BAY VIEW CAMPUS
SECTION 106 TECHNICAL REPORT APPENDIX

NASA AMES RESEARCH CENTER
MOFFETT FIELD, CALIFORNIA
[13140J.1]

PREPARED FOR:
NASA AMES RESEARCH CENTER HISTORIC PRESERVATION OFFICE

PAGE & TURNBULL
imagining change in historic environments through design, research, and technology

JULY 2016

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APPENDIX A | MAPS

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Bay View Project Site Location

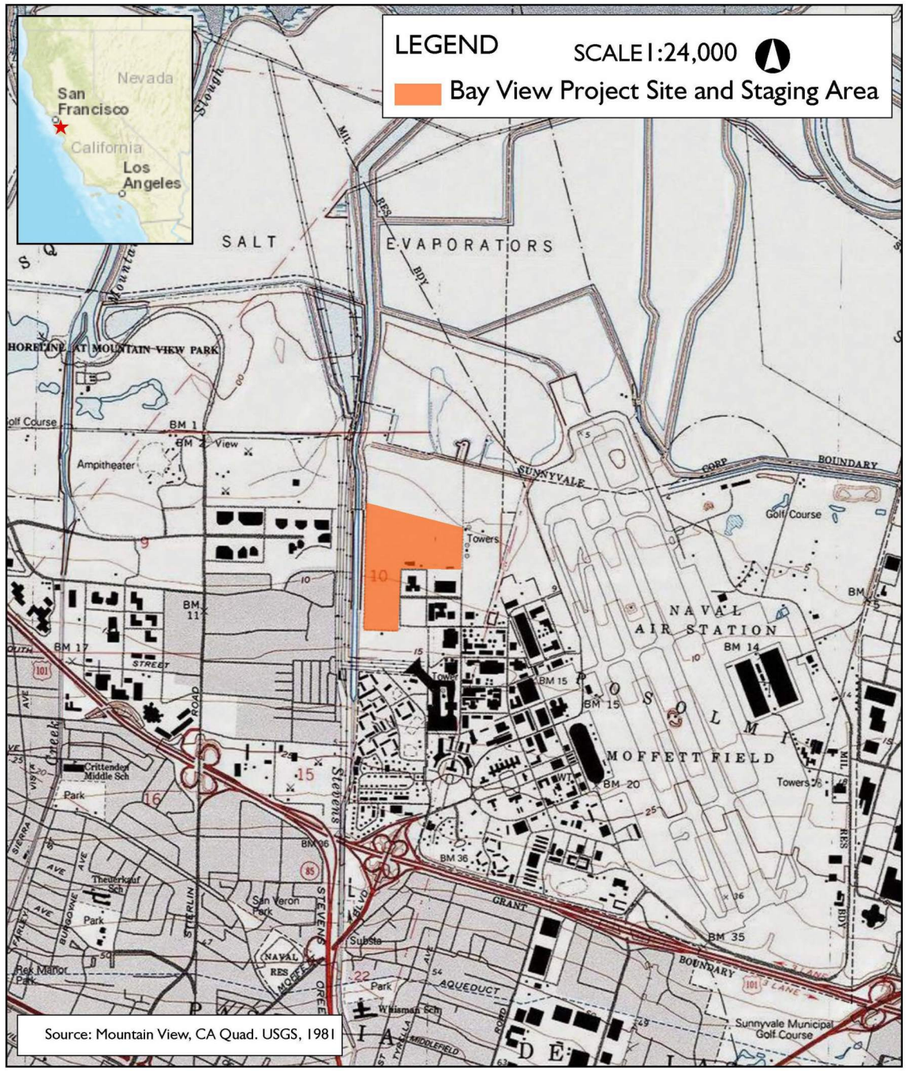

Figure 1: Project location map, showing the location of the proposed Undertaking. Source: Mountain View, CA Quad, United States Geological Survey, 1981; Ersi World Street Maps; edited by Page & Turnbull, 2016.

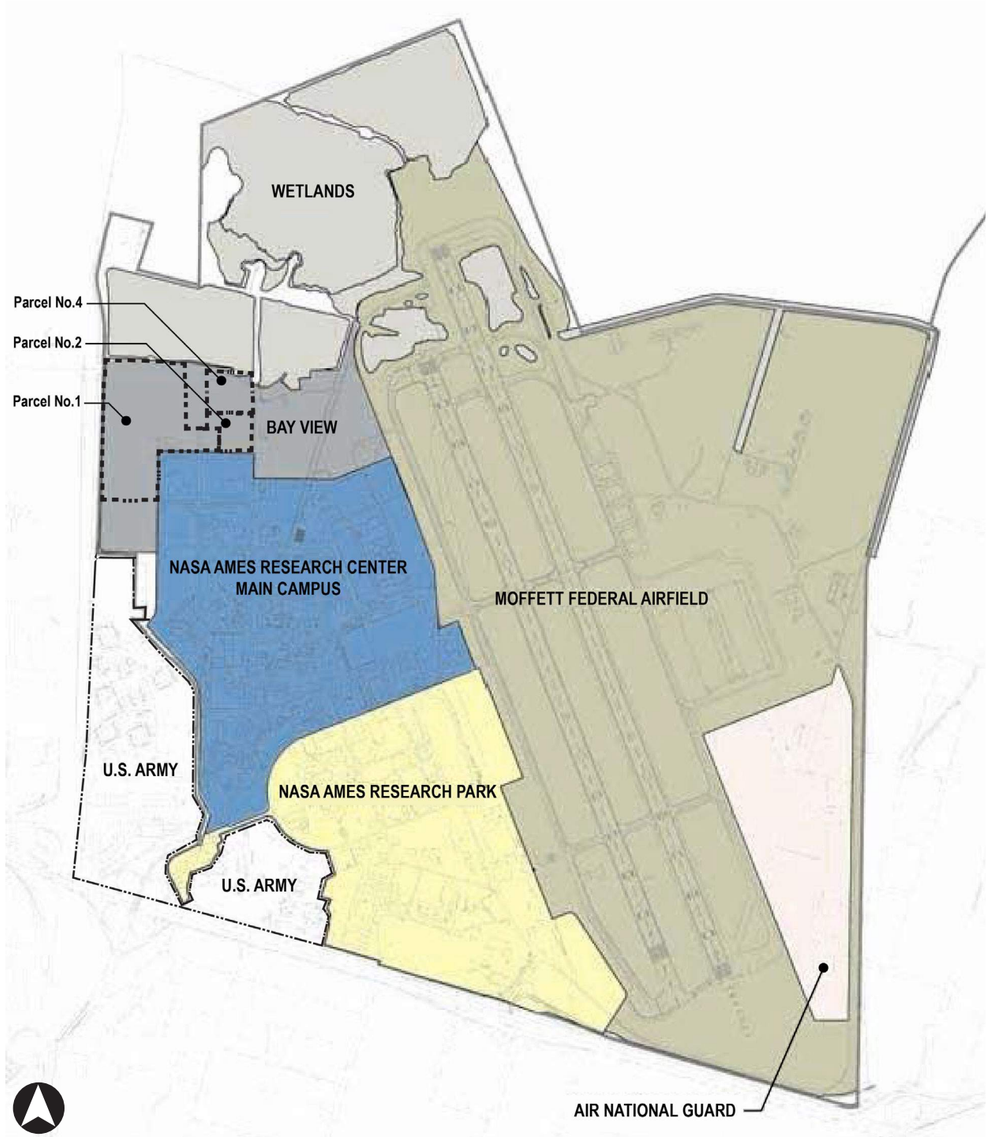

Figure 2: Planning Areas at NASA Ames Research Center; the dashed lines represent the parcels being leased by Planetary Ventures LLC. Source: NASA-Ames Research Center Environmental Resources Document (October 2009), edited by Page & Turnbull, 2016.

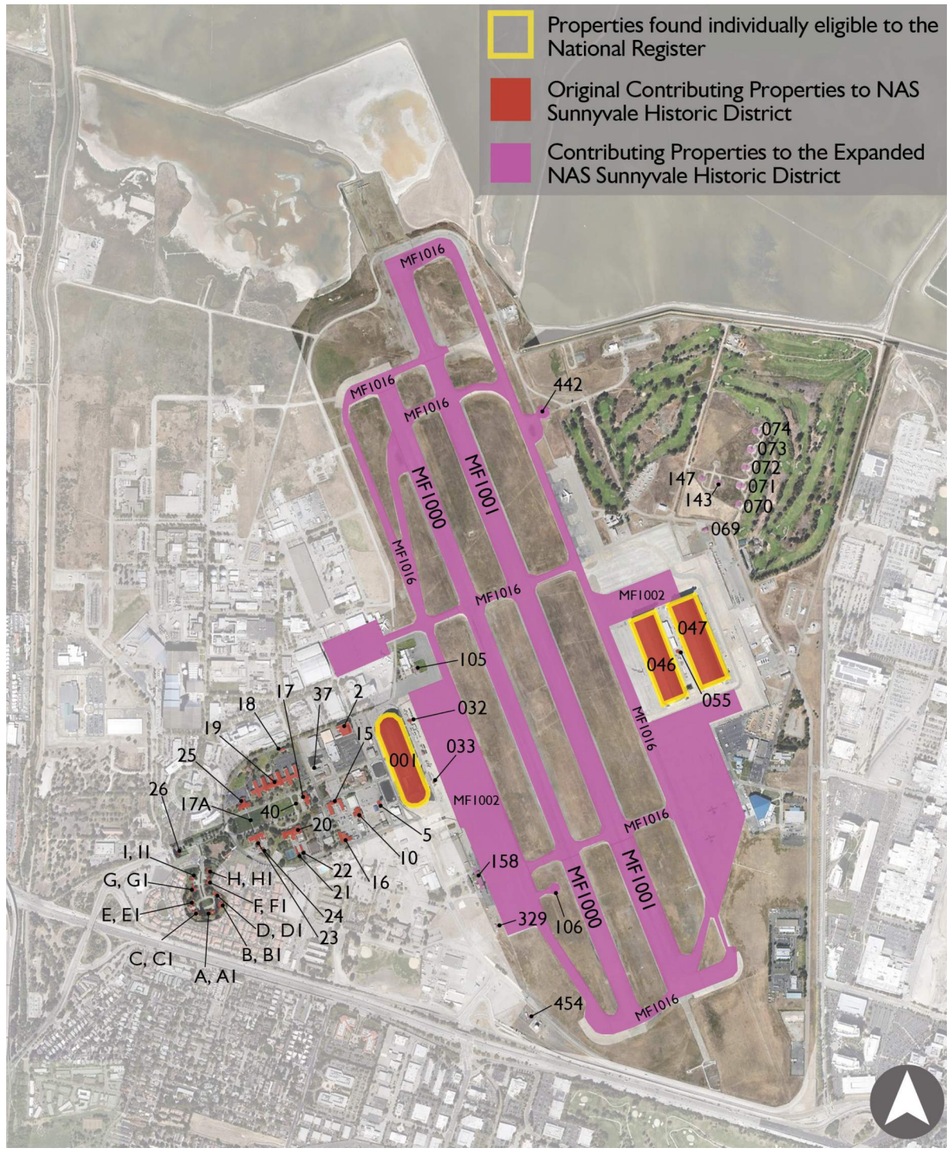

Figure 3: Historic Properties located within the NASA Ames Campus. Source: Page & Turnbull, 2016.

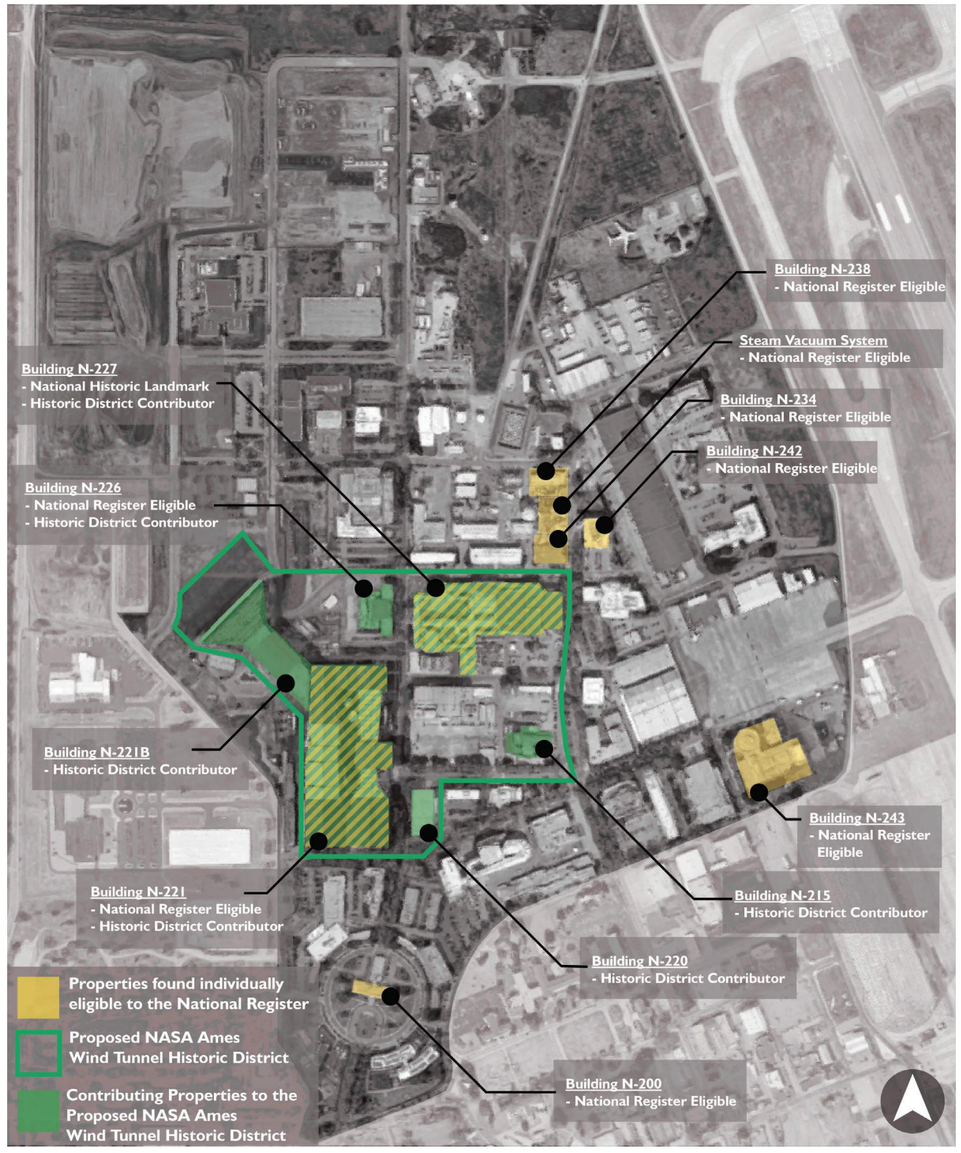

Figure 4: Historic Properties located within the NASA Ames Campus. Source: Page & Turnbull, 2016.

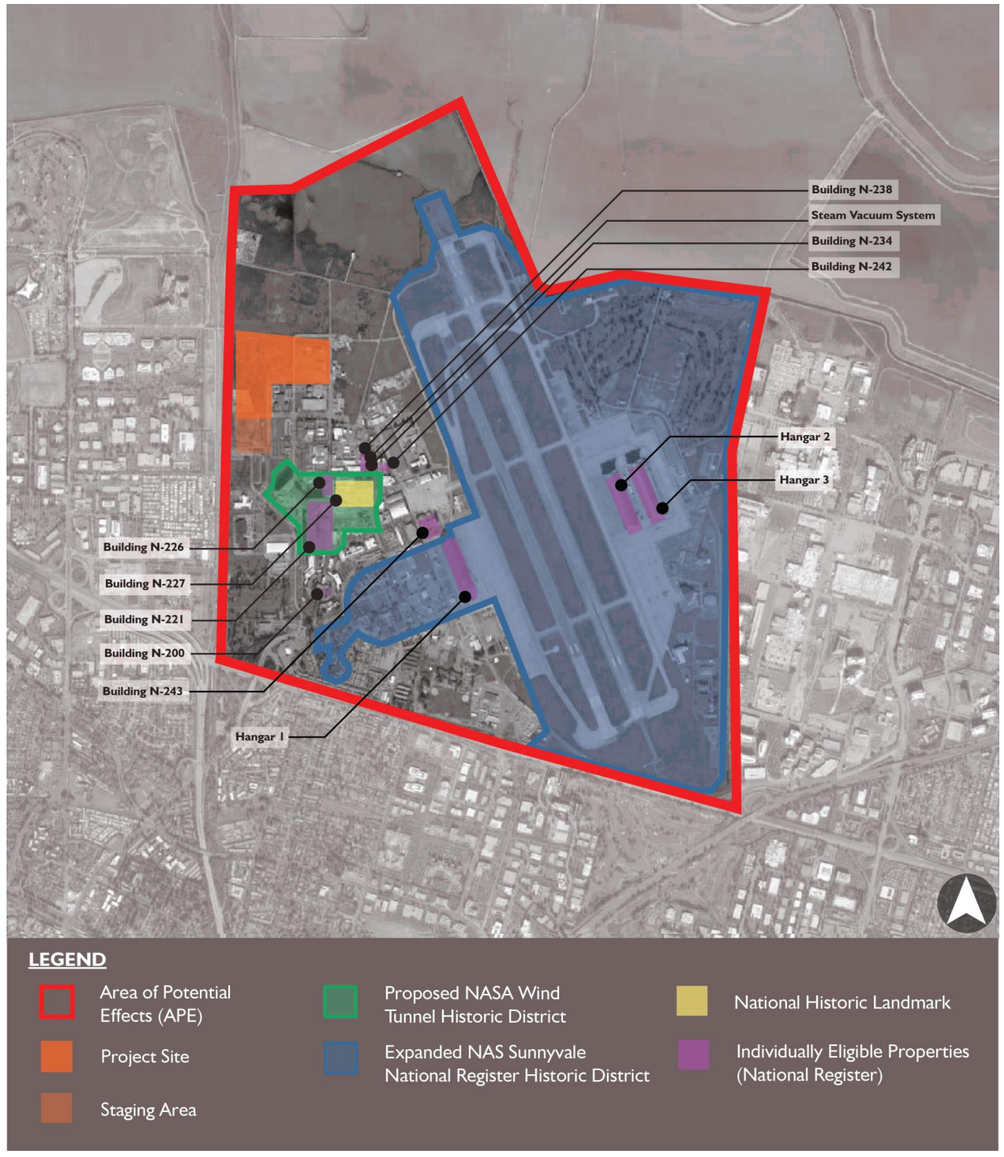

Figure 5: Undertaking's Area of Potential Effects (APE) and identified Historic Properties. Source: Page & Turnbull, 2016.

Figure 6: Aerial image of the Undertaking site, surounding context within the identified APE, and existing ground conditions. Source: Google Earth, 2016.

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APPENDIX B | ARCHEOLOGY REPORT

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CULTURAL RESOURCES ASSESSMENT REPORT
Moffett Federal Airfield - Bay View Campus
Sunnyvale, Santa Clara County, California

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June 2016

CULTURAL RESOURCES ASSESSMENT REPORT
Moffett Federal Airfield - Bay View Campus
Sunnyvale, Santa Clara County, California

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Project Number 2016-32
Report Number 2016-18

July 2016

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Management Summary

Page & Turnbull has contracted with WSA to conduct a cultural resource assessment of the Bay View project (project) in a portion of the Bay View district, at the northwest portion of the NASA Ames Research Center campus. Planetary Ventures LLC (PV) entered into a 40-year (with 50-year extensions) Enhanced Use Lease with NASA for the Bay View site, and is proposing the Bay View project for the construction of an office campus to support the employees of PV. The proposed project is located in Township 6 South, Range 2 West, Section 10, as depicted on the Mountain View, California 7.5' USGS topographic quadrangle maps.

A records search conducted on August 13, 2015 (File No. 15-0059) at the Northwest Information Center at Sonoma State University (NWIC) for the NASA Ames Research Center indicated that one previously recorded resource (a prehistoric mound, P-43-000043) was present within the Bay View project location. No archaeological sites were located within 1/4 mile of the project area. A total of 91 cultural resource studies have been conducted within 1/4 mile of the project area. Ten studies include or cross some portion of the project components, and 10 additional overview studies have included the project area and or the 1/4-mile buffer.

WSA contacted the Native American Heritage Commission (NAHC) with a request for information on sacred sites or traditional cultural properties within the project area, and for a list of interested Native American representatives. No information on sacred sites or traditional cultural properties was obtained from either the NAHC or from any of the interested Native American representatives, whom WSA contacted by letter.

WSA conducted a pedestrian archaeological survey of the proposed project area on June 14, 2016. No new archaeological sites were identified during the survey, and CA-SCL-23 (P-43-000043) was not relocated. The proposed site of the Bay View Campus is located entirely along land within the NASA Ames Research Center property. No cultural materials were identified within the proposed project area. No adverse impacts are anticipated during the construction of the facility.

1.0 Introduction

WSA has been contracted by Page & Turnbull to prepare a Cultural Resources Assessment Report (CRAR) for the proposed Bay View project (project) in the City of Sunnyvale, Santa Clara County, CA. The project proposes to develop parcels within the northwest corner of the NASA Ames Research Center. This CRAR was prepared in compliance with the National Environmental Policy Act (NEPA) (Section 101(b)(4), 42 U.S.C. § 4331) to evaluate the potential eligibility of historic properties, using National Register of Historical Resources [NRHR] eligibility criteria.

In an effort to identify all potential historic properties that could be impacted by the project, WSA reviewed the results of an earlier records search completed in 2015 that encompassed the project area. The records search was conducted by the Northwest Information Center (NWIC) at Sonoma State University in Rohnert Park, California, and included a 1/4-mile radius surrounding the proposed project area. Results indicate that one prehistoric archaeological site was once present within the project area, but it has not been relocated since the early 1900's and is suspected to be completed destroyed. WSA staff archaeologists Thomas Young and David Buckley conducted an intensive pedestrian archaeological survey of the project area on June 14, 2016. No new historic or prehistoric-period archaeological sites were identified in the survey.

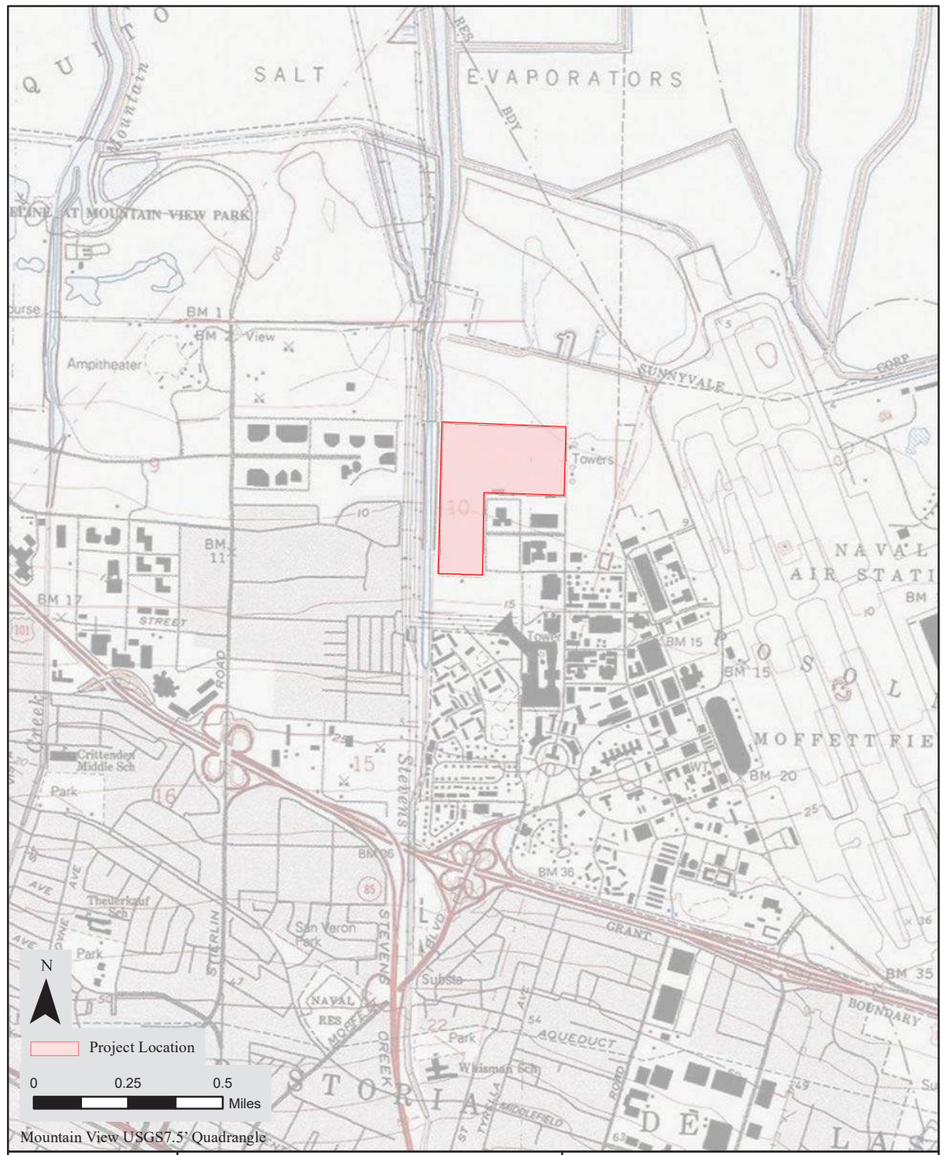
This CRAR includes the results of the previous consultation with the NWIC as it pertains to the Bay View project area, including review of all archaeological site records for sites within the limits of the project area, consultation with the Native American Heritage Commission (NAHC), and the results of the evaluation of the potential impacts to historic properties in accordance with CEQA Sections 15064.5 and 15126.4 and NHPA Section 106.

1.1 Project Description

The project proposes the construction of an office complex consisting of three large buildings of varying sizes set on top of a shared podium structure and facilities at the eastern side of the site. The project location is bound by the Research Center to the south and east, Stevens Creek Shoreline Nature Study Area and San Francisco Bay to the north, and Stevens Creek to the west. Currently, the land is vacant, though recent grading has taken place. The proposed project would involve the construction of three large, squared-domed office buildings of varying sizes, on a shared podium structure, and a number of additional structures. The largest office building would have a footprint of approximately 360,000 square feet (sf.), the medium-size office building would have a footprint of approximately 202,500 sf., and the smallest office building would have a footprint of approximately 52,900 sf. Between the office buildings an open space will form the central plaza, and to the east of the podium the site would be used for a surface parking lot, parking structures, potential short term corporate housing, and the Central Utility Plant (CUP).

WSA	Project Vicinity Map	Figure 1 MFA-Bay View Project Page & Turnbull Santa Clara County, CA

WSA	Project Area Map	Figure 2 MFA-Bay View Project Page & Turnbull Santa Clara County, CA



WSA	Project Location Map	Figure 3 MFA-Bay View Project Page & Turnbull Santa Clara County, CA

2.0 Setting

2.1 Environmental Setting

The project area is located on the southern portion of the San Francisco Peninsula, which lies along the southwest boundary of the San Francisco Bay. The project area ecology, though heavily impacted by dense urban development, is coastal littoral, which consists of land strips along the coast that are characterized by a series of microenvironments including estuaries, bays, marshes, and grassy terraces (Chartkoff and Chartkoff 1984).

The climate of the project area is Mediterranean: mild, rainy winters, and hot, dry summers. Annual precipitation in the area is 15 inches, with rainfall concentrated in the fall, winter, and spring. The San Francisco Peninsula's proximity to the Pacific Ocean provides for mild temperatures throughout the year. Winter temperatures vary from an average high of 57.2 degrees F to an average low of 37.7 degrees F; summer temperatures vary from an average high of 78.4 degrees F to an average low of 54.4 degrees F.

Common vegetation throughout the area includes valley oak (*Quercus lobata*), live oak (*Quercus agrifolia*), California buckeye (*Aesculus californica*), California bay laurel (*Umbellularia californica*), star thistle (*Centaurea solstitialis*), wild oats (*Avena fatua*), morning glories (*Convolvulus*), lupine (*Lupinus*), poppies (*Papaver*), wild artichokes (*Cynara scolymus*), and various other native and imported grasses.

Animal life within the region is diverse. Unlike prehistoric times when animals such as pronghorn sheep, antelope, tule elk, mule deer, black-tail deer, and grizzly bear occupied the area, the region today favors small, herbivorous mammals, especially voles, pocket gophers, ground squirrels, and pocket mice (Brown 1985). The few larger, open areas in the region attract some larger animals including deer, rabbit, skunk, opossum, raccoon, and a number of birds including red-tailed hawks and turkey vultures.

2.3 Cultural Setting

Prehistoric Archaeological Background

Research into local prehistoric cultures began with the work of N. C. Nelson of the University of California, who conducted the first intensive archaeological surveys of the San Francisco Bay region from 1906 to 1908. Nelson documented 425 shellmounds along the Bay shoreline and adjacent coast when the Bay was still ringed by salt marshes up to 5 miles wide (Nelson 1909). He maintained that the intensive use of shellfish, a subsistence strategy reflected in both coastal and bay shoreline middens, indicated a general economic unity in the region during prehistoric

times, and he introduced the idea of a distinct San Francisco Bay archaeological region (Moratto 1984:227).

In 1911, Nelson supervised excavations at CA-SFR-7 (the Crocker Mound) near Hunter's Point in San Francisco County, a site that was later dated from 1050 B.C. to A.D. 450. L. L. Loud identified archaeological components from this same period in Santa Clara County in 1911 while excavating at CA-SCL-1 (the Ponce, Mayfield, or Castro Mound site) (Loud 1912). R. J. Drake recognized comparably dated archaeological components in San Mateo County in 1941–1942 at CA-SMA-23 (Mills Estate) in San Bruno (Moratto 1984:233).

Conducted more or less independently from the work of Nelson and Loud, investigations into the prehistory of the Central Valley of California, presaged by early amateur excavations in the 1890s, began in earnest in the 1920s. In the early 20th century, Stockton-area amateur archaeologists J. A. Barr and E. J. Dawson separately excavated a number of sites in the Central Valley and made substantial collections. On the basis of artifact comparisons, Barr identified what he believed were two distinct cultural traditions, an early and a late. Dawson later refined his work and classified the Central Valley sites into three "age-groups" (Schenck and Dawson 1929:402).

Professional or academic-sponsored archaeological investigations in central California began in the 1930s, when J. Lillard and W. Purves of Sacramento Junior College formed a field school and conducted excavations throughout the Sacramento Delta area. By seriating artifacts and mortuary traditions, they identified a three-phase sequence similar to Dawson's, including Early, Intermediate, and Recent cultures (Lillard and Purves 1936). This scheme went through several permutations, including Early, Transitional, and Late Periods (Lillard et al. 1939) and Early, Middle, and Late Horizons (Heizer and Fenenga 1939). In 1948 and again in 1954, Richard Beardsley refined this system and extended it to include the region of San Francisco Bay (Beardsley 1948, 1954). The resulting scheme came to be known as the Central California Taxonomic System (CCTS) (Fredrickson 1973; Hughes 1994:1). Subsequently, the CCTS system of Early, Middle, and Late Horizons was applied widely to site dating and taxonomy throughout central California. This system focused on the archaeology of the Delta region, with its more established tradition of archaeological investigations of rich archaeological sites, to set the standard by which other regions were assessed. Resulting explanations of regional prehistory and culture change tended to place the Delta as the earlier center for interaction, change, and development, with the Bay Area following on a separate, somewhat different path.

As more data were acquired through continued fieldwork, local exceptions to the CCTS were discovered. The accumulation of these exceptions, coupled with the development of radiocarbon dating in the 1950s and obsidian hydration analysis in the 1970s, opened up the possibility of dating deposits more accurately. Much of the subsequent archaeological

investigation in central California focused on the creation and refinement of local versions of the CCTS.

Citing limitations with the existing classificatory schemes, Ragir (1972) adopted a new set of terms for describing archaeological cultures based on their localities. Around this same time, a series of workshops was convened to discuss concerns in California archaeology, including revisions to the CCTS (Fredrickson 1973:88-91). In his doctoral dissertation, Fredrickson (1973) reviewed the state of archaeology in California. Adopting some of the revisions agreed upon at the workshops as well as incorporating modifications employed by Ragir and Bennyhoff, Fredrickson (1973) suggested an alternative way of classifying the prehistory of California. Fredrickson (1973:113-114) proposed four "major chronological periods" in prehistoric California: the Early Lithic Period (described as hypothetical), a Paleoindian Period, an Archaic Period, and an Emergent Period. The Archaic and Emergent Periods were further divided into Upper and Lower periods. Subsequently, Fredrickson (1974, 1994) revised the findings and concepts discussed in his doctoral dissertation, further subdividing the Archaic into Lower, Middle, and Upper.

Various modifications of the CCTS (e.g., Bennyhoff and Hughes 1987; Fredrickson 1973, 1974; Milliken and Bennyhoff 1993) sustain and extend the system's usefulness for organizing our understanding of local and regional prehistory in terms of time and space. The cultural patterns identified in the Bay Area that, in a general way, correspond to the CCTS scheme are the Berkeley and Augustine patterns. Dating techniques such as obsidian hydration analysis or radiometric measurements can further increase the accuracy of these assignments.

The Early Berkeley Pattern has been dated from at least 3000 B.C. in the east San Francisco Bay (e.g., Alameda County, where the earliest Early Berkeley sites appear) (Hughes 1994), with the number of sites increasing through A.D. 1 (Moratto 1984:282). Late Berkeley Pattern (500 B.C. - A.D. 1000) sites are much more common and well documented, and, therefore, better understood than the Early Berkeley Pattern sites. Berkeley Pattern sites are scattered in more diverse environmental settings, but riverine settings are prevalent.

It is during this period that the Bay Area shellmounds were inhabited (Lightfoot and Luby 2002), and deeply stratified shellmound deposits that developed over generations of occupation are common to Berkeley Pattern sites.

The Augustine Pattern coincides with the Late Period, ranging from as early as A.D. 700 to about A.D. 1800. Intensive fishing, hunting, and gathering (especially of acorns) typify this period, as well as a large population increase, expanded trade and exchange networks, increased ceremonialism, and the practice of cremation, in addition to flexed burials. Beginning in the last

quarter of the 18th century, the Augustine Pattern was disrupted by the Spanish explorers and the mission system (Moratto 1984:283).

Most recently, Milliken et al. (2007:99-123) developed what they term a "hybrid system" for the San Francisco Bay Area, combining the Early-Middle-Late Period temporal sequence with the pattern-aspect-phase cultural sequence. Following Fredrickson, Milliken et al. (2007:103) define patterns as "units of culture marked by distinct underlying economic modes, technological adaptations, and ceremonial practices." The aspect is defined as a local variation in a major economic pattern, with a sequence of phases within a particular district representing an aspect. Following Willey and Phillips (1958), phases represent the smallest units of related site components "spatially limited to the order of magnitude of a locality or region and chronologically limited to a relatively brief interval of time" (Milliken et al. 2007:103).

Milliken et al.'s (2007) San Francisco Bay Area Cultural Sequence includes:

Early Holocene (Lower Archaic[1)] from 8000 to 3500 B.C.
Early Period (Middle Archaic) from 3500 to 500 B.C
Lower Middle Period (Initial Upper Archaic) from 500 B.C. to A.D. 430
Upper Middle Period (Late Upper Archaic) from A.D. 430 to 1050
Initial Late Period (Lower Emergent) from A.D. 1050 to 1550
Terminal Late Period, post-A.D. 1550

There is no discussion of pre-8000 B.C., as no archaeological evidence dating to this early time period has been located in the Bay Area. Milliken et al. (2007) posit that this dearth of archaeological material may be related to subsequent environmental changes that submerged sites, buried sites beneath alluvial deposits, or destroyed sites through stream erosion. A summary of the approach presented by Milliken et al. (2007) follows.

Beginning around 3500 B.C., evidence of sedentism, interpreted to signify a regional symbolic integration of peoples, and increased regional trade, emerges in the form of new ground stone technology and the introduction of cut-shell beads into burial contexts (Milliken et al. 2007:114). This Early Period lasted until ca. 500 B.C. The earliest mortar and pestles found so far date to post-4000 B.C., with wood mortars dating to 3800 B.C. found in the vicinity of the Los Vaqueros reservoir. By 1500 B.C., mortars and pestles replaced milling slabs and handstones at some East Bay sites. Sedentism or semi-sedentism is in evidence in the East Bay during this period in the form of burial complexes with associated ornamental grave goods, such as were found at West Berkeley, Ellis Landing, and Pacheco shellmounds, and house floors

[1] The corresponding periods based on Fredrickson's Paleoindian, Archaic and Emergent classification system are provided in parentheses.

with postholes, as have been found at the Rossmoor site near Walnut Creek (Milliken et al. 2007:115; Price et al. 2006).

Milliken et al. (2007:115) identify "a major disruption in symbolic integration systems" circa 500 B.C., marking the beginning of the Lower Middle Period (500 B.C. to A.D. 430). Changes included the disappearance of rectangular shell beads and introduction of split-beveled and small saucer *Olivella* beads (inferred to represent some of the earliest religious artifacts), which appear around the Early/Middle Transition bead horizon. The Upper Middle Period (A.D. 430 to 1050) is marked by the collapse of the *Olivella* saucer bead trade in central California, an increase in the occurrence of sea otter bones in those sites that were not abandoned, and the spread of the extended burial mortuary pattern characteristic of the Meganos complex into the interior East Bay.

The Initial Late Period, dating from A.D. 1050 to 1550, is characterized by increased manufacture of status objects. In lowland, central California during this period, Fredrickson (1973 and 1994, quoted in Milliken et al. 2007:116) noted evidence for increased sedentism, the development of ceremonial integration, and status ascription. The beginning of the Late Period (ca. A.D. 1000) is marked by the Middle/Late Transition bead horizon. Well-fashioned "show" mortars, new *Olivella* bead forms, and a variety of *Haliotis* ornaments with multiperforated and bar-scored forms appear during this period. These new artifact forms are reflective of the beginning of the Augustine Pattern, while those features of the classic Augustine Pattern, such as the arrow, banjo effigy ornaments, the flanged pipe, and *Olivella* callus cup beads (post-A.D. 1250). Coincident with the introduction of the bow and arrow, Napa Valley obsidian manufacturing debitage increased markedly in the interior East Bay, while there was a striking decrease in biface manufacture and debitage at Napa Valley Glass Mountain quarries. In the South Bay, however, local Franciscan chert continued to be used and completed obsidian projectile points were traded in from the north. Social stratification is evident in the introduction or, in some areas, reintroduction of partial cremations with high-status grave goods. In addition, the variety of status goods included in interments and in association with cremations of high-status individuals increased (Milliken et al. 2007:117).

Olivella sequin and cup beads disappear circa A.D. 1500 to 1550, marking the beginning of the Terminal Late Period. Clamshell disk beads were traded across the North Bay during this period, although there is no evidence that they spread south of the Carquinez Strait at this time. The earliest clamshell disks south of the Carquinez Strait date to A.D. 1670 in Contra Costa County. Sometime between A.D. 1500 and 1650, fewer beads appear as grave goods, and only *Olivella* lipped and spire-lopped beads appear in South Bay and Central Bay interments. Other changes occurred around the San Francisco Bay Area during this period. Clamshell disk beads, magnetite tube beads, the toggle harpoon, hopper mortars, plain, corner-notched, arrow-sized, projectile points, and secondary cremation initially appear in the North Bay during the Terminal

Late Period. The hopper mortar did not extend into the Central or South Bay, although plain, corner-notched, projectile points did begin appearing in the Central Bay. Desert side-notched points spread from the Central Coast into the South Bay (Milliken et al. 2007:117).

Ethnographic Background

There is a considerable body of ethnographic literature about the Native American inhabitants of the project area. This section provides a brief summary of that ethnography and is intended to provide a general background only. For a more extensive review of Ohlone ethnography, see Bocek (1986); Cambra et al. (1996); Kroeber (1925); Levy (1978); Milliken (1983); and Shoup et al. (1995).

The project area lies within the region occupied by the Ohlone or Costanoan group of Native Americans at the time of historic contact with Europeans (Kroeber 1925:462-473). Although the term Costanoan is derived from the Spanish word Costaños, or "coast people," its application as a means of identifying this population is based in linguistics. The Costanoans spoke a language now considered one of the major subdivisions of the Miwok-Costanoan, which belonged to the Utian family within the Penutian language stock (Shipley 1978:82-84). Costanoan actually designates a family of eight languages, which were spoken by tribal groups occupying the area from the Pacific Coast to the Diablo Range, and from San Francisco to Point Sur. Modern descendants of the Costanoan prefer to be known as Ohlone. The name Ohlone is derived from the Oljon group, which occupied the San Gregorio watershed in San Mateo County (Bocek 1986:8). The two terms (Costanoan and Ohlone) are used interchangeably in much of the ethnographic literature.

On the basis of linguistic evidence, it has been suggested that the ancestors of the Ohlone arrived in the San Francisco Bay area about 1,500 years ago, having moved south and west from the Sacramento-San Joaquin Delta region. The ancestral Ohlone displaced speakers of a Hokan language and were probably the producers of the artifact assemblages that constitute the Augustine pattern described above (Levy 1978:486).

Although linguistically related as a family, the eight Costanoan languages actually comprised a continuum in which neighboring groups could probably understand each other. Beyond neighborhood boundaries, however, each group's language was unrecognizable to the other. Each of the eight language groups was subdivided into smaller village complexes or tribal groups. The groups were independent political entities, each occupying specific territories. Each group controlled access to the natural resources of the territories. Although each group had one or more permanent villages, their territory contained numerous smaller campsites used as needed during a seasonal round of resource exploitation.

Extended families lived in domed structures thatched with tule, grass, wild alfalfa, or ferns (Levy 1978:492). Semisubterranean sweathouses were built into pits excavated next to stream banks and covered with a structure. The tule raft, propelled by double-bladed paddles similar to those that were used in the Santa Barbara Channel Island region, was used to navigate across San Francisco Bay (Kroeber 1925:468).

The Ohlone utilized the marine and riverine resources of the San Francisco Bay and nearby creeks. These areas were important sources for seasonal foods such as migratory waterfowl and shorebirds, which provided protein-rich supplements to the typical aboriginal diet of greens, roots and bulbs, seeds, and acorns, as well as fish (Levy 1978).

Mussels were an important staple in the Ohlone diet as were acorns of the coast live oak, valley oak, tanbark oak, and California black oak. Seeds and berries, roots and grasses, as well as the meat of deer, elk, grizzly, rabbit, and squirrel formed the Ohlone diet. Careful management of the land through controlled burning served to insure a plentiful and reliable source of all these foods (Levy 1978:491).

The Ohlone usually cremated a corpse immediately upon death, but the body was interred if there were no relatives to gather wood for the funeral pyre. Mortuary goods comprised most of the personal belongings of the deceased (Levy 1978:490).

The arrival of the Spanish in the San Francisco Bay Area led to a rapid and major reduction in native California populations. Diseases, declining birth rates, and the effects of the mission system served to largely eradicate their traditional lifeways (which are currently experiencing resurgence among Ohlone descendants). Brought into the missions, the surviving Ohlone, along with former neighboring groups of Esselen, Yokuts, and Miwok, were transformed from hunters and gatherers into agricultural laborers (Levy 1978; Shoup et al. 1995). With the secularization of the mission system by an independent Mexico in the 1830s, numerous ranchos were established. Generally, the few Indians who remained were then forced, by necessity, to work on the ranchos.

Today, descendants of the Ohlone live throughout the Bay Area. Several Ohlone groups (e.g., Muwekma, Amah Mutsun) have banded together to seek federal recognition. Many Ohlone, both as individuals and as groups, are active in preserving and reviving elements of their traditional culture, such as dance, basketry, and song, and are active participants in the monitoring and excavation of archaeological sites.

Historical Background

The historical background of the region and study area was compiled from primary and secondary sources including Shoup et al.'s *Inigo of Rancho Posolmi* (1995), Hyding's *From Frontier to Suburb* (1984), and the County of Santa Clara Historic Context Statement prepared by Archives and Architecture, LLC in 2004 and updated in 2012.

Regional History

The 1769 expedition led by Captain Gaspar de Portola initiated the period of contact between Spanish colonists and the native people of the Santa Clara Valley. The Portola party reached the Santa Clara Valley in the fall of that year, camping on San Francisquito Creek, northwest of the project area. Father Juan Crespí, who recorded the details of the expedition, wrote:

> At once upon our reaching here, several very well-behaved heathens, most of them well-bearded, came to the camp, giving us to understand that they were from three different villages, and I do not doubt there must be many of these, from the many smokes seen in different directions (Crespí in Stanger and Brown 1969:105 in Shoup et al. 1995:22).

A year later, Pedro Fages led an expedition that explored the eastern shore of San Francisco Bay, eventually reaching the location of modern-day Fremont, where they traded with the local native people. In 1772, a second Fages expedition traveled from Monterey passing through the Santa Clara Valley (Levy 1978:398). After passing northward through the region in March, they explored the Diablo Valley and returned south through the Santa Clara Valley in early April:

> We encountered heathen who as soon as they saw us got scared and ran inside their two little houses. (I wanted to give them) some little strings of beads, but there was no way we could make them receive the gift (Fages 1972 [1772]:354 in Shoup et al. 1995:23).

In 1774, Captain Fernando Rivera y Moncada, scouting locations for a mission and military installment, encountered local Indian people in the Santa Clara Valley. In 1776, a mission scouting expedition under the leadership of Juan Bautista de Anza and Friar Pedro Font traveled through the same area and also traded with residents of native villages encountered along the way (Bolton 1930). Font recorded that the party had observed 100 native people while traveling through the Santa Clara Valley (Font 1930[1776]:324 in Shoup et al. 1995:25).

The first mission in the San Francisco Bay Area was established in San Francisco with the completion of Mission San Francisco de Asis (Mission Dolores) in 1776. Mission Santa Clara de Asis followed in 1777, and Mission San Jose in 1797. The missions relied on the Native American population both as their source of Christian converts and their primary source of labor. Diseases introduced by the early expeditions and missionaries, and the contagions

associated with the forced communal life at the missions, resulted in the death of a large number of local peoples. Cook (1943) estimates that by 1832, the Ohlone population had been reduced from a high of over 10,000 in 1770 to less than 2,000.

Mission Santa Clara, founded in 1777, controlled much of the land of the Santa Clara Valley (approximately 80,000 acres) until the 1830s. Mission lands were used primarily for the cultivation of wheat, corn, peas, beans, hemp, flax, and linseed, and for grazing cattle, horses, sheep, pigs, goats, and mules. In addition, mission lands were used for growing garden vegetables and orchard trees such as peaches, apricots, apples, pears, and figs.

Within a period of 25 years after the founding of Mission Santa Clara, most local native peoples had been affected by the presence of the missionaries. Though some Indians gave up their traditional way of life by choice, many were coerced, manipulated, and forced to the mission. By the mid-1790s, the traditional Ohlone economy had been significantly disrupted. Native populations outside the Mission had suffered losses to Spanish disease, a decline in food resources, a disrupted trade system, and a significant drought in 1794. “Perhaps knowing or sensing the Indians’ new vulnerability, it was precisely at this point in time that both aggressive preaching and violence were used to encourage conversion” (Shoup et al. 1995:45). Mission records of 1794 and 1795 show that 586 Native Indians were baptized. While earlier baptisms were composed primarily of children, 80 percent of the converts during this period were adults. The independent tribal elders had finally been brought into the mission system.

The next several decades represent a time of relative stability throughout the Santa Clara Valley. During this period, the Spanish and Mexican population outside of the Mission grew in numbers, power, and prosperity, and Mexico, having gained its independence from Spain, began administering the 21 California missions. By the 1820s, when American trappers began exploring the region, Indians of the San Jose and Santa Clara missions began to rebel (Shoup et al 1995:83). The rebellion was led by Indian chieftain Estanislao and his companion Cipriano, and the confrontations that took place in the summer of 1829 resulted in casualties for both the Indian rebels and the soldiers serving the mission (Shoup et al. 1995:86). The fact that Indian people who had maintained long-term relationships with local missions were motivated to rebel against them reflected poorly on the institution’s success, and signaled the beginning of the final chapter in Mission Santa Clara’s long existence (Shoup et al. 1995:87-89).

The Mexican government began the process of secularizing mission lands in the 1830s. The secularization of the mission lands was decreed in 1834, but the process did not get underway at Mission Santa Clara until 1837. Within a few years, the lands of all 21 missions were expropriated in the form of land grants. Despite regulations that stipulated that the land grants were to be distributed fairly, recipients of the land grants were primarily Californios who had allied themselves with Jose Ramon Estrada, Governor Juan Bautista Alvarado’s brother-in-law,

who oversaw the process (Shoup et al. 1995:98-99). By 1845, eight land grants of the former Mission Santa Clara lands were formally awarded to Californios and their Anglo allies (54,284 acres); four were awarded to Mission Indians (11,917 acres) (Shoup et al. 1995:104). The study area was located on land in between two rancho land grants: Rancho Pastoria de las Borregas to the west and Rancho Ulistac to the east.

With their victory in the Mexican-American War (1846-1848), the United States took possession of California and Anglo-European settlers began to arrive in the Santa Clara Valley. The 1849 Gold Rush brought an unprecedented wave of settlers, many of whom acquired land and turned their attention to agriculture. In November of 1849, San Jose became the first capital of the State of California. The following decades were marked by a transition from the ranching economy favored by Spanish and Mexican landholders to an economy based at first on grain agriculture, such as wheat, then increasingly on orchard and specialty vegetable agriculture.

While there had been a flood of immigrants into California during the Great Depression, the influx during World War II was substantially greater. The defense industry expanded and cities surrounding the San Francisco Bay developed rapidly (Kyle 1990: xvi). New shipyards came into existence, the number of factories in use increased by a third, and the population of industrial workers more than doubled (Cole 1988:129). The output of Bay Area shipbuilding facilities - 1,400 vessels during a war that lasted 1,365 days - remains staggering.

California also became an important location for installations of all branches of the United States military during the war. Largely because a portion of the war was fought in the Pacific Theater, and the attack on Pearl Harbor made California a strategic location, the Army, Air Force, Navy, and Marines utilized the human and natural resources of the Bay Area for national defense (Beck and Haase 1988:86-88). As well as the industrial facilities along the Bay shore, the Alameda Naval Air Station, the Oakland Army Base, Moffett Field, and local Army training camps drew civilian and military families to the communities surrounding the study area.

In addition to heavy industries, such as shipbuilding, high-tech industries such as electronics also expanded rapidly during the war. Later, these firms contributed to the emerging field of communications (Hynding 1984:270). In addition to drawing manpower, the facilities established for the war effort spurred industrial and high-tech research that laid the foundation for today’s economy that is increasingly reliant on the innovation of highly skilled workers.

The project area is located on the western edge of the modern-day city of Sunnyvale, which was incorporated in 1912. Sunnyvale grew up on former orchard land that was once owned by real estate developer W. E. Crossman. During the last half of the 19th century, the residents of Santa Clara County, then linked to commercial markets via railroads, produced all manner of agricultural goods, including carrots, almonds, tomatoes, prunes, apricots, plums, walnuts,

cherries, and pears (NPS 2006). Like much of the San Francisco Bay area, the region remained largely rural until the onset of World War II, which served as a catalyst for both industrialization and then a post-war population and housing boom. The area began taking its current form as technology firms settled in the region first to serve the Navy at the Moffett Federal Airfield and then the growing number of high-tech and aerospace firms that settled in the region.

History of the Project Area

The project area lies within the area that once formed part of the Rancho Posolmi, a tract of land that was awarded to Lope Inigo in February 1844. With the mass migrations of settlers into the area after the gold rush, Inigo had to contend with squatters who found his land appealing. First among them were John Whisman and his family, who built a home in the southwest corner of his rancho (Shoup et al. 1995:116). By the late 1850s, Robert Walkinshaw, a native of Scotland, had purchased 847.98 acres of Rancho Posolmi. Thomas Campbell had purchased 400 acres, and Inigo held onto just 448.2 acres (Shoup et al. 1995:117). Though Walkinshaw had purchased a large tract of Inigo's land, historical accounts make it clear that he also befriended him, and likely helped to protect him in the midst of rapid change. Inigo died in February 1864 at the age of 83. According to L.L. Loud, in 1912, he was buried on the smaller Inigo Mound: This was about one-half mile north of the southwestern corner of the Posolmi grant, which was near the Mountain View-Alviso Road. His gravesite was close to where the Walkinshaw family had their ranch complex. The place had been a village site, perhaps the same village where Inigo was born in 1781. He was thus put to rest with many of his own people (Shoup et al. 1995:125).

A series of owners held Posolmi from the time of Inigo's death to the 1960s. The land was used primarily for agriculture until the 1930s. The last agricultural owners to reside on Posolmi were the Holthouse family, who bought the land from the Hirsch Land Company in 1919.

In 1931, the San Jose Chamber of Commerce raised $500,000 and purchased 1,000 acres of land, consisting mostly of the Posolmi land grant. The city donated the land to the U.S. Navy who then began construction of the Naval Air Station and Moffett Field. The Holthouse Family retained a small section of land on the eastern edge of Posolmi. They sold it to Lockheed Corporation in the early 1960s, who then constructed the Lockheed Space Center. Today, no structures of the original Posolmi land grant remain.

The Defense Industry and the Emergence of High Tech

While there had been a flood of immigrants into California during the Great Depression, the influx during World War II was substantially greater. The defense industry expanded and cities

surrounding the San Francisco Bay developed rapidly (Kyle 1990: xvi). New shipyards came into existence, the number of factories in use increased by a third, and the population of industrial workers more than doubled (Cole 1988:129). The output of Bay Area shipbuilding facilities - 1,400 vessels during a war that lasted 1,365 days - remains staggering.

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3.0 Results of the Records Search

On behalf of WSA, the staff at the NWIC conducted a records search on August 13, 2015 (File No. 15-0059) for the Moffett Towers II Final Subsequent Environmental Impact Report (Kimley Horn 2016) for the larger NASA Ames Research Facility. As this previous records search was conducted less than two years ago, and encompassed the Bay View project footprint and a surrounding ¼-mile buffer, the results are still considered current and the results of that records search were referenced for the Bay View project. Information on previous archaeological surveys and recorded sites within a ¼-mile radius of the Bay View project area was gathered to identify and evaluate the potential for the presence of archaeological sites. The study included a review of archaeological and historical literature, as well as records and maps on file at the Northwest Information Center. The *California Inventory of Historic Resources* (1976) and the Office of Historic Preservation's Historic Property Data File (HPDF) for Santa Clara County were examined.

Record search results indicate that one previously recorded prehistoric site is located within the project area (CA-SCL-23, Table 1). Numerous attempts to relocate site CA-SCL-23, a prehistoric habitation mound (also known as the Crittenden Mound), have occurred since Nels Nelson first observed the site in his 1909 survey of the Bay Area and L. L. Loud recorded the site in 1912. At least four archaeological surveys of the site area have been conducted and all of them failed to locate surface indications of the mound (Rappaport and Meredith 1978, Chavez 1981, Garaventa et al. 1993, and Garaventa, Guedon, DiPasqua, et al.1993). In April and November 1993, Basin Research Associates conducted a subsurface backhoe testing program to try to locate the site (Garaventa et al. 1993). A total of 58 backhoe test units were excavated at

200-foot grid intervals, with seven of those test units placed within the recorded archaeological site boundaries. No prehistoric or historic artifacts or ecofacts were observed in the subsurface deposits. The soils were consistent with typical Sunnyvale clay sediments with no evidence of midden sediments associated with human habitation.

Table 1: Previously Recorded Sites Within the project area

P-#	Trinomial	Site Type	Reference
P-43-00043	CA-SCL-23	Crittendon Mound - prehistoric occupation site	Kovar 1995

No previously recorded prehistoric or historic archaeological sites are located within 1/4-mile of the project area.

In addition to the archaeological site described above, seven cultural resource studies have been completed within the project area (S-004492, S-008447, S-012528, S-015230, S-015758, S-016393, and S-019881). These are listed in Table 2 below. An additional three cultural resource studies were completed within a 1/4-mile of the project area (S-008371, S-022302, and S-032499). These are listed in Table 3 below.

Table 2: Cultural Resource Studies Within the project area

Report Number	Authors	Year	Title	Reference
S-004492	Miley P. Holman	1978	An archaeological field reconnaissance of both banks of Stevens Creek between the bay and Homestead Boulevard in Mountain View, California (letter report)	Holman & Associates
S-008447	David Chavez	1981	Archaeological sites Review for the Ames Research Center Environmental Resources Document, Santa Clara County, California	
S-012528	Donna M. Garaventa, Rebecca L. Anastasio, Stuart A. Guedon, Sondra Jarvis, Lisa A. Pujol, and Steven J. Rossa	1990	Archaeological sites Assessment for 1990 General Plan Update, City of Mountain View, Santa Clara County, California	Basin Research Associates, Inc.
S-015230	James R. Rappaport and Phillip C. A. Meredith	1976	Soil Core Grid Layout for Location of the Chittenden Mound	Stanford University
S-015758	Donna M. Garaventa, Stuart A. Guedon, David G. Brittin, Ranbir S. Sidhu, and Deborah M. DiPasqua	1993	Archaeological Investigation, CA-SCL-23, for the Modification of the Outdoor Aerodynamic Research Facility (OARF), NASA Ames Research Center, Moffett Field, Santa Clara County, California	Basin Research Associates, Inc.
S-016393	Donna M. Garaventa, Stuart A. Guedon, Deborah M. DiPasqua, and Conrad F. Praetzel	1993	Final Report, Archaeological Test Program, CA-SCL-23 and Vicinity, for the National Wind Tunnel Complex (NWTC), NASA Ames Research Center, Moffett Field, Santa Clara County, California	Basin Research Associates, Inc.
S-019881		1995	NASA - Ames Research Center, Moffett Field, California; Section 110 Survey	NASA Ames Research Center

Table 3: Cultural Resource Studies Within ¼ Mile of the project area

Report Number	Authors	Year	Title	Reference
S-008371	David Chavez	1981	Archaeological sites Evaluations for the Proposed Navy Housing Locations at Moffett Field, Santa Clara County, California	David Chavez & Associates
S-022302	David Reel and Lori Neff	1995	Section 106 Analysis of the Proposed Acoustic Modification to the 40 x 80 Wind Tunnel	Daniel, Mann, Johnson & Mendenhall
S-032499		2006	Archaeological sites Survey of Approximately 76.6 Acres for BRAC 2005 Activities at Moffett Field USAR Complex, Santa Clara County, California	Tetra Tech, Inc.

Table 4: Other Overview Studies Within ¼ Mile of the project area

Report Number	Author	Date	Title	Reference
S-004492	Miley P. Holman	1978	An archaeological field reconnaissance of both banks of Stevens Creek between the bay and Homestead Boulevard in Mountain View, California (letter report)	Holman & Associates
S-008371	David Chavez	1981	Archaeological sites Evaluations for the Proposed Navy Housing Locations at Moffett Field, Santa Clara County, California	David Chavez & Associates
S-008447	David Chavez	1981	Archaeological sites Review for the Ames Research Center Environmental Resources Document, Santa Clara County, California	
S-012528	Donna M. Garaventa, Rebecca L. Anastasio, Stuart A. Guedon, Sondra Jarvis, Lisa A. Pujol, and Steven J. Rossa	1990	Archaeological sites Assessment for 1990 General Plan Update, City of Mountain View, Santa Clara County, California	Basin Research Associates, Inc.
S-015230	James R. Rappaport and Phillip C. A. Meredith	1976	Soil Core Grid Layout for Location of the Chittenden Mound	Stanford University

Report Number	Author	Date	Title	Reference
S-015758	Donna M. Garaventa, Stuart A. Guedon, David G. Brittin, Ranbir S. Sidhu, and Deborah M. DiPasqua	1993	Archaeological Investigation, CA-SCL-23, for the Modification of the Outdoor Aerodynamic Research Facility (OARF), NASA Ames Research Center, Moffett Field, Santa Clara County, California	Basin Research Associates, Inc.
S-016393	Donna M. Garaventa, Stuart A. Guedon, Deborah M. DiPasqua, and Conrad F. Praetzel	1993	Final Report, Archaeological Test Program, CA-SCL-23 and Vicinity, for the National Wind Tunnel Complex (NWTC), NASA Ames Research Center, Moffett Field, Santa Clara County, California	Basin Research Associates, Inc.
S-019881	N/A	1995	NASA - Ames Research Center, Moffett Field, California; Section 110 Survey	NASA Ames Research Center
S-022302	David Reel and Lori Neff	1995	Section 106 Analysis of the Proposed Acoustic Modification to the 40 x 80 Wind Tunnel	Daniel, Mann, Johnson & Mendenhall
S-032499	N/A	2006	Archaeological sites Survey of Approximately 76.6 Acres for BRAC 2005 Activities at Moffett Field USAR Complex, Santa Clara County, California	Tetra Tech, Inc.

4.0 Native American Consultation

On July 31, 2015, Aimee Arrigoni of WSA contacted the Native American Heritage Commission (NAHC) by letter to request information on known Native American traditional or cultural properties for the above-referenced 2,013-acre NASA Ames Research Center project, and to request a listing of individuals or groups with cultural affiliation to the project area (WSA 2015). This previous consultation was done for the development of the Final Environmental Impact Report for Moffett Towers II (Kimley Horn 2016). As that consultation encompassed the footprint of the Bay View project and was conducted less than two years ago, these results are still applicable to the Bay View project. NAHC staff member Ms. Debbie Pilas-Treadway replied to the WSA letter on August 4, 2015, stating “a record search of the sacred land file has failed to indicate the presence of Native American archaeological sites in the immediate project area.” Included in the NAHC response was a list of interested Native American contacts, which is appended to this report. WSA contacted the local Native American representatives by certified letter on August 5, 2015 to solicit comment on the project and any additional information the individuals might have regarding archaeological sites in the project area.

Ed Ketchum, Historian for the Amah Mutsun Tribal Band, responded via email on August 13, 2015:

> Subject: project Moffett Towers 2 - most likely fell within the lands of the what I’ll group together as Puichon people. The Puichon people were a strong group who controlled lands from Los Altos to the San Francisco Bay. These were Tamien speakers over 450 were taken primarily to Mission Santa Clara and Mission Dolores (San Francisco). I believe the subject area was called Auloquis. I am sure you are aware that this is a sensitive area. I suggest you speak with Muwekma Tribal Band as they best represent these ancestors. If a cultural report is developed I would like a copy.

On August 18, 2015, WSA archaeologist Christina Alonso attempted to contact via phone those Native American individuals and groups who had not responded to the letter. Follow-up phone calls were made on August 31, 2015 to those individuals who were not reached via email or phone previously. A copy of the NAHC correspondence as well as a complete record of Native American contacts and their comments can be found in Appendix B.

5.0 Survey Methods

WSA Staff Archaeologists Thomas Young and David Buckley conducted a field reconnaissance of the proposed Bay View project site on June 14, 2016. Because a majority of the project area is currently vacant, a significant amount of exposed ground surface was available for viewing; however, much of this was covered with gravel. Most of the exposed ground surface appears in areas where grading has already taken place, and along drainage ditches. The northeast section of the project area was surveyed first, followed by the southernmost portion, the mid southern portion and then the northwest portion of the project area. Mr. Young and Mr. Buckley surveyed the entire project area stopping to investigate any exposed ground surface for the presence of prehistoric or historic artifacts and any evidence for the presence of cultural soils such as shell midden. Seventy-five percent of all exposed ground surface within the project area was examined for the presence of historic or prehistoric site indicators. Historic site indicators include, but are not limited to foundations, fence lines, ditches, standing buildings, objects or structures such as sheds, or concentrations of materials at least 50 years in age, such as domestic refuse (glass bottles, ceramics, toys, buttons or leather shoes), or refuse from other pursuits such as agriculture (e.g., metal tanks, farm machinery parts, horse shoes) or structural materials (e.g., nails, glass window panes, corrugated metal, wood posts or planks, metal pipes and fittings, etc.). Prehistoric site indicators include, but are not limited to areas of darker soil with concentrations of ash, charcoal, bits of animal bone (burned or unburned), shell, flaked stone, ground stone, or human bone.

It was not possible to survey the remaining twenty five percent of the project area due to development, spoils, and other disturbances. An attempt was made to relocate the previously

recorded archaeological site CA-SCL-23 (P-43-00043) during the survey, but no evidence of the site was observed.

6.0 Results of the Field Survey

Much of the area within the northeast section of the project area (north of Lomax Lane between Parsons Avenue and Defrance Avenue) was covered with project trailers, parking, and other structures. Sections of the ground were paved, and others were covered with gravel; only one section near the curve of Parsons Avenue was open ground (Appendix B: Photos 1-2). Therefore, ground visibility within these areas varied from very low to moderate. High grasses, bumpy terrain, and a drainage ditch within the central portion of the survey area also made visibility challenging. A small section of this area could not be surveyed due to a "No Trespassing" sign posted by NASA.

The southern section of the project area (bounded by a levee and Wright Avenue, Hunsaker and Allen roads) was heavily disturbed due to previous grading. The ground was covered with spoils piles from other areas, and included a large excavated pit. Almost no undisturbed soils were visible (Appendix B: Photos 3-4). Therefore, ground visibility within these areas was very low.

The middle southern section of the project area (bounded by a levee and Wright Avenue, Allen Road and Lomax Lane) had thick vegetation through most of the site. Only very small sections of open ground were available for examination (Appendix B: Photos 5-6). Therefore, ground visibility within this area was low.

The northwestern section of the project area (between a levee and Parsons Avenue, north of Lomax Lane) was flat but uneven. Dried up water courses and retention ponds were visible. Disturbances to the area included power poles, a gravel road along the perimeter, and fence lines (Appendix B: Photos 7). Ground visibility within this area was moderate (40-60%).

CA-SCL-23 (P-43-000043) was not relocated during the survey. Site records dating to 1912 (Loud) state that the site was possibly destroyed due to agricultural practices (Appendix B: Photo 8). Vegetation in the recorded location of the site was similar to the other surrounding areas, and the soil was consistent with the gravelly silty clay seen in other portions of the project area.

Overall, the soil within the project area varied from gravelly silty clay to gravelly sandy silt. The soil was dry, and ranged in color from yellow/brown to brownish-grey. Vegetation included tall dry grasses, thistles, tumbleweed, wildflowers, mustard plants, and others.

Neither prehistoric or historic deposits nor evidence of prehistoric cultural soils (e.g., midden sediments) were observed during the archaeological survey.

7.0 Impact Assessment and Recommendations Regarding Discoveries during Construction

7.1 NRHP/CRHR Criteria for Evaluation

Under the National Environmental Policy Act (NEPA), federal agencies have the responsibility to “preserve important historic, cultural and natural aspects of our national heritage...” (Section 101(b)(4), 42 U.S.C. § 4331). The 1966 National Historic Preservation Act (NHPA), as amended, requires Federal agencies to take into account the effects of their undertakings on “historic properties” (i.e., archaeological sites eligible for or listed on the National Register of Historic Places [NRHP]), which is done through the Section 106 process as established in 36 CFR Part 800. NEPA review and NHPA Section 106 compliance are typically coordinated when a Federal action reviewed under NEPA constitutes an undertaking requiring NHPA Section 106 compliance.

The NRHP, created under the NHPA, is the federal list of historic, archaeological, and archaeological sites worthy of preservation and is maintained and expanded by the National Park Service on behalf of the Secretary of the Interior. The Office of Historic Preservation in Sacramento, California, administers the local NRHP program under the direction of the State Historic Preservation Officer. Resources listed in the NHRP include districts, sites, buildings, structures, and objects that are significant in American history, prehistory, architecture, archaeology, engineering, and culture.

To guide the selection of properties included in the NRHP, the National Park Service has developed the NRHP Criteria for Evaluation. The criteria are standards by which every property that is nominated to the NRHP is judged. The quality of significance in American history, architecture, archaeology, and culture is possible in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, material, workmanship, feeling, and association and that meet one of the following criteria:

- **Criterion A**: A property is associated with events that have made a significant contribution to the broad patterns of our history; or
- **Criterion B**: A property is associated with the lives of persons significant in our past; or
- **Criterion C**: A property embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components make lack individual distinction; or

- **Criterion D**: A property has yielded, or may be likely to yield, information important in prehistory or history (36 CFR Part 60).

Integrity

In addition to meeting one or more of the four specific criteria listed above, a historic property or historic resource must possess "integrity" to qualify for listing in either the NRHP or the CRHR. Integrity is generally evaluated with reference to qualities including location, design (i.e., site structure), materials, workmanship, setting, feeling, and association. A potentially eligible site must retain the integrity of the values that would make it significant. Typically, integrity is indicated by evidence of the preservation of the contextual association of artifacts, ecofacts, and features within the archaeological matrix (as would be required under Criterion D/4) or the retention of the features that maintain contextual association with historical developments or personages that render them significant (Criteria A, B, or C/1, 2, or 3). Evidence of the preservation of this context is typically determined by stratigraphic analysis and analysis of diagnostic artifacts and other temporal data (e.g., obsidian hydration, radiocarbon assay) to ascertain depositional integrity or by the level of preservation of historic and architectural features that associate a property with significant events, personages, or styles.

Integrity refers both to the authenticity of a property's historic identity, as shown by the survival of physical characteristics that existed during its historic period, and to the ability of the property to convey its significance. This is often not an all-or-nothing scenario (determinations can be subjective); however, the final judgment must be based on the relationship between a property's features and its significance.

7.2 Assessment and Recommendations

WSA conducted the archaeological survey of the project area for the Bay View project on June 16, 2016. One resource (CA-SCL-23 [P-48-000043]) has been recorded within the project area, but was not relocated during the survey. The archaeological survey of the project area did not identify any previously unrecorded archaeological sites.

Typically, the Section 106 process involves a series of steps including identification, testing, evaluation, and data recovery, if recommended. The significance of archaeological properties is evaluated by assessing their potential eligibility for listing in the NRHP, typically under Criterion D, which states that a property can be considered eligible for listing in the NRHP if it "has yielded, or may be likely to yield, information important in prehistory or history" (36 Code of Federal Regulations [CFR] Part 60). Potential eligibility under Criteria A, B, and C are also considered. As CA-SCL-23 (P-43-000043) was not relocated and is believed to have been destroyed sometime after it was recorded in 1912, it is not possible to make a recommendation

about its potential eligibility for the NRHP under any of the four criteria. For the same reason, there is no indication that any project-related alterations to the project area would have an adverse effect to the site.

WSA recommends the following actions in case of unanticipated discoveries.

- In the event that human remains and/or cultural materials are discovered during ground disturbing activities, project-related construction would cease within a 15 meter (50-foot) radius of the discovery in order to proceed with the testing and mitigation measures required pursuant to Section 7050.5(b) of the California Health and Safety Code and Section 5097.98 of the Public Resources Code of the State of California. The State Historic Preservation Officer and the NASA Federal Preservation Officer would be contacted as soon as possible. Construction in the affected area would not resume until the regulations of the Advisory Council on Historic Preservation (36 CFR Part 800) have been satisfied.

- In the event that Native American human remains or funerary objects are discovered, the provisions of Section 7050.5(b) of the California Health and Safety Code should be followed.

  In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

  The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within 24 hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to State law, then the remains would be reinterred with the items associated with the Native American burial on the property in a location not subject to further disturbance.

8.0 References Cited

Archives & Architecture, LLC
2012 *County of Santa Clara Historic Context Statement*. Prepared for County of Santa Clara Department of Planning & Development Planning Office. December 2004 (revised February 2012).

Baker, David R.
2006 "Where science takes flight / Lockheed marks 50 years in Sunnyvale" accessed August 12, 2015 online at http://www.sfgate.com/bayarea/article/Where-science-takes-flight-Lockheed-marks-50-2469631.php

Beardsley, Richard K.
1948 Cultural Sequences in Central California Archaeology. *American Antiquity* 14(1):1–29.
1954 Temporal and Areal Relationships in Central California Archaeology. *University of California Archaeological Survey Reports* 24-25. University of California, Berkeley.

Beck, Warren A. and Ynez D. Haase
1988 *Historical Atlas of California*. University of Oklahoma Press, Norman.

Bennyhoff, James A., and Richard E. Hughes
1987 Shell Bead Ornament Exchange Networks Between California and the Western Great Basin. *Anthropological Papers of the American Museum of Natural History* 64 (2):79–175. American Museum of Natural History, Washington, D.C.

Bocek, Barbara Rose
1986 Hunter Gatherer Ecology and Settlement Mobility Along San Francisquito Creek. Doctoral dissertation, Department of Anthropology, Stanford University, Palo Alto, CA.

Bolton, Herbert E. (editor)
1930 *Anza's California Expeditions*. 5 vols. University of California Press, Berkeley.

Breschini, Gary S.
1983 Models of Population Movements in Central California Prehistory. Doctoral dissertation, Department of Anthropology, Washington State University, Pullman, WA.

Brown, Lauren (editor)
1985 *The Audubon Society Nature Guides. Grasslands*. New York, Alfred A. Knopf, Inc.

Cambra, Rose Mary, Alan Leventhal, Laura Jones, Julia Hammett, Les Field, Norma Sanchez, and Robert Jurmain
1996 Archaeological Investigations at Kaphan Umux (Three Wolves) Site, CA-SCL-732: A Middle Period Prehistoric Cemetery on Coyote Creek in Southern San Jose, Santa Clara County, California. Report on file at Caltrans District 4 Offices, Oakland, CA.

Chartkoff, Joseph L. and Kerry Kona Chartkoff
1984 *The Archaeology of California*. Stanford University Press, Palo Alto, CA.

City of Santa Clara
2010 Santa Clara "The Mission City." http://santaclaraca.gov/index.aspx?page=506 Accessed January 21, 2010.

Cole, Tom
1988 *A Short History of San Francisco*. Lexikos Publishing, San Francisco, CA.

Cook, Sherburne F.
1943 The Conflict Between the California Mission Indians and White Civilization. *Ibero-Americana*, Vol. 22. Berkeley, CA.

Farallon Consulting, L.L.C.
2014a Phase 1 Environmental Site Assessment Report Lockheed Martin Space Systems Company Building 150. Farallon PN: 1240-001. Prepared for Lockheed Martin Space Systems Company 1111 Lockheed Martin Way Sunnyvale, California.
2014b Phase 1 Environmental Site Assessment Report Lockheed Martin Space Systems Company Buildings 141, 151, 152, and 155 (Parcel 4SW). Farallon PN: 1240-002. Prepared for Lockheed Martin Space Systems Company 1111 Lockheed Martin Way Sunnyvale, California.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Doctoral dissertation, Department of Anthropology, University of California, Davis.
1974 Cultural Diversity in Early Central California: A View from the North Coast Ranges. *The Journal of California Anthropology* 1(1):41-53.
1994 Archaeological Taxonomy in Central California Reconsidered. In Richard E. Hughes, editor, *Toward a New Taxonomic Framework for Central California*

Archaeology. Essays by James A Bennyhoff and David A. Fredrickson, pp.93-104. Contributions of the University of California Archaeology Research Facility 15. University of California, Berkeley

Gerow, Burt with Roland Force
1968 *An Analysis of the University Village Complex with a Reappraisal of Central California Archaeology*. Stanford University Press, Palo Alto, CA.

Groza. Randy G.
2002 An AMS chronology for central California *Olivella* shell beads. Unpublished Master's thesis. San Francisco State University, San Francisco, CA.

Heizer, Robert F.
1964 The Western Coast of North America. In *Prehistoric Man in the New World*, Jesse D. Jennings and Edward Norbeck, editors, pp. 117-148. University of Chicago Press, Chicago, IL.

Heizer, Robert F. and Franklin Fenenga
1939 Archaeological Horizons in Central California. *American Anthropologist* 41:378-399.

Hughes, Richard E. (editor)
1994 *Toward a New Taxonomic Framework for Central California Archaeology. Essays by James A. Bennyhoff and David A. Fredrickson*. Contributions of the University of California Archaeological Research Facility 52, Berkeley.

Hynding, Alan
1984 *From Frontier to Suburb: The Story of the San Mateo Peninsula*. Star Publishing Company, Belmont, CA.

Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology of the Smithsonian Institution. Bulletin 78, Washington D.C.

Kyle, Douglas E.
1990 *Historic Spots in California*. 4th edition. Stanford University Press, Stanford, CA.

Levy, Richard
1978 Costanoan. In *Handbook of North American Indians, Volume 8, California*, Robert F. Heizer, editor, pp. 485-495. Smithsonian Institution, Washington, D.C.

Lillard, Jeremiah B., Robert F. Heizer and Franklin Fenenga
1939 An Introduction to the Archeology of Central California. *Sacramento Junior College Department of Anthropology Bulletin* 2. The Sacramento Unified School District, Sacramento, CA.

Lightfoot, Kent G., and Edward M. Luby
2002 Late Holocene in the San Francisco Bay Area: Temporal Trends in the Use and Abandonment of Shell Mounds in the East Bay. In Jon M. Erlandson and Terry L. Jones, editors, *Catalysts to Complexity: Late Holocene Societies of the California Coast*, pp. 263-281. Perspectives in California Archaeology, Volume 6. Cotsen Institute of Archaeology, University of California, Los Angeles.

Milliken, Randall
1983 The Spatial Organization of Human Population on Central California's San Francisco Peninsula at the Spanish Arrival. Master's thesis (Cultural Resources Management), Department of Anthropology, Sonoma State University, Rohnert Park, CA.

Milliken, Randall T. and James A. Bennyhoff
1993 Temporal Changes in Beads as Prehistoric California Grave Goods. In The Grows a Green Tree: Papers in Honor of David A. Fredrickson, edited by Greg White, Pat Mikkelsen, William R. Hildebrandt and Mark E. Basgall, pp. 381-395. Center for Archaeological Research at Davis, Publication 11.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier and David A. Fredrickson
2007 Punctuated Culture Change in the San Francisco Bay Area. In Terry L. Jones and Kathryn A. Klar (eds) *California Prehistory: Colonization, Culture, and Complexity*, pp. 99-123. Altamira Press: Lanham.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, New York.

Nelson, Nels C.
1909 *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology 7(4):310-357. University of California, Berkeley.

National Park Service (NPS)
2006 Santa Clara County: California's Historic Silicon Valley. <http://www. cr.nps.gov/nr/travel/santaclara/history.htm>

Ragir, Sonia
1972 The Early Horizon in Central California Prehistory. *Contributions of the University of California Archaeological Research Facility* No. 15. Berkeley.

Shoup, Laurence, and Randall T. Milliken and Alan K. Brown
1995 Inigo of Rancho Posolmi: The Life and Times of a Mission Indian and His Land. On file at Woodward Clyde, 500 12th Street, Oakland, CA.

Stanger, Frank M., and Alan K. Brown
1969 *Who Discovered the Golden Gate? The Explorers' Own Accounts*. San Mateo Historical Society, San Mateo, CA.

Wiberg, Randy S.
1997 *Archaeological Investigations at Site CA-ALA-42, Alameda County, California: Final Report*. Coyote Press, Salinas, CA.

Willey, Gordon R., and Philip Phillips
1958 *Method and Theory in American Archaeology*. University of Chicago Press, Chicago, IL.

Wohlgemuth, Eric
2004 The Course of Plant Food Intensification in Native Central California. Doctoral dissertation, Department of Anthropology, University of California, Davis.

Young, Robert N., and Paul F. Griffin
1957 Recent Land-Use Changes in the San Francisco Bay Area. *Geographical Review*, Vol. 47/3:396-405.

Appendix A

NAHC Correspondence

Record of Native American Contacts and Comments

Name/ Affiliation	Date Letter Sent	Date Response Received	Date of Follow-up Phone Call	Comments (CSA)	Date of 2nd Follow-up Phone Call	Comments
Ms. Jakki Kehl	8/5/15	Return to sender	8/18/15	She has been really busy and not caught up with stuff. She wants us to send her the records for SCL-12, SCL-13, and SCL-25. Sent email with letter and records	8/31/15	No answer, left message
Katherine Erolinda Perez	8/5/15	8/10/15	8/18/15	No answer, left message	8/31/15	No answer, left message
Ms. Linda G. Yamane	8/5/15	8/7/15	8/18/15	No answer, left message	8/31/15	No answer, left message
Valentin Lopez, Chairperson Amah Mutsun Tribal Band	8/5/15	8/10/15	8/18/15	No answer, left message	8/31/15	No answer, left message
Edward Ketchum Amah Mutsun Tribal Band	8/5/15	8/10/15	N/A	Comments received August 13, 2015 see below (*)	----------	----------
Ms. Irene Zwierlein, Chairperson Amah/Mutsun Tribal Band	8/5/15	No date	8/18/15	No answer, left message	8/31/15	It is a very sensitive site area, she recommends we have a cultural briefing with the crew. She would like to have both a Native American and archaeological monitor.
Ms. Michelle Zimmer	8/5/15	No date	8/18/15	No answer, left message	8/31/15	No answer, left message
Mr. Tony Cerda, Chairperson Coastanoan Rumsen Carmel Tribe	8/5/15	No date	8/18/15	No answer, voicemail box not set up yet	8/31/15	No answer, voicemail box not set up yet
Ms. Ann Marie Sayers, Chairperson Indian Canyon Mutsun Band of Costanoan	8/5/15	8/7/15	8/18/15	Spoke with Ann Marie, she recommends a Native American Monitor and an archaeological monitor during ALL earth movement - they have Native monitors who need work and are OSHA 10 certified	----------	----------
Ms. Rosemary Cambra, Chairperson Muwekma Ohlone Indian Tribe of the SF Bay Area	8/5/15	Return to sender	8/18/15	She has a lot of questions and concerns. She recommends monitoring and if and when burials are found that we contact the tribe. Will send in her recommendations.	----------	----------
Mr. Andrew Galvan, The Ohlone Indian Tribe	8/5/15	No date	8/18/15 Sent email	----------	8/31/15	Sent another follow up email to Andy.
Ms. Ramona Garibay, Representative Trina Marine Ruano Family	8/5/15	No date	8/18/15	Spoke with Mona, she does not have any questions or comments.	----------	----------

* - miSmin TuhyiSte Ms. Arrigoni ,

Subject project Moffett Towers 2 most likely fell within the lands of the what I'll group together as Puichon people. The Puichon people were a strong group who controlled lands from Los Altos to the San Francisco Bay. These were Tamien speakers over 450 were taken primarily to Mission Santa Clara and Mission Dolores (San Francisco). I believe the subject area was called Auloquis. I am sure you are aware that this is a sensitive area. I suggest you speak with Muwekma Tribal Band as they best represent these ancestors. If a cultural report is developed I would like a copy.

Ed Ketchum

Amah Mutsun Tribal Band Historian

Appendix B

Survey Photographs

Photo 1. View East, overview of paved and gravel staging area

Photo 2. View West, overview north of staging area

Photo 3. View Southeast, southern portion of survey area

Photo 4. View west, excavated pit approximately 7 feet deep

Photo 5. View North, taken from southern boundary showing disturbance and grading

Photo 6. View south, overview of spoils pile area

Photo 7. View Northwest, overview of northern survey area

Photo 8. View southwest, overview of recorded location of CA-SCL-23 (P-43-000043)

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APPENDIX C | EXISTING CONDITIONS PHOTOGRAPHS

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Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking north

Looking northwest

View west

View southwest

Existing Conditions | Location No. 1

Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking northwest

View west

View southwest

Existing Conditions | Location No. 2

Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking north

Looking northwest

View west

View southwest

Existing Conditions | Location No. 3

Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking northwest

View west

View southwest

Existing Conditions | Location No. 4

Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking north

Looking northwest

View west

View southwest

Existing Conditions | Location No. 5

Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking northwest

Looking west

View southwest

Existing Conditions | Location No. 6

Satelite image of northwest portion of NASA Ames Research Center, including the Undertaking site (outlined by white dash). Red circle indicates the location of subject photographs. White circles indicate additional photograph locations.
Source: Google Maps, 2016.

Looking south

Looking southeast

Looking east

Looking northeast

Looking north

Looking northwest

View west

View southwest

Existing Conditions | Location No. 7

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APPENDIX D | SELECTED DRAWINGS

BAY VIEW

CONCEPT DEVELOPMENT PLAN

G0000 BAY VIEW CONCEPT DEVELOPMENT PLAN
G0015 BUILDING AREA CALCULATIONS
G0023 SITE PLAN SITE ANALYSIS
G0012 SITE CONSTRAINTS
C2000 NASA FENCE AND ACCESS PLAN
G0017 PROPOSED SITE PLAN
C0201 EMERGENCY VEHICLE ACCESS PLAN
C0202 VEHICULAR CIRCULATION PLAN
C0203 PEDESTRIAN AND BIKE CIRCULATION
A0010 PODIUM FLOOR PLAN
A0020 LEVEL 01 FLOOR PLAN (+24')
A0030 LEVEL 02 FLOOR PLAN (+40')
G0010 ENLARGED CUP, PARKING, HOUSING PLAN
G0018 SITE SECTIONS
A0200 OVERALL ELEVATIONS - N,E,S,W
A0920 EXTERIOR PERSPECTIVE RENDERINGS
A0921 EXTERIOR PERSPECTIVE RENDERINGS
C0100 STORMWATER MANAGEMENT PLAN
C0001 EXISTING TEMPORARY UTILITIES
C0002 EXISTING PERMANENT UTILITIES
C0020 SANITARY SEWER COLLECTION SYSTEM
C0030 STORM DRAIN COLLECTION SYSTEM
C0040 DOMESTIC WATER DISTRIBUTION SYSTEM
C0050 RECYCLED WATER DISTRIBUTION SYSTEM
C0060 CHILLER WATER DISTRIBUTION SYSTEM
C0070 GAS DISTRIBUTION SYSTEM
C0080 ELECTRICAL SYSTEM
C0090 TELECOMMUNICATIONS SYSTEM
C0200 NASA SITE ACCESS EXHIBIT
C0500 UTILITY CROSS SECTION LOCATIONS
C0501 SITE UTILITY CROSS SECTIONS
L0100 SITE PLAN
L0101 ADA AND LIFE SAFETY
L0650 SITE LIGHTING STRATEGY
L0660 SITE LIGHTING PLAN (PHOTOMETRIC TARGET)
L0900 EXTERIOR PLANTING PLAN - TREES
L0901 EXTERIOR PLANTING PLAN - TREES (6+10 YEARS CANOPY OVERLAY, SIGHT LINES)
L0902 EXTERIOR PLANTING PLAN - UNDERSTOREY VEGETATION
L0950 EXTERIOR PLANT SCHEDULE

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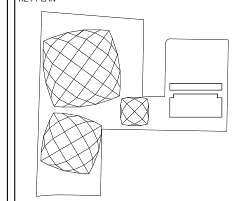
KEY PLAN



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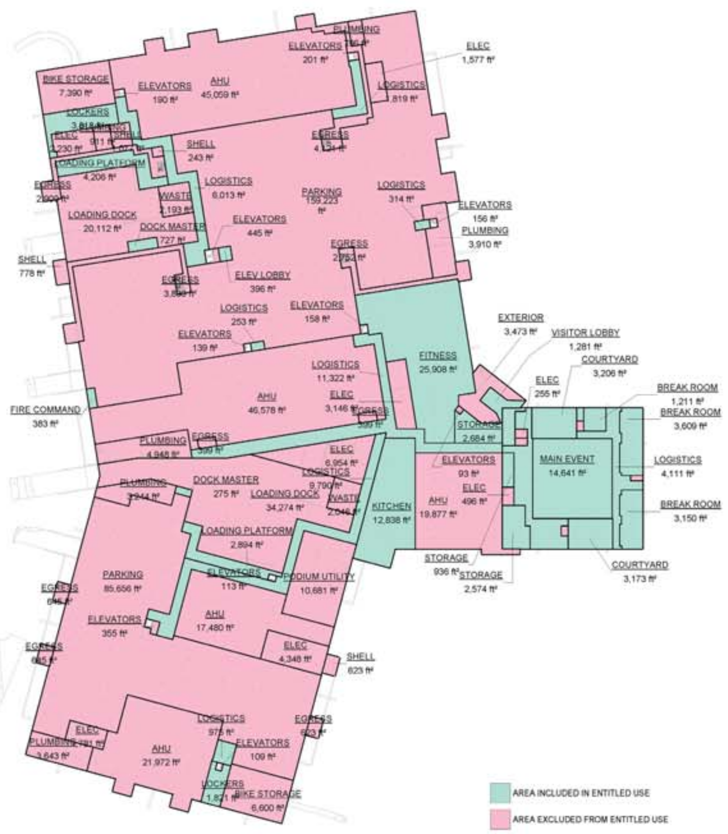
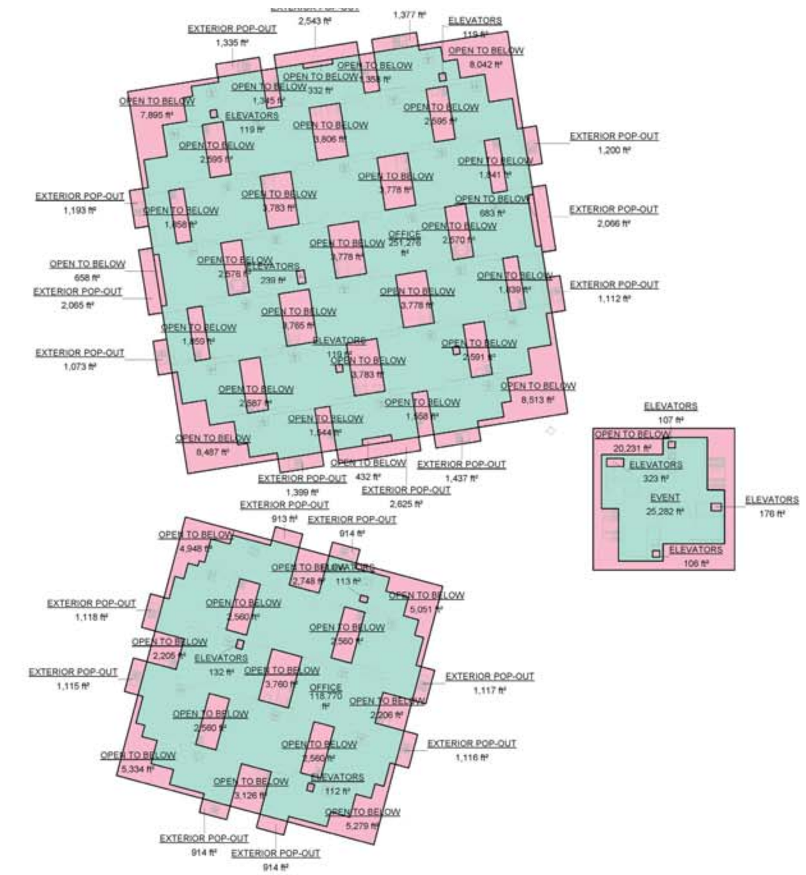


- AREA INCLUDED IN ENTITLED USE
- AREA EXCLUDED FROM ENTITLED USE

PODIUM (0)

LEVEL 1 (1)



LEVEL 2 (2)

PODIUM BUILT AREA 674,833 ft²

EXCLUDED AREAS

AHU	150,967 ft²
BIKE STORAGE	13,990 ft²
EGRESS	16,313 ft²
ELEC	20,786 ft²
ELEVATORS	2,653 ft²
EXTERIOR	3,473 ft²
LOADING DOCK	54,386 ft²
PARKING	244,880 ft²
PLUMBING	17,451 ft²
PODIUM UTILITY	10,681 ft²
SHELL	2,720 ft²
WASTE	4,239 ft²
	542,539 ft²

ENTITLED USE AREAS

BOH	6,544 ft²
BREAK ROOM	7,970 ft²
COURTYARD	6,378 ft²
DOCK MASTER	1,002 ft²
ELEV LOBBY	396 ft²
FIRE COMMAND	383 ft²
FITNESS	25,908 ft²
GREEN ROOM	1,202 ft²
KITCHEN	12,838 ft²
LOADING PLATFORM	7,100 ft²
LOCKERS	5,639 ft²
LOGISTICS	34,596 ft²
MAIN EVENT	14,641 ft²
RESTROOM	220 ft²
STORAGE	6,194 ft²
VISITOR LOBBY	1,281 ft²
	132,293 ft²

TOTAL BUILT AREA 1,820,454 ft²

PODIUM	542,539 ft²
LEVEL 1	18,561 ft²
LEVEL 2	184,692 ft²
TOTAL EXCLUDED:	745,792 ft²

PODIUM	132,293 ft²
LEVEL 1	547,041 ft²
LEVEL 2	395,328 ft²
TOTAL ENTITLED USE:	1,074,662 ft²

LEVEL 1 BUILT AREA 565,602 ft²

EXCLUDED AREAS

OPEN TO BELOW	18,561 ft²
	18,561 ft²

ENTITLED USE AREAS

EVENT	27,664 ft²
OFFICE SUPPORT	519,377 ft²
	547,041 ft²

LEVEL 2 BUILT AREA 580,020 ft²

EXCLUDED AREAS

ELEVATORS	1,788 ft²
EXTERIOR POP-OUT	27,546 ft²
OPEN TO BELOW	155,358 ft²
	184,692 ft²

ENTITLED USE AREAS

EVENT	25,282 ft²
OFFICE	370,046 ft²
	395,328 ft²

SITE AREA CALCULATIONS

	AREA	% OF SITE	NOTE
TOTAL SITE AREA	1,841,794 SF	100%	PARCELS 1, 2, 4
BUILDING FOOTPRINT AREA	674,762 SF	38%	INCLUSIVE OF PODIUM LANDSCAPING
LANDSCAPE AREA	1,167,032 SF	62%	EXCLUSIVE OF PODIUM LANDSCAPING

FLOOR/AREA RATIO 0.597

PARCEL AREAS

PARCEL:	ACRES	HECTARES:
PARCEL 1	32.18	13.02
PARCEL 2	5.20	2.10
PARCEL 4	4.90	1.98
PARCEL 5,10,11	14.52*	5.88

ALL SITE AREAS FROM BAY VIEW CONCEPT DEVELOPMENT PLAN

* AGGREGATE AREA IN CONCEPT DEVELOPMENT PLAN LISTED AS 56.8 ACRES. PARCELS 5, 10 AND 11 INCLUDED IN TOTAL BUT NOT LISTED INDIVIDUALLY.

ALLOWABLE PARKING

2.9 STALLS PER 1000 SF ALLOWABLE

ALLOWABLE AREA = 1,205,000

ALLOWABLE PARKING STALLS = 3,494

STALLS	LOCATION	TYPE
700	PODIUM	STANDARD

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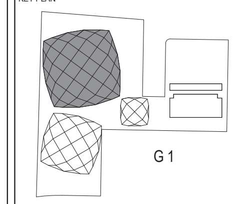

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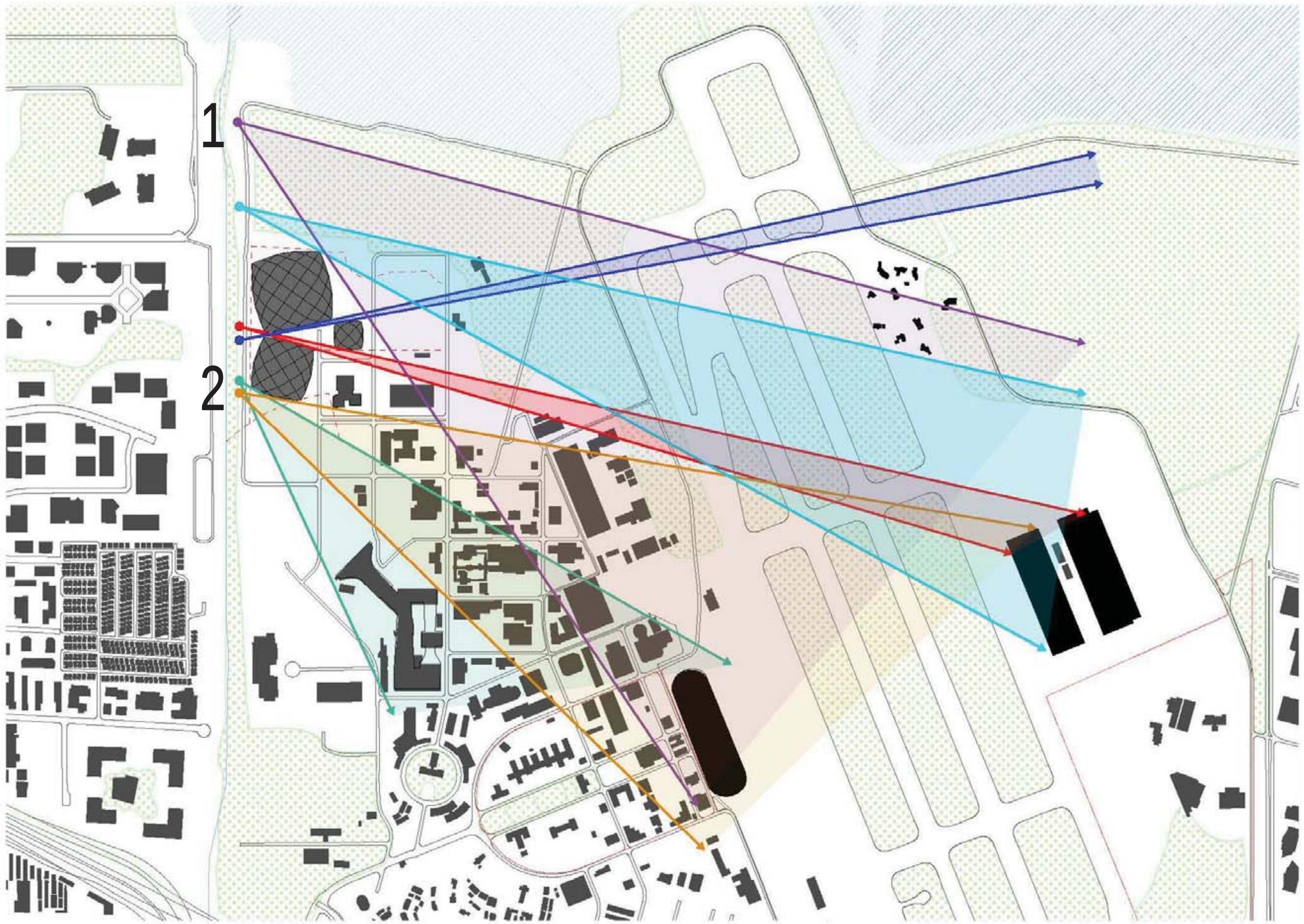

NASA VIEW CORRIDORS 3

VIEW FROM STEVEN'S CREEK TRAIL NORTH 1

VIEW FROM STEVEN'S CREEK TRAIL SOUTH 2

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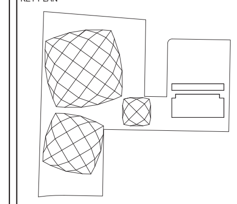

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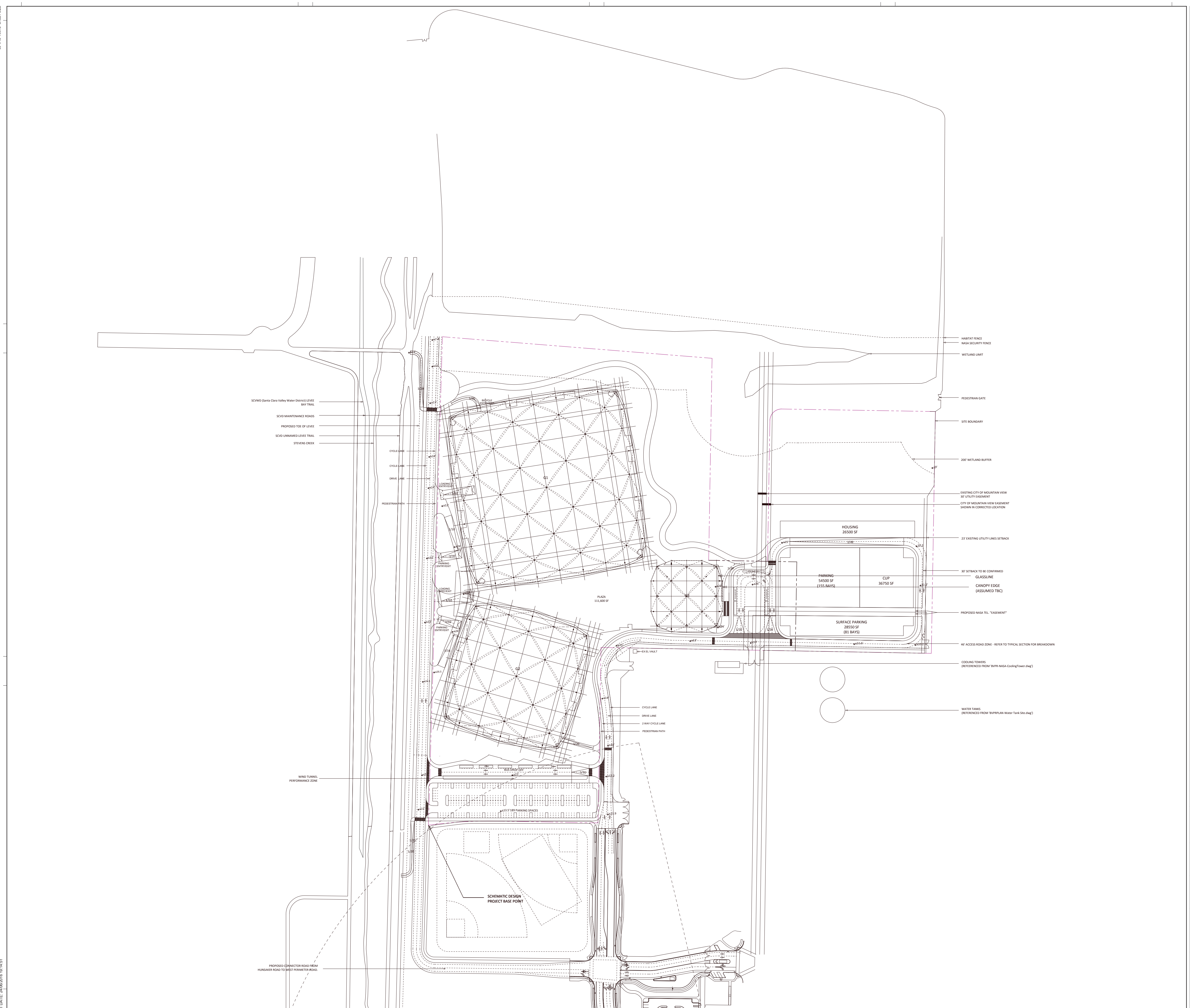

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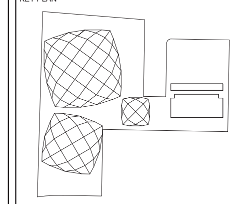

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San Francisco, CA 94105 USA
TEL: +1 415-398-7575

LANDSCAPE:
OLIN
5900 Wilshire Blvd, Suite 401
Los Angeles, CA. 90036 USA
TEL: +1 323-387-3598

CIVIL:
BKF
255 Shoreline Dr, Suite 200
Redwood City, CA 9406 USA
TEL: +1 650-482-6300

CIVIL:
ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
SCALE IN FEET

DRAWING STATUS

Discrepancies must be reported immediately to the Architect before proceeding. Only figured dimensons are to be used. Contractors must check all dimensions on site. This drawing is protected by copyright.

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CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
SITE CONSTRAINTS

SEAL & SIGNATURE:

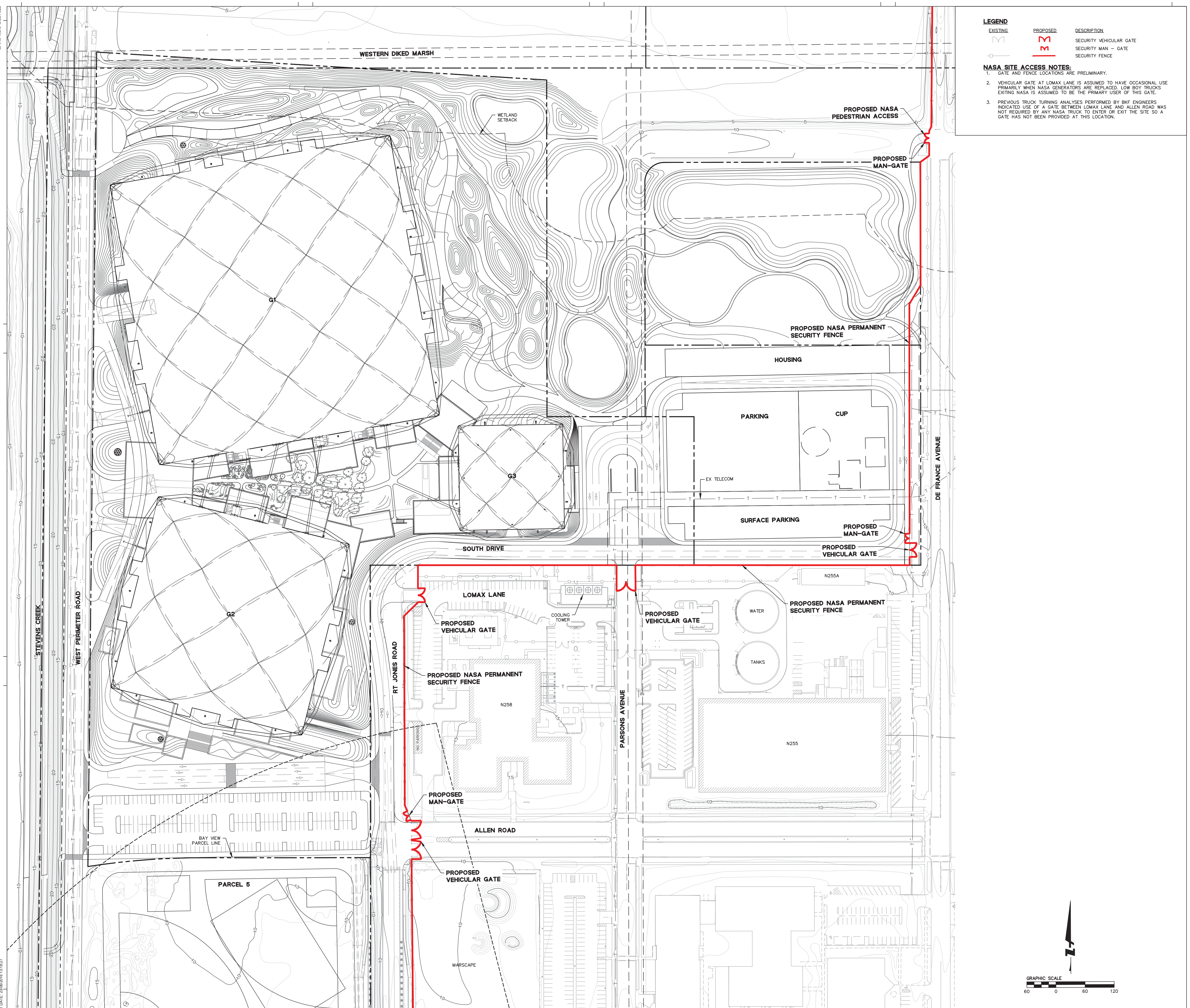
DATE:	06/23/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: 1" = 100'-0"	
DWG No:	G0012

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SECURITY VEHICULAR GATE
		SECURITY MAN – GATE
		SECURITY FENCE

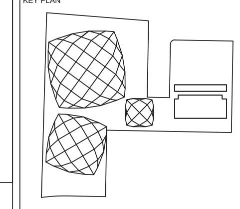
NASA SITE ACCESS NOTES:

1. GATE AND FENCE LOCATIONS ARE PRELIMINARY.
2. VEHICULAR GATE AT LOMAX LANE IS ASSUMED TO HAVE OCCASIONAL USE PRIMARILY WHEN NASA GENERATORS ARE REPLACED. LOW BOY TRUCKS EXITING NASA IS ASSUMED TO BE THE PRIMARY USER OF THIS GATE.
3. PREVIOUS TRUCK TURNING ANALYSES PERFORMED BY BKF ENGINEERS INDICATED USE OF A GATE BETWEEN LOMAX LANE AND ALLEN ROAD WAS NOT REQUIRED BY ANY NASA TRUCK TO ENTER OR EXIT THE SITE SO A GATE HAS NOT BEEN PROVIDED AT THIS LOCATION.



PLANETARY VENTURES

KEY PLAN



PROJECT NORTH | TRUE NORTH

CLIENT:
PLANETARY VENTURES
1600 Amphitheatre Parkway
Mountain View, CA 94043 USA
TEL: +1 650-253-0000

DESIGN CONSULTANT:
BJARKE INGELS GROUP
61 Broadway Suite 3300
New York, NY 10006 USA
TEL: +1 347-549-4141 FAX: +1 866-738-4336

HEATHERWICK STUDIO
356-364 Gray's Inn Road
London, UK WC1X 8BH
TEL: +44 (0) 20-7833-8800

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TEL: +1 510-663-2070

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CIVIL:
ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

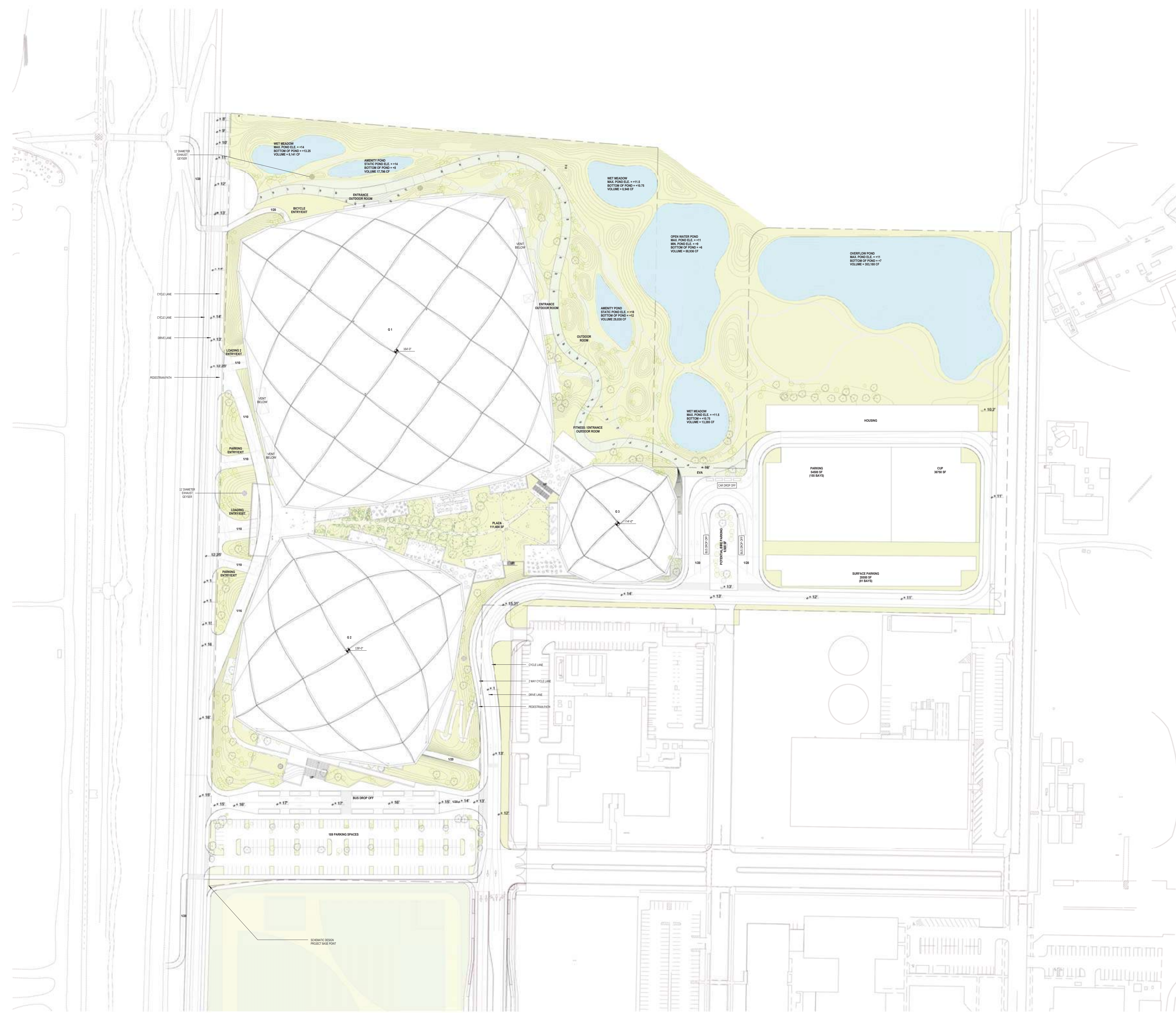
CONSULTANT:
BKF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS
255 SHORELINE DR., SUITE 200
REDWOOD CITY, CA 94065
(650) 482-6300
www.bkf.com

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
NASA SITE ACCESS EXHIBIT

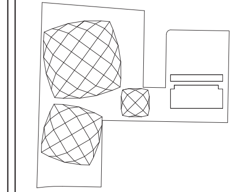
SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	20160013
DRAWN:	AMJ/AJD
CHK:	CJH/MAO
SCALE:	AS SHOWN
REV:	
DWG No:	C200



PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
PLANETARY VENTURES
1600 Amphitheatre Parkway
Mountain View, CA 94043 USA
TEL: +1 650-253-0000

DESIGN CONSULTANT:
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61 Broadway Suite 3300
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ARCHITECT OF RECORD:
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427 13th St,
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STRUCTURE:
THORNTON TOMASETTI
650 California St. Suite 1400
San Francisco, CA 94108 USA
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CIVIL:
ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

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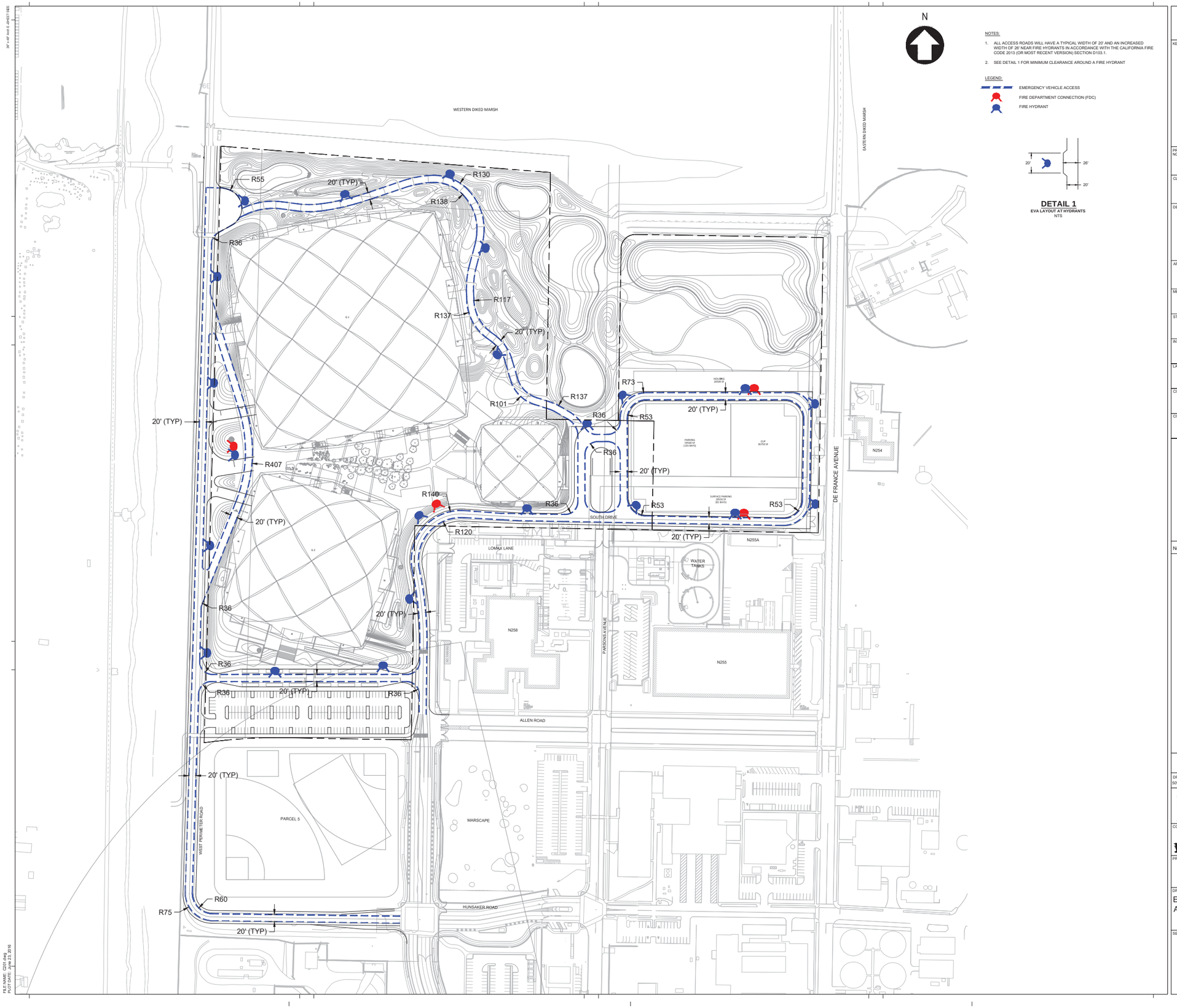
CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
PROPOSED SITE PLAN

SEAL & SIGNATURE:

DATE: 06/17/16
PROJECT No: 10001
DRAWN: Author
CHK: Checker
SCALE: 1/64" = 1'-0"
REV:
DWG No:
G017



N

NOTES:

1. ALL ACCESS ROADS WILL HAVE A TYPICAL WIDTH OF 20' AND AN INCREASED WIDTH OF 26' NEAR FIRE HYDRANTS IN ACCORDANCE WITH THE CALIFORNIA FIRE CODE 2013 (OR MOST RECENT VERSION) SECTION D103.1.
2. SEE DETAIL 1 FOR MINIMUM CLEARANCE AROUND A FIRE HYDRANT

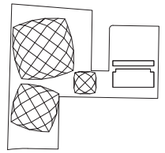
LEGEND:

- EMERGENCY VEHICLE ACCESS
- FIRE DEPARTMENT CONNECTION (FDC)
- FIRE HYDRANT

DETAIL 1
EVA LAYOUT AT HYDRANTS
NTS

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
PLANETARY VENTURES
1600 Amphitheatre Parkway
Mountain View, CA 94043 USA
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San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

80 40 0 80 160
SCALE IN FEET

DRAWING STATUS
50% SCHEMATIC DESIGN

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT:
BIG
Heatherwick studio

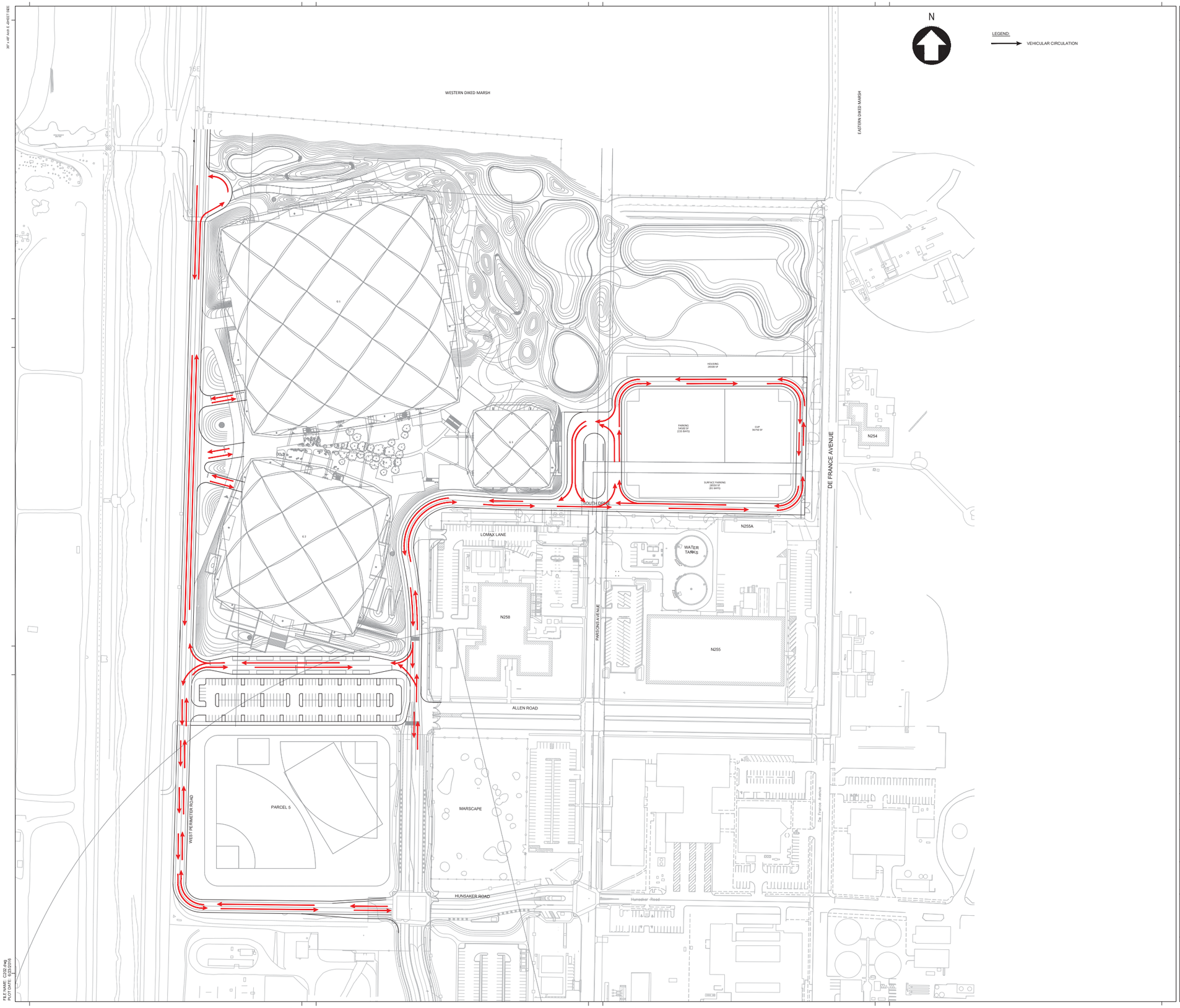
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EMERGENCY VEHICLE ACCESS PLAN

SEAL & SIGNATURE:

DATE: 6/14/2016
PROJECT No: 248815-00
DRAWN:
REV:
CHK:
SCALE:
DWG No:
C201

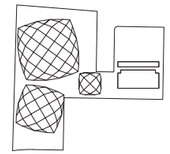
FILE NAME: C201.dwg
PRINTED: Jun 23, 2016



FILE NAME: C202.dwg
PICTURE: 6/6/2016

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
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1600 Amphitheatre Parkway
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61 Broadway Suite 3300
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427 13th St.
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650 California St. Suite 1400
San Francisco, CA 94108 USA
TEL: +1 415-365-6900

INTERIOR:
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405 Howard St #488
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TEL: +1 415-398-7575

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Redwood City, CA 9406 USA
TEL: +1 650-482-6300

CIVIL:
ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

80 40 0 80 160
SCALE IN FEET

DRAWING STATUS
50% SCHEMATIC DESIGN

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
VEHICULAR
CIRCULATION PLAN

SEAL & SIGNATURE:

DATE:	6/14/2016
PROJECT No:	248815-00
DRAWN:	REV:
CHK:	
SCALE:	
DWG No:	C202

PLANETARY VENTURES

KEY PLAN

PROJECT NORTH | TRUE NORTH

CLIENT:
PLANETARY VENTURES
1600 Amphitheatre Parkway
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BJARKE INGELS GROUP
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356-364 Grey's Inn Road
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TEL: +44 (0) 20-7833-8800

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427 13th St.
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650 California St. Suite 1400
San Francisco, CA 94108 USA
TEL: +1 415-365-6900

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CIVIL:
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560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

80 40 0 80 160
SCALE IN FEET

DRAWING STATUS:
50% SCHEMATIC DESIGN

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

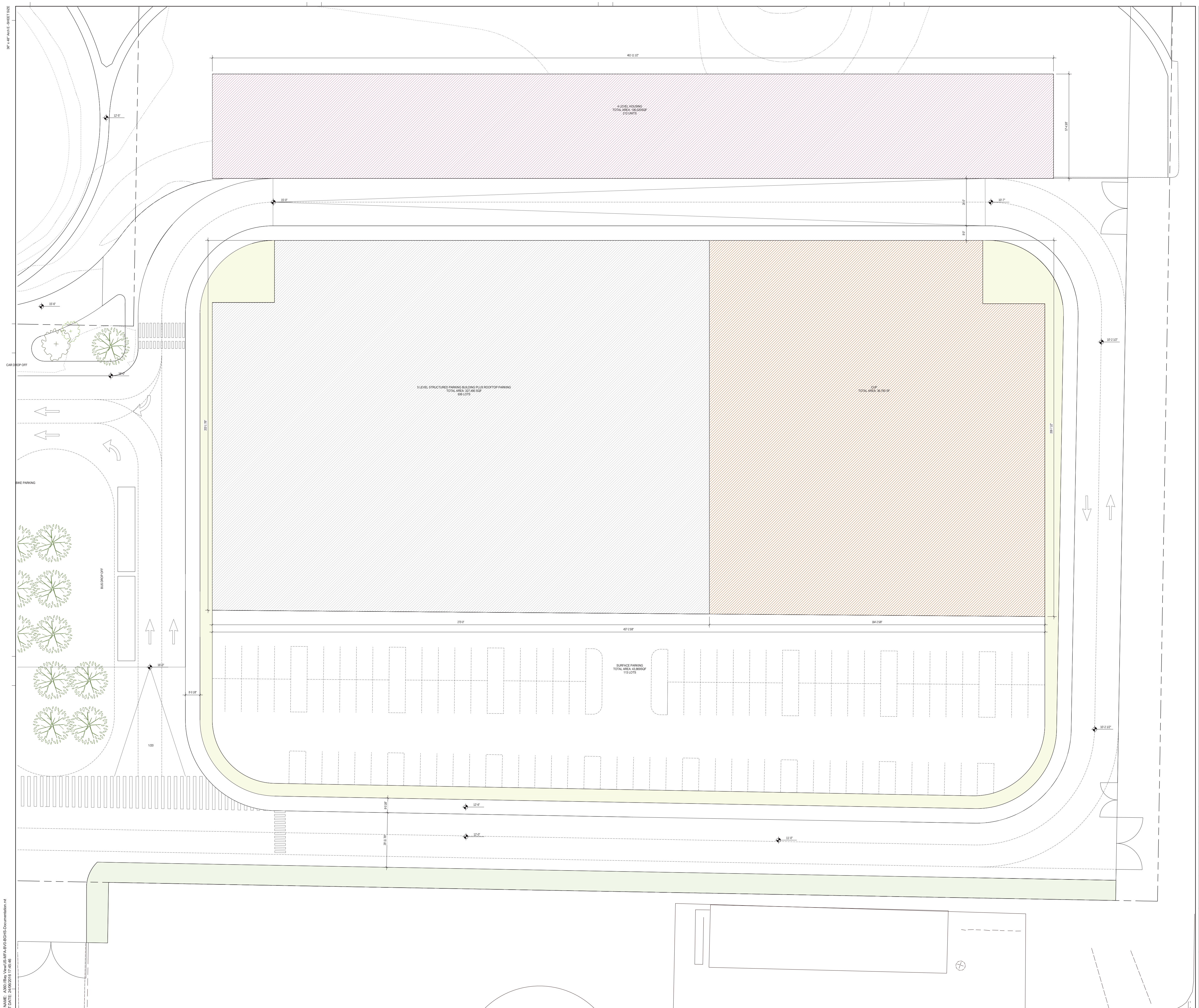
CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
PEDESTRIAN AND
BIKE CIRCULATION

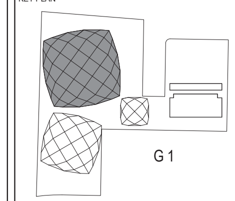
SEAL & SIGNATURE:

DATE:	6/14/2016
PROJECT No:	248815-00
DRAWN:	REV:
CHK:	
SCALE:	
DWG No:	C203



PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
PLANETARY VENTURES
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CIVIL:
ARUP
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San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
SCALE IN FEET

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

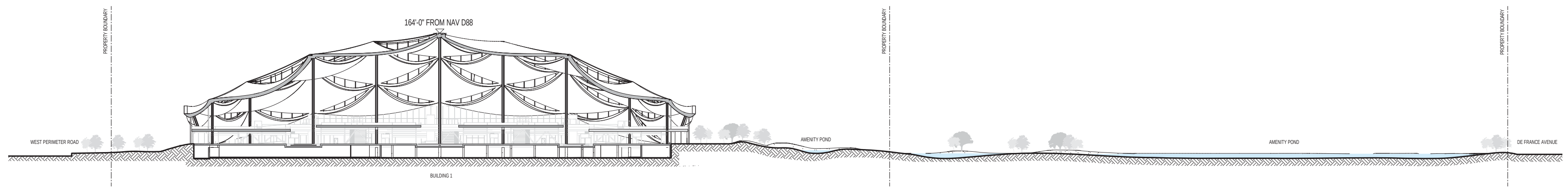
CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

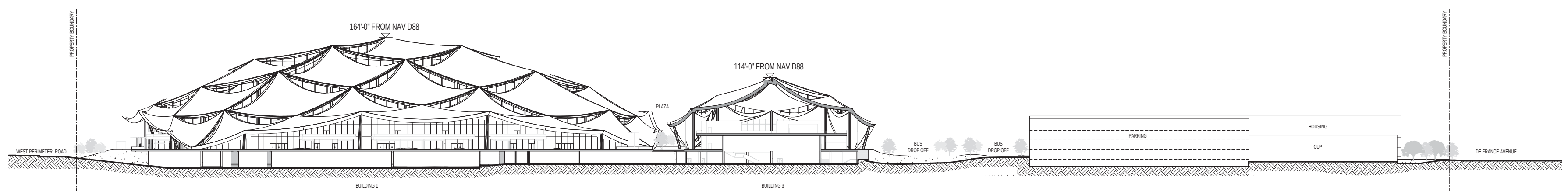
DRAWING TITLE:
ENLARGED CUP, PARKING, HOUSING PLAN

SEAL & SIGNATURE:

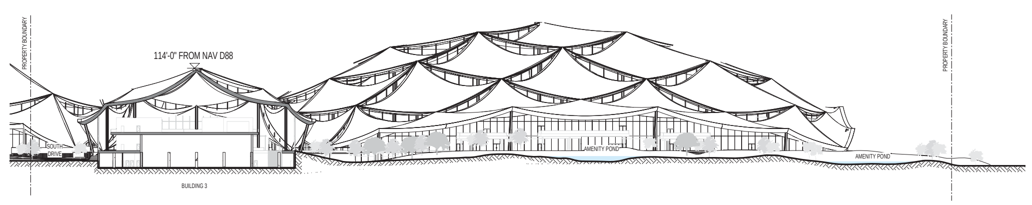
DATE:	06/24/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: 1/16" = 1'-0"	
DWG No:	**G0010**



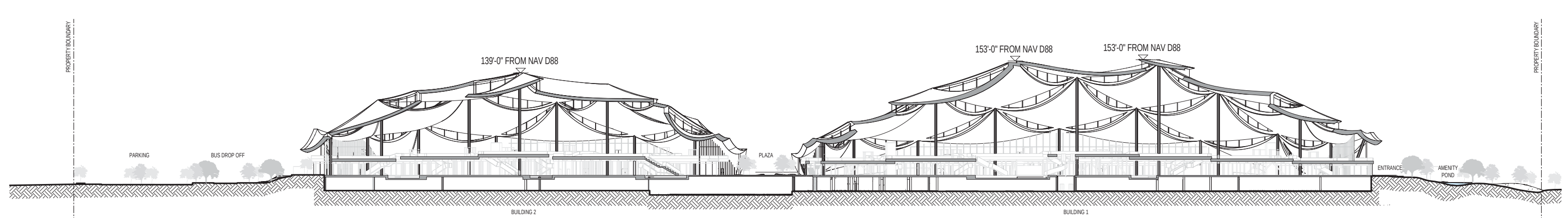
SITE SECTION - SECTION E/W 1 (1)



SITE SECTION - SECTION E/W 2 (2)



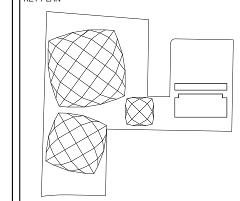
SITE SECTION - SECTION N/S 1 (3)



SITE SECTION - SECTION N/S 2 (4)

PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
PLANETARY VENTURES
1600 Amphitheatre Parkway
Mountain View, CA 94043 USA
TEL: +1 650-253-0000

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61 Broadway Suite 3300
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STRUCTURE:
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San Francisco, CA 94108 USA
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San Francisco, CA 94105 USA
TEL: +1 415-398-7575

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Redwood City, CA 9406 USA
TEL: +1 650-482-6300

CIVIL:
ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

Discrepancies must be reported immediately to the Architect before proceeding. Only figured dimensons are to be used. Contractors must check all dimensions on site. This drawing is protected by copyright.

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

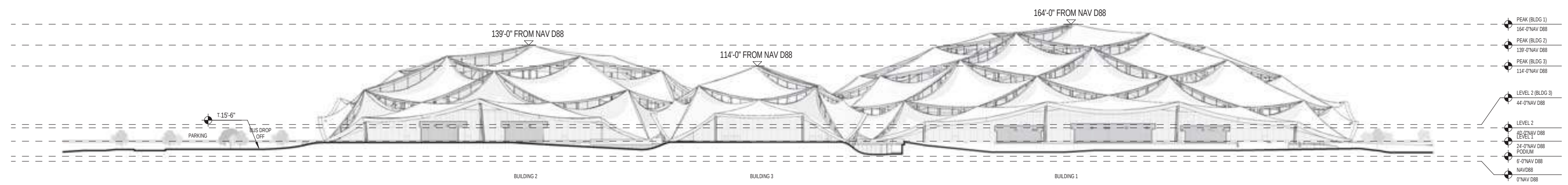
CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

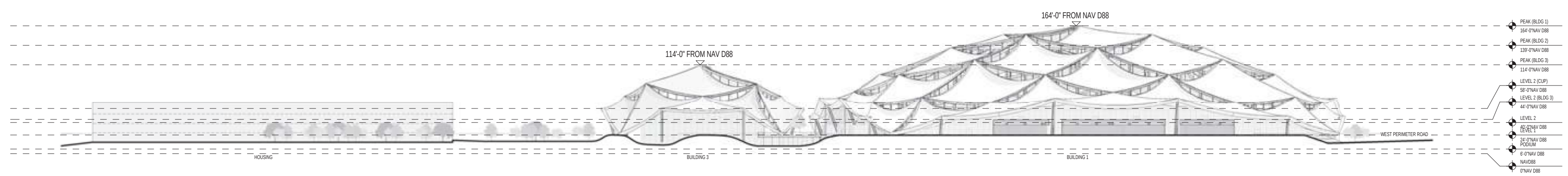
DRAWING TITLE:
SITE SECTIONS

SEAL & SIGNATURE:

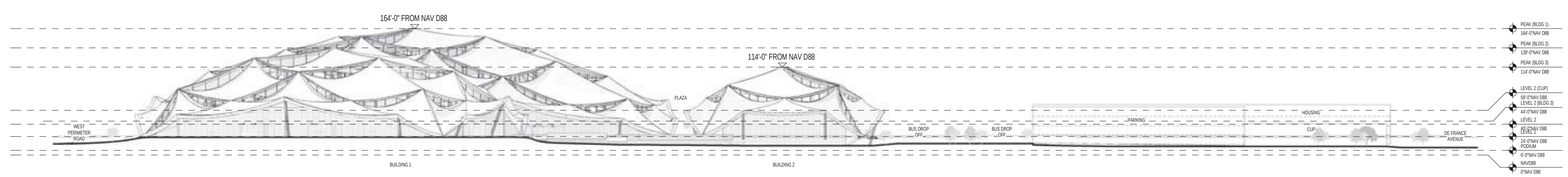
DATE: 06/24/16
PROJECT No: 15505
DRAWN: Author
CHK: Checker
SCALE: 1/64" = 1'-0"
REV:
DWG No:
G0018



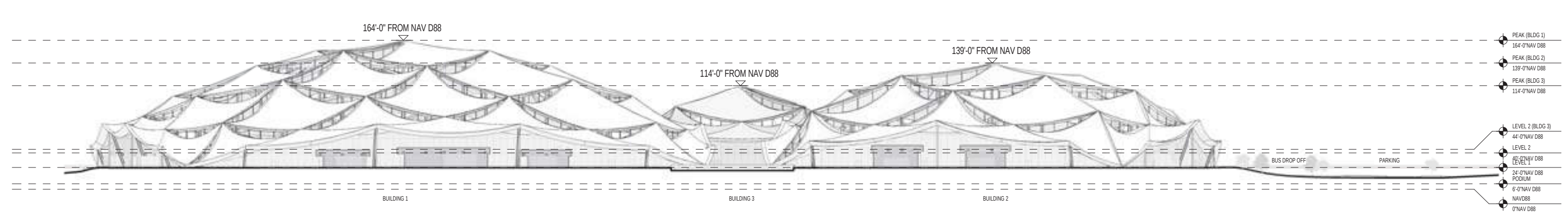
EAST ELEVATION 1



NORTH ELEVATION 2



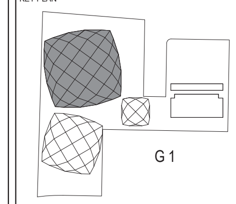
SOUTH ELEVATION 3



WEST ELEVATION 4

PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
PLANETARY VENTURES
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DESIGN CONSULTANT:
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SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
SCALE IN FEET

DRAWING STATUS

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CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
SITE ELEVATIONS

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: 1/64" = 1'-0"	
DWG No:	A0200

36" x 48" Arch E -SHEET SIZE

VIEW FROM STEVEN'S CREEK TRAIL

VIEW FROM CRITTENDEN BRIDGE

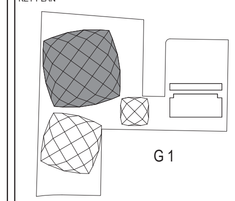
VIEW TO NORTH ENTRY

VIEW FROM SOUTH BAY TRAIL

FILE NAME: A360://Bay View/US-MFA-BV0-BGHS-Documentation.rvt
PLOT DATE: 23/06/2016 18:43:19

PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH | TRUE NORTH

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SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
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CONSULTANT:
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Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EXTERIOR PERSPECTIVE RENDERINGS

SEAL & SIGNATURE:

DATE:	06/14/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: 12" = 1'-0"	
DWG No:	A0920

VIEW OF AN OUTDOOR ROOM

VIEW OF BAY VIEW NATURE TRAIL

EAST ELEVATION FROM THE NATURE TRAIL

VIEW OF CENTRAL PLAZA DURING THE DAY

FILE NAME: A360://Bay View/US-MFA-BV0-BGHS-Documentation.rvt
PLOT DATE: 23/06/2016 18:43:24

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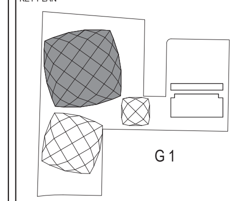
KEY PLAN



PROJECT NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
SCALE IN FEET

DRAWING STATUS

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CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

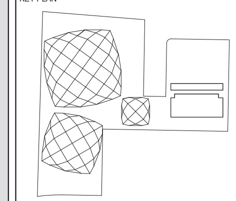
DRAWING TITLE:
EXTERIOR PERSPECTIVE RENDERINGS

SEAL & SIGNATURE:

DATE: 06/14/16		
PROJECT No: 15505		
DRAWN: Author	REV:	
CHK: Checker		
SCALE: 12" = 1'-0"		
DWG No: **A0921**		

PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 32 64 128 192
SCALE IN FEET

DRAWING STATUS

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CONSULTANT:
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PROJECT:
Bay View
NASA AMES RESEARCH CENTER

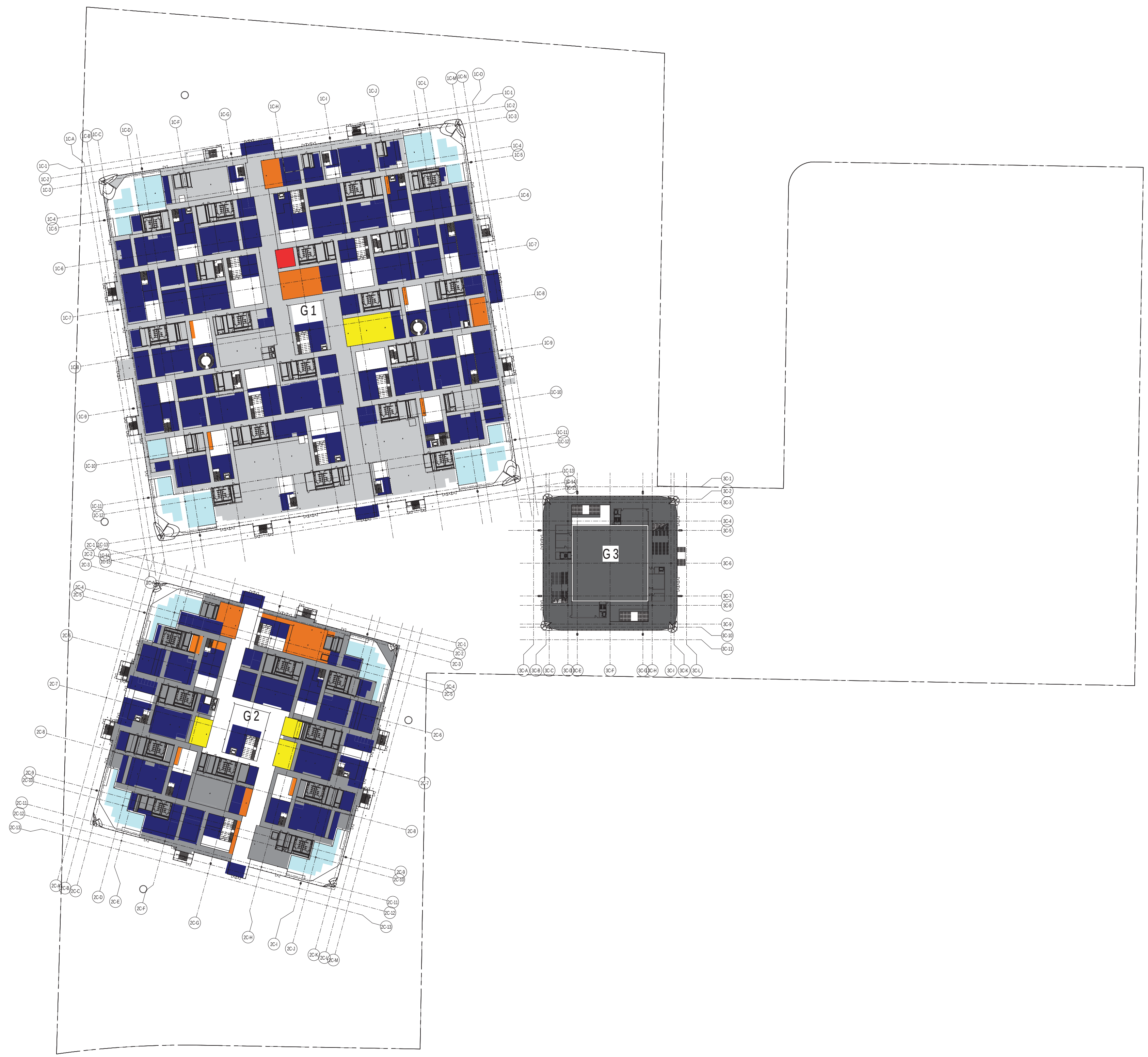
DRAWING TITLE:
PODIUM PLAN - G 1,2 & 3

SEAL & SIGNATURE:

DATE:	06/17/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: As indicated	
DWG No:	A0010

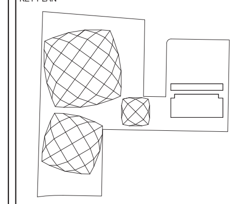
LEGEND

- BUILDING SERVICES
- **EVENTS**
- **FITNESS**
- **OFFICE SUPPORT**
- **FOOD SERVICES**



PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
SCALE IN FEET

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

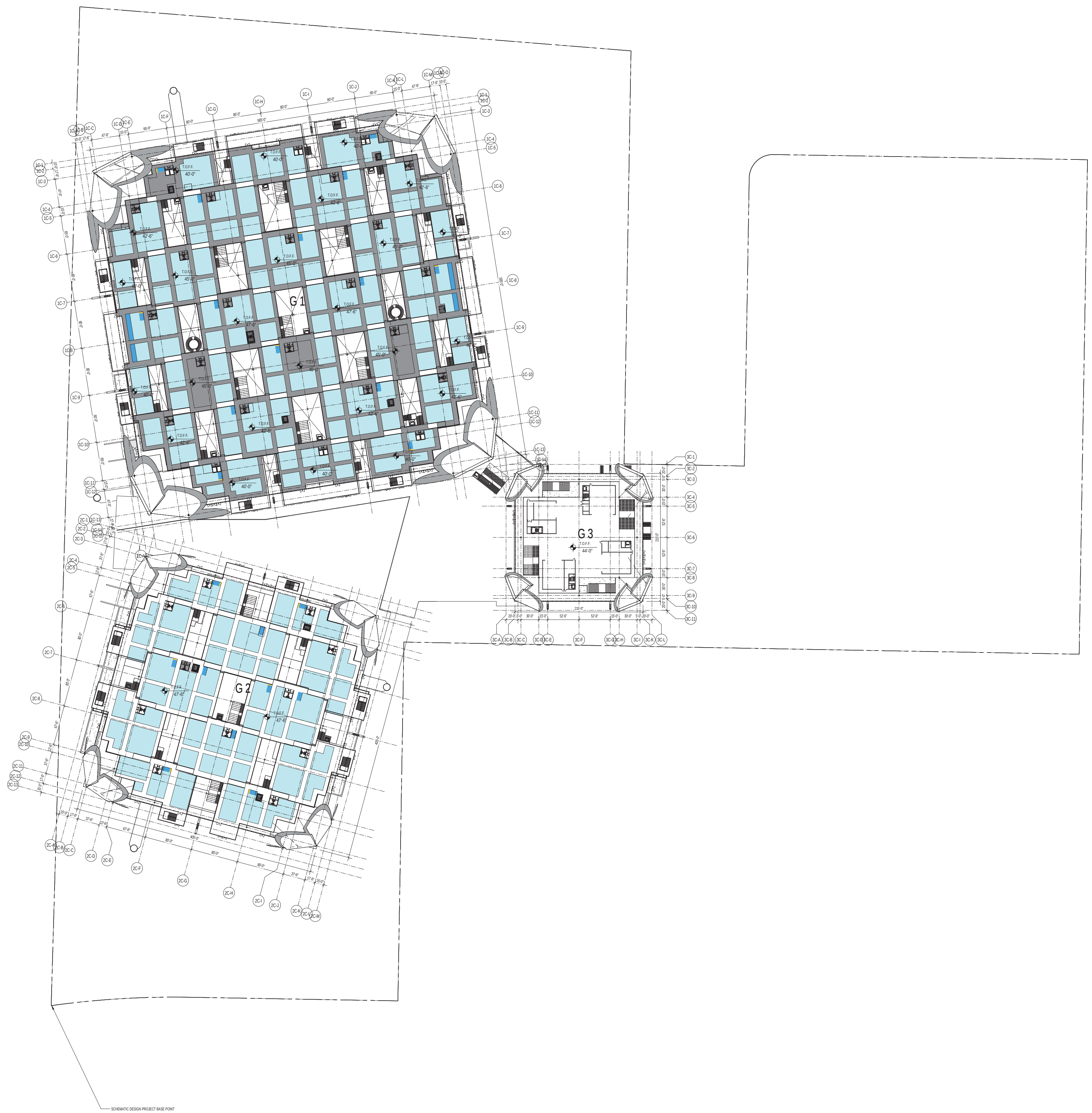
CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
LEVEL 1 PLAN - G 1,2 & 3

SEAL & SIGNATURE:

DATE:	06/18/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: 1/64" = 1'-0"	
DWG No:	**A0020**

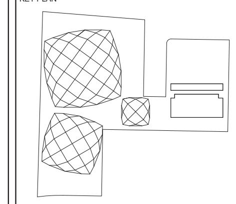


LEGEND

- BUILDING SERVICES
- EVENTS
- FITNESS
- OFFICE SUPPORT
- FOOD SERVICES

PLANETARY VENTURES LLC

KEY PLAN



PROJECT NORTH

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TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

0 4 8 16 24
SCALE IN FEET

DRAWING STATUS

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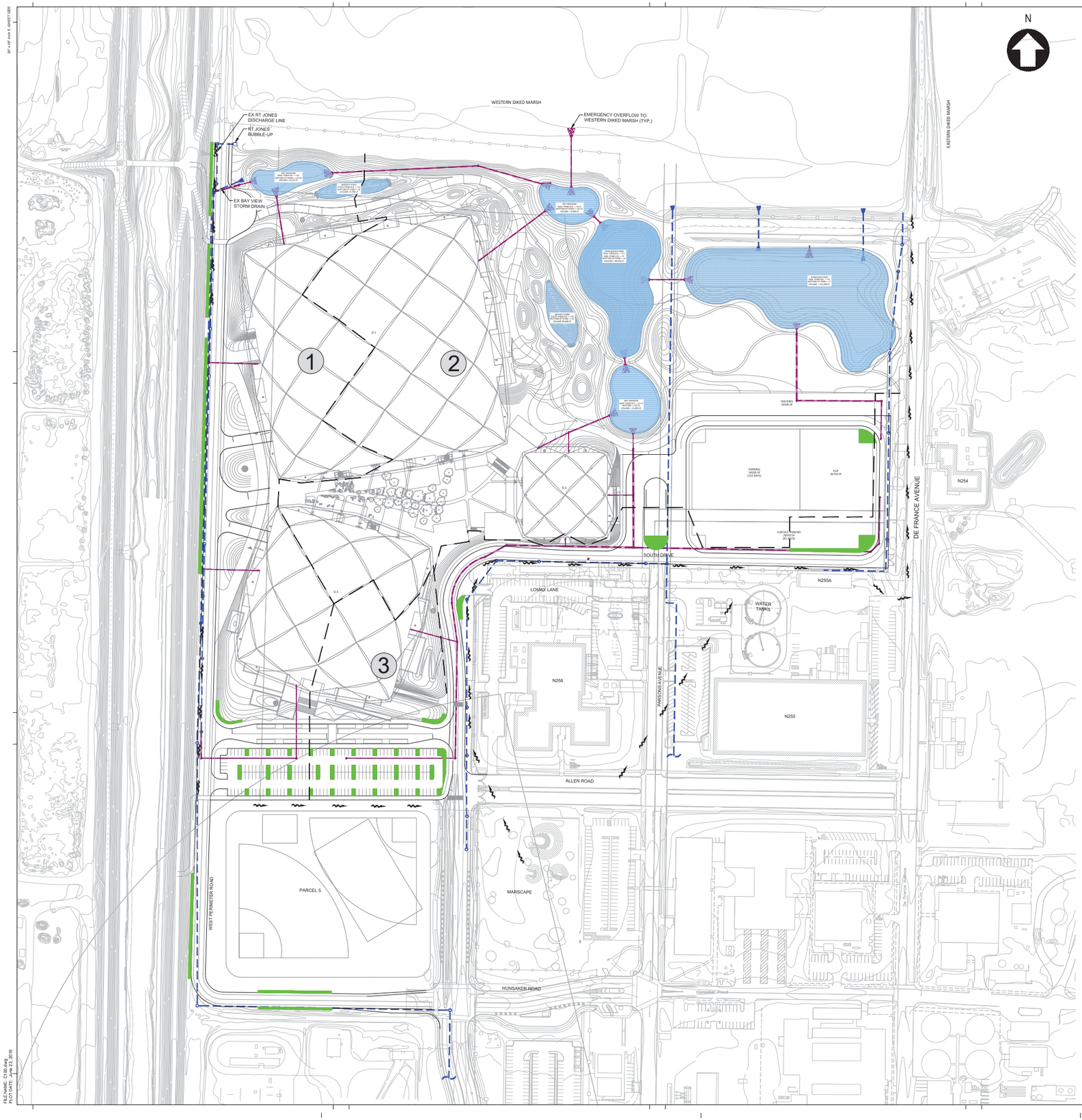
CONSULTANT:
BIG
Heatherwick studio

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
LEVEL 2 PLAN - G 1,2 & 3

SEAL & SIGNATURE:

DATE:	06/18/16
PROJECT No:	15505
DRAWN: Author	REV:
CHK: Checker	
SCALE: 1/64" = 1'-0"	
DWG No:	A0030



N

STORM DRAIN SYSTEM NOTES:

1. REFER TO SHEET C030 FOR STORM DRAIN COLLECTION SYSTEM. STORM DRAIN SYSTEM WILL COLLECT AND CONVEY RUNOFF TO STORM WATER MANAGEMENT PONDS.
2. PONDS ARE SIZED TO RETAIN ON SITE 80% OF AVERAGE ANNUAL RUNOFF COLLECTED. PER C.3 REQUIREMENTS, PER C.3, UP TO 20% OF AVERAGE ANNUAL RUNOFF MAY BE DISCHARGED FROM THE PONDS TO THE WESTERN DIKED MARSH.
3. C.3 COMPLIANT TREATMENT PLANTERS (FLOW-THROUGH PLANTERS) ARE PROVIDED TO TREAT STORMWATER RUNOFF FROM ROADS, ASSUME 4% OF THE CONTRIBUTING AREA TO FLOW-THROUGH PLANTER.
4. EMERGENCY OVERFLOW OUTFALLS ARE PROVIDED TO THE WESTERN DIKED MARSH. POST-DEVELOPMENT PEAK DISCHARGE RATE TO THE WESTERN DIKED MARSH, FROM ON-SITE EXISTING AND PROPOSED OUTFALLS, WILL NOT EXCEED THE EXISTING PEAK DISCHARGE RATE TO THE WESTERN DIKED MARSH FROM SHEET FLOW AND OUTFALLS.
5. WATER STORED IN THE PONDS WILL BE HARVESTED FOR ON-SITE NON-POTABLE USE. HARVESTED WATER WILL BE TREATED TO "TITLE 22" STANDARDS FOR UNRESTRICTED INDOOR USE PRIOR TO BLENDING WITH OTHER WATER SOURCES.
6. TABLE 1 SHOWS CATCHMENT PROPERTIES. THE DESIGN IS UNDER DEVELOPMENT AND CATCHMENT PROPERTIES ARE SUBJECT TO CHANGE.
7. POST-DEVELOPMENT STORM WATER PEAK DISCHARGE FLOW WILL EXCEED PRE-DEVELOPMENT PEAK DISCHARGE FLOW WHEN INTENSITY 21.79 INCHES/HR (100 YEAR STORM WITH 20 MINUTE DURATION) AND THE STORM WATER RETENTION PONDS ARE FULL AT THE BEGINNING OF THE STORM EVENT. FOR ALL OTHER CASES, POST-DEVELOPMENT PEAK DISCHARGE FLOW DOES NOT EXCEED PRE-DEVELOPMENT PEAK DISCHARGE FLOW.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		STORM DRAIN LINE
		STORM DRAIN OUTFALL
		MANHOLE
		FLOW THROUGH PLANTER
		INDICATIVE 100YR OVERLAND FLOW PATH
		CATCHMENT BOUNDARY
		BUILDING CONNECTION

CATCHMENTS

1 DRAINS TO PONDS VIA WEST PERIMETER ROAD STORM DRAIN

2 DRAINS TO PONDS VIA LANDSCAPE STORM DRAIN

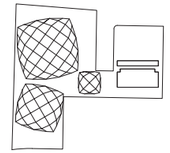
3 DRAINS TO PONDS VIA SOUTH DRIVE STORM DRAIN

TABLE 1

Catchment	Catchment Total (sf)	Roof (sf)	Hardscape (sf)	Landscape (sf)	Pond (sf)
1	892,000	429,200	62,900	85,900	14,600
2	1,235,000	311,400	309,300	431,300	183,000
3	168,500	60,500	76,200	37,800	0
Total	1,966,500	801,100	442,400	555,000	197,900
Total (ac)	45.9	18.4	10.2	12.7	4.5

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH | TRUE NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

90 40 0 80 160
SCALE IN FEET

DRAWING STATUS
50% SCHEMATIC DESIGN

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CONSULTANT:
BIG
Heatherwick studio

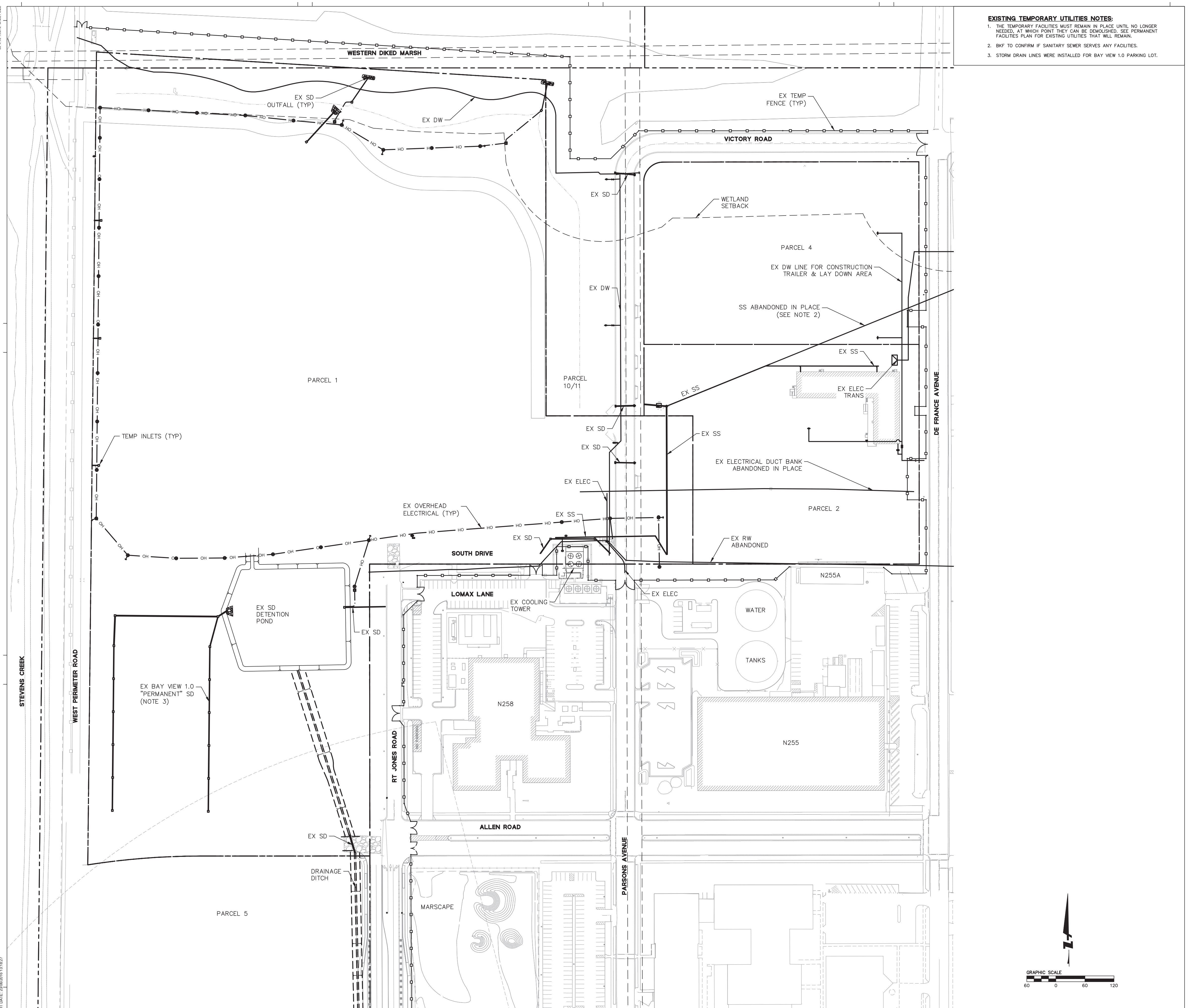
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
STORMWATER MANAGEMENT PLAN

SEAL & SIGNATURE:

DATE: 6/14/2016
PROJECT No: 248815-00
DRAWN: REV:
CHK:
SCALE:
DWG No:
C100

FILE NAME: C100.dwg
PLOTTING: Jun 23, 2016
36" x 48" Arch E SHEET SIZE

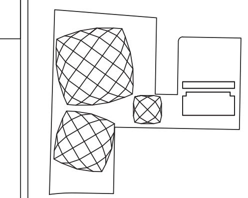


EXISTING TEMPORARY UTILITIES NOTES:

1. THE TEMPORARY FACILITIES MUST REMAIN IN PLACE UNTIL NO LONGER NEEDED, AT WHICH POINT THEY CAN BE DEMOLISHED. SEE PERMANENT FACILITIES PLAN FOR EXISTING UTILITIES THAT WILL REMAIN.
2. BKF TO CONFIRM IF SANITARY SEWER SERVES ANY FACILITIES.
3. STORM DRAIN LINES WERE INSTALLED FOR BAY VIEW 1.0 PARKING LOT.

PLANETARY VENTURES

KEY PLAN



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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

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CONSULTANT:
BKF 100+ YEARS
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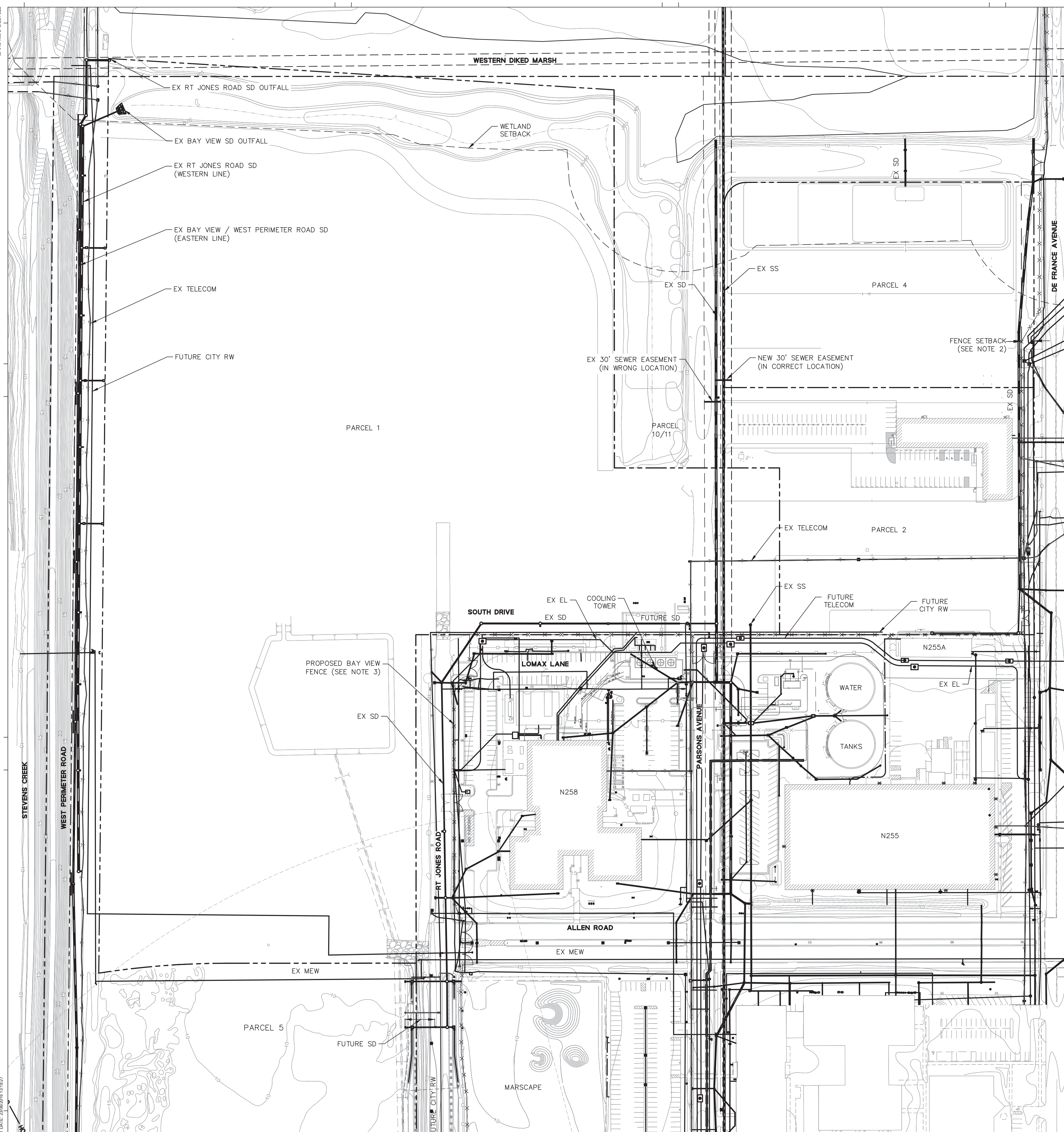
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EXISTING TEMPORARY UTILITIES

SEAL & SIGNATURE:		
DATE:	06/24/16	
PROJECT No:	20160013	
DRAWN:	AMJ/AJD	REV:
CHK:	CJH/MAO	
SCALE:	AS SHOWN	
DWG No:	C001	

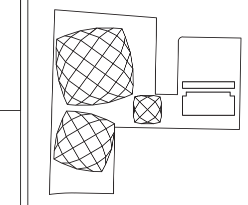


EXISTING PERMANENT UTILITIES NOTES:

1. THE PERMANENT FACILITIES WILL REMAIN IN PLACE. SEE TEMPORARY FACILITIES PLAN FOR EXISTING UTILITIES THAT CAN BE DEMOLISHED ONCE THEY ARE NO LONGER NEEDED.
2. THE PERMANENT FENCE ALONG THE EAST SIDE OF PARCEL 2 AND A PORTION OF PARCEL 4 WILL BE SET BACK 23 FT FROM THE BAY VIEW PARCEL LINE TO AVOID THE RELOCATION OF EXISTING NASA ELECTRIC AND TELECOM FACILITIES.
3. OFF–SITE UTILITIES AROUND THE PERIMETER OF THE BAY VIEW SITE SHOULD BE ACCOUNTED FOR DURING CONSTRUCTION. OTHER OFF–SITE UTILITIES ARE SHOWN FOR REFERENCE ONLY.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

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CIVIL:
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TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

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PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EXISTING PERMANENT UTILITIES

SEAL & SIGNATURE:		
	DATE: 06/24/16	
	PROJECT No: 20160013	
	DRAWN: AMJ/AJD	REV:
	CHK: CJH/MAO	
	SCALE: AS SHOWN	
	DWG No: C002	

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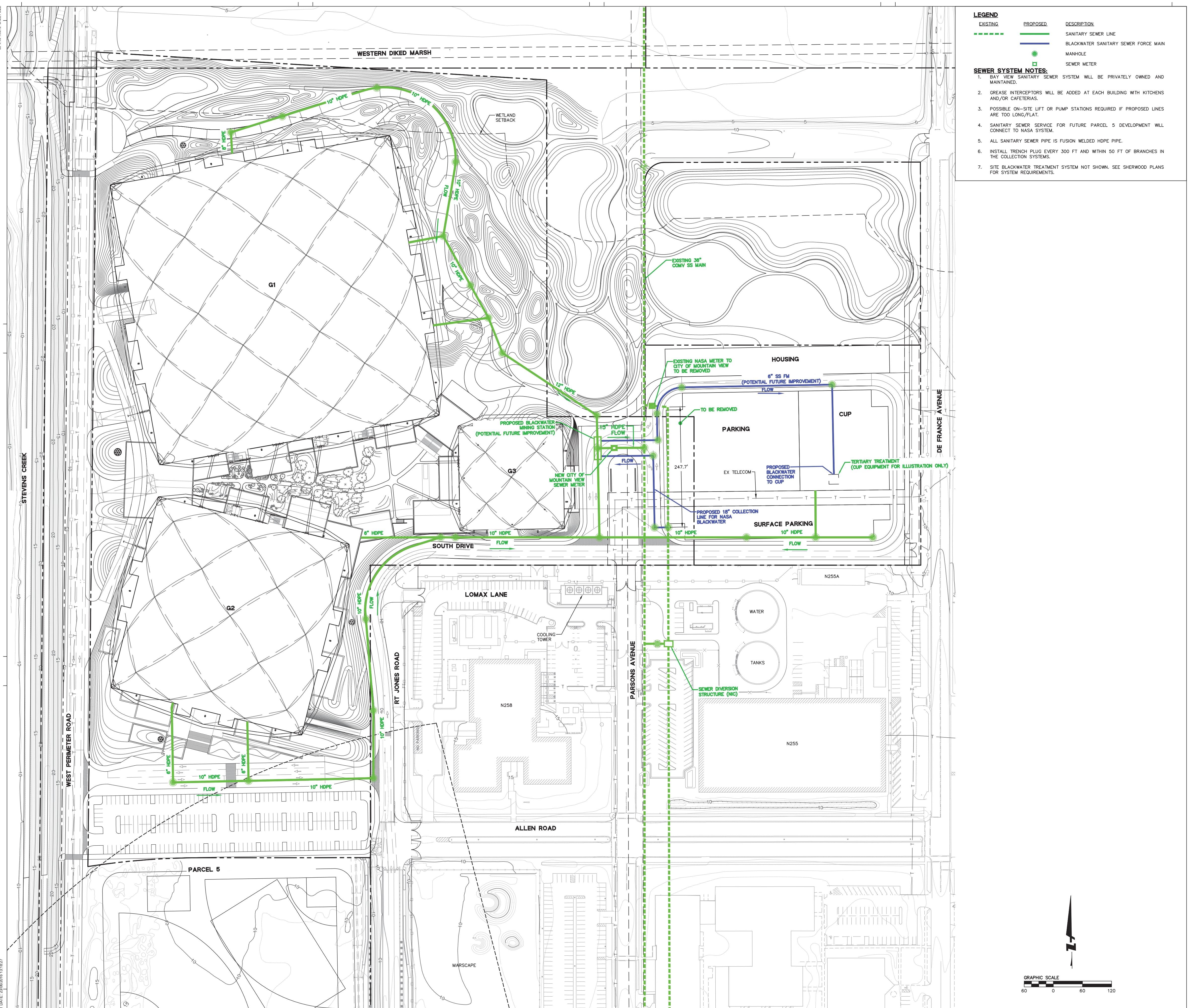
PLOT DATE: 23/06/2016 13:18:27



LEGEND

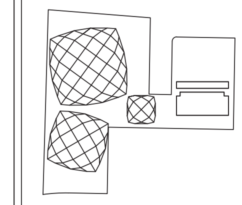
EXISTING	PROPOSED	DESCRIPTION
(dashed green line)	(solid green line)	SANITARY SEWER LINE
	(solid blue line)	BLACKWATER SANITARY SEWER FORCE MAIN
	(green circle)	MANHOLE
	(green square)	SEWER METER

SEWER SYSTEM NOTES:

1. BAY VIEW SANITARY SEWER SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.
2. GREASE INTERCEPTORS WILL BE ADDED AT EACH BUILDING WITH KITCHENS AND/OR CAFETERIAS.
3. POSSIBLE ON-SITE LIFT OR PUMP STATIONS REQUIRED IF PROPOSED LINES ARE TOO LONG/FLAT.
4. SANITARY SEWER SERVICE FOR FUTURE PARCEL 5 DEVELOPMENT WILL CONNECT TO NASA SYSTEM.
5. ALL SANITARY SEWER PIPE IS FUSION WELDED HDPE PIPE.
6. INSTALL TRENCH PLUG EVERY 300 FT AND WITHIN 50 FT OF BRANCHES IN THE COLLECTION SYSTEMS.
7. SITE BLACKWATER TREATMENT SYSTEM NOT SHOWN. SEE SHERWOOD PLANS FOR SYSTEM REQUIREMENTS.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH | TRUE NORTH

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SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
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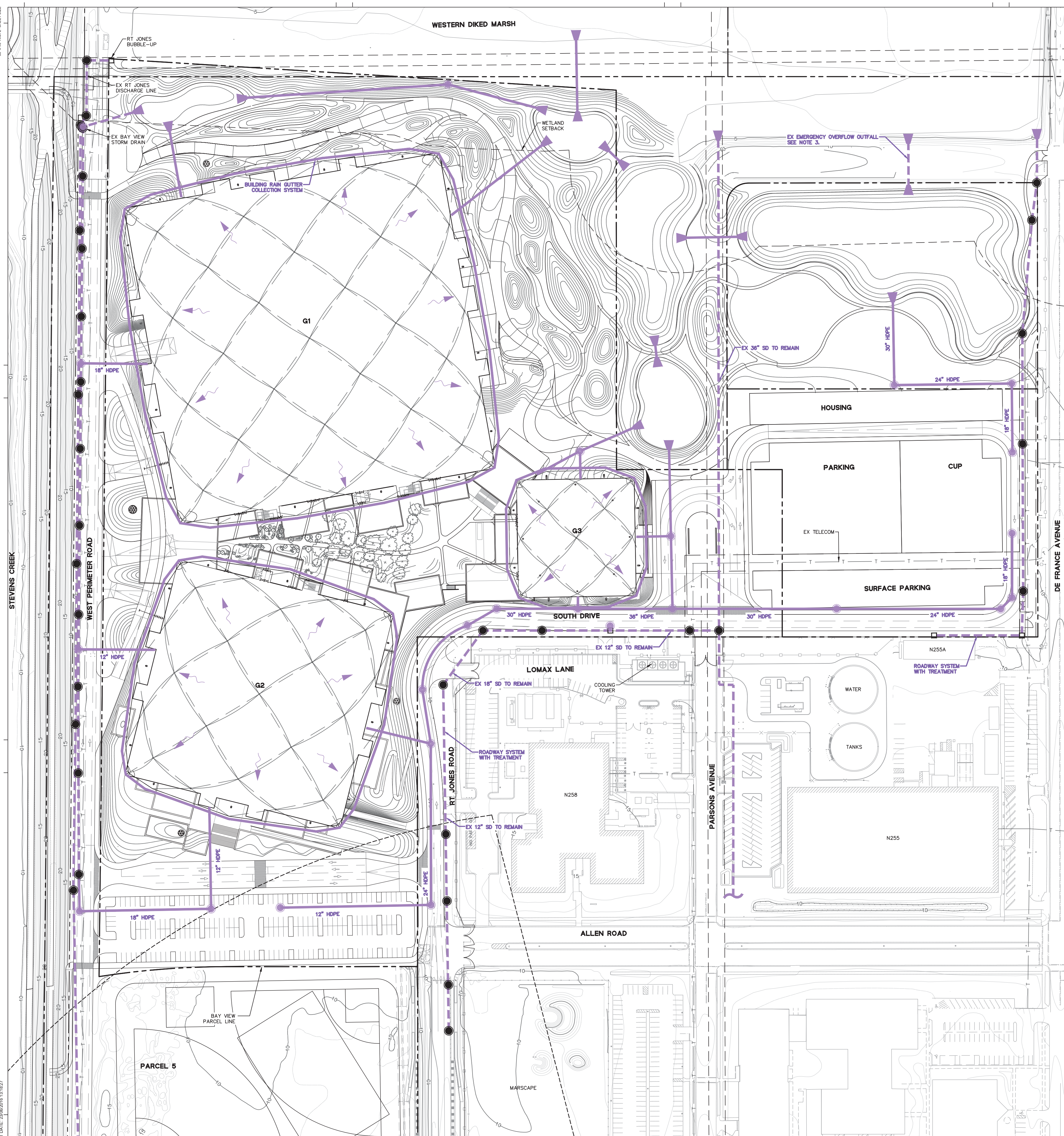
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
SANITARY SEWER COLLECTION SYSTEM

SEAL & SIGNATURE:		
	DATE:	06/24/16
	PROJECT No:	20160013
	DRAWN: AMJ/AJD	REV:
	CHK: CJH/MAO	
	SCALE: AS SHOWN	
	DWG No:	C020



LEGEND

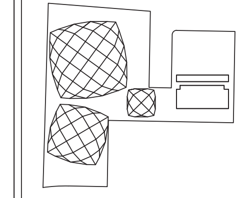
EXISTING	PROPOSED	DESCRIPTION
— — —	———	STORM DRAIN LINE
	◀	STORM DRAIN OUTFALL
□	□	STORM DRAIN CATCH BASIN
●	●	STORM DRAIN MANHOLE

STORM DRAIN SYSTEM NOTES:

1. BAY VIEW STORM DRAIN SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.
2. PV MAY ELECT TO PROVIDE C.3 COMPLIANT PRE-TREATMENT FOR STORM WATER DISCHARGE FROM DOWNSPOUTS PRIOR TO DISCHARGE INTO PONDS.
3. EMERGENCY OVERFLOW OUTFALLS ARE PROVIDED, BUT THE POST-DEVELOPMENT PEAK DISCHARGE RATE TO THE WESTERN DIKED MARSH, FROM ALL EXISTING AND PROPOSED OUTFALLS, MUST NOT EXCEED THE EXISTING PEAK DISCHARGE RATE TO THE WESTERN DIKED MARSH FROM SHEET FLOW AND OUTFALLS, INCLUDING THE RT JONES ROAD OUTFALL.
4. ALL STORM DRAIN PIPE IS FUSION WELDED HDPE PIPE.
5. INSTALL TRENCH PLUG EVERY 300 FT AND WITHIN 50 FT OF BRANCHES IN THE COLLECTION SYSTEM.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH | TRUE NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

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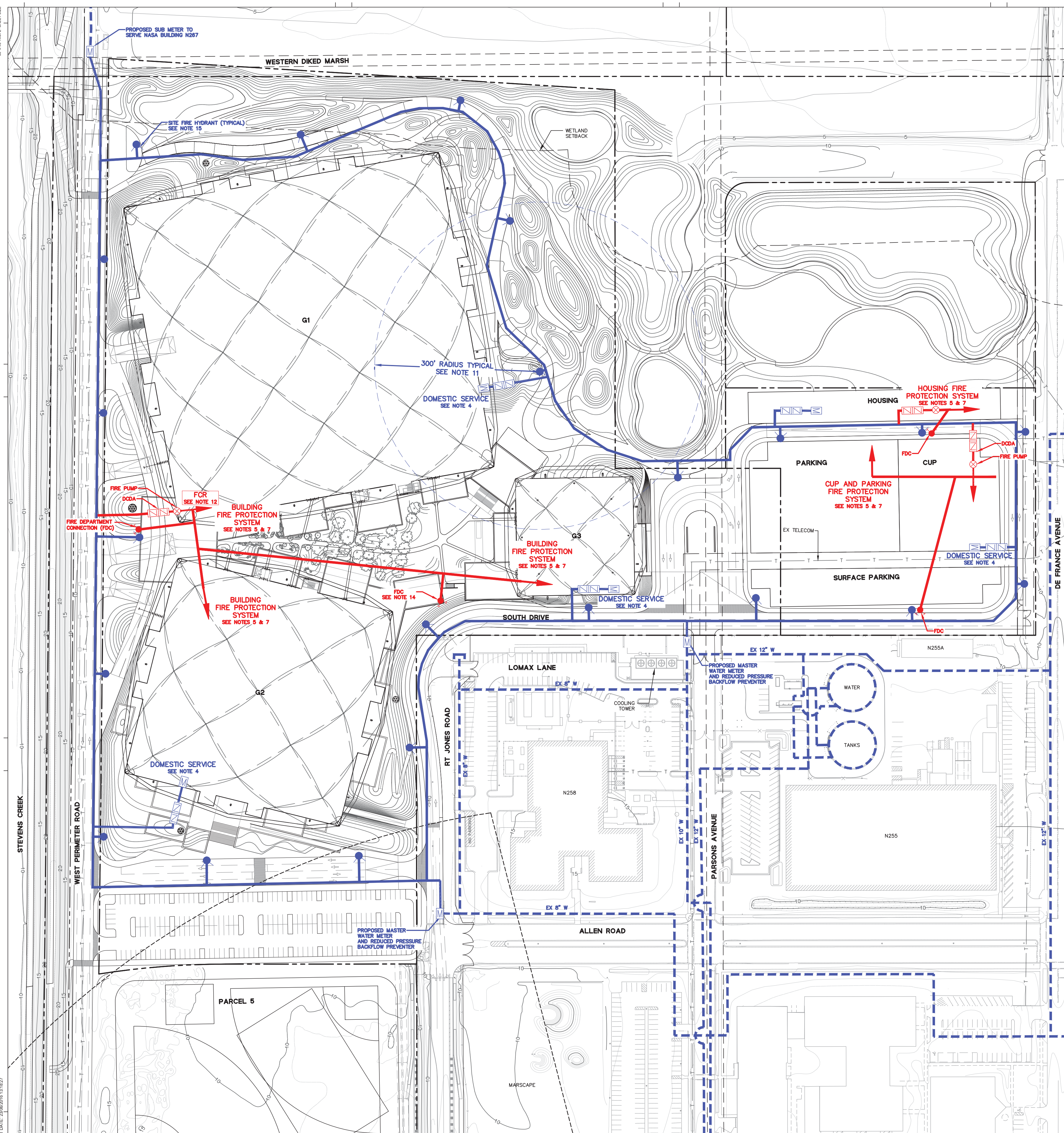
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:

STORM DRAIN COLLECTION SYSTEM

SEAL & SIGNATURE:		
DATE:	06/24/16	
PROJECT No:	20160013	
DRAWN:	AMJ/AJD	REV:
CHK:	CJH/MAO	
SCALE:	AS SHOWN	
DWG No:	C030	



LEGEND

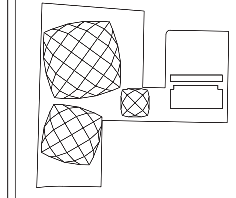
EXISTING	PROPOSED	DESCRIPTION
(dashed blue line)	(solid blue line)	FIRE & DOMESTIC WATER LINE
	(solid red line)	FIRE WATER LINE
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
		DOUBLE CHECK DETECTOR ASSEMBLY
		FIRE PUMP
	M	METER

WATER SYSTEM NOTES:

1. BAY VIEW WATER SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.
2. FINAL PIPE SIZE TO BE DETERMINED BASED ON WATER SYSTEM MODEL.
3. MASTER WATER METER LOCATIONS TO BE COORDINATED WITH NASA.
4. MULTIPLE SERVICES TO BUILDINGS/HOUSING MAY BE REQUIRED. SUBMETERING FOR INDIVIDUAL STRUCTURES WITHIN HOUSING OR BUILDINGS AS REQUIRED BY PV.
5. EACH SYSTEM WILL SUPPLY THE DOMESTIC WATER AND FIRE HYDRANTS WITHIN THE BUILDING CANOPY OR HOUSING WITH 85 PSI VIA A BOOSTER PUMP, UNDER NORMAL OPERATING CONDITIONS. IN THE EVENT OF A FIRE, A FIRE PUMP WITHIN THE ON-SITE PUMP STATION WILL SUPPLY THE HYDRANTS WITH (TBD) GPM.
6. ON-SITE PUMP STATION TO INCLUDE (2) DOMESTIC PUMPS WITH PRESSURE TANK WITHOUT BACKUP POWER, A 55 PSI BYPASS FOR DOMESTIC WATER WHEN THERE IS NO POWER, (1) DIESEL FIRE PUMP. POTENTIALLY, ONE PUMP WILL SERVE BOTH LARGE BUILDINGS AND ANOTHER WILL SERVE THE SMALL BUILDING AND HOUSING.
7. EACH SITE FIRE PROTECTION SYSTEM INCLUDES DOUBLE CHECK DETECTOR ASSEMBLY, ON-SITE FIRE PUMP STATION (ALSO LISTED UNDER ITEM 5), AND TWO FDCs.
8. INSTALL TRENCH PLUG EVERY 300 FT AND WITHIN 50 FT OF BRANCHES IN THE DISTRIBUTION SYSTEM.
9. DUCTILE IRON PIPE WITH CATHODIC PROTECTION REQUIRED.
10. WATER PIPES REQUIRE SPECIAL JOINT DETAIL.
11. FIRE HYDRANT SPACING TO BE FINALIZED BASED ON BUILDING AND HOUSING SQUARE FOOTAGE AND BUILDING TYPE.
12. FIRE CONTROL ROOM (FCR): BUILDING G1 WILL HOUSE A FIRE CONTROL ROOM. PREFERRED MINIMUM DIMENSION 200 SF. MINIMUM DIMENSION 100 SF.ZE
13. AN EVA STAGING AREA WITH ACCESS TO THE FCR, FDC, AND FIRE HYDRANT WILL BE LOCATED AT THE LOADING DOCK.
14. FIRE DEPARTMENT CONNECTION (FDC) MUST BE WITHIN 100 FT OF AND ON THE SAME SIDE OF THE ROAD AS FIRE HYDRANT.
15. FIRE HYDRANTS WILL FULFILL THE FOLLOWING REQUIREMENTS:
   - BE SUPPLIED BY DOMESTIC WATER.
   - PROVIDE 1,500 GPM FOR 4 HOURS WITH 75% REDUCTION.
   - MAINTAIN SPACING OF NO GREATER THAN 300 FT FROM ONE ANOTHER.
   - MAINTAIN 3 FT CLEARANCE FROM OBSTRUCTIONS.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH | TRUE NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

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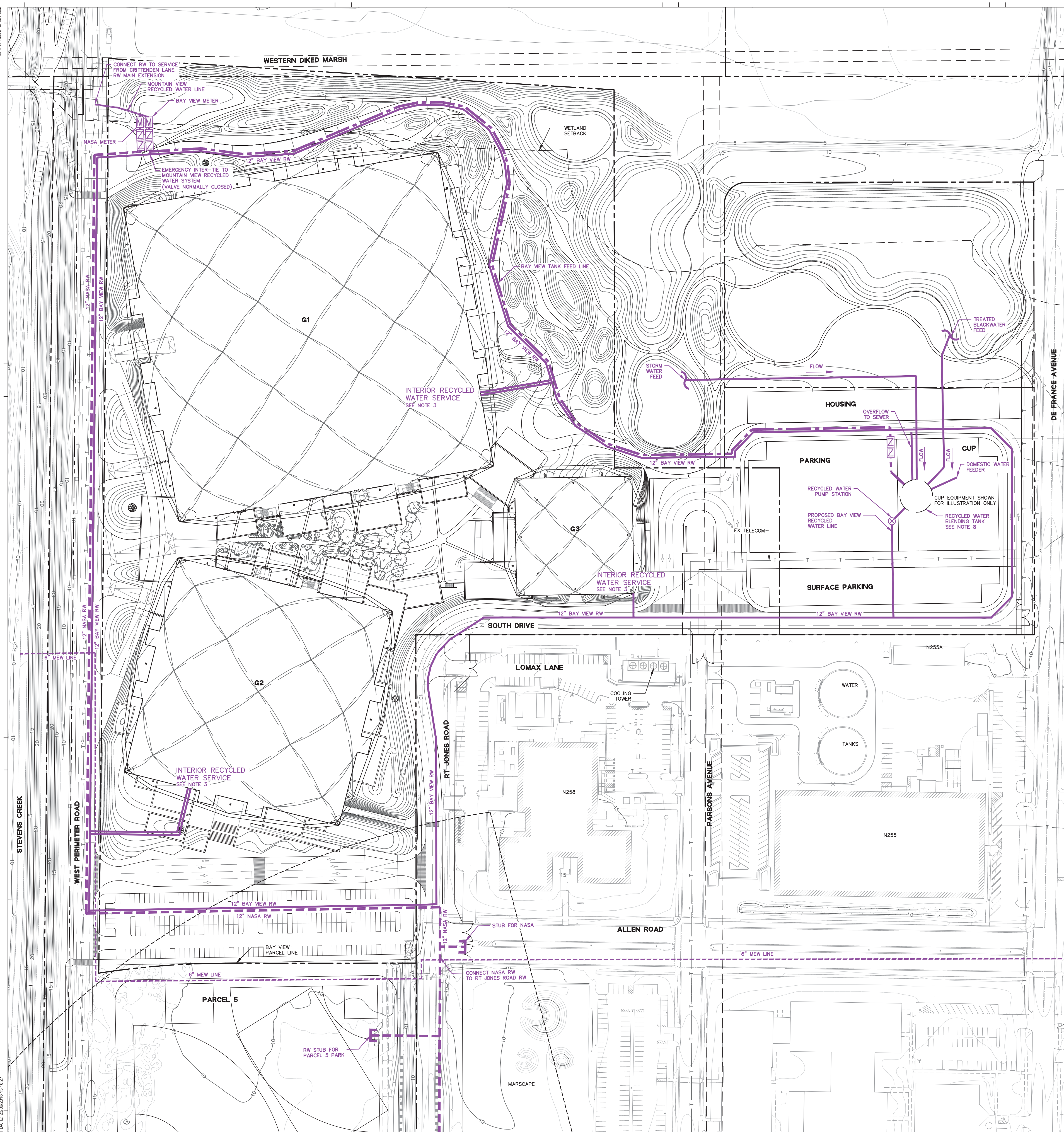
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
DOMESTIC WATER DISTRIBUTION SYSTEM

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	20160013
DRAWN: AMJ/AJD	REV:
CHK: CJH/MAO	
SCALE: AS SHOWN	
DWG No:	C040



LEGEND

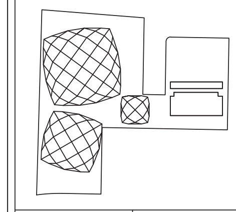
EXISTING	PROPOSED	DESCRIPTION
	— — —	NASA RECYCLED WATER LINE DIP SIZE AS SHOWN
	—·—	BAY VIEW TANK FEED LINE
	——	BAY VIEW RECYCLED WATER LINE SITE DISTRIBUTION SYSTEM 12" DIP
	- - - -	MEW LINE SIZE AS SHOWN
	⊗	PUMP STATION
	⊠	BACKFLOW PREVENTER (BFP)
	▣	WATER METER

RECYCLED WATER NOTES:

1. BAY VIEW RECYCLED WATER SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.
2. FINAL PIPE SIZE TO BE DETERMINED BASED ON WATER SYSTEM MODEL.
3. MULTIPLE SERVICES TO BUILDINGS/HOUSING MAY BE REQUIRED. SUBMETERING FOR INDIVIDUAL STRUCTURES WITHIN HOUSING OR BUILDINGS AS REQUIRED BY PV.
4. INSTALL TRENCH PLUG EVERY 300 FT AND WITHIN 50FT OF BRANCHES IN THE DISTRIBUTION SYSTEM.
5. DUCTILE IRON PIPE WITH CATHODIC PROTECTION REQUIRED.
6. RECYCLED WATER PIPES REQUIRE SPECIAL JOINT DETAIL.
7. IRRIGATION POCS – ASSUME 6 WITH METERS AND BFPS.
8. RECYCLED WATER BLENDING TANK TO INCLUDE:
   - 200,000 GALLONS OF STORAGE SPACE
   - 80 HP DUPLEX PUMP STATION
   - BACK UP GENERATOR

PLANETARY VENTURES

KEY PLAN



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SCHEMATIC
DESIGN PHASE

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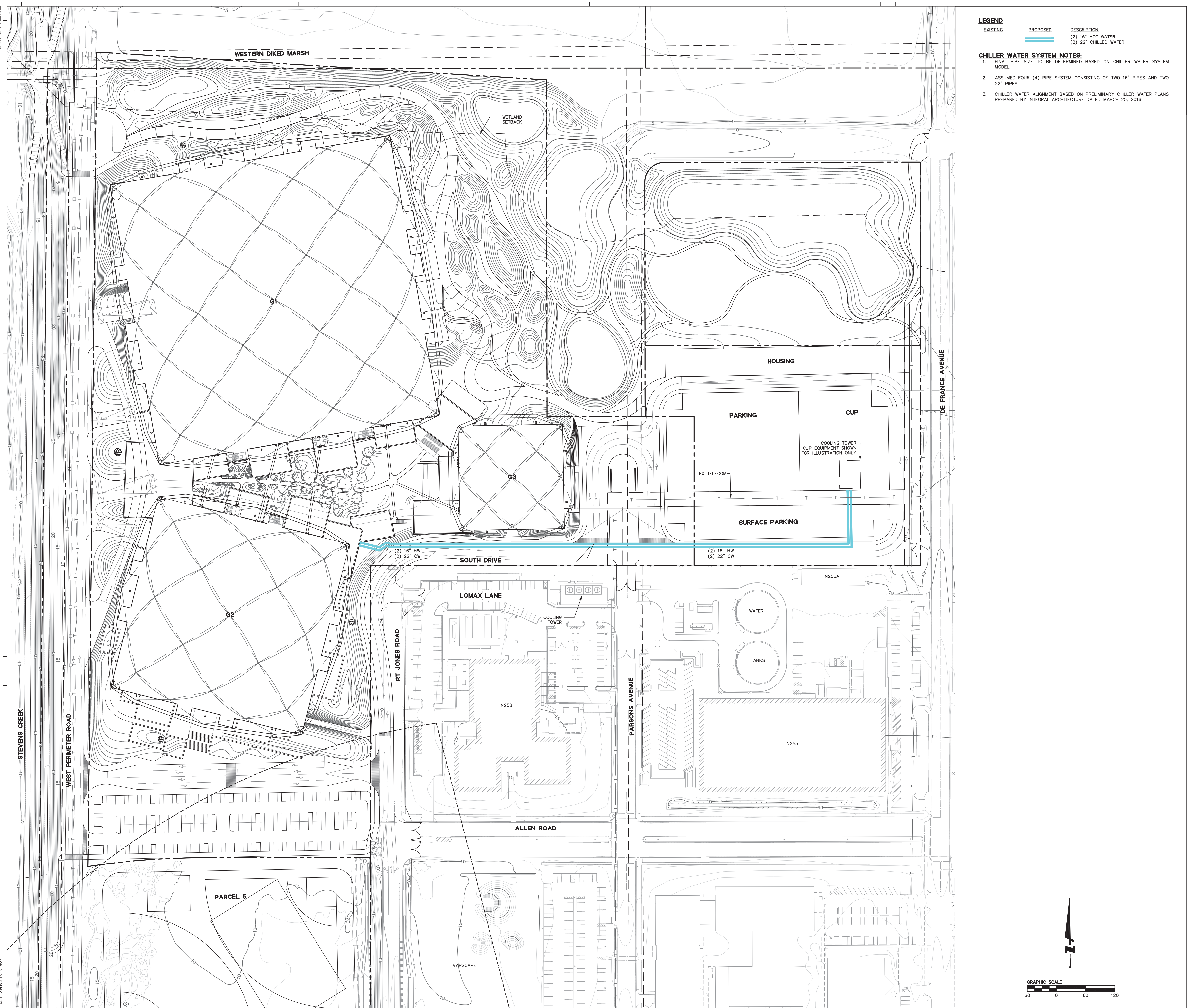
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
RECYCLED WATER DISTRIBUTION SYSTEM

SEAL & SIGNATURE:		
DATE:	06/24/16	
PROJECT No:	20160013	
DRAWN:	AMJ/AJD	REV:
CHK:	CJH/MAO	
SCALE:	AS SHOWN	
DWG No:	C050	



LEGEND

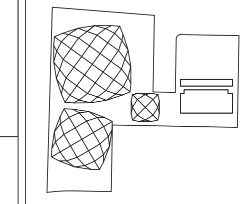
EXISTING	PROPOSED	DESCRIPTION
	(blue double line)	(2) 16" HOT WATER (2) 22" CHILLED WATER

CHILLER WATER SYSTEM NOTES:

1. FINAL PIPE SIZE TO BE DETERMINED BASED ON CHILLER WATER SYSTEM MODEL.
2. ASSUMED FOUR (4) PIPE SYSTEM CONSISTING OF TWO 16" PIPES AND TWO 22" PIPES.
3. CHILLER WATER ALIGNMENT BASED ON PRELIMINARY CHILLER WATER PLANS PREPARED BY INTEGRAL ARCHITECTURE DATED MARCH 25, 2016

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

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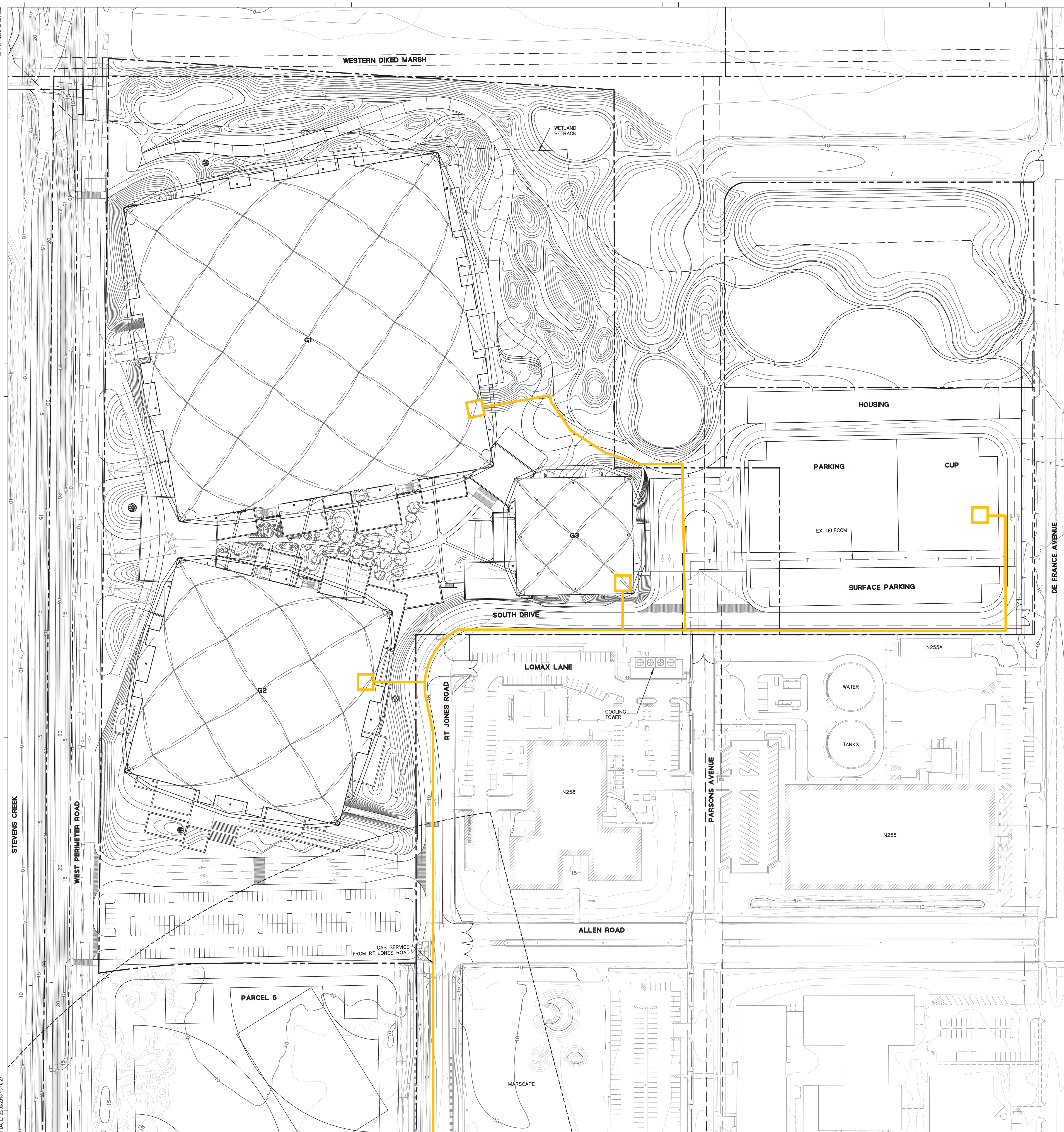
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
CHILLER WATER DISTRIBUTION SYSTEM

SEAL & SIGNATURE:		
DATE:	06/24/16	
PROJECT No:	20160013	
DRAWN:	AMJ/AJD	REV:
CHK:	CJH/MAO	
SCALE:	AS SHOWN	
DWG No:	**C060**	



LEGEND

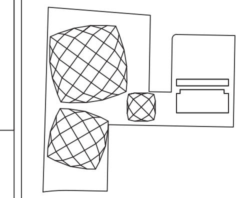
EXISTING	PROPOSED	DESCRIPTION
	(yellow line)	GAS LINE
	(yellow square)	GAS METER

GAS SYSTEM NOTES:

1. INSTALL NEW GAS LINE TO BAY VIEW SITE ALONG RT JONES ROAD.
2. METERS SHOWN FOR CUP, HOUSING, AND EACH BUILDING. INDIVIDUAL METERS AND/OR SUB-METERS MAY BE REQUIRED.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

TRUE NORTH

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PLANETARY VENTURES
1600 Amphitheatre Parkway
Mountain View, CA 94043 USA
TEL: +1 650-253-0000

DESIGN CONSULTANT:
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61 Broadway Suite 3300
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TEL: +1 347-549-4141 FAX: +1 866-738-4336

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CIVIL:
ARUP
560 Mission Street, Suite 700
San Francisco, CA 94105 USA
TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT:
BKF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS
255 SHORELINE DR., SUITE 200
REDWOOD CITY, CA 94065
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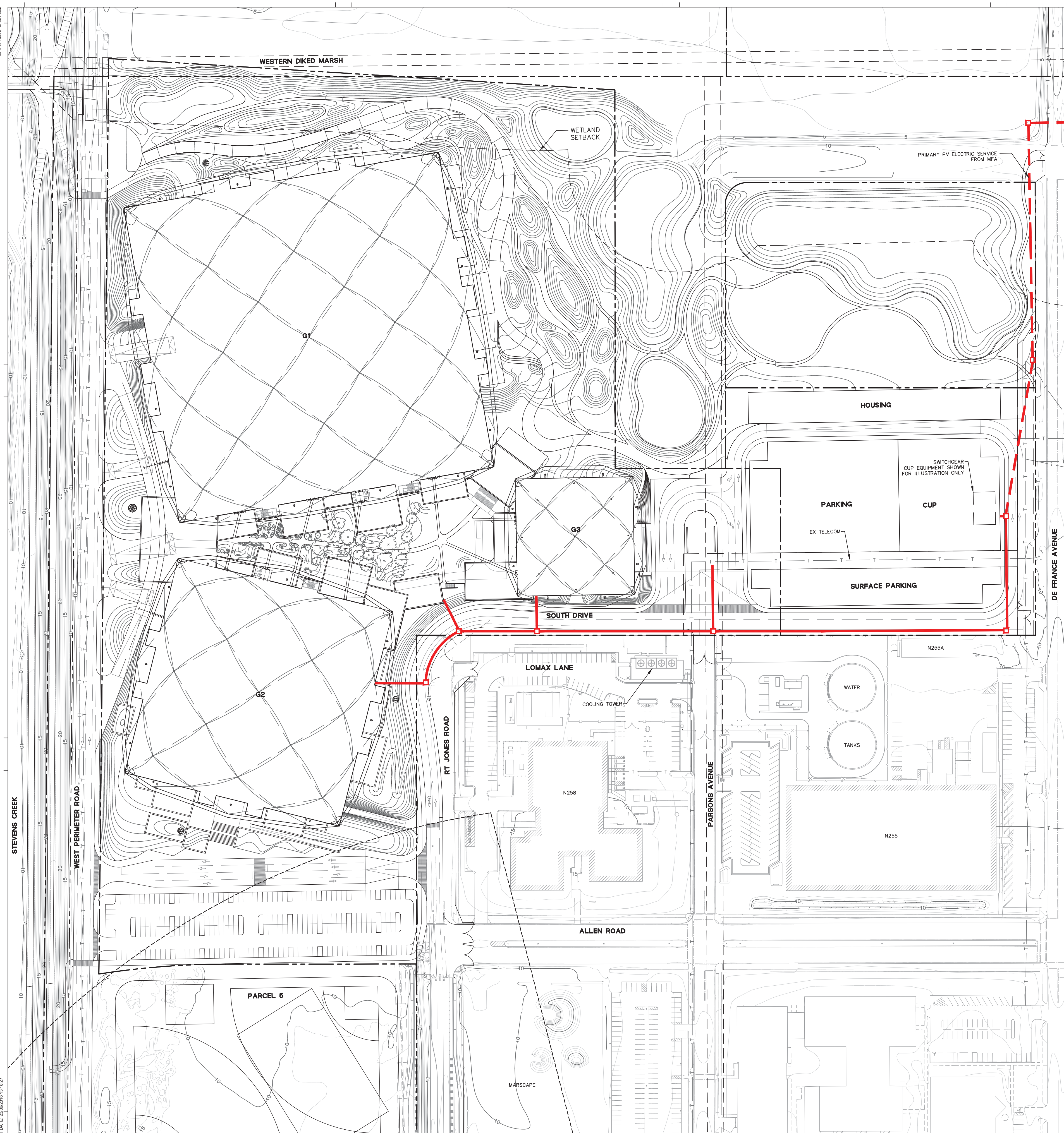
www.bkf.com

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
GAS DISTRIBUTION SYSTEM

SEAL & SIGNATURE:		
DATE:	06/24/16	
PROJECT No:	20160013	
DRAWN: AMJ/AJD		REV:
CHK: CJH/MAO		
SCALE: AS SHOWN		
DWG No:	**C070**	



LEGEND

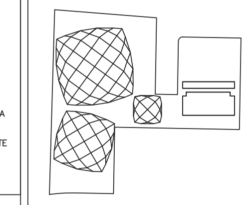
PROPOSED	DESCRIPTION
(solid red line)	ELECTRICAL SITE DISTRIBUTION LINES
(dashed red line)	INCOMING ELECTRICAL LINE
(red square)	ELECTRICAL VAULT

ELECTRIC SYSTEM NOTES:

1. INDIVIDUAL METERING MAY BE PROVIDED WITHIN CUP, HOUSING, AND BUILDINGS PER PV REQUIREMENTS.
2. SITE SYSTEM WILL BE OWNED BY PV, BUT WILL BE CONSTRUCTED TO NASA STANDARDS OR PV STANDARDS, WHICHEVER IS MORE STRINGENT.
3. SITE ELECTRICAL WILL HAVE MINIMUM 12 INCHES CLEARANCE FROM PRIVATE TELECOM; BOTH WILL BE CONCRETE ENCASED.
4. ON-SITE LIGHTING NOT ACCOUNTED FOR IN THIS EXHIBIT.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH | TRUE NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

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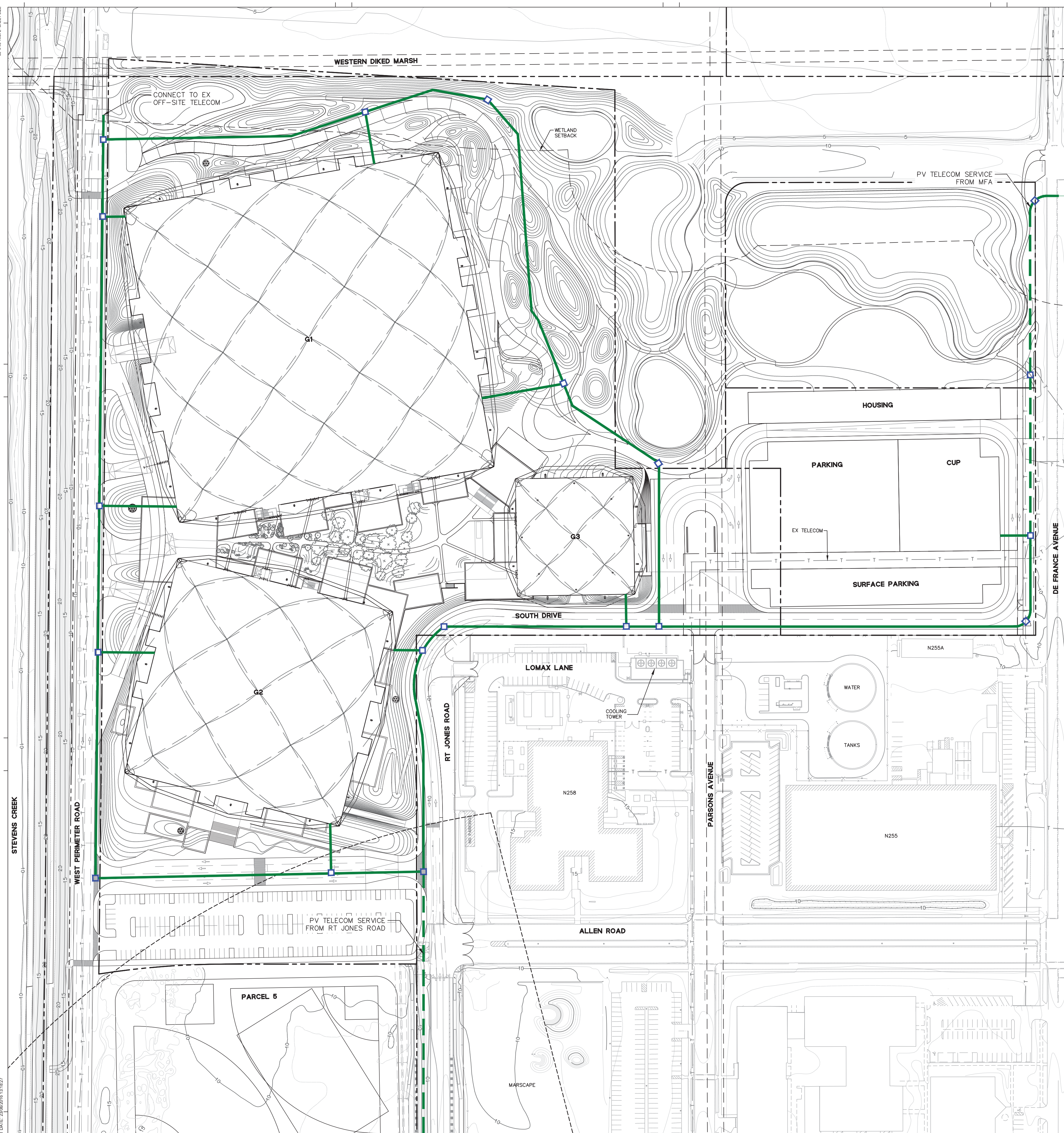
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
ELECTRICAL SYSTEM

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	20160013
DRAWN: AMJ/AJD	REV:
CHK: CJH/MAO	
SCALE: AS SHOWN	
DWG No:	**C080**



LEGEND

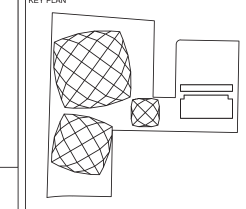
EXISTING	PROPOSED	DESCRIPTION
	(solid green line)	TELECOM LINE
	(dashed green line)	INCOMING TELECOM LINE
	□	TELECOM VAULT

TELECOM NOTES:

1. SITE SYSTEM WILL BE OWNED BY PV, BUT WILL BE CONSTRUCTED TO NASA STANDARDS OR PV STANDARDS, WHICHEVER IS MORE STRINGENT.
2. PRIVATE TELECOM WILL HAVE MINIMUM 12 INCHES CLEARANCE FROM SITE ELECTRIC, BOTH WILL BE CONCRETE ENCASED.

PLANETARY VENTURES

KEY PLAN



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SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

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www.bkf.com

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

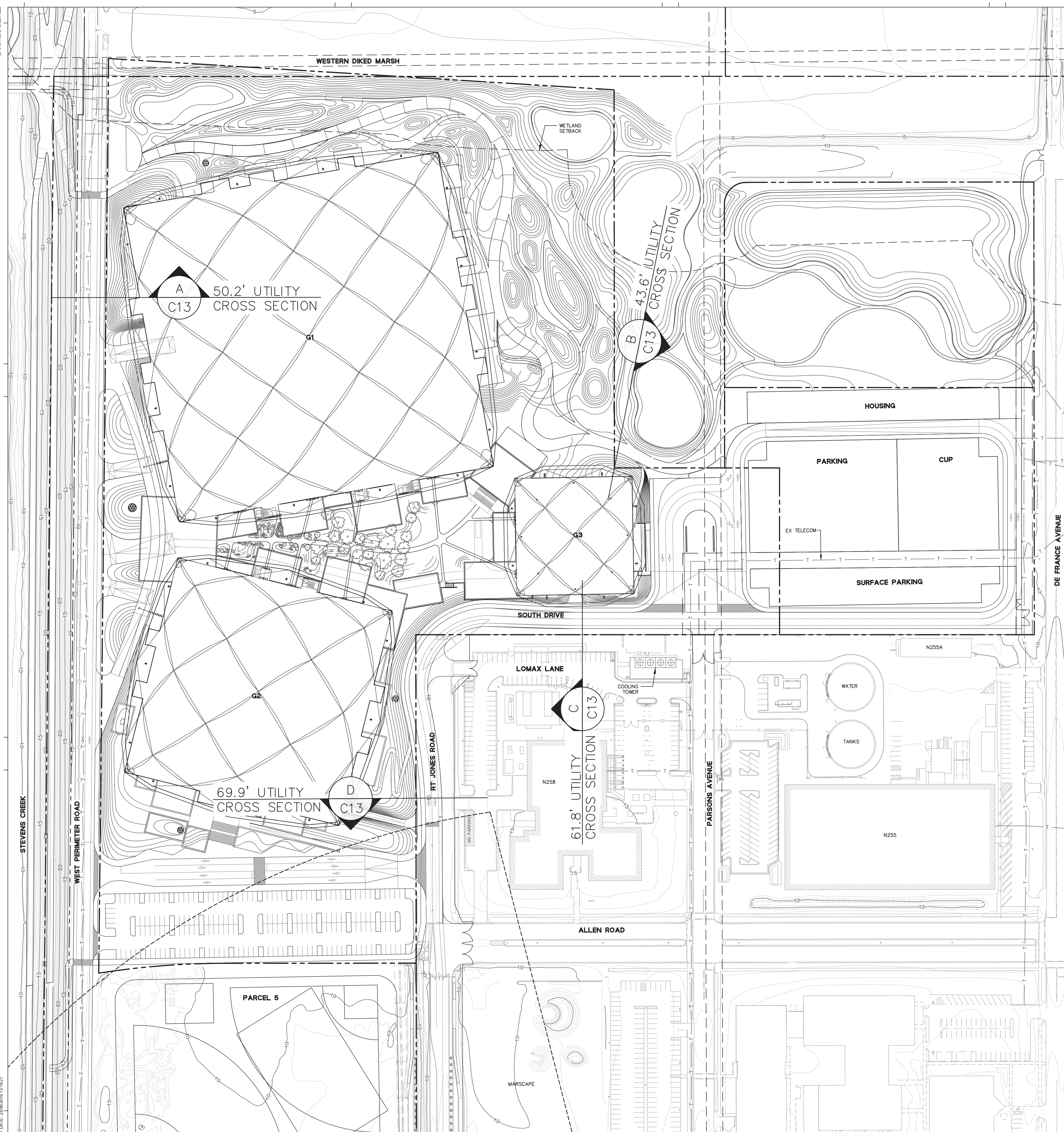
DRAWING TITLE:
TELECOMMUNICATIONS SYSTEM

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	20160013
DRAWN:	AMJ/AJD
CHK:	CJH/MAO
SCALE:	AS SHOWN
REV:	
DWG No:	C090

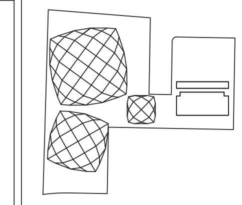
SITE UTILITY CROSS-SECTIONS NOTES:

1. SEE DR-C13 FOR DETAILED CROSS-SECTIONS.



PLANETARY VENTURES

KEY PLAN



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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
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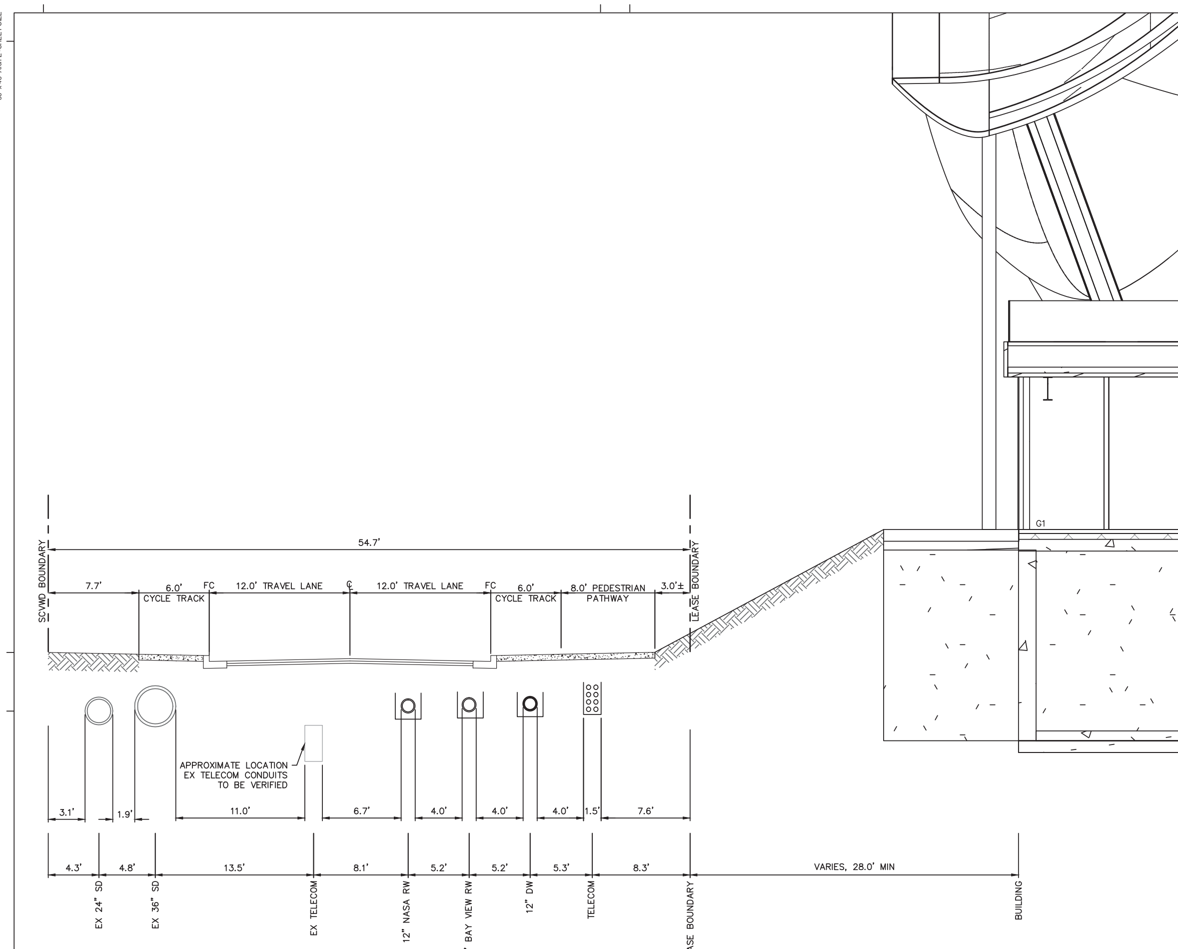
(650) 482-6300
www.bkf.com

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
UTILITY CROSS SECTION LOCATIONS

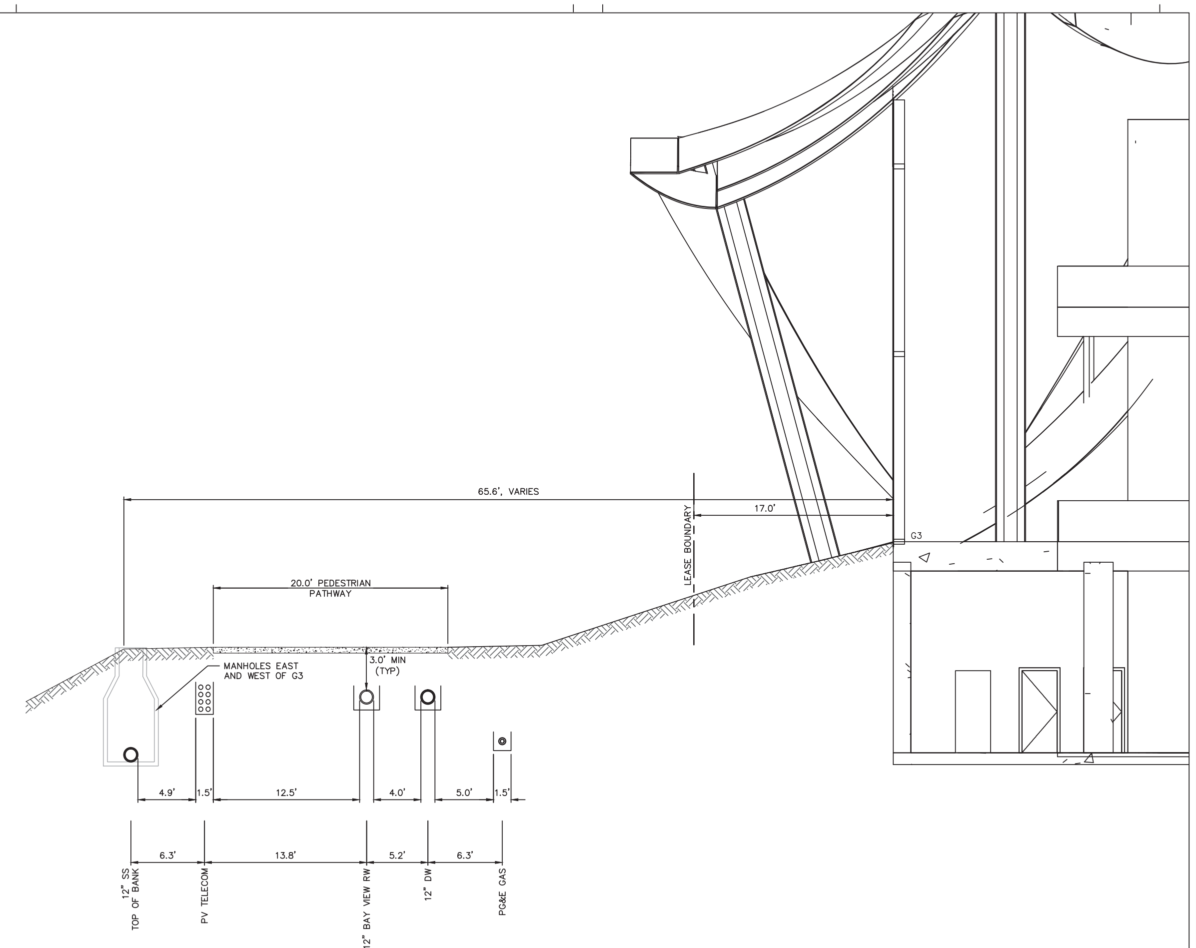
SEAL & SIGNATURE:

DATE: 06/24/16
PROJECT No: 20160013
DRAWN: AMJ/AJD
REV:
CHK: CJH/MAO
SCALE: AS SHOWN
DWG No:
C500



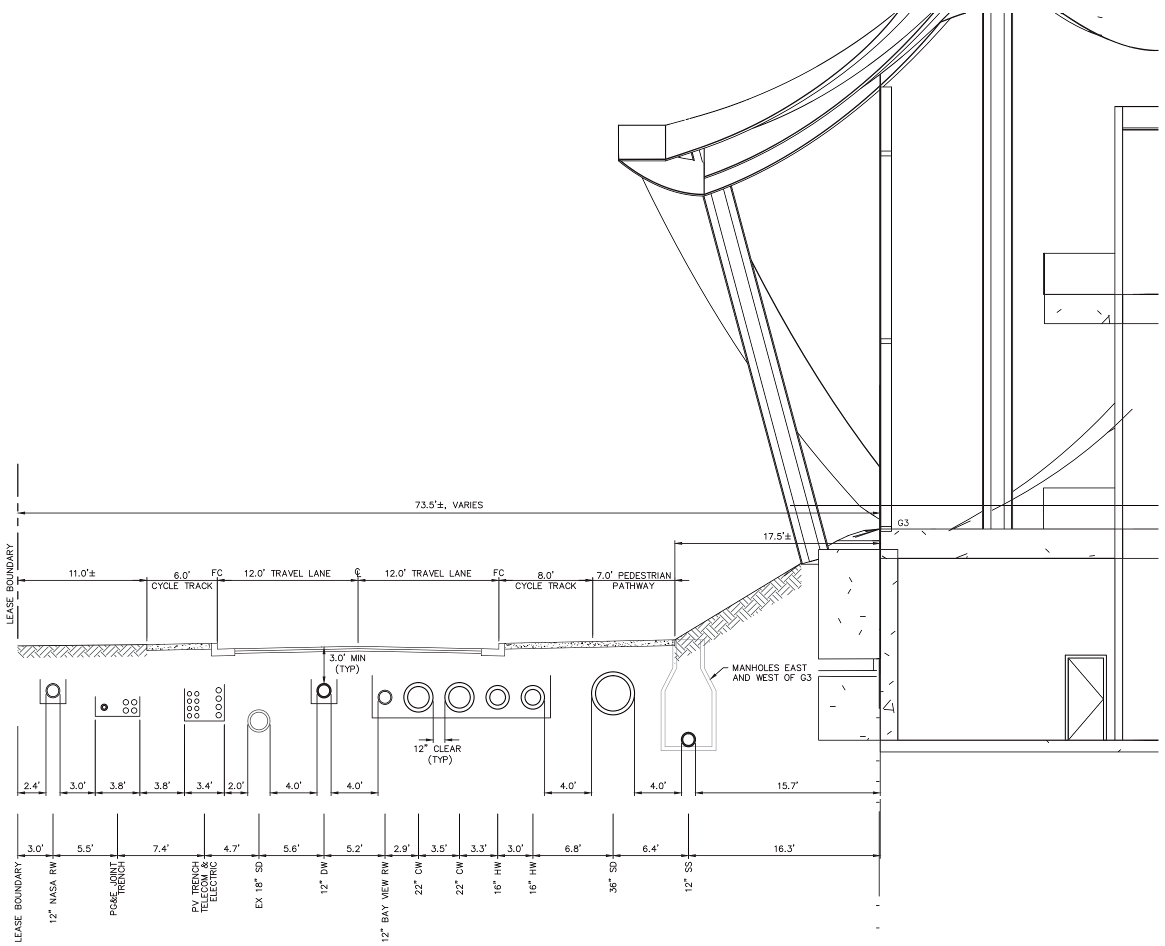
WEST PERIMETER ROAD WEST OF G1
LOOKING NORTH

NOTE: BUILDING SHOWN FOR REFERENCE ONLY. SEE ARCHITECTURAL PLANS FOR BUILDING CROSS SECTIONS.



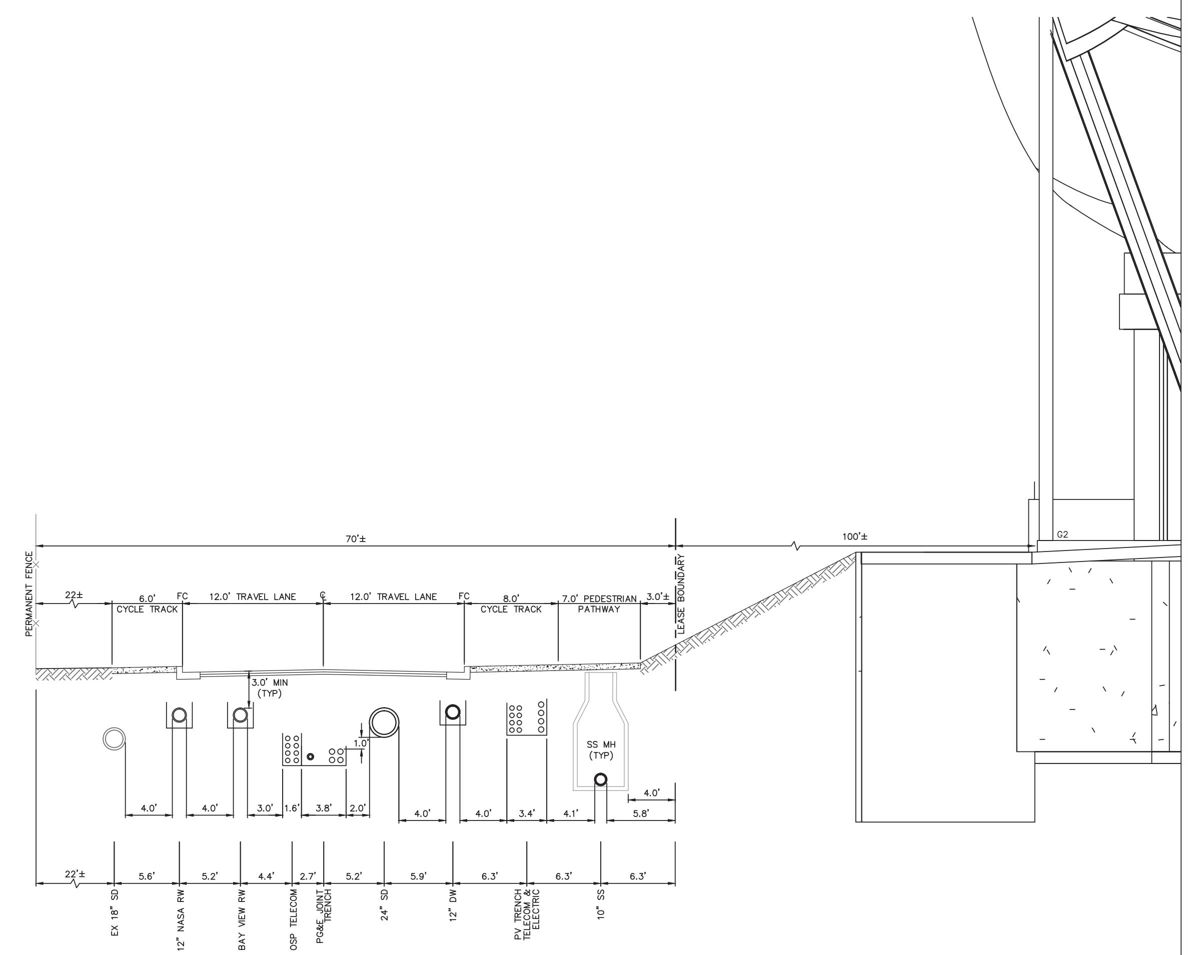
NORTH OF G3
LOOKING EAST

NOTE: BUILDING SHOWN FOR REFERENCE ONLY. SEE ARCHITECTURAL PLANS FOR BUILDING CROSS SECTIONS.



SOUTH DRIVE SOUTH OF G3
LOOKING WEST

NOTE: BUILDING SHOWN FOR REFERENCE ONLY. SEE ARCHITECTURAL PLANS FOR BUILDING CROSS SECTIONS.

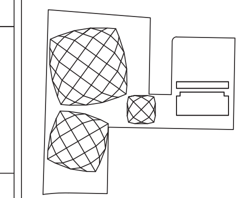


RT JONES ROAD EAST OF G2
LOOKING SOUTH

NOTE: BUILDING SHOWN FOR REFERENCE ONLY. SEE ARCHITECTURAL PLANS FOR BUILDING CROSS SECTIONS.

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

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SCHEMATIC
DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS
SCHEMATIC DRAWINGS IN PROGRESS

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CONSULTANT:
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ENGINEERS . SURVEYORS . PLANNERS
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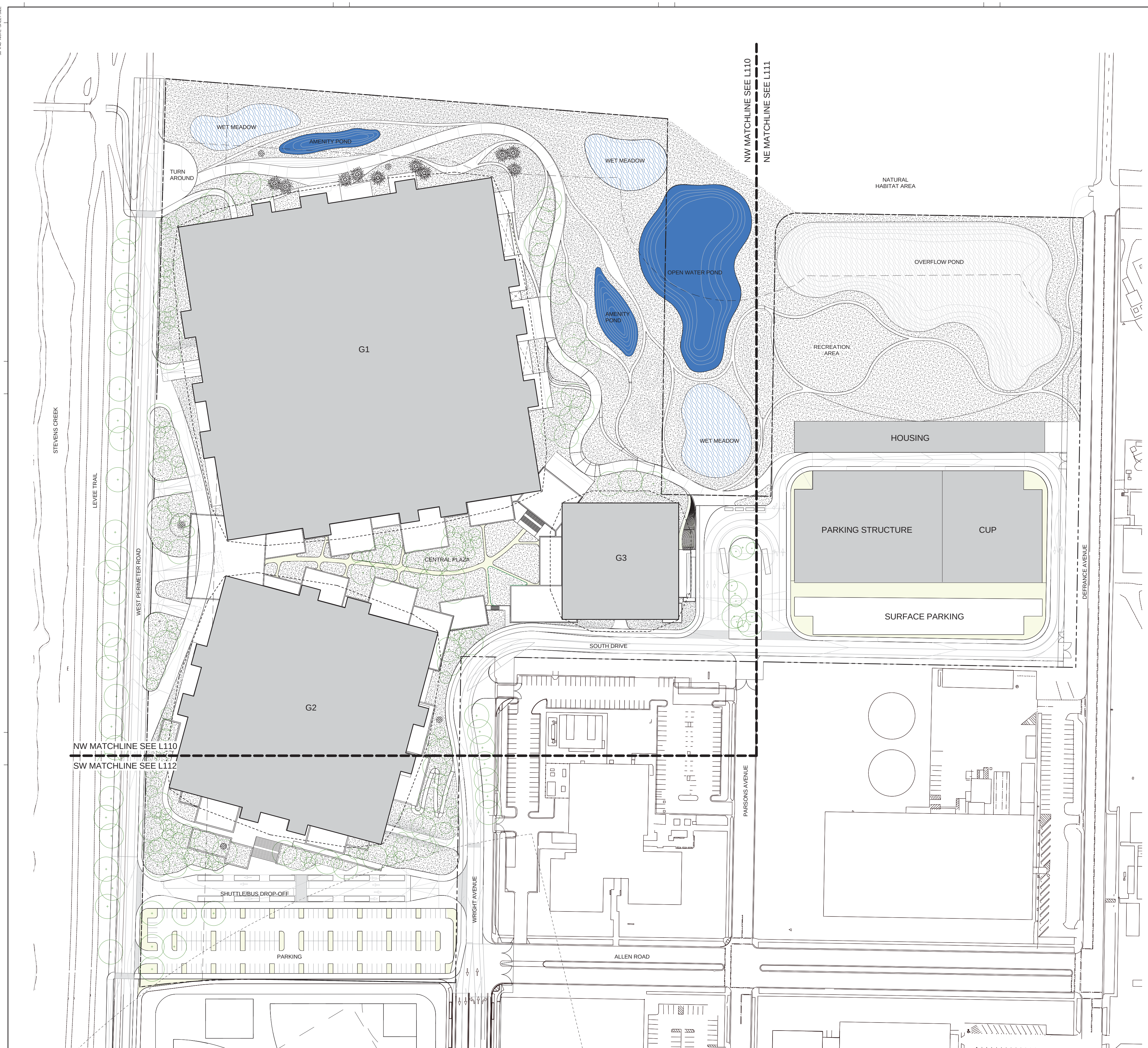
(650) 482-6300
www.bkf.com

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
SITE UTILITY CROSS SECTIONS

SEAL & SIGNATURE:		
	DATE: 06/24/16	
	PROJECT No: 20160013	
	DRAWN: AMJ/AJD	REV:
	CHK: CJH/MAO	
	SCALE: AS SHOWN	
	DWG No: C501	



NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK.

2. DO NOT SCALE OFF DRAWINGS, USE DRAWING DIMENSIONS ONLY. VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. BRING TO THE ATTENTION OF LANDSCAPE ARCHITECT ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND DRAWINGS PRIOR TO THE BEGINNING OF WORK. FIELD CONDITION DISCREPANCIES SHALL NOT BE USED AS THE BASIS FOR CHANGE ORDER CLAIMS ONCE WORK HAS BEGUN.

3. EXISTING CONDITIONS BASED ON FILE PROVIDED BY BKF, DATED 6/8/16. VERIFY EXISTING CONDITIONS IN THE FIELD. ALL WORK PERFORMED IN A PUBLIC RIGHT OF WAY SHALL MEET THE REQUIREMENTS OF LOCAL ZONING. THE CONTRACTOR SHALL MAINTAIN ALL NEW AND EXISTING UTILITIES IN GOOD WORKING ORDER AND PROTECT THEM FROM DAMAGE AT ALL TIMES UNTIL THE WORK IS COMPLETED AND ACCEPTED.

4. PRESERVE AND PROTECT ALL EXISTING STRUCTURES, FURNISHINGS, SURFACE MATERIALS, ABOVE AND BELOW - GRADE UTILITIES, FOOTINGS AND VEGETATION INDICATED TO REMAIN WITHIN AND ADJACENT TO LIMIT OF WORK DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION.

5. THE EXISTENCE AND LOCATION OF EACH AND EVERY UNDERGROUND UTILITY IS NOT GUARANTEED AND UNDOCUMENTED CONDITIONS MAY EXIST. COORDINATE WITH LANDSCAPE ARCHITECT AND CIVIL ENGINEER FOR LOCATIONS OF UTILITIES NOT SHOWN ON THE BASE DRAWING INCLUDING, BUT NOT LIMITED TO, HIGH VOLTAGE ELECTRIC, ABANDONED STEAM LINES, ABANDONED WATER LINES, TELEPHONE, CABLES, ETC. STAKE OUT LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK. ANY UTILITY THAT IS DAMAGED DURING SITE WORK OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. REFER TO CIVIL DRAWINGS FOR UTILITY LOCATIONS.

6. MAINTAIN VEHICULAR TRAFFIC FLOW TO AND AROUND THE SITE. MAINTAIN CLEARLY MARKED PEDESTRIAN ACCESS TO AREAS ON-SITE NOT AFFECTED BY CONSTRUCTION ACTIVITIES.

7. CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY STRUCTURES AS REQUIRED TO MEET PROPOSED GRADES, INCLUDING DRAIN INLETS, MANHOLES AND LIGHT POLE BASES. CONTRACTOR SHALL MEET EXISTING GRADES AT ALL EDGES OF LIMIT OF WORK.

8. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY MEASURES TO PREVENT SOIL EROSION. APPROVED SOIL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSTALLED BEFORE SITE CLEANING AND SITE GRADING OPERATIONS BEGIN.

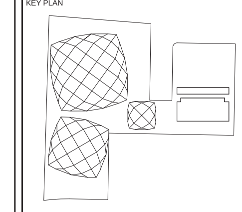
LEGEND

- WETLAND SETBACK
- PARCEL LINE
- NASA WINDTUNNEL SETBACK
- PROPOSED TREES
- VENTILATION EXHAUST
- PERMANENT WATER PONDS
- SEASONAL WATER PONDS
- OVERFLOW WATER POND
- PLANTED AREAS
- VENTILATION AREAWAYS

0' 30' 60' 120' 240'

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

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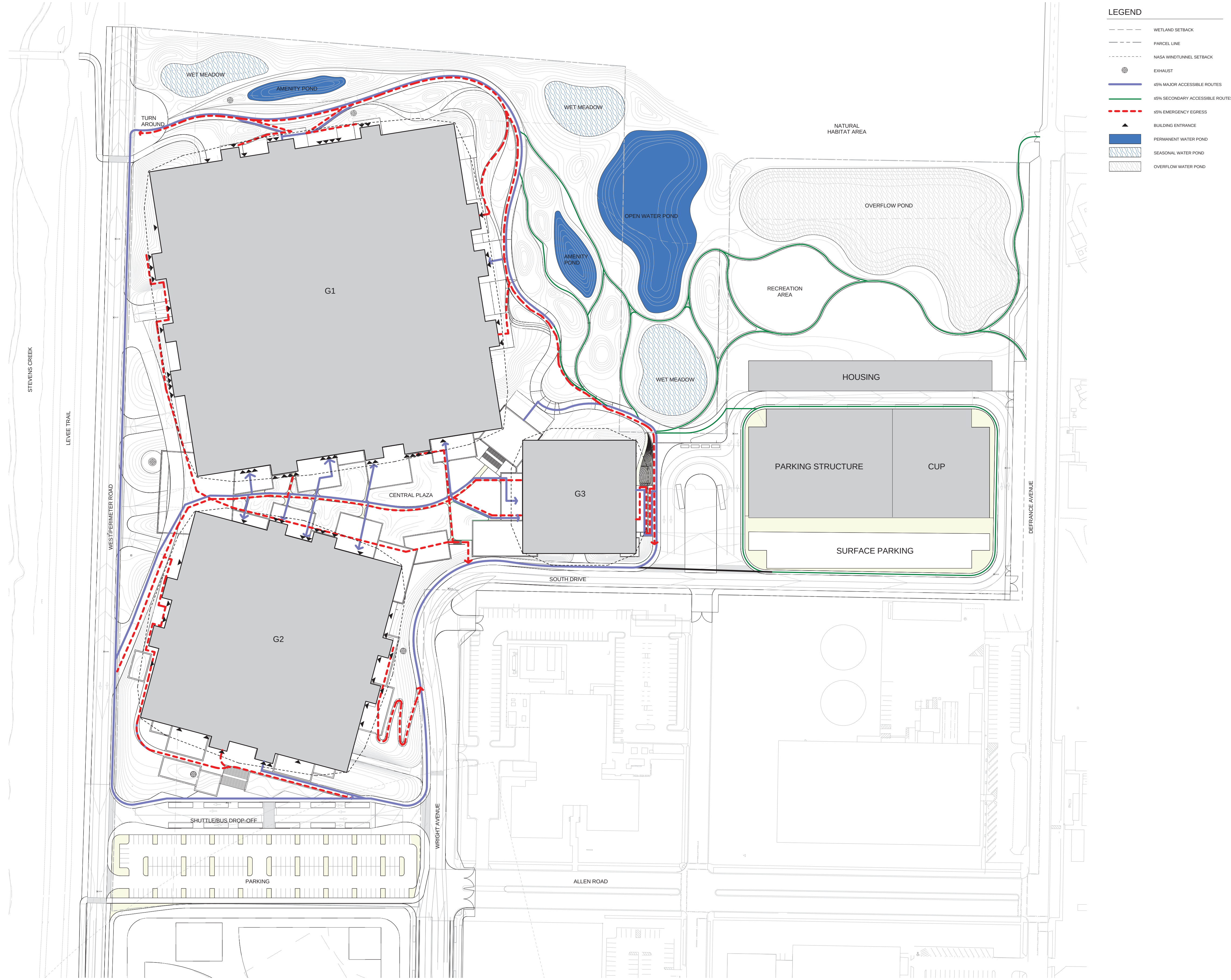
CONSULTANT:
OLIN

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
SITE PLAN

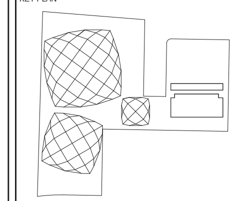
SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	1609.04
DRAWN: MHS	REV:
CHK: CL/JMH	
SCALE: 1" = 60'-0"	
DWG No:	L100



PLANETARY VENTURES

KEY PLAN



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CIVIL:
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TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

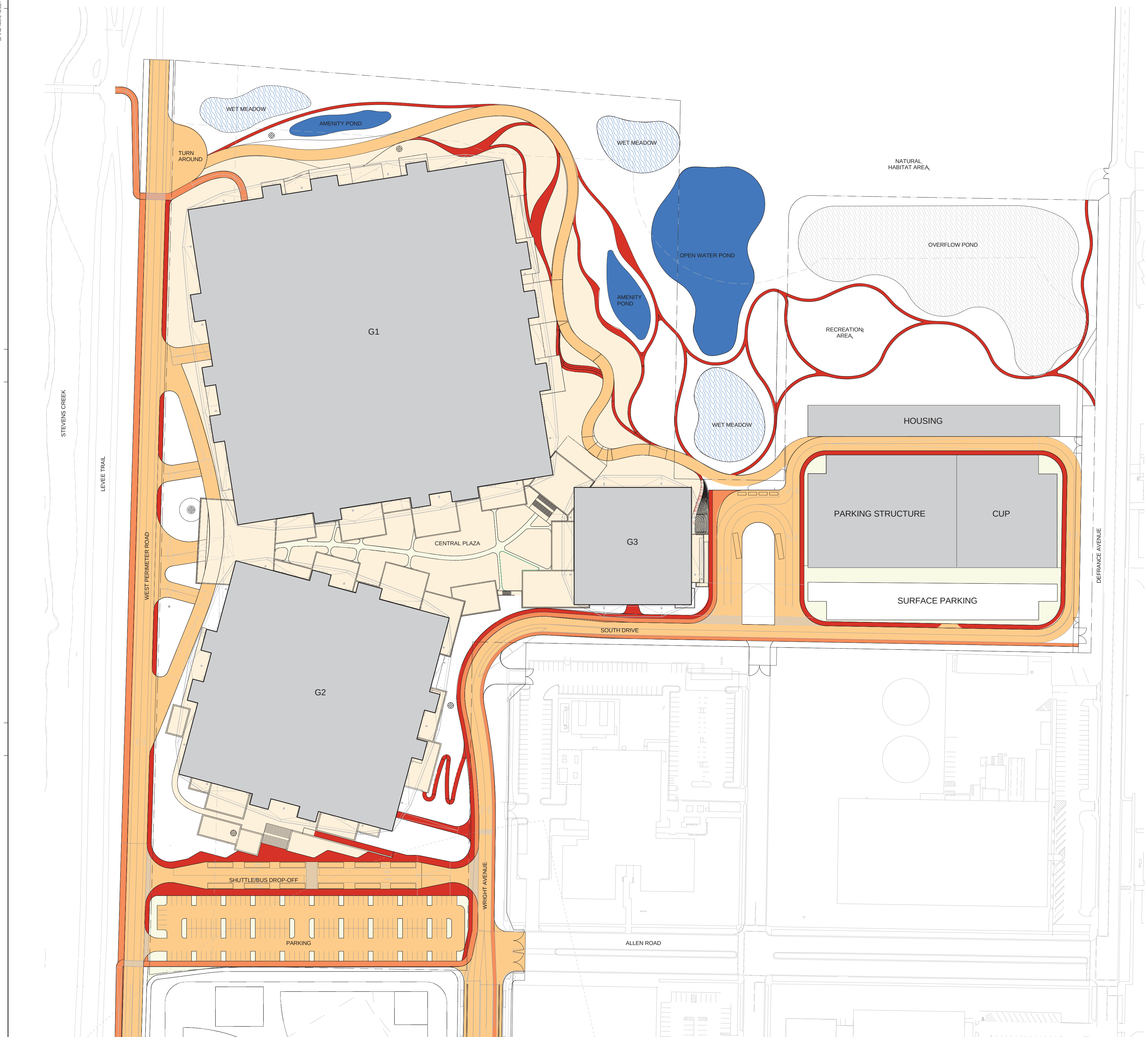
CONSULTANT:
OLIN

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
ADA AND LIFE-SAFETY

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	1609.04
DRAWN: CA	REV:
CHK: CL/JMH	
SCALE: 1" = 60'-0"	
DWG No:	L101



NOTES

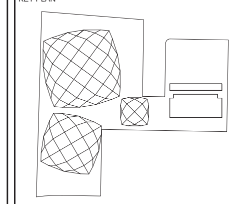
SEE L660 FOR LIGHT LEVEL INFORMATION

LEGEND

- PARCEL LINE
- NASA WINDTUNNEL SETBACK
- PERMANENT WATER POND
- SEASONAL WATER POND
- OVERFLOW WATER POND
- PLAZA + OUTDOOR ROOM LIGHTING
- VEHICULAR ROAD LIGHTING
- PEDESTRIAN PATH LIGHTING
- BIKE PATH LIGHTING

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

TRUE NORTH

CLIENT:
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1600 Amphitheatre Parkway
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TEL: +1 415-957-9445

SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT:
OLIN

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
SITE LIGHTING STRATEGY

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	1609.04
DRAWN: MHS	REV:
CHK: CL/JMH	
SCALE: 1" = 60'-0"	
DWG No:	L650

PROGRAM SPACE	PROGRAM TYPE	AVERAGE TARGET LIGHT LEVEL	MINIMUM TARGET LIGHT LEVEL	UNIFORMITY RATIO (AVG/MIN)	NOTES
PEDESTRIAN PATHWAYS					
Primary Pathway	Pedestrian Pathway	>2.0 fc	0.5 fc min	4:1	Recommendations based on previous OBS landscape projects. Minimum of 1.0 fc recommended per IESNA 9th Edition, Figure 22-10 – Sidewalks and Type A bikeways – Commercial Areas.
Secondary Pathway	Pedestrian Pathway	0.5 fc	W0.2 fc	n/a	Recommendations based on previous OBS landscape projects. Supported by Table 6, IESNA RP-8 (2000), Roadway Lighting – Medium Pedestrian Conflict Areas – Walkways/Bikeways – Pedestrian Areas.
Paths to Building Curb	Pedestrian Pathway	0.2 - 0.4 fc	>0.1 fc	3:1	From Table 22.2, IESNA 10th Edition, Building Entries – Outdoor – Paths to Curb – Medium Activity.
BICYCLE PATHWAYS					
Pathway	Bicycle/Pedestrian Pathway	2.0 fc	1.0 fc	4:1	From Table 5, IESNA RP-8 (2000), Roadway Lighting – High Pedestrian Conflict Areas – Walkways/Bikeways – Mixed Vehicle and Pedestrian Areas.
Drop-Off	Bicycle/Pedestrian Pathway	2.0 fc	1.0 fc	4:1	From Table 5, IESNA RP-8 (2000), Roadway Lighting – High Pedestrian Conflict Areas – Walkways/Bikeways – Mixed Vehicle and Pedestrian Areas.
Parking	Bicycle/Pedestrian Pathway	2.0 fc	1.0 fc	4:1	From Table 5, IESNA RP-8 (2000), Roadway Lighting – High Pedestrian Conflict Areas – Walkways/Bikeways – Mixed Vehicle and Pedestrian Areas.
VEHICLE ROADWAYS					
Roadway	Local Roadway	0.7 fc	0.5 fcW	6:1	From Figure 22-8, IESNA 9th Edition, Local Roadway – Intermediate.
Drop-Off	Roadway Rest Areas	1.0 fc	0.6 fc	3:1	From Figure 22-20, IESNA 9th Edition, Roadway Rest Areas.
Bus Shuttle	Roadway Rest Areas	1.0 fc	0.6 fc	3:1	From Figure 22-20, IESNA 9th Edition, Roadway Rest Areas.
Parking Entry (to Parking Garage)	Roadway – Tunnel Threshold	5.6 fc	5.6 fc	6:1	From Figure 22-18, IESNA 9th Edition, Tunnel Roadways – Concealed Portals – Traffic Volume Average Annual Daily Traffic in both directions <25,000.
Parking Lot	Parking Lot	0.5 fc	0.2 fc	15:1 to 20:1	From Figure 22-21, IESNA 9th Edition, Parking Lots – Basic / Enhanced Security.

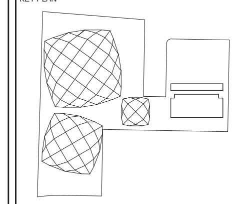
PROGRAM SPACE	PROGRAM TYPE	AVERAGE TARGET LIGHT LEVEL	MINIMUM TARGET LIGHT LEVEL	UNIFORMITY RATIO (AVG/MIN)	NOTES
PLAZA / LANDSCAPE					
General	Outdoor Centers	0.4 fc	0.2 fc	N/A	From Table 34.2, IESNA 10th Edition, Outdoor Centers – Plazas and Town Squares – High Activity.
Entries/Exits - Canopied	Building Entries	3.0 fc	1.5 fc	2:1	From Table 22.2, IESNA 10th Edition, Building Entries – Outdoor – Canopied Entries/Exits – High Activity.
Entries/Exits - Non-Covere	Building Entries	1.5 fc	1.0 fc	2:1	From Table 22.2, IESNA 10th Edition, Building Entries – Outdoor – Non-Covered Entries/Exits – High Activity.
Stairwells	Outdoor Centers	~5.0 fc	2.0 fc min.	<5:1	Recommendations based on previous OBS landscape projects. Minimum of 0.4 fc recommended from Table 34.2, IESNA 10th Edition, Outdoor Centers – Ramps, Stairs, and Steps – Medium Activity.
Ramps/Steps	Outdoor Centers	>2.0 fc	0.5 fc min.	N/A	Recommendations based on previous OBS landscape projects. Minimum of 0.6 fc recommended from Table 34.2, IESNA 10th Edition, Outdoor Centers – Ramps, Stairs, and Steps – High Activity.
Outdoor Rooms	Outdoor Gardens – Terraces	5.0 fc	3.0 fc	5:1	From IESNA 9th Edition, Chapter 21 and Table 34.2, IESNA 10th Edition, Outdoor Centers – Plazas and Town Squares – High Activity
Dining Areas	Food Service	10.0 fc	5.0 fc	3:1	From Table 22.2, IESNA 10th Edition, Food Service – Dining Areas – Restaurants – Casual Dining
Performance Areas	Outdoor Centers	15.0 fc	7.5 fc	5:1 to >10:1	From IESNA 10th Edition, Table 15.2 Accent Illuminance Ratios – Moderate, Table 34.2 Outdoor Centers – Performance Areas
Sportsfield	Outdoor Sports	20.0 fc	10.0 fc	3:1 to 4:1	From Table 35.3, IESNA 10th Edition, Outdoor Sports – Class IV – Baseball / Basketball / Football / Skateboarding / Soccer / Track and Field / Volleyball
Natural Habitat Zone	Outdoor Gardens	2.0 to 3.0 fc	0.2 fc	2:1 to 5:1	From IESNA 9th Edition, Chapter 21 and IESNA 10th Edition, Table 15.2 Accent Illuminance Ratios – Soft, Table 34.2 Outdoor Centers – Perimeter (Wall Planes or Trees)

LIGHT LEVEL RECOMMENDATIONS

NOTE: NO ARTIFICIAL LIGHTING PROPOSED AT RECREATION FIELDS AND NATURAL HABITAT AREAS

PLANETARY VENTURES

KEY PLAN



PROJECT NORTH

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

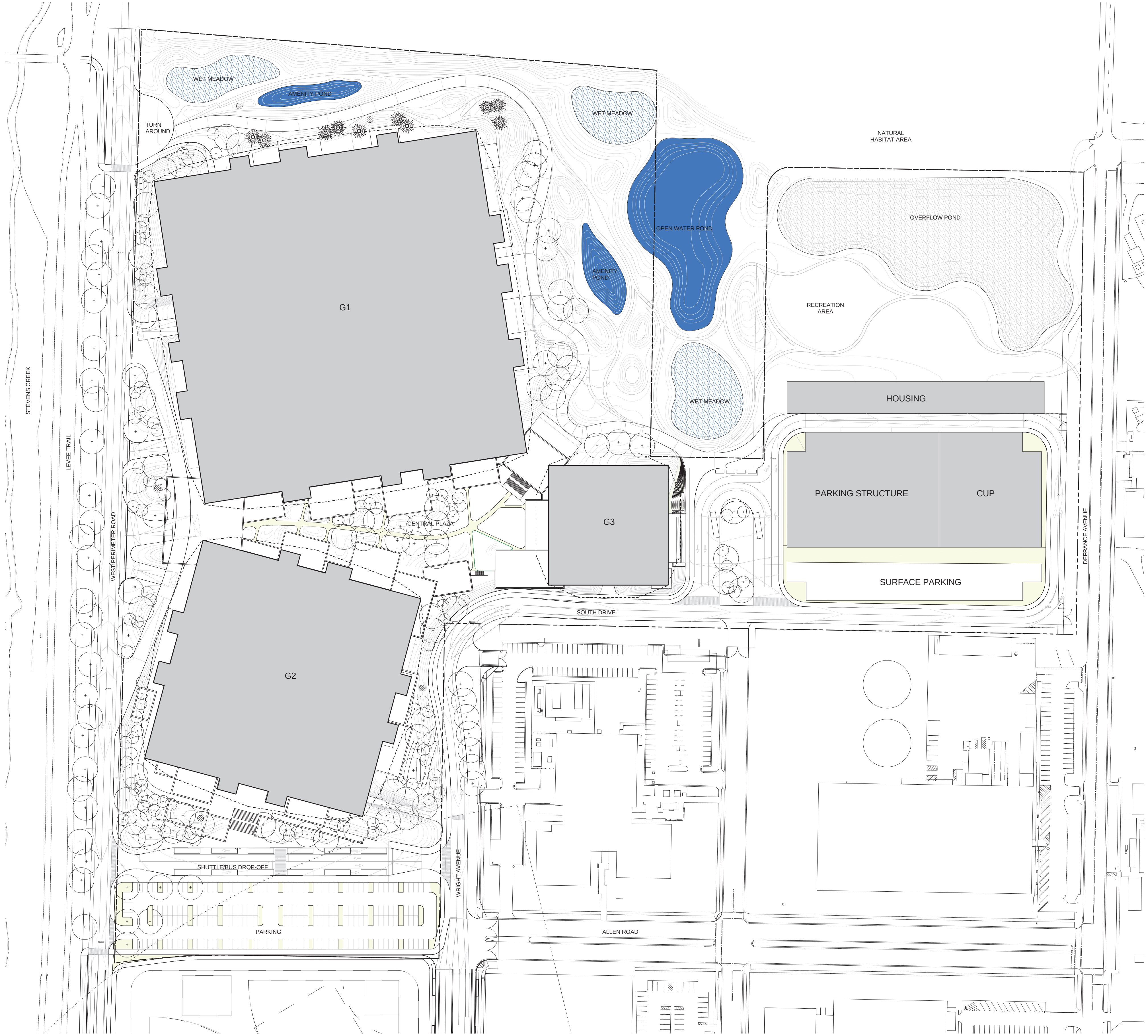
CONSULTANT: OLIN

PROJECT: Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE: SITE LIGHTING PLAN (PHOTOMETRIC TARGET)

SEAL & SIGNATURE:

DATE: 06/24/16
PROJECT No: 1609.04
DRAWN: AF
REV:
CHK: CL/JMH
SCALE:
DWG No: L660



0' 30' 60' 120' 240'

NOTES

1. ALL AREAS NOT COVERED BY BUILDINGS OR PAVEMENT AND WHICH HAVE BEEN GRADED OR OTHERWISE DISTURBED SHALL BE TOPSOILED AND SEEDED, UNLESS SHOWN OTHERWISE.

2. ALL TREES OUTSIDE THE BUILDING AND PAVED AREAS SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION, UNLESS SPECIFICALLY DESIGNATED TO BE REMOVED. PRIOR TO REMOVAL, THE CONTRACTOR SHALL ARRANGE AN ON-SITE MEETING WITH THE LANDSCAPE ARCHITECT TO REVIEW THE CLEARING LIMIT LINES. VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR PLANT PITS. SEE XXXX FOR TREE PROTECTION.

3. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN IN THE DRAWINGS.

4. CONTRACTOR SHALL REMOVE ALL HARD LUMPS OF CLAY, STONES OVER 2" IN DIAMETER, AND ALL CONSTRUCTION DEBRIS INCLUDING GRAVEL, ROOTS, LIMBS AND OTHER DELETERIOUS MATTER WHICH WOULD BE HARMFUL, OR PREVENT PROPER ESTABLISHMENT AND/OR MAINTENANCE OF LAWN AND PLANTING AREAS.

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6. NO TREES SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING. TREES SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS TO ORIGINAL GRADE PRIOR TO DIGGING.

7. ALL PLANTS SHALL BE BALLED IN BURLAP OR CONTAINER GROWN UNLESS OTHERWISE NOTED IN THE PLANTING SCHEDULE.

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10. THE LAYOUT OF PLANTS IN THE FIELD IS TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.

11. ALL TREE LOCATIONS TO BE APPROVED BY LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO INSTALLATION.

12. FOR TREE PLANTING DETAILS, SEE L940.

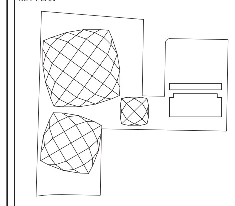
13. FOR VARIETY, SPECIES, SIZE, AND QUANTITIES, SEE L950

LEGEND

- WETLAND SETBACK
- PARCEL LINE
- NASA WINDTUNNEL SETBACK
- PERMANENT WATER PONDS
- SEASONAL WATER PONDS
- OVERFLOW WATER POND
- PROPOSED CANOPY TREES
- PROPOSED UNDERSTORY TREES
- PROPOSED CONIFER TREE

PLANETARY VENTURES

KEY PLAN



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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

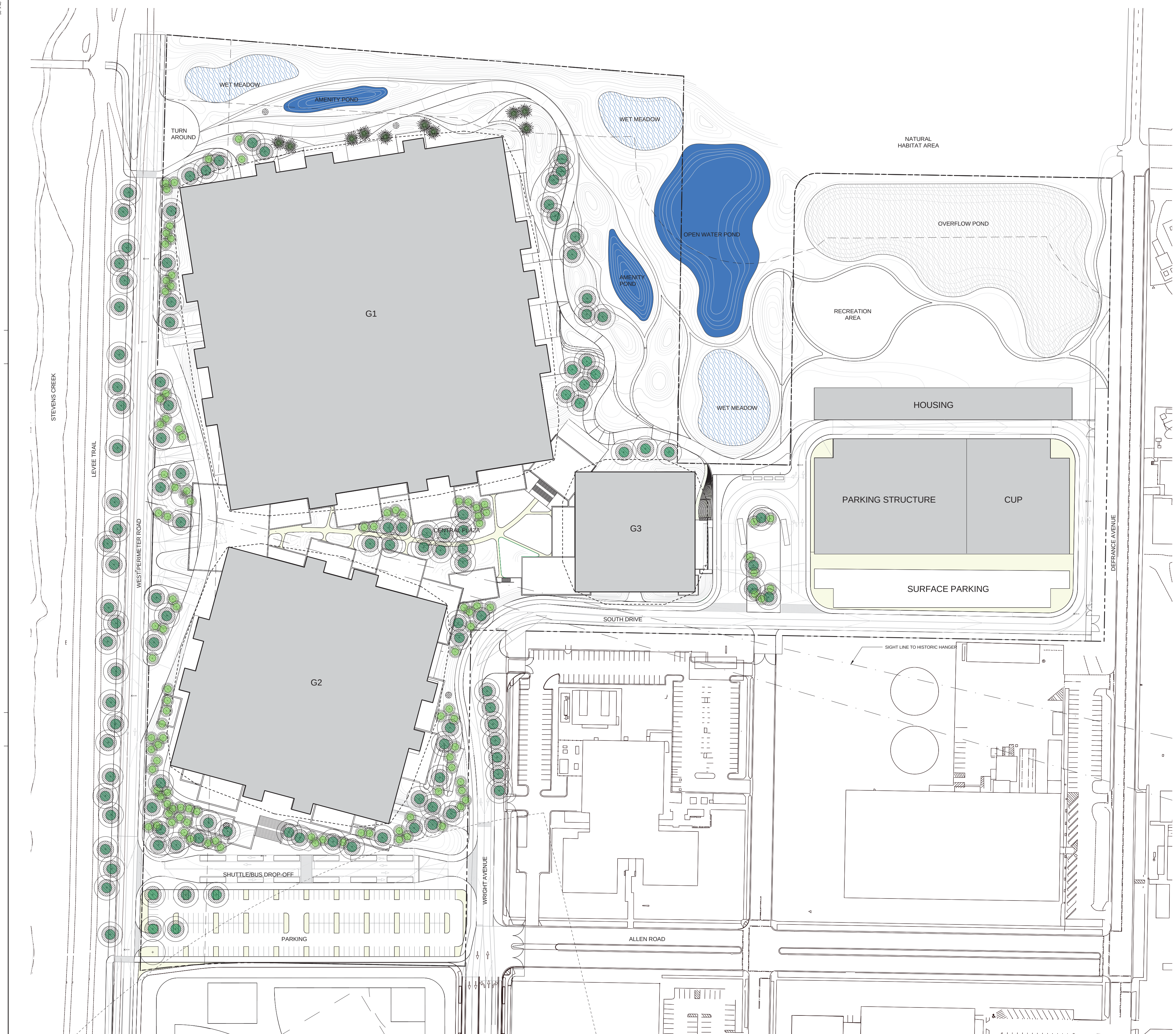
CONSULTANT:
OLIN

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EXTERIOR PLANTING PLAN - TREES

SEAL & SIGNATURE:

DATE:	06/24/16
PROJECT No:	1609.04
DRAWN: SEA	REV:
CHK: CL/JMH	
SCALE: 1" = 60'-0"	
DWG No:	**L900**



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12. FOR TREE PLANTING DETAILS, SEE L940

13. FOR VARIETY, SPECIES, SIZE, AND QUANTITIES, SEE L950

LEGEND

- WETLAND SETBACK
- PARCEL LINE
- NASA WINDTUNNEL SETBUCK
- SIGHT LINE TO HISTORIC HANGAR
- PERMANENT WATER PONDS
- SEASONAL WATER PONDS
- OVERFLOW WATER POND
- 5 YEAR CANOPY OF CANOPY TREE
- 10 YEAR CANOPY OF CANOPY TREE
- 5 YEAR CANOPY OF CONIFER TREE
- 10 YEAR CANOPY OF CONIFER TREE
- 5 YEAR CANOPY OF UNDERSTORY TREE
- 10 YEAR CANOPY OF UNDERSTORY TREE

0' 30' 60' 120' 240'

PLANETARY VENTURES

KEY PLAN

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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT:
OLIN

PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EXTERIOR PLANTING PLAN - TREES (5 & 10 YEARS CANOPY OVERLAY, SIGHT LINES)

SEAL & SIGNATURE:

DATE: 06/24/16	
PROJECT No: 1609.04	
DRAWN: SEA	REV:
CHK: CL/JMH	
SCALE: 1" = 60'-0"	
DWG No: **L901**	

36" x 48" Arch E -SHEET SIZE

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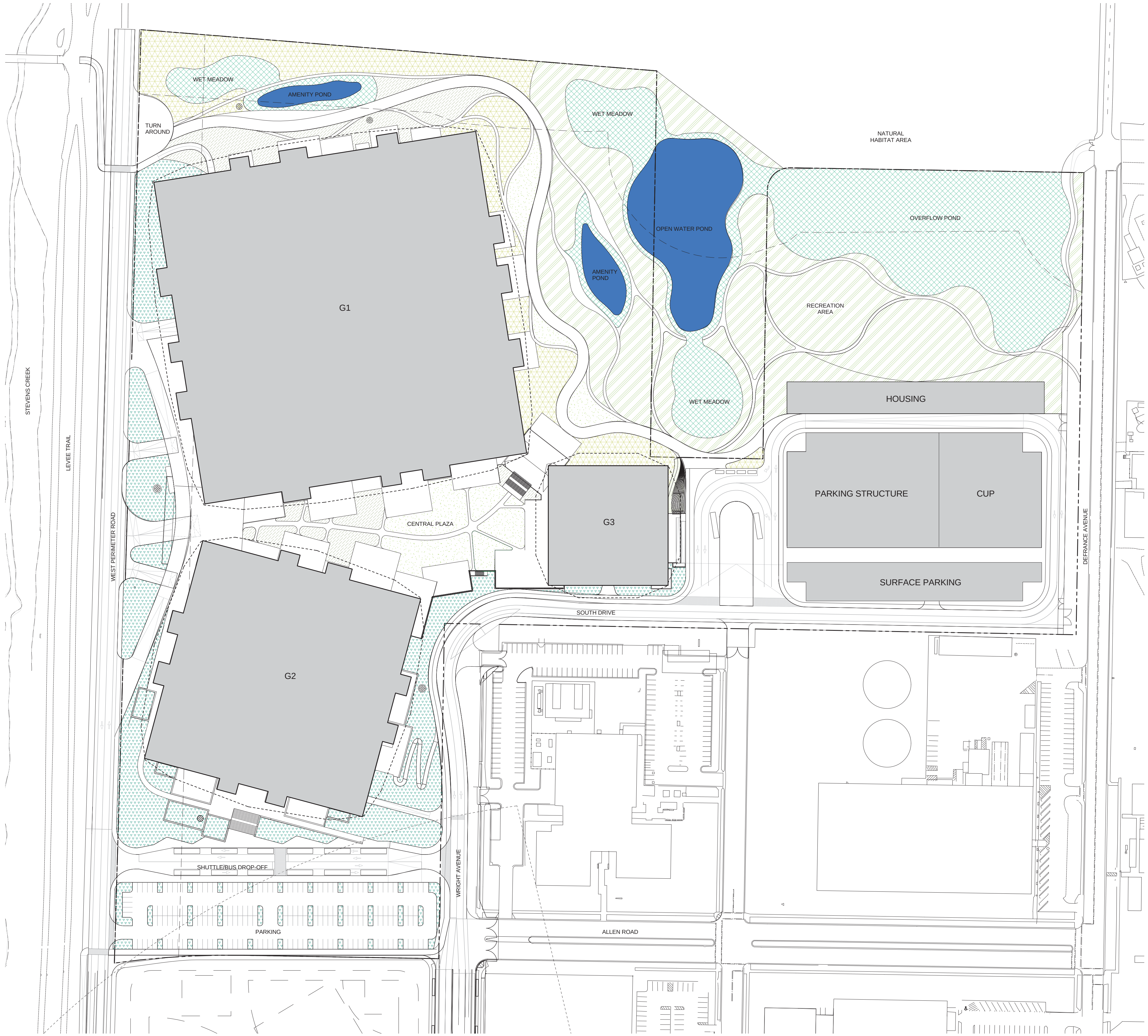

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11. FOR PLANTING DETAILS, SEE L940.

12. FOR VARIETY, SPECIES, SIZE, AND QUANTITIES, SEE L950.

LEGEND

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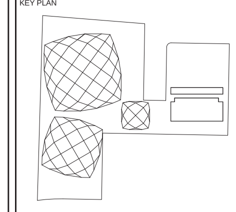
- PERMANENT WATER PONDS
- SEASONAL WATER PONDS
- OVERFLOW WATER POND
- OAK WOODLAND MIX
- COASTAL SCRUB A
- COASTAL SCRUB B
- COASTAL GRASSLAND
- WET MEADOWS
- NATIVE TURF

PLANETARY VENTURES

KEY PLAN



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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT:
OLIN

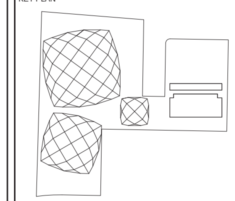
PROJECT:
Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE:
EXTERIOR PLANTING PLAN - UNDERSTORY VEGETATION

SEAL & SIGNATURE:		
DATE:	06/24/16	
PROJECT No:	1609.04	
DRAWN: SEA		REV:
CHK: CL/JMH		
SCALE: 1" = 60'-0"		
DWG No:	**L902**	

PLANETARY VENTURES

KEY PLAN



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SCHEMATIC DESIGN PHASE

No.	DESCRIPTION:	DATE:

DRAWING STATUS

ALL DIMENSIONS ARE SHOWN IN IMPERIAL.

CONSULTANT: OLIN

PROJECT: Bay View
NASA AMES RESEARCH CENTER

DRAWING TITLE: EXTERIOR PLANT SCHEDULE

SEAL & SIGNATURE:

DATE: 06/24/16
PROJECT No: 1609.04
DRAWN: SEA
CHK: CL/JMH
SCALE:
REV:
DWG No: L950

Tree Schedule

Plant Scientific Name	Plant Common Name	Planting Size	Count
Aesculus californica	California buckeye	48" box	54
Cercis occidentalis	California Redbud	48" box	33
Platanus racemosa	California Sycamore	84" box	17
Quercus agrifolia	Coast Live Oak	96" box	37
Populus fremontii	Fremont Cottonwood	60" box	20
Arbutus menziesii	Pacific Madrone	48" box	20
Pinus torreyana	Torrey Pine	60" box	10
Quercus lobata	Valley Oak	96" box	47
Grand total: 238			

Understory Vegetation Schedule

Name	Area	COMMON NAME 01	SPECIES 01 PERCENTAGE	SIZE	SPACING	SPECIES 01 COUNT	COMMON NAME 02	SPECIES 02 PERCENTAGE	SIZE 2	SPACING 2	SPECIES 02 COUNT	Comments
Coastal Grassland	203853 SF					126572					14064	
Coastal Scrub A	39833 SF	Shrubs	0.7	7 gallon	36"	3485	Grasses and Perennials	0.3	1 gallon	12"	13742	Mix of Arctostaphylos densiflora, Artemisia californica, Baccharis pilularis, Ceanothus griseus, Erigeron glaucus, Erigeron nudum, Leymus condensatus, Rhus integrifolia, Sisrinchium bellum
Coastal Scrub B	80798 SF					2976					63890	
Native Lawn	40040 SF					241					5167	
Oak Woodland	113742 SF	Shrubs	0.5	7 gallon	36"	7109	Grasses and Perennials	0.5	1 gallon	12"	65402	Mix of Carex obnupta, Ceaonothus maritiumus, Claytonia perfoliata, Dichelostemma capitatum, Frangula californica, Heteromeles arbutifolia, Muhlenbergia dubia, Pholistoma auritum, Polypodium californicum, Pteridum aquilinum, Salvia clevelandii, Salvia mell
Seasonal Wetland	187157 SF	Shrubs	0.1	7 gallon	36"	2339	Grasses and Perennials	0.9	1 gallon	12"	193708	
Grand total: 104	665423 SF					142723					355973	

UNDERSTORY PLANT PALETTE

COASTAL GRASSLAND

Leafy Bent Grass (N)
Agrostis pallens

California Hairgrass (N)
Deschampsia cespitosa

Seaside Fleabane (N)
Erigeron glaucus

Red Fescue (N)
Festuca rubra

Yarrow (N)
achillea millefolium

Purple Needle Grass (N)
Stipa pulchra

Californian Poppy(N)
Eschscholzia californica

COASTAL SCRUB

California Sagebrush (N)
Artemisia californica

Coyote Bush (N)
Baccharis pilularis

Nude Buckwheat (N)
Eriogonum nudum

Western Blue Eyed Grass (N)
Sisyrinchium bellum

Vine Hill Manzanita (N)
Arctostaphylos densiflora

California Sagebrush (N)
Artemisia californica

Lemonade Sumac (N)
Rhus integrifolia

OAK WOODLAND

Slough Sedge (N)
Carex obnupta

Maritime Ceanothus (N)
Ceaonothus maritiumus

Spring Beauty (N)
Claytonia perfoliata

Purplehead (N)
Dichelostemma capitatum

California Coffeeberry (N)
Frangula californica

Blue Fiestaflower(N)
Pholistoma auritum

Brake (N)
Pteridum aquilinum

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APPENDIX E | RENDERINGS

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Figure 1: Rendering of the Bay view Campus, looking west across the airstrips at Moffett Federal Airfield from a vantage point at the northwest facades of Hangars 2 and 3.

Renderings | Bay View - perspective looking west across Moffett Federal Airfield from Hangars 2 & 3

Figure 2: Rendering of the Bay View Campus, looking north along Wright Avenue from a vantage point outside the NASA ARC perimeter fence, directly west of the 80x120-foot Wind Tunnel (Building N-221B).

Renderings | Bay View - perspective looking north from Wright Avenue, west of Building N-221B

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