CORDILLERAS MENTAL HEALTH CENTER REPLACEMENT PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT APPENDICES

NOVEMBER 2019

STATE CLEARINGHOUSE #2015072003

Cordilleras Health System Replacement Project EIR

Appendix A: Notice of Preparation and Public Scoping Comments

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NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE CORDILLERAS MENTAL HEALTH CENTER REPLACEMENT PROJECT

Date: July 1, 2015

To: California State Clearinghouse, CEQA Responsible and Trustee Agencies, federal agencies, San Mateo County Clerk, and interested individuals and organizations

Subject: **Notice of Preparation for the Cordilleras Mental Health Center Replacement Project Environmental Impact Report (EIR)**

Lead Agency: San Mateo County Department of Public Works

Applicant: San Mateo County Department of Public Works and the County Health System, Behavioral Health and Recovery Services (BHRS)

Project Location: 200 Edmonds Road, San Mateo County, CA 94062

Project Description: A brief description of the project, including its location and probable environmental effects, is attached. An Initial Study was not prepared for the project because the County has determined that an EIR will be prepared for the project.

The purpose of this Notice of Preparation (NOP) is to request comments on the scope and content of the Environmental Impact Report that San Mateo County will prepare for the Cordilleras Mental Health Center Replacement Project. Comment is requested from state responsible and trustee agencies, federal agencies, and any other person or organization concerned with the environmental effects of the project. Pursuant to CEQA Guidelines §15082 (b), you have 30 days from the date of receipt of this NOP to respond. **Please send your written response by the earliest possible date, but no later than 5 PM on July 31, 2015 to Mr. Robert Kalkbrenner, Capital Projects Manager, San Mateo County, 555 County Center, Fifth Floor, Redwood City, CA 94063 or to rkalkbrenner@smcgov.org (enter "Cordilleras Mental Health Center Replacement Project NOP" in the 'Subject' line).** Agency responses should include the name of a contact person at the agency.

Additionally a public meeting to receive comments on the scope of the EIR will be held by the County at a later date. Oral and written comments will also be received at this meeting. Separate notice announcing the date and location for the public meeting will be given.

Signature: _____ Date: 6.30.2015

Title: Capital Projects Manager

CORDILLERAS MENTAL HEALTH CENTER REPLACMENT PROJECT

PROJECT DESCRIPTION

The Cordilleras Mental Health Center (CMHC) houses two separate treatment programs operated by Telecare Corporation for adults with chronic mental illness: a licensed locked 68-bed Mental Health Rehabilitation Center (MHRC) and a licensed 49-bed Adult Residential Facility (ARF). CMHC serves San Mateo County residents, 18 and older, with long histories of mental illness and multiple episodes of acute psychiatric hospitalization. Without access to the Cordilleras MHRC, most patients would remain in psychiatric inpatient services, state hospitals, or out-of- county MHRCs. The existing CMHC facility must be replaced in order to address safety, current mental health treatment methods, and to meet federal sizing regulations for reimbursement.

Project Location and Site Description

The project site, APN 050-470-050, is located at 200 Edmonds Road in unincorporated San Mateo County, California (Figure 1 and Figure 2). The site is located approximately 0.5 miles northeast of Interstate 280 and 1,700 feet west of the intersection of Edgewood Road and Crestview Drive, near Redwood City. The site is situated southwest of Pulgas Ridge Open Space Preserve and is surrounded on all sides by a mosaic of undeveloped oak/bay woodland, coastal scrub and grassland habitats located in Redwood City and unincorporated San Mateo County.

The 20.6-acre site is owned by the County of San Mateo and is zoned as Resource Management (RM). The CMHC facility was constructed in 1952 as a tuberculosis hospital and then converted to a psychiatric facility in 1968. The existing CMHC facility includes a Y-shaped three-story concrete building with a 117-bed capacity, gardens, a recreation yard and a parking lot with three driveways (two for entrance and one for exit). An aerial photograph of the existing CMHC facility is shown in Figure 3. The CHMC facility is located in the base of a canyon on gently sloping topography, ranging from 285 above mean sea level (msl) to 315 msl across about 500 feet (Figure 4). The topography of the rest of the site is hilly, ranging from 280 ft msl on the entrance drive to 410 ft msl at the water tank above the existing buildings. The CMHC facility was sited in the channel of Cordilleras Creek, and creek flows upstream, as well as two tributaries in the area of the facility are currently diverted around the facility through a culvert system and directed back to Cordilleras Creek downstream of the buildings. A fire station is located adjacent to the south side of the CHMC facility, and the Canyon Oaks Youth Facility is located west of the fire station adjacent to a tributary to Cordilleras Creek. A water storage tank is situated approximate 450 feet northwest of the CMHC facility. The undeveloped portions of the site are vegetated with mixed live oak woodland, creek channel/valley foothill riparian, annual grassland, and coastal sage scrub (Figure 4).

Proposed Project

The County of San Mateo Department of Public Works and the County Health System, Behavioral Health and Recovery Services (County) propose to replace the existing CMHC building within an expanded footprint at the site. The County has developed a conceptual design site plan for the replacement facility. The design involves replacing the current CMHC facility with five 10,500-square-foot 16-bed residential structures, a 35,000 square-foot campus center building with 37 to 55 beds on its upper floors, a recreation yard, parking for 85 cars (20 more than currently available), and new emergency access (Figure 5). Three of the residential structures would be located on the existing developed grounds and two would be placed in an expanded development footprint along the creek. The campus center

building would be built north of the existing facility where the access road to the water tank currently exists, and the recreation yard and garden would be located in between in areas that are already developed. The project would be designed with LEED measures, including solar panels on the buildings. The residential capacity of the CHMC could potentially expand from 117 to 135 beds. Facility staffing would be increased from 86 to 145 full-time equivalents.

Probable Environmental Effects

The Cordilleras Mental Health Center project could result in the following potentially significant environmental affects:

- Biologic impacts from the building footprint in riparian zone, removal of trees, and new landscaping; impacts to special-status species, nesting birds and roosting bats
- Exposure of CMHC, Canyon Oaks Youth Facility, and County Fire Station residents and staff to construction air and noise emissions
- Removal of a building potentially eligible for state listing as a historical resource
- Exposure of residents and staff to geologic hazards, and construction-related soil disturbance and erosion
- Presence of hazardous materials in building to be demolished
- Alteration of drainage patterns and volumes
- Increased traffic generation during construction and from additional residents/visitors and employees
- Increased utility demand from expanded bed capacity and number of employees

As such, the Draft EIR will address the following resource areas in depth:

1) Air Qualilty
2) Biological Resources
3) Cultural Resources
4) Geology and Soils
5) Hazards and Hazardous Materials
6) Hydrology and Water Quality
7) Noise
8) Transportation and Traffic
9) Utilities and Service Systems

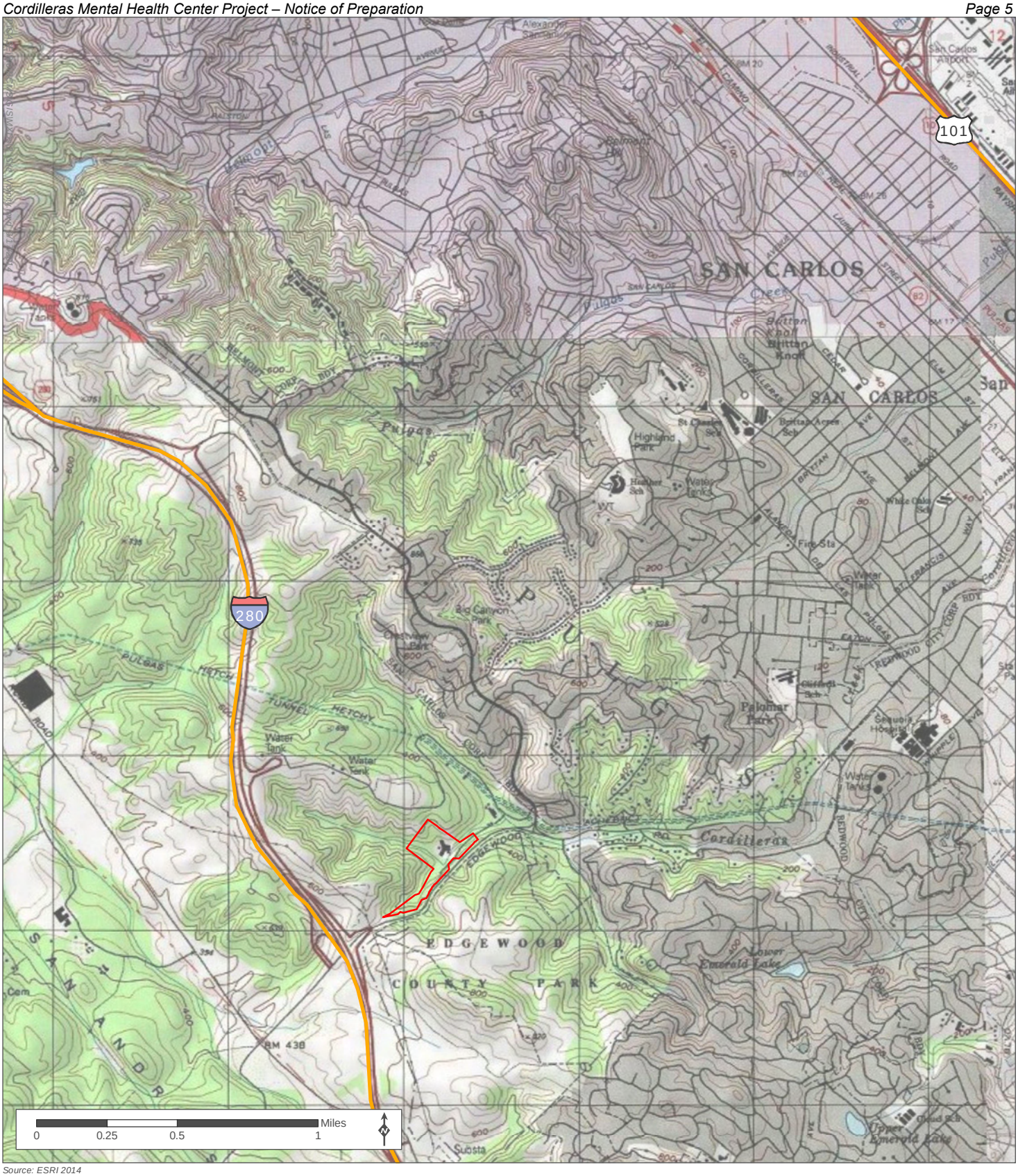
Several areas of potential concern typically associated with new development (e.g., aesthetics, land use, public services, and recreation) are likely to be found less than significant given minimal change from baseline operations and existing regulatory controls. Other environmental issues may not apply due to the absence of a resource or the nature of the project site (e.g., agricultural/ forestry, mineral resources, and population/housing). The final scope of impact analyses conducted for the EIR will be dependent upon the outcomes of the NOP public review process.

Source: ESRI 2014

Property Boundary

Figure 1 Regional Location

Cordilleras Mental Health Center



Source: ESRI 2014

Property Boundary

Figure 2 Site Vicinity Location

Cordilleras Mental Health Center

Figure 3
Aerial Photograph
with Property Boundary
Cordilleras Mental Health Center

Figure 4
Site Topography and Vegetation

Cordilleras Mental Health Center

- Top of Bank
- Culvert
- Low Flow Channel
- Annual Grassland
- Coastal Sage Scrub
- Developed
- Mixed Live Oak Woodland
- Riparian

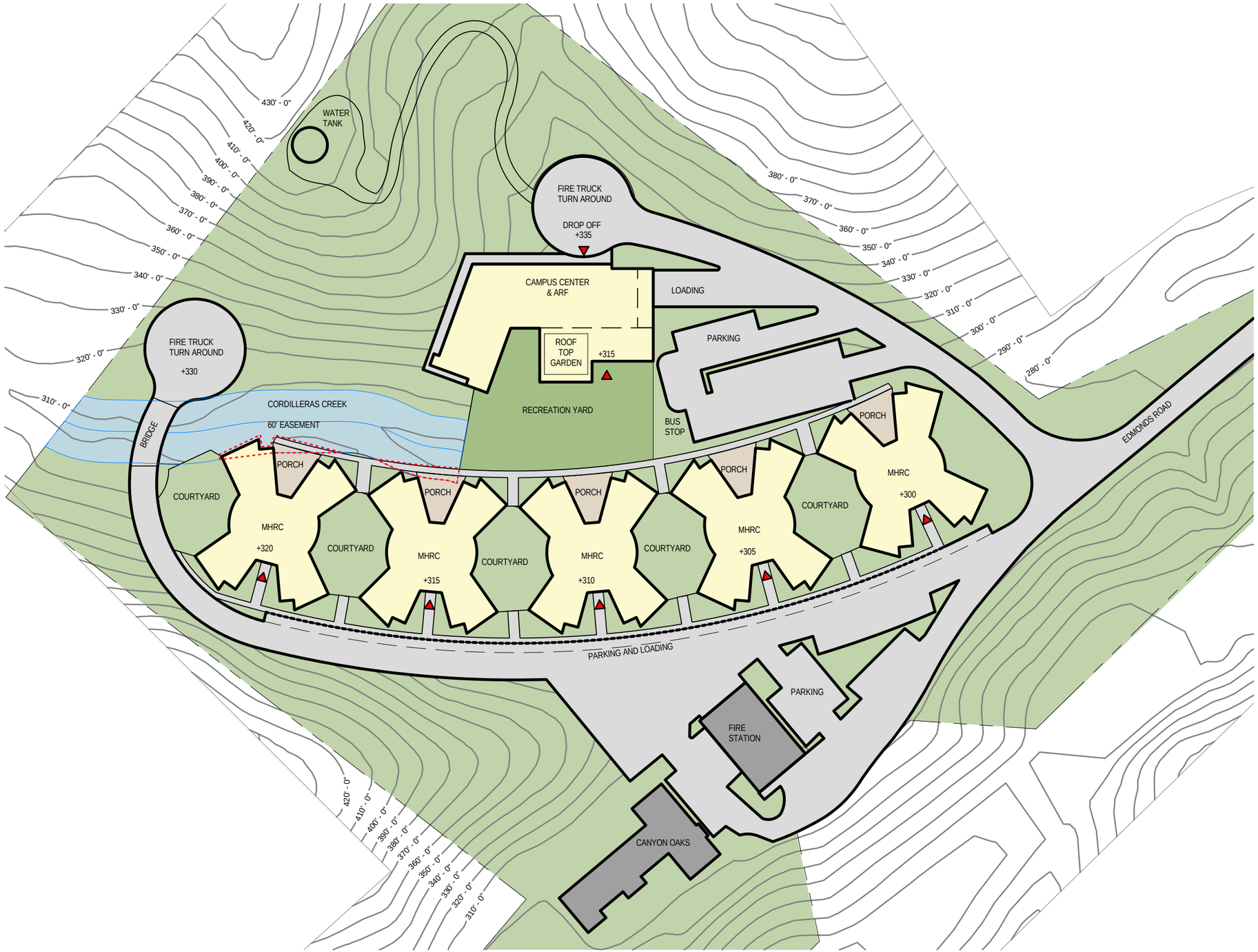


Figure 5 **Cordilleras Mental Health Center Concept Site Plan** June 10, 2015

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
P.O. BOX 23660, MS-10D
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
http://www.dot.ca.gov/dist4/

Serious Drought.
Help save water!

July 22, 2015

SM280159
SCH# 2015072003

Mr. Rob Kalkbrenner
San Mateo County
555 County Center, Fifth Floor
Redwood City, CA 94063

Dear Mr. Kalkbrenner:

Cordilleras Mental Health Center Replacement Project – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. The following comments are based on the Notice of Preparation. We provide these comments to promote the State's smart mobility goals that support a vibrant economy and build active communities rather than sprawl.

Project Understanding
The project proposes to replace a 3-story mental health center building with five 10,5000-square foot 16-bed residential buildings and a 35,000-square foot campus center building with up to 37 - 55 beds on its upper floor. The residential capacity of the project would increase beds to 135 from 117. Staffing would increase from 86 to 145 full-time staff equivalents. Parking would increase from 65 to 85 spaces. The project is located approximately 0.5 miles northeast of I-280 in unincorporated San Mateo County.

Traffic Impact Study
The environmental document should include an analysis of the travel demand expected from the proposed project. Early collaboration leads to better outcomes for all stakeholders. We are in the process of updating our Traffic Impact Study Guide for consistency with SB 743, but meanwhile we recommend using the Caltrans' Guide for the Preparation of Traffic Impact Studies (TIS Guide) for determining which scenarios and methodologies to use in the analysis. It is available at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. Please ensure that a Traffic Impact Study is prepared providing the information detailed below:

1. Vicinity map, regional location map, and a site plan that clearly shows project access in relation to nearby state roadways. Clearly identify the state right-of-way (ROW). Project driveways, local roads and intersections, car and bicycle parking and transit facilities should be mapped.

2. Project-related trip generation, distribution, and assignment including per capita use of transit, rideshare or active transportation modes and vehicle miles travelled (VMT) reduction factors. The assumptions and methodologies used to develop this information should be detailed in the study, should utilize the latest place based research, and should be supported with appropriate documentation.

3. Schematic illustration of walking, biking, and auto traffic conditions at the project site and study area roadways, trip distribution percentages and volumes as well as intersection geometrics, i.e. lane configurations, for AM and PM peak periods.

4. Mitigation for any roadway sections or intersection with increasing VMT should be identified. Mitigation may include contributions to a regional or local fee program as applicable and should support the use of transit and active transportation modes.

5. Impacts on pedestrians and bicyclists resulting from projected VMT increases should be analyzed. The analysis should describe any pedestrian and bicycle mitigation measures and safety countermeasures that would be needed as a means of maintaining and improving access to transit facilities and reducing vehicle trips.

We also encourage you to develop Travel Demand Management (TDM) policies to encourage usage of nearby public transit lines and reduce vehicle trips on the state highways. These policies could include lower parking ratios, car-sharing programs, bicycle parking, and providing transit passes to residents. For information about parking ratios, see the Metropolitan Transportation Commission (MTC) report *Reforming Parking Policies to Support Smart Growth* or visit the MTC parking webpage: http://www.mtc.ca.gov/planning/smart_growth/parking/.

Active Transportation
Please consider pedestrian, bicycling, and transit performance or quality of service measures and modeling as a means of estimating the project impacts to these modes and evaluating mitigation measures and tradeoffs.

Traffic Impact Fees
If improvements to the Caltrans ROW are proposed, please identify any Traffic Impact Fees associated with the project. The scheduling and costs associated with planned improvements on the Caltrans ROW should be listed, in addition to identifying viable funding sources.

Please feel free to call or email Sandra Finegan at (510) 622-1644 or sandra.finegan@dot.ca.gov with any questions regarding this letter.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development – Intergovernmental Review

cc: State Clearinghouse

Community Development Department
1017 Middlefield Road
Redwood City, CA 94064

Phone (650) 780-7234
Fax (650) 780-0128
www.redwoodcity.org

August 25, 2015

Robert Kalkbrenner
Capital Projects Manager
San Mateo County
555 County Center, Fifth Floor
Redwood City, CA 94063

RE: Cordilleras Mental Health Center Replacement Project NOP

Dear Mr. Kalkbrenner:

Thank you for providing the City of Redwood City the opportunity to provide comments on the scope and content of the Environmental Impact Report for the Cordilleras Mental Health Center Replacement Project. Based on the project description and the conceptual site plan included in the Notice of Preparation, the following are preliminary comments:

- Community Outreach: Please ensure that adjacent residential neighborhoods are informed of the project early on in the process and as the plans become more fully developed, including property owners and tenants along Edgewood Road, Crestview Drive, and other nearby residential streets. The City also recommends that the following neighborhood associations be included in the outreach:

  Emerald Hills Homeowners Association
  P.O. Box 620449
  Woodside, CA 94062
  board@emeraldhills.org

  Farm Hill Neighborhood Association
  René White
  3981 Lonesome Pine
  Redwood City, CA 94061
  rwhite@lizmar.com

  Oak Knoll / Edgewood Park Neighborhood Association
  Michael Verdone
  149 Wellesley Crescent
  Redwood City, CA 94062
  edgewoodoakknoll@aol.com

- Number of Employees: The project calls for an increase in the number of beds from 117 to 135 (net increase of 18 beds) and an increase in the number of employees from 86 to 145 (net increase of 59 employees). Please clarifying information regarding the need for the net increase of 59 employees and the associated parking and traffic demands associated with this increase.

Please note that the City may have additional comments or questions as the plans become more fully developed. We look forward to receiving notice of the upcoming EIR scoping session.

Regards,

Michelle Littlefield

Michelle Littlefield
Associate Planner
(650) 780-7238
mlittlefield@redwoodcity.org

San Mateo County: Department of Public Works

NOTICE OF MEETING

Public Scoping Meeting – Please join us!

September 17th, 7:00pm – 8:30 PM
455 County Center, First Floor, Room 101, Redwood City

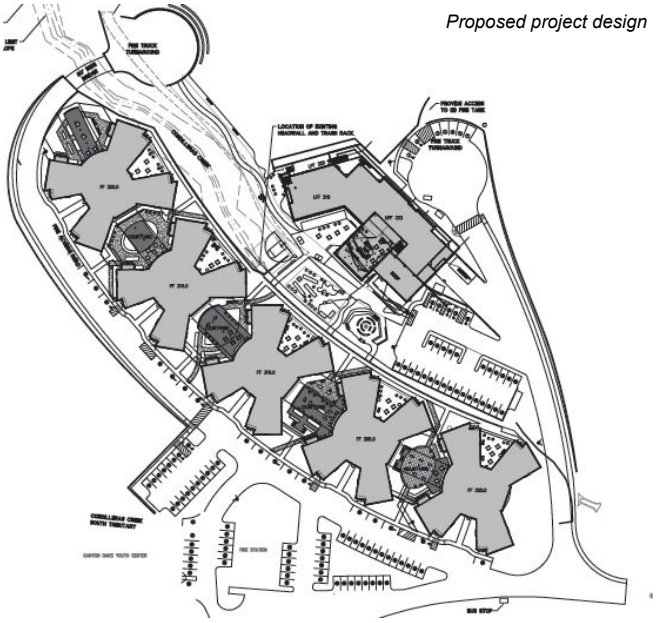
The San Mateo Department of Public Works will hold a public scoping meeting for the Cordilleras Mental Health Center Replacement Project located at 200 Edmonds Road in unincorporated San Mateo County. Replacement of the aging facility is proposed to meet current building code requirements, reduce maintenance costs, meet federal funding size requirements and provide current best practice treatment.

The County of San Mateo and the County Health System, Behavioral Health and Recovery Services, as owner and operator of the Cordilleras Mental Health Center has filed a Notice of Preparation (NOP) with the California State Clearing House to Prepare and Environmental Impact Report (EIR).

The Scoping Meeting will be held to provide the public an opportunity to view the scope of the project and provide comments on potential environmental issues that should be considered during the preparation of the EIR.

The County of San Mateo has identified the following as being potentially affected: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Material, Hydrology and Water Quality, Traffic and Transportation, Utilities and Service Systems.

Proposed project design



The County of San Mateo Department of Public Works and the County Health System, Behavioral Health and Recovery Services propose to replace the outdated three-story Cordilleras Mental Health Center building with smaller residential structures and a campus center building with additional beds. The new facility will increase patient capacity from 117 to 135 beds; increase staffing from 86 to 145 full-time equivalents, and provide new emergency access and expand parking.

WHAT: Public Scoping Meeting for the Cordilleras Mental Health Center Replacement Project EIR

WHEN: Thursday, September 17th, 7:00pm – 8:30pm

WHERE: San Mateo County Public Works Department, 455 County Center, First Floor, Room 101, Redwood City, CA 94063

CONTACT: For more information about the meeting please contact Rob Kalkbrenner, Capital Projects Manager at: 650-599-7285 or via email at: rkalkbrenner@smcgov.org

San Mateo County, Department of Public Works

Public Scoping Meeting Comments

Cordilleras Mental Health Center Replacement Project

September 17th, 7:00pm – 8:30 PM
455 County Center, First Floor, Room 101, Redwood City

County Representatives in Attendance:

Robert Kalkbrenner, Department of Public Works, Capital Projects Manager
Terry Wilcox-Rittgers, County Behavioral Health and Recovery Services, Area Manager
Larry Funk, County Health Department, Consulting Project Coordinator
Kate Werner, MIG|TRA Environmental Science, CEQA Manager
Tay Peterson, MIG|TRA Environmental Science, Biological Advisor

Meeting Attendees:
Lisa Porras, City of San Carlos Planning Department
Debbie Bazan, County Manager's Office
John Boerge, community member

Comments raised during meeting:

- Concern for potential impacts to creek and interest in seeing project alternatives address creek impacts
- Height of new four-story building and possible visual effects
- Interest in availability of technical studies prepared to date

Cordilleras Health System Replacement Project EIR

Appendix B: Project Drawings

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2 BUILDING A, ENTRY PRESPECTIVE RENDERING

1/2" = 1'-0"

1 BUILDING A, BREEZWAY PRESPECTIVE RENDERING

1/2" = 1'-0"

County of San Mateo
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Cordilleras Health System Replacement Project

CANNONDESIGN

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F: 415.243.4176

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San Francisco, CA 94105
415.989.1004

RHAA
Landscape
225 Miller Avenue
Mill Valley, CA 94941
415.383.7900

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156 2nd Street, Suite 406
San Francisco, CA 94105
415.922.5900

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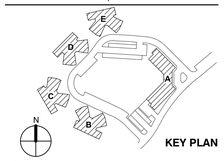

KEY PLAN

Drawing Title:

RENDERINGS

Project No.: 005318.00 Checked by: Checker

A0304

2 **BUILDING B, C, AND D ENTRY PERSPECTIVE RENDERING**

12" = 1'-0"

1 **BUILDING A, OPEN SPACE PERSPECTIVE RENDERING**

12" = 1'-0"

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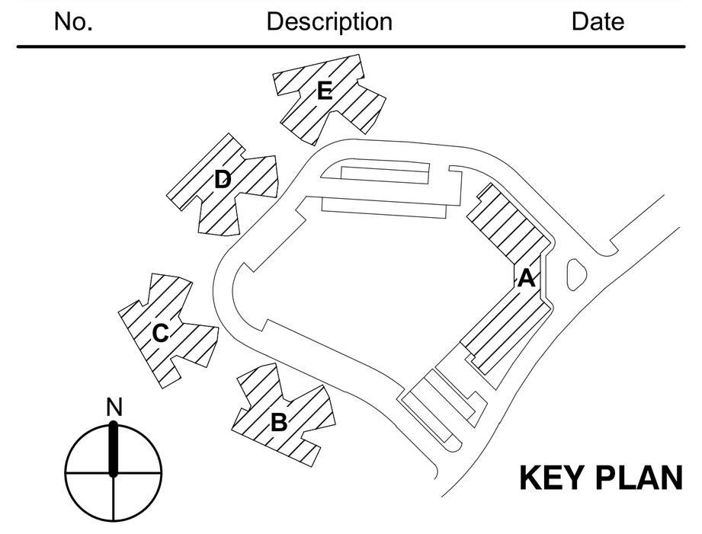

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Drawing Title:

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Project No.: 005318.00 Checked by: Checker

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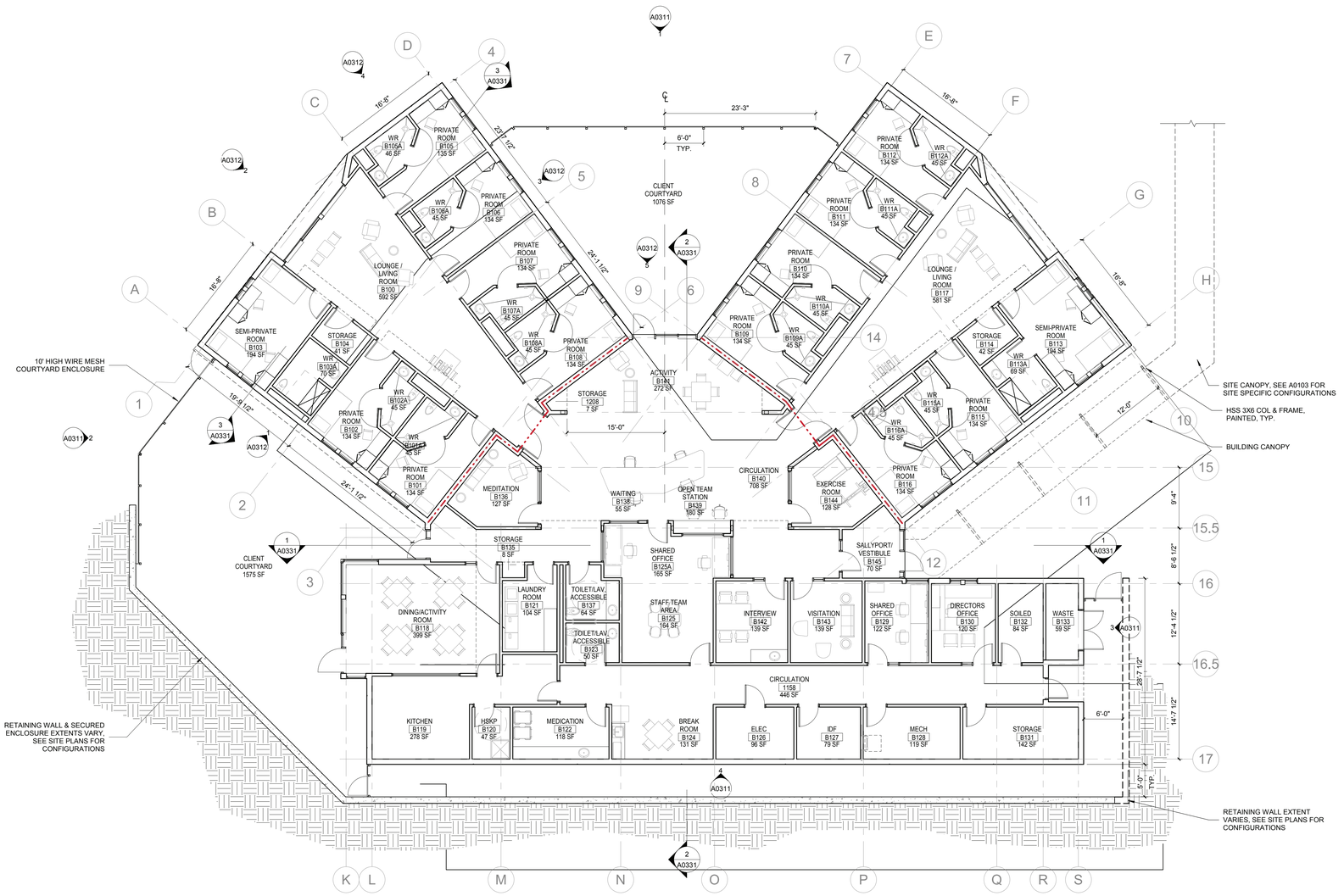

1 LEVEL 01 PLAN - BUILDING B (BUILDINGS C, D & E SIM)
1/8" = 1'-0"

GENERAL SHEET NOTES

SHEET KEYNOTES

SHEET LEGEND

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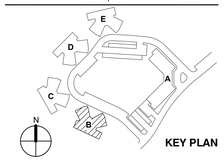

KEY PLAN

Drawing Title:

MHRC - LEVEL 01 FLOOR PLAN - BUILDING B (C, D, & E SIM)

Project No.: 005318.00 Checked by: Checker

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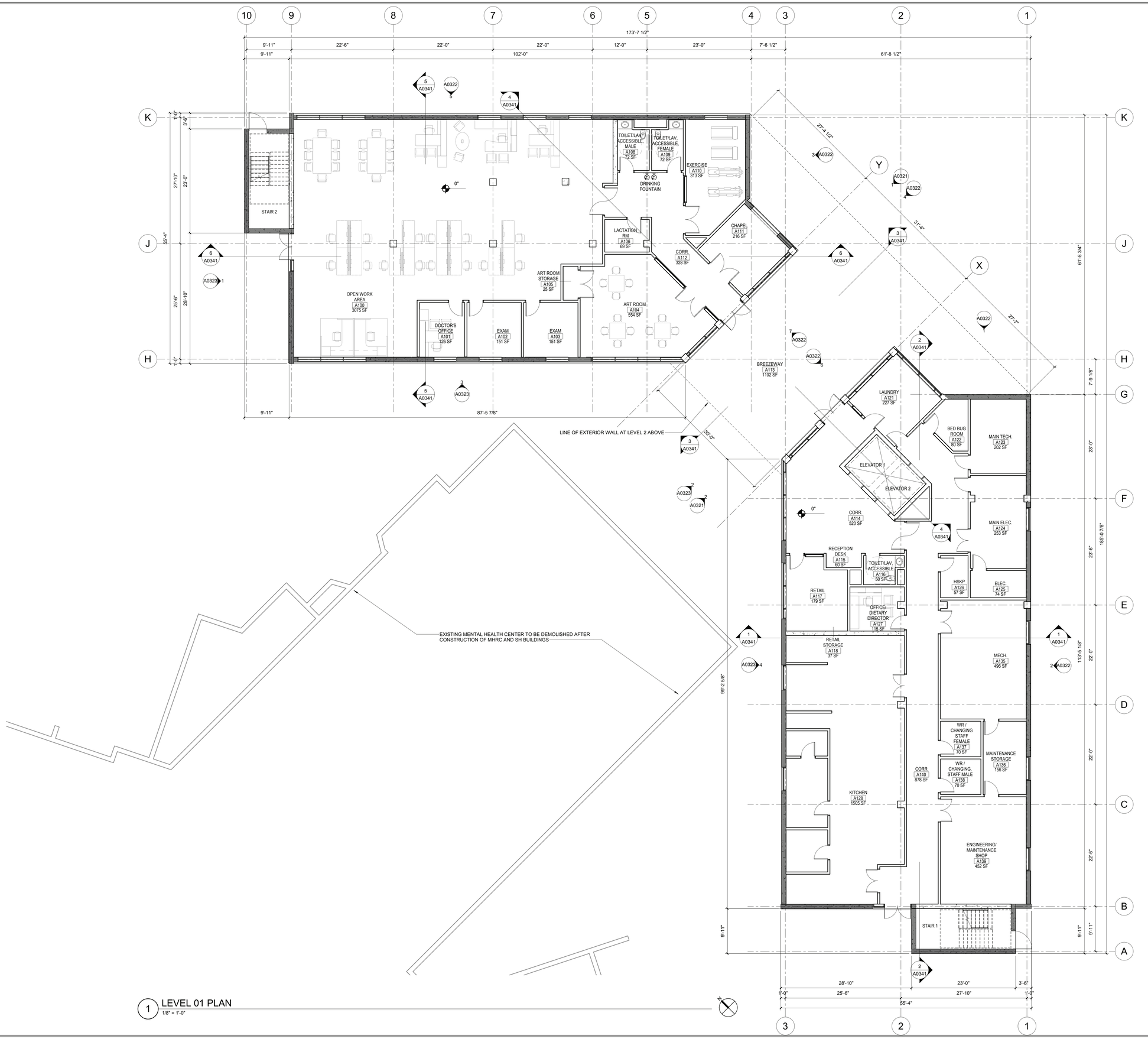

1 LEVEL 01 PLAN
1/8" = 1'-0"

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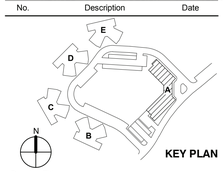


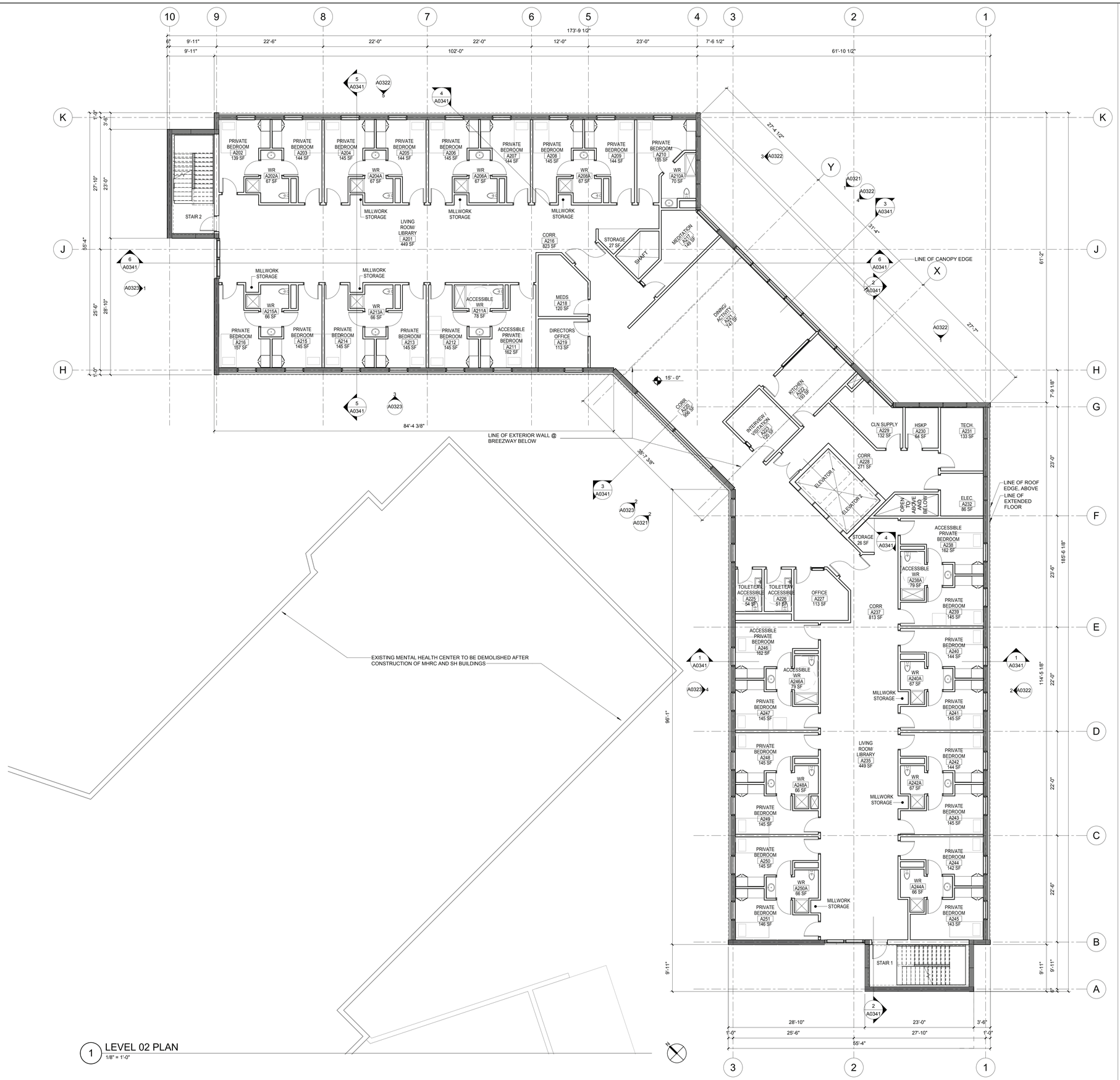
KEY PLAN

Drawing Title:

SUPPORTED HOUSING LEVEL 01 FLOOR PLAN

Project No.: 005318.00 Checked by: Checker

A0111



1 LEVEL 02 PLAN
1/8" = 1'-0"

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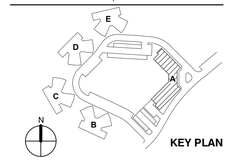


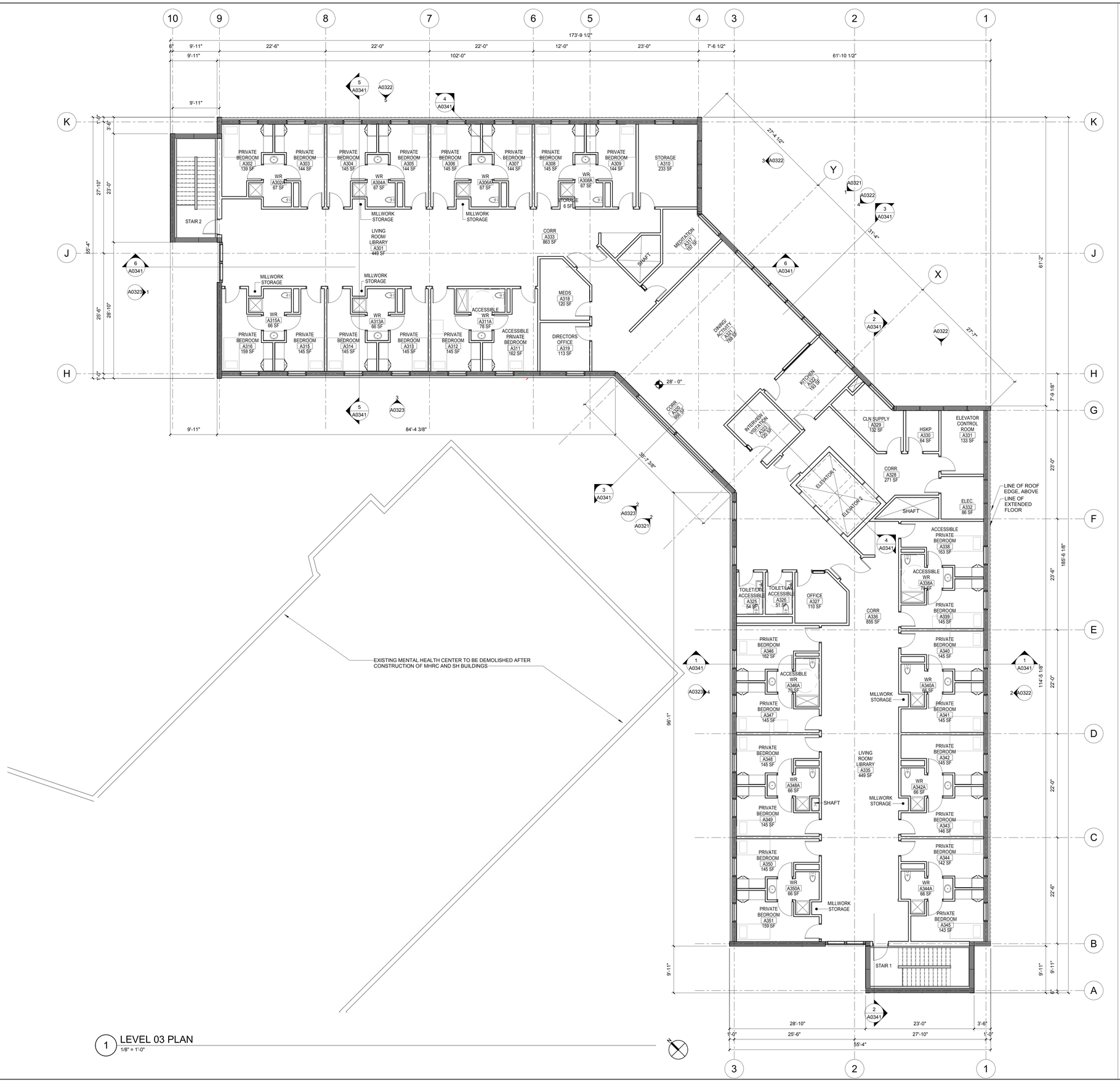
KEY PLAN

Drawing Title:

SUPPORTED HOUSING LEVEL 02 FLOOR PLAN

Project No.: 005318.00 Checked by: Checker

A0112



1 LEVEL 03 PLAN
1/8" = 1'-0"

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No.	Description	Date
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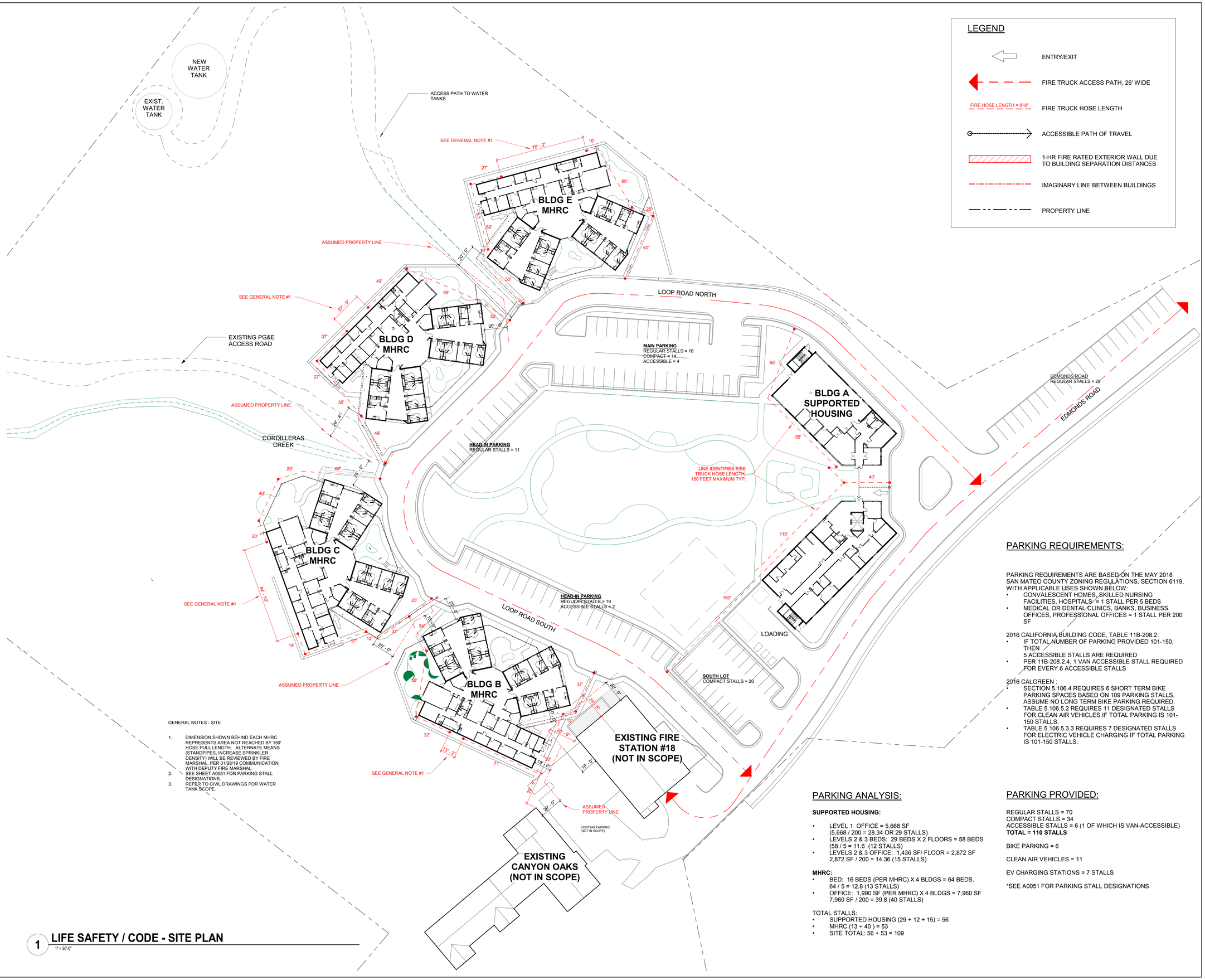
Drawing Title:

SUPPORTED HOUSING LEVEL 03 FLOOR PLAN

Project No.: 005318.00 Checked by: Checker

A0113



LEGEND

- ENTRY/EXIT
- FIRE TRUCK ACCESS PATH, 26' WIDE
- FIRE HOSE LENGTH = 0'-0" — FIRE TRUCK HOSE LENGTH
- ACCESSIBLE PATH OF TRAVEL
- 1-HR FIRE RATED EXTERIOR WALL DUE TO BUILDING SEPARATION DISTANCES
- IMAGINARY LINE BETWEEN BUILDINGS
- PROPERTY LINE

GENERAL NOTES - SITE

1. DIMENSION SHOWN BEHIND EACH MHRC REPRESENTS AREA NOT REACHED BY 150' HOSE PULL LENGTH. ALTERNATE MEANS (STANDPIPES, INCREASE SPRINKLER DENSITY) WILL BE REVIEWED BY FIRE MARSHAL, PER 01/28/19 COMMUNICATION WITH DEPUTY FIRE MARSHAL.
2. SEE SHEET A0051 FOR PARKING STALL DESIGNATIONS.
3. REFER TO CIVIL DRAWINGS FOR WATER TANK SCOPE.

PARKING REQUIREMENTS:

PARKING REQUIREMENTS ARE BASED ON THE MAY 2018 SAN MATEO COUNTY ZONING REGULATIONS, SECTION 6119, WITH APPLICABLE USES SHOWN BELOW:

- CONVALESCENT HOMES, SKILLED NURSING FACILITIES, HOSPITALS = 1 STALL PER 5 BEDS
- MEDICAL OR DENTAL CLINICS, BANKS, BUSINESS OFFICES, PROFESSIONAL OFFICES = 1 STALL PER 200 SF

2016 CALIFORNIA BUILDING CODE, TABLE 11B-208.2:

- IF TOTAL NUMBER OF PARKING PROVIDED 101-150, THEN
  5 ACCESSIBLE STALLS ARE REQUIRED
- PER 11B-208.2.4, 1 VAN ACCESSIBLE STALL REQUIRED FOR EVERY 6 ACCESSIBLE STALLS

2016 CALGREEN :

- SECTION 5.106.4 REQUIRES 6 SHORT TERM BIKE PARKING SPACES BASED ON 109 PARKING STALLS, ASSUME NO LONG TERM BIKE PARKING REQUIRED.
- TABLE 5.106.5.2 REQUIRES 11 DESIGNATED STALLS FOR CLEAN AIR VEHICLES IF TOTAL PARKING IS 101-150 STALLS.
- TABLE 5.106.5.3.3 REQUIRES 7 DESIGNATED STALLS FOR ELECTRIC VEHICLE CHARGING IF TOTAL PARKING IS 101-150 STALLS.

PARKING ANALYSIS:

SUPPORTED HOUSING:

- LEVEL 1 OFFICE = 5,668 SF
  (5,668 / 200 = 28.34 OR 29 STALLS)
- LEVELS 2 & 3 BEDS: 29 BEDS X 2 FLOORS = 58 BEDS
  (58 / 5 = 11.6 (12 STALLS)
- LEVELS 2 & 3 OFFICE: 1,436 SF/ FLOOR = 2,872 SF
  2,872 SF / 200 = 14.36 (15 STALLS)

MHRC:

- BED: 16 BEDS (PER MHRC) X 4 BLDGS = 64 BEDS.
  64 / 5 = 12.8 (13 STALLS)
- OFFICE: 1,990 SF (PER MHRC) X 4 BLDGS = 7,960 SF
  7,960 SF / 200 = 39.8 (40 STALLS)

TOTAL STALLS:

- SUPPORTED HOUSING (29 + 12 + 15) = 56
- MHRC (13 + 40) = 53
- SITE TOTAL: 56 + 53 = 109

PARKING PROVIDED:

REGULAR STALLS = 70
COMPACT STALLS = 34
ACCESSIBLE STALLS = 6 (1 OF WHICH IS VAN-ACCESSIBLE)
TOTAL = 110 STALLS

BIKE PARKING = 6

CLEAN AIR VEHICLES = 11

EV CHARGING STATIONS = 7 STALLS

*SEE A0051 FOR PARKING STALL DESIGNATIONS

1 **LIFE SAFETY / CODE - SITE PLAN**
1" = 30'-0"

3/15/2019 9:47:38 PM

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Cordilleras Health System Replacement Project

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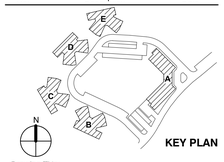
KPFF
Structural/Civil
45 Fremont Street, 28th Floor
San Francisco, CA 94105
415.989.1004

RHAA
Landscape
225 Miller Avenue
Mill Valley, CA 94941
415.383.7900

Cini Little International Inc.
Food Service
156 2nd Street, Suite 406
San Francisco, CA 94105
415.922.5900

NOT FOR CONSTRUCTION

No.	Description	Date
-	REVISED SCHEMATIC DESIGN	15 MAR 2019



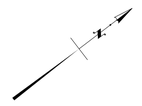
KEY PLAN

Drawing Title:

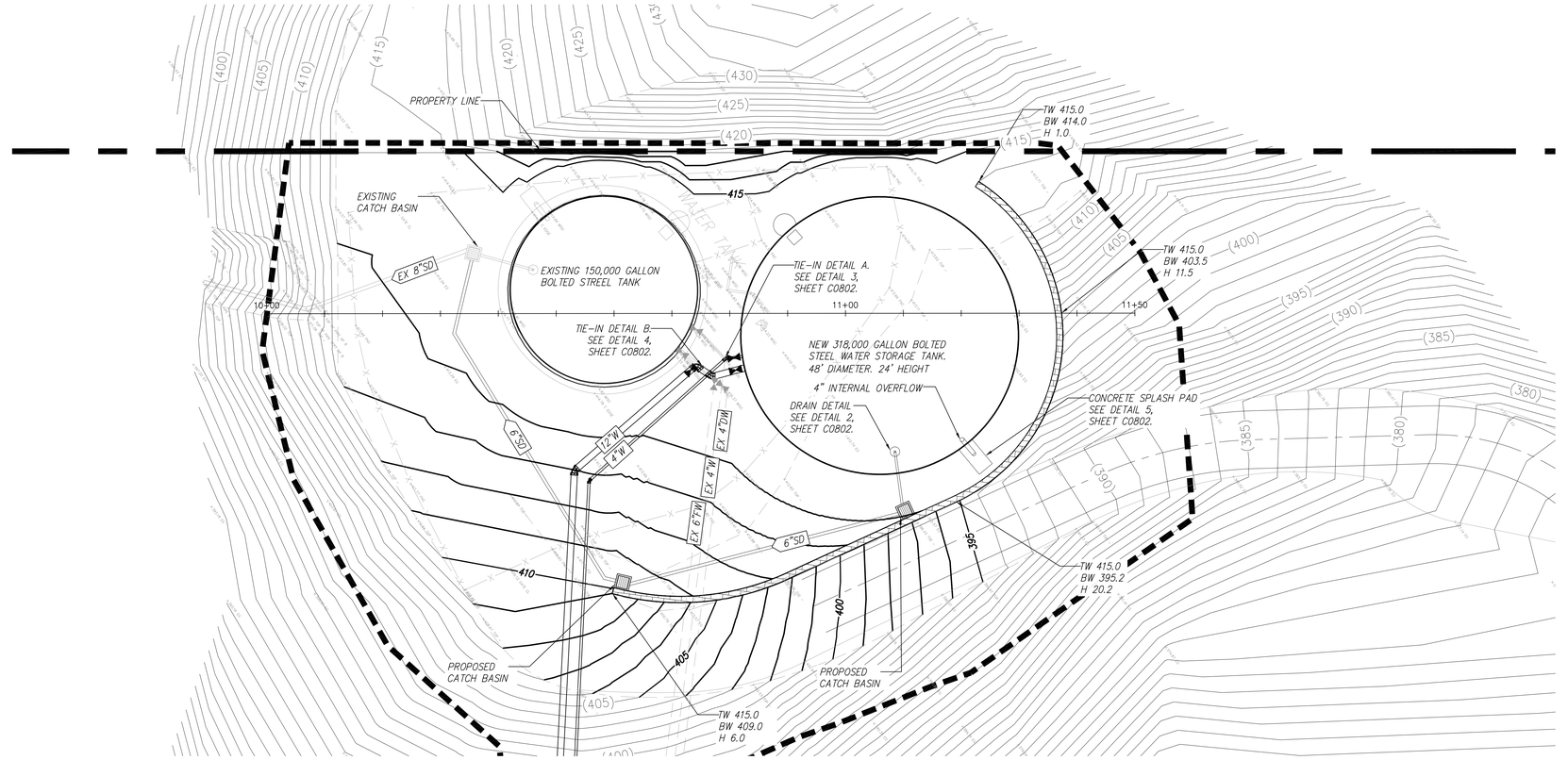
LIFE SAFETY - SITE PLAN

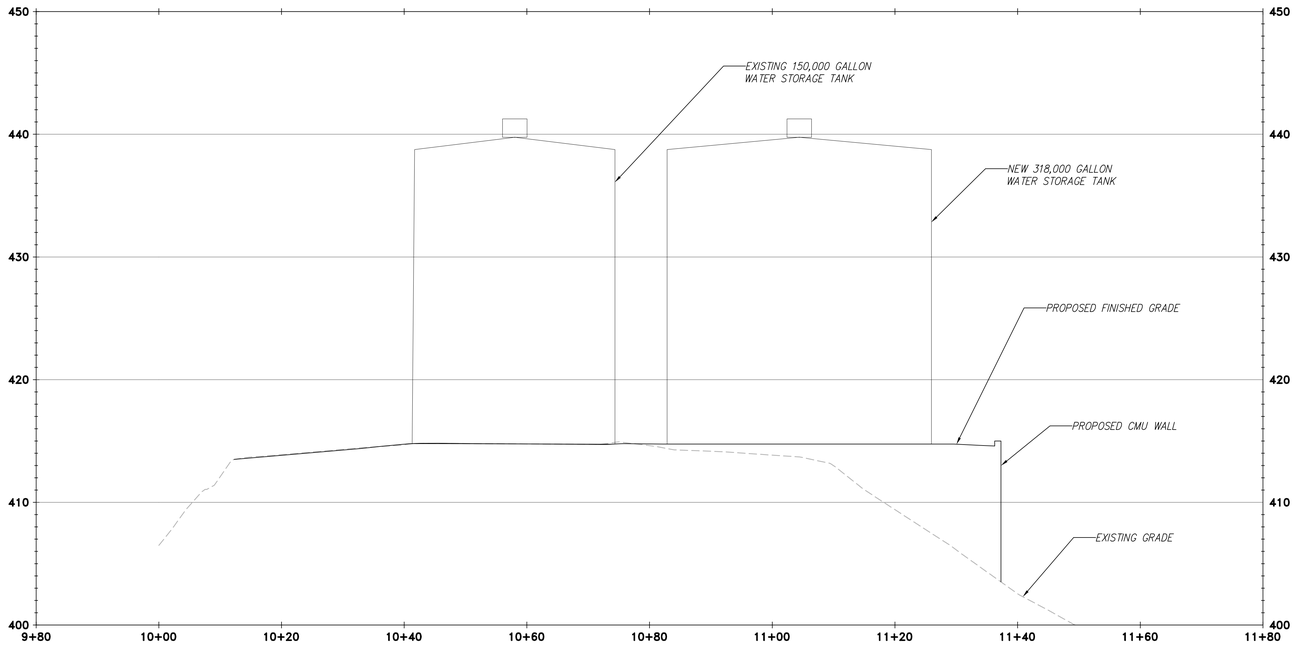
Project No.: 005318.00 Checked by: Checker

G0051



PLAN
SCALE: 1" = 10'-0"
0 5' 10' 20'
GRAPHIC SCALE





TANK PROFILE
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'

ADDITIONAL TANK

TYPE IIIA CONSTRUCTION 39,700 SF MAX

2,750 GPM FIREFLOW
2 HOUR DURATION

SPRINKLER DEMAND 1,000 GPM
30 MINUTE DURATION

CORDILLERAS HEALTH SYSTEM REPLACEMENT PROJECT
WATER STORAGE TANK

County of San Mateo
PDU

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28TH FLOOR
SAN FRANCISCO, CA 94105
O: 415.989.1004
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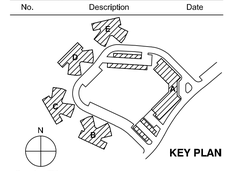
No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019

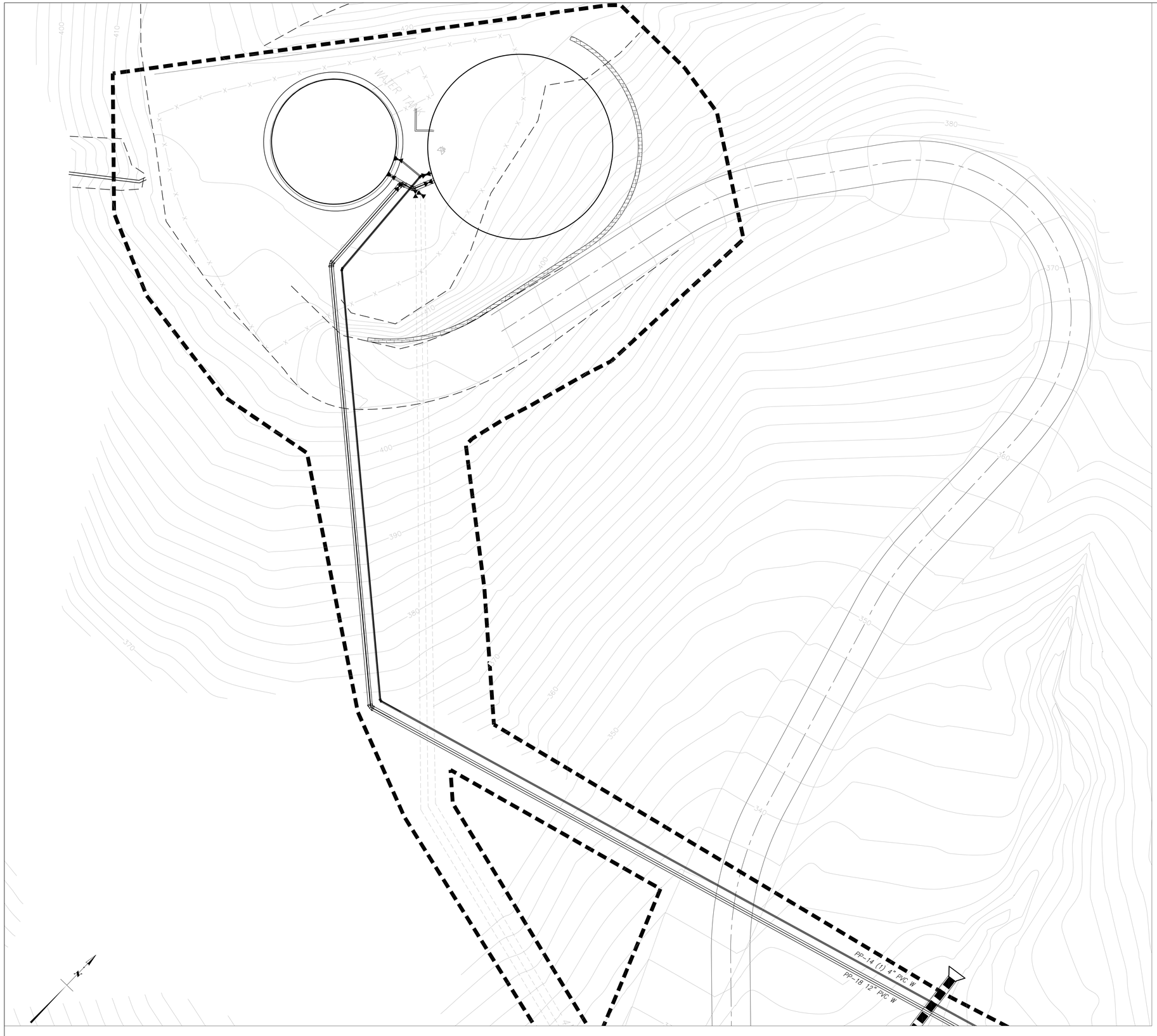


Drawing Title:

WATER STORAGE TANK PLAN

Project No.: 005318.00 Checked by: DL

C0801



LEGEND

STORM DRAIN LINE	14"SD
SANITARY SEWER LINE	6"SS
SANITARY SEWER FORCE MAIN	4"FM
JOINT TRENCH LINE	JT
WATER LINE	12"W
CURB INLET	
MANHOLE	
FIRE HYDRANT	
WATER VALVE	

PLAN
SCALE: 1" = 10'-0"
0 5' 10' 20'
GRAPHIC SCALE

County of San Mateo
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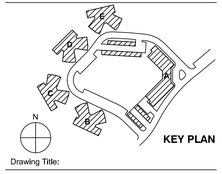
-	100% DESIGN DEVELOPMENT	19 JULY 2019



KEY PLAN

Drawing Title:

UTILITY PLAN

Project No.: 005318.00 Checked by: JIA

C0401

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-	100% DESIGN DEVELOPMENT	19 JULY 2019

KEY PLAN

Drawing Title:

UTILITY PLAN

Project No.: 005318.00 Checked by: JIA

C0402

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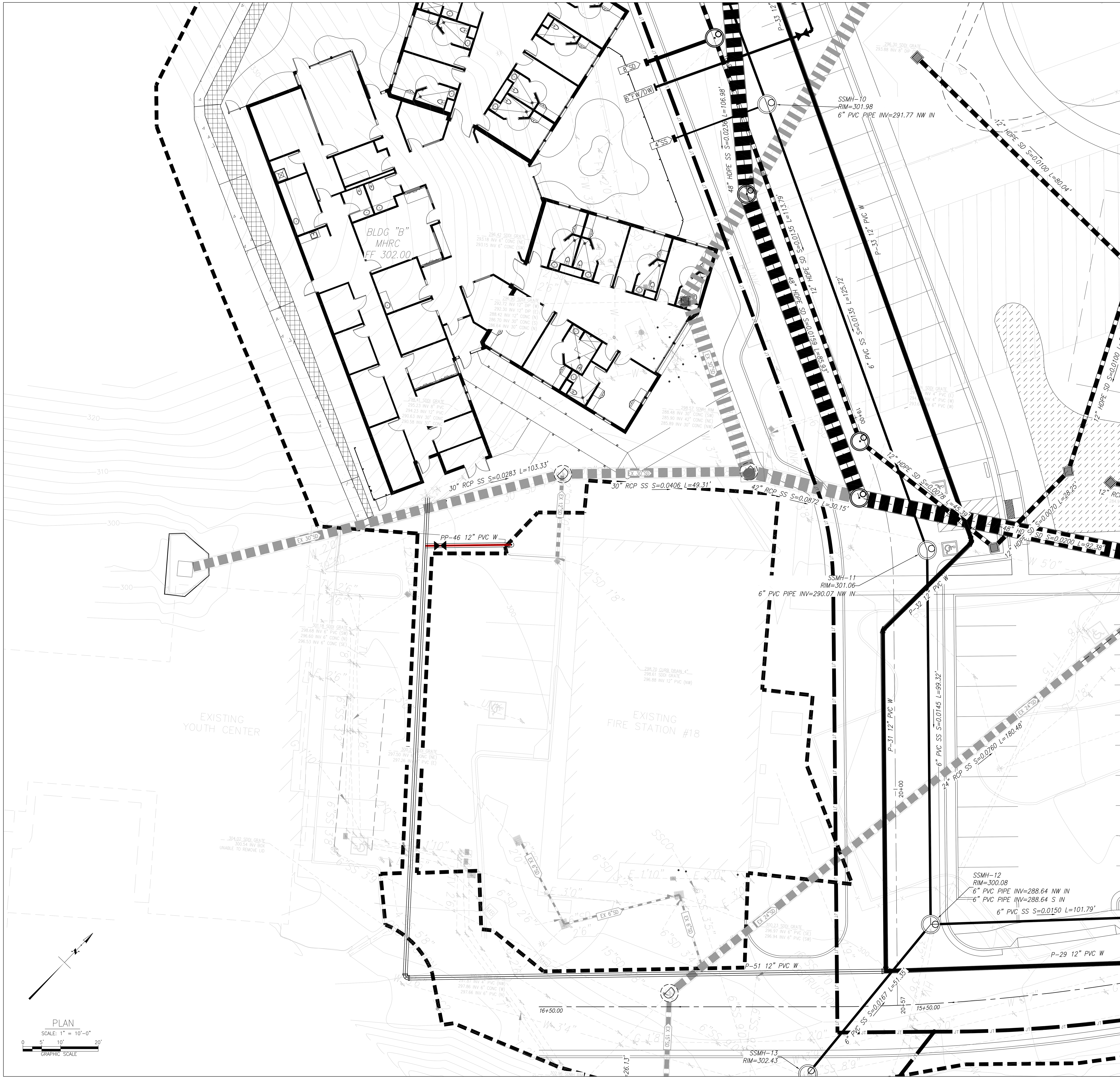
No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019

KEY PLAN

Drawing Title:
UTILITY PLAN

Project No.: 005318.00 Checked by: JIA

C0403



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No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019

KEY PLAN

Drawing Title:

UTILITY PLAN

Project No.: 005318.00 Checked by: JIA

C0404

NOTES

SEE PHASING PLAN FOR TEMPORARY UTILITY LINES.

PLAN
SCALE: 1" = 10'-0"
0 5' 10' 20'
GRAPHIC SCALE

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No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
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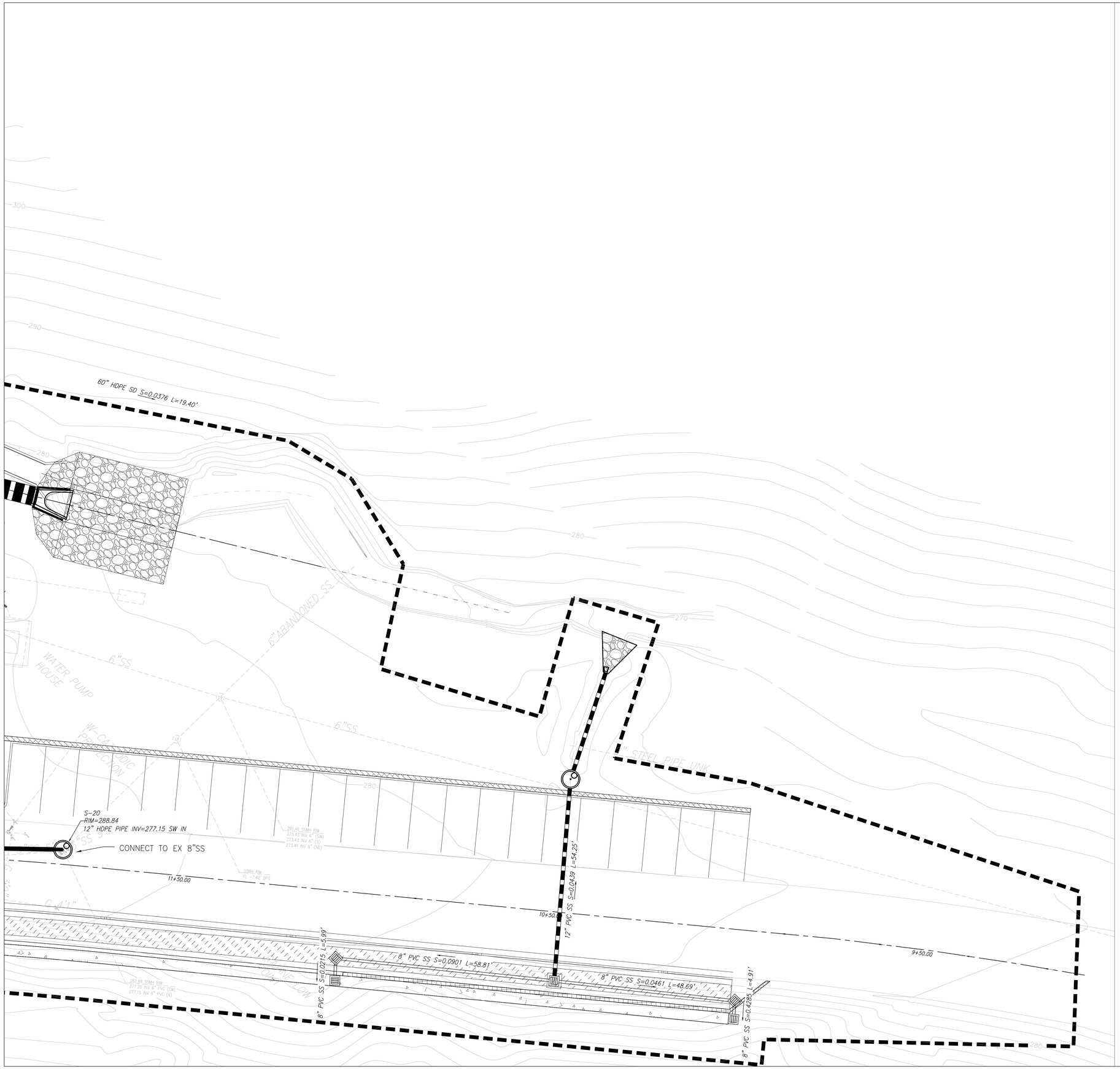
KEY PLAN

Drawing Title:

UTILITY PLAN

Project No.: 005318.00 Checked by: JIA

C0405



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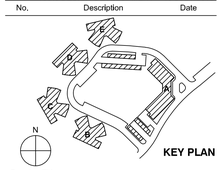
-	100% DESIGN DEVELOPMENT	19 JULY 2019



KEY PLAN

Drawing Title:

UTILITY PLAN

Project No.: 005318.00 Checked by: JIA

C0406

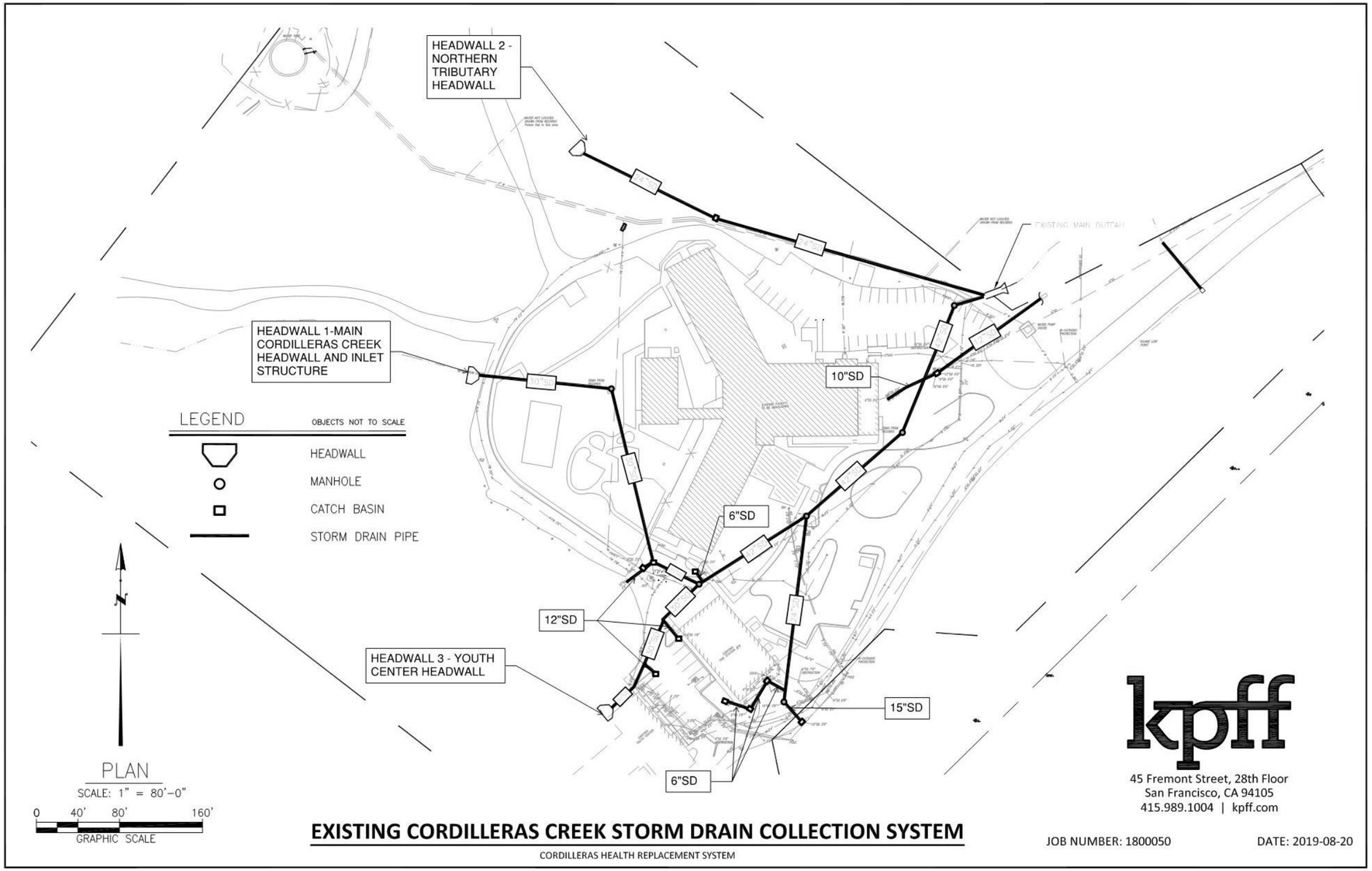
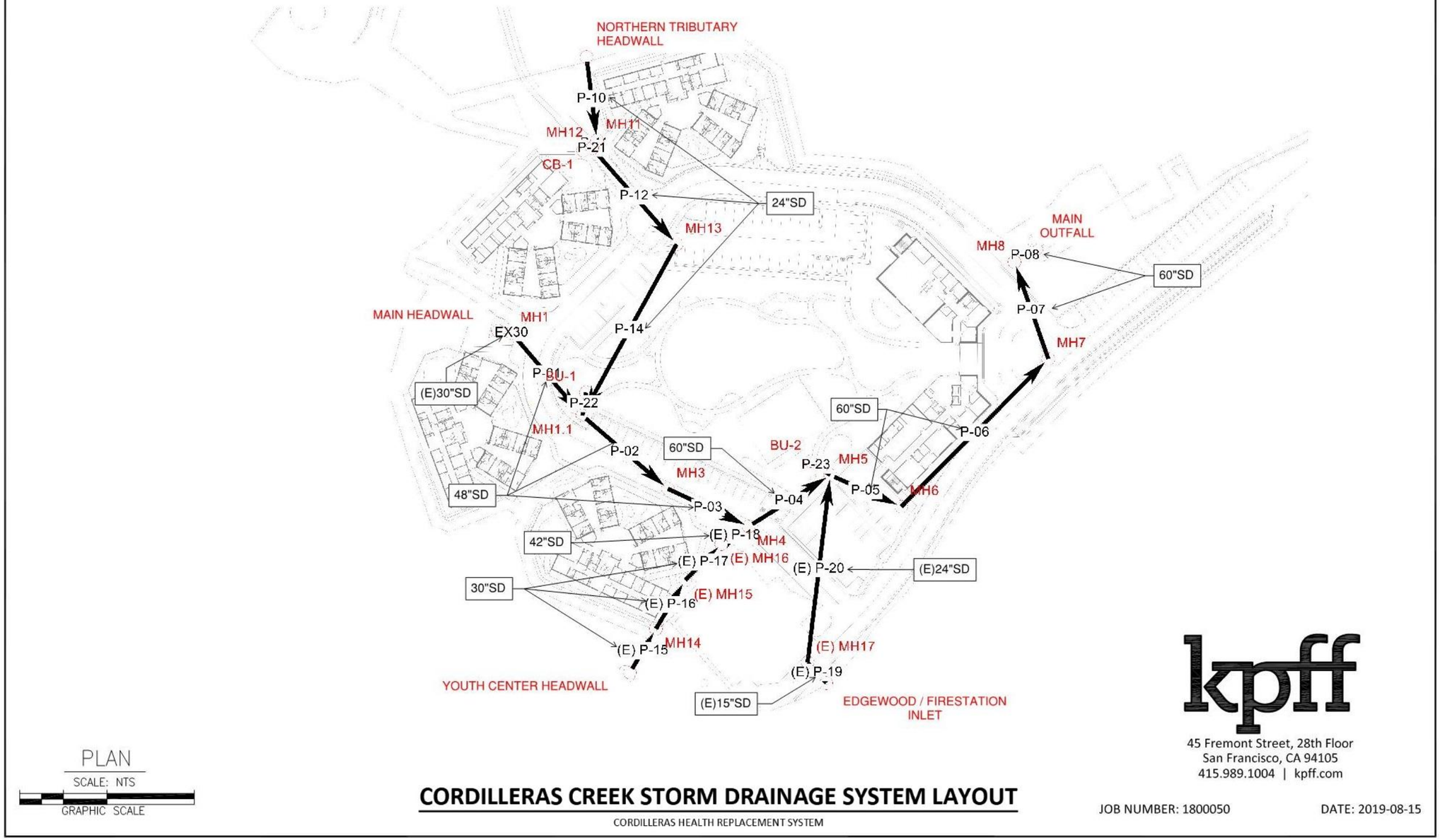


Figure 3.1 Existing Cordilleras Creek Collection System



PLAN
SCALE: NTS
GRAPHIC SCALE

CORDILLERAS CREEK STORM DRAINAGE SYSTEM LAYOUT

CORDILLERAS HEALTH REPLACEMENT SYSTEM

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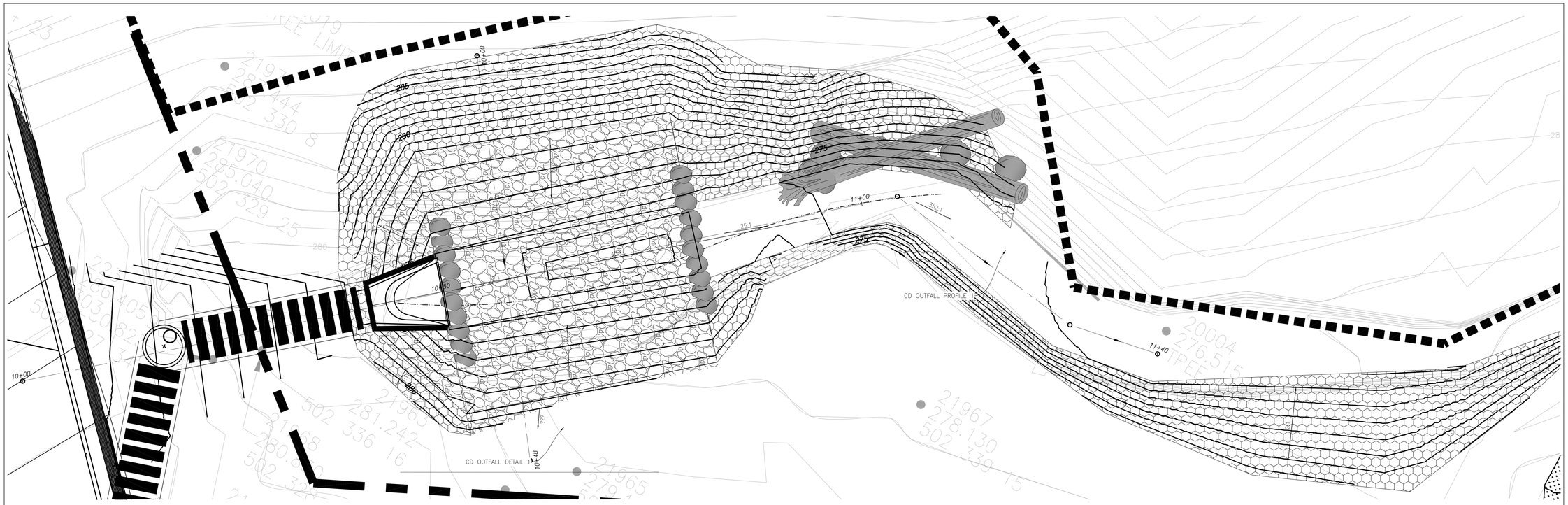
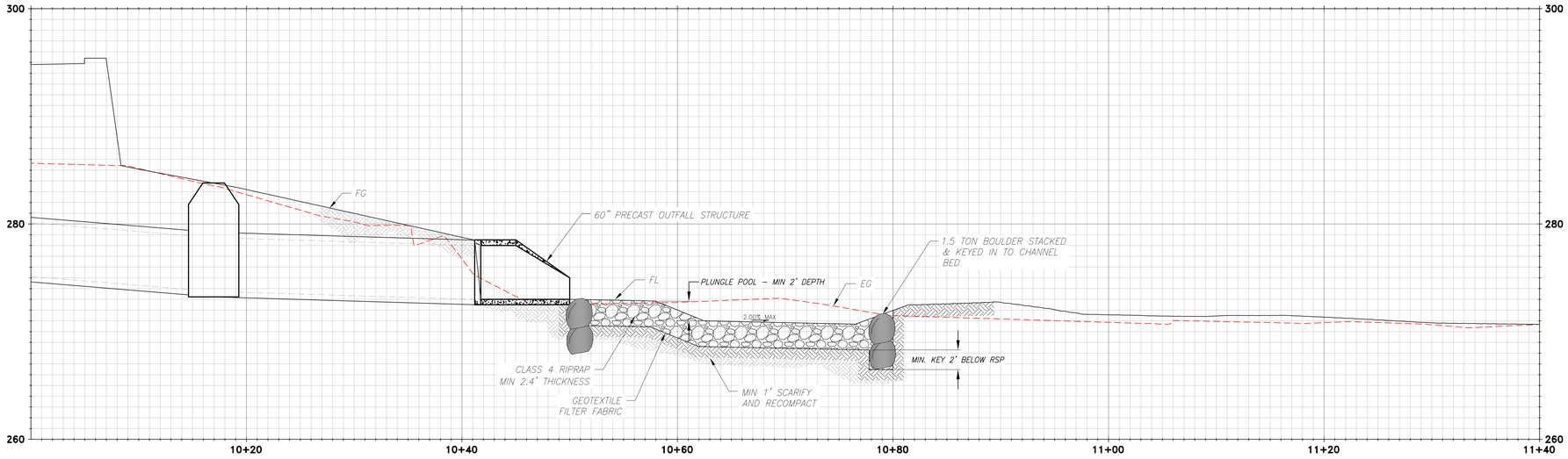
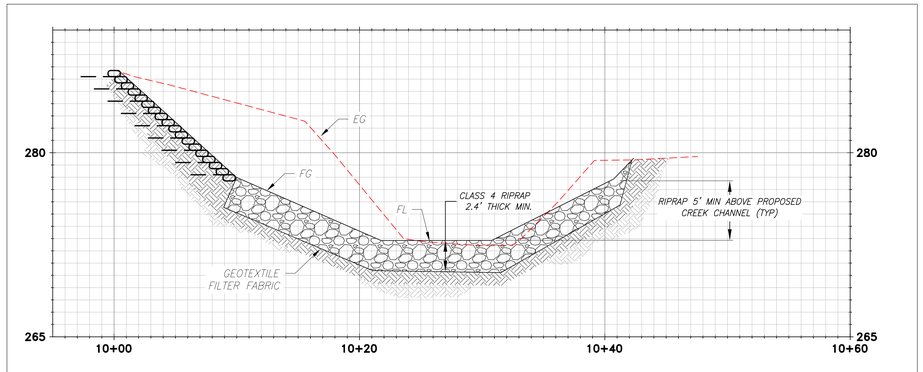
JOB NUMBER: 1800050 DATE: 2019-08-15

Figure 3.4.1 Cordilleras Creek Storm Drainage System Layout





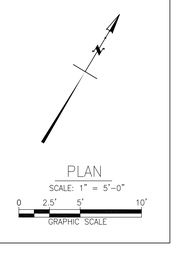
CD OUTFALL PROFILE 1
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'



CD OUTFALL 1 DETAIL
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

LEGEND:

- RIGHT-OF-WAY
- LIMITS OF DISTURBANCE
- EROSION CONTROL FABRIC SEE DETAIL 2 – SHEET C0705
- GEOGRID REINFORCED FLEX MSE WALL SEE DETAIL 3 – SHEET C0705
- ROCK SLOPE PROTECTION – CLASS 4
- 2-LOG AND BOULDER LWD STRUCTURE SEE DETAIL 1 – SHEET C0705
- 1.5 TON ANCHOR BOULDER STACKED AND KEYED INTO CHANNEL BED
- DEBRIS CATCHMENT SYSTEM SEE DETAIL 4 – SHEET C0705



PLAN
SCALE: 1" = 5'-0"
0 2.5' 5' 10'
GRAPHIC SCALE

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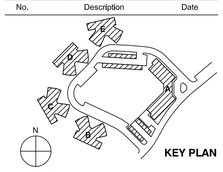


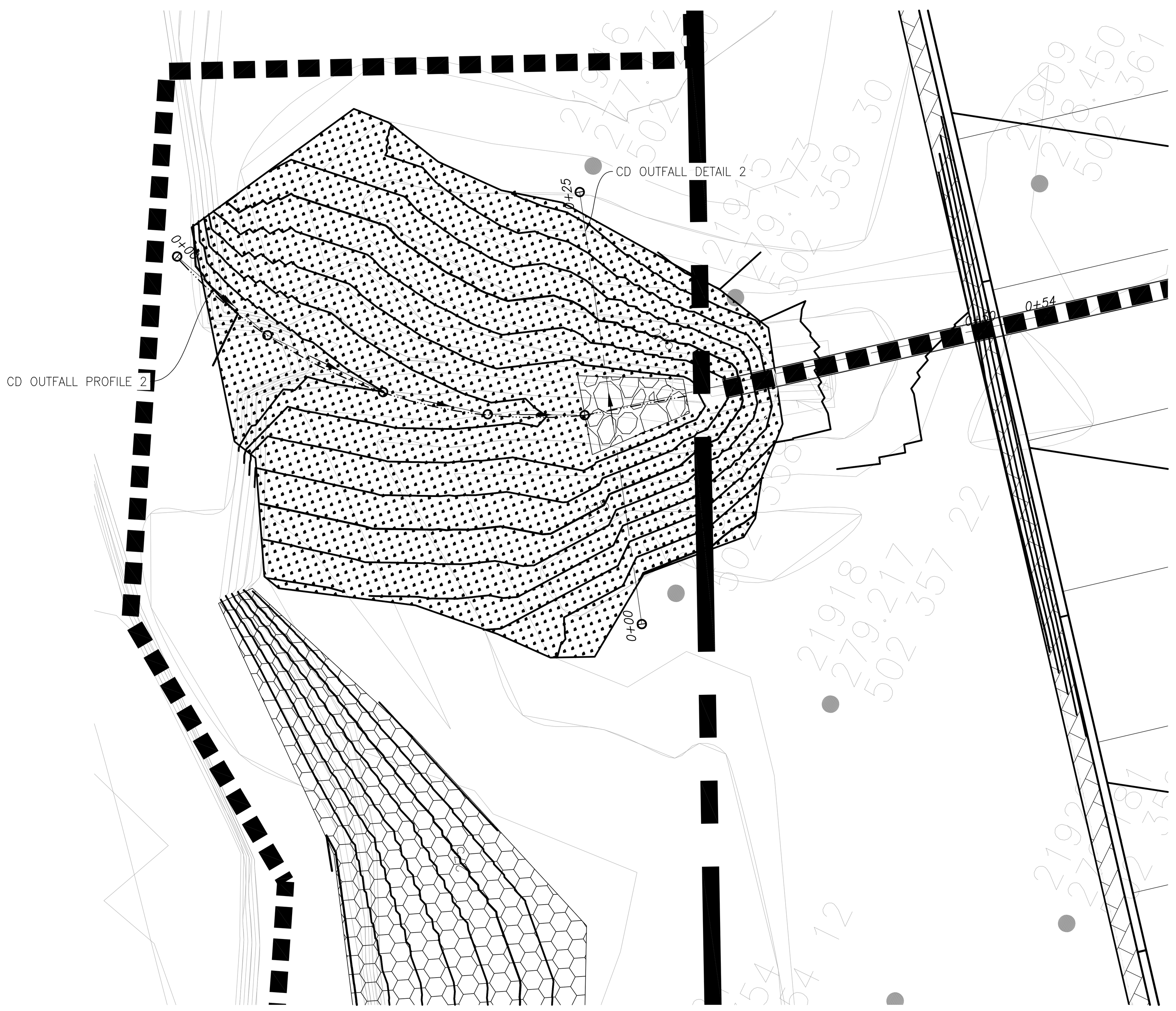
KEY PLAN

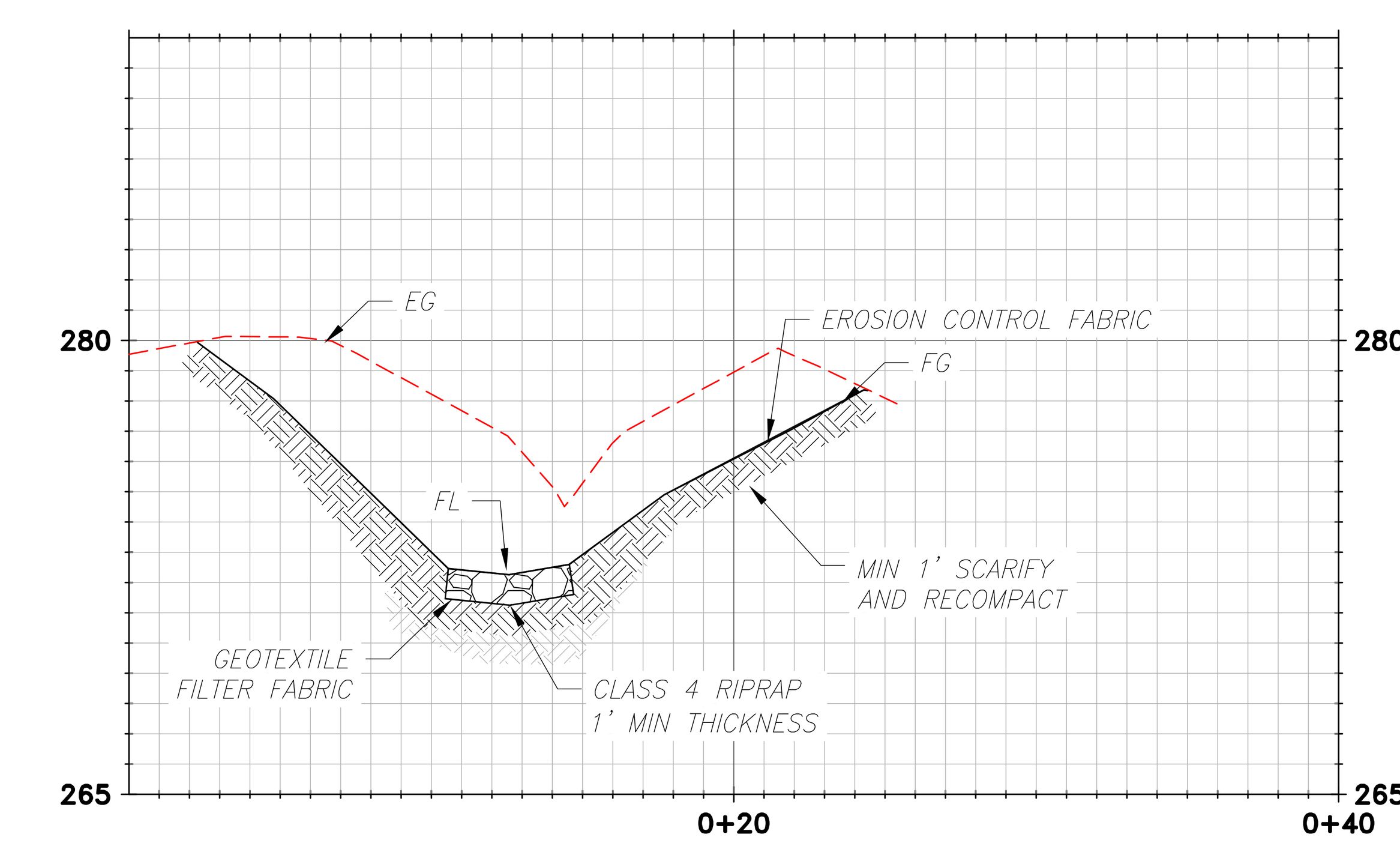
Drawing Title:

OUTFALL 1 P&P

Project No.: 005318.00 Checked by: JIA

C0701

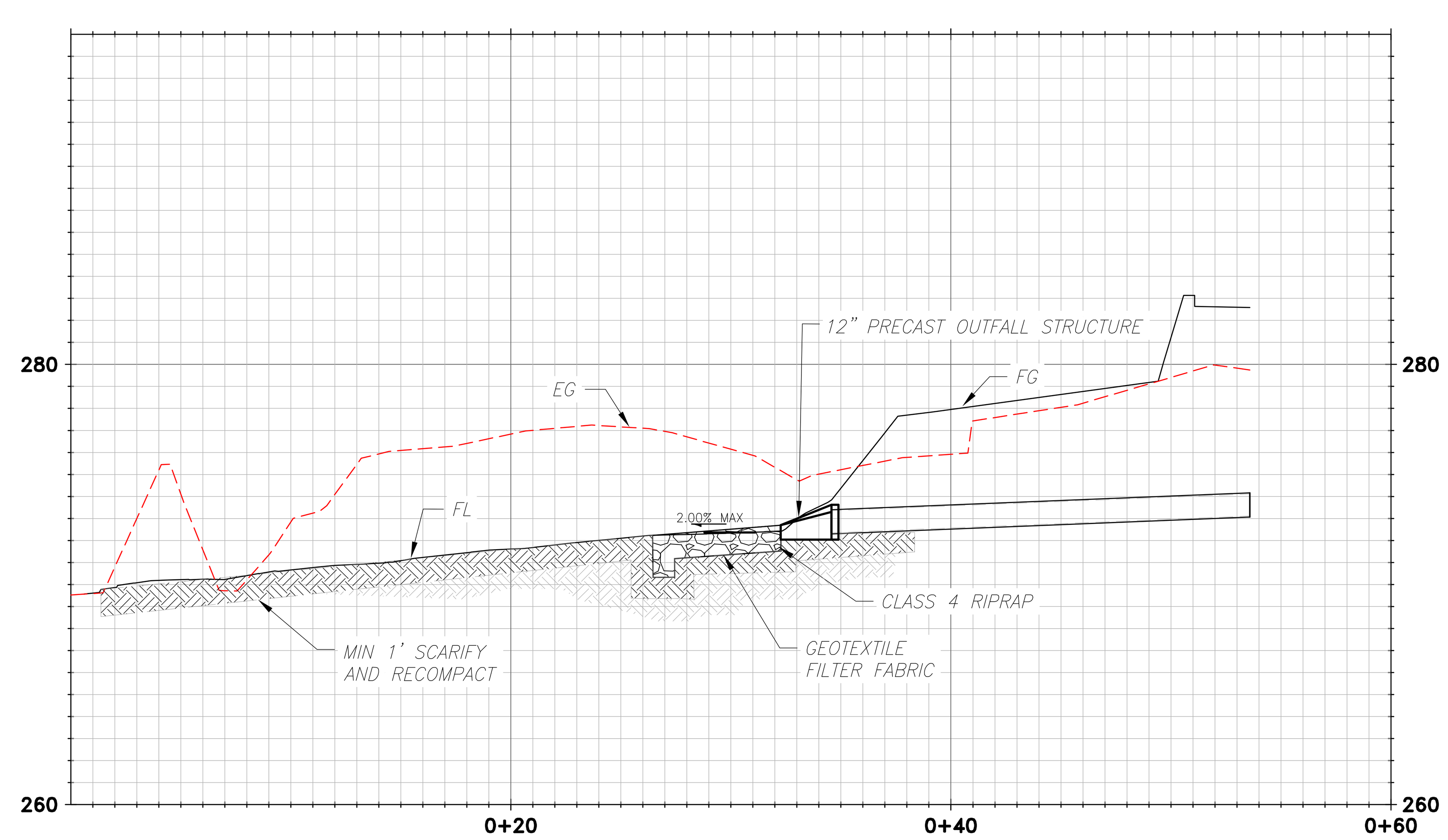




CD OUTFALL DETAIL 2
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

LEGEND:

- RIGHT-OF-WAY
- LIMITS OF DISTURBANCE
- EROSION CONTROL FABRIC SEE DETAIL 2 - SHEET C0705
- GEOGRID REINFORCED FLEX MSE WALL SEE DETAIL 3 - SHEET C0705
- ROCK SLOPE PROTECTION - CLASS 4
- 2-LOG AND BOULDER LWD STRUCTURE SEE DETAIL 1 - SHEET C0705
- 1.5 TON ANCHOR BOULDER STACKED AND KEYED INTO CHANNEL BED
- DEBRIS CATCHMENT SYSTEM SEE DETAIL 4 - SHEET C0705



CD OUTFALL PROFILE 2
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

PLAN
SCALE: 1" = 5'-0"
0 2.5' 5' 10'
GRAPHIC SCALE

County of San Mateo
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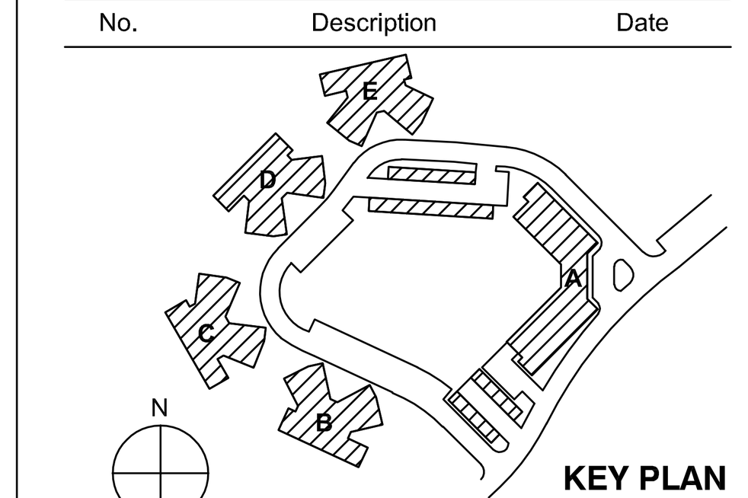
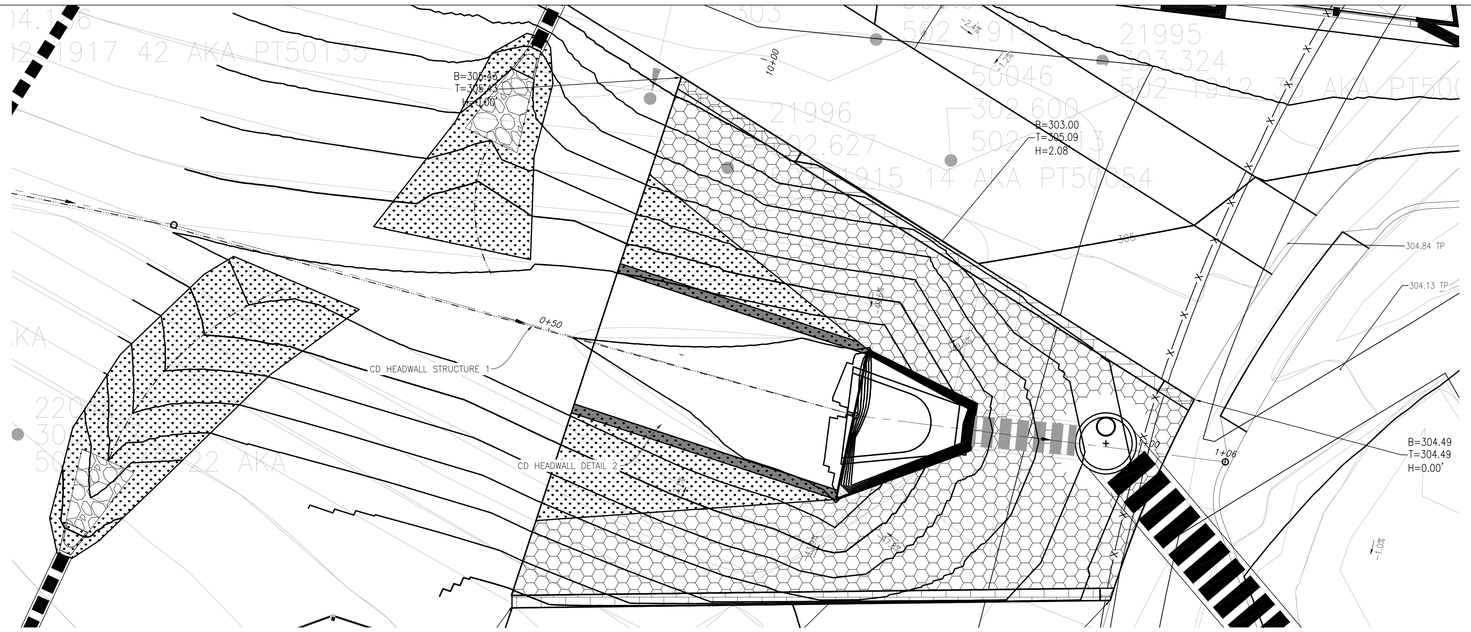
-	100% DESIGN DEVELOPMENT	19 JULY 2019



Drawing Title:
OUTFALL 2 P&P

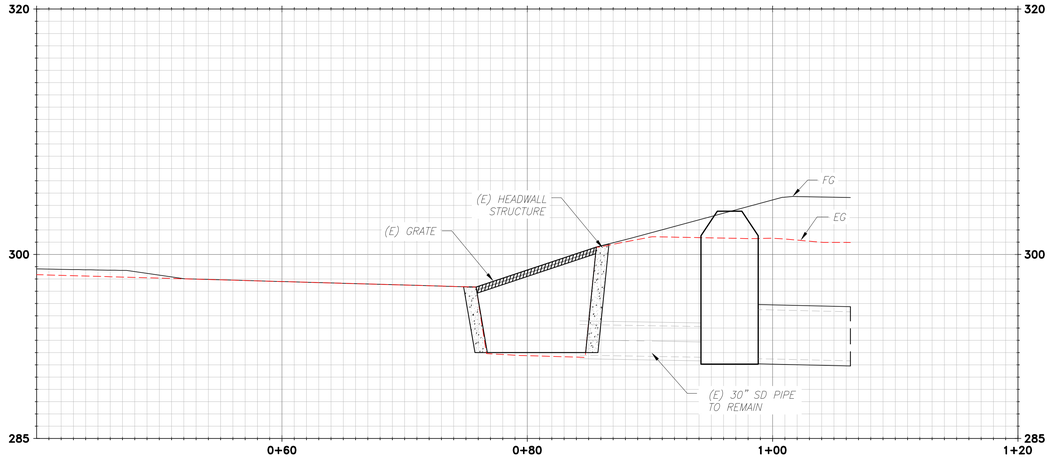
Project No.: 005318.00 Checked by: CHECK

C0702

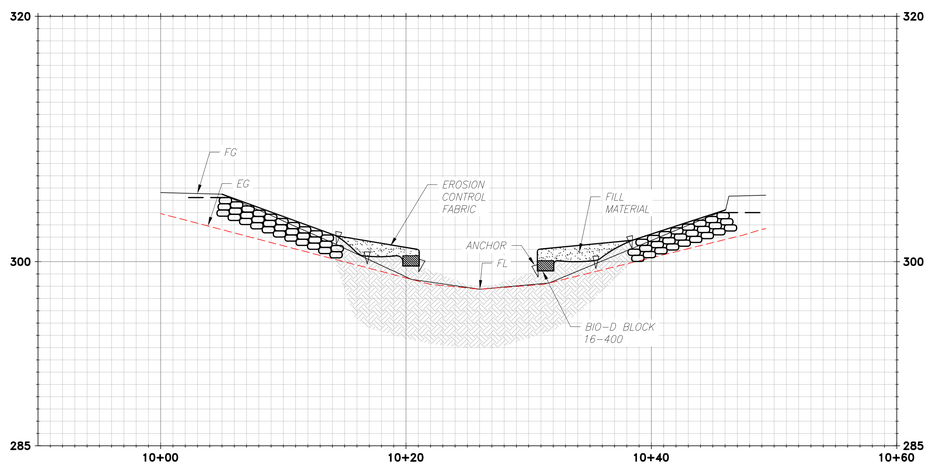


LEGEND:

- RIGHT-OF-WAY
- LIMITS OF DISTURBANCE
- EROSION CONTROL FABRIC — SEE DETAIL 2 – SHEET C0705
- GEOGRID REINFORCED FLEX MSE WALL — SEE DETAIL 3 – SHEET C0705
- BIOD BLOCK — SEE DETAIL 5 – SHEET C0705
- ROCK SLOPE PROTECTION – CLASS 4
- 2-LOG AND BOULDER LWD STRUCTURE — SEE DETAIL 1 – SHEET C0705
- 1.5 TON ANCHOR BOULDER STACKED AND KEYED INTO CHANNEL BED
- DEBRIS CATCHMENT SYSTEM — SEE DETAIL 4 – SHEET C0705



CD HEADWALL STRUCTURE 1
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'



CD OUTFALL DETAIL 2 (1)
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

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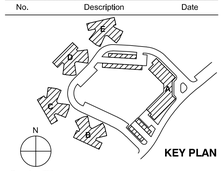


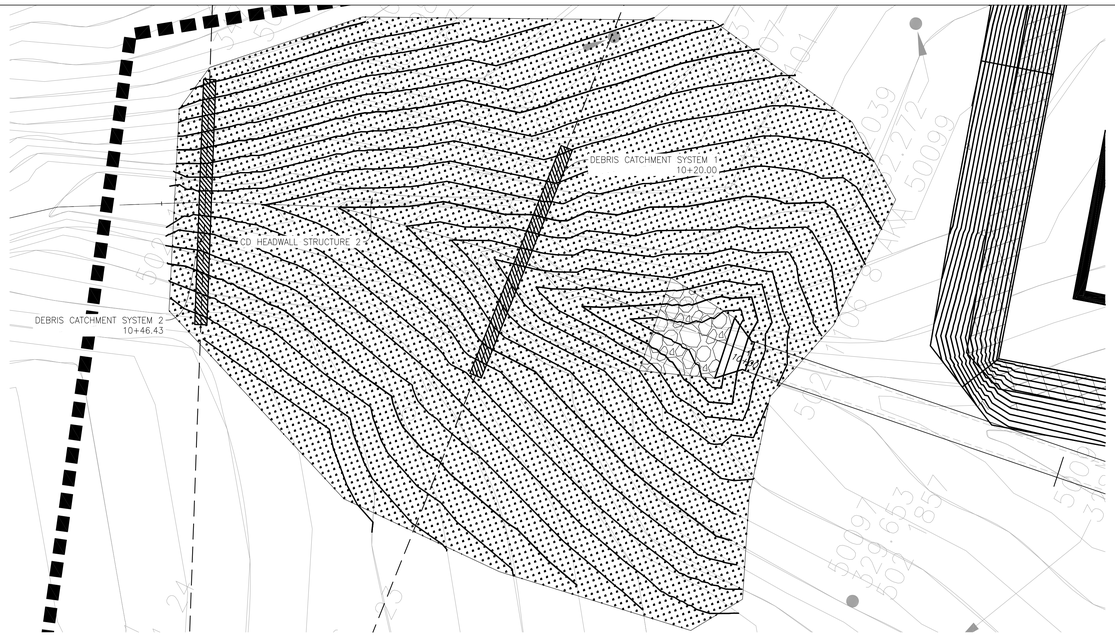
KEY PLAN

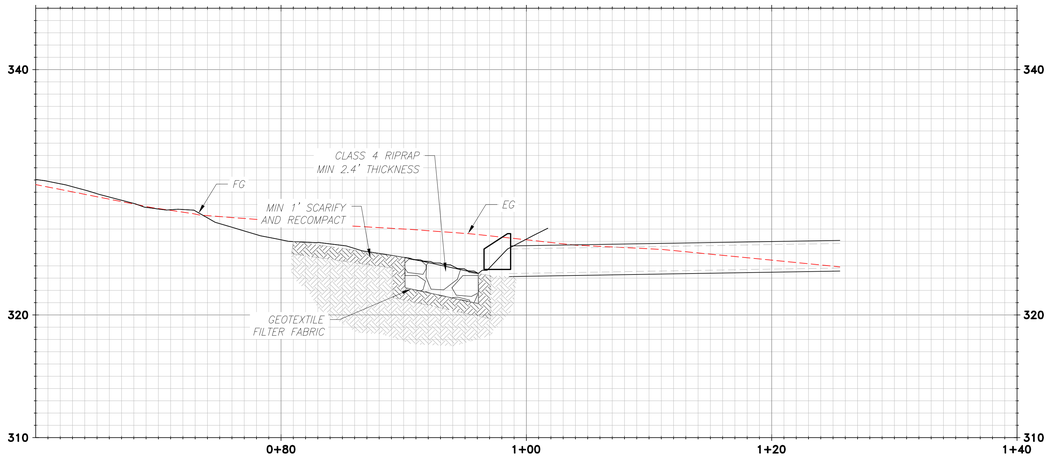
Drawing Title:

HEADWALL 1 P&P

Project No.: 005318.00 Checked by: CHECK

C0703



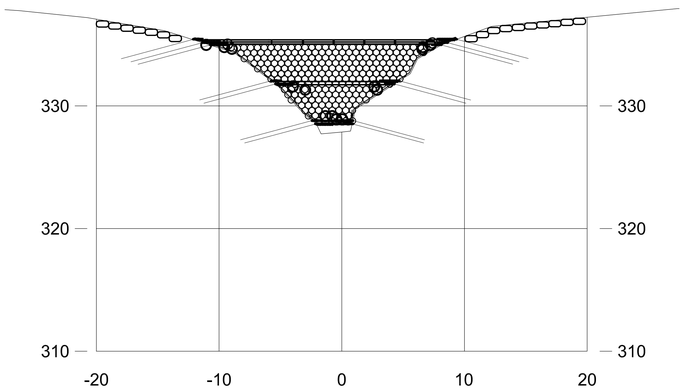


CD HEADWALL STRUCTURE 2 (1)
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

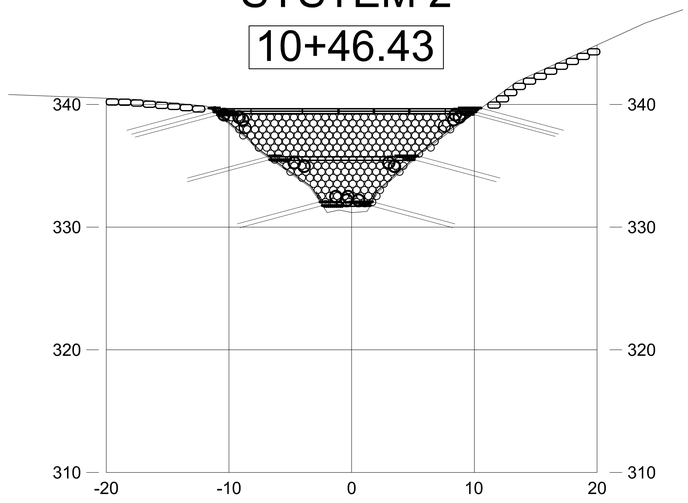
LEGEND:

- RIGHT-OF-WAY
- LIMITS OF DISTURBANCE
- EROSION CONTROL FABRIC
  SEE DETAIL 2 – SHEET C0705
- GEOGRID REINFORCED FLEX MSE WALL
  SEE DETAIL 3 – SHEET C0705
- ROCK SLOPE PROTECTION – CLASS 4
- 2-LOG AND BOULDER LWD STRUCTURE
  SEE DETAIL 1 – SHEET C0705
- 1.5 TON ANCHOR BOULDER STACKED
  AND KEYED INTO CHANNEL BED
- DEBRIS CATCHMENT SYSTEM
  SEE DETAIL 4 – SHEET C0705

DEBRIS CATCHMENT SYSTEM 1
10+20.00



DEBRIS CATCHMENT SYSTEM 2
10+46.43



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Cordilleras Health System Replacement Project

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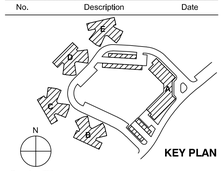
NOT FOR CONSTRUCTION

No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019



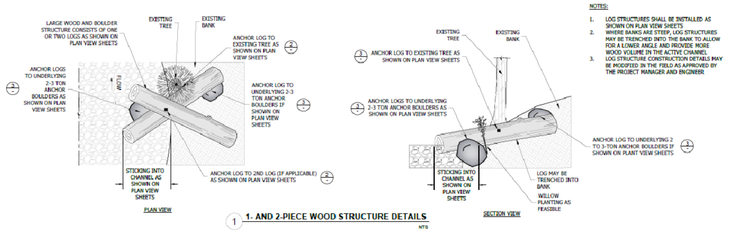
KEY PLAN

Drawing Title:

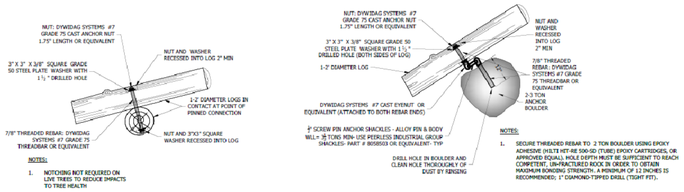
NORTH HEADWALL P&P

Project No.: 005318.00 Checked by: CHECK

C0704



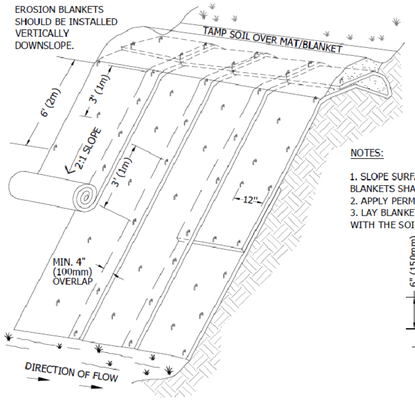
1 1- AND 2-PIECE WOOD STRUCTURE DETAILS
NTS

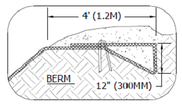


2 LOG-LOG OR LOG-TREE ANCHORING
NTS

3 LOG-BOULDER ANCHORING
NTS

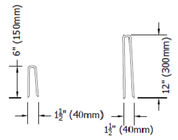
1 LOG AND BOULDER ANCHORING DETAIL
C0705
AS SHOWN



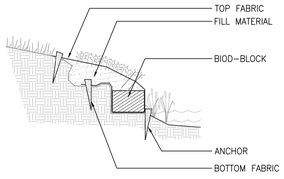


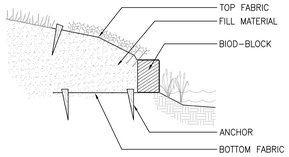
NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/ BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.



2 EROSION CONTROL FABRIC DETAIL
C0705
AS SHOWN

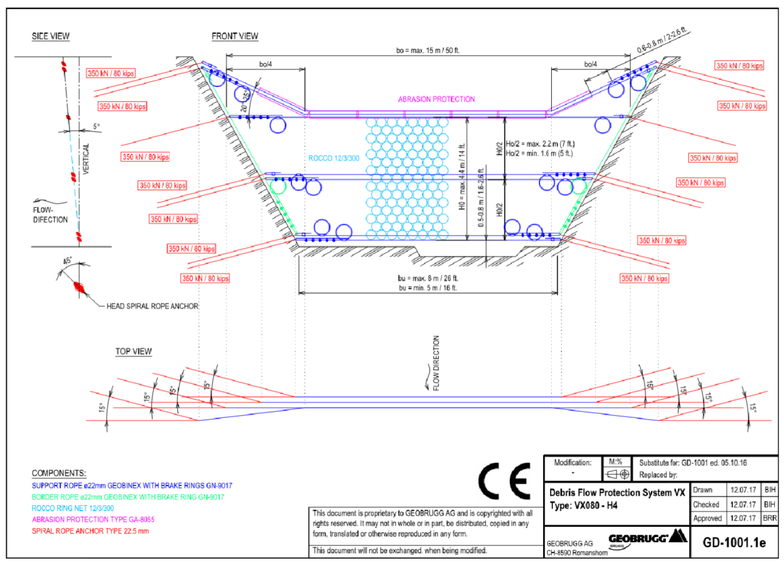




NOTES:
1. LIVE PLANTS AND CUTTINGS SHOULD BE USED IN EITHER SITUATION.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 084-011.

5 BIO-D BLOCK SYSTEM DETAIL
C0705
AS SHOWN

3 GEOGRID REINFORCED FLEX MSE WALL
C0705
AS SHOWN



4 TYPICAL DEBRIS FLOW PROTECTION SYSTEM
C0705
AS SHOWN

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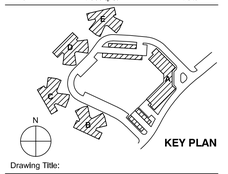


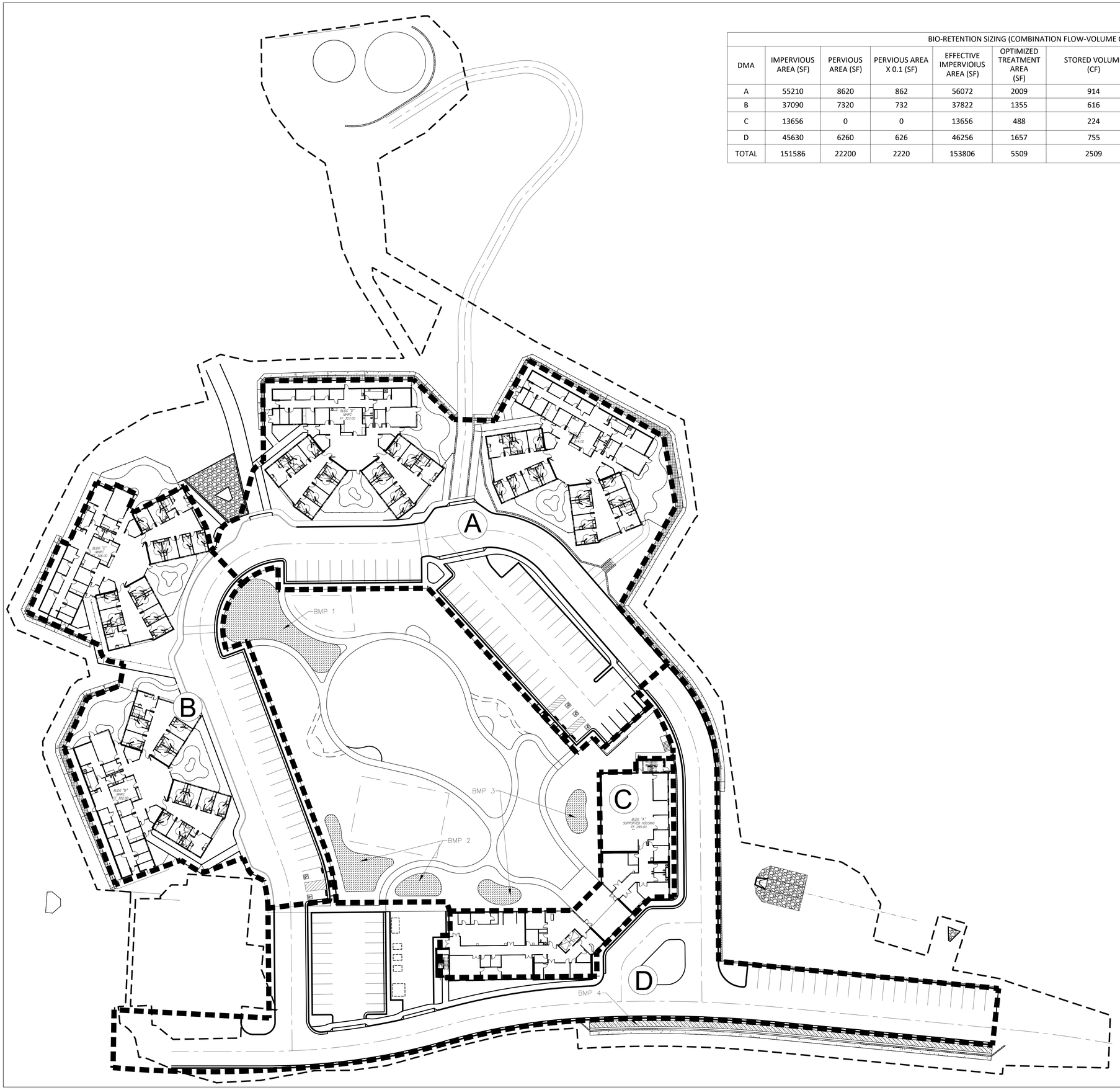
Drawing Title:

DETAILS

Project No.: 005318.00 Checked by: JMH

C0705

BIO-RETENTION SIZING (COMBINATION FLOW-VOLUME CRITERIA)									
DMA	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	PERVIOUS AREA X 0.1 (SF)	EFFECTIVE IMPERVIOIUS AREA (SF)	OPTIMIZED TREATMENT AREA (SF)	STORED VOLUME (CF)	BMP	TREATMENT AREA PROVIDED (SQFT)	TYPE OF BMP
A	55210	8620	862	56072	2009	914	BMP-1	2051	BIORETENTION
B	37090	7320	732	37822	1355	616	BMP-2	1420	BIORETENTION
C	13656	0	0	13656	488	224	BMP-3	520	FLOW-THRU PLANTER
D	45630	6260	626	46256	1657	755	BMP-4	1592	BIO-SWALE
TOTAL	151586	22200	2220	153806	5509	2509			



LEGEND:

- DMA LIMIT LINE
- LIMITS OF DISTURBANCE
- (A) DMA AREA
- BIO-RETENTION

PLAN
SCALE: 1" = 30'-0"
0 15' 30' 60'
GRAPHIC SCALE

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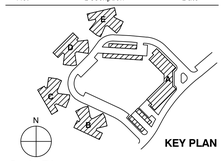


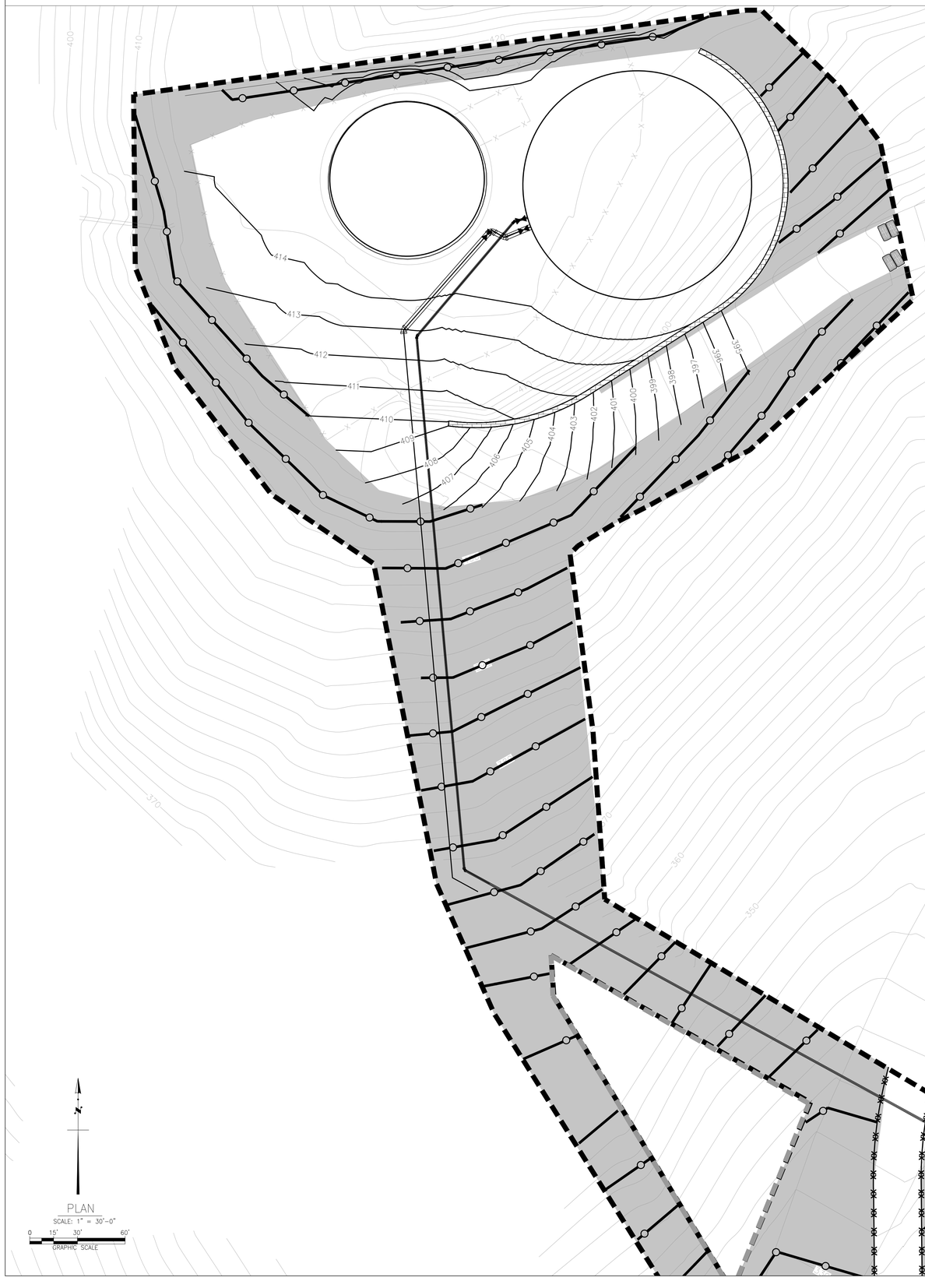
KEY PLAN

Drawing Title:

STORMWATER CONTROL PLAN

Project No.: 005318.00 Checked by: IJM

C1401



EROSION CONTROL NOTES:

1. LEGALLY RESPONSIBLE PERSON (LRP):

   NAME: _____
   ADDRESS: _____
   PHONE NUMBER: _____

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE SOIL EROSION CONTROL PLAN AND THE PROJECT SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

3. A "STANDBY EMERGENCY CREW" SHALL BE ALERTED BY THE PERMITTEE OR THE CONTRACTOR TO PERFORM EMERGENCY WORK DURING RAINSTORMS. THE PARTY TO BE CONTACTED IS ((TO BE FILLED IN BY CONTRACTOR):

   NAME: _____
   PHONE NUMBER: _____

4. QUALIFIED SWPPP DEVELOPER (QSD):

   STEVE MORELAND (QSD/P #XXXXX)
   KPFF CONSULTING ENGINEERS
   45 FREMONT STREET, FLOOR 28
   SAN FRANCISCO, CA 94105
   (415) 989-1004

5. THE RAINY SEASON IS AS DECLARED BY THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) DEPENDING ON THE REGION IN WHICH THE PROJECT IS LOCATED. ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES AND ACTIONS MAY BE NECESSARY DURING THE RAINY SEASON. THE CONTRACTOR IS RESPONSIBLE FOR INCLUDING SUCH MEASURES REQUIRED PER THE CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA)

6. THIS PLAN IS TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE GRADING PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED, AS AND WHEN, DIRECTED AS THE WORK PROGRESSES TO MEET "AS GRADED" CONDITIONS.

7. CONTRACTOR IS RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING, AND AFTER STORM EVENTS.

8. EXCEPT WHEN DIRECTED OTHERWISE, ALL DEVICES SHOWN TO BE IN PLACE AT THE END OF EACH WORKING DAY, WHEN RAIN IS FORECASTED, AND MAINTAINED.

9. TAKE REASONABLE CARE WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY BLOW, SPILL, OR TRACK OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.

10. DURING THE RAINY SEASON, KEEP ALL PAVED AREAS CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR.

11. CONTRACTOR PROVIDES DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.

12. COORDINATE WITH SECTION "311000 SITE CLEARING" OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING DEMOLITION AND EROSION CONTROL.

13. FILLED FILTER BAGS SHALL BE STOCKPILED ON SITE, READY TO BE PLACED IN POSITION WHEN RAIN IS FORECASTED, OR WHEN THE INSPECTOR SO DIRECTS.

14. CONTRACTOR PROVIDES WATER ONSITE AND USE IT FOR DUST CONTROL DURING CONSTRUCTION.

15. INSTALL CONSTRUCTION EXIT PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION EXIT WAYS.

16. CONTRACTOR MAINTAINS STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE INSPECTOR.

17. INSTALL INLET PROTECTION AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT.

18. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. NOTIFY THE INSPECTOR OF ANY FIELD CHANGES.

19. BEST MANAGEMENT PRACTICES (BMPS) SHOWN ARE OUTLINED IN, BUT NOT LIMITED TO, THE CONSTRUCTION BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA), 2009, OR THE LATEST REVISED EDITION, AND APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS).

20. MAINTENANCE IS TO BE PERFORMED PER THE CASQA BMP HANDBOOK AND AS FOLLOWS:

   A. REPAIR DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION BY THE END OF EACH WORKING DAY.
   B. INSPECT SEDIMENT TRAPS, BERMS, AND SWALES PERIODICALLY AND AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
   C. REMOVE SEDIMENT AND RESTORE SEDIMENT BARRIER TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF HALF THE SEDIMENT BARRIER HEIGHT.
   D. DEPOSIT SEDIMENT THAT HAS BEEN REMOVED FROM BARRIER SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

23. CLEAN OUT INLET PROTECTION WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE FILLED FILTER BAG.

24. IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, ORDER NO. 2009-0009-DWQ (NPDES NO. CAS000002), THE EROSION CONTROL REQUIREMENTS SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT.

25. CONTRACTOR SHALL ENSURE THAT THE IMPLEMENTATION OF THE BMP MEASURES ARE OVERSEEN BY A STATE QUALIFIED SWPPP PRACTITIONER (QSP).

26. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) **[SHALL BE] [WAS]** PREPARED BY A QUALIFIED SWPPP DEVELOPER (QSD) AND **[SHALL BE] [WAS]** ELECTRONICALLY SUBMITTED TO THE STORMWATER MULTIPLE APPLICATION AND REPORT TRACKING SYSTEM (SMARTS).

27. THE CONTRACTOR SHALL PREPARE AND ELECTRONICALLY SUBMIT A CERTIFIED ANNUAL REPORT NO LATER THAN SEPTEMBER 1 OF EACH YEAR. THE REPORT SHALL INCLUDE THE TRAINING AND STORMWATER MONITORING AND SAMPLING INFORMATION ACCORDING TO THE SITE SPECIFIC RISK LEVEL. [THE RISK LEVEL FOR THIS SITE HAS BEEN DETERMINED TO BE LEVEL X.]

28. [PER NOTE 27 ABOVE, REFER TO THE PROJECT SWPPP FOR THE PROJECT RISK LEVEL. DISREGARD NOTE 29 BELOW IF THE RISK LEVEL IS DETERMINED TO BE LEVEL 1.] FOR SITES DETERMINED TO BE AT RISK LEVEL 1, THE CONTRACTOR SHALL ADHERE TO THE CONTROL MEASURES OUTLINED IN ATTACHMENT C OF GENERAL PERMIT, INCLUDING THOSE RELATED TO:

- **GOOD SITE MANAGEMENT ('HOUSEKEEPING')**
- **NON-STORMWATER RUNOFF MANAGEMENT**
- **EROSION AND SEDIMENT**
- **RUN-ON AND RUN-OFF**
- **INSPECTION, MAINTENANCE, AND REPAIR**

29. [PER NOTE 27 ABOVE, REFER TO THE PROJECT SWPPP FOR THE PROJECT RISK LEVEL. DISREGARD NOTE 28 ABOVE IF THE RISK LEVEL IS DETERMINED TO BE LEVEL 2 OR 3.] FOR SITES DETERMINED TO BE AT RISK LEVEL 2 OR 3, THE CONTRACTOR SHALL ADHERE TO THE ADDITIONAL CONTROL MEASURES OUTLINED IN ATTACHMENTS D AND E OF GENERAL PERMIT, INCLUDING DEVELOPING A RAIN EVENT ACTION PLAN (REAP) AND PERFORMING WATER SAMPLING AND REPORTING FOR VISIBLE AND NON-VISIBLE POLLUTANTS.]

LEGEND:

- *LIMIT OF DISTURBANCE*
- *INLET PROTECTION. SEE DETAIL 4 ON SHEET C6.1.*
- *FILTER BAGS*
- *FIBER ROLL AND SILT FENCE*
- *FIBER ROLL*
- *HYDROSEEDED AREAS*

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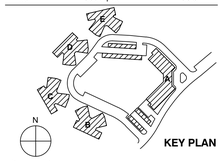

KEY PLAN

Drawing Title:

EROSION CONTROL PLAN

Project No.: 005318.00 Checked by: JIA

C1301

PLAN
SCALE: 1" = 30'-0"
0 15' 30' 60'
GRAPHIC SCALE

EROSION CONTROL NOTES:

1. LEGALLY RESPONSIBLE PERSON (LRP):

   NAME: _____
   ADDRESS: _____
   PHONE NUMBER: _____

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28. [PER NOTE 27 ABOVE, REFER TO THE PROJECT SWPPP FOR THE PROJECT RISK LEVEL. DISREGARD NOTE 29 BELOW IF THE RISK LEVEL IS DETERMINED TO BE LEVEL 1.] FOR SITES DETERMINED TO BE AT RISK LEVEL 1, THE CONTRACTOR SHALL ADHERE TO THE CONTROL MEASURES OUTLINED IN ATTACHMENT C OF GENERAL PERMIT, INCLUDING THOSE RELATED TO:

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- **NON-STORMWATER RUNOFF MANAGEMENT**
- **EROSION AND SEDIMENT**
- **RUN-ON AND RUN-OFF**
- **INSPECTION, MAINTENANCE, AND REPAIR**

29. [PER NOTE 27 ABOVE, REFER TO THE PROJECT SWPPP FOR THE PROJECT RISK LEVEL. DISREGARD NOTE 28 ABOVE IF THE RISK LEVEL IS DETERMINED TO BE LEVEL 2 OR 3.] FOR SITES DETERMINED TO BE AT RISK LEVEL 2 OR 3, THE CONTRACTOR SHALL ADHERE TO THE ADDITIONAL CONTROL MEASURES OUTLINED IN ATTACHMENTS D AND E OF GENERAL PERMIT, INCLUDING DEVELOPING A RAIN EVENT ACTION PLAN (REAP) AND PERFORMING WATER SAMPLING AND REPORTING FOR VISIBLE AND NON-VISIBLE POLLUTANTS.]

LEGEND:

- LIMIT OF DISTURBANCE
- INLET PROTECTION. SEE DETAIL 4 ON SHEET C6.1.
- FILTER BAGS
- FIBER ROLL AND SILT FENCE
- FIBER ROLL
- HYDROSEEDED AREAS

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NOT FOR CONSTRUCTION

No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
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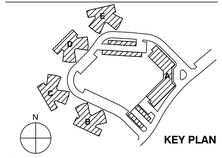

KEY PLAN

Drawing Title:

EROSION CONTROL PLAN

Project No.: 005318.00 Checked by: JIA

C1302

EROSION CONTROL NOTES:

1. LEGALLY RESPONSIBLE PERSON (LRP):

   NAME: _____
   ADDRESS: _____
   PHONE NUMBER: _____

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE SOIL EROSION CONTROL PLAN AND THE PROJECT SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

3. A "STANDBY EMERGENCY CREW" SHALL BE ALERTED BY THE PERMITTEE OR THE CONTRACTOR TO PERFORM EMERGENCY WORK DURING RAINSTORMS. THE PARTY TO BE CONTACTED IS ((TO BE FILLED IN BY CONTRACTOR):

   NAME: _____
   PHONE NUMBER: _____

4. QUALIFIED SWPPP DEVELOPER (QSD):

   STEVE MORELAND (QSD/P #XXXXX)
   KPFF CONSULTING ENGINEERS
   45 FREMONT STREET, FLOOR 28
   SAN FRANCISCO, CA 94105
   (415) 989-1004

5. THE RAINY SEASON IS AS DECLARED BY THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) DEPENDING ON THE REGION IN WHICH THE PROJECT IS LOCATED. ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES AND ACTIONS MAY BE NECESSARY DURING THE RAINY SEASON. THE CONTRACTOR IS RESPONSIBLE FOR INCLUDING SUCH MEASURES REQUIRED PER THE CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA)

6. THIS PLAN IS TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE GRADING PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED, AS AND WHEN, DIRECTED AS THE WORK PROGRESSES TO MEET "AS GRADED" CONDITIONS.

7. CONTRACTOR IS RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING, AND AFTER STORM EVENTS.

8. EXCEPT WHEN DIRECTED OTHERWISE, ALL DEVICES SHOWN TO BE IN PLACE AT THE END OF EACH WORKING DAY, WHEN RAIN IS FORECASTED, AND MAINTAINED.

9. TAKE REASONABLE CARE WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY BLOW, SPILL, OR TRACK OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.

10. DURING THE RAINY SEASON, KEEP ALL PAVED AREAS CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR.

11. CONTRACTOR PROVIDES DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.

12. COORDINATE WITH SECTION "311000 SITE CLEARING" OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING DEMOLITION AND EROSION CONTROL.

13. FILLED FILTER BAGS SHALL BE STOCKPILED ON SITE, READY TO BE PLACED IN POSITION WHEN RAIN IS FORECASTED, OR WHEN THE INSPECTOR SO DIRECTS.

14. CONTRACTOR PROVIDES WATER ONSITE AND USE IT FOR DUST CONTROL DURING CONSTRUCTION.

15. INSTALL CONSTRUCTION EXIT PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION EXIT WAYS.

16. CONTRACTOR MAINTAINS STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE INSPECTOR.

17. INSTALL INLET PROTECTION AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT.

18. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. NOTIFY THE INSPECTOR OF ANY FIELD CHANGES.

19. BEST MANAGEMENT PRACTICES (BMPS) SHOWN ARE OUTLINED IN, BUT NOT LIMITED TO, THE CONSTRUCTION BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA), 2009, OR THE LATEST REVISED EDITION, AND APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS).

20. MAINTENANCE IS TO BE PERFORMED PER THE CASQA BMP HANDBOOK AND AS FOLLOWS:

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   C. REMOVE SEDIMENT AND RESTORE SEDIMENT BARRIER TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF HALF THE SEDIMENT BARRIER HEIGHT.
   D. DEPOSIT SEDIMENT THAT HAS BEEN REMOVED FROM BARRIER SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

23. CLEAN OUT INLET PROTECTION WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE FILLED FILTER BAG.

24. IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, ORDER NO. 2009-0009-DWQ (NPDES NO. CAS000002), THE EROSION CONTROL REQUIREMENTS SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT.

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LEGEND:

- *LIMIT OF DISTURBANCE*
- *INLET PROTECTION. SEE DETAIL 4 ON SHEET C6.1.*
- *FILTER BAGS*
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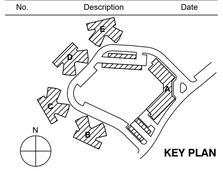

KEY PLAN

Drawing Title:

EROSION CONTROL PLAN

Project No.: 005318.00 Checked by: JIA

C1303

EROSION CONTROL NOTES:

1. LEGALLY RESPONSIBLE PERSON (LRP):

   NAME: _____
   ADDRESS: _____
   PHONE NUMBER: _____

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4. QUALIFIED SWPPP DEVELOPER (QSD):

   STEVE MORELAND (QSD/P #XXXXX)
   KPFF CONSULTING ENGINEERS
   45 FREMONT STREET, FLOOR 28
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LEGEND:

- *LIMIT OF DISTURBANCE*
- *INLET PROTECTION. SEE DETAIL 4 ON SHEET C6.1.*
- *FILTER BAGS*
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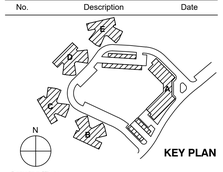

KEY PLAN

Drawing Title:

EROSION CONTROL PLAN

Project No.: 005318.00 Checked by: JIA

C1304

EROSION CONTROL NOTES:

1. LEGALLY RESPONSIBLE PERSON (LRP):

   NAME: _____
   ADDRESS: _____
   PHONE NUMBER: _____

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE SOIL EROSION CONTROL PLAN AND THE PROJECT SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

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   STEVE MORELAND (QSD/P #XXXXX)
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24. IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, ORDER NO. 2009-0009-DWQ (NPDES NO. CAS000002), THE EROSION CONTROL REQUIREMENTS SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT.

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- **NON-STORMWATER RUNOFF MANAGEMENT**
- **EROSION AND SEDIMENT**
- **RUN-ON AND RUN-OFF**
- **INSPECTION, MAINTENANCE, AND REPAIR**

29. [PER NOTE 27 ABOVE, REFER TO THE PROJECT SWPPP FOR THE PROJECT RISK LEVEL. DISREGARD NOTE 28 ABOVE IF THE RISK LEVEL IS DETERMINED TO BE LEVEL 2 OR 3.] FOR SITES DETERMINED TO BE AT RISK LEVEL 2 OR 3, THE CONTRACTOR SHALL ADHERE TO THE ADDITIONAL CONTROL MEASURES OUTLINED IN ATTACHMENTS D AND E OF GENERAL PERMIT, INCLUDING DEVELOPING A RAIN EVENT ACTION PLAN (REAP) AND PERFORMING WATER SAMPLING AND REPORTING FOR VISIBLE AND NON-VISIBLE POLLUTANTS.]

LEGEND:

- LIMIT OF DISTURBANCE
- INLET PROTECTION. SEE DETAIL 4 ON SHEET C6.1.
- FILTER BAGS
- FIBER ROLL AND SILT FENCE
- FIBER ROLL
- HYDROSEEDED AREAS

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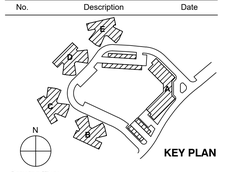
NOT FOR CONSTRUCTION

No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019



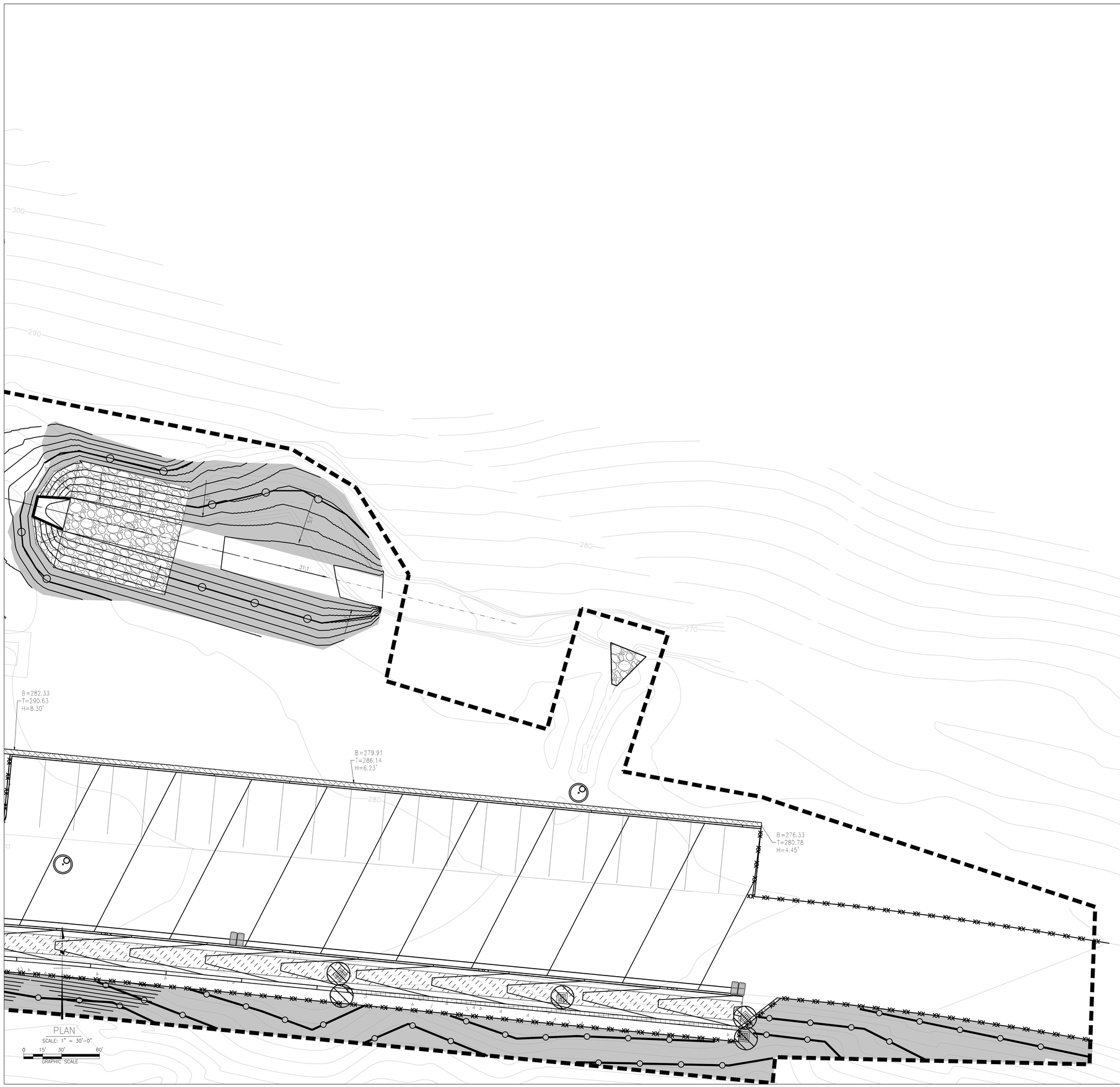
KEY PLAN

Drawing Title:

EROSION CONTROL PLAN

Project No.: 005318.00 Checked by: JIA

C1305



EROSION CONTROL NOTES:

1. LEGALLY RESPONSIBLE PERSON (LRP):

   NAME: _____
   ADDRESS: _____
   PHONE NUMBER: _____

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE SOIL EROSION CONTROL PLAN AND THE PROJECT SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

3. A "STANDBY EMERGENCY CREW" SHALL BE ALERTED BY THE PERMITTEE OR THE CONTRACTOR TO PERFORM EMERGENCY WORK DURING RAINSTORMS. THE PARTY TO BE CONTACTED IS ((TO BE FILLED IN BY CONTRACTOR):

   NAME: _____
   PHONE NUMBER: _____

4. QUALIFIED SWPPP DEVELOPER (QSD):

   STEVE MORELAND (QSD/P #XXXXX)
   KPFF CONSULTING ENGINEERS
   45 FREMONT STREET, FLOOR 28
   SAN FRANCISCO, CA 94105
   (415) 989-1004

5. THE RAINY SEASON IS AS DECLARED BY THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) DEPENDING ON THE REGION IN WHICH THE PROJECT IS LOCATED. ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES AND ACTIONS MAY BE NECESSARY DURING THE RAINY SEASON. THE CONTRACTOR IS RESPONSIBLE FOR INCLUDING SUCH MEASURES REQUIRED PER THE CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA)

6. THIS PLAN IS TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE GRADING PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED, AS AND WHEN, DIRECTED AS THE WORK PROGRESSES TO MEET "AS GRADED" CONDITIONS.

7. CONTRACTOR IS RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING, AND AFTER STORM EVENTS.

8. EXCEPT WHEN DIRECTED OTHERWISE, ALL DEVICES SHOWN TO BE IN PLACE AT THE END OF EACH WORKING DAY, WHEN RAIN IS FORECASTED, AND MAINTAINED.

9. TAKE REASONABLE CARE WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY BLOW, SPILL, OR TRACK OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.

10. DURING THE RAINY SEASON, KEEP ALL PAVED AREAS CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR.

11. CONTRACTOR PROVIDES DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.

12. COORDINATE WITH SECTION "311000 SITE CLEARING" OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING DEMOLITION AND EROSION CONTROL.

13. FILLED FILTER BAGS SHALL BE STOCKPILED ON SITE, READY TO BE PLACED IN POSITION WHEN RAIN IS FORECASTED, OR WHEN THE INSPECTOR SO DIRECTS.

14. CONTRACTOR PROVIDES WATER ONSITE AND USE IT FOR DUST CONTROL DURING CONSTRUCTION.

15. INSTALL CONSTRUCTION EXIT PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION EXIT WAYS.

16. CONTRACTOR MAINTAINS STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE INSPECTOR.

17. INSTALL INLET PROTECTION AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT.

18. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. NOTIFY THE INSPECTOR OF ANY FIELD CHANGES.

19. BEST MANAGEMENT PRACTICES (BMPS) SHOWN ARE OUTLINED IN, BUT NOT LIMITED TO, THE CONSTRUCTION BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA), 2009, OR THE LATEST REVISED EDITION, AND APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS).

20. MAINTENANCE IS TO BE PERFORMED PER THE CASQA BMP HANDBOOK AND AS FOLLOWS:

    A. REPAIR DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION BY THE END OF EACH WORKING DAY.
    B. INSPECT SEDIMENT TRAPS, BERMS, AND SWALES PERIODICALLY AND AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
    C. REMOVE SEDIMENT AND RESTORE SEDIMENT BARRIER TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF HALF THE SEDIMENT BARRIER HEIGHT.
    D. DEPOSIT SEDIMENT THAT HAS BEEN REMOVED FROM BARRIER SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

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- *FIBER ROLL AND SILT FENCE*
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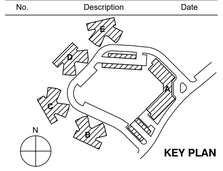


KEY PLAN

Drawing Title:

EROSION CONTROL PLAN

Project No.: 005318.00 Checked by: JIA

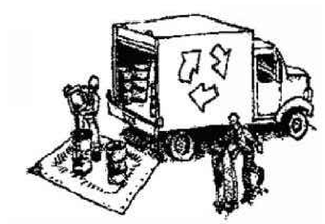
C1306

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

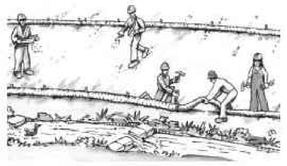
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

Paving/Asphalt Work

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

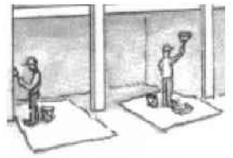
Concrete, Grout & Mortar Application

- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

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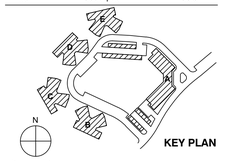
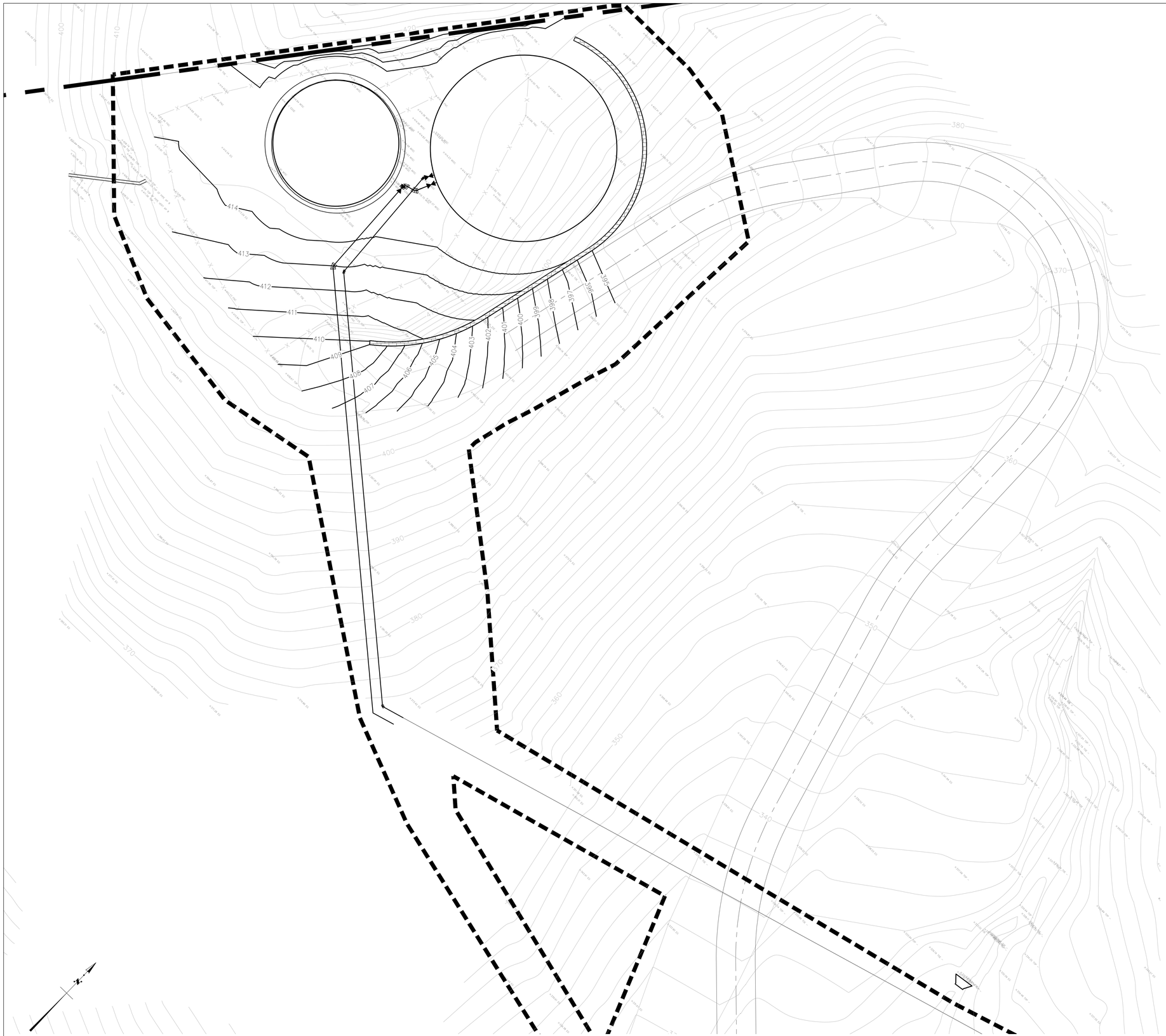


Drawing Title:

EROSION CONTROL BMPS

Project No.: 005318.00 Checked by: JMH

C1308



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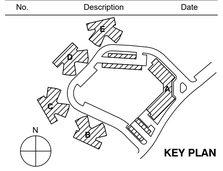

Drawing Title:

GRADING PLAN

Project No.: 005318.00 Checked by: JM

C0301

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LEGEND

300 PROPOSED CONTOUR (FT)

300 EXISTING CONTOUR (FT)

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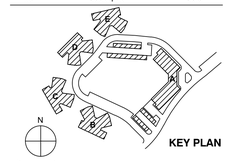

KEY PLAN

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GRADING PLAN

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C0302

LEGEND

300 PROPOSED CONTOUR (FT)

300 EXISTING CONTOUR (FT)

PLAN

SCALE: 1" = 10'-0"

0 5' 10' 20'

GRAPHIC SCALE

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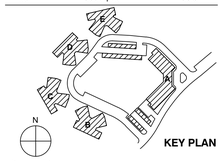

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Drawing Title:

GRADING PLAN

Project No.: 005318.00 Checked by: JM

C0303

LEGEND

300 PROPOSED CONTOUR (FT)

300 EXISTING CONTOUR (FT)

PLAN
SCALE: 1" = 10'-0"
0 5' 10' 20'
GRAPHIC SCALE

County of San Mateo
PDU

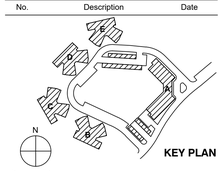
Cordilleras Health System Replacement Project

CANNONDESIGN
202 Green Street
San Francisco, California 94111
T: 415.243.4170
F: 415.243.4176

kpff
45 FREMONT STREET
28TH FLOOR
SAN FRANCISCO, CA 94105
O: 415.989.1004
www.kpff.com

NOT FOR CONSTRUCTION

No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019



KEY PLAN

Drawing Title:

GRADING PLAN

Project No.: 005318.00 Checked by: JM

C0304

County of San Mateo
PDU

Cordilleras Health System Replacement Project

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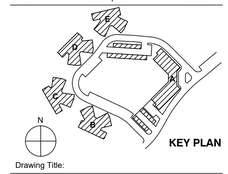
NOT FOR CONSTRUCTION

No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019



Drawing Title:

GRADING PLAN

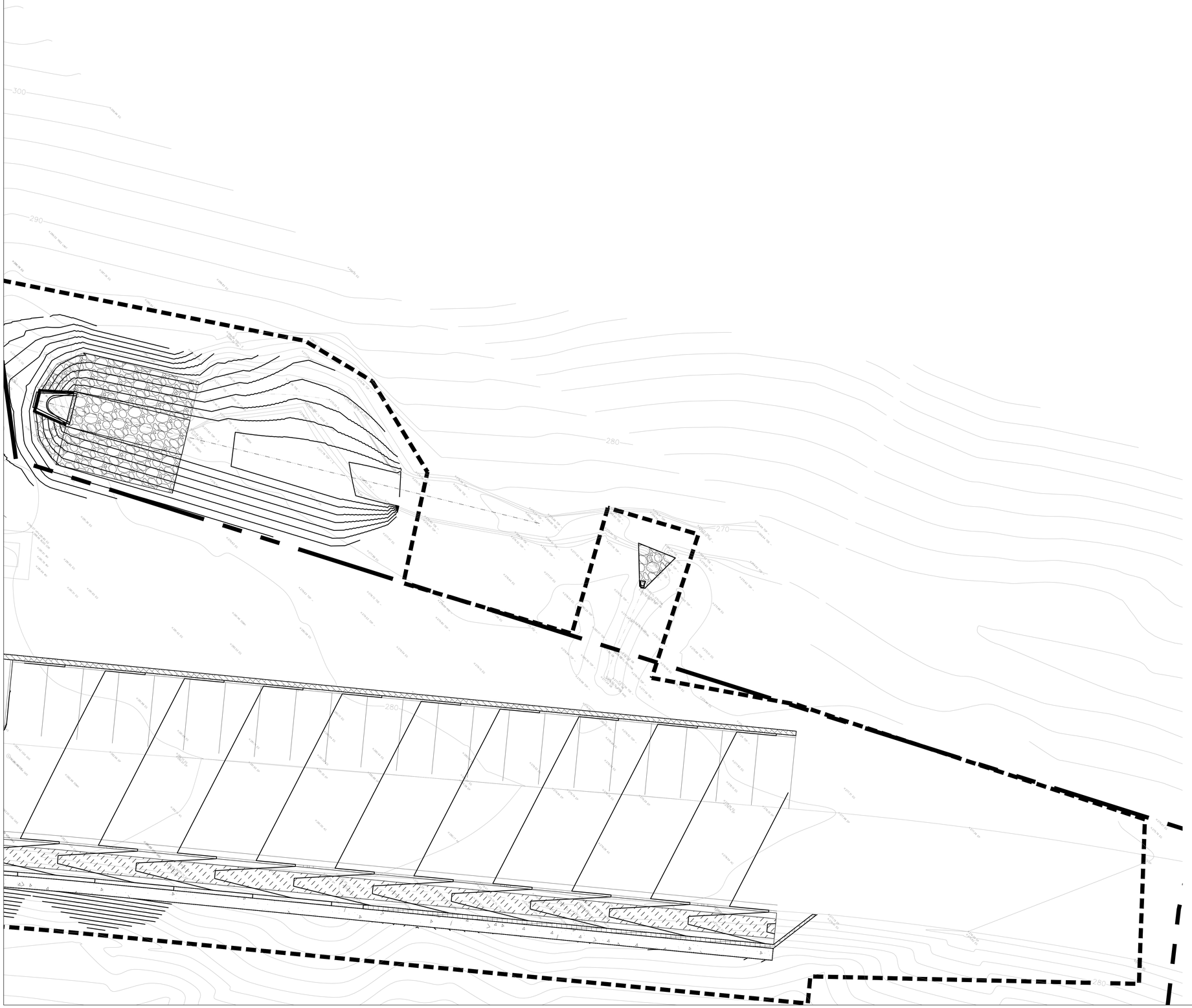
Project No.: 005318.00 Checked by: JM

C0305

LEGEND

300 PROPOSED CONTOUR (FT)

300 EXISTING CONTOUR (FT)



PLAN
SCALE: 1" = 10'-0"
0 5' 10' 20'
GRAPHIC SCALE

County of San Mateo
PDU

Cordilleras Health System Replacement Project

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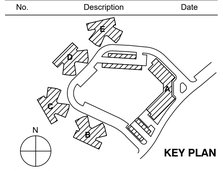
NOT FOR CONSTRUCTION

No.	Description	Date
-	50% DESIGN DEVELOPMENT	14 JUNE 2019
-	100% DESIGN DEVELOPMENT	19 JULY 2019



KEY PLAN

Drawing Title:

GRADING PLAN

Project No.: 005318.00 Checked by: IJM

C0306

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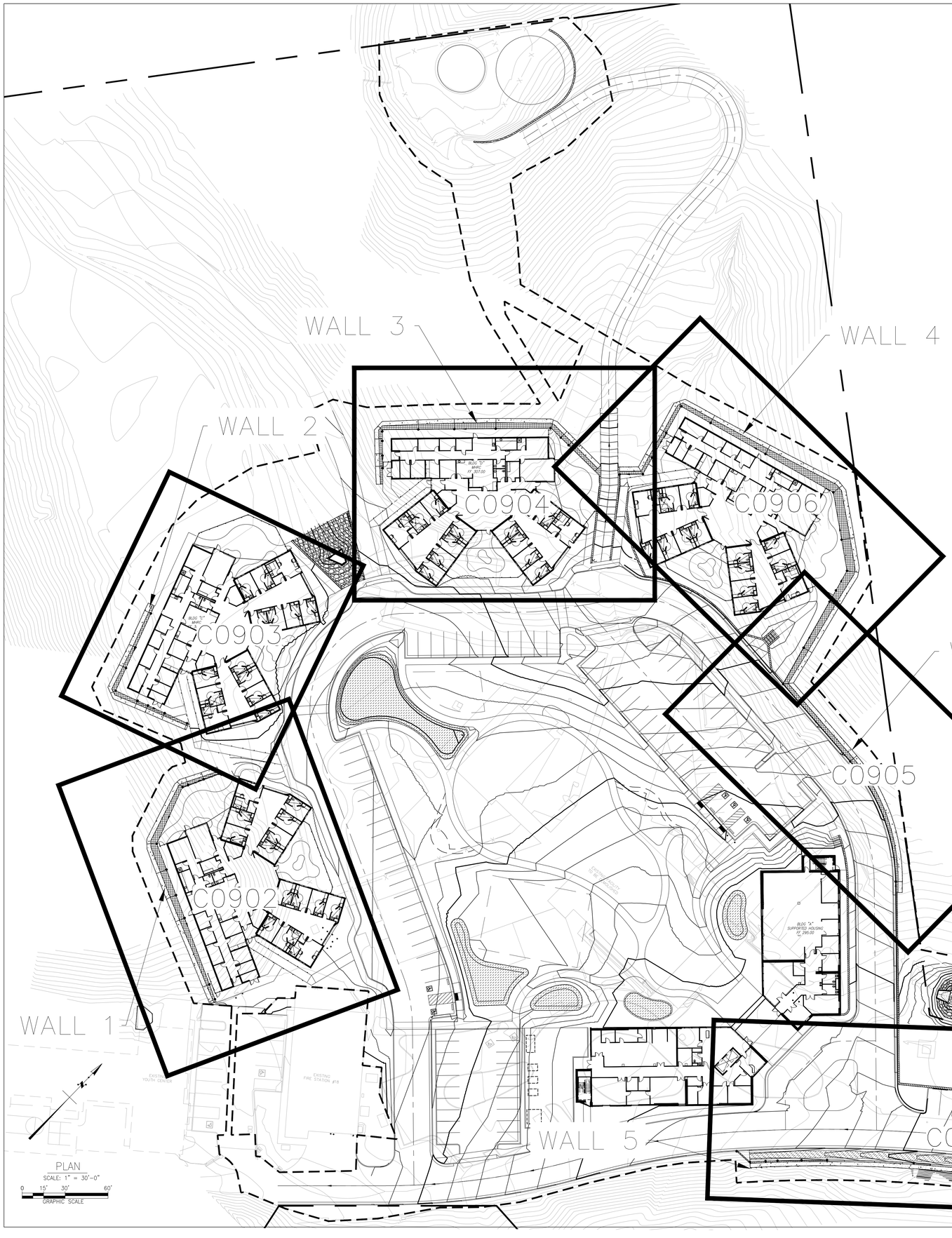
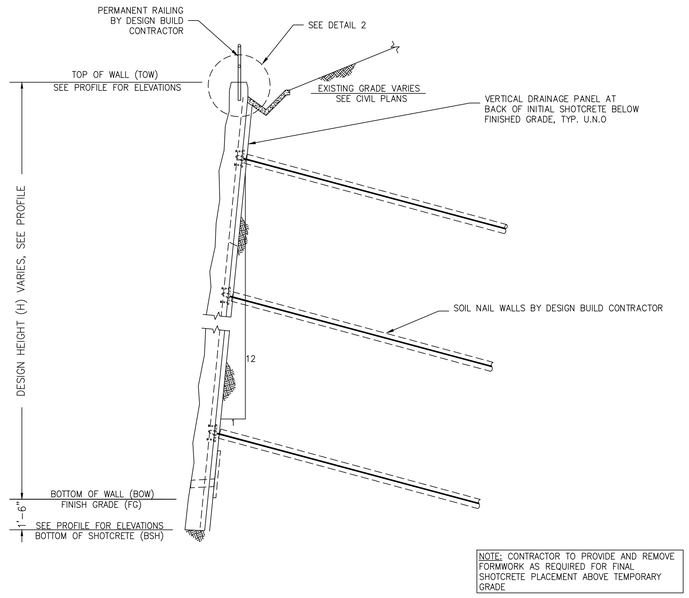
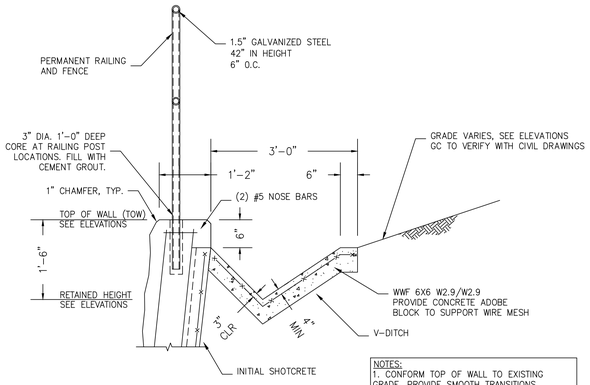




1 SOIL NAIL WALL SECTION VIEW
N.T.S.



2 SOIL NAIL WALL TOW & VALLEY GUTTER
N.T.S.

NOTES:

1. DESIGN BUILD CONTRACTOR SHALL PREPARE ALL FINAL CONSTRUCTION DOCUMENTS AND OBTAIN NECESSARY PERMITS FOR SOIL NAIL WALL CONSTRUCTION.
2. ALL SOIL NAIL WALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE TO THE GEOTECHNICAL REPORT PREPARED BY ENGEO INCORPORATED DATED MAY 17, 2019.
3. FOR SOIL NAIL WALL DETAILS/TYPICAL SECTIONS – REFER TO DETAILS ON SHEET C0900

County of San Mateo
PDU

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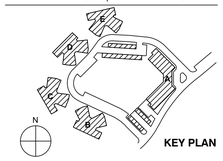

Drawing Title:

SOIL NAIL WALL PLAN KEY MAP AND DETAILS

Project No.: 005318.00 Checked by: IJM

C0901

Cordilleras Health System Replacement Project EIR

Appendix C: Air Quality / GHG Calculations

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Cordilleras Mental Health Center Existing

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	117.00	Dwelling Unit	7.31	77,000.00	335

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land use details obtained from Chapter 2 Project Description Table 1

Construction Phase - Operational modeling only

Grading -

Trips and VMT - Operational modeling only

Architectural Coating - Operational emissions modeling only

Cordilleras Mental Health Center Existing - San Mateo County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	51,975.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	155,925.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	3/22/2019	2/22/2019
tblConstructionPhase	PhaseEndDate	1/25/2019	3/9/2018
tblConstructionPhase	PhaseEndDate	1/26/2018	12/31/2017
tblConstructionPhase	PhaseEndDate	3/9/2018	2/9/2018
tblConstructionPhase	PhaseEndDate	2/22/2019	1/25/2019
tblConstructionPhase	PhaseEndDate	2/9/2018	1/26/2018
tblLandUse	LandUseSquareFeet	117,000.00	77,000.00
tblTripsAndVMT	WorkerTripNumber	17.00	0.00
tblTripsAndVMT	WorkerTripNumber	84.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6516	0.0163	1.2448	7.9000e-004		0.0579	0.0579		0.0579	0.0579	5.3340	3.6100	8.9440	9.9700e-003	3.5000e-004	9.2974
Energy	5.5100e-003	0.0471	0.0200	3.0000e-004		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	198.2114	198.2114	7.5400e-003	2.3400e-003	199.0984
Mobile	0.0869	0.2821	0.9760	3.0100e-003	0.2624	3.7800e-003	0.2662	0.0705	3.5500e-003	0.0741	0.0000	275.0049	275.0049	0.0106	0.0000	275.2704
Waste						0.0000	0.0000		0.0000	0.0000	21.6713	0.0000	21.6713	1.2807	0.0000	53.6898
Water						0.0000	0.0000		0.0000	0.0000	2.4184	16.8928	19.3112	0.2492	6.0200e-003	27.3352
Total	**0.7440**	**0.3455**	**2.2408**	**4.1000e-003**	**0.2624**	**0.0655**	**0.3280**	**0.0705**	**0.0653**	**0.1358**	**29.4238**	**493.7191**	**523.1429**	**1.5580**	**8.7100e-003**	**564.6911**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6516	0.0163	1.2448	7.9000e-004		0.0579	0.0579		0.0579	0.0579	5.3340	3.6100	8.9440	9.9700e-003	3.5000e-004	9.2974
Energy	5.5100e-003	0.0471	0.0200	3.0000e-004		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	198.2114	198.2114	7.5400e-003	2.3400e-003	199.0984
Mobile	0.0869	0.2821	0.9760	3.0100e-003	0.2624	3.7800e-003	0.2662	0.0705	3.5500e-003	0.0741	0.0000	275.0049	275.0049	0.0106	0.0000	275.2704
Waste						0.0000	0.0000		0.0000	0.0000	21.6713	0.0000	21.6713	1.2807	0.0000	53.6898
Water						0.0000	0.0000		0.0000	0.0000	2.4184	16.8928	19.3112	0.2492	6.0200e-003	27.3352
Total	**0.7440**	**0.3455**	**2.2408**	**4.1000e-003**	**0.2624**	**0.0655**	**0.3280**	**0.0705**	**0.0653**	**0.1358**	**29.4238**	**493.7191**	**523.1429**	**1.5580**	**8.7100e-003**	**564.6911**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Cordilleras Mental Health Center Existing - San Mateo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	12/31/2017	5	0	
2	Site Preparation	Site Preparation	1/27/2018	1/26/2018	5	0	
3	Grading	Grading	2/10/2018	2/9/2018	5	0	
4	Building Construction	Building Construction	3/10/2018	3/9/2018	5	0	
5	Paving	Paving	1/26/2019	1/25/2019	5	0	
6	Architectural Coating	Architectural Coating	2/23/2019	2/22/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Cordilleras Mental Health Center Existing - San Mateo County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	13.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0869	0.2821	0.9760	3.0100e-003	0.2624	3.7800e-003	0.2662	0.0705	3.5500e-003	0.0741	0.0000	275.0049	275.0049	0.0106	0.0000	275.2704
Unmitigated	0.0869	0.2821	0.9760	3.0100e-003	0.2624	3.7800e-003	0.2662	0.0705	3.5500e-003	0.0741	0.0000	275.0049	275.0049	0.0106	0.0000	275.2704

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	320.58	257.40	285.48	707,987	707,987
Total	320.58	257.40	285.48	707,987	707,987

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	143.7024	143.7024	6.5000e-003	1.3400e-003	144.2654
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	143.7024	143.7024	6.5000e-003	1.3400e-003	144.2654
NaturalGas Mitigated	5.5100e-003	0.0471	0.0200	3.0000e-004		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	54.5090	54.5090	1.0400e-003	1.0000e-003	54.8329
NaturalGas Unmitigated	5.5100e-003	0.0471	0.0200	3.0000e-004		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	54.5090	54.5090	1.0400e-003	1.0000e-003	54.8329

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	1.02146e+006	5.5100e-003	0.0471	0.0200	3.0000e-004		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	54.5090	54.5090	1.0400e-003	1.0000e-003	54.8329
Total		**5.5100e-003**	**0.0471**	**0.0200**	**3.0000e-004**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**54.5090**	**54.5090**	**1.0400e-003**	**1.0000e-003**	**54.8329**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	1.02146e+006	5.5100e-003	0.0471	0.0200	3.0000e-004		3.8100e-003	3.8100e-003		3.8100e-003	3.8100e-003	0.0000	54.5090	54.5090	1.0400e-003	1.0000e-003	54.8329
Total		**5.5100e-003**	**0.0471**	**0.0200**	**3.0000e-004**		**3.8100e-003**	**3.8100e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**54.5090**	**54.5090**	**1.0400e-003**	**1.0000e-003**	**54.8329**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	493973	143.7024	6.5000e-003	1.3400e-003	144.2654
Total		**143.7024**	**6.5000e-003**	**1.3400e-003**	**144.2654**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	493973	143.7024	6.5000e-003	1.3400e-003	144.2654
Total		**143.7024**	**6.5000e-003**	**1.3400e-003**	**144.2654**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6516	0.0163	1.2448	7.9000e-004		0.0579	0.0579		0.0579	0.0579	5.3340	3.6100	8.9440	9.9700e-003	3.5000e-004	9.2974
Unmitigated	0.6516	0.0163	1.2448	7.9000e-004		0.0579	0.0579		0.0579	0.0579	5.3340	3.6100	8.9440	9.9700e-003	3.5000e-004	9.2974

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2700	6.2100e-003	0.3717	7.4000e-004		0.0532	0.0532		0.0532	0.0532	5.3340	2.1909	7.5249	8.5700e-003	3.5000e-004	7.8435
Landscaping	0.0267	0.0101	0.8730	5.0000e-005		4.7800e-003	4.7800e-003		4.7800e-003	4.7800e-003	0.0000	1.4191	1.4191	1.3900e-003	0.0000	1.4539
Total	**0.6516**	**0.0163**	**1.2448**	**7.9000e-004**		**0.0579**	**0.0579**		**0.0579**	**0.0579**	**5.3340**	**3.6100**	**8.9440**	**9.9600e-003**	**3.5000e-004**	**9.2974**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3007					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2700	6.2100e-003	0.3717	7.4000e-004		0.0532	0.0532		0.0532	0.0532	5.3340	2.1909	7.5249	8.5700e-003	3.5000e-004	7.8435
Landscaping	0.0267	0.0101	0.8730	5.0000e-005		4.7800e-003	4.7800e-003		4.7800e-003	4.7800e-003	0.0000	1.4191	1.4191	1.3900e-003	0.0000	1.4539
Total	**0.6516**	**0.0163**	**1.2448**	**7.9000e-004**		**0.0579**	**0.0579**		**0.0579**	**0.0579**	**5.3340**	**3.6100**	**8.9440**	**9.9600e-003**	**3.5000e-004**	**9.2974**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.3112	0.2492	6.0200e-003	27.3352
Unmitigated	19.3112	0.2492	6.0200e-003	27.3352

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.62302 / 4.80582	19.3112	0.2492	6.0200e-003	27.3352
Total		**19.3112**	**0.2492**	**6.0200e-003**	**27.3352**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.62302 / 4.80582	19.3112	0.2492	6.0200e-003	27.3352
Total		**19.3112**	**0.2492**	**6.0200e-003**	**27.3352**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.6713	1.2807	0.0000	53.6898
Unmitigated	21.6713	1.2807	0.0000	53.6898

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	106.76	21.6713	1.2807	0.0000	53.6898
Total		**21.6713**	**1.2807**	**0.0000**	**53.6898**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	106.76	21.6713	1.2807	0.0000	53.6898
Total		**21.6713**	**1.2807**	**0.0000**	**53.6898**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Cordilleras Health System Replacement Project 20190610

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	125.00	Space	1.13	50,000.00	0
Congregate Care (Assisted Living)	121.00	Dwelling Unit	7.56	73,800.00	346

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	235.9	**CH4 Intensity (lb/MWhr)**	0.036	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Rachel Moeller and Chris Dugan. GHG intensity factors adjusted to reflect estimated PG&E 2022 RPS energy mix.

Land Use - Land Use Detail Source: EIR Chapter 2 Table 1 Cordilleras Mental Health Center, Summary of Facility and Operational Changes

Construction Phase - Construction Phase details obtained from MIG Data Requestion_20190515

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction Phase details obtained from MIG Data Requestion_20190515

Off-road Equipment - Construction Phase details obtained from MIG Data Requestion_20190515

Off-road Equipment - Construction Phase details obtained from MIG Data Requestion_20190515

Off-road Equipment -

Off-road Equipment - Construction Phase details obtained from MIG Data Requestion_20190515

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction Phase details obtained from MIG Data Requestion_20190515

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Construction Phase details obtained from MIG Data Requestion_20190515

Woodstoves - No woodstoves or fireplaces

Energy Use - Energy use reducted by half to reflect the proposed sustainable design strategies as outlined in Chapter 2, Project Description

Construction Off-road Equipment Mitigation - Fleet average emission factor of 3.3 g/bhp-hr details obtained from MIG Data Requestion_20190515

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	230.00	411.00
tblConstructionPhase	NumDays	230.00	174.00
tblConstructionPhase	NumDays	230.00	152.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	109.00
tblConstructionPhase	NumDays	10.00	87.00
tblEnergyUse	LightingElect	741.44	370.72
tblEnergyUse	LightingElect	0.35	0.18
tblEnergyUse	NT24E	3,054.10	1,527.05
tblEnergyUse	NT24NG	2,615.00	1,307.50
tblEnergyUse	T24E	426.45	213.22
tblEnergyUse	T24NG	6,115.43	3,057.72
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00

tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	18.15	0.00
tblFireplaces	NumberNoFireplace	4.84	0.00
tblFireplaces	NumberWood	20.57	0.00
tblGrading	AcresOfGrading	132.00	10.00
tblGrading	MaterialImported	0.00	9,400.00
tblLandUse	LandUseSquareFeet	121,000.00	73,800.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.036
tblProjectCharacteristics	CO2IntensityFactor	641.35	235.9
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblWoodstoves	NumberCatalytic	2.42	0.00

tblWoodstoves	NumberNoncatalytic	2.42	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.7823	7.8763	5.2805	0.0106	1.7423	0.3847	2.1271	0.9116	0.3549	1.2664	0.0000	946.6643	946.6643	0.2442	0.0000	952.7702
2021	2.9459	2.6586	2.8168	6.5600e-003	0.2039	0.1154	0.3193	0.0549	0.1068	0.1617	0.0000	590.8070	590.8070	0.1177	0.0000	593.7497
2022	0.1275	1.1878	1.1347	2.3700e-003	0.0759	0.0533	0.1292	0.0164	0.0494	0.0658	0.0000	212.6277	212.6277	0.0494	0.0000	213.8615
Maximum	**2.9459**	**7.8763**	**5.2805**	**0.0106**	**1.7423**	**0.3847**	**2.1271**	**0.9116**	**0.3549**	**1.2664**	**0.0000**	**946.6643**	**946.6643**	**0.2442**	**0.0000**	**952.7702**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2690	4.7631	5.8853	0.0106	0.7748	0.2301	1.0049	0.3812	0.2300	0.6111	0.0000	946.6635	946.6635	0.2442	0.0000	952.7694
2021	2.8192	2.5194	3.2275	6.5600e-003	0.2039	0.1183	0.3222	0.0549	0.1181	0.1731	0.0000	590.8066	590.8066	0.1177	0.0000	593.7493
2022	0.0595	0.9682	1.3191	2.3700e-003	0.0549	0.0426	0.0974	0.0132	0.0426	0.0558	0.0000	212.6275	212.6275	0.0494	0.0000	213.8614
Maximum	**2.8192**	**4.7631**	**5.8853**	**0.0106**	**0.7748**	**0.2301**	**1.0049**	**0.3812**	**0.2300**	**0.6111**	**0.0000**	**946.6635**	**946.6635**	**0.2442**	**0.0000**	**952.7694**

Cordilleras Health System Replacement Project 20190610 - San Mateo County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**18.36**	**29.62**	**-13.00**	**0.00**	**48.89**	**29.35**	**44.69**	**54.29**	**23.55**	**43.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-1-2020**	**4-30-2020**	1.7332	0.9753
2	**5-1-2020**	**7-31-2020**	2.3807	1.3173
3	**8-1-2020**	**10-31-2020**	2.6164	1.5370
4	**11-1-2020**	**1-31-2021**	2.2898	1.5366
5	**2-1-2021**	**4-30-2021**	1.4666	1.3727
6	**5-1-2021**	**7-31-2021**	1.4987	1.4017
7	**8-1-2021**	**10-31-2021**	1.6217	1.5787
8	**11-1-2021**	**1-31-2022**	0.7466	0.7447
9	**2-1-2022**	**4-30-2022**	0.3867	0.2909
10	**5-1-2022**	**7-31-2022**	0.6727	0.4759
11	**8-1-2022**	**9-30-2022**	0.0478	0.0516
		Highest	2.6164	1.5787

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3716	0.0104	0.8998	5.0000e-005		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	1.4698	1.4698	1.4200e-003	0.0000	1.5053
Energy	2.8500e-003	0.0243	0.0104	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	56.4810	56.4810	4.8600e-003	1.0000e-003	56.8994
Mobile	0.0699	0.1962	0.7884	2.8000e-003	0.2715	2.2400e-003	0.2737	0.0730	2.0900e-003	0.0751	0.0000	256.5042	256.5042	9.1800e-003	0.0000	256.7337
Stationary	4.9000e-004	1.6100e-003	1.7900e-003	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2285	0.2285	3.0000e-005	0.0000	0.2293
Waste						0.0000	0.0000		0.0000	0.0000	22.4122	0.0000	22.4122	1.3245	0.0000	55.5254
Water						0.0000	0.0000		0.0000	0.0000	2.5011	6.4259	8.9270	0.2579	6.1700e-003	17.2138
Total	**0.4448**	**0.2326**	**1.7003**	**3.0100e-003**	**0.2715**	**9.2600e-003**	**0.2808**	**0.0730**	**9.1100e-003**	**0.0821**	**24.9133**	**321.1093**	**346.0227**	**1.5979**	**7.1700e-003**	**388.1067**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3716	0.0104	0.8998	5.0000e-005		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	1.4698	1.4698	1.4200e-003	0.0000	1.5053
Energy	2.8500e-003	0.0243	0.0104	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	56.4810	56.4810	4.8600e-003	1.0000e-003	56.8994
Mobile	0.0699	0.1962	0.7884	2.8000e-003	0.2715	2.2400e-003	0.2737	0.0730	2.0900e-003	0.0751	0.0000	256.5042	256.5042	9.1800e-003	0.0000	256.7337
Stationary	4.9000e-004	1.6100e-003	1.7900e-003	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2285	0.2285	3.0000e-005	0.0000	0.2293
Waste						0.0000	0.0000		0.0000	0.0000	22.4122	0.0000	22.4122	1.3245	0.0000	55.5254
Water						0.0000	0.0000		0.0000	0.0000	2.5011	6.4259	8.9270	0.2579	6.1700e-003	17.2138
Total	**0.4448**	**0.2326**	**1.7003**	**3.0100e-003**	**0.2715**	**9.2600e-003**	**0.2808**	**0.0730**	**9.1100e-003**	**0.0821**	**24.9133**	**321.1093**	**346.0227**	**1.5979**	**7.1700e-003**	**388.1067**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction (Vertical)	Building Construction	2/1/2020	8/30/2021	5	411	
2	Site Preparation	Site Preparation	3/1/2020	6/30/2020	5	87	
3	Grading	Grading	7/1/2020	12/31/2020	5	132	
4	Building Construction (Foundation)	Building Construction	12/1/2020	7/31/2021	5	174	
5	Architectural Coating (1st phase)	Architectural Coating	4/1/2021	4/2/2021	5	2	
6	Architectural Coating (2nd phase)	Architectural Coating	6/1/2021	6/2/2021	5	2	
7	Architectural Coating (3rd phase)	Architectural Coating	8/1/2021	8/3/2021	5	2	
8	Building Construction (Interior)	Building Construction	9/1/2021	3/31/2022	5	152	
9	Architectural Coating (4th phase)	Architectural Coating	10/1/2021	10/4/2021	5	2	
10	Architectural Coating (5th phase)	Architectural Coating	12/1/2021	12/6/2021	5	4	
11	Paving (1st phase)	Paving	1/1/2022	1/14/2022	5	10	
12	Demolition	Demolition	4/1/2022	6/30/2022	5	65	
13	Site Finishing	Site Preparation	7/1/2022	11/30/2022	5	109	
14	Paving (2nd phase)	Paving	12/1/2022	12/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.13

Residential Indoor: 149,445; Residential Outdoor: 49,815; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38

Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Trenchers	1	8.00	78	0.50
Building Construction (Foundation)	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction (Foundation)	Cranes	0	7.00	231	0.29
Building Construction (Foundation)	Excavators	1	8.00	158	0.38
Building Construction (Foundation)	Forklifts	0	8.00	89	0.20
Building Construction (Foundation)	Generator Sets	0	8.00	84	0.74
Building Construction (Foundation)	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction (Foundation)	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction (Foundation)	Welders	0	8.00	46	0.45
Paving (1st phase)	Pavers	2	8.00	130	0.42
Paving (1st phase)	Paving Equipment	2	8.00	132	0.36
Paving (1st phase)	Rollers	2	8.00	80	0.38
Architectural Coating (1st phase)	Air Compressors	1	6.00	78	0.48
Paving (2nd phase)	Pavers	2	8.00	130	0.42
Paving (2nd phase)	Paving Equipment	2	8.00	132	0.36
Paving (2nd phase)	Rollers	2	8.00	80	0.38
Architectural Coating (2nd phase)	Air Compressors	1	6.00	78	0.48
Architectural Coating (3rd phase)	Air Compressors	1	6.00	78	0.48
Architectural Coating (4th phase)	Air Compressors	1	6.00	78	0.48
Architectural Coating (5th phase)	Air Compressors	1	6.00	78	0.48

Building Construction (Vertical)	Aerial Lifts	1	4.00	63	0.31
Building Construction (Vertical)	Cranes	1	7.00	231	0.29
Building Construction (Vertical)	Forklifts	3	8.00	89	0.20
Building Construction (Vertical)	Generator Sets	0	8.00	84	0.74
Building Construction (Vertical)	Other Material Handling Equipment	1	4.00	168	0.40
Building Construction (Vertical)	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction (Vertical)	Welders	1	8.00	46	0.45
Building Construction (Interior)	Cranes	0	7.00	231	0.29
Building Construction (Interior)	Forklifts	0	8.00	89	0.20
Building Construction (Interior)	Generator Sets	0	8.00	84	0.74
Building Construction (Interior)	Other Material Handling Equipment	1	2.00	168	0.40
Building Construction (Interior)	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction (Interior)	Welders	0	8.00	46	0.45
Site Finishing	Other Material Handling Equipment	1	4.00	168	0.40
Site Finishing	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	318.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	0.00	929.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Foundation)	5	108.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving (1st phase)	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (1st phase)	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving (2nd phase)	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (2nd phase)	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (3rd phase)	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (4th phase)	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (5th phase)	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Vertical)	10	108.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Interior)	1	108.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Finishing	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Building Construction (Vertical) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2259	2.0831	1.8605	2.8800e-003		0.1193	0.1193		0.1105	0.1105	0.0000	248.3832	248.3832	0.0764	0.0000	250.2928
Total	**0.2259**	**2.0831**	**1.8605**	**2.8800e-003**		**0.1193**	**0.1193**		**0.1105**	**0.1105**	**0.0000**	**248.3832**	**248.3832**	**0.0764**	**0.0000**	**250.2928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7300e-003	0.2910	0.1159	6.7000e-004	0.0164	1.4500e-003	0.0178	4.7300e-003	1.3900e-003	6.1200e-003	0.0000	66.5002	66.5002	5.7800e-003	0.0000	66.6447
Worker	0.0352	0.0239	0.2512	9.3000e-004	0.1016	6.4000e-004	0.1022	0.0270	5.9000e-004	0.0276	0.0000	84.6026	84.6026	1.6500e-003	0.0000	84.6438
Total	**0.0449**	**0.3149**	**0.3670**	**1.6000e-003**	**0.1180**	**2.0900e-003**	**0.1201**	**0.0318**	**1.9800e-003**	**0.0338**	**0.0000**	**151.1028**	**151.1028**	**7.4300e-003**	**0.0000**	**151.2885**

3.2 Building Construction (Vertical) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0758	1.5617	1.9894	2.8800e-003		0.0947	0.0947		0.0947	0.0947	0.0000	248.3829	248.3829	0.0764	0.0000	250.2925
Total	**0.0758**	**1.5617**	**1.9894**	**2.8800e-003**		**0.0947**	**0.0947**		**0.0947**	**0.0947**	**0.0000**	**248.3829**	**248.3829**	**0.0764**	**0.0000**	**250.2925**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7300e-003	0.2910	0.1159	6.7000e-004	0.0164	1.4500e-003	0.0178	4.7300e-003	1.3900e-003	6.1200e-003	0.0000	66.5002	66.5002	5.7800e-003	0.0000	66.6447
Worker	0.0352	0.0239	0.2512	9.3000e-004	0.1016	6.4000e-004	0.1022	0.0270	5.9000e-004	0.0276	0.0000	84.6026	84.6026	1.6500e-003	0.0000	84.6438
Total	**0.0449**	**0.3149**	**0.3670**	**1.6000e-003**	**0.1180**	**2.0900e-003**	**0.1201**	**0.0318**	**1.9800e-003**	**0.0338**	**0.0000**	**151.1028**	**151.1028**	**7.4300e-003**	**0.0000**	**151.2885**

3.2 Building Construction (Vertical) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1470	1.3672	1.3185	2.0700e-003		0.0743	0.0743		0.0689	0.0689	0.0000	178.7762	178.7762	0.0547	0.0000	180.1436
Total	**0.1470**	**1.3672**	**1.3185**	**2.0700e-003**		**0.0743**	**0.0743**		**0.0689**	**0.0689**	**0.0000**	**178.7762**	**178.7762**	**0.0547**	**0.0000**	**180.1436**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7700e-003	0.1881	0.0807	4.7000e-004	0.0118	4.3000e-004	0.0122	3.4100e-003	4.1000e-004	3.8200e-003	0.0000	47.2636	47.2636	4.0800e-003	0.0000	47.3657
Worker	0.0237	0.0154	0.1669	6.5000e-004	0.0731	4.5000e-004	0.0736	0.0195	4.1000e-004	0.0199	0.0000	58.7197	58.7197	1.0700e-003	0.0000	58.7464
Total	**0.0295**	**0.2035**	**0.2476**	**1.1200e-003**	**0.0849**	**8.8000e-004**	**0.0858**	**0.0229**	**8.2000e-004**	**0.0237**	**0.0000**	**105.9833**	**105.9833**	**5.1500e-003**	**0.0000**	**106.1121**

3.2 Building Construction (Vertical) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0545	1.1239	1.4317	2.0700e-003		0.0682	0.0682		0.0682	0.0682	0.0000	178.7760	178.7760	0.0547	0.0000	180.1433
Total	**0.0545**	**1.1239**	**1.4317**	**2.0700e-003**		**0.0682**	**0.0682**		**0.0682**	**0.0682**	**0.0000**	**178.7760**	**178.7760**	**0.0547**	**0.0000**	**180.1433**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7700e-003	0.1881	0.0807	4.7000e-004	0.0118	4.3000e-004	0.0122	3.4100e-003	4.1000e-004	3.8200e-003	0.0000	47.2636	47.2636	4.0800e-003	0.0000	47.3657
Worker	0.0237	0.0154	0.1669	6.5000e-004	0.0731	4.5000e-004	0.0736	0.0195	4.1000e-004	0.0199	0.0000	58.7197	58.7197	1.0700e-003	0.0000	58.7464
Total	**0.0295**	**0.2035**	**0.2476**	**1.1200e-003**	**0.0849**	**8.8000e-004**	**0.0858**	**0.0229**	**8.2000e-004**	**0.0237**	**0.0000**	**105.9833**	**105.9833**	**5.1500e-003**	**0.0000**	**106.1121**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7859	0.0000	0.7859	0.4320	0.0000	0.4320	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1773	1.8452	0.9358	1.6500e-003		0.0956	0.0956		0.0879	0.0879	0.0000	145.4235	145.4235	0.0470	0.0000	146.5993
Total	**0.1773**	**1.8452**	**0.9358**	**1.6500e-003**	**0.7859**	**0.0956**	**0.8815**	**0.4320**	**0.0879**	**0.5199**	**0.0000**	**145.4235**	**145.4235**	**0.0470**	**0.0000**	**146.5993**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1400e-003	1.4500e-003	0.0152	6.0000e-005	6.1600e-003	4.0000e-005	6.2000e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.1328	5.1328	1.0000e-004	0.0000	5.1353
Total	**2.1400e-003**	**1.4500e-003**	**0.0152**	**6.0000e-005**	**6.1600e-003**	**4.0000e-005**	**6.2000e-003**	**1.6400e-003**	**4.0000e-005**	**1.6800e-003**	**0.0000**	**5.1328**	**5.1328**	**1.0000e-004**	**0.0000**	**5.1353**

3.3 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3065	0.0000	0.3065	0.1685	0.0000	0.1685	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0405	0.8294	0.9988	1.6500e-003		0.0412	0.0412		0.0412	0.0412	0.0000	145.4233	145.4233	0.0470	0.0000	146.5991
Total	**0.0405**	**0.8294**	**0.9988**	**1.6500e-003**	**0.3065**	**0.0412**	**0.3477**	**0.1685**	**0.0412**	**0.2096**	**0.0000**	**145.4233**	**145.4233**	**0.0470**	**0.0000**	**146.5991**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1400e-003	1.4500e-003	0.0152	6.0000e-005	6.1600e-003	4.0000e-005	6.2000e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.1328	5.1328	1.0000e-004	0.0000	5.1353
Total	**2.1400e-003**	**1.4500e-003**	**0.0152**	**6.0000e-005**	**6.1600e-003**	**4.0000e-005**	**6.2000e-003**	**1.6400e-003**	**4.0000e-005**	**1.6800e-003**	**0.0000**	**5.1328**	**5.1328**	**1.0000e-004**	**0.0000**	**5.1353**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8002	0.0000	0.8002	0.4375	0.0000	0.4375	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3068	3.3167	1.8416	3.5200e-003		0.1605	0.1605		0.1477	0.1477	0.0000	309.5183	309.5183	0.1001	0.0000	312.0209
Total	**0.3068**	**3.3167**	**1.8416**	**3.5200e-003**	**0.8002**	**0.1605**	**0.9607**	**0.4375**	**0.1477**	**0.5852**	**0.0000**	**309.5183**	**309.5183**	**0.1001**	**0.0000**	**312.0209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1100e-003	0.1499	0.0625	3.8000e-004	7.7700e-003	4.7000e-004	8.2400e-003	2.1300e-003	4.5000e-004	2.5800e-003	0.0000	38.8003	38.8003	4.8400e-003	0.0000	38.9214
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-003	3.0500e-003	0.0321	1.2000e-004	0.0130	8.0000e-005	0.0131	3.4600e-003	8.0000e-005	3.5300e-003	0.0000	10.8162	10.8162	2.1000e-004	0.0000	10.8215
Total	**8.6100e-003**	**0.1530**	**0.0946**	**5.0000e-004**	**0.0208**	**5.5000e-004**	**0.0213**	**5.5900e-003**	**5.3000e-004**	**6.1100e-003**	**0.0000**	**49.6166**	**49.6166**	**5.0500e-003**	**0.0000**	**49.7429**

3.4 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3121	0.0000	0.3121	0.1706	0.0000	0.1706	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0863	1.7398	2.2110	3.5200e-003		0.0844	0.0844		0.0844	0.0844	0.0000	309.5179	309.5179	0.1001	0.0000	312.0205
Total	**0.0863**	**1.7398**	**2.2110**	**3.5200e-003**	**0.3121**	**0.0844**	**0.3965**	**0.1706**	**0.0844**	**0.2550**	**0.0000**	**309.5179**	**309.5179**	**0.1001**	**0.0000**	**312.0205**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1100e-003	0.1499	0.0625	3.8000e-004	7.7700e-003	4.7000e-004	8.2400e-003	2.1300e-003	4.5000e-004	2.5800e-003	0.0000	38.8003	38.8003	4.8400e-003	0.0000	38.9214
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-003	3.0500e-003	0.0321	1.2000e-004	0.0130	8.0000e-005	0.0131	3.4600e-003	8.0000e-005	3.5300e-003	0.0000	10.8162	10.8162	2.1000e-004	0.0000	10.8215
Total	**8.6100e-003**	**0.1530**	**0.0946**	**5.0000e-004**	**0.0208**	**5.5000e-004**	**0.0213**	**5.5900e-003**	**5.3000e-004**	**6.1100e-003**	**0.0000**	**49.6166**	**49.6166**	**5.0500e-003**	**0.0000**	**49.7429**

3.5 Building Construction (Foundation) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1318	0.1303	2.6000e-004		6.5300e-003	6.5300e-003		6.0100e-003	6.0100e-003	0.0000	22.9460	22.9460	7.4200e-003	0.0000	23.1315
Total	**0.0123**	**0.1318**	**0.1303**	**2.6000e-004**		**6.5300e-003**	**6.5300e-003**		**6.0100e-003**	**6.0100e-003**	**0.0000**	**22.9460**	**22.9460**	**7.4200e-003**	**0.0000**	**23.1315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-004	0.0280	0.0112	6.0000e-005	1.5700e-003	1.4000e-004	1.7100e-003	4.6000e-004	1.3000e-004	5.9000e-004	0.0000	6.3996	6.3996	5.6000e-004	0.0000	6.4135
Worker	3.3900e-003	2.3000e-003	0.0242	9.0000e-005	9.7800e-003	6.0000e-005	9.8400e-003	2.6000e-003	6.0000e-005	2.6600e-003	0.0000	8.1417	8.1417	1.6000e-004	0.0000	8.1456
Total	**4.3300e-003**	**0.0303**	**0.0353**	**1.5000e-004**	**0.0114**	**2.0000e-004**	**0.0116**	**3.0600e-003**	**1.9000e-004**	**3.2500e-003**	**0.0000**	**14.5413**	**14.5413**	**7.2000e-004**	**0.0000**	**14.5591**

3.5 Building Construction (Foundation) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.1326	0.1740	2.6000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003	0.0000	22.9459	22.9459	7.4200e-003	0.0000	23.1315
Total	**6.4400e-003**	**0.1326**	**0.1740**	**2.6000e-004**		**7.0000e-003**	**7.0000e-003**		**7.0000e-003**	**7.0000e-003**	**0.0000**	**22.9459**	**22.9459**	**7.4200e-003**	**0.0000**	**23.1315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-004	0.0280	0.0112	6.0000e-005	1.5700e-003	1.4000e-004	1.7100e-003	4.6000e-004	1.3000e-004	5.9000e-004	0.0000	6.3996	6.3996	5.6000e-004	0.0000	6.4135
Worker	3.3900e-003	2.3000e-003	0.0242	9.0000e-005	9.7800e-003	6.0000e-005	9.8400e-003	2.6000e-003	6.0000e-005	2.6600e-003	0.0000	8.1417	8.1417	1.6000e-004	0.0000	8.1456
Total	**4.3300e-003**	**0.0303**	**0.0353**	**1.5000e-004**	**0.0114**	**2.0000e-004**	**0.0116**	**3.0600e-003**	**1.9000e-004**	**3.2500e-003**	**0.0000**	**14.5413**	**14.5413**	**7.2000e-004**	**0.0000**	**14.5591**

3.5 Building Construction (Foundation) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0739	0.7665	0.8516	1.7200e-003		0.0370	0.0370		0.0340	0.0340	0.0000	150.8284	150.8284	0.0488	0.0000	152.0479
Total	**0.0739**	**0.7665**	**0.8516**	**1.7200e-003**		**0.0370**	**0.0370**		**0.0340**	**0.0340**	**0.0000**	**150.8284**	**150.8284**	**0.0488**	**0.0000**	**152.0479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0600e-003	0.1651	0.0709	4.2000e-004	0.0103	3.8000e-004	0.0107	2.9900e-003	3.6000e-004	3.3500e-003	0.0000	41.4930	41.4930	3.5900e-003	0.0000	41.5827
Worker	0.0208	0.0135	0.1465	5.7000e-004	0.0642	3.9000e-004	0.0646	0.0171	3.6000e-004	0.0174	0.0000	51.5505	51.5505	9.4000e-004	0.0000	51.5739
Total	**0.0259**	**0.1786**	**0.2174**	**9.9000e-004**	**0.0745**	**7.7000e-004**	**0.0753**	**0.0201**	**7.2000e-004**	**0.0208**	**0.0000**	**93.0435**	**93.0435**	**4.5300e-003**	**0.0000**	**93.1566**

3.5 Building Construction (Foundation) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0423	0.8706	1.1425	1.7200e-003		0.0460	0.0460		0.0460	0.0460	0.0000	150.8282	150.8282	0.0488	0.0000	152.0477
Total	**0.0423**	**0.8706**	**1.1425**	**1.7200e-003**		**0.0460**	**0.0460**		**0.0460**	**0.0460**	**0.0000**	**150.8282**	**150.8282**	**0.0488**	**0.0000**	**152.0477**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0600e-003	0.1651	0.0709	4.2000e-004	0.0103	3.8000e-004	0.0107	2.9900e-003	3.6000e-004	3.3500e-003	0.0000	41.4930	41.4930	3.5900e-003	0.0000	41.5827
Worker	0.0208	0.0135	0.1465	5.7000e-004	0.0642	3.9000e-004	0.0646	0.0171	3.6000e-004	0.0174	0.0000	51.5505	51.5505	9.4000e-004	0.0000	51.5739
Total	**0.0259**	**0.1786**	**0.2174**	**9.9000e-004**	**0.0745**	**7.7000e-004**	**0.0753**	**0.0201**	**7.2000e-004**	**0.0208**	**0.0000**	**93.0435**	**93.0435**	**4.5300e-003**	**0.0000**	**93.1566**

3.6 Architectural Coating (1st phase) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	1.5300e-003	1.8200e-003	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5302**	**1.5300e-003**	**1.8200e-003**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.6 Architectural Coating (1st phase) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.3600e-003	1.8300e-003	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5300**	**1.3600e-003**	**1.8300e-003**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.7 Architectural Coating (2nd phase) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	1.5300e-003	1.8200e-003	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5302**	**1.5300e-003**	**1.8200e-003**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.7 Architectural Coating (2nd phase) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.3600e-003	1.8300e-003	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5300**	**1.3600e-003**	**1.8300e-003**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.8 Architectural Coating (3rd phase) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	1.5300e-003	1.8200e-003	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5302**	**1.5300e-003**	**1.8200e-003**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.8 Architectural Coating (3rd phase) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.3600e-003	1.8300e-003	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5300**	**1.3600e-003**	**1.8300e-003**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.9 Building Construction (Interior) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2400e-003	0.0293	0.0417	6.0000e-005		1.4800e-003	1.4800e-003		1.3600e-003	1.3600e-003	0.0000	5.5850	5.5850	1.8100e-003	0.0000	5.6302
Total	**3.2400e-003**	**0.0293**	**0.0417**	**6.0000e-005**		**1.4800e-003**	**1.4800e-003**		**1.3600e-003**	**1.3600e-003**	**0.0000**	**5.5850**	**5.5850**	**1.8100e-003**	**0.0000**	**5.6302**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9500e-003	0.0962	0.0413	2.4000e-004	6.0200e-003	2.2000e-004	6.2400e-003	1.7400e-003	2.1000e-004	1.9500e-003	0.0000	24.1814	24.1814	2.0900e-003	0.0000	24.2336
Worker	0.0121	7.8800e-003	0.0854	3.3000e-004	0.0374	2.3000e-004	0.0376	9.9600e-003	2.1000e-004	0.0102	0.0000	30.0427	30.0427	5.5000e-004	0.0000	30.0563
Total	**0.0151**	**0.1041**	**0.1267**	**5.7000e-004**	**0.0434**	**4.5000e-004**	**0.0439**	**0.0117**	**4.2000e-004**	**0.0121**	**0.0000**	**54.2240**	**54.2240**	**2.6400e-003**	**0.0000**	**54.2899**

3.9 Building Construction (Interior) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5600e-003	0.0303	0.0482	6.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	5.5850	5.5850	1.8100e-003	0.0000	5.6302
Total	**1.5600e-003**	**0.0303**	**0.0482**	**6.0000e-005**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**	**0.0000**	**5.5850**	**5.5850**	**1.8100e-003**	**0.0000**	**5.6302**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9500e-003	0.0962	0.0413	2.4000e-004	6.0200e-003	2.2000e-004	6.2400e-003	1.7400e-003	2.1000e-004	1.9500e-003	0.0000	24.1814	24.1814	2.0900e-003	0.0000	24.2336
Worker	0.0121	7.8800e-003	0.0854	3.3000e-004	0.0374	2.3000e-004	0.0376	9.9600e-003	2.1000e-004	0.0102	0.0000	30.0427	30.0427	5.5000e-004	0.0000	30.0563
Total	**0.0151**	**0.1041**	**0.1267**	**5.7000e-004**	**0.0434**	**4.5000e-004**	**0.0439**	**0.0117**	**4.2000e-004**	**0.0121**	**0.0000**	**54.2240**	**54.2240**	**2.6400e-003**	**0.0000**	**54.2899**

3.9 Building Construction (Interior) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1400e-003	0.0180	0.0301	5.0000e-005		9.7000e-004	9.7000e-004		9.0000e-004	9.0000e-004	0.0000	4.0618	4.0618	1.3100e-003	0.0000	4.0947
Total	**2.1400e-003**	**0.0180**	**0.0301**	**5.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.0000e-004**	**9.0000e-004**	**0.0000**	**4.0618**	**4.0618**	**1.3100e-003**	**0.0000**	**4.0947**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0658	0.0300	1.7000e-004	4.3800e-003	1.4000e-004	4.5200e-003	1.2700e-003	1.4000e-004	1.4000e-003	0.0000	17.3603	17.3603	1.5100e-003	0.0000	17.3981
Worker	8.3200e-003	5.1700e-003	0.0578	2.3000e-004	0.0272	1.6000e-004	0.0274	7.2400e-003	1.5000e-004	7.3900e-003	0.0000	21.0500	21.0500	3.6000e-004	0.0000	21.0589
Total	**0.0103**	**0.0710**	**0.0878**	**4.0000e-004**	**0.0316**	**3.0000e-004**	**0.0319**	**8.5100e-003**	**2.9000e-004**	**8.7900e-003**	**0.0000**	**38.4103**	**38.4103**	**1.8700e-003**	**0.0000**	**38.4570**

3.9 Building Construction (Interior) - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1400e-003	0.0220	0.0351	5.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	4.0618	4.0618	1.3100e-003	0.0000	4.0947
Total	**1.1400e-003**	**0.0220**	**0.0351**	**5.0000e-005**		**1.0600e-003**	**1.0600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**4.0618**	**4.0618**	**1.3100e-003**	**0.0000**	**4.0947**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0658	0.0300	1.7000e-004	4.3800e-003	1.4000e-004	4.5200e-003	1.2700e-003	1.4000e-004	1.4000e-003	0.0000	17.3603	17.3603	1.5100e-003	0.0000	17.3981
Worker	8.3200e-003	5.1700e-003	0.0578	2.3000e-004	0.0272	1.6000e-004	0.0274	7.2400e-003	1.5000e-004	7.3900e-003	0.0000	21.0500	21.0500	3.6000e-004	0.0000	21.0589
Total	**0.0103**	**0.0710**	**0.0878**	**4.0000e-004**	**0.0316**	**3.0000e-004**	**0.0319**	**8.5100e-003**	**2.9000e-004**	**8.7900e-003**	**0.0000**	**38.4103**	**38.4103**	**1.8700e-003**	**0.0000**	**38.4570**

3.10 Architectural Coating (4th phase) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	1.5300e-003	1.8200e-003	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5302**	**1.5300e-003**	**1.8200e-003**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.10 Architectural Coating (4th phase) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-005	1.3600e-003	1.8300e-003	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2558
Total	**0.5300**	**1.3600e-003**	**1.8300e-003**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**2.0000e-005**	**0.0000**	**0.2558**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1391	0.1391	0.0000	0.0000	0.1392
Total	**6.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1391**	**0.1391**	**0.0000**	**0.0000**	**0.1392**

3.11 Architectural Coating (5th phase) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4000e-004	3.0500e-003	3.6400e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	0.5107	0.5107	4.0000e-005	0.0000	0.5115
Total	**0.5304**	**3.0500e-003**	**3.6400e-003**	**1.0000e-005**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.5107**	**0.5107**	**4.0000e-005**	**0.0000**	**0.5115**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	7.0000e-005	7.9000e-004	0.0000	3.5000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2782	0.2782	1.0000e-005	0.0000	0.2783
Total	**1.1000e-004**	**7.0000e-005**	**7.9000e-004**	**0.0000**	**3.5000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2782**	**0.2782**	**1.0000e-005**	**0.0000**	**0.2783**

3.11 Architectural Coating (5th phase) - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-004	2.7100e-003	3.6600e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	0.5107	0.5107	4.0000e-005	0.0000	0.5115
Total	**0.5301**	**2.7100e-003**	**3.6600e-003**	**1.0000e-005**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**0.5107**	**0.5107**	**4.0000e-005**	**0.0000**	**0.5115**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	7.0000e-005	7.9000e-004	0.0000	3.5000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2782	0.2782	1.0000e-005	0.0000	0.2783
Total	**1.1000e-004**	**7.0000e-005**	**7.9000e-004**	**0.0000**	**3.5000e-004**	**0.0000**	**3.5000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2782**	**0.2782**	**1.0000e-005**	**0.0000**	**0.2783**

3.12 Paving (1st phase) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.5100e-003	0.0556	0.0729	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0948
Paving	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9900e-003**	**0.0556**	**0.0729**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0948**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.2500e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4568	0.4568	1.0000e-005	0.0000	0.4570
Total	**1.8000e-004**	**1.1000e-004**	**1.2500e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4568**	**0.4568**	**1.0000e-005**	**0.0000**	**0.4570**

3.12 Paving (1st phase) - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0565	0.0865	1.1000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0947
Paving	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2800e-003**	**0.0565**	**0.0865**	**1.1000e-004**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0947**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.2500e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4568	0.4568	1.0000e-005	0.0000	0.4570
Total	**1.8000e-004**	**1.1000e-004**	**1.2500e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4568**	**0.4568**	**1.0000e-005**	**0.0000**	**0.4570**

3.13 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0345	0.0000	0.0345	5.2200e-003	0.0000	5.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0858	0.8359	0.6693	1.2600e-003		0.0404	0.0404		0.0376	0.0376	0.0000	110.4682	110.4682	0.0310	0.0000	111.2440
Total	**0.0858**	**0.8359**	**0.6693**	**1.2600e-003**	**0.0345**	**0.0404**	**0.0748**	**5.2200e-003**	**0.0376**	**0.0428**	**0.0000**	**110.4682**	**110.4682**	**0.0310**	**0.0000**	**111.2440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2800e-003	0.0435	0.0229	1.2000e-004	2.6600e-003	1.3000e-004	2.7900e-003	7.3000e-004	1.2000e-004	8.5000e-004	0.0000	12.8346	12.8346	1.6900e-003	0.0000	12.8768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	7.3000e-004	8.1500e-003	3.0000e-005	3.8400e-003	2.0000e-005	3.8600e-003	1.0200e-003	2.0000e-005	1.0400e-003	0.0000	2.9693	2.9693	5.0000e-005	0.0000	2.9706
Total	**2.4500e-003**	**0.0442**	**0.0310**	**1.5000e-004**	**6.5000e-003**	**1.5000e-004**	**6.6500e-003**	**1.7500e-003**	**1.4000e-004**	**1.8900e-003**	**0.0000**	**15.8039**	**15.8039**	**1.7400e-003**	**0.0000**	**15.8473**

3.13 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0134	0.0000	0.0134	2.0300e-003	0.0000	2.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0301	0.5952	0.8019	1.2600e-003		0.0280	0.0280		0.0280	0.0280	0.0000	110.4681	110.4681	0.0310	0.0000	111.2438
Total	**0.0301**	**0.5952**	**0.8019**	**1.2600e-003**	**0.0134**	**0.0280**	**0.0415**	**2.0300e-003**	**0.0280**	**0.0301**	**0.0000**	**110.4681**	**110.4681**	**0.0310**	**0.0000**	**111.2438**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2800e-003	0.0435	0.0229	1.2000e-004	2.6600e-003	1.3000e-004	2.7900e-003	7.3000e-004	1.2000e-004	8.5000e-004	0.0000	12.8346	12.8346	1.6900e-003	0.0000	12.8768
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	7.3000e-004	8.1500e-003	3.0000e-005	3.8400e-003	2.0000e-005	3.8600e-003	1.0200e-003	2.0000e-005	1.0400e-003	0.0000	2.9693	2.9693	5.0000e-005	0.0000	2.9706
Total	**2.4500e-003**	**0.0442**	**0.0310**	**1.5000e-004**	**6.5000e-003**	**1.5000e-004**	**6.6500e-003**	**1.7500e-003**	**1.4000e-004**	**1.8900e-003**	**0.0000**	**15.8039**	**15.8039**	**1.7400e-003**	**0.0000**	**15.8473**

3.14 Site Finishing - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1068	0.1636	2.4000e-004		5.7700e-003	5.7700e-003		5.3100e-003	5.3100e-003	0.0000	21.2825	21.2825	6.8800e-003	0.0000	21.4546
Total	**0.0118**	**0.1068**	**0.1636**	**2.4000e-004**	**0.0000**	**5.7700e-003**	**5.7700e-003**	**0.0000**	**5.3100e-003**	**5.3100e-003**	**0.0000**	**21.2825**	**21.2825**	**6.8800e-003**	**0.0000**	**21.4546**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.1000e-004	4.5600e-003	2.0000e-005	2.1500e-003	1.0000e-005	2.1600e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.6598	1.6598	3.0000e-005	0.0000	1.6605
Total	**6.6000e-004**	**4.1000e-004**	**4.5600e-003**	**2.0000e-005**	**2.1500e-003**	**1.0000e-005**	**2.1600e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.6598**	**1.6598**	**3.0000e-005**	**0.0000**	**1.6605**

3.14 Site Finishing - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9500e-003	0.1222	0.1833	2.4000e-004		6.9300e-003	6.9300e-003		6.9300e-003	6.9300e-003	0.0000	21.2825	21.2825	6.8800e-003	0.0000	21.4546
Total	**5.9500e-003**	**0.1222**	**0.1833**	**2.4000e-004**	**0.0000**	**6.9300e-003**	**6.9300e-003**	**0.0000**	**6.9300e-003**	**6.9300e-003**	**0.0000**	**21.2825**	**21.2825**	**6.8800e-003**	**0.0000**	**21.4546**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.1000e-004	4.5600e-003	2.0000e-005	2.1500e-003	1.0000e-005	2.1600e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.6598	1.6598	3.0000e-005	0.0000	1.6605
Total	**6.6000e-004**	**4.1000e-004**	**4.5600e-003**	**2.0000e-005**	**2.1500e-003**	**1.0000e-005**	**2.1600e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.6598**	**1.6598**	**3.0000e-005**	**0.0000**	**1.6605**

3.15 Paving (2nd phase) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.5100e-003	0.0556	0.0729	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0948
Paving	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9900e-003**	**0.0556**	**0.0729**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0948**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.2500e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4568	0.4568	1.0000e-005	0.0000	0.4570
Total	**1.8000e-004**	**1.1000e-004**	**1.2500e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4568**	**0.4568**	**1.0000e-005**	**0.0000**	**0.4570**

3.15 Paving (2nd phase) - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0565	0.0865	1.1000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0947
Paving	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2800e-003**	**0.0565**	**0.0865**	**1.1000e-004**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0947**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.2500e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4568	0.4568	1.0000e-005	0.0000	0.4570
Total	**1.8000e-004**	**1.1000e-004**	**1.2500e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4568**	**0.4568**	**1.0000e-005**	**0.0000**	**0.4570**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0699	0.1962	0.7884	2.8000e-003	0.2715	2.2400e-003	0.2737	0.0730	2.0900e-003	0.0751	0.0000	256.5042	256.5042	9.1800e-003	0.0000	256.7337
Unmitigated	0.0699	0.1962	0.7884	2.8000e-003	0.2715	2.2400e-003	0.2737	0.0730	2.0900e-003	0.0751	0.0000	256.5042	256.5042	9.1800e-003	0.0000	256.7337

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	331.54	266.20	295.24	732,192	732,192
Parking Lot	0.00	0.00	0.00		
Total	331.54	266.20	295.24	732,192	732,192

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793
Parking Lot	0.470625	0.050338	0.265549	0.140745	0.017339	0.006996	0.024054	0.006595	0.004215	0.003104	0.009159	0.000488	0.000793

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.2946	28.2946	4.3200e-003	4.8000e-004	28.5456
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.2946	28.2946	4.3200e-003	4.8000e-004	28.5456
NaturalGas Mitigated	2.8500e-003	0.0243	0.0104	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.1863	28.1863	5.4000e-004	5.2000e-004	28.3538
NaturalGas Unmitigated	2.8500e-003	0.0243	0.0104	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.1863	28.1863	5.4000e-004	5.2000e-004	28.3538

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	528192	2.8500e-003	0.0243	0.0104	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.1863	28.1863	5.4000e-004	5.2000e-004	28.3538
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.8500e-003**	**0.0243**	**0.0104**	**1.6000e-004**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**28.1863**	**28.1863**	**5.4000e-004**	**5.2000e-004**	**28.3538**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	528192	2.8500e-003	0.0243	0.0104	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.1863	28.1863	5.4000e-004	5.2000e-004	28.3538
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.8500e-003**	**0.0243**	**0.0104**	**1.6000e-004**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**28.1863**	**28.1863**	**5.4000e-004**	**5.2000e-004**	**28.3538**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	255430	27.3316	4.1700e-003	4.6000e-004	27.5740
Parking Lot	9000	0.9630	1.5000e-004	2.0000e-005	0.9716
Total		**28.2946**	**4.3200e-003**	**4.8000e-004**	**28.5456**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	255430	27.3316	4.1700e-003	4.6000e-004	27.5740
Parking Lot	9000	0.9630	1.5000e-004	2.0000e-005	0.9716
Total		**28.2946**	**4.3200e-003**	**4.8000e-004**	**28.5456**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3716	0.0104	0.8998	5.0000e-005		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	1.4698	1.4698	1.4200e-003	0.0000	1.5053
Unmitigated	0.3716	0.0104	0.8998	5.0000e-005		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	1.4698	1.4698	1.4200e-003	0.0000	1.5053

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0530					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0272	0.0104	0.8998	5.0000e-005		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	1.4698	1.4698	1.4200e-003	0.0000	1.5053
Total	**0.3716**	**0.0104**	**0.8998**	**5.0000e-005**		**4.9800e-003**	**4.9800e-003**		**4.9800e-003**	**4.9800e-003**	**0.0000**	**1.4698**	**1.4698**	**1.4200e-003**	**0.0000**	**1.5053**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0530					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0272	0.0104	0.8998	5.0000e-005		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	1.4698	1.4698	1.4200e-003	0.0000	1.5053
Total	**0.3716**	**0.0104**	**0.8998**	**5.0000e-005**		**4.9800e-003**	**4.9800e-003**		**4.9800e-003**	**4.9800e-003**	**0.0000**	**1.4698**	**1.4698**	**1.4200e-003**	**0.0000**	**1.5053**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.9270	0.2579	6.1700e-003	17.2138
Unmitigated	8.9270	0.2579	6.1700e-003	17.2138

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.88364 / 4.97012	8.9270	0.2579	6.1700e-003	17.2138
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**8.9270**	**0.2579**	**6.1700e-003**	**17.2138**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	7.88364 / 4.97012	8.9270	0.2579	6.1700e-003	17.2138
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**8.9270**	**0.2579**	**6.1700e-003**	**17.2138**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22.4122	1.3245	0.0000	55.5254
Unmitigated	22.4122	1.3245	0.0000	55.5254

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	110.41	22.4122	1.3245	0.0000	55.5254
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4122**	**1.3245**	**0.0000**	**55.5254**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	110.41	22.4122	1.3245	0.0000	55.5254
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4122**	**1.3245**	**0.0000**	**55.5254**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	12	50	0.73	Diesel
Fire Pump	1	0	0	50	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (50 - 75 HP)	4.9000e-004	1.6100e-003	1.7900e-003	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.2285	0.2285	3.0000e-005	0.0000	0.2293
Fire Pump - Diesel (50 - 75 HP)	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9000e-004**	**1.6100e-003**	**1.7900e-003**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.2285**	**0.2285**	**3.0000e-005**	**0.0000**	**0.2293**

11.0 Vegetation

Cordilleras Health System Replacement Project EIR

Appendix D: Biological Resources Supporting Documents

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Cordilleras Health System Replacement Project EIR
Appendix D: Special Status Species Lists

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
San Mateo thorn-mint (*Acanthomintha duttonii*)	FE; SE; CRPR 1B.1	Located in San Mateo County.	Chaparral, valley and foothill grassland, or coastal scrub. Locally occurs in serpentine bunchgrass grassland; 50-300 m.	Annual herb, April - June	None. Suitable habitat is not present.
Blasdale's bent grass (*Agrostis blasdalei*)	CRPR 1B.2	Coastal areas from Mendocino to Monterey Counties.	Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation; 5-365 m.	Perennial grass, May – July.	None. Suitable habitat is not present.
Franciscan onion (*Allium peninsulare var. franciscanum*)	CRPR 1B.2	Coastal mid California, from Monterey to Mendocino Counties.	Cismontane woodland, valley and foothill grasslands. Often on dry hillsides and in serpentine bunchgrass grasslands; 52-300 m.	Perennial bulbiferous herb, May - June	None. Suitable habitat is not present.
bent-flowered fiddleneck (*Amsinckia lunaris*)	CRPR 1B.2	Mid California, including Monterey, Santa Cruz, San Mateo, Marin, Alameda, Contra Costa, Napa, Lake and Colusa counties.	Coastal bluff scrub, cismontane woodland or valley and foothill grassland; 3-500 m.	Annual herb, March - June	Moderate
Anderson's manzanita (*Arctostaphylos andersonii*)	CRPR 1B.2	Mid California including Monterey, Santa Cruz, San Mateo, Santa Clara, and Alameda counties.	Broadleaved upland forest, mixed evergreen forest, North coast coniferous forest including open sites in redwood forest, chaparral; 60-760 m.	Perennial evergreen shrub, November - May	None. Manzanita species are not present in the project footprint.
Montara manzanita (*Arctostaphylos montaraensis*)	CRPR 1B.2	Endemic to San Mateo County.	Maritime chaparral or coastal; 150-500 m.	Perennial evergreen shrub, January - March	None. Habitat not present in the project footprint

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Kings Mountain manzanita (*Arctostaphylos regismontana*)	CRPR 1B.2	Mid California including Santa Cruz, San Mateo, and Santa Clara counties.	Granite or sandstone outcrops in chaparral, coniferous, broadleaved upland and evergreen forests; 305-730 m.	Perennial evergreen shrub, January – April	None. Suitable habitat not present in the project footprint.
Coastal marsh milk-vetch (*Astragalus pynostachyus* var. *pynostachyus*)	CRPR 1B.2	Endemic to Humboldt, Marin and San Mateo Counties.	Coastal dunes (mesic), coastal scrub or marshes and swamps (coastal salt, streamside); 0-30 m.	Perennial herb, April-October	None. Coastal scrub or dune habitat not present.
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*)	CRPR 1B.1	Throughout western California from San Luis Obispo to Solano County.	Valley and foothill grasslands with alkaline or clay soils; 0-230 m.	Annual herb, May - November	None. Suitable habitat is not present in the project footprint.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	CRPR 1B.2	Endemic to Butte, Colusa, Glenn, Lake, Napa, San Luis Obispo, San Mateo, Solano and Sonoma Counties.	Chaparral, coastal prairie, meadows and seeps, marshes and swamps (coastal salt) or valley and foothill grassland (vernally mesic); 2-420 m.	Annual herb, May - November	None. Suitable habitat is not present in the project footprint.
Point Reyes bird's beak (*Chloropyron maritimum* ssp. *palustre*)	CRPR 1B.2	Extant occurrences in Humboldt, Marin, San Francisco and Sonoma Counties.	Marshes and swamps (coastal salt); 0-10 m.	Annual herb (hemiparasitic), June-October	None. Suitable habitat is not present in the project footprint.
San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*)	CRPR 1B.2	Endemic to Marin, San Francisco, San Mateo and possibly Sonoma Counties.	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub on sandy soils; 3-215 m.	Annual herb, April-August	None. Suitable habitat is not present in the project footprint.
robust spineflower (*Chorizanthe robusta* var. *robusta*)	FE, CRPR 1B.1	Endemic to the San Francisco Bay Area and Monterey Coast.	Chaparral (maritime), cismontane woodland (openings), coastal dunes and coastal scrub in sandy or gravelly soils; 3-300 m.	Annual herb, April-September	None. Suitable habitat is not present in the project footprint.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Franciscan thistle (*Cirsium andrewsii*)	CNPS 1B.2	Endemic to Contra Costa, Marin, San Francisco and San Mateo Counties.	Broadleaved upland forest, coastal bluff scrub, coastal prairie or coastal scrub on mesic, sometimes serpentinite sites; 0-150 m.	Perennial herb, March - July	None. Suitable habitat is not present in the project footprint.
Crystal Springs fountain thistle (*Cirsium fontinale var. fontinale*)	FE; SE; CRPR 1B.1	Found exclusively in San Mateo county.	Valley and foothill grasslands and chaparral including serpentine seeps and grassland; 45-175 m.	Perennial herb, May - October	None. Suitable habitat is not present in the project footprint.
San Francisco collinsia (*Collinsia multicolor*)	CRPR 1B.2	Mid-coastal California from Monterey to Marin county including Santa Clara county.	Moist shady woodland, closed-cone coniferous forests and coastal scrub. Occasionally found in serpentine; 30-250 m.	Annual herb, March – May	High. Suitable habitat is present in the project footprint. Observed to occur in the Cordilleras Creek channel in June 2019.
western leatherwood (*Dirca occidentalis*)	CRPR 1B.2	San Francisco Bay area including Santa Clara to Marin county and east to Alameda county.	Cool, moist slopes in foothill woodland and riparian forests. Mesic environments in broadleaved upland forests, chaparral and coniferous woodlands and mixed evergreen and oak woodlands; 25-425 m.	Perennial deciduous shrub, January – April.	High. Suitable habitat present in the project footprint. Known to occur at Edgewood Natural Preserve and Pulgas Ridge Open Space.
Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*)	CRPR 1B.1	Endemic to Alameda, Santa Clara and Santa Cruz Counties.	Chaparral, cismontane woodland, lower montane coniferous forest (maritime ponderosa pine sandhills); 50-800 m.	Perennial herb, June-October	Low. Marginally suitable habitat present. Not known to occur within 5 miles of the project site.
San Mateo woolly sunflower (*Eriophyllum latilobum*)	FE, SE, CNPS 1B.1	San Mateo and Napa counties.	Cismontane and oak woodland, often on roadcuts; found on and off of serpentine and on grassy hillsides; 45-150m.	Perennial herb, April – June	Low. Marginally suitable habitat present. Not known to occur within 5 miles of the site.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Hoover's button-celery (*Eryngium aristulatum* var. *hooveri*)	CRPR 1B.1	Endemic to Alameda, San Benito, Santa Clara, San Diego and San Luis Obispo Counties.	Vernal pools; 3-45 m.	Annual/perennial herb, July-August	None. Suitable habitat is not present in the project footprint.
Hillsborough chocolate lily (*Fritillaria biflora var. ineziana*)	CRPR 1B.1	Endemic to San Mateo County.	Cismontane woodland or valley and foothill grasslands on serpentine soils.	Perennial herb, March – April	None. Serpentine soils are not present in the project footprint.
Marin checker lily (*Fritillaria lanceolata var. tristulis*)	CRPR 1B.1	Found in Marin and San Mateo Counties.	Coastal bluff scrub, coastal prairie, and coastal scrub; 15-150 m.	Perennial bulbiferous herb, February – May.	None. Suitable habitat is not present in the project area.
fragrant fritillary (*Fritillaria liliacea*)	CRPR 1B.2	Found throughout northern and central California wherever there is suitable habitat.	Cismontane woodland and coastal scrub and prairie, in valley and foothill grasslands (often serpentine bunchgrass grassland); 3-410 m.	Perennial bulbiferous herb, February – April	None. Suitable habitat not present in the project footprint.
Short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*)	CRPR 1B.2	Occurs along the coast from the Oregon border to near Santa Cruz.	Coastal bluff scrub (sandy), coastal dunes or coastal prairie; 0-215 m.	Annual herb, March-June	None. Suitable habitat not present in the project footprint.
Marin western flax (*Hesperolinon congestum*)	FT; ST; CRPR 1B.1	Found only around the San Francisco peninsula in San Mateo and Marin Counties.	Chaparral, valley and foothill grassland, especially in serpentine bunchgrass grassland and serpentine barrens; 5-370 m.	Annual herb, April – July	None. Suitable habitat not present in the project footprint.
Kellog's horkelia (*Horkelia cuneata* var. *sericea*)	CRPR 1B.1	California endemic with extant occurrences in Monterey, Santa Barbara, Santa Cruz, San Luis Obispo and San Mateo Counties.	Closed-cone coniferous forest, chaparral (maritime), cismontane woodland, coastal dunes or coastal scrub in sandy or gravelly openings; 10-200 m.	Perennial herb, May-October	None. Suitable habitat not present in the project footprint.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Point Reyes horkelia (*Horkelia marinensis*)	CRPR 1B.2	Endemic to Mendocino, Marin, Santa Cruz, San Mateo and Sonoma Counties.	Coastal dunes, coastal prairie or coastal scrub on sandy soils; 5-350 m.	Perennial herb, May-September	None. Suitable habitat not present in the project footprint.
island tube lichen (*Hypogymnia schizidiata*)	CRPR 1B.3	Found in San Mateo, Marin, Mendocino, and Santa Barbara Counties.	Occurs on wood and bark of conifers and hardwood, 260-540 m.	Foliose lichen.	None. Suitable habitat not present in the project footprint.
perennial goldfields (*Lasthenia california* ssp. *macrantha*)	CRPR 1B.2	Endemic to Mendocino, Marin, San Luis Obispo, San Mateo and Sonoma Counties.	Coastal bluff scrub, coastal dunes or coastal scrub; 5-520 m.	Perennial herb, January-November	None. Suitable habitat not present.
legenere (*Legenere limosa*)	CRPR 1B.1	Endemic to the Central Valley and Inner Coast Ranges from Redding to Salinas.	Vernal pools; 0-880 m.	Annual herb, April-June	None. Suitable habitat not present.
Coast yellow leptosiphon (*Leptosiphon croceus*)	CRPR 1B.1	California endemic; extant occurrences in Monterey and San Mateo Counties.	Coastal bluff scrub or coastal prairie; 1 0-150 m.	Annual herb, April-May	None. Suitable habitat not present.
rose leptosiphon (*Leptosiphon rosaceus*)	CRPR 1B.1	California endemic; extant occurrences in Marin and San Mateo Counties.	Coastal bluff scrub; 0-100 m.	Annual herb, April-July	None. Suitable habitat not present.
Crystal Springs lessingia (*Lessingia arachnoidea*)	CRPR 1B.2	Endemic to San Mateo county and Sonoma Counties.	Cismontane woodland, coastal scrub or valley and foothill grassland on serpentine soils, often on roadsides; 60 – 200m.	Annual herb, July – October	Low. Suitable vegetative habitat present, but serpentine soil habitat not present. Occurs in the area around the project site.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Ornduff's meadowfoam (*Limnanthes douglasii* ssp. *ornduffii*)	CRPR 1B.1	Endemic to San Mateo County.	Agricultural fields, meadows, and seeps; 5-15 m.	Annual herb, November – May	None. Suitable habitat is not present in the project footprint.
Indian Valley bush mallow (*Malacothamnus aboriginum*)	CRPR 1B.2	Endemic to western California from San Mateo to Paso Robles.	Chaparral, cismontane woodland. Rocky, granitic soils, often in burned areas; 150-1700 m.	Perennial deciduous shrub, April-October	None. Suitable habitat not present in the project footprint.
arcuate bush mallow (*Malacothamnus arcuatus*)	CRPR 1B.2	Found throughout the San Francisco peninsula and the south bay area throughout San Mateo and Santa Clara counties and Merced county.	Ultramafic chaparral, gravelly alluvium. Locally, in openings in mixed evergreen forests; 15-355 m.	Perennial evergreen shrub, April – September	None. Suitable habitat not present in the project footprint.
Davidson's bush mallow (*Malacothamnus davidsonii*)	CRPR 1B.2	Throughout California, found in San Mateo, Monterey, San Luis Obispo, and Los Angeles counties.	Sandy washes within coastal scrub, chaparral, and riparian woodland, at elevations 185 – 855m.	Perennial deciduous shrub, June – January	None. Suitable habitat not present in the project footprint.
Hall's bush mallow (*Malacothamnus hallii*)	CRPR 1B.2	Endemic to western California from Mendecino and Lake Counties to Stanilaus County.	Chaparral and coastal scrub; 10-760 m.	Perennial evergreen shrub, May-October	None. Suitable habitat not present in project footprint.
marsh microseris (*Microseris paludosa*)	CRPR 1B.2	California endemic; extant occurrences in Mendocino, Monterey, Marin, San Benito, Santa Cruz, San Luis Obispo and Sonoma Counties.	Closed-cone coniferous forest, cismontane woodland, coastal scrub or valley and foothill grassland; 5-300 m.	Perennial herb, April-June	Low. Suitably moist habitat not present in project footprint.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
woodland woolythreads (*Monolopia gracilens*)	CRPR 1B.2	Through central California from San Mateo and Contra Costa counties south to San Luis Obispo county.	Grassy openings in chaparral, valley and foothill grasslands (serpentine), cismontane woodland, broadleafed upland forests, North coast coniferous forest. Sandy to rocky soils; 100-1200 m.	Annual herb, February – July	Moderate. Grassy openings and serpentine soils are not present in the project footprint. This species is known to occur near the project site.
Dudley's lousewort (*Pedicularis dudleyi*)	SR; CRPR 1B.2	Throughout central coastal California from San Mateo county south to San Luis Obispo county.	Chaparral, valley and foothill grassland and North coast coniferous forest, particularly deep shady woods and steep cut banks in older coast redwood forests and maritime chaparral; 60-900 m.	Perennial herb, April – June	None. Suitable habitat not present in the project footprint.
white-rayed pentachaeta (*Pentachaeta bellidiflora*)	FE; SE; CNPS 1B.1	California endemic; extant occurrences in San Mateo County.	Cismontane woodland or valley and foothills grassland (often serpentinite); 35-620 m.	Annual herb, March – May	None. Suitable habitat not present in the project footprint.
white-flowered rein orchid (*Piperia candida*)	CRPR 1B.2	Through northern coastal California from Del Norte county south to Santa Cruz county.	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest. Often on mossy banks and rock outcrops or in the forest duff; 30-1310 m.	Perennial herb, May - September	None. Suitable habitat not present in the project footprint.
Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*)	CRPR 1B.2	Endemic to coastal central California including Santa Cruz, San Francisco and San Mateo Counties.	Chaparral, coastal prairie or coastal scrub on mesic sites; 15-160 m.	Annual herb, March – June	None. Suitable habitat not present in the project footprint.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Oregnon polemonium (*Polemonium carneum*)	CRPR 2B.2	Occurs in northern California and in the San Francisco Bay Area.	Coastal prairie, coastal scrub or lower montane coniferous forest; 0-1830 m.	Perennial herb, April-September	None. Suitable habitat not present in the project footprint.
Hickman's cinquefoil (*Potentilla hickmanii*)	FE, SE, CRPR 1B.1	Endemic to Sonoma, San Mateo and Monterey Counties.	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic) or marshes and swamps (freshwater); 10-149 m.	Perennial herb, April-August	None. Suitable habitat not present in the project footprint.
Scouler's catchfly (*Silene scouleri* ssp*. scouleri*)	CRPR 2B.2	Present in coastal San Mateo, San Francisco, Marin, Sonoma, Humboldt, and Del Norte Counties.	Coastal bluff scrub, coastal prairie, and valley and foothill grassland; 3-315 m.	Perennial herb, June - August	Low. Potentially suitable habitat is present in the project area but no occurrences are documented within 5 miles of the project area.
San Francisco campion (*Silene verecunda* ssp. *verecunda*)	CRPR 1B.2	Endemic to Santa Cruz, San Francisco, San Mateo and Sutter Counties.	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub or valley and foothills grassland on sandy soils; 30-645 m.	Perennial herb, March – August	None. Suitable habitat not present in the project footprint.
slender-leaved pondweed (*Stuckenia filiformis* ssp*. alpina*)	CRPR 2B.2	Occurs in Northern California in the Inner Coast Ranges and Sierra Nevadas from east of Redding to near San Jose.	Marshes and swamps (assorted shallow freshwater); 300-2150 m.	Perennial rhizomatous herb, May-July	None. Suitable habitat not present in the project footprint.
two-fork clover (*Trifolium amoenum*)	FE; CRPR 1B.1	Marin, Sonoma, Napa Solano, and San Mateo counties.	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine), often open sunny sites; 5-415 m.	Annual herb, April – June	None. Suitable habitat not present in the project footprint.

Table D1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
saline clover (*Trifolium hydrophilum*)	CRPR 1B.2	Endemic to San Francisco Bay Area and surrounding counties.	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools; 0-300 m.	Annual herb, April – June	None. Suitable habitat not present in the project footprint.
San Francisco owl's clover (*Triphysaria floribunda*)	CRPR 1B.2	Endemic to Marin, San Francisco and San Mateo Counties.	Coastal prairie, coastal scrub or valley and foothill grassland, usually serpentinite; 10-160 m.	Annual herb, April-June	None. Suitable habitat not present in the project footprint.
Coastal triquetrella (*Triquetrella californica*)	CRPR 1B.2	Found in scattered locations along the California coast.	Coastal bluff scrub or coastal scrub; 10-100 m.	Moss	None. Suitable habitat not present in the project footprint.

[a] Status explanations:

Federal:

FE = Listed as endangered under the Federal Endangered Species Act.

FT = Listed as threatened under the Federal Endangered Species Act.

State:

SE= Listed as endangered under the California Endangered Species Act.

ST= Listed as threatened under the California Endangered Species Act.

California Rare Plant Rank:

1B= Plants Rare, Threatened, or Endangered in California and Elsewhere

2B= Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

0.1-Seriously threatened in California

0.2-Fairly threatened in California

[b] Potential Occurrence explanations:

Present: Species was observed on the project site, or recent species records (within five years) from literature are known within the project area.

High: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a 5-mile radius of the project area and within the last 10 years. High-quality suitable habitat is present within the project area.

Moderate: Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species near but beyond a 5-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

Low: The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.

None: CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and no or extremely few components of suitable habitat are present within or adjacent to the project area; or site is outside of specie's range.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
Invertebrates				
San Bruno elfin butterfly (*Callophrys mossii bayensis*)	FE	Endemic to only three locations in San Mateo County: Milagra Ridge, San Bruno Mountain and Montara Mountain.	Coastal, mountainous areas with grassy ground cover. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium.*	None. Suitable habitat is not present in the project footprint. Host plant is not present. Highly restricted.
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay.	*Plantago erecta* is the primary host plant, *Castilleja densiflorus* and *C. purpurscens* are secondary host plants.	None. Suitable habitat is not present in the project footprint. Host and nectar plants are not present.
Mission blue butterfly (*Plebejus icarioides missionensis*)	FE	Endemic to the grasslands of the San Francisco peninsula.	Three larval host plants: *Lupinus albifrons, L. variicolor* and *L. formosus*; *L. albifrons* is favored.	None. Suitable habitat not present in the project footprint. Host plants are not present.
Mrytle's silverspot (*Speyeria zerene myrtleae*)	FE	Restricted to foggy coastal dunes/hills of the Point Reyes peninsula; extripated from coastal San Mateo County.	Larval foodplant thought to be *Viola adunca.*	None. Suitable habitat not present in the project footprint.
Fish				
steelhead- Central California Coast DPS (*Oncorhynchus mykiss irideus*)	FT	This distinct population segment (DPS) includes all anadromous *O. mykiss* (steelhead) populations from the Russian River south to Soquel Creek and to, but not including, the Pajaro River. Populations in the San Francisco and San Pablo Basins are also included.	Adults migrate from a marine environment into the freshwater streams and rivers of their birth in order to mate (called anadromy). Unlike other Pacific salmonids, they can spawn more than one time (called iteroparity). Migrations can be hundreds of miles.	Low. Cordilleras Creek is not known to support steelhead. The project is adjacent to the uppermost reach of the creek, and a drop structure in the creek east of the property would be a barrier to steelhead migration, as well as the portion of the creek that is currently culverted around the existing building.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
longfin smelt (*Spirinchus thaleichthys*)	ST	Occurs along the Pacific coast, including nearshore waters, estuaries, and lower portions of freshwater streams.	Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand, but can be found in completely freshwater to almost pure seawater. Euryhaline, nektonic, and anadromous.	None. Suitable habitat is not present in the project area and longfin smelt is not known to occur within five miles of the project site.
tidewater goby (*Eucyclogobius newberryi*)	FE CSSC	Occurs in brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River.	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	None. Suitable habitat is not present in the project area.
Amphibians and Reptiles				
California tiger salamander (*Ambystoma californiense*)	FT ST CSSC	Endemic to California, found in isolated populations the Central Valley and Central Coast ranges.	This species needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal wetlands for breeding.	None. California tiger salamander is not known to occur within five miles of the project. The project property does not contain suitable breeding habitat for this species.
Santa Cruz black salamander (*Aneides flavipunctatus niger*)	CSSC	Found in San Mateo, Santa Clara, and Santa Cruz Counties.	Inhabits deciduous woodlands, coastal grasslands, and coniferous forests.	Low. The occurrence within 5 miles of the project site was last observed in the 1970s.
California giant salamander (*Dicamptodon ensatus*)	CSSC	Found from Mendocino to Monterey Counties, and inland to Napa County.	Larvae inhabit cold streams and the occasional lake or pond. Adults are found in wet forests near lakes and streams.	Low. Ephemeral stream habitat in and around the project site is likely unsuitable for adults or larvae.
foothill yellow-legged frog (*Rana boylii*)	CSSC	Occurs in the foothills of the western side of the Sierra Nevada mountains from the northern border of the state to the Tehachapi mountains. Recorded in Pescadero Creek in 1999.	Inhabits partly shaded, shallow streams and rifles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg laying, need at least 15 weeks for metamorphisis.	None. Not known to occur within 5 miles of the project, and suitable breeding habitat is not present on site.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
California red-legged frog (*Rana draytonii*)	FT	Endemic to California and northern Baja California.	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Low. CRF is recorded to occur 1.6 miles from the project, however all recorded locations are on the west side of I-280, which poses a significant migratory barrier. The project site and adjacent open space do not contain suitable breeding habitat for CRF, and CRF has not been recorded in the CNDDB to occur in Cordilleras Creek.
red-bellied newt (*Taricha rivularis*)	CSSC	Coastal drainages along the coast of northern California. Isolated population in Santa Clara County.	Occurs near streams and moist environments in redwood forests and coastal woodlands. Streams with rocky substrate and moderate flows are typically used for breeding.	None. Not known to occur within 5 miles of the project area, and onsite habitat is likely unsuitable for breeding.
Western pond turtle *(Emys marmorata)*	CSSC	Occurs from Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley and on western slope of Sierra Nevada.	Inhabits ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.	Low. WPT is known to occur within 2 miles of the project site, however all recorded locations are on the west side of I-280, which poses a significant migratory barrier. The project site and adjacent open space do not contain suitable breeding habitat for WPT, and WPT has not been recorded in the CNDDB to occur in Cordilleras Creek.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
San Francisco garter snake (*Thamnophis sirtalis tetrataenia*)	FE SE	Occurs in the vicinity of freshwater marshes, ponds and slow moving streams in San Mateo County and extreme northern Santa Cruz County.	Prefers dense cover and water depths of at least one foot, upland areas near water are also very important.	Low. SFGS is known to occur within 2 miles of the project site, however all recorded locations are on the west side of I-280, which poses a significant migratory barrier. The project site and adjacent open space do not contain suitable breeding habitat for SFGS, which does, and SFGS has not been recorded in the CNDDB to occur in Cordilleras Creek.
Birds				
marbled murrelet (*Brachyramphus marmoratus*)	FT SE	Feeds near-shore and nests inland near coast from Half Moon Bay to Santa Cruz and from the Oregon border to Eureka.	Nests in redwood forest and Douglas-fir up to 6 miles inland.	None. No suitable habitat is present in the project area.
bald eagle (*Haliaeetus leucocephalus*)	FE CFP	Found throughout California with most breeding territories in the northern portion of the state.	Usually nests within 1 mile of large bodies of water with abundant fish, often in large, old-growth trees.	None. No suitable nesting or foraging habitat is present on site.
white-tailed kite (*Elanus lecurus*)	CFP	Year-round resident in lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills, to western San Diego County at Mexico border.	Inhabits low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands are used for foraging.	Moderate. This species could occur in the Pulgas Ridge Open Space Preserve and Edgewood Natural Preserve. Potential nesting habitat occurs onsite.
Northern harrier (*Circus hudsonius*)	CSSC	Occurs throughout lowland California; has been recorded in fall at high elevations.	Inhabits grasslands, meadows, marshes, and seasonal and agricultural wetlands.	None. Suitable habitat for this species is not present.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
golden eagle (*Aquila chrysaetos*)	CFP	Inhabits foothills and mountains throughout California.	Nests on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	Low. Forage habitat is present on site; nesting habitat is not.
American peregrine falcon (*Falco peregrinus anatum*)	CFP	Occurs throughout the Central Valley, coastal areas and northern mountains of California.	Riparian areas, wetlands, lakes and other aquatic features provide important breeding and foraging habitat for this species. Nests on cliffs or man-made structures such as buildings and bridges; feeds on birds.	Moderate. Peregrine could use the project site for forage, and potentially use the existing building for nesting.
California Ridgway's rail (*Rallus obsoletus obsoletus*)	FE SE	This California endemic inhabits salt water and brackish marshes traversed by tidal sloughs in the vicinity of the San Francisco Bay.	Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	None. Suitable habitat is not present on the project site or near the project site.
Western snowy plover (*Charadrius alexandrinuss nivosus* - Pacific population)	FT CSSC	Tthe Pacific population of western snowy plover occurs along the entire coastline of California.	Occurs on sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None. Suitable habitat is not present on the project site or near the project site.
California least tern (*Sternula antillarum browni*)	FE SE	Nests along the coast from San Francisco Bay south to Northern Baja California.	Colonial breeder on bare or sparsely vegetated flat substrates, sandy beaches, alkali flats, landfills or paved areas.	None. Suitable habitat is not present on the project site or near the project site.
burrowing owl (*Athene cunicularia*)	CSSC	Year-round resident throughout much of the State, except the coastal counties north of Marin and mountainous areas.	Occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. Nests in small mammal burrows, particularly those of the California ground squirrel.	None. Suitable habitat does not occur within the project footprint.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
short-eared owl (*Asio flammeus*)	CSSC	Year-round resident in certain parts of California; breeds regularly in the Great Basin region and locally in the Sacramento-San Joaquin River Delta, breeds periodically in the Central Coast and San Joaquin Delta.	Found in swamp lands, both fresh and salt, lowland meadows and agricultural fields. Tule patches or tall grass are needed for nesting and day time seclusion; nests on dry ground in depression concealed in vegetation.	None. Suitable habitat is not present on the project site or near the project site.
long-eared owl (*Asio otus*)	CSSC	Occurs throughout the state except in the Central Valley, in pockets along the coast and in the far central south.	Inhabits riparian bottomlands grown to tall willows and cottonwoods and belts of live oak parallel to stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks or magpies for breeding.	None. Suitable habitat is not present on the project site or near the project site. Not recorded in the CNDDB to occur within 5 miles of the project site.
bank swallow (*Riparia riparia*)	ST	Occurs primarily around the remaining natural river banks of the Sacramento and Feather Rivers in the Sacramento Valley.	Colonial nester, nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine textured/sandy soils near streams, rivers, lakes or ocean to dig nesting hole.	None. Suitable habitat is not present on the project site or near the project site.
saltmarsh common yellow throat (*Geothlypis trichas sinuosa*)	CSSC	This supspecies of the common yellow throat (*Geothlypis trichas*) is endemic to the fresh and salt water marshes of the San Francisco Bay region.	Requires thick, continuous cover down to water surface for foraging; and tall grasses, tule patches and willows for nesting.	None. Suitable habitat is not present on the project site or near the project site.
Alameda song sparrow (*Melospiza melodia pusillula*)	CSSC	This California endemic subspecies of song sparrow (*Melospiza melodia*) is a resident of salt marshes bordering south arm of San Francisco Bay.	Inhabits *Salicornia* marshes, nests low in *Grindelia* bushes (high enough to escape high tides) and in *Salicornia.*	None. Suitable habitat is not present on the project site or near the project site.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
Mammals				
pallid bat (*Antrozous pallidus*)	CSSC	Throughout California except high Sierra from Shasta to Kern Counties and northwest coast, primarily at lower and mid-elevations	Inhabits deserts, grasslands, shrublands, woodlands and forests; most common in open dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures, very sensitive to disturbance of roosting sites.	Low. The project site contains suitable roost and forage habitat; this species is not recorded as occurring within 5 miles of the project site in the CNDDB.
big free-tailed bat (*Nyctinomops macrotis*)	CSSC	Rare in California; found only in low lying arid areas of southern California and as a vagrant elsewhere.	Needs high cliffs or rocky outcrops for roosting, feeds principally on large moths.	Low. The project site does not include high cliffs or rocky outcrops.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSSC	Found in a patchy distribution across many habitat types	Roosts in caves or cave-like structures; roost temperature may be critical. Forages along stream edges in wooded areas.	Low. Roost habitat may not occur in the area. The project contains suitable foraging habitat.
San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)	CSSC	This California endemic is found throughout the San Francisco Bay area in grasslands, scrub and wooded areas.	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded leaves, grass and other material. May be limited by availability of nest-building materials.	Present.
saltmarsh harvest mouse (*Reithrodontomys raviventris*)	FE SE	This California endemic occurs only in the saline emergent wetlands of the San Francisco Bay and its tributaries.	Pickleweed is the primary habitat of this non-burrowing mammal. It builds loosely organized nests and requires higher areas to escape flooding.	None. Suitable habitat is not present on the project site or near the project site.
salt-marsh wandering shrew (*Sorex vagrans halicoetes*)	CSSC	Occurs in Salt marshes of the south arm of San Francisco Bay.	Medium high marsh 6-8 ft above sea level where abundant driftwood is scattered among *Salicornia*.	None. Suitable habitat is not present in the project area.

Table D2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
American badger (*Taxidea taxus*)	CSSC	Occur throughout California and the western United States and Canada.	Inhabits a variety of open habitats with friable soils.	None. There are no documented occurrences within 5 miles of the project site.

[a] Status explanations:

Federal:

FE = Listed as endangered under the Federal Endangered Species Act.

FT = Listed as threatened under the Federal Endangered Species Act.

State:

SE= Listed as endangered under the California Endangered Species Act.

ST= Listed as threatened under the California Endangered Species Act.

CSSC = Species of Special Concern designated by California Department of Fish and Game

CFP = Fully Protected Species under California Fish and Game Code.

[b] Potential Occurrence explanations:

Present: Species was observed on the project site, or recent species records (within five years) from literature are known within the project area.

High: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a 5-mile radius of the project area and within the last 10 years. High-quality suitable habitat is present within the project area.

Moderate: Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species near but beyond a 5-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

Low: The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.

None: CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and no or extremely few components of suitable habitat are present within or adjacent to the project area.

Cordilleras Health System Replacement Project EIR

Appendix E: Hazardous Materials Investigation

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SCA
ENVIRONMENTAL, INC.

June 2, 2014

Mr. Rob Kalkbrenner
Capital Projects Manager
Facilities Planning, Design & Construction
County of San Mateo
555 County Center - Fifth Floor
Redwood City, CA 94063

RE: Summary Report of Hazardous Building Materials
Cordilleras Facility, 200 Edmonds, Redwood City, CA
SCA Project No.: F11312.02

Dear Mr. Kalkbrenner:

This letter summarizes the results of a hazardous materials investigation at the Cordilleras Facility located at 200 Edmonds, Redwood City. Sampling was conducted by SCA Environmental, Inc. (SCA) on May 1-6, 2014 by Daniel Leung, CSP, CAC (#07-4175), CDPH. The investigation included the following:

- An inspection and survey of all areas of the Cordilleras Facility, including the nearby Pump House and Water Tower.
- Sampling and non-destructive testing for lead-containing coatings, polychlorinated biphenyls, and asbestos-containing materials (ACM).
- Assessment to quantify possible polychlorinated biphenyl (PCB) lighting ballasts and mercury-containing fluorescent lighting fixtures.
- Visual identification of possible PCB-containing transformers.

The survey was limited to the interior and exterior areas of the Cordilleras Mental Health Facility (e.g., interior rooms/areas of Basement-3rd floors, roof, volleyball court, parking area, etc.), the Pump House, and the Water Tank. The newly constructed Fire Station and Youth Center were not included in this survey.

The following summarizes our findings.

Asbestos Hazards

Summary of Standards
Certain existing building components or materials, which may be impacted by the planned demolition or extensive renovation of the Cordilleras facility, are known or presumed to contain asbestos.

Asbestos-containing material (ACM) is defined by EPA regulations as those substances containing greater than 1% asbestos. The Bay Area Air Quality Management District (BAAQMD) and the Cal/EPA provide local enforcement of these regulations. Friable ACM with greater than 1% asbestos must be abated prior to demolition or renovation, and is required to be disposed of as asbestos waste. Prior to renovation or demolition, the BAAQMD requires abatement of friable ACM, as well as non-friable ACM that may become friable during renovation (practically, this means all non-friable ACM).

Federal Occupational Safety and Health Administrations (OSHA) regulations, locally enforced by CAL/OSHA, define ACM as substances that contain greater than 1% asbestos. Cal/OSHA also mandates special training, medical exams, personal protective equipment and record keeping for employees working with asbestos-containing construction materials (ACCM), or materials that contain <0.1% asbestos. If a material contains less than 1% asbestos but more than 0.1% asbestos, the material may be disposed of as non-ACM, but the Cal/OSHA requirements would still have to be followed regarding workers' protection and Contractor licensing.

"Trace" materials (i.e., materials <1% asbestos) are currently regulated in California and require the following:

- Removal using wet methods;
- Prohibition of removal using abrasive saws or methods which would aerosolize the material;
- Prompt clean-up of the impacted zone, using HEPA-filtered vacuums, as applicable;
- Employer registration by Cal/OSHA for removal quantities exceeding 100 sq. ft. per year; and
- Cal/OSHA Carcinogen Registration by the Demolition or Abatement Contractor impacting such materials.

Methodology
Sampling activities were conducted per industry standards and the Federal AHERA regulations (40 CFR Part 763), and sample locations were documented on field diagrams (Attachment B). Under these procedures, the first sample is analyzed. If it tests positive for asbestos (>1%), the analysis is suspended for further samples of that material. If the first sample tests only trace positive (between 0.1 to 1%), or negative, however, the second and third samples are analyzed sequentially, in order to determine the possible presence of asbestos. If all three samples test negative, the material is considered as non-asbestos. Certain materials, such as plasters and gypsum board systems, are frequently non-homogeneous in content. For such materials, multiple samples were gathered at various points in the Buildings, with all samples analyzed to determine the possible presence of asbestos.

All building material samples collected were submitted to Asbestos TEM Laboratory in Berkeley, California for analysis by polarized light microscopy with dispersion staining (DS/PLM).

Results
SCA has entered the sampling data from the above-referenced structure into **Table 1: Material Matrix Report (MMR)**. A printout which shows detailed sample results, locations, and quantity estimates is included in Attachment A of this report. Materials designated as AAA are assumed to contain asbestos, and materials designated as NNN are considered non-suspect materials. Sample locations are included on the sample location diagrams in Attachment B.

1. The MMR (Attachment A) lists positive and negative materials, the locations where each material is present, and the quantity estimates in each location.

2. SCA completed an inspection and survey of all areas at the facility including the water tank and pump house. All suspect materials identified were sampled or listed as assumed asbestos-containing, as destructive sampling was not included in the scope of services.

3. Note that as the survey was non-destructive, various materials were assumed asbestos containing and not sampled. Furthermore, as the building is still in use, SCA did not perform destructive sampling to inspect wall cavities, above ceilings, etc. Quantities

listed in the matrices are for visible quantities and estimates identified from review of as-built drawings supplied by the County of San Mateo. SCA makes no warranties or representations regarding materials or quantities that may be present behind wall cavities, above ceilings, etc.

4. As destructive testing was excluded from the scope of work, the following items were to be assumed asbestos-containing during the survey: vapor barriers under concrete slab/restrooms, fire doors, ceramic tiles, etc. SCA has listed these materials as assumed asbestos-containing items in the attached MMR and Abatement Cost Estimate. The County of San Mateo should be aware that these materials are required to be tested prior to renovation or demolition of the buildings. SCA recommends that the destructive testing and testing of inaccessible/assumed materials be performed prior to preparation of abatement specifications, if possible, or that the specifications be prepared with line items for all inclusive unit costs for abatement in the event the materials are found to contain asbestos.

   Please note the following with respect to the assumed materials:

   - Based on review of the as-built drawings, lightweight concrete is present on the roof of the building. SCA collected samples of the surface of the lightweight concrete where accessible. Although sample results were reported as negative for asbestos, additional core sampling would be required to determine asbestos content for all layers of concrete and on all roof decks where lightweight concrete is present. If found to be asbestos-containing, abatement of the lightweight concrete will increase abatement costs significantly. SCA has provided an estimated cost for abatement in the event that asbestos-containing lightweight concrete is found during destructive testing prior to demolition or renovation of the structure.

   - It is not uncommon for the aggregate and sand components of concrete to contain asbestos. Concrete is considered a manufactured material and is subject to CalOSHA and NESHAPS regulations governing worker protection, abatement and disposal. SCA collected samples of the surface of various concretes at the facility. Although initial surface sample results were reported as negative for asbestos, additional core sampling and analysis of all layers would be required to determine asbestos content for all layers of concrete for the various building systems.

     It is not uncommon for structures to have a vapor barrier assembly under restrooms and under the concrete foundation slab, as well as the subgrade walls. Given the construction date of the building, this vapor barrier system, if present, could consist of a tar-like substance with waterproofing membrane that often contains asbestos. As destructive testing was excluded from the scope of work, SCA has assumed that a vapor barrier system may be present under the building concrete slab, on the basement (subgrade) perimeter sidewalls, and under areas with drains within the facilities (e.g., restrooms, kitchens, etc.). A coring contractor should be retained prior to demolition of the structures to obtain a continuous core through these areas to verify the presence of a vapor barrier system. If present, the material should be tested to verify asbestos content. If the material is found to contain asbestos, the demolition contractor should possess asbestos-registration and proper training, and such concrete should not be recycled.

     If found to be asbestos-containing, abatement of these materials will increase abatement costs significantly. SCA has provided an estimated cost for abatement of

these items in the event that asbestos-containing concrete, vapor barriers, or aggregates are found during destructive testing prior to demolition or renovation of the structure.

5. SCA assumes that in the future, this survey report may be referenced by Abatement Contractors providing bids for abatement of materials at the surveyed site. SCA requests that this text portion of the report be provided to bidding contractors for review. Bidding Contractors are hereby notified that the quantities included herein are estimates only, and all quantities should be field verified by the Contractor for any budgeting, planning or bidding decisions.

Naturally-Occurring Asbestos in Soil

Sampling to verify the presence of naturally-occurring asbestos in Serpentine soil was not included in this scope of work. The County of San Mateo should be aware that naturally-occurring asbestos may be present at the site and should be addressed during the geotechnical study or prior to commencement of renovation activities. If present, the requirements issued by the California Air Resources Board (CARB) and BAAQMD should be implemented.

Lead Hazards

Summary of Standards
Certain existing painted or coated surfaces to be impacted by the proposed renovation or demolition of the facility are known or suspected to contain lead.

Since elemental lead is a suspect carcinogen and known teratogen and neurotoxic in high doses, lead-containing materials need to be identified prior to the on-set of demolition activities. Using combinations of engineering controls and personal protective equipment, lead-containing materials can be removed safely. Several sources of applicable standards are listed as follows:

1. Lead exposures in the workplace are regulated by Cal/OSHA, which has certain regulatory requirements for identifying and controlling potential lead exposures. Currently applicable regulations for the construction industry have been adopted by Cal/OSHA (8 CCR 1532.1) from the Federal OSHA regulations. The current OSHA 8-hour Permissible Exposure Level (PEL) for lead is 50 $\mu g/m^3$.

2. Current EPA and Cal/EPA regulations do not require LBP to be removed prior to demolition, unless loose and peeling. Provided that the paints are securely adhered to the substrates (i.e., non-flaking or non-peeling), disposal of intact demolition debris can generally be handled in California as non-hazardous and non-RCRA waste. Disposal requirements are as follows:

Classification and Disposal of Inorganic Lead Wastes in California								
Standards	**TTLC**	**Leachable Lead**		**Classifications**				
Concentations	**1000 mg/kg**	**5 mg/L**						
	Test Methods & Results							
Condition	**Total Pb (mg/kg)**	**STLC Pb (mg/L)**	**TCLP Pb (mg/L)**	**Non-haz waste**	**CalHaz (Non-RCRA)**	**Fed Haz (RCRA)**	**Stabilization Required**	**Landfill Class**
1a	<50 (a1)	NA		Yes	no	no	no	III
1b	<100 (a2)		NA	Yes	no	no	no	III
2a	50 to <1000	<5	<5	Yes (c)	no	no	no	III or II (d)
2b		>5	<5	no	Yes	no	no	I
2c		>5	>5	no	Yes	Yes	Yes	I
2d (b)		<5	>5	no	no	Yes	Yes	I
3a	>1000	<5	<5	No	Yes	No	no	I
3b		>5	<5	no	Yes	no	no	I
3c		>5	>5	no	Yes	Yes	Yes	I
3d (b)		<5	>5	no	no	Yes	Yes	I
4	any	any	>5	no	no	Yes	Yes	I

(a1) 50 = 10 x 5 (STLC for Pb). Per WET method, impossible to exceed STLC even if 100% soluble.
(a2) 100 = 20 x 5 (TCLP for Pb). Per TCLP method, impossible to exceed STLC even if 100% soluble.
(b) Physically impossible due to the stronger acid used in WET than TCLP.
(c) Landfills will likely require documentation that TCLP is <5, even though TCLP is almost always less than WET.
(d) Landfill dependent, function of permit, landfill liner, or landfill policy

In California, loose and peeling LBP or other wastes require characterization and testing for leachability to determine if the materials would be classified as a RCRA or California hazardous waste.

3. The major definitions of LBP or lead-coated surfaces are listed as follows:

   - HUD defines LBP as paint that contains either $\geq$0.5% by weight of lead, or $\geq$1 mg/cm^2.
   - Consumer Product Safety Commission (CPSC) prohibits the manufacturing of paint that contains more than 90 ppm of lead.

4. Lead is on the "Proposition 65" list, based on its potential to cause reproductive harm.

5. The California Department of Public Health (CDPH) requires the use of Certified Lead Workers and Supervisors for lead abatement projects at public buildings with a greater than 20 years expected life or whenever work is completed specifically to abate Lead-Based paints as defined by HUD. The CDPH certification requirements do not apply to industrial sites; however, dust controls and personnel protection are still required under 17 CCR Section 35001 through 36100.

Methodology
SCA collected a number of bulk samples for analysis to determine the lead content of these materials. Materials included lead paints and coatings and 9”x9” vinyl floor tiles.

Lead samples collected were submitted to McCampbell Analytical, Inc. in Pittsburg, California for analysis for total lead content by Flame Atomic Absorption (Flame AA).

Results
SCA has entered the lead sampling data into Table 1: Material Matrix Report included in Attachment A. The MMR shows detailed sample results and locations of the sampled materials. Sample locations are included on the sample location diagrams in Attachment B.

1. Lead concentrations for most paints ranged from 5.6 milligrams per kilogram (mg/kg) to 350,000 mg/kg, with most paints having lead content above the laboratory detection limits.
2. Lead was also identified in 9"x9" asbestos-containing vinyl floor tiles present throughout the building (97 mg/kg). As the result exceeded 10-times the soluble threshold limit concentration (STLC) of 5 mg/L, Waste Extraction Test (WET) and Toxicity characteristic leaching procedure (TCLP) were performed. Results were found to be 0.56 mg/L and <0.2 mg/L, respectively, indicating that the tiles would not be considered a RCRA waste. Note that as these tiles contain >1% asbestos, the tiles are required to be abated prior to renovation or demolition of the structure.
3. Lead sheeting is known to be present in the E. Offices Area on the 2nd Floor of the building. This area was formerly used as X-ray clinics and dental areas, and visual evidence of lining within the walls and doors was noted during the inspection. As the survey was non destructive in nature, removal of wall sections to access the sheeting was not performed. SCA recommends that destructive sampling be performed prior to renovation or demolition of the building to determine the presence and lead content of this material. SCA has provided an estimated cost for abatement in the event that the material is found to contain lead during destructive testing prior to demolition or renovation of the structure.

As lead was identified in some paints and a detailed inventory of paints was not performed for the project, for the purpose of complying with the Cal/OSHA lead in construction regulation (8 CCR 1532.1), all coated surfaces shall be considered to contain some lead and require demolition dust control procedures for compliance with Cal/OSHA's Construction Lead Standard under 8 CCR 1532.1. The aforementioned regulation contains requirements for lead air monitoring, work practices, respiratory protection, etc., that are triggered by the presence of even very low levels of lead.

In addition, based on the California Total Threshold Level Concentration (TTLC) hazardous waste standard, the paints may be classified as hazardous wastes. Additional sampling and analysis for leachable lead content by the Contractor or Consultant during demolition will be required for waste characterization.

Polychlorinated Biphenyls (PCBs) & Mercury-Containing Items

Methodology
SCA collected representative samples of caulks and putties to determine PCB content. These samples were analyzed by EPA Method 8082 at McCampbell Analytical, Inc. in Pittsburg, CA and reported in milligrams per kilogram (mg/kg).

SCA also quantified lighting ballasts that were observed in conjunction with mercury-containing, fluorescent lighting fixtures in various locations.

Results
Quantities of both PCB ballasts and fluorescent tubes in various locations are included in Table 1: Material Matrix Report included in Attachment A.

1. No PCBs were identified in any caulks or putties sampled by SCA.
2. Various lighting ballasts were identified throughout the building. Cal/EPA regulates disposal of both PCBs and mercury-containing materials. To reduce liability concerns, many building owners opt to have PCB ballasts incinerated, with a record of destruction

generated. A slightly less expensive approach involves recycling of the components (and incineration of the small amount of PCBs separately). However, this method may pose liability concerns for building owners.

3. Various mercury-containing fluorescent tubes were identified throughout the building. Recycling vendors for reclaiming the mercury vapor are commonly available for services at approximately $0.15 per lineal foot. Note that costs for fluorescent tube disposal do not tend to be significant compared to overall abatement costs.
4. SCA also noted three (3) transformers at the property. These transformers are owned by PG&E. As the units were functioning at the time of the investigation, sampling of transformer fluids to determine PCB content was not performed. No visual evidence of staining was noted during the investigation. As the units are owned by PG&E, disposal of the PCB-containing fluids, if present, would be the responsibility of PG&E.

If you have any questions, please contact us.

Sincerely,
SCA ENVIRONMENTAL, INC.

Christina Codemo, CHMM, REPA, CAC
Sr. Consultant

Chuck Siu, CIH, PE, CSP, CAC, CDPH
President

Appendices:

Appendix A:	Materials Matrix Report
Appendix B:	Sample Location Drawings
Appendix C:	Asbestos Laboratory Results
Appendix D:	PCB & Lead Laboratory Results
Appendix E:	Abatement Cost Estimates

Appendix A

Materials Matrix Report

Room ID------- Material ID	Components	Asbestos: Positive, Negative, Trace, Assumed	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	Units	Basement															1st Floor														2nd Floor									
													Mech	Maint	RR	Eng	Fac Serv	Jan	Stor 1	Fan	Elec	Stor 2	Laund	Util	Tel	Stor 3	Hall	Lobby	RR1	Admin	SW Offices	SE Offices	RR2	S Hall	Lounge	Auditorium	NW Rms	NE Rms	N Hall	Elev Lobby	Kitchen	E Offices (1)	E Hall	Elev Lobby	NW Rms	NE Rms	N Hall	SW Rms	SE Rms	S Hall
ASBESTOS																																																
PISTM-3	off-white insulation with yellow/green-painted canvas jacket on steam pipes and fittings (some of which are concealed within walls or above ceilings)		60-70% AM									LF	780	150	10	10	300		50	100	30	330	70	30	80	320	350	50		50	150	150			50	120	150	150		40	10	250		40	150	150		150	150	
FLVCT-16	9"x9" tan/brown/green with streaks vinyl floor tile (+) with black mastic (-)		ND (m)	ND (m)	ND (m)							SF			470		300													385	1425	1265		700	620		900	1675	800		700	1900	1050	1600	1400	1300	900	1400	1300	900
PIDHW-20	off-white insulation with canvas jacket on domestic hot water pipes and fittings (some of which are concealed within walls or above ceilings)		1-5% CH; 10-20% AM									LF	200	125	200	100	75	30	50			320	60	30	30	110	150		75		100	100	100		150	150	120	100		75	300	230		150	100	100		100	100	
HINS-21	off-white insulation with canvas jacket on HVAC ducts (some of which are concealed above ceilings)		1-5% CH; 10-20% AM	NA								LF	75	100	50	50	100	20	40	300	20						780	30	50	40	150	100	25	30	75	100	50	80	40	50	200	175	75	50		50			50	
CAULK-26	grey caulk between brick wall and window frame		1-5% CH									LF																100																					
FLVCS-27	grey speckled vinyl floor sheeting (-) w/ yellow glue (-) over FLVCT-16 (+) w/ black mastic (-)	Positive	1-5% CH									SF																			150																		
SINK-34	black stainless steel sink undercoating		1-5% CH									EA																									2												
PENMAS-38	black mastic/coating (+) with silver paint (-) on roofing penetrations		1-5% CH, ND paint	NA (mastic), ND paint	NA (mastic), ND paint							LF																																					
ASPHALT-43	black exterior asphalt (+) and assumed aggregate base (AAA) (destructive coring required to confirm presence of aggregate and asbestos content)		1-5% CH	NA	NA							SF																																					
TRANSITE-45	abandoned grey transite pipes (along the southwest ext side on the first floor level)		1-5% CR									LF																																					
CAULK-53	beige exterior caulk between brick wall and window frame		1-5% CH									LF																100																					
ASSUMED ASBESTOS (Destructive Testing Required to Confirm)																																																
BOILER-AAA1	boiler insulation, gasket, flues, bricks, etc. associated with Bryan Gas Boilers (2x): Models AB 250-5-150/54-FDG)											EA	2																																				
TERRAZO-AAA2	beige/black terrazzo flooring											SF			300	625														20		220	100			280	150				1220	350	50	80	40		80	40	
FIREHOSES-AAA	fire hoses											EA																																					1
FIREDOORS-AAA	fire doors with assumed asbestos-core insulation											EA	4	3		1	1			1	1			1	1									4	1	2	1		2				1					
VAPBAR-AAA16	Exterior vapor barrier/waterproofing membrane on subgrade basement walls											SF																																					
WLCER-AAA4	4"x4" grey/yellow/blue/pink ceramic wall tile with associated grout & mortar											SF			500	750													350							250					990	350		80	680		80	670	
FLEX-AAA5	black flex duct connectors											EA								4															2														
FLCER-AAA5	2"x2" pink/white/green ceramic floor tile with associated grout and mortar											SF																	230																250			250	
BRICK-AAA6	2"x8" red brick wall with associated mortar											SF								200	200																												
BBMAS-AAA7	mastic behind metal baseboard											LF																									140				160		120	180						
WLMAS-AAA8	wall mirror mastic											SF			50											5												5							20	10		20	10	
FLCER-AAA9	6"x6" red quarry floor tile with covebase and associated grout and mortar											SF																												2050			150		150			150	
WLCER-AAA10	6"x12" beige ceramic wall tiles with associated grout and mortar											SF																												2900					360			360	
WLMAS-AAA10	mastic behind plastic wall panels	Assumed										SF																												520			500		900				900
FORMICA-AAA11	yellow/wood-look Formica counter top with associated glue											SF																														20		100						
LTWTCONC-37	light grey light weight concrete over roof deck (Note: Surface only sampled. Cores required for analysis of all concrete layers, including probable presence of another vaporbarrier @ its bottom.)		ND	ND								SF																																					
WALL-AAA12	8"x8"x16" tan concrete masonry unit (CMU) wall with associated mortar											SF																																					
EL-AAA13	electrical wiring throughout											LF	400	400	100	100	100	300	300	300	500	300	100	100	100	300	400	200	100	200	500	500	100	400	200	300	500	500	400	250	500	500	400	250	500	500	400	500	500	400
CL-AAA14	4'x8' grey coarse fibrous acoustical ceiling panel with associated glue											SF	500																																				
CORE-AAA	felts, membranes and tars and aggregate baserock associated with volleyball courts											SF																																					
VAPOR-AAA16	vapor barrier under slab											SF	1600	2000	770	625	50	50	200	500	600	2000	400	200	200	2000	1500																									
VAPOR-AAA17	Vapor barriers under restrooms, laundry, former operating rooms, etc.											SF			770	110		50											230		125		220			350	350	150			1900	645			80	250		80	250	
FREEZER-AAA18	Insulation and/or mastics associated with walk-in freezers											EA																													3									
CONC-AAA19	Concrete layers and aggregate baserock under surface concrete comprising building slab											SF	1600	2000	770	625	50	50	200	500	600	2000	400	200	200	2000	1500	530	230	385	900	680	220	900	330	350	900	900	900	600	2050	2950	900	600	900	900	900	900	900	900
CLGL-25	12"x12" light grey glued on ceiling tiles (-) with fissures (glue not accessible for all samples)-glu assumed ACM		ND for tile; Assumed mastic	ND for tile; Assumed mastic	ND for tile; Assumed mastic							SF																530		620	1020	1020		1300	900	770	825	1125	900		2100	2150		1875	1400		900	1400		900
NON-ASBESTOS																																																
PAINT-1	off-white paint on concrete floors		ND									SF	200																																				
PAINT-2	grey paint on concrete floors		ND									SF	1000																																			
CONC-4	surface concrete floor slab-top layer only		ND									SF	1600	2000	770	625	50	50	200	500	600	2000	400	200	200	2000	1500																									
BRICK-5	12"x12" red brick wall with grey mortar		ND	ND								SF	200	250						240	360																												
BRICK-6	yellow fire brick & off-white mortar in incinerators (one in mechanical room and other outside of mechanical room)		ND	ND								SF	500																																				
PAINT-7	off-white paint with skim coat on concrete walls, columns and ceiling		ND	ND	ND							SF	4500	3000			1050			950	560		980	600	980	5250	1900									400														
CONC-8	green stained concrete floor		ND	ND								SF		2000			750	120	500	500	200	2400	400	240	400	2800	1900									600					1200									
PAINT-9	silver paint on water storage tank		ND									SF	1																																				
PIRFG-10	brown cork insulation on refrigeration lines	Negative	ND	ND								LF		50																												50									
WLSH-11	wall drywall with tape & joint compound		ND	ND								SF		510														920	750																					
BBMAS-12	4"/6" tan/grey/green vinyl baseboard with off-white glue		ND	ND								LF		40			60											100		185	315	260		80	135	165	150	390	90	80	130	70		60						
HINS-13	fiberglass insulation with green painted canvas jacket on HVAC ducts		ND	ND								LF	60	50																																			
HMAS-14	brown mastic under HINS-13		ND	ND								SF	360	300																																			
SINK-15	off-white stainless steel sink undercoating		ND									EA		1																																			
WLPL-17	off-white skim coat over coarse grey wall plaster		ND	ND	ND	ND	ND	ND	ND	ND	ND	SF			800	1350	1750	350	1030	250		100		360	480	180	4800			1475	2035	1600	470	2095	670	1150	2390	2720	1500	650	7030	5340	950	1550	3850	3700	1450	3850	3700	1450
CLPL-18	off-white skim coat over coarse grey ceiling plaster		ND	ND	ND	ND	ND	ND	ND			SF			770	625		120	500									530		790	1445	1040	220	1300	950	1350	1275	1625	900	600	2205	2950	250	1875	1480	1350	900	1480	1350	900
CLGL-19	12"x12" off-white glued on ceiling tiles (-) with pinholes and brown mastic (-)		ND									SF			150																							.											
FLVCT-22	over grey leveling compound (-)		ND	ND								SF																770		320	225																			
CLSH-23	ceiling drywall with tape and mud		ND									SF																770	230																					
CARMAS-24	yellow carpet glue under multi-colored carpet		ND	ND	ND							SF																530			1215	1215		700			775	1675	800	600		1850	300	225	150			150		
FLVCS-28	faux wood-look vinyl flooring (-) with yellow glue (-) and grey leveling compound (-)		ND									SF																						100														
FLVCT-29	12"x12" off-white with brown streaks vinyl floor tile (-) with yellow glue (-)		ND	ND								SF																						400		1200			600									
PUTTY-30	off-white interior window putty		ND	ND	ND							LF																			90	60			20	85	70	80		40	160			100	90		90	90	

Notes: ND=none detected NA=not analyzed CH=chrysotile PNQ=present, but not quantified

Room ID------- Material ID	Components	Asbestos: Positive, Negative, Trace, Assumed	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	Units	Basement															1st Floor													2nd Floor									
													Mech	Maint	RR	Eng	Fac Serv	Jan	Stor 1	Fan	Elec	Stor 2	Laund	Util	Tel	Stor 3	Hall	Lobby	RR1	Admin	SW Offices	SE Offices	RR2	S Hall	Lounge	Auditorium	NW Rms	NE Rms	N Hall	Elev Lobby	Kitchen	E Offices (1)	E Hall	Elev Lobby	NW Rms	NE Rms	N Hall	SW Rms	SE Rms	S Hall
FLVCT-31	12"x12" blue with white streaks vinyl floor tile (-) with yellow glue (-)	Negative	ND									SF																						330						750								
CLSP-32	12"x12" off-white splined ceiling tiles with fissures		ND	ND								SF																							1050													
FLVCT-33	12"x12" beige with brown and tan streaks vinyl floor tile (-) with yellow glue (-)		ND	ND								SF																								375				275								
BBMAS-35	4" brown vinyl baseboard with brown mastic		ND									LF																													50								
FLCTG-36	red/green textured floor coating on roof deck		ND	ND								SF																																				
PUTTY-39	grey exterior window putty		ND	ND	ND							LF																																				
RFAG-40	tar and gravel roofing		ND	ND	ND							SF																																				
RFMAS-41	black roofing mastic along edge of roof and main field		ND	ND	ND							SF																																				
FRCTG-42	off-white coating on overhang		ND	ND	ND							SF																																				
CONC-44	grey concrete on volleyball court and exterior walkways		ND	ND	ND							SF																																				
PAINT-46	beige exterior paint on building and stack		ND	ND	ND	ND						SF																																				
PAINT-47	green exterior textured paint on landings		ND	ND								SF																																				
PAINT-48	grey exterior textured paint on steps		ND									SF																																				
PAINT-49	red paint on concrete floors		ND	ND								SF																																				
HCAULK-50	light grey caulk around HVAC ducts		ND									LF																																				
GASKET-51	off-white gasket between wall panel seams		ND	ND								LF																																				
GASKET-52	black foam gasket along bottom of tank		ND	ND								LF																																				
PAINT-54	beige exterior paint on CMU walls		ND	ND								SF																																				
PIDHW-NNN1	fiberglass insulation with paper jacket on feed water pipes	not suspect										LF	380	410			10																																
TANK-NNN2	fiberglass insulation with paper jacket on condensate tank											SF	100																																				
FLOORS-NNN	non-suspect floors											SF																																				
WALLS-NNN	non-suspect walls											SF																																				
CEILING-NNNN	non-suspect ceilings											SF																																				
PISTM-NNN3	fiberglass insulation with paper jacket on low pressure steam pipes											LF								200					50																								
CLTL-NNN4	24"x24" beige/white screwed on compressed board ceiling tile with pinholes											SF																													1950	500	300			150			150	
ROOF-NNN5	grey rolled roofing with tars and mastics (replace approx. 5 years ago [est 2009] per Don Deluca)											SF																																				
LEAD CONTAINING MATERIALS		**mg/kg**																																														
LEAD LINING-AAA	x-ray and dark rooms with lead lining sandwiched in walls and doors assumed present	**1000**										SF																														2000								
200-OW-1-1	Off-white paints on concrete floors in basement mechanical room	**1200**										SF	PNQ																																				
200-OW-1-2	off-white paints on brick walls in basement mechanical room	**1700**										SF	PNQ																																				
200-GY-2-1	grey paints on concrete floors in basement mechancial room	**970**										SF	PNQ																																				
200-GR-3-1	green paints on concrete floors in basement maintenance room	**90**										SF		PNQ																																				
200-SI-4-1	silver paints on metal tank in basement mechanical room	**16000**										SF	PNQ																																				
200-GY-5-1	grey paints on plaster walls in basement fan room	**680**										SF								PNQ																													
200-GY-6-1	grey paints on metal stairs in auditorium	**350000**										SF																							PNQ													
200-GY-6-2	grey paints on metal stairs in Stair 3	**1000**										SF																																				
200-BE-7-1	beige paints on metal vents on roof	**830**										SF																																				
200-BE-7-2	beige paints on concrete roof eaves on exterior	**1900**										SF																																				
200-BE-7-3	beige paints on exterior CMU walls	<250										SF																																				
200-BE-7-4	beige paints on exterior metal walls	**330**										SF																																				
200-GR-8-1	grey floor coating on roof deck of 3rd floor	**5.6**										SF																																				
200-GR-9-1	grey paints on exterior metal landing on Stair 3	**25**										SF																																				
200-BR-10-1	brown paints on exterior metal window frames	**220**										SF																																				
200-RD-11-1	red paints on concrete floors in Stair 1	**26**										SF																																				
LEAD PAINTS	lead-containing paints	**PNQ**										SF	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ
FLVCT-16	lead in 9"x9" tan with brown and white streaks asbestos vinyl floor tiles	97ppm (TTLC); 0.56 mg/L (STLC); <0.2 mg/L (TCLP)										SF			470		300												385	1425	1265		700	620		900	1675	800		700	1900	1050	1600	1400	1300	900	1400	1300	900
PCBs		**mg/kg**																																														
CAULK-26	grey caulk between brick wall and window frame	<10										LF																100																			
PUTTY-30	off-white interior window putty	<0.69										LF																		90	60			20	85	70	80			40	160			100	90		90	90	
PUTTY-39	grey exterior window putty	<0.05										LF																																				
CAULK-53	beige exterior caulk between brick wall and window frame	<0.05										LF																100																			
TRANSFORMER-AAA15	PCB-containing oils (owned by PG&E)	Assumed										EA									3																											
BALLASTS	Possible PCB-containing lighting ballasts	**Present**										EA	8	14	2	5	6		4	3	2	20		4	2			11	2	12	36	28	2	6	10	2	23	22	7	6	49	38	17	15	22	18	4	22	18	4
OTHER HAZMATS																																															
TUBES	Mercury-containing fluorescent tubes	**Present**										EA	16	32	4	10	12		8	6	6	40		6	4			22	8	12	36	28	2	20	20	4	30	24	14	12	83	50	42	30	22	18	8	22	18	8

Notes: ND=none detected NA=not analyzed CH=chrysotile PNQ=present, but not quantified

			3rd Fl								Other areas				Roof & Exterior											Other areas		
Room ID------- Material ID	**Components**	**Asbestos: Positive, Negative, Trace, Assumed**	**NW Rms**	**NE Rms**	**N Hall**	**SW Rms**	**SE Rms**	**S Hall**	**E Rms**	**Elev Lobby**	**Stair 1**	**Stair 2**	**Stairs 3 & 4**	**Elev**	**Elev Rm**	**PH Fan Room**	**Exterior**	**PH Roof**	**Elev Rm Roof**	**Main Roof**	**3F Roof Deck**	**2F Roof**	**1F Roof**	**Auditorium Roof**	**Overhang/ Canopy**	**Water tank**	**Pump House**	**TOTAL+/- 15%**
ASBESTOS																												
PISTM-3	off-white insulation with yellow/green-painted canvas jacket on steam pipes and fittings (some o which are concealed within walls or above ceilings)	**Positive**	150	150		150	150		250	40																		5310
FLVCT-16	9"x9" tan/brown/green with streaks vinyl floor tile (+) with black mastic (-)		1400	1300	900	1400	1300	900	2250	1600				120														32160
PIDHW-20	off-white insulation with canvas jacket on domestic hot water pipes and fittings (some of which are concealed within walls or above ceilings)		100	100		100	100		150	150						30												4260
HINS-21	off-white insulation with canvas jacket on HVAC ducts (some of which are concealed above ceilings)			120			75		100	150						50												3450
CAULK-26	grey caulk between brick wall and window frame																											100
FLVCS-27	grey speckled vinyl floor sheeting (-) w/ yellow glue (-) over FLVCT-16 (+) w/ black mastic (-)																											150
SINK-34	black stainless steel sink undercoating																											2
PENMAS-38	black mastic/coating (+) with silver paint (-) on roofing penetrations																				5							5
ASPHALT-43	black exterior asphalt (+) and assumed aggregate base (AAA) (destructive coring required to confirm presence of aggregate and asbestos content)																27000											27000
TRANSITE-45	abandoned grey transite pipes (along the southwest ext side on the first floor level)																120											120
CAULK-53	beige exterior caulk between brick wall and window frame																											100
ASSUMED ASBESTOS (Destructive Testing Required to Confirm)																												
BOILER-AAA1	boiler insulation, gasket, flues, bricks, etc. associated with Bryan Gas Boilers (2x): Models AB 250-5-150/54-FDG)	**Assumed**																										2
TERRAZO-AAA2	beige/black terrazzo flooring		80	40		80	40		150	50																		3995
FIREHOSES-AAA	fire hoses				1			1																				4
FIREDOORS-AAA	fire doors with assumed asbestos-core insulation																											24
VAPBAR-AAA16	Exterior vapor barrier/waterproofing membrane on subgrade basement walls																6000											6000
WLCER-AAA4	4"x4" grey/yellow/blue/pink ceramic wall tile with associated grout & mortar		80	680		80	670		80																			6290
FLEX-AAA5	black flex duct connectors															10												16
FLCER-AAA5	2"x2" pink/white/green ceramic floor tile with associated grout and mortar			250			250																					1230
BRICK-AAA6	2"x8" red brick wall with associated mortar																											400
BBMAS-AAA7	mastic behind metal baseboard									180																		780
WLMAS-AAA8	wall mirror mastic		20	10		20	10																					180
FLCER-AAA9	6"x6" red quarry floor tile with covebase and associated grout and mortar			150			150			150																		2950
WLCER-AAA10	6"x12" beige ceramic wall tiles with associated grout and mortar			360			360																					4340
WLMAS-AAA10	mastic behind plastic wall panels				900			900		500																		5120
FORMICA-AAA11	yellow/wood-look Formica counter top with associated glue									100																		220
LTWTCONC-37	light grey light weight concrete over roof deck (Note: Surface only sampled. Cores required for analysis of all concrete layers, including probable presence of another vaporbarrier @ its bottom.)																	600	300	5800	1500	750	950	1950				11850
WALL-AAA12	8"x8"x16" tan concrete masonry unit (CMU) wall with associated mortar																										380	380
EL-AAA13	electrical wiring throughout		500	500	400	500	500	400	500	250	200	200		200	400	200	100										200	17450
CL-AAA14	4'x8' grey coarse fibrous acoustical ceiling panel with associated glue																											500
CORE-AAA	felts, membranes and tars and aggregate baserock associated with volleyball courts																800											800
VAPOR-AAA16	vapor barrier under slab																											12695
VAPOR-AAA17	Vapor barriers under restrooms, laundry, former operating rooms, etc.		80	250		80	250		150							300	300											6970
FREEZER-AAA18	Insulation and/or mastics associated with walk-in freezers																											3
CONC-AAA19	Concrete layers and aggregate baserock under surface concrete comprising building slab		900	900	900	900	900	900	2950	600							300											41670
CLGL-25	12"x12" light grey glued on ceiling tiles (-) with fissures (glue not accessible for all samples)-glu assumed ACM		1400		900	1400		900	2100	1875	450	450																29210
NON-ASBESTOS																												
PAINT-1	off-white paint on concrete floors	**Negative**																										200
PAINT-2	grey paint on concrete floors																											1000
CONC-4	surface concrete floor slab-top layer only																											12695
BRICK-5	12"x12" red brick wall with grey mortar																											1050
BRICK-6	yellow fire brick & off-white mortar in incinerators (one in mechanical room and other outside of mechanical room)																250											750
PAINT-7	off-white paint with skim coat on concrete walls, columns and ceiling																											20170
CONC-8	green stained concrete floor										400	400																14810
PAINT-9	silver paint on water storage tank																											1
PIRFG-10	brown cork insulation on refrigeration lines																											100
WLSH-11	wall drywall with tape & joint compound																											2180
BBMAS-12	4"/6" tan/grey/green vinyl baseboard with off-white glue									60																		2370
HINS-13	fiberglass insulation with green painted canvas jacket on HVAC ducts																											110
HMAS-14	brown mastic under HINS-13																											660
SINK-15	off-white stainless steel sink undercoating																											1
WLPL-17	off-white skim coat over coarse grey wall plaster		3850	3700	1450	3850	3700	1450	2350	1550	600	600																84175
CLPL-18	off-white skim coat over coarse grey ceiling plaster		1480	1350	900	1480	1350	900	2400	1875	450	450																41415
CLGL-19	12"x12" off-white glued on ceiling tiles (-) with pinholes and brown mastic (-)																											150
FLVCT-22	over grey leveling compound (-)																											1315
CLSH-23	ceiling drywall with tape and mud																											1000
CARMAS-24	yellow carpet glue under multi-colored carpet		150				150			225																		10710
FLVCS-28	faux wood-look vinyl flooring (-) with yellow glue (-) and grey leveling compound (-)																											100
FLVCT-29	12"x12" off-white with brown streaks vinyl floor tile (-) with yellow glue (-)																											2200
PUTTY-30	off-white interior window putty		100	90		90	90		80																			1425

Notes: ND=none detected NA=not analyzed CH=chrysotile PNQ=present, but not quantified

			3rd Fl								Other areas				Roof & Exterior											Other areas		
Room ID------- Material ID	**Components**	**Asbestos: Positive, Negative, Trace, Assumed**	**NW Rms**	**NE Rms**	**N Hall**	**SW Rms**	**SE Rms**	**S Hall**	**E Rms**	**Elev Lobby**	**Stair 1**	**Stair 2**	**Stairs 3 & 4**	**Elev**	**Elev Rm**	**PH Fan Room**	**Exterior**	**PH Roof**	**Elev Rm Roof**	**Main Roof**	**3F Roof Deck**	**2F Roof**	**1F Roof**	**Auditorium Roof**	**Overhang/ Canopy**	**Water tank**	**Pump House**	**TOTAL+/- 15%**
FLVCT-31	12"x12" blue with white streaks vinyl floor tile (-) with yellow glue (-)																											1080
CLSP-32	12"x12" off-white splined ceiling tiles with fissures																											1050
FLVCT-33	12"x12" beige with brown and tan streaks vinyl floor tile (-) with yellow glue (-)																											650
BBMAS-35	4" brown vinyl baseboard with brown mastic																											50
FLCTG-36	red/green textured floor coating on roof deck																				1500							1500
PUTTY-39	grey exterior window putty																1750											1750
RFAG-40	tar and gravel roofing																	600	300	5800		750	950	1950	500			10850
RFMAS-41	black roofing mastic along edge of roof and main field	**Negative**																600	300	5800		750	950	1950	500			10850
FRCTG-42	off-white coating on overhang																								600			600
CONC-44	grey concrete on volleyball court and exterior walkways																3500											3500
PAINT-46	beige exterior paint on building and stack																20000											20000
PAINT-47	green exterior textured paint on landings												250															250
PAINT-48	grey exterior textured paint on steps												250															250
PAINT-49	red paint on concrete floors										400	400						80										880
HCAULK-50	light grey caulk around HVAC ducts																			100								100
GASKET-51	off-white gasket between wall panel seams																									300		300
GASKET-52	black foam gasket along bottom of tank																									60		60
PAINT-54	beige exterior paint on CMU walls																										380	380
PIDHW-NNN1	fiberglass insulation with paper jacket on feed water pipes																											800
TANK-NNN2	fiberglass insulation with paper jacket on condensate tank																											100
FLOORS-NNN	non-suspect floors																											
WALLS-NNN	non-suspect walls																											
CEILING-NNNN	non-suspect ceilings	**not suspect**																										
PISTM-NNN3	fiberglass insulation with paper jacket on low pressure steam pipes																											250
CLTL-NNN4	24"x24" beige/white screwed on compressed board ceiling tile with pinholes			150			150																					3350
ROOF-NNN5	grey rolled roofing with tars and mastics (replace approx. 5 years ago [est 2009] per Don Deluca)																										100	100
LEAD CONTAINING MATERIALS		**mg/kg**																										
LEAD LINING-AAA	x-ray and dark rooms with lead lining sandwiched in walls and doors assumed present	**1000**																										2000
200-OW-1-1	Off-white paints on concrete floors in basement mechanical room	**1200**																										PNQ
200-OW-1-2	off-white paints on brick walls in basement mechanical room	**1700**																										PNQ
200-GY-2-1	grey paints on concrete floors in basement mechancial room	**970**																										PNQ
200-GR-3-1	green paints on concrete floors in basement maintenance room	**90**																										PNQ
200-SI-4-1	silver paints on metal tank in basement mechanical room	**16000**																										PNQ
200-GY-5-1	grey paints on plaster walls in basement fan room	**680**																										PNQ
200-GY-6-1	grey paints on metal stairs in auditorium	**350000**																										PNQ
200-GY-6-2	grey paints on metal stairs in Stair 3	**1000**											PNQ															PNQ
200-BE-7-1	beige paints on metal vents on roof	**830**																		PNQ	PNQ	PNQ	PNQ					PNQ
200-BE-7-2	beige paints on concrete roof eaves on exterior	**1900**															PNQ											PNQ
200-BE-7-3	beige paints on exterior CMU walls	<250																									PNQ	PNQ
200-BE-7-4	beige paints on exterior metal walls	**330**																									PNQ	PNQ
200-GR-8-1	grey floor coating on roof deck of 3rd floor	**5.6**																			PNQ							PNQ
200-GR-9-1	grey paints on exterior metal landing on Stair 3	**25**											PNQ				PNQ											PNQ
200-BR-10-1	brown paints on exterior metal window frames	**220**															PNQ											PNQ
200-RD-11-1	red paints on concrete floors in Stair 1	**26**									PNQ																	PNQ
LEAD PAINTS	lead-containing paints	**PNQ**	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ	PNQ
FLVCT-16	lead in 9"x9" tan with brown and white streaks asbestos vinyl floor tiles	97ppm (TT	1400	1300	900	1400	1300	900	2250	1600				120														32160
PCBs		**mg/kg**																										
CAULK-26	grey caulk between brick wall and window frame	<10																										100
PUTTY-30	off-white interior window putty	<0.69	100	90		90	90		80																			1425
PUTTY-39	grey exterior window putty	<0.05															1750											1750
CAULK-53	beige exterior caulk between brick wall and window frame	<0.05																										100
TRANSFORMER-AAA15	PCB-containing oils (owned by PG&E)	Assumed																										3
BALLASTS	Possible PCB-containing lighting ballasts	**Present**	22	18	4	22	18	4	18	15	4	4		2	8	5												588
OTHER HAZMATS																												
TUBES	Mercury-containing fluorescent tubes	**Present**	22	18	8	22	18	8	24	30	8	8		4	16	10												873

Notes: ND=none detected NA=not analyzed CH=chrysotile PNQ=present, but not quantified

Appendix B

Sample Location Drawings

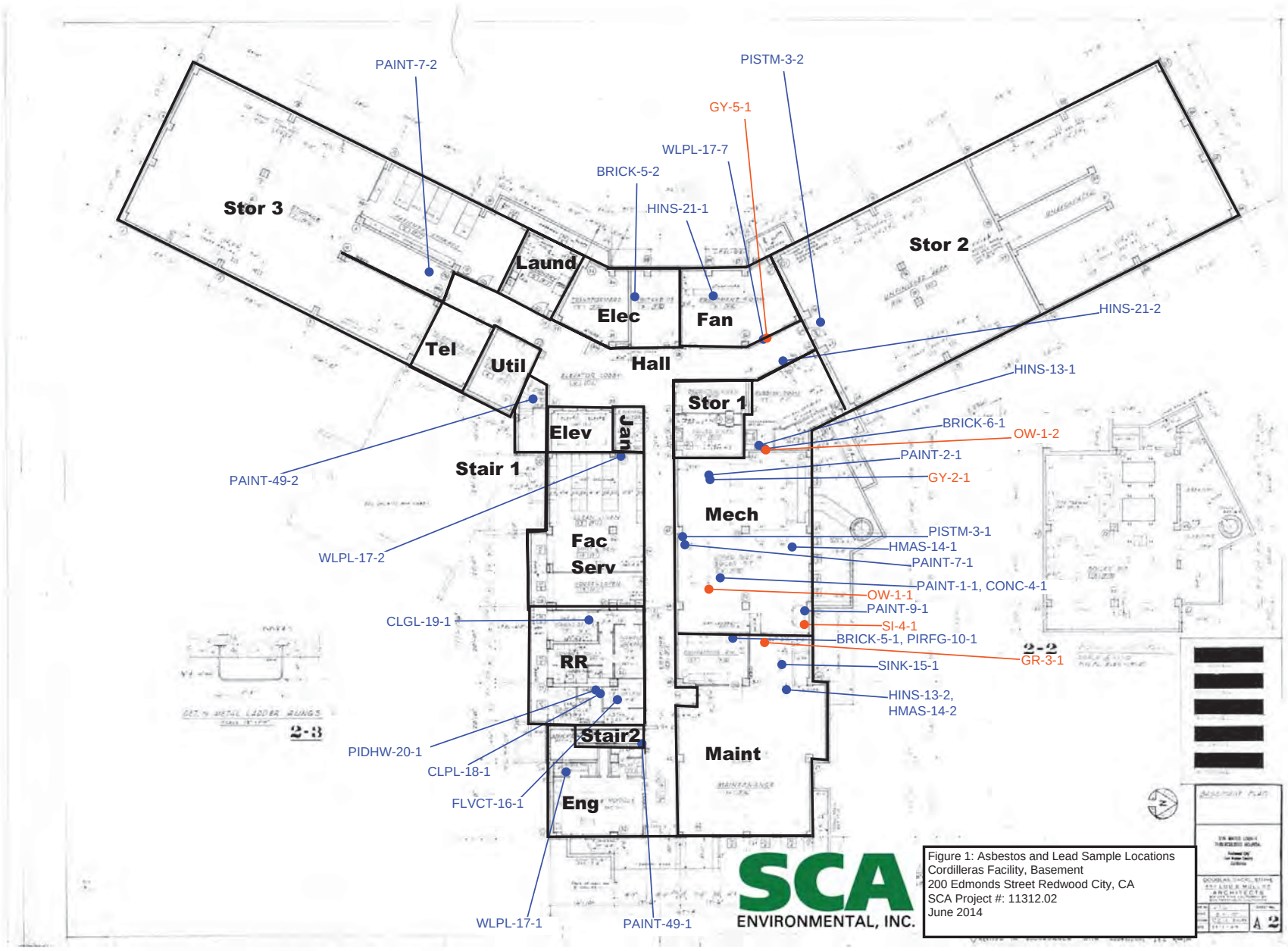

Figure 1: Asbestos and Lead Sample Locations
Cordilleras Facility, Basement
200 Edmonds Street Redwood City, CA
SCA Project #: 11312.02
June 2014

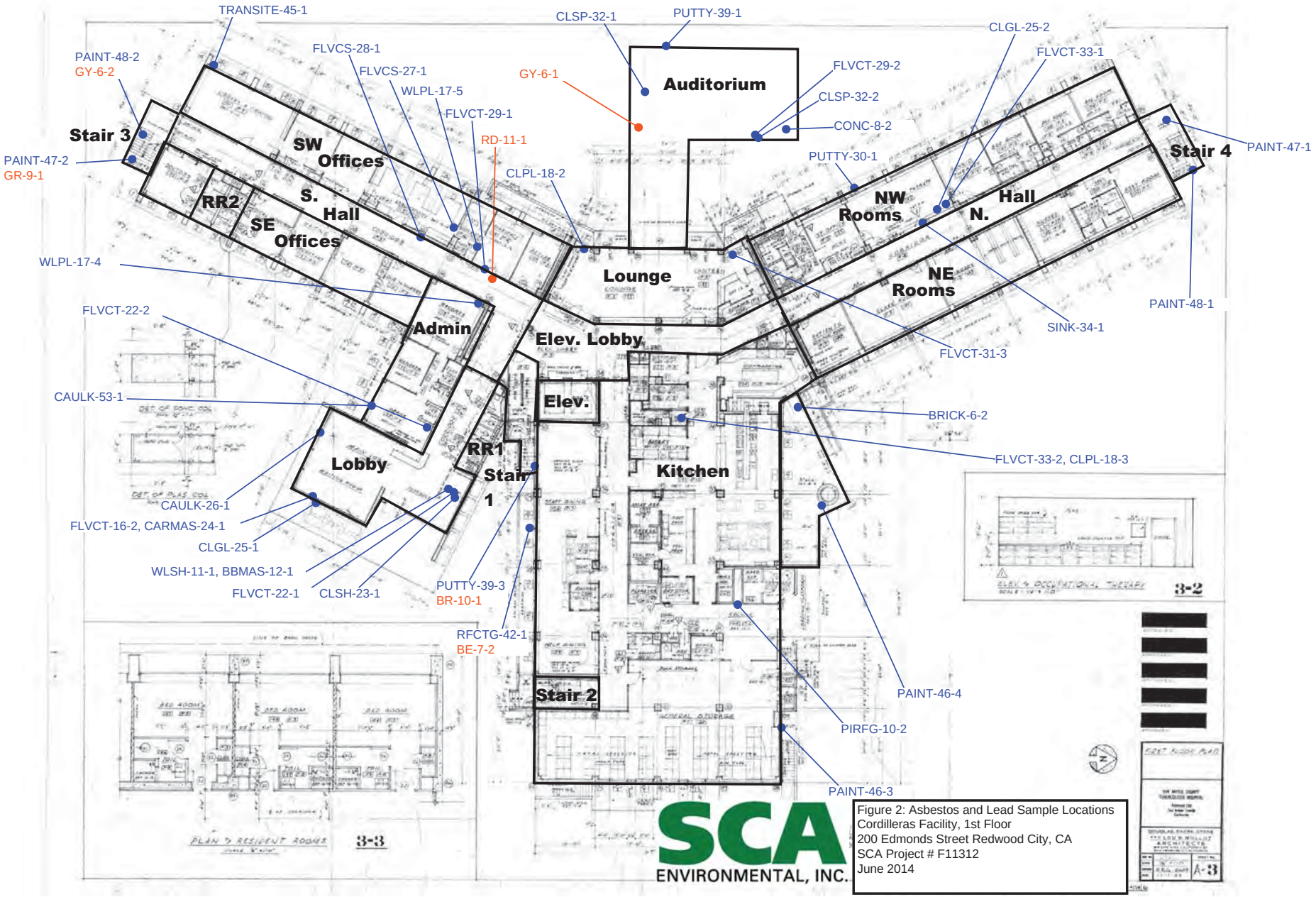

Figure 2: Asbestos and Lead Sample Locations
Cordilleras Facility, 1st Floor
200 Edmonds Street Redwood City, CA
SCA Project # F11312
June 2014

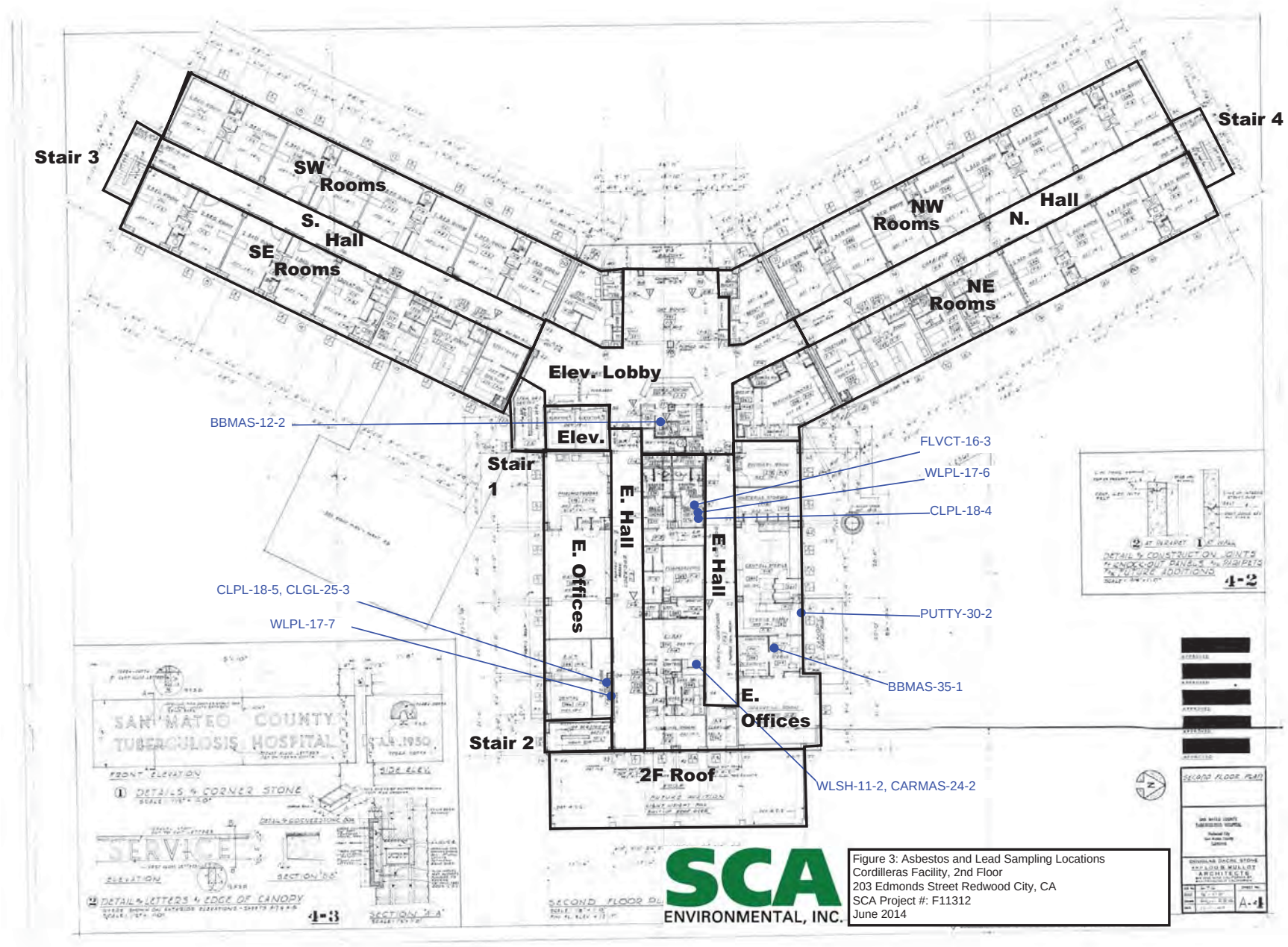

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Figure 3: Asbestos and Lead Sampling Locations
Cordilleras Facility, 2nd Floor
203 Edmonds Street Redwood City, CA
SCA Project #: F11312
June 2014

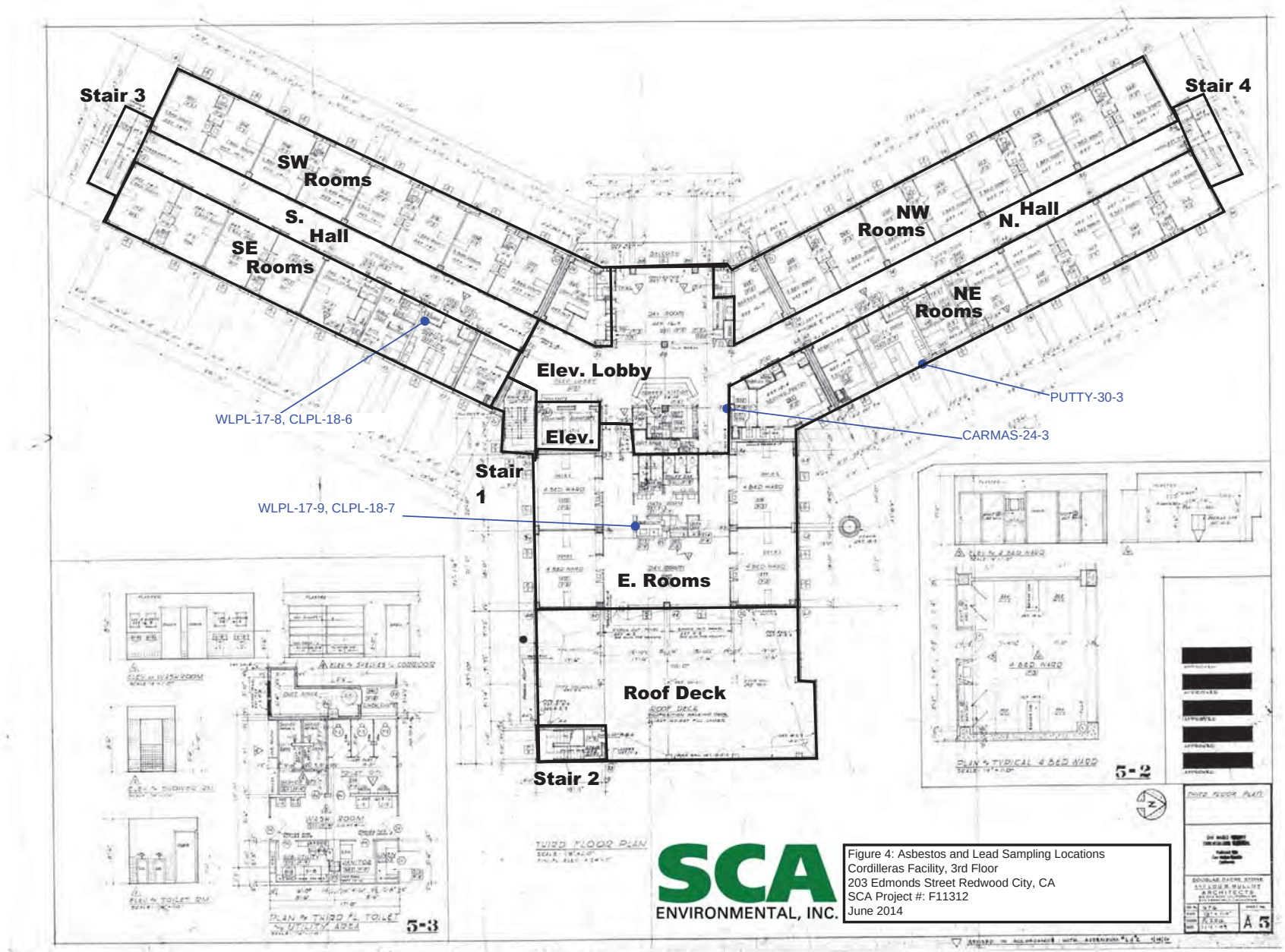
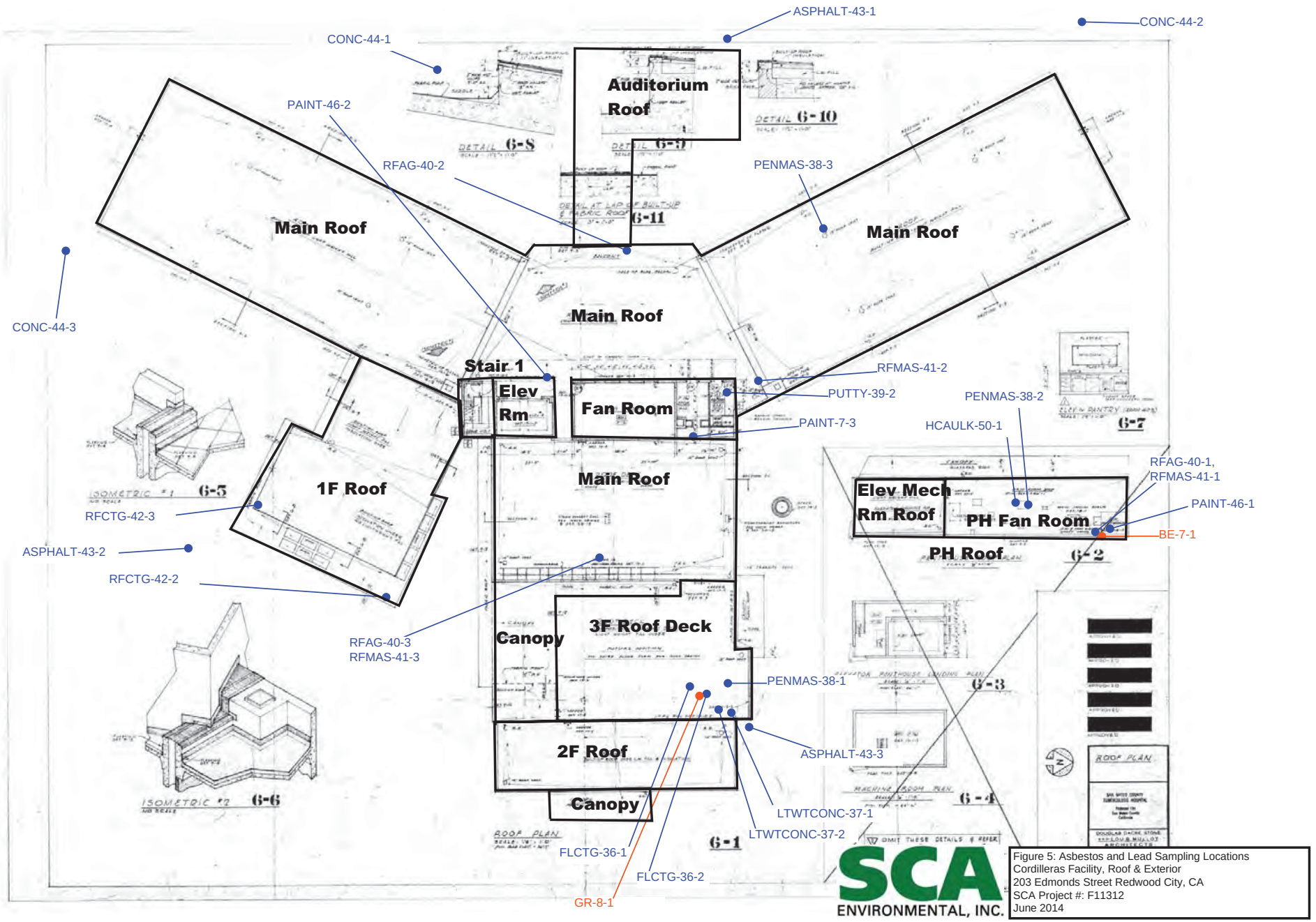


Figure 4: Asbestos and Lead Sampling Locations
Cordilleras Facility, 3rd Floor
203 Edmonds Street Redwood City, CA
SCA Project #: F11312
June 2014



SCA ENVIRONMENTAL, INC.

Figure 5: Asbestos and Lead Sampling Locations
Cordilleras Facility, Roof & Exterior
203 Edmonds Street Redwood City, CA
SCA Project #: F11312
June 2014

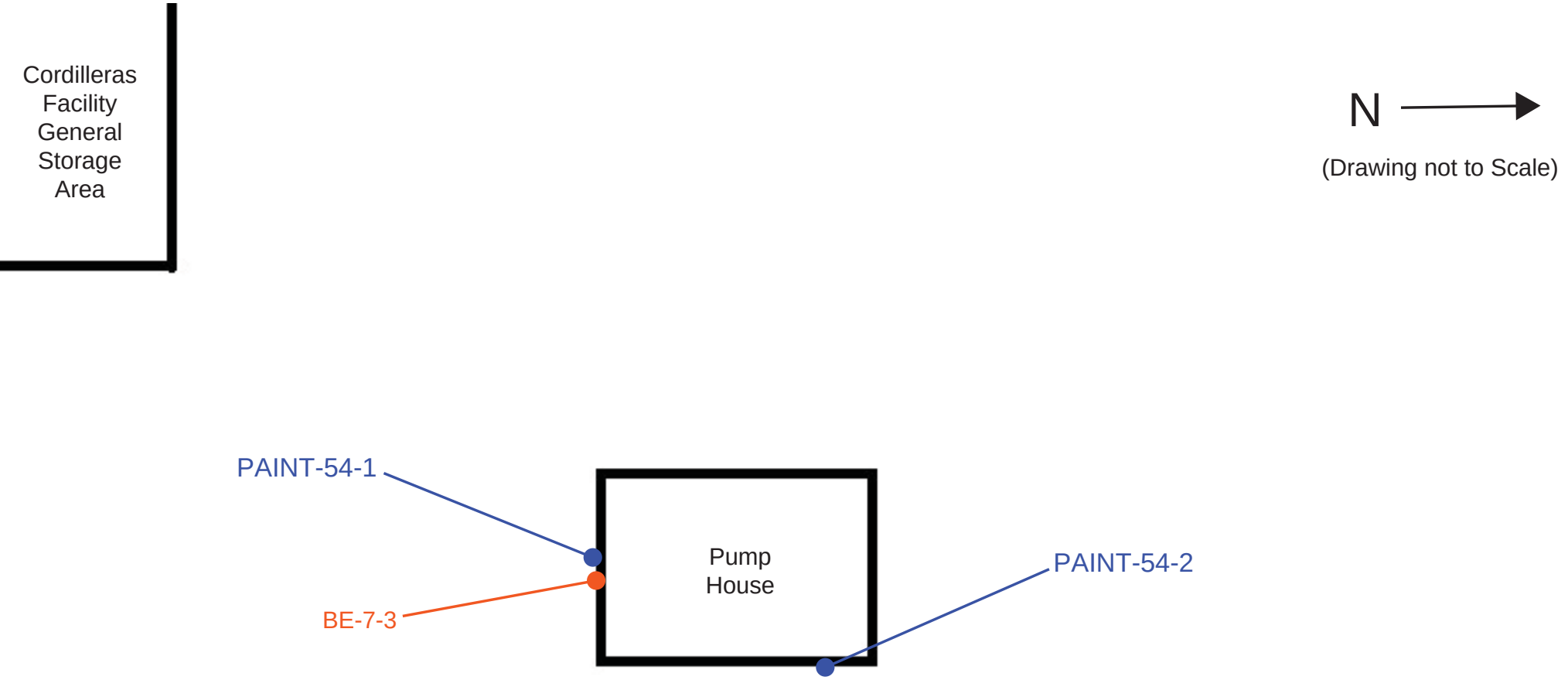


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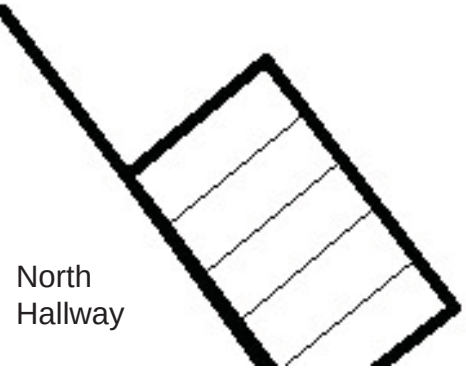
Figure 6: Asbestos & Lead Sample Locations
Cordilleras Facility Pump House
200 Edwards Street Redwood City, CA
SCA Project #: F11312
June 2014

N →

(Drawing not to scale)



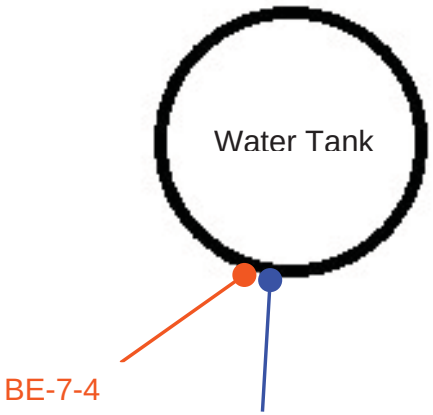


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Figure 7: Asbestos and Lead Sample Locations
Cordilleras Facility Water Tank
200 Edmonds Street Redwood City, CA
SCA Project #: F11312
June 2014

Appendix C

Asbestos Laboratory Results

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-PAINT-1-1 Lab ID # 532-02326-001		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Beige
200-PAINT-2-1 Lab ID # 532-02326-002		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Beige
200-PISTM-3-1 Lab ID # 532-02326-003	**60-70%**	**Amosite**	1) None Detected 2) 30-40% Calc 3) 4) May-13-14	Insulation-Off-White
200-PISTM-3-2 Lab ID # 532-02326-004		**Not Analyzed**	1) 2) 3) 4) May-13-14	
200-CONC-4-1 Lab ID # 532-02326-005		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	Concrete-Grey
200-BRICK-5-1 Lab ID # 532-02326-006A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	Brick-Red
200-BRICK-5-1 Lab ID # 532-02326-006B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	Brick-Grey
200-BRICK-5-2 Lab ID # 532-02326-007A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	Brick-Red
200-BRICK-5-2 Lab ID # 532-02326-007B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	Brick-Grey
200-BRICK-6-1 Lab ID # 532-02326-008		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	Brick-Grey

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
200-PAINT-7-1 Lab ID # 532-02326-009A		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-PAINT-7-1 Lab ID # 532-02326-009B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Texture-Yellow
200-PAINT-7-2 Lab ID # 532-02326-010A		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-PAINT-7-2 Lab ID # 532-02326-010B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Texture-Yellow
200-CONC-8-1 Lab ID # 532-02326-011A		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	Concrete-Grey
200-CONC-8-1 Lab ID # 532-02326-011B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	Floor Tile-Green
200-CONC-8-2 Lab ID # 532-02326-012A		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	Concrete-Grey
200-CONC-8-2 Lab ID # 532-02326-012B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	Floor Tile-Green
200-PAINT-9-1 Lab ID # 532-02326-013		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Silver/Beige
200-PIRFG-10-1 Lab ID # 532-02326-014		**None Detected**	1) 5-10% Cellulose 2) 90-95% Other m.p., Tar 3) 4) May-13-14	PIRFG-Brown/Black

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
200-PIRFG-10-2 Lab ID # 532-02326-015		**None Detected**	1) 5-10% Cellulose 2) 90-95% Other m.p., Tar 3) 4) May-13-14	PIRFG-Brown/Black
200-WLSH-11-1 Lab ID # 532-02326-016A		**None Detected**	1) 1-5% Fiberglass 2) 95-99% Gyp, Other m.p. 3) 4) May-13-14	Drywall-Off-White
200-WLSH-11-1 Lab ID # 532-02326-016B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	JointCom/Text-Off-White
200-WLSH-11-2 Lab ID # 532-02326-017A		**None Detected**	1) 1-5% Fiberglass 2) 95-99% Gyp, Other m.p. 3) 4) May-13-14	Drywall-Off-White
200-WLSH-11-2 Lab ID # 532-02326-017B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-13-14	JointCom/Text-Off-White
200-BBMAS-12-1 Lab ID # 532-02326-018A		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Off-White
200-BBMAS-12-1 Lab ID # 532-02326-018B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-BBMAS-12-2 Lab ID # 532-02326-019A		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Off-White
200-BBMAS-12-2 Lab ID # 532-02326-019B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-HIWS-13-1 Lab ID # 532-02326-020		**None Detected**	1) 90-95% Fiberglass 2) 5-10% GlassFrags, Opq 3) 4) May-13-14	Insulation-Off-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-HIWS-13-2 Lab ID # 532-02326-021A		**None Detected**	1) 90-95% Fiberglass 2) 5-10% GlassFrags, Opq 3) 4) May-13-14	Insulation-Yellow
200-HIWS-13-2 Lab ID # 532-02326-021B		**None Detected**	1) 40-50% Cellulose 2) 50-60% Bndr, Other m.p. 3) 4) May-13-14	Wallpaper-Off-White
200-HMAS-14-1 Lab ID # 532-02326-022A		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Brown
200-HMAS-14-1 Lab ID # 532-02326-022B		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Insulation-Yellow
200-HMAS-14-2 Lab ID # 532-02326-023A		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Brown
200-HMAS-14-2 Lab ID # 532-02326-023B		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Insulation-Yellow
200-SINK-15-1 Lab ID # 532-02326-024		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Sink-Off-White
200-FLVCT-16-1 Lab ID # 532-02326-025A	**1-5%**	**Chrysotile**	1) 1-5% Cellulose 2) 90-98% Bndr, Calc, Qtz 3) 4) May-13-14	Floor Tile-Beige
200-FLVCT-16-1 Lab ID # 532-02326-025B		**None Detected**	1) None Detected 2) 99-100% Tar, Opq, Qtz, Other m.p. 3) 4) May-13-14	Mastic-Black
200-FLVCT-16-2 Lab ID # 532-02326-026A		**None Detected**	1) None Detected 2) 99-100% Tar, Opq, Qtz, Other m.p. 3) 4) May-14-14	Mastic-Black

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
200-FLVCT-16-2 Lab ID # 532-02326-026B		**Not Analyzed**	1) 2) 3) 4) May-14-14	
200-FLVCT-16-3 Lab ID # 532-02326-027A		**None Detected**	1) None Detected 2) 99-100% Tar, Opq, Qtz, Other m.p. 3) 4) May-14-14	Mastic-Black
200-FLVCT-16-3 Lab ID # 532-02326-027B		**Not Analyzed**	1) 2) 3) 4) May-14-14	
200-WLPL-17-1 Lab ID # 532-02326-028A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-WLPL-17-1 Lab ID # 532-02326-028B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-WLPL-17-2 Lab ID # 532-02326-029A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-WLPL-17-2 Lab ID # 532-02326-029B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-WLPL-17-3 Lab ID # 532-02326-030A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-WLPL-17-3 Lab ID # 532-02326-030B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-WLPL-17-4 Lab ID # 532-02326-031A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
200-WLPL-17-4 Lab ID # 532-02326-031B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-WLPL-17-5 Lab ID # 532-02326-032A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-WLPL-17-5 Lab ID # 532-02326-032B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-WLPL-17-6 Lab ID # 532-02326-033A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-WLPL-17-6 Lab ID # 532-02326-033B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-WLPL-17-7 Lab ID # 532-02326-034A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-WLPL-17-7 Lab ID # 532-02326-034B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-CLPL-18-1 Lab ID # 532-02326-035A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-CLPL-18-1 Lab ID # 532-02326-035B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	PlastCoarse-Off-White
200-CLPL-18-1 Lab ID # 532-02326-035C		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-CLPL-18-2 Lab ID # 532-02326-036A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-CLPL-18-2 Lab ID # 532-02326-036B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	PlastCoarse-Off-White
200-CLPL-18-2 Lab ID # 532-02326-036C		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-CLPL-18-3 Lab ID # 532-02326-037A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-CLPL-18-3 Lab ID # 532-02326-037B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	PlastCoarse-Off-White
200-CLPL-18-3 Lab ID # 532-02326-037C		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-CLPL-18-4 Lab ID # 532-02326-038A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White
200-CLPL-18-4 Lab ID # 532-02326-038B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	PlastCoarse-Off-White
200-CLPL-18-4 Lab ID # 532-02326-038C		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-CLPL-18-5 Lab ID # 532-02326-039A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-13-14	Plaster-Off-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-CLPL-18-5 Lab ID # 532-02326-039B		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-13-14	PlastCoarse-Off-White
200-CLPL-18-5 Lab ID # 532-02326-039C		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-13-14	Paint-Off-White
200-CLGL-19-1 Lab ID # 532-02326-040A		**None Detected**	1) 40-60% FiberGlass, Cellulose 2) 40-60% GlassFrags, GlassFoam, Bndr 3) 4) May-13-14	Ceiling Tile-Grey
200-CLGL-19-1 Lab ID # 532-02326-040B		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Brown
200-PIDHW-20-1 Lab ID # 532-02326-041	**1-5%** **10-20%**	**Chrysotile** **Amosite**	1) None Detected 2) 75-89% Calc, Other m.p. 3) 4) May-13-14	Insulation-White
200-HIWS-21-1 Lab ID # 532-02326-042	**1-5%** **10-20%**	**Chrysotile** **Amosite**	1) None Detected 2) 75-89% Calc, Other m.p. 3) 4) May-13-14	Insulation-White
200-HIWS-21-2 Lab ID # 532-02326-043		**Not Analyzed**	1) 2) 3) 4) May-13-14	
200-FLVCT-22-1 Lab ID # 532-02326-044A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Other m.p. 3) 4) May-13-14	Floor Tile-Black
200-FLVCT-22-1 Lab ID # 532-02326-044B		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-FLVCT-22-1 Lab ID # 532-02326-044C		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Floor Tile-Off-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
200-FLVCT-22-1 Lab ID # 532-02326-044D		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Off-White
200-FLVCT-22-1 Lab ID # 532-02326-044E		**None Detected**	1) None Detected 2) 99-100% Calc, Mica, Other m.p. 3) 4) May-13-14	LevelCmpd-Grey
200-FLVCT-22-2 Lab ID # 532-02326-045A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Other m.p. 3) 4) May-13-14	Floor Tile-Black
200-FLVCT-22-2 Lab ID # 532-02326-045B		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-FLVCT-22-2 Lab ID # 532-02326-045C		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Floor Tile-Off-White
200-FLVCT-22-2 Lab ID # 532-02326-045D		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Off-White
200-FLVCT-22-2 Lab ID # 532-02326-045E		**None Detected**	1) None Detected 2) 99-100% Calc, Mica, Other m.p. 3) 4) May-13-14	LevelCmpd-Grey
200-CARMAS-24-1 Lab ID # 532-02326-046		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-CARMAS-24-2 Lab ID # 532-02326-047		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-CLGL-25-1 Lab ID # 532-02326-048		**None Detected**	1) 70-80% Cellulose 2) 20-30% GlassFoam, Other m.p. 3) 4) May-13-14	Ceiling Tile-Grey

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-CLGL-25-2 Lab ID # 532-02326-049		**None Detected**	1) 70-80% Cellulose 2) 20-30% GlassFoam, Other m.p. 3) 4) May-13-14	Ceiling Tile-Grey
200-CLGL-25-3 Lab ID # 532-02326-050		**None Detected**	1) 70-80% Cellulose 2) 20-30% GlassFoam, Other m.p. 3) 4) May-13-14	Ceiling Tile-Grey
200-CAULK-26-1 Lab ID # 532-02326-051	**1-5%**	**Chrysotile**	1) None Detected 2) 95-99% Calc, Tar, Qtz, Bndr 3) 4) May-13-14	Caulk-Beige
200-FLVCS-27-1 Lab ID # 532-02326-052A		**None Detected**	1) 10-20% Cellulose 2) 80-90% Bndr, Calc, Glue, Qtz 3) 4) May-13-14	Floor Tile-Tan
200-FLVCS-27-1 Lab ID # 532-02326-052B		**None Detected**	1) 10-20% Cellulose 2) 80-90% Bndr, Calc, Glue, Qtz 3) 4) May-13-14	Sheet Floor/Backing-Off-White
200-FLVCS-27-1 Lab ID # 532-02326-052C		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-FLVCS-28-1 Lab ID # 532-02326-053A		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Linoleum-Off-White
200-FLVCS-28-1 Lab ID # 532-02326-053B		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-FLVCS-28-1 Lab ID # 532-02326-053C		**None Detected**	1) None Detected 2) 99-100% Calc, Mica, Other m.p. 3) 4) May-13-14	LevelCmpd-Grey
200-FLVCT-29-1 Lab ID # 532-02326-054A		**None Detected**	1) 10-20% Cellulose 2) 80-90% Bndr, Calc, Glue, Qtz 3) 4) May-13-14	Floor Tile-Off-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-FLVCT-29-1 Lab ID # 532-02326-054B	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-FLVCT-29-2 Lab ID # 532-02326-055A	**None Detected**	1) 10-20% Cellulose 2) 80-90% Bndr, Calc, Glue, Qtz 3) 4) May-13-14	Floor Tile-Off-White
200-FLVCT-29-2 Lab ID # 532-02326-055B	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-PUTTY-30-1 Lab ID # 532-02326-056	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Putty-Grey
200-PUTTY-30-2 Lab ID # 532-02326-057	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Putty-Grey
200-FLVCT-31-1 Lab ID # 532-02326-058A	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Floor Tile-Blue
200-FLVCT-31-1 Lab ID # 532-02326-058B	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-13-14	Mastic-Yellow
200-CLSP-32-1 Lab ID # 532-02326-059	**None Detected**	1) 70-80% Cellulose 2) 20-30% GlassFoam, Other m.p. 3) 4) May-13-14	Ceiling Tile-Off-White
200-CLSP-32-2 Lab ID # 532-02326-060	**None Detected**	1) 70-80% Cellulose 2) 20-30% GlassFoam, Other m.p. 3) 4) May-13-14	Ceiling Tile-Off-White
200-FLVCT-33-1 Lab ID # 532-02326-061A	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-13-14	Floor Tile-Beige

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 65
Reg. Samples Analyzed: 63
Split Layers Analyzed: 51

Report No. **325726**
Date Submitted: May-05-14
Date Reported: May-14-14

Job Site / No. Cordilleras Mental Health Center, RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-FLVCT-33-1		**None Detected**	1) None Detected 2) 99-100% Glue	
Lab ID # 532-02326-061B			3) 4) May-13-14	Mastic-Yellow
200-FLVCT-33-2		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr	
Lab ID # 532-02326-062A			3) 4) May-13-14	Floor Tile-Beige
200-FLVCT-33-2		**None Detected**	1) None Detected 2) 99-100% Glue	
Lab ID # 532-02326-062B			3) 4) May-13-14	Mastic-Yellow
200-SINK-34-1	**1-5%**	**Chrysotile**	1) None Detected 2) 95-99% Gyp, Bndr, Calc, Opq	
Lab ID # 532-02326-063			3) 4) May-13-14	Sink-Black
200-BBMAS-35-1		**None Detected**	1) 10-20% Cellulose 2) 80-90% Bndr, Calc, Glue, Qtz	
Lab ID # 532-02326-064A			3) 4) May-13-14	Baseboard-Tan
200-BBMAS-35-1		**None Detected**	1) None Detected 2) 99-100% Glue	
Lab ID # 532-02326-064B			3) 4) May-13-14	Mastic-Brown
200-CLGH-23-1		**None Detected**	1) 1-5% Fiberglass 2) 95-99% Gyp, Other m.p.	
Lab ID # 532-02326-065A			3) 4) May-13-14	Drywall-Off-White
200-CLGH-23-1		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Gyp, Mica, Qtz	
Lab ID # 532-02326-065B			3) 4) May-13-14	Texture-Off-White
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwatte

SCA Environmental, Inc.

CHAIN OF CUSTODY FORM

	Tel	Fax
650 Delancey St, #222, SF, CA 94107	415-8821675	415-9620736
334 19th St, Oakland, CA 94612	510-6456200	415-9620736
5777 W. Century Blvd, #1055, LA, CA 90045	310-2580460	415-9620736

CALL/TXT with results:

@messaging.sprintpcs.com

Email rpt / COC & invoice: CCODEMO @sca-enviro.com

Email Prj Mgr Name: Chuck Siu Glenn Cass (Christina Codemo)

Accounting Data:

EMAIL HEADING: (Project #) - (Project Manager Initials) - (Site Name/Address) - (Date MMDD)

CTY OF SM CORDILLERAS GVY | F-11312 | CC | CORDILLERAS MENTAL HEALTH CTR, RWC | 5/2

LAB ATEM LABS

COURIER UPS

LAB REP NOTIFIED: Notification DATE/TIME:
AIRBILL/FLIGHT NO.: Shipper REFERENCE I.D.
EST ARRIVAL DATE: EST. ARRIVAL TIME:

Method Reference 7400 PCM AHERA TEM CARB-AHERA TEM 0.001 s/cc Detection Limit
(PLM (asbestos)) Flame AA (Lead)

Sample Media ~~25 37 mm~~ 0.45 0.8 micron MCEF (Bulk) Water Wipe

RESULTS DUE: 6 DAYS AM / PM

CHAIN OF CUSTODY DATA:

Sending Info 65 samples submitted by DL (SCA) on 5/2 at 4:00 P
Received by Lab: 65 samples received by RY on 05-05-14 A11:09
Received by Analyst: samples received by on at

SAMPLE ID	LITERS	~~Results~~ SAMPLE ID	Ins/Blanks/Outs	SAMPLE ID
200-PAINT-1-1		200-WLPL-17-1	,2,3,4,5,6,7	200-SINK-34-1
-PAINT-2-1		-CLPL-18-1	,2,3,4,5	
-PIGTM-3-1	,2	-CLGL-19-	1	200-BBMAS-35-1
-CONC-4-1		-PIDHW-20	-1,2	
-BRICK-5-1	,2	-HING-21-	1,2	200-CLGH-23-1
-BRICK-6-1		-FLVCT-22	1,2	
-PAINT-7-1	,2	-CARMAS-24	-1,2	
-CONC-8-1	,2	-CLGL-25-1	,2,3	
-PAINT-9-	1	-CAULK-26	-1	
-PIREG-10-	1,2	-FLVCS-27	-1	
-WLSH-11-1	,2	-FLVCS-28	-1	
-BBMAS-12	-1,2	-FLVCT-29-	1,2	
-HING-13-1	,2	-PUTTY-30-1	,2	
-HMAS-14-	1,2	-FLVCT-31-1		
-SINK-15-1		-CLGP-32-1	,2	
-FLVCT-16-1	,2,3	-FLVCT-33-1	,2	
	0 LITERS		BLANK	
	0 LITERS		BLANK	
	0 LITERS		BLANK	

Turnaround	Wipes	Flame AA	Units (each)	LEAD			CARB AHERA 10-15 grid openings	CARB AHERA 35-40 grid openings	TEM AHERA	PLM Std Point Count 400	CARB 435 (400 Pt Ct) w/ prep	PLM Bulk	PCM NIOSH 7400	Units (each)	ASBESTOS
N															
< 6 hours			1 to 9 / 10 to 40 / >40											1 to 9 / 10 to 40 / >40	< 6 hours
24 hours			1 to 9 / 10 to 40 / >40											1 to 9 / 10 to 40 / >40	24 hours
48 hours			1 to 9 / 10 to 40 / >40											1 to 9 / 10 to 40 / >40	48 hours
3 to 5 days			1 to 9 / 10 to 40 / >40											1 to 9 / 10 to 40 / >40	3 to 5 days
> 6 days			1 to 9 / 10 to 40 / >40											1 to 9 / 10 to 40 / >40	> 6 days

INSTRUCTIONS TO LAB (delete items not applicable AND circle items applicable):

~~1. Pickup requested~~: 11.:
~~Contact~~:
~~Time of Call~~:
~~2. Call SCA's contact to acknowledge receipt of samples.~~
~~3. Analyze samples by PCM only.~~
~~4. Analyze inside samples by PCM first; if any sample >0.01 f/cc, contact SCA.~~
~~5. If all samples are <0.01 f/cc, proceed with items 6, 7 or 8, as noted.~~
~~6. Analyze inside samples only; stop if Avg >70 str/mm^2, contact SCA before analyzing outsides or blanks.~~
~~7. Analyze all samples, including outside samples and blanks.~~
~~8. Do NOT analyze outside or blank samples.~~
~~9. Analyze by TEM only the inside air sample with the highest PCM result.~~
(10) Serial analysis; stop at first positive (>1%); ~~first trace (<0.1%)~~;except sheetrock and plaster samples.
~~11. Analyze all bulk samples, unless otherwise indicated.~~

Report Number: 325726

Invoice Number: 325726

Supplies /Equipment	Qty
Hi-Vol (3040)	
Lo-Vol (3020)	
TEM / Pb cassettes (3520)	
PCM cassettes (3500)	
Bulk sampling supply (3710)	65

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-BRICK-6-2 Lab ID # 532-02327-001		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p. 3) 4) May-15-14	Brick-Beige
200-PAINT-7-3 Lab ID # 532-02327-002		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-White
200-WLPL-17-8 Lab ID # 532-02327-003A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-15-14	Plaster-White
200-WLPL-17-8 Lab ID # 532-02327-003B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-White
200-WLPL-17-9 Lab ID # 532-02327-004A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-15-14	Plaster-White
200-WLPL-17-9 Lab ID # 532-02327-004B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-White
200-CLPL-18-6 Lab ID # 532-02327-005A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-15-14	Plaster-White
200-CLPL-18-6 Lab ID # 532-02327-005B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-CLPL-18-7 Lab ID # 532-02327-006A		**None Detected**	1) 6-15% Fiberglass,Cellulose 2) 85-94% Calc, Gyp, Other m.p. 3) 4) May-15-14	Plaster-White
200-CLPL-18-7 Lab ID # 532-02327-006B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-CARMAS-24-3 Lab ID # 532-02327-007		**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) May-15-14	Mastic-Yellow
200-FLCTG-36-1 Lab ID # 532-02327-008A		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Green
200-FLCTG-36-1 Lab ID # 532-02327-008B		**None Detected**	1) None Detected 2) 99-100% Tar 3) 4) May-15-14	Asphalt-Grey
200-FLCTG-36-2 Lab ID # 532-02327-009A		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Purple
200-FLCTG-36-2 Lab ID # 532-02327-009B		**None Detected**	1) None Detected 2) 99-100% Tar, Calc 3) 4) May-15-14	Asphalt-Grey
200-LTWTCONC-37-1 Lab ID # 532-02327-010		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-15-14	Concrete-Grey
200-LTWTCONC-37-2 Lab ID # 532-02327-011		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-15-14	Concrete-Grey
200-PENMAS-38-1 Lab ID # 532-02327-012A	**1-5%**	**Chrysotile**	1) None Detected 2) 95-99% Tar, Bndr, Calc, Other m.p. 3) 4) May-15-14	Mastic-Black
200-PENMAS-38-1 Lab ID # 532-02327-012B		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Silver
200-PENMAS-38-2 Lab ID # 532-02327-013		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p. 3) 4) May-16-14	Paint-Silver

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-PENMAS-38-3		**None Detected**	1) 1-5% Cellulose 2) 95-99% Glue, Opq, Calc, Other m.p.	
Lab ID # 532-02327-014			3) 4) May-16-14	Paint-Silver
200-PUTTY-39-1		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr	
Lab ID # 532-02327-015			3) 4) May-15-14	Putty-Off-White
200-PUTTY-39-2		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr	
Lab ID # 532-02327-016			3) 4) May-15-14	Putty-Off-White
200-PUTTY-39-3		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr	
Lab ID # 532-02327-017A			3) 4) May-15-14	Putty-Off-White
200-PUTTY-39-3		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p.	
Lab ID # 532-02327-017B			3) 4) May-15-14	Paint-Brown
200-RFAG-40-1		**None Detected**	1) 10-20% Cellulose,Fiberglass 2) 80-90% Calc, Tar, Qtz, Opq	
Lab ID # 532-02327-018			3) 4) May-15-14	Roofing Felt/Tar-Black
200-RFAG-40-2		**None Detected**	1) 10-20% Cellulose,Fiberglass 2) 80-90% Calc, Tar, Qtz, Opq	
Lab ID # 532-02327-019			3) 4) May-15-14	Roofing Felt/Tar-Black
200-RFAG-40-3		**None Detected**	1) 10-20% Cellulose,Fiberglass 2) 80-90% Calc, Tar, Qtz, Opq	
Lab ID # 532-02327-020			3) 4) May-15-14	Roofing Felt/Tar-Black
200-RFMAS-41-1		**None Detected**	1) None Detected 2) 99-100% Tar, Opq, Qtz, Other m.p.	
Lab ID # 532-02327-021			3) 4) May-15-14	Roof Mastic-Black
200-RFMAS-41-2		**None Detected**	1) None Detected 2) 99-100% Tar, Opq, Qtz, Other m.p.	
Lab ID # 532-02327-022			3) 4) May-15-14	Roof Mastic-Black

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-RFMAS-41-3 Lab ID # 532-02327-023		**None Detected**	1) None Detected 2) 99-100% Tar, Opq, Qtz, Other m.p. 3) 4) May-15-14	Roof Mastic-Black
200-RFCTG-42-1 Lab ID # 532-02327-024A		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Tan
200-RFCTG-42-1 Lab ID # 532-02327-024B		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Off-White
200-RFCTG-42-2 Lab ID # 532-02327-025A		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Tan
200-RFCTG-42-2 Lab ID # 532-02327-025B		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Off-White
200-RFCTG-42-3 Lab ID # 532-02327-026A		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Tan
200-RFCTG-42-3 Lab ID # 532-02327-026B		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Off-White
200-ASPHALT-43-1 Lab ID # 532-02327-028	**1-5%**	**Chrysotile**	1) None Detected 2) 95-99% Tar, Other m.p. 3) 4) May-15-14	Asphalt-Black
200-ASPHALT-43-2 Lab ID # 532-02327-029		**Not Analyzed**	1) 2) 3) 4) May-15-14	
200-ASPHALT-43-3 Lab ID # 532-02327-030		**Not Analyzed**	1) 2) 3) 4) May-15-14	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-CONC-44-1 Lab ID # 532-02327-031		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-15-14	Concrete-Grey
200-CONC-44-2 Lab ID # 532-02327-032		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-15-14	Concrete-Grey
200-CONC-44-3 Lab ID # 532-02327-033		**None Detected**	1) None Detected 2) 99-100% Qtz, Opq, Other m.p. 3) 4) May-15-14	Concrete-Grey
200-TRANSITE-45-1 Lab ID # 532-02327-034	**30-40%** **1-5%**	**Chrysotile** **Crocidolite**	1) None Detected 2) 55-69% Calc 3) 4) May-15-14	Transite-Grey
200-PAINT-46-1 Lab ID # 532-02327-035		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-PAINT-46-2 Lab ID # 532-02327-035B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Gyp, Mica, Qtz 3) 4) May-15-14	Texture-White
200-PAINT-46-2 Lab ID # 532-02327-036		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-PAINT-46-3 Lab ID # 532-02327-037		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-PAINT-46-4 Lab ID # 532-02327-038		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-PAINT-47-1 Lab ID # 532-02327-039		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Green

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
200-PAINT-47-2 Lab ID # 532-02327-040	**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Green
200-PAINT-48-1 Lab ID # 532-02327-041	**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Red/Grey
200-PAINT-48-2 Lab ID # 532-02327-042	**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Red/Grey
200-PAINT-49-1 Lab ID # 532-02327-043	**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Red
200-PAINT-49-2 Lab ID # 532-02327-044	**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Red
200-HCAULK-50-1 Lab ID # 532-02327-045	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Caulk-Grey
200-GASKET-51-1 Lab ID # 532-02327-046	**None Detected**	1) 5-10% Fiberglass 2) 90-95% Calc, Qtz, Opq 3) 4) May-15-14	Gasket-White
200-GASKET-51-2 Lab ID # 532-02327-047	**None Detected**	1) 5-10% Fiberglass 2) 90-95% Calc, Qtz, Opq 3) 4) May-15-14	Gasket-White
200-GASKET-52-1 Lab ID # 532-02327-048	**None Detected**	1) 5-10% Fiberglass 2) 90-95% Calc, Qtz, Opq 3) 4) May-15-14	Gasket-Brown/Black
200-GASKET-52-2 Lab ID # 532-02327-049	**None Detected**	1) 5-10% Fiberglass 2) 90-95% Calc, Qtz, Opq 3) 4) May-15-14	Gasket-Brown/Black

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Christina Codemo

Address: SCA Environmental
650 Delancey Street, #222
San Francisco, CA 94107

Samples Indicated: 52
Reg. Samples Analyzed: 50
Split Layers Analyzed: 12

Report No. **325758**
Date Submitted: May-07-14
Date Reported: May-16-14

Job Site / No. Cordilleras Mental Health Center, 200 Edmonds Rd RWC
F11312 - CC

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
200-CAULK-53-1 Lab ID # 532-02327-050	**1-5%**	**Chrysotile**	1) None Detected 2) 95-99% Calc, Tar, Qtz, Bndr 3) 4) May-15-14	Caulk-Off-White
200-PAINT-54-1 Lab ID # 532-02327-051		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-PAINT-54-2 Lab ID # 532-02327-052		**None Detected**	1) None Detected 2) 99-100% Glue, Qtz, Opq, Other m.p. 3) 4) May-15-14	Paint-Beige
200-PUTTY-30-3 Lab ID # 532-02327-052		**None Detected**	1) None Detected 2) 99-100% Calc, Bndr 3) 4) May-15-14	Putty-Beige
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hwette

SCA Environmental, Inc.

CHAIN OF CUSTODY FORM

	Tel	Fax
650 Delancey St, #222, SF, CA 94107	415-8821675	415-9620736
334 19th St, Oakland, CA 94612	510-6456200	415-9620736
5777 W. Century Blvd, #1055, LA, CA 90045	310-2580460	415-9620736

CALL/TXT with results:

@messaging.sprintpcs.com

Email rpt / COC & invoice:

@sca-enviro.com

Email Prj Mgr Name: Chuck Siu Glenn Cass Christina Codemo

Accounting Data:

EMAIL HEADING: (Project #) - (Project Manager Initials) - (Site Name/Address) - (Date MMDD)

CTY OF SM CORDILLERAS GVY F-11312 CC CORDILLERAS MENTAL HEALTH CTR, 5/5

LAB ATEM LABS 200 EDMONDS RD, RWC

COURIER

LAB REP NOTIFIED:		Notification DATE/TIME:	
AIRBILL/FLIGHT NO.:		Shipper REFERENCE I.D.	
EST ARRIVAL DATE:		EST. ARRIVAL TIME:	

Method Reference 7400 PCM AHERA TEM CARB-AHERA TEM 0.001 s/cc Detection Limit

(PLM (asbestos)) Flame AA (Lead)

Sample Media 25 37 mm 0.45 0.8 micron MCEF (Bulk) Water Wipe

RESULTS DUE: 6 DAYS AM / PM

CHAIN OF CUSTODY DATA:

Sending Info 52 samples submitted by DL (SCA) on 5/6 at 11:00A

Received by Lab: 52 samples received by PC on 5/7 at 8 am

Received by Analyst: ______ samples received by ______ on ______ at ______

SAMPLE ID	LITERS	~~Results~~ SAMPLE ID	Ins/Blanks/Outs
200-BRICK-6	-2	200-PAINT-47	-1,2
-PAINT-7-	3	-PAINT-48	-1,2
-WLPL-17-	8,9	-PAINT-49	-1,2
-CLPL-18-	6,7	-HCAULK-50	-1,
-CARMAG-	24-3	-GASKET-51	-1,2
-FLCTG.-36	-1,2	-GASKET-52	-1,2
-LTWTCONC	37-1,2	-CAULK-53	-1
-PENMAG-	38-1,2,3	-PAINT-54	-1,2
-PUTTY-39	-1,2,3	-PUTTY-30	-3
-RFAG-40-	1,2,3		
-RFMAG-41	-1,2,3		
-RFCTG-42	-1,2,3		
-ASPHALT-	43-1,2,3		
-CONC-44	-1,2,3		
-TRANSITE	-45-1		
-PAINT-46	-1,2,3,4		
	0 LITERS		BLANK
	0 LITERS		BLANK
	0 LITERS		BLANK

INSTRUCTIONS TO LAB (delete items not applicable AND circle items applicable):

~~1. Pickup requested:~~ 11.: ____________

~~Contact:~~ ____________

~~Time of Call:~~ ____________

~~2. Call SCA's contact to acknowledge receipt of samples.~~

~~3. Analyze samples by PCM only.~~

~~4. Analyze inside samples by PCM first; if any sample >0.01 f/cc, contact SCA.~~

~~5. If all samples are <0.01 f/cc, proceed with items 6, 7 or 8, as noted.~~

~~6. Analyze inside samples only; stop if Avg >70 str/mm^2, contact SCA before analyzing outsides or blanks.~~

~~7. Analyze all samples, including outside samples and blanks.~~

~~8. Do NOT analyze outside or blank samples.~~

~~9. Analyze by TEM only the inside air sample with the highest PCM result.~~

(10) Serial analysis; stop at first positive (>1%); first trace (<0.1%);except sheetrock and plaster samples.

~~11. Analyze all bulk samples, unless otherwise indicated.~~

Report Number: 325758

Invoice Number: 325758

Supplies /Equipment	Qty
Hi-Vol (3040)	
Lo-Vol (3020)	
TEM / Pb cassettes (3520)	
PCM cassettes (3500)	
Bulk sampling supply (3710)	52

	Wipes	Flame AA	Units (each)	LEAD			CARB AHERA 10-15 grid openings	CARB AHERA 35-40 grid openings	TEM AHERA	PLM Std Point Count 400	CARB 435 (400 Pt Ct) w/ prep	PLM Bulk	PCM NIOSH 7400	Units (each)	ASBESTOS
< 6 hours			1 to 9											1 to 9	< 6 hours
			10 to 40											10 to 40	
			>40											>40	
24 hours			1 to 9											1 to 9	24 hours
			10 to 40											10 to 40	
			>40											>40	
48 hours			1 to 9											1 to 9	48 hours
			10 to 40											10 to 40	
			>40											>40	
3 to 5 days			1 to 9											1 to 9	3 to 5 days
			10 to 40											10 to 40	
			>40											>40	
> 6 days			1 to 9											1 to 9	> 6 days
			10 to 40											10 to 40	
			>40											>40	

Appendix D

PCB & Lead Laboratory Results

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1405113

Report Created for: SCA Enviromental, Inc.
334 19th Street
Oakland, CA 94612

Project Contact: Christina Codemo
Project P.O.:
Project Name: #F-11312; City of SM Cordilleras Svy

Project Received: 05/05/2014

Analytical Report reviewed & approved for release on 05/08/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

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Glossary of Terms & Qualifier Definitions

Client: SCA Enviromental, Inc.
Project: #F-11312; City of SM Cordilleras Svy
WorkOrder: 1405113

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifier

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
a4	the reporting limits were raised due to the sample's matrix prohibiting a full volume extraction.
a7	reporting limit raised due to limited sample amount
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
h4	sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.

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Analytical Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405113
Project:	#F-11312; City of SM Cordilleras Svy	**Extraction Method:**	SW3550B
Date Received:	5/5/14 9:53	**Analytical Method:**	SW8082
Date Prepared:	5/5/14	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-CAULK-26	**1405113-008A**	**Solid**	**05/02/2014**	**GC5A**	**90034**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	05/06/2014 17:11
Aroclor1221	ND	10	20	05/06/2014 17:11
Aroclor1232	ND	10	20	05/06/2014 17:11
Aroclor1242	ND	10	20	05/06/2014 17:11
Aroclor1248	ND	10	20	05/06/2014 17:11
Aroclor1254	ND	10	20	05/06/2014 17:11
Aroclor1260	ND	10	20	05/06/2014 17:11
PCBs, total	ND	10	20	05/06/2014 17:11

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: a3,a4,c1,h4
Decachlorobiphenyl	171	S	70-130	05/06/2014 17:11

200-PUTTY-30	1405113-009A	Solid	05/02/2014	GC5A	90034

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.69	1	05/06/2014 17:49
Aroclor1221	ND	0.69	1	05/06/2014 17:49
Aroclor1232	ND	0.69	1	05/06/2014 17:49
Aroclor1242	ND	0.69	1	05/06/2014 17:49
Aroclor1248	ND	0.69	1	05/06/2014 17:49
Aroclor1254	ND	0.69	1	05/06/2014 17:49
Aroclor1260	ND	0.69	1	05/06/2014 17:49
PCBs, total	ND	0.69	1	05/06/2014 17:49

Surrogates	REC (%)	Limits	Analytical Comments: a7,h4
Decachlorobiphenyl	128	70-130	05/06/2014 17:49

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Analytical Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405113
Project:	#F-11312; City of SM Cordilleras Svy	**Extraction Method:**	SW3050B
Date Received:	5/5/14 9:53	**Analytical Method:**	SW6010B
Date Prepared:	5/5/14	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-OW-1-1	**1405113-001A**	**Solid/TOTAL**	**05/02/2014**	**ICP-JY**	**90033**

Analytes	Result	RL	DF	Date Analyzed
Lead	**1200**	6.0	1	05/07/2014 13:52

Surrogates	REC (%)	Limits	
Tb 350.917	108	70-130	05/07/2014 13:52

200-OW-1-2	1405113-002A	Solid/TOTAL	05/02/2014	ICP-JY	90033

Analytes	Result	RL	DF	Date Analyzed
Lead	**1700**	5.0	1	05/07/2014 13:54

Surrogates	REC (%)	Limits	
Tb 350.917	105	70-130	05/07/2014 13:54

200-GY-2-1	1405113-003A	Solid/TOTAL	05/02/2014	ICP-JY	90033

Analytes	Result	RL	DF	Date Analyzed
Lead	**970**	8.1	1	05/07/2014 13:57

Surrogates	REC (%)	Limits	
Tb 350.917	107	70-130	05/07/2014 13:57

200-GR-3-1	1405113-004A	Solid/TOTAL	05/02/2014	ICP-JY	90033

Analytes	Result	RL	DF	Date Analyzed
Lead	**90**	5.1	1	05/07/2014 13:59

Surrogates	REC (%)	Limits	
Tb 350.917	99	70-130	05/07/2014 13:59

200-SI-4-1	1405113-005A	Solid/TOTAL	05/02/2014	ICP-JY	90033

Analytes	Result	RL	DF	Date Analyzed
Lead	**16,000**	13	1	05/07/2014 14:01

Surrogates	REC (%)	Limits	
Tb 350.917	104	70-130	05/07/2014 14:01

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP DB Analyst's Initial  Angela Rydelius, Lab Manager

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Analytical Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405113
Project:	#F-11312; City of SM Cordilleras Svy	**Extraction Method:**	SW3050B
Date Received:	5/5/14 9:53	**Analytical Method:**	SW6010B
Date Prepared:	5/5/14	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-GY-5-1	**1405113-006A**	**Solid/TOTAL**	**05/02/2014**	**ICP-JY**	**90033**

Analytes	Result	RL	DF	Date Analyzed
Lead	**680**	9.3	1	05/07/2014 14:03

Surrogates	REC (%)	Limits	
Tb 350.917	102	70-130	05/07/2014 14:03

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-GY-6-1	**1405113-007A**	**Solid/TOTAL**	**05/02/2014**	**ICP-JY**	**90033**

Analytes	Result	RL	DF	Date Analyzed
Lead	**350,000**	230	10	05/07/2014 12:12

Surrogates	REC (%)	Limits	
Tb 350.917	107	70-130	05/07/2014 12:12

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Quality Control Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405113
Date Prepared:	5/5/14	**BatchID:**	90034
Date Analyzed:	5/6/14	**Extraction Method:**	SW3550B
Instrument:	GC5A	**Analytical Method:**	SW8082
Matrix:	Soil	**Unit:**	mg/kg
Project:	#F-11312; City of SM Cordilleras Svy	**Sample ID:**	MB/LCS-90034 1405147-005AMS/MSD

QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.145	0.050	0.15	-	96.4	70-130
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0631	0.0591		0.050	126	118	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.203	0.214	0.15	ND	135,F1	142,F1	70-130	5.20	30
Surrogate Recovery									
Decachlorobiphenyl	0.0650	0.0693	0.050		130	139	70-130	6.32	30

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Quality Control Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405113
Date Prepared:	5/5/14	**BatchID:**	90033
Date Analyzed:	5/6/14	**Extraction Method:**	SW3050B
Instrument:	ICP-JY	**Analytical Method:**	SW6010B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#F-11312; City of SM Cordilleras Svy	**Sample ID:**	MB/LCS-90033 1404A99-016AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	48.1	5.0	50	-	96.2	75-125
Surrogate Recovery							
Tb 350.917	511	509		500	102	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	62.6	62.3	50	10.25	105	104	75-125	4.30	25
Surrogate Recovery									
Tb 350.917	508	500	500		101	100	70-130	5.83	20

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1405113 **ClientCode: SCAO**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Christina Codemo
SCA Enviromental, Inc.
334 19th Street
Oakland, CA 94612
(510) 645-6200 FAX: (510) 839- 6200

Email: ccodemo@sca-enviro.com
cc/3rd Party:
PO:
ProjectNo: #F-11312; City of SM Cordilleras Svy

Bill to:
Accounts Payable
SCA Enviromental, Inc.
334 19th Street
Oakland, CA 94612
emuise@sca-ic.com

Requested TAT: **5 days**

Date Received: **05/05/2014**
Date Printed: **05/05/2014**

					Requested Tests (See legend below)											
Lab ID	**Client ID**	**Matrix**	**Collection Date**	**Hold**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1405113-001	200-OW-1-1	Solid	5/2/2014	☐		A										
1405113-002	200-OW-1-2	Solid	5/2/2014	☐		A										
1405113-003	200-GY-2-1	Solid	5/2/2014	☐		A										
1405113-004	200-GR-3-1	Solid	5/2/2014	☐		A										
1405113-005	200-SI-4-1	Solid	5/2/2014	☐		A										
1405113-006	200-GY-5-1	Solid	5/2/2014	☐		A										
1405113-007	200-GY-6-1	Solid	5/2/2014	☐		A										
1405113-008	200-CAULK-26	Solid	5/2/2014	☐	A											
1405113-009	200-PUTTY-30	Solid	5/2/2014	☐	A											

Test Legend:

1	8082A_PCB_Solid	2	PB_S	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: SCA ENVIROMENTAL, INC. **QC Level:** LEVEL 2 **Work Order:** 1405113
Project: #F-11312; City of SM Cordilleras Svy **Client Contact:** Christina Codemo **Date Received:** 5/5/2014
Comments: **Contact's Email:** ccodemo@sca-enviro.com

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1405113-001A	200-OW-1-1	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-002A	200-OW-1-2	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-003A	200-GY-2-1	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-004A	200-GR-3-1	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-005A	200-SI-4-1	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-006A	200-GY-5-1	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-007A	200-GY-6-1	Solid	SW6010B (Lead)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-008A	200-CAULK-26	Solid	SW8082 (PCBs Only)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	
1405113-009A	200-PUTTY-30	Solid	SW8082 (PCBs Only)	1	Small Yellow Plasitc	☐	5/2/2014	5 days		☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:
Small Yellow Plasitc =

1405113

McCampbell Analytical, Inc.

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www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☒
GeoTracker EDF ☐ PDF ☒ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐
Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐ ; Claim #

Report To: CHRISTINA CODEMO Bill To: SCA ENV.
Company: SCA ENVIRONMENTAL, INC.
334 19TH ST.
OAKLAND, CA 94612 E-Mail: CCODEMO@SCA-ENVIRO.COM
Tele: (415) 867-9540 Fax: (415) 962-8736
Project #: F-11312 Project Name: CITY OF SM CORDILLERAS
Project Location: CORDILLERAS MENTAL HLTH Purchase Order# SVY
Sampler Signature: DAN LEUNG CTR, RWC

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other	BTEX/ MTBE & TPH as Gas (8021/ 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	BTEX/ MTBE & TPH as Gas (8260)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	LEAD (1 MLC)	PCB		
200-OW-1-1		5/2		1								X																				X			
-OW-1-2				1								X																				X			
-GY-2-1				1								X																				X			
-GR-3-1				1								X																				X			
-SI-4-1				1								X																				X			
-GY-5-1				1								X																				X			
-GY-6-1				1								X																				X			
-CAULK-26				1								X																							
-PUTTY-30				1								X																					X		

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
DAN LEUNG	5/2	4:00 P	
Relinquished By:	Date: 5/5/14	Time: 0930	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/T°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:
PRESERVATION_____ pH<2_____

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **SCA Enviromental, Inc.** Date and Time Received: **5/5/2014 9:53:46 AM**

Project Name: **#F-11312; City of SM Cordilleras Svy** LogIn Reviewed by: Maria Venegas

WorkOrder N°: **1405113** Matrix: Solid Carrier: UPS

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp:		NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: pH<2; 522: pH<4)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☐	No ☑	

** NOTE: If the "No" box is checked, see comments below.*

Comments:

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1405194

Report Created for: SCA Enviromental, Inc.
334 19th Street
Oakland, CA 94612

Project Contact: Christina Codemo
Project P.O.:
Project Name: #F-11312; CT of SM Cordilleras SVY

Project Received: 05/06/2014

Analytical Report reviewed & approved for release on 05/08/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client: SCA Enviromental, Inc.
Project: #F-11312; CT of SM Cordilleras SVY
WorkOrder: 1405194

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifier

S	spike recovery outside accepted recovery limits
a7	reporting limit raised due to limited sample amount
h4	sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.

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Analytical Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405194
Project:	#F-11312; CT of SM Cordilleras SVY	**Extraction Method:**	SW3550B
Date Received:	5/6/14 17:35	**Analytical Method:**	SW8082
Date Prepared:	5/6/14	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-Putty-39	**1405194-010A**	**Solid**	**05/05/2014**	**GC5A**	**90117**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	05/06/2014 22:48
Aroclor1221	ND	0.050	1	05/06/2014 22:48
Aroclor1232	ND	0.050	1	05/06/2014 22:48
Aroclor1242	ND	0.050	1	05/06/2014 22:48
Aroclor1248	ND	0.050	1	05/06/2014 22:48
Aroclor1254	ND	0.050	1	05/06/2014 22:48
Aroclor1260	ND	0.050	1	05/06/2014 22:48
PCBs, total	ND	0.050	1	05/06/2014 22:48

Surrogates	REC (%)	Limits	Analytical Comments: h4	
Decachlorobiphenyl	129	70-130		05/06/2014 22:48

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-Caulk-53	**1405194-011A**	**Solid**	**05/05/2014**	**GC5A**	**90117**

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	05/06/2014 23:26
Aroclor1221	ND	0.050	1	05/06/2014 23:26
Aroclor1232	ND	0.050	1	05/06/2014 23:26
Aroclor1242	ND	0.050	1	05/06/2014 23:26
Aroclor1248	ND	0.050	1	05/06/2014 23:26
Aroclor1254	ND	0.050	1	05/06/2014 23:26
Aroclor1260	ND	0.050	1	05/06/2014 23:26
PCBs, total	ND	0.050	1	05/06/2014 23:26

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: h4	
Decachlorobiphenyl	146	S	70-130		05/06/2014 23:26

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Analytical Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405194
Project:	#F-11312; CT of SM Cordilleras SVY	**Extraction Method:**	SW3050B
Date Received:	5/6/14 17:35	**Analytical Method:**	SW6010B
Date Prepared:	5/6/14	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-GY-6-2	**1405194-001A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**1000**	5.6	1	05/07/2014 11:47

Surrogates	REC (%)	Limits	
Tb 350.917	98	70-130	05/07/2014 11:47

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-BE-7-1	**1405194-002A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**830**	5.0	1	05/07/2014 11:54

Surrogates	REC (%)	Limits	
Tb 350.917	99	70-130	05/07/2014 11:54

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-BE-7-2	**1405194-003A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**1900**	5.0	1	05/07/2014 11:57

Surrogates	REC (%)	Limits	
Tb 350.917	109	70-130	05/07/2014 11:57

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-BE-7-3	**1405194-004A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	250	1	05/07/2014 11:59

Surrogates	REC (%)	Limits	Analytical Comments: a7
Tb 350.917	108	70-130	05/07/2014 11:59

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-BE-7-4	**1405194-005A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**330**	15	1	05/07/2014 12:01

Surrogates	REC (%)	Limits	
Tb 350.917	106	70-130	05/07/2014 12:01

(Cont.)

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Analytical Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405194
Project:	#F-11312; CT of SM Cordilleras SVY	**Extraction Method:**	SW3050B
Date Received:	5/6/14 17:35	**Analytical Method:**	SW6010B
Date Prepared:	5/6/14	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-GR-8-1	**1405194-006A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**5.6**	5.0	1	05/07/2014 12:03

Surrogates	REC (%)	Limits	
Tb 350.917	104	70-130	05/07/2014 12:03

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-GR-9-1	**1405194-007A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**25**	7.7	1	05/07/2014 12:05

Surrogates	REC (%)	Limits	
Tb 350.917	108	70-130	05/07/2014 12:05

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-BR-10-1	**1405194-008A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**220**	100	1	05/07/2014 12:07

Surrogates	REC (%)	Limits	
Tb 350.917	107	70-130	05/07/2014 12:07

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
200-RD-11-1	**1405194-009A**	**Solid/TOTAL**	**05/05/2014**	**ICP-JY**	**90113**

Analytes	Result	RL	DF	Date Analyzed
Lead	**26**	23	1	05/07/2014 12:09

Surrogates	REC (%)	Limits	
Tb 350.917	104	70-130	05/07/2014 12:09

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Quality Control Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405194
Date Prepared:	5/6/14	**BatchID:**	90113
Date Analyzed:	5/7/14	**Extraction Method:**	SW3050B
Instrument:	ICP-JY	**Analytical Method:**	SW6010B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#F-11312; CT of SM Cordilleras SVY	**Sample ID:**	MB/LCS-90113 1405184-006AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.5	5.0	50	-	101	75-125
Surrogate Recovery							
Tb 350.917	541	529		500	108	106	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	NR	NR	50	100.5	NR	NR	75-125	NR	25
Surrogate Recovery									
Tb 350.917	531	498	500		106	100	70-130	6.41	20

(Cont.)

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Quality Control Report

Client:	SCA Enviromental, Inc.	**WorkOrder:**	1405194
Date Prepared:	5/6/14	**BatchID:**	90117
Date Analyzed:	5/7/14	**Extraction Method:**	SW3550B
Instrument:	GC5A	**Analytical Method:**	SW8082
Matrix:	Soil	**Unit:**	mg/kg
Project:	#F-11312; CT of SM Cordilleras SVY	**Sample ID:**	MB/LCS-90117 1405217-004AMS/MSD

QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.154	0.050	0.15	-	102	70-130
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0626	0.0617		0.050	125	123	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.206	0.227	0.15	ND	137,F1	151,F1	70-130	9.83	30
Surrogate Recovery									
Decachlorobiphenyl	0.0643	0.0650	0.050		129	130	70-130	1.04	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1405194 **ClientCode: SCAO**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Christina Codemo
SCA Enviromental, Inc.
334 19th Street
Oakland, CA 94612
(510) 645-6200 FAX: (510) 839- 6200

Email: ccodemo@sca-enviro.com
cc/3rd Party:
PO:
ProjectNo: #F-11312; CT of SM Cordilleras SVY

Bill to:
Accounts Payable
SCA Enviromental, Inc.
334 19th Street
Oakland, CA 94612
emuise@sca-ic.com

Requested TAT: **5 days**

Date Received: **05/06/2014**
Date Printed: **05/06/2014**

					Requested Tests (See legend below)											
Lab ID	**Client ID**	**Matrix**	**Collection Date**	**Hold**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1405194-001	200-GY-6-2	Solid	5/5/2014	☐		A										
1405194-002	200-BE-7-1	Solid	5/5/2014	☐		A										
1405194-003	200-BE-7-2	Solid	5/5/2014	☐		A										
1405194-004	200-BE-7-3	Solid	5/5/2014	☐		A										
1405194-005	200-BE-7-4	Solid	5/5/2014	☐		A										
1405194-006	200-GR-8-1	Solid	5/5/2014	☐		A										
1405194-007	200-GR-9-1	Solid	5/5/2014	☐		A										
1405194-008	200-BR-10-1	Solid	5/5/2014	☐		A										
1405194-009	200-RD-11-1	Solid	5/5/2014	☐		A										
1405194-010	200-Putty-39	Solid	5/5/2014	☐	A											
1405194-011	200-Caulk-53	Solid	5/5/2014	☐	A											

Test Legend:

1	8082A_PCB_S	2	PB_S	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: SCA ENVIROMENTAL, INC. **QC Level:** LEVEL 2 **Work Order:** 1405194
Project: #F-11312; CT of SM Cordilleras SVY **Client Contact:** Christina Codemo **Date Received:** 5/6/2014
Comments: **Contact's Email:** ccodemo@sca-enviro.com

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1405194-001A	200-GY-6-2	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-002A	200-BE-7-1	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-003A	200-BE-7-2	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-004A	200-BE-7-3	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-005A	200-BE-7-4	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-006A	200-GR-8-1	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-007A	200-GR-9-1	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-008A	200-BR-10-1	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-009A	200-RD-11-1	Solid	SW6010B (Lead)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-010A	200-Putty-39	Solid	SW8082 (PCBs Only)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	
1405194-011A	200-Caulk-53	Solid	SW8082 (PCBs Only)	1	Small Yellow Plastic Container	☐	5/5/2014	5 days		☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:
Small Yellow Plastic Container =

1405194

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☒

GeoTracker EDF ☐ PDF ☒ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐ ; Claim #

Report To: CHRISTINA CODEMO Bill To: SCA ENV.

Company: SCA ENVIRONMENTAL, INC.

334 19TH ST.

OAKLAND, CA 94612 E-Mail: CCODEMO@SCA-ENVIRO.COM

Tele: (415) 867-9540 Fax: (415) 962-8736

Project #: F-11312 Project Name: CITY OF SM CORDILLERAS

Project Location: CORDILLERAS MENTAL HLTH Purchase Order# SVY

Sampler Signature: DAN LEUNG CTR, 200 EDMONDS RD, RLC

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other	BTEX/ MTBE & TPH as Gas (8021 / 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	BTEX/ MTBE & TPH as Gas (8260)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	LEAD (1LC)	PCB		
200-CY-6-2		5/5		1								X																				X			
-BE-7-1				1								X																				X			
-BE-7-2				1								X																				X			
-BE-7-3				1								X																				X			
-BE-7-4				1								X																				X			
-GR-8-1				1								X																				X			
-GR-9-1				1								X																				X			
-BR-10-1				1								X																				X			
-RD-11-1				1								X																				X			
-PUTTY-39				1								X																				X			
-CAULK-53				1								X																					X		

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
DAN LEUNG	5/6	11:00A	
	5/6/14	1700	

ICE/t°_____ COMMENTS:
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

VOAS O&G METALS OTHER HAZARDOUS:
PRESERVATION_____ pH<2_____

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Sample Receipt Checklist

Client Name: **SCA Enviromental, Inc.** Date and Time Received: **5/6/2014 5:35:45 PM**

Project Name: **#F-11312; CT of SM Cordilleras SVY** LogIn Reviewed by: Jena Alfaro

WorkOrder N°: **1405194** Matrix: Solid Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp:		NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: pH<2; 522: pH<4)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☐	No ☑	

** NOTE: If the "No" box is checked, see comments below.*

Comments:

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1405A20

Report Created for: SCA Environmental, Inc.
650 Delancey Street, #222
San Francisco, CA 94107

Project Contact: Christina Codemo
Project P.O.:
Project Name: #F11312.02; Cordilleras Survey

Project Received: 05/28/2014

Analytical Report reviewed & approved for release on 05/29/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

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NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

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Glossary of Terms & Qualifier Definitions

Client: SCA Environmental, Inc.
Project: #F11312.02; Cordilleras Survey
WorkOrder: 1405A20

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	SCA Environmental, Inc.	**WorkOrder:**	1405A20
Project:	#F11312.02; Cordilleras Survey	**Extraction Method:**	SW3050B
Date Received:	5/28/14 11:43	**Analytical Method:**	SW6010B
Date Prepared:	5/28/14	**Unit:**	mg/Kg

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
FLVCT-16	**1405A20-001A**	**Solid/TOTAL**	**05/28/2014**	**ICP-JY**	**90870**

Analytes	Result	RL	DF	Date Analyzed
Lead	**97**	12	1	05/29/2014 10:41

Surrogates	REC (%)	Limits	
Tb 350.917	91	70-130	05/29/2014 10:41

Quality Control Report

Client:	SCA Environmental, Inc.	**WorkOrder:**	1405A20
Date Prepared:	5/28/14	**BatchID:**	90870
Date Analyzed:	5/29/14	**Extraction Method:**	SW3050B
Instrument:	ICP-JY	**Analytical Method:**	SW6010B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#F11312.02; Cordilleras Survey	**Sample ID:**	MB/LCS-90870

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	48.2	5.0	50	-	96.3	75-125
Surrogate Recovery							
Tb 350.917	492	474		500	98	95	70-130

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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1405A20 **ClientCode: SCAF**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Christina Codemo
SCA Environmental, Inc.
650 Delancey Street, #222
San Francisco, CA 94107
(510) 459-8233 FAX: (415) 703-0701

Email: ccodemo@sca-enviro.com
cc/3rd Party:
PO:
ProjectNo: #F11312.02; Cordilleras Survey

Bill to:
Accounts Payable
SCA Environmental, Inc.
650 Delancey Street, #222
San Francisco, CA 94107
emuise@sca-ic.com

Requested TAT: **1 day**

Date Received: **05/28/2014**
Date Printed: **05/28/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1405A20-001	FLVCT-16	Solid	5/28/2014	☐	A											

Test Legend:

1	PB_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments: 1 Day ASAP Rush

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: SCA ENVIRONMENTAL, INC. **QC Level:** LEVEL 2 **Work Order:** 1405A20
Project: #F11312.02; Cordilleras Survey **Client Contact:** Christina Codemo **Date Received:** 5/28/2014
Comments: 1 Day ASAP Rush **Contact's Email:** ccodemo@sca-enviro.com

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1405A20-001A	FLVCT-16	Solid	TCLP Extraction	3	Yellow Plastic	☐	5/28/2014	1 day*		☐	
			STLC Extraction			☐		1 day*		☐	
			SW6010B (Lead)			☐		1 day		☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:
Yellow Plastic =

1405A20

RUSH

SCA Contact: Christina Codemo Tel: (415 650)568-6127
Email:ccodemo@sca-enviro.com

Project Name: cordilleras survey
Project No.: F11312.02
Laboratory:McCampbell
Carrier: McCampbell Courier
Date Shipped: 5/28/14

SAMPLE ID	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	LAB ID
FLVCT-16	052814		3	B					X	

Analysis Request/Method Number

TPH as Diesel and Motor Oil (8015) with SGCU	TPH as Gas, Diesel, & Motor Oil (8015) with SGCU	VOCs (8260)	SVOCs (8270)	CAM 17 Metals (6010 / 6020)	Chlorinated Herbicides (8151)	PCBs (8082)	TTLC-Lead	TCLP extraction	WET Extraction	Comments
							X	X	X	Run sample as-is
							1	1	1	Total for each analysis

	Date:	Time:	Received By:
Relinquished By:CC via Golden Bullet Courier from ATEM	5/28/14	10:04 am	
Relinquished By:	5/28/14	1135	
Relinquished By:			Received By:

Turnaround Requested:
☐ Standard (5-7 days) ☐ 48 Hour ☐ 24 hour ■ Other: ASAP:

Sample Disposal:
☐ Return to Client
■ Disposal by Lab

Instructions/Remarks:
START EXTRACTIONS FOR STLC/TCLP. SCA WILL CONTACT MCCAMPBELL TO IDENTIFY METALS TO RUN ONCE INITIAL LAB RESULTS ARE RECEIVED.

☐ PROVIDE EDD FORMAT

Report to: Christina Codemo, ccodemo@sca-enviro.com

■ 650 Delancey St. #222
San Francisco, CA 94107
Tel: 415/867-9540
efax: 415/962-0736

☐ 334 19th Street
Oakland, CA 94612
tel: 510-645-6200
efax: 415-962-0736

SCA
ENVIRONMENTAL, INC.

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **SCA Environmental, Inc.** Date and Time Received: **5/28/2014 11:43:13 AM**

Project Name: **#F11312.02; Cordilleras Survey** LogIn Reviewed by: Maria Venegas

WorkOrder N°: **1405A20** Matrix: Solid Carrier: Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☐	No ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp:		NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: pH<2; 522: pH<4)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☐	No ☑	

** NOTE: If the "No" box is checked, see comments below.*

Comments:

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1405A20 A

Report Created for: SCA Environmental, Inc.
650 Delancey Street, #222
San Francisco, CA 94107

Project Contact: Christina Codemo
Project P.O.:
Project Name: #F11312.02; Cordilleras Survey

Project Received: 05/28/2014

Analytical Report reviewed & approved for release on 06/02/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

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NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

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Glossary of Terms & Qualifier Definitions

Client: SCA Environmental, Inc.
Project: #F11312.02; Cordilleras Survey
WorkOrder: 1405A20

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

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Analytical Report

Client:	SCA Environmental, Inc.	**WorkOrder:**	1405A20
Project:	#F11312.02; Cordilleras Survey	**Extraction Method:**	CA Title 22
Date Received:	5/28/14 11:43	**Analytical Method:**	SW6010B
Date Prepared:	5/28/14	**Unit:**	mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
FLVCT-16	**1405A20-001A**	**Solid/WET**	**05/28/2014**	**ICP-JY**	**90848**

Analytes	Result	RL	DF	Date Analyzed
Lead	**0.56**	0.20	1	06/02/2014 11:03

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	SCA Environmental, Inc.	**WorkOrder:**	1405A20
Project:	#F11312.02; Cordilleras Survey	**Extraction Method:**	SW1311/SW3050B
Date Received:	5/28/14 11:43	**Analytical Method:**	SW6010B
Date Prepared:	5/28/14	**Unit:**	mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
FLVCT-16	**1405A20-001A**	**Solid/TCLP**	**05/28/2014**	**ICP-JY**	**90849**

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.20	1	06/02/2014 11:05

Quality Control Report

Client:	SCA Environmental, Inc.	**WorkOrder:**	1405A20
Date Prepared:	5/27/14	**BatchID:**	90848
Date Analyzed:	5/31/14	**Extraction Method:**	CA Title 22
Instrument:	ICP-JY	**Analytical Method:**	SW6010B
Matrix:	Soil	**Unit:**	mg/L
Project:	#F11312.02; Cordilleras Survey	**Sample ID:**	MB/LCS-90848 1405517-002AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	1.10	0.20	1	-	110	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	1.27	1.19	1	0.32	95.4	87	70-130	6.83	30

Quality Control Report

Client:	SCA Environmental, Inc.	**WorkOrder:**	1405A20
Date Prepared:	5/27/14	**BatchID:**	90849
Date Analyzed:	5/30/14	**Extraction Method:**	SW1311/SW3050B
Instrument:	ICP-JY	**Analytical Method:**	SW6010B
Matrix:	Soil	**Unit:**	mg/L
Project:	#F11312.02; Cordilleras Survey	**Sample ID:**	MB/LCS-90849 1405517-002AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	1.09	0.20	1	-	109	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	1.12	0.996	1	ND	112	99.6	70-130	11.7	30

McCampbell Analytical, Inc.
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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1405A20 A **ClientCode: SCAF**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Christina Codemo
SCA Environmental, Inc.
650 Delancey Street, #222
San Francisco, CA 94107
(510) 459-8233 FAX: (415) 703-0701

Email: ccodemo@sca-enviro.com
cc/3rd Party:
PO:
ProjectNo: #F11312.02; Cordilleras Survey

Bill to:
Accounts Payable
SCA Environmental, Inc.
650 Delancey Street, #222
San Francisco, CA 94107
emuise@sca-ic.com

Requested TAT: 1 day
Date Received: **05/28/2014**
Date Add-On: **05/29/2014**
Date Printed: **06/02/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1405A20-001	FLVCT-16	Solid	5/28/2014	☐	A	A										

Test Legend:

1	STLC_PB_S	2	TCLP_PB_S	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Add-On Prepared By: Maria Venegas

Comments: 1 Day ASAP Rush STLC and TCLP added 5/29/14 RTAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: SCA ENVIRONMENTAL, INC.
Project: #F11312.02; Cordilleras Survey
Comments: 1 Day ASAP Rush STLC and TCLP added 5/29/14 RTAT

QC Level: LEVEL 2
Client Contact: Christina Codemo
Contact's Email: ccodemo@sca-enviro.com

Work Order: 1405A20
Date Received: 5/28/2014
Date Add-On: 5/29/2014

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1405A20-001A	FLVCT-16	Solid	SW6010B (Lead) (TCLP)	3	Yellow Plastic	5/28/2014	1 day*		☐	
			SW6010B (Lead) (STLC)				1 day*		☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:
Yellow Plastic =

1405A20

RUSH

SCA Contact: Christina Codemo Cell No.: (650)568-6127
Email:ccodemo@sca-enviro.com

Project Name: cordilleras survey
Project No.: F11312.02
Laboratory:McCampbell
Carrier: McCampbell Courier
Date Shipped: 5/28/14

Analysis Request/Method Number

SAMPLE ID	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	LAB ID	TPH as Diesel and Motor Oil (8015) with SGCU	TPH as Gas, Diesel, & Motor Oil (8015) with SGCU	VOCs (8260)	SVOCs (8270)	CAM 17 Metals (6010 / 6020)	Chlorinated Herbicides (8151)	PCBs (8082)	TTLC-Lead	TCLP extraction	WET Extraction	STLC Pb 3 6/2/14	TCLP Pb 3 1 DTAT			Comments
FLVCT-16	052814		3	B					X									X	X	X	X	X			Run sample as-is
Total for each analysis																		1	1	1					

Relinquished By	Date	Time	Received By
Relinquished By:CC via Golden Bullet Courier from ATEM	Date: 5/28/14	Time: 10:04 am	Received By:
Relinquished By:	Date: 5/28/14	Time: 1135	Received By: [signature]
Relinquished By:	Date:	Time:	Received By:

Turnaround Requested:
☐ Standard (5-7 days) ☐ 48 Hour ☐ 24 hour ■ Other: ASAP:

Sample Disposal:
☐ Return to Client
■ Disposal by Lab

Instructions/Remarks:
START EXTRACTIONS FOR STLC/TCLP. SCA WILL CONTACT MCCAMPBELL TO IDENTIFY METALS TO RUN ONCE INITIAL LAB RESULTS ARE RECEIVED.

☐ PROVIDE EDD FORMAT

Report to: Christina Codemo, ccodemo@sca-enviro.com

■ 650 Delancey St. #222
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Tel: 415/867-9540
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☐ 334 19th Street
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tel: 510-645-6200
efax: 415-962-0736

SCA
ENVIRONMENTAL, INC.

Appendix E

Abatement Cost Estimates

ABATEMENT COST ESTIMATE: CORDILLERAS FACILITY, REDWOOD CITY, CA
SUMMARY

Building	**Total Abatement Cost Estimate**	Positive Asbestos	Assumed Asbestos	Other Hazmats	Consultant Monitoring
Cordilleras Facility	$1,935,094	$439,074	$1,143,816	$29,689	$322,516
Water Tower	$10,800	$0	$0	$9,000	$1,800
Pump House	$11,088	$0	$8,040	$1,800	$1,848
Total	**$1,956,982**	**$439,074**	**$1,151,856**	**$40,489**	**$326,164**
% of total	100%	22%	59%	2%	17%

***Note: The cost estimates refer to asbestos, lead-coatings, PCB ballasts, mercury-containing tubes, and lead sheeting only. The estimates provided herein do not include costs for removal of other hazardous materials that may be present at the site. Costs listed above include abatement and consultant oversight. For a detailed breakdown, refer to the attached sheets. Unit prices provided on attached sheets assume State Prevailing Wages will be required. Note that costs can fluctuate +/- 20-25% based on seasonal fluctuations, temperature, etc.**

ABATEMENT COST ESTIMATE: CORDILLERAS FACILITY, REDWOOD CITY, CA
Cordilleras Facility, 200 Edmonds

Room ID------- Material ID	Components	Asbestos: Positive, Negative, Trace, Assumed	Units	TOTAL+/- 15%	Estimated Abatement Cost per unit	Total Estimated Cost
ASBESTOS						
PISTM-3	off-white insulation with yellow-painted canvas jacket on steam pipes		LF	5310	$19.20	$101,952.00
FLVCT-16	9"x9" tan with brown and white streaks vinyl floor tile (+) with black mastic (-)		SF	32160	$1.80	$57,888.00
PIDHW-20	off-white insulation with canvas jacket on pipes		LF	4260	$19.20	$81,792.00
HINS-21	off-white insulation with canvas jacket on HVAC ducts		LF	3450	$19.20	$66,240.00
CAULK-26	grey caulk between brick wall and window frame		LF	100	$1.80	$180.00
FLVCS-27	grey speckled vinyl floor sheeting (-) w/ yellow glue (-) over FLVCT-16 (+) & mastic (-)		SF	150	$3.00	$450.00
SINK-34	black stainless steel sink undercoating	**Pos**	EA	2	$30.00	$60.00
PENMAS-38	black mastic/coating (+) with silver paint (-) on roofing penetrations		LF	5	$2.40	$12.00
ASPHALT-43	black exterior asphalt and assumed aggregate base (destructive coring required to confirm presence of aggregate and asbestos content)		SF	27000	$4.80	$129,600.00
TRANSITE-45	abandoned grey transite pipes (along the southwest ext of the building on the first floor level)		LF	120	$6.00	$720.00
CAULK-53	beige exterior caulk between brick wall and window frame		LF	100	$1.80	$180.00
BOILER-AAA1	boiler insulation, gasket, flues, bricks, etc. associated with Bryan Gas Boilers (2x): Models AB 250-5-150/54-FDG)		EA	2	$12,000.00	$24,000.00
TERRAZO-AAA2	beige/black terrazzo flooring		SF	3995	$12.00	$47,940.00
FIREHOSES-AAA	fire hoses		EA	4	$30.00	$120.00
FIREDOORS-AAA	fire doors with assumed asbestos-core insulation		EA	24	$30.00	$720.00
VAPBAR-AAA16	Exterior vapor barrier/waterproofing membrane on perimeter basement walls		SF	6000	$30.00	$180,000.00
WLCER-AAA4	4"x4" grey/yellow/blue/pink ceramic wall tile with associated grout & mortar		SF	6290	$8.40	$52,836.00
FLEX-AAA5	black flex duct connectors		EA	16	$12.00	$192.00
FLCER-AAA5	2"x2" pink/white/green ceramic floor tile with associated grout and mortar		SF	1230	$8.40	$10,332.00
BRICK-AAA6	2"x8" red brick wall with associated mortar		SF	400	$18.00	$7,200.00
BBMAS-AAA7	mastic behind metal baseboard		LF	780	$2.40	$1,872.00
WLMAS-AAA8	wall mirror mastic		SF	180	$2.40	$432.00
FLCER-AAA9	6"x6" red quarry floor tile with covebase and associated grout and mortar		SF	2950	$8.40	$24,780.00
WLCER-AAA10	6"x12" beige ceramic wall tiles with associated grout and mortar	**Assumed**	SF	4340	$8.40	$36,456.00
WLMAS-AAA10	mastic behind plastic wall panels		SF	5120	$2.40	$12,288.00
FORMICA-AAAA11	yellow/wood-look Formica counter top with associated glue		SF	220	$5.40	$1,188.00
LTWTCONC-37	light grey light weight concrete over roof deck (Note: Surface only sampled. Cores required for analysis of all concrete layers.)		SF	11850	$18.00	$213,300.00
EL-AAA13	electrical wiring throughout		LF	17250	$3.00	$51,750.00
CL-AAA14	4'x8' grey coarse fibrous acoustical ceiling panel with associated glue		SF	500	$3.00	$1,500.00
CORE-AAA	felts, membranes and tars and aggregate baserock associated with volleyball courts		SF	800	$6.00	$4,800.00
VAPOR-AAA17	Vapor barriers under restrooms, laundry, former operating rooms, etc.		SF	6970	$18.00	$125,460.00
FREEZER-AAA18	Insulation and/or mastics associated with walk-in freezers		EA	3	$3,000.00	$9,000.00
VAPOR-AAA16/ CONC-AAA19	Concrete layers with vapor barrier and aggregate baserock under surface concrete comprising building slab		SF	41670	$6.00	$250,020.00
CLGL-25	12"x12" light grey glued on ceiling tiles (-) with fissures (glue not accessible for all samples)-glue assumed ACM		SF	29210	$3.00	$87,630.00
OTHER HAZMATS						
LEAD LINING-AAA	x-ray and dark rooms with lead lining in walls and doors assumed present	Assumed	SF	2000	$4.80	$9,600.00
LEAD PAINTS	Stabilization of Lead coatings	Present	SF	2500	$6.00	$15,000.00
TRANSFORMER-AAA15	PCB-containing oils (owned by PG&E)*	Assumed	EA	3	$0.00	$0.00
BALLASTS	Possible PCB-containing lighting ballasts	Present	EA	588	$4.20	$2,469.60
TUBES	Mercury-containing fluorescent tubes	Present	EA	873	$3.00	$2,619.00

[A] Transformers owned by PG&E. PG&E would be responsible for removal of PCB-containing fluids.

Contractor Total	**$1,612,578.60**
Consultant Monitoring	$322,515.72
Abatement Total	$1,935,094.32

ABATEMENT COST ESTIMATE: CORDILLERAS FACILITY, REDWOOD CITY, CA
Water Tower

Room ID------- Material ID	Components	Present / not present	Units	TOTAL+/- 15%	Estimated Abatement Cost per unit	Total Estimated Cost
OTHER HAZMATS						
LEAD PAINTS	Stabilization of Lead coatings	Present	SF	750	$12.00	$9,000.00

Contractor Total	**$9,000.00**
Consultant Monitoring	$1,800.00
Abatement Total	$10,800.00

ABATEMENT COST ESTIMATE: CORDILLERAS FACILITY, REDWOOD CITY, CA
Pump House

Room ID------- Material ID	Components	Asbestos: Positive, Negative, Trace, Assumed	Units	TOTAL+/- 15%	Estimated Abatement Cost per unit	Total Estimated Cost
ASBESTOS						
WALL-AAA12	8"x8"x16" tan concrete masonry unit (CMU) wall with associated mortar	Assumed	SF	380	$18.00	$6,840.00
EL-AAA13	electrical wiring throughout	Assumed	LF	200	$6.00	$1,200.00
OTHER HAZMATS						
LEAD PAINTS	Stabilization of Lead coatings	present	SF	500	$2.40	$1,200.00

Contractor Total	**$9,240.00**
Consultant Monitoring	$1,848.00
Abatement Total	$11,088.00