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July 9, 2020

Shawna Scott
City of San Luis Obispo
Community Development Department
919 Palm Street
San Luis Obispo, CA 93401-3218

RE: Biological Resources Technical Memorandum for the North Broad Park and Rezone Project, San Luis Obispo, San Luis Obispo County, California / SWCA No. 27640.21

Dear Ms. Scott:

SWCA Environmental Consultants (SWCA) prepared this Biological Resources Technical Memorandum for the City of San Luis Obispo (City) to describe the biological resources that occur in the proposed North Broad Street Neighborhood Park Project (project) site. The project includes rezoning the approximately 0.5-acre site and redeveloping the existing community gardens to include a neighborhood park. The intent of this technical memorandum is to determine if the proposed project may affect special-status species, jurisdictional waters, or other sensitive biological resources. In regard to jurisdictional waters, this technical memorandum field verifies mapping of the California Department of Fish and Wildlife (CDFW) top-of-bank and riparian vegetation boundary to facilitate compliance with Section 17.70.030 – Creek Setbacks of the City of San Luis Obispo (Title 17- Zoning Regulations).

PROJECT LOCATION AND SETTING

The proposed project site is in the city of San Luis Obispo, southeast of the Lincoln Avenue and Broad Street intersection, and at the confluence of Old Garden Creek and Stenner Creek (Attachment A: Figures A-1 and A-2). The surrounding area is developed for residential and commercial uses. The neighborhood park includes informal garden beds and unimproved pathways between the garden beds.

METHODS

The information presented in this technical memorandum is a compilation of botanical and wildlife data gathered in the field; from a review of information from federal, state, and local resource agencies; and from past environmental documents prepared for nonrelated projects near the park.

Prior to conducting a site visit, SWCA biologists performed a literature review to gain familiarity with the project area and identify target species. The review consisted of a search of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) data output¹ for the property vicinity and the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database

¹ U.S. Fish and Wildlife Service (USFWS). 2020. Information for Planning and Consultation (IPaC) Resource List. Available at: <https://ecos.fws.gov/ipac/>. Accessed March 31, 2020.

(CNDDDB) RareFind 5 data output² that focused on the San Luis Obispo and Pismo, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps (Attachment B)

An SWCA biologist conducted two biological surveys at the park on March 31 and April 28, 2020. The purpose of the surveys was to map the existing vegetative communities; conduct reconnaissance flora and fauna surveys; assess the park's potential to support rare, endangered, or otherwise sensitive biological resources; and investigate the presence of potentially jurisdictional water features. The timing of the surveys was such that most target plant species would be in their blooming period. The wildlife surveys were not conducted in accordance with any established wildlife survey protocol. Throughout the survey effort, the surveyor documented all plant and wildlife species observed (Attachment C).

RESULTS

Existing Conditions

The park includes an approximately 0.5-acre parcel of relatively flat land with an elevation of 200 feet above mean sea level. The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey indicates that soil in the park is comprised of Salinas silty clay loam 2 to 9 percent slopes.³ This soil is common on terraces and is derived from sedimentary rock.

The park is bordered by Old Garden Creek to the west and Stenner Creek to the east, and the two creeks converge at the southern corner of the park. The park includes the flat terrace between and above the banks of the two creeks. Most of the park area includes community garden beds and pathways between the beds. Portions of the park that do not include beds or pathways consist of ruderal vegetation dominated by non-native annual grasses and forbs including ripgut brome (*Bromus diandrus*), slender wild oats (*Avena barbata*), bull mallow (*Malva nicaeensis*), and bur chervil (*Anthriscus Sylvestris*), among others. The park supports numerous planted or naturalized non-native trees including Australian cheesewood (*Pittisporum undulatum*), walnut (*Juglans hindsii* x *regia*), Monterey cypress (*Hesperocyparis macrocarpa*), and eucalyptus (*Eucalyptus* sp.). In addition to the naturalized trees, a coast live oak (*Quercus agrifolia*) is adjacent to the garden beds. Photos of the park are included as Attachment D.

The creek banks are steep with a clearly defined top-of-bank along the borders of the park area. The riparian vegetation is largely confined within the banks of the creeks and is a mix of non-native and native trees with a weedy understory. The dominant tree species in the riparian canopy include walnut, coast live oak, and arroyo willow (*Salix lasiolepis*). Several Australian cheesewood and California bay laurel (*Umbellularia californica*) trees are also rooted within the creek banks. The understory vegetation within the creek banks includes dense cover of German ivy (*Delaria odorata*), English ivy (*Hedera helix*), garden nasturtium (*Tropaeolum majus*), greater periwinkle (*Vinca major*), and poison oak (*Toxicodendron diversilobum*). The English and German ivies are climbing up many of the larger trees. This assemblage of plant species does not form a plant community that is described in *A Manual of California Vegetation*.⁴

² California Natural Diversity Data Base (CNDDDB). 2020. RareFind5 data output for San Luis Obispo and Pismo Beach, California USGS 7.5-minute quadrangles. California Department of Fish and Wildlife. Sacramento, California.

³ U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey Results. Available at: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed April 2020.

⁴ Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second Edition. California Native Plant Society, Sacramento. 1300 pp.

A small patch of arroyo willows occurs at the confluence of the two creeks; this small area would meet the membership rules for Arroyo Willow thickets. However, the patch of willows is not dominant in the riparian canopy or large enough to map it as a community. Since the creek’s riparian zone is comprised of various non-native and native trees, it was mapped as mixed non-native/native riparian woodland (Attachment A: Figure A-3).

Special-Status Species

Based on the CNDDDB, California Native Plant Society (CNPS), and USFWS IPaC records searches; literature review; and SWCA’s knowledge of the area, 47 special-status plant species were evaluated for potential occurrence in the park. Due to the ongoing disturbance in the park, it was determined that the park does not support suitable conditions for special-status plant species. No special-status plant species were observed in the park during surveys conducted in March and April 2020. The literature review identified 37 special-status wildlife species that have documented occurrences in the queried quadrangle maps or were included on the IPaC list. The existing conditions in the park provide suitable conditions for seven of the reviewed species. Those wildlife species warranting specific consideration while planning the project are listed in Table 1 below. Tables E-1 and E-3 in Attachment E provide a rationale on whether a species is expected to occur in the park.

Table 1. Special-Status Wildlife with Potential to Occur in or near the Park

Species	Location of Suitable Habitat
Monarch butterfly (<i>Danaus plexippus</i>)	The trees in the park and the adjacent riparian area could support over-wintering monarch butterflies.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	The riparian trees support marginal habitat for this species.
White-tailed kite (<i>Elanus leucurus</i>)	The riparian trees support marginal habitat for this species.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	The riparian trees support marginal habitat for this species.
Townsend’s big-eared bat (<i>Corynorhinus townsendii</i>)	The trees in the park and the adjacent riparian area could provide roosting bat habitat.
Western mastiff bat (<i>Eumops perotis</i>)	The trees in the park and the adjacent riparian area could provide roosting bat habitat.

Jurisdictional Waters

Old Garden and Stenner Creeks are tributaries to San Luis Obispo Creek, which flows to the Pacific Ocean in Avila Beach. In addition, Old Garden Creek and Stenner Creek support ordinary highwater marks (OHWMs) and surface flows most of the growing season. Due to the connectivity to traditional navigable waters and the presence of an OHWM, Old Garden Creek and Stenner Creek are likely waters of the United States and waters of the State under the federal Clean Water Act. The proposed project does not include any improvements within the creeks banks or OHWM; therefore, coordination and permitting with the U.S. Army Corps of Engineers (USACE) and/or the Regional Water Quality Control Board (RWQCB) is not anticipated.

Old Garden and Stenner Creeks support relatively permanent water, defined bed and banks, and riparian vegetation; therefore, these creeks fall within CDFW jurisdiction. CDFW jurisdiction extends to the top-of-bank or extent of riparian vegetation, whichever is greater. At the park, the riparian vegetation is confined between the creek banks. As such, Cannon mapped the CDFW jurisdiction at the top-of bank of the creeks (see Figure A-3). SWCA’s biologist verified the mapping based on field conditions. Prior to

conducting any project activity, the City would be required to enter into a Streambed Alteration Agreement with the CDFW if any activity would: (1) divert or obstruct the natural flow of the creeks; (2) change the bed, channel, or bank of the creeks; (3) use material from the creeks; or (4) deposit or dispose of material into the creeks. The proposed project includes tree removal that would trigger the need for the City to enter into an agreement with the CDFW.

Title 17- Zoning Regulations, Section 17.70.030 – Creek Setbacks

Section 17.70.030 of the San Luis Obispo Zoning Regulations establish creek setbacks to protect creeks, provide for restoration of creeks, allow for natural changes to occur within the creeks, avoid flooding or damage to developments, and enable implementation of adopted City plans. Both Old Garden Creek and Stenner Creek are identified on Figure 9- Creeks and Wetlands of the City of San Luis Obispo General Plan Open Space Element as “Perennial Creeks with degraded corridor but able to be restored or repaired.”

The park is in the 1996 City Limits. Pursuant to Section 17.70.030.E.1, the “*Creek setbacks shall be measured from the existing top of bank (or the future top of bank resulting from a creek alteration reflected in a plan approved by the City), or from the edge of the predominant pattern of riparian vegetation, whichever is farther from the creek flow line.*” The riparian vegetation in the two creeks is largely confined by the creek banks, with some canopy cover extending beyond the top-of-bank. Most of the vegetation in and adjacent to the creeks are planted or weedy species that are present due to being invasive species rather than due to the presence of water in the creeks. Establishing the setback line based on the canopy of planted or weedy species does not meet the parameters of the setback guidelines, which clearly states “*the Director will not base the setback line on individual trees or branches extending out from the channel or on small gaps in vegetation extending toward the channel.*” Considering the site’s existing conditions and the City policy for creek setbacks, the necessary setback at the park should be 20 feet from the top-of-bank. The design plans included in Attachment F show the top-of-bank and associated setback. Pursuant to Section 17.70.030.F, the following improvements are prohibited in the setback areas: (1) structures larger than 120 square feet; (2) paving; (3) parking lots; (4) fire pits, barbecues, and other open flames; (5) mechanical equipment; and (6) in nonresidential zones, areas used for storing or working on vehicles, equipment, or materials. The plans provided in Attachment F appear to adhere to the setback policies.

RECOMMENDED PERMITTING AND AVOIDANCE MEASURES

CDFW Streambed Alteration Agreement

The proposed park plans (see Attachment F) include the removal of one 40-inch diameter at breast height (dbh) Monterey cypress tree that is rooted at the top-of-bank and contributes to the riparian canopy of Old Garden Creek. Removal of the tree would change the bank of the creek. In addition, the tree has the potential to support nesting birds and/or bats and contribute shade to the creek. Therefore, it is our recommendation that the City pursue a Streambed Alteration Agreement with CDFW prior to removing the tree.

Monarch Butterfly

The trees in the park and in the riparian corridor adjacent to the park could support overwintering habitat for monarch butterfly. If monarchs are overwintering in a tree to be removed, the monarchs could be directly impacted by the tree removal. The following measure is recommended to avoid direct impacts to monarch butterfly:

- If tree removal or site disturbance is necessary during the fall and winter monarch butterfly migration (late October through February), a qualified biologist should conduct a preconstruction survey for monarch butterflies that could utilize trees on-site for overwintering. If monarch butterflies are detected in the work area or within 300 feet of the work area, tree removal should be postponed until after the overwintering period or until a qualified biologist determines monarch butterflies are no longer utilizing the trees on or within 300 feet of the site for overwintering.

Nesting Birds

The trees and vegetation in and adjacent to the park support suitable habitat for nesting birds. If vegetation removal occurs during the nesting bird season (February 15 through September 15), the vegetation removal has the potential to impact nesting birds. Direct impacts to nesting birds may include physical removal of active nests resulting in the destruction of the nest, eggs, and/or chicks. Indirect impacts could result from noise disturbance that may prompt an adult bird to abandon the nest. The following measure is recommended to avoid impacts to nesting birds:

- Vegetation removal should be scheduled to occur outside the nesting bird season (February 15 to September 15). If vegetation removal occurs between February 15 and September 15, the City should retain a qualified biologist to conduct a nesting bird survey no more than 2 weeks prior to disturbance to determine presence/absence of nesting birds within the disturbance area. If active nests are observed, vegetation removal will be avoided within 100 feet of active passerine nests and 300 feet of active raptor nests until young birds have fledged and left the nest. The nests should be monitored weekly by a biologist with experience with nesting birds. The buffer may be reduced if deemed appropriate by the biologist. If any federally or state-listed bird species or California fully protected bird species are observed nesting in or near the project area, the biologist and the City of San Luis Obispo will coordinate with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife before any disturbances occur within 500 feet of the nest.

Readily visible exclusion zones will be established in areas where nests must be avoided. The City of San Luis Obispo will be contacted if any federally or state-listed bird species are observed during surveys. Bird nests, eggs, or young covered by the Migratory Bird Treaty Act and California Fish and Game Code will not be moved or disturbed until the end of the nesting season or until young fledge, nor will adult birds be killed, injured, or harassed at any time. Pursuant to California Fish and Game Code Section 3503.5, nests of raptors (owls, hawks, falcons, eagles) shall not be removed prior to coordination with and approval from the California Department of Fish and Wildlife.

Roosting Bats

The trees in and adjacent to the park have the potential to support roosting bats. If the trees are removed while bats are roosting in the trees, the bats could be wounded or killed. The following measure is recommended to avoid direct impacts to roosting bats.

- The City of San Luis Obispo should retain a biologist to conduct roosting bat surveys prior to any tree removal. Pre-disturbance surveys for bats should include one daytime and one dusk survey no more than 30 days prior to the tree removal to determine if bats are roosting in the trees. The biologist(s) conducting the preconstruction surveys shall identify the nature of the bat utilization of the area (i.e., no roosting, night roost, day roost, maternity roost). If bats are found to be roosting in the trees to be removed, the City of San Luis Obispo should delay the tree removal until the bats have left the area.

If you have any questions, please feel free to contact me directly at (805) 539-2871 or tbelt@swca.com.

Sincerely,



Travis Belt
Senior Biologist

- Attachments:
- A. Figures
 - B. CNDDDB and IPaC Data
 - C. Observed Species Lists
 - D. Photo Documentation
 - E. Species Evaluated for Potential Occurrence
 - F. Project Plans

ATTACHMENT A

Figures



Figure A-1. Project location and vicinity map.



Figure A-2. Project area map.

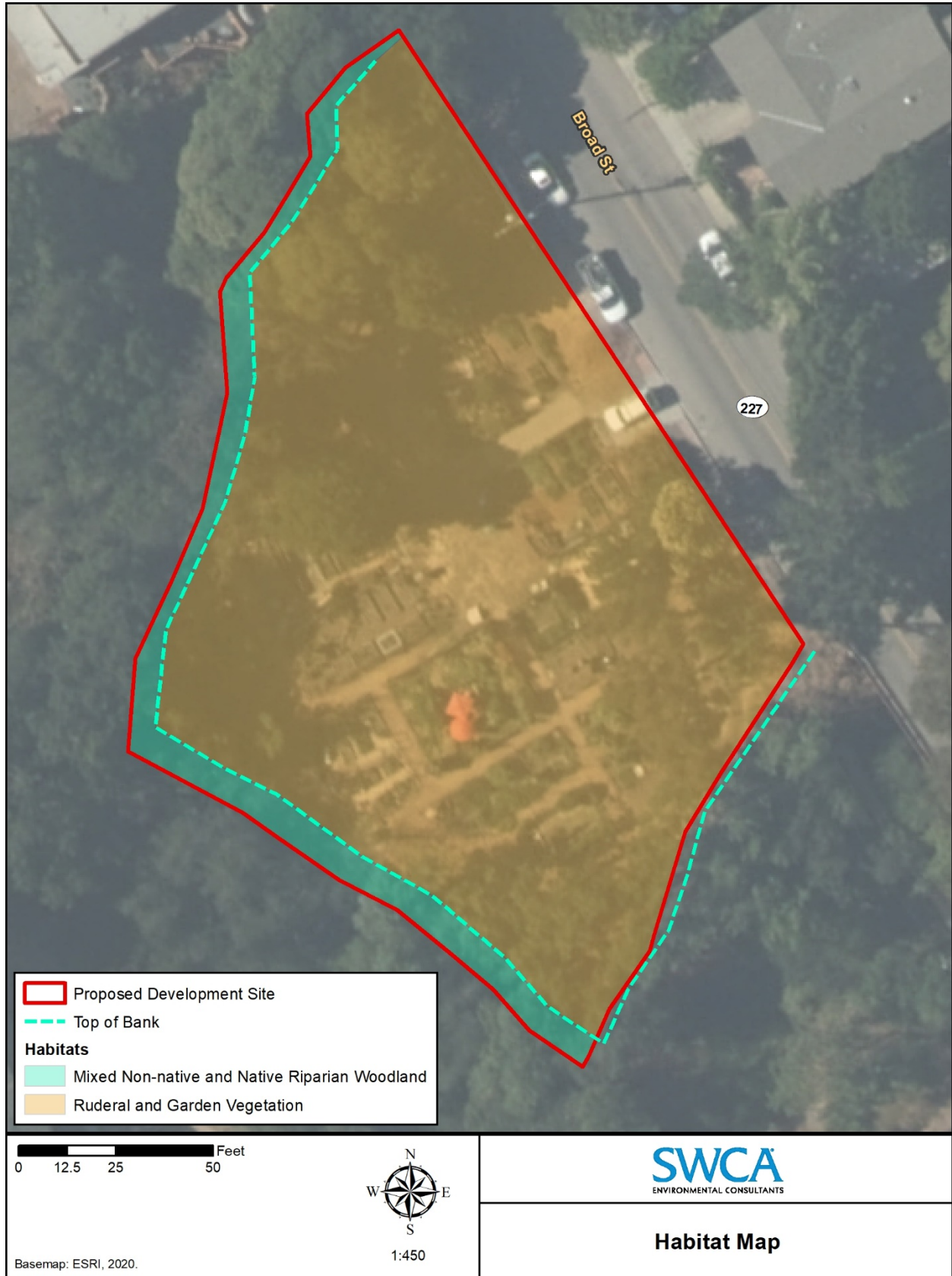


Figure A-3. Habitat map.

ATTACHMENT B
CNDDDB and IPaC Data



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad IS (San Luis Obispo (3512036) OR Pismo Beach (3512026))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Agrostis hooveri</i> Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
<i>Anniella pulchra</i> northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	PDERI040N0	None	None	G2	S2	1B.2
<i>Arctostaphylos osoensis</i> Oso manzanita	PDERI042S0	None	None	G1	S1	1B.2
<i>Arctostaphylos pechoensis</i> Pecho manzanita	PDERI04140	None	None	G2	S2	1B.2
<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	PDERI042Z0	None	None	G2?	S2?	1B.2
<i>Arctostaphylos rudis</i> sand mesa manzanita	PDERI041E0	None	None	G2	S2	1B.2
<i>Arenaria paludicola</i> marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
<i>Astragalus didymocarpus var. milesianus</i> Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Batrachoseps minor</i> lesser slender salamander	AAAAD02170	None	None	G1	S1	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Calochortus obispoensis</i> San Luis mariposa-lily	PMLIL0D110	None	None	G2	S2	1B.2
<i>Calochortus simulans</i> La Panza mariposa-lily	PMLIL0D170	None	None	G2	S2	1B.3
<i>Calystegia subacaulis ssp. episcopalisis</i> Cambria morning-glory	PDCON040J1	None	None	G3T2?	S2?	4.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex obispoensis San Luis Obispo sedge	PMCYP039J0	None	None	G3?	S3?	1B.2
Castilleja densiflora var. obispoensis San Luis Obispo owl's-clover	PDSCR0D453	None	None	G5T2	S2	1B.2
Ceanothus impressus var. nipomensis Nipomo Mesa ceanothus	PDRHA040L2	None	None	G3T2	S2	1B.2
Central Foredunes Central Foredunes	CTT21220CA	None	None	G1	S1.2	
Central Maritime Chaparral Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
Chorizanthe aphanantha Irish Hills spineflower	PDPGN04110	None	None	G1	S1	1B.1
Chorizanthe breweri Brewer's spineflower	PDPGN04050	None	None	G3	S3	1B.3
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Cirsium fontinale var. obispoense Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	G2T2	S2	1B.2
Cirsium occidentale var. lucianum Cuesta Ridge thistle	PDAST2E1Z6	None	None	G3G4T2	S2	1B.2
Cirsium rhotophilum surf thistle	PDAST2E2J0	None	Threatened	G1	S1	1B.2
Clarkia speciosa ssp. immaculata Pismo clarkia	PDONA05111	Endangered	Rare	G4T1	S1	1B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Delphinium parryi ssp. eastwoodiae</i> Eastwood's larkspur	PDRAN0B1B2	None	None	G4T2	S2	1B.2
<i>Delphinium umbraculorum</i> umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
<i>Dithyrea maritima</i> beach spectaclepod	PDBRA10020	None	Threatened	G1	S1	1B.1
<i>Dudleya abramsii ssp. bettinae</i> Betty's dudleya	PDCRA04011	None	None	G4T2	S2	1B.2
<i>Dudleya abramsii ssp. murina</i> mouse-gray dudleya	PDCRA04012	None	None	G4T2	S2	1B.3
<i>Dudleya blochmaniae ssp. blochmaniae</i> Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<i>Erigeron blochmaniae</i> Blochman's leafy daisy	PDAST3M5J0	None	None	G2	S2	1B.2
<i>Eriodictyon altissimum</i> Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	G1	S1	1B.1
<i>Eryngium aristulatum var. hooveri</i> Hoover's button-celery	PDAP10Z043	None	None	G5T1	S1	1B.1
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<i>Fritillaria ojaiensis</i> Ojai fritillary	PMLIL0V0N0	None	None	G3	S3	1B.2
<i>Fritillaria viridea</i> San Benito fritillary	PMLIL0V0L0	None	None	G2	S2	1B.2
<i>Horkelia cuneata var. puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Layia jonesii</i> Jones' layia	PDAST5N090	None	None	G2	S2	1B.2
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lupinus ludovicianus</i> San Luis Obispo County lupine	PDFAB2B2G0	None	None	G1	S1	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Monardella palmeri</i> Palmer's monardella	PDLAM180H0	None	None	G2	S2	1B.2
<i>Monardella sinuata ssp. sinuata</i> southern curly-leaved monardella	PDLAM18161	None	None	G3T2	S2	1B.2
<i>Muhlenbergia utilis</i> aparejo grass	PMPOA481X0	None	None	G4	S2S3	2B.2
<i>Northern Interior Cypress Forest</i> Northern Interior Cypress Forest	CTT83220CA	None	None	G2	S2.2	
<i>Oncorhynchus mykiss irideus pop. 9</i> steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Plagiobothrys uncinatus</i> hooked popcornflower	PDBOR0V170	None	None	G2	S2	1B.2
<i>Polyphylla nubila</i> Atascadero June beetle	IICOL68040	None	None	G1	S1	
<i>Pyrgulopsis taylori</i> San Luis Obispo pyrg	IMGASJ0A50	None	None	G1	S1	
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Sanicula maritima</i> adobe sanicle	PDAP11Z0D0	None	Rare	G2	S2	1B.1
<i>Scrophularia atrata</i> black-flowered figwort	PDSCR1S010	None	None	G2?	S2?	1B.2
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
<i>Sidalcea hickmanii ssp. anomala</i> Cuesta Pass checkerbloom	PDMAL110A1	None	Rare	G3T1	S1	1B.2
<i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Taricha torosa</i> Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2

Record Count: 82

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Luis Obispo County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📠 (805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Giant Kangaroo Rat *Dipodomys ingens* Endangered
 No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/6051>

San Joaquin Kit Fox *Vulpes macrotis mutica* Endangered
 No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/2873>

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/625	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

California Tiger Salamander <i>Ambystoma californiense</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/2076	

Insects

NAME	STATUS
Kern Primrose Sphinx Moth <i>Euproserpinus euterpe</i>	Threatened
There is proposed critical habitat for this species. The location of the critical habitat is not available.	
https://ecos.fws.gov/ecp/species/7881	

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat.	
https://ecos.fws.gov/ecp/species/498	

Flowering Plants

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i>	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/4599	
Chorro Creek Bog Thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/5991	
Marsh Sandwort <i>Arenaria paludicola</i>	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/2229	
Morro Manzanita <i>Arctostaphylos morroensis</i>	Threatened
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/2934	
Pismo Clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/5936	

Spreading Navarretia *Navarretia fossalis*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/1334>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
California Red-legged Frog <i>Rana draytonii</i> https://ecos.fws.gov/ecp/species/2891#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird

species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

California Thrasher *Toxostoma redivivum*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Jul 31

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Dec 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Costa's Hummingbird *Calypte costae*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9470>

Breeds Jan 15 to Jun 10

<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511</p>	Breeds elsewhere
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410</p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds elsewhere
<p>Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Feb 20 to Sep 5
<p>Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243</p>	Breeds Apr 15 to Jul 20
<p>Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

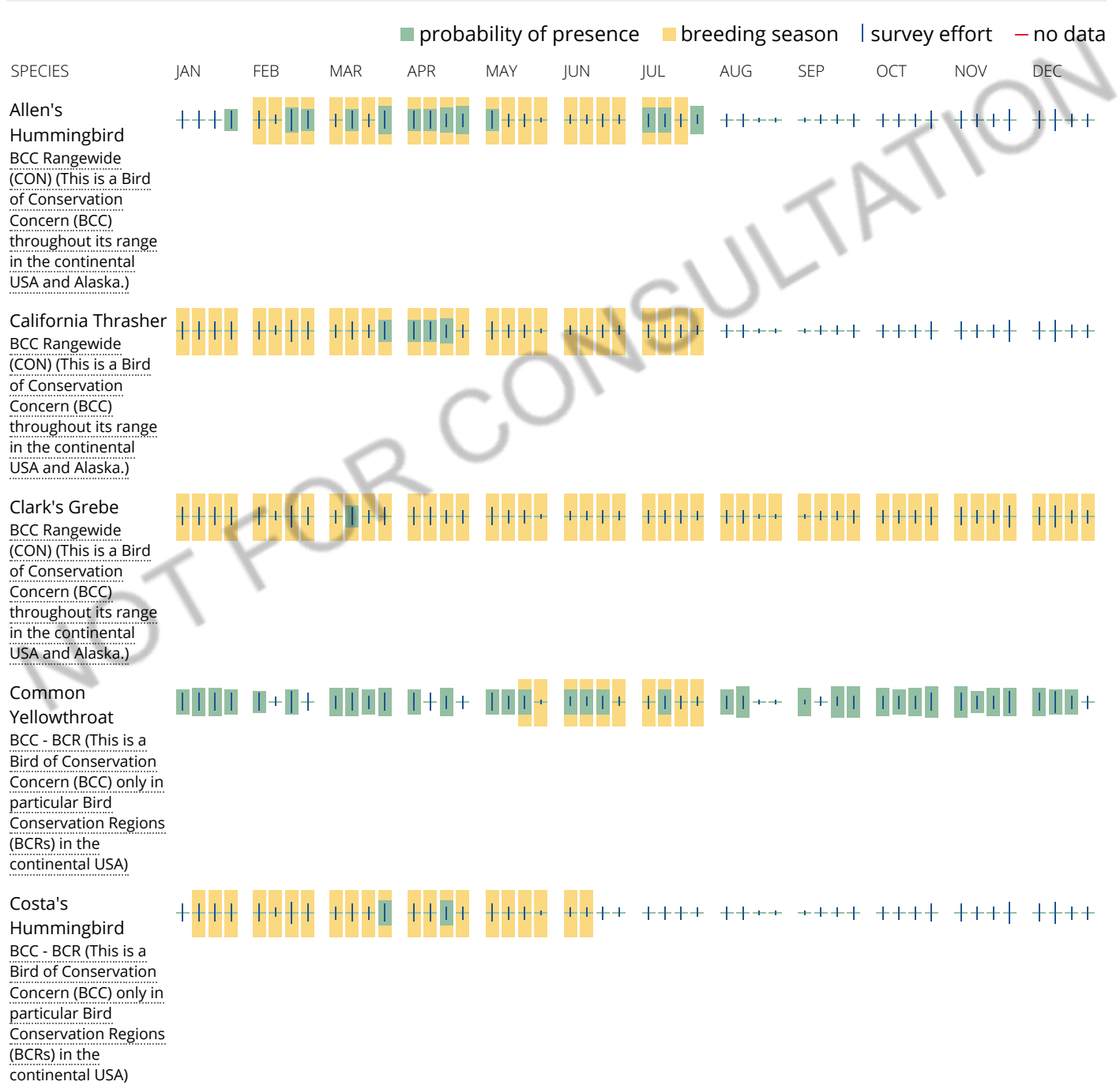
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

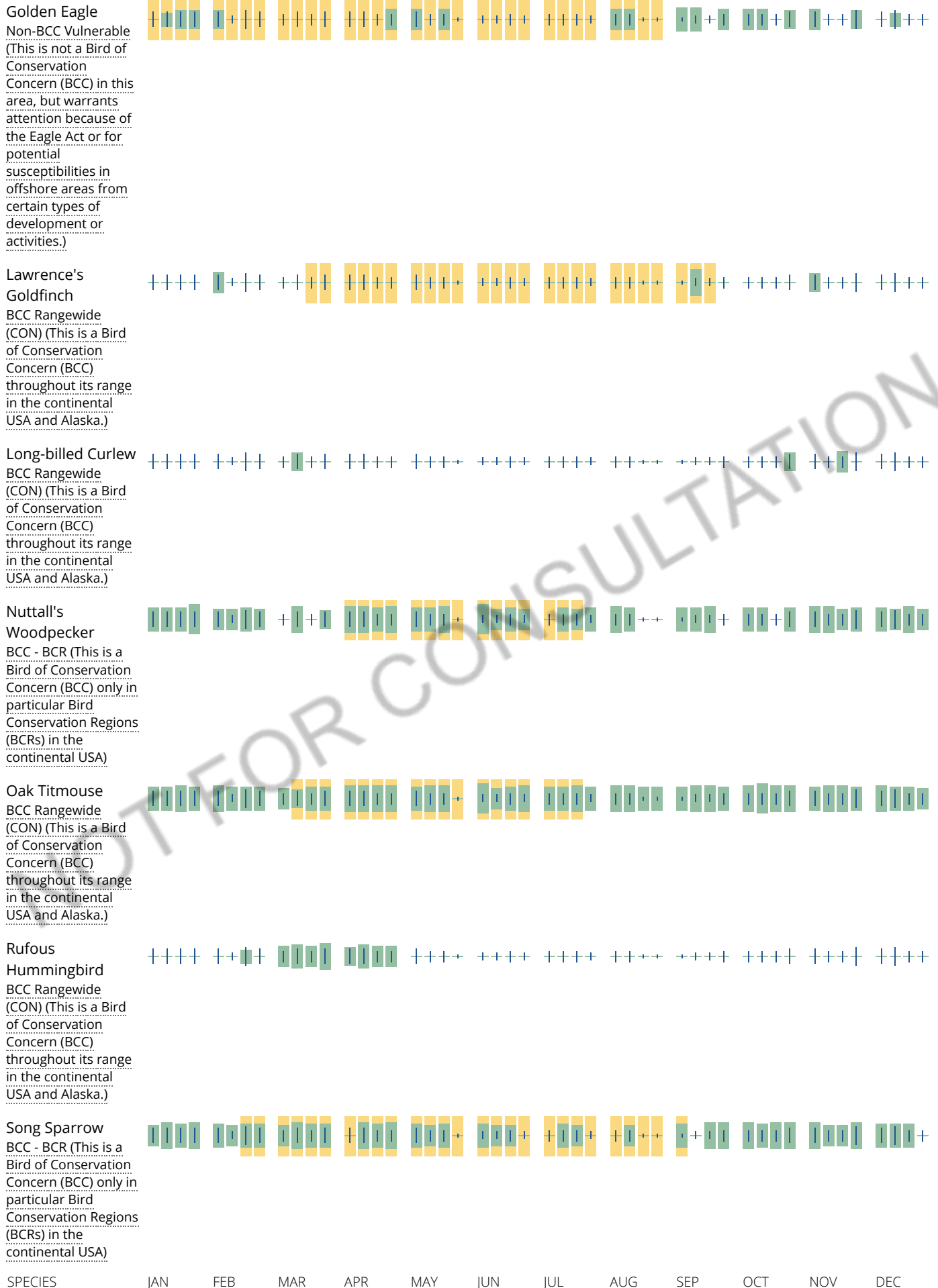
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[Palustrine](#)

RIVERINE

[Riverine](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT C
Observed Species Lists

Table C-1. Observed Plant List (Excludes Garden Plantings) (March 31 and April 28, 2020)

Scientific Name	Common Name	Native	Species Status / Notes
Gymnosperms			
Cupressaceae		Cypress family	
<i>Hesperocyparis macrocarpa</i>	Monterey cypress	No	Planted Specimen
Anacardiaceae		Sumac family	
<i>Toxicodendron diversilobum</i>	Poison oak	Yes	
Apiaceae		Carrot family	
<i>Conium maculatum</i>	Poison hemlock	No	Cal IPC: Moderate
<i>Anthriscus sylvestris</i>	Bur chervil	No	
Apocynaceae		Dogbane family	
<i>Vinca major</i>	Greater periwinkle	No	Cal IPC: Moderate
Araliaceae		Ginseng family	
<i>Hedera helix</i>	English ivy	No	Cal IPC: High
Asteraceae		Sunflower family	
<i>Delairea odorata</i>	Cape Ivy	No	Cal IPC: High
<i>Dimorphotheca ecklonis</i>	African daisy	No	
<i>Silybum marianum</i>	Milk thistle	No	Cal IPC: Limited
Brassicaceae		Mustard family	
<i>Raphanus sativus</i>	Wild radish	No	Cal IPC: Limited
Caryophyllaceae		Pink family	
<i>Stellaria media</i>	Chickweed	No	
Euphorbiaceae		Spurge family	
<i>Euphorbia lathyris</i>	Caper spurge	No	Cal IPC: Watch
<i>Euphorbia peplus</i>	Petty spurge	No	
Fagaceae		Oak family	
<i>Quercus agrifolia</i>	Coast live oak	Yes	
Geraniaceae		Geranium family	
<i>Erodium cicutarium</i>	Red-stemmed filaree	No	Cal IPC: Limited
<i>Erodium moschatum</i>	White stemmed filaree	No	
<i>Geranium dissectum</i>	Cut-leaved geranium	No	Cal IPC: Limited
Juglandaceae		Walnut family	
<i>Juglans hindsii</i> x <i>J. nigra</i>	Walnut	No	Undocumented hybrid
Lauraceae		Laurel family	
<i>Umbellularia californica</i>	California bay	Yes	
Malvaceae		Mallow family	
<i>Malva neglecta</i>	Common mallow	No	
<i>Malva nicaeensi</i>	Bull mallow	No	
Myrtaceae		Myrtle family	
<i>Eucalyptus</i> sp.	Eucalyptus	No	

Scientific Name	Common Name	Native	Species Status / Notes
Oxalidaceae	Wood sorrel family		
<i>Oxalis corniculata</i>	Creeping wood sorrel	No	
<i>Oxalis pes-caprae</i>	Bermuda buttercup	No	Cal IPC: Moderate
Papaveraceae	Poppy family		
<i>Eschscholzia californica</i>	California poppy	Yes	
Pittosporaceae	Pittosporum family		
<i>Pittosporum undulatum</i>	Australian cheesewood	No	Cal IPC: Watch
Polygonaceae	Buckwheat family		
<i>Rumex</i> sp.	Dock	Unknown	No flowers
Rosaceae	Rose family		
<i>Heteromeles arbutifolia</i>	Toyon	Yes	
<i>Pyracantha</i> sp.	Pyracantha	No	
Rubiaceae	Madder family		
<i>Galium aparine</i>	Goose grass	Yes	
Salicaceae	Willow family		
<i>Salix lasiolepis</i>	Arroyo willow	Yes	
Tropaeolaceae	Nasturtium family		
<i>Tropaeolum majus</i>	Garden nasturtium	No	
Angiosperms (Monocots)			
Asphodelaceae	Asphodel Family		
<i>Kniphofia uvaria</i>	Red-hot poker	No	
Poaceae	Grass family		
<i>Avena barbata</i>	Slender wild oats	No	Cal IPC: Moderate
<i>Bromus diandrus</i>	Ripgut brome	No	Cal IPC: Moderate
<i>Ehrharta erecta</i>	Panic veldt grass	No	Cal IPC: Moderate
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Foxtail	No	Cal IPC: Moderate
<i>Stipa miliaceae</i>	Smilo grass	No	Cal IPC: Limited

Notes:

Vascular plant nomenclature follows *The Jepson Manual* and <http://ucjeps.berkeley.edu/interchange.html>.

California Invasive Plant Council (Cal-IPC) Ratings:

High = These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate = These species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited = These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Watch = These species have been assessed as posing a high risk of becoming invasive in the future in California.

Table C-2. Observed Wildlife List (March 31, 2020)

Scientific Name	Common Name	Notes
Birds		
Diurnal Raptors		
<i>Cathartes aura</i>	Turkey vulture	
<i>Buteo jamaicensis</i>	Red-tailed hawk	
Pigeons and Doves		
<i>Streptopelia decaocto</i>	Eurasian colored dove	
<i>Columba livia</i>	Rock pigeon	
Hummingbirds		
<i>Calypte anna</i>	Anna's hummingbird	
Woodpeckers		
<i>Melanerpes formicivorus</i>	Acorn woodpecker	
Tyrant Flycatchers		
<i>Sayornis nigricans</i>	Black phoebe	
Jays, Crows, and Allies		
<i>Aphelocoma californica</i>	California scrub jay	
<i>Corvus brachyrhynchos</i>	American crow	
Chickadees, Nuthatches, and Allies		
<i>Baeolophus inornatus</i>	Oak titmouse	
<i>Psaltriparus minimus</i>	Bush tit	Detected by vocalization
Wrens		
<i>Thryomanes bewickii</i>	Bewick's wren	
Dipper and Wrentit		
<i>Chamaea fasciata</i>	Wrentit	Detected by vocalization
Thrushes		
<i>Toxostoma redivivum</i>	California thrasher	Detected by vocalization
Mimids		
<i>Mimus polyglottos</i>	Northern mockingbird	
Waxwings, Silky-Flycatchers, and Starlings		
<i>Sturnus vulgaris</i>	European starling	
Emberizine Sparrows and Allies		
<i>Passer domesticus</i>	House sparrow	
<i>Pipilo crissalis</i>	California towhee	
<i>Junco hyemalis</i>	Dark-eyed junco	
Icterids		
<i>Euphagus cyanocephalus</i>	Brewer's blackbird	
Finches and Old World Sparrows		
<i>Carpodacus mexicanus</i>	House finch	

Scientific Name	Common Name	Notes
Mammals		
Felidae		
<i>Felis catus</i>	Domestic cat	
Reptiles		
<i>Sceloporus occidentalis</i>	Western fence lizard	

ATTACHMENT D
Photo Documentation



Photo D-1. Representative view of the Stenner Creek top-of-bank. Photo obtained March 31, 2020.



Photo D-2. Representative view of the Old Garden Creek top-of-bank. Photo obtained March 31, 2020.



Photo D-3. Representative view of the garden plot in the park. Photo obtained March 31, 2020.

ATTACHMENT E

Species Evaluated for Potential Occurrence

TableE-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Hoover's bent grass <i>Agrostis hooveri</i>	Occurs in sandy sites in chaparral, cismontane woodland, valley and foothill grassland. 60–600 meters.	April–July	--/--1B.2	Suitable Conditions Absent; Species Absent: The park does not contain sandy soils. Species not observed during survey conducted in the appropriate season.
Santa Lucia manzanita <i>Arctostaphylos luciana</i>	Evergreen shrub; occurs on chaparral with shale outcrops. 350–850 meters.	February–March	--/--1B.2	Suitable Conditions Absent; Species Absent: The park elevation is lower than the range for this species. The park does not include appropriate soil. No <i>Arctostaphylos</i> species were observed in the park.
Morro manzanita <i>Arctostaphylos morroensis</i>	Occurs in chaparral, cismontane woodland, coastal scrub, on stabilized coastal dunes. 5–205 meters.	December–March	FT/--1B.1	Suitable Conditions Absent; Species Absent: The park does not support stabilized dunes. No <i>Arctostaphylos</i> species were observed in the park.
Oso Manzanita <i>Arctostaphylos osoensis</i>	Evergreen shrub; occurs in chaparral and cismontane woodland associated with dacite porphyry (purple/red igneous volcanic rock) on buttes. 300–500 meters.	February–March	--/--1B.2	Suitable Conditions Absent; Species Absent: The park elevation is lower than the range for this species and does not contain dacite soils or the appropriate community. No <i>Arctostaphylos</i> species were observed in the park.
Santa Margarita manzanita <i>Arctostaphylos pilosula</i>	Evergreen shrub; occurs in closed coniferous forest, chaparral, cismontane woodland, on shale soils. 170–1,100 meters.	December – March	--/--1B.2	Suitable Conditions Absent; Species Absent: The park elevation is lower than the range for this species and does not contain shale soils or the appropriate community. No <i>Arctostaphylos</i> species were observed in the park.
Sand mesa manzanita <i>Arctostaphylos rudis</i>	Evergreen shrub; occurs in maritime chaparral and coastal scrub with sandy soils. 25–322 meters.	November–February	--/--1B.2	Suitable Conditions Absent; Species Absent: The park does not contain shale soils or the appropriate community. No <i>Arctostaphylos</i> species were observed in the park.
Marsh sandwort <i>Arenaria paludicola</i>	Occurs in marshes and swamps. Grows through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc. in freshwater marsh. 10–170 meters.	May–August	FE/SE/1B.1	Suitable Conditions Absent; Species Absent: The park does not support freshwater marsh habitat.
Mile's milk vetch <i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Annual herb; occurs in coastal scrub on clay soils. 20–90 meters.	March–June	--/--1B.2	Suitable Conditions Absent; Species Absent: Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species. Species not observed during survey conducted in the appropriate period.
San Luis mariposa-lily <i>Calochortus obispoensis</i>	Occurs in chaparral, coastal scrub, valley and foothill grassland; often in serpentine grassland. 75–665 meters.	May–July	--/--1B.2	Suitable Conditions Absent: The park does not support appropriate vegetative community. No serpentine soils are present. Species not observed during survey.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
La Panza mariposa lily <i>Calochortus simulans</i>	Occurs in chaparral, cismontane woodlands, lower montane coniferous forest, valley and foothill grassland; often in sandy, granitic, or serpentine soils. 395–1100 meters.	April–May	--/--/1B.3	Suitable Conditions Absent: The park elevation is lower than the range for this species. Sandy, granitic, or serpentine soils do not occur on the park. Species not observed during survey conducted in the appropriate season.
Cambria morning-glory <i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	Occurs in grassland and rocky areas associated with chaparral and cismontane woodland. 60–500 meters.	April–May	--/--/4.2	Suitable Conditions Absent: The park does not support the appropriate soils or vegetative community. Species not observed during survey conducted in the appropriate season.
San Luis Obispo sedge <i>Carex obispoensis</i>	Occurs in closed cone coniferous forests, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; usually adjacent to seeps, springs, stream sides or other water source with sand, clay or serpentine. 5–790 meters.	April–June	--/--/1B.2	Suitable Conditions Absent: The park does not support the needed mesic conditions. The two creeks and their associated riparian area could support this species. The proposed project will not disturb the riparian areas. Species not observed during survey conducted in the appropriate season.
San Luis Obispo owls clover <i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	Occurs in valley and foothill grassland. 10–215 meters.	April	--/--/1B.2	Suitable Conditions Absent: Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species. Species not observed during survey conducted in the appropriate season.
California jewelflower <i>Caulanthus californicus</i>	Annual herb; occurs in non-native grassland, upper Sonoran subshrub scrub, and cismontane juniper woodland and scrub communities in subalkaline and sandy loam soils; current known naturally occurring populations are in Santa Barbara Canyon, Carrizo Plain, and Kreyenhagen Hills in Fresno County. 21–870 meters.	February–May	FE/SE/1B.1	Suitable Conditions Absent; Species Absent: The park does not support the appropriate vegetative community or soil. Species not observed during survey conducted in the appropriate period.
Nipomo Mesa ceanothus <i>Ceanothus impressus</i> var. <i>nipomensis</i>	Perennial shrub; occurs in chaparral on sandy soils. 30–245 meters.	February-April	--/--/1B.2	Suitable Conditions Absent; Species Absent: The park does not contain sandy soils. Species not observed during survey conducted in the appropriate season.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	Occurs in depressional areas within valley and foothill grassland. 1–230 meters.	June–November	--/--/1B.1	Suitable Conditions Absent: The park does not support mesic depressional areas. Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species.
Dwarf soaproot <i>Chlorogalum pomeridianum</i> var. <i>minus</i>	Occurs in chaparral habitats with serpentine soils. 305–1000 meters	May–August	--/--/1B.2	Suitable Conditions Absent: The park does not contain serpentine soils and is at a lower elevation than the species' documented range. Species not observed during survey.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Irish Hills spineflower <i>Chorizanthe aphanantha</i>	Annual herb; has been observed in the Irish Hills area of San Luis Obispo County. Reportedly occurs in chaparral, foothill woodland, coastal sage scrub, and closed-cone pine forest; little is known about species.	April-August	--/--/1B.1	Suitable Conditions Absent: The park does not support rocky soil that this species is attributed with. Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species. Species not observed during survey conducted in the appropriate season.
Brewer's spineflower <i>Chorizanthe breweri</i>	Occurs in chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest; rocky or gravelly serpentine sites; usually in barren areas. 45–800 meters.	May –August	--/--/1B.3	Suitable Conditions Absent: The soil on the park is not suitable for this species. Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species. Species not observed during survey.
San Luis Obispo fountain thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	Occurs in chaparral, cismontane woodlands, serpentine seeps or bogs. 35–380 meters.	February–July	FE/SE/1B.2	Suitable Conditions Absent: The park does not contain serpentine soils or seeps. The two creeks and their associated riparian area could support this species. The proposed project will not disturb the riparian areas. Species not observed.
Surf thistle <i>Cirsium rhotophilum</i>	Occurs in coastal dunes, coastal bluff scrub, open areas in central dune scrub; usually in coastal dunes. 3–60 meters.	April–June	--/ST/1B.2	Suitable Conditions Absent: The park does not contain coastal dunes. Species not observed during survey conducted in the appropriate season.
Pismo clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Occurs in sandy soils, openings in chaparral, cismontane woodland, valley and foothill grassland, on ancient sand dunes not far from coast. 25–185 meters.	May–July	FE/SR/1B.1	Suitable Conditions Absent: The park does not contain sandy soils. Species not observed.
Dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	Perennial herb; occurs in maritime chaparral and coastal dunes with sandy or rocky soils. 0–200 meters	April–May	--/--/1B.2	Suitable Conditions Absent: The park does not contain sandy soils. Species not observed during survey conducted in the appropriate season.
Eastwood's larkspur <i>Delphinium parryi</i> ssp. <i>Eastwoodiae</i>	Perennial herb; occurs in coastal areas with serpentinite soil; often associated with openings in chaparral and valley and foothill grassland. 75–500 meters.	February– March	--/--/1B.2	Suitable Conditions Absent; Species Absent: The park does not support serpentine soil or the appropriate grassland community. Species not observed during survey conducted in the appropriate season.
Umbrella larkspur <i>Delphinium umbracolorum</i>	Perennial herb; occurs in cismontane woodland. 400–1,600 meters.	April–June	--/--/1B.3	Suitable Conditions Absent: The park does not support suitable habitat. Species documented range is at higher elevation than the park. Species not observed during survey conducted in the appropriate season.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Beach spectaclepod <i>Dithyrea maritima</i>	Occurs in coastal dunes, coastal scrub, sea shores, on sand dunes, sandy places near the shore. 3–50 meters.	March–May	--/ST/1B.1	Suitable Conditions Absent; Species Absent: The park is not on a shoreline and does not include sandy dunes. Species not observed during survey conducted in the appropriate season.
Betty's dudleya <i>Dudleya abramsii</i> ssp. <i>bettinae</i>	Occurs in coastal scrub, valley and foothill grassland, chaparral; rocky barren serpentine exposures. 20–180 meters.	May–July	--/--/1B.2	Suitable Conditions Absent: The park does not contain serpentine outcrops. Species not observed.
Mouse-gray dudleya <i>Dudleya abramsii</i> ssp. <i>murina</i>	Occurs in serpentine outcrops in chaparral, cismontane woodland. 90–300 meters.	May–June	--/--/1B.3	Suitable Conditions Absent: The park does not contain serpentine outcrops and is at a lower elevation than the species' documented range. Species not observed.
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Occurs in coastal scrub, chaparral, and valley and foothill grassland habitats on rocky outcrops in clay or serpentine soils. 5–450 meters.	April–June	--/--/1B.1	Suitable Conditions Absent: The park does not support rocky outcrops, clay soil, or serpentine soil. Species not observed during survey conducted in the appropriate season.
Blochman's leafy daisy <i>Erigeron blochmaniae</i>	Perennial rhizomatous herb; occurs in coastal dunes and coastal scrub on sandy soils. 3–45 meters.	July–August	--/--/1B.2	Suitable Conditions Absent: The park does not support sandy soil or coastal dunes. Species not observed.
Indian knob mountainbalm <i>Eriodictyon altissimum</i>	Evergreen shrub; occurs in maritime chaparral, cismontane woodland, coastal scrub with sandstone substrates. 80–270 meters.	March–June	FE/SE/1B.1	Suitable Conditions Absent; Species Absent: The park does not contain sandstone substrates and is located at a lower elevation than the range of this species. Species was not observed during surveys conducted in the appropriate season.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	Occurs in vernal pools in alkaline depressions near the coast. 5–45 meters.	July	--/--/1B.1	Suitable Conditions Absent: the park does not support vernal pools or mesic depressions. Species not observed.
Ojai fritillary <i>Fritillaria ojaiensis</i>	Bulbiferous herb; occurs in broadleaf upland forest, chaparral and lower montane coniferous forest on rocky soils. 300–998 meters.	March–May	--/--/1B.2	Suitable Conditions Absent; Species Absent: The park does not support the appropriate habitat and is at a lower elevation than this species' documented range. Species not observed during survey conducted in the appropriate season.
Mesa horkelia <i>Horkelia cuneata</i> ssp. <i>puberula</i>	Perennial herb; occurs in chaparral, cismontane woodlands, coastal scrub; in sandy or gravelly sites. 70–810 meters.	February–September	--/--/1B.1	Suitable Conditions Absent; Species Absent: The park does not support sandy or gravelly soil. Species was not observed during surveys conducted in the appropriate flowering season.

North Broad Park and Rezone Project Archaeological Survey Results

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Jones's layia <i>Layia jonesii</i>	Occurs in chaparral and valley and foothill grassland on clay or serpentine outcrops. 5–400 meters.	March–May	--/--/1B.2	Suitable Conditions Absent; Species Absent: Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species. Species not observed during surveys conducted in the appropriate season.
San Luis Obispo County lupine <i>Lupinus ludovicianus</i>	Occurs in chaparral, cismontane woodland, open areas in sandy soils of Santa Margarita formation. 50–525 meters.	April–July	--/--/1B.2	Suitable Conditions Absent: The park does not contain sandy soil of the Santa Margarita formation. Species not observed during survey conducted in the appropriate season.
Palmer's monardella <i>Monardella palmeri</i>	Occurs in chaparral and cismontane woodland on serpentine slopes. 200–800 meters.	June–August	--/--/1B.2	Suitable Conditions Absent: The park elevation is lower than the range for this species and does not support the appropriate communities or substrate. Species not observed.
Southern curly-leaved monardella <i>Monardella sinuata</i> ssp. <i>sinuata</i>	Annual herb; occurs in sandy soil among chaparral, cismontane woodland, coastal dunes, coastal scrub with openings. 0–300 meters.	April–September	--/--/1B.2	Suitable Conditions Absent: The park does not contain sandy soils or the appropriate habitat. Species not observed during survey conducted in the appropriate season.
Aparejo grass <i>Muhlenbergia utilis</i>	Perennial grass; occurs in coastal sage scrub, creosote bush scrub, and wetland/riparian areas.	October–May	--/--/2B.2	Suitable Conditions Absent: The park does not support suitable habitat. The two creeks and their associated riparian area could support this species. The proposed project will not disturb the riparian areas. Species not observed during survey.
Spreading navarretia <i>Navarretia fossalis</i>	Annual herb; occurs in chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools. 30–655 meters.	April–June	FT/--/1B.1	Suitable Conditions Absent: The park does not support mesic sites. Species not observed during survey conducted in the appropriate season.
Hooked popcorn-flower <i>Plagiobothrys uncinatus</i>	Annual herb; occurs in chaparral, cismontane woodland, valley and foothill grassland with sandy soils. 300–760 meters.	April–May	--/--/1B.2	Suitable Conditions Absent: The park elevation is lower than the range for this species and does not support the appropriate soil or communities. Species not observed during survey conducted in the appropriate season.
Adobe sanicle <i>Sanicula maritima</i>	Occurs in moist seeps within coastal prairie, chaparral, meadows, valley and foothill grassland habitats in clay or serpentine soils. 30–240 meters.	February–May	--/SR/1B.1	Suitable Conditions Absent; Species Absent: The park does not support mesic sites or the appropriate habitats. Species not observed during survey conducted in the appropriate season.
Black-flowered figwort <i>Scrophularia atrata</i>	Occurs in closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub; around swales and in sand dunes; sand, diatomaceous shale, and soils derived from other parent material. 10–250 meters.	March–April	--/--/1B.2	Suitable Conditions Absent; Species Absent: The park does not support the appropriate soil. Species not observed during survey conducted in the appropriate season.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Rayless (chaparral) ragwort <i>Senecio aphanactis</i>	Occurs in chaparral, cismontane woodlands; coastal scrub/alkaline. 15–800 meters	January–April	--/--/2B.2	Suitable Conditions Absent; Species Absent: The park does not support the appropriate communities or alkaline soil. Species not observed during surveys conducted in the appropriate season.
Cuesta pass checkerbloom <i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	Occurs in closed-cone coniferous forest with rocky serpentine slopes. 600–800 meters.	May–June	--/SR/1B.2	Suitable Conditions Absent: The park does not contain closed-cone coniferous forest or serpentine slopes. The park elevation is lower than the range for this species. Species not observed.
Most beautiful jewel-flower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	Occurs in chaparral, cismontane woodlands, valley and foothill grasslands on serpentine soil. 110–1000 meters	April–June	--/--/1B.2	Suitable Conditions Absent: The park does not support appropriate habitat types or soils. The park elevation is lower than the range for this species. Species not observed during survey conducted in the appropriate season.
Saline clover <i>Trifolium hydrophilum</i>	Annual herb; occurs in marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. 0–300 meters.	April–June	--/--/1B.2	Suitable Conditions Absent: The park does not support mesic sites or vernal pools with alkaline soil. Species not observed during survey conducted in the appropriate season.

General references: Baldwin et al. 2012; all plant descriptions paraphrased from CNPS 2019.

Status Codes:

--= No status

Federal: FE = Federal Endangered; FT=Federal Threatened

State: SE=State Endangered; ST= State Threatened; SR= State Rare

California Native Plant Society (CNPS):

Rank 1B = rare, threatened, or endangered in California and elsewhere.

Rank 2 = rare, threatened, or endangered in California, but more common elsewhere.

Rank 3 = plants that about which more information is needed.

Rank 4 = a watch list plants of limited distribution.

CBR = Considered but Rejected

Threat Code:

_.1 = Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat)

_.2 = Fairly endangered in California (20-80% occurrences threatened)

_.3 = Not very endangered I California (<20% of occurrences threatened or no current threats known)

Rationale Terms:

Species Present: Species was or has been observed in the survey area.

Suitable Conditions Present: The appropriate habitat, soils, and elevation are present in the survey area.

Marginal Conditions Present: The appropriate habitat and/or soils are present but other factors (past disturbances, elevation range) may preclude species occurrence.

Suitable Conditions Absent: The survey area did not support the appropriate habitat, soils, and/or elevation for the species.

Table E-2. Natural Communities of Concern Investigated for Potential Occurrence

Community	Description	Rationale for Expecting Presence or Absence
Central Foredunes	A foredune plant community characterized by scattered low-growing perennial plants including <i>Abronia</i> sp., <i>Ambrosia</i> sp., and <i>Cackile</i> sp. Usually occurring in areas exposed to tidal action.	The park is not located on the coast and does not support any dune habitats.
Central Maritime Chaparral	A variable scrub community of moderate to high cover dominated by various <i>Arctostaphylos</i> sp. Found on well-drained sandy soils in areas subject to summer fog.	The park does not contain sandy well drained soils and does not support any central maritime chaparral associates.
Coastal and Valley Freshwater Marsh	A wetland community that is found in areas of permanently or prolonged freshwater saturation without significant current or flow. Vegetation is dominated by perennial emergent monocots including cattails and rushes.	The park does not support coastal and valley freshwater marsh. This habitat could occur in the two creeks adjacent to the park.
Northern Interior Cypress Forest	An open serotinous forest that is often found on dry, rocky soils. Often associated with serpentine soils. Vegetation consists of dense to sparse stands of <i>Cupressus</i> species.	The park does not support northern interior cypress forest.

Table E-3. Special-Status Animal Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Insects			
Obscure bumble bee <i>Bombus caliginosus</i>	Inhabit open grassy coastal prairies and Coast Range meadows. Nest underground and above ground in abandoned bird nests.	--/--/SA	Suitable Conditions Absent: The park does not support coastal meadows.
Western bumble bee <i>Bombus occidentalis occidentalis</i>	Historically has had wide range in west coast of North America from British Columbia to central California and east to South Dakota. In California, populations are currently restricted to high elevation sites in the Sierra Nevada (Xerces Society 2012), though there have been few observations on Northern California coast (Xerces Society et al. 2017). Requires Meadows and grasslands with abundant floral resources.	--/CE/--	Suitable Conditions Absent: The park is not located in the Sierra Nevada mountain range. Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species.
Sandy beach tiger beetle <i>Cicindela hirticollis gravida</i>	Occur in moist sand near the ocean, in swales behind dunes or upper beaches beyond normal high tides. Found in Humboldt, Los Angeles, Marin, Orange, San Diego, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, and Ventura Counties.	--/--/--	Suitable Conditions Absent: The park does not support dune and foredune habitat necessary to support this species.
Globose dune beetle <i>Coelus globosus</i>	Occur in fore dunes, sand hummocks, and back dunes along immediate coast; in sand and under vegetation or debris. Found in Los Angeles, Marin, Mendocino, Monterey, Orange, San Diego, San Luis Obispo, Santa Barbara, Santa Cruz, Sonoma, and Ventura counties.	--/--/--	Suitable Conditions Absent: The park does not support dune and foredune habitat necessary to support this species and species was not observed within the BSA.
Monarch butterfly <i>Danaus plexippus</i>	Occur along coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	--/SA/--	Suitable Conditions Present: The park contains trees that could be used for monarch winter roosting. One monarch individual was observed in the gardens during the survey.
Kern primrose sphinx moth <i>Euproserpinus euterpe</i>	Moderately sized; occupies sandy washes consisting of coarse- to fine-textured, decomposed granite soil in Walker Basin, Carrizo Plain, and Cuyama Valley. Occupied sites support <i>Erodium cicutarium</i> , <i>Nemophila menziesii</i> , <i>Chrysothamnus nausseosus</i> , <i>Lasthenia chrysostoma</i> , and <i>Bromus arenarius</i> . <i>Camissonia</i> is primary food plant (USFWS 5-year review for Kern primrose sphinx moth).	FT/--/--	Suitable Conditions Absent: The park is west and outside of the range of this species.
Branchiopods			
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Occur in vernal pool habitats including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/--/--	Suitable Conditions Absent: The park does not support vernal pools.
California linderiella <i>Linderiella occidentalis</i>	Occur in seasonal ponds in grasslands, sandstone depressions, and alluvial flats with hardpan beneath.	--/--/--	Suitable Conditions Absent: The park does not support vernal pools.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Fish			
Tidewater goby <i>Eucyclogobius newberryi</i>	Occur in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE/--/SSC	Suitable Conditions Absent: The park or the adjacent creeks do not support any brackish waters.
South-Central California Coast steelhead Distinct Population Segment (DPS) <i>Oncorhynchus mykiss irideus</i>	Occur in clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, PCH /-- /SSC	Suitable Conditions Absent: The park does not support suitable aquatic habitat. The two creeks and their associated riparian area may support this species. The proposed project will not disturb the creeks or riparian areas. Species not observed during survey.
Amphibians			
California tiger salamander <i>Ambystoma californiense</i>	Occur in grasslands or oak woodlands that support natural ephemeral pools or ponds that mimic them. Requires seasonal water for breeding and small mammal burrows, crevices in logs, piles of lumber, and shrink-swell cracks in ground for refuges. To be suitable, aquatic sites must retain at least 30 centimeters of water for a minimum of 10 weeks in winter.	FT/ST/SSC	Suitable Conditions Absent: The park does not support any ephemeral pools or seasonal water suitable for breeding. Due to ongoing maintenance and other disturbances, very few small mammal burrows occur in the area.
Lesser slender salamander <i>Batrachoseps minor</i>	Small, thin salamander; inhabits moist wooded areas. Restricted to a small range in Santa Lucia Mountains of San Luis Obispo County. All occurrences are documented above 1,300 feet in mixed oak woodland, tanbark oak forest, sycamore woodland, and California bay forest (California Herps 2017).	--/--/SSC	Suitable Conditions Absent: The park is located west of and at a lower elevation than the range of this species.
Foothill yellow-legged frog <i>Rana boylei</i>	Frequent rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Range in California includes north and central coasts and western Sierras.	--/CT/SSC	Suitable Conditions Absent: The park does not support suitable aquatic habitat. The two creeks and their associated riparian area may support this species. The proposed project will not disturb the creeks or riparian areas. Species not observed during survey.
California red-legged frog <i>Rana draytonii</i>	Occur in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT /-- /SSC	Suitable Conditions Absent: The park does not support suitable aquatic habitat. The two creeks and their associated riparian area may support this species. The proposed project will not disturb the creeks or riparian areas. Species not observed during survey.
Coast range newt <i>Taricha torosa torosa</i>	Breed in ponds, reservoirs, and slow-moving streams. Frequent terrestrial habitats such as oak woodlands.	--/--/SSC	Suitable Conditions Absent: The park does not support suitable aquatic habitat. The two creeks and their associated riparian area may support this species. The proposed project will not disturb the creeks or riparian areas. Species not observed during survey.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Reptiles			
Northern California legless lizard <i>Anniella pulchra</i>	Occur from southern edge of San Joaquin River in northern Contra Costa County south to Ventura County; in scattered locations in San Joaquin Valley, along southern Sierra Nevada mountains, and on desert side of Tehachapi Mountains and part of San Gabriel Mountains; sandy or loose loamy soils with high moisture content under sparse vegetation (California Herps 2017).	--/--/SSC	Suitable Conditions Absent: Clay loam soil in the park is not suitable for this species.
Western pond turtle <i>Emys marmorata</i>	Occur in quiet waters of ponds, lakes, streams, and marshes, typically in deepest parts with an abundance of basking sites.	--/--/SSC	Suitable Conditions Absent: The park does not support suitable aquatic habitat. The two creeks and their associated riparian area may support this species. The proposed project will not disturb the creeks or riparian areas. Species not observed during survey.
Blunt-nosed leopard lizard <i>Gambelia sila</i>	Inhabit open, sparsely vegetated areas of low relief on San Joaquin Valley floor and in surrounding foothills. On valley floor, most commonly found in nonnative grassland, saltbrush scrub, and valley sink scrub. 100–2,400 feet.	FE/SE/--	Suitable Conditions Absent: The park is west and outside of the range of this species.
Coast horned lizard <i>Phrynosoma coronatum</i> (<i>blainvillii</i> population)	Frequent a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub, and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky, or shallow sandy soils.	--/--/SSC	Suitable Conditions Absent: The park does not support sandy wash or other habitats that are suitable for this species.
Birds			
Tricolored blackbird <i>Agelaius tricolor</i>	(Nesting colony); require open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	MBTA/--/SSC	Suitable Conditions Absent: The park does not support freshwater marsh habitat for nesting.
Burrowing owl <i>Athene cucularia</i>	Occur in open, dry grasslands, deserts, and scrublands; subterranean nester, dependent upon burrowing mammals.	MBTA/-- /SSC	Suitable Conditions Absent: Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species.
Ferruginous hawk <i>Buteo regalis</i>	(Wintering) open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; eats lagomorphs, ground squirrels, and mice.	MBTA/--/--	Suitable Conditions Absent: The park does not support open grassland habitat for foraging. This species does not nest in San Luis Obispo.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	Occur on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	MBTA, FT/ -- /SSC	Suitable Conditions Absent: the park does not support sandy dune or gravelly habitat on the edge of a water body that would be suitable for nesting.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	Occur in forests to open riparian woodlands with thick understory.	FT, MBTA/SE/--	Suitable Conditions Present: The riparian trees could support this species; however, project activities would not impact suitable riparian habitat. Species not observed during surveys.
White-tailed kite <i>Elanus leucurus</i>	Occur in open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	MBTA/--/FP	Suitable Conditions Present: The riparian trees could provide suitable nesting habitat.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Occur in riparian woodlands of southern California.	FE/SE/--	Suitable Conditions Present: This species is an uncommon migrant to San Luis Obispo County, and there are no occurrences in the CNDDB. Small patches of suitable nesting habitat occur in the creek corridor; however, the riparian area will not be affected by project activities.
California horned lark <i>Eremophila alpestris actia</i>	Occur in short grass prairies, coastal plains, fallow grain fields, and alkali flats. Found in coastal regions from Sonoma to San Diego County, and west to San Joaquin Valley.	MBTA/--/--	Suitable Conditions Absent: The park does not support open grassland habitat.
California condor <i>Gymnogyps californianus</i>	Occur in open savannahs, grasslands, and foothill chaparral, in mountain ranges with moderate altitudes. Nest in deep canyons on rock walls with clefts.	FE/SE/--	Suitable Conditions Absent: The park does not contain suitable nesting habitat.
Loggerheaded shrike <i>Lanius ludovicianua</i>	Predatory passerine; frequent open areas with scattered shrubs. Commonly observed foraging in grassland, desert scrubs, and waste places. Build nests in isolated trees or shrubs in vicinity of foraging areas.	--/--/SSC	Suitable Conditions Absent: The park does not support open grassland habitat.
California Ridgway's rail <i>Rallus obsoletus obsoletus</i>	Previously known as California clapper rail (<i>R. longirostris obsoletus</i>). Occur within salt and brackish marshes dominated by pickleweed and Pacific cordgrass. Currently restricted to marsh areas within vicinity of San Francisco Bay. Last sighting in Morro Bay was documented in 1939 (documented as California clapper rail).	FE/SE/FP	Suitable Conditions Absent: The park does not support salt or brackish water marsh and is not located in the San Francisco Bay marsh complex.
Least Bell's vireo <i>Vireo bellii pusillus</i>	Summer resident of southern California; occur in low riparian areas in vicinity of water or in dry river bottoms below 2,000 feet. Nest along margins of bushes or twigs of willow, <i>Baccharis</i> , or mesquite.	FE/SE/--	Suitable Conditions Absent: The riparian corridor adjacent to the park is too open and lacks the multi-layered canopy that this species prefers.
Class Aves Other migratory bird species (nesting)	Occur in annual grasslands, coastal scrub, and chaparral; oak woodlands may provide nesting habitat.	MBTA/--/--	Suitable Conditions Present: Potential nesting habitat occurs throughout the site. Pre-disturbance nesting bird surveys are proposed to avoid impacts to nesting birds.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Mammals			
Pallid bat <i>Antrozous pallidus</i>	Prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings, and night roosts may be in more open sites, such as porches and buildings.	--/--/SSC	Suitable Conditions Absent: The park does not support rocky outcrops or crevices for roosting.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Occur in a wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, require caves, mines, rock faces, bridges, or buildings for maternity roosts; maternity roosts are in relatively warm sites.	--/--/SSC	Suitable Conditions Present: The trees in the park could support roosting bats.
Giant kangaroo rat <i>Dipodomys ingens</i>	Occupy dry, sandy grasslands and dig burrows in loose soil. Live in colonies in isolated areas west of San Joaquin Valley, including Carrizo Plain, Elkhorn Plain, and Kettleman Hills.	FE/SE/--	Suitable Conditions Absent: The park is west and outside of the range of this species.
Western mastiff bat <i>Eumops perotis</i>	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roost in crevices in cliff faces, high buildings, trees, and tunnels.	--/--/SSC	Suitable Conditions Present: The trees in the park could support roosting bats.
American badger <i>Taxidea taxus</i>	Occur in open stages of shrub, forest, and herbaceous habitats; need uncultivated ground with friable soils.	--/--/SSC	Suitable Conditions Absent: The park does not support open habitats. Ongoing human disturbances associated with gardening and vegetation management render the park unsuitable for this species.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	Historic range includes most of San Joaquin Valley from San Joaquin County southward to southern Kern County (USFWS 1998). Currently occur in remaining native valley and foothill grasslands and saltbush scrub communities of valley floor and surrounding foothills from southern Kern County north to Merced County.	FE/ST/--	Suitable Conditions Absent: The park is west and outside of the range of this species.

General references: Unless otherwise noted all habitat and distribution data provided by California Natural Diversity Database

Status Codes:

--= No status

Federal: FE = Federal Endangered; FT= Federal Threatened; FC= Federal Candidate; CH= Federal Critical Habitat; PCH= Proposed Federal Critical Habitat; MBTA= Protected by Federal Migratory Bird Treaty Act

State: SE= State Endangered; ST= State Threatened; SCT= State Candidate Threatened

California Department of Fish and Game: SSC= CDFW Species of Special Concern ; FP= Fully Protected Species; SA= Not formally listed but included in CDFW "Special Animal" List; WL= Watch List

Rationale Terms:

Species Present: Species was or has been observed in the survey area.

Suitable Conditions Present: The survey area is within the species range and supports the appropriate habitat, soils, elevation, and other habitat requirements.

Marginal Conditions Present: The survey area is in the species range and supports the appropriate habitat but other factors (past disturbances, presence of predators, etc.) may preclude species occurrence.

Suitable Conditions Absent: The survey area is not in the species range and/or does not support the appropriate habitat, soils, elevation, and/or other habitat requirements.

ATTACHMENT F

Project Plans

general notes:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR PERMITTEE TO CONTACT "UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA" BY PHONE AT 8-1-1 FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION FOR LOCATION OF POWER, TELEPHONE, OIL AND NATURAL GAS UNDERGROUND FACILITIES. CONTRACTOR OR PERMITTEE SHALL ALSO CONTACT THE APPROPRIATE AGENCY FOR THE LOCATION OF CABLE T.V., WATER, SEWER, DRAINAGE OR UNDERGROUND FACILITIES.
- THE CONTRACTOR SHALL POSSESS A CLASS _____ LICENSE AT THE TIME OF BID OPENING.

datum:

BASIS OF BEARINGS

THE BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM NAD83, CALIFORNIA ZONE 5, US SURVEY FEET, AS DETERMINED BY GPS OBSERVATIONS ON POINTS 8028 AND 8201 AS SHOWN ON THE CITY OF SAN LUIS OBISPO "HORIZONTAL CONTROL NETWORK" (JANUARY 2007)

BENCHMARK

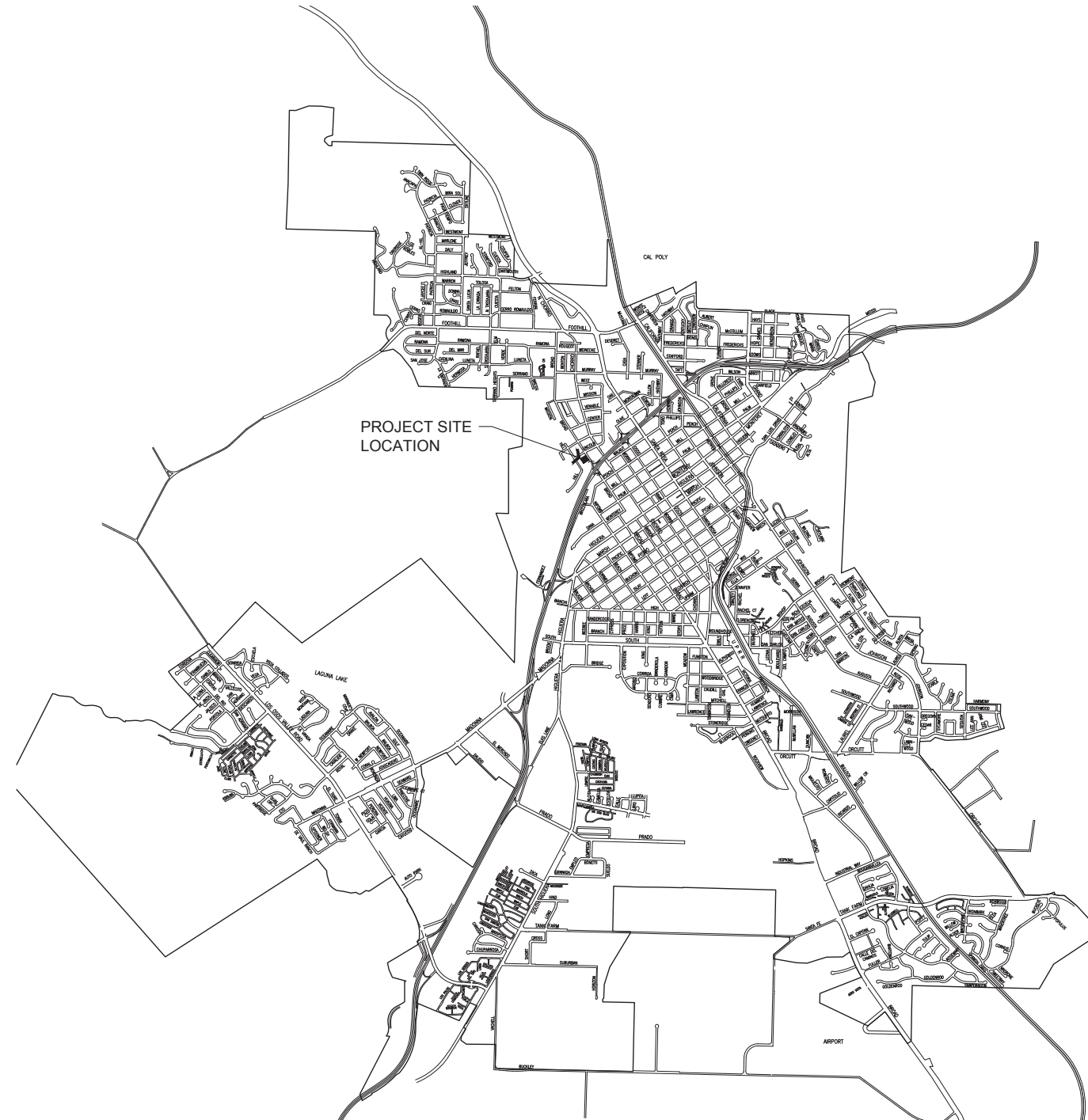
THE ELEVATIONS SHOWN HEREON ARE NAVD88 AS DETERMINED BY MEASUREMENTS ON POINT S-12 AS SHOWN ON THE CITY OF SAN LUIS OBISPO "BENCHMARK SYSTEM" (JUNE 2019) HAVING PUBLISHED ELEVATION OF 197.61'

Point Table				
Point #	Northing	Easting	Elevation	Description
5	2300369.21	5765389.37	197.49	SET X
6	2300431.43	5765349.27	197.62	FD SLO BM S-12
8	2300234.99	5765435.07	197.22	SET X
9	2300245.75	5765448.51	196.03	FD PIN IN CNC IN MON WELL

legend:

ABBREVIATIONS

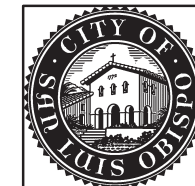
AC	Asphalt Concrete Paving
AP	Angle Point
CO	Clean-out
CL	Centerline
CONC	Concrete
CONST	Construction
DIA & Ø	Diameter
ELEV	Elevation
EXIST & ()	Existing
FF	Finished Floor
FS	Finished Surface
FH	Fire Hydrant
FL	Flow Line
G	Gas
GB	Grade Break
GR	Finished Grade
HDPE	Hi-density Polyethylene
HP	High Point
INV	Invert Elevation
LT	Left
LF	Linear Feet
LP	Low Point
MH	Manhole
P	Power
PC	Point Of Curvature
PL	Property Line
PRC	Point Of Reverse Curvature
PT	Point Of Tangency
PUE	Public Utility Easement
PVC	Polyvinyl Chloride
R	Radius
RT	Right
RP	Radius Point
RW	Right-of-way
S	Slope
SD	Storm Drain
SS	Sanitary Sewer
STA	Station
T	Telephone
TW	Top Of Wall
TYP	Typical
W	Water
SF	Silt Fence



index to plans

sheet no.	description
1	TITLE SHEET/ VICINITY MAP
2	GENERAL NOTES
3	TREE PROTECTION NOTES
4	LINCOLN & BROAD DEMOLITION PLAN
5	PARK DEMOLITION - EROSION CONTROL PLAN
6	LINCOLN & BROAD IMPROVEMENT PLAN
7	PARK GRADING PLAN
8	PARK CONSTRUCTION PLAN
9	PLAYGROUND PLAN
10	CONSTRUCTION DETAILS
11	CONSTRUCTION DETAILS
12	LANDSCAPE PLANTING PLAN
13	PLANTING DETAILS
14	IRRIGATION PLAN
15	IRRIGATION SCHEDULE-NOTES
16	IRRIGATION DETAILS
17	IRRIGATION DETAILS
18	SPECIFICATIONS SHEET

Reference Documents:
 City Standard Specifications - May 2018 Edition
 City Engineering Standards - May 2018 Edition



san luis obispo county, california

NORTH BROAD STREET NEIGHBORHOOD PARK

APPROVED BY

Matthew A. Horn, City Engineer

R.C.E. C63611

[MO DAY, YEAR]

Approved Date

SPECIFICATION NO.

#####

DATE

12/30/2019

FILE NO./LOCATION

SHEET

1 of 18

GENERAL CONSTRUCTION NOTES

- ALL EXISTING FEATURES WITHIN THIS PLAN SET ARE TAKEN FROM THE FIELD SURVEY OF RECORD BY CANNON, AND THE CITY OF SAN LUIS OBISPO RECORDS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING OF WORK.
- ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE FOLLOWING:
 - APPLICABLE SECTIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST EDITION, HERINAFTER REFERRED TO AS "CALTRANS"
 - APPLICABLE SECTIONS OF THE STATE OF CALIFORNIA BUILDING CODE, LATEST EDITION.
 - CITY OF SAN LUIS OBISPO GRADING ORDINANCE, STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION WHERE APPLICABLE.
 - APPROVED PLANS AND DETAILS.
 - STANDARDS OF THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OFFICE OF STANDARDS AND RULES OF THE STATE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH.
 - RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER AS NOTED IN THE PROJECT SOILS REPORT ENTITLED "SOILS ENGINEERING REPORT SAN LUIS RANCH - DALVIDO MADONNA ROAD SAN LUIS OBISPO, CALIFORNIA" PREPARED BY GEOSOLUTIONS, INC. DATED MAY 29, 2015, AND ALL ADDENDUMS THERETO.
 - THE REQUIREMENTS OF ALL PERMITS ISSUED FOR WORK BY THE CITY OF SAN LUIS OBISPO.
 - WHERE CONFLICTS EXIST BETWEEN ANY OF THE ABOVE LISTED SPECIFICATIONS, THE MOST STRINGENT LISTED SPECIFICATION SHALL APPLY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE ALL PERMITS NECESSARY TO PERFORM WORK, INCLUDING, BUT NOT LIMITED TO, WORK WITHIN THE PUBLIC RIGHT-OF-WAY, GRADING, TREE REMOVAL, AND UTILITY MODIFICATIONS.
- CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO PERFORM THE WORK SHOWN ON THE APPROVED PLANS.
- IT SHALL BE THE RESPONSIBILITY OF THE VARIOUS CONTRACTORS TO COORDINATE THEIR WORK SO AS TO ELIMINATE CONFLICTS AND WORK TOWARD THE GENERAL GOOD AND COMPLETION OF THE ENTIRE PROJECT.
- ALL WORKMANSHIP AND MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE THE KIND AND QUALITY DESCRIBED IN THE SPECIFICATIONS AND SHALL BE FIRST CLASS THROUGHOUT. NEITHER FINAL ACCEPTANCE NOR FINAL PAYMENT BY THE OWNER SHALL RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FAULTY MATERIALS OR WORKMANSHIP.
- IN THE EVENT OF ANY CONFLICT OF INFORMATION SHOWN ON THE APPROVED PLANS OR ANY CONFLICT BETWEEN THE INTENT OF A RESOLUTION AND THE PROJECT AND FUNCTIONAL PRODUCT, THE CONTRACTOR SHALL NOTIFY THE OWNER AND DESIGN ENGINEER IN WRITING, UPON WHICH NOTICE THE OWNER AND DESIGN ENGINEER SHALL AGREE UPON A RESOLUTION TO THE CONFLICT AND ISSUE THE RESOLUTION WITH A WRITTEN ORDER, REVISED PLANS, OR BOTH. THE CONTRACTOR SHALL BEAR THE FULL COST AND RESPONSIBILITY FOR WORK AFFECTED BY SUCH CONFLICTS AND PERFORMED BY CONTRACTOR PRIOR TO SUCH NOTICE TO THE OWNER AND DESIGN ENGINEER AND ISSUANCE OF SUCH ORDER AND/OR REVISED PLANS.
- CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL AT ALL TIMES AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING TREES, OR SURFACE IMPROVEMENTS, OR TO ANY EXISTING DRAINAGE STRUCTURE, WATER STRUCTURE, SEWER CLEANOUTS, MANHOLES, OR JUNCTION BOXES FOR UNDERGROUND ELECTRIC, GAS, TELEPHONE, CABLE TV, STORM, SANITARY, WATER OR OTHER UTILITIES WHICH ARE TO REMAIN IN PLACE AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO.
- AN EFFORT HAS BEEN MADE TO DEFINE THE LOCATION OF UNDERGROUND FACILITIES WITHIN THE JOB SITE. HOWEVER, ALL EXISTING UTILITY AND OTHER UNDERGROUND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS AND THEIR LOCATION WHERE SHOWN IS APPROXIMATE. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR LOCATING AND MARKING ALL UNDERGROUND UTILITIES AND OTHER FACILITIES AND FOR PROTECTING THEM DURING CONSTRUCTION.
- CONTRACTOR SHALL CONTACT BOTH UNDERGROUND SERVICE ALERT (800-227-2600) AND THE AFFECTED UTILITY COMPANIES PRIOR TO STARTING WORK TO REQUEST AND OBTAIN MARKING OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF THE DISCOVERY OF ANY UTILITY THAT WAS OMITTED FROM THE PLANS, INCORRECTLY SHOWN OR NOT PROPERLY MARKED. IF A UTILITY COMPANY DOES NOT PROVIDE LOCATION INFORMATION OR MARKING SERVICES IN THE FIELD, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER. FAILURE OF THE CONTRACTOR TO NOTIFY THE OWNER PER SECTION 4-1.08B OF THE CITY STANDARDS SHALL PROHIBIT THE CONTRACTOR FROM CLAIMING EXTRA WORK ASSOCIATED WITH SAID UTILITY.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY AND UTILITY OWNER IF ANY UTILITY IS DISTURBED OR DAMAGED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BEAR THE COSTS OF REPAIR OR REPLACEMENT OF ANY MARKED UTILITY WHERE DAMAGE WAS CAUSED BY THE CONTRACTOR'S ACTIVITIES.
- CONTRACTORS SHALL HIRE A LICENSED LAND SURVEYOR TO PROVIDE CONSTRUCTION STAKING IN ORDER TO ENSURE THE PROJECT IS CONSTRUCTED TO THE LINES AND GRADES INDICATED ON THE APPROVED PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF REQUIRED INSPECTIONS WITH THE APPROPRIATE AGENCIES AND UTILITY COMPANIES AND CITY STANDARDS.
- ENGINEER OF RECORD SHALL BEAR NO RESPONSIBILITY FOR METHODS AND PROCEDURES OF WORK ESTABLISHED BY CONTRACTOR, JOBSITE CONDITIONS, JOBSITE SAFETY, OR CONFORMANCE WITH SAFETY PROCEDURES AND REQUIREMENTS.
- THE CONTRACTOR SHALL PRACTICE SAFETY AT ALL TIMES AND SHALL FURNISH, ERECT, AND MAINTAIN SUCH FENCES, BARRICADES, DETOURS, FLAGMAN, LIGHTS AND SIGNS AS NECESSARY TO GIVE PROTECTION TO THE PUBLIC AT ALL TIMES.
- IN CONFORMANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS BOTH THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER OF RECORD.
- THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED PLANS AND SPECIFICATIONS FOR THIS PROJECT ON THE SITE AT ALL TIMES.
- THE CONTRACTOR SHALL MAINTAIN A CURRENT, COMPLETE, AND ACCURATE RECORD OF ALL CHANGES WHICH DEVIATE FROM THE CONSTRUCTION AS PROPOSED IN THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE AS-BUILT INFORMATION AS TO THE EXACT LOCATION OF ALL FEATURES FOR THE PURPOSE OF PROVIDING THE ENGINEER WITH A BASIS FOR RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE CITY ENGINEERING DEPARTMENT.
- ALL UNSUITABLE MATERIALS SHALL BE REMOVED FROM THE PROJECT AND BE PLACED AT A SUITABLE DISPOSAL SITE.
- NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS AND/OR PERMITS APPROVED BY THE REGULATORY AGENCIES HAVING JURISDICTION OVER THE PROJECT WORK. ALL AGENCIES SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING CONSTRUCTION. ANY CONSTRUCTION DONE WITHOUT APPROVED PLANS AND/OR PERMITS AND PRIOR NOTIFICATION WILL BE REJECTED AND WILL BE AT THE CONTRACTOR'S RISK AND EXPENSE.

LIST OF AGENCIES HAVING JURISDICTION:

 - CITY OF SAN LUIS OBISPO
 - REGIONAL WATER QUALITY CONTROL BOARD
 - CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
 - U.S. ARMY CORPS OF ENGINEERS
 - NATIONAL MARINE FISHERIES SERVICE
 - U.S. FISH AND WILDLIFE SERVICE
- SEPARATE DEMOLITION PERMITS ARE REQUIRED IF ANY EXISTING STRUCTURES AND INFRASTRUCTURE IS REMOVED.

- UNDERGROUND DEWATERING IMPROVEMENTS (SUCH AS RETAINING WALL SUB-DRAINS OR GROUNDWATER COLLECTION SYSTEM) SHALL NOT DEPOSIT COLLECTED GROUNDWATER OR SPRING WATER TO THE GUTTER OR OTHER SURFACE DRAINAGE FACILITY. SUCH SYSTEMS SHALL BE DESIGNED TO RETURN THE WATER ON-SITE OR DEPOSIT THE COLLECTED WATER TO AN APPROVED COLLECTION SYSTEM, PER CITY STANDARD 1010B.
- CONTRACTOR SHALL PROVIDE FOR THE PROTECTION OF ALL EXISTING SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A NEAT, SAFE, CLEAN, AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE AGENCY HAVING JURISDICTION OVER THE AREA. STREETS SHALL BE KEPT CLEAR OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY CLEANUP ON ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION.
- ALL CONSTRUCTION ACTIVITY THAT DISRUPTS THE SMOOTH FLOW OF TRAFFIC OVER THE PUBLIC ROADS WILL REQUIRE A TRAFFIC CONTROL PLAN AS SPECIFIED IN THE PROJECT SPECIFICATIONS. TRAFFIC CONTROL SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE CURRENT MANUAL OF WARNING SIGNS, LIGHTS, AND DEVICES FOR USE IN PERFORMANCE OF WORK UPON HIGHWAYS ISSUED BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION AND BE SUBMITTED 5 WORKING DAYS PRIOR FOR APPROVAL OF CITY OF SAN LUIS OBISPO TRANSPORTATION DEPARTMENT.
- IN THE EVENT THAT EXISTING TRAFFIC STRIPING OR STENCILING IS OBLITERATED BY CONSTRUCTION, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE "IN KIND" THE SAID STRIPING OR STENCILING TO THE SATISFACTION OF THE AGENCY HAVING JURISDICTION OVER THE STREET. IF STENCILING OR LEGEND IS PARTIALLY OBLITERATED, THE ENTIRE STENCIL OR LEGEND SHALL BE REPLACED TO THE SATISFACTION OF THE CITY.
- ALL P.C.C. AND A.C. PAVEMENT REMOVALS SHALL BE OUTLINED TO NECESSARY WORKING LIMITS AND SAWCUT PRIOR TO REMOVAL. ALL DEBRIS CREATED BY THE REMOVAL OPERATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO ALL COORDINATING AGENCIES.
- THE CONTRACTOR'S WORK SCHEDULE SHALL TAKE INTO ACCOUNT SCHEDULE RESTRICTIONS NECESSARY FOR THE SAFE HANDLING OF VEHICLE, BICYCLE, AND PEDESTRIAN TRAFFIC ADJACENT TO PROJECT.
- IN THE EVENT THAT THE CONTRACTOR NOTICES IRREGULARITIES IN THE LINE OR GRADE, HE SHALL BRING IT TO THE IMMEDIATE ATTENTION OF THE CITY AND DESIGN ENGINEER. IF HE FAILS TO DO SO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ERROR IN THE LINE AND GRADE AND NECESSARY RECONSTRUCTION TO CORRECT SUCH ERROR.
- NEITHER THE CITY NOR THE DESIGN ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS AS THEY PERTAIN TO THE CONTRACTOR. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.

GENERAL GRADING NOTES

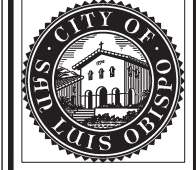
- ALL GRADING SHALL CONFORM TO THE RECOMMENDATIONS OF THE PROJECT SOILS REPORT PROVIDED BY THE CITY SAN LUIS OBISPO.
- WORK SHALL CONSIST OF ALL CLEARING (INCLUDING TREE REMOVAL), GRUBBING, AND STRIPPING, PREPARATION OF AREAS TO RECEIVE FILL MATERIAL, EXCAVATION, SPREADING, COMPACTION AND CONTROL OF THE FILL MATERIAL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPES, AS SHOWN ON THE ACCEPTED PLANS AND TO THE SATISFACTION OF THE PROJECT GEOTECHNICAL ENGINEER REVIEWING THE WORK.
- CONTRACTOR IS RESPONSIBLE TO VERIFY THAT PERMITS ARE IN ORDER PRIOR TO STARTING WORK ON THE PROJECT. CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS THEREOF.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT GEOTECHNICAL ENGINEER, AND THE CITY OF SAN LUIS OBISPO INSPECTOR AT LEAST SEVENTY TWO (72) HOURS PRIOR TO COMMENCEMENT OF ANY CLEARING OR GRADING OPERATIONS ON-SITE.
- A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER SHALL BE ON SITE DURING GRADING OPERATIONS AND SHALL PERFORM SUCH TESTING AS DEEMED NECESSARY. THE REPRESENTATIVE SHALL OBSERVE THE GRADING OPERATION FOR CONDITIONS THAT SHOULD BE CORRECTED, AND IDENTIFY THOSE CONDITIONS WITH RECOMMENDED CORRECTIVE MEASURES TO THE CONTRACTOR.
- IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATION, THE PROJECT GEOTECHNICAL ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
- AREAS TO BE GRADED SHALL BE PREPARED BY REMOVING SURFACE AND SUB-SURFACE DELETERIOUS MATERIALS, INCLUDING BUT NOT LIMITED TO, VEGETATION, DEBRIS, TOPSOIL, ORGANIC MATERIALS, CONSTRUCTION SPILLS, BURIED UTILITY LINES TO BE REMOVED, SEPTIC SYSTEMS, BUILDING MATERIALS, AND OTHER UNSUITABLE MATERIALS. TREES DESIGNATED FOR REMOVAL SHALL BE REMOVED AND THEIR PRIMARY ROOT SYSTEMS GRUBBED. VOIDS LEFT FROM SITE CLEARING SHALL BE CLEANED AND BACKFILLED AS RECOMMENDED IN THE PROJECT SOILS REPORT.
- ALL EXISTING TRASH, DEBRIS, ROOTS, TREE REMAINS AND OTHER RUBBISH SHALL BE REMOVED FROM THE SITE SO AS TO LEAVE THE AREAS THAT HAVE BEEN DISTURBED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. NO BURNING SHALL BE PERMITTED.
- UNLESS OTHERWISE NOTED, CONTRACTOR SHALL ADJUST ALL STORM DRAIN INLETS, VALVE BOXES, MANHOLE RIMS, SEWER CLEANOUTS, AND OTHER UTILITY BOXES TO NEW FINISH GRADE.

CITY OF SAN LUIS OBISPO STANDARD NOTES

- ALL WORK LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN THE JURISDICTION OF THE UTILITIES AND PUBLIC WORKS DEPARTMENTS SHALL COMPLY WITH THE MOST CURRENT EDITION OF THE ENGINEERING STANDARDS AND STANDARD SPECIFICATION. THE CURRENT ADOPTED STANDARDS ARE DATED MAY 2016.
- A SEPARATE ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY OR WITHIN CITY EASEMENTS FOR CONNECTIONS TO PUBLIC UTILITIES. WORK REQUIRING AN ENCROACHMENT PERMIT INCLUDES BUT IS NOT LIMITED TO DEMOLITIONS, UTILITIES, WATER, SEWER, AND FIRE SERVICE LATERALS, CURB, GUTTER, AND SIDEWALK, DRIVEWAY APPROACHES, SIDEWALK UNDERDRAINS, STORM DRAIN IMPROVEMENTS, STREET TREE PLANTING OR PRUNING, CURB RAMPS, STREET PAVING, AND PEDESTRIAN PROTECTION OR CONSTRUCTION STAGING IN THE RIGHT-OF-WAY.
- CONTACT THE PUBLIC WORKS INSPECTION HOTLINE AT 781-7554 WITH AT LEAST A 48 HOUR NOTICE FOR ANY REQUIRED ENCROACHMENT PERMIT INSPECTION OF FINAL INSPECTION.
- A TRAFFIC AND PEDESTRIAN CONTROL PLAN SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO ENCROACHMENT PERMIT ISSUANCE.
- A CAL-OSHA PERMIT IS REQUIRED FOR EXCAVATION OR TRENCHING GREATER THAN 5 FEET IN DEPTH. A COPY OF THE ANNUAL, PROVISIONAL, OR TEMPORARY PERMIT SHALL BE PROVIDED TO THE BUILDING DIVISION PRIOR TO BUILDING, UTILITY, AND/OR GRADING PERMIT ISSUANCE IS APPLICABLE. ANY OSHA PERMIT EXEMPTION OR WAIVER SHALL BE PROCESSED ON A FORM PROVIDED BY THE BUILDING DIVISION.
- A PRE-CONSTRUCTION MEETING SHALL BE COORDINATED BY THE OWNER/DEVELOPER OR CONTRACTOR AND SHALL INCLUDE PERTINENT CITY STAFF. AS A MINIMUM, THE ASSIGNED BUILDING INSPECTOR, CITY OF SAN LUIS OBISPO AND PUBLIC WORKS INSPECTOR SHALL BE INCLUDED IN THIS MEETING TO DISCUSS THE LIMIT OF PUBLIC AND PRIVATE IMPROVEMENTS AND THE CORRESPONDING INSPECTION RESPONSIBILITIES.
- ANY SECTIONS OF DAMAGED OR DISPLACED CURB, GUTTER & SIDEWALK OR DRIVEWAY APPROACH SHALL BE REQUIRED OR REPLACED TO THE SATISFACTION OF THE CITY OF SAN LUIS OBISPO.
- ELECTRONIC DRAWING FILES (.DWG) AND ANY ASSOCIATED PLOT FILES ALONG WITH ONE ORIGINAL, STAMPED AND SIGNED, INK ON BOND, SET OF PLANS SHALL BE SUBMITTED PRIOR TO THE START OF CONSTRUCTION OR MAP RECORDING. RECORD DRAWINGS ARE TO BE SUBMITTED WITHIN 4 WEEKS OF COMPLETION OF CONSTRUCTION AND PRIOR TO CITY ACCEPTANCE OF THE PUBLIC IMPROVEMENTS AND SHALL INCLUDE A SIGNED SCAN (.TIF) OR ADOBE FILE IN ADDITION TO THE DRAWING FILES. SUBMIT THIS DATA EITHER VIA EMAIL (FOR SMALL PROJECTS) OR ON A CD, 3-1/2" FLOPPY DISC OR ZIP DISC CONTAINING THE REQUIRED DATA. FILES SHALL BE SUBMITTED TO THE DEVELOPMENT REVIEW DIVISION ENGINEER.
- MAKE ARRANGEMENTS, AND PROVIDE EVIDENCE OF SAME, TO PROVIDE THE "AS-BUILT" PLANS, MICROFICHE AND A DIGITAL COPY OF THE RECORD DRAWING IN A FILE FORMAT COMPATIBLE WITH AUTOCAD, E.G. DXF FORMAT.

LEGEND

	EXISTING	PROPOSED
TRACT BOUNDARY	---	---
PROPERTY LINE	---	---
RIGHT-OF-WAY	---	---
EASEMENT/SETBACK	---	---
STREET CENTERLINE	---	---
CURB	---	---
CURB & GUTTER	---	---
ROAD STRIPING	---	---
FENCE	X	X
DAYLIGHT LINE	---	---
100YR FLOODPLAIN BOUNDARY	---	---
FLOWLINE	---	---
DRAINAGE SWALE	---	---
RETAINING WALL	---	---
GRADE BREAK	---	---
SLOPE	---	---
CONTOURS	---	---
WATER MAIN	W	W
RECLAIMED WATER LINE	RW	RW
SANITARY SEWER LINE	SS	SS
STORM DRAIN LINE	SD	SD
GAS LINE	G	G
ELECTRIC LINE	E	E
OVERHEAD WRES	OH	OH
FIBER OPTICS	FO	FO
TELEPHONE	T	T
JOINT TRENCH	JT	JT
BIORETENTION AREA	---	---
FIRE HYDRANT	---	---
STREET LIGHT (PUBLIC)	---	---
STREET LAMP (PRIVATE)	---	---
STORM DRAIN INLET	---	---
CURB INLET	---	---
TREES	---	---
POWER POLE	---	---
SDMH	---	---
SSMH	---	---
RIPRAP PROTECTION AT SD OUTLET	---	---
ROUGH PAD ELEVATION	---	---
STREET ELEVATION SURFACE ABOVE STRUCTURAL SECTION	---	---



NORTH BROAD STREET NEIGHBORHOOD PARK
GENERAL NOTES/ LEGENDS

PROJECT TITLE:
SHEET TITLE:



DESIGNED BY:
G. GLANDON

DRAWN BY:
G. GLANDON

CHECKED BY:

APPROVED BY:

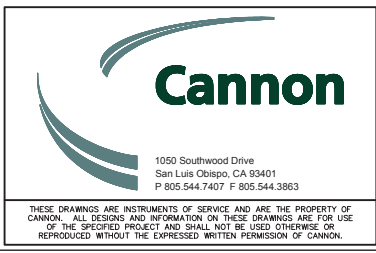
SCALE:

DATE:
12/30/2019

CITY SPECIFICATION NO.
190125

PLAN FILE NO./LOCATION

SHEET NO.



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TREE PROTECTION NOTES

TREE PROTECTION NOTES INCLUDED BELOW ARE REFERENCED FROM "TREE PROTECTION PLAN FOR SAN LUIS RANCH, SAN LUIS OBISPO, SAN LUIS OBISPO, COUNTY". DATED JULY 2018

2.1 Pre-Construction

2.1.1 Tree Protection and Critical Root Zones

Tree Protection Zones (TPZ) for each tree will be designated on construction plans that identify areas where trees are to be preserved and where special care is necessary to protect living trees. Tree protection fencing will be installed as per grading plans and will be maintained throughout construction. For work within the TPZ, construction means and methods must be approved by the Project arborist prior to initiating work. Work within the TPZ will be subject to daily monitoring by the Project arborist.

The TPZ is defined by the tree's critical root zone (CRZ) defined as a minimum of one foot of canopy diameter times each inch of diameter at breast height (DBH). For example, a 24-inch DBH tree would have a 24-foot CRZ and the TPZ fencing for that tree would have a 24-foot radius fence surrounding the tree. If several 24-inch trees occurred within the same vicinity to be protected, TPZ fencing would be placed along outer boundary of the CRZ line formed by the individual trees. Note that root systems of trees may extend well beyond the canopy dripline and may be two to three times beyond the CRZ. Damage to the tree roots can be caused by any disturbance inside this area. In addition, nearby trenching, paving, or altering drainage patterns outside the immediate CRZ may also significantly affect a tree.

For trees that do not have a circular trunk, CRZ can be calculated by measuring the circumference of the tree and dividing that number by "pi" (3.14) to get tree diameter. This method shall be used whenever possible; and at minimum, tree protection fencing shall be installed at the perimeter of the tree dripline or CRZ whichever is greater. The dripline is defined as the outermost circumference of the tree canopy.

2.1.2 Pre-Construction Meeting

The project arborist shall attend a pre-construction meeting with tree removal, irrigation, landscape, and any other contractors expected to work within the TPZ to explain the tree protection and monitoring requirements as outlined in the approved TPP.

2.1.3 Tree Protection Fencing

General protective fencing will be installed site-wide to clearly delineate and protect environmentally sensitive habitat areas (ESHA), see Attachment C, ESHA Fence. Fences will protect trees from unnecessary impacts due to construction activities, materials storage, and equipment staging. TPZ fence will be installed at the CRZ or dripline (whichever is greater) for trees to be protected within 20 feet of construction that are located outside of the ESHA fence.

The Project arborist may allow temporary and limited tree removal activity with tree protection fencing temporarily removed during specified activity and immediately replaced, under the arborist's supervision. All trees whose critical root zones (CRZ) are within 20 feet of construction, stockpile areas, storage and staging areas, and access roads will require tree protective fencing. The tree protective fencing is to be installed around all trees to remain and groups of trees wherever possible. Protective fencing shall extend to the outer edge of the critical root zone CRZ whenever possible. The Project arborist may reduce fence placement under some circumstances.

Prior to any clearing, grubbing, trenching, grading, or any land disturbances, tree protection fencing must be installed as follows:

2.1.3.1 Fencing Type

Fencing shall be temporary, readily visible, orange snow drift/construction fencing, and a minimum of 4-feet high. Fencing shall be secured to 6-foot t-posts, driven into the ground by 12 inches, and placed at intervals of 8 feet minimum. Fencing can be fastened to the t-posts with bailing wire or zip ties. Fencing shall be installed outside the CRZ unless modifications are approved by the Project arborist. Fencing shall effectively: 1) keep the foliage, crown, branch structure and trunk clear from damage by equipment, materials or disturbances; 2) preserve roots and soil in an intact and non-compacted state; and 3) identify the TPZ zone. Fencing shall be maintained for the duration of construction. Fencing shall be removed as the last item of contract work.

2.1.3.2 Signs

One English language and one Spanish language, readily-visible, durable, waterproof sign shall be installed on tree protection fences in 4 equidistant locations around each individual protected tree or tree clusters. Signs placed on fencing around a stand of protected trees shall be placed at approximately 50-foot intervals. The size of each sign must be a minimum of 16 inches wide and must contain the wording below. The lettering in the word "WARNING" ("ADVERTENCIA") must be in capital letters at least 2 inches in height; the phrase "TREE PROTECTION ZONE" ("ZONA DE PROTECCIÓN DE ARBOLES") must be in capital letters at least 1 inch in height; all other lettering must be at least 1/2 inch in size (Attachment D, Signage).

2.1.4 Fence Installation Verification

Verification that appropriate tree protection fencing has been installed per the Project arborist's instruction and pursuant to the approved TPP and construction drawings shall be provided in the Project arborist's weekly reports to the Project Manager and Natural Resources Manager.

2.2 During Construction

Due to the nature of construction activities on a project site, there are direct and indirect hazards that must be considered for long term tree protection of trees. Table 2 addresses construction-related impacts to trees and recommendations for impact avoidance and mitigation to minimize impacts to trees (Matheny and Clark 1998; City of San Luis Obispo 2016).

TABLE 1. CONSTRUCTION IMPACTS AND MITIGATION MEASURES.

Impacts to Tree	Construction Activity	Methods/Treatments to Minimize Damage
Root loss	Clearing site of organic surface soil before grading; clearing vegetation.	<ul style="list-style-type: none"> Restrict clearing of soil around trees. Install 4-foot high construction fences to protect trees from injury. Any trees to be removed adjacent to trees should be cut at ground level and not pulled out by equipment; otherwise, root injury to remaining trees may result.
	Lowering grade, preparing subgrade for fill and structures	<ul style="list-style-type: none"> No grading cuts or fills will be allowed within the drip-line of trees to be saved, unless approved by the Engineer and Arborist. Before grading, root prune tree at edge of excavation to depth required. Spoils beyond cut face can be removed by equipment sitting outside the dripline of the tree.
Preparation of subgrade for pavement	Preparing subgrade for pavement	<ul style="list-style-type: none"> Use paving section requiring a minimum amount of excavation (e.g., reinforced concrete instead of asphalt). Increase strength of pavement to reduce reliance on subgrade for strength (e.g., use extra reinforcement in concrete, geotextile under base material).
		<ul style="list-style-type: none"> Avoid continuous footings adjacent to trees. Any roots encountered greater than 1 inch in diameter must be protected from scarring or drying. If the root cannot be protected, schedule the Engineer and City Arborist to review excavation and give direction. Where roots must be removed, cut cleanly with appropriate equipment (e.g. rock saw).
Excavation for footings, walls, foundations	Excavation for footings, walls, foundations	<ul style="list-style-type: none"> Do not use equipment that pulls and shatters roots (e.g., backhoe, trencher).
		<ul style="list-style-type: none"> No trenching permitted within the dripline of protected trees unless approved by Engineer and Arborist. Any trenching within 20 feet of the dripline of tree to be saved, mark the trench location with chalk or paint, and notify the Engineer for review and approval before trenching work begins. If Engineer approves trenching within the dripline of trees or shrubs to be saved, trenching excavation must be done by hand. Shade roots from direct sunlight when exposed in open trench. Pruned or cut roots must be reviewed by the Engineer prior to backfilling trench. Trench must be backfilled within 24 hours of encountering roots. Tunnel under roots, if possible. If not, within root area, dig trench by hand, bridging roots greater than 1-inch diameter. Where possible, consolidate utilities into one trench. All directional boring within dripline of protected trees must maintain a minimum depth of 5 feet.
Wounding of tree crown	Injury from equipment	<ul style="list-style-type: none"> Have certified arborist clean up wounds as soon as possible. Have arborist monitor for trees with intertwined crowns during tree removal.
		<ul style="list-style-type: none"> Prune to minimum height required prior to construction. Consider minimum height requirements of construction equipment and emergency vehicles over roads.

Impacts to Tree	Construction Activity	Methods/Treatments to Minimize Damage
Unfavorable conditions for root growth; chronic stress from reduced root systems	Compacted surface soils	<ul style="list-style-type: none"> All pruning should be performed by a certified arborist and conform to ANSI pruning standards. Fence trees to keep traffic and storage out of root area. Provide a storage yard and traffic areas for construction activity well away from trees. Where traffic cannot be diverted, protect soil surface with thick mulch or steel plates.
		<ul style="list-style-type: none"> Spills, waste disposal (e.g., paint, oil, fuel, construction materials) Soil sterilants (herbicides) applied under pavement Impervious pavement over soil surface
	Lack of surface drainage away from tree	<ul style="list-style-type: none"> Fence trees to exclude dumping. Clean up accidental spills immediately. Use herbicides safe for use around trees. Adhere to label requirements. Minimize use of pavement within dripline. Allow sidewalk/trail alignments to vary to minimize impact to trees. Where surface grades are to be modified, make sure that water will flow away from the trunk (i.e., that the trunk is not the lowest point). If tree is in low point, design drain system with least impact to roots.
		<ul style="list-style-type: none"> Irrigation of exotic landscape Match irrigation requirements of tree and understory landscape to avoid over irrigation Do not have irrigation directed toward trunk of tree.
Increased exposure	Thinning stands, removal of undergrowth	<ul style="list-style-type: none"> Retain trees in groves rather than singly. Maintain natural undergrowth.
	Reflected heat from surrounding hard surfaces	<ul style="list-style-type: none"> Minimize use of hard surfaces around trees. Monitor moisture needs where water use is expected to increase.
Increased exposure	Pruning	<ul style="list-style-type: none"> Avoid severe pruning where previously shaded bark would be exposed to sun. Where pruning is unavoidable, provide protection to bark from sun.

2.2.1 Tree Protection Zone Restrictions

- No ground disturbance, grading, trenching, construction activities or structural development shall occur within the tree protection zone (TPZ; e.g., the dripline of protected trees) except as specifically authorized by the Project's development permit, the approved TPP, and the Project arborist.
- Eucalyptus setbacks for TPZ fencing may be adjusted under guidance of the Project arborist.
- All temporary vehicle and equipment access areas within TPZ boundaries will require a minimum 6-inch layer of wood chip mulch to mitigate soil compaction over the CRZ. Additionally, the Project arborist may require the addition of plywood or rubber mats over the mulch in frequently traveled sensitive areas.
- No equipment, soil, or construction materials shall be placed, staged, or stored within the TPZ. No oil, gasoline, chemicals, paints, solvents, or other damaging materials shall be deposited within the TPZ or in drainage channels, swales or areas that may lead to the TPZ.
- Unless otherwise directed by the Project arborist, all work done within the TPZ, including brush clearance, digging, trenching and planting, shall be done with hand tools or small hand-held power tools that are of a depth and design that will not cause root damage.
- Where trenching or digging within the TPZ is specifically permitted, the work shall be conducted in a manner that minimizes root damage, as directed by the Project arborist.
- Grade changes outside of the TPZ shall not significantly alter drainage to protected trees. Grading within the TPZ shall use methods that minimize root damage and ensure that roots are not cut off from air. Where erosion may be a factor, return and protect the original grade or otherwise stabilize the soil.
- Protected trees shall not be used for posting signs, electrical wires or pulleys; for supporting structures; and shall be kept free of nails, screws, rope, wires, stakes and any other unauthorized fastening devices or attachments.

2.2.2 Tree Care

Wood chip mulch created from the eucalyptus removals should be used on site as much as possible. The wood chips can be spread approximately four inches thick around protected trees, but mulch should not be placed up against tree trunks of the trees. Wood chips piled against trees can cause fungal issues on the trunk when kept wet. Wood chip mulch will help retain soil moisture, moderate soil temperature and suppress weed growth. This will also help with preventing soil compaction.

During construction there should be no fertilizer or chemical applications to trees unless considered necessary by the Project arborist.

Providing supplemental water to existing trees during the dry months is desirable. The Project arborist will determine if supplemental watering (and frequency) is necessary to maintain protected trees.

2.2.3 Treating Wounds

If a protected tree is wounded, immediately expand protective fencing and have the Project arborist treat the wound. Fite and Smiley (2016) recommend against use of wound dressings (paint, shellac, or latex paint), unless open wounds will attract serious insect pests. In this case, wound dressing should be applied in a timely manner following injury to tree.

If bark on trunk or a major limb is damaged, it may be possible to reattach the bark or wrap the area to encourage regeneration of bark. Wound wrapping must be done shortly after damage occurs. With certain species like oaks (*Quercus* sp.), the bark may regenerate if the wound did not penetrate deeply into the xylem. Fite and Smiley (2016) recommend wrapping the trunk wound with black plastic sheeting or several layers of burlap to reduce drying. Leave wraps on for several weeks during the growing season. If trunk wound is exposed to the sun, only use burlap wraps as plastic may trap excessive heat.

In most cases of trunk or branch damage, the loose bark should be carefully removed, leaving attached bark in place. Jagged bark edges can be cut away with a sharp knife or chisel while avoiding injury to living tissue. Penicillins of live bark in a wound speed the healing process, so leave as much attached live bark as possible (Fite and Smiley 2016).

2.2.4 Pruning

Pruning is recommended for 112 of the protected trees (Figure 3; Table 1). Pruning shall be performed by a certified arborist and in compliance with the International Society of Arboriculture (ISA) *Tree-Pruning Guidelines* (ANSI 2017).

- Major pruning should not occur unless the Project arborist determines that pruning is necessary for tree health or if trees pose a hazard to life or property. Trees recommended for pruning must be approved by the Natural Resources Manager. Major pruning involves pruning limbs or roots that are greater than 20 percent of the tree's girth or; pruning that overall will amount to more than 20 percent of the tree's canopy or root system. Pruning shall be performed under the supervision of the Project arborist.
- Pruning protected trees shall be kept to a minimum. Pruning for equipment clearance, dead wood and hazardous situations will be permissible with the approval of the Project arborist.
- Climbing gaffs shall not be used on live wood.
- No live tissue may be removed from protected trees solely for the purpose of altering the appearance of a tree.
- Recommended timing for pruning willows is late fall through early spring when willows are dormant, and before buds break. Branches over 1-inch diameter may be cut to 4-ft lengths and stored in large plastic trash cans filled with water until they can be used as live stakes for replanting after irrigation is installed on the cut slopes. The above-water parts should be covered with wet burlap and maintained in a moist condition for up to 4 weeks. Water should be treated with mosquito dunks (a biological control for mosquito larvae) during the holding period).

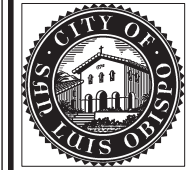
2.2.5 Arborist Monitoring

The Project arborist shall be onsite to monitor all tree removal activities, grubbing, trenching, digging, grading and construction activities within the TPZ. Additionally, the Project arborist shall perform the following duties:

- Perform weekly inspections of tree protection fencing during grading or construction in the vicinity of protected trees and report deficiencies immediately to the Project Manager and the Natural Resources Manager.
- If construction-related dust has accumulated on protected tree foliage, notify the Project Manager and the Natural Resources Manager that foliage should be hosed off.
- Prepare and submit to the Project Manager and Natural Resources Manager, monthly reports summarizing the above weekly inspections.
- Stop or divert all work when deficiencies require remediation and notify the Project Manager and Natural Resources Manager within 24 hours.
- Inform the Project Manager and Natural Resources Manager when tree protection fencing may be removed.

2.2.6 Unanticipated Tree Damage Reporting

In the event that unanticipated or unauthorized impacts are inflicted on protected trees, the Project arborist shall be immediately notified. The Project arborist shall inspect damaged trees and prepare unanticipated damage reports with remediation recommendations to the Project Manager and Natural Resources Manager within 24 hours of occurrence or discovery of the damage. Any damage or wounds to a tree shall be corrected within 24 hours of notification by a certified arborist using ISA guidelines. The Project arborist shall submit unanticipated damage reports to the Natural Resources Manager for two years post-construction.



PROJECT TITLE: NORTH BROAD STREET NEIGHBORHOOD PARK
 SHEET TITLE: TREE PROTECTION NOTES



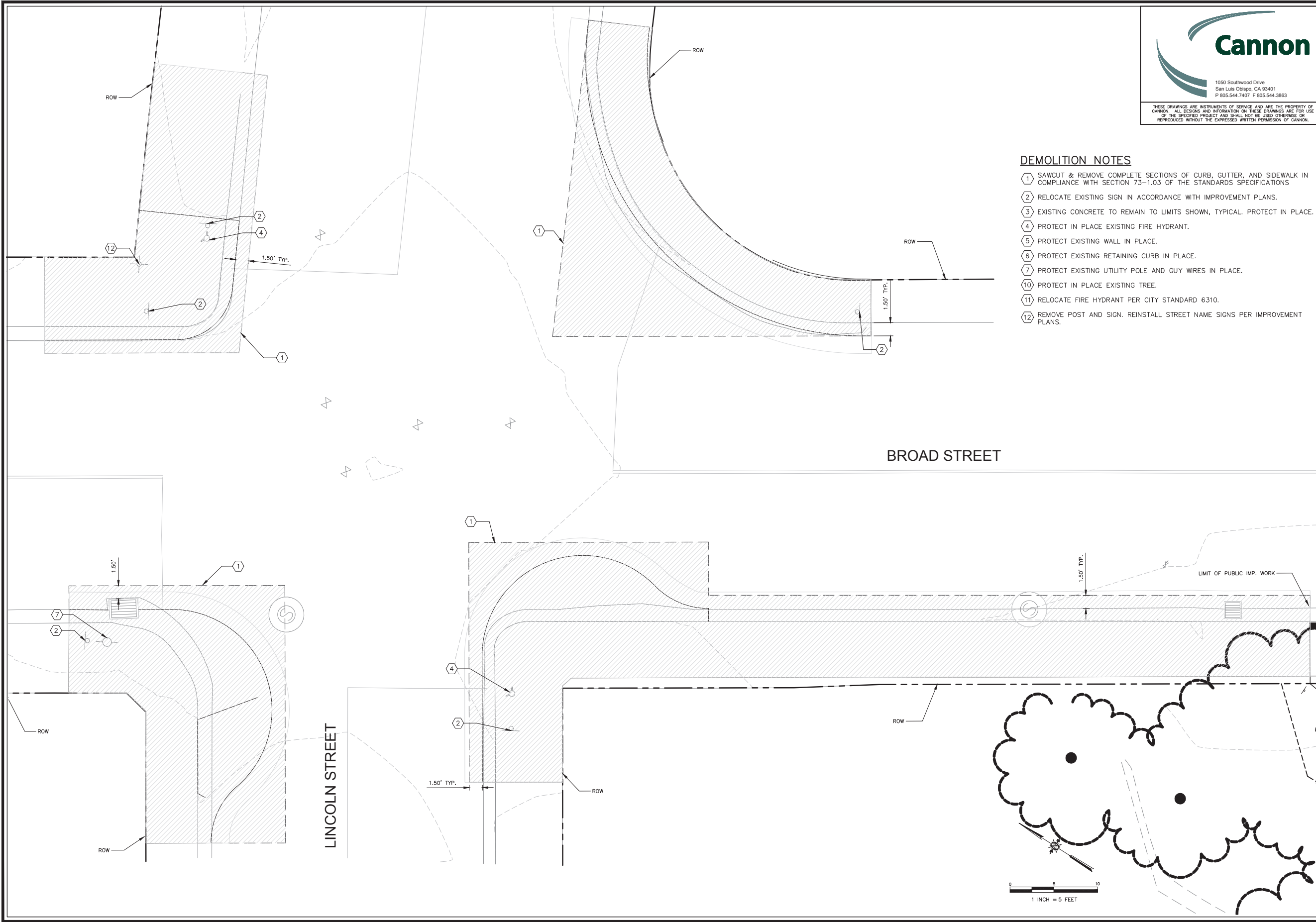

DESIGNED BY: G. GLANDON
 DRAWN BY: G. GLANDON
 CHECKED BY:
 APPROVED BY:
 SCALE:
 DATE: 12/30/2019
 CITY SPECIFICATION NO.: 190125
 PLAN FILE NO./LOCATION:
 SHEET NO.:

1050 Southwood Drive
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DEMOLITION NOTES

- ① SAWCUT & REMOVE COMPLETE SECTIONS OF CURB, GUTTER, AND SIDEWALK IN COMPLIANCE WITH SECTION 73-1.03 OF THE STANDARDS SPECIFICATIONS
- ② RELOCATE EXISTING SIGN IN ACCORDANCE WITH IMPROVEMENT PLANS.
- ③ EXISTING CONCRETE TO REMAIN TO LIMITS SHOWN, TYPICAL. PROTECT IN PLACE.
- ④ PROTECT IN PLACE EXISTING FIRE HYDRANT.
- ⑤ PROTECT EXISTING WALL IN PLACE.
- ⑥ PROTECT EXISTING RETAINING CURB IN PLACE.
- ⑦ PROTECT EXISTING UTILITY POLE AND GUY WIRES IN PLACE.
- ⑩ PROTECT IN PLACE EXISTING TREE.
- ⑪ RELOCATE FIRE HYDRANT PER CITY STANDARD 6310.
- ⑫ REMOVE POST AND SIGN. REINSTALL STREET NAME SIGNS PER IMPROVEMENT PLANS.

PROJECT TITLE:
 NORTH BROAD STREET NEIGHBORHOOD PARK

SHEET TITLE:
 LINCOLN ST/ BROAD ST DEMOLITION PLAN



DESIGNED BY: GG
 DRAWN BY: FC
 CHECKED BY:
 APPROVED BY:
 SCALE:
 DATE: 12/30/2019
 CITY SPECIFICATION NO.: 190125
 PLAN FILE NO. / LOCATION:
 SHEET NO.:

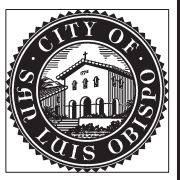
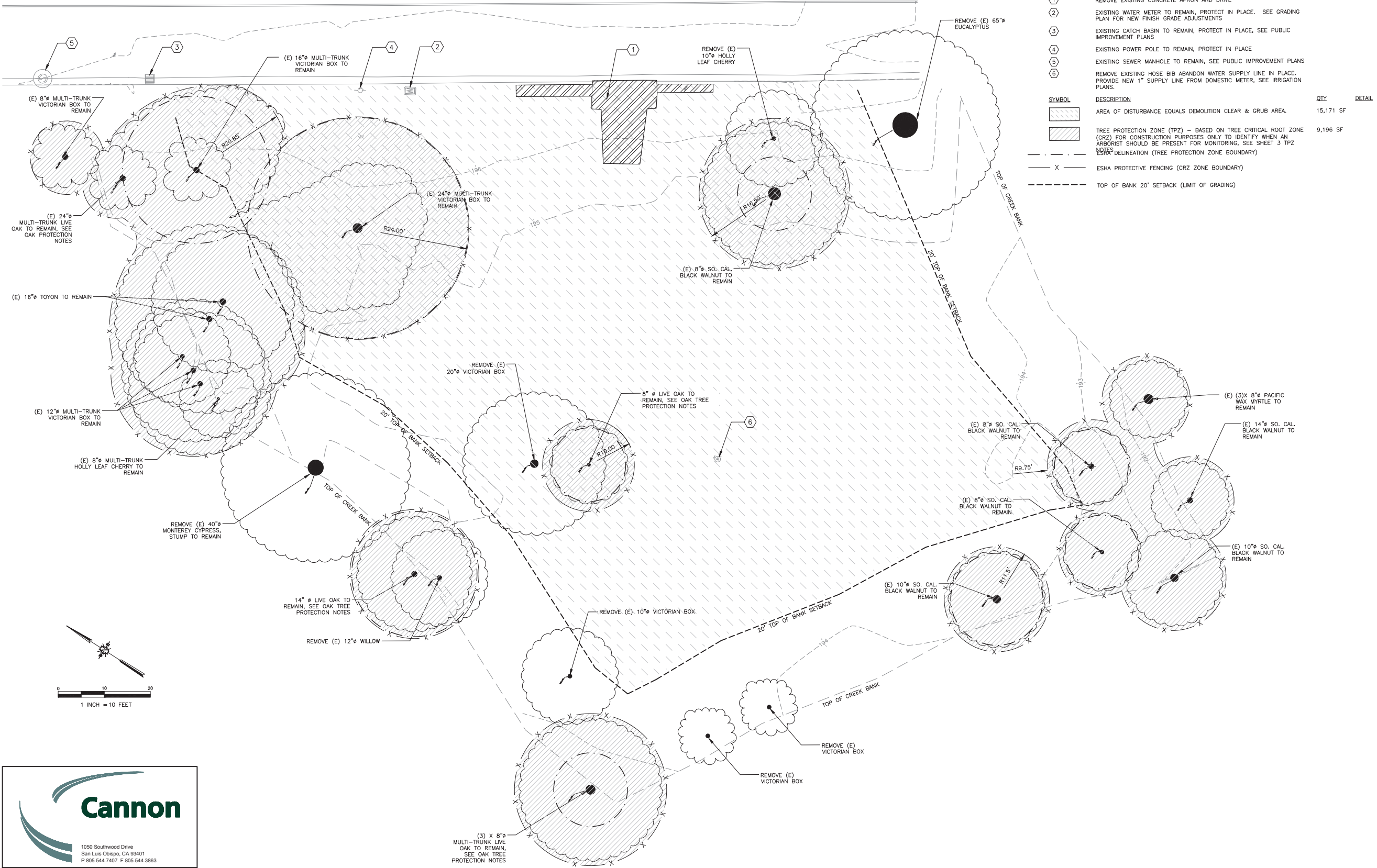
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BROAD STREET

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
①	REMOVE EXISTING CONCRETE APRON AND DRIVE		
②	EXISTING WATER METER TO REMAIN, PROTECT IN PLACE. SEE GRADING PLAN FOR NEW FINISH GRADE ADJUSTMENTS		
③	EXISTING CATCH BASIN TO REMAIN, PROTECT IN PLACE, SEE PUBLIC IMPROVEMENT PLANS		
④	EXISTING POWER POLE TO REMAIN, PROTECT IN PLACE		
⑤	EXISTING SEWER MANHOLE TO REMAIN, SEE PUBLIC IMPROVEMENT PLANS		
⑥	REMOVE EXISTING HOSE BIB ABANDON WATER SUPPLY LINE IN PLACE. PROVIDE NEW 1" SUPPLY LINE FROM DOMESTIC METER, SEE IRRIGATION PLANS.		

SYMBOL	DESCRIPTION	QTY	DETAIL
[Hatched Area]	AREA OF DISTURBANCE EQUALS DEMOLITION CLEAR & GRUB AREA.	15,171 SF	
[Dotted Area]	TREE PROTECTION ZONE (TPZ) - BASED ON TREE CRITICAL ROOT ZONE (CRZ) FOR CONSTRUCTION PURPOSES ONLY TO IDENTIFY WHEN AN ARBORIST SHOULD BE PRESENT FOR MONITORING, SEE SHEET 3 TPZ NOTES.	9,196 SF	
[Dashed Line]	ESHA DELINEATION (TREE PROTECTION ZONE BOUNDARY)		
[X Line]	ESHA PROTECTIVE FENCING (CRZ ZONE BOUNDARY)		
[Dashed Line]	TOP OF BANK 20' SETBACK (LIMIT OF GRADING)		



**NORTH BROAD STREET NEIGHBORHOOD PARK
PARK DEMOLITION/ EROSION CONTROL PLAN**

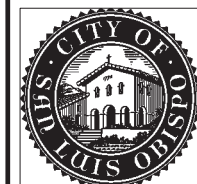
PROJECT TITLE:
SHEET TITLE:



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G. GLANDON
DRAWN BY:
G. GLANDON
CHECKED BY:
APPROVED BY:
SCALE:
DATE:
12/30/2019
CITY SPECIFICATION NO.
190125
PLAN FILE NO. / LOCATION
SHEET NO.

1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

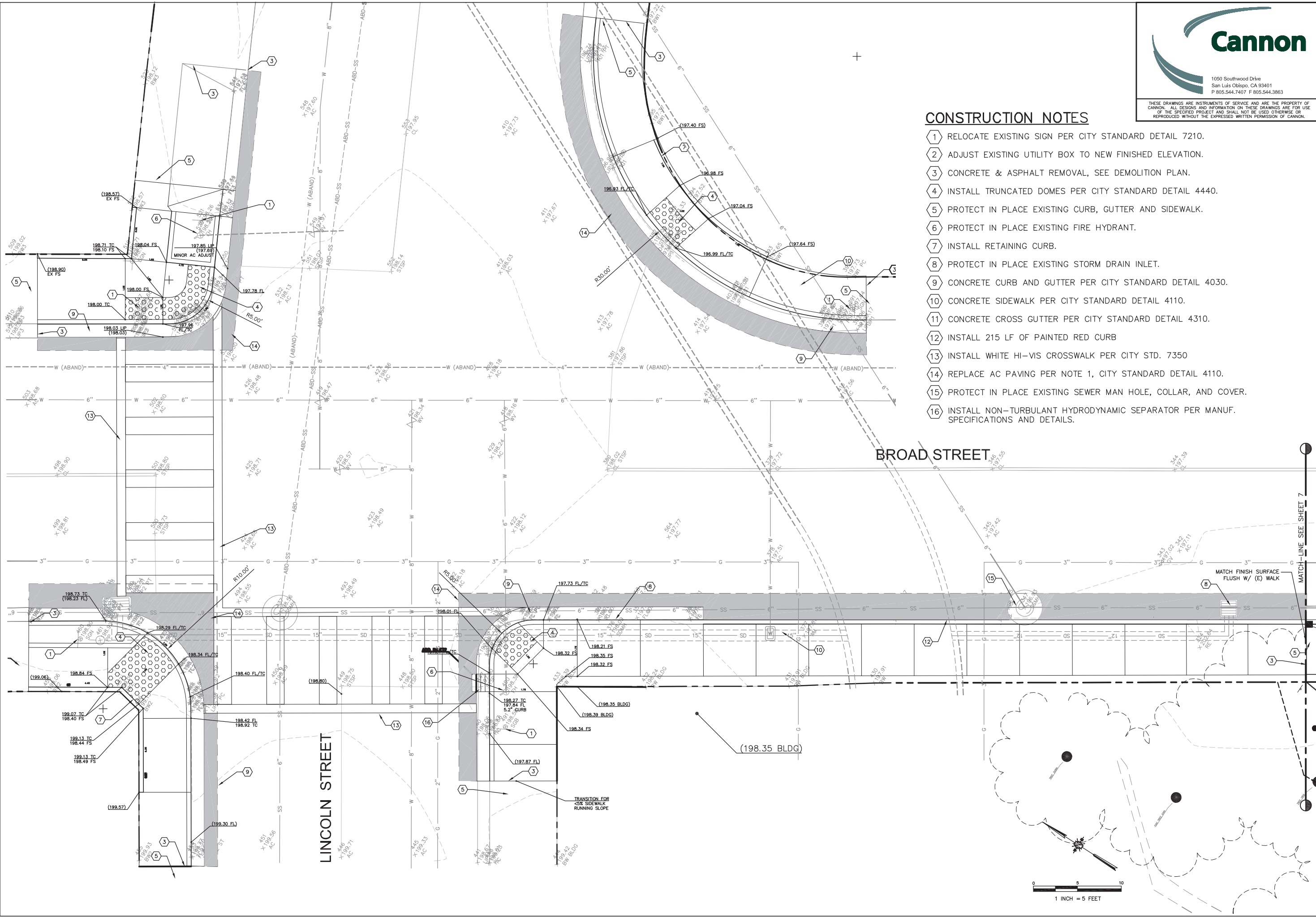
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CONSTRUCTION NOTES

- 1 RELOCATE EXISTING SIGN PER CITY STANDARD DETAIL 7210.
- 2 ADJUST EXISTING UTILITY BOX TO NEW FINISHED ELEVATION.
- 3 CONCRETE & ASPHALT REMOVAL, SEE DEMOLITION PLAN.
- 4 INSTALL TRUNCATED DOMES PER CITY STANDARD DETAIL 4440.
- 5 PROTECT IN PLACE EXISTING CURB, GUTTER AND SIDEWALK.
- 6 PROTECT IN PLACE EXISTING FIRE HYDRANT.
- 7 INSTALL RETAINING CURB.
- 8 PROTECT IN PLACE EXISTING STORM DRAIN INLET.
- 9 CONCRETE CURB AND GUTTER PER CITY STANDARD DETAIL 4030.
- 10 CONCRETE SIDEWALK PER CITY STANDARD DETAIL 4110.
- 11 CONCRETE CROSS GUTTER PER CITY STANDARD DETAIL 4310.
- 12 INSTALL 215 LF OF PAINTED RED CURB
- 13 INSTALL WHITE HI-VIS CROSSWALK PER CITY STD. 7350
- 14 REPLACE AC PAVING PER NOTE 1, CITY STANDARD DETAIL 4110.
- 15 PROTECT IN PLACE EXISTING SEWER MAN HOLE, COLLAR, AND COVER.
- 16 INSTALL NON-TURBULANT HYDRODYNAMIC SEPARATOR PER MANUF. SPECIFICATIONS AND DETAILS.



NORTH BROAD STREET NEIGHBORHOOD PARK
LINCOLN ST/ BROAD ST IMPROVEMENT PLAN

PROJECT TITLE:
SHEET TITLE:



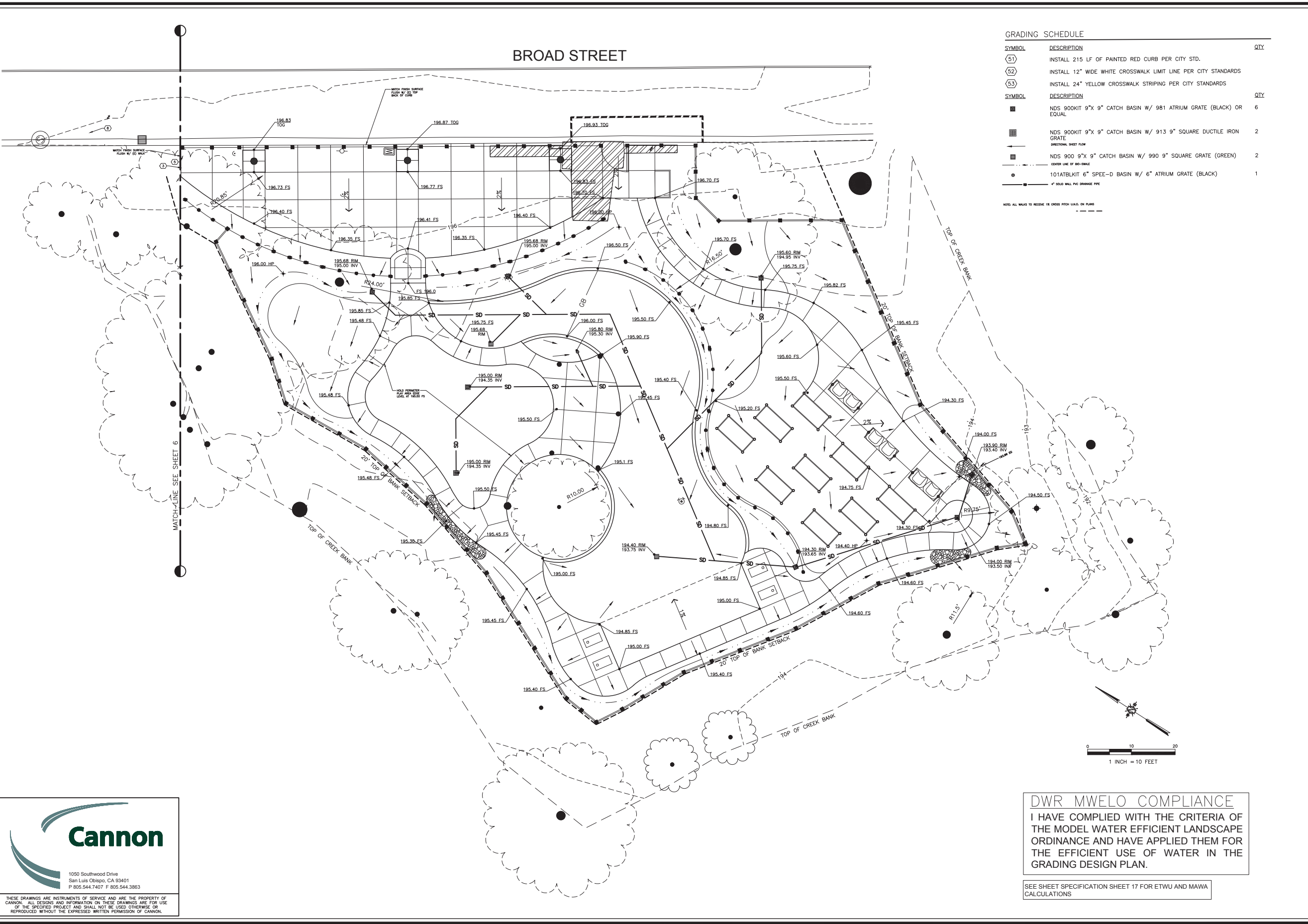
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CHECKED BY:	
APPROVED BY:	
SCALE:	
DATE:	12/30/2019
CITY SPECIFICATION NO.:	190125
PLAN FILE NO. / LOCATION:	
SHEET NO.:	

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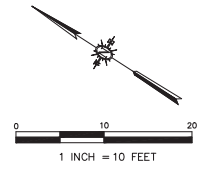
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GRADING SCHEDULE

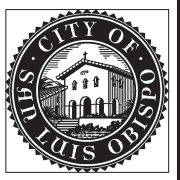
SYMBOL	DESCRIPTION	QTY
(51)	INSTALL 215 LF OF PAINTED RED CURB PER CITY STD.	
(52)	INSTALL 12" WIDE WHITE CROSSWALK LIMIT LINE PER CITY STANDARDS	
(53)	INSTALL 24" YELLOW CROSSWALK STRIPING PER CITY STANDARDS	
SYMBOL	DESCRIPTION	QTY
■	NDS 900KIT 9" X 9" CATCH BASIN W/ 981 ATRIUM GRATE (BLACK) OR EQUAL	6
■	NDS 900KIT 9" X 9" CATCH BASIN W/ 913 9" SQUARE DUCTILE IRON GRATE	2
→	DIRECTIONAL SHEET FLOW	
■	NDS 900 9" X 9" CATCH BASIN W/ 990 9" SQUARE GRATE (GREEN)	2
—	CENTER LINE OF 80-INCH	
●	101ATBLKIT 6" SPEE-D BASIN W/ 6" ATRIUM GRATE (BLACK)	1
—	4" SLOD WALL PVC DRAINAGE PIPE	

NOTE: ALL WALLS TO BE BUILT TO THE CROSS PITCH UNLESS OTHERWISE NOTED.



DWR MWEL COMPLIANCE
 I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE GRADING DESIGN PLAN.

SEE SHEET SPECIFICATION SHEET 17 FOR ETWU AND MAWA CALCULATIONS



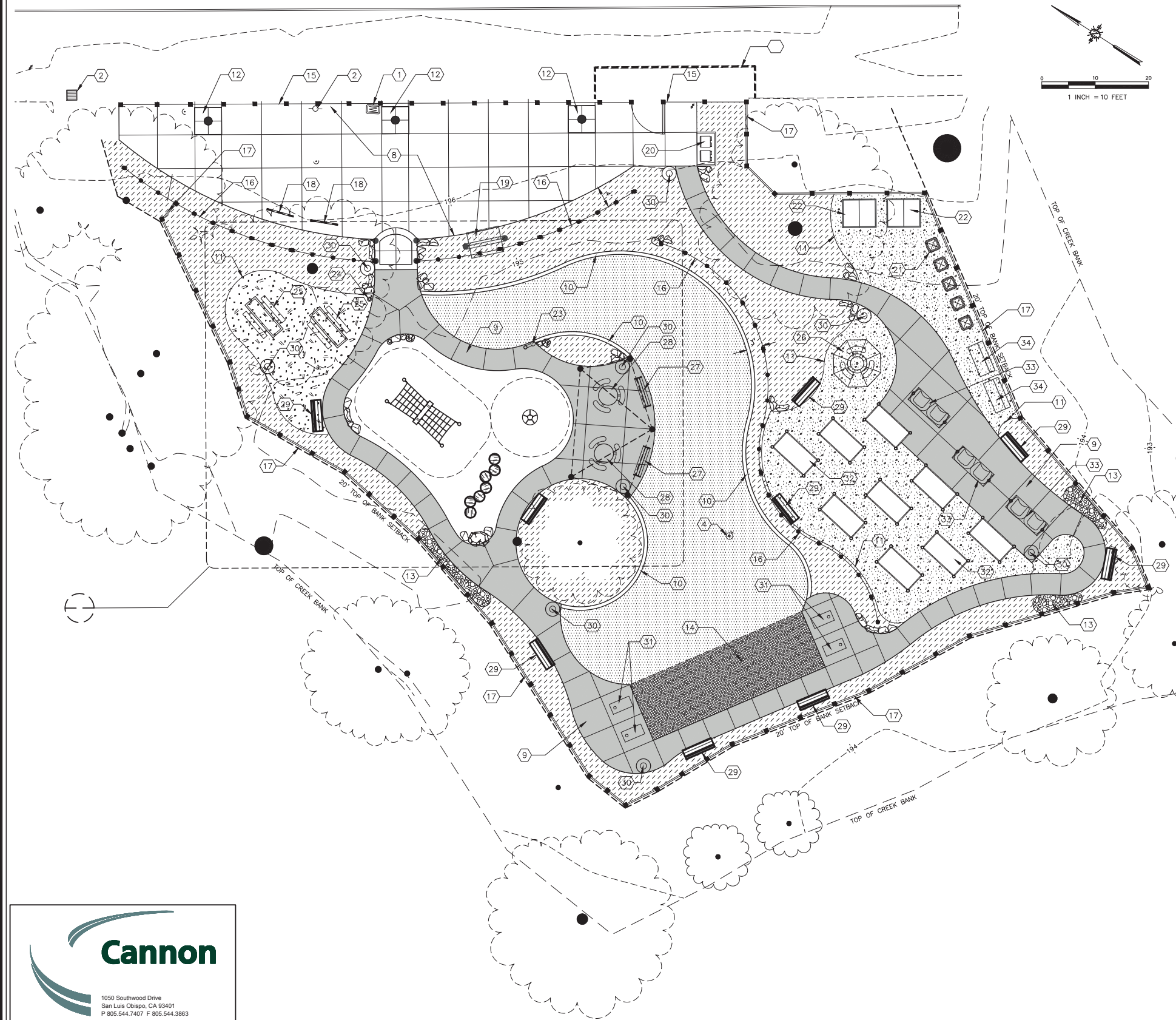
NORTH BROAD STREET NEIGHBORHOOD PARK
GRADING PLAN

PROJECT TITLE:
 SHEET TITLE:



DESIGNED BY:
 G. GLANDON
 DRAWN BY:
 G. GLANDON
 CHECKED BY:
 APPROVED BY:
 SCALE:
 DATE:
 12/30/2019
 CITY SPECIFICATION NO.
 190125
 PLAN FILE NO. / LOCATION
 SHEET NO.

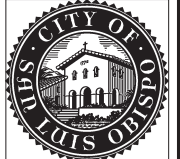
BROAD STREET



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
①	EXISTING WATER METER TO REMAIN, PROTECT IN PLACE. SEE GRADING PLAN FOR NEW FINISH GRADE ADJUSTMENTS		
②	EXISTING CATCH BASIN TO REMAIN, PROTECT IN PLACE, SEE PUBLIC IMPROVEMENT PLANS		
④	EXISTING SEWER MANHOLE TO REMAIN, SEE PUBLIC IMPROVEMENT PLANS		
⑧	6" THICK INTEGRAL COLOR CONCRETE PAVING, COLOR = MISSION RED		
⑨	2660 SF - 4" THICK CIP REINFORCED CONCRETE WALK, COLOR = NATURAL W/ MED. TO LIGHT BROOM FINISH.		
⑩	8" WIDE CONCRETE MOW CURB		
⑪	2 X 6 RECYCLE PLASTIC HEADER, STAKE AT 5' O.C. MIN.		
⑫	IRONSMTIH ADA TREE GRATE, MODEL 6090L "BOND STREET" WITH 16" OPENING PLUS LIGHT WELLS. INSTALL W/ FRAME 6000F		
⑬	4" - 6" NOYA RIVER COBBLE OVER (2) LAYERS ON NON-WOVEN GEO-TECH FABRIC		
⑭	UNILOK TURFSTONE A PERMEABLE PAVER UNITS 23.625" X 15.75" X 3.125". (100% STD. SIZING. FOR PEDESTRIAN, LIGHT & HEAVY VEHICULAR APPLICATIONS.		
⑮	42" HIGH PEDESTRIAN BARRIER FENCE & GATE EQUAL TO MERCHANTS METALS SECURE WELD PLUS FENCE SYSTEMS STYLE: MONROE 3-RAIL (BLACK)		
⑯	36" HIGH PEDESTRIAN BARRIER FENCE EQUAL TO MERCHANTS METALS SECURE-WELD FENCE SYSTEMS, MODEL: KENT 2 - RAIL, COLOR = BLACK		
⑰	6" HIGH BARRIER FENCE EQUAL TO MERCHANTS METALS SECURE-WELD PLUS FENCE SYSTEMS, MODEL: KENT 2-RAIL, COLOR= BLACK		
⑱	EQUAL TO DUMOR 125-30 BIKE LOOP RACK (7) BIKE CAPACITY, MOUNT PER MFG. RECOMMENDATIONS		
⑲	BOOK SHARE LIBRARY ROOFED KIOSK MANUF. KIT, ASSEMBLE AND INSTALL PER RECOMMENDATIONS		
⑳	TRASH & RECYCLE CITY CONTAINERS W/ FENCED ENCLOSURE		
㉑	ALGREEN SOIL SAVER COMPOST BINS OR EQUAL		
㉒	6' X 5' WOODVALE APEX ROOF METAL SHED OR EQUAL, INSTALL ON 4" X 4" PRESSURE TREATED SLEEPERS		
㉓	EQUAL TO MOST DEPENDABLE FOUNTAINS ACCESSIBLE OUTDOOR WATER FILLING STATION		
㉔	EQUAL TO ZEROWASTE "SENTRY" DOG WASTE STATION		
㉕	EQUAL TO WABASH VALLEY SIGNATURE SERIES PICNIC TABLE, 8' ADA ACCESSIBLE & PORTABLE		
㉖	EQUAL TO WABASH VALLEY CAMINO SERIES - 42" BAR HEIGHT OUTDOOR TABLE W/ CHAIRS & UMBRELLA		
㉗	EQUAL TO WABASH VALLEY BURNS HARBOR COLLECTION 6' OUTDOOR BACKLESS BENCH (NO ARMS). SURFACE MOUNT PER MFG. RECOMMENDATIONS		
㉘	EQUAL TO WABASH VALLEY CAMDEN COLLECTION 42" ROUND PATIO TABLE (4) SEATS. SURFACE MOUNT PER MFG. INST. & RECOMMENDATIONS		
㉙	EQUAL TO WABASH VALLEY ASHLEY COLLECTION 6' OUTDOOR BENCH WITH BACK & ARMS. SURFACE MOUNT PER DETAIL AND MFG. RECOMMENDATIONS		
㉚	EQUAL TO WABASH VALLEY URBANSCAPE - "A" WIDE SLATE STYLE TRASH RECEPTABLE W/ SOLID BONNET & LINER		
㉛	(4) CUSTOM PRECAST 24" X 48" CORNHOLE BOARDS EQUAL TO THOSE MANUF. BY OUTDOOR PING PONG TABLES, PORTLAND, OR.		
㉜	(9) 4' X 8' RAISED GARDEN PLANTER, SEE DETAIL XXX		
㉝	(3) CUSTOM WHEEL CHAIR ACCESSIBLE ELEVATED PLANTERS W/ POTTING PLATFORM, SEE DETAIL XXX		
㉞	EQUAL TO DURA -TREL PVC 11203M GREENFIELD POTTING BENCH QTY.(2) COLOR: MOCHA		
SYMBOL	DESCRIPTION	QTY	DETAIL
⊙	SMALL INDIGINOUS BOULDER, TYP.	1	
[Pattern]	3" THICK CLASS II AGGREGATE ROAD BASE W/ 1" LAYER OF #10 CRUSHED GRANITE OVER (2) LAYERS OF NON-WOVEN FILTER FABRIC, SEE DETAIL.	1,523 SF	
[Pattern]	3" LAYER SHREDDED CEDAR BARK MULCH OVER 95% COMPACTED SUBGRADE	484 SF	
[Pattern]	TURF AREA, SEE PLANTING PLAN	2,193 SF	
[Pattern]	PERMANENT IRRIGATED PLANTER AREA, SEE PLANTING & IRRIGATION PLANS	3,251 SF	

NOTE:
SEE SHEET 2 FOR GENERAL CONSTRUCTION NOTES



NORTH BROAD STREET NEIGHBORHOOD PARK
 CONSTRUCTION PLAN

PROJECT TITLE:
SHEET TITLE:



DESIGNED BY:
G. GLANDON

DRAWN BY:
G. GLANDON

CHECKED BY:

APPROVED BY:

SCALE:

DATE:
12/30/2019

CITY SPECIFICATION NO.
190125

PLAN FILE NO. / LOCATION

SHEET NO.

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NORTH BROAD STREET NEIGHBORHOOD PARK

PLAYGROUND AREA PLAN

PROJECT TITLE:

SHEET TITLE:



DESIGNED BY:
G. GLANDON

DRAWN BY:
G. GLANDON

CHECKED BY:

APPROVED BY:

SCALE:

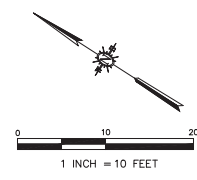
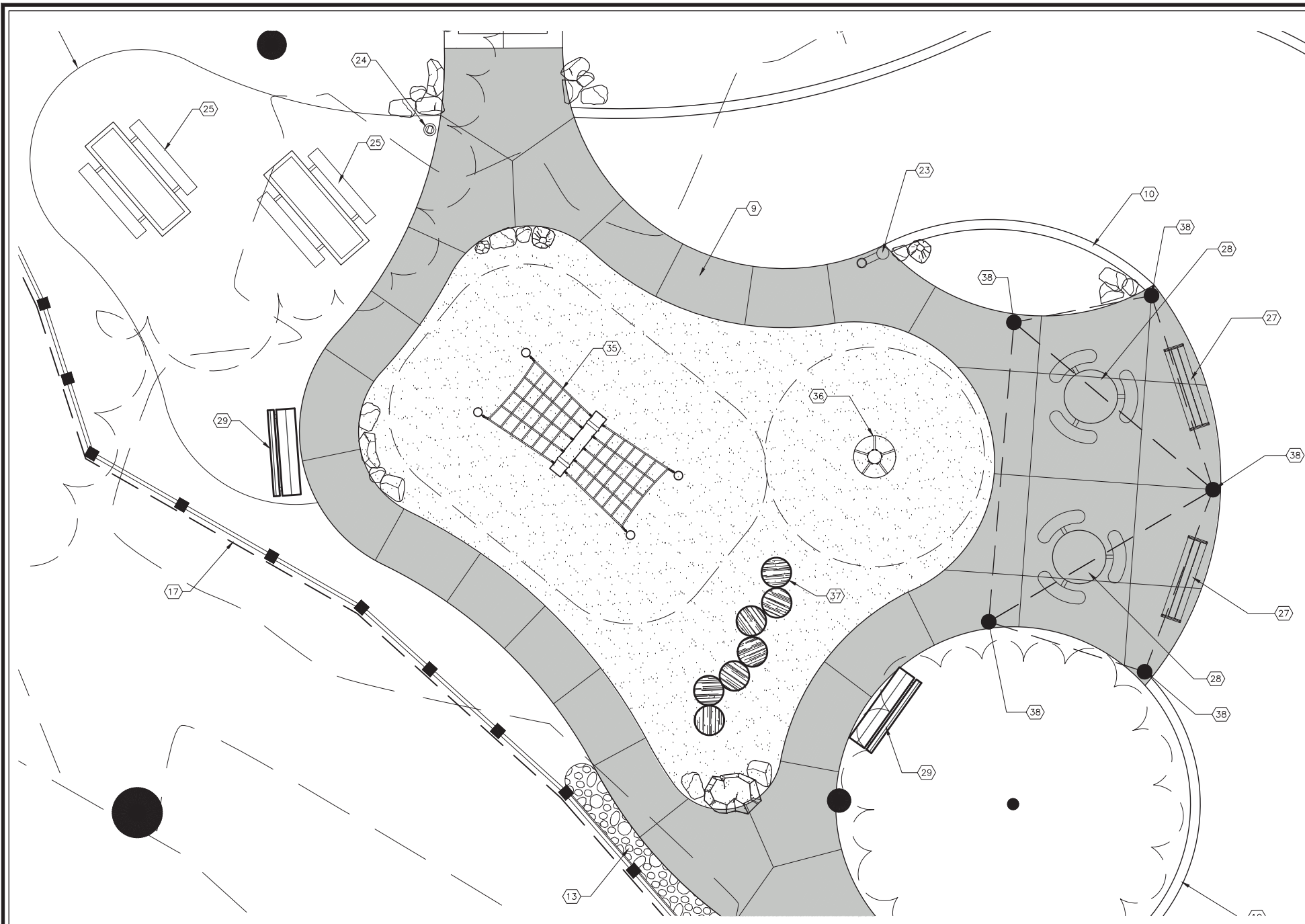
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12/30/2019

CITY SPECIFICATION NO.
190125

PLAN FILE NO. / LOCATION

SHEET NO.

SYMBOL	DESCRIPTION	QTY	DETAIL
9	2660 SF - 4" THICK CIP REINFORCED CONCRETE WALK, COLOR = NATURAL W/ MED. TO LIGHT BROOM FINISH.		
10	8" WIDE CONCRETE MOW CURB		
11	2 X 6 RECYCLE PLASTIC HEADER, STAKE AT 5' O.C. MIN.		
13	4" - 6" NOYA RIVER COBBLE OVER (2) LAYERS ON NON-WOVEN GEO-TECH FABRIC		
14	UNILOK TURFSTONE A PERMEABLE PAVER UNITS 23.625" X 15.75" X 3.125". (100% STD. SIZING. FOR PEDESTRIAN, LIGHT & HEAVY VEHICULAR APPLICATIONS.		
17	6' HIGH BARRIER FENCE EQUAL TO MERCHANTS METALS SECURE-WELD PLUS FENCE SYSTEMS, MODEL: KENT 2-RAIL, COLOR= BLACK		
23	EQUAL TO MOST DEPENDABLE FOUNTAINS ACCESSIBLE OUTDOOR WATER FILLING STATION		
24	EQUAL TO ZEROWASTE 'SENTRY' DOG WASTE STATION		
25	EQUAL TO WABASH VALLEY SIGNATURE SERIES PICNIC TABLE, 8' ADA ACCESSIBLE & PORTABLE		
27	EQUAL TO WABASH VALLEY BURNS HARBOR COLLECTION 6' OUTDOOR BACKLESS BENCH (NO ARMS). SURFACE MOUNT PER MFG. RECOMMENDATIONS		
28	EQUAL TO WABASH VALLEY CAMDEN COLLECTION 42" ROUND PATIO TABLE (4) SEATS, SURFACE MOUNT PER MFG. INST. & RECOMMENDATIONS		
29	EQUAL TO WABASH VALLEY ASHLEY COLLECTION 6' OUTDOOR BENCH WITH BACK & ARMS, SURFACE MOUNT PER DETAIL AND MFG. RECOMMENDATIONS		
35	PLAY STRUCTURE EQUAL TO TIMBERFORM ROPE NET CLIMBER MODEL# 4500-021 STANDARD COLOR CASPAX-7 POWDER COATED STEEL ATTACHEMENTS STRAPS, 11" AND 7" DIA. FREE-OF-HEART-CENTER LATHE TURNED DOUGLAS FIR POSTS, NATURAL COLOR ROPE.		
36	PLAY STRUCTURE EQUAL TO TIMBERFORM CLIMBING TREE #1679-6-41 STANDARD COLOR CASPAX-7 POWDER COATED RUNGS, 11 INCH DIA. FREE OF HEART-CENTER LATHE-TURNED PREMIUM DOUGLAS FIR POST, EMBEDMENT MOUNT.		
37	PLAY STRUCTURE EQUAL TO TIMBERFORM LATH TURNED COLUMNS #4500-014 INCLUDES: (7) EA. 11" DIA. PREMIUM F.O.H.C. DOUGLAS FIR		
38	SHADE SAIL STRUCTURE EQUAL TO SHADE-N-NET 5- COLUMN TRIANGLE SAIL SHADE, (1) 20'X20'X10' ENTRY HEIGHT (2) 20'X9-5'X10-16 ENTRY HEIGHT, HARDWARE INCLUDED, POWDER COATED FRAME PLUS ENGINEERED DRAWINGS		
SYMBOL	DESCRIPTION	QTY	DETAIL
	SMALL INDIGUNOUS BOULDER, TYP.		
SYMBOL	DESCRIPTION	QTY	DETAIL
	ENGINEERED PLAY SURFACE EQUAL TO FIBARSYSTEM 300. ENGINEERED WOOD FIBER, FIBAR-VELT, FIBAR DRAIN, FIBARMAT, FIBARGUARD PLAYGROUND BORDERS.	951 SF	



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ANTICIPATED DETAILS:

- GARDEN PLOT RAISED PLANTER DETAILS
- SHADE SAIL STRUCTURE FOUNDATION DETAILS
- FENCING DETAILS
- TABLE MOUNTING CONDITIONS DETAIL
- BENCH MOUNTING CONDITION DETAIL
- BIKE RACK INSTALLATION DETAIL
- HYDRATION STATION INSTALLATION DETAIL
- SHED FOUNDATION DETAIL
- LITTLE LIBRARY INSTALLATION DETAIL
- TURF STONE DETAIL
- PLAY EQUIPMENT INSTALLATION DETAILS
- SAFETY SURFACING/ DRAINAGE DETAILS



PROJECT TITLE:
NORTH BROAD STREET NEIGHBORHOOD PARK

SHEET TITLE:
CONSTRUCTION DETAILS



DESIGNED BY:
G. GLANDON

DRAWN BY:
G. GLANDON

CHECKED BY:

APPROVED BY:

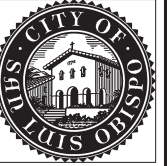
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12/30/2019

CITY SPECIFICATION NO.
190125

PLAN FILE NO. / LOCATION

SHEET NO.



NORTH BROAD STREET NEIGHBORHOOD PARK

CONSTRUCTION DETAILS

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SHEET TITLE:



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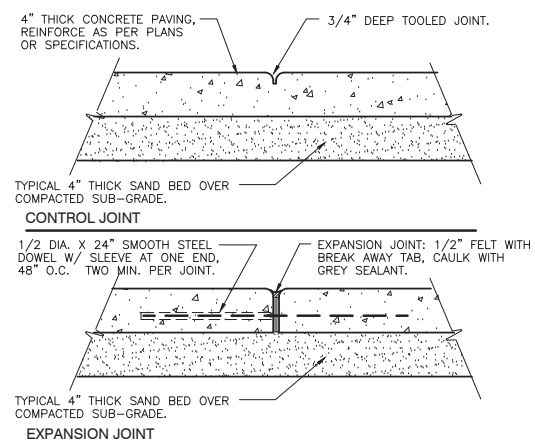
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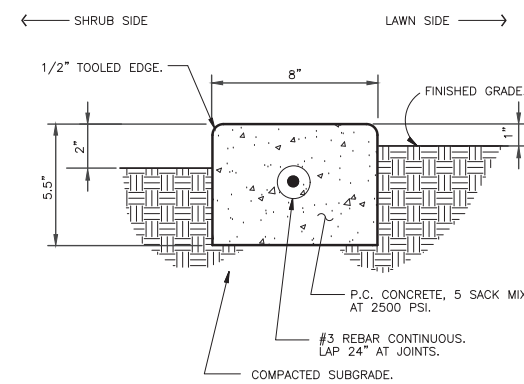
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PLAN FILE NO. / LOCATION

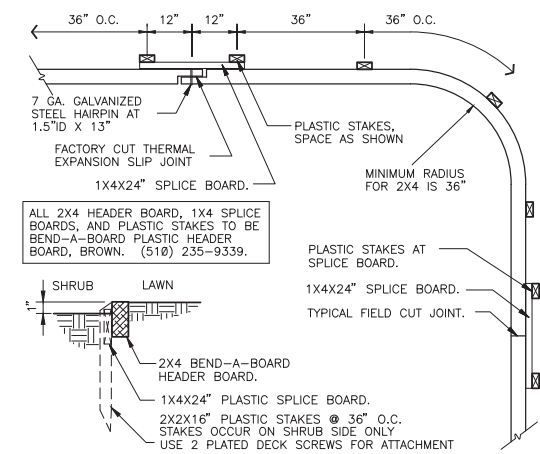
SHEET NO.



1 CONCRETE EXPANSION/CONTROL
1 1/2" = 1'-0" P-1-NBR-05



2 8" CONCRETE MOW STRIP
3" = 1'-0" P-1-NBR-13



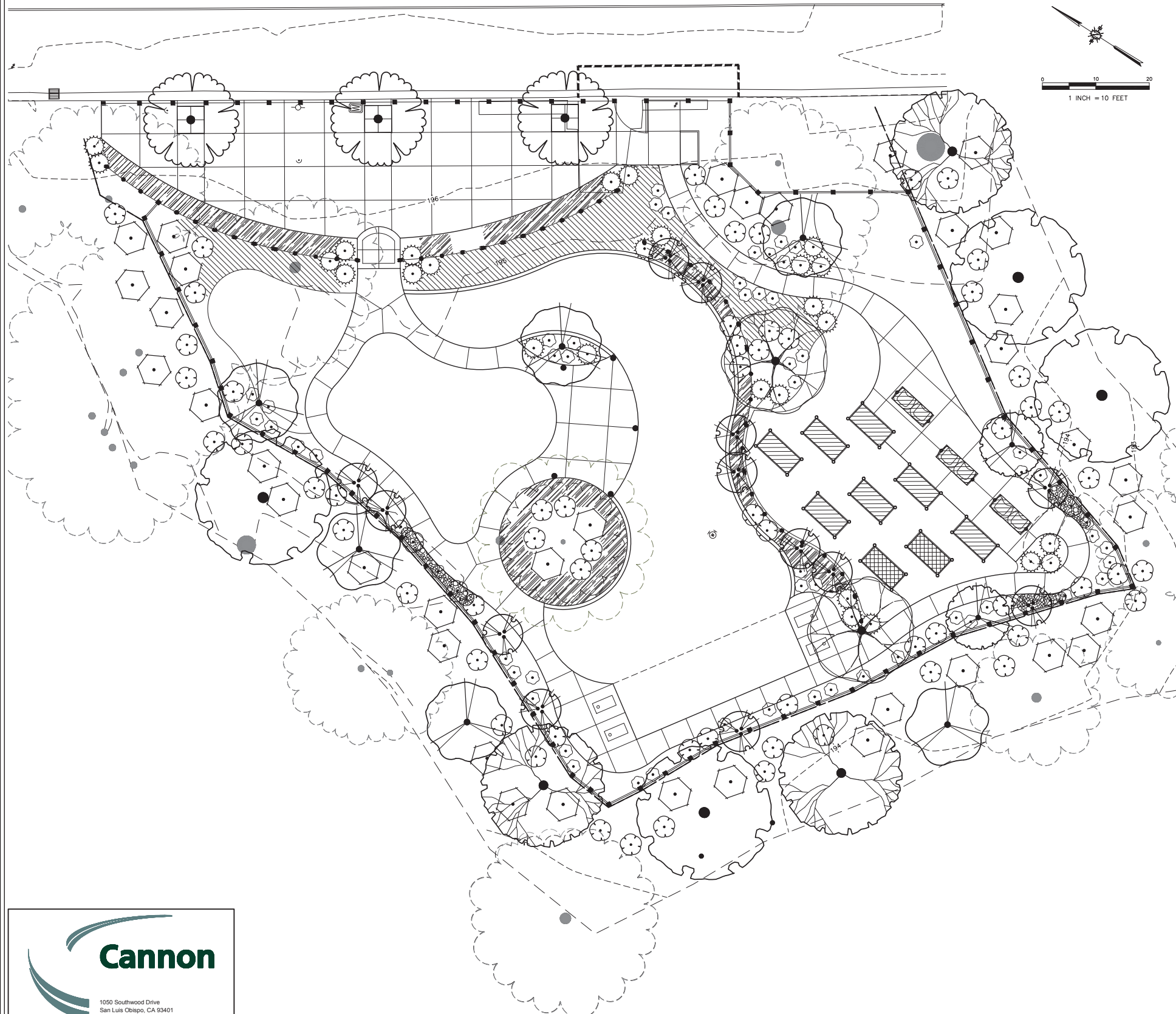
3 BEND-A-BOARD PLASTIC 2X4 EDGING
1" = 1'-0" P-1-NBR-04



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BROAD STREET



PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	SIZE	QTY
	ACER MACROPHYLLUM / BIG LEAF MAPLE	15 GAL.	3
	AESCULUS CALIFORNICA / CALIFORNIA BUCKEYE	15 GAL.	2
	ARBUTUS MENZIESII / PACIFIC MADRONE	15 GAL.	2
	CERCIS CANADENSIS 'FOREST PANSY' TM / FOREST PANSY REDBUD	15 GAL.	4
	CERCIS OCCIDENTALIS / WESTERN REDBUD MULTI-TRUNK	5 GAL.	13
	GINKGO BILOBA 'SARATOGA' / MAIDENHAIR TREE	24" BOX	3
	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE	15 GAL.	2
	QUERCUS AGRIFOLIA / COAST LIVE OAK	15 GAL.	4

CONCEPT PLANT SCHEDULE

- 18" - 30" NATIVE SHRUB
ACHILLEA X 'MOONSHINE' / MOONSHINE YARROW
CORREA SCHLEICHTENDALII
ERIGERON KARVINSKIANUS 'PROFUSION' / SANTA BARBARA DAISY
PENSTEMON X 'FIREBIRD' / FIREBIRD BEARDTONGUE
SALVIA GREGGII 'NAVAJO BRIGHT RED' / AUTUMN SAGE
- 2' - 4' UPRIGHT TEXTURAL / FLOWERING ACCENT SHRUB
ANIGONANTHOS X 'BUSH SUNSET' / RED KANGAROO PAW
CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS
DIETES BICOLOR / FORTNIGHT LILY
PHORMIUM X 'JESTER' / VARIEGATED MOUNTAIN FLAX
- 3' - 4' NATIVE SHRUB
ISOMERIS ARBorea / BLADDERPOD
MIMULUS AURANTIACUS / STICKY MONKEY FLOWER
RIBES AUREUM / GOLDEN CURRANT
RIBES VIBURNIFOLIUM / EVERGREEN CURRANT
- 4' - 6' NATIVE SHRUB
CARPENTERIA CALIFORNICA / BUSH ANEMONE
CEANOETHUS X 'JULIA PHELPS' / CALIFORNIA LILAC
FREMONTODENDRON X 'CALIFORNIA GLORY' / CALIFORNIA GLORY FLANNEL BUSH
RHUS INTEGRIFOLIA / LEMONADE BERRY
ROMNEYA COULTERI / MATILIA POPPY
- FULL SUN VEGETABLES / HERBAL PLOT
- SEMI-SHADED VEGETABLE / HERBAL PLOT
- 6" TO 18" PERENNIAL / NATIVE GRASS MIX
ABUTILON PALMERI / INDIAN MALLOW
CAREX PRAEGRACILIS / SLENDER SEDGE
ELYMUS GLAUCUS / BLUE WILDRYE
MUHLENBERGIA RIGENS / DEER GRASS
- 12" TO 24" NATIVE SPRAWLING GROUND COVER
ARCTOSTAPHYLOS X 'EMERALD CARPET' / EMERALD CARPET MANZANITA
CEANOETHUS GRISEUS HORIZONTALIS 'YANKEE POINT' / CALIFORNIA LILAC
COTONEASTER DAMMERI 'LOWFAST' / LOWFAST BARBERRY
COTONEASTER MYOPORUM PARVIFOLIUM / TRAILING MYOPORUM



PROJECT TITLE: NORTH BROAD STREET NEIGHBORHOOD PARK
 SHEET TITLE: LANDSCAPE PLANTING PLAN



DESIGNED BY: G. GLANDON
 DRAWN BY: G. GLANDON
 CHECKED BY:
 APPROVED BY:
 SCALE:
 DATE: 12/30/2019
 CITY SPECIFICATION NO.: 190125
 PLAN FILE NO. / LOCATION:
 SHEET NO.:

DWR MWELO COMPLIANCE
 I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

SEE SPECIFICATION SHEET 18 FOR ETWU AND MAWA CALCULATIONS

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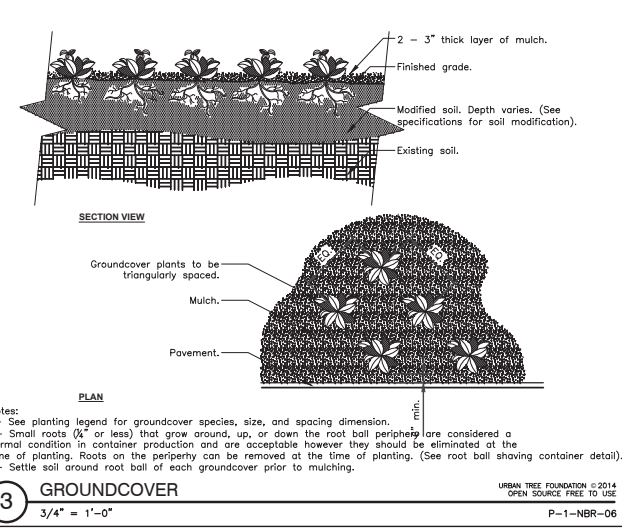
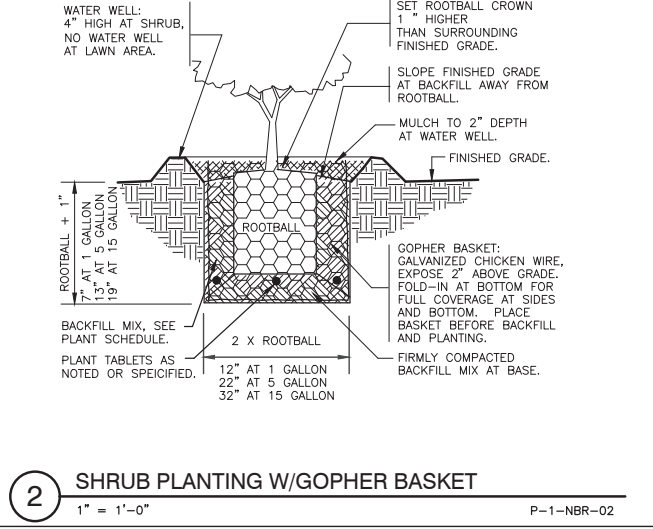
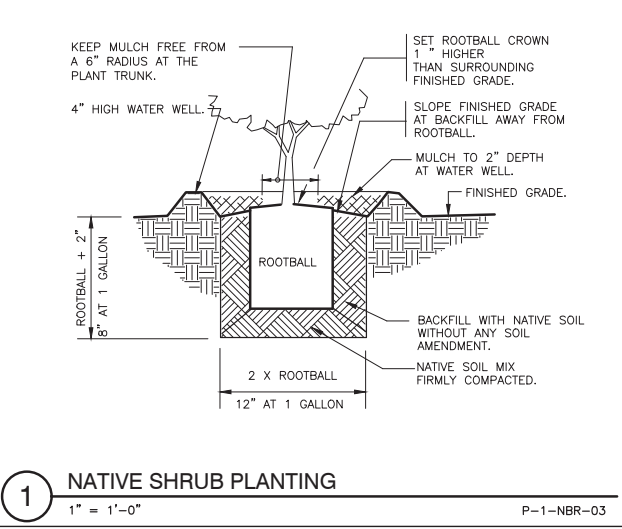
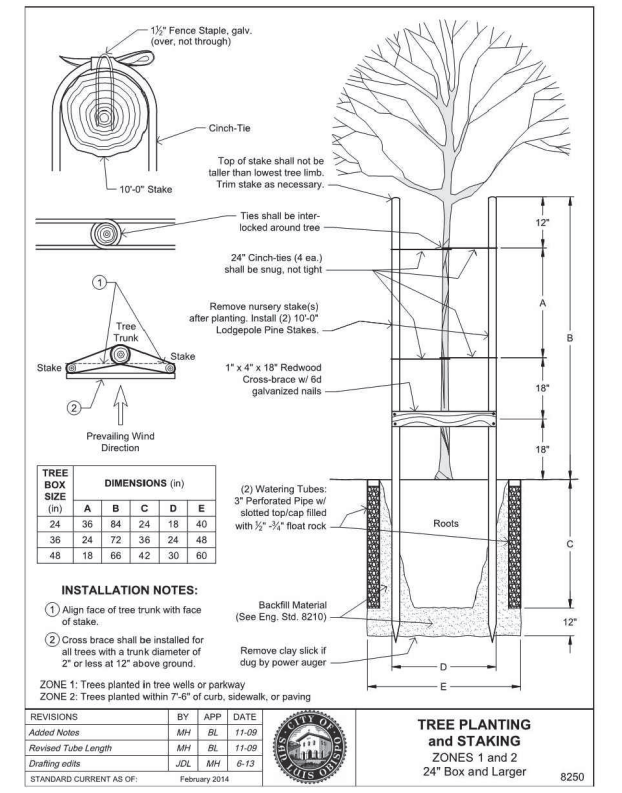
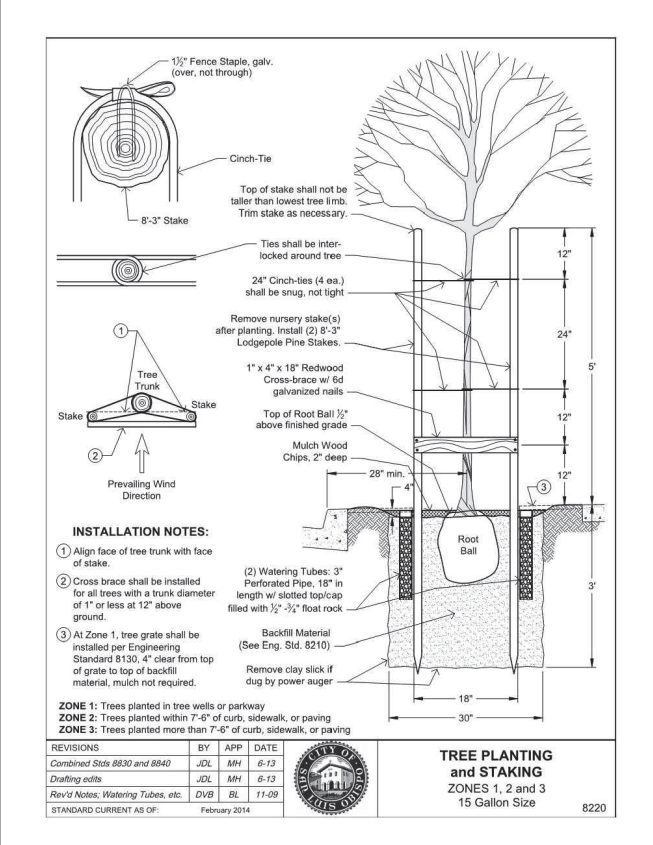
NORTH BROAD STREET NEIGHBORHOOD PARK

PLANTING DETAILS

PROJECT TITLE:
SHEET TITLE:



DESIGNED BY:
G. GLANDON
DRAWN BY:
G. GLANDON
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CITY SPECIFICATION NO.
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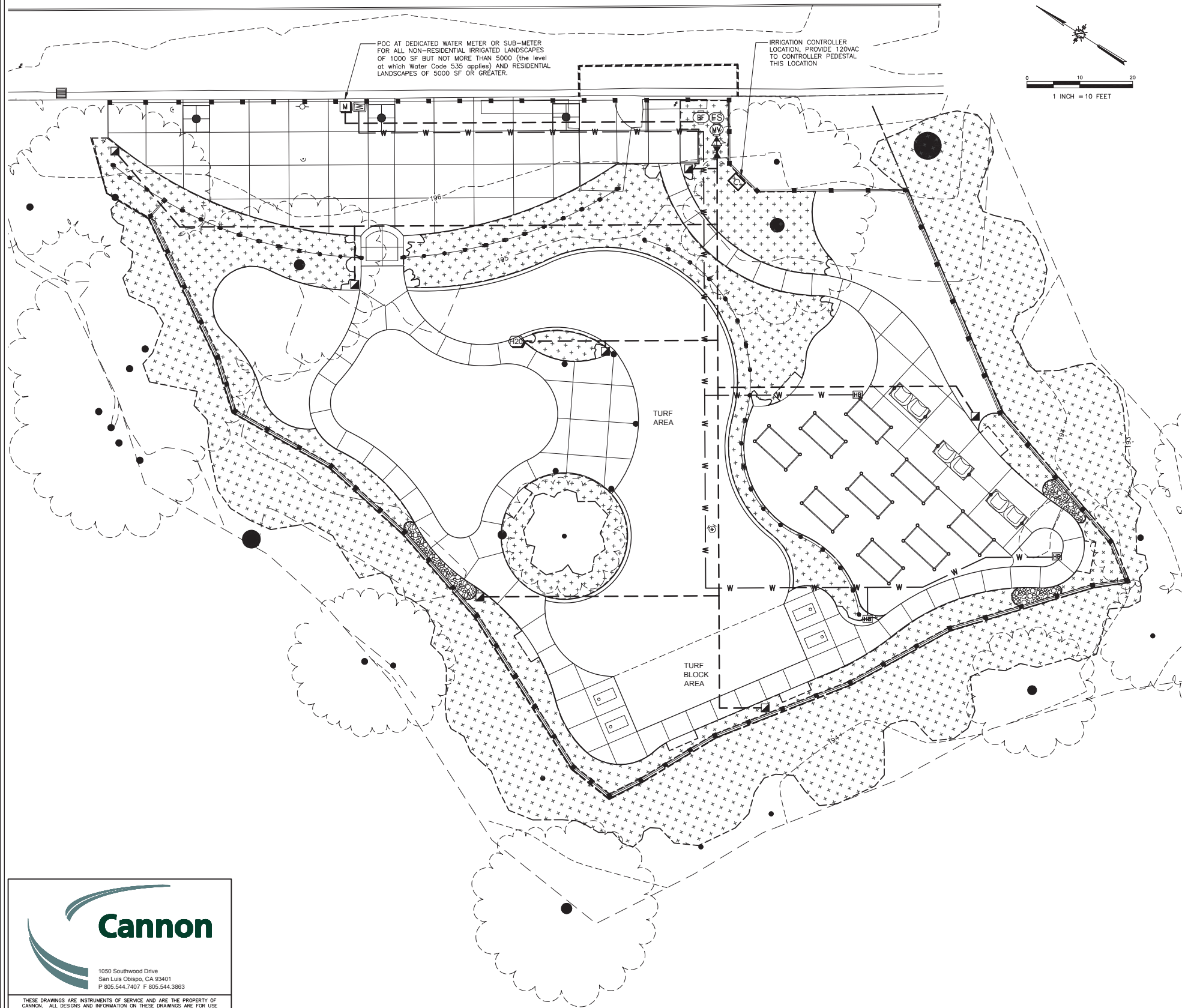
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BROAD STREET



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
[Star Pattern]	AREA TO RECEIVE DRIP EMITTERS NETAFIM SPCV SINGLE OUTLET PRESSURE COMPENSATING DRIP EMITTER, 1.5PSI INTERNAL CHECK VALVE, WITH SELF-PIERCING BARB. BLUE= 0.5GPH, BLACK= 1.0GPH, RED= 2.0GPH. Emitter Notes: 0.5 GPH emitters (1 assigned to each 1 GAL. plant) 2.0 GPH emitters (2 assigned to each 15 GAL. plant) 0.5 GPH emitters (1 assigned to each 4 INCH plant) 2.0 GPH emitters (1 assigned to each 5 GAL. plant)	7,509 S.F.	
[Square]	RAIN BIRD 44-LRC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	7	
[Hexagon]	MATCO-NORCA 203F 3/4" BRASS INVERTED NOSE GARDEN VALVE HOSE BIBB. FEMALE INLET. SAME SIZE AS MAINLINE PIPE.	3	
[X]	MATCO-NORCA 759 BRASS SHUT OFF BALL VALVE, 1/2" TO 4". TWO PIECE BODY. BLOW-OUT PROOF STEM, CHROME PLATED SOLID BRASS BALL, THREADED, WITH PTFE SEATS. SAME SIZE AS MAINLINE PIPE.	1	
[Circle with M]	HUNTER ICV-G 1-1/2" 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	1	
[Triangle]	PRESSURE REDUCING VALVE	1	
[Circle with BF]	FERCO 825Y 1-1/2" REDUCED PRESSURE BACKFLOW PREVENTER	1	
[Square with C]	CALSENSE CONTROLLER CS 3000 CS3 - 16 STATION CONTROLLER, S1 - STAINLESS STEEL PEDESTAL, LR - LOCAL RADIO, RR - SMART PHONE REMOTE W/ ETGE - ET GAUGE W/ STAINLESS STEEL ENCLOSURE, RB -1 RAIN BUCKET, CS3 - FLOWSENSE, LR-STICK - 3 - 450 (W/ ANTENNA CABLE), TP-110 (AC LINE PROTECTION), CS3-W-KIT (WEATHER CARD & TERMINAL BOARD FOR RB-1 & ETGE GAUGE), CS3-POC-KIT (POC TERMINAL CARD MASTER VALVE & FLOW METER)	1	
[Circle with H2O]	HYDRATION-FILLING STATION HC ACCESSIBLE WATER FOUNTAIN PLUS BOTTLE FILLING STATION.	1	
[Dashed Line]	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP Valve Callout Valve Number Valve Flow Valve Size	458.6 L.F.	
[Line with W]	1" POTABLE DOMESTIC WATER LINE		



NORTH BROAD STREET NEIGHBORHOOD PARK
IRRIGATION PLAN

PROJECT TITLE:
SHEET TITLE:



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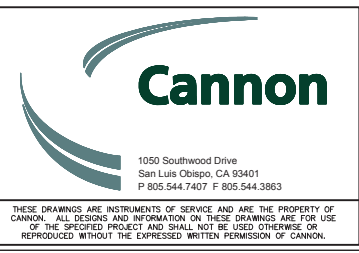
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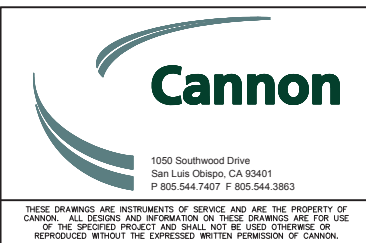
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SEE SPECIFICATION SHEET 18 FOR ETWU AND MAWA CALCULATIONS



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IRRIGATION NOTES

1. SEE SHEET L2 FOR GENERAL NOTES.
2. ALL WORK IN OR ADJACENT TO MITIGATION AREAS OR TREE PROTECTION ZONE TO BE PERFORMED IN CONFORMANCE WITH THE HABITAT MITIGATION AND MONITORING PLAN PREPARED FOR THE PROJECT BY ALTHOUSE AND MEADE.
3. MITIGATION AREA AND OPEN SPACE AREA LANDSCAPES SHARE MAINLINES IN SOME PLACES. HOWEVER, THE SYSTEM IS DESIGNED TO ALLOW PHASED CONSTRUCTION, SO THAT THE MITIGATION AREA IRRIGATION CAN BE CONSTRUCTED AS SOON AS THE AREA IS PREPARED, WHICH MAY BE BEFORE THE OPEN SPACE AND OTHER AREAS OF THE SITE ARE READY.
4. IRRIGATION PLAN, EQUIPMENT LOCATIONS ARE DIAGRAMMATIC AND SHALL BE ADJUSTED AS NECESSARY TO ACCOMMODATE ACTUAL FIELD CONDITIONS. MAIN LINES, LATERAL LINES, VALVES AND SPRINKLER HEAD LOCATIONS ARE TO BE ADJUSTED TO ACCOMMODATE PAVEMENTS, CURBS, UTILITIES, LIGHT POLES, ELECTRICAL VAULTS, AND OTHER SITE STRUCTURES AND FURNISHINGS. ANY DISCREPANCIES, OMISSIONS, ERRORS, ETC. ON THESE DRAWINGS OR ON SITE CHANGES, SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PROVIDE A COMPLETE IRRIGATION SYSTEM.
5. THE CONTRACTOR SHALL VERIFY THE ON-SITE STATIC WATER PRESSURES IN RELATION TO THE STATED AVAILABLE WATER PRESSURE ON THE PLANS PRIOR TO CONSTRUCTION. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IF THE ACTUAL ON-SITE WATER PRESSURE IS LESS THAN NOTED ON THE PLANS.
6. MAINLINE / FEEDER-LINE BETWEEN POC, METER AND BACKFLOW PREVENTER SHALL BE OF MATERIAL AS REQUIRED BY CITY OF SAN LUIS OBISPO.
7. WHERE IRRIGATION LINES CANNOT BE LOCATED WITHIN PUBLIC LANDSCAPE AREAS, LOCATE ADJACENT TO BACK OF CURB. IRRIGATION LINES SHALL NOT ENCRDACH INTO PRIVATE PARCELS.
8. PRIOR TO BACKFILLING IRRIGATION TRENCHES, ALL MAINLINE SHALL BE CAPPED AND PRESSURE TESTED AT 125 PSI. FOR A PERIOD OF FOUR HOURS. ALL LATERAL LINES SHALL BE PRESSURE TESTED AT DESIGN PRESSURE FOR A MIN. OF ONE HOUR. ANY LEAKS FOUND SHALL BE CORRECTED BY REMOVING THE LEAKING PIPE OR FITTINGS AND INSTALLING NEW MATERIAL IN ITS PLACE.
9. UNLESS OTHERWISE INDICATED, 120 VOLT ELECTRICAL METERS FOR CONTROLLERS SHALL BE PROVIDED BY CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HOOK-UPS FROM THE ELECTRICAL METER TO THE CONTROLLER.
10. THE CONTRACTOR SHALL INCLUDE STUB-OUT OF (1) VALVE CONTROL WIRE (OR AS SHOWN ON IRRIGATION PLANS) AND (1) ONE COMMON WIRE FROM THE CONTROLLER FOR EACH MAINLINE BRANCH (RUN). THE SPARE WIRES SHALL BE PLACED INSIDE THE CONTROL BOX OF THE FARTHERMOST VALVE BOX AT THE END OF EACH MAINLINE RUN.
11. ALL TRENCHING AND CONDUIT RUNS SHALL CROSS UTILITY EASEMENTS AT PERPENDICULAR (90 DEGREE) ANGLE TO LENGTH OF UTILITY EASEMENT.
12. CONTRACTOR SHALL PROVIDE IRRIGATION AS-BUILTS (24" x 36" SHEETS). COPIES MUST BE LAMINATED AND KEPT INSIDE CONTROLLER BOX.
13. INSTALLATION THE CENTRAL CONTROLLER SHALL BE INSTALLED PER THE MANUFACTURES SPECIFICATIONS AND INSTRUCTIONS. RADIO COMMUNICATION SET-UP FOR CONTROLLER SHALL BE COORDINATED WITH OWNER OR OWNER'S REPRESENTATIVE.
14. ALL CONTROLLER AND VALVE WIRE SPLICES SHALL BE MADE USING APPROVED WATERTIGHT CONNECTORS PER THE SPECIFICATIONS.
15. CONTRACTOR SHALL PROVIDE SLEEVES FOR MAINLINE, LATERAL LINE & CONTROL WIRES UNDER ALL PAVING PER SPECIFICATIONS. ALL SLEEVES UNDER PAVING SHALL RECEIVE IDENTIFYING MARK ON TOP OF CONCRETE. EXTEND ALL SLEEVES 18" BEYOND EDGE OF PAVING
16. WHERE MORE THAN ONE PIPE IS SHOWN IN THE SAME TRENCH, PIPE SHALL BE SEPARATED BY 6" HORIZONTAL SEPARATION.
17. ALL RECLAIMED WATER PIPE SHALL BE COLORED PURPLE.
18. LANDSCAPE CONTRACTOR SHALL PROVIDE OWNER WITH (2) QUICK COUPLER KEYS AT FINAL ACCEPTANCE (INSTALLATION), PRIOR TO THE START OF THE MAINTENANCE PERIOD.
19. AFTER FINAL ACCEPTANCE AN IRRIGATION AUDIT SHALL BE CONDUCTED BY A CERTIFIED IRRIGATION AUDITOR AND FINDINGS STATED IN A REPORT, AND PROVIDED TO THE LAND. ARCH. AND OWNER.
20. EACH DRIP BRANCH SHALL INCLUDE A FLUSH CAP ASSEMBLY PER DETAILS.
21. ANY IRRIGATION LINE CROSSING PUBLIC STREETS SHALL HAVE 4' MIN. COVER.
22. PUBLICLY MAINTAINED IRRIGATED AREAS SHALL ABIDE BY THE MOST RECENT VERSION OF THE CITY OF SAN LUIS OBISPO'S STANDARD SPECIFICATIONS & ENGINEERING STANDARDS, AND THE PROCEDURES FOR RECYCLED WATER USE.



PROJECT TITLE: NORTH BROAD STREET NEIGHBORHOOD PARK

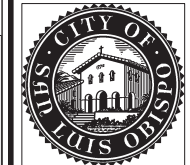
SHEET TITLE: IRRIGATION NOTES & SCHEDULES

PROJECT TITLE:

SHEET TITLE:



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 APPROVED BY:
 SCALE:
 DATE: 12/30/2019
 CITY SPECIFICATION NO. 190125
 PLAN FILE NO. / LOCATION
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NORTH BROAD STREET NEIGHBORHOOD PARK

IRRIGATION DETAILS

PROJECT TITLE:

SHEET TITLE:



DESIGNED BY: G. GLANDON

DRAWN BY: G. GLANDON

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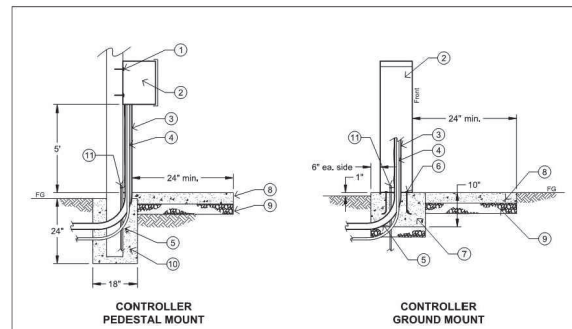
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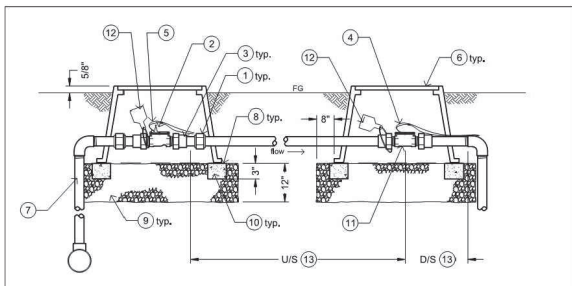
16 of 17



GENERAL NOTES:
A. All exposed conduit shall be Schedule 80.
B. Install Controller and Telemetry equipment required for the site as specified by the City Parks Maintenance Division.
C. Attach Recycled Water adhesive warning decal per Engineering Standard 8810 to inside and outside of cabinet door when used to control recycled water.

- NOTES:
1 3/4" x 4" Lag Bolts. Connect to building wall or, where wall is not available, mount to 4" x 6" Pressure Treated Douglas Fir post.
2 Controller / Stainless Steel Enclosure
3 2" PVC Conduit w/ Irrigation Control Wires
4 3/4" PVC Conduit w/ 120 volt Power Source
5 PVC Sweep Ells for Conduit
6 3/2" - 1/2" Anchor Bolts
7 Class 3 PCC Footing
8 4" Class 3 PCC Pad
9 4" Class 2 Aggregate Base
10 Class 3 PCC Post Footing when Post Mount is used
11 Ground Rod

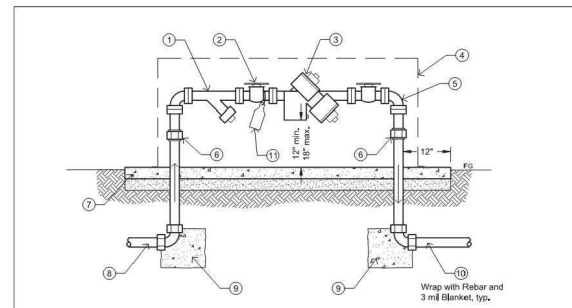
Table with columns: REVISIONS, BY, APP, DATE. Includes revision history for Irrigation Controller.



GENERAL NOTES:
A. Locate valves in shrub areas whenever possible.
B. Valve boxes shall be a maximum of 12" from walkways or curbs.
C. Valve boxes shall be set parallel to walkways or curbs.
D. Flow meter size and pipe size must be equal.
E. No splices are allowed in wiring except at connectors shown (in box).

- INSTALLATION NOTES:
1 PVC Union
2 Master Valve - normally open
3 PVC Male Adapter
4 Flow Sensor Specialized Shielded Cable (EV-CAB-SEN) (1-Flow Meter, 1-Common) - Maximum distance between meter and controller is 2000' -
5 14 gauge Master Valve Controller Wires (1-Valve, 1-Common)
6 Plastic Valve Box with bolt-down lid. Bolts to be stainless steel. Carson Industries 1419-3B (Purple) for Recycled Water Valves up to 2" Carson Industries 1324-3B (Purple) for Recycled Water Valve 2 1/2" and larger
7 Irrigation Pressure Mainline
8 Galvanized Cloth set under box - 1/2" Grid
9 Gravel - 3/4" to 1 1/2" in size
10 Cement Blocks or Brick continuous for box support
11 Flow Sensor - RainMaster
12 Attach Recycled Water Warning Tab per Engineering Standard 8810 when used in recycled water system.
13 UIS distance equals ten (10) times the Flow Meter size.
D/S distance equals five (5) times the Flow Meter size.

Table with columns: REVISIONS, BY, APP, DATE. Includes revision history for Master Valve & Flow Sensor.

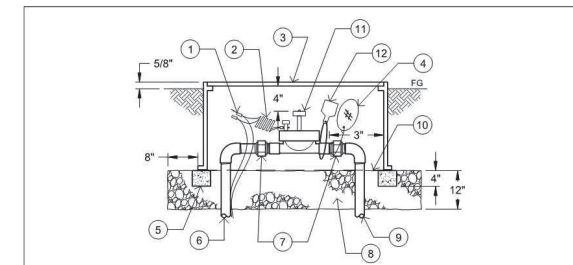


GENERAL NOTES:
A. All pipe shall be schedule copper or brass unless otherwise specified.
B. Dissimilar metals shall be separated by an approved dielectric coupling.
C. Service assembly shall be installed as the first assembly after the meter.
D. Device shall be located within 10' of water meter and no connection or tees are allowed between the meter and the assembly.

- INSTALLATION NOTES:
1 WYE STRAINER: Barrel position 45° from horizontal for below ground installations
2 BALL VALVE: Brass
3 FOR POTABLE SERVICE: Backflow Assembly (reduced pressure type), FEBCO/WILKINS FOR RECYCLED SERVICE: Pressure Regulator. Where there is no backflow assembly, place wye strainer and regulator in paired boxes installed per Engineering Standard 8550.
4 LOCKING ENCLOSURE: Secure to pad per manufacturer's direction. Enclosure shall not be field-painted. All coatings shall be completed by manufacturer. Model: Strongbox #SBBBC Series, expanded metal, dark green powder-coated, low profile, smooth touch, vandal resistant
5 ELBOW
6 UNION: Brass
7 CONCRETE PAD: Class 3, 60" x 24" x 4" on 14" Class 3 Base, with 2% cross-slope for drainage
8 SUPPLY LINE
9 THRUST BLOCK
10 IRRIGATION PRESSURE LINE
11 RECYCLED WATER WARNING TAG: Attach per Engineering Standard 8810 when used for recycled water.

BACKFLOW DEVICES SHALL BE INSPECTED BY THE LOCAL DEPARTMENT OF HEALTH SERVICES AND THE CITY OF SAN LUIS OBISPO UTILITIES DEPARTMENT

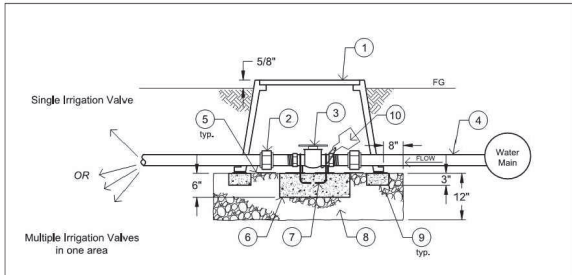
Table with columns: REVISIONS, BY, APP, DATE. Includes revision history for Irrigation Service Assembly.



GENERAL NOTES:
A. Locate valves in shrub areas whenever possible.
B. Valve boxes shall be a maximum of 12" from walkways or curbs.
C. Valve boxes shall be set parallel to walkways or curbs.
D. One valve per box.

- INSTALLATION NOTES:
1 Connector: King One Step Model 70-566 30 Volt Rain Bird Snapfit with sealer #ST-03 Grey PT-S5
2 14 gauge Direct Burial Wire with 12" expansion coil (1-Valve, 1-common)
3 Plastic Valve Box with bolt-down lid. Bolts to be stainless steel. Carson Industries 1419-3B (purple) for Recycled Water Valves up to 2" Carson Industries 1324-3B (purple) for Recycled Water Valves 2 1/2" and larger
4 2" diameter aluminum or plastic Valve Tag, attach with non-ferrous wire, engrave with valve station number.
5 Cement Block (4 total) under each box corner
6 Irrigation Lateral Line
7 PVC Union
8 Gravel - 3/4" to 1 1/2" in size
9 Irrigation Pressure Line
10 Galvanized Cloth set under box - 1/2" grid
11 Control Valve: Inrtrol 100 Series
12 Attach Recycled Water Warning Tag per Engineering Standard 8810 when used for recycled water.

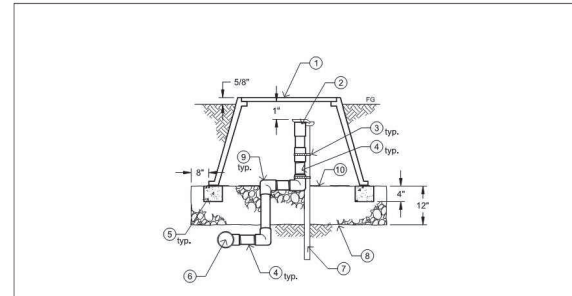
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GENERAL NOTES:
A. Isolation valves shall be installed for all irrigation valves.
B. Locate valves in shrub areas whenever possible.
C. Valve boxes shall be a maximum of 12" from walkways or curbs.
D. Valve boxes shall be set parallel to walkways or curbs.
E. Valve size and pipe size must be equal.

- INSTALLATION NOTES:
1 Plastic Valve Box with bolt-down lid. Bolts to be stainless steel. Carson Industries 1419-3B (purple) for Recycled Water Valves up to 2" Carson Industries 1324-3B (purple) for Recycled Water Valve 2 1/2" and larger
2 PVC Union
3 Brass Ball Valve
4 Schedule 40 Pressure Line
5 Galvanized Cloth set under box: 1/2" grid
6 Concrete block below valve, extending 6" beyond outside dimensions of valve
7 #10 Reinforcing Bar looped over valve - Only for valves 2 1/2" and larger
8 Gravel: 3/4" to 1 1/2" in size
9 Cement Blocks or Brick continuous for box support
10 Attach Recycled Water Warning Tag per Engineering Standard 8610 when used for recycled water.

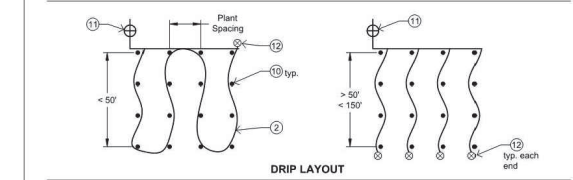
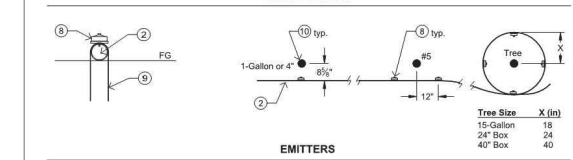
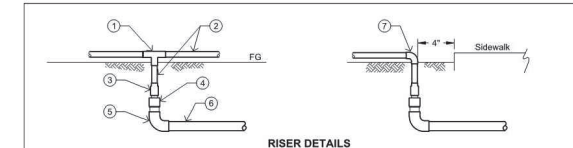
Table with columns: REVISIONS, BY, APP, DATE. Includes revision history for Isolation Valve.



GENERAL NOTES:
A. Locate valves in shrub areas whenever possible.
B. Valve boxes shall be a maximum of 12" from walkways or curbs.
C. Valve boxes shall be set parallel to walkways or curbs.
D. One valve per box.
E. Areas where recycled water may be used shall have purple box covers.
F. Pipe shall be Schedule 40 PVC unless otherwise noted.

- INSTALLATION NOTES:
1 Round Plastic Valve Box: Carson #910-12B
2 Quick Coupler Valve: Rain Bird #44, use #44NP for Recycled Water
3 Stainless Steel Clamp
4 Schedule 80 Nipple
5 Cement Block (4 total) under each box corner when box is located in turf area
6 Tee connected to irrigation pressure line
7 1/2" x 1" x 30" Angle Iron
8 Gravel: 3/4" to 1 1/2" in size
9 Schedule 80 EI
10 Galvanized Cloth set under box, 1/2" grid

Table with columns: REVISIONS, BY, APP, DATE. Includes revision history for Quick Coupler Valve and Box.



GENERAL NOTES:
A. Lateral lines shall be class 200 unless otherwise noted.
B. All drip irrigation lines and emitters shall be installed below mulch layer.
C. Total length of drip tubing not to exceed 150'.
D. Ends of drip tube shall be no more than 3' from edge of hardscape in valve box as shown.
E. In areas where recycled water will or could be used, all tubing shall be purple for use with recycled water.

- INSTALLATION NOTES:
1 Drip Tee
2 Drip Tubing - 3/4"
3 Drip Thread / Slip Adapter
4 PVC Slip / Thread Adapter
5 PVC El
6 PVC Irrigation Lateral Line - 3/4"
7 Drip EI
8 Emitters - Pressure compensating, Self-flushing
9 12" Staple @ 5' O.C. - Soil Saver
10 Center of Plant
11 Pressure Line Valve
12 Manual Flush Valve

Table with columns: REVISIONS, BY, APP, DATE. Includes revision history for Drip Irrigation.

Cannon logo and contact information: 1050 Southwood Drive, San Luis Obispo, CA 93401, P 805.544.7407 F 805.544.3863

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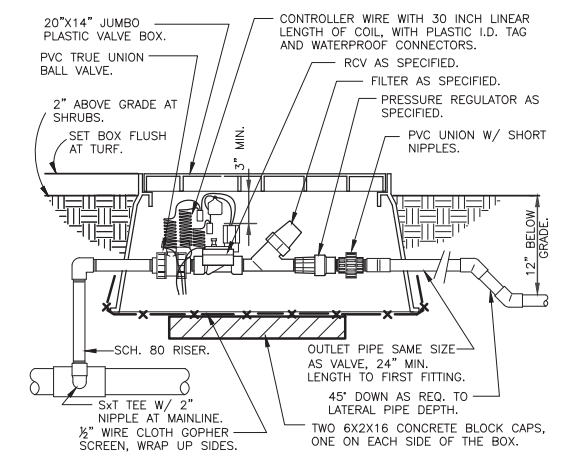
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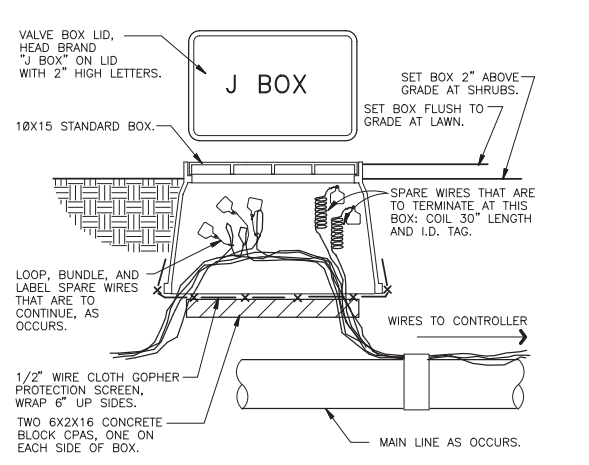
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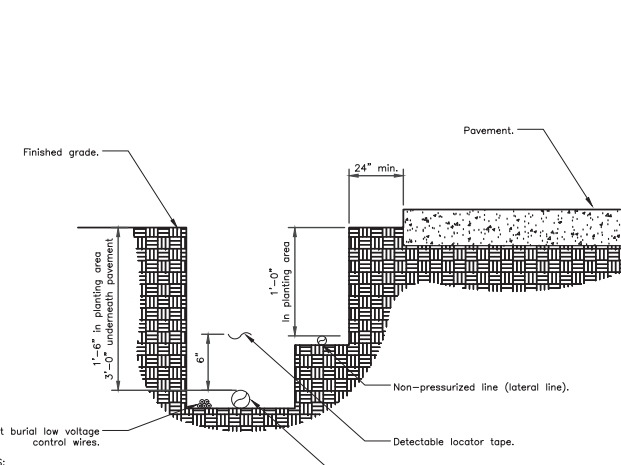
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CITY SPECIFICATION NO.
190125
PLAN FILE NO. / LOCATION
SHEET NO.



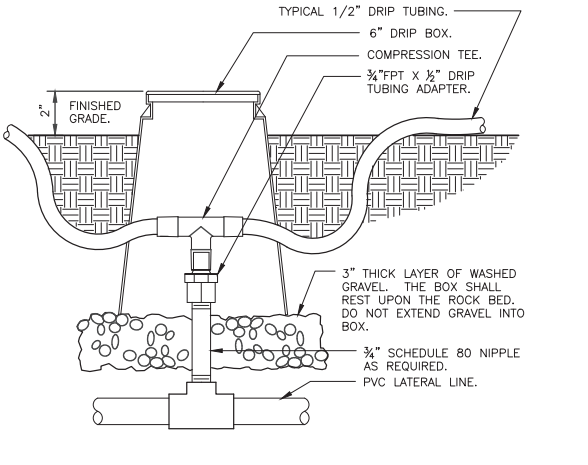
1 3/4" DRIP VALVE/FILTER/REGULATOR
1 1/2" = 1'-0" P-1-NBR-12



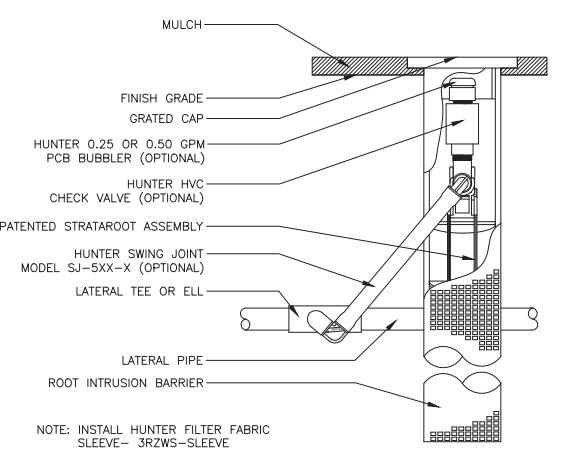
2 WIRE BUNDLE JUNCTION BOX
1 1/2" = 1'-0" P-1-NBR-10



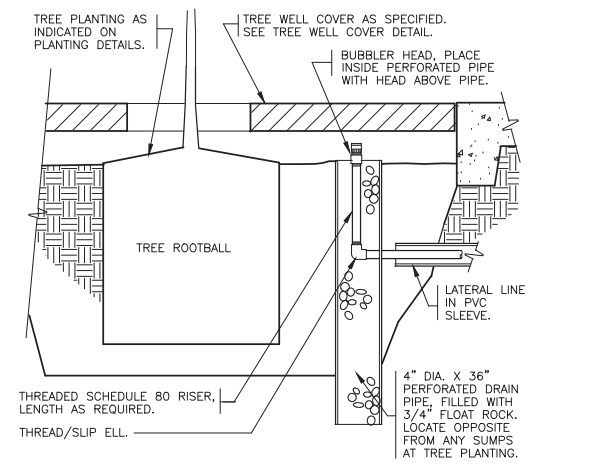
3 IRRIGATION TRENCHING
1 1/2" = 1'-0" P-1-NBR-09



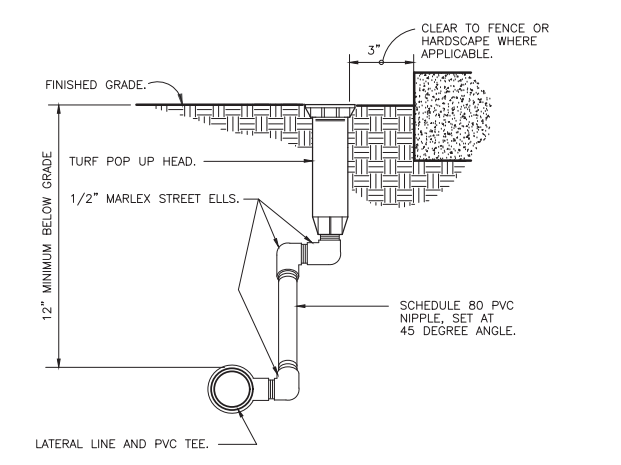
4 ZONE CONTROL
3" = 1'-0" P-1-NBR-16



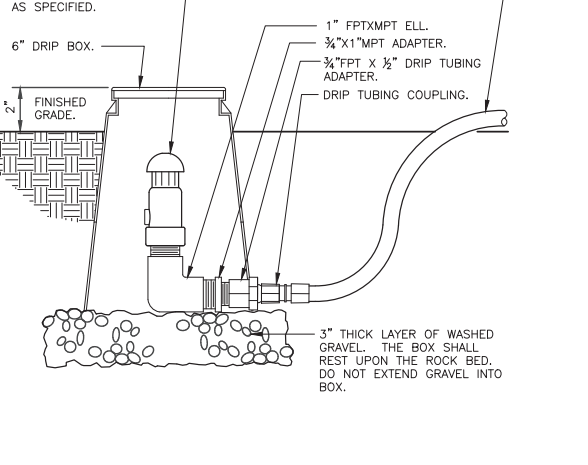
5 18" AND 36" ROOT ZONE WATERING SYSTEM
3" = 1'-0" P-1-NBR-17



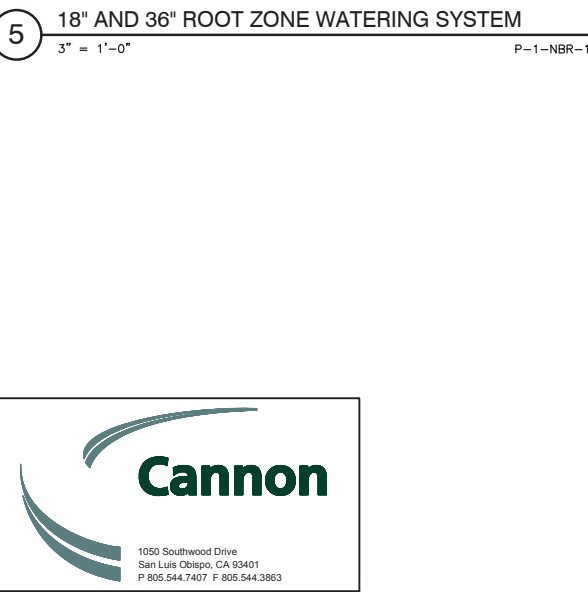
6 BUBBLER AT TREE WELL
1 1/2" = 1'-0" P-1-NBR-08



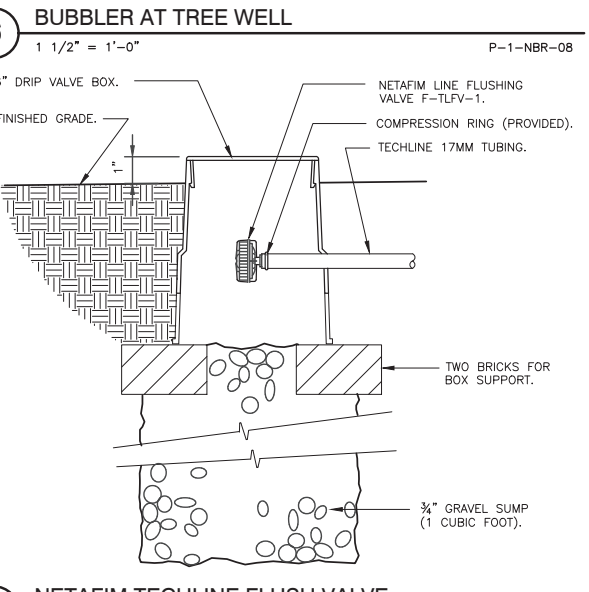
7 TURF SPRAY MARLEX ASSEMBLY
3" = 1'-0" P-1-NBR-07



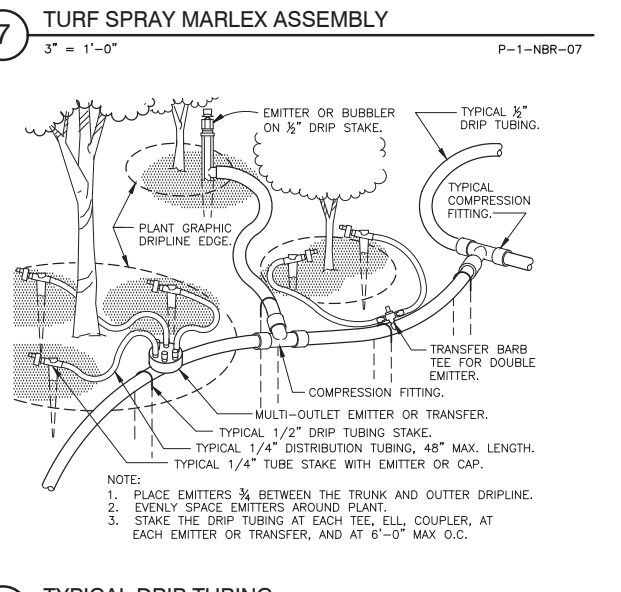
8 DRIP AIR RELIEF VALVE IN BOX
3" = 1'-0" P-1-NBR-15



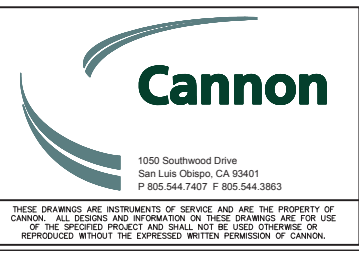
9 NETAFIM TECHLINE FLUSH VALVE
3" = 1'-0" P-1-NBR-33



10 TYPICAL DRIP TUBING
1 1/2" = 1'-0" P-1-NBR-14



11 DRIP EMITTER AT 1/4" TUBING
3" = 1'-0" P-1-NBR-11



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PLANTING SPECIFICATIONS

A. GENERAL

- 1. SCOPE OF WORK: THE WORK OF THIS SECTION CONSISTS OF ALL LANDSCAPE PLANTING WORK AND RELATED ITEMS AS INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN AND INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
2. THERE ARE THREE LANDSCAPE AREA TYPES ON THIS PROJECT (SOIL PREPARATION, SOIL MEDIA, AMENDMENT, PLANTING, AND MULCH APPLICATIONS DIFFER FOR EACH):
3. RELATED WORK SPECIFIED ELSEWHERE INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
4. REFERENCES AND STANDARDS
5. SUBMITTALS
6. MATERIALS LIST
7. PLANT MATERIALS INSPECTION
8. SUBSTITUTIONS
9. JOB CONDITIONS
10. QUALITY ASSURANCE
11. REVIEW OF EXISTING CONDITIONS
12. PROTECTION
13. DELIVERY STORAGE AND HANDLING
14. CLEANUP
15. MATERIALS

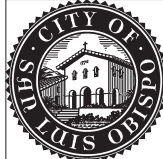
- 1. CONTRACTOR TO DETERMINE EXACT QUANTITIES FROM DRAWINGS AND FIELD CONDITIONS.
2. BIORETENTION SPEC: PER CIVIL PLANS.
3. TOP SOIL:
4. FINE COMPOST
5. AMENDMENTS AND MYCORRHIZAL FUNGI INOCULANT
6. SEEDING AREAS
7. MULCH
8. ROOT BARRIERS
9. STAKE TREES
10. ROOT BARRIERS
11. PLANTING

- C. EXECUTION
1. GENERAL
2. SOIL TESTING
3. SOIL PREPARATION
4. SOIL PREPARATION
5. FINISH GRADING OF LANDSCAPE AREAS
6. FINISH GRADING OF LANDSCAPE AREAS
7. FINISH GRADING OF LANDSCAPE AREAS
8. FINISH GRADING OF LANDSCAPE AREAS
9. FINISH GRADING OF LANDSCAPE AREAS
10. FINISH GRADING OF LANDSCAPE AREAS
11. FINAL ACCEPTANCE

- 5. STEEP SLOPES AND EROSION CONTROL
6. WEED CONTROL AND ABATEMENT
7. MULCH
8. ROOT BARRIER
9. STAKE TREES
10. ROOT BARRIER
11. PLANTING
12. PLANTING
13. PLANTING
14. PLANTING
15. PLANTING
16. PLANTING
17. PLANTING
18. PLANTING
19. PLANTING
20. PLANTING
21. PLANTING
22. PLANTING
23. PLANTING
24. PLANTING
25. PLANTING

Maximum Applied Water Allowance Calculations
San Luis Obispo
Type of Project: Non-residential
Total Landscape Area: 16,476 SF
Results: (ETA) x (R42) + (ETA) x (L4) + (1.0 - ETA) x (SLA) = 171,333 Gallons per year

Maximum Applied Water Allowance Calculations
San Luis Obispo
Type of Project: Non-residential
Total Landscape Area: 11,476 SF
Results: (ETA) x (R42) + (ETA) x (L4) + (1.0 - ETA) x (SLA) = 117,333 Gallons per year

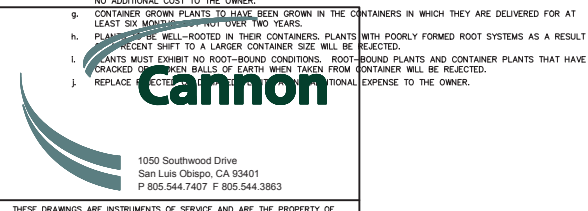


NORTH BROAD STREET NEIGHBORHOOD PARK
LANDSCAPE SPECIFICATIONS SHEET

PROJECT TITLE:
SHEET TITLE:



DESIGNED BY: G. GLANDON
DRAWN BY: G. GLANDON
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 12/30/2019
CITY SPECIFICATION NO: 190125
PLAN FILE NO./LOCATION
SHEET NO.



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