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**SITE MITIGATION PLAN  
801 Brannan Street  
San Francisco, California  
SMED 985**

***Prepared For:***

**Equity Residential  
Two N. Riverside Plaza, Suite 400  
Chicago, Illinois 60606-2609**

***Prepared By:***

**Langan Treadwell Rollo  
555 Montgomery Street, Suite 1300  
San Francisco, California 94111**

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**Veronica M. Tiglao, PE  
Senior Project Engineer**



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**Jeffrey F. Ludlow, PG  
Principal**

**26 March 2014  
731615201**

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***LANGAN TREADWELL ROLLO***

26 March 2014

Rebecca Becker  
Equity Residential  
Two N. Riverside Plaza, Suite 400  
Chicago, Illinois 60606-2609

**Subject: Site Mitigation Plan  
801 Brannan Street  
San Francisco, California  
SMED 985  
Langan Project No. 731615201**

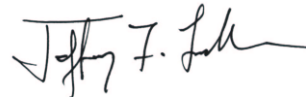
Dear Ms. Becker:

Langan Treadwell Rollo (Langan) is pleased to submit the attached report titled: *Site Mitigation Plan, 801 Brannan Street, San Francisco, California* to Equity Residential. We appreciate the opportunity to assist you with this project. If you have any questions, please call.

Sincerely yours,  
**Langan Treadwell Rollo**



Veronica M. Tiglaio, PE  
Senior Project Engineer



Jeffrey F. Ludlow, PG  
Principal



Attachments

cc: Elyse D. Heilshorn, P.E. - City and County of San Francisco, Department of Public Health

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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Introduction and Purpose.....	1
1.2	Site Description and Proposed Development.....	2
<b>2.0</b>	<b>ENVIRONMENTAL SITE INVESTIGATIONS</b> .....	<b>2</b>
2.1	Phase I/II Environmental Site Assessment.....	2
2.2	Soil Gas Investigation.....	4
<b>3.0</b>	<b>SUBSURFACE CONDITIONS</b> .....	<b>5</b>
<b>4.0</b>	<b>RECOMMENDATIONS FOR MITIGATIVE ACTIONS</b> .....	<b>5</b>
4.1	Health and Safety Issues.....	5
4.2	Soil Management.....	7
4.2.1	Soil Stockpiling.....	7
4.2.2	Soil Profiling and Disposal.....	7
4.2.3	Soil Sampling.....	8
4.3	Dust Control.....	9
4.4	Groundwater Management.....	9
4.5	Contingency Procedures.....	9
4.6	Site Capping.....	10
4.7	Methane Mitigation System.....	11
4.8	Certification.....	11
4.9	Operation & Maintenance Requirements.....	12
4.9.1	Site Cap.....	12
4.9.2	Methane Mitigation System.....	13

## FIGURES

## APPENDICES

## **ATTACHMENTS**

### **LIST OF FIGURES**

- Figure 1      Vicinity Map
- Figure 2      Site Location Map With Proposed Post-Excavation Sample Locations
- Figure 3      Sample Location Map

### **LIST APPENDICES**

- Appendix A    Foundation Plans and Sections
- Appendix B    Previous Summary Tables and Laboratory Analytical Reports



**SITE MITIGATION PLAN**  
**801 Brannan Street**  
**San Francisco, California**

**1.0 INTRODUCTION**

**1.1 Introduction and Purpose**

This Site Mitigation (SMP) has been prepared on behalf of Equity Residential for the construction project at the property located at 801 Brannan Street ("Site") in San Francisco, California (Figure 1). The rectangular-shaped Site is located on the south side of Brannan Street, between 7<sup>th</sup> Street and 8<sup>th</sup> Street (Figure 2). Based upon the previous investigations, the Site is underlain by several feet of fill soil, most likely originating from fill activities of the Upper Mission Creek drainage area between 1870 and 1880. Concentrations of total and soluble lead were detected above hazardous waste criteria in the fill soil. Additionally, petroleum hydrocarbons and petroleum-related volatile organic compounds (VOCs) have been detected in the fill soil, petroleum hydrocarbons have been detected in the groundwater, and methane has been detected in soil gas.

This SMP presents the soil management measures recommended by Langan Treadwell Rollo (Langan; formerly Treadwell & Rollo [T&R]) for soil excavation and grading activities that will occur as part of the proposed development project at the Site. It includes measures to mitigate potential risks to the environment and to protect on-site construction workers, nearby residents, workers, pedestrians, and/or future Site-user health and safety related to the presence of certain constituents in the soil at the Site from potential exposure to substances that may be encountered during soil excavation and grading activities. It also includes groundwater management measures, if needed, as well as information on the proposed methane mitigation system (MMS) to address potential methane concerns at the Site.

Per a recently passed City and County of San Francisco Ordinance (Ordinance No. 155-13, approved 25 July 2013, and effective as of 24 August 2013), the Site is located in an area that is subject to the requirements of the San Francisco Public Health Code Article 22A (Maher Ordinance) and is therefore subject to oversight by the San Francisco Department of Public Health (SFDPH). This SMP has been prepared to meet the requirements of the SFDPH. The soil management procedures outlined in this SMP should be completed under the direction and approval of the SFDPH.

## **1.2 Site Description and Proposed Development**

The Site is currently occupied by a large structure formerly in use as an exhibition hall and an associated asphalt-paved parking lot. The approximately 5.21-acre Site is rectangular in shape, with plan dimensions of approximately 300 feet by 725 feet.

Approximately 0.87 acres of land at the northeast corner of the Site will be dedicated to the City of San Francisco. The remainder of the proposed development will mainly consist of a 6-story residential structure with commercial spaces, residential units, and parking garages on the ground floor, as well as publically accessible open space. The eastern and western portions of the building will be separated at the ground level by publically accessible open space called the "Market Mews". There are no basements planned, so the proposed excavation will primarily consist of what is needed for elevator pits, pile caps, and/or utilities. The maximum anticipated excavation from existing Site conditions is about 5 feet below ground surface (bgs). Foundation plans and sections are included as Appendix A for your reference.

## **2.0 ENVIRONMENTAL SITE INVESTIGATIONS**

Several environmental reports have been completed for the Site, which are briefly summarized below:

- Phase I/II Environmental Site Assessment, 801 Brannan Street, San Francisco, California, by Stellar Environmental Solutions, Inc. (Stellar), dated October 2011; and
- Soil Gas Investigation Report, 801 Brannan Street, San Francisco, California, by T&R, dated November 2013.

### **2.1 Phase I/II Environmental Site Assessment**

In 2011, Stellar conducted a Phase I and Phase II Environmental Site Assessment (ESA) for the Site. Based on information obtained during the Phase I, previous occupants at the Site have included Pacific Woodenware and Cooperage and several small buildings (1887); a drayage company, box factory, bottle yard, and hay and unspecified warehouse (1899); Western Pacific Railroad Freight Depot and multiple railroad spurs (1913 to 1980); and Concourse Exhibition Center (1980s to 2000s).

A Phase II field investigation was also conducted by Stellar, in October 2011, in order to fill data gaps from a 2001 subsurface investigation by T&R. As part of Stellar's 2011 investigation, five borings (B1 through B5, see Figure 3) were drilled to depths of between 5.5 and 14 feet below

grade surface (bgs) for the collection of soil samples. T&R's environmental investigation included nine borings (B-1 through B-3, EB-4 through EB-7, EB-9, and EB-10; see Figure 3) to depths of between 6 and 20 feet bgs for the collection of soil and groundwater samples. Soil samples from the 14 locations were collected and analyzed for some or all of the below parameters:

- California Assessment Manual (CAM) 17 metals by Environmental Protection Agency (EPA) Method 6020;
- Leaking Underground Fuel Tank (LUFT) 5 metals by EPA Method 6010;
- Total Lead by EPA Method 6010;
- Soluble Lead by Waste Extraction Test (WET) and toxicity characteristic leaching procedure (TCLP);
- Total recoverable petroleum hydrocarbons as Oil & Grease (TRPH) by SM5520;
- Total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as motor oil (TPHmo), benzene, toluene, and xylenes (BTEX), and methyl tert butyl ether (MTBE) by EPA Method 8021B/8015B;
- Other VOCs by EPA Method 8010 or 8260; and
- Semivolatile organic compounds (SVOCs) by EPA Method 8270/3550.

Groundwater samples from two locations (EB-6 and EB-10) were collected and analyzed for the below parameters:

- LUFT 5 metals by EPA Method 200.7;
- TRPH as Oil & Grease by SM5520;
- TPHg, TPHd, and TPHmo by EPA Method 8015; and
- VOCs by EPA Method 8010 or 8260; and
- SVOCs by EPA Method 8270.

Based on the findings of the subsurface investigations (see Appendix B):

- Fill was encountered to depths of between about 5 to 16 feet bgs. Groundwater was encountered between about 9 and 12 feet bgs;

- Laboratory analysis of soil samples indicate that most of the fill at the Site would be considered a California hazardous waste for off-site disposal based on total and soluble lead concentrations (lead at locations B1 through B5, B-3, EB-4 through EB-6, and EB-10);
- Additionally, up to 29,00 milligrams per kilogram (mg/kg) TRPH (at EB-10), 4.5 mg/kg TPHg (at B1), 280 mg/kg TPHd (at B2), and 740 mg/kg TPHmo (at B1) were detected in soil. Minor concentrations of BTEX were also detected in soil, at concentrations ranging 0.0055 mg/kg to 0.16 mg/kg (B-1 through B-5); and
- Laboratory analysis of groundwater samples collected at the Site detected up to 12 milligrams per liter (mg/L) TRPH (at EB-6), 1.9 mg/L TPHmo (at EB-6), and 1.0 mg/L TPHd (at EB-6).

## 2.2 Soil Gas Investigation

To assess the potential for soil gas impacts resulting from past and/or present Site activities and nearby off-site operations, T&R conducted a soil gas investigation in June 2013. The work included collecting soil gas samples at five locations at depth of about 5 to 8 feet bgs (TR-SG-1 through TR-SG-5, see Figure 3). Soil gas samples were analyzed for;

- TPHg by EPA Method TO-3;
- VOCs by EPA Method TO-15; and
- Methane and helium by American Society for Testing and Materials (ASTM) Method D-1946.

Laboratory analytical results did not detect TPHg or VOCs in soil gas above their respective residential Environmental Screening Levels<sup>1</sup> (ESLs) or residential California Human Health Screening Levels<sup>2</sup> (CHSSLs). However, an elevated methane condition (12.3 percent by volume [%v]) exists in soil gas at a localized area on the western portion of the Site (TR-SG-1; see Appendix B). The elevated methane concentration may be attributable to the degradation of TPHs previously detected in soil and groundwater. Though no action level for methane has been formally established for the expanded Maher zone areas, the elevated methane concentration

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<sup>1</sup> ESL values cited are from the 2013 Tier 1 ESLs, Table E-2, Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns, by the Regional Water Quality Control Board (RWQCB), dated December 2013.

<sup>2</sup> CHHSL values cited from *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, Table 2, California Human Health Screening Levels for Indoor Air and Soil Gas*, by the California EPA, dated January 2005.

at TR-SG-4 exceeds the 1.25%v criterion previously established for Mission Bay, which is currently used as a guideline by SFDPH.

### **3.0 SUBSURFACE CONDITIONS**

Based on the 2001 and 2011 field investigations, as well as the geotechnical investigation conducted at the Site by T&R in 2001, the Site is underlain by approximately 5 to 34 feet of heterogeneous fill soil which generally consists of sand with varying amounts of silt, clay, gravel, concrete, brick, mortar, and wood fragments. The fill is generally underlain by marine clay and silt deposits, commonly referred to as Bay Mud. The Bay Mud is about 48 to 100 feet thick, and is underlain by alternating layers of sand, clay, and silt, known as Old Alluvium. The Old Alluvium extends to depths of 118 to 180 feet bgs. Shale and sandstone bedrock underlie the Site at depths varying from 102 to 180 feet bgs. Groundwater has generally been encountered at approximately 7.5 to 12 feet bgs, and is expected to vary a few feet seasonally and with the fluctuations in water level in the San Francisco Bay.

### **4.0 RECOMMENDATIONS FOR MITIGATIVE ACTIONS**

The results of the environmental investigations indicate portions of the fill soil beneath the Site contain petroleum hydrocarbons, petroleum-related VOCs, as well as elevated levels of lead; petroleum hydrocarbons have also been detected in groundwater. Additionally, methane has been detected at elevated concentrations in soil gas.

The presence of these compounds poses soil management and potential health and safety issues to be addressed as part of the Site development activities. As such, this SMP and a separate Health and Safety (H&S) Plan will be required prior to construction. This SMP provides recommended measures to mitigate the long-term environmental or health and safety risks caused by the presence of hazardous materials in the soil, groundwater, and soil gas. The H&S Plan will outline proper soil handling procedures and health and safety.

#### **4.1 Health and Safety Issues**

On the basis of our experience on similar sites, there are potential health and safety risks associated with the chemicals detected at the Site. We judge there may be the potential for this soil to affect construction workers at the Site, nearby residents and/or pedestrians, and future users of the Site. The routes of potential exposure to the chemicals could be through

three pathways: 1) dermal (skin) contact with the soil, 2) inhalation of dusts or soil gas, and 3) ingestion of the soil.

The most likely potential for exposure will be during soil excavation operations. Because on-site materials contain concentrations of chemicals in excess of the Proposition 65 guidelines, we recommend that proper health and safety procedures, as well as warning requirements, be implemented during construction. The Site contractor should be responsible for establishing and maintaining proper health and safety procedures to minimize worker and public exposure to Site contaminants during construction. The potential health risk to on-site construction workers and the public will be minimized by developing and implementing a comprehensive H&S Plan, which should be prepared by a certified industrial hygienist that represents the Site contractors.

The H&S Plan will describe the health and safety training requirements, i.e. trained in accordance with Section 1910.120 of 29 Code of Federal Regulations (HazWoper training), specific personal hygiene, and monitoring equipment that will be used during construction to protect and verify the health and safety of the construction workers and the general public from exposure to constituents in the soil. It may also be necessary to conduct air monitoring to evaluate the amount of airborne particles during excavation.

The purpose of the H&S Plan is to provide field personnel with an understanding of the potential chemical and physical hazards, protection of any off-site receptors, procedures for entering the project Site, health and safety procedures, and emergency response to hazards should they occur. All project personnel shall read and adhere to the procedures established in this H&S Plan. A copy of this plan will be kept on-site during field activities and will be reviewed and updated as necessary.

The general public will be protected through the following measures:

- The Site will be fenced;
- Exposed soil at the construction Site will be watered at least twice a day to prevent visible dust from migrating off-site;
- Soil stockpiles will be covered;
- Water will be misted or sprayed during the loading of soil onto trucks for off haul;
- Trucks transporting contaminated soil will be covered with a tarpaulin or other cover;

- The wheels of the trucks exiting the Site will be cleaned prior to entering public streets;
- Public streets will be swept daily if soil is visible; and
- Excavation and loading activities will be suspended if winds exceed 20 miles per hour.

A Site health and safety officer (HASO) will be on-site at all times during excavation activities to ensure that all health and safety measures are maintained. The HASO will have authority to direct and stop (if necessary) all construction activities in order to ensure compliance with the H&S Plan.

## **4.2 Soil Management**

The proposed construction activities will disturb soil during the Site grading, and the construction of new foundations, elevator pits, and utility lines. During construction activities, dust control measures will be implemented to reduce potential exposure. These measures may include moisture-conditioning the soil, using dust suppressants, and covering the exposed soil and stockpiles with weighed down plastic sheeting to prevent exposure of the soil. The Site's H&S Plan (prepared by others) will contain additional dust monitoring, action levels, dust control measures, and work stoppage provisions that will be followed during construction activities.

### 4.2.1 Soil Stockpiling

The fill material excavated from the Site will either be loaded directly into trucks and removed from the Site for landfill disposal, or stockpiled on-site, if required by the receiving landfill, for further testing. If needed, the stockpiled soil will be placed on visqueen, bermed, and tarped at all times. The excavation contractor should establish appropriate soil stockpile locations on the Site to properly segregate and cover the excavated soil.

Soil profiling criteria depends on the proposed landfill location. These procedures should be established by the excavation contractor and coordinated with the proposed landfills prior to initiating soil excavation. Typical soil profiling requirements are one four-point composite sample per 500 to 750 cubic yards to be disposed.

### 4.2.2 Soil Profiling and Disposal

The results of the previous investigations indicated areas where total and/or soluble lead detected in Site soils exceeded California hazardous waste criteria (see Figure 3 and Appendix B). Soil to be disposed off-site will be profiled for waste characterization based on samples already collected or by stockpiling the soil and re-sampling, if required by the receiving landfill.

Soil profiled as non-hazardous will be transported and disposed at a licensed Class II or Class III landfill, depending on the landfill acceptance criteria. Soil classified as California hazardous waste will be transported either out of state to an appropriate licensed facility or to a Class I facility in California. Soil classified as Federal hazardous waste, if any, will be transported to a Class I RCRA facility. Additional segregation of excavated soil may be conducted by the excavation contractor, depending upon off-site facility acceptance criteria. Soil transporters and specific disposal locations will be identified prior to construction and summarized in the construction completion report.

The contractor, on behalf of the owner, will be responsible for tracking final soil dispositions. Any soil considered a State or Federal hazardous waste will be tracked using the Uniform Hazardous Waste Manifest System (USEPA Form 8700-22), as applicable. Soil not considered hazardous waste will be tracked using non-hazardous bills of lading. These two systems will be used to comply with appropriate State and Local requirements. The contractor will be responsible for accurate completion of the hazardous waste manifests and non-hazardous bills of lading. Records of all wastes shipped off-site will be maintained by the contractor and will be made available for inspection on request. All manifests and bills of lading will be provided to Langan during the excavation activities, as they are generated.

#### 4.2.3 Soil Sampling

Confirmation soil sampling will be conducted at the final subgrade, at the base of the excavation. Six soil samples will be collected at equally spaced locations to provide lateral coverage along the excavation base. In addition, two of the proposed sample locations are located at the former railroad spur and platform area, where materials handling could have occurred. The proposed sample locations are shown on Figure 2.

The soil samples will be collected by using a hand driven sampler with an inside diameter of 2-inches, lined with a clean stainless steel tube, and driven into the soil. The ends of the sample tube will be covered with Teflon and sealed with plastic end caps, and placed into an ice-cooled chest until delivery to an analytical laboratory. The soil samples will be identified by using a progressive numbering sequence with the date of the sample collection and the location. All soil samples will be analyzed at a California Department of Health Services certified analytical laboratory for TRPH by IR Spectrometry; TPHg, TPHd, and TPHmo by Modified EPA Method 8015B; VOCs by EPA Method 8260B; and total lead by EPA Method 6010. Three of the samples, two of which will be collected from the railroad spur and platform area, will additionally be analyzed for SVOCs by EPA Method 8270, polychlorinated Biphenyls (PCBs) by



EPA Method 8082, CAM 17 metals by EPA Method 6020, asbestos by EPA Method 600/R-93-116, pH by EPA Method 9045D, total cyanide by Standard Method (SM) 4500 CN, and sulfide by EPA Method 9030A/E376.2. All appropriate regulatory sampling methods, holding times, and detection limits will be followed.

### **4.3 Dust Control**

Prior to initiating construction activities, a dust monitoring plan/dust control plan will be implemented to reduce potential exposure during excavation, stabilization, and loading operations. This document will contain measures to protect construction workers and the public, including dust control measures and work stoppage provisions that will be followed during construction activities. Dust control will be accomplished through implementation of engineering controls, including those identified under Section 4.2. Misting or spraying will be performed to sufficiently reduce fugitive dust emissions, but limited to prevent water runoff. Efforts will also be made to minimize the soil drop height from an excavator's bucket onto soil piles or into transport trucks.

### **4.4 Groundwater Management**

Groundwater has been encountered at the Site at approximately 7.5 to 12 feet bgs. Though not anticipated, the proposed construction activities may encounter groundwater in quantities that will require its removal from the subsurface. Based on groundwater sample results, groundwater pumped from the Site during construction dewatering will likely not require pre-treatment prior to disposal into the combined San Francisco Public Utilities Commission (SFPUC) sanitary sewer and storm water system. A permit will be obtained from SFPUC prior to any groundwater discharge. The SFPUC may require re-sampling the groundwater once a dewatering system is in place at the Site.

### **4.5 Contingency Procedures**

Though not anticipated, the following tasks should be implemented during soil excavation if underground storage tanks (USTs) and associated product lines, or other unanticipated hazardous materials such as sumps, vaults, former monitoring wells, and/or soil with significant petroleum hydrocarbon odors and/or stains are encountered:

- Stop work in the area the suspect material is encountered and cover with plastic sheets;

- Notify the Site superintendent and Langan for Site inspection and appropriate action in the suspect area; and
- Review the existing H&S Plan for revisions, if necessary, and have appropriately trained personnel on-site to work with the affected materials, once directed by the contractor.

If a UST is found, arrange for a licensed tank removal contractor to properly remove and dispose of the UST. Proper permits and notifications should be in place prior to removing the UST. If soil staining is observed, place the affected soil into a stockpile onto plastic sheets and cover with plastic sheets. Langan will complete soil sampling and analysis tasks for UST closure in accordance with San Francisco Fire Department (SFFD) and SFDPH criteria.

If any groundwater wells are located during the development, arrange for an appropriately licensed driller to abandon the well. Groundwater wells shall be appropriately abandoned in accordance with the requirements set forth by the SFDPH; water well abandonment shall also adhere to California Department of Water Resources criteria. Proper permits and notifications should be in place prior to abandoning the groundwater well.

If a sump and/or vaults are located during excavation activities, contact Langan for inspection and appropriate action. If no liquid, obvious staining or odors are observed, sump and/or vaults will be destroyed and disposed of. If liquid is present within the sump and/or vault and/or obvious staining and odors are observed, Langan will collect samples for analyses to determine proper disposal of the material.

If stained soil or odors are observed, plastic sheeting will be placed over the affected area and Langan will be contacted for inspection and appropriate action. If the material is to be excavated, the material will be stockpiled onto plastic sheeting and covered with plastic sheeting. Soil samples will be collected and analyzed to determine proper disposal of the material.

#### **4.6 Site Capping**

Based on the Phase I/Phase II ESA, elevated concentrations of heavy metals, petroleum hydrocarbons, and petroleum-related VOCs were detected in the fill soil to depths of up to 12 feet bgs. The risk of direct contact with the underlying soil by future Site users will be mitigated by capping the entire Site with either concrete building foundations, concrete paved walkways, or a cap of 2 feet of clean soil underneath landscaped areas and areas covered with permeable pavers.

#### **4.7 Methane Mitigation System**

An elevated methane condition (12.3%v) exists in soil gas at a localized area on the western portion of the Site (TR-SG-1; see Appendix B), above the 1.25%v criterion currently being used as a guideline by SFDPH. Therefore, a MMS will be constructed as part of the development to mitigate intrusion of methane into the future Site structure. Specifically, an MMS will be designed and constructed for the western portion of the building, which is separated from the remainder of the building foundation as well as the ground level by publically accessible open space.

The MMS will consist of a continuous, spray-applied vapor barrier membrane located immediately beneath the structural building slab, combined with a horizontal collection and venting system installed below the vapor barrier membrane to allow any soil vapors that would otherwise collect beneath the slab to migrate and vent to the atmosphere outside the building. The collection and venting system will include an interconnected network of perforated PVC piping embedded within a “blanket” of open-graded material such as gravel, crushed rock, or pea gravel. The piping network will be connected to vertical riser pipes, constructed of cast iron or ductile iron pipe, which will trend vertically (typically through utility pipe chases) to the roof level, where they will each be capped with a wind turbine that will generate a vacuum on the piping network to enhance collection and venting of the vapors. All below-grade utility conduits entering the building will be sealed to prevent methane migration along the conduits from outside the building into the sub-slab space beneath the building. Prior to its construction, a formal submittal, consisting of a letter describing the Site conditions, MMS design elements, and an attached set of MMS plans, will be submitted to the SFDPH for review and approval.

#### **4.8 Certification**

A certification report will be prepared by a third party separate from the contractors upon completion of Site mitigation activities. This report will present a chronology of the relevant construction events, a summary of analytical data, and a description of all mitigation activities taken during construction, including completing construction of the MMS. The completion report will include laboratory analytical results, manifest copies, and MMS as-built drawings, as applicable. It will also include a certification statement that indicates the mitigation activities have been performed in accordance with this SMP. The certification report will be submitted to the SFDPH for review and approval.

## **4.9 Operation & Maintenance Requirements**

The objective of these maintenance requirements is to ensure that the long-term Site mitigation measures will remain effective during the Site's use and occupancy period. This SMP, maintenance work plans, and maintenance records will be kept in a readily accessible location and any employee or contractor who will perform below grade construction will be informed of the environmental conditions, soil management concerns, and health and safety requirements stipulated in this SMP.

### **4.9.1 Site Cap**

To maintain the integrity of the cap and to protect future Site workers who may disturb the cap, the following procedures should be adhered to by the owner and/or operator of the Site:

- Notify the SFDPH of any proposed activity expected to disturb the integrity of the encapsulating layer or soil, thirty (30) calendar days before work commences. In cases of emergency, the SFDPH shall be notified within 24 hours and the work should commence in accordance with the mitigation measures described in this SMP.
- Prepare a specific work plan that includes a description of the proposed construction activities, Site Mitigation Plan, and H&S Plan.
- Direct any contractor or employee who disturbs the encapsulating layer and is engaged in any excavation or earth movement at the property to comply with the appropriate Local, State, and Federal regulations.
- Direct any contractor or employee engaged in any activities that involve penetrating the encapsulating layer to repair the disturbed area as soon as is practical.
- Control dust by wetting and protect exposed or excavated soil from storm run-on and run-off during the period of excavation, soil movement, or exposure.
- Determine by appropriate testing whether any excess material removed from the Site is hazardous pursuant to State or Federal hazardous criteria. This material must be managed in accordance with all appropriate regulations.
- Provide the SFDPH with a report that describes the maintenance activities related to the encapsulating layer or excavation of soil.

These measures will also be enforced during any post-installation construction activities such as utility line repair and other activities that may disturb the underlying contaminated soil.

#### 4.9.2 Methane Mitigation System

An operation and maintenance (O&M) manual for the MMS will be prepared for the building engineer's use in maintaining the system. The O&M manual will include a description of the system, a maintenance schedule, and a set of record drawings.

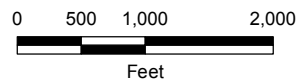
## **FIGURES**





**Notes:**

1. Aerial source: Orthophoto mosaic of San Francisco proper (2012), provided by the County and City of San Francisco.
2. Map displayed in California State Plane Coordinate System , Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



**801 BRANNAN STREET**  
San Francisco, California

**VICINITY MAP**

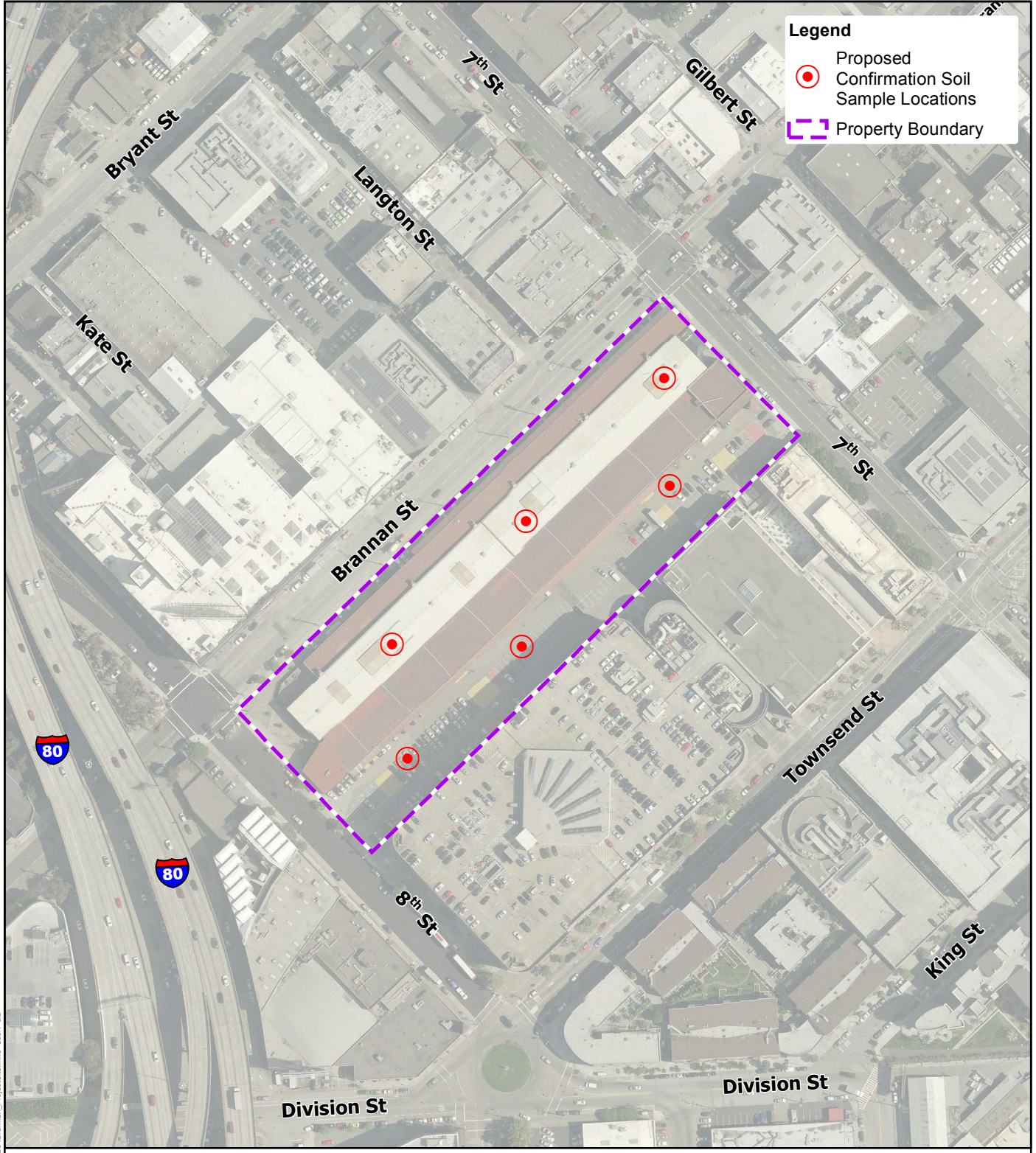
**LANGAN TREADWELL ROLLO**

Date 2/25/2014

Project 731615201

Figure 1

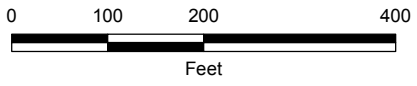




**Legend**

- Proposed Confirmation Soil Sample Locations
- Property Boundary

- Notes:**
1. Aerial source: Orthophoto mosaic of San Francisco proper (2012), provided by the County and City of San Francisco.
  2. Map displayed in California State Plane Coordinate System , Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



**801 BRANNAN STREET**  
San Francisco, California

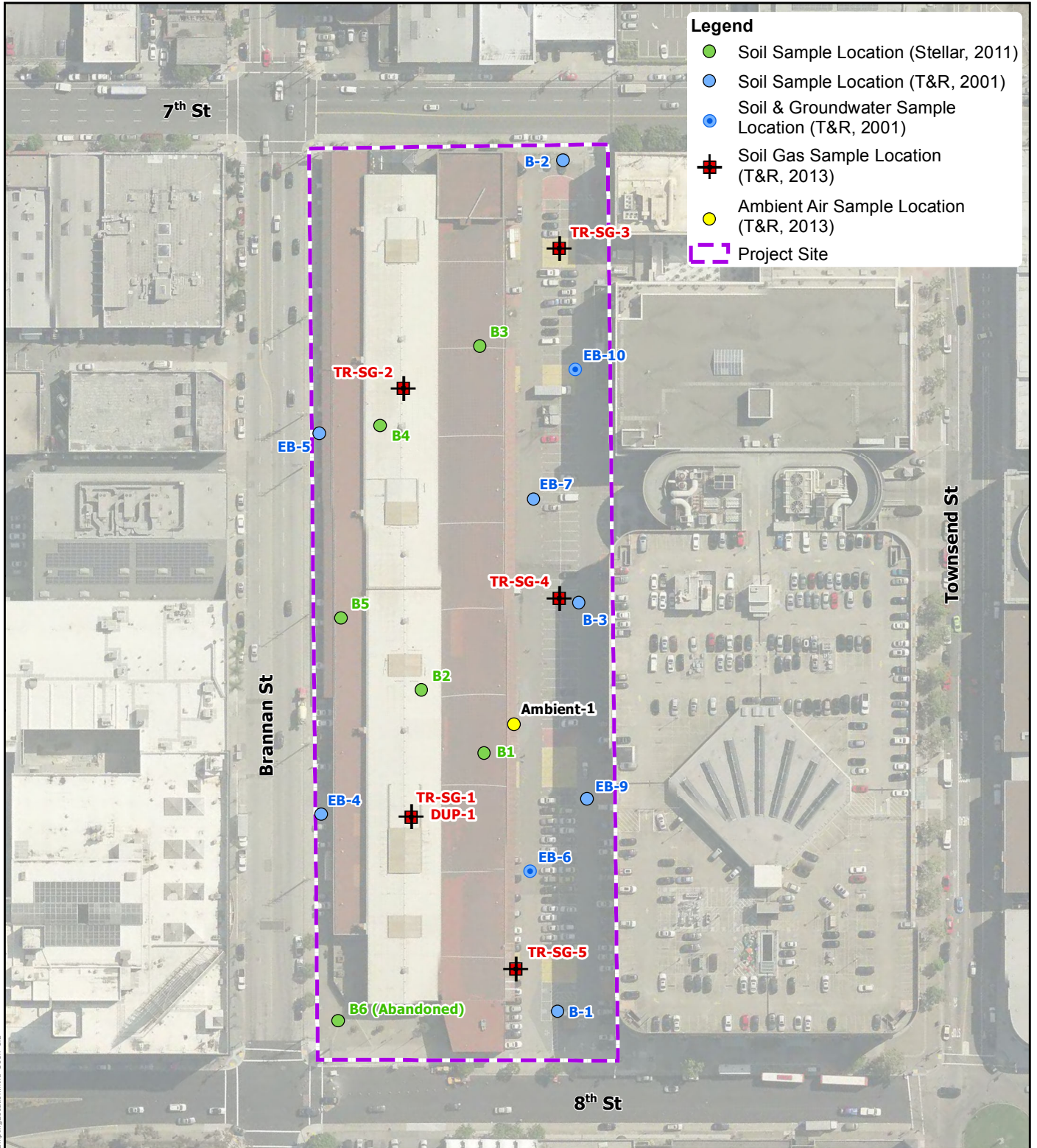
**SITE LOCATION MAP WITH  
PROPOSED CONFIRMATION SOIL  
SAMPLE LOCATIONS**

**LANGAN TREADWELL ROLLO**

Date 2/25/2014	Project 731615201	Figure 2
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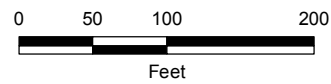
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**Notes:**

1. Aerial source: Orthophoto mosaic of San Francisco proper (2012), provided by the County and City of San Francisco.
2. Map displayed in California State Plane Coordinate System , Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



**801 BRANNAN STREET**  
San Francisco, California

**SAMPLE LOCATION MAP**

**LANGAN TREADWELL ROLLO**

Date 2/25/2014

Project 731615201

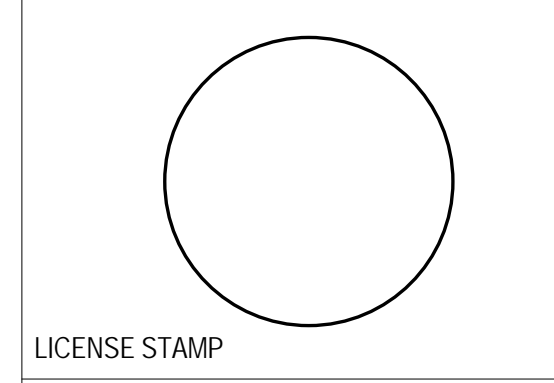
Figure 3

**APPENDIX A**  
**FOUNDATION PLANS AND SECTIONS**

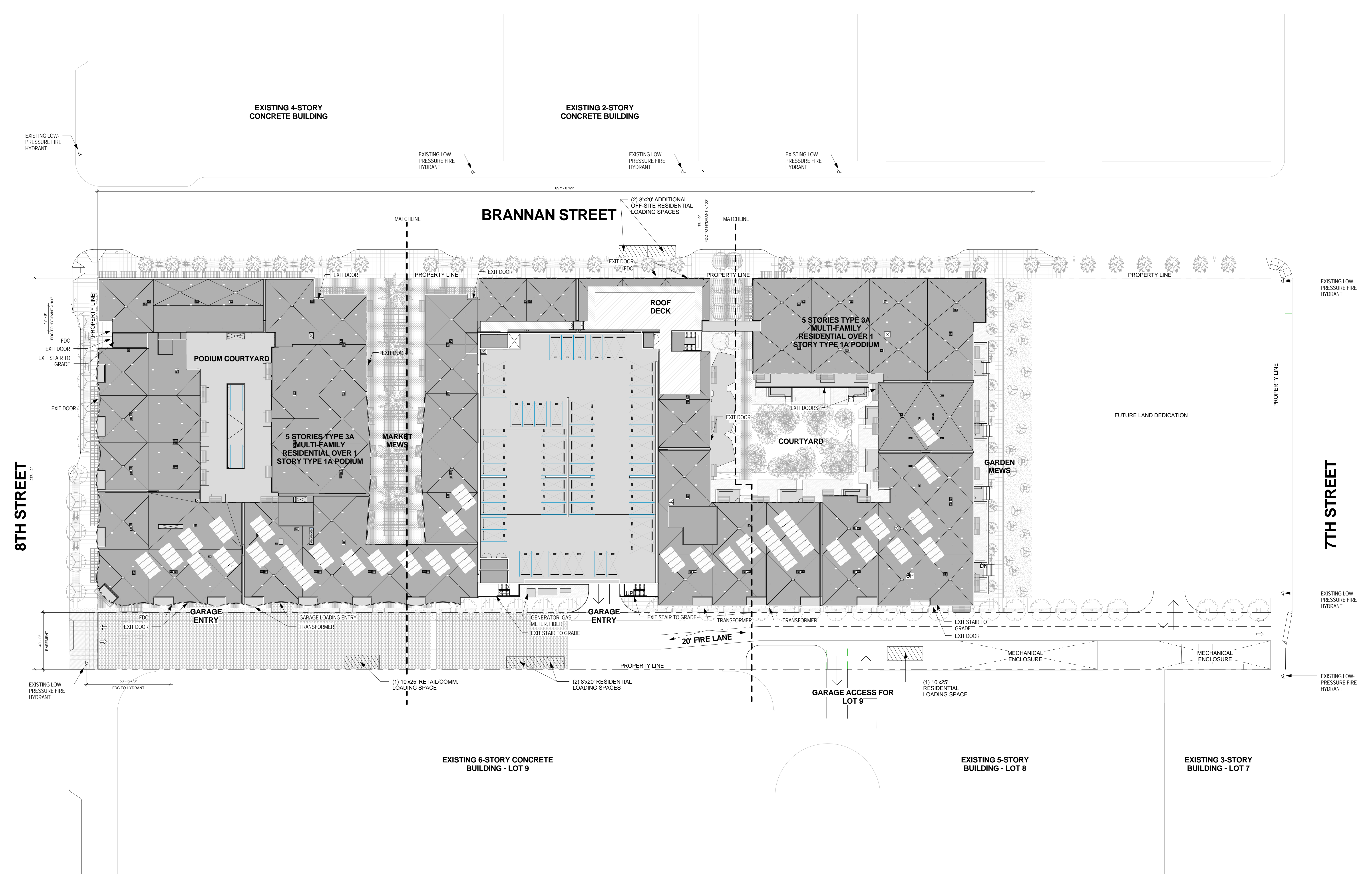




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 san francisco california 94107  
 415 896 6700 fax 415 896 6103



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801 Brannan Street  
 Equity Residential  
 801 Brannan Street, San Francisco, CA

DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE

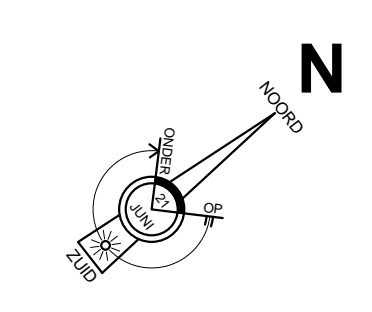
SHEET TITLE  
**SITE PLAN**

SCALE  
 1" = 30'-0"

JOB NUMBER	RELEASE DATE
21117	12/20/2013

DRAWN BY	CHECKED BY
Author	Checker

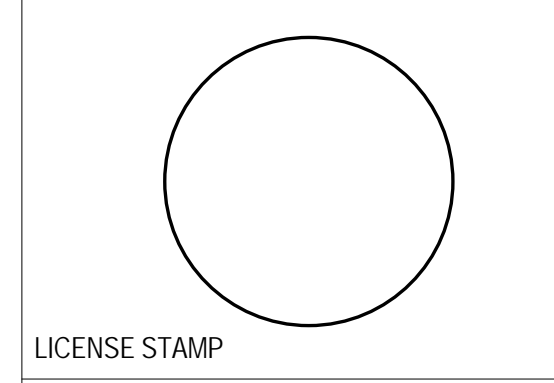
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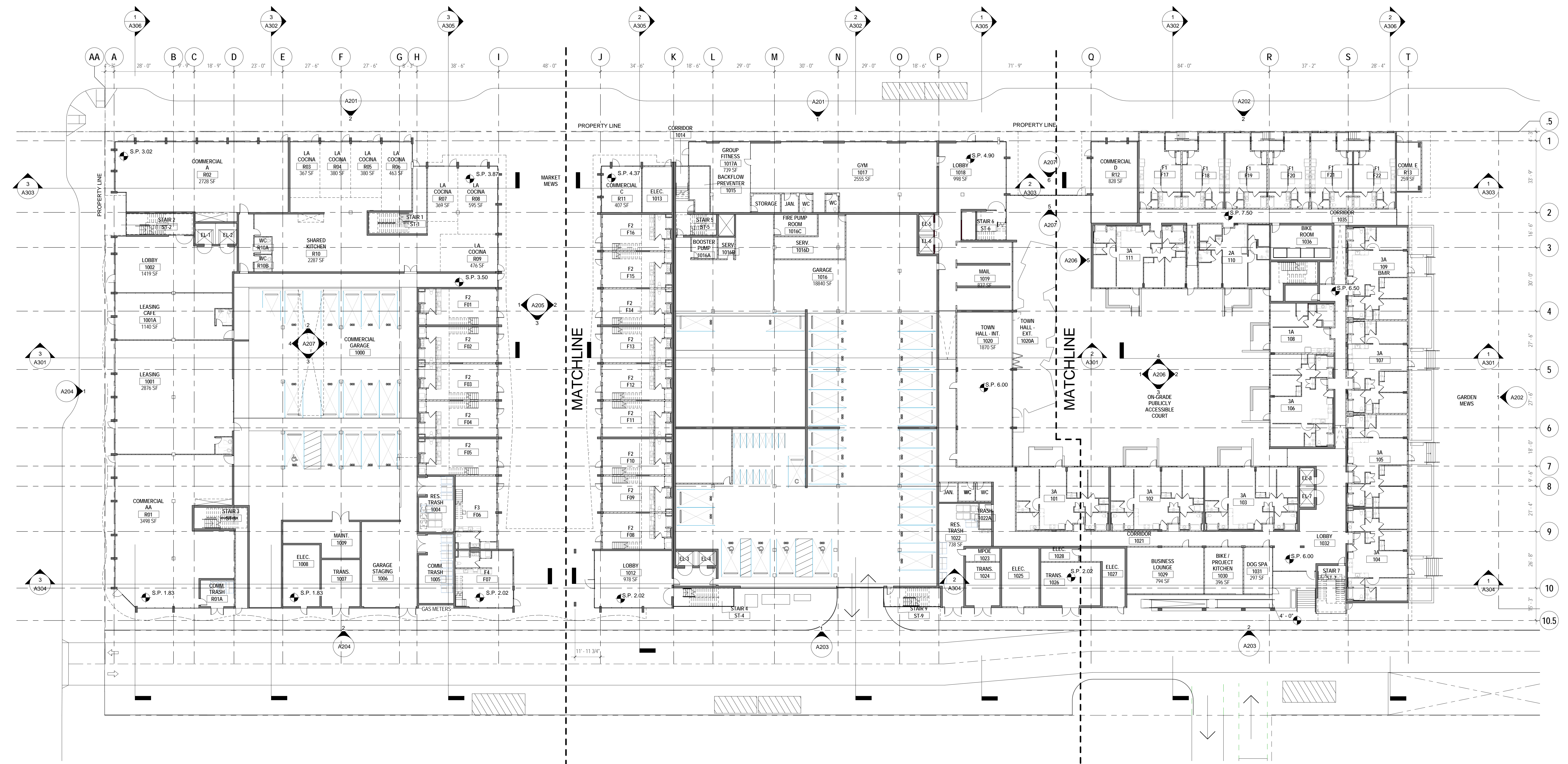




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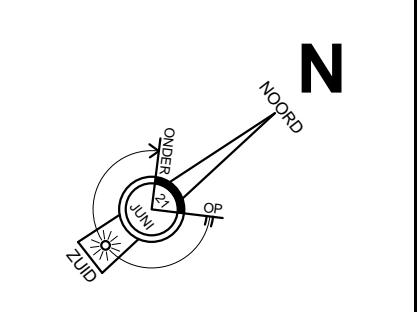
DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE

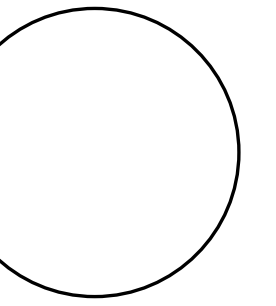
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**FLOOR PLAN - LEVEL 1**

SCALE	1" = 20'-0"
JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

**A101**  
OF SHEETS

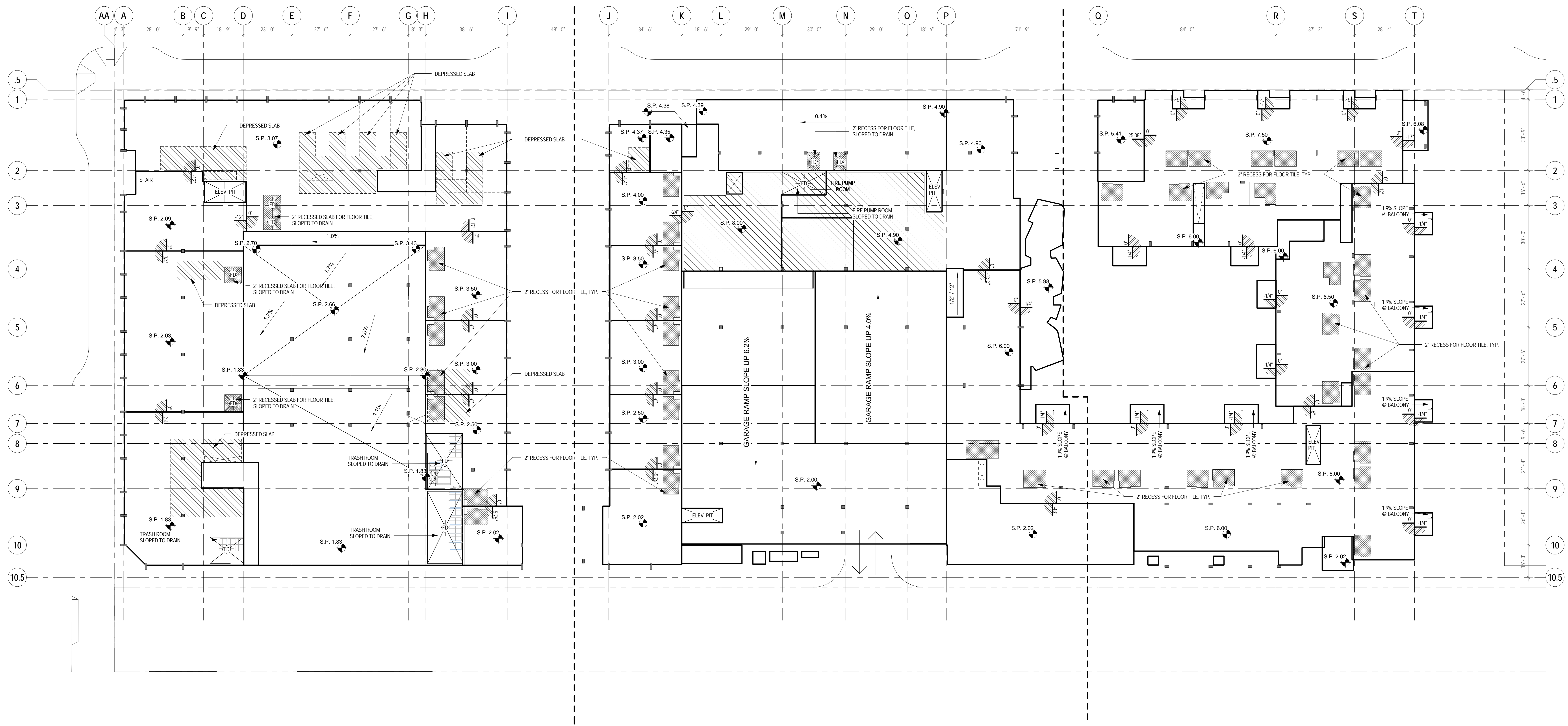






LICENSE STAMP

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ADDENDA	DATE

SHEET TITLE  
**LEVEL 1  
SLAB PLAN**

SCALE  
1" = 20'-0"

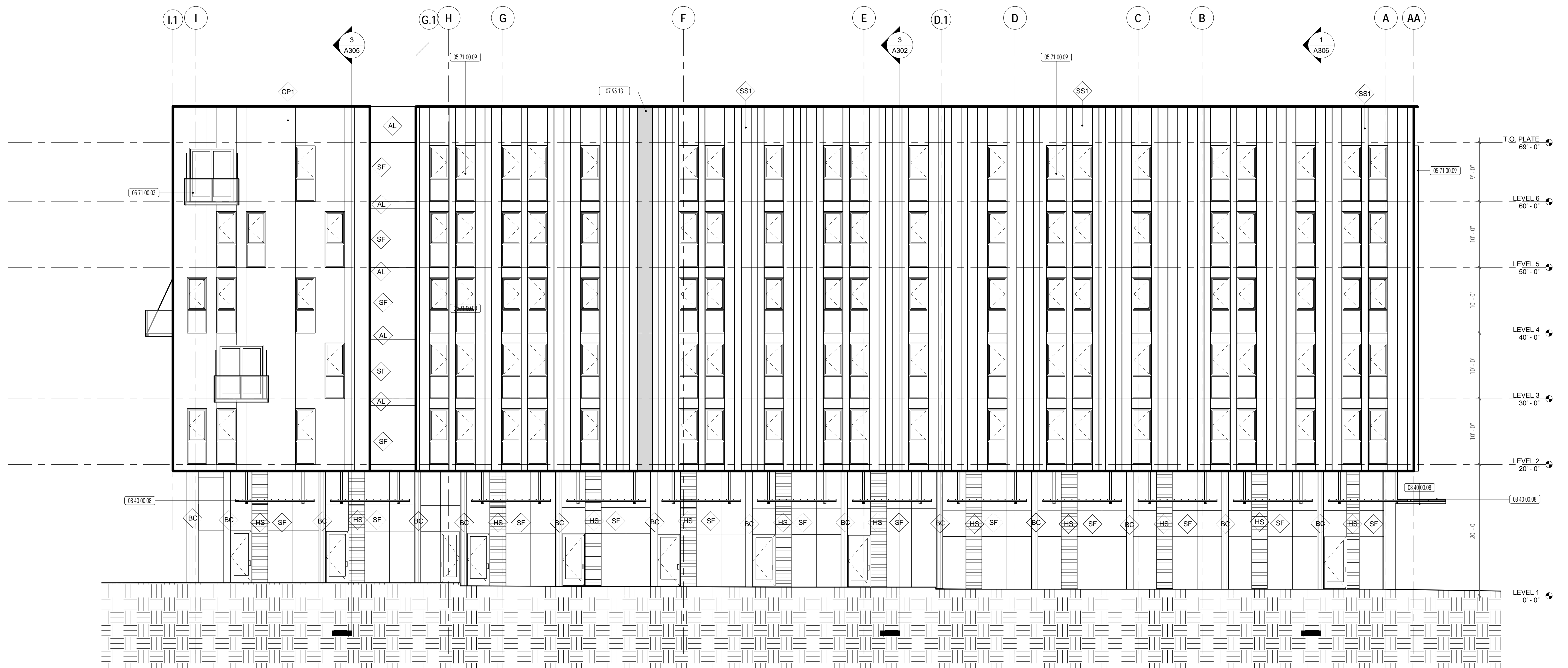
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21117	12/20/2013
DRAWN BY Author	CHECKED BY Checker

**A121**  
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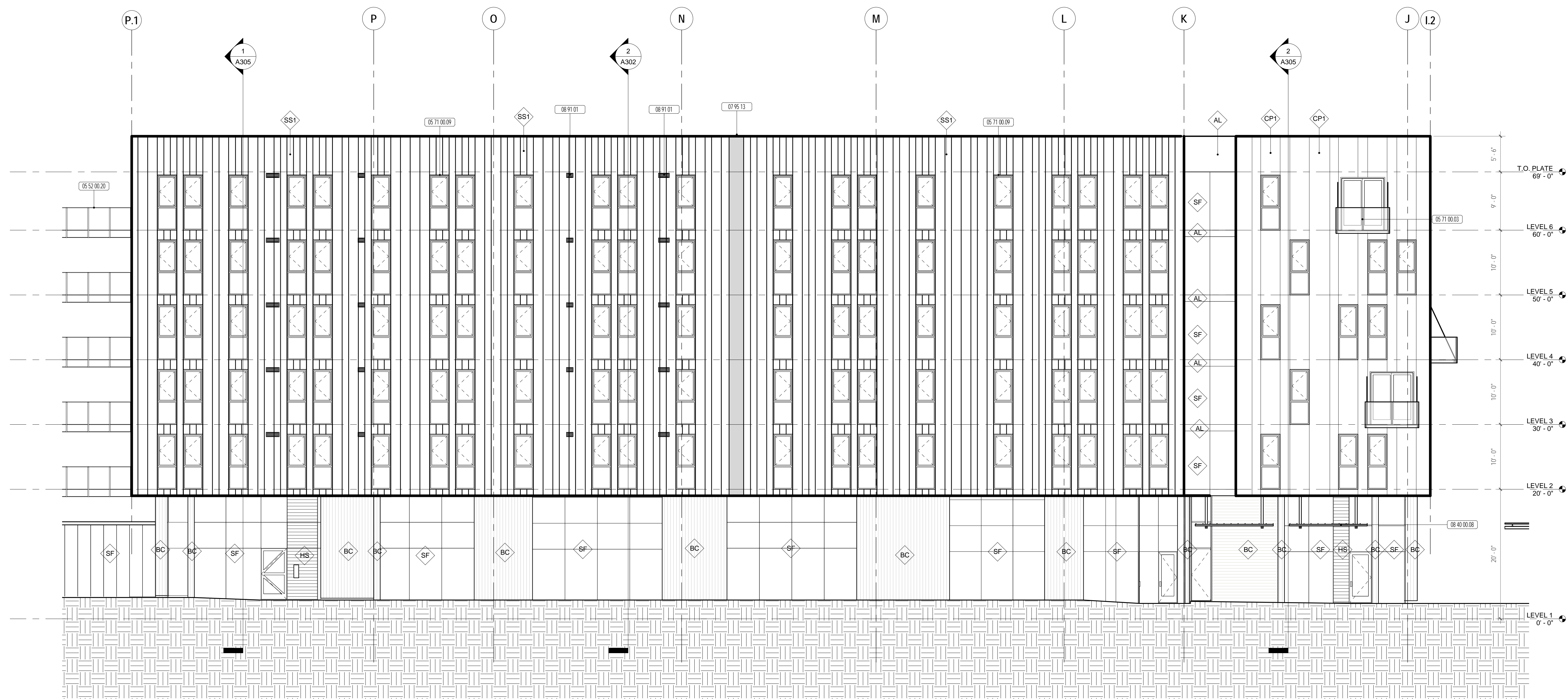


EXTERIOR MATERIAL LEGEND	
AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

KEYNOTE LEGEND	
05 52 00 20	GALV. & PTD. STEEL GUARDRAIL W/ WIRE ROPE NETTING. SEE SPEC 052200
05 71 00 03	SUSPENDED STEEL BALCONY W/ EXTERIOR COMPOSITE DECKING. SEE SPEC 057100 & 062013
05 71 00 08	VERTICAL ALUMINUM SUNSHADE. SEE SHEET A531 & SPEC 057100
05 71 00 09	VERTICAL CORTEN SUNSHADE. SEE SHEET A531 & SPEC 057100
07 05 13	EXPANSION JOINT COVER ASSEMBLY. SEE SPEC 070513
08 40 00 08	RETAIL ENTRY CANOPY. STL. FRAMING W/ ALUM. CLADDING. SEE SPEC 084000
08 91 01	DUCTED LOUVER. SMD



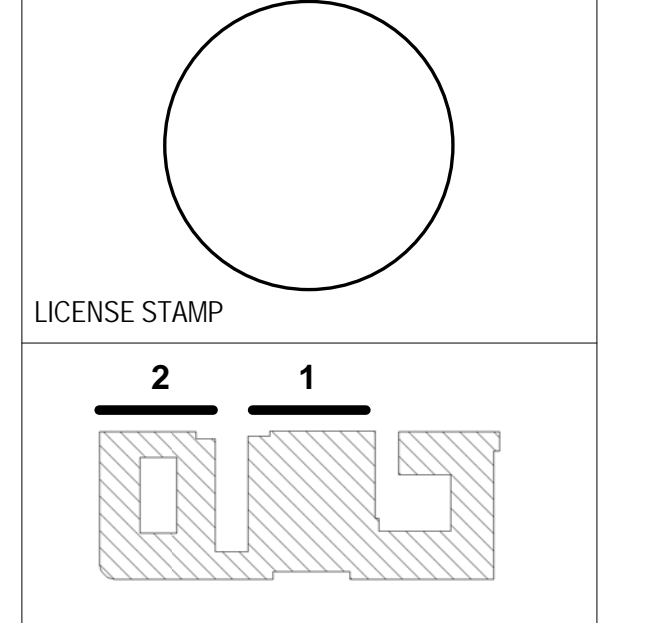
1/8" = 1'-0" NORTH ELEVATION A - BRANNAN STREET 2



1/8" = 1'-0" NORTH ELEVATION B - BRANNAN STREET 1



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Building Key

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DRAWING RELEASE STATUS	DATE
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100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE
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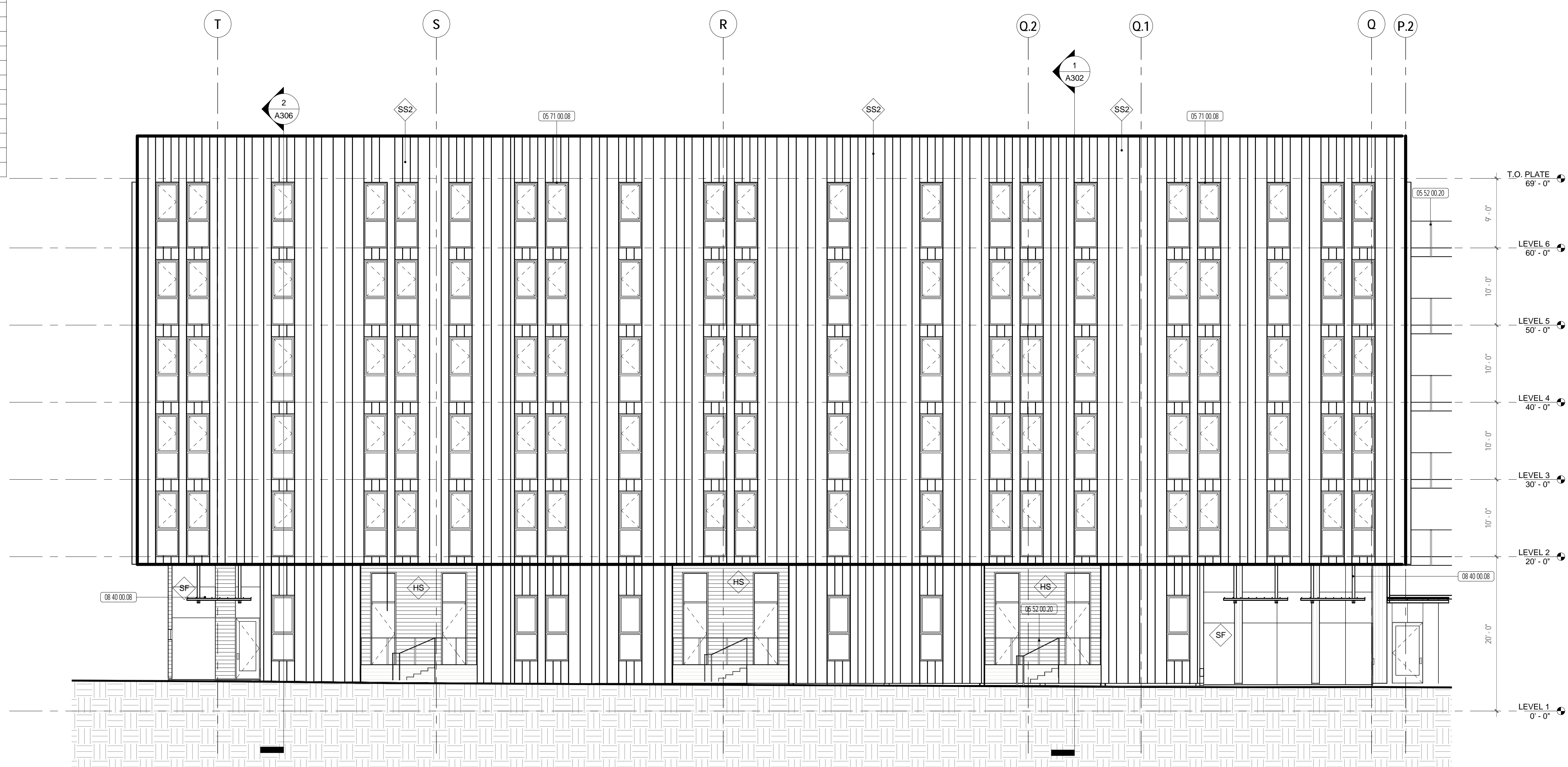
SHEET TITLE  
**BUILDING ELEVATIONS**

SCALE	
As indicated	
JOB NUMBER	RELEASE DATE
21117	12/20/2013
DRAWN BY	CHECKED BY
Author	Checker

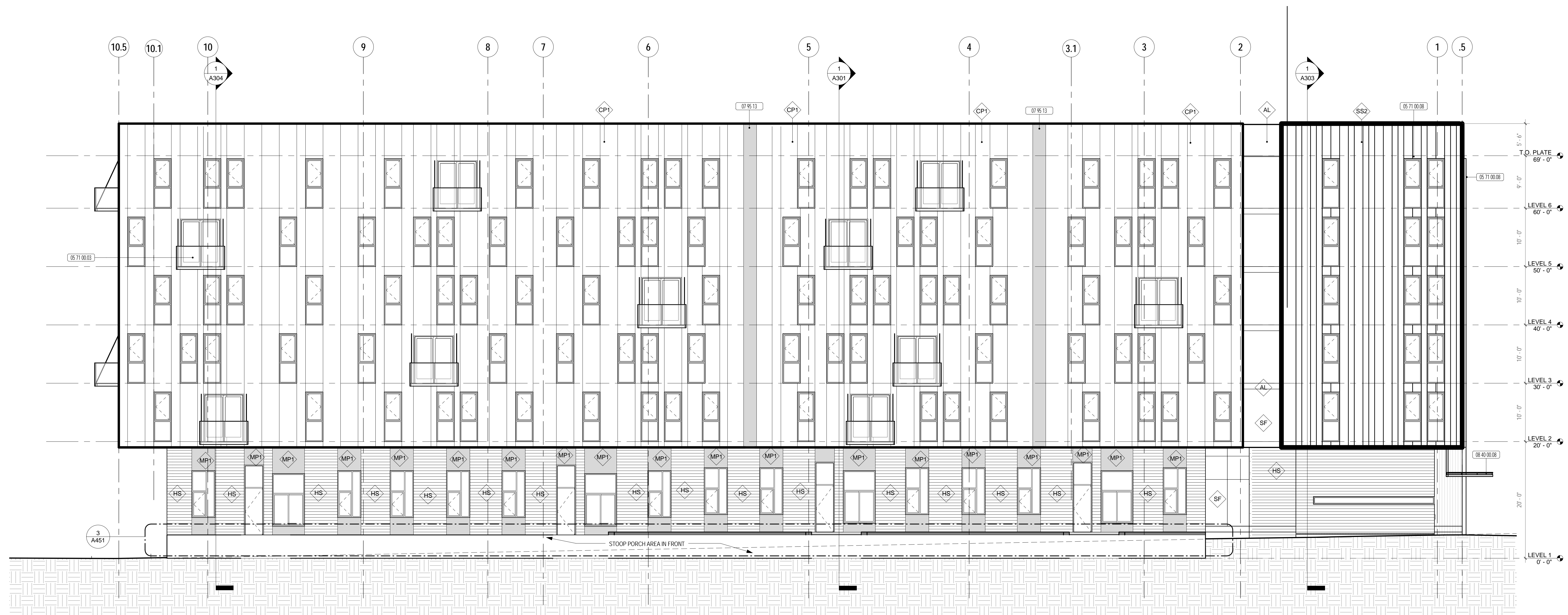
**A201**  
OF SHEETS

EXTERIOR MATERIAL LEGEND	
AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

KEYNOTE LEGEND	
05.52.00.20	GALV. & PTD. STEEL GUARDRAIL W/ WIRE ROPE NETTING. SEE SPEC 05200
05.71.00.03	SUSPENDED STEEL BALCONY W/ EXTERIOR COMPOSITE DECKING. SEE SPEC 057100 & 06203
05.71.00.08	VERTICAL ALUMINUM SHUNSHADE. SEE SHEET A511 & SPEC 057100
07.95.13	EXPANSION JOINT COVER ASSEMBLY. SEE SPEC 079513
08.40.00.08	RETAIL ENTRY CANOPY. STL. FRAMING W/ ALUM. CLADDING. SEE SPEC 084000



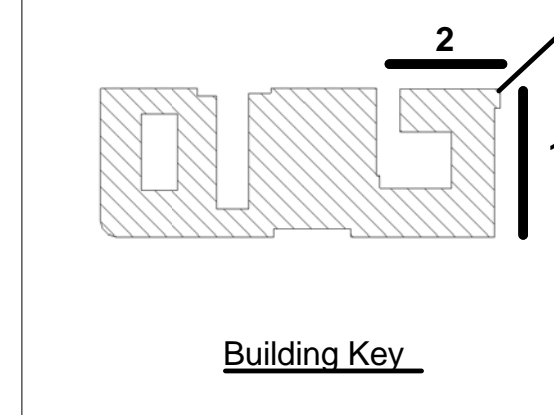
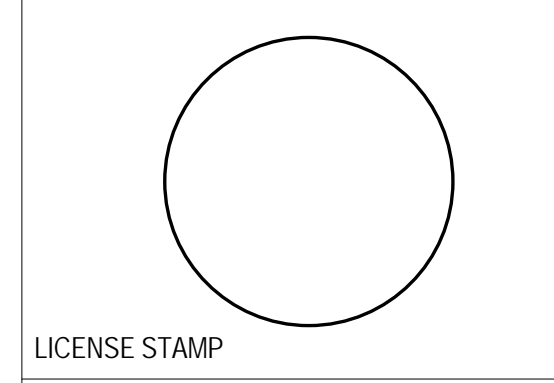
1/8" = 1'-0" NORTH ELEVATION C - BRANNAN STREET 2



1/8" = 1'-0" ELEVATION EAST - LANGSTON MEWS 1



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DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE
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SHEET TITLE  
**BUILDING ELEVATIONS**

SCALE	
As indicated	
JOB NUMBER	RELEASE DATE
21117	12/20/2013
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Author	Checker

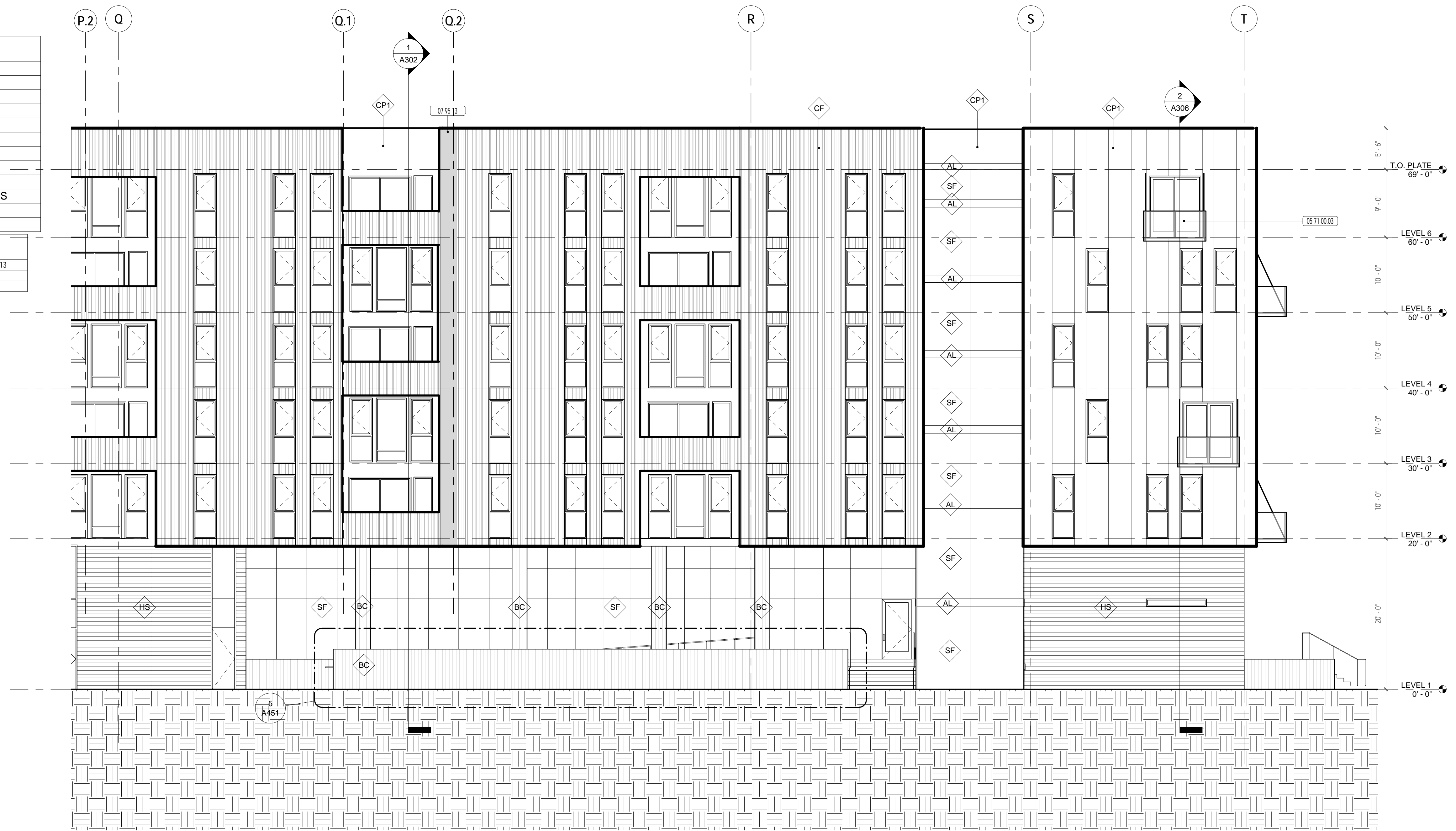
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OF SHEETS



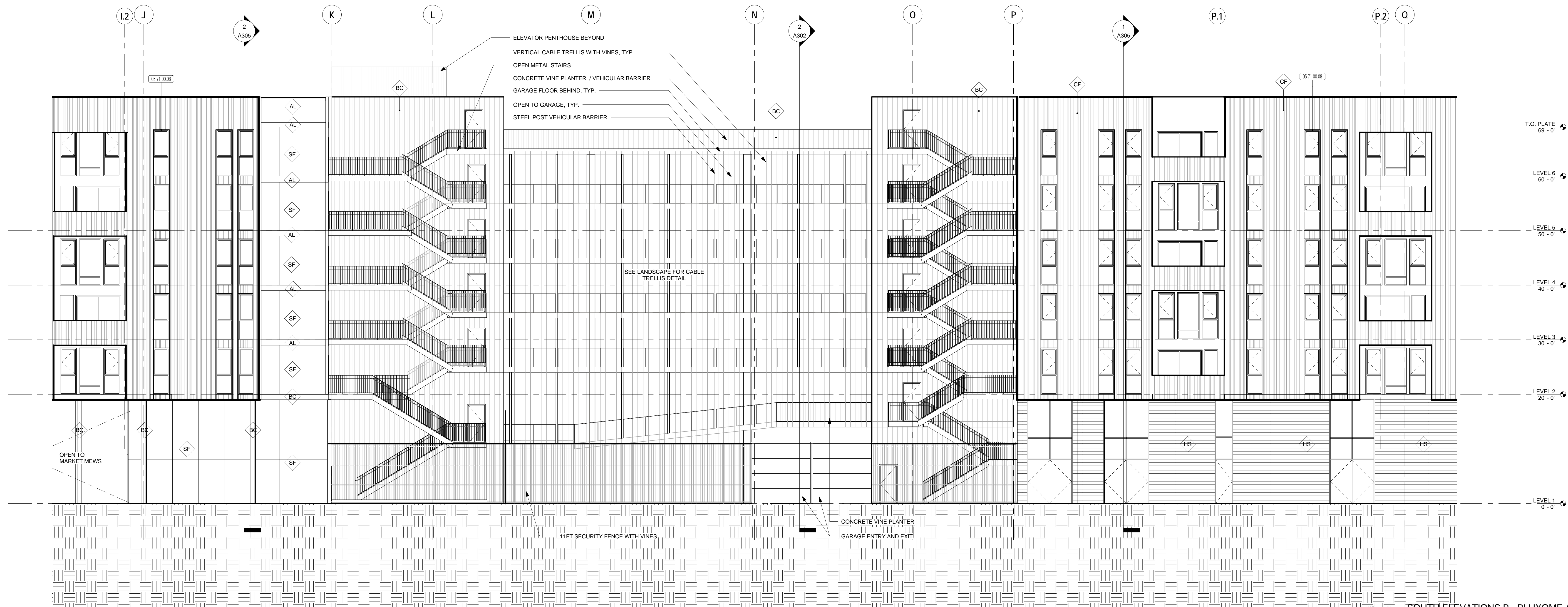
EXTERIOR MATERIAL LEGEND	
AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

KEYNOTE LEGEND	
05.71.00.03	SUSPENDED STEEL BALCONY W/ EXTERIOR COMPOSITE DECKING. SEE SPEC 05.7100 & 06.2013
05.71.00.08	VERTICAL ALUMINUM SURSHADE. SEE SHEET A301 & SPEC 05.7100
07.95.13	EXPANSION JOINT COVER ASSEMBLY. SEE SPEC 07.9513



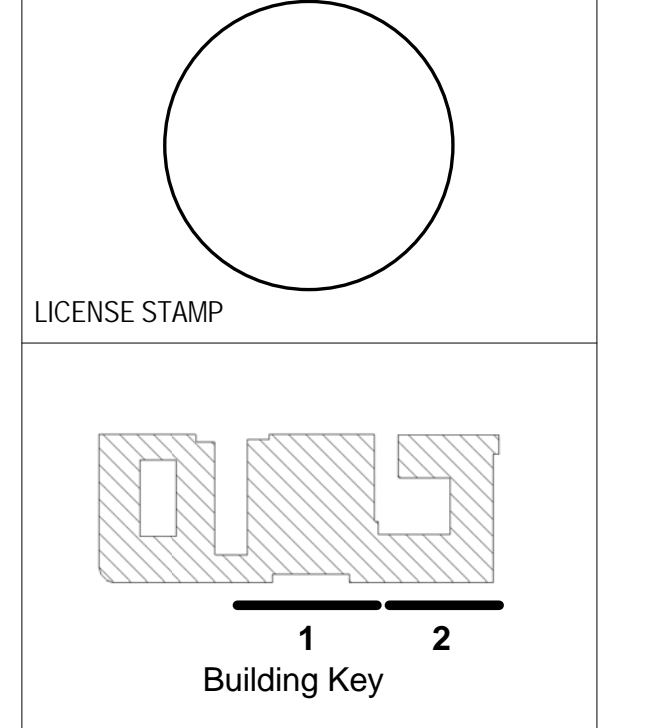
1/8" = 1'-0" SOUTH ELEVATION C - BLUXOME ALLEY 2



1/8" = 1'-0" SOUTH ELEVATIONS B - BLUXOME ALLEY 1



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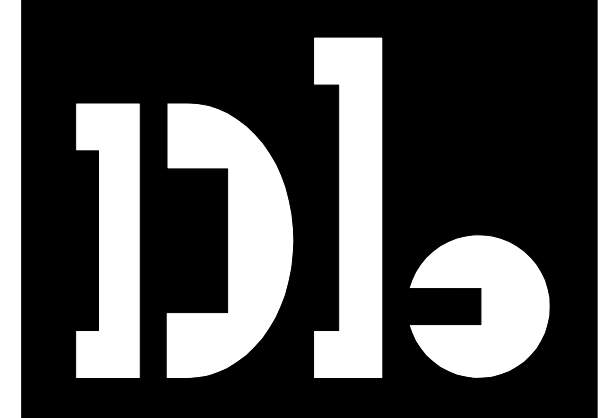
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SHEET TITLE  
**BUILDING ELEVATIONS**

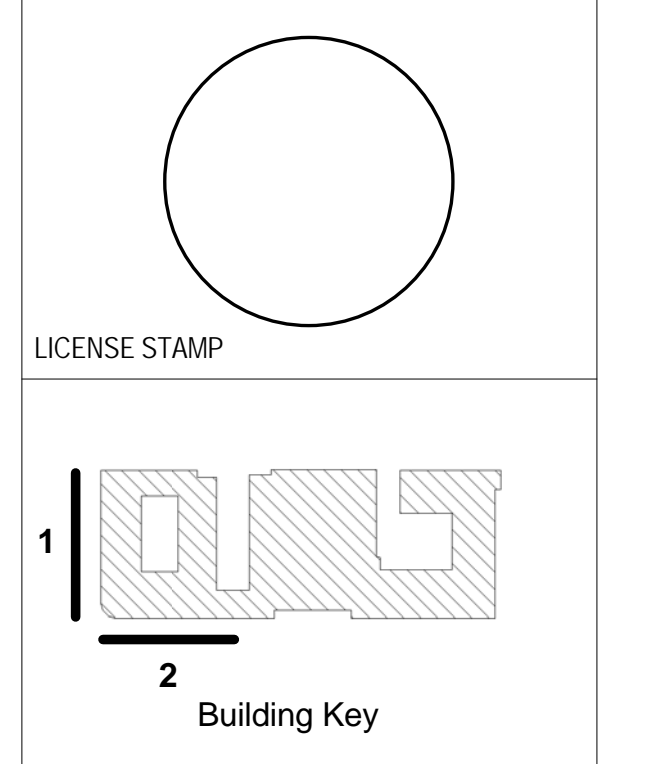
SCALE	
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JOB NUMBER	RELEASE DATE
21117	12/20/2013
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Author	Checker

**A203**  
OF SHEETS





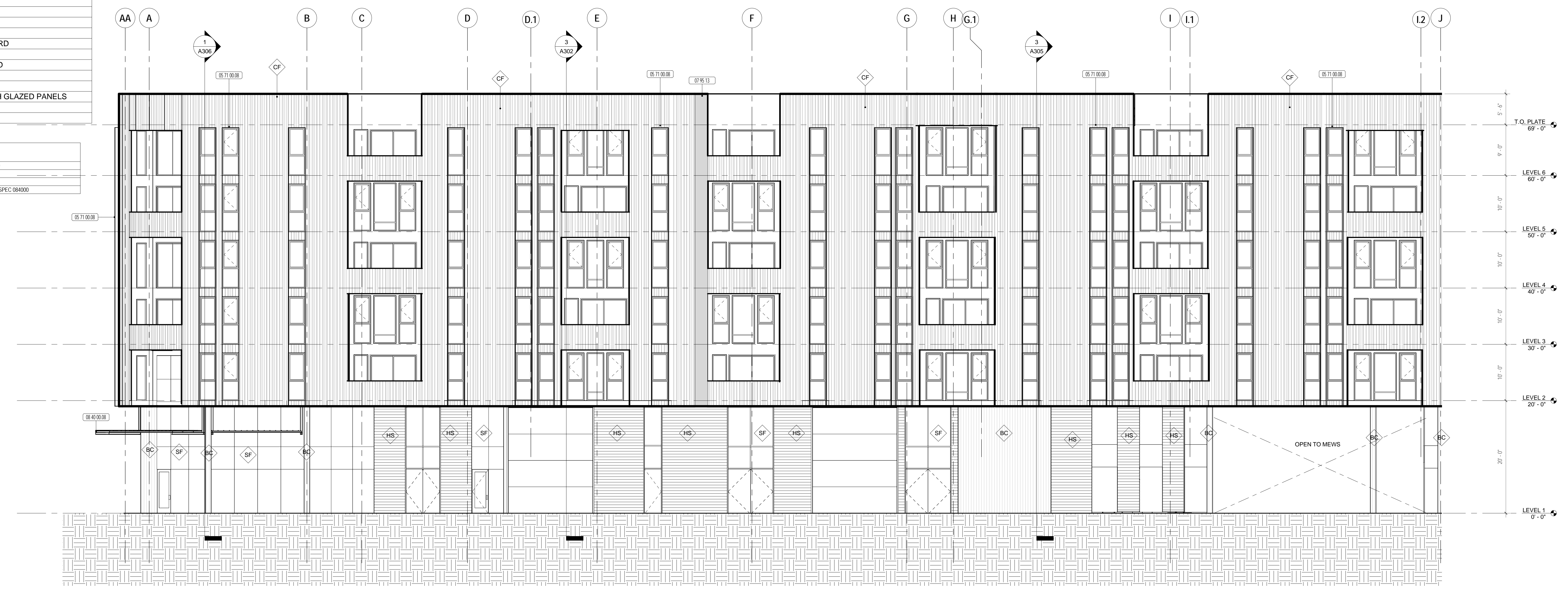
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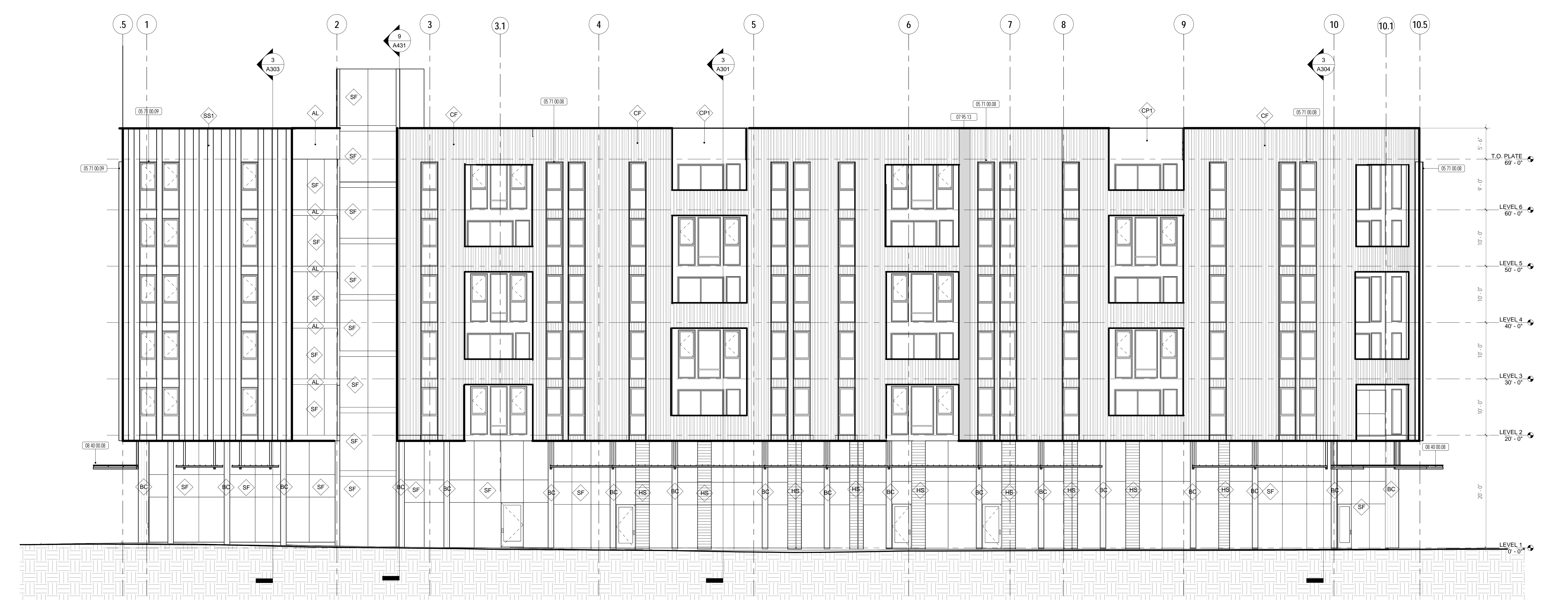
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DATE PLOTTED: 10.15.2013  
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EXTERIOR MATERIAL LEGEND	
AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

KEYNOTE LEGEND	
05.71.00.00	VERTICAL ALUMINUM SUNSHADE - SEE SHEET A311 & SPEC 057100
05.71.00.09	VERTICAL CORTEN SUNSHADE - SEE SHEET A311 & SPEC 057100
07.06.13	EXPANSION JOINT COVER ASSEMBLY - SEE SPEC 070613
08.40.00.00	RETAIL ENTRY CANOPY - STL. FRAMING-W/ ALUM. CLADDING - SEE SPEC 084000



1/8" = 1'-0" SOUTH ELEVATION A - BLUXOME ALLEY 2



1/8" = 1'-0" ELEVATION WEST - EIGHT STREET 1

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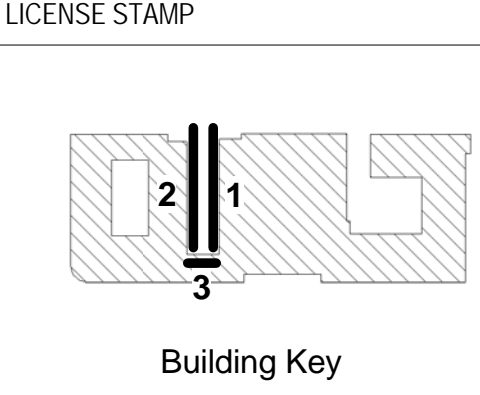
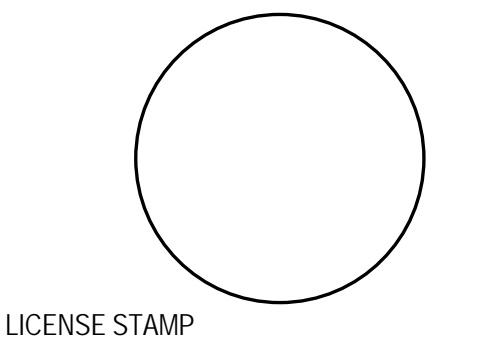
DRAWING RELEASE STATUS	DATE
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50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE
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SHEET TITLE  
**BUILDING ELEVATIONS**

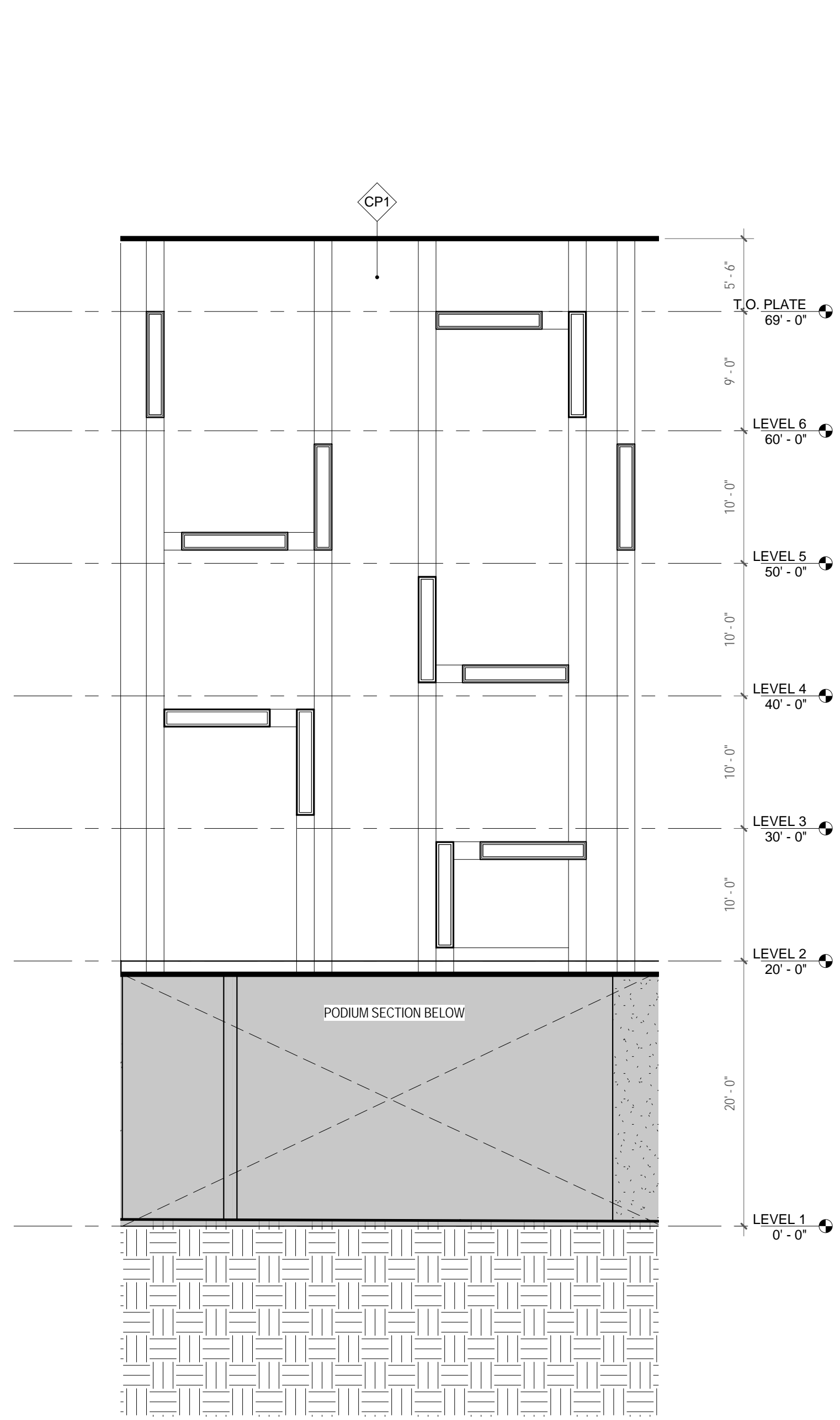
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JOB NUMBER	RELEASE DATE
21117	12/20/2013
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Author	Checker

**A204**  
OF SHEETS

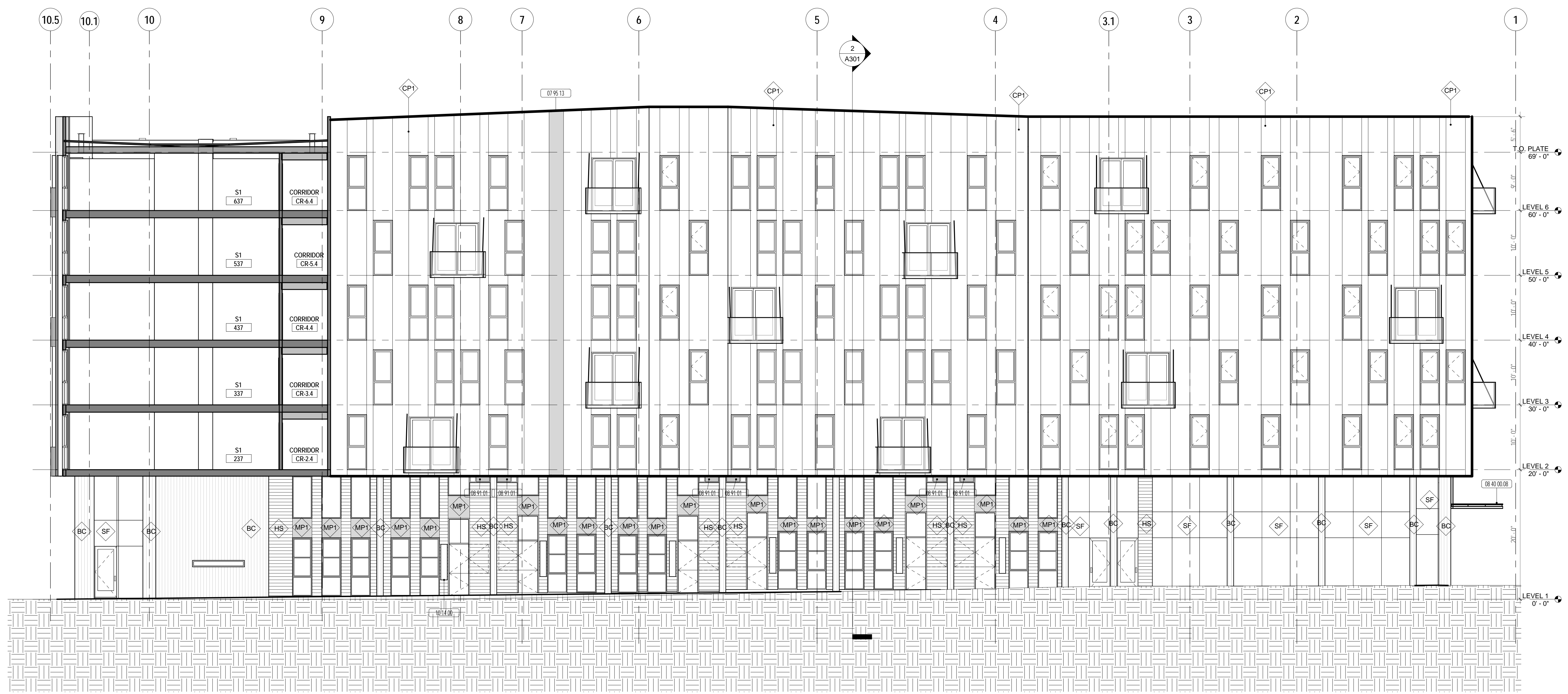


Building Key

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1/8" = 1'-0" MARKET MEWS NORTH ELEVATION 3

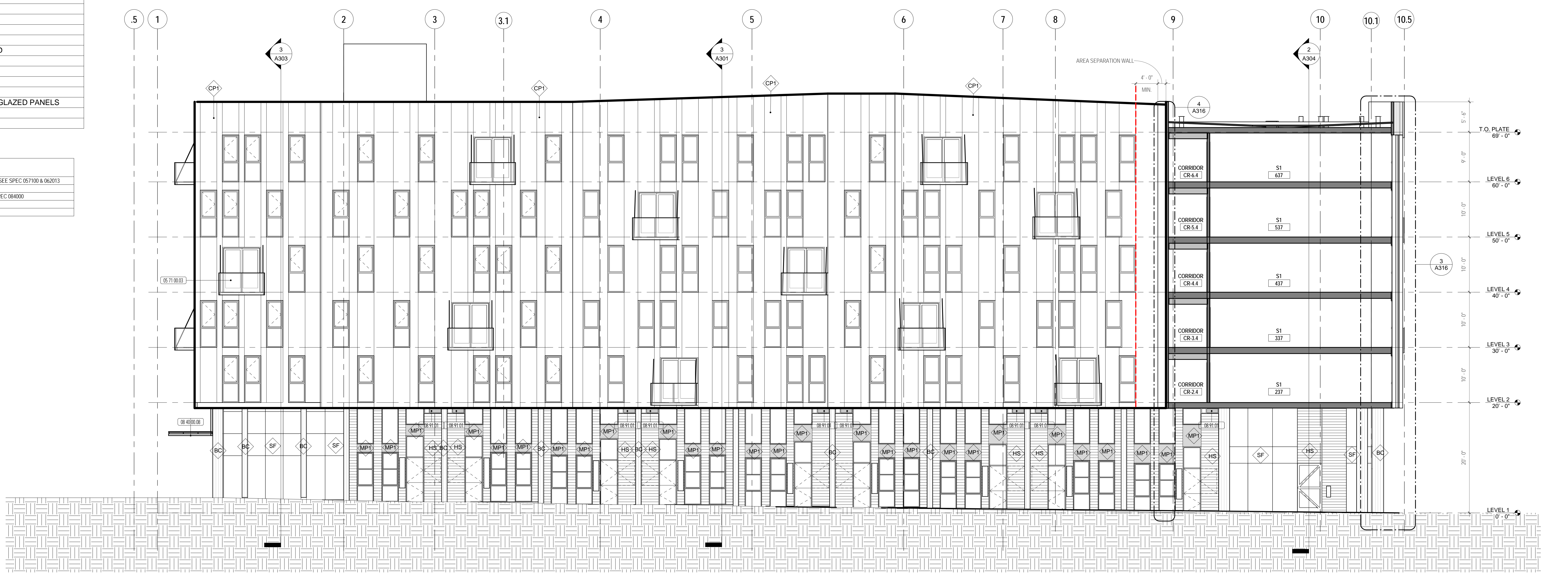


1/8" = 1'-0" MARKET MEWS - EAST ELEVATION 1

EXTERIOR MATERIAL LEGEND	
AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

KEYNOTE LEGEND	
05.71.00.01	SUSPENDED STEEL BALCONY W/ EXTERIOR COMPOSITE DECKING. SEE SPEC. 05.7100 & 06.2013
07.95.13	EXPANSION JOINT COVER ASSEMBLY. SEE SPEC. 07.9513
08.40.00.08	RETAIL ENTRY CANOPY STL FRAMING W/ ALUM. CLADDING. SEE SPEC. 08.4000
08.91.01	OUTLET COVER. OMC.
10.14.00	Signage



1/8" = 1'-0" MARKET MEWS - WEST ELEVATION 2

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100% DESIGN DEVELOPMENT	2013-12-20

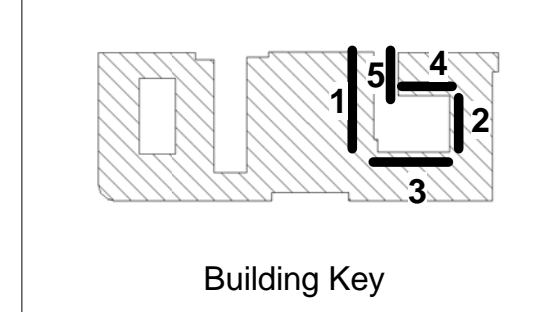
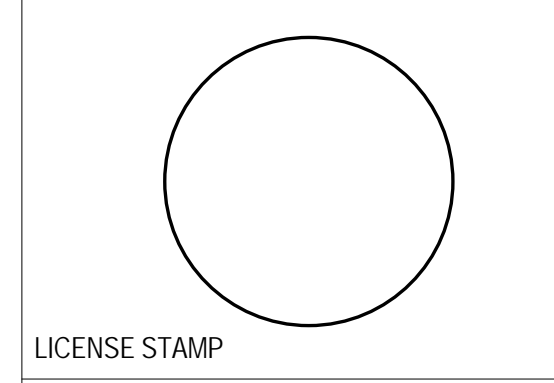
APPENDIX	DATE

**BUILDING ELEVATIONS**

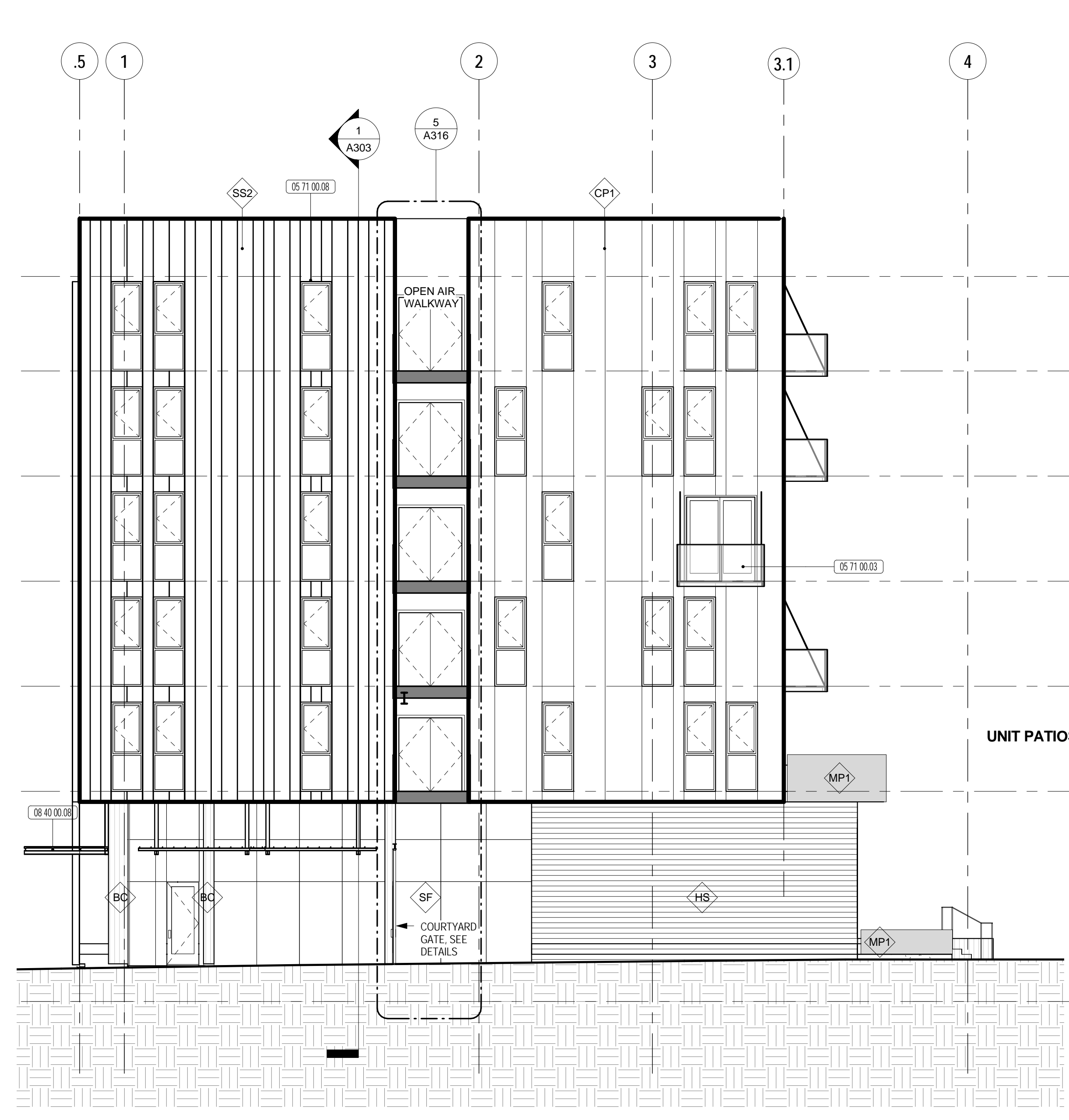
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21117	12/20/2013
DRAWN BY	CHECKED BY
Author	Checker

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OF SHEETS

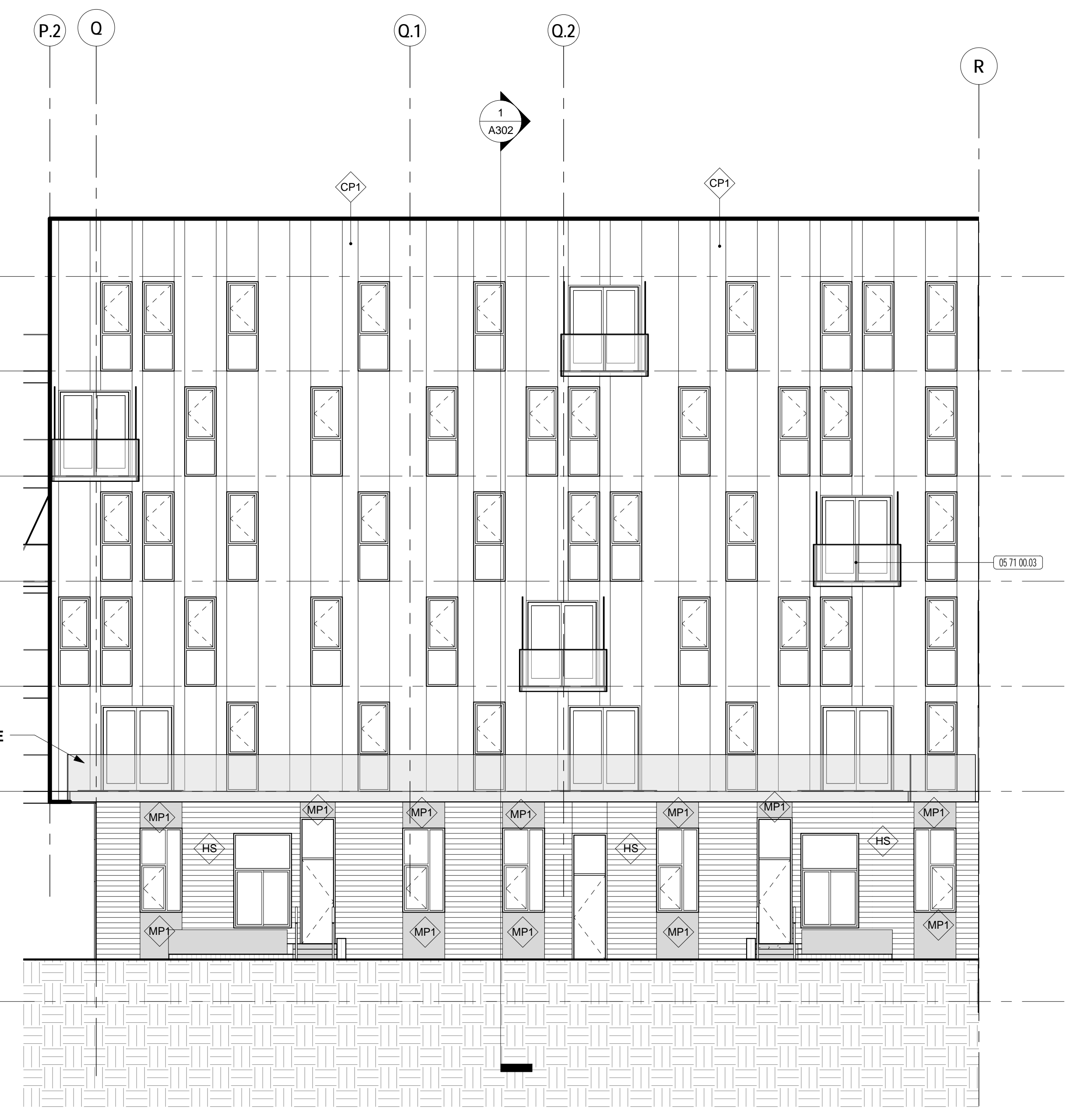




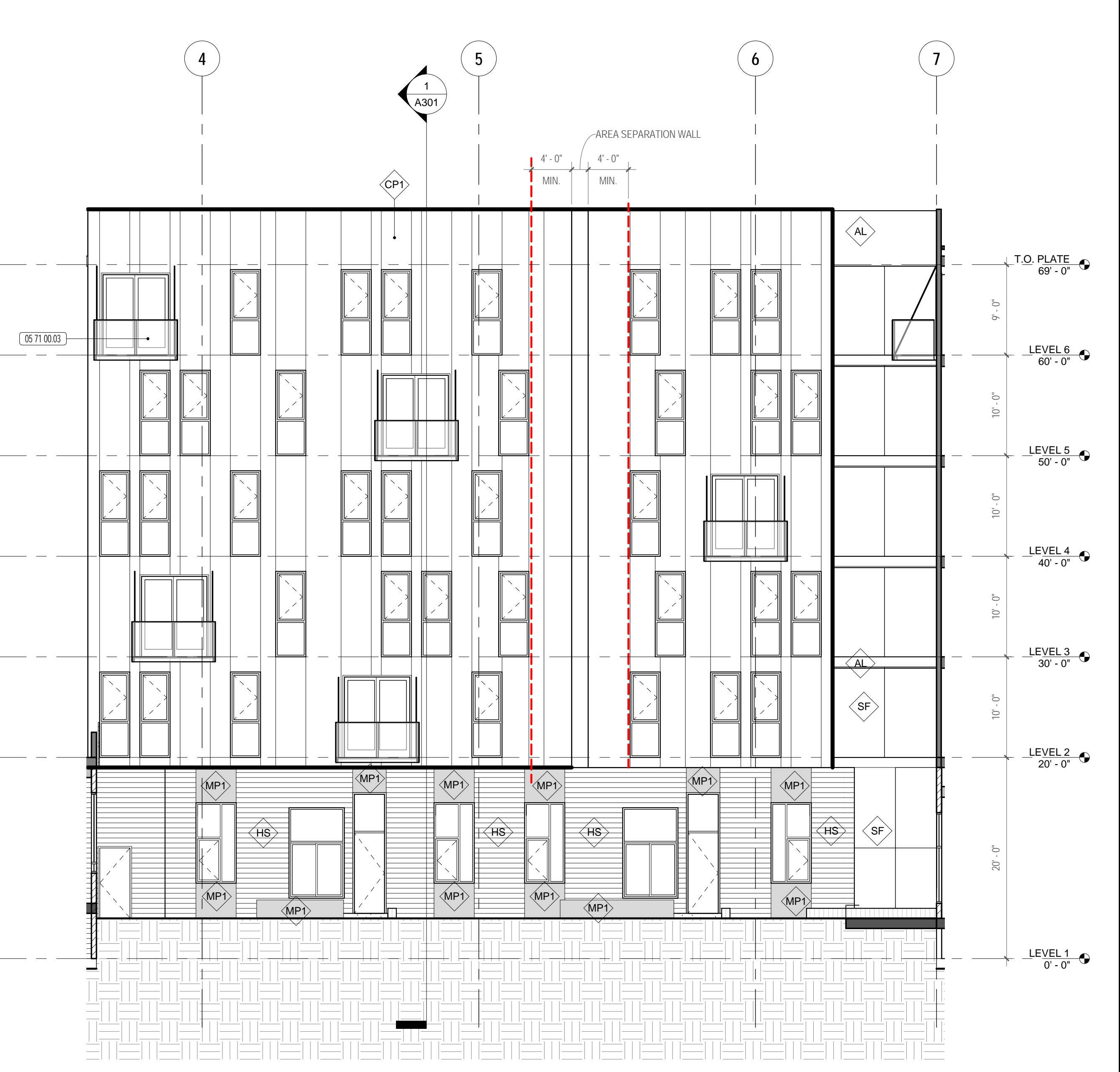
**PROGRESS PRINT**  
DATE PLOTTED: 10.15.2013  
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1/8" = 1'-0" WEST FACING COURTYARD ELEVATION 5



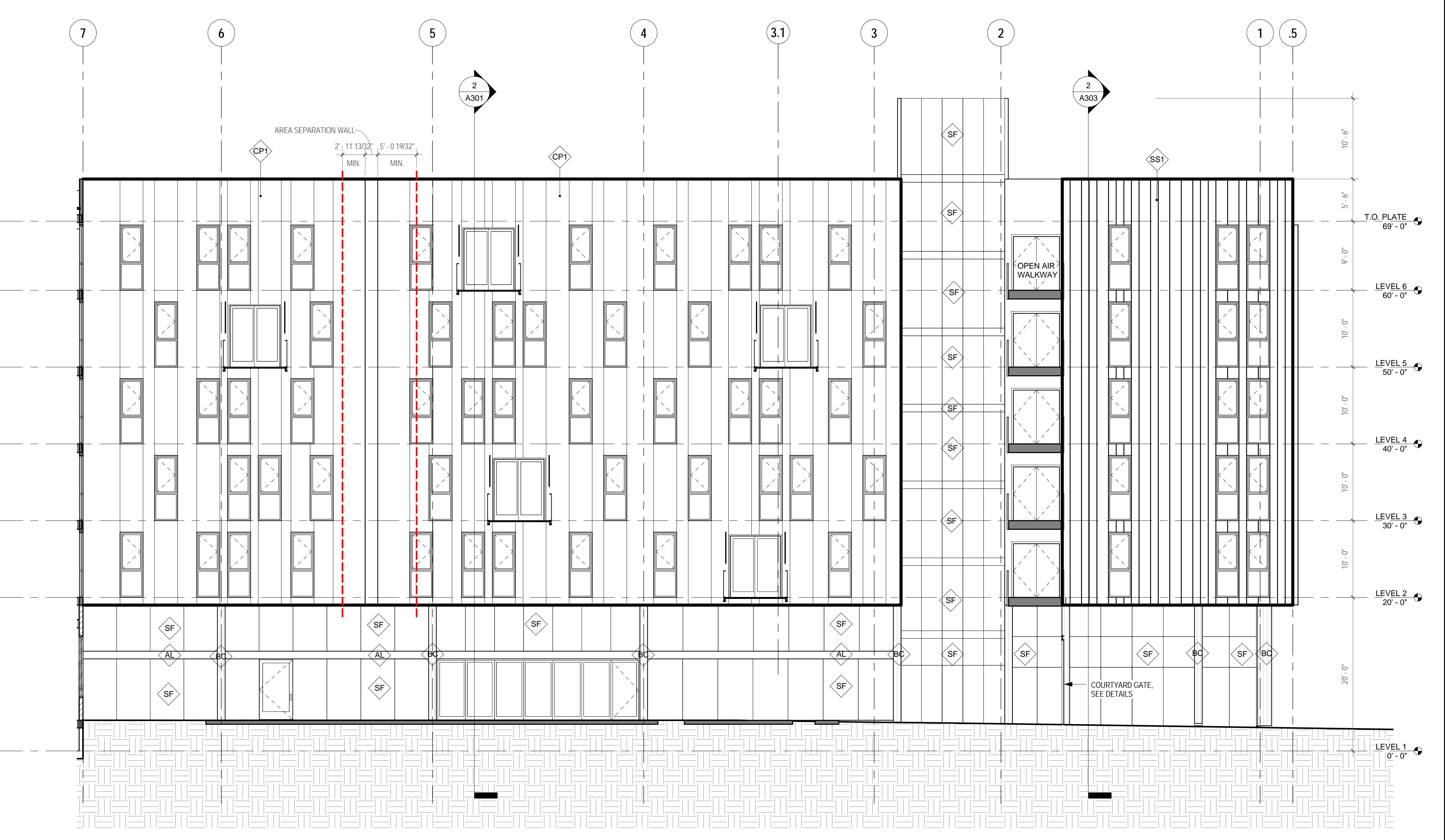
1/8" = 1'-0" SOUTH FACING COURTYARD ELEVATION 4



1/8" = 1'-0" WEST FACING COURTYARD ELEVATION 2



1/8" = 1'-0" NORTH FACING COURTYARD ELEVATION 3



1/8" = 1'-0" EAST FACING COURTYARD ELEVATION 1

KEYNOTE LEGEND	
05.71.00.03	SUSPENDED STEEL BALCONY W/ EXTERIOR COMPOSITE DECKING. SEE SPEC 05.7100.4-0300(3)
05.71.00.06	VERTICAL ALUMINUM SUNSHADE. SEE SHEET A331 & SPEC 05.7100.08.4000(08)
08.40.00.08	RETAIL ENTRY CANOPY. STL. FRAMING W/ ALUM. CLADDING. SEE SPEC 08.4000

EXTERIOR MATERIAL LEGEND	
AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

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**BUILDING ELEVATIONS**

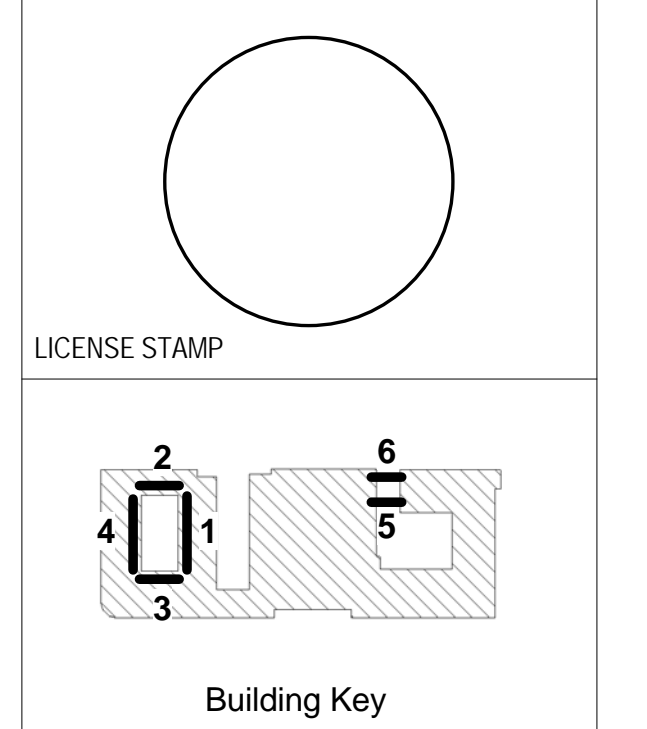
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JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

**A206**  
OF SHEETS

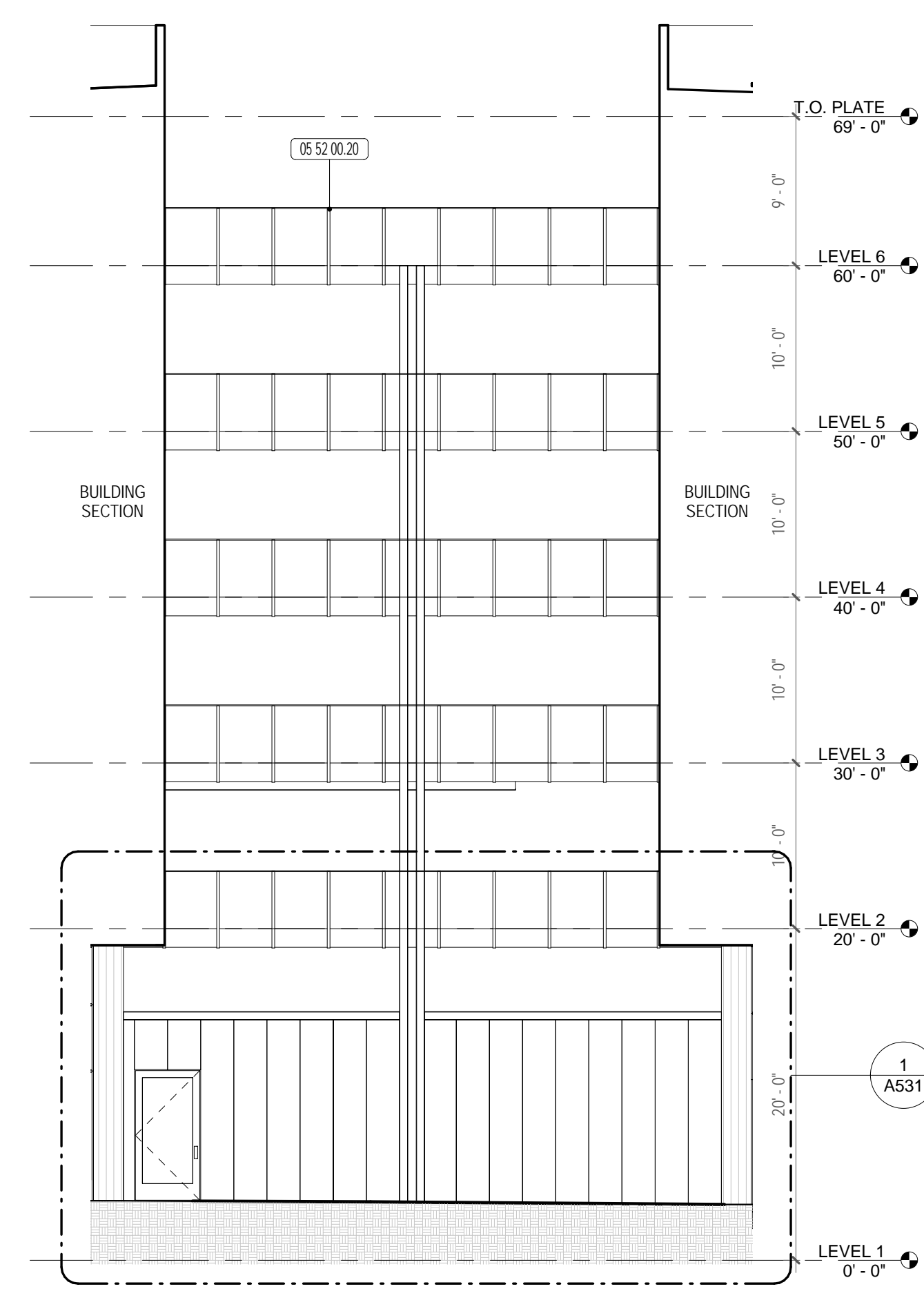




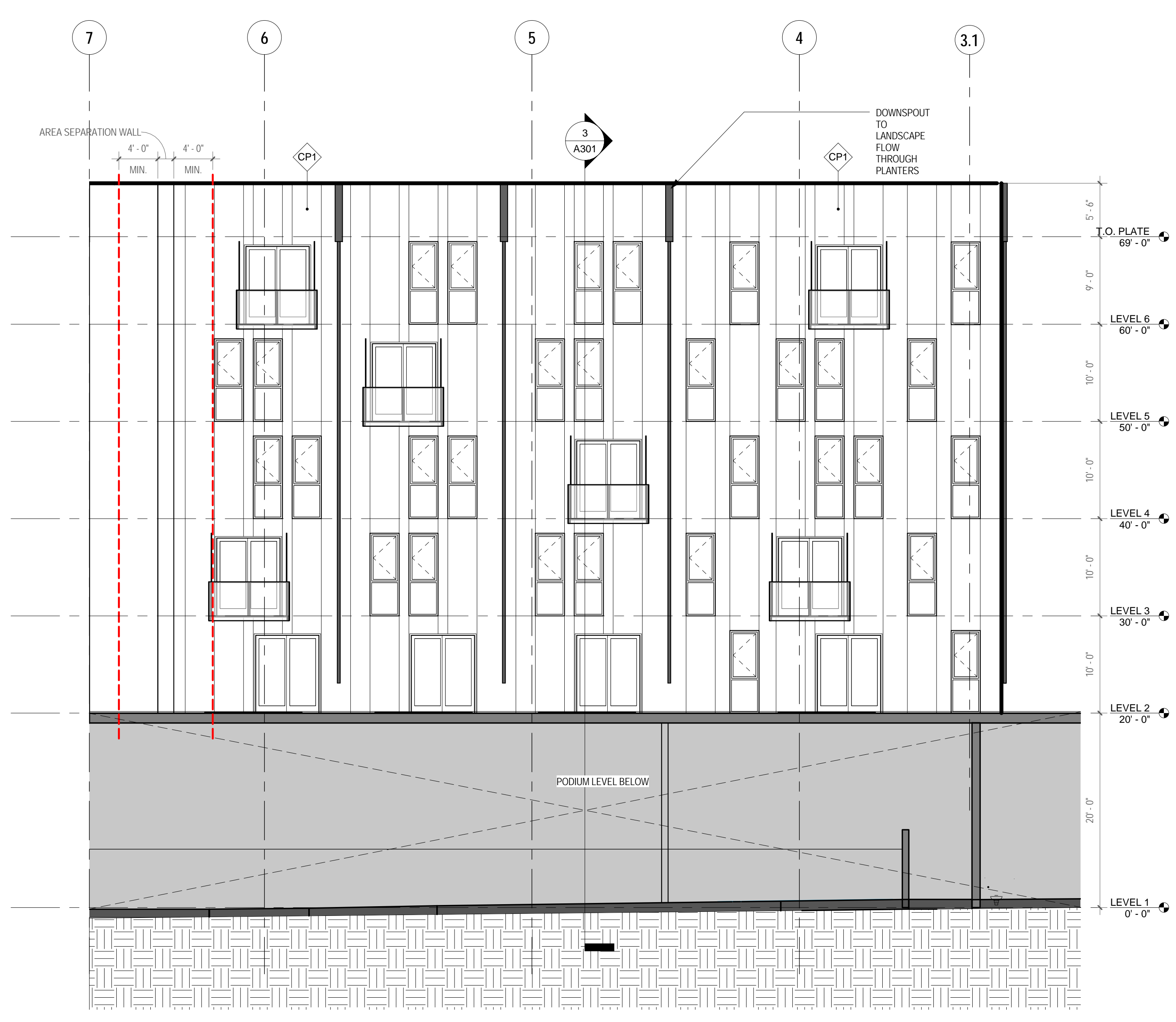
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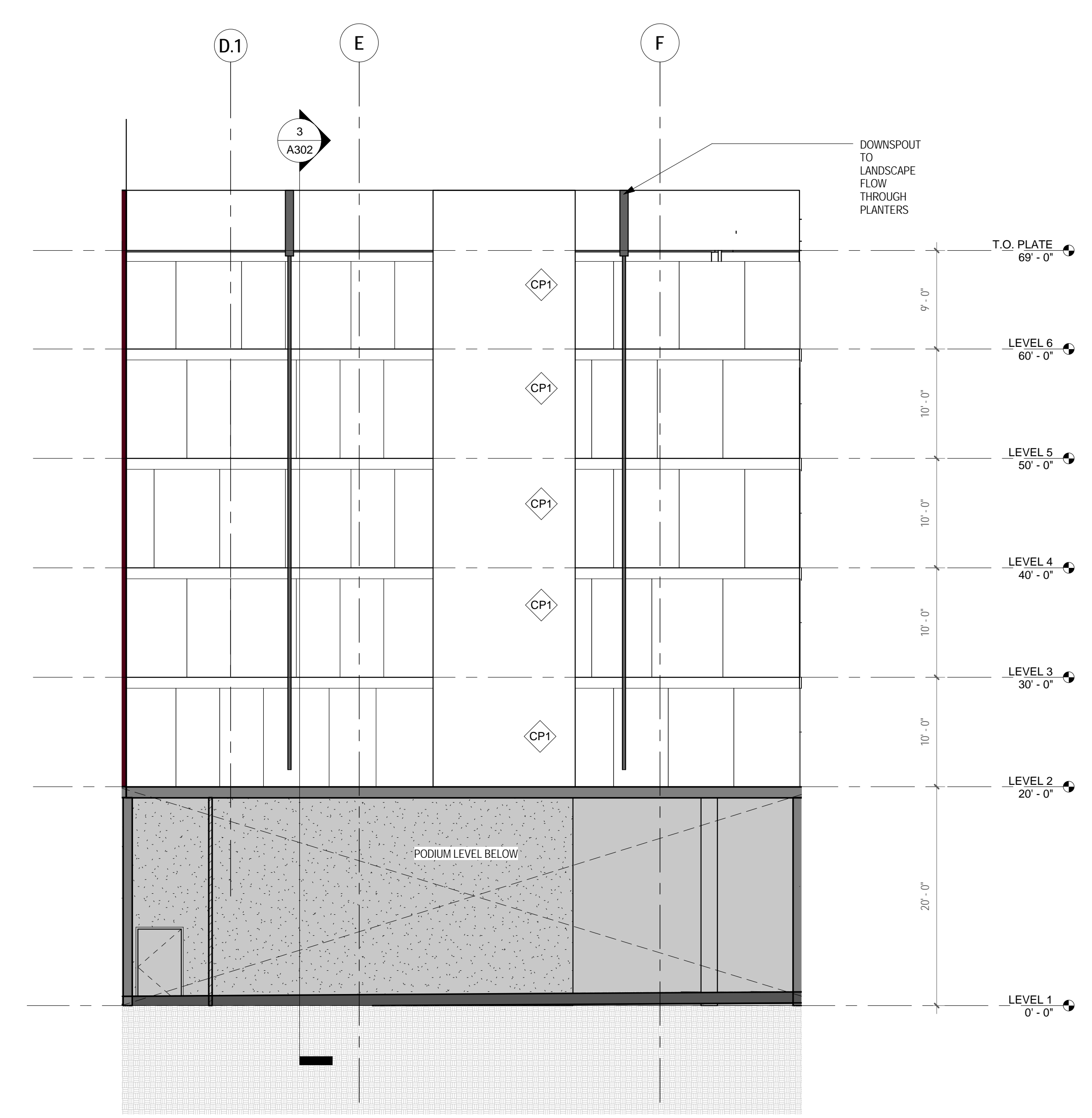
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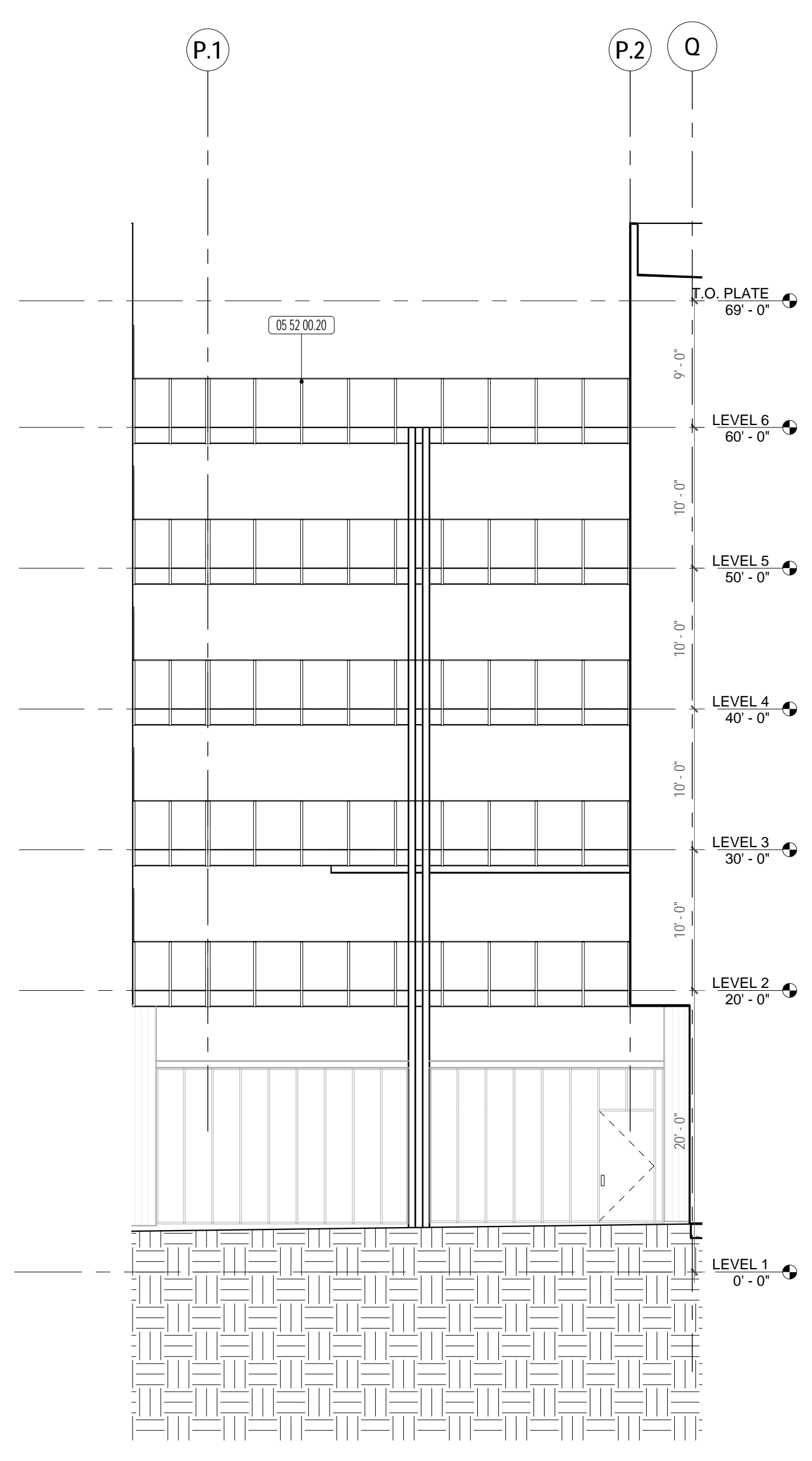
1/8" = 1'-0" BRIDGE ELEVATION NORTH 6



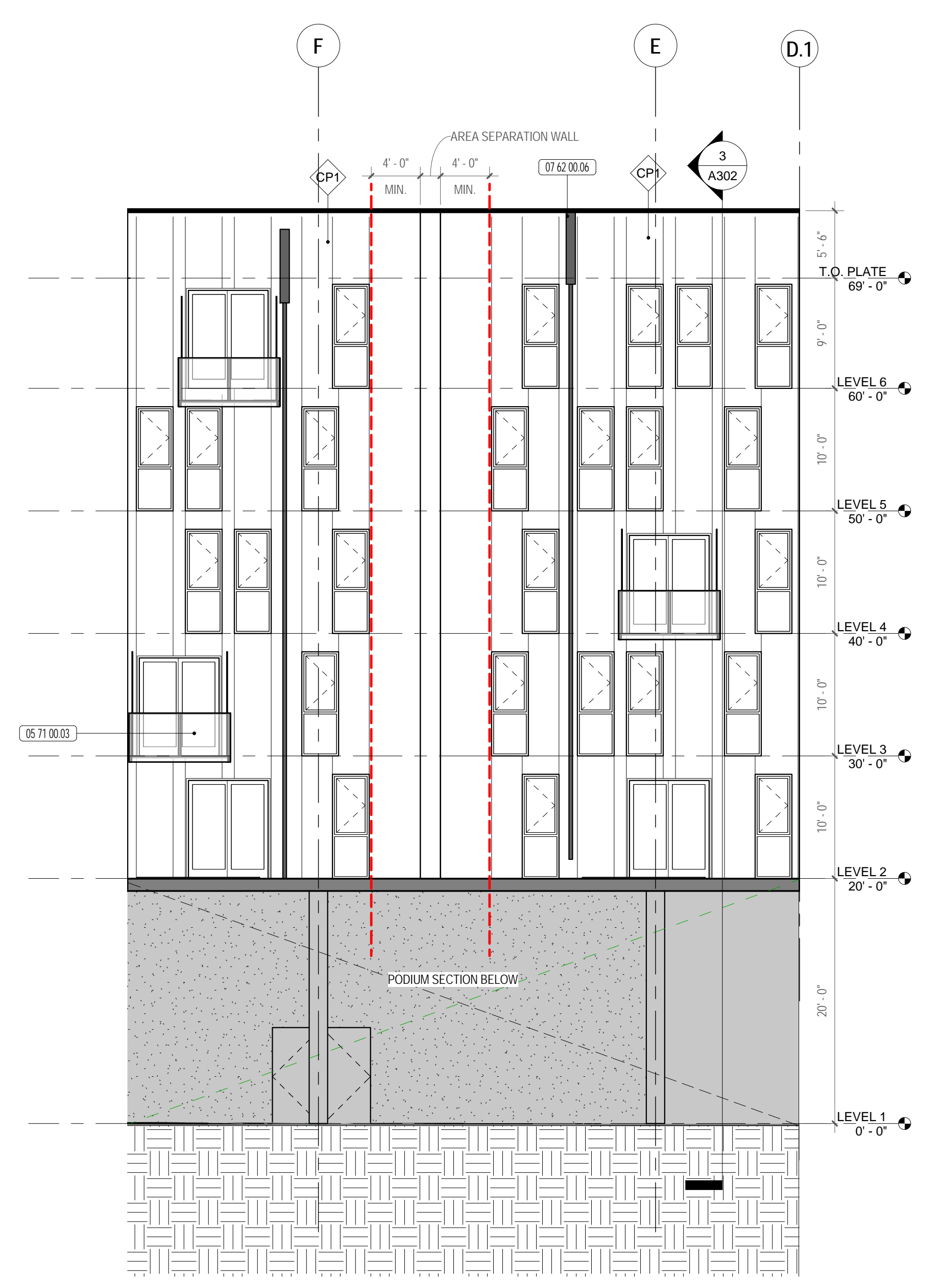
1/8" = 1'-0" PRIVATE COURTYARD EAST ELEVATION 4



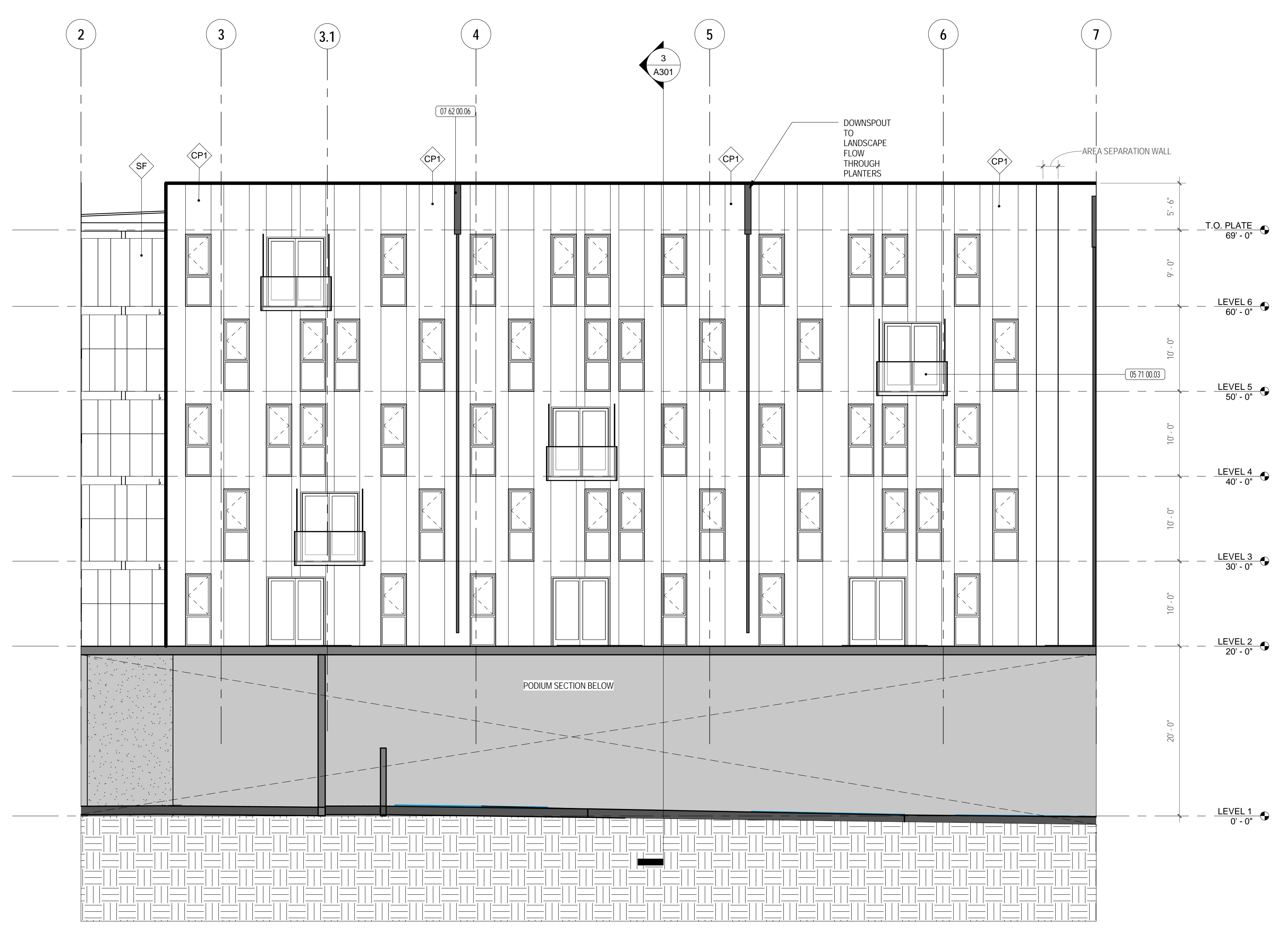
1/8" = 1'-0" PRIVATE COURTYARD SOUTH ELEVATION 2



1/8" = 1'-0" BRIDGE ELEVATION SOUTH 5



1/8" = 1'-0" PRIVATE COURTYARD NORTH ELEVATION 3



1/8" = 1'-0" PRIVATE COURTYARD WEST ELEVATION 1

KEYNOTE LEGEND

05.52.00.20	GALV & PTD STEEL GUARDRAIL W/ WIRE ROPE NETTING. SEE SPEC 05.2000
05.71.00.03	SUSPENDED STEEL BALCONY W/ EXTERIOR COMPOSITE DECKING. SEE SPEC 05.7100 & 06.2013
07.62.00.06	CSM/DOWNSPOUT W/ SCUPPER & CONDUCTOR HEAD. PAINTED. SEE SPEC 07.6200

EXTERIOR MATERIAL LEGEND

AL	ALUMINUM PANEL
BC	VERTICAL BOARD FORM CONCRETE
CF	VERTICAL MINERAL FIBER CEMENT BOARD
CP1	CEMENT PLASTER - WHITE
HP1	INTEGRAL COLOR FIBER CEMENT BOARD
HS	HARDWOOD HORIZONTAL SIDING
MP1	METAL PANEL - CORTEN
SF	ALUMINUM STOREFRONT FRAMING WITH GLAZED PANELS
SS1	STANDING SEAM METAL - CORTEN
SS2	STANDING SEAM METAL - GALVANIZED

801 Brannan Street  
 Equity Residential  
 801 Brannan Street, San Francisco, CA

DRAWING RELEASE STATUS

STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA

ADDENDUM	DATE

SHEET TITLE

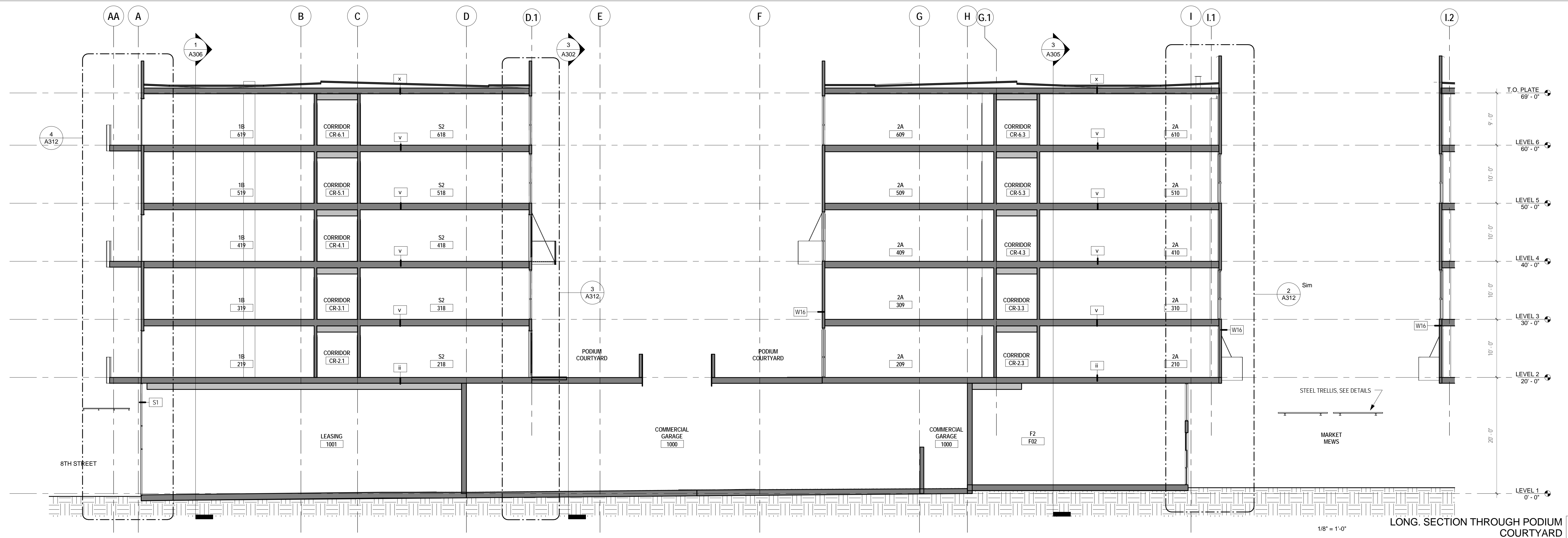
**BUILDING ELEVATIONS**

SCALE

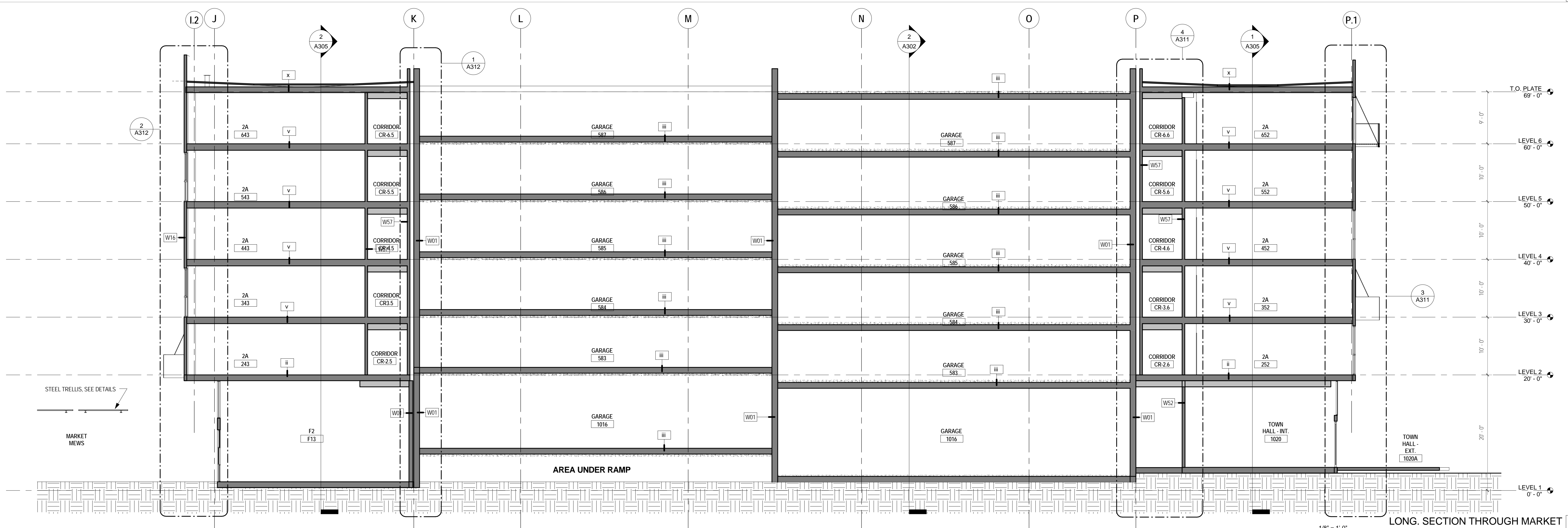
As indicated

JOB NUMBER	21117	RELEASE DATE	12/20/2013
DRAWN BY	Author	CHECKED BY	Checker

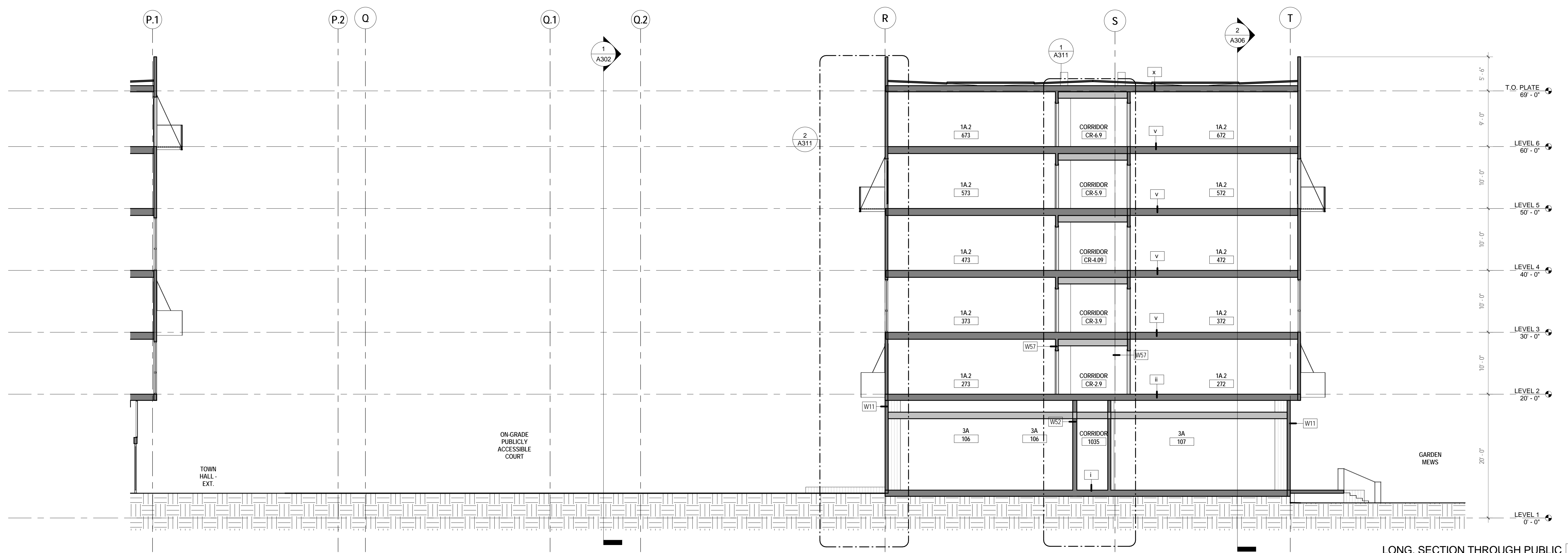
**A207**  
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LONG SECTION THROUGH PODIUM COURTYARD 3



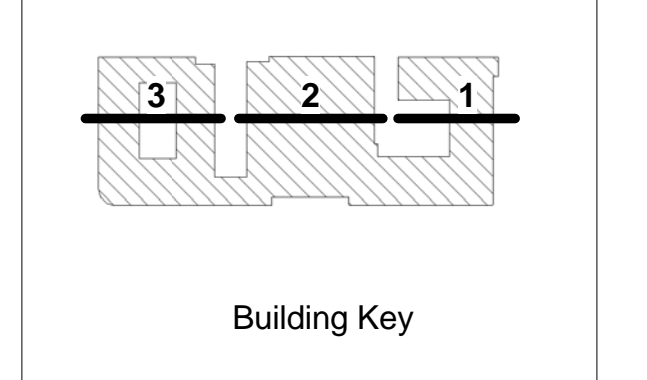
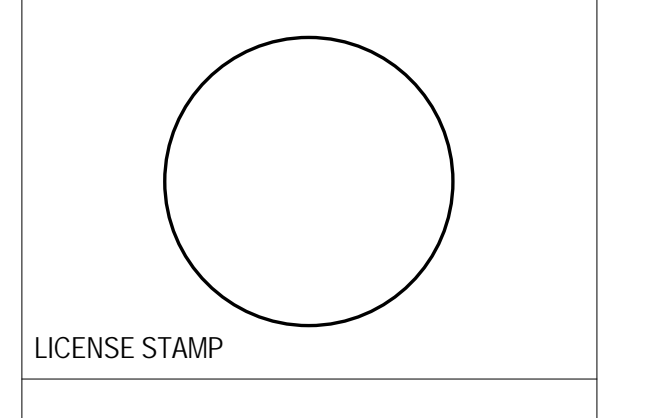
LONG SECTION THROUGH MARKET MEWS 2



LONG SECTION THROUGH PUBLIC COURTYARD 1



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Building Key

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NOT FOR CONSTRUCTION

801 Brannan Street  
Equity Residential  
801 Brannan Street, San Francisco, CA

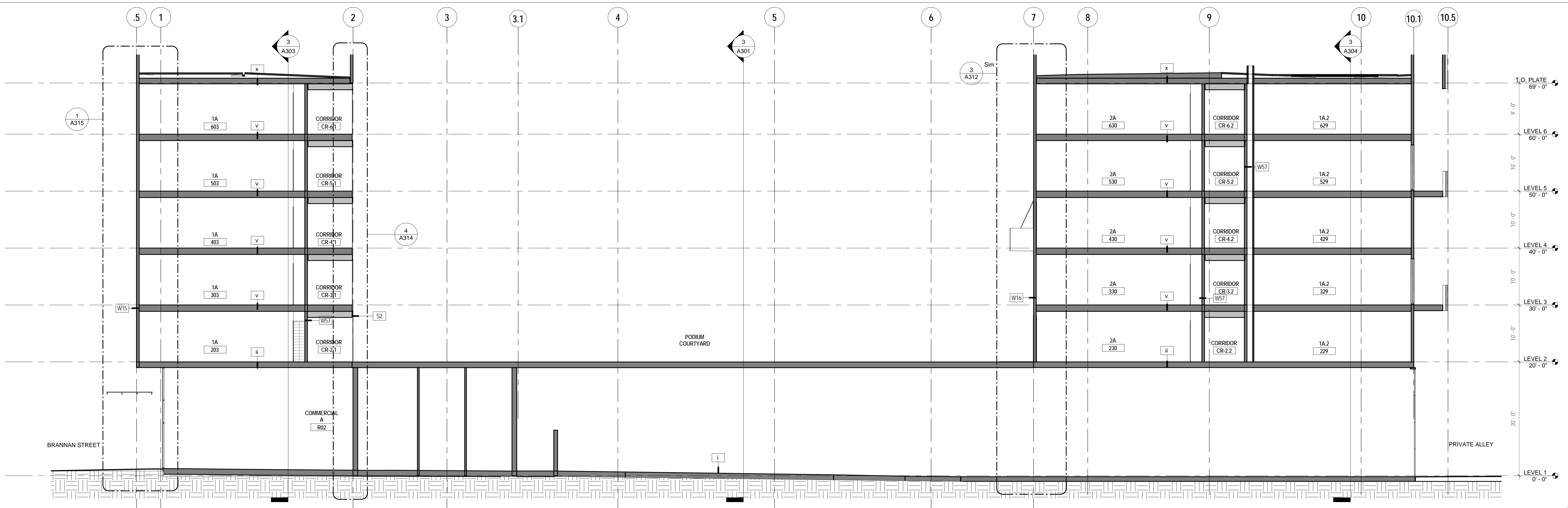
DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE

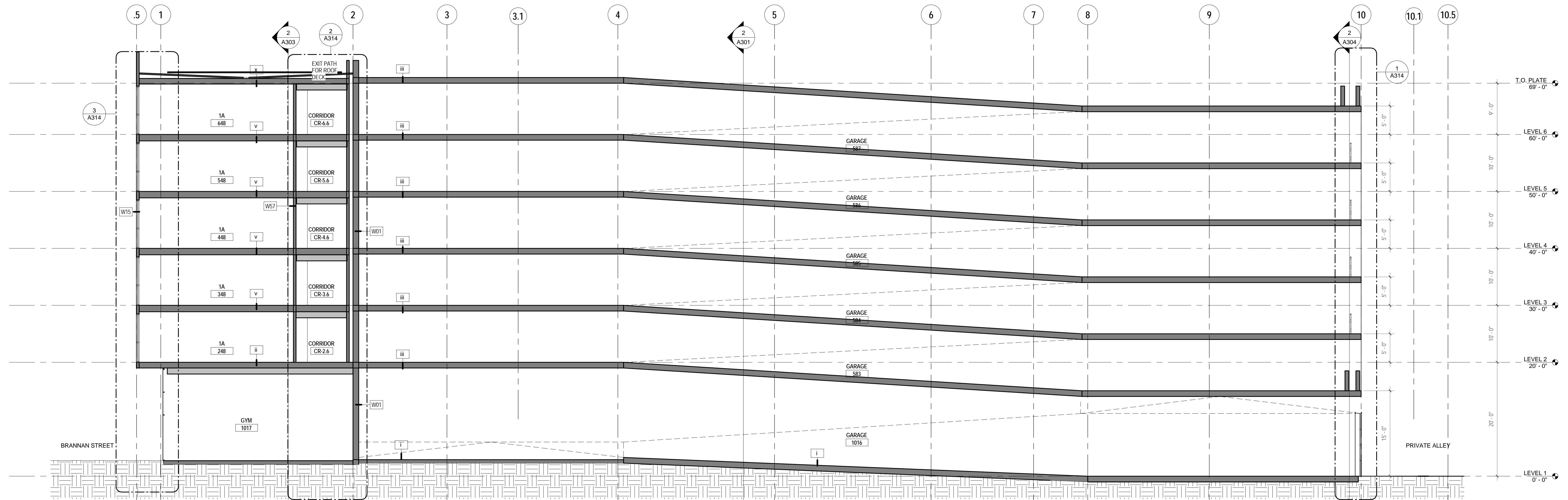
**BUILDING SECTIONS**

SCALE	As indicated
JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

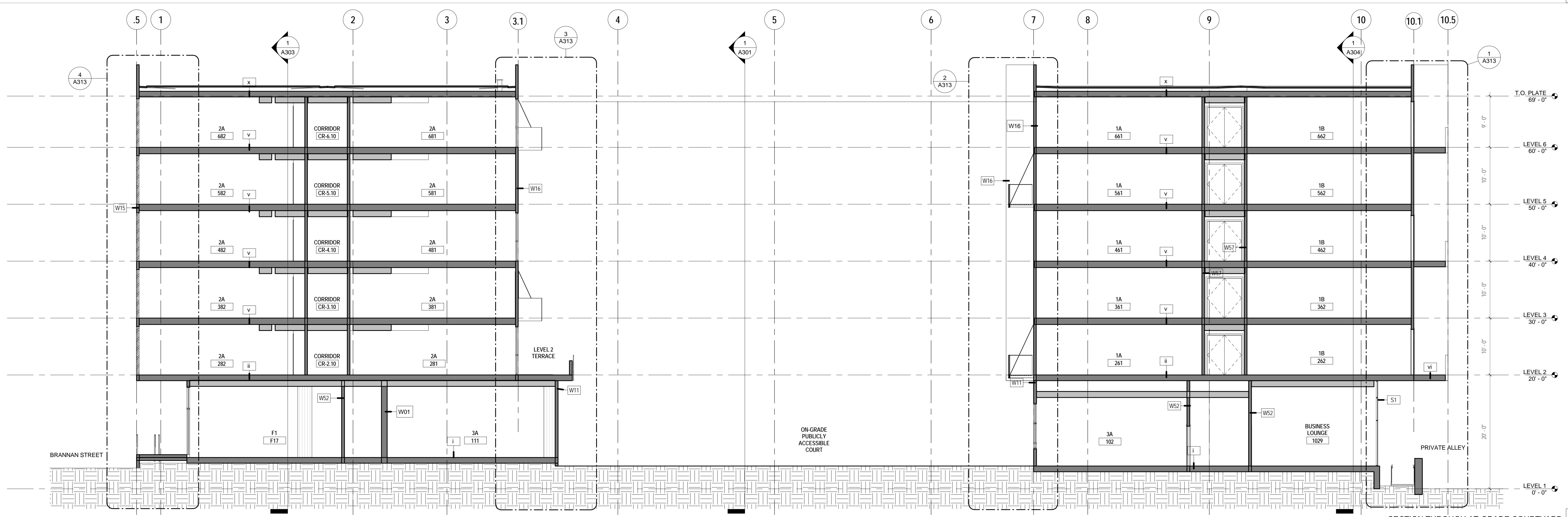
**A301**  
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1/8" = 1'-0" SECTION THROUGH PODIUM COURTYARD 3



1/8" = 1'-0" SECTION THROUGH RESIDENTIAL GARAGE 2

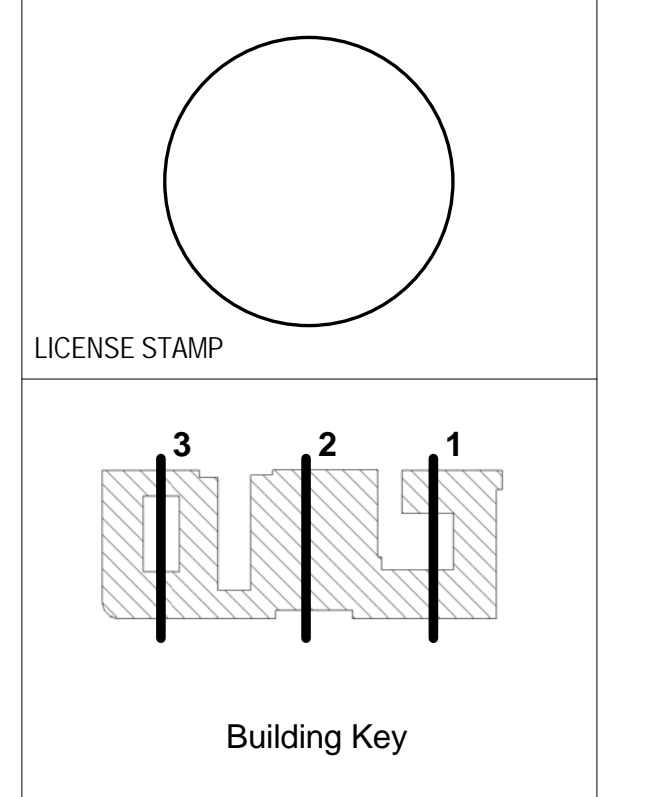


1/8" = 1'-0" SECTION THROUGH AT-GRADE COURTYARD 1

KEYNOTE LEGEND



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Building Key

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Equity Residential  
801 Brannan Street, San Francisco, CA

DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

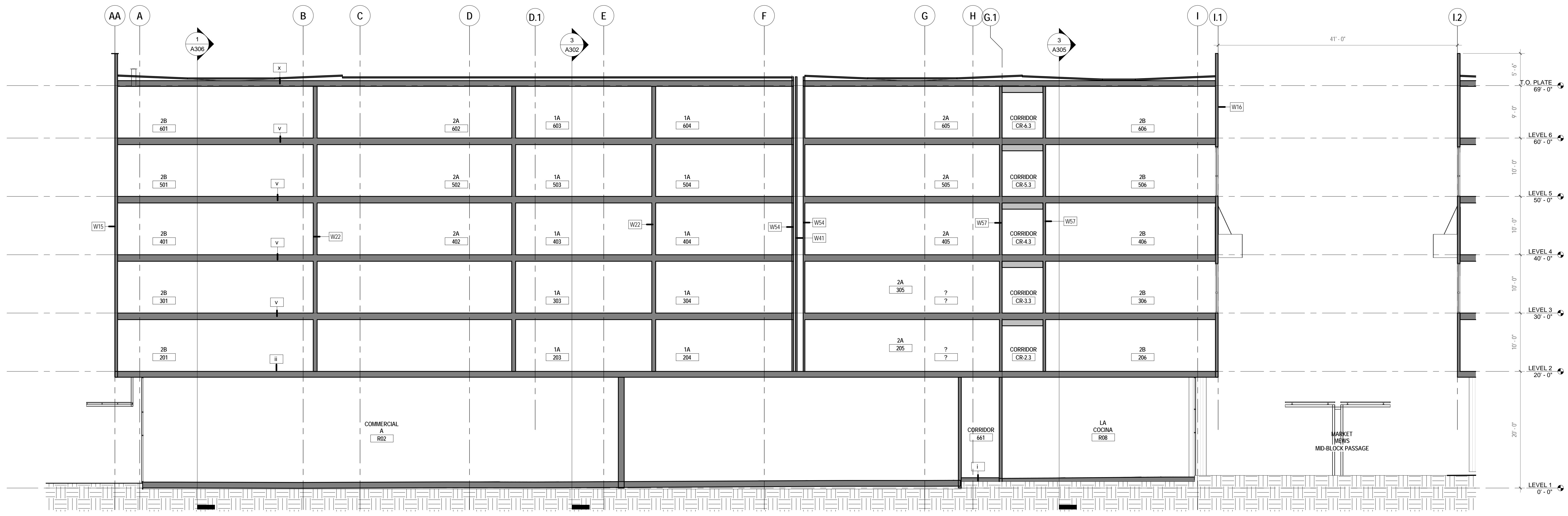
ADDENDA	DATE

SHEET TITLE  
**BUILDING SECTIONS**

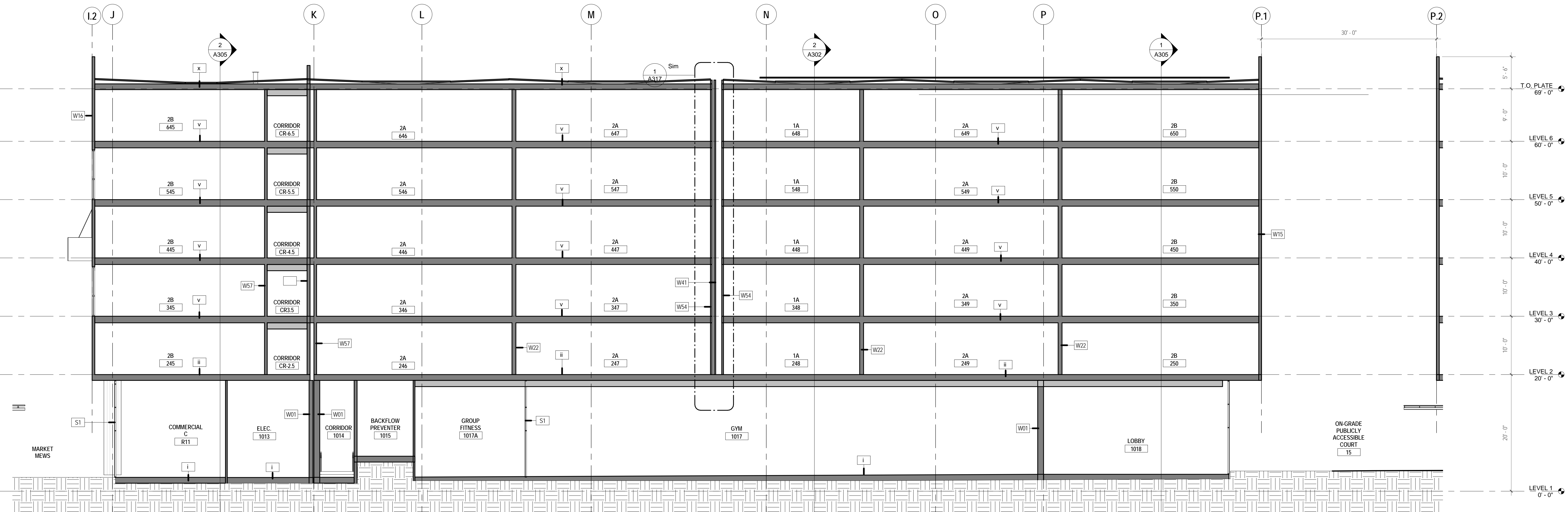
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JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

**A302**  
OF SHEETS

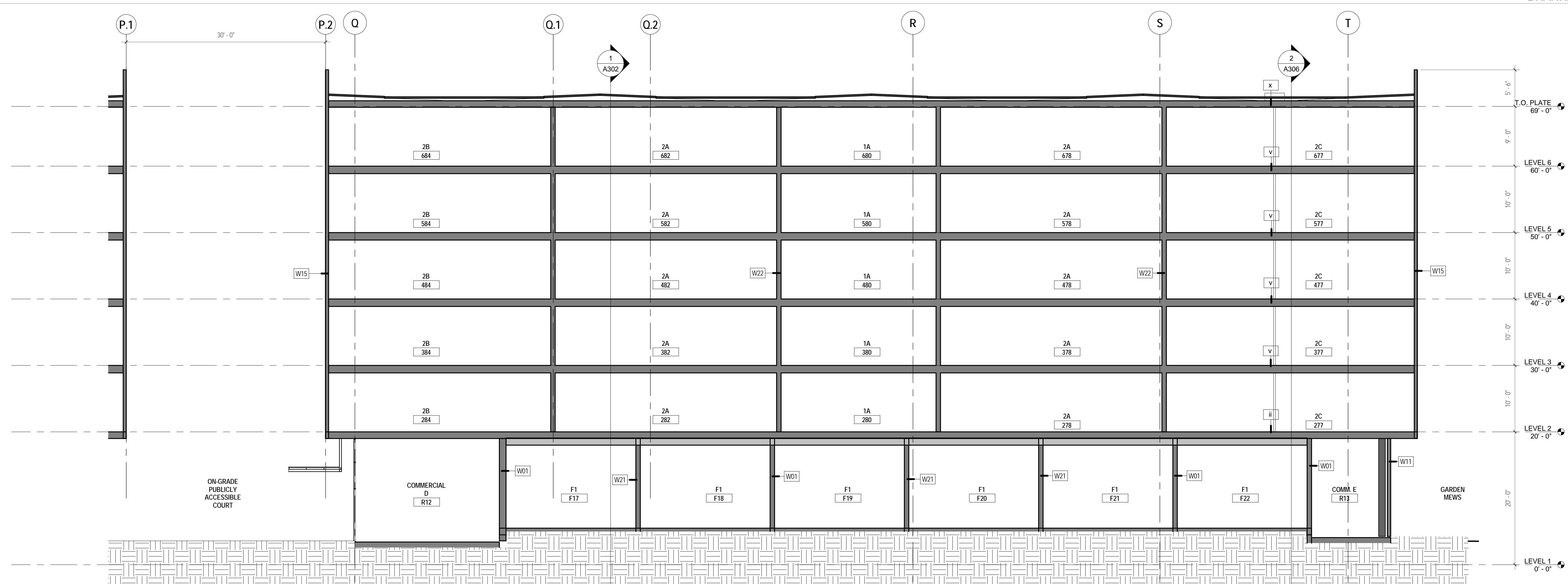




LONG. SECTION THROUGH UNITS AT BRANNAN ST 3

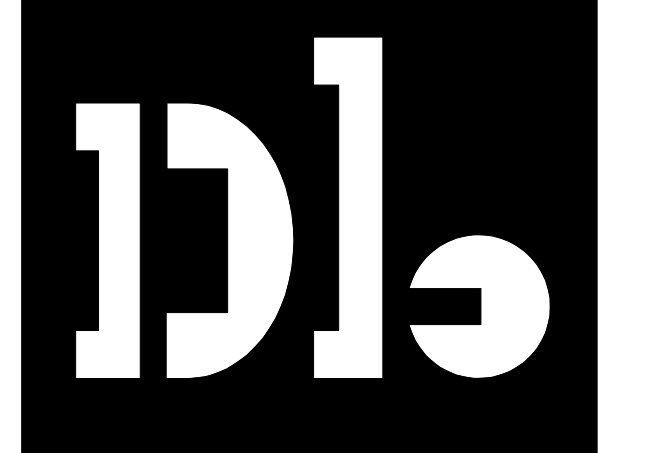


LONG. SECTION THROUGH UNITS AT BRANNAN ST 2

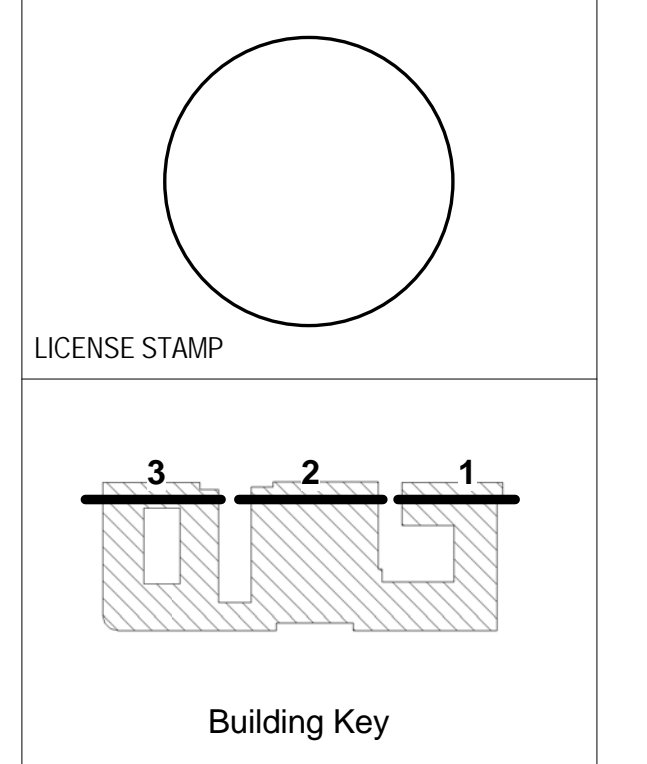


LONG. SECTION THROUGH UNITS AT BRANNAN ST 1

KEYNOTE LEGEND



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Building Key

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DATE PLOTTED: 10-15-2013  
NOT FOR CONSTRUCTION

801 Brannan Street  
Equity Residential  
801 Brannan Street, San Francisco, CA

DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE

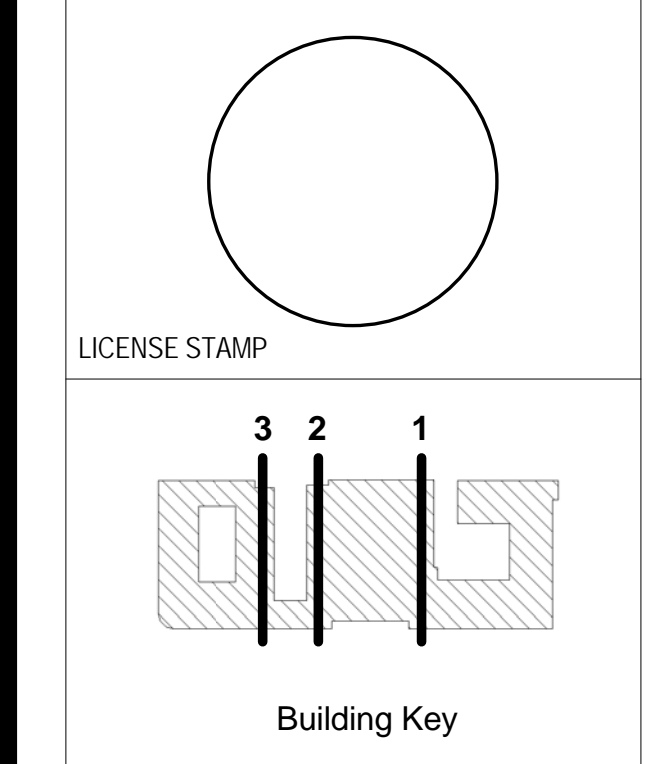
SHEET TITLE  
**BUILDING SECTIONS**

SCALE	As indicated
JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

**A303**  
OF SHEETS







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 DATE PLOTTED: 10.15.2013  
 NOT FOR CONSTRUCTION

801 Brannan Street  
 Equity Residential  
 801 Brannan Street, San Francisco, CA

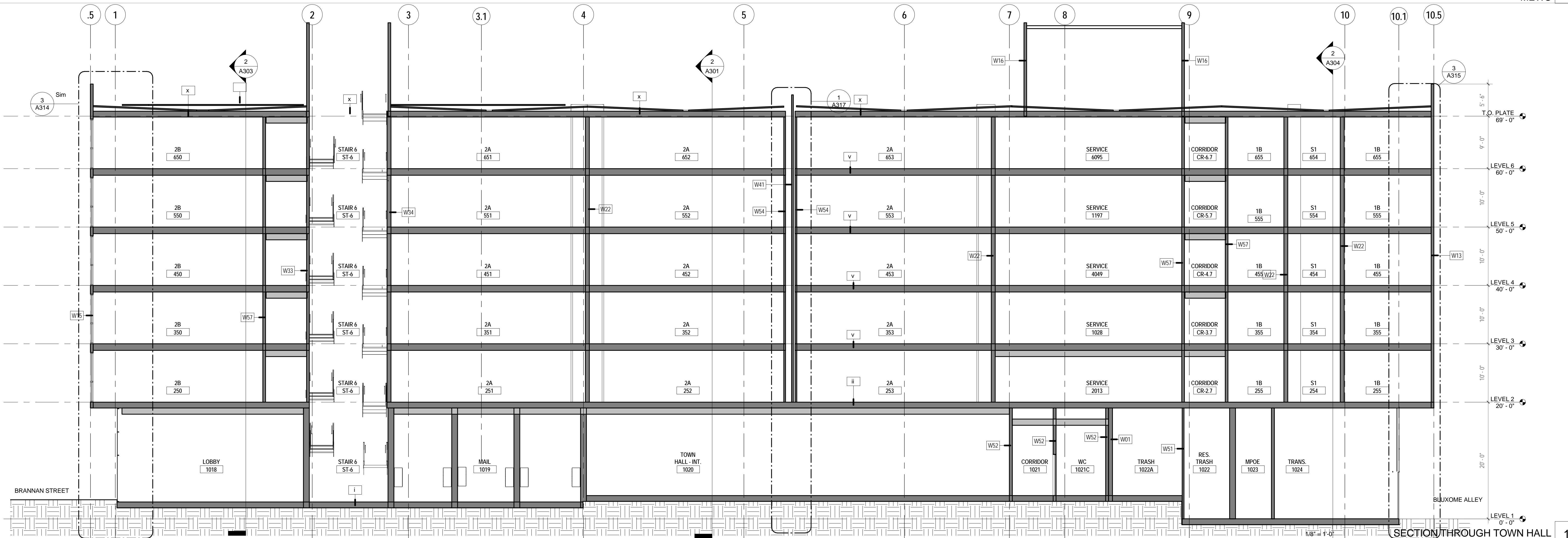
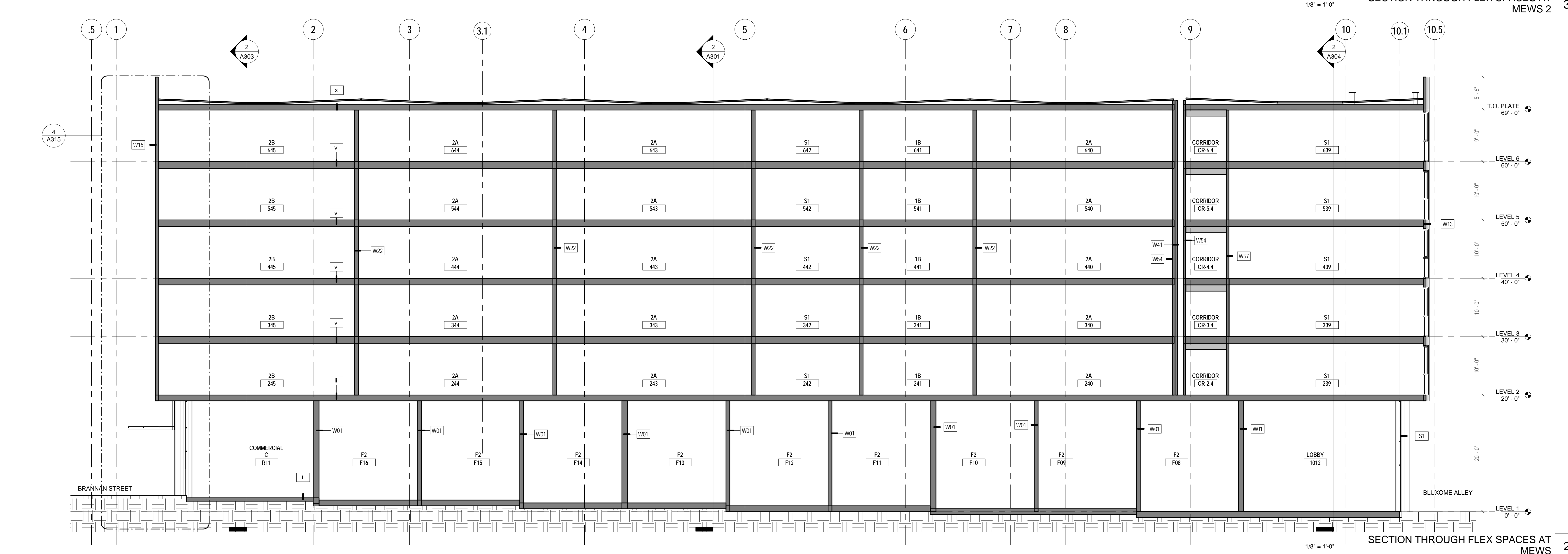
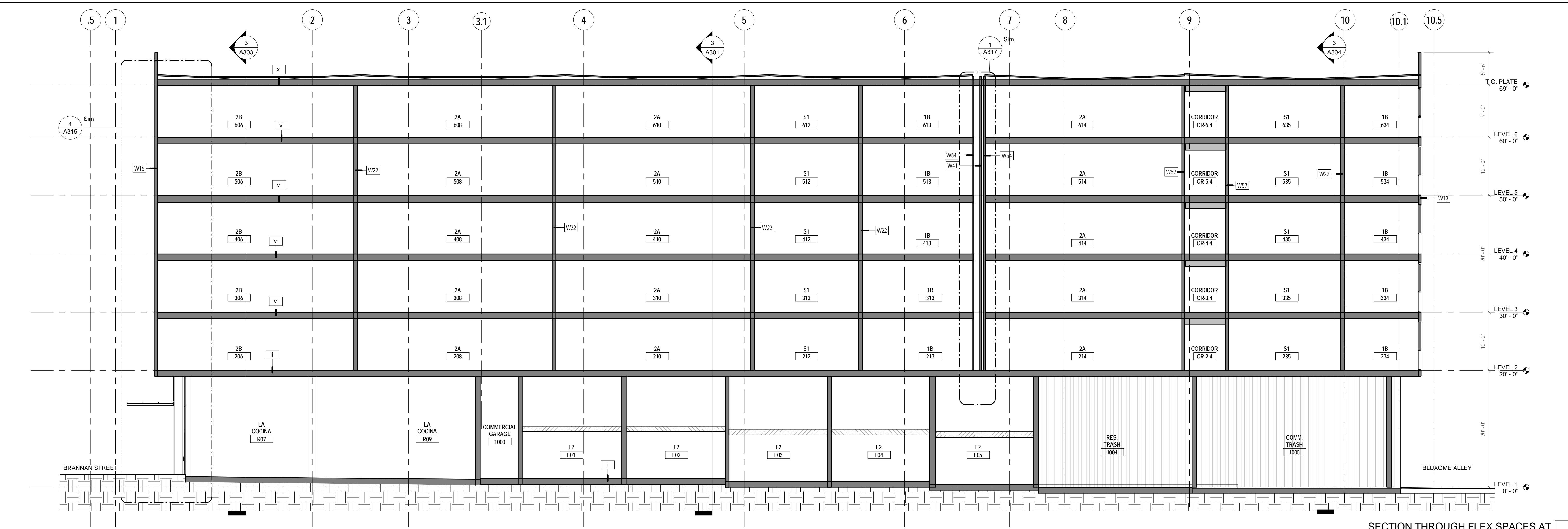
DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

ADDENDA	DATE

SHEET TITLE  
**BUILDING SECTIONS**

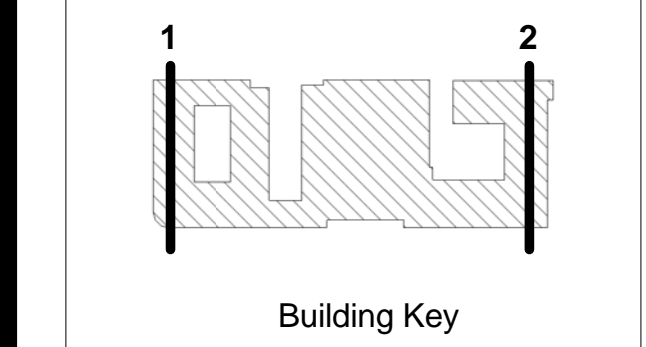
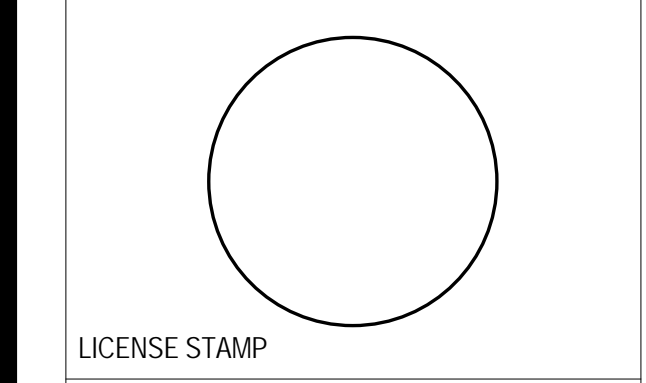
SCALE	As indicated
JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

**A305**  
 OF SHEETS



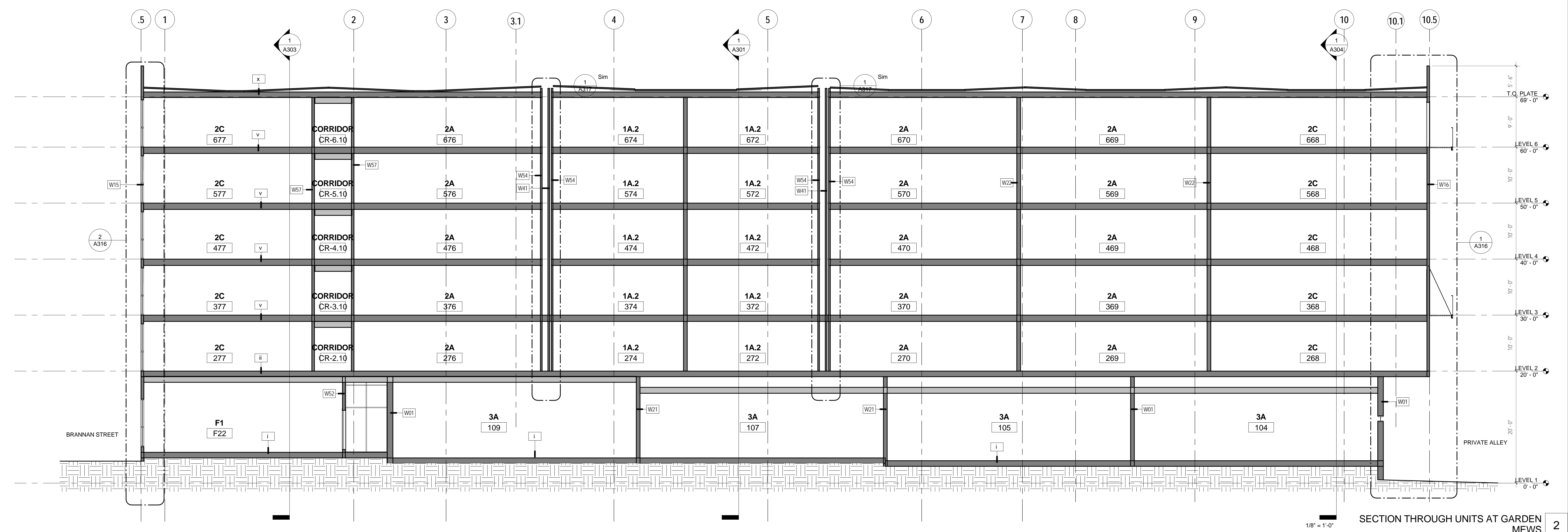


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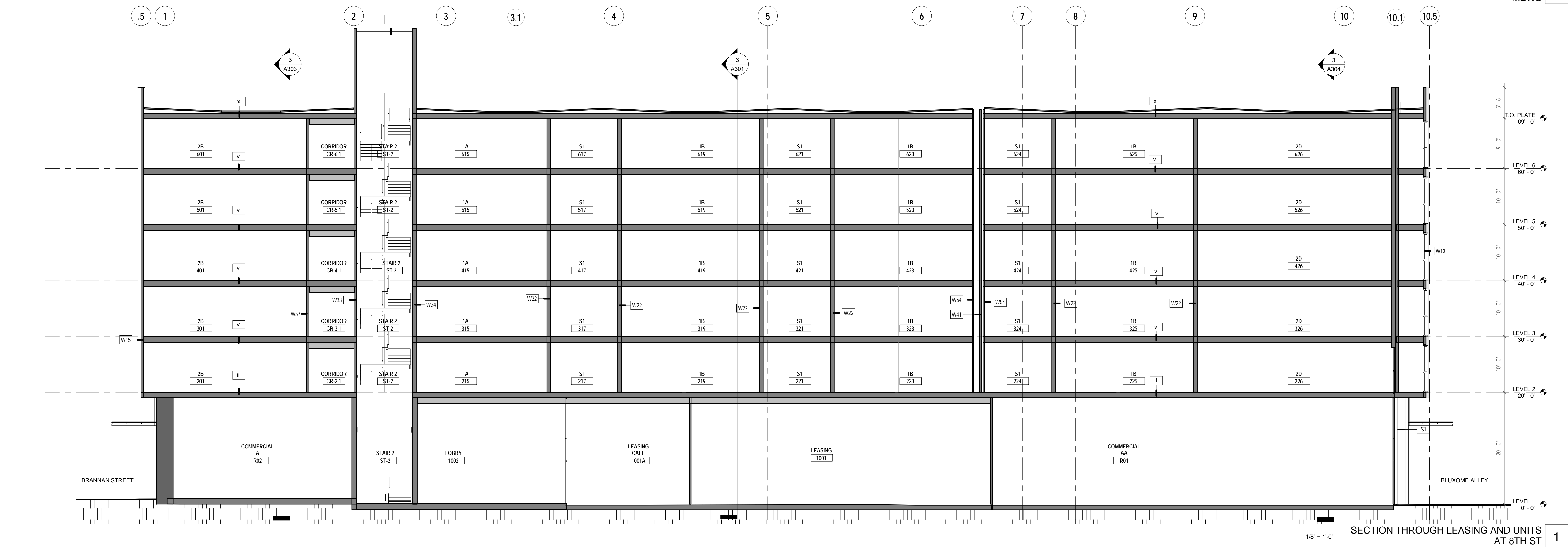


Building Key

**PROGRESS PRINT**  
DATE PLOTTED: 10.16.2013  
NOT FOR CONSTRUCTION



SECTION THROUGH UNITS AT GARDEN MEWS 2



SECTION THROUGH LEASING AND UNITS AT 8TH ST 1

801 Brannan Street  
Equity Residential  
801 Brannan Street, San Francisco, CA

DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-12-20

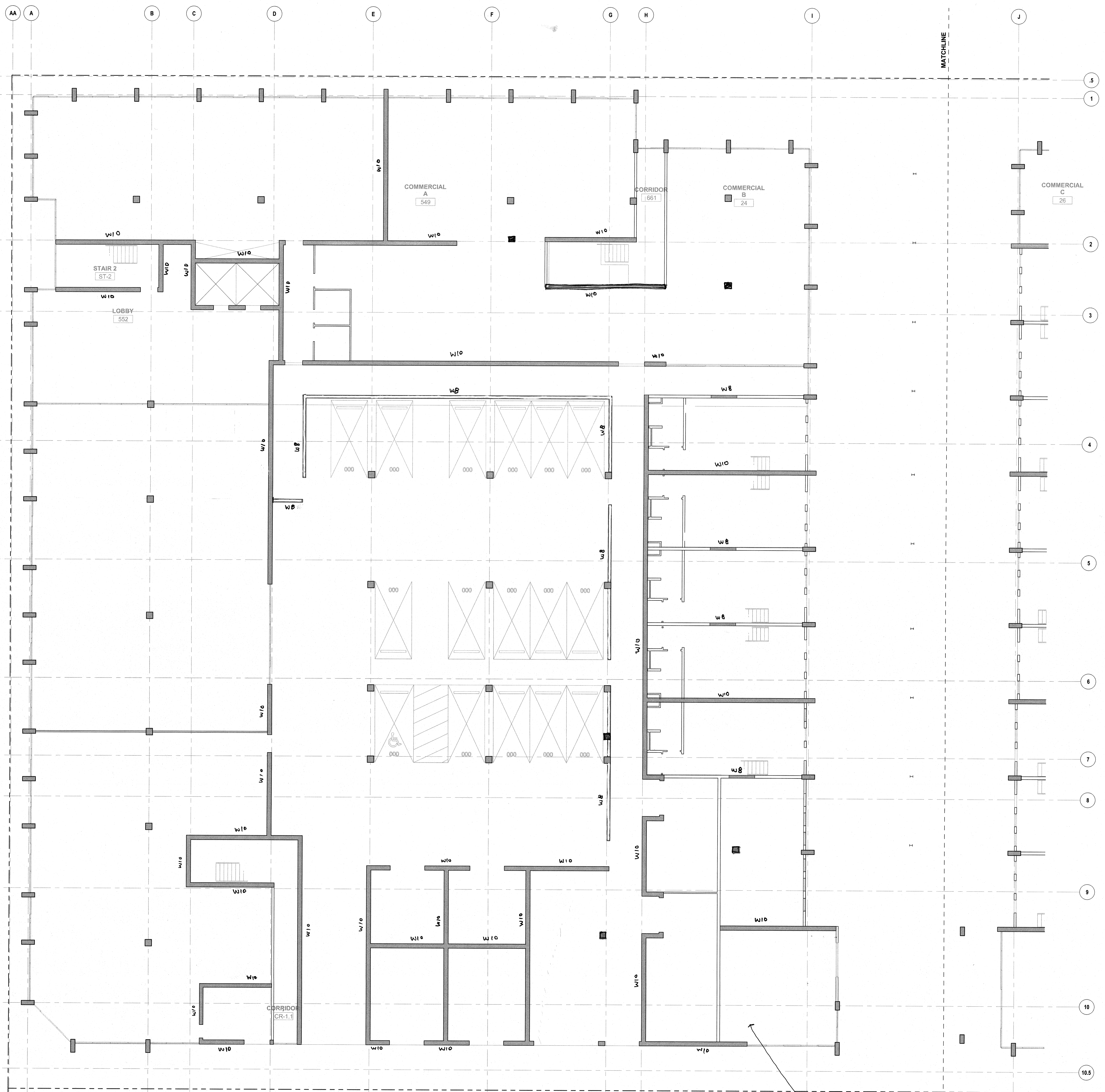
ADDENDA	DATE

SHEET TITLE  
**BUILDING SECTIONS**

SCALE	As indicated
JOB NUMBER	21117
RELEASE DATE	12/20/2013
DRAWN BY	Author
CHECKED BY	Checker

**A306**  
OF SHEETS





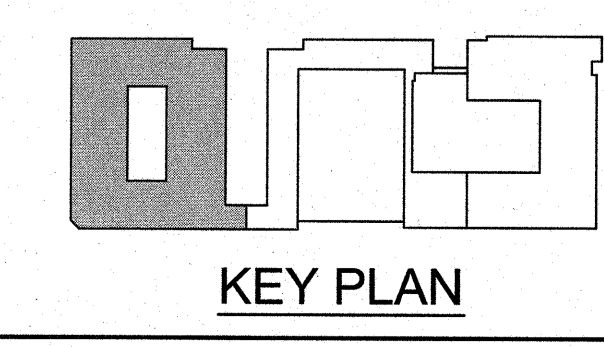
- W8 INDICATES 8" CONC. WALL
- W10 INDICATES 10" CONC. WALL
- W12 INDICATES 12" CONC. WALL
- W8 PARTIAL HT. 8" CONC. WALL

10" MIN. TWO WAY STRUCTURAL SLAB OVER 2" SAND BED. WATERPROOF MEMBRANE AND LEES DRAINING GRAVEL PER SOIL'S REPORT

1  
S101a

LEVEL 1 AND FOUNDATION PLAN

1/8" = 1'-0"



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LICENSE STAMP

**MURPHY BURR CURRY, INC.**  
STRUCTURAL ENGINEERS  
San Francisco mbcsv.com  
85 SECOND STREET, SUITE 501  
SAN FRANCISCO, CA 94105  
TEL. 415.546.9431  
FAX. 415.882.7257

**801 Brannan Street**

Equity Residential  
801 Brannan Street, San Francisco, CA

DRAWING RELEASE STATUS	DATE
SITE PERMIT	2013-09-03
50% DESIGN DEVELOPMENT	2013-10-15
100% DESIGN DEVELOPMENT	2013-11-20

ADDENDA	DATE

SHEET TITLE  
**Level 1 and Foundation Plan**

SCALE 1/8" = 1'-0"

JOB NUMBER	RELEASE DATE
MBC #213-201	11/22/2013
DRAWN BY	CHECKED BY
D. Sheen	A.C.

**S101a**  
OF SHEETS











**APPENDIX B**

**PREVIOUS SUMMARY TABLES AND LABORATORY  
ANALYTICAL REPORTS**

**Table 1  
Soil Gas and Ambient Air Analytical Results  
801 Brannan Street  
San Francisco, California**

Sample ID	Purge Volumes	Sample Depth (feet below ground surface)	Date Sampled	VOCs																						Tracer Gas	
				TPH				VOCs																		Methane	Helium
				TPHg	Acetone	Benzene	2-Butanone	Carbon Disulfide	Carbon Tetra-chloride	Chloroform	Chloro-methane	Dichloro-difluoro-methane	1,1-Dichloro-ethane	Ethyl-benzene	Methyl-tert-butyl-ether	Methylene Chloride	o-Xylene	p/m-Xylene	Tetrachloro-ethene	Toluene	Trichloro-fluoro-methane	1,1,1-Trichloro-ethane	1,1,2-Trichloro-1,2,2-Trifluoroethane	1,2,4-Trimethyl-benzene	All Other VOCs		
TR-SG-1*	3	5.0	06/17/13	<7,000	63	<1.7	8.1	<6.6	<3.3	<2.6	<1.1	<2.6	160	<2.3	<7.6	<18	<2.3	<9.1	<3.6	<2.0	<6.0	58	<12	<7.8	ND	12.3	<0.01
Dup-1 *	3	5.0	06/17/13	<7,000	100	<1.8	9.1	<6.9	<3.5	<2.7	<1.1	<2.7	160	<2.4	<8.0	<19	<2.4	<9.6	<3.8	<2.1	<6.2	60	<13	<8.2	ND	13.0	<0.01
TR-SG-2*	3	5.0	06/17/13	<7,000	130	8.3	39	<6.2	<3.1	<2.4	<1.0	<2.5	<2.0	3.2	130	<17	6.3	11	<3.4	17	<5.6	<2.7	<11	<7.4	ND	0.732	<0.01
TR-SG-3	3	5.0	06/17/13	<7,000	110	30	23	<7.2	6.9	<2.8	<1.2	<2.9	<2.3	6.9	<8.4	<20	9.1	21	5.2	40	6.8	210	<13	<8.6	ND	<0.5	<0.01
TR-SG-4	3	5.0	06/17/13	<7,000	26	4.8	<5.8	<8.2	<4.1	7.8	<1.4	<3.2	<2.7	<8.2	<9.4	<23	3.8	<11	<4.4	10	<7.4	35	<15	<9.7	ND	<0.5	<0.01
TR-SG-5	3	5.0	06/17/13	<7,000	55	7.6	13	13	<3.5	<2.7	<1.1	<2.7	<2.2	5.1	<8.0	<19	9.5	20	<3.8	17	<6.2	18	<13	<8.2	ND	<0.5	<0.01
Ambient-1	3	5.0	06/17/13	<7,000	7.3	0.41	<1.5	<1.6	0.62	<0.12	1.2	2.6	<0.10	0.2	<0.09	0.53	0.23	0.65	<0.17	1.3	1.5	0.56	0.64	0.2	ND	<0.5	<0.01
Soil Gas ESL - Residential Land Use				150,000	16,000,000	42	2,600,000	NE	29	230	47,000	NE	760	490	4,700	NE	52,000	52,000	210	160,000	NE	2,600,000	NE	NE	NE	NE	NE
Soil Gas CHHSL - Residential Land Use				NE	NE	36.2	NE	NE	25	NE	NE	NE	NE	NE	4,000	NE	315,000	317,000	180	135,000	NE	991,000	NE	NE	NE	NE	NE

**Notes:**

\* Sample collected at on-site building, which is about 3 feet above grade. Sample collected at about 8 feet below concrete slab, translating to about 5 feet below ground surface.

µg/m<sup>3</sup> - micrograms per cubic meter

%v - percent volume

TPH - Total Petroleum Hydrocarbons

TPHg - Total Petroleum Hydrocarbons as Gasoline

VOCs - Volatile Organic Compounds

< - Analyte was not detected at or above the laboratory reporting limit

ND - Not detected at or above the laboratory reporting limit

NE - Not established

Environmental Screening Levels (ESL) values cited are from Summary Table E, Indoor Air and Soil Gas (Vapor Intrusion Concerns), from the 2013 Tier 1 ESLs, by the California Regional Water Quality Control Board, San Francisco Bay Region, dated May 2013.

California Human Health Screening Levels (CHHSL) values cited are from Summary Table 2, California Human Health Screening Levels for Indoor Air and Soil Gas, from the *Use of California Human Health Screening Levels (CHHSL) in Evaluation of Contaminated Properties*, by the California Environmental Protection Agency, dated January 2005.

**Table 2**  
**Summary of Soil Sample Analytical Results – Metals (10/19/11)**  
**801 Brannan Street, San Francisco, California**

Metal	B1 COMP-A	B1 COMP-B	B2 COMP	B3 COMP-A	B3 COMP-B	B4 COMP	B5 COMP-A	B5 COMP-B	ESL	Hazardous Waste Criteria (TTLC)	Hazardous Criterion (STLC) (mg/L)	Potentially Hazardous Criterion (10xSTLC)
Antimony	11	3.0	4.3	1.2	0.78	2.4	<0.5	0.68	40	500	15	150
Arsenic	8.9	9.9	21	5.2	6.1	9.2	3.8	4.1	1.6	500	5.0	50
Barium	220	120	100	260	110	220	230	98	1,500	10,000	100	1,000
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.61	8.0	100	0.75	7.5
Cadmium	0.51	<0.25	1.0	0.76	<0.25	0.30	<0.25	<0.25	7.4	500	1.0	10
Chromium (total)	<b>790</b>	<b>57</b>	<b>65</b>	<b>730</b>	<b>66</b>	<b>73</b>	45	<b>53</b>	2500	2,500	5.0	50
Cobalt	30	6.4	20	20	11	5.8	23	11	80	8,000	80	800
Copper	<b>540</b>	84	130	<b>460</b>	150	90	17	31	230	2,500	25	250
Lead	<b>370</b>	<b>880</b>	<b>520</b>	<b>420</b>	<b>180</b>	<b>970</b>	<b>78</b>	<b>120</b>	750	1,000	5.0	50
Mercury	0.47	0.26	0.43	0.34	0.38	0.23	0.12	0.38	10	20	0.2	2.0
Molybdenum	1.5	0.92	0.57	0.98	1.6	0.56	<0.5	2.6	40	3,500	350	3,500
Nickel	<b>800</b>	35	77	<b>400</b>	58	32	26	53	150	2,000	20	200
Selenium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	10	100	1.0	10
Silver	0.67	<0.5	1.2	<0.5	0.70	0.82	1.2	<0.5	40	500	5.0	50
Thallium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	16	700	7.0	70
Vanadium	48	46	44	34	50	49	33	63	200	2,400	24	240
Zinc	560	590	710	540	190	140	47	60	600	5,000	250	2,500

Notes:

ESL = Water Board Environmental Screening Level (for shallow soil, commercial land use, groundwater is not a potential drinking water source, coarse lithology)  
STLC = Soluble Threshold Limit Concentration by WET (Waste Extraction Test); TTLC = Total Threshold Limit Concentration  
mg/L = milligrams per liter

All concentrations are expressed in milligrams per kilogram (mg/kg) unless otherwise noted. Concentrations in **bold** face equal or exceed their respective regulatory criterion of 10 x STLC that could be potentially hazardous. Concentrations that do not exceed the 10 x STLC but exceed the advisory ESL are in *italics*.



**Table 3**  
**Summary of Soil Sample Results –**  
**WET & TCLP Analyses for Lead (10/19/11)**  
**801 Brannan Street, San Francisco, California**

<b>Metal (Method)</b>	<b>B1 COMP-A</b>	<b>B1 COMP-B</b>	<b>B2 COMP</b>	<b>B3 COMP-A</b>	<b>B3 COMP-B</b>	<b>B4 COMP</b>	<b>B5 COMP-A</b>	<b>B5 COMP-B</b>	<b>Hazardous Criterion (STLC)</b>	<b>Hazardous Waste Criterion (TCLP)</b>
Lead (TTLC)	370	880	520	420	180	970	78	120	NA	NA
Lead (STLC)	19	34	26	17	18	8.5	4.4	51	5	NA
Lead (TCLP)	0.29	0.66	<0.1	1.8	0.51	4.5	<0.1	<0.1	NA	5

Notes:

STLC = Soluble Theshold Limit Concentration  
TCLP= Toxicity Characteristic Leachate Procedure  
TTLC = Total Threshold Limit Concentration  
WET = Waste Estraction Test

NA = Criteria not applicable to method stated

All COMP sample concentrations are expressed in milligrams per kilogram (mg/kg); the STLC (WET) and TCLP samples are expressed in milligrams per liter (mg/L). Concentrations in **bold** face equal or exceed the regulatory “Hazardous/Hazardous Waste” criterion for lead of 5 mg/L STLC/TCLP.

**Table 4**  
**Summary of Soil Sample Analytical Results Lead –**  
**Hydrocarbons and BTEX (10/19/11)**  
**801 Brannan Street, San Francisco, California**

Sample Name	TVHg	MBTEX	TEHd	TEHmo
B1 COMP-A	4.5	0.017 Toluene 0.012 Ethylbenzene 0.090 Xylenes	150	740
B1 COMP-B	<1.0	<0.005	170	190
B2 COMP	3.5	0.017 Benzene 0.080 Toluene 0.013 Ethylbenzene 0.16 Xylenes	280	490
B3 COMP-A	2.0	0.0055 Ethylbenzene 0.096 Xylenes	63	350
B3 COMP-B	<1.0	0.017 Xylenes	78	280
B4 COMP	<1.0	0.011 Toluene 0.034 Xylenes	51	320
B5 COMP-A	<1.0	0.010 Xylenes	13	48
B5 COMP-B	<1.0	0.014 Toluene 0.017 Xylenes	34	120
ESL	83	Various but NA	83	370

Notes:

TEHd = total extractable hydrocarbons as diesel

TEHmo = total extractable hydrocarbons as motor oil

TVHg = total volatile hydrocarbons as gasoline

NA = not applicable

ESL = Water Board Environmental Screening Level (for residential)

All concentrations are expressed in milligrams per kilogram (mg/kg). **Bold** designates exceedance of an ESL.

**TABLE 1**  
**SOIL ANALYTICAL RESULTS**  
**801 BRANNAN STREET**  
**SAN FRANCISCO, CALIFORNIA**

Sample ID	Sample Date	Sample Depth	TRPH	8270C	8010	8260B	Cadmium	Chromium	Lead	Nickel	Zinc
			mg/kg		ug/kg		mg/kg				
EB-4-2.0	6/29/00	2.0'	230	--	ND	--	ND	45	13	43	35
EB-4-5.0	6/29/00	5.0'	110	--	--	ND	--	--	3,600	--	--
EB-4-4.0	6/29/00	4.0'	70	--	--	--	--	--	1,600	--	--
EB-4-6.0	6/29/00	6.0'	100	--	ND	--	ND	66	120	110	200
EB-5-1.0	6/29/00	1.0'	20	--	--	--	--	--	220	--	--
EB-5-3.0	6/29/00	3.0'	40	--	--	--	--	--	4,500	--	--
EB-5-4.0	6/29/00	4.0'	26,000	--	--	--	ND	43	57	39	53
EB-5-8.0	6/29/00	8.0'	ND	--	--	--	--	--	21	--	--
EB-5-9.0	6/29/00	9.0'	50	--	ND	--	--	--	32	--	--
EB-5-12.0	6/29/00	12.0'	ND	ND	--	--	--	--	ND	--	--
EB-5-20.0	6/29/00	20.0'	ND	--	ND	--	ND	25	ND	17	22
EB-6-1.0	6/29/00	1.0'	170	--	--	--	ND	21	190	16	110
EB-6-3.0	6/29/00	3.0'	11,000	ND	--	--	--	--	ND	--	--
EB-6-8.0	6/29/00	8.0'	60	--	--	--	--	--	110	--	--
EB-6-12.0	6/29/00	12.0'	130	--	--	--	ND	32	1,400	23	91
EB-6-16.0	6/29/00	16.0'	70	--	--	--	--	--	110	--	--
EB-6-20.0	6/29/00	20.0'	140	--	--	--	--	--	100	--	--
EB-7-1.5	6/29/00	1.5'	60	--	--	--	--	--	47	--	--
EB-7-4.0	6/29/00	4.0'	30	--	ND	--	--	--	26	--	--
EB-7-6.0	6/29/00	6.0'	14	--	--	ND	ND	59	21	40	40
EB-7-8.0	6/29/00	8.0'	14	--	ND	--	--	--	800	--	--
EB-7-16.0	6/29/00	16.0'	ND	--	--	--	--	--	28	--	--
EB-7-20.0	6/29/00	20.0'	ND	--	--	--	--	--	19	--	--
EB-9-3.0	6/29/00	3.0'	300	--	--	--	0.56	35	190	65	260
EB-9-4.0	6/29/00	4.0'	1,000	--	--	--	--	--	140	--	--
EB-9-5.0	6/29/00	5.0'	60	--	--	--	--	--	360	--	--
EB-9-6.0	6/29/00	6.0'	30	--	--	--	--	--	190	--	--
EB-9-7.5	6/29/00	7.5'	50	--	ND	--	--	--	17	--	--
EB-10-1.0	6/29/00	1.0'	29,000	--	--	--	--	--	9.4	--	--
EB-10-3.0	6/29/00	3.0'	170	--	--	--	--	--	370	--	--
EB-10-4.0	6/29/00	4.0'	50	--	ND	--	ND	24	3,000	20	3700
EB-10-7.0	6/29/00	7.0'	110	--	--	--	--	--	250	--	--
EB-10-8.0	6/29/00	8.0'	370	ND	--	--	--	--	260	--	--
EB-10-12.0	6/29/00	12.0'	14	--	--	ND	ND	28	4,400	60	730
EB-10-20.0	6/29/00	20.0'	160	--	--	--	--	--	720	--	--
B-1-2.5	7/5/00	2.5'	46	--	--	--	--	--	290	--	--
B-1-5.0	7/5/00	5.0'	48	--	--	--	--	--	380	--	--
B-1-15.5	7/5/00	15.5'	ND	--	--	--	--	--	ND	--	--
B-2-5.0	6/29/00	5.0'	70	--	--	--	--	--	87	--	--
B-2-7.5	6/29/00	7.5'	20	--	--	--	--	--	180	--	--
B-2-10.0	6/29/00	10.0'	11	--	--	--	--	--	29	--	--
B-3-2.5	6/29/00	2.5'	110	--	--	--	--	--	2,300	--	--
B-3-5.0	6/29/00	5.0'	40	--	--	--	--	--	98	--	--
B-3-7.5	6/29/00	7.5'	30	--	--	--	--	--	280	--	--
B-3-10.0	6/29/00	10.0'	12	--	--	--	--	--	16,000	--	--

Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons-EPA Method SM5520  
8010 = Halogenated Organic Compounds - EPA Method 8010  
8270C = Poly Aromatic Hydrocarbons - EPA Method 8270C  
8260B = Volatile Organic Compounds - EPA Method 8260B  
mg/kg = milligrams per kilogram

ug/kg = micrograms per liter  
**BOLD** indicates detected at or above the laboratory reporting limit  
ND = Not detected at or above the laboratory reporting limit  
-- = Not Analyzed or Not Applicable

**TABLE 2  
GROUNDWATER ANALYTICAL RESULTS  
801 BRANNAN STREET,  
SAN FRANCISCO, CALIFORNIA**

Sample ID	Sample	TRPH	TPH(mo)	TPH(d)	TPH(g)	8270C	8010	8260B	Cadmium	Chromium	Lead	Nickel	Zinc
	Date	mg/L	ug/L						mg/L				
EB-6	6/29/00	12	1,900	1,000	ND	ND	ND	--	--	--	--	--	--
EB-10	6/29/00	3	610	210	ND	--	--	ND	ND	ND	ND	ND	0.55

Notes:

mg/L = milligrams per liter

ug/L = micrograms per liter

TRPH = Total Recoverable Petroleum Hydrocarbons - EPA Method SM5520

TPH(mo) = Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015

TPH(d) = Total Petroleum Hydrocarbons as Diesel Range (C10-C23), EPA Method 8015M

TPH(g) = Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M

8270C = I Semi-Volatile Organic Compounds - EPA Method 8260C

8010 = Halogenated Organic Compounds - EPA Method 8010

8260B = Volatile Organic Compounds - EPA Method 8260B

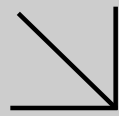
ND = Not detected at or above the laboratory reporting limit

-- = Not Analyzed or Not Applicable



Supplemental Report 1

Additional requested analyses have been added to the original report.



# CALSCIENCE

## WORK ORDER NUMBER: 13-06-1141

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

### Analytical Report For

**Client:** Treadwell & Rollo - A Langan Company

**Client Project Name:** 801 Brannan / 731615201

**Attention:** Veronica Tiglao  
555 Montgomery St., Suite 1300  
San Francisco, CA 94111-2554

Approved for release on 06/28/2013 by:  
Kristin Beckley  
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Client Project Name: 801 Brannan / 731615201

Work Order Number: 13-06-1141

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Detections Summary. . . . .	5
4	Client Sample Data. . . . .	7
	4.1 ASTM D-1946 Fixed Gases (Air). . . . .	7
	4.2 ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Air). . . . .	8
	4.3 EPA TO-15 Full List (Air). . . . .	9
	4.4 EPA TO-15 SIM (Air). . . . .	23
	4.5 EPA TO-3 (M) TPH Gasoline (Air). . . . .	27
5	Quality Control Sample Data. . . . .	28
	5.1 Sample Duplicate. . . . .	28
	5.2 LCS/LCSD. . . . .	29
6	Summa Canister Vacuum Summary. . . . .	36
7	Glossary of Terms and Qualifiers. . . . .	37
8	Chain of Custody/Sample Receipt Form. . . . .	38



**Work Order Narrative**

Work Order: 13-06-1141

Page 1 of 1

**Condition Upon Receipt:**

Samples were received under Chain of Custody (COC) on 06/18/13. They were assigned to Work Order 13-06-1141.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT  $\leq$  15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

**Quality Control:**

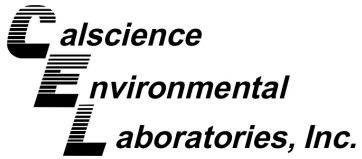
All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Additional Comments:**

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



## Sample Summary

Client: Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Work Order: 13-06-1141  
 Project Name: 801 Brannan / 731615201  
 PO Number:  
 Date Received: 06/18/13

Attn: Veronica Tiglao

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TR-SG-1	13-06-1141-1	06/17/13 12:31	1	Air
Dup-1	13-06-1141-2	06/17/13 12:31	1	Air
TR-SG-2	13-06-1141-3	06/17/13 13:11	1	Air
TR-SG-3	13-06-1141-4	06/17/13 14:21	1	Air
TR-SG-4	13-06-1141-5	06/17/13 15:06	1	Air
TR-SG-5	13-06-1141-6	06/17/13 15:31	1	Air
Ambient-1	13-06-1141-7	06/17/13 15:45	1	Air



## Detections Summary

Client: Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Work Order: 13-06-1141  
 Project Name: 801 Brannan / 731615201  
 Received: 06/18/13

Attn: Veronica Tiglao

Page 1 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
TR-SG-1 (13-06-1141-1)						
Methane	12.3		0.500	%v	ASTM D-1946	N/A
Acetone	63		5.0	ug/m3	EPA TO-15	N/A
2-Butanone	8.1		4.7	ug/m3	EPA TO-15	N/A
1,1-Dichloroethane	160		2.1	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	58		2.9	ug/m3	EPA TO-15	N/A
Dup-1 (13-06-1141-2)						
Methane	13.0		0.500	%v	ASTM D-1946	N/A
Acetone	100		5.3	ug/m3	EPA TO-15	N/A
2-Butanone	9.1		4.9	ug/m3	EPA TO-15	N/A
1,1-Dichloroethane	160		2.2	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	60		3.0	ug/m3	EPA TO-15	N/A
TR-SG-2 (13-06-1141-3)						
Methane	0.732		0.500	%v	ASTM D-1946	N/A
Acetone	130		4.8	ug/m3	EPA TO-15	N/A
Benzene	8.3		1.6	ug/m3	EPA TO-15	N/A
2-Butanone	39		4.4	ug/m3	EPA TO-15	N/A
Ethylbenzene	3.2		2.2	ug/m3	EPA TO-15	N/A
Methyl-t-Butyl Ether (MTBE)	130		7.2	ug/m3	EPA TO-15	N/A
o-Xylene	6.3		2.2	ug/m3	EPA TO-15	N/A
p/m-Xylene	11		8.7	ug/m3	EPA TO-15	N/A
Toluene	17		1.9	ug/m3	EPA TO-15	N/A
TR-SG-3 (13-06-1141-4)						
Acetone	110		5.5	ug/m3	EPA TO-15	N/A
Benzene	30		1.9	ug/m3	EPA TO-15	N/A
2-Butanone	23		5.1	ug/m3	EPA TO-15	N/A
Carbon Tetrachloride	6.9		3.6	ug/m3	EPA TO-15	N/A
Ethylbenzene	6.9		2.5	ug/m3	EPA TO-15	N/A
o-Xylene	9.1		2.5	ug/m3	EPA TO-15	N/A
p/m-Xylene	21		10	ug/m3	EPA TO-15	N/A
Tetrachloroethene	5.2		3.9	ug/m3	EPA TO-15	N/A
Toluene	40		2.2	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	6.8		6.5	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	210		3.2	ug/m3	EPA TO-15	N/A

Return to Contents

\* MDL is shown



## Detections Summary

Client: Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Work Order: 13-06-1141  
 Project Name: 801 Brannan / 731615201  
 Received: 06/18/13

Attn: Veronica Tiglao

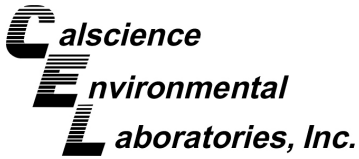
Page 2 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
TR-SG-4 (13-06-1141-5)						
Acetone	26		6.2	ug/m3	EPA TO-15	N/A
Benzene	4.8		2.1	ug/m3	EPA TO-15	N/A
Chloroform	7.8		3.2	ug/m3	EPA TO-15	N/A
o-Xylene	3.8		2.8	ug/m3	EPA TO-15	N/A
Toluene	10		2.5	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	35		3.6	ug/m3	EPA TO-15	N/A
TR-SG-5 (13-06-1141-6)						
Acetone	55		5.3	ug/m3	EPA TO-15	N/A
Benzene	7.6		1.8	ug/m3	EPA TO-15	N/A
2-Butanone	13		4.9	ug/m3	EPA TO-15	N/A
Carbon Disulfide	13		6.9	ug/m3	EPA TO-15	N/A
Ethylbenzene	5.1		2.4	ug/m3	EPA TO-15	N/A
o-Xylene	9.5		2.4	ug/m3	EPA TO-15	N/A
p/m-Xylene	20		9.6	ug/m3	EPA TO-15	N/A
Toluene	17		2.1	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	18		3.0	ug/m3	EPA TO-15	N/A
Ambient-1 (13-06-1141-7)						
1,1,1-Trichloroethane	0.56		0.14	ug/m3	EPA TO-15 SIM	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.64		0.19	ug/m3	EPA TO-15 SIM	N/A
1,2,4-Trimethylbenzene	0.20		0.12	ug/m3	EPA TO-15 SIM	N/A
Acetone	7.3		1.2	ug/m3	EPA TO-15 SIM	N/A
Benzene	0.41		0.080	ug/m3	EPA TO-15 SIM	N/A
Carbon Tetrachloride	0.62		0.063	ug/m3	EPA TO-15 SIM	N/A
Chloromethane	1.2		0.052	ug/m3	EPA TO-15 SIM	N/A
Dichlorodifluoromethane	2.6		0.12	ug/m3	EPA TO-15 SIM	N/A
Ethylbenzene	0.20		0.11	ug/m3	EPA TO-15 SIM	N/A
Methylene Chloride	0.53		0.087	ug/m3	EPA TO-15 SIM	N/A
Toluene	1.3		0.094	ug/m3	EPA TO-15 SIM	N/A
Trichlorofluoromethane	1.5		0.14	ug/m3	EPA TO-15 SIM	N/A
o-Xylene	0.23		0.11	ug/m3	EPA TO-15 SIM	N/A
p/m-Xylene	0.65		0.11	ug/m3	EPA TO-15 SIM	N/A

Subcontracted analyses, if any, are not included in this summary.

\* MDL is shown



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: ASTM D-1946  
 Units: %v

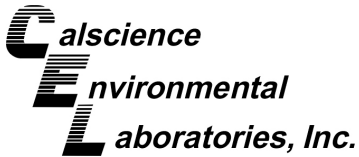
Project: 801 Brannan / 731615201

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>TR-SG-1</b>	<b>13-06-1141-1-A</b>	<b>06/17/13 12:31</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 13:13</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		12.3		0.500		1	
<b>Dup-1</b>	<b>13-06-1141-2-A</b>	<b>06/17/13 12:31</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 13:32</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		13.0		0.500		1	
<b>TR-SG-2</b>	<b>13-06-1141-3-A</b>	<b>06/17/13 13:11</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 13:52</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		0.732		0.500		1	
<b>TR-SG-3</b>	<b>13-06-1141-4-A</b>	<b>06/17/13 14:21</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 14:09</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		0.500		1	
<b>TR-SG-4</b>	<b>13-06-1141-5-A</b>	<b>06/17/13 15:06</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 14:28</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		0.500		1	
<b>TR-SG-5</b>	<b>13-06-1141-6-A</b>	<b>06/17/13 15:31</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 14:48</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		0.500		1	
<b>Ambient-1</b>	<b>13-06-1141-7-A</b>	<b>06/17/13 15:45</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 15:09</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		0.500		1	
<b>Method Blank</b>	<b>099-03-002-1839</b>	<b>N/A</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 11:38</b>	<b>130618L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Methane		ND		0.500		1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: ASTM D-1946 (M)  
 Units: %v

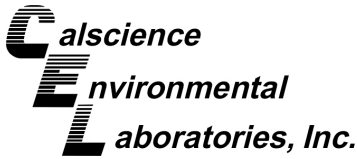
Project: 801 Brannan / 731615201

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC 55	N/A	06/18/13 13:15	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC 55	N/A	06/18/13 13:39	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC 55	N/A	06/18/13 14:02	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
TR-SG-3	13-06-1141-4-A	06/17/13 14:21	Air	GC 55	N/A	06/18/13 14:27	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
TR-SG-4	13-06-1141-5-A	06/17/13 15:06	Air	GC 55	N/A	06/18/13 14:49	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC 55	N/A	06/18/13 15:12	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
Ambient-1	13-06-1141-7-A	06/17/13 15:45	Air	GC 55	N/A	06/18/13 15:44	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	
Method Blank	099-12-872-460	N/A	Air	GC 55	N/A	06/18/13 10:08	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Helium		ND		0.0100		1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 1 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC/MS KKK	N/A	06/20/13 22:50	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	63	5.0	1.06	
Benzene	ND	1.7	1.06	
Benzyl Chloride	ND	8.2	1.06	
Bromodichloromethane	ND	3.6	1.06	
Bromoform	ND	5.5	1.06	
Bromomethane	ND	2.1	1.06	
2-Butanone	8.1	4.7	1.06	
Carbon Disulfide	ND	6.6	1.06	
Carbon Tetrachloride	ND	3.3	1.06	
Chlorobenzene	ND	2.4	1.06	
Chloroethane	ND	1.4	1.06	
Chloroform	ND	2.6	1.06	
Chloromethane	ND	1.1	1.06	
Dibromochloromethane	ND	4.5	1.06	
Dichlorodifluoromethane	ND	2.6	1.06	
1,1-Dichloroethane	160	2.1	1.06	
1,1-Dichloroethene	ND	2.1	1.06	
1,2-Dibromoethane	ND	4.1	1.06	
Dichlorotetrafluoroethane	ND	15	1.06	
1,2-Dichlorobenzene	ND	3.2	1.06	
1,2-Dichloroethane	ND	2.1	1.06	
1,2-Dichloropropane	ND	2.4	1.06	
1,3-Dichlorobenzene	ND	3.2	1.06	
1,4-Dichlorobenzene	ND	3.2	1.06	
c-1,3-Dichloropropene	ND	2.4	1.06	
c-1,2-Dichloroethene	ND	2.1	1.06	
t-1,2-Dichloroethene	ND	2.1	1.06	
t-1,3-Dichloropropene	ND	4.8	1.06	
Ethylbenzene	ND	2.3	1.06	
4-Ethyltoluene	ND	2.6	1.06	
Hexachloro-1,3-Butadiene	ND	17	1.06	
2-Hexanone	ND	6.5	1.06	
Methyl-t-Butyl Ether (MTBE)	ND	7.6	1.06	
Methylene Chloride	ND	18	1.06	
4-Methyl-2-Pentanone	ND	6.5	1.06	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

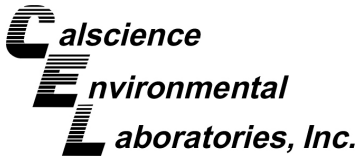
Project: 801 Brannan / 731615201

Page 2 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	ND	2.3	1.06	
p/m-Xylene	ND	9.2	1.06	
Styrene	ND	6.8	1.06	
Tetrachloroethene	ND	3.6	1.06	
Toluene	ND	2.0	1.06	
Trichloroethene	ND	2.8	1.06	
Trichlorofluoromethane	ND	6.0	1.06	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12	1.06	
1,1,1-Trichloroethane	58	2.9	1.06	
1,1,2-Trichloroethane	ND	2.9	1.06	
1,3,5-Trimethylbenzene	ND	2.6	1.06	
1,1,2,2-Tetrachloroethane	ND	7.3	1.06	
1,2,4-Trimethylbenzene	ND	7.8	1.06	
1,2,4-Trichlorobenzene	ND	16	1.06	
Vinyl Acetate	ND	7.5	1.06	
Vinyl Chloride	ND	1.4	1.06	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	102	68-134		
1,2-Dichloroethane-d4	105	67-133		
Toluene-d8	100	70-130		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 3 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC/MS KKK	N/A	06/20/13 21:54	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	100	5.3	1.11	
Benzene	ND	1.8	1.11	
Benzyl Chloride	ND	8.6	1.11	
Bromodichloromethane	ND	3.7	1.11	
Bromoform	ND	5.7	1.11	
Bromomethane	ND	2.2	1.11	
2-Butanone	9.1	4.9	1.11	
Carbon Disulfide	ND	6.9	1.11	
Carbon Tetrachloride	ND	3.5	1.11	
Chlorobenzene	ND	2.6	1.11	
Chloroethane	ND	1.5	1.11	
Chloroform	ND	2.7	1.11	
Chloromethane	ND	1.1	1.11	
Dibromochloromethane	ND	4.7	1.11	
Dichlorodifluoromethane	ND	2.7	1.11	
1,1-Dichloroethane	160	2.2	1.11	
1,1-Dichloroethene	ND	2.2	1.11	
1,2-Dibromoethane	ND	4.3	1.11	
Dichlorotetrafluoroethane	ND	16	1.11	
1,2-Dichlorobenzene	ND	3.3	1.11	
1,2-Dichloroethane	ND	2.2	1.11	
1,2-Dichloropropane	ND	2.6	1.11	
1,3-Dichlorobenzene	ND	3.3	1.11	
1,4-Dichlorobenzene	ND	3.3	1.11	
c-1,3-Dichloropropene	ND	2.5	1.11	
c-1,2-Dichloroethene	ND	2.2	1.11	
t-1,2-Dichloroethene	ND	2.2	1.11	
t-1,3-Dichloropropene	ND	5.0	1.11	
Ethylbenzene	ND	2.4	1.11	
4-Ethyltoluene	ND	2.7	1.11	
Hexachloro-1,3-Butadiene	ND	18	1.11	
2-Hexanone	ND	6.8	1.11	
Methyl-t-Butyl Ether (MTBE)	ND	8.0	1.11	
Methylene Chloride	ND	19	1.11	
4-Methyl-2-Pentanone	ND	6.8	1.11	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

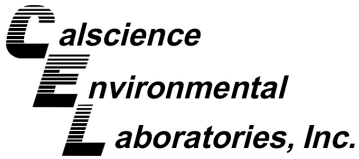
Page 4 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	ND	2.4	1.11	
p/m-Xylene	ND	9.6	1.11	
Styrene	ND	7.1	1.11	
Tetrachloroethene	ND	3.8	1.11	
Toluene	ND	2.1	1.11	
Trichloroethene	ND	3.0	1.11	
Trichlorofluoromethane	ND	6.2	1.11	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.11	
1,1,1-Trichloroethane	60	3.0	1.11	
1,1,2-Trichloroethane	ND	3.0	1.11	
1,3,5-Trimethylbenzene	ND	2.7	1.11	
1,1,2,2-Tetrachloroethane	ND	7.6	1.11	
1,2,4-Trimethylbenzene	ND	8.2	1.11	
1,2,4-Trichlorobenzene	ND	16	1.11	
Vinyl Acetate	ND	7.8	1.11	
Vinyl Chloride	ND	1.4	1.11	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	106	68-134	
1,2-Dichloroethane-d4	102	67-133	
Toluene-d8	97	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 5 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC/MS KKK	N/A	06/20/13 21:00	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	130	4.8	1	
Benzene	8.3	1.6	1	
Benzyl Chloride	ND	7.8	1	
Bromodichloromethane	ND	3.4	1	
Bromoform	ND	5.2	1	
Bromomethane	ND	1.9	1	
2-Butanone	39	4.4	1	
Carbon Disulfide	ND	6.2	1	
Carbon Tetrachloride	ND	3.1	1	
Chlorobenzene	ND	2.3	1	
Chloroethane	ND	1.3	1	
Chloroform	ND	2.4	1	
Chloromethane	ND	1.0	1	
Dibromochloromethane	ND	4.3	1	
Dichlorodifluoromethane	ND	2.5	1	
1,1-Dichloroethane	ND	2.0	1	
1,1-Dichloroethene	ND	2.0	1	
1,2-Dibromoethane	ND	3.8	1	
Dichlorotetrafluoroethane	ND	14	1	
1,2-Dichlorobenzene	ND	3.0	1	
1,2-Dichloroethane	ND	2.0	1	
1,2-Dichloropropane	ND	2.3	1	
1,3-Dichlorobenzene	ND	3.0	1	
1,4-Dichlorobenzene	ND	3.0	1	
c-1,3-Dichloropropene	ND	2.3	1	
c-1,2-Dichloroethene	ND	2.0	1	
t-1,2-Dichloroethene	ND	2.0	1	
t-1,3-Dichloropropene	ND	4.5	1	
Ethylbenzene	3.2	2.2	1	
4-Ethyltoluene	ND	2.5	1	
Hexachloro-1,3-Butadiene	ND	16	1	
2-Hexanone	ND	6.1	1	
Methyl-t-Butyl Ether (MTBE)	130	7.2	1	
Methylene Chloride	ND	17	1	
4-Methyl-2-Pentanone	ND	6.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

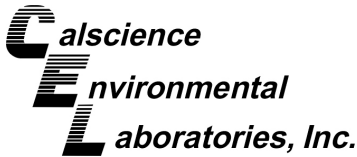
Project: 801 Brannan / 731615201

Page 6 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	6.3	2.2	1	
p/m-Xylene	11	8.7	1	
Styrene	ND	6.4	1	
Tetrachloroethene	ND	3.4	1	
Toluene	17	1.9	1	
Trichloroethene	ND	2.7	1	
Trichlorofluoromethane	ND	5.6	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,1,1-Trichloroethane	ND	2.7	1	
1,1,2-Trichloroethane	ND	2.7	1	
1,3,5-Trimethylbenzene	ND	2.5	1	
1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,2,4-Trimethylbenzene	ND	7.4	1	
1,2,4-Trichlorobenzene	ND	15	1	
Vinyl Acetate	ND	7.0	1	
Vinyl Chloride	ND	1.3	1	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	104	68-134		
1,2-Dichloroethane-d4	103	67-133		
Toluene-d8	100	70-130		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 7 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-3	13-06-1141-4-A	06/17/13 14:21	Air	GC/MS KKK	N/A	06/20/13 20:06	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	110	5.5	1.16	
Benzene	30	1.9	1.16	
Benzyl Chloride	ND	9.0	1.16	
Bromodichloromethane	ND	3.9	1.16	
Bromoform	ND	6.0	1.16	
Bromomethane	ND	2.3	1.16	
2-Butanone	23	5.1	1.16	
Carbon Disulfide	ND	7.2	1.16	
Carbon Tetrachloride	6.9	3.6	1.16	
Chlorobenzene	ND	2.7	1.16	
Chloroethane	ND	1.5	1.16	
Chloroform	ND	2.8	1.16	
Chloromethane	ND	1.2	1.16	
Dibromochloromethane	ND	4.9	1.16	
Dichlorodifluoromethane	ND	2.9	1.16	
1,1-Dichloroethane	ND	2.3	1.16	
1,1-Dichloroethene	ND	2.3	1.16	
1,2-Dibromoethane	ND	4.5	1.16	
Dichlorotetrafluoroethane	ND	16	1.16	
1,2-Dichlorobenzene	ND	3.5	1.16	
1,2-Dichloroethane	ND	2.3	1.16	
1,2-Dichloropropane	ND	2.7	1.16	
1,3-Dichlorobenzene	ND	3.5	1.16	
1,4-Dichlorobenzene	ND	3.5	1.16	
c-1,3-Dichloropropene	ND	2.6	1.16	
c-1,2-Dichloroethene	ND	2.3	1.16	
t-1,2-Dichloroethene	ND	2.3	1.16	
t-1,3-Dichloropropene	ND	5.3	1.16	
Ethylbenzene	6.9	2.5	1.16	
4-Ethyltoluene	ND	2.9	1.16	
Hexachloro-1,3-Butadiene	ND	19	1.16	
2-Hexanone	ND	7.1	1.16	
Methyl-t-Butyl Ether (MTBE)	ND	8.4	1.16	
Methylene Chloride	ND	20	1.16	
4-Methyl-2-Pentanone	ND	7.1	1.16	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 8 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	9.1	2.5	1.16	
p/m-Xylene	21	10	1.16	
Styrene	ND	7.4	1.16	
Tetrachloroethene	5.2	3.9	1.16	
Toluene	40	2.2	1.16	
Trichloroethene	ND	3.1	1.16	
Trichlorofluoromethane	6.8	6.5	1.16	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.16	
1,1,1-Trichloroethane	210	3.2	1.16	
1,1,2-Trichloroethane	ND	3.2	1.16	
1,3,5-Trimethylbenzene	ND	2.9	1.16	
1,1,2,2-Tetrachloroethane	ND	8.0	1.16	
1,2,4-Trimethylbenzene	ND	8.6	1.16	
1,2,4-Trichlorobenzene	ND	17	1.16	
Vinyl Acetate	ND	8.2	1.16	
Vinyl Chloride	ND	1.5	1.16	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	102	68-134	
1,2-Dichloroethane-d4	104	67-133	
Toluene-d8	100	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 9 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-4	13-06-1141-5-A	06/17/13 15:06	Air	GC/MS KKK	N/A	06/20/13 19:10	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	26	6.2	1.31	
Benzene	4.8	2.1	1.31	
Benzyl Chloride	ND	10	1.31	
Bromodichloromethane	ND	4.4	1.31	
Bromoform	ND	6.8	1.31	
Bromomethane	ND	2.5	1.31	
2-Butanone	ND	5.8	1.31	
Carbon Disulfide	ND	8.2	1.31	
Carbon Tetrachloride	ND	4.1	1.31	
Chlorobenzene	ND	3.0	1.31	
Chloroethane	ND	1.7	1.31	
Chloroform	7.8	3.2	1.31	
Chloromethane	ND	1.4	1.31	
Dibromochloromethane	ND	5.6	1.31	
Dichlorodifluoromethane	ND	3.2	1.31	
1,1-Dichloroethane	ND	2.7	1.31	
1,1-Dichloroethene	ND	2.6	1.31	
1,2-Dibromoethane	ND	5.0	1.31	
Dichlorotetrafluoroethane	ND	18	1.31	
1,2-Dichlorobenzene	ND	3.9	1.31	
1,2-Dichloroethane	ND	2.7	1.31	
1,2-Dichloropropane	ND	3.0	1.31	
1,3-Dichlorobenzene	ND	3.9	1.31	
1,4-Dichlorobenzene	ND	3.9	1.31	
c-1,3-Dichloropropene	ND	3.0	1.31	
c-1,2-Dichloroethene	ND	2.6	1.31	
t-1,2-Dichloroethene	ND	2.6	1.31	
t-1,3-Dichloropropene	ND	5.9	1.31	
Ethylbenzene	ND	2.8	1.31	
4-Ethyltoluene	ND	3.2	1.31	
Hexachloro-1,3-Butadiene	ND	21	1.31	
2-Hexanone	ND	8.0	1.31	
Methyl-t-Butyl Ether (MTBE)	ND	9.4	1.31	
Methylene Chloride	ND	23	1.31	
4-Methyl-2-Pentanone	ND	8.0	1.31	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

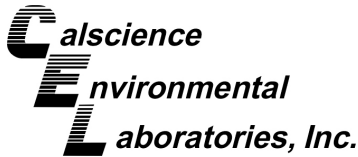
Page 10 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	3.8	2.8	1.31	
p/m-Xylene	ND	11	1.31	
Styrene	ND	8.4	1.31	
Tetrachloroethene	ND	4.4	1.31	
Toluene	10	2.5	1.31	
Trichloroethene	ND	3.5	1.31	
Trichlorofluoromethane	ND	7.4	1.31	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	15	1.31	
1,1,1-Trichloroethane	35	3.6	1.31	
1,1,2-Trichloroethane	ND	3.6	1.31	
1,3,5-Trimethylbenzene	ND	3.2	1.31	
1,1,2,2-Tetrachloroethane	ND	9.0	1.31	
1,2,4-Trimethylbenzene	ND	9.7	1.31	
1,2,4-Trichlorobenzene	ND	19	1.31	
Vinyl Acetate	ND	9.2	1.31	
Vinyl Chloride	ND	1.7	1.31	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	103	68-134	
1,2-Dichloroethane-d4	100	67-133	
Toluene-d8	101	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
555 Montgomery St., Suite 1300  
San Francisco, CA 94111-2554

Date Received: 06/18/13  
Work Order: 13-06-1141  
Preparation: N/A  
Method: EPA TO-15  
Units: ug/m3

Project: 801 Brannan / 731615201

Page 11 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC/MS KKK	N/A	06/20/13 18:13	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	55	5.3	1.11	
Benzene	7.6	1.8	1.11	
Benzyl Chloride	ND	8.6	1.11	
Bromodichloromethane	ND	3.7	1.11	
Bromoform	ND	5.7	1.11	
Bromomethane	ND	2.2	1.11	
2-Butanone	13	4.9	1.11	
Carbon Disulfide	13	6.9	1.11	
Carbon Tetrachloride	ND	3.5	1.11	
Chlorobenzene	ND	2.6	1.11	
Chloroethane	ND	1.5	1.11	
Chloroform	ND	2.7	1.11	
Chloromethane	ND	1.1	1.11	
Dibromochloromethane	ND	4.7	1.11	
Dichlorodifluoromethane	ND	2.7	1.11	
1,1-Dichloroethane	ND	2.2	1.11	
1,1-Dichloroethene	ND	2.2	1.11	
1,2-Dibromoethane	ND	4.3	1.11	
Dichlorotetrafluoroethane	ND	16	1.11	
1,2-Dichlorobenzene	ND	3.3	1.11	
1,2-Dichloroethane	ND	2.2	1.11	
1,2-Dichloropropane	ND	2.6	1.11	
1,3-Dichlorobenzene	ND	3.3	1.11	
1,4-Dichlorobenzene	ND	3.3	1.11	
c-1,3-Dichloropropene	ND	2.5	1.11	
c-1,2-Dichloroethene	ND	2.2	1.11	
t-1,2-Dichloroethene	ND	2.2	1.11	
t-1,3-Dichloropropene	ND	5.0	1.11	
Ethylbenzene	5.1	2.4	1.11	
4-Ethyltoluene	ND	2.7	1.11	
Hexachloro-1,3-Butadiene	ND	18	1.11	
2-Hexanone	ND	6.8	1.11	
Methyl-t-Butyl Ether (MTBE)	ND	8.0	1.11	
Methylene Chloride	ND	19	1.11	
4-Methyl-2-Pentanone	ND	6.8	1.11	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

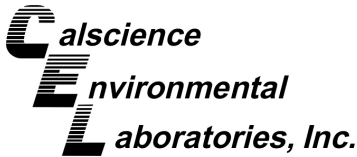
Project: 801 Brannan / 731615201

Page 12 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	9.5	2.4	1.11	
p/m-Xylene	20	9.6	1.11	
Styrene	ND	7.1	1.11	
Tetrachloroethene	ND	3.8	1.11	
Toluene	17	2.1	1.11	
Trichloroethene	ND	3.0	1.11	
Trichlorofluoromethane	ND	6.2	1.11	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.11	
1,1,1-Trichloroethane	18	3.0	1.11	
1,1,2-Trichloroethane	ND	3.0	1.11	
1,3,5-Trimethylbenzene	ND	2.7	1.11	
1,1,2,2-Tetrachloroethane	ND	7.6	1.11	
1,2,4-Trimethylbenzene	ND	8.2	1.11	
1,2,4-Trichlorobenzene	ND	16	1.11	
Vinyl Acetate	ND	7.8	1.11	
Vinyl Chloride	ND	1.4	1.11	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	104	68-134		
1,2-Dichloroethane-d4	101	67-133		
Toluene-d8	96	70-130		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 13 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-021-11588	N/A	Air	GC/MS KKK	N/A	06/20/13 17:17	130620L01

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	4.8	1	
Benzene	ND	1.6	1	
Benzyl Chloride	ND	7.8	1	
Bromodichloromethane	ND	3.4	1	
Bromoform	ND	5.2	1	
Bromomethane	ND	1.9	1	
2-Butanone	ND	4.4	1	
Carbon Disulfide	ND	6.2	1	
Carbon Tetrachloride	ND	3.1	1	
Chlorobenzene	ND	2.3	1	
Chloroethane	ND	1.3	1	
Chloroform	ND	2.4	1	
Chloromethane	ND	1.0	1	
Dibromochloromethane	ND	4.3	1	
Dichlorodifluoromethane	ND	2.5	1	
1,1-Dichloroethane	ND	2.0	1	
1,1-Dichloroethene	ND	2.0	1	
1,2-Dibromoethane	ND	3.8	1	
Dichlorotetrafluoroethane	ND	14	1	
1,2-Dichlorobenzene	ND	3.0	1	
1,2-Dichloroethane	ND	2.0	1	
1,2-Dichloropropane	ND	2.3	1	
1,3-Dichlorobenzene	ND	3.0	1	
1,4-Dichlorobenzene	ND	3.0	1	
c-1,3-Dichloropropene	ND	2.3	1	
c-1,2-Dichloroethene	ND	2.0	1	
t-1,2-Dichloroethene	ND	2.0	1	
t-1,3-Dichloropropene	ND	4.5	1	
Ethylbenzene	ND	2.2	1	
4-Ethyltoluene	ND	2.5	1	
Hexachloro-1,3-Butadiene	ND	16	1	
2-Hexanone	ND	6.1	1	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Methylene Chloride	ND	17	1	
4-Methyl-2-Pentanone	ND	6.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 801 Brannan / 731615201

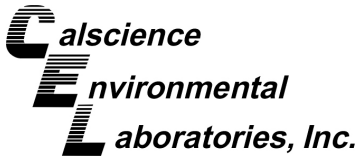
Page 14 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	ND	2.2	1	
p/m-Xylene	ND	8.7	1	
Styrene	ND	6.4	1	
Tetrachloroethene	ND	3.4	1	
Toluene	ND	1.9	1	
Trichloroethene	ND	2.7	1	
Trichlorofluoromethane	ND	5.6	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,1,1-Trichloroethane	ND	2.7	1	
1,1,2-Trichloroethane	ND	2.7	1	
1,3,5-Trimethylbenzene	ND	2.5	1	
1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,2,4-Trimethylbenzene	ND	7.4	1	
1,2,4-Trichlorobenzene	ND	15	1	
Vinyl Acetate	ND	7.0	1	
Vinyl Chloride	ND	1.3	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	102	68-134	
1,2-Dichloroethane-d4	98	67-133	
Toluene-d8	99	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
555 Montgomery St., Suite 1300  
San Francisco, CA 94111-2554

Date Received: 06/18/13  
Work Order: 13-06-1141  
Preparation: N/A  
Method: EPA TO-15 SIM  
Units: ug/m3

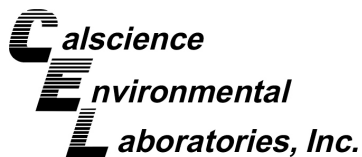
Project: 801 Brannan / 731615201

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Ambient-1	13-06-1141-7-A	06/17/13 15:45	Air	GC/MS KK	N/A	06/20/13 20:57	130620L01

Parameter	Result	RL	DF	Qualifiers
1,1,1-Trichloroethane	0.56	0.14	1	
1,1,2,2-Tetrachloroethane	ND	0.17	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.64	0.19	1	
1,1,2-Trichloroethane	ND	0.14	1	
1,1-Dichloroethane	ND	0.10	1	
1,1-Dichloroethene	ND	0.099	1	
1,2,4-Trimethylbenzene	0.20	0.12	1	
1,2-Dichloroethane	ND	0.10	1	
1,3,5-Trimethylbenzene	ND	0.12	1	
2-Butanone	ND	1.5	1	
4-Ethyltoluene	ND	0.12	1	
Acetone	7.3	1.2	1	
Benzene	0.41	0.080	1	
Bromodichloromethane	ND	0.17	1	
Carbon Disulfide	ND	1.6	1	
Carbon Tetrachloride	0.62	0.063	1	
Chlorobenzene	ND	0.12	1	
Chloroethane	ND	0.066	1	
Chloroform	ND	0.12	1	
Chloromethane	1.2	0.052	1	
Dibromochloromethane	ND	0.21	1	
Dichlorodifluoromethane	2.6	0.12	1	
Ethylbenzene	0.20	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.27	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1	
Methylene Chloride	0.53	0.087	1	
Tetrachloroethene	ND	0.17	1	
Toluene	1.3	0.094	1	
Trichloroethene	ND	0.13	1	
Trichlorofluoromethane	1.5	0.14	1	
Vinyl Chloride	ND	0.026	1	
c-1,2-Dichloroethene	ND	0.099	1	
o-Xylene	0.23	0.11	1	
p/m-Xylene	0.65	0.11	1	
t-1,2-Dichloroethene	ND	0.099	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15 SIM  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 2 of 4

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	37-163	
1,4-Bromofluorobenzene	85	45-153	
Toluene-d8	102	73-121	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15 SIM  
 Units: ug/m3

Project: 801 Brannan / 731615201

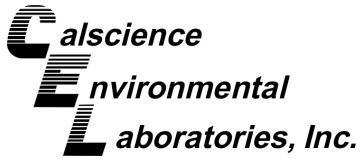
Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-214-34	N/A	Air	GC/MS KK	N/A	06/20/13 20:00	130620L01

Parameter	Result	RL	DF	Qualifiers
1,1,1-Trichloroethane	ND	0.14	1	
1,1,2,2-Tetrachloroethane	ND	0.17	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.19	1	
1,1,2-Trichloroethane	ND	0.14	1	
1,1-Dichloroethane	ND	0.10	1	
1,1-Dichloroethene	ND	0.099	1	
1,2,4-Trimethylbenzene	ND	0.12	1	
1,2-Dichloroethane	ND	0.10	1	
1,3,5-Trimethylbenzene	ND	0.12	1	
2-Butanone	ND	1.5	1	
4-Ethyltoluene	ND	0.12	1	
Acetone	ND	1.2	1	
Benzene	ND	0.080	1	
Bromodichloromethane	ND	0.17	1	
Carbon Disulfide	ND	1.6	1	
Carbon Tetrachloride	ND	0.063	1	
Chlorobenzene	ND	0.12	1	
Chloroethane	ND	0.066	1	
Chloroform	ND	0.12	1	
Chloromethane	ND	0.052	1	
Dibromochloromethane	ND	0.21	1	
Dichlorodifluoromethane	ND	0.12	1	
Ethylbenzene	ND	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.27	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1	
Methylene Chloride	ND	0.087	1	
Tetrachloroethene	ND	0.17	1	
Toluene	ND	0.094	1	
Trichloroethene	ND	0.13	1	
Trichlorofluoromethane	ND	0.14	1	
Vinyl Chloride	ND	0.026	1	
c-1,2-Dichloroethene	ND	0.099	1	
o-Xylene	ND	0.11	1	
p/m-Xylene	ND	0.11	1	
t-1,2-Dichloroethene	ND	0.099	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

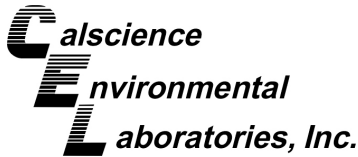
Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15 SIM  
 Units: ug/m3

Project: 801 Brannan / 731615201

Page 4 of 4

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	107	37-163	
1,4-Bromofluorobenzene	86	45-153	
Toluene-d8	105	73-121	



## Analytical Report

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-3M  
 Units: ppm (v/v)

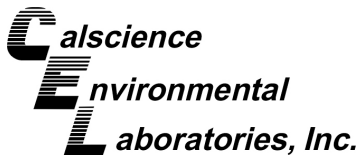
Project: 801 Brannan / 731615201

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC 13	N/A	06/18/13 15:58	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC 13	N/A	06/18/13 15:42	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC 13	N/A	06/18/13 15:27	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
TR-SG-3	13-06-1141-4-A	06/17/13 14:21	Air	GC 13	N/A	06/18/13 15:09	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
TR-SG-4	13-06-1141-5-A	06/17/13 15:06	Air	GC 13	N/A	06/18/13 14:57	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC 13	N/A	06/18/13 14:47	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
Ambient-1	13-06-1141-7-A	06/17/13 15:45	Air	GC 13	N/A	06/18/13 14:25	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	
Method Blank	098-01-005-4769	N/A	Air	GC 13	N/A	06/18/13 09:00	130618L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		1.5		1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



**Quality Control - Sample Duplicate**

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-3M

Project: 801 Brannan / 731615201

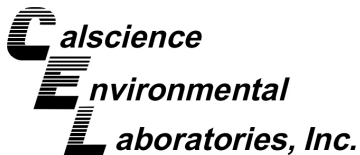
Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
<b>13-06-1117-2</b>	<b>Air</b>	<b>GC 13</b>	<b>N/A</b>	<b>06/18/13 10:41</b>	<b>130618D01</b>

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	10750	10510	2	0-20	



RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: ASTM D-1946

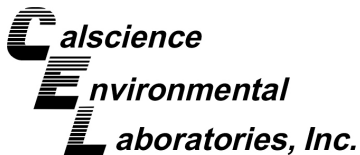
Project: 801 Brannan / 731615201

Page 1 of 7

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
<b>099-03-002-1839</b>	<b>Air</b>	<b>GC 65</b>	<b>N/A</b>	<b>06/18/13 10:45</b>	<b>130618L01</b>				
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Methane	4.510	4.385	97	4.394	97	80-120	0	0-30	



RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: ASTM D-1946 (M)

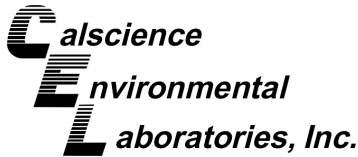
Project: 801 Brannan / 731615201

Page 2 of 7

Quality Control Sample ID	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
<b>099-12-872-460</b>	<b>Air</b>		<b>GC 55</b>	<b>N/A</b>	<b>06/18/13 09:17</b>	<b>130618L01</b>			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Helium	1.000	0.8479	85	0.8499	85	80-120	0	0-30	

Return to Contents 

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS/LCSD

Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-15

Project: 801 Brannan / 731615201

Page 3 of 7

Quality Control Sample ID	Matrix			Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
<b>095-01-021-11588</b>	<b>Air</b>			<b>GC/MS KKK</b>	<b>N/A</b>	<b>06/20/13 14:34</b>	<b>130620L01</b>			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	49.49	83	48.59	82	67-133	56-144	2	0-30	
Benzene	79.87	77.43	97	76.51	96	70-130	60-140	1	0-30	
Benzyl Chloride	129.4	134.3	104	131.8	102	38-158	18-178	2	0-30	
Bromodichloromethane	167.5	164.2	98	163.6	98	70-130	60-140	0	0-30	
Bromoform	258.4	262.7	102	257.8	100	63-147	49-161	2	0-30	
Bromomethane	97.08	89.84	93	88.72	91	70-139	58-150	1	0-30	
2-Butanone	73.73	69.08	94	68.13	92	66-132	55-143	1	0-30	
Carbon Disulfide	77.85	74.87	96	74.17	95	68-146	55-159	1	0-30	
Carbon Tetrachloride	157.3	153.9	98	152.8	97	70-136	59-147	1	0-30	
Chlorobenzene	115.1	112.1	97	111.1	97	70-130	60-140	1	0-30	
Chloroethane	65.96	64.05	97	62.80	95	65-149	51-163	2	0-30	
Chloroform	122.1	117.2	96	115.0	94	70-130	60-140	2	0-30	
Chloromethane	51.63	46.62	90	45.61	88	69-141	57-153	2	0-30	
Dibromochloromethane	213.0	211.4	99	209.3	98	70-138	59-149	1	0-30	
Dichlorodifluoromethane	123.6	111.9	91	109.8	89	67-139	55-151	2	0-30	
1,1-Dichloroethane	101.2	97.04	96	96.12	95	70-130	60-140	1	0-30	
1,1-Dichloroethene	99.12	95.42	96	94.05	95	70-135	59-146	1	0-30	
1,2-Dibromoethane	192.1	191.2	100	187.9	98	70-133	60-144	2	0-30	
Dichlorotetrafluoroethane	174.8	160.2	92	156.7	90	51-135	37-149	2	0-30	
1,2-Dichlorobenzene	150.3	149.9	100	147.1	98	48-138	33-153	2	0-30	
1,2-Dichloroethane	101.2	98.18	97	96.50	95	70-132	60-142	2	0-30	
1,2-Dichloropropane	115.5	112.6	97	111.5	97	70-130	60-140	1	0-30	
1,3-Dichlorobenzene	150.3	150.0	100	147.7	98	56-134	43-147	2	0-30	
1,4-Dichlorobenzene	150.3	149.6	100	146.8	98	52-136	38-150	2	0-30	
c-1,3-Dichloropropene	113.5	113.1	100	112.1	99	70-130	60-140	1	0-30	
c-1,2-Dichloroethene	99.12	97.64	99	96.61	97	70-130	60-140	1	0-30	
t-1,2-Dichloroethene	99.12	97.61	98	96.79	98	70-130	60-140	1	0-30	
t-1,3-Dichloropropene	113.5	115.7	102	114.0	100	70-147	57-160	1	0-30	
Ethylbenzene	108.6	106.6	98	105.1	97	70-130	60-140	1	0-30	
4-Ethyltoluene	122.9	122.2	99	120.5	98	68-130	58-140	1	0-30	
Hexachloro-1,3-Butadiene	266.6	303.5	114	321.7	121	44-146	27-163	6	0-30	
2-Hexanone	102.4	99.42	97	98.13	96	70-136	59-147	1	0-30	
Methyl-t-Butyl Ether (MTBE)	90.13	87.29	97	85.94	95	68-130	58-140	2	0-30	
Methylene Chloride	86.84	78.65	91	78.32	90	69-130	59-140	0	0-30	
4-Methyl-2-Pentanone	102.4	98.40	96	97.46	95	70-130	60-140	1	0-30	
o-Xylene	108.6	106.9	99	105.4	97	69-130	59-140	1	0-30	
p/m-Xylene	217.1	216.6	100	214.0	99	70-132	60-142	1	0-30	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS/LCSD

Treadwell & Rollo - A Langan Company  
555 Montgomery St., Suite 1300  
San Francisco, CA 94111-2554

Date Received: 06/18/13  
Work Order: 13-06-1141  
Preparation: N/A  
Method: EPA TO-15

Project: 801 Brannan / 731615201

Page 4 of 7

<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Styrene	106.5	104.6	98	103.2	97	65-131	54-142	1	0-30	
Tetrachloroethene	169.6	165.4	98	164.0	97	70-130	60-140	1	0-30	
Toluene	94.21	90.89	96	90.29	96	70-130	60-140	1	0-30	
Trichloroethene	134.3	131.6	98	130.4	97	70-130	60-140	1	0-30	
Trichlorofluoromethane	140.5	151.9	108	124.5	89	63-141	50-154	20	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	182.3	95	178.9	93	70-136	59-147	2	0-30	
1,1,1-Trichloroethane	136.4	134.1	98	132.0	97	70-130	60-140	2	0-30	
1,1,2-Trichloroethane	136.4	133.7	98	132.3	97	70-130	60-140	1	0-30	
1,3,5-Trimethylbenzene	122.9	121.5	99	120.5	98	62-130	51-141	1	0-30	
1,1,2,2-Tetrachloroethane	171.6	168.9	98	166.3	97	63-130	52-141	2	0-30	
1,2,4-Trimethylbenzene	122.9	122.0	99	119.3	97	60-132	48-144	2	0-30	
1,2,4-Trichlorobenzene	185.5	220.1	119	220.8	119	31-151	11-171	0	0-30	
Vinyl Acetate	88.03	83.65	95	82.37	94	58-130	46-142	2	0-30	
Vinyl Chloride	63.91	60.06	94	59.24	93	70-134	59-145	1	0-30	

Total number of LCS compounds: 51

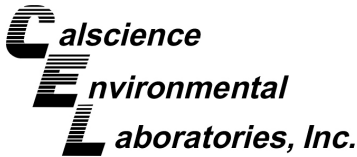
Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS/LCSD

Treadwell & Rollo - A Langan Company  
555 Montgomery St., Suite 1300  
San Francisco, CA 94111-2554

Date Received: 06/18/13  
Work Order: 13-06-1141  
Preparation: N/A  
Method: EPA TO-15 SIM

Project: 801 Brannan / 731615201

Page 5 of 7

Quality Control Sample ID	Matrix			Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
<b>099-15-214-34</b>	<b>Air</b>			<b>GC/MS KK</b>	<b>N/A</b>	<b>06/20/13 16:27</b>	<b>130620L01</b>			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,1,1-Trichloroethane	2.728	2.714	100	2.731	100	50-150	33-167	1	0-30	
1,1,2,2-Tetrachloroethane	3.433	3.745	109	3.733	109	50-150	33-167	0	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.832	3.608	94	3.746	98	50-150	33-167	4	0-30	
1,1,2-Trichloroethane	2.728	2.793	102	2.742	101	27-171	3-195	2	0-38	
1,1-Dichloroethane	2.024	1.901	94	1.912	94	50-150	33-167	1	0-30	
1,1-Dichloroethene	1.982	1.731	87	1.705	86	50-150	33-167	1	0-30	
1,2,4-Trimethylbenzene	2.458	2.581	105	2.781	113	50-150	33-167	7	0-30	
1,2-Dichloroethane	2.024	1.789	88	1.842	91	28-166	5-189	3	0-40	
1,3,5-Trimethylbenzene	2.458	2.430	99	2.639	107	50-150	33-167	8	0-30	
4-Ethyltoluene	2.458	2.460	100	2.608	106	50-150	33-167	6	0-30	
Benzene	1.597	1.570	98	1.504	94	27-153	6-174	4	0-34	
Bromodichloromethane	3.350	3.318	99	3.321	99	50-150	33-167	0	0-30	
Carbon Tetrachloride	3.146	2.999	95	3.023	96	7-187	0-217	1	0-31	
Chlorobenzene	2.302	2.304	100	2.326	101	50-150	33-167	1	0-30	
Chloroethane	1.319	1.202	91	1.256	95	50-150	33-167	4	0-30	
Chloroform	2.441	2.198	90	2.236	92	50-150	33-167	2	0-30	
Chloromethane	1.033	0.9768	95	1.016	98	50-150	33-167	4	0-30	
Dibromochloromethane	4.259	4.489	105	4.449	104	50-150	33-167	1	0-30	
Dichlorodifluoromethane	2.473	2.441	99	2.460	100	50-150	33-167	1	0-30	
Ethylbenzene	2.171	2.177	100	2.139	99	27-153	6-174	2	0-46	
Hexachloro-1,3-Butadiene	5.333	5.314	100	5.539	104	50-150	33-167	4	0-30	
Methyl-t-Butyl Ether (MTBE)	1.803	1.548	86	1.467	81	50-150	33-167	5	0-30	
Methylene Chloride	1.737	1.485	85	1.536	88	50-150	33-167	3	0-30	
Tetrachloroethene	3.391	3.504	103	3.544	105	34-154	14-174	1	0-33	
Toluene	1.884	1.842	98	1.826	97	28-154	7-175	1	0-42	
Trichloroethene	2.687	2.463	92	2.419	90	43-139	27-155	2	0-31	
Trichlorofluoromethane	2.809	2.805	100	3.070	109	50-150	33-167	9	0-30	
Vinyl Chloride	1.278	1.059	83	1.034	81	44-140	28-156	2	0-33	
c-1,2-Dichloroethene	1.982	1.765	89	1.738	88	35-165	13-187	2	0-35	
o-Xylene	2.171	2.167	100	2.291	106	22-160	0-183	6	0-48	
p/m-Xylene	4.342	4.464	103	4.602	106	21-165	0-189	3	0-51	
t-1,2-Dichloroethene	1.982	1.802	91	1.778	90	50-150	33-167	1	0-30	

Total number of LCS compounds: 32

Total number of ME compounds: 0

Total number of ME compounds allowed: 2

RPD: Relative Percent Difference. CL: Control Limits





### Quality Control - LCS/LCSD

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Treadwell & Rollo - A Langan Company  
555 Montgomery St., Suite 1300  
San Francisco, CA 94111-2554

Date Received: 06/18/13  
Work Order: 13-06-1141  
Preparation: N/A  
Method: EPA TO-15 SIM

Project: 801 Brannan / 731615201

Page 6 of 7

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LCS ME CL validation result: Pass

  
Return to Contents



## Quality Control - LCS

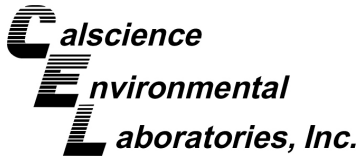
Treadwell & Rollo - A Langan Company  
 555 Montgomery St., Suite 1300  
 San Francisco, CA 94111-2554

Date Received: 06/18/13  
 Work Order: 13-06-1141  
 Preparation: N/A  
 Method: EPA TO-3M

Project: 801 Brannan / 731615201

Page 7 of 7

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number	
<b>098-01-005-4769</b>	<b>Air</b>	<b>GC 13</b>	<b>06/18/13 08:48</b>	<b>130618L01</b>	
<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline	200.0	192.4	96	80-120	



## Summa Canister Vacuum Summary

Work Order: 13-06-1141

Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
TR-SG-1	-29.80 in Hg	-5.00 in Hg	SLC058	Summa Canister 1L
Dup-1	-29.80 in Hg	-5.00 in Hg	LC693	Summa Canister 1L
TR-SG-2	-29.80 in Hg	-5.00 in Hg	LC274	Summa Canister 1L
TR-SG-3	-29.80 in Hg	-5.00 in Hg	LC607	Summa Canister 1L
TR-SG-4	-29.80 in Hg	-5.00 in Hg	SLC090	Summa Canister 1L
TR-SG-5	-29.80 in Hg	-5.00 in Hg	LC465	Summa Canister 1L
Ambient-1	-29.80 in Hg	-5.00 in Hg	D213	Summa Canister 6L

## Glossary of Terms and Qualifiers

Work Order: 13-06-1141

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	For any analysis identified as a "field" test with a holding time (HT) $\leq$ 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

LABORATORY CLIENT: **Treadwell & Rollo** P.O. NO.:  
 ADDRESS: 555 Montgomery St, Suite 1300  
 CITY: San Francisco STATE: CA ZIP: 94111  
 TEL: 415-955-5242 E-MAIL: vtiglaol@laryan.com  
 TURNAROUND TIME:  24 HR  48 HR  72 HR  5 DAYS  10 DAYS  
 SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)  
 EDD

SPECIAL INSTRUCTIONS: Standard TAT, copy results to mpatil@laryan.com

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment		Start Sampling Information			Stop Sampling Information			Requested Analyses	
				Canister ID#	Canister Size 6L or 1L	Flow Controller ID #	Date	Time (24 hr clock)	Canister Pressure (Hig)	Date	Time (24 hr clock)		Canister Pressure (Hig)
1	TR-SG-1	West side of Bldg	SV	LC277	1L	SGM220	6/17	1220	-30"	6/17	1231	-5"	VOCs (TD-15) TPHg Methane Helium
2	Dup-1	"	SV	LC693	1L	SGM138	6/17	1220	-30"	6/17	1231	-5"	
3	TR-SG-2	East side of Bldg	SV	SLC058	1L	SGM209	6/17	1306	-30"	6/17	1311	-5"	
4	TR-SG-3	East side of Parking	SV	LC607	1L	SGM115	6/17	1416	-30"	6/17	1421	-5"	
5	TR-SG-4	Centre of Parking lot	SV	SLC090	1L	SGM107	6/17	1501	-30"	6/17	1506	-5"	
6	TR-SG-5	West side of Parking	SV	LC465	1L	SGM221	6/17	1525	-30"	6/17	1531	-5"	
7	Ambient-1		A	DA13	6L	FC38	6/17	0805	-30"	6/17	1545	-5"	

Relinquished by: (Signature) **Mukta Patil** Date: 6/18/13  
 Relinquished by: (Signature) **Mukta Patil** Date: 6/18/13  
 Relinquished by: (Signature) **Mukta Patil** Date: 6/18/13

		<b>&lt; WebShip &gt; &gt; &gt; &gt;</b> <b>800-322-5555 www.gso.com</b>	
<b>Ship From:</b> MUKTA PATIL LANGAN ENGINEERING & ENVIRONMENTAL SVCS 555 MONTGOMERY ST 1300 SAN FRANCISCO, CA 94111		<b>Tracking #:</b> 522065176 	<b>PDS</b> <span style="font-size: 2em; border: 1px solid black; padding: 2px;">1141</span>
<b>Ship To:</b> <b>SAMPLES</b> <b>CALSCIENCE</b> 7440 LINCOLN WAY GARDEN GROVE, CA 92841		<span style="font-size: 3em; font-weight: bold;">ORC</span> <span style="font-size: 2em; font-weight: bold;">A</span> <b>GARDEN GROVE</b>	
<b>COD:</b> \$0.00		<span style="font-size: 2em; font-weight: bold;">D92841A</span> 	
<b>Reference:</b> 731615201		13189853 	
<b>Delivery Instructions:</b>		Print Date : 06/17/13 16:30 PM	
<b>Signature Type:</b> OK TO LEAVE		<b>Package 1 of 1</b>	

Send Label To Printer	<input checked="" type="checkbox"/> Print All	Edit Shipment	Finish
-----------------------	---	---------------	--------

**LABEL INSTRUCTIONS:**

- Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
- STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
- STEP 2 - Fold this page in half.
- STEP 3 - Securely attach this label to your package, do not cover the barcode.
- STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

**ADDITIONAL OPTIONS:**

Send Label Via Email	Create Return Label
----------------------	---------------------

**TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.







## Analytical Report

Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received: 10/19/11
	Client Contact: Steve Bittman	Date Reported: 10/24/11
	Client P.O.:	Date Completed: 10/24/11

**WorkOrder: 1110582**

October 25, 2011

Dear Steve:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **Archstone**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
 Laboratory Manager  
 McC Campbell Analytical, Inc.

*The analytical results relate only to the items tested.*



1110582

Chain of Custody Record

**RUSH**

Lab job no. \_\_\_\_\_  
Date \_\_\_\_\_  
Page 1 of 1

Laboratory McCampbell Analytical Method of Shipment Courier  
Address 1534 Willow Park Rd  
Pittsburg CA 94565 Shipment No. \_\_\_\_\_  
Airbill No. \_\_\_\_\_  
Cooler No. \_\_\_\_\_  
Project Owner \_\_\_\_\_ Project Manager S. Bitman  
Site Address 801 Brennan St Telephone No. 510-644-3123  
San Francisco, CA Fax No. \_\_\_\_\_  
Project Name Archstone Samplers: (Signature) St. Bitman  
Project Number \_\_\_\_\_

Filtered	No. of Containers	Analysis Required										Remarks		
		CAM 17	WET P6	TCLP P6	TPH P6	TPH MDTX	TPH-d, mo							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							
		1	X	X	X	X	X							

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation	
						Cooler	Chemical
B1 COMP-A		10/19/11	0830	S		X	
B1 COMP-B			0830	S		X	
B2 COMP			0900	S		X	
B3 COMP-A			0945	S		X	
B3 COMP-B			0945	S		X	
B4 COMP			1040	S		X	
B5 COMP-A			1130	S		X	
B5 COMP-B		10/19/11	1130	S		X	
<del>B6 COMP</del>							

Relinquished by: St. Bitman Date: 10/19/11 Received by: [Signature] Date: 10/19/11  
Signature: Steve Bitman Signature: \_\_\_\_\_  
Printed: Steve Bitman Printed: Bob Pingo  
Company: SEJ Company: McCampbell & 1515

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature: \_\_\_\_\_ Signature: \_\_\_\_\_  
Printed: \_\_\_\_\_ Printed: \_\_\_\_\_  
Company: \_\_\_\_\_ Company: \_\_\_\_\_

Turnaround Time: 3 Days

Comments: ICE 4.6

GOOD CONDITION  APPROPRIATE CONTAINERS   
HEAD SPACE ABSENT  PRESERVED IN LAB   
DECHLORINATED IN LAB

VOAS	O&G	METALS	OTHER
PRESERVATION			

**McC Campbell Analytical, Inc.**

1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 1110582**

**ClientCode: SESB**

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

**Report to:**  
 Steve Bittman  
 Stellar Environmental Solutions  
 2198 Sixth St. #201  
 Berkeley, CA 94710  
 (510) 644-3123    FAX: (510) 644-3859

**Bill to:**  
 Accounts Payable  
 Stellar Environmental Solutions  
 2198 Sixth St. #201  
 Berkeley, CA 94710

**Requested TAT: 3 days**

**Date Received: 10/19/2011**  
**Date Printed: 10/19/2011**

Email: sbittman@stellar-environmental.com;interg  
 cc:  
 PO:  
 ProjectNo: Archstone

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	
1110582-001	B1 Comp-A	Soil	10/19/2011 8:30	<input type="checkbox"/>	A	A	A	A	A								
1110582-002	B1 Comp-B	Soil	10/19/2011 8:30	<input type="checkbox"/>	A	A	A	A	A								
1110582-003	B2 Comp	Soil	10/19/2011 9:00	<input type="checkbox"/>	A	A	A	A	A								
1110582-004	B3 Comp-A	Soil	10/19/2011 9:45	<input type="checkbox"/>	A	A	A	A	A								
1110582-005	B3 Comp-B	Soil	10/19/2011 9:45	<input type="checkbox"/>	A	A	A	A	A								
1110582-006	B4 Comp	Soil	10/19/2011 10:40	<input type="checkbox"/>	A	A	A	A	A								
1110582-007	B5 Comp-A	Soil	10/19/2011 11:30	<input type="checkbox"/>	A	A	A	A	A								
1110582-008	B5 Comp-B	Soil	10/19/2011 11:30	<input type="checkbox"/>	A	A	A	A	A								

**Test Legend:**

1	CAM17MS_S	2	G-MBTEX_S	3	STLCMETALMS_S	4	TCLPMETALMS_S	5	TPH(DMO)_S
6		7		8		9		10	
11		12							

**Prepared by: Maria Venegas**

**Comments:** 72hr 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.



### Sample Receipt Checklist

Client Name: **Stellar Environmental Solutions**

Date and Time Received: **10/19/2011 3:36:53 PM**

Project Name: **Archstone**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **1110582** Matrix: Soil

Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

#### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 4.6°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE )

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

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received 10/19/11
	Client Contact: Steve Bittman	Date Extracted 10/19/11
	Client P.O.:	Date Analyzed 10/21/11-10/24/11

**CAM / CCR 17 Metals\***

Lab ID	1110582-001A	1110582-002A	1110582-003A	1110582-004A	Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	B1 Comp-A	B1 Comp-B	B2 Comp	B3 Comp-A	S	W
Matrix	S	S	S	S		
Extraction Type	TOTAL	TOTAL	TOTAL	TOTAL	mg/Kg	mg/L

**ICP Metals, Concentration\***

Analytical Method: SW6020

Extraction Method: SW3050B

Work Order: 1110582

Dilution Factor	1	1	1	1	1	1
Antimony	11	3.0	4.3	1.2	0.5	NA
Arsenic	8.9	9.9	21	5.2	0.5	NA
Barium	220	120	100	260	5.0	NA
Beryllium	ND	ND	ND	ND	0.5	NA
Cadmium	0.51	ND	1.0	0.76	0.25	NA
Chromium	790	57	65	730	0.5	NA
Cobalt	30	6.4	20	20	0.5	NA
Copper	540	84	130	460	0.5	NA
Lead	370	880	520	420	0.5	NA
Mercury	0.47	0.26	0.43	0.34	0.05	NA
Molybdenum	1.5	0.92	0.57	0.98	0.5	NA
Nickel	800	35	77	400	0.5	NA
Selenium	ND	ND	ND	ND	0.5	NA
Silver	0.67	ND	1.2	ND	0.5	NA
Thallium	ND	ND	ND	ND	0.5	NA
Vanadium	48	46	44	34	0.5	NA
Zinc	560	590	710	540	5.0	NA
%SS:	127	107	108	109		

**Comments**

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received 10/19/11
	Client Contact: Steve Bittman	Date Extracted 10/19/11
	Client P.O.:	Date Analyzed 10/21/11-10/24/11

**CAM / CCR 17 Metals\***

Lab ID	1110582-005A	1110582-006A	1110582-007A	1110582-008A	Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	B3 Comp-B	B4 Comp	B5 Comp-A	B5 Comp-B		
Matrix	S	S	S	S	S	W
Extraction Type	TOTAL	TOTAL	TOTAL	TOTAL	mg/Kg	mg/L

**ICP Metals, Concentration\***

Analytical Method: SW6020

Extraction Method: SW3050B

Work Order: 1110582

Dilution Factor	1	1	1	1	1	1
Antimony	0.78	2.4	ND	0.68	0.5	NA
Arsenic	6.1	9.2	3.8	4.1	0.5	NA
Barium	220	230	98	390	5.0	NA
Beryllium	ND	ND	ND	0.61	0.5	NA
Cadmium	ND	0.30	ND	ND	0.25	NA
Chromium	66	73	45	53	0.5	NA
Cobalt	11	5.8	23	11	0.5	NA
Copper	150	90	17	31	0.5	NA
Lead	180	970	78	120	0.5	NA
Mercury	0.38	0.23	0.12	0.38	0.05	NA
Molybdenum	1.6	0.56	ND	2.6	0.5	NA
Nickel	58	32	26	53	0.5	NA
Selenium	ND	ND	ND	ND	0.5	NA
Silver	0.70	0.82	1.2	ND	0.5	NA
Thallium	ND	ND	ND	ND	0.5	NA
Vanadium	50	49	33	63	0.5	NA
Zinc	190	140	47	60	5.0	NA
%SS:	107	101	102	116		

**Comments**

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.  
 TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.  
 DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.  
 %SS = Percent Recovery of Surrogate Standard  
 DF = Dilution Factor



Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received: 10/19/11
	Client Contact: Steve Bittman	Date Extracted: 10/19/11
	Client P.O.:	Date Analyzed: 10/19/11-10/21/11

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1110582

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	B1 Comp-A	S	4.5	ND	ND	0.017	0.012	0.090	1	98	d7
002A	B1 Comp-B	S	ND	ND	ND	ND	ND	ND	1	98	
003A	B2 Comp	S	3.5	ND	0.017	0.080	0.013	0.16	1	92	d7
004A	B3 Comp-A	S	2.0	ND	ND	ND	0.0055	0.096	1	94	d7
005A	B3 Comp-B	S	ND	ND	ND	ND	ND	0.017	1	102	
006A	B4 Comp	S	ND	ND	ND	0.011	ND	0.034	1	94	
007A	B5 Comp-A	S	ND	ND	ND	ND	ND	0.010	1	95	
008A	B5 Comp-B	S	ND	ND	ND	0.014	ND	0.017	1	87	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:  
 d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram



**McC Campbell Analytical, Inc.**

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

Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received: 10/19/11
	Client Contact: Steve Bittman	Date Extracted: 10/19/11-10/21/11
	Client P.O.:	Date Analyzed: 10/21/11-10/24/11

**Metals\***

Extraction method: CA Title 22

Analytical methods: SW6020

Work Order: 1110582

Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	Comments
1110582-001A	B1 Comp-A	S	WET	19	1	N/A	
1110582-002A	B1 Comp-B	S	WET	34	10	N/A	
1110582-003A	B2 Comp	S	WET	26	10	N/A	
1110582-004A	B3 Comp-A	S	WET	17	1	N/A	
1110582-005A	B3 Comp-B	S	WET	18	1	N/A	
1110582-006A	B4 Comp	S	WET	8.5	1	N/A	
1110582-007A	B5 Comp-A	S	WET	4.4	1	N/A	
1110582-008A	B5 Comp-B	S	WET	51	10	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	WET	0.1	mg/L

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

WET = Waste Extraction Test, i.e., STLC (Soluble Threshold Limit Concentration).  
DI WET = Waste Extraction Test using DI water (DI STLC).

%SS = Percent Recovery of Surrogate Standard  
DF = Dilution Factor





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

Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received: 10/19/11
	Client Contact: Steve Bittman	Date Extracted: 10/19/11-10/20/11
	Client P.O.:	Date Analyzed: 10/24/11

### Metals\*

Extraction method: SW1311/SW3050B

Analytical methods: SW6020

Work Order: 1110582

Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	Comments
1110582-001A	B1 Comp-A	S	TCLP	0.29	1	N/A	
1110582-002A	B1 Comp-B	S	TCLP	0.66	1	N/A	
1110582-003A	B2 Comp	S	TCLP	ND	1	N/A	
1110582-004A	B3 Comp-A	S	TCLP	1.8	1	N/A	
1110582-005A	B3 Comp-B	S	TCLP	0.51	1	N/A	
1110582-006A	B4 Comp	S	TCLP	4.5	1	N/A	
1110582-007A	B5 Comp-A	S	TCLP	ND	1	N/A	
1110582-008A	B5 Comp-B	S	TCLP	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	TCLP	0.1	mg/L

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TCLP = Toxicity Characteristic Leaching Procedure.  
DI TCLP = Toxicity Characteristic Leaching Procedure using DI water.

%SS = Percent Recovery of Surrogate Standard  
DF = Dilution Factor





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Stellar Environmental Solutions  2198 Sixth St. #201  Berkeley, CA 94710	Client Project ID: Archstone	Date Sampled: 10/19/11
		Date Received: 10/19/11
	Client Contact: Steve Bittman	Date Extracted: 10/19/11
	Client P.O.:	Date Analyzed: 10/19/11-10/22/11

**Total Extractable Petroleum Hydrocarbons\***

Extraction method: SW3550B

Analytical methods: SW8015B

Work Order: 1110582

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1110582-001A	B1 Comp-A	S	150	740	20	91	e7,e2
1110582-002A	B1 Comp-B	S	170	190	10	112	e7,e2,e6
1110582-003A	B2 Comp	S	280	490	50	107	e7,e2
1110582-004A	B3 Comp-A	S	63	350	20	88	e7,e2
1110582-005A	B3 Comp-B	S	78	280	10	92	e7,e2
1110582-006A	B4 Comp	S	51	320	10	96	e7,e2
1110582-007A	B5 Comp-A	S	13	48	1	100	e7,e2
1110582-008A	B5 Comp-B	S	34	120	5	98	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- e2) diesel range compounds are significant; no recognizable pattern
- e6) one to a few isolated peaks present in the THP(d/mo) chromatogram
- e7) oil range compounds are significant



### QC SUMMARY REPORT FOR SW6020

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 1110582

EPA Method: SW6020		Extraction: SW3050B				BatchID: 62027			Spiked Sample ID: 1110582-008A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Antimony	0.68	50	102	99.2	3.17	10	93	97.3	4.55	75 - 125	20	75 - 125	20
Arsenic	4.1	50	108	103	4.14	10	97.4	99.9	2.51	75 - 125	20	75 - 125	20
Barium	390	500	109	105	2.29	100	91.3	95.9	4.86	75 - 125	20	75 - 125	20
Beryllium	0.61	50	103	99.4	3.73	10	96.3	99.1	2.91	75 - 125	20	75 - 125	20
Cadmium	ND	50	105	102	2.79	10	96.1	99.2	3.22	75 - 125	20	75 - 125	20
Chromium	53	50	NR	NR	NR	10	96.8	100	3.36	75 - 125	20	75 - 125	20
Cobalt	11	50	104	100	3.28	10	94.7	98.5	3.91	75 - 125	20	75 - 125	20
Copper	31	50	109	103	3.25	10	99.7	103	3.12	75 - 125	20	75 - 125	20
Lead	120	50	125	NR	NR	10	100	104	3.81	75 - 125	20	75 - 125	20
Mercury	0.38	1.25	92.4	92	0.325	0.25	109	111	1.90	75 - 125	20	75 - 125	20
Molybdenum	2.6	50	102	99.1	2.29	10	92.6	97.2	4.89	75 - 125	20	75 - 125	20
Nickel	53	50	NR	NR	NR	10	97.9	102	3.74	75 - 125	20	75 - 125	20
Selenium	ND	50	108	101	6.93	10	103	111	7.60	75 - 125	20	75 - 125	20
Silver	ND	50	96.8	93.6	3.29	10	99.8	105	5.15	75 - 125	20	75 - 125	20
Thallium	ND	50	98.2	95.7	2.60	10	90.1	93	3.14	75 - 125	20	75 - 125	20
Vanadium	63	50	NR	NR	NR	10	97.2	99.6	2.40	75 - 125	20	75 - 125	20
Zinc	60	500	105	101	3.95	100	96.2	99.3	3.17	75 - 125	20	75 - 125	20
%SS:	116	500	123	122	0.555	500	109	115	5.29	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 62027 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110582-001A	10/19/11 8:30 AM	10/19/11	10/21/11 4:09 PM	1110582-001A	10/19/11 8:30 AM	10/19/11	10/21/11 7:54 PM
1110582-002A	10/19/11 8:30 AM	10/19/11	10/21/11 11:00 PM	1110582-002A	10/19/11 8:30 AM	10/19/11	10/24/11 9:01 PM
1110582-003A	10/19/11 9:00 AM	10/19/11	10/21/11 11:07 PM	1110582-003A	10/19/11 9:00 AM	10/19/11	10/24/11 9:07 PM
1110582-004A	10/19/11 9:45 AM	10/19/11	10/21/11 11:14 PM	1110582-004A	10/19/11 9:45 AM	10/19/11	10/24/11 9:32 PM
1110582-005A	10/19/11 9:45 AM	10/19/11	10/21/11 11:22 PM	1110582-005A	10/19/11 9:45 AM	10/19/11	10/24/11 10:27 PM
1110582-006A	10/19/11 10:40 AM	10/19/11	10/21/11 11:51 PM	1110582-006A	10/19/11 10:40 AM	10/19/11	10/24/11 10:51 PM
1110582-007A	10/19/11 11:30 AM	10/19/11	10/21/11 11:59 PM	1110582-008A	10/19/11 11:30 AM	10/19/11	10/24/11 12:48 PM
1110582-008A	10/19/11 11:30 AM	10/19/11	10/24/11 2:32 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = 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.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 62028

WorkOrder: 1110582

EPA Method: SW8021B/8015Bm		Extraction: SW5030B							Spiked Sample ID: 1110582-007A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	0.60	107	109	2.63	110	109	0.494	70 - 130	20	70 - 130	20
MTBE	ND	0.10	101	102	0.770	98.6	103	4.54	70 - 130	20	70 - 130	20
Benzene	ND	0.10	97.1	97.4	0.347	97.5	95.3	2.26	70 - 130	20	70 - 130	20
Toluene	ND	0.10	94.2	94.9	0.704	95	93	2.16	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	94.2	95.7	1.52	94.8	93.4	1.53	70 - 130	20	70 - 130	20
Xylenes	0.010	0.30	92.7	93.9	1.18	97.2	95.5	1.78	70 - 130	20	70 - 130	20
%SS:	95	0.10	88	86	2.20	83	83	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 62028 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110582-001A	10/19/11 8:30 AM	10/19/11	10/21/11 2:07 PM	1110582-002A	10/19/11 8:30 AM	10/19/11	10/19/11 8:31 PM
1110582-003A	10/19/11 9:00 AM	10/19/11	10/21/11 1:07 PM	1110582-004A	10/19/11 9:45 AM	10/19/11	10/21/11 6:09 PM
1110582-005A	10/19/11 9:45 AM	10/19/11	10/21/11 8:11 AM	1110582-006A	10/19/11 10:40 AM	10/19/11	10/21/11 6:39 PM
1110582-007A	10/19/11 11:30 AM	10/19/11	10/21/11 7:09 PM	1110582-008A	10/19/11 11:30 AM	10/19/11	10/21/11 1:37 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$ ;  $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 £ TPH(btex) = sum of BTEX areas from the FID.  
 # cluttered chromatogram; sample peak coelutes with surrogate peak.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = matrix interference and/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.



### QC SUMMARY REPORT FOR SW6020

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 62002

WorkOrder: 1110582

EPA Method: SW6020		Extraction: CA Title 22							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Lead	N/A	10	N/A	N/A	N/A	92.3	94.3	2.14	N/A	N/A	75 - 125	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 62002 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110582-001A	10/19/11 8:30 AM	10/19/11	10/21/11 8:59 PM	1110582-002A	10/19/11 8:30 AM	10/19/11	10/24/11 5:36 PM
1110582-003A	10/19/11 9:00 AM	10/19/11	10/24/11 6:00 PM	1110582-004A	10/19/11 9:45 AM	10/19/11	10/21/11 9:21 PM
1110582-005A	10/19/11 9:45 AM	10/19/11	10/21/11 9:32 PM	1110582-006A	10/19/11 10:40 AM	10/19/11	10/21/11 9:39 PM
1110582-007A	10/19/11 11:30 AM	10/19/11	10/21/11 9:46 PM	1110582-008A	10/19/11 11:30 AM	10/19/11	10/24/11 6:06 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$ ;  $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not applicable to this method.  
 NR = 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.



**QC SUMMARY REPORT FOR SW6020**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 62019

WorkOrder: 1110582

EPA Method: SW6020		Extraction: SW1311/SW3050B							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Lead	N/A	10	N/A	N/A	N/A	97.8	87.4	11.2	N/A	N/A	75 - 125	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 62019 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110582-001A	10/19/11 8:30 AM	10/19/11	10/24/11 1:49 PM	1110582-002A	10/19/11 8:30 AM	10/19/11	10/24/11 1:55 PM
1110582-003A	10/19/11 9:00 AM	10/19/11	10/24/11 2:02 PM	1110582-004A	10/19/11 9:45 AM	10/19/11	10/24/11 2:08 PM
1110582-005A	10/19/11 9:45 AM	10/19/11	10/24/11 3:52 PM	1110582-006A	10/19/11 10:40 AM	10/19/11	10/24/11 3:58 PM
1110582-007A	10/19/11 11:30 AM	10/19/11	10/24/11 4:04 PM	1110582-008A	10/19/11 11:30 AM	10/19/11	10/24/11 4:10 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not applicable to this method.  
 NR = 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.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 61945

WorkOrder: 1110582

EPA Method: SW8015B		Extraction: SW3550B							Spiked Sample ID: 1110453-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	22	40	NR	NR	NR	114	114	0	70 - 130	30	70 - 130	30
%SS:	93	25	93	89	5.13	92	92	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 61945 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110582-001A	10/19/11 8:30 AM	10/19/11	10/20/11 6:13 PM	1110582-002A	10/19/11 8:30 AM	10/19/11	10/22/11 3:31 AM
1110582-003A	10/19/11 9:00 AM	10/19/11	10/22/11 2:02 PM	1110582-004A	10/19/11 9:45 AM	10/19/11	10/19/11 10:00 PM
1110582-005A	10/19/11 9:45 AM	10/19/11	10/19/11 8:35 PM	1110582-006A	10/19/11 10:40 AM	10/19/11	10/20/11 5:10 AM
1110582-007A	10/19/11 11:30 AM	10/19/11	10/20/11 4:00 AM	1110582-008A	10/19/11 11:30 AM	10/19/11	10/20/11 2:48 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = 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.



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
		Date Received: 06/30/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 06/30/00
	Client P.O:	Date Analyzed: 06/30/00

07/07/00

Dear Cusack & Rapoport:

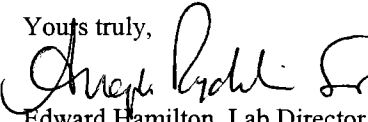
Enclosed are:

- 1). the results of 37 samples from your #2838.04; 635 8<sup>TH</sup> Street project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,



Edward Hamilton, Lab Director



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30-07/05/00
		Date Analyzed: 06/30-07/05/00

**Multi-Range (Gasoline,Diesel,Motor Oil) TPH as Diesel \***  
EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(Gas) <sup>+</sup> (C6-C12)	TPH(Diesel) <sup>+</sup> (C10-C23)	TPH(MotorOil) <sup>°</sup> (>C18)	% Recovery Surrogate
41874	EB-6	W	ND	1000,g	1900	103
41875	EB-10	W	ND,i	210,g	610	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	50 ug/L	250 ug/L		
	S	1.0 mg/kg	1.0 mg/kg	5.0 mg/kg		

\* water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / SPLP extracts in mg/L  
# cluttered chromatogram resulting in surrogate and sample peak coelution, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.  
° oil-range compounds are not fully recovered by this GC methodology  
†The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel(?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.





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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/05/00

**Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up) by Scanning IR Spectrometry\***

EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH <sup>†</sup>	% Recovery Surrogate
41839	EB-4-2.0	S	230	---#
41840	EB-4-5.0	S	110	---#
41841	EB-4-4.0	S	70	---#
41842	EB-4-6.0	S	100	---#
41843	EB-5-1.0	S	20	---#
41844	EB-5-3.0	S	40	---#
41845	EB-5-4.0	S	26,000	---#
41846	EB-5-8.0	S	ND	---#
41847	EB-5-9.0	S	50	---#
41848	EB-5-12.0	S	ND	---#
41849	EB-5-20.0	S	ND	---#
41850	EB-6-1.0	S	170	---#
41851	EB-6-3.0	S	11,000	---#
41852	EB-6-8.0	S	60	---#
41853	EB-6-12.0	S	130	---#
41854	EB-6-16.0	S	70	---#
41855	EB-6-20.0	S	140	---#
41856	EB-7-1.5	S	60	---#
41857	EB-7-4.0	S	30	---#
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		1.0 mg/L	
	S		10 mg/kg	

\* water samples are reported in mg/L , wipe samples in mg/wipe and soils and sludges in mg/kg

# surrogate diluted out of range or not applicable to this sample

† At the client's request or the laboratory's discretion, one or more positive samples may be run by direct injection chromatography with FID detection. The following comments pertain to these GC results: a) gasoline-range compounds (C6-C12) are present; b) diesel range compounds (C10-C23) are present; c) oil-range compounds (>C18) are present; d) other patterned solvent (?); e) isolated peaks; f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules are the source of IR absorption; h) a lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



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	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/05/00

**Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up) by Scanning IR Spectrometry\***

EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH <sup>+</sup>	% Recovery Surrogate
41858	EB-7-6.0	S	14	---#
41859	EB-7-8.0	S	14	---#
41860	EB-7-16.0	S	ND	---#
41861	EB-7-20.0	S	ND	---#
41862	EB-9-3.0	S	300	---#
41863	EB-9-4.0	S	1000	---#
41864	EB-9-5.0	S	60	---#
41865	EB-9-6.0	S	30	---#
41866	EB-9-7.5	S	50	---#
41867	EB-10-1.0	S	29,000	---#
41868	EB-10-3.0	S	170	---#
41869	EB-10-4.0	S	50	---#
41870	EB-10-7.0	S	110	---#
41871	EB-10-8.0	S	370	---#
41872	EB-10-12.0	S	14	---#
41873	EB-10-20.0	S	160	---#
41874	EB-6	W	12	---#
41875	EB-10	W	3.0,i	---#
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		1.0 mg/L	
	S		10 mg/kg	

\* water samples are reported in mg/L , wipe samples in mg/wipe and soils and sludges in mg/kg

# surrogate diluted out of range or not applicable to this sample

\* At the client's request or the laboratory's discretion, one or more positive samples may be run by direct injection chromatography with FID detection. The following comments pertain to these GC results: a) gasoline-range compounds (C6-C12) are present; b) diesel range compounds (C10-C23) are present; c) oil-range compounds (>C18) are present; d) other patterned solvent (?); e) isolated peaks, f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules are the source of IR absorption; h) a lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



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	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Analyzed: 07/01-07/06/00
		Date Extracted: 06/30/00

**Volatile Halocarbons**

EPA method 601 or 8010

Lab ID	41839	41842	41847	41849
Client ID	EB-4-2.0	EB-4-6.0	EB-5-9.0	EB-5-20.0
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform <sup>(b)</sup>	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride <sup>(c)</sup>	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether <sup>(d)</sup>	ND	ND	ND	ND
Chloroform <sup>(e)</sup>	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride <sup>(f)</sup>	ND<20	ND<20	ND<20	ND<20
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride <sup>(g)</sup>	ND	ND	ND	ND
% Recovery Surrogate	81	88	100	93
Comments				

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe  
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



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	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/01-07/06/00

**Volatile Halocarbons**

EPA method 601 or 8010

Lab ID	41857	41859	41866	41869
Client ID	EB-7-4.0	EB-7-8.0	EB-9-7.5	EB-10-4.0
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform <sup>(b)</sup>	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride <sup>(c)</sup>	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether <sup>(d)</sup>	ND	ND	ND	ND
Chloroform <sup>(e)</sup>	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride <sup>(f)</sup>	ND<20	ND<20	ND<20	ND<20
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride <sup>(g)</sup>	ND	ND	ND	ND
% Recovery Surrogate	85	90	89	88
Comments				

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe  
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/01-07/06/00

**Volatile Halocarbons**

EPA method 601 or 8010

Lab ID	41874			
Client ID	EB-6			
Matrix	W			
Compound	Concentration			
Bromodichloromethane	ND			
Bromoform <sup>(b)</sup>	ND			
Bromomethane	ND			
Carbon Tetrachloride <sup>(c)</sup>	ND			
Chlorobenzene	ND			
Chloroethane	ND			
2-Chloroethyl Vinyl Ether <sup>(d)</sup>	ND			
Chloroform <sup>(e)</sup>	ND			
Chloromethane	ND			
Dibromochloromethane	ND			
1,2-Dichlorobenzene	ND			
1,3-Dichlorobenzene	ND			
1,4-Dichlorobenzene	ND			
Dichlorodifluoromethane	ND			
1,1-Dichloroethane	ND			
1,2-Dichloroethane	ND			
1,1-Dichloroethene	ND			
cis 1,2-Dichloroethene	ND			
trans 1,2-Dichloroethene	ND			
1,2-Dichloropropane	ND			
cis 1,3-Dichloropropene	ND			
trans 1,3-Dichloropropene	ND			
Methylene Chloride <sup>(f)</sup>	ND<3			
1,1,2-Tetrachloroethane	ND			
Tetrachloroethene	ND<2			
1,1,1-Trichloroethane	ND			
1,1,2-Trichloroethane	ND			
Trichloroethene	ND			
Trichlorofluoromethane	ND			
Vinyl Chloride <sup>(g)</sup>	ND			
% Recovery Surrogate	93			
Comments				

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe  
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg, wipes, ND<0.2ug/wipe  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane, (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/02/00

**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	41840
Client ID	EB-4-5.0
Matrix	S

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND<12	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(f)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND	1.0	5.0	Styrene <sup>(k)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<7.0	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(l)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(n)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments:</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane		119	
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8		108	
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene		115	

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPL extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/02/00

**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	41858
Client ID	EB-7-6.0
Matrix	S

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND<12	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(i)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND	1.0	5.0	Styrene <sup>(k)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<7.0	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(l)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(n)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments:</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane			117
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8			109
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene			106

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 06/30/00
		Date Analyzed: 07/02/00

**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	41872
Client ID	EB-10-12.0
Matrix	S

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND<12	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(f)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND	1.0	5.0	Styrene <sup>(k)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<7.0	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(l)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(n)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments:</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane			118
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8			107
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene			110

\* water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

 Edward Hamilton, Lab Director





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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
		Date Received: 06/30/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 07/02/00
	Client P.O:	Date Analyzed: 07/02/00

**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	41875
Client ID	EB-10
Matrix	W

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(f)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(e)</sup>	ND	1.0	5.0	Styrene <sup>(k)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(l)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(n)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments: i</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane			98
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8			96
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene			93

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Analyzed: 07/05-07/12/00
		Date Extracted: 07/5/00

**Semi-Volatile Organics By GC/MS**

EPA method 625 and 3510 or 8270 and 3550

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
		Lab ID	41848				
Client ID	EB-5-12.0						
Matrix	S						
Acenaphthene	ND	10	0.33	Di-n-octyl Phthalate	ND	10	0.33
Acenaphthylene	ND	10	0.33	1,2-Diphenylhydrazine	ND	10	0.33
Anthracene	ND	10	0.33	Fluoranthene	ND	10	0.33
Benzidine	ND	50	1.6	Fluorene	ND	10	0.33
Benzoic Acid	ND	50	1.6	Hexachlorobenzene	ND	10	0.33
Benzo(a)anthracene	ND	10	0.33	Hexachlorobutadiene	ND	10	0.33
Benzo(b)fluoranthene	ND	10	0.33	Hexachlorocyclopentadiene	ND	50	1.6
Benzo(k)fluoranthene	ND	10	0.33	Hexachloroethane	ND	10	0.33
Benzo(g,h,i)perylene	ND	10	0.33	Indeno(1,2,3-cd)pyrene	ND	10	0.33
Benzo(a)pyrene	ND	10	0.33	Isophorone	ND	10	0.33
Benzyl Alcohol	ND	20	0.66	2-Methylnaphthalene	ND	10	0.33
Bis(2-chloroethoxy)methane	ND	10	0.33	2-Methylphenol (o-Cresol)	ND	10	0.33
Bis(2-chloroethyl) Ether	ND	10	0.33	4-Methylphenol (p-Cresol)	ND	10	0.33
Bis(2-chloroisopropyl)Ether	ND	10	0.33	Naphthalene	ND	10	0.33
Bis(2-ethylhexyl) Phthalate	ND	10	0.33	2-Nitroaniline	ND	50	1.6
4-Bromophenyl Phenyl Ether	ND	10	0.33	3-Nitroaniline	ND	50	1.6
Butylbenzyl Phthalate	ND	10	0.33	4-Nitroaniline	ND	50	1.6
4-Chloroaniline	ND	20	0.66	2-Nitrophenol	ND	50	1.6
4-Chloro-3-methylpheno <sup>l</sup>	ND	10	0.33	4-Nitrophenol	ND	50	1.6
2-Chloronaphthalene	ND	10	0.33	Nitrobenzene	ND	10	0.33
2-Chlorophenol	ND	10	0.33	N-Nitrosodimethylamine	ND	10	0.33
4-Chlorophenyl Phenyl Ether	ND	10	0.33	N-Nitrosodiphenylamine	ND	10	0.33
Chrysene	ND	10	0.33	N-Nitrosodi-n-propylamine	ND	10	0.33
Dibenzo(a,h)anthracene	ND	10	0.33	Pentachlorophenol	ND	10	0.33
Dibenzofuran	ND	10	0.33	Phenanthrene	ND	10	0.33
Di-n-butyl Phthalate	ND	10	0.33	Phenol	ND	10	0.33
1,2-Dichlorobenzene	ND	10	0.33	Pyrene	ND	10	0.33
1,3-Dichlorobenzene	ND	10	0.33	1,2,4-Trichlorobenzene	ND	10	0.33
1,4-Dichlorobenzene	ND	10	0.33	2,4,5-Trichlorophenol	ND	10	0.33
3,3-Dichlorobenzidine	ND	20	0.66	2,4,6-Trichlorophenol	ND	10	0.33
2,4-Dichlorophenol	ND	10	0.33	Comments:			
Diethyl Phthalate	ND	10	0.33	<b>Surrogate Recoveries (%)</b>			
2,4-Dimethylphenol	ND	10	0.33	2-Fluorophenol	87		
Dimethyl Phthalate	ND	10	0.33	Phenol-d5	95		
4,6-Dinitro-2-methylphenol	ND	50	1.6	Nitrobenzene-d5	100		
2,4-Dinitrophenol	ND	50	1.6	2-Fluorobiphenyl	105		
2,4-Dinitrotoluene	ND	10	0.33	2,4,6-Tribromophenol	83		
2,6-Dinitrotoluene	ND	10	0.33	p-Terphenyl-d14	92		

\*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content

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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
		Date Received: 06/30/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 07/5/00
	Client P.O:	Date Analyzed: 07/05-07/12/00

**Semi-Volatile Organics By GC/MS**

EPA method 625 and 3510 or 8270 and 3550

Lab ID		41851					
Client ID		EB-6-3.0					
Matrix		S					
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acenaphthene	ND<65	10	0.33	Di-n-octyl Phthalate	ND<65	10	0.33
Acenaphthylene	ND<65	10	0.33	1,2-Diphenylhydrazine	ND<65	10	0.33
Anthracene	ND<65	10	0.33	Fluoranthene	ND<65	10	0.33
Benzidine	ND<330	50	1.6	Fluorene	ND<65	10	0.33
Benzoic Acid	ND<330	50	1.6	Hexachlorobenzene	ND<65	10	0.33
Benzo(a)anthracene	ND<65	10	0.33	Hexachlorobutadiene	ND<65	10	0.33
Benzo(b)fluoranthene	ND<65	10	0.33	Hexachlorocyclopentadiene	ND<330	50	1.6
Benzo(k)fluoranthene	ND<65	10	0.33	Hexachloroethane	ND<65	10	0.33
Benzo(g,h,i)perylene	ND<65	10	0.33	Indeno(1,2,3-cd)pyrene	ND<65	10	0.33
Benzo(a)pyrene	ND<65	10	0.33	Isophorone	ND<65	10	0.33
Benzyl Alcohol	ND<130	20	0.66	2-Methylnaphthalene	ND<65	10	0.33
Bis(2-chloroethoxy)methane	ND<65	10	0.33	2-Methylphenol (o-Cresol)	ND<65	10	0.33
Bis(2-chloroethyl) Ether	ND<65	10	0.33	4-Methylphenol (p-Cresol)	ND<65	10	0.33
Bis(2-chloroisopropyl)Ether	ND<65	10	0.33	Naphthalene	ND<65	10	0.33
Bis(2-ethylhexyl) Phthalate	ND<65	10	0.33	2-Nitroaniline	ND<330	50	1.6
4-Bromophenyl Phenyl Ether	ND<65	10	0.33	3-Nitroaniline	ND<330	50	1.6
Butylbenzyl Phthalate	ND<65	10	0.33	4-Nitroaniline	ND<330	50	1.6
4-Chloroaniline	ND<130	20	0.66	2-Nitrophenol	ND<330	50	1.6
4-Chloro-3-methylpheno <sup>l</sup>	ND<65	10	0.33	4-Nitrophenol	ND<330	50	1.6
2-Chloronaphthalene	ND<65	10	0.33	Nitrobenzene	ND<65	10	0.33
2-Chlorophenol	ND<65	10	0.33	N-Nitrosodimethylamine	ND<65	10	0.33
4-Chlorophenyl Phenyl Ether	ND<65	10	0.33	N-Nitrosodiphenylamine	ND<65	10	0.33
Chrysene	ND<65	10	0.33	N-Nitrosodi-n-propylamine	ND<65	10	0.33
Dibenzo(a,h)anthracene	ND<65	10	0.33	Pentachlorophenol	ND<65	10	0.33
Dibenzofuran	ND<65	10	0.33	Phenanthrene	ND<65	10	0.33
Di-n-butyl Phthalate	ND<65	10	0.33	Phenol	ND<65	10	0.33
1,2-Dichlorobenzene	ND<65	10	0.33	Pyrene	ND<65	10	0.33
1,3-Dichlorobenzene	ND<65	10	0.33	1,2,4-Trichlorobenzene	ND<65	10	0.33
1,4-Dichlorobenzene	ND<65	10	0.33	2,4,5-Trichlorophenol	ND<65	10	0.33
3,3-Dichlorobenzidine	ND<130	20	0.66	2,4,6-Trichlorophenol	ND<65	10	0.33
2,4-Dichlorophenol	ND<65	10	0.33	Comments: j			
Diethyl Phthalate	ND<65	10	0.33	<b>Surrogate Recoveries (%)</b>			
2,4-Dimethylphenol	ND<65	10	0.33	2-Fluorophenol	---		
Dimethyl Phthalate	ND<65	10	0.33	Phenol-d5	---		
4,6-Dinitro-2-methylphenol	ND<<330	50	1.6	Nitrobenzene-d5	---		
2,4-Dinitrophenol	ND<330	50	1.6	2-Fluorobiphenyl	---		
2,4-Dinitrotoluene	ND<65	10	0.33	2,4,6-Tribromophenol	---		
2,6-Dinitrotoluene	ND<65	10	0.33	p-Terphenyl-d14	---		

\*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content

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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Extracted: 07/5/00
		Date Analyzed: 07/05-07/12/00

**Semi-Volatile Organics By GC/MS**

EPA method 625 and 3510 or 8270 and 3550

Lab ID		41871					
Client ID		EB-10-8.0					
Matrix		S					
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acenaphthene	ND<1.6	10	0.33	Di-n-octyl Phthalate	ND<1.6	10	0.33
Acenaphthylene	ND<1.6	10	0.33	1,2-Diphenylhydrazine	ND<1.6	10	0.33
Anthracene	ND<1.6	10	0.33	Fluoranthene	ND<1.6	10	0.33
Benzidine	ND<8.0	50	1.6	Fluorene	ND<1.6	10	0.33
Benzoic Acid	ND<8.0	50	1.6	Hexachlorobenzene	ND<1.6	10	0.33
Benzo(a)anthracene	ND<1.6	10	0.33	Hexachlorobutadiene	ND<1.6	10	0.33
Benzo(b)fluoranthene	ND<1.6	10	0.33	Hexachlorocyclopentadiene	ND<8.0	50	1.6
Benzo(k)fluoranthene	ND<1.6	10	0.33	Hexachloroethane	ND<1.6	10	0.33
Benzo(g,h,i)perylene	ND<1.6	10	0.33	Indeno(1,2,3-cd)pyrene	ND<1.6	10	0.33
Benzo(a)pyrene	ND<1.6	10	0.33	Isophorone	ND<1.6	10	0.33
Benzyl Alcohol	ND<3.2	20	0.66	2-Methylnaphthalene	ND<1.6	10	0.33
Bis(2-chloroethoxy)methane	ND<1.6	10	0.33	2-Methylphenol (o-Cresol)	ND<1.6	10	0.33
Bis(2-chloroethyl) Ether	ND<1.6	10	0.33	4-Methylphenol (p-Cresol)	ND<1.6	10	0.33
Bis(2-chloroisopropyl)Ether	ND<1.6	10	0.33	Naphthalene	ND<1.6	10	0.33
Bis(2-ethylhexyl) Phthalate	ND<1.6	10	0.33	2-Nitroaniline	ND<8.0	50	1.6
4-Bromophenyl Phenyl Ether	ND<1.6	10	0.33	3-Nitroaniline	ND<8.0	50	1.6
Butylbenzyl Phthalate	ND<1.6	10	0.33	4-Nitroaniline	ND<8.0	50	1.6
4-Chloroaniline	ND<3.2	20	0.66	2-Nitrophenol	ND<8.0	50	1.6
4-Chloro-3-methylpheno <sup>l</sup>	ND<1.6	10	0.33	4-Nitrophenol	ND<8.0	50	1.6
2-Chloronaphthalene	ND<1.6	10	0.33	Nitrobenzene	ND<1.6	10	0.33
2-Chlorophenol	ND<1.6	10	0.33	N-Nitrosodimethylamine	ND<1.6	10	0.33
4-Chlorophenyl Phenyl Ether	ND<1.6	10	0.33	N-Nitrosodiphenylamine	ND<1.6	10	0.33
Chrysene	ND<1.6	10	0.33	N-Nitrosodi-n-propylamine	ND<1.6	10	0.33
Dibenzo(a,h)anthracene	ND<1.6	10	0.33	Pentachlorophenol	ND<1.6	10	0.33
Dibenzofuran	ND<1.6	10	0.33	Phenanthrene	ND<1.6	10	0.33
Di-n-butyl Phthalate	ND<1.6	10	0.33	Phenol	ND<1.6	10	0.33
1,2-Dichlorobenzene	ND<1.6	10	0.33	Pyrene	ND<1.6	10	0.33
1,3-Dichlorobenzene	ND<1.6	10	0.33	1,2,4-Trichlorobenzene	ND<1.6	10	0.33
1,4-Dichlorobenzene	ND<1.6	10	0.33	2,4,5-Trichlorophenol	ND<1.6	10	0.33
3,3-Dichlorobenzidine	ND<3.2	20	0.66	2,4,6-Trichlorophenol	ND<1.6	10	0.33
2,4-Dichlorophenol	ND<1.6	10	0.33	Comments: j			
Diethyl Phthalate	ND<1.6	10	0.33	<b>Surrogate Recoveries (%)</b>			
2,4-Dimethylphenol	ND<1.6	10	0.33	2-Fluorophenol	117		
Dimethyl Phthalate	ND<1.6	10	0.33	Phenol-d5	86		
4,6-Dinitro-2-methylphenol	ND<8.0	50	1.6	Nitrobenzene-d5	120		
2,4-Dinitrophenol	ND<8.0	50	1.6	2-Fluorobiphenyl	112		
2,4-Dinitrotoluene	ND<1.6	10	0.33	2,4,6-Tribromophenol	118		
2,6-Dinitrotoluene	ND<1.6	10	0.33	p-Terphenyl-d14	97		

\*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content



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	Client P.O:	Date Extracted: 07/5/00
		Date Analyzed: 07/05-07/12/00

**Semi-Volatile Organics By GC/MS**

EPA method 625 and 3510 or 8270 and 3550

Lab ID		41874					
Client ID		EB-6					
Matrix		S					
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acenaphthene	ND<20	10	0.33	Di-n-octyl Phthalate	ND<20	10	0.33
Acenaphthylene	ND<20	10	0.33	1,2-Diphenylhydrazine	ND<20	10	0.33
Anthracene	ND<20	10	0.33	Fluoranthene	ND<20	10	0.33
Benzidine	ND<100	50	1.6	Fluorene	ND<20	10	0.33
Benzoic Acid	ND<100	50	1.6	Hexachlorobenzene	ND<20	10	0.33
Benzo(a)anthracene	ND<20	10	0.33	Hexachlorobutadiene	ND<20	10	0.33
Benzo(b)fluoranthene	ND<20	10	0.33	Hexachlorocyclopentadiene	ND<100	50	1.6
Benzo(k)fluoranthene	ND<20	10	0.33	Hexachloroethane	ND<20	10	0.33
Benzo(g,h,i)perylene	ND<20	10	0.33	Indeno(1,2,3-cd)pyrene	ND<20	10	0.33
Benzo(a)pyrene	ND<20	10	0.33	Isophorone	ND<20	10	0.33
Benzyl Alcohol	ND<40	20	0.66	2-Methylnaphthalene	ND<20	10	0.33
Bis(2-chloroethoxy)methane	ND<20	10	0.33	2-Methylphenol (o-Cresol)	ND<20	10	0.33
Bis(2-chloroethyl) Ether	ND<20	10	0.33	4-Methylphenol (p-Cresol)	ND<20	10	0.33
Bis(2-chloroisopropyl)Ether	ND<20	10	0.33	Naphthalene	ND<20	10	0.33
Bis(2-ethylhexyl) Phthalate	ND<20	10	0.33	2-Nitroaniline	ND<100	50	1.6
4-Bromophenyl Phenyl Ether	ND<20	10	0.33	3-Nitroaniline	ND<100	50	1.6
Butylbenzyl Phthalate	ND<20	10	0.33	4-Nitroaniline	ND<100	50	1.6
4-Chloroaniline	ND<40	20	0.66	2-Nitrophenol	ND<100	50	1.6
4-Chloro-3-methylpheno <sup>l</sup>	ND<20	10	0.33	4-Nitrophenol	ND<100	50	1.6
2-Chloronaphthalene	ND<20	10	0.33	Nitrobenzene	ND<20	10	0.33
2-Chlorophenol	ND<20	10	0.33	N-Nitrosodimethylamine	ND<20	10	0.33
4-Chlorophenyl Phenyl Ether	ND<20	10	0.33	N-Nitrosodiphenylamine	ND<20	10	0.33
Chrysene	ND<20	10	0.33	N-Nitrosodi-n-propylamine	ND<20	10	0.33
Dibenzo(a,h)anthracene	ND<20	10	0.33	Pentachlorophenol	ND<20	10	0.33
Dibenzofuran	ND<20	10	0.33	Phenanthrene	ND<20	10	0.33
Di-n-butyl Phthalate	ND<20	10	0.33	Phenol	ND<20	10	0.33
1,2-Dichlorobenzene	ND<20	10	0.33	Pyrene	ND<20	10	0.33
1,3-Dichlorobenzene	ND<20	10	0.33	1,2,4-Trichlorobenzene	ND<20	10	0.33
1,4-Dichlorobenzene	ND<20	10	0.33	2,4,5-Trichlorophenol	ND<20	10	0.33
3,3-Dichlorobenzidine	ND<40	20	0.66	2,4,6-Trichlorophenol	ND<20	10	0.33
2,4-Dichlorophenol	ND<20	10	0.33	Comments: j			
Diethyl Phthalate	ND<20	10	0.33	<b>Surrogate Recoveries (%)</b>			
2,4-Dimethylphenol	ND<20	10	0.33	2-Fluorophenol		42	
Dimethyl Phthalate	ND<20	10	0.33	Phenol-d5		45	
4,6-Dinitro-2-methylphenol	ND<100	50	1.6	Nitrobenzene-d5		46	
2,4-Dinitrophenol	ND<100	50	1.6	2-Fluorobiphenyl		43	
2,4-Dinitrotoluene	ND<20	10	0.33	2,4,6-Tribromophenol		49	
2,6-Dinitrotoluene	ND<20	10	0.33	p-Terphenyl-d14		38	


\*water samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content

DHS Certification No. 1644

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
	Client Contact: P.Cusack/M.Rapoport	Date Received: 06/30/00
	Client P.O:	Date Analyzed: 06/30-07/03/00
		Date Extracted: 06/30/00

**LUFT Metals\***

EPA analytical methods 6010/200.7, 239.2\*

Lab ID	Client ID	Matrix	Extraction <sup>o</sup>	Cadmium	Chromium	Lead	Nickel	Zinc	% Recovery Surrogate
41839	EB-4-2.0	S	TTLC	ND	45	13	43	35	109
41842	EB-4-6.0	S	TTLC	ND	66	120	110	200	109
41845	EB-5-4.0	S	TTLC	ND	43	57	39	53	116
41849	EB-5-20.0	S	TTLC	ND	25	ND	17	22	110
41850	EB-6-1.0	S	TTLC	ND	21	190	16	110	109
41853	EB-6-12.0	S	TTLC	ND	32	1400	23	91	111
41858	EB-7-6.0	S	TTLC	ND	59	21	40	40	112
41862	EB-9-3.0	S	TTLC	0.56	35	190	65	260	112
41869	EB-10-4.0	S	TTLC	ND	24	3000	20	3700	110
41872	EB-10-12.0	S	TTLC	ND	28	4400	60	730	98
41875	EB-10	W	Dissolved	ND	ND	ND	ND	0.55	NA
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	S	TTLC	0.5 mg/kg	0.5	3.0	2.0	1.0		
	W	TTLC/Dissolved	0.005 mg/L	0.02	0.005	0.05	0.05		
	---	STLC, TCLP	0.01 mg/L	0.05	0.2	0.05	0.05		

\* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

# Lead is analysed using EPA method 6010 (ICP)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

<sup>o</sup> EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

@ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

# surrogate diluted out of range; N/A means surrogate not applicable to this analysis

\* reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 g <sup>TH</sup> Street	Date Sampled: 06/29/00
		Date Received: 06/30/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 06/30/00
	Client P.O:	Date Analyzed: 06/30/00

**Lead\***

EPA analytical methods 6010/200.7, 239.2\*

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
41840	EB-4-5.0	S	TTLIC	3600	113
41841	EB-4-4.0	S	TTLIC	1600	114
41843	EB-5-1.0	S	TTLIC	220	112
41844	EB-5-3.0	S	TTLIC	4500	113
41846	EB-5-8.0	S	TTLIC	21	110
41847	EB-5-9.0	S	TTLIC	32	106
41848	EB-5-12.0	S	TTLIC	ND	109
41851	EB-6-3.0	S	TTLIC	ND	108
41852	EB-6-8.0	S	TTLIC	110	117
41854	EB-6-16.0	S	TTLIC	110	113
41855	EB-6-20.0	S	TTLIC	100	111
41856	EB-7-1.5	S	TTLIC	47	113
41857	EB-7-4.0	S	TTLIC	26	119
41858	EB-7-6.0	S	TTLIC	21	112
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLIC	3.0 mg/kg	
		W	TTLIC	0.005 mg/L	
		---	STLC,TCLP	0.2 mg/L	

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L  
 °Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

® DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLIC), 3040(organic matrices,TTLIC), 3050(solids,TTLIC); STLC - CA Title 22

# surrogate diluted out of range; N/A means surrogate not applicable to this analysis

\* reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>TH</sup> Street	Date Sampled: 06/29/00
		Date Received: 06/30/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 06/30/00
	Client P.O:	Date Analyzed: 06/30/00

**Lead\***

EPA analytical methods 6010/200.7, 239.2'

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
41859	EB-7-8.0	S	TTLC	800	105
41860	EB-7-16.0	S	TTLC	28	111
41861	EB-7-20.0	S	TTLC	19	115
41863	EB-9-4.0	S	TTLC	140	116
41864	EB-9-5.0	S	TTLC	360	109
41865	EB-9-6.0	S	TTLC	190	109
41866	EB-9-7.5	S	TTLC	17	110
41867	EB-10-1.0	S	TTLC	9.4	113
41868	EB-10-3.0	S	TTLC	370	107
41870	EB-10-7.0	S	TTLC	250	110
41871	EB-10-8.0	S	TTLC	260	110
41873	EB-10-20.0	S	TTLC	720	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	S	TTLC		3.0 mg/kg	
	W	TTLC		0.005 mg/L	
	---	STLC,TCLP		0.2 mg/L	

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L  
°Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

@ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

# surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.





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## QC REPORT

Date: 06/30/00-07/01/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 40793

Instrument: GC-3

Surrogate1	0.000	103.0	98.0	100.00	103	98	5.0
Xylenes	0.000	309.0	282.0	300.00	103	94	9.1
Ethyl Benzene	0.000	105.0	95.0	100.00	105	95	10.0
Toluene	0.000	108.0	98.0	100.00	108	98	9.7
Benzene	0.000	111.0	100.0	100.00	111	100	10.4
MTBE	0.000	112.0	98.0	100.00	112	98	13.3
GAS	0.000	832.3	835.9	1000.00	83	84	0.4

SampleID: 63000

Instrument: MB-1

Oil & Grease	0.000	19.5	19.3	20.00	98	97	1.0
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SampleID: 63000

Instrument: GC-2 A

Surrogate1	0.000	101.0	100.0	100.00	101	100	1.0
TPH (diesel)	0.000	289.0	279.0	300.00	96	93	3.5

SampleID: 63000

Instrument: IR-1

TRPH	0.000	26.6	27.2	23.70	112	115	2.2
------	-------	------	------	-------	-----	-----	-----

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

Date: 07/04/00-07/05/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: mg/kg			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 28789

Instrument: GC-7

Surrogate1	0.000	96.0	95.0	100.00	96	95	1.0
Xylenes	0.000	304.0	281.0	300.00	101	94	7.9
Ethyl Benzene	0.000	99.0	91.0	100.00	99	91	8.4
Toluene	0.000	98.0	90.0	100.00	98	90	8.5
Benzene	0.000	97.0	89.0	100.00	97	89	8.6
MTBE	0.000	100.0	94.0	100.00	100	94	6.2
GAS	0.000	1037.9	972.7	1000.00	104	97	6.5

SampleID: 33314

Instrument: GC-2 A

Surrogate1	0.000	94.0	97.0	100.00	94	97	3.1
TPH (diesel)	0.000	244.0	271.0	300.00	81	90	10.5

SampleID: 33314

Instrument: IR-1

TRPH	0.000	24.2	24.8	20.80	116	119	2.4
------	-------	------	------	-------	-----	-----	-----

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2100$$

RPD means Relative Percent Deviation



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## QC REPORT

### EPA 8010/8020/EDB

Date: 07/01/00-07/02/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: ug/kg			%Recovery		RPD
	Sample	MS	MSD	MS	MSD	

SampleID: 33314

Instrument: GC-1

Surrogate1	0.000	116.0	113.0	100.00	116	113	2.6
Chlorobenzene	0.000	96.0	98.0	100.00	96	98	2.1
Trichloroethane	0.000	103.0	106.0	100.00	103	106	2.9
1,1-DCE	0.000	118.0	121.0	100.00	118	121	2.5

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

### VOCs (EPA 8240/8260)

Date: 07/01/00-07/02/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 72000

Instrument: GC-10

Surrogate	0.000	87.0	86.0	100.00	87	86	1.2
Toluene	0.000	98.0	99.0	100.00	98	99	1.0
Benzene	0.000	97.0	99.0	100.00	97	99	2.0
Chlorobenzene	0.000	97.0	98.0	100.00	97	98	1.0
Trichloroethane	0.000	89.0	87.0	100.00	89	87	2.3
1,1-Dichloroethene	0.000	86.0	85.0	100.00	86	85	1.2
Surrogate	0.000	105.0	103.0	100.00	105	103	1.9
tert-Amyl Methyl Ether	0.000	97.0	97.0	100.00	97	97	0.0
Methyl tert-Butyl Ether	0.000	111.0	112.0	100.00	111	112	0.9
Ethyl tert-Butyl Ether	0.000	128.0	126.0	100.00	128	126	1.6
Di-isopropyl Ether	0.000	125.0	123.0	100.00	125	123	1.6

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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### QC REPORT

### VOCs (EPA 8240/8260)

Date: 07/01/00-07/02/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: ug/kg			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 70700

Instrument: GC-10

Surrogate	0.000	88.0	106.0	100.00	88	106	18.6
Toluene	0.000	125.0	120.0	100.00	125	120	4.1
Benzene	0.000	117.0	115.0	100.00	117	115	1.7
Chlorobenzene	0.000	113.0	111.0	100.00	113	111	1.8
Trichloroethane	0.000	106.0	104.0	100.00	106	104	1.9
1,1-Dichloroethene	0.000	129.0	124.0	100.00	129	124	4.0

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

### SVOCs (EPA 8270/625/525)

Date: 07/05/00-07/06/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: ug/kg			%Recovery		RPD
	Sample	MS	MSD	MS	MSD	

SampleID: 33291

Instrument: GC-8

Surrogate1	0.000	1140.0	970.0	1000.00	114	97	16.1
Pyrene	0.000	540.0	490.0	1000.00	54	49	9.7
Pentachlorophenol	0.000	510.0	490.0	1000.00	51	49	4.0
2,4-Dinitrotoluene	0.000	540.0	500.0	1000.00	54	50	7.7
Acenaphthene	0.000	670.0	590.0	1000.00	67	59	12.7
4-Nitrophenol	0.000	560.0	520.0	1000.00	56	52	7.4
4-Chloro-3-methylphenol	0.000	480.0	440.0	1000.00	48	44	8.7
1,2,4-trichlorobenzene	0.000	610.0	560.0	1000.00	61	56	8.5
N-nitroso-di-n-propyl	0.000	790.0	720.0	1000.00	79	72	9.3
1,4-Dichlorobenzene	0.000	650.0	600.0	1000.00	65	60	8.0
2-Chlorophenol	0.000	490.0	450.0	1000.00	49	45	8.5
Phenol	0.000	540.0	490.0	1000.00	54	49	9.7

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

### LUFT

Date: 06/30/00 Matrix: Water

Extraction: Dissolved

Compound	Concentration: mg/L			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 63000

Instrument: ICP-1

Surrogate1	0.000	105.3	105.8	100.00	105	106	0.5
Copper	0.000	4.8	4.8	5.00	97	96	1.1
Zinc	0.000	4.9	5.1	5.00	98	101	3.7
Lead	0.000	5.0	5.1	5.00	101	101	0.0
Nickel	0.000	5.2	5.2	5.00	104	105	1.0
Chromium	0.000	4.7	4.7	5.00	94	94	0.5
Cadmium	0.000	5.0	4.9	5.00	99	97	2.1

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{AmountSpiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation





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# QC REPORT

## LUFT

Date: 06/29/00-06/30/00 Matrix: Soil

Extraction: TTLC

Compound	Concentration: mg/kg			%Recovery		RPD
	Sample	MS	MSD	MS	MSD	

SampleID: 62900

Instrument: ICP-1

Surrogate1	0.000	94.8	89.9	100.00	95	90	5.2
Copper	0.000	4.4	4.1	5.00	88	82	6.5
Zinc	0.000	4.3	4.2	5.00	87	83	4.1
Lead	0.000	4.6	4.2	5.00	91	84	7.8
Nickel	0.000	4.3	4.3	5.00	86	85	1.6
Chromium	0.000	4.5	4.3	5.00	91	85	6.2
Cadmium	0.000	4.9	4.5	5.00	97	90	8.0

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{AmountSpiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation











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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: 2838.04; 635 8 <sup>th</sup> St.	Date Sampled: 06/29/00
		Date Received: 07/05/00
	Client Contact: Micah Rapoport	Date Extracted: 07/05/00
	Client P.O:	Date Analyzed: 07/05/00

07/12/00

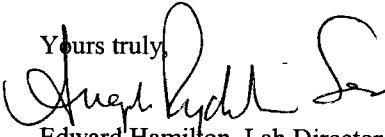
Dear Micah:

Enclosed are:

- 1). the results of 7 samples from your **2838.04; 635 8<sup>th</sup> St.** project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

  
Edward Hamilton, Lab Director



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: 2838.04; 635 8 <sup>th</sup> St.	Date Sampled: 06/29/00
	Client Contact: Micah Rapoport	Date Received: 07/05/00
	Client P.O:	Date Extracted: 07/05/00
		Date Analyzed: 07/06/00

**Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up) by Scanning IR Spectrometry\***

EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH <sup>+</sup>	% Recovery Surrogate
42013	B-3-2.5	S	110	---#
42014	B-3-5.0	S	40	---#
42015	B-3-7.5	S	30	---#
42016	B-3-10.0	S	12	---#
42017	B-2-5.0	S	70	---#
42018	B-2-7.5	S	20	---#
42019	B-2-10.0	S	11	---#
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		1.0 mg/L	
	S		10 mg/kg	

\* water samples are reported in mg/L , wipe samples in mg/wipe and soils and sludges in mg/kg

# surrogate diluted out of range or not applicable to this sample

+ At the client's request or the laboratory's discretion, one or more positive samples may be run by direct injection chromatography with FID detection. The following comments pertain to these GC results: a) gasoline-range compounds (C6-C12) are present; b) diesel range compounds (C10-C23) are present; c) oil-range compounds (>C18) are present; d) other patterned solvent (?); e) isolated peaks; f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules are the source of IR absorption; h) a lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.







McCAMPBELL ANALYTICAL INC.

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## QC REPORT

Date: 07/06/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: mg/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 33288

Instrument: GC-7

Surrogate1	0.000	98.0	98.0	100.00	98	98	0.0
Xylenes	0.000	293.0	304.0	300.00	98	101	3.7
Ethyl Benzene	0.000	95.0	98.0	100.00	95	98	3.1
Toluene	0.000	95.0	98.0	100.00	95	98	3.1
Benzene	0.000	93.0	96.0	100.00	93	96	3.2
MTBE	0.000	100.0	102.0	100.00	100	102	2.0
GAS	0.000	1014.0	1047.9	1000.00	101	105	3.3

SampleID: 33314

Instrument: MB-1

Oil & Grease	0.000	19.0	18.8	20.00	95	94	1.1
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SampleID: 33314

Instrument: GC-2 A

Surrogate1	0.000	95.0	95.0	100.00	95	95	0.0
TPH (diesel)	0.000	255.0	255.0	300.00	85	85	0.0

SampleID: 33314

Instrument: IR-1

TRPH	0.000	24.8	24.2	20.80	119	116	2.4
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$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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### QC REPORT

Date: 07/05/00-07/06/00 Matrix: Soil

Extraction: TTLC

Compound	Concentration: mg/kg			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 7500		Instrument: GFAA-1					
Lead	0.000	5.4	5.0	5.00	107	100	6.6

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>th</sup> St.	Date Sampled: 07/05/00
		Date Received: 07/10/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 07/10/00
	Client P.O:	Date Analyzed: 07/10/00

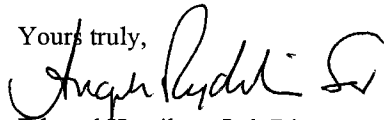
07/17/00

Dear Cusack & Rapoport:

Enclosed are:

- 1). the results of 3 samples from your #2838.04; 635 8<sup>th</sup> St. project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,  
  
 Edward Hamilton, Lab Director



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Treadwell & Rollo 555 Montgomery St., Suite 1300 San Francisco, CA 94111	Client Project ID: #2838.04; 635 8 <sup>th</sup> St.	Date Sampled: 07/05/00
		Date Received: 07/10/00
	Client Contact: P.Cusack/M.Rapoport	Date Extracted: 07/10/00
	Client P.O:	Date Analyzed: 07/11/00

**Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up)\***  
EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH <sup>+</sup>
42433	B-1-2.5	S	46
42434	B-1-5.0	S	48
42435	B-1-15.5	S	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	1.0 mg/L	
	S	10 mg/kg	

\* water samples are reported in mg/L , wipe samples in mg/wipe and soils and sludges in mg/kg  
# surrogate diluted out of range or not applicable to this sample  
+ At the client's request or the laboratory's discretion, one or more positive samples may be run by direct injection chromatography with FID detection. The following comments pertain to these GC results: a) gasoline-range compounds (C6-C12) are present; b) diesel range compounds (C10-C23) are present; c) oil-range compounds (>C18) are present; d) other patterned solvent (?); e) isolated peaks; f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules are the source of IR absorption; h) a lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.







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# QC REPORT

## TRPH

Date: 07/11/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: mg/kg			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 33314

Instrument: IR-1

TRPH	0.000	21.9	21.9	20.80	105	105	0.0
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$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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### QC REPORT

Date: 07/10/00-07/11/00 Matrix: Soil

Extraction: TTLC

Compound	Concentration: mg/kg			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 71000		Instrument: GFAA-1					
Lead	0.000	5.1	5.4	5.00	102	109	6.1

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

