity and effectiveness of BMPs, and helps protect a site from unexpected weather events. Project owners or contractors should perform daily inspections to identify BMPs in need of maintenance. Self-inspections are to be performed by a QCP, as described in the following section. Upon identifying failures or other maintenance items, repairs or design changes to BMPs should be completed as quickly as feasible.

3.2.1 Qualified Contact Person

A QCP, as per the *Storm Water Standards* (City of San Diego 2012) definition, is to be assigned for the project. The QCP is to be specifically trained in storm water pollution prevention, including the installation and maintenance of sediment and erosion control measures. The QCP may designate additional, trained persons to assist with QCP responsibilities. The specific duties of the QCP and persons delegated by the QCP are:

- Coordinating with the appropriate City representatives to ensure the project complies with the WPCP and approved plans at all times;

- Implementing all elements of the WPCP, including prompt and effective erosion, sediment, tracking, and wind erosion control measures and management of non-storm water discharges and construction materials and liquid, solid, and hazardous wastes;
- Assigning authority to mobilize crews in order to conduct immediate and complete BMP repairs and providing storm water pollution prevention training;
- Tracking weather conditions, as reported on the National Weather Service Forecast's website [http://www.noaa.gov/wx.html]);
- Performing self-inspections;
- Informing the proper City representatives of non-compliance, such as unauthorized discharges, illicit connections or dumping activities, and immediately correcting the problems;
- Overseeing site stabilization;
- Ensuring that the WPCP is available onsite at all times during business hours; and
- Ensuring that WPCP records are retained for a minimum of three years

[Complete Table 23 with the name and contact information for the QCP and any additional persons designated by the QSP.]

Table 23
Qualified Contact Person and Designees

	Name	Company/ Organization	Phone Number
Qualified Contact Person	**David Yeh**	**Landmark Consulting**	**858-587-8070**
Additional Persons Designated by the Qualified Contact Person			

3.2.2 Self-Inspections

The QCP or his/her designees is required to perform self-inspections, as per the *Storm Water Standards.* The objectives are to:

- Demonstrate the site is in compliance with the City's *Storm Water Standards* (2012) and San Diego Municipal Code Sect. 43.03;
- Ensure that storm water BMPs are properly documented, implemented, and effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges;
- Identify BMP maintenance (i.e., sediment removal) and repair needs;

- Ensure that the site-specific WPCP is fully implemented and updated; and
- Ensure final stabilization of the site before demobilization.

The *Storm Water Standards* (City of San Diego 2012) requires performing self-inspections throughout the life of the project (until final stabilization is achieved). Self-inspections are not required during dangerous weather conditions such as flooding and electrical storms or outside of scheduled site business hours. Self-inspections are to be performed:

- At 24-hour intervals during extended rainfall events;
- During the rainy season, daily while grading operations are being conducted; and
- During the dry season, weekly.

During self-inspections, the QCP or designee should identify and record BMPs that are in need of maintenance to operate effectively, have failed, or could fail to operate as intended and if additional BMPs are needed. If additional BMPs are necessary, the WPCP should be revised accordingly. All self-inspections must be documented using a checklist. The self-inspection checklist shall also note the date, time, and weather conditions during the inspection. Completed checklists should be made available upon request. During self- inspections, storm water discharges must be monitored to determine the presence of pollutants. If any failures or deficiencies are identified, repairs or design changes should begin to be implemented within 72 hours and noted on the self-inspection checklist.

3.2.3 Recordkeeping and Reports

Records for the following items should be retained for a minimum of three years:

- Completed site inspection forms;
- Training documentation (if any);
- Discharge reports (if any); and
- WPCP and amendments (if any).

4.0 REFERENCES

California Department of Transportation (Caltrans)
2003 *Storm Water Quality Handbook SWPPP/WPCP Preparation Guide*. February 1.

California Stormwater Quality Association (CASQA)
2003 *Construction Stormwater BMP Handbook*. January.

City of San Diego
2012 *Storm Water Standards*. Available online at: http://www.sandiego.gov/thinkblue/pdf/stormwatermanual.pdf. January 20.

San Diego Regional Water Quality Control Board (RWQCB)
2013 Order No. R9-2013-0001, *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region*. Available online at: http://www.waterboards.ca.gov/rwqcb9/water_issues/programs/stormwater/docs/updates052313/2013-0523_Order_No._R9-2013-0001_COMPLETE.pdf . May 8.

State Water Resources Control Board (SWRCB)
2009 *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Water Quality Order 2009-0009-DWQ*, General Permit No. CAS000002. Available online at: http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml

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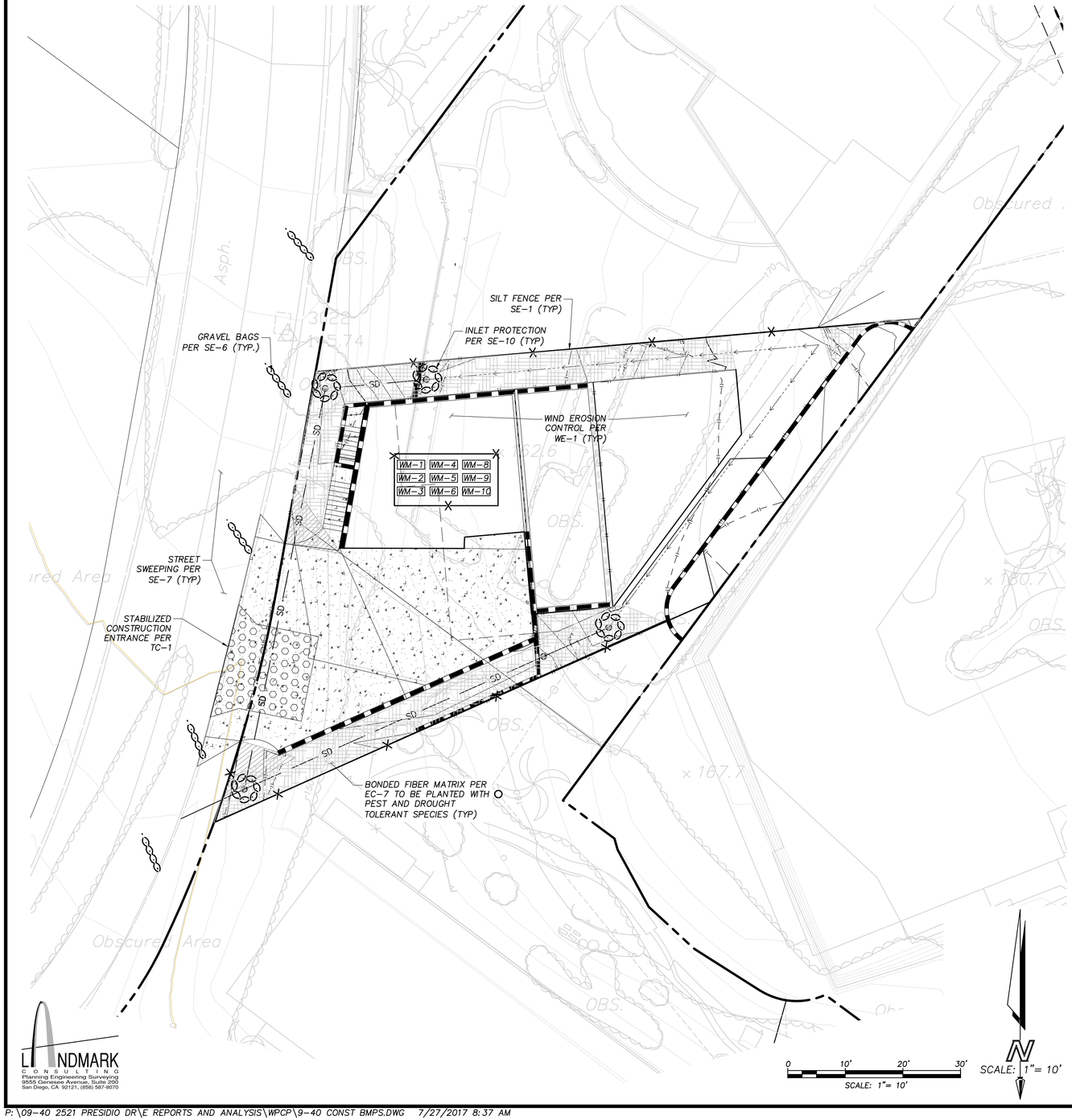
A SITE MAP

CONSTRUCTION BMP MAP

TENTATIVE PARCEL MAP NO. 1867767

COSOY LOT SPLIT



LANDMARK
CONSULTING
Planning Engineering Surveying
9555 Genesee Avenue, Suite 200
San Diego, CA 92121, (858) 587-6070

LEGEND

GRAVEL BAGS PER SE-6	
MATERIAL DELIVERY AND STORAGE	WM-1
MATERIAL HANDLING	WM-2
STOCKPILED WASTE MANAGEMENT	WM-3
SPILL PREVENTION AND CONTROL	WM-4
SOLID WASTE MANAGEMENT	WM-5
HAZARDOUS WASTE MANAGEMENT	WM-6
CONCRETE WASTE MANAGEMENT	WM-8
SANITARY WASTE MANAGEMENT	WM-9
LIQUID WASTE MANAGEMENT	WM-10
SILT FENCE PER SE-1	—— —— X ——
BONDED FIBER MATRIX PER EC-7	
STABILIZED CONST. ENTRANCE PER TC-1	
INLET PROTECTION PER SE-10	

REGISTERED PROFESSIONAL ENGINEER
MARK A. BRENCICK
NO. 48153
EXP. 6/30/18
CIVIL
STATE OF CALIFORNIA

DATE OF PREPARATION:

NO.	DATE	REVISION
1	11-15-2016	ORIGINAL SUBMITTAL
2		
3		
4		

P:\09-40 2521 PRESIDIO DR\E REPORTS AND ANALYSIS\WPCP\9-40 CONST BMPS.DWG 7/27/2017 8:37 AM

B CERTIFICATION

Appendix B

This WPCP must be certified by the applicant.

[Please sign and date below.]

The applicant must print and sign the following certification before a permit will be issued.			
I have read and understand that the City of San Diego has adopted minimum requirements for managing urban runoff, including storm water from construction and land development activities. I certify that the BMPs selected on this form will be implemented to minimize the potentially negative impacts of this project's construction and land development activities on water quality. I further agree to install, monitor, maintain, or revise the selected BMPs to ensure their effectiveness. I also understand that non-compliance with the City's Storm Water Standards may result in enforcement by the City, including fines, cease and desist orders, or other actions. I further understand that approval of this WPCP does not relieve me of my responsibility to comply with storm water regulations including the protection of adjacent properties from inundation as a result of my construction activities.			
Applicant Signature:		**Date:**	

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C CITY OF SAN DIEGO FORM DS-560, STORM WATER REQUIREMENTS APPLICABILITY CHECKLIST

City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101
(619) 446-5000

Storm Water Requirements Applicability Checklist

FORM DS-560
October 2016

Project Address: 2524 Presidio Drive

Project Number *(for City Use Only)*:

SECTION 1. Construction Storm Water BMP Requirements:

All construction sites are required to implement construction BMPs in accordance with the performance standards in the Storm Water Standards Manual. Some sites are additionally required to obtain coverage under the State Construction General Permit (CGP)[1], which is administered by the State Water Resources Control Board.

For all projects complete PART A: If project is required to submit a SWPPP or WPCP, continue to PART B.

PART A: Determine Construction Phase Storm Water Requirements.

1. Is the project subject to California's statewide General NPDES permit for Storm Water Discharges Associated with Construction Activities, also known as the State Construction General Permit (CGP)? (Typically projects with land disturbance greater than or equal to 1 acre.)

☐ Yes; SWPPP required, skip questions 2-4 ☒ No; next question

2. Does the project propose construction or demolition activity, including but not limited to, clearing, grading, grubbing, excavation, or any other activity resulting in ground disturbance and contact with storm water runoff?

☒ Yes; WPCP required, skip 3-4 ☐ No; next question

3. Does the project propose routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility? (Projects such as pipeline/utility replacement)

☐ Yes; WPCP required, skip 4 ☐ No; next question

4. Does the project only include the following Permit types listed below?

- Electrical Permit, Fire Alarm Permit, Fire Sprinkler Permit, Plumbing Permit, Sign Permit, Mechanical Permit, Spa Permit.
- Individual Right of Way Permits that exclusively include only ONE of the following activities: water service, sewer lateral, or utility service.
- Right of Way Permits with a project footprint less than 150 linear feet that exclusively include only ONE of the following activities: curb ramp, sidewalk and driveway apron replacement, pot holing, curb and gutter replacement, and retaining wall encroachments.

❑ Yes; no document required

Check one of the boxes below, and continue to PART B:

☐ If you checked "Yes" for question 1, **a SWPPP is REQUIRED. Continue to PART B**

☒ If you checked "No" for question 1, and checked "Yes" for question 2 or 3, **a WPCP is REQUIRED.** If the project proposes less than 5,000 square feet of ground disturbance AND has less than a 5-foot elevation change over the entire project area, a Minor WPCP may be required instead. **Continue to PART B.**

☐ If you checked "No" for all questions 1-3, and checked "Yes" for question 4 PART B **does not apply and no document is required. Continue to Section 2.**

1. More information on the City's construction BMP requirements as well as CGP requirements can be found at: www.sandiego.gov/stormwater/regulations/index.shtml

PART B: Determine Construction Site Priority

This prioritization must be completed within this form, noted on the plans, and included in the SWPPP or WPCP. The city reserves the right to adjust the priority of projects both before and after construction. Construction projects are assigned an inspection frequency based on if the project has a "high threat to water quality." The City has aligned the local definition of "high threat to water quality" to the risk determination approach of the State Construction General Permit (CGP). The CGP determines risk level based on project specific sediment risk and receiving water risk. Additional inspection is required for projects within the Areas of Special Biological Significance (ASBS) watershed. **NOTE:** The construction priority does **NOT** change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by city staff.

Complete PART B and continued to Section 2

1. ☐ **ASBS**
   a. Projects located in the ASBS watershed.

2. ☐ **High Priority**
   a. Projects 1 acre or more determined to be Risk Level 2 or Risk Level 3 per the Construction General Permit and not located in the ASBS watershed.
   b. Projects 1 acre or more determined to be LUP Type 2 or LUP Type 3 per the Construction General Permit and not located in the ASBS watershed.

3. ☐ **Medium Priority**
   a. Projects 1 acre or more but not subject to an ASBS or high priority designation.
   b. Projects determined to be Risk Level 1 or LUP Type 1 per the Construction General Permit and not located in the ASBS watershed.

4. ☒ **Low Priority**
   a. Projects requiring a Water Pollution Control Plan but not subject to ASBS, high, or medium priority designation.

SECTION 2. Permanent Storm Water BMP Requirements.

Additional information for determining the requirements is found in the Storm Water Standards Manual.

PART C: Determine if Not Subject to Permanent Storm Water Requirements.

Projects that are considered maintenance, or otherwise not categorized as "new development projects" or "redevelopment projects" according to the Storm Water Standards Manual are not subject to Permanent Storm Water BMPs.

If "yes" is checked for any number in Part C, proceed to Part F and check "Not Subject to Permanent Storm Water BMP Requirements".

If "no" is checked for all of the numbers in Part C continue to Part D.

1.	Does the project only include interior remodels and/or is the project entirely within an existing enclosed structure and does not have the potential to contact storm water?	☐ Yes ☒ No
2.	Does the project only include the construction of overhead or underground utilities without creating new impervious surfaces?	☐ Yes ☒ No
3.	Does the project fall under routine maintenance? Examples include, but are not limited to: roof or exterior structure surface replacement, resurfacing or reconfiguring surface parking lots or existing roadways without expanding the impervious footprint, and routine replacement of damaged pavement (grinding, overlay, and pothole repair).	☐ Yes ☒ No

PART D: PDP Exempt Requirements.

PDP Exempt projects are required to implement site design and source control BMPs.

If "yes" was checked for any questions in Part D, continue to Part F and check the box labeled "PDP Exempt."

If "no" was checked for all questions in Part D, continue to Part E.

1. **Does the project ONLY include new or retrofit sidewalks, bicycle lanes, or trails that:**
   - **Are designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas? Or;**
   - **Are designed and constructed to be hydraulically disconnected from paved streets and roads? Or;**
   - **Are designed and constructed with permeable pavements or surfaces in accordance with the Green Streets guidance in the City's Storm Water Standards manual?**

   ☐ Yes; PDP exempt requirements apply ☒ No; next question

2. Does the project ONLY include retrofitting or redeveloping existing paved alleys, streets or roads designed and constructed in accordance with the Green Streets guidance in the City's Storm Water Standards Manual?

   ☐ Yes; PDP exempt requirements apply ☒ No; project not exempt.

PART E: Determine if Project is a Priority Development Project (PDP).

Projects that match one of the definitions below are subject to additional requirements including preparation of a Storm Water Quality Management Plan (SWQMP).

If "yes" is checked for any number in PART E, continue to PART F and check the box labeled "Priority Development Project".

If "no" is checked for every number in PART E, continue to PART F and check the box labeled "Standard Development Project".

1. **New Development that creates 10,000 square feet or more of impervious surfaces collectively over the project site.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land. ☐ Yes ☒ No

2. **Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surfaces on an existing site of 10,000 square feet or more of impervious surfaces.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land. ☐ Yes ☒ No

3. **New development or redevelopment of a restaurant.** Facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC 5812), and where the land development creates and/or replace 5,000 square feet or more of impervious surface. ☐ Yes ☒ No

4. **New development or redevelopment on a hillside.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site) and where the development will grade on any natural slope that is twenty-five percent or greater. ☐ Yes ☒ No

5. **New development or redevelopment of a parking lot that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).** ☐ Yes ☒ No

6. **New development or redevelopment of streets, roads, highways, freeways, and driveways.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site). ☐ Yes ☒ No

7. **New development or redevelopment discharging directly to an Environmentally Sensitive Area.** The project creates and/or replaces 2,500 square feet of impervious surface (collectively over project site), and discharges directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). ☐ Yes ☒ No

8. **New development or redevelopment projects of a retail gasoline outlet (RGO) that create and/or replaces 5,000 square feet of impervious surface.** The development project meets the following criteria: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. ☐ Yes ☒ No

9. **New development or redevelopment projects of an automotive repair shops that creates and/or replaces 5,000 square feet or more of impervious surfaces.** Development projects categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539. ☐ Yes ☒ No

10. **Other Pollutant Generating Project.** The project is not covered in the categories above, results in the disturbance of one or more acres of land and is expected to generate pollutants post construction, such as fertilizers and pesticides. This does not include projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces of if they sheet flow to surrounding pervious surfaces. ☐ Yes ☒ No

PART F: Select the appropriate category based on the outcomes of PART C through PART E.

1. The project is **NOT SUBJECT TO PERMANENT STORM WATER REQUIREMENTS**. ☐
2. The project is a **STANDARD DEVELOPMENT PROJECT**. Site design and source control BMP requirements apply. See the Storm Water Standards Manual for guidance. ☒
3. The project is **PDP EXEMPT**. Site design and source control BMP requirements apply. See the Storm Water Standards Manual for guidance. ☐
4. The project is a **PRIORITY DEVELOPMENT PROJECT**. Site design, source control, and structural pollutant control BMP requirements apply. See the Storm Water Standards Manual for guidance on determining if project requires a hydromodification plan management ☐

David Yeh — Name of Owner or Agent *(Please Print)*

RCE 62717 — Title

Signature

07/21/2017 — Date

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: Cosoy - TM / Project Number: 529221

Property Address: 2521 Presidio Drive, San Diego, CA 92103

Applicant Name/Co.: Landmark Consulting

Contact Phone: 858-587-8070 Contact Email: David@lmco.net

Was a consultant retained to complete this checklist? ■ Yes ☐ No If Yes, complete the following

Consultant Name: David Yeh Contact Phone: 858-587-8070

Company Name: Landmark Consulting Contact Email: david@lmco.net

Project Information

1. What is the size of the project (acres)? 0.63
2. Identify all applicable proposed land uses:
   - ■ Residential (indicate # of single-family units): 1
   - ☐ Residential (indicate # of multi-family units):
   - ☐ Commercial (total square footage):
   - ☐ Industrial (total square footage):
   - ☐ Other (describe):
3. Is the project or a portion of the project located in a Transit Priority Area? ■ Yes ☐ No
4. Provide a brief description of the project proposed:

To propose a subdivision from 2 existing contiguous parcels into 3 parcels. To demo portion of an existing wall on the newly created parcel 2 and to construct a single-family home.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR, B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR, C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?	☑	☐

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

Yes to A. No changes in General Plan, Community Plan, or Zoning is being proposed. The proposed project will be consistent with the existing RS-1-7 Zone and residential land use.

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs*. • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component. The proposed project will propose the following Cool/Green roofs: -The project will include roofing materials with a minimum 3-year aged solar reflection and thermal emittance.	☑	☐	☐

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings* With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following: Residential buildings: • Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; • Standard dishwashers: 4.25 gallons per cycle; • Compact dishwashers: 3.5 gallons per cycle; and • Clothes washers: water factor of 6 gallons per cubic feet of drum capacity? Nonresidential buildings: • Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and • Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)? Check "N/A" only if the project does not include any plumbing fixtures or fittings. The residential building plumbing fixtures or fittings will be consistent with each of the following: -Kitchen faucets max flow rate not to exceed 1.5 gallons/minute at 60 psi -Standard dishwashers: 4.25 gallons/cycle -Compact dishwashers; 3.25 gallons/cycle -Clothes washers: water factor of 6 gallons per cubic feet of drum capacity	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use			
3. *Electric Vehicle Charging* • Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents? • Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces. Project is a single-family detached home. Project is not proposing any multi-family homes.	☐	☐	☑

Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
4. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project. Project is a residential project. (SFD)	☐	☐	☑

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

Project is a residential project.

☐	☐	☑

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

Project is a residential project.

☐	☐	☑

7. *Transportation Demand Management Program* If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes: At least one of the following components: • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development And at least three of the following components: • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies • Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees). Project is a residential project.	☐	☐	☑

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

Table 2	Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan
Fixture Type	**Maximum Flow Rate**
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

Table 3	**Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**	
Appliance/Fixture Type	**Standard**	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations*.	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.

Acronyms:
L = liter
L/h = liters per hour
L/s = liters per second
psi = pounds per square inch (unit of pressure)
kPa = kilopascal (unit of pressure)