



SAN FRANCISCO PLANNING DEPARTMENT

Certificate of Appropriateness Executive Summary Consent

HEARING DATE: SEPTEMBER 2, 2020

Record No.: 2019-017681COA
Project Address: Golden Gate Park Music Concourse
Landmark: Landmark No. 249: Music Concourse
Zoning: P - Public Zoning District
OS Height and Bulk District
Block/Lot: 1700/001
Project Sponsor: Felix Tong, Recreation and Parks Department
30 Van Ness Avenue, Suite 3000
San Francisco, CA 94102
Staff Contact: Michelle Taylor – 628-652-7352
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PROPERTY DESCRIPTION

The Golden Gate Park Music Concourse is located between John F. Kennedy Drive, Hagiwara Tea Garden Drive, Martin Luther King Jr. Drive, and Music Concourse Drive. Assessor's Block 1700, Lot 001. The Music Concourse is a classically designed landscaped comprised of a series of paths, pedestrian tunnels, and streets that circle and cross the Music Concourse Bowl. The Bowl, located at the center of the Music Concourse, is a depressed oval landscape features a music band shell, benches arranged in rows, pollarded trees, fountains, paths, and several monuments and statues.

The Music Concourse, originally established as part of the California Midwinter Fair of 1894, is individually significant as an outdoors performance space important in San Francisco's cultural history under Criterion 1 (Events) of the National Register and under Criterion 3 (Architecture) as an urban park landscape devoted to public performances and as a setting for public art. The Music Concourse also contributes to the National-Register listed Golden Gate Park Historic District, significant under Criterion 1 (Events) and Criterion 3 (Architecture) in the areas of landscape architecture and social history. The property is designated as Landmark No. 249. It is zoned P (Public) District and is in an OS (Open Space) Height and Bulk District.

PROJECT DESCRIPTION

The proposed project involves installation of new lateral irrigation lines for the ongoing maintenance of the grid of pollarded trees at the Music Concourse bowl. Project includes hand digging to lay irrigation components at a maximum excavation depth of 24 inches and installation of an irrigation controller pedestal painted dark green. Please see photographs, plans, and Tree Protection Plan for details.

COMPLIANCE WITH PLANNING CODE

Planning Code Development Standards.

The proposed project is in compliance with all other provisions of the Planning Code.

Applicable Preservation Standards.

The proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 1006.6 of the Planning Code, and complies with the *Secretary of the Interior's Standards for Rehabilitation*, in that:

- the proposed project is compatible with the Music Concourse, Landmark Number 249, since the project does not affect the design and form of the site;
- the project would maintain the existing use of the Music Concourse as a public space and would maintain the park's historic character;
- the proposal respects the character-defining features of the subject landscape;
- the character of the subject landscape will be maintained, and scope of work will not affect the landscape's overall appearance;
- excavation for new irrigation lines will be dug primarily by hand;
- Recreation and Parks Department will follow a Tree Protection Plan to ensure protection of the grid of pollarded trees;
- the integrity of the pollard trees of the Music Concourse Bowl that characterize the landscape shall be preserved; and,
- a new irrigation controller, painted green, will be the only new visible feature in the landscape; all irrigation lines will be located underground and therefore alterations to the appearance, materials, feeling, association and setting of the landscape site will be minimal.

The Department has determined that the proposed work will be in conformance with the requirements of Article 10 and the *Secretary of Interior's Standards for Rehabilitation*. Proposed work will not damage or destroy distinguishing original qualities or character of the subject landscape. The proposal includes a project specific Tree Protection Plan to ensure protection of pollard trees within the Music Concourse Bowl. The Department finds that the historic character of the landscape will be retained and preserved and will not result in the removal of historic fabric.

PUBLIC/NEIGHBORHOOD INPUT

The Department has received public correspondence from one individual who provided comments about the overall design and tree protection plan. Recreation and Parks Department staff revised plans in response to public comments. The Department has not received any other public correspondence expressing support or opposition to the project.

ISSUES & OTHER CONSIDERATIONS

- The Project is fully code compliant and is supported by Department Staff

ENVIRONMENTAL REVIEW STATUS

The Project is exempt from the California Environmental Quality Act ("CEQA") as a commonsense exemption per Section 15061(b)3.

BASIS FOR RECOMMENDATION

The Department recommends APPROVAL of the proposed project as it meets the provisions of Article 10 of the Planning Code regarding Major Alteration to an individual landmark under Article 10 and the *Secretary of the Interior Standards for Rehabilitation*.

ATTACHMENTS

Draft Motion – Certificate of Appropriateness
Exhibit A – Conditions of Approval (if applicable)
Exhibit B – Plans and Renderings
Exhibit C – Environmental Determination
Exhibit D – Maps and Context Photos
Exhibit E – Tree Protection Plan



SAN FRANCISCO PLANNING DEPARTMENT

Certificate of Appropriateness Draft Motion

HEARING DATE: SEPTEMBER 2, 2020

Record No.: 2019-017681COA
Project Address: REC & PARK: Music Concourse Irrigation
Landmark: Number 249
Zoning: P PUBLIC Zoning District
OS Height and Bulk District
Block/Lot: 1700/001
Project Sponsor: Recreation and Parks Department, Felix Tong
30 Van Ness Avenue, Suite 3000
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Staff Contact: Michelle A. Taylor - 628-652-7352
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ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR MAJOR ALTERATIONS DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10 OF THE SAN FRANCISCO PLANNING CODE, AND TO MEET THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED ON LOT 001 IN ASSESSOR'S BLOCK 1700 IN A P PUBLIC ZONING DISTRICT AND A OS HEIGHT AND BULK DISTRICT.

PREAMBLE

On September 19, 2019, Felix Tong of the City of San Francisco Recreation and Parks Department (hereinafter "Project Sponsor") filed Application No. 2019-017681COA (hereinafter "Application") with the San Francisco Planning Department (hereinafter "Department") for a Certificate of Appropriateness for installation of irrigation lines at the Golden Gate Park - Music Concourse , which is Landmark Number 249 locally designated under Article 10 of the Planning Code and located on Lot 001 in Assessor's Block 1700.

On December 18, 2019, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting on Certificate of Appropriateness Application No. 2019-017681COA and continued the item indefinitely.

On July 30, 2020, the Project Sponsor requested to schedule Application No. 2019-017681COA for a hearing before the Commission.

On September 2, 2020, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting on Certificate of Appropriateness Application No. 2019-017681COA.

The Project is exempt from the California Environmental Quality Act (“CEQA”) as a commonsense exemption per Section 15061(b)3. The Historic Preservation Commission (hereinafter “Commission”) has reviewed and concurs with said determination.

The Planning Department Commission Secretary is the custodian of records; the File for Record No. 2019-017681COA is located at 49 South Van Ness Avenue, Suite 1400, San Francisco, California.

The Commission has heard and considered the testimony presented to it at the public hearing and has further considered written materials and oral testimony presented on behalf of the applicant, Department staff, and other interested parties.

MOVED, that the Commission hereby APPROVES the Certificate of Appropriateness, as requested in Application No. 2019-017681COA in conformance with the architectural plans dated July 30, 2020 and labeled Exhibit B based on the following findings:

FINDINGS

Having reviewed all the materials identified in the recitals above and having heard oral testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and also constitute findings of the Commission.
2. **Project Description.** The proposed project involves installation of new lateral irrigation lines for the ongoing maintenance of the grid of pollarded trees at the Music Concourse bowl. Project includes hand digging to lay irrigation components at a maximum excavation depth of 24 inches and installation of an irrigation controller pedestal painted dark green. Please see photographs, plans, and Tree Protection Plan for details.
3. **Property Description.** The Golden Gate Park Music Concourse is located between John F. Kennedy Drive, Hagiwara Tea Garden Drive, Martin Luther King Jr. Drive, and Music Concourse Drive. Assessor’s Block 1700, Lot 001. The Music Concourse is a classically designed landscaped comprised of a series of paths, pedestrian tunnels, and streets that circle and cross the Music Concourse Bowl. The Bowl, located at the center of the Music Concourse, is a depressed oval landscape features a music band shell, benches arranged in rows, a grid of pollarded trees, fountains, paths, and several monuments and statues.

The Music Concourse, originally established as part of the California Midwinter Fair of 1894, is individually significant as an outdoors performance space important in San Francisco’s cultural history under Criterion 1 (Events) of the National Register and under Criterion 3 (Architecture) as an urban park landscape devoted to public performances and as a setting for public art. The Music Concourse also contributes to the National-Register listed Golden Gate Park historic district, significant under Criterion 1 (Events) and Criterion 3 (Architecture) in the areas of landscape architecture and social history.

4. **Surrounding Properties and Neighborhood.** The Music Concourse is located within the boundaries of Golden Gate Park, a large urban park comprised of a series of landscapes, water features, roadways, pedestrian paths, and buildings.

Buildings immediately adjacent to the Music Concourse are the DeYoung Museum at the eastern boundary of the Music Concourse, and the California Academy of Sciences to the west. An underground garage, constructed 2005, is located beneath the Music Concourse Bowl.

5. **Public Outreach and Comments.** The Department has received public correspondence from one individual who provided comments about the overall design and tree protection plan. Recreation and Parks Department staff revised plans in response to public comments. The Department has not received any other public correspondence expressing support or opposition to the project.
6. **Planning Code Compliance.** The Commission has determined that the proposed work is compatible with the character-defining features of the subject property and meets the requirements of Article 10 of the Planning Code in the following manner:

- A. **Article 10 of the Planning Code.** Pursuant to Section 1006.6 of the Planning Code, the proposed alteration shall be consistent with and appropriate for the effectuation of the purposes of this Article 10.

The proposed project is consistent with Article 10 of the Planning Code.

- B. **Secretary of the Interior's Standards.** Pursuant to Section 1006.6(b) of the Planning Code, the proposed work shall comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties for significant and contributory buildings, as well as any applicable guidelines, local interpretations, bulletins, or other policies. Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

- (1) **Standard 1:** A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

The proposal to install new irrigation will allow the property to continue its use as a publicly accessible landscape. New irrigation will not remove or alter the grid of pollarded trees and therefore does not change the landscapes distinctive materials, features, spaces, and spatial relationships.

- (2) **Standard 2:** The historic character of a property will be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

The proposal to excavate for the installation of irrigation lines will not result in an alteration of the historic landscape. Excavation will be limited to hand digging. Proposal includes a Tree Protection

Plan to ensure protection of the pollarded trees and spaces that characterize the property. All areas will be fully restored using in kind materials following installation of irrigation lines. These changes will not remove distinctive materials, nor irreversibly alter features that characterize the landscape.

- (3) **Standard 3:** Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

Not Applicable

- (4) **Standard 4:** Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Not Applicable

- (5) **Standard 5:** Distinctive features, finishes, and construction techniques or examples of fine craftsmanship that characterize a property will be preserved.

The proposal to install irrigation lines will not adversely affect the distinctive features of the subject property. Proposal includes a Tree Protection Plan to ensure protection of the pollarded trees and spaces that characterize the property. All areas will be fully restored using in kind materials following installation of irrigation lines.

- (6) **Standard 6:** Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Not Applicable.

- (7) **Standard 7:** Chemical or physical treatments, if possible, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

The proposal to excavate to install underground irrigation lines will be performed in a sensitive manner. Work is primarily limited to hand digging and applicant has prepared a Tree Protection Plan that will be used to ensure protection of the pollarded trees and spaces that characterize the property.

- (8) **Standard 8:** Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Not Applicable. Department staff determined that no archaeological resources are expected within project area.

- (9) **Standard 9:** New additions, exterior alterations, or related new construction will not destroy historic materials and features that characterize the building. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The proposal includes the installation of a new irrigation controller pedestal that is simple in design and painted dark green so as not to visually detract from the setting and landscape. Furthermore, the proposal to excavate for the installation of underground irrigation lines will not result in a permanent alteration of the historic landscape. All excavation areas will be fully restored using in kind materials following installation of irrigation lines.

- (10) **Standard 10:** New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Installation of underground irrigation lines and irrigation controller pedestal are fully reversible. If proposed irrigation lines and control pedestal were removed in the future, the essential form and integrity of the pollarded trees and Music Course landscape would not be impaired.

- C. **Landmark No. 249.** Article 10 of the Planning Code outlines specific findings for the Commission to consider when evaluating applications for alterations to Landmarks or within designated Historic Districts.

Landmarks

1. Pursuant to Section 1006.6(c) of the Planning Code, for applications pertaining to landmark sites, the proposed work shall preserve, enhance or restore, and shall not damage or destroy, the exterior architectural features of the landmark and, where specified in the designating ordinance pursuant to Section 1004(c), its major interior architectural features. The proposed work shall not adversely affect the special character or special historical, architectural or aesthetic interest or value of the landmark and its site, as viewed both in themselves and in their setting, nor of the historic district in applicable cases.

The project is in conformance with Article 10, and as outlined in Appendix A, the work shall not adversely affect the Landmark site.

2. Pursuant to of the Ordinance No. 278-05 designating the Music Concourse, Golden Gate Park, a Certificate of Appropriateness for the Music Concourse is required for “(n)ew excavation, including trenching other than for repair to existing pipes and conduits with the Concourse Bowl.” The project is in conformance with Article 10, and

the work is compatible with the specific review standards for the Music Concourse under Attachment G of the Landmark Designation as follows:

The proposal to excavate to install irrigation lines will conform with the Music Concourse Tree Management Plan per Landmark Ordinance No. 278-05. Additionally, proposal includes a project-specific Tree Protection Plan to ensure protection of the pollarded trees and spaces that characterize the property. Work will primarily employ hand digging. All areas will be fully restored using in kind materials following installation of irrigation lines.

7. **General Plan Compliance.** The proposed Certificate of Appropriateness is, on balance, consistent with the following Objectives and Policies of the General Plan:

RECREATION AND OPEN SPACE ELEMENT

THE GOAL OF THE RECREATION AND OPEN SPACE ELEMENT IS TO CONTINUE THE CITY'S LEGACY OF FINE PARKS AND RECREATIONAL OPPORTUNITIES, AND GUIDE THE CITY'S FUTURE DECISIONS SO THEY IMPROVE THAT OPEN SPACE SYSTEM FOR THE BENEFIT OF EVERYONE.

OBJECTIVE 1:

ENSURE A WELL-MAINTAINED, HIGHLY UTILIZED, AND INTEGRATED OPEN SPACE SYSTEM

Policy 1.4

Maintain and repair recreational facilities and open spaces to modern maintenance standards.

Policy 1.6

Support the continued improvement of Golden Gate Park while preserving the beauty of its landscape.

Policy 1.12

Preserve historic and culturally significant landscapes, sites, structures, buildings and objects.

Policy 1.13

Preserve and protect character-defining features of historic resources in City parks, when it is necessary to make alterations to accommodate new needs or uses.

OBJECTIVE 4:

PROTECT AND ENHANCE THE BIODIVERSITY, HABITAT VALUE, AND ECOLOGICAL INTEGRITY OF OPEN SPACES AND ENCOURAGE SUSTAINABLE PRACTICES IN THE DESIGN AND MANAGEMENT OF OUR OPEN SPACE SYSTEM

Policy 4.4

Include environmentally sustainable practices in construction, renovation, management and maintenance of open space and recreation facilities.

The goal of a Certificate of Appropriateness is to provide additional oversight for buildings, landscapes, and districts that are architecturally or culturally significant to the City in order to protect the qualities that are associated with that significance.

The proposed project qualifies for a Certificate of Appropriateness and therefore furthers these policies and objectives by maintaining and preserving the character-defining features of the subject property for the future enjoyment and education of San Francisco residents and visitors.

8. **Planning Code Section 101.1(b)** establishes eight priority-planning policies and requires review of permits for consistency with said policies. On balance, the project complies with said policies in that:

- A) The existing neighborhood-serving retail uses will be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses will be enhanced:

The proposed project will not have an impact on neighborhood serving retail uses.

- B) The existing housing and neighborhood character will be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:

The proposed project is located in a park and therefore will not impact existing housing or neighborhood character. The proposed project is in conformance with the Secretary of the Interior's Standards and therefore will preserve the character defining features of both the subject landmark and Golden Gate Park.

- C) The City's supply of affordable housing will be preserved and enhanced:

The project will not affect the City's affordable housing supply.

- D) The commuter traffic will not impede MUNI transit service or overburden our streets or neighborhood parking:

The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.

- E) A diverse economic base will be maintained by protecting our industrial and service sectors from displacement due to commercial office development. And future opportunities for resident employment and ownership in these sectors will be enhanced:

The proposed project will not affect industrial and service sectors.

- F) The City will achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

All construction will be executed in compliance with all applicable construction and safety measures.

- G) That landmark and historic buildings will be preserved:

The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the Interior's Standards.

- H) Parks and open space and their access to sunlight and vistas will be protected from development:

The proposed project will maintain character defining features of the Music Concourse and Golden Gate Park. The project will not impact the access to sunlight or vistas for the parks and open space.

9. For these reasons, the proposal overall, appears to meet the *Secretary of the Interior's Standards* and the provisions of Article 10 of the Planning Code regarding Major Alterations.

DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **APPROVES a Certificate of Appropriateness** for the subject property located at Lot 001 in Assessor's Block 1700 for proposed work in conformance with the architectural submittal dated July 30, 2020 and labeled Exhibit B on file in the docket for Record No. 2019-017681COA.

APPEAL AND EFFECTIVE DATE OF MOTION: The Commission's decision on a Certificate of Appropriateness shall be final unless appealed within thirty (30) days after the date of this Motion No. XXXXXX. Any appeal shall be made to the Board of Appeals, unless the proposed project requires Board of Supervisors approval or is appealed to the Board of Supervisors as a conditional use, in which case any appeal shall be made to the Board of Supervisors (see Charter Section 4.135). For further information, please contact the Board of Appeals at 49 South Van Ness Ave, Suite 1475 or call (628) 652-1150.

Duration of this Certificate of Appropriateness: This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. The authorization and right vested by virtue of this action shall be deemed void and canceled if, within 3 years of the date of this Motion, a site permit or building permit for the Project has not been secured by Project Sponsor.

THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on September 2, 2020.

Jonas P. Ionin
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: September 2, 2020

EXHIBIT A

AUTHORIZATION UPDATE

This authorization is for a Certificate of Appropriateness to allow Alterations located at the Music Concourse, Golden Gate Park, Assessor's Block 1700, and Lot 001 pursuant to Planning Code Section(s) XXXXXX within the P District and a OS Height and Bulk District; in general conformance with plans, dated July 30, 2020, and stamped "EXHIBIT B" included in the docket for Record No. 2019-017681COA and subject to conditions of approval reviewed and approved by the Historic Preservation Commission on September 2, 2020 under Motion No XXXXXX. This authorization and the conditions contained herein run with the property and not with a particular Project Sponsor, business, or operator.

PRINTING OF CONDITIONS OF APPROVAL ON PLANS

The conditions of approval under the 'Exhibit A' of this Historic Preservation Commission Motion No. XXXXXX shall be reproduced on the Index Sheet of construction plans submitted with the site or building permit application for the Project. The Index Sheet of the construction plans shall reference to the Certificate of Appropriateness and any subsequent amendments or modifications.

SEVERABILITY

The Project shall comply with all applicable City codes and requirements. If any clause, sentence, section or any part of these conditions of approval is for any reason held to be invalid, such invalidity shall not affect or impair other remaining clauses, sentences, or sections of these conditions. This decision conveys no right to construct, or to receive a building permit. "Project Sponsor" shall include any subsequent responsible party.

CHANGES AND MODIFICATIONS

Changes to the approved plans may be approved administratively by the Zoning Administrator. Significant changes and modifications of conditions shall require Historic Preservation Commission approval of a new Certificate of Appropriateness. In instances when Planning Commission also reviews additional authorizations for the project, Planning Commission may make modifications to the Certificate of Appropriateness based on majority vote and not required to return to Historic Preservation Commission.

Appendix B:

Plans and Renderings

PROJECT BACKGROUND:

RPD owns and operates the Music Concourse, an iconic tourist attraction at the entrance of California Academy of Science and De Young Museum, in Golden Gate Park. The Music Concourse serves as a cultural space hosting concerts and events weekly for the community. The attraction or highlight of the concourse is its beauty of housing the rare London plane trees and Wych elms, with some maples and walnuts in its landscape. RPD historically maintains the landscape by hand watering which proves to be time and labor intensive. In correspondence to water conservation and improve efficiency in work practice, we are proposing to upgrade the irrigation system at the concourse. We believe that an upgrade to the irrigation system will improve the health and quality of horticultural species in the concourse. The upgrade would provide RPD with improved water conservation and water scheduling to showcase the public a beautiful landmark.

DESCRIPTION OF PROPOSED PROJECT:

The proposed project will install new irrigation system in the landscape to irrigate the turf and trees in the Music Concourse. The intent of this irrigation system is to provide the minimum amount of water required to sustain good plant health. The project will encompass 6 turf areas within the Music Concourse Bowl. The project will all hand digging to lay irrigation components at a maximum excavation depth of 24 inches. Contractors will install new irrigation controller, conduit, irrigation valve, PVC lateral lines, galvanized mainline, sprinkler heads, and quick couplers. After completion, the irrigation system will improve the health and quality of horticultural species for the public to enjoy

PROJECT SUMMARY TABLE:

BLOCK / LOT	ZONING DISTRICT	HEIGHT & BULK DISTRICT
1700/001	Public	OS

TABLE OF CONTENTS:

G-1

COVER SHEET

I-1

IRRIGATION PLAN - NEW SPRINKLER LAYOUT

I-2

IRRIGATION PLAN - NEW SPRINKLER LAYOUT

I-3

IRRIGATION NOTES AND LEGEND IRRIGATION DETAILS

I-4

IRRIGATION DETAILS

I-5

IRRIGATION DETAILS

Figure-1

STRONG BOX DETAILS

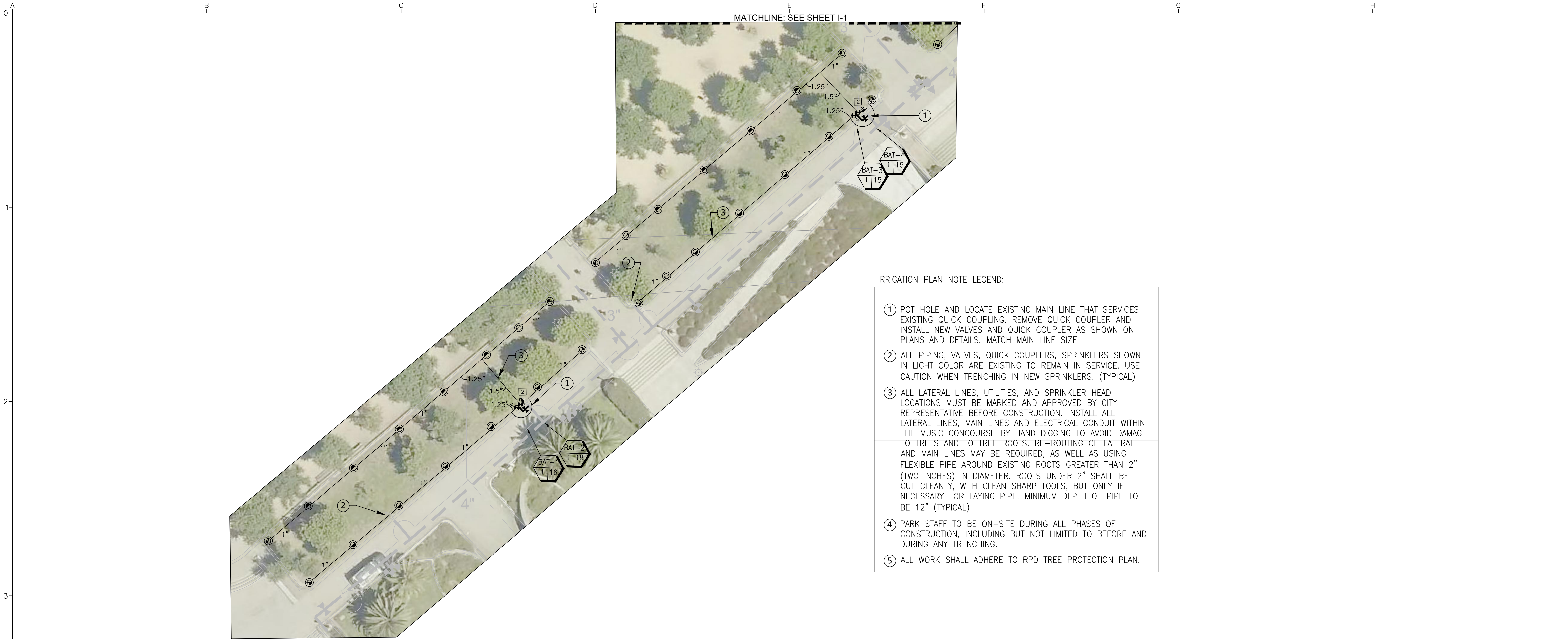
Figure-2

IRRIGATION PEDESTAL LOCATION (LOOKING W)

Figure-3

IRRIGATION PEDESTAL LOCATION (LOOKING N)





- IRRIGATION PLAN NOTE LEGEND:
- ① POT HOLE AND LOCATE EXISTING MAIN LINE THAT SERVICES EXISTING QUICK COUPLER. REMOVE QUICK COUPLER AND INSTALL NEW VALVES AND QUICK COUPLER AS SHOWN ON PLANS AND DETAILS. MATCH MAIN LINE SIZE
 - ② ALL PIPING, VALVES, QUICK COUPLERS, SPRINKLERS SHOWN IN LIGHT COLOR ARE EXISTING TO REMAIN IN SERVICE. USE CAUTION WHEN TRENCHING IN NEW SPRINKLERS. (TYPICAL)
 - ③ ALL LATERAL LINES, UTILITIES, AND SPRINKLER HEAD LOCATIONS MUST BE MARKED AND APPROVED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION. INSTALL ALL LATERAL LINES, MAIN LINES AND ELECTRICAL CONDUIT WITHIN THE MUSIC CONCOURSE BY HAND DIGGING TO AVOID DAMAGE TO TREES AND TO TREE ROOTS. RE=ROUTING OF LATERAL AND MAIN LINES MAY BE REQUIRED, AS WELL AS USING FLEXIBLE PIPE AROUND EXISTING ROOTS GREATER THAN 2" (TWO INCHES) IN DIAMETER. ROOTS UNDER 2" SHALL BE CUT CLEANLY, WITH CLEAN SHARP TOOLS, BUT ONLY IF NECESSARY FOR LAYING PIPE. MINIMUM DEPTH OF PIPE TO BE 12" (TYPICAL).
 - ④ PARK STAFF TO BE ON-SITE DURING ALL PHASES OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO BEFORE AND DURING ANY TRENCHING.
 - ⑤ ALL WORK SHALL ADHERE TO RPD TREE PROTECTION PLAN.

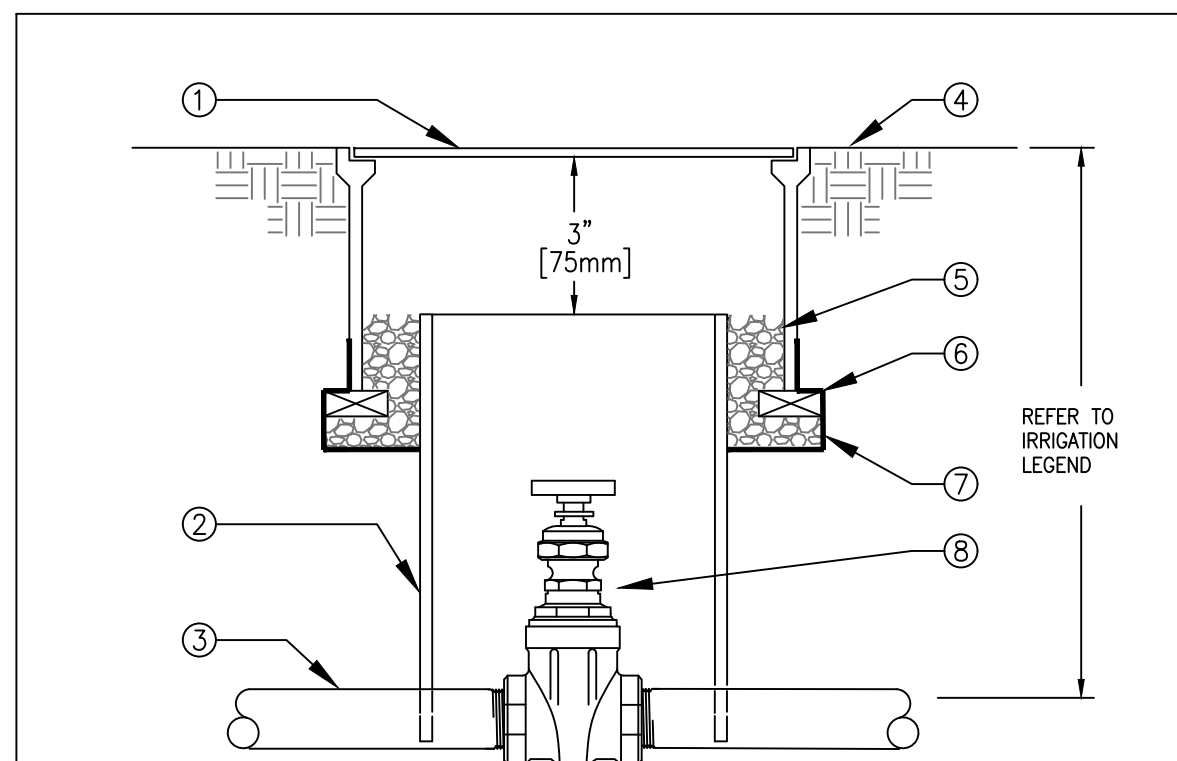
- NOTES:
- SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

1"	0-12 GPM
1.25"	13-20 GPM
1.5"	21-32 GPM
2"	33-50 GPM
2 1/2"	51-70 GPM
3"	71-110 GPM
 - USE CAUTION WHEN TRENCHING. NO ACCURATE AS-BUILTS OF PIPING EXIST. REPAIR ALL PIPES DAMAGED DURING CONSTRUCTION.
 - ALL IRRIGATION SHOWN SCREENED IN THE BACKGROUND IS EXISTING AND SHALL REMAIN IN SERVICE.

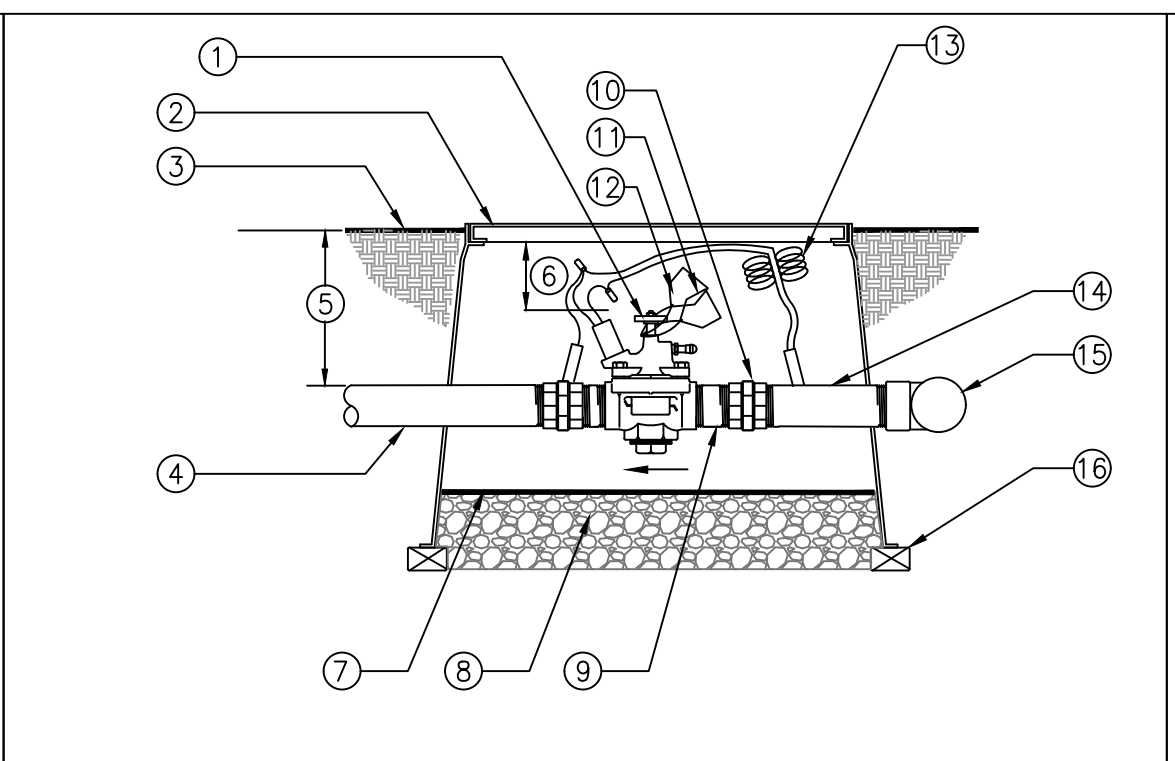
<div><div><div>Irrigation Consultant: Russell D. Mitchell Associates, Inc.</div><div>2760 Camino Diablo Walnut Creek, CA 94597 tel 925.939.3985 ♦ fax 925.932.5671 www.rmairrigation.com</div></div></div>						DESIGNED	SAN FRANCISCO RECREATION AND PARK DEPARTMENT	NEW IRRIGATION SAN FRANCISCO MUSIC CONCOURSE		SCALE: 1"=20'
						DRAWN		IRRIGATION PLAN NEW SPRINKLER LAYOUT		DATE JULY 2020
						CHECKED				SHEET I-2
	NO.	REVISION	DATE	BY						

SCALES
0 1"
0 25mm
IF THIS BAR IS NOT
DIMENSION SHOWN,
ADJUST SCALES
ACCORDINGLY.

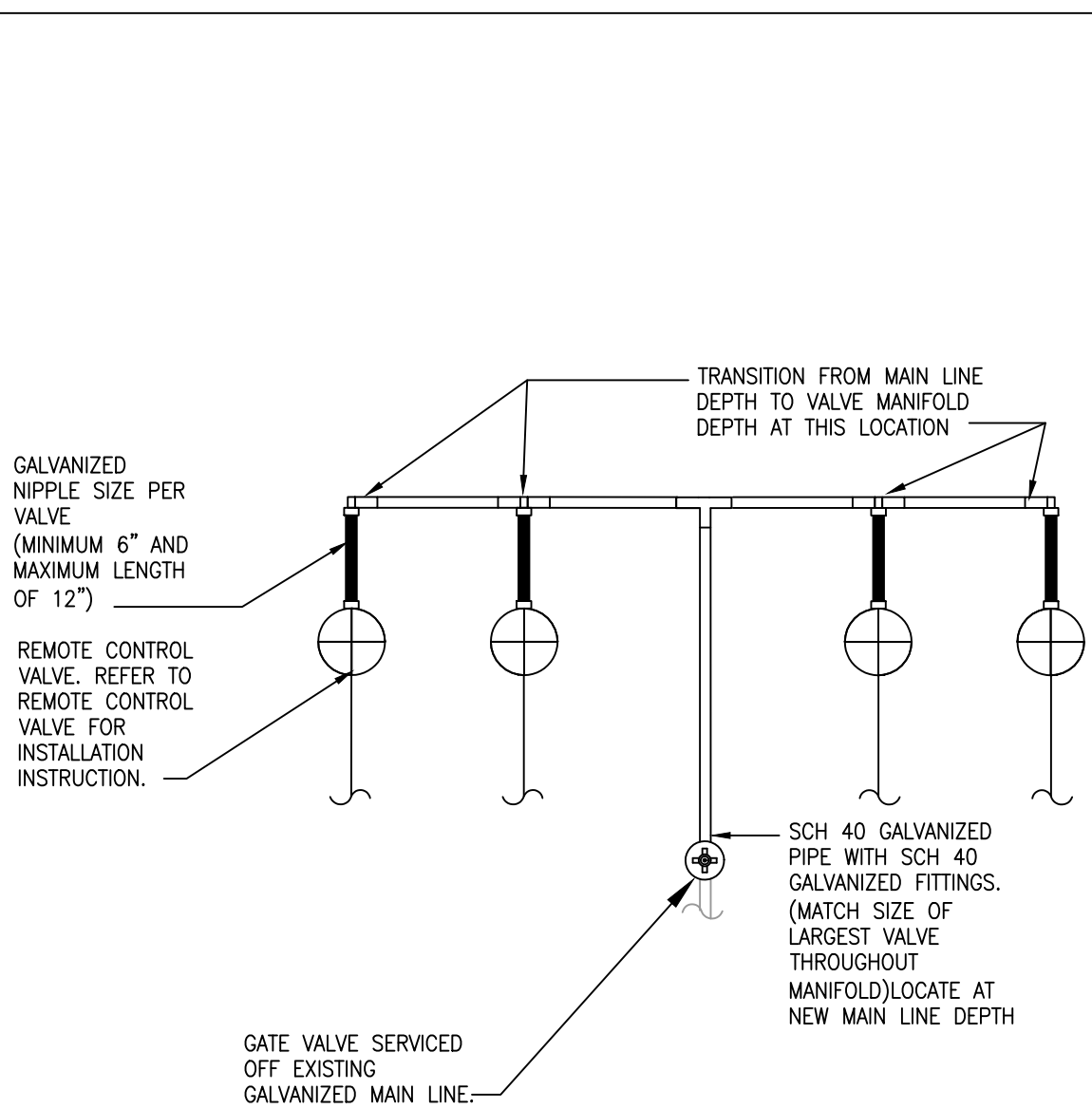
IRRIGATION NOTES					IRRIGATION LEGEND									
<div>1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.</div> <div>2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.</div> <div>3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.</div> <div>4. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.</div> <div>5. IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.</div> <div>6. IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.</div> <div>7. INSTALL NEW BATTERIES IN THE IRRIGATION CONTROLLER(S) TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.</div> <div>8. INSTALL 2-WIRE CABLE ALONG THE MAIN LINE. CONTACT CONTROLLER REPRESENTATIVE FOR A PRE-CONSTRUCTION MEETING.</div> <div>9. INSTALL 2-WIRE CABLE WITHIN 1.25" CONDUIT WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.</div>					<div>10. INSTALL A 14"x19" GREY ELECTRICAL PULL BOX EVERY 200' AND AT EVERY CHANGE IN DIRECTION. ONLY SPLICE TWO WIRE CABLE AT THREE WAY WIRE CONNECTIONS.</div> <div>11. IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. SIZE #14AWG WIRE WITH A JACKETED 2-CONDUCTOR. PREFERRED WIRE MAKE AND MODEL IS ID10RG. ALL SPLICING SHALL BE MADE WITH 3-M DBR/Y-6 WATERPROOF SPLICE KIT.</div> <div>12. DECODER GROUNDING SHALL BE PROVIDED EVERY 12TH DECODER, OR 1,000 FT OF WIRE RUN, WHICHEVER IS SHORTER. THE FINAL DECODER IN ANY WIRE RUN SHOULD BE GROUNDED AS WELL AS ANY SPUR OFF THE WIRE PATHWAY ESCEEDING 500 FT. GROUND WITH A 5/8" X 8' COPPER CLAD GROUNDING ROD. #6 COPPER WIRE TO SURGE DEVICE/DECODER. INCLUDE A SURGE ARRESTOR AT EACH GROUNDING LOCATION. A SPLIT BOLT CONNECTION TO BE USED TO CONNECT THE SURGE DEVICE TO THE GROUND WIRE WITH A DBR/Y-6 WATERPROOF CONNECTOR.</div> <div>13. SPlicing OF JACKETED 2-WIRE IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 24" LONG COIL OF WIRE AT EACH SPLICE AND A 24" LONG EXPANSION LOOP IN ALL PULL BOXES.</div> <div>14. INSTALL CONCRETE VALVE BOXES WITH STEEL BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE OLDCASTLE OR APPROVED EQUAL. BOXES SHALL HAVE RECYCLED WATER DECAL INSTALLED INTO LID AS DETAILED.</div> <div>15. INSTALL REMOTE CONTROL VALVE BOXES 24" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE.</div> <div>16. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN PLANTING AREAS. EXACT LOCATION TO BE APPROVED BY GARDEN STAFF PRIOR TO TRENCHING.</div> <div>17. THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.</div> <div>18. THE REMOTE CONTROL VALVES SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:<div>A. ROTARY HEADS=65 PSI OR 50 PSI. REFER TO LEGEND FOR REQUIRED OPERATING PRESSURE</div></div> <div>19. THE REMOTE CONTROL VALVES SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:<div>A. ROTARY HEADS=65 PSI OR 50 PSI. REFER TO LEGEND FOR REQUIRED OPERATING PRESSURE</div></div> <div>20. THE REMOTE CONTROL VALVES SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:<div>A. ROTARY HEADS=65 PSI OR 50 PSI. REFER TO LEGEND FOR REQUIRED OPERATING PRESSURE</div></div> <div>21. THE REMOTE CONTROL VALVES SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:<div>A. ROTARY HEADS=65 PSI OR 50 PSI. REFER TO LEGEND FOR REQUIRED OPERATING PRESSURE</div></div> <div>22. FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, AND/OR ROADWAYS, SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.</div> <div>23. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE.</div> <div>24. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE CAUTION TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATE BY HAND IN PLANTING AREAS. BACKFILL TRENCHES ADJACENT TO TREES AT CLOSE OF DAY. WHERE TWO (2) INCH AND LARGER ROOTS OCCUR. BACK FILL TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR (24) HOURS. WHERE THIS IS NOT POSSIBLE, SHADE BOTH SIDES OF THE TRENCH ADJACENT TO THE TREE WITH WET BURLAP OR CANVAS BEFORE LEAVING JOB SITE.</div>					<div>25. THE EXISTING MAIN LINE SHOWN ON THE DRAWINGS IS DIAGRAMMATIC. VERIFY AND LOCATE EXISTING MAIN LINE IN FIELD. ALL NEW LINES, WHERE POSSIBLE, SHOULD BE INSTALLED OUTSIDE OF THE DRIP LINE OF EXISTING TREES. COORDINATE WITH PARK STAFF.</div> <div>26. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.</div> <div>27. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.</div> <div>28. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC. HOWEVER, ANY CHANGE TO LAYOUT SHOULD BE REVIEWED AND APPROVED BY THE PARK STAFF.</div> <div>29. WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.</div> <div>30. THE LOCATION OF THE IRRIGATION HEADS SHALL BE AS SHOWN ON THE PLANS. ANY CHANGE IN LOCATION SHALL BE REVIEWED WITH AND APPROVED BY THE PARK STAFF. NO HEAD SHOULD BE LOCATED WITHIN 7 FEET OF ANY EXISTING TREE.</div> <div>31. IF EXISTING MAIN OR LATERAL POPES ARE LOCATED, CONTACT PARK STAFF.</div>				
<div><div><div><div>●</div><div>I-20-06-SS-R-3.0SR</div><div>HUNTER POP-UP GEAR DRIVEN ROTOR (LAWN)</div><div>3.0</div><div>50</div><div>20-25</div></div><div><div>⦿</div><div>I-20-06-SS-R-3.0SR</div><div>HUNTER POP-UP GEAR DRIVEN ROTOR (LAWN)</div><div>3.0</div><div>50</div><div>20-25</div></div><div><div>⦿</div><div>I-20-06-SS-R-1.5SR</div><div>HUNTER POP-UP GEAR DRIVEN ROTOR (LAWN)</div><div>1.5</div><div>50</div><div>20-25</div></div><div><div>⦿</div><div>I-20-06-SS-R-2SR</div><div>HUNTER POP-UP GEAR DRIVEN ROTOR (LAWN)</div><div>2</div><div>50</div><div>20-25</div></div><div><div>⦿</div><div>I-20-06-SS-R-1SR</div><div>HUNTER POP-UP GEAR DRIVEN ROTOR (LAWN)</div><div>1</div><div>50</div><div>20-25</div></div><div><div>⦿^x</div><div>ICV-FS-R--DC-AS-ADJ SERIES WITH HUNTER WIRELESS CONTROLLER.</div><div>HUNTER REMOTE CONTROL VALVE WITH DC LATCHING SOLENOID AND HUNTER BATTERY OPERATED CONTROLLER-REFER TO VALVE CALLOUTS ON PLANS FOR VALVE SIZE.</div></div><div><div>⦿</div><div>WVC-200/WVP</div><div>HUNTER WIRELESS CONTROLLER AND PROGRAMMER. WIRE TO NEAREST TWO REMOTE CONTROL VALVES.</div></div><div><div>⦿</div><div>ICV-FS-R-AS-ADJ SERIES</div><div>HUNTER REMOTE CONTROL VALVE-REFER TO VALVE CALLOUTS ON PLANS FOR VALVE SIZE.</div></div><div><div>①</div><div>ICD-100</div><div>HUNTER SINGLE STATION DECODER WITH SURGE SUPPRESSION AND GROUND WIRE</div></div><div><div>②</div><div>ICD-200</div><div>HUNTER 2 STATION DECODER WITH SURGE SUPPRESSION AND GROUND WIRE</div></div><div><div>④</div><div>ICD-400</div><div>HUNTER 4 STATION DECODER WITH SURGE SUPPRESSION AND GROUND WIRE</div></div><div><div>⌞</div><div>T-113-K-1.5"</div><div>NIBCO BRASS GATE VALVE.</div></div><div><div>⊠</div><div>-</div><div>IRRIGATION TWO WIRE CABLE PULL BOX.</div></div><div><div>◀</div><div>QB44NP10</div><div>BUCKNER PURPLE COVER QUICK COUPLING VALVE</div></div><div><div>ⓂC</div><div>A2C-75D-SBKIT/A2C-WIFI/SB-16SS/OPT-HUN-ACC2</div><div>HUNTER ACC2 DECODER CONTROLLER WITH WITH WIFI CONNECTION AND CHASSIS WITH STRONGBOX STAINLESS STEEL ENCLOSURE.</div></div><div><div><div><div>●</div><div>●</div><div>●</div></div><div>CONTROLLER AND STATION NUMBER</div></div><div><div>FLOW (GPM)</div></div><div><div>REMOTE CONTROL VALVE SIZE (IN INCHES)</div></div><div><div>EXISTING MAIN LINES</div></div><div><div>MAIN LINE: 1.5" AND SMALLER. SCHEDULE 40 GALVANIZED PIPE WITH SCH 40 GALVANIZED FITTINGS. ALL GALVANIZED PIPE SHALL HAVE PURPLE MARKING TAPE ALONG MAIN AS DETAILED. 20" COVER.</div><div>LATERAL LINE: 1" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. MIN 12" COVER.</div></div><div><div>NOTE: ALL PVC LATERAL LINE PIPE SHALL BE PURPLE IN COLOR APPROVED EQUAL FOR USE WITH RECYCLED WATER SYSTEMS.</div></div><div><div>1.25" SCH 40 PVC CONDUIT WITH REQUIRED SWEEPS, PULL ROPE AND PULL BOXES FOR IRRIGATION (2-WIRE). WIRE SHALL BE HUNTER ID10RG SIZE #14AWG. ALL SPLICING SHALL BE MADE WITH 3-M DBR/Y-6 WATERPROOF SPLICE KITS OR APPROVED EQUAL. 20" COVER.</div></div></div><div><div>CON CON CON CON CON</div></div></div></div>														
<div><div><div><div>NO.</div><div>REVISION</div><div>DATE</div><div>BY</div></div><div>IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.</div></div><div><div>DESIGNED</div><div>DRAWN</div><div>CHECKED</div></div><div>SAN FRANCISCO RECREATION AND PARK DEPARTMENT</div></div>					<div>NEW IRRIGATION SAN FRANCISCO MUSIC CONCOURSE</div> <div>IRRIGATION NOTES AND LEGEND</div>					<div>SCALE: NTS</div> <div>DATE JULY 2020</div> <div>SHEET 1-3</div>				



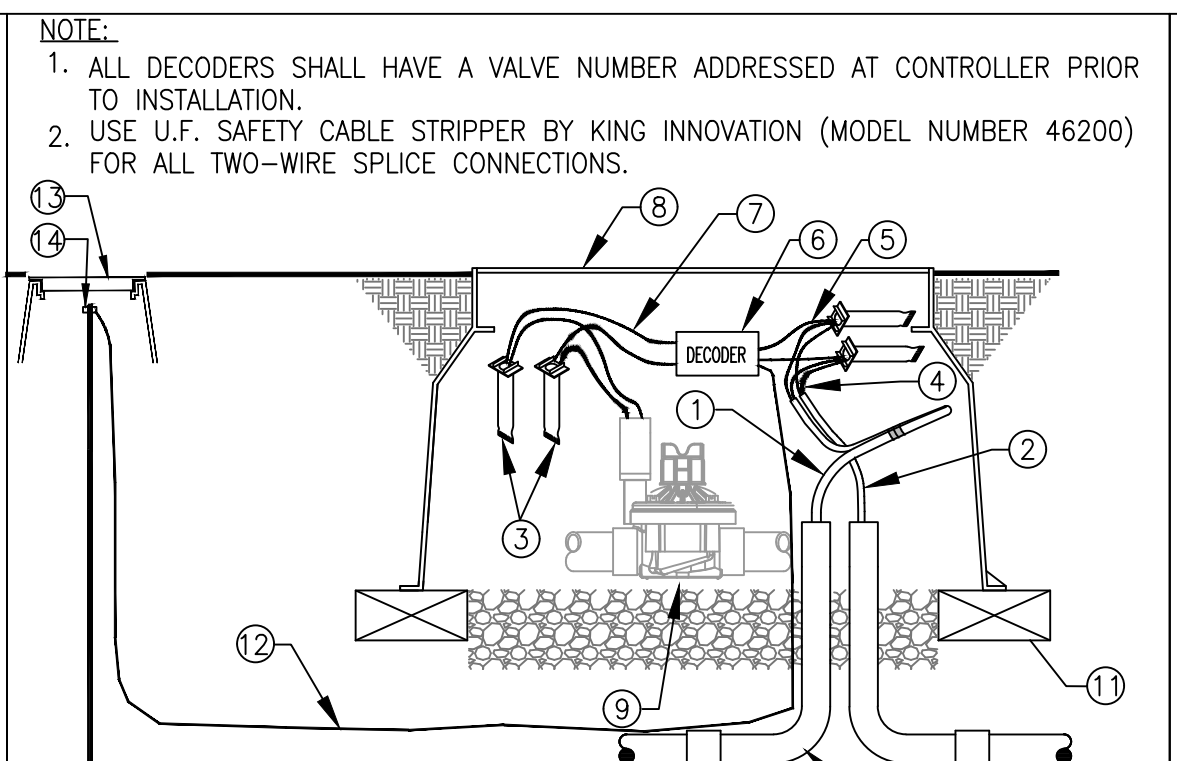
- ① ROUND TRAFFIC RATED CONCRETE VALVE BOX WITH EXTENSION IF REQUIRED AND CAST IRON LID (CHRISTY MODEL G05 OR EQUAL)
- ② 8" [200mm] CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE).
- ③ GALVANIZED MAIN LINE.
- ④ FINISH GRADE.
- ⑤ PEA GRAVEL OR 3/4" [20mm] DRAIN ROCK - 4" [100mm] DEEP (NO SOIL IN VALVE BOX).
- ⑥ BRICK-2 TOTAL.
- ⑦ 18 GAUGE 1/2" [13mm] SQUARE STAINLESS STEEL WIRE MESH.
- ⑧ GATE VALVE.



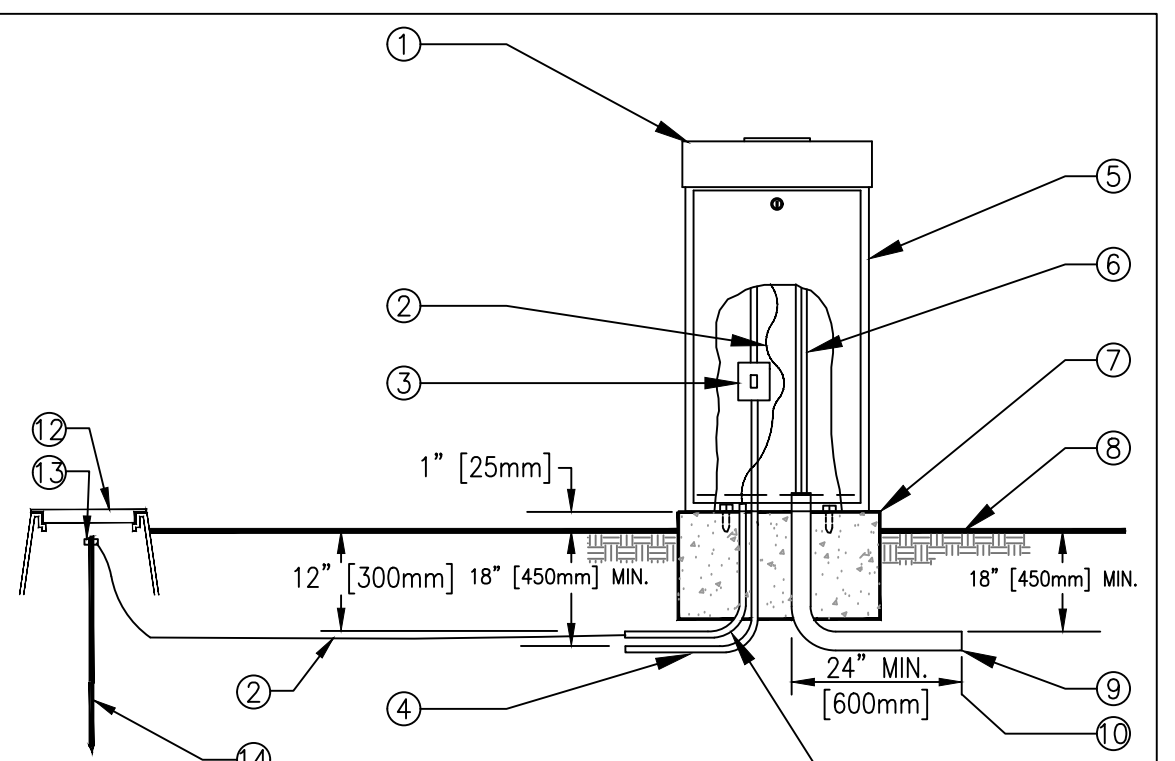
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| <p>① REMOTE CONTROL VALVE WITH FLOW CONTROL (PRESSURE REGULATOR WHERE SHOWN ON PLANS)</p> <p>② 10" x 17" RECTANGULAR TRAFFIC RATED CONCRETE BOXES WITH STEEL LIDS (OLDCASTLE B1017 OR EQUAL), ONE VALVE PER BOX—NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.</p> <p>③ FINISH GRADE</p> <p>④ 6" SCHEDULE 80 PVC TEE NIPPLE</p> <p>⑤ REFER TO IRRIGATION LEGEND</p> <p>⑥ 3" MIN 6" MAX</p> <p>⑦ 18 GAUGE 1/2" [13mm] SQUARE <u>STAINLESS STEEL</u> WIRE MESH.</p> <p>⑧ PEA GRAVEL OR 3/4" DRAIN ROCK— 4" [100mm] DEEP BELOW VALVE (NO SOIL IN VALVE BOX).</p> | <p>⑨ GALVANIZED NIPPLES (3" LONG).—MATCH VALVE SIZE—2 TOTAL</p> <p>⑩ GALVANIZED THREADED UNIONS—MATCH VALVE SIZE—2 TOTAL</p> <p>⑪ VALVE I.D. TAG (CONTROLLER AND STATION NUMBER).</p> <p>⑫ RECYCLED WARNING TAG. SEE DET.</p> <p>⑬ VALVE CONTROL WIRE— PROVIDE 3M—DBY-6 SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIAMETER COIL</p> <p>⑭ GALVANIZED NIPPLES (MIN 6"—MAX.12" LONG).—MATCH VALVE SIZE</p> <p>⑮ GALVANIZED SCHEDULE 40—90° OR TEE FROM VALVE MANIFOLD. REDUCE TO VALVE SIZE AT THIS FITTING.</p> <p>⑯ BRICK—ONE ON EACH CORNER</p> |
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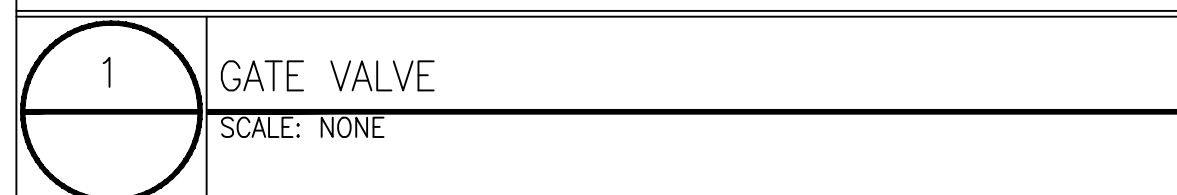
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| 3 | MULTIPLE VALVE MANIFOLD DETAIL @ EXISTING GALV. MAIN |
| | SCALE: NONE |



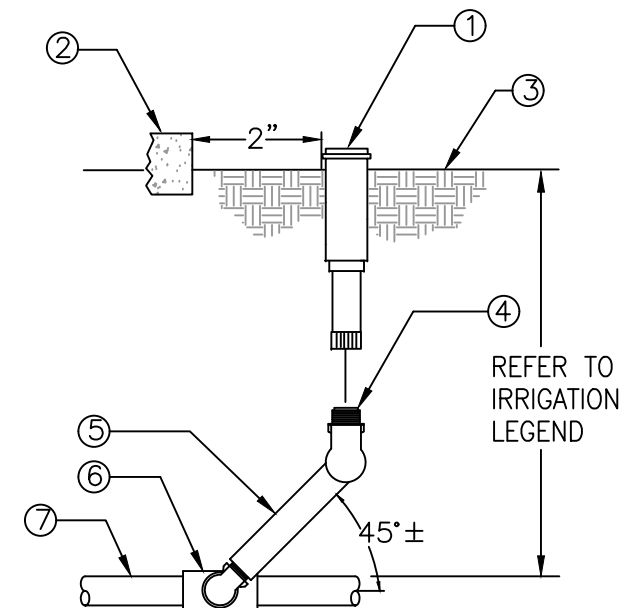
- ① #14AWG TWO WIRE CABLE FROM CONTROLLER. REFER TO IRRIGATION NOTES FOR MODEL NUMBER OF WIRE. ALLOW A 24" SLACK PER DECODER. USE ELECTRICAL TAPE TO HOLD SLACK CABLES TOGETHER.
- ② TWO WIRE CABLE TO NEXT DECODER
- ③ 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
- ④ A MAXIMUM OF 4" OF WIRE SHALL BE STRIPPED FROM TWO WIRE CABLE WHEN SPLICING AT DECODERS.
- ⑤ CONNECT CORRECT DECODER WIRES TO TWO WIRE CABLES.
- ⑥ DECODER
- ⑦ CONNECT CORRECT DECODER WIRES TO VALVE SOLENOID WIRES
- ⑧ VALVE BOX. REFER TO REMOTE CONTROL VALVE DETAIL FOR
- ⑨ REMOTE CONTROL VALVE. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
- ⑩ 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SLEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROOF FOAM.
- ⑪ BRICK—ONE ON EACH CORNER
- ⑫ BARE COPPER GROUND WIRE. SPLICE INTO GROUND WIRE AT DECODER. ONLY REQUIRED AT EVERY 10TH DECODER AND AT THE ENDS OF THE LINE.
- ⑬ 8' LONG COPPER GROUND ROD. LOCATE A MINIMUM OF 8' AWAY FROM DECODER AND TWO WIRE CABLE. LOCATE IN 10" ROUND BOX.
- ⑭ CADDLED CONNECTIONS



- ① TOP ENTRY IRRIGATION CONTROLLER.
- ② #6 BARE COPPER GROUND WIRE.
- ③ 120 VOLT LOCKABLE WEATHERPROOF ON/OFF SWITCH PROVIDED UNDER IRRIGATION CONTRACT.
- ④ 120 VOLT A.C. ELECTRICAL SERVICE FROM SOURCE TO CONTROLLER LOCATION PROVIDED BY CONTRACTOR. IRRIGATION CONTRACTOR TO PROVIDE RIGID STEEL CONDUIT FROM SERVICE STUB—OUT TO CONTROLLER GCFI SWITCH AND COMPLETE ELECTRICAL SERVICE TO CONTROLLER.
- ⑤ WT-SB-16SS (16"W,38"H,15.5"D) PEDESTAL ENCLOSURE.
- ⑥ LOW VOLTAGE CONTROL WIRING.
- ⑦ CONCRETE PAD-6" [150mm] THICK (MIN.) EXTEND 6" [150mm] BEYOND EACH SIDE AND BACK, 24" [600mm] IN FRONT AND 1" [25mm] ABOVE FINISH GRADE.
- ⑧ FINISH GRADE.
- ⑨ SCHEDULE 40 GREY PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR LOW VOLTAGE WIRE.
- ⑩ 24" MIN. [600mm] AND OR 12" [300mm] BEYOND HARDCAPE.
- ⑪ 1 1/2" [40mm] PVC SWEEP ELL FOR GROUND WIRE.
- ⑫ 6" ROUND BLACK PLASTIC BOX WITH T-LID FOR GROUND ROD.
- ⑬ CADWELD CONNECTIONS
- ⑭ 8" LONG COPPER GROUND ROD. LOCATE A MINIMUM OF 10' AWAY FROM CONTROLLER.

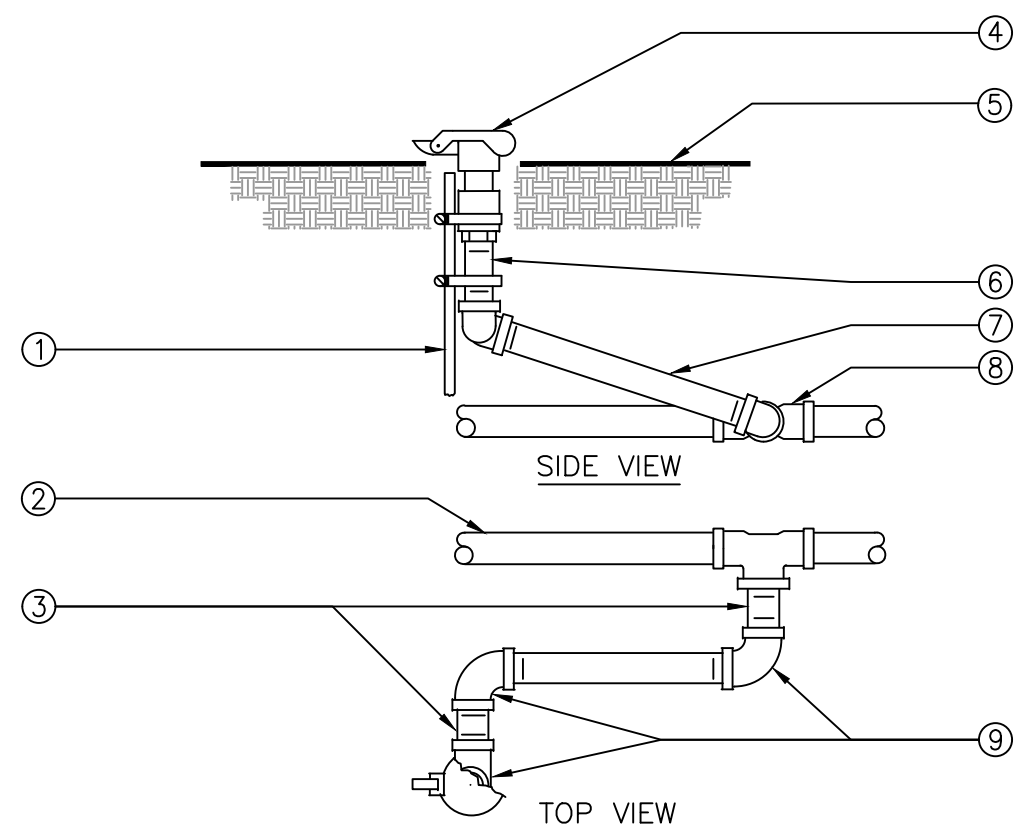


- NOTES:
1. SET FLUSH WITH GRADE IN TURF AREAS
 2. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS ROTARY SPRINKLER IPT INLET THREAD SIZE.



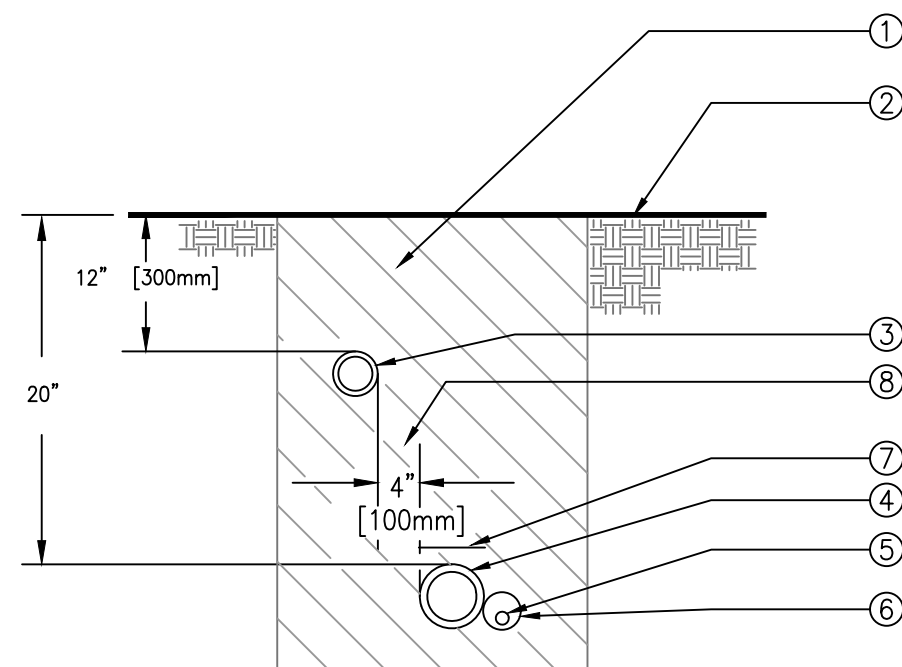
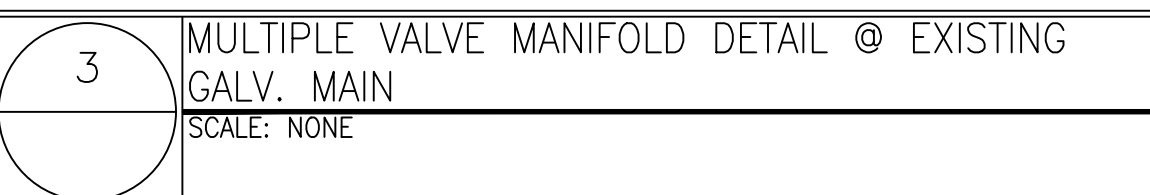
- INSTALLATION NOTES:
THE SWING JOINT LAY ARM IS TO BE INSTALLED AT AN ANGLE BETWEEN 30° AND 45°

- ① LAWN POP-UP ROTARY SPRINKLER
- ② WALK, CURB, EDGE OF ROAD.
- ③ FINISH GRADE
- ④ MALE IPS THREAD OF SWING JOINT
- ⑤ UNITIZED SWING JOINT: 3/4"-LASCO MODEL T732-212 OR 1"-LASCO MODEL T932-212
- ⑥ SCHEDULE 40 PVC TEE OR ELBOW WITH THREADED OUTLET
- ⑦ PVC LATERAL LINE

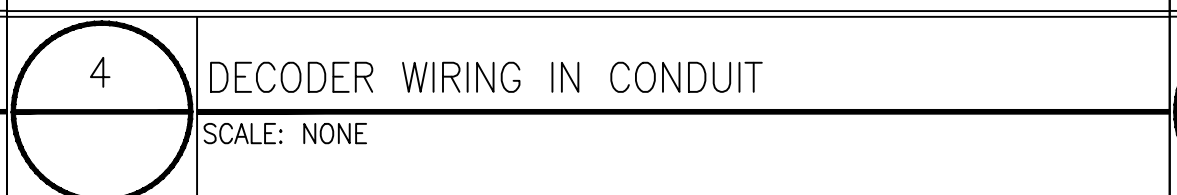


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| ① 1 1/4" x 1 1/4" x 3/16" [30mm x 30mm x 5mm] ANGLE IRON 30" | ⑤ FINISH GRADE. |
| [760mm] LONG W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV). | ⑥ SCHEDULE 40 GALVANIZED NIPPLE.—LENGTH AS REQUIRED. |
| ② GALVANIZED MAIN LINE. | ⑦ 12" [250mm] LONG SCHEDULE 40 GALVANIZED THREADED NIPPLE. |
| ③ 3" [75mm] LONG SCHEDULE 40 GALVANIZED THREADED NIPPLE. | ⑧ GALVANIZED SCHEDULE 40 TEE (T×T). |
| ④ QUICK COUPLING VALVE. | ⑨ SCHEDULE 40 GALVANIZED THREADED 90° ELL. |

NOTE:
NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.

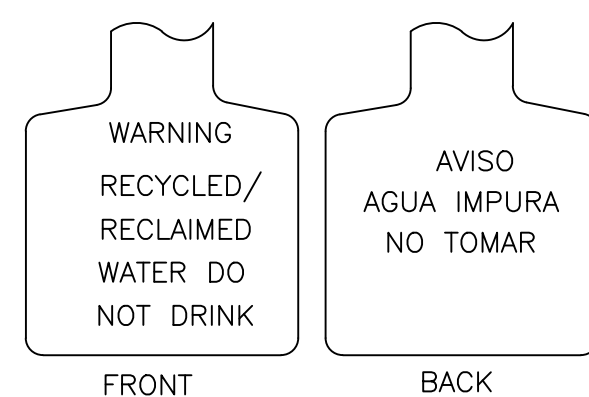


- ① CLEAN BACKFILL MATERIAL.
- ② FINISH GRADE.
- ③ LATERAL LINE.
- ④ MAIN LINE.
- ⑤ TWO WIRE CABLE WITHIN CONDUIT.
- ⑥ 1.5" CONDUIT
- ⑦ PURPLE DETECTABLE WARNING TAPE OVER MAIN LINE - 3" [75mm]
ABOVE PIPE.
- ⑧ TYPICAL DISTANCE BETWEEN PIPES.



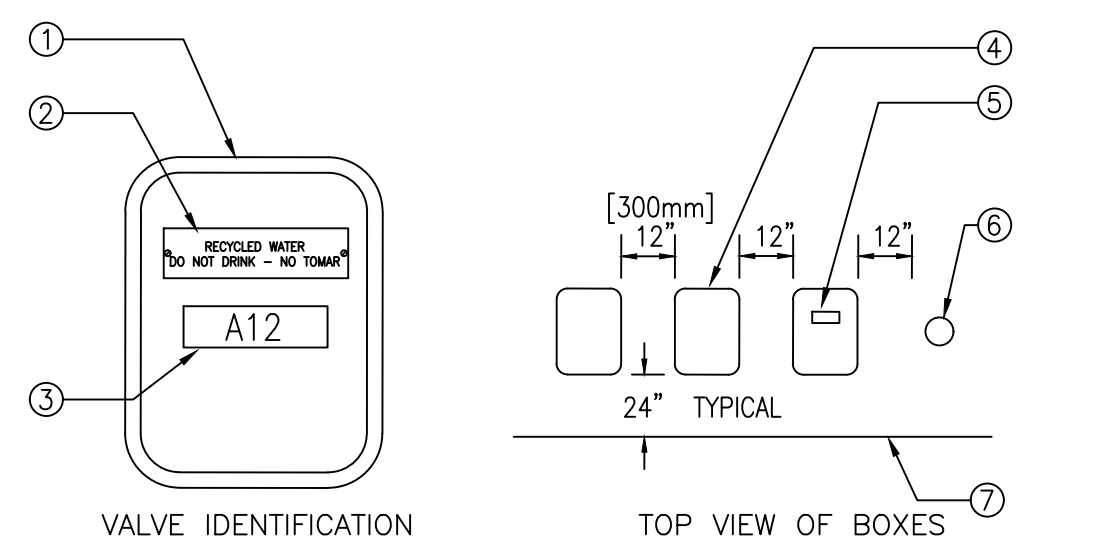
NOTE:

T CHRISTY ENTERPRISES INC.
P/N: ID-MAX-P2-RC006
(OR EQUAL)



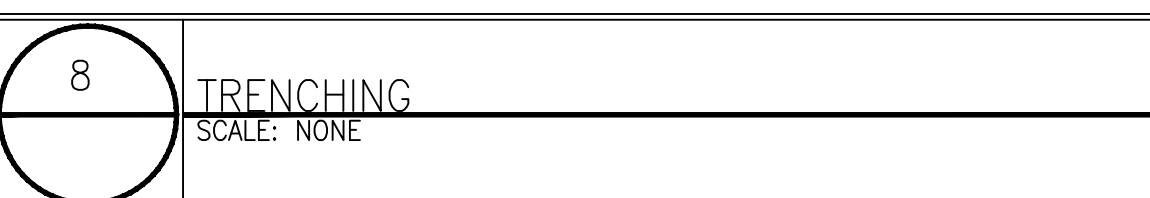
SAMPLE WARNING TAG.
BACKGROUND PURPLE
(PANTONE 512) WITH BLACK LETTERING.

RECYCLED WATER VALVE TAGS/DECALS



- | | |
|--|---|
| ① VALVE BOX COVER | ④ RECTANGULAR VALVE BOX |
| ② VALVE BOX NAMEPLATE.
ATTACH WITH 1/8" RIVETS OR
#10 STAINLESS STEEL CREWS MIN. | ⑤ VALVE BOX NAMEPLATE (TYPICAL). |
| ③ CONTROLLER AND STATION
NAMEPLATE | ⑥ QUICK COUPLER. |
| | ⑦ EDGE OF LAWN, WALK, FENCE, CURB, ETC. |

- INSTRUCTIONS:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
 2. SET BOXES 1" [25mm] ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
 3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
 4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
 5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
 6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.



				<div>SCALES</div> <div><div>0</div><div></div><div>1"</div></div> <div><div>0</div><div></div><div>25mm</div></div> <div>IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.</div>		DESIGNED	SAN FRANCISCO RECREATION AND PARK DEPARTMENT	NEW IRRIGATION SAN FRANCISCO MUSIC CONCOURSE	
					DRAWN	IRRIGATION DETAILS		SCALE: NTS	
					CHECKED		DATE JULY 2020		
							SHEET 1 — 4		
NO.	REVISION	DATE	BY						

**THE ULTIMATE TOP ENTRY ENCLOSURE
WEATHER RESISTANT—VANDAL RESISTANT**

- 100% stainless steel construction assures long-term, rustproof durability and additional strength
- Three point locking mechanism, flush mounted access handle and heavy duty continuous hinge ensures maximum security
- Removable, predrilled backboard and trays provide for easy installation of controllers
- Chameleon effect of the natural brushed stainless steel finish provides an unobtrusive quality
- 38" height with flip top access provides ease of viewing and programming
- Filtered side louvers at bottom and top allow passive cross flow ventilation
- Mounting template, stainless steel anchors and instructions
- Ten year limited warranty
- NEMA TYPE 3R rated UL Listed
- All stainless steel enclosures may be powder coated in many colors at an additional charge

To be powder coated
in dark green

**SB-16SS
16" Wide Enclosure**

- 16" Wide, 38" High, 15.5" Deep
- NEMA TYPE 3R Weatherproof
- Three point locking door
- Padlock security provisions
- Mounting template and J bolt anchors
- Standard tray and backboards included

SPECIFICATION ON PAGE 42

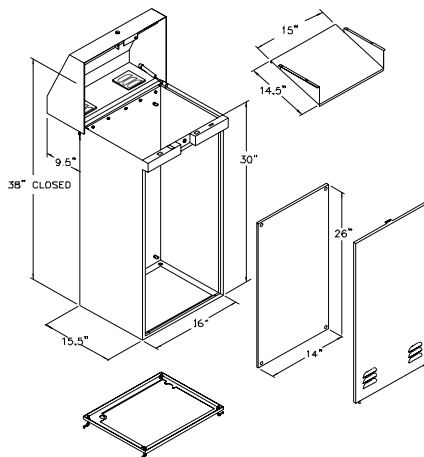


Figure 1 - Strong Box Detail



Figure 2 - IRRIGATION PEDESTAL LOCATION (LOOKING WEST)



New Irrigation
Controller Pedestal

Figure 3 - IRRIGATION PEDESTAL LOCATION (LOOKING NORTH)

Appendix C:

Environmental Determination



SAN FRANCISCO PLANNING DEPARTMENT

CEQA Common Sense Exemption Determination

PROPERTY INFORMATION/PROJECT DESCRIPTION

Project Name		Block/Lot(s)
REC & PARK: Music Concourse Irrigation		1700/001
Case No.		Permit No.
2019-017681ENV		N/A
<input type="checkbox"/> Addition/ Alteration	<input type="checkbox"/> Demolition (requires HRE for Category B Building)	<input type="checkbox"/> New Construction
Project description for Planning Department approval. Recreation and Park Department proposes the installation of new irrigation lateral lines within the Music Concourse in Golden Gate Park by hand digging to avoid damage to trees. The maximum depth of excavation would be 1.5 feet.		

STEP 1: EXEMPTION DETERMINATION

The project has been determined to be exempt under the California Environmental Quality Act (CEQA).	
<input checked="" type="checkbox"/>	Common Sense Exemption (CEQA Guidelines section 15061(b)(3))

STEP 2: CEQA IMPACTS

TO BE COMPLETED BY PROJECT PLANNER

<input type="checkbox"/>	Air Quality: Would the project add new sensitive receptors (specifically, schools, day care facilities, hospitals, residential dwellings, and senior-care facilities within an Air Pollution Exposure Zone? Does the project have the potential to emit substantial pollutant concentrations (e.g., backup diesel generators, heavy industry, diesel trucks, etc.)? (refer to EP_ArcMap > CEQA Catex Determination Layers > Air Pollution Exposure Zone)
<input checked="" type="checkbox"/>	Hazardous Materials: If the project site is located on the Maher map or is suspected of containing hazardous materials (based on a previous use such as gas station, auto repair, dry cleaners, or heavy manufacturing, or a site with underground storage tanks): Would the project involve 50 cubic yards or more of soil disturbance - or a change of use from industrial to residential? <i>If the applicant presents documentation of enrollment in the San Francisco Department of Public Health (DPH) Maher program, a DPH waiver from the Maher program, or other documentation from Environmental Planning staff that hazardous material effects would be less than significant (refer to EP_ArcMap > Maher layer).</i>
<input type="checkbox"/>	Transportation: Does the project involve a childcare facility or school with 30 or more students, or a location 1,500 sq. ft. or greater? Does the project have the potential to adversely affect transit, pedestrian and/or bicycle safety (hazards) or the adequacy of nearby transit, pedestrian and/or bicycle facilities?

<input checked="" type="checkbox"/>	Archeological Resources: Would the project result in soil disturbance/modification greater than two (2) feet below grade in an archeological sensitive area or eight (8) feet in a non-archeological sensitive area? If yes, archeo review is required (<i>refer to EP_ArcMap > CEQA Catex Determination Layers > Archeological Sensitive Area</i>)
<input type="checkbox"/>	Subdivision/Lot Line Adjustment: Does the project site involve a subdivision or lot line adjustment on a lot with a slope average of 20% or more? (<i>refer to EP_ArcMap > CEQA Catex Determination Layers > Topography</i>). If yes, Environmental Planning must issue the exemption.
<input type="checkbox"/>	Slope = or > 25%: Does the project involve any of the following: (1) square footage expansion greater than 500 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (<i>refer to EP_ArcMap > CEQA Catex Determination Layers > Topography</i>) If box is checked, a geotechnical report is required and Environmental Planning must issue the exemption.
<input type="checkbox"/>	Seismic: Landslide Zone: Does the project involve any of the following: (1) square footage expansion greater than 500 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (<i>refer to EP_ArcMap > CEQA Catex Determination Layers > Seismic Hazard Zones</i>) If box is checked, a geotechnical report is required and Environmental Planning must issue the exemption.
<input type="checkbox"/>	Seismic: Liquefaction Zone: Does the project involve any of the following: (1) square footage expansion greater than 500 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (<i>refer to EP_ArcMap > CEQA Catex Determination Layers > Seismic Hazard Zones</i>) If box is checked, a geotechnical report will likely be required and Environmental Planning must issue the exemption.

Comments and Planner Signature (optional):

The project site is listed on the GeoTracker database as a "COMPLETED — CASE CLOSED" site. This means that a closure letter or other formal closure decision has been issued for the site because corrective action to ensure protection of human health, safety, and the environment, in accordance with standards set by the State, has been completed for the site. The project site once contained an underground storage tank, subject to the State Water Resources Control Board's local oversight program (LOP). Under the LOP, the San Francisco Department of Public Health (acting as a certified local agency designated by the state) provided regulatory oversight for the abatement of any unauthorized releases of hazardous substances from underground storage tanks, in accordance with State laws and regulations. On April 25, 2001, the San Francisco Department of Public Health issued a Remedial Action Completion Certification for the underground storage tank for the DeYoung Museum at 25 Tea Garden Drive, San Francisco.

Based on the performance standards required by the State to ensure that no adverse impacts with respect to public health and safety would occur, it can be clearly demonstrated that the project has no potential to have significant environmental effects with respect to hazardous substances on the site.

On May 26, 2020, Planning Department staff archeologist determined that the project has the potential to adversely affect archeological resources. This impact may be avoided by implementation of RPD's Standard Archeological Measure I (Discovery during Construction), with implementation of Standard Archeological Measures II (Monitoring) and/or III (Testing/ Data Recovery) in the event of a discovery during construction.

**STEP 3: PROPERTY STATUS - HISTORIC RESOURCE
TO BE COMPLETED BY PROJECT PLANNER**

PROPERTY IS ONE OF THE FOLLOWING: (<i>refer to Property Information Map</i>)	
<input checked="" type="checkbox"/>	Category A: Known Historical Resource. GO TO STEP 5.
<input type="checkbox"/>	Category B: Potential Historical Resource (over 45 years of age). GO TO STEP 4.
<input type="checkbox"/>	Category C: Not a Historical Resource or Not Age Eligible (under 45 years of age). GO TO STEP 6.

**STEP 4: PROPOSED WORK CHECKLIST
TO BE COMPLETED BY PROJECT PLANNER**


Check all that apply to the project.	
<input type="checkbox"/>	1. Change of use and new construction. Tenant improvements not included.
<input type="checkbox"/>	2. Regular maintenance or repair to correct or repair deterioration, decay, or damage to building.
<input type="checkbox"/>	3. Window replacement that meets the Department's <i>Window Replacement Standards</i> . Does not include storefront window alterations.
<input type="checkbox"/>	4. Garage work. A new opening that meets the <i>Guidelines for Adding Garages and Curb Cuts</i> , and/or replacement of a garage door in an existing opening that meets the Residential Design Guidelines.
<input type="checkbox"/>	5. Deck, terrace construction, or fences not visible from any immediately adjacent public right-of-way.
<input type="checkbox"/>	6. Mechanical equipment installation that is not visible from any immediately adjacent public right-of-way.
<input type="checkbox"/>	7. Dormer installation that meets the requirements for exemption from public notification under <i>Zoning Administrator Bulletin No. 3: Dormer Windows</i> .
<input type="checkbox"/>	8. Addition(s) that are not visible from any immediately adjacent public right-of-way for 150 feet in each direction; does not extend vertically beyond the floor level of the top story of the structure or is only a single story in height; does not have a footprint that is more than 50% larger than that of the original building; and does not cause the removal of architectural significant roofing features.
Note: Project Planner must check box below before proceeding.	
<input checked="" type="checkbox"/>	Project is not listed. GO TO STEP 5.
<input type="checkbox"/>	Project does not conform to the scopes of work. GO TO STEP 5.
<input type="checkbox"/>	Project involves four or more work descriptions. GO TO STEP 5.
<input type="checkbox"/>	Project involves less than four work descriptions. GO TO STEP 6.

**STEP 5: CEQA IMPACTS – ADVANCED HISTORICAL REVIEW
TO BE COMPLETED BY PROJECT PLANNER**

Check all that apply to the project.	
<input type="checkbox"/>	1. Project involves a known historical resource (CEQA Category A) as determined by Step 3 and conforms entirely to proposed work checklist in Step 4.
<input type="checkbox"/>	2. Interior alterations to publicly accessible spaces.
<input type="checkbox"/>	3. Window replacement of original/historic windows that are not “in-kind” but are consistent with existing historic character.
<input type="checkbox"/>	4. Façade/storefront alterations that do not remove, alter, or obscure character-defining features.
<input type="checkbox"/>	5. Raising the building in a manner that does not remove, alter, or obscure character-defining features.
<input type="checkbox"/>	6. Restoration based upon documented evidence of a building's historic condition, such as historic photographs, plans, physical evidence, or similar buildings.

<input type="checkbox"/>	7. Addition(s) , including mechanical equipment that are minimally visible from a public right-of-way and meet the <i>Secretary of the Interior's Standards for Rehabilitation</i> .
<input checked="" type="checkbox"/>	8. Other work consistent with the <i>Secretary of the Interior Standards for the Treatment of Historic Properties</i> (specify or add comments): Work consistent with the Secretary of the Interior's Standards per COA.
<input type="checkbox"/>	9. Other work that would not materially impair a historic district (specify or add comments): (Requires approval by Senior Preservation Planner/Preservation Coordinator)
<input type="checkbox"/>	10. Reclassification of property status. (Requires approval by Senior Preservation Planner/Preservation <input type="checkbox"/> Reclassify to Category A <input type="checkbox"/> Reclassify to Category C a. Per HRER or PTR dated (attach HRER or PTR) b. Other (specify):
Note: If ANY box in STEP 5 above is checked, a Preservation Planner MUST sign below.	
<input checked="" type="checkbox"/>	Project can proceed with exemption review. The project has been reviewed by the Preservation Planner and can proceed with exemption review. GO TO STEP 6.
Comments (optional):	
Preservation Planner Signature: Michelle A Taylor 11/14/2019	

**STEP 6: EXEMPTION DETERMINATION
TO BE COMPLETED BY PROJECT PLANNER**

<input checked="" type="checkbox"/>	No further environmental review is required. The project is exempt under CEQA. There is no possibility of a significant effect on the environment.	
	Project Approval Action: RPD Staff Approval	Signature:
	If Discretionary Review before the Planning Commission is requested, the Discretionary Review hearing is the Approval Action for the project.	 Don Lewis 8/25/2020
Once signed or stamped and dated, this document constitutes an exemption pursuant to CEQA Guidelines and Chapter 31 of the Administrative Code. In accordance with Chapter 31 of the San Francisco Administrative Code, an appeal of an exemption determination can only be filed within 30 days of the project receiving the approval action. Please note that other approval actions may be required for the project. Please contact the assigned planner for these approvals.		

STEP 7: MODIFICATION OF A CEQA EXEMPT PROJECT

TO BE COMPLETED BY PROJECT PLANNER

In accordance with Chapter 31 of the San Francisco Administrative Code, when a California Environmental Quality Act (CEQA) exempt project changes after the Approval Action and requires a subsequent approval, the Environmental Review Officer (or his or her designee) must determine whether the proposed change constitutes a substantial modification of that project. This checklist shall be used to determine whether the proposed changes to the approved project would constitute a "substantial modification" and, therefore, be subject to additional environmental review pursuant to CEQA.

MODIFIED PROJECT DESCRIPTION

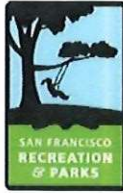
Modified Project Description:

DETERMINATION IF PROJECT CONSTITUTES SUBSTANTIAL MODIFICATION

Compared to the approved project, would the modified project:	
<input type="checkbox"/>	Result in expansion of the building envelope, as defined in the Planning Code;
<input type="checkbox"/>	Result in the change of use that would require public notice under Planning Code Sections 311 or 312;
<input type="checkbox"/>	Result in demolition as defined under Planning Code Section 317 or 19005(f)?
<input type="checkbox"/>	Is any information being presented that was not known and could not have been known at the time of the original determination, that shows the originally approved project may no longer qualify for the exemption?
If at least one of the above boxes is checked, further environmental review is required.	

DETERMINATION OF NO SUBSTANTIAL MODIFICATION

<input type="checkbox"/>	The proposed modification would not result in any of the above changes.
If this box is checked, the proposed modifications are exempt under CEQA, in accordance with prior project approval and no additional environmental review is required. This determination shall be posted on the Planning Department website and office and mailed to the applicant, City approving entities, and anyone requesting written notice. In accordance with Chapter 31, Sec 31.08j of the San Francisco Administrative Code, an appeal of this determination can be filed within 10 days of posting of this determination.	
Planner Name:	Date:



London N. Breed, Mayor
Philip A. Ginsburg, General Manager

General Manager Directive 19-03
Adopting Standard Construction Measures
December 17, 2019

To: RPD Capital and Planning Division
From: Philip Ginsburg, General Manager 
cc: Toks Ajike, Director of Capital and Planning
Stacy Radine Bradley, Deputy Director of Planning
Re: Adopting Standard Construction Measures

With this GM Directive, RPD Capital and Planning Division staff are directed to use the attached *Standard Construction Measures* ("Measures") for all capital projects. These Measures ensure compliance with environmental laws and best practices. The following measures are included in these standards:

- Air Quality
- Water Quality
- Biological Resources
- Visual and Aesthetic Considerations, Project Site
- Cultural Resources, Archaeology and Historic Resources

During project planning the PM should use the measures to identify and address specific environmental concerns. In addition to complying with all applicable Local, State, and Federal laws and regulations, these Measures are to be followed as a standard practice in the execution of every capital RPD project. These measures align with Public Works standard construction measures. Public Works typically manages the bidding process for RPD capital improvements.

For projects that undergo full CEQA review (Mitigated Negative Declaration or Environmental Impact Report), these Measures may be superseded and/or amplified with more detailed, project-specific mitigation measures or conditions stipulated in the project CEQA document and/or permits. The PM is responsible for ensuring the Standard Construction Measures are integrated into their project.

For assistance with these measures, contact the RPD Planning Unit staff.

ATTACHMENT A – RPD Standard Construction Measures and Attachments A-H



San Francisco Recreation and Park Department Standard Construction Measures

1. **AIR QUALITY:** All San Francisco Recreation and Park Department (RPD) projects will comply with the Construction Dust Control Ordinance (see Attachment A). Major construction projects that are estimated to require 20 or more days of cumulative days of work within the Air Pollutant Exposure Zone must comply with the additional clean construction requirements of the Clean Construction Ordinance¹ (see Attachment B).
2. **WATER QUALITY:** All RPD projects will implement erosion and sedimentation controls, as necessary, tailored to the project site, such as fiber rolls and/or gravel bags around storm drain inlets, installation of silt fences, and other such measures sufficient to prevent discharges of sediment and other pollutants to storm drains and all surface waterways, such as San Francisco Bay, the Pacific Ocean, water supply reservoirs, wetlands, swales, and streams. As required, based on project location and size, a Stormwater Control Plan (in most areas of San Francisco) or a Stormwater Pollution Prevention Plan (SWPPP) (in certain areas of San Francisco) will be prepared. If uncontaminated groundwater is encountered during excavation activities, it will be discharged in compliance with applicable water quality standards and discharge permit requirements.
3. **BIOLOGICAL RESOURCES:** The RPD will comply with all local, State, and federal requirements for surveys, analysis, and protection of biological resources (e.g., Migratory Bird Treaty Act, federal and State Endangered Species Acts, etc.). RPD will screen all RPD project sites and the immediately surrounding area to determine whether significant biological resources may be affected by construction. If significant biological resources are present, a qualified biologist will carry out a survey of the project site to note the presence of general biological resources and to identify whether habitat for special-status species and/or migratory birds is present. If necessary, measures will be implemented to protect biological resources, such as installing wildlife exclusion fencing, establishing work buffer zones, installing bird deterrents, monitoring by a qualified biologist, and other such measures. If tree removal is required, RPD would comply with any applicable tree protection ordinance and policy.
4. **VISUAL AND AESTHETIC CONSIDERATIONS, PROJECT SITE:** RPD will maintain all project sites in a clean and orderly state. Construction staging areas will be sited away from public view, and on currently paved or previously disturbed areas, where possible. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects. Upon project completion, project sites on City-owned lands will be returned to their general pre-project condition, including re-grading of the site and re-vegetation or re-paving of disturbed

¹ https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf, accessed December 16, 2019.

areas to the extent this is consistent with the Park Code and San Francisco Administrative Code and Charter.

5. CULTURAL RESOURCES: RPD will screen all projects that will alter a building or structure, produce vibrations, or include soil disturbance² to assess whether cultural resources are or may be present and could be affected, in coordination with San Francisco Planning Department Environmental Planning (EP) staff as detailed below.

Archeological Resources. No archeological review is required for a project that will not entail soil disturbance. Projects involving soil disturbance will initially be screened by RPD staff to identify whether there is demonstrable evidence of prior soil disturbance at the project site to the maximum vertical and horizontal extent of the current project's planned disturbance. RPD will complete the RPD Preliminary Archeological Checklist (PAC), Part I only (see Attachment C). For projects where prior complete soil disturbance has occurred throughout areas of planned work, RPD will provide evidence of the previous disturbance in the environmental application to be reviewed by EP Archeological staff.

- 1) For projects that are on previously undisturbed sites or where the depth/extent of prior soil disturbance cannot be documented, or where the planned project-related soil disturbance will extend beyond the depth/extent of prior soil disturbance, additional screening will be carried out as detailed below and shown on the flow chart titled "RPD Standard Construction Measure #5 Archeological Assessment Process" (see Attachment D). The EP Archeologist will complete the Preliminary Archeological Checklist, Part II (PAC) for the project, which will include recommendations for one of three Standard Archeological Measures (I - Discovery, II - Monitoring, or III - Testing/Data Recovery) to be implemented by RPD to protect and/or treat significant archeological resources identified as being present within the site and potentially affected by the project (see Attachments E, F, and G). Additional research and documentation, such as an Archeological Research Design and Treatment Plan (ARDTP), Archeological Sensitivity Study (ASA), Archeological Sensitivity Assessment Testing (ASAT), or an archeological field survey, may also be requested by EP Archeological staff. These documents will be completed by a qualified consultant from the EP Archeological Resources Consultant Pool and will be scoped, reviewed, and approved by EP Archeological staff.
- 2) RPD will implement the PAC recommendations prior to and/or during project construction consistent with Standard Archeological Measures I, II, and III, and will consult with the EP Archeologist in selecting a qualified archeological consultant from

² Soil is defined as native earthen deposits or introduced earthen fills. Soil does not include materials that were previously introduced as part of elevated planter beds or materials that were previously introduced as part of a parking lot or structure or roadway pavement section, including asphalt concrete-wearing surface, roadway base, and sub-base.

the EP Archeological Resources Consultant Pool, as needed, to implement these measures.

- 3) RPD will not begin soil-disturbing activities in archeologically sensitive areas, as identified through the above screening, until required preconstruction archeological measures of the PAC (e.g., preparation of an Archeological Monitoring Plan, Archeological Treatment Plan, and/or an Archeological Research Design and Data Recovery Plan) have been implemented.

Historic (Built Environment) Resources. RPD will consult with Planning Department Preservation staff to determine if projects that would modify an existing building, structure, or landscape feature require preservation review and if a Historic Resource Evaluation (HRE) or Cultural Landscape Report (CLR) will be required. The HRE or CLR will be prepared by a qualified architectural historian and will be scoped with Planning Department Preservation staff. Where the potential for the project to have adverse effects on an historical resource is identified by Planning Department Preservation staff, the Planning Department Preservation Planner will consult with RPD to determine if the project can be conducted as planned or if the project design can be revised to avoid the significant impact. If these options are not feasible, the project will need to undergo further environmental review with the Planning Department and mitigation may be required. If so, the project would not qualify for a Categorical Exemption from CEQA review.

Where construction will take place in proximity to a building, structure, landscape, or monument identified as a significant historical resource but would not otherwise directly affect it, RPD will implement protective measures, such as but not limited to, the erection of temporary construction barriers to ensure that inadvertent impacts to such elements are avoided. RPD will develop these measures prior to construction and document them in a Construction Best Practices for Historical Resources Plan and a plan outlining the Construction Monitoring for Historical Resources Program to be reviewed and approved by Planning Department Preservation staff prior to construction.

If a project includes or is directly adjacent to historic buildings, structures, or monument susceptible to vibration (such as but not limited to unreinforced masonry, earthen construction, lathe and plaster, statues, or fragile architectural ornamentation) as determined in consultation with Planning Department Preservation staff, the Planning Department will determine if vibrations associated with proposed construction activities has the potential to cause damage to such buildings or structures. Generally, vibration below 0.12 inches per second peak particle velocity does not have the potential to damage sensitive buildings or structures. A vibration study may be necessary to determine if such vibration levels will occur. If RPD determines in consultation with Planning Department Preservation staff that vibration damage may occur, RPD will engage a qualified historic architect or historic preservation professional to document and photograph the pre-construction condition of the building, structure, or monument and prepare a plan for monitoring the building, structure, or monument during construction. RPD

will submit the monitoring plan to the Planning Department Preservation Planner for review and approval prior to the beginning of construction. The monitoring plan will identify how often monitoring will occur, who will undertake the monitoring, reporting requirements on vibration levels, reporting requirements on damage to adjacent historical resources during construction, reporting procedures to follow if such damage occurs, and the scope of the preconstruction survey and post-construction conditions assessment. RPD will implement the approved monitoring plan during construction.

If any damage to a historic building, structure, or monument occurs, RPD will immediately notify the Planning Department Preservation Planner and modify activities to minimize further vibration. If the event of damage, RPD will repair the building following the Secretary of the Interior's Standards for the Treatment of Historic Properties under the guidance of a qualified historic architect or historic preservation professional in consultation with a Planning Department Preservation Planner.

Reporting. RPD will follow the reporting requirements specified in the applicable Standard Archeological Measures (see Attachments E—G). If Construction Best Practices for Historical Resources Plan and/or a plan outlining the Construction Monitoring for Historical Resources Program, as discussed above are required, RPD will follow reporting requirements outlined in those approved plans. RPD will provide monthly project updates to Planning Department staff.

ATTACHMENTS

- A. Construction Dust Control Measures
- B. Clean Construction Measures
- C. Recreation and Park Department Preliminary Archeological Checklist (PAC)
- D. Recreation and Park Department Standard Construction Measure #5 Archeological Assessment Process
- E. Recreation and Park Department Archeological Measure I (Archeological Discovery)
- F. Recreation and Park Department Archeological Measure II (Archeological Monitoring)
- G. Recreation and Park Department Archeological Measure III (Archeological Testing/Data Recovery)
- H. Archeological Alert Sheet

Attachment A: San Francisco Recreation & Parks Department (RPD) Dust-Control Measures

For the purposes of this document, “sensitive receptor” means residence, school, childcare center, hospital or other health-care facility or group living quarters, and “visible dust” means dust comprising visible emissions as defined in Bay Area Air Quality Management Board Regulation 6 – Particulate Matter.

For all projects, RPD will institute through its construction specifications the following dust-control measures to achieve a goal of no visible dust emissions:

- Clean up spillage on City streets, whether directly or indirectly caused by construction operations.
- Remove demolition debris from the Site no later than the end of each workday. Any hazardous materials and/or suspected hazardous materials stored on site shall be stored in accordance with all applicable Cal EPA regulations, including being stored in proper containers and being protected from exposure from the elements. Any such materials shall be removed from the site as soon as possible for disposal/recycling in accordance with all applicable statutes and regulations.
- Keep the Site and adjacent areas clean and perform wet sweeping at the end of each shift.
- Perform continuous water spraying during dust generating activities. Mist or spraying shall be conducted in such a way as to prevent puddling or generation of runoff. Mist any immediate area of demolition with a water spray to prevent airborne dust particles.
- Wet all exposed soil surfaces at least three times daily during dry weather or more frequently if dust is blowing or if required by the City. Any serpentine residuals on the street shall be wet swept immediately.
- Use dust enclosures, curtains, and dust collectors as necessary to control dust.
- Load haul trucks, hauling debris, soils, sand or other such materials so that the material does not extend above the walls or back of the truck bed. Wet before covering and tightly cover the surface of each load before the haul truck leaves the loading area.
- Limit vehicle speed limit on unpaved roads to 15 miles per hour (mph).
- Cover any inactive (no disturbance for more than seven days) stockpiles greater than ten cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil with a 10 mil (0.01 inch) polyethylene plastic or equivalent tarp and brace it down or use other equivalent soil stabilization techniques.
- Reclaimed water will be used for all dust-control operations to the extent feasible (without resorting to extraordinary means and measures) and allowed by law.

If the project grades or excavates more than one half acre surface area at any given time, and the project is within 1,000 feet of a sensitive receptor as defined above, RPD or its contractor shall prepare a Site-Specific Dust Control Plan for the review and approval of the Department of Public Health. The site-specific dust control plan shall contain mapping identifying locations of sensitive receptors and contain additional site-specific dust monitoring and control measures that will apply to the project. These site-specific measures may include the following or equivalent measures, which accomplish the goal of minimizing visible dust:

- Wetting down areas around soil improvement operations, visibly dry disturbed soil surface areas, and visibly dry disturbed unpaved driveways at least three times per shift per day.
- Analysis of the wind direction.
- Placement of upwind and downwind particulate dust monitors.
- Recordkeeping for particulate monitoring results.
- Hiring of an independent third party to conduct inspections for visible dust and keeping records of those inspections.
- Requirements for when dust generating operations have to be shut down due to dust crossing the property boundary or if dust is contained within the property boundary but not controlled after a specified number of minutes.
- Establishing a hotline for surrounding community members to call and report visible dust problems so that RPD or its contractor can promptly fix those problems; posting signs around the site with the hotline number and making sure that the number is given to adjacent residents, schools and businesses.
- Limiting the area subject to excavation, grading, and other demolition or construction activities at any one time.
- Minimizing the amount of excavated material or waste materials stored at the site.
- Installing dust curtains, plastic tarps or windbreaks, or planting tree windbreaks on the property line on windward and down windward sides of construction areas, as necessary.
- Paving, applying water three times daily, or applying non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at the construction site. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the San Francisco Public Works Code, Article 22. If not required, reclaimed water should be used whenever possible.
- Establishing speed limits so that vehicles entering or exiting construction areas shall travel at a speed that minimizes dust emissions. This speed shall be no more than 15 mph.
- Installing wheel washers to clean all trucks and equipment leaving the construction site. If wheel washers cannot be installed, tires or tracks and spoil trucks shall be brushed off before they re-enter City streets to minimize deposition of dust-causing materials.
- Terminating excavation, grading, and other construction activities when winds speeds exceed 25 mph.
- Hydroseeding inactive construction areas, including previously graded areas inactive for at least 10 calendar days, or applying non-toxic soil stabilizers.
- Sweeping of surrounding streets during demolition, excavation and construction at least once per day to reduce particulate emissions.

SECTION 01 35 48**ADDITIONAL CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR
CONSTRUCTION PROJECTS****PART 1 – GENERAL****1.01 SUMMARY**

- A. This Section 01 35 48 incorporates additional requirements of the San Francisco Clean Construction Ordinance ("Ordinance") for projects that meet the requirements of Environment Code Section 2504(a), which are located in the Air Pollutant Exposure Zone and which are within 1,000 feet of a Sensitive Use, as set forth in Chapter 25 of the Environment Code and Section 6.25 of the Administrative Code.
- B. For projects that meet Environment Code Section 2504(b), which are located outside the Air Pollutant Exposure Zone, or which are in the Air Pollutant Exposure Zone but are not within 1,000 feet of a Sensitive Use, refer to Section 00 73 73, Article "CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS."
- C. The Department of the Environment is responsible for administering the Ordinance. For more information about the Ordinance and its implementation, please visit the Department of Public Health website at:
<https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp> and
https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf.

1.02 DEFINITIONS

- A. "Air Pollutant Exposure Zone" means a zone having a substantially greater than average concentration of air pollutants as defined in Health Code Section 3804.
- B. "Alternative Fuels" means any transportation fuel that is less polluting than gasoline or petroleum diesel fuel, as determined by the California Air Resource Board and that is shown to have lower lifecycle carbon emissions than gasoline or petroleum diesel. Alternative Fuels may include, but are not limited to: natural gas; propane; biofuels from low carbon, sustainable and preferably local sources; hydrogen produced from low carbon and/or renewable sources; and electricity.
- C. "Alternative Sources of Power" means utility-based electric power or other power sources other than diesel engines.
- D. "ARB" means the California Air Resources Board.

- E. "Clean Construction" means the performance of all work required to be performed under a Public Works contract meeting the requirements in Sections 2504, 2505 and 2506 of the Environment Code, as applicable.
- F. "Construction" means building, demolition, excavation, grading or foundation work, whether or not the work requires a City permit.
- G. "Construction Activities" means the performance of all work involved in or required for Construction, except for the issuance or obtaining of a site permit for a project.
- H. "Construction Phase" means a particular construction activity over a certain period of time. Construction phases may include, but are not limited to, demolition, site preparation, grading, building construction, architectural coatings, and paving. Multiple Construction Phases of a single project may take place at the same time.
- I. "Equipment" means off-road and on-road equipment.
- J. "Equipment Type" means a category of off-road equipment. Types of off-road equipment include bore/drill rigs, cranes, crawler tractors, excavators, graders, off-highway tractors, off-highway trucks, other construction equipment, pavers, paving equipment, rollers, rough terrain forklifts, rubber-tired dozers, rubber-tired loaders, scrapers, skid steer loaders, surfacing equipment, tractors/loaders/backhoes, and trenchers.
- K. "Major Construction Project" means a public work to be performed within the geographic limits of the City that uses off-road equipment and that is estimated to require 20 or more cumulative days of work, including non-consecutive days, to complete.
- L. "Most Effective Verified Diesel Emission Control Strategy" means a device, system or strategy that is verified, pursuant to Division 3, Chapter 14, of Title 13 of the California Code of Regulations, to achieve the highest level of pollution control from an off-road vehicle.
- M. "Off-Road Engine" means a non-road engine as defined in Title 40 of the Code of Federal Regulations, Section 89.2.
- N. "Off-Road Equipment" means equipment with an off-road engine having greater than 25 horsepower and operating for more than 20 total hours over the entire duration of Construction Activities.
- O. "On-Road Equipment" means a heavy-duty vehicle as defined in Title 40 of the Code of Federal Regulations, Section 86.1803-01.
- P. "Portable Diesel Engine" means a diesel engine that is portable as defined in 71 California Code of Regulations, Section 93116.2(bb).

- Q. "Sensitive Use" means a category of building use identified as a "Sensitive Use" in Health Code Section 3804.
- R. "Tier 2 Off-Road Emission Standards" means the Tier 2 new engine emission standards in Title 13, California Code of Regulations, Section 2423(b)(1)(A) and/or Title 40, Code of Federal Regulations, Part 89.112(a).
- S. "VDECS" means a verified diesel emission control strategy, designed primarily for the reduction of diesel particulate matter emissions, which has been verified by ARB pursuant to "Verification Procedures, Warranty and In-Use Strategies to Control Emissions from Diesel Engines," Title 13, California Code of Regulations, Sections 2700-2710. VDECS can be verified to achieve Level 1 diesel particulate matter reductions (at least 25 percent), Level 2 diesel particulate matter reductions (at least 50 percent), or Level 3 diesel particulate matter reductions (at least 85 percent).

1.03 SUBMITTALS

- A. Construction Emissions Minimization Plan:
 - 1. Contractor shall submit its initial Construction Emissions Minimization Plan no less than 28 days prior to mobilization. (See Subsection 1.04B.)
 - 2. Contractor shall submit an updated Construction Emissions Plan on a quarterly basis in compliance with Subsection 1.04B.5.a, and submit each quarterly report within seven business days of the end of each quarter.
 - 3. Contractor shall submit a final Construction Emissions Minimization Plan report summarizing construction activities within two weeks of achieving Substantial Completion in compliance with Subsection 1.04B.5.b.
- B. Clean Construction Emissions Plan Certification Statement: Contractor shall submit this statement with its Construction Emissions Minimization Plan. (See Subsection 1.04B.3.)
- C. Waiver Request: Contractor shall submit a waiver request to the Department Head no less than two weeks prior to the planned use of a specific piece of off-road equipment. (See Subsection 1.05A.)

1.04 REQUIREMENTS FOR MAJOR CONSTRUCTION PROJECTS WITHIN THE AIR POLLUTANT EXPOSURE ZONE

- A. For all Major Construction Projects that meet the requirements of Environment Code Section 2504(a) and which are located in the Air Pollutant Exposure Zone and within 1,000 feet of a Sensitive Use, the following requirements apply:
 - 1. All off-road equipment shall have engines that (a) meet or exceed either United States Environmental Protection Agency or ARB Tier 2 off-road

emission standards, and (b) have been retrofitted with an ARB Level 3 VDECS. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement. See Section 1.05A regarding the procedure for requesting a waiver to this requirement.

2. Where access to alternative sources of power is available, use of portable diesel engines to perform work on the project shall be prohibited. See Section 1.05B regarding the waiver procedure for this requirement.
3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes at any location, except as allowed for in applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs, in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the idling limit. Refer to the following link for the Clean Construction Sign Template:
<https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp>.
4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. Construction Emissions Minimization Plan: All Major Construction Projects that meet the requirements of Environment Code Section 2504(a), which are located in the Air Pollutant Exposure Zone and are within 1,000 feet of a Sensitive Use, also must comply with the following requirements:

1. Before starting on-site Construction Activities, the Contractor shall submit a Construction Emissions Minimization Plan ("Emissions Plan") to the City Representative for review and approval. The Emissions Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section 2505 of the Environment Code.
2. The Emissions Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for each Construction Phase.
 - a. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.
 - b. For the VDECS installed, the description may include, but is not limited to: technology type, serial number, make, model,

- manufacturer, ARB verification number level, and installation date and hour meter reading on installation date.
- c. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel.
 - d. Contractor may use the Clean Construction Equipment Inventory Template to satisfy the Emissions Plan requirements. Refer to the following link for that template:
<https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp>.
3. The Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of the Agreement. Contractor must submit a signed Clean Construction Emissions Plan Certification Statement to the City Representative. Refer to the following link for the Emissions Plan Certification Statement Template:
<https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp>.
4. After City review and approval, the Contractor shall make the Emissions Plan available to the public for review onsite during working hours.
- a. The Contractor shall post at the construction site a legible and visible sign summarizing the Emissions Plan. Refer to the following link for the Clean Construction Sign Template:
<https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp>.
 - b. The sign shall also state that the public may ask to inspect the Emissions Plan for the project at any time during working hours, and shall explain how to request to inspect the Emissions Plan.
 - c. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.
5. Reporting:
- a. After Construction Activities begin, the Contractor shall update the Emissions Plan on a quarterly basis documenting changes from the original plan and demonstrating compliance with the Emissions Plan. The report shall be submitted to the City Representative quarterly and a copy shall also be maintained at the construction site.
 - b. Prior to receiving a Notice of Final Completion, or within six months of completion of Construction Activities if a final certificate of acceptance is not required, the Contractor shall submit to the City Representative a final report summarizing Construction Activities, including the start and end dates and duration of each Construction Phase, and the specific information required in the Emissions Plan.

1.05 WAIVERS**A. Waivers Under Subsection 1.04A.**

1. The Contractor may request to waive the equipment requirements of Paragraph 1.04A.1 if: (a) a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; (b) the equipment would not produce desired emissions reduction due to expected operating modes; (c) installation of the equipment would create a safety hazard or impaired visibility for the operator; or, (d) there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS.
2. Contractor shall submit a waiver request to the Department Head, or designee, no less than two weeks prior to the planned use of a specific piece of off-road equipment.
3. If the Department Head, or designee, grants the waiver specified in Section 1.05A.1, the Contractor must use the next cleanest piece of off-road equipment, according to Table 1, below.

Table 1 Off-Road Equipment Compliance Step Down Schedule*		
Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel**
* If the City determines that the equipment requirements cannot be met, the Contractor must meet Compliance Alternative 1. If the City determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the City determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.		
** Alternative fuels are not a VDECS		

B. Waivers Under Subsection 1.04A.2.

1. The Department Head, or designee, may waive the alternative source of power requirement set forth in Subsection 1.04A.2 if an alternative source of power is limited or infeasible at the project site. If the City grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection 1.04A.1, above.

- C. All Other Waivers: The Department Head or designee also may waive the requirements of the Ordinance on the grounds set forth in Section 2507 of the Environment Code.
- D. For any waiver granted in this Subsection 1.05, the City Representative will within two business days prepare a written notice of the waiver and a written memorandum explaining the basis for the waiver and the steps that will be taken to safeguard public and City employee health during the noncomplying work. The memorandum will also state the steps that the City and the Contractor will take to minimize the use of noncomplying equipment or engines during the noncomplying work.

1.06 NONCOMPLIANCE AND PENALTIES

- A. Liquidated Damages: By entering into the Agreement, Contractor and City agree that if Contractor uses off-road equipment and/or off-road engines in violation of the Clean Construction requirements set forth in Administrative Code Section 6.25 and Chapter 25 of the Environment Code, the City will suffer actual damages that will be impractical or extremely difficult to determine. Accordingly, Contractor and the City agree that Contractor shall pay the City the amount of \$100 per day per each piece of off-road equipment and each off-road engine used to complete Work on the Project in violation of the Ordinance. Such amount shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply with the Clean Construction requirements.
- B. False Representations: False representations by the Contractor, in connection with the bidding, execution or performance of any City contract, regarding the nature or character of the off-road equipment and/or off-road engines to be utilized, on the contract, or to the City about the nature or character of the off-road equipment and/or off-road engines actually used may subject the Contractor to the consequences of noncompliance specified in Section 2510 of the Environment Code, including but not limited to the penalties prescribed therein. The assessment of penalties for noncompliance shall not preclude the City from exercising any other rights or remedies to which it is entitled.

END OF SECTION



SAN FRANCISCO PLANNING DEPARTMENT

San Francisco Recreation and Park Department Preliminary Archeological Checklist (PAC)

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

PART I - PROJECT INFORMATION:

Date: _____ RPD RA Staff: _____

Project name: _____

Case **No:** _____

Application type: ☐ EE CatEx ☐

Project address: _____

APN/Cross streets: _____

EP Planner: _____ EP Archeologist: _____

Consultant Archeologist name/firm (if applicable): _____

1. PROJECT DESCRIPTION: (include description of construction methods, all potentially ground-disturbing activities including parking, staging, equipment and spoils storage, temporary and permanent work areas, utility lines)

2. POTENTIAL GROUND DISTURBANCE

Yes	No	Project Component
<input type="checkbox"/>	<input type="checkbox"/>	Excavation (basement, elevator, utilities, seismic retrofit, remediation, underground vaults, septic tank system, culverts, etc.)
		Maximum depth: _____

2. POTENTIAL GROUND DISTURBANCE (cont.)

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Pipeline replacement or installation (specify cut and cover, directional drilling, pipe bursting, etc): |
| <input type="checkbox"/> | <input type="checkbox"/> | Tunnels, transport storage boxes |
| <input type="checkbox"/> | <input type="checkbox"/> | Bore pits, test pits |
| <input type="checkbox"/> | <input type="checkbox"/> | Shallow Building Foundation (Mat, Spread Footings, etc.)
Depth: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Piles, piers, micropiles, pilings, piling replacement |
| <input type="checkbox"/> | <input type="checkbox"/> | Grading, scraping |
| <input type="checkbox"/> | <input type="checkbox"/> | Demolition |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction staging, spoils on unpaved area, fill |
| <input type="checkbox"/> | <input type="checkbox"/> | Road construction |
| <input type="checkbox"/> | <input type="checkbox"/> | Geotechnical trenching (dimensions) _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | New rip rap |
| <input type="checkbox"/> | <input type="checkbox"/> | Wharf or seawall modification |
| <input type="checkbox"/> | <input type="checkbox"/> | Other (specify): _____ |

Anticipated maximum extent of project ground disturbance:

Vertical _____ Horizontal _____

APE Map Attached Y ☐ N ☐

3. PREVIOUS SOILS DISTURBANCE AT PROJECT SITE:

Has the project site been previously disturbed by any of the following?

- | Yes | No | Component of disturbance |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Existing Basement Depth: _____ Area: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Existing Foundation (footings, perimeter, piles, micropiles, etc.) Depth: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Site remediation/UST installation or removal, other excavation. Depth: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Site Grading |
| <input type="checkbox"/> | <input type="checkbox"/> | Demolition |
| <input type="checkbox"/> | <input type="checkbox"/> | Dredging |
| <input type="checkbox"/> | <input type="checkbox"/> | Piling installation (depth): _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Riprap |
| <input type="checkbox"/> | <input type="checkbox"/> | Seawall construction |
| <input type="checkbox"/> | <input type="checkbox"/> | Other (specify): _____ |

4. Has the entire project area previously been disturbed to the maximum depth and extent of proposed project disturbance? Y ☐ N ☐

(Attach documentary evidence such as plans and profiles of prior trenching, utility street occupancy, historic photos, specifications from prior projects, etc.)

List attachments provided: _____

☐ Complete prior disturbance adequately documented. No further archeological assessment is required. EP Archeologist Concurs: _____

☐ Prior ground disturbance is unknown or cannot be adequately documented; Part II Required.

PART II - ARCHEOLOGICAL DATA ASSESSMENT

1. ARCHIVAL AND DATA REVIEW

Dates of review: _____

Resources reviewed:

- ☐ Maher zone maps. Dates/ origin/ depth of fill if known _____
- ☐ Geotechnical data for project site and vicinity. Report _____
- ☐ EP Archeological GIS maps (all layers or specify applicable layers) _____
-
- ☐ Sanborn Insurance maps (1887-93, 1899-1900)
- ☐ U.S. Coast Survey maps (1853, 1857, 1869)
- ☐ Information Center archeological records search (attach request and response)
- ☐ NAHC Sacred Lands File
- ☐ Native American/ Ethnic group consultation
- ☐ Other: _____
- ☐ Historical Maps or other information provided by RPD

2. ARCHEOLOGICAL FIELD INVENTORY

- ☐ Not warranted; no exposed ground surface in project area
- ☐ Results negative
- ☐ Results positive
- ☐ Survey results inconclusive

Archeologist/ Firm _____ Date of Survey _____

Attach Archeological Survey Report/Memo; may combine with results of archival review.

3. SUMMARY OF RESULTS OF PROJECT ASSESSMENT

Site History/Formation:

Recorded/documented archeological sites/ investigations on/in the vicinity of the project site:

4. CONCLUSIONS AND RECOMMENDATIONS

a) **NO EFFECTS TO ARCHEOLOGICAL RESOURCES EXPECTED:**

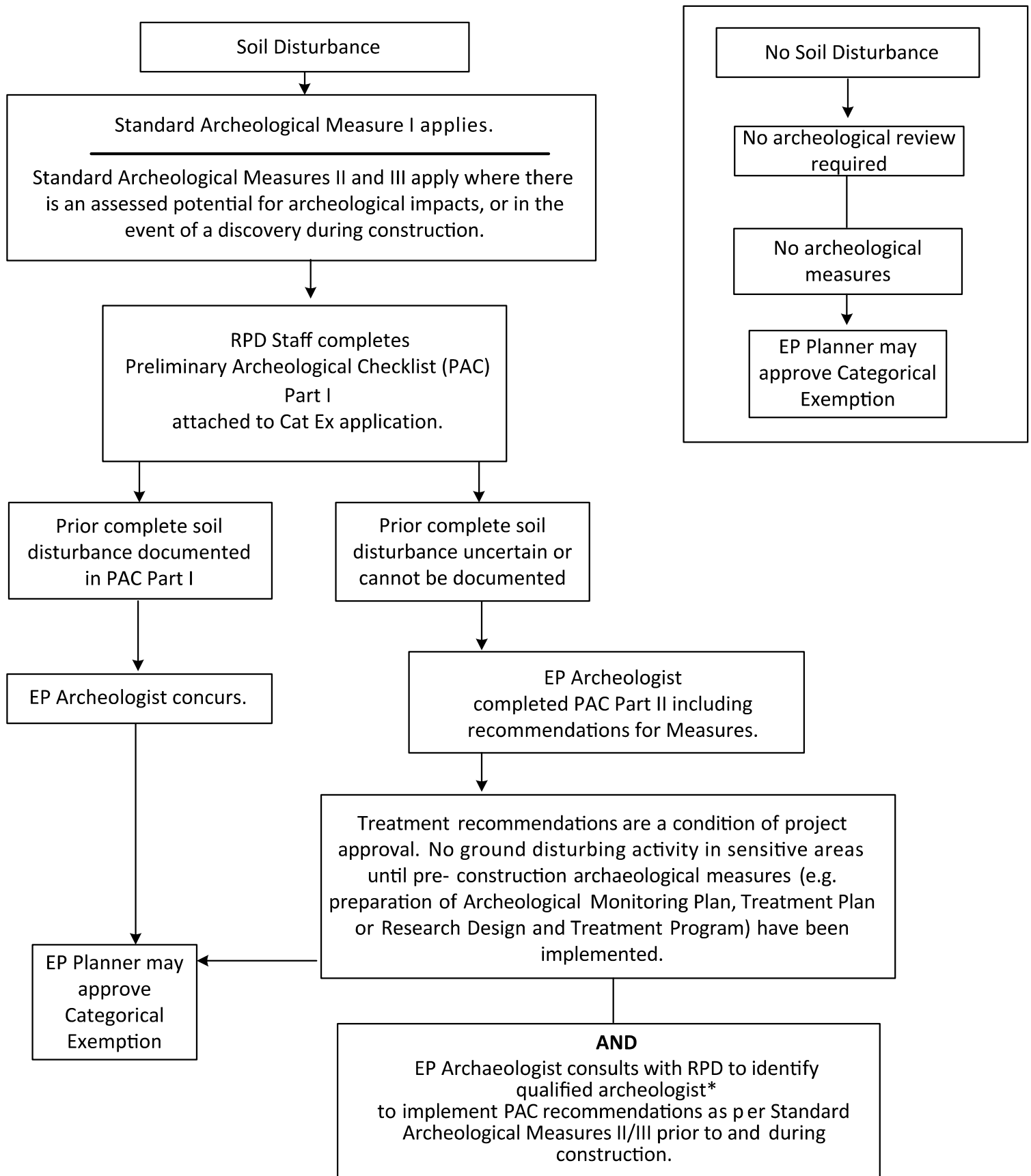
- ☐ Project effects limited to previously-disturbed soils
- ☐ Project effects limited to culturally sterile soils
- ☐ Based on assessment above, no potentially CEQA-significant archeological resources are expected within project area affected soils.

b) **AVOIDANCE AND TREATMENT MEASURES NECESSARY TO AVOID AN ADVERSE EFFECT TO SIGNIFICANT ARCHEOLOGICAL RESOURCES:**

- ☐ Discovery: potential to adversely affect archeological resources; may be avoided by implementation of **RPD Standard Archeological Measure I** (Discovery during Construction), with implementation of Standard Archeological Measures II (Monitoring) and/or III (Testing/Data Recovery) in the event of a discovery during construction.
- ☐ Monitoring: some potential for the project to adversely affect archeological resources; may be avoided by implementation of **RPD Standard Archeological Measure II** (Archeological Monitoring) during construction.
- ☐ Testing/Data Recovery: potential of the project to adversely affect archeological resources; may be avoided by implementation of **RPD Standard Archeological Measure III** (Archeological Testing/Data Recovery)
Implementation Required:
☐ prior to ☐ during construction.
- ☐ CEQA evaluation of the project requires preparation and implementation of an archeological research design and treatment plan (ARDTP) by a qualified archeological consultant. See attached scope of work for the ARDTP
- ☐ Consultation requested.

Signature

Attachment D:
RPD Standard Construction Measure #5 Archeological Assessment Process



* Archeologist or archeological consultant who meets the Secretary of the Interior's Professional Qualifications Standards (36 CFR 61) as defined in Standard Archeological Measure I.

Attachment E: Archeological Measure I (Archeological Discovery)

The following requirements are applicable to:

- All projects that will include soil disturbance,
- Any discovery of a potential historical resource or of human remains, with or without an archeological monitor present.

Prior to ground disturbing activities:

A. Alert Sheet. RPD shall, prior to any soils disturbing activities, distribute the Planning Department archeological resource "ALERT" sheet to each project contractor or vendor involved in project-related soils disturbing activities; ensure that each contractor circulates it to all field personnel; and provide the Environmental Review Officer (ERO) with a signed affidavit from each contractor confirming distribution to all field personnel.

Upon making a discovery:

B. Work Suspension. Should a potential archeological resource be encountered during project soils disturbing activity, with or without an archeological monitor present, the project Head Foreman shall immediately suspend soils-disturbing activities within 50 feet (15 meters) of the discovery in order to protect the find from further disturbance, and notify the RPD Project Manager (PM), who shall immediately notify the ERO for further consultation.

C. Qualified Archeologist. All archeological work conducted under this measure shall be performed by an archeologist who meets the Secretary of the Interior's Professional Qualifications Standards (36-CFR 61); consultants will be selected in consultation with the ERO and meeting the criteria or specialization required for the resource type as identified by the ERO in a manner consistent with RPD contracting requirements.

D. Assessment and Additional Measures. If the ERO determines that the discovery is a potential archeological/historical resource, the qualified archeologist, in consultation with the ERO, shall document the find, evaluate based on available information whether it qualifies as a significant historical resource under the CEQA criteria, and provide recommendations for additional treatment as warranted. The ERO will consult with RPD and the qualified archeologist on these recommendations and may require implementation of additional measures as set forth below in Archeological Measures II and III, such as preparation and implementation of an Archeological Monitoring Plan, an Archeological Testing Plan, and/or an Archeological Data Recovery Plan, and including associated research designs, descendant group consultation, other reporting, curation, and public interpretation of results.

E. Report Reviews. All plans and reports prepared by an archeological consultant, as specified herein, shall be submitted first and directly to the ERO for review and comment with a copy to RPD and shall be considered draft reports subject to revision until final approval by the ERO.

F. Draft and Final Archeological Resources Reports. For projects in which a significant archeological resource is encountered and treated during project implementation (see Archeological Measures II and III), the archeological consultant shall submit a draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken, research questions addressed, and research results. Information that may put at risk any archeological resource shall be provided in a separate, removable insert within the draft final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: two copies to the applicable California Historic Information System Information Center (CHRIS), one copy to each descendant group involved in the project, and documentation to the San Francisco Planning Department of transmittal of the above copies. In addition, the Planning Department shall be provided one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR, which shall include copies of any formal site recordation forms (CA DPR 523 series) and/or National Register of Historic Places/California Register of Historical Resources nominations.

G. Other Reports. In instances of high public interest or interpretive value, the ERO may require different or additional final report content, format, and distribution than that presented above.

H. Human Remains, Associated or Unassociated Funerary Objects. RPD shall ensure that human remains and associated or unassociated funerary objects discovered during any soils disturbing activity are treated in compliance with applicable State and federal laws. In the event of the discovery of potential human remains, the construction contractor shall ensure that construction activity within 50 feet of the find is halted and the RPD PM, ERO, and the County Coroner are notified immediately. If the Coroner determines that the remains are of Native American origin, he/she will notify the California State Native American Heritage Commission. Subsequent consultation on and treatment of the remains shall be conducted consistent with Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(d), in consultation with the ERO.

I. Consultation with Descendant Communities. Consistent with AB 52 requirements, if requested, RPD shall provide opportunities for Native American descendant groups to provide input during project planning for projects that may affect potential Tribal Cultural Resources. In addition, on discovery during construction of an archeological site associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative of the descendant group shall be contacted by RPD at the direction of the ERO. RPD will offer this representative the opportunity to monitor archeological field investigations of the site and to consult with the ERO regarding the appropriate treatment and, if applicable, interpretation of the site and the recovered materials.

J. Construction Delays. Archeological monitoring and/or data recovery programs required by this measure may suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if this is the only feasible means to reduce potential effects on a significant archeological find to a less-than-significant level.

Attachment F. RPD Archeological Measure II (Archeological Monitoring)

A. Archeological Monitoring Plan (AMP). Where an archeological field investigation to identify expected buried or submerged resources cannot reasonably be carried out during project planning/ environmental review (for example, where definitive determination would require extensive street opening prior to construction), prior to any project-related soils-disturbing activities the qualified archeologist identified under Archeological Measure I.C. shall consult with RPD and the ERO to develop an Archeological Monitoring Plan (AMP). The AMP which will be implemented in conjunction with soil-disturbing activities during construction. Preparation and implementation of an AMP also may be required based on the results of pre-construction archeological testing or upon a discovery during construction.

The AMP shall include the following elements, at minimum:

- Historical context and research design for assessment of resource types likely to be encountered;
- Project activities to be archeologically monitored and intensity of monitoring of each type and location of project construction activity; and
- Procedures for the documentation, significance and integrity assessment, treatment, curation, interpretation and reporting of the types of resources likely to be encountered.

B. Reporting. Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO at the end of construction (See Archeological Measure I.E [Report Reviews] and I.F. [Draft and Final Archeological Research Report]).

C. Monitoring Authorities

- The archeological monitor will have the authority to halt construction activity at the location of a suspected resource for inspection, documentation, and assessment of the need for further measures as set forth in Archeological Measure III.
- The Archeological Monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis.
- The Archeological Monitor(s) shall be present on the project site according to a schedule identified in the AMP, subject to modification upon ERO concurrence, based on findings.

D. Testing/Data Recovery. In the event of a discovery during construction, if the ERO and archeological consultant determine that the discovery is a significant resource (that is, a

resource that meets the eligibility criteria of the California Register of Historic Resources or qualifies as a unique archeological resource) that will be adversely affected (that is, where the project would result in loss of data potential) or that additional investigation is required to make this determination, all applicable elements of Archeological Measure III (Archeological Testing/Data Recovery) also shall be implemented.

Attachment G. RPD Archeological Measure III (Testing / Data Recovery)

The following provisions apply prior to or during construction when a significant archeological resource (as defined in Measure II.D) or an archeological resource of undetermined significance is expected to be present in the work area and the ERO, in consultation with the qualified archeologist, determines that an archeological field investigation is needed to determine: a) the presence of an archeological resource, b) whether it retains depositional integrity, and c) whether it qualifies as a legally significant resource under CEQA criteria. All archeological work under this Measure will be carried out by a qualified archeologist as identified in Archeological Measure I.C. Per Archeological Measure I.J, implementation of this measure shall not exceed four weeks except at the direction of the ERO and only if this is the only feasible means to reduce potential effects on a significant archeological find to a less-than-significant level.

A. Archeological Testing Program. If an archeological investigation is required in order to verify resource location and/ or assess the significance of the resource, the archeological consultant shall consult with the ERO to prepare and implement an Archeological Testing Plan (ATP) that identifies:

- Key research questions and associated data needs,
- Testing/ sampling methods, and
- Testing locations.

Results of testing shall be presented to ERO in a written report following Measure I.E. If, based on the archeological testing program, the archeological consultant finds and the ERO concurs that significant archeological resources may be present, Measures III.B and/or III.C below will be implemented.

B. Treatment. If the project could adversely affect a significant (CRHR-eligible) archeological resource, preservation in place is the preferred manner of mitigating impacts, as detailed in CEQA Guidelines 15126.6(b) (3)(a) and (b).

If preservation in place is determined to be infeasible, the RPD at its discretion shall either:

- Re-design the proposed project so as to reduce the adverse effect to a less-than-significant level through preservation in place or other feasible measures; and/or
- For a resource important for its association with an important event or person, or which is of demonstrable public interest for both its scientific and historical values (e.g., a submerged ship), and where feasible, preserve the resource in place with appropriate documentation; or, if not feasible to preserve in place,

systematically document and/or recover for interpretive use, at the discretion of the ERO, and/or;

- For an archeological resource significant primarily for its data potential, design and implement an archeological data recovery program, as detailed under Measure III.D, below.

C. Archeological Data Recovery Plan (ADRP). For resources for which the elected treatment is archeological data recovery, the archeological consultant, in consultation with the ERO, shall prepare and implement an ADRP. It will identify how the significant information the archeological resource is expected to contain will be recovered and preserved. Data recovery results will be reported in the FARR, as detailed in Measure I.F. The ADRP shall include the following elements:

- Historic context and research design
- Field methods and procedures, including sampling strategy
- Archeological monitoring recommendations for ongoing construction
- Cataloguing and laboratory analysis
- Discard, deaccession, and curation policy
- Interpretive program
- Security measures

ALERT!

This project site is in an **archeologically sensitive area**. If you uncover a concentration of historic-era materials (such as bottles or ceramics); wood floors and brick foundations; soils containing shells or bones; or human bones or suspected human bones, you are required to:

1. Immediately stop soil disturbance at the discovery location.
2. Protect the find in place.
3. Call a Planning Department archeologist. Either Allison Vanderslice (415) 575-9075, Sally Morgan (415) 575-9024 or Kari Lentz (415) 558-9023.
4. Ensure that ground-disturbing work around the discovery location does not resume until the archeologist has evaluated the find and any necessary treatment has been implemented.

Material that may indicate the presence of an archeological site include:

- Concentrations of shells or bones
- Dark, greasy soils, with ash, charcoal, burnt earth
- Native American artifacts such as arrowheads and mortar bowls
- Building foundation, wall or floor remains, clay roof/floor tiles
- Trash pits, privy (outhouse) pits, wells
- Concentration of bottles, ceramics, animal bones, hardware, etc.
- Evidence of 1906 Earthquake and Fire (layer of burned building debris, charcoal, fused glass, etc.)
- Wood structural remains (building, pipelines, ship, wharf, etc.)
- Rails, rail ties, rail cars or carts
- Gravestones, carved or cut granite, limestone or marble



Native American tools including obsidian and bone



Shell deposit, often in dark soil



Close-up of shell deposit



Brick foundation



Outhouse pit



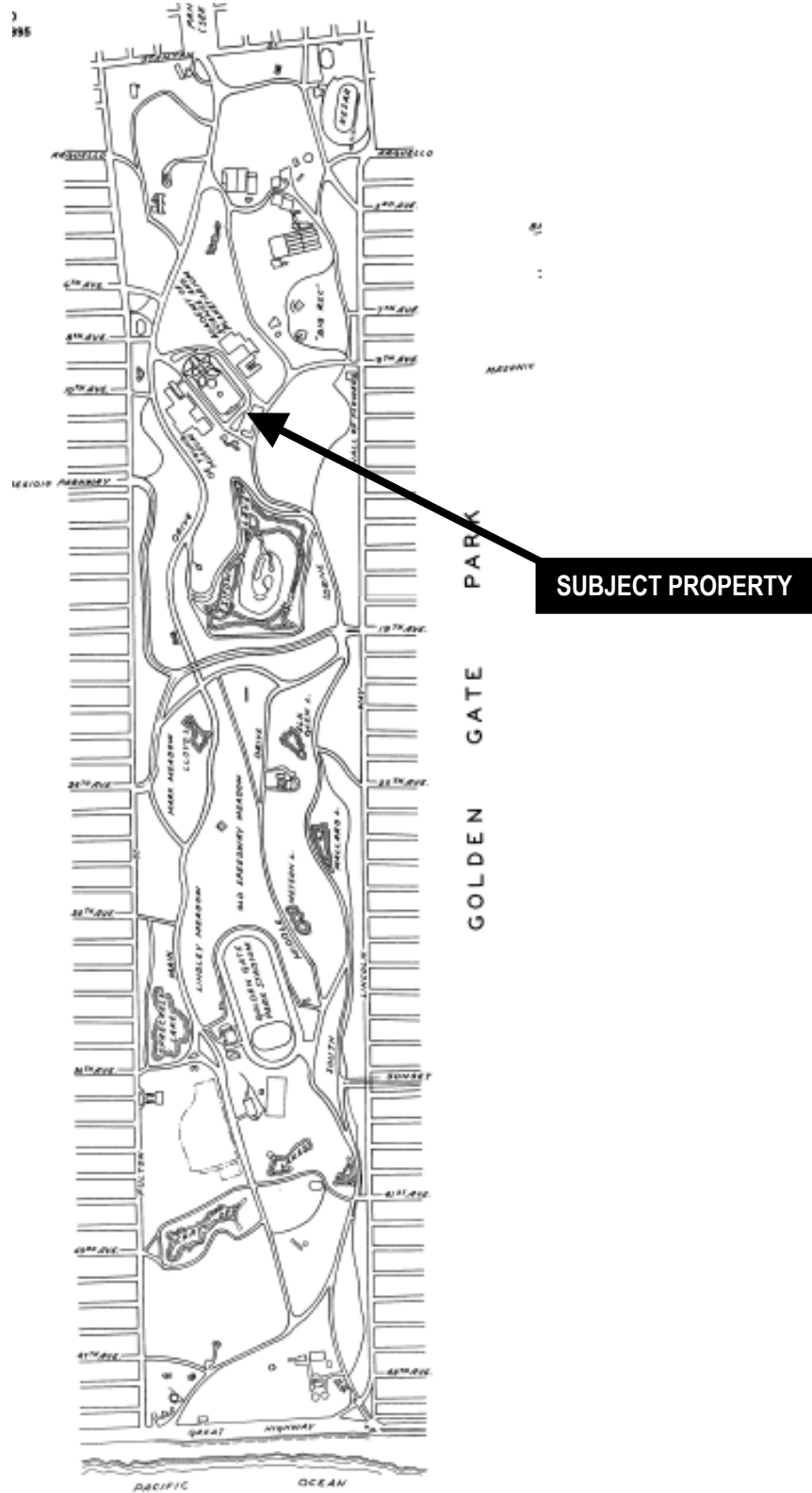
Refuse pit

Appendix D:

Maps and Context

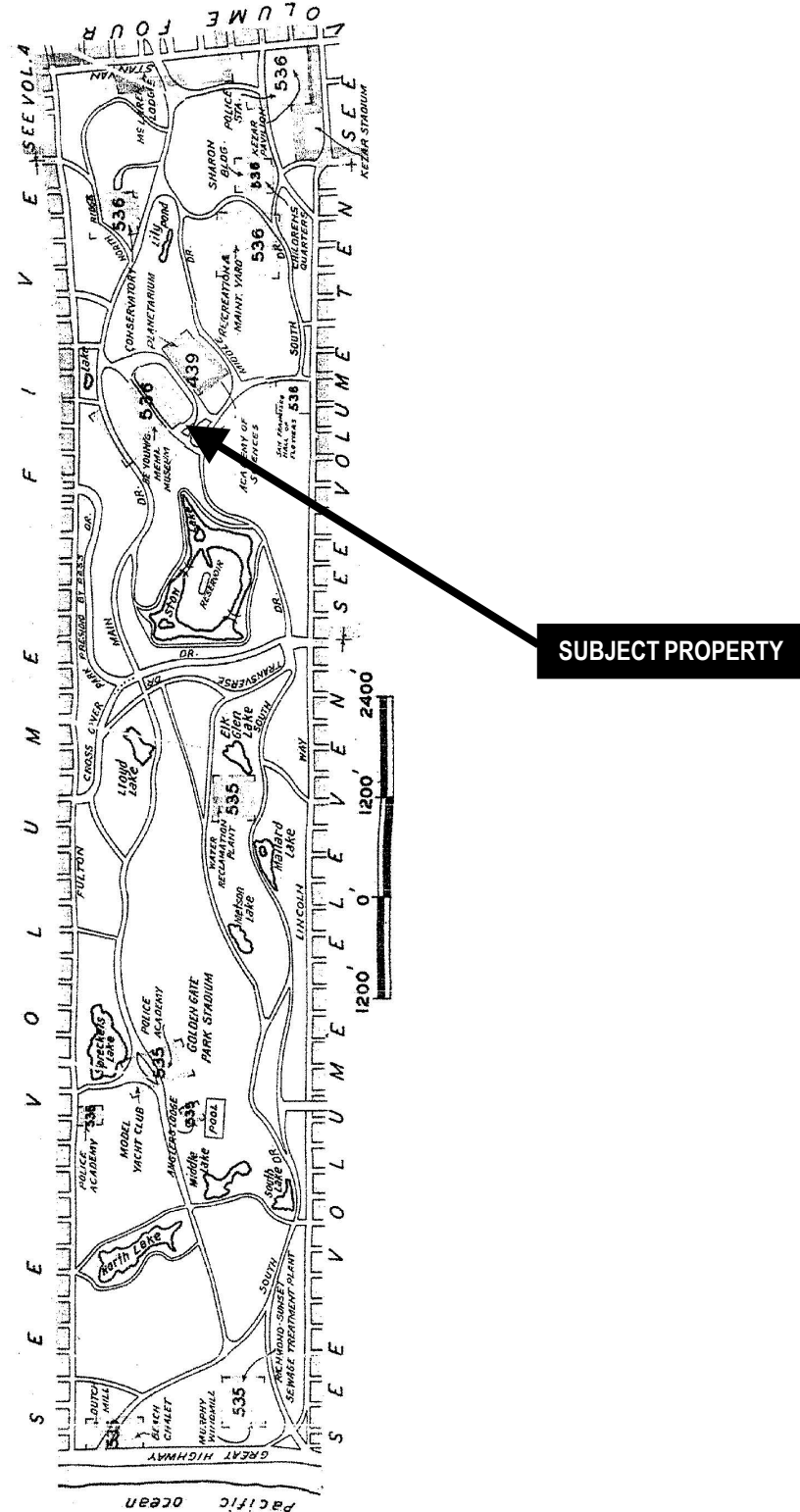
Photos

Parcel Map



Certificate of Appropriateness
Case Number 2019-022126COA
Golden Gate Music Concourse
150th Anniversary Celebration

Sanborn Map*



*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.



Certificate of Appropriateness
Case Number 2019-022126COA
Golden Gate Music Concourse
150th Anniversary Celebration

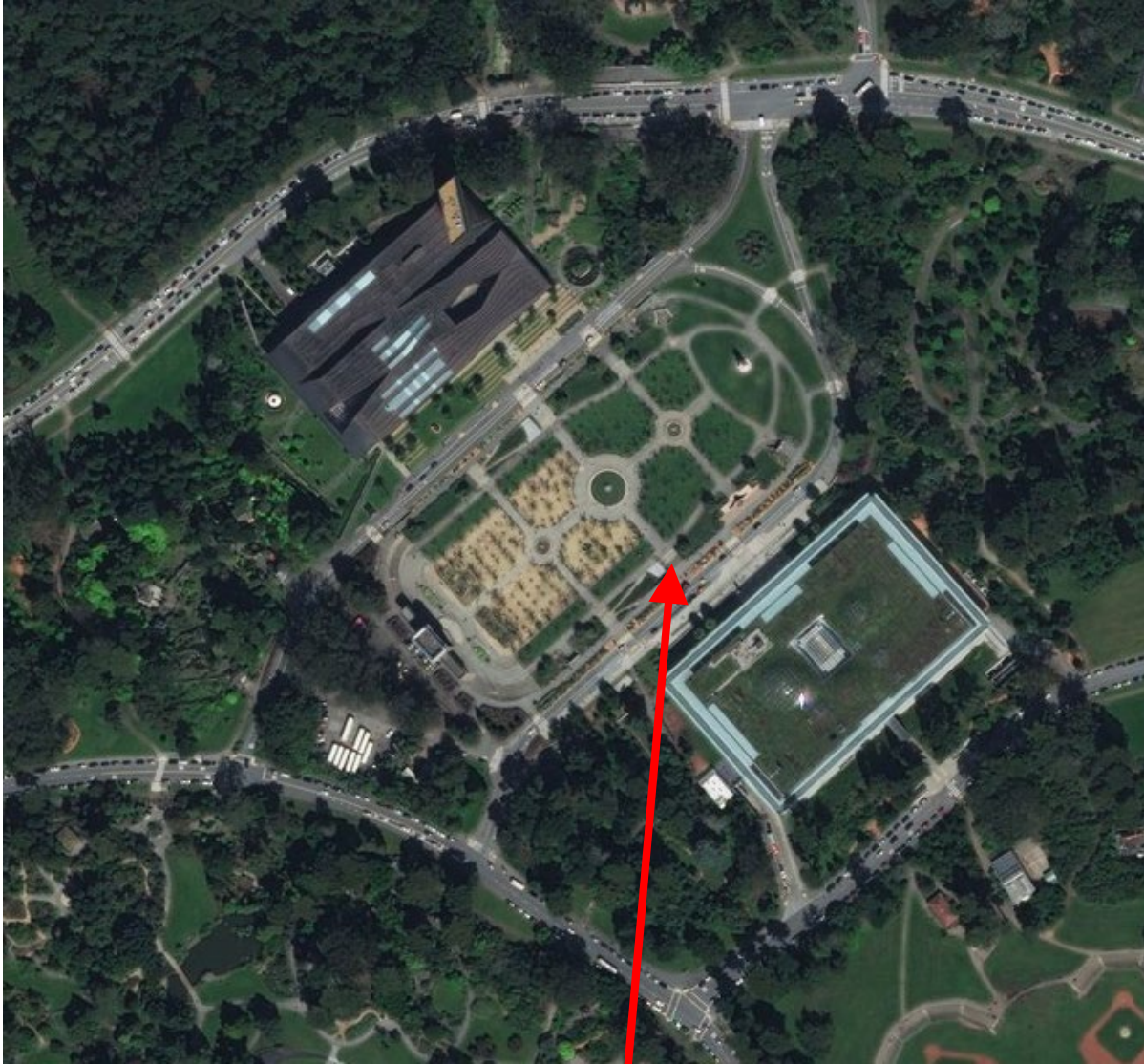
Aerial Photo – View 1



SUBJECT PROPERTY



Aerial Photo – View 2

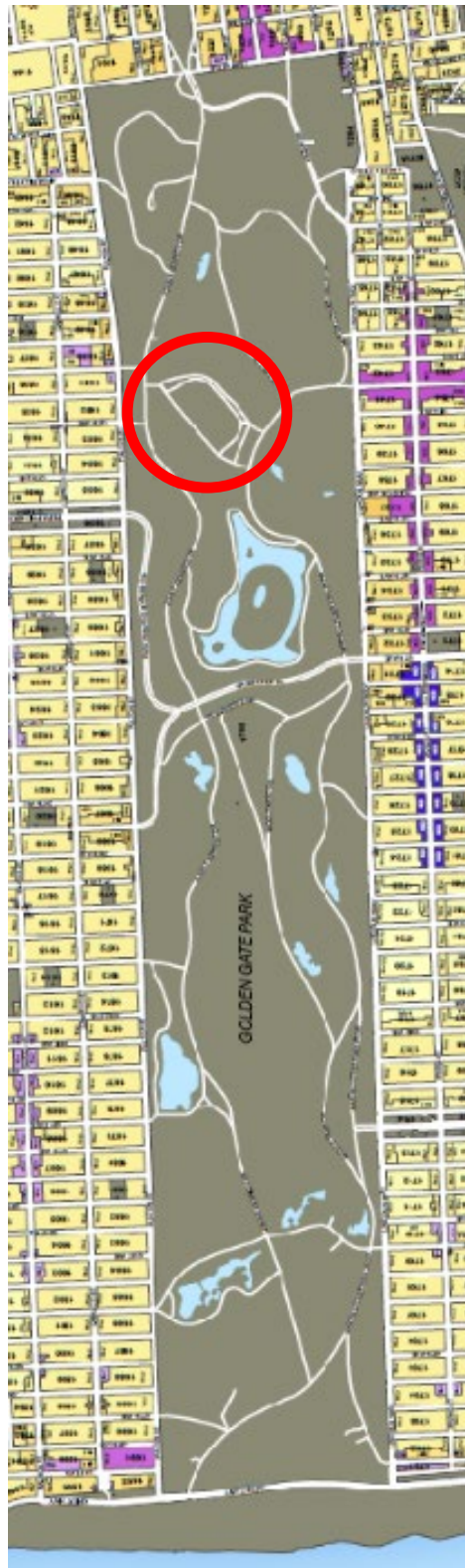


SUBJECT PROPERTY



Certificate of Appropriateness
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Golden Gate Music Concourse
150th Anniversary Celebration

Zoning Map



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Site Photo



Appendix E:

Tree Protection Plan

SECTION 01 56 39

TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section includes the requirements for the protection of existing trees and shrubs, including entire structure of plant material above and below ground impacted by all demolition and construction work under this contract.
- B. Contractor is prohibited from stockpiling any excavation or construction materials within the canopy of trees, on lawn areas or near shrubs.
- C. Contractor shall immediately clean and remove any construction residue that falls within the canopy of a tree or near shrubs.

1.2 RELATED SECTIONS

- A. Section 01 11 00 - Summary of Work.
- B. Section 01 71 33 - Protection of Adjacent Construction

1.3 JOB CONDITIONS

- A. Pre-construction Meeting:
 - 1. Prior to commencement of work, the Contractor shall arrange a meeting on the site with the City Representative, General Contractor, and such others as the City Representative shall direct to review the proposed schedule, the "Trees of Concern", the tree and landscape protection, submittals for this Section, the coordination with work of other trades, and the selective thinning and clearing requirements.
 - 2. Adjustments to the type and extent of the protection shall be addressed at the time of the meeting.
 - 3. Contractor shall coordinate the meeting and inform all parties in writing (5) business days in advance of the scheduled meeting.
- B. Environmental Requirements: Perform work only during suitable weather conditions. Do not disc, rototill, or work soil when frozen, excessively wet, or in otherwise unsatisfactory condition.
- C. Sequencing and Scheduling: Adjust, relate together, and otherwise coordinate work of this Section with work of Project and all other Sections of Project Specifications.

1.4 APPROVAL OF TRENCHING AND EXCAVATION

- A. The contractor shall obtain written approval from the City Representative and a certified Arborist prior to start of excavation work within the drip line of trees. A Certified Arborist shall be retained as needed to provide written direction at the Contractor's expense.
- B. The Contractor is prohibited from using equipment for trench and excavation work within the planted areas or where root intrusion exists on asphalt pathways to be reconstructed.
- C. In the event pruning is required for roots greater than 2" in diameter the Contractor shall receive written direction from the City Representative in coordination with Arborist prior to continuation of work.

1.5 NON-APPROVED TRENCHING

- A. In the event trenching or excavation is performed by the Contractor without the approval or not as shown on the Contract Drawings; the Contractor shall be subject to a fine equal to one half (½) day liquidated damages for every 10-feet.

1.6 DAMAGE TO TREES AND PAYMENT FOR DAMAGE

- A. If the Contractor should cause minor damage as defined by nicked tree trunks, limbs and branches or broken branches to trees or shrubs during the course of construction, the Contractor shall pay the following penalties at the beginning of each billing period:
 - 1. The Contractor will be penalized the sum of One Hundred dollars (\$100) for the first incident which causes minor damage to trees or shrubs.
 - 2. The Contractor will be penalized the sum of Two Hundred dollars (\$200) for the second incident which causes minor damage to trees or shrubs.
 - 3. The Contractor will be penalized the sum of Five Hundred dollars (\$500) for the third and subsequent incidents which cause minor damage to trees or shrubs.
- B. The Contractor shall replace any trees or shrubs that suffer more serious damage, including damage to roots 2-inches in diameter or larger, during construction at no additional cost to the City. The City Representative shall determine the value of such replacement trees or shrubs. In addition to the Contractor's restoration approved by the City Representative, the Contractor will be assessed damages for the difference in the dollar value of the damaged tree or other plant material, and the dollar value of the replacement.
 - 1. The dollar value will be determined by the City Representative from the "Guide for Establishing Values of Trees and Other Plants," prepared by the Council of Tree and Landscape Appraisers, current edition. Damages assessed will be deducted from moneys due or that may become due to the Contractor.
- C. The Contractor shall in addition be liable for the cost to the City for removing the damaged tree(s). This cost will cover 1.5 times the hourly wage of all person(s) at the site for the required hours to remove the tree(s) and haul offsite as directed by the City Representative.

1.7 EXCAVATION WORK

- A. All excavation work in planting bed shall be done by hand.

1.8 MANUAL EXCAVATION

- A. In areas where tree branches hang below 12-feet over the area to be excavated, adjacent to elderly trees or as directed by the City Representative, the Contractor shall manually excavate the trench. No machinery shall be used in the areas so designated for manual excavation.

1.9 DAMAGE TO LAWNS, PLANTED AREAS, AND EXISTING IRRIGATION SYSTEMS

- A. Refer to the DPW Standard Specifications, Section 1009 – Restoration of Existing Lawn and Other Planting.

1.10 EXCAVATION FOR CONCRETE PATHWAYS

- A. The Contractor's vehicles and equipment shall not be driven off-road.
- B. Vehicles and equipment shall be operated in such a manner as to avoid damage to tree and bush trunks, leaves and branches.

1.11 ASPHALT PAVING AND TRENCHING AND INSTALLATION OF UNDERGROUND UTILITIES NEAR TREE ROOTS

- A. The Contractor shall place all piping 3 ½-inches and smaller and all conduits a minimum of 18-inch below the existing finished grade. New conduits shall be located at least 25-feet away from all tree trunks, 20-feet away from all buildings, 10-feet away from any pathway lighting, and 5 feet away from and parallel to any asphalt or concrete paths.
- B. The Contractor shall place all piping 4-inches and larger a minimum of 3-feet below the existing finished grade except when approved by the City Representative to clear root systems. In no case shall the 4-inch and larger pipe placed less than 2-feet below the finished grade. Refer to the drawings for additional information when pipes cross over or under other pipes or conduit.
- C. The Contractor shall not cut any tree roots over 2-inch in diameter unless an approved arborist and City Representative is consulted. The Contractor shall bend and/or transition underground conduit and piping so that the conduit or piping will thread between tree roots. This 2-inch diameter tree root guideline is dependent of the species of tree or bush. Various trees and bushes have a more fibrous root system, consequently, severing a large number of these roots can be as detrimental to certain species of trees as severing a fewer number of larger tree roots.
- D. When possible, trenches shall not be run on the side of the tree exposed to prevailing winds as roots are primarily anchored on the windward side. Trenches shall not be cut across more than one quadrant of the tree root zone.
- E. Excavated material (fill and overlay) shall not be deposited under the leaf/needle canopy of established trees. The excavated material shall be placed in piles along one side on a paved

surface. In no case shall the Contractor place the excavated material closer than 6-feet from the base of a tree.

- F. The Contractor shall be responsible for identifying all underground lighting, electrical control, and irrigation utilities within the project site area. The Department of Parks and Recreation is not a party to or a participant in the Underground Service Alert (USA). Rec/Park will not be providing any field marking service, protecting, and warning the Contractor of the underground facilities. As-built drawings and reference drawings of Rec/Park facilities are not available. As part of the contract work, the Contractor shall be required to locate, probe, determine, and flag or mark all underground facilities including, but not limited to, metal and plastic conduits and pipelines, sprinkler heads, quick couplers, valves boxes, controller boxes, pull boxes, prior to excavation.
- G. The Contractor shall replace all affected areas with new sod grass, decomposed granite, new concrete, or asphalt paving within 10 calendar days after beginning trench excavation. All trenches in pathways and planting areas shall be temporarily covered for immediate use. The Contractor shall not accumulate affected areas for group planting of sod or group paving of trench.
- H. The Contractor shall locate quick couplers and lateral lines. The Contractor shall cap tees as shown on the drawings unless located in the field directly under the tree drip line. In these cases, obtain the City Representatives approval for relocating the fitting(s).

PART 2 - PRODUCTS

2.1 TEMPORARY PROTECTION OF EXISTING TREES AND LANDSCAPE PLANTING

- A. Tree Protection fencing shall be composed of 6' tall chain link fence and posts, refer to drawings for additional information.
- B. Temporary materials, new or used, that are adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable Laws and Regulations, and shall be approved by the City Representative.
- C. Protection bedding mulch: Recycled wood chips to conform to the following:
 - 1. Mulch pieces should typically be heavy toothpick-like, 2-inch dimension.

PART 3 - EXECUTION

3.1 GENERAL

- A. Provide protection for existing landscape planting to remain including, but not limited to, trees, shrubs, and ground cover.
- B. Contractor shall provide Temporary Protection suitable for the protection of the landscape planting immediately adjacent to the construction limit of work line, and as directed by the City Representative.
- C. The Contractor shall coordinate all other trades and work.
- D. All trees to be retained shall be enclosed by fencing on the work side when Tree Protection Zone is located inside, adjacent to, or within 10 feet of the limit of work, prior to demolition, grubbing, or grading.

-
- E. Trees to be retained shall be pruned for clearance as required under supervision of a certified Arborist and Park staff.
 - F. Temporary Protection shall be kept in place for the duration of the Project, maintained during construction, and temporarily relocated as required by the progress of the construction at no additional cost to the City.

3.2 PREPARATION

- A. Stake the location of Temporary Protection barriers and fencing as noted above for the approval of the City Representative prior to installation of Temporary Protection fencing. Place location stakes at corners and ends and 30 feet on center maximum.
- B. Notify the City Representative at least two weeks in advance of the date for on-site review of the staking.
- C. Place six inches (6") of organic mulch over existing grade within Temporary Protection fencing for existing trees to remain.

3.3 INSTALLATION

- A. Install Temporary Protection for tree and landscape planting, as specified herein and as approved in the field by the City Representative and Landscape Architect. Install all other Temporary Protection in locations approved in the field by the City Representative and Landscape Architect.
 - 1. Install posts at 10-foot intervals maximum, at corners, and at other changes in direction. Posts shall be set firmly in undisturbed soil, plumb and with a minimum of exposed height as specified. Securely attach fencing at a minimum of three points.
 - 2. On pavement, provide self-supporting chain link fencing that does not require anchorage into the pavement.
 - 3. Install hay bales or rolls of erosion control wattling, secured around trunk to a height of 6 feet.
- B. Fencing to be relocated closer to trees to remain to accommodate the sequence of construction shall be reviewed by the City Representative and Arborist prior to relocation. No removals or construction shall occur without the City Representative's and Arborist's approval of the new fence location.
- C. Completely remove Temporary Protection, including foundations, associate materials and equipment at the completion of the Project or as directed by the City Representative.
- D. Restore and recondition areas of site damaged or disturbed by barrier installation and removal.

3.4 PROHIBITED ACTIVITIES:

- A. The following are activities prohibited under existing tree canopies and within protected landscape planting areas:
 - 1. Excavating or trenching under tree canopies is prohibited and shall be permitted only under the following conditions:
 - 2. When excavating or trenching within the canopy of trees to remain, the Owner shall be given 48 hours notice. Exercise extreme care during excavation to prevent damage to roots and in a manner that will cause minimum damage to the root system. Such work shall not occur without a professional arborist to perform compensatory root and branch pruning.

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3. Prune injured roots cleanly with clean sharp tools, but only if absolutely necessary for laying pipe. Backfill as soon as possible.
 4. Where tunneling around roots is not practical, roots shall be cut off approximately six inches (6") from construction.
 5. Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or exposed roots shall be packed with wet peat moss or four (4) layers of wet untreated burlap and temporarily supported and protected from damage until permanently covered with backfill.
 6. Thinning shall not remove more than thirty percent (30%) of the existing leaf surface.
 7. Ripping or tearing of roots will not be allowed.
- B. Placing backfill under protected trees unless indicated otherwise. Where fill is required for grading, and as indicated on the Drawings, do not fill above existing grade line at trunks. Fill soil must percolate at a rate of 1" per hour minimum.
- C. Damage to trunk, canopy, or limbs caused by maneuvering of vehicles or equipment, or stacking of materials and equipment.
- D. Driving or parking vehicles; storage of vehicles, equipment, or supplies.
- E. Disposing of paint, petroleum products, dirty water, soil sterilants, concrete slurry or other deleterious materials on or around roots or on any landscape areas.
- F. Changing site grades which cause drainage to flow into or to collect near protected trees.
- G. Using protected trees as support posts, power poles, crane stays, sign posts, or anchorage for ropes, guy wires, power lines, or other similar functions.
- H. Damage to root system from flooding, erosion, excessive wetting or drying resulting from dewatering or other operations.
- I. Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.

3.5 REPLACEMENT OF DAMAGED LANDSCAPE PLANTING

- A. Trees and plants destroyed or damaged beyond repair due to Contractor's negligence, failure to provide adequate protection, or failure to perform recommended selective pruning shall be compensated by the Contractor at no additional cost to the City.
1. Damage beyond repair that requires replacement shall be determined by the City Representative.
 2. Replacement shall include the replacement plant material, transportation, installation, a 30-day maintenance period, and a one year warranty.
 3. Planting location for replacements may be different from the original location and shall be determined by the City Representative.
- B. Replace shrubs, ground cover and turf with plants similar in species, size and shape.
- C. Replace trees with plants of same species, size and shape.
- D. Replacements for trees of 2"-8" caliper shall be replaced with similar sized plants; trees over 8" caliper shall be 60" box size.
- E. Since age and size of existing tree may prohibit replacement with same size tree, the difference in caliper between size of damaged tree and replacement of tree shall be compensated by the Contractor.

F. Contractor shall fell trees to be removed so that trees to remain are not injured.

END OF SECTION