



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

December 4, 2019

Dan Clark
Ramboll Environment and Health
2200 Powell Street, Suite 700
Emeryville, California 94608

Re: Revised ADMP (RIN NOA-0104)
Project: Communication Hill 2, Phase 2, KB Home Project, San Jose
Applicant: KB Home

Dear Mr. Clark,

This letter is in response to the proposed Revised Asbestos Dust Mitigation Plan (ADMP) referenced above for the subject project submitted to the Bay Area Air Quality Management District (Air District) by Ramboll Environment and Health on behalf of KB Home for the Communication Hill 2, Phase 2 project. The Revised ADMP was submitted pursuant to subsection (e)(2)(A) of the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, Section 93105, Title 17, California Code of Regulations (Asbestos ATCM).

The reference identification number (RIN) for this ADMP remains **NOA-0104**. Please refer to the RIN for any inquiries or submittals to the Air District regarding this ADMP.

The Air District received the final Revised ADMP application on December 4, 2019. The Air District has determined the proposed Revised ADMP meets the applicable criteria pursuant of subsection (e)(4) of the Asbestos ATCM, and, thus, it is hereby approved, provided the dust mitigation measures enumerated in the following subsection are adhered to throughout the duration of construction and/or grading activities at the project:

6.0 Dust Mitigation Measures

- Track-out Prevention and Control
- Active Storage Piles
- Inactive Disturbed Surface Areas and Storage Piles
- On-site Traffic Control
- Control for Earth-Moving Activities
- Control for Off-site Transport
- Post-Construction Stabilization of Disturbed Areas

In addition, approval is subject to the requirements set forth below:

Air monitoring:

The Air District approves the proposed monitoring plan provided that:

1. Air monitoring is conducted in accordance with the Naturally-Occurring Asbestos (NOA) ambient perimeter air monitoring protocols contained in the ADMP.


2. Transmission electron microscopy (TEM) air sample results are continuously compiled throughout the duration of ground disturbance activities at the project into a data spreadsheet and reported in units of total structures per cubic centimeter. The spreadsheet shall be submitted electronically for Air District review **daily** to Compliance@baaqmd.gov (identifying the project RIN in the Subject of each email).
 3. Standard Operating Procedures for sample collection, processing and shipping, as well as all calibration records for flow measuring devices, and records of the date and location of each monitor shall be available for inspection.
-

At the conclusion of the project, a letter stating the final date of work and detailing the post construction stabilization activities shall be submitted to the Air District at:

Director of Compliance and Enforcement
375 Beale St., Suite 600
San Francisco, CA 94105

Any questions you may have regarding this ADMP should be directed to Eliza Kane, Air Quality Specialist, at (415) 749-5097.

Sincerely,

 (For Wayne Kino)

Wayne Kino
Deputy Air Pollution Control Officer

ASBESTOS DUST MITIGATION PLAN

COMMUNICATIONS HILL 2 PHASE II

SAN JOSE, CALIFORNIA

Submitted to:
Bay Area Air Quality Management District
San Francisco, California

On Behalf of:
KB Home South Bay, Inc.
San Ramon, California

Prepared By:
Ramboll US Corporation
San Francisco, California

Date
December 4, 2019
Revision 3

Project Number
1690014334



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FIGURES

- Figure 1: Site Location Map
Figure 2: Site Layout and Development Plan

ATTACHMENTS

- Attachment A: Wind Roses from San Jose Airport (November 2018 through October 2019)
Attachment B: Historical Sampling Results for Naturally Occurring Asbestos

1. INTRODUCTION

On behalf of KB Home South Bay, Inc. (KB Home; “Developer”), Ramboll US Corporation (Ramboll) has prepared this Asbestos Dust Mitigation Plan (ADMP) related to the Phase II development activities at Communications Hill 2 in San Jose, California. This ADMP replaces the existing ADMP,¹ which the Bay Area Air Quality Management District (BAAQMD) approved on March 2, 2015.² Four subsequent amendments (Addenda #1 through #4)^{3,4,5,6} were approved on July 19, 2016,⁷ October 27, 2016,⁸ February 19, 2019,⁹ and September 4, 2019.¹⁰ A draft ADMP Addendum (Addendum #5)¹¹ has been reviewed by BAAQMD, with comments received on October 30, 2019.

This ADMP is intended to incorporate and update the provisions of the original ADMP and all subsequent ADMP Addenda including the draft Addendum #5.

Phase I of the site development is complete, and horizontal construction and land development activities of Phase II are largely completed. The ADMP is focused on Phase II vertical construction activities, and also contains mitigation and control measures applicable to the limited remaining horizontal construction land development activities.

The ADMP will be revised and re-submitted before the start of potential future phases of the project (Phase III and Phase IV), which, if implemented, would include an increased level of earthwork and different locations as compared to the current and planned Phase II development activities.

This ADMP describes the control measures that KB Home will implement to reduce the potential for dust generation. While no amount of control measures can completely eliminate exposure to naturally occurring asbestos (NOA), which is common in the area and underlies a significant portion of developments in the San Jose area, the dust mitigation procedures set forth in the ADMP are designed to ensure that no equipment or operation emits dust that is visible crossing the property line of the site.

¹Asbestos Dust Mitigation Plan (ADMP), RIN NOA-0104, Communication Hill 2 Phase I, San Jose, prepared by McCloskey Consultants, Inc. and dated February 27, 2015.

² Bay Area Air Quality Management District (BAAQMD) letter dated March 2, 2015 approving the February 27, 2015 ADMP Application.

³ADMP Addendum #1, Phase II Communication Hill, San Jose, prepared by McCloskey Consultants, Inc. and dated July 15, 2016

⁴ ADMP Addendum #2, Phase II Communication Hill, San Jose, prepared by McCloskey Consultants, Inc. and dated October 24, 2016.

⁵ ADMP Addendum #3, Phase II Communication Hill, San Jose, prepared by McCloskey Consultants, Inc. and dated February 15, 2019.

⁶ ADMP Addendum #4, Phase II Communication Hill, San Jose, prepared by McCloskey Consultants, Inc. and dated August 21, 2019.

⁷ BAAQMD letter dated July 19, 2016 approving the July 15, 2016 ADMP Amendment #1.

⁸ BAAQMD letter dated October 27, 2016 approving the October 24, 2016 ADMP Amendment #2.

⁹ BAAQMD letter dated February 19, 2019 approving the February 15, 2019 ADMP Amendment #3.

¹⁰ BAAQMD letter dated September 4, 2019 approving the August 21, 2019 ADMP Amendment #4.

¹¹ ADMP Addendum #5, Revision 1 (Draft), Communication Hill 2, Phase II, KB Home Project, San Jose, prepared by Ramboll and dated October 7, 2019

2. REGULATORY FRAMEWORK

This ADMP has been prepared pursuant to Title 17 of the California Code of Regulations (17 CCR) Section 93105, Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations.

This ADMP incorporates requirements of 17 CCR, Section 93105, the asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations.

Neither Developer nor any of its contractors, subcontractors, representatives, or agents, shall engage in any construction or grading activity anywhere on this site, unless the provisions of the ADMP, including without limitation the mitigation measures presented in Section 6 and the air monitoring measures presented in Section 7, are implemented at the beginning and maintained throughout the duration of the construction or grading activities.

2.1 Asbestos Airborne Toxic Control Measure

The asbestos ATCM (17 CCR 93105(b)(1)) states that the ADMP, and the dust mitigation measures contained therein, apply to "any construction, grading...operation on any property [where]...[a]ny portion of the area to be disturbed is located in a geographic ultramafic rock unit." The terms "Construction", "Grading", "Construction or Grading Operation" and "Construction or Grading Activity" are defined in the ATCM to mean "any surface disturbance conducted with powered equipment or any related activity, including, but not limited to, all surface and subsurface cuts and fills excavation, trenching, stockpiling, bulldozing, and landfills" (17 CCR, Section 93105, subdivision (i)(12)). Regulatory authority for compliance with the ATCM resides with the BAAQMD.

3. PROJECT DESCRIPTION

KB Home and Ramboll will work with the on-site contractors to ensure communication and awareness of this ADMP and any potential air quality concerns at the site. In addition to the procedures described herein, the individual contractors working at the site will be responsible for establishing and maintaining their own appropriate health and safety procedures to minimize worker and public exposure to site contaminants during construction.

3.1 Description of Planned Site Redevelopment

As currently envisioned, the development project consists of four phases, with Phase I complete and Phase II underway. The overall Phase II development area is approximately 125 acres in size, and the remaining area of the Phase II construction and grading activities (the area of residential buildings under construction and the focus of this ADMP) is approximately 26 acres in size and generally located northeast of Phase I. An additional 9-acre area to the northwest of the Phase II construction area is used for material storage and soil stockpiles, as shown on Figures 1 and 2. The material storage and stockpile area is used under an agreement with the land owner. While this area is not part of the Phase II construction area, it is subject to the requirements of this ADMP.

Phase II horizontal construction and land development activities are largely completed. The measures described in this ADMP are focused on Phase II vertical construction, and also include mitigation and control measures applicable to the limited remaining horizontal construction and land development activities, which include backfilling of approximately 50 cubic yards of soil and grading at a concrete headwall structure (Figure 2), as well as completion of landscaping for residential units and common areas.

At present, it is not yet known whether Phase III and Phase IV will be implemented. If Phase III and/or Phase IV of the project are to be implemented, the ADMP will be revised and re-submitted for BAAQMD approval. No construction and grading activities for Phase III or Phase IV will be performed without an approved ADMP from BAAQMD that includes the scope of these subsequent construction phase(s).

3.2 Regional Topography and Site Setting

The Communications Hill 2 Phase II development area is located approximately four miles southeast of downtown San Jose, California (Figure 1). The area is situated on the northeastern portion of a topographic ridge with an elevation of approximately 350 feet above mean sea level (msl), which is approximately 200 feet above the surrounding areas of San Jose. The area has been graded relatively flat, with a grade difference of approximately 10 to 20 feet between the southern part of the construction area (higher) and northern part of the area (lower). The new extension of the Communication Hill Boulevard roadway forms the northern and northeastern boundaries of the Phase II construction area.

Site surroundings are shown on Figure 2. At the northern and eastern boundaries of the site, the land surface slopes steeply downward. To the northwest, north, northeast, and east of the site are undeveloped areas and a reclaimed aggregate quarry. To the south of the site is the Communications Hill 2 Phase I residential area including William Lewis Manly

Park. To the west of the site is a hill with a telecommunications tower, as well as residential areas including the adjacent Tuscany Hills development.

3.2.1 Surface Water

There are no surface water bodies on the site. The site is located approximately 12 miles southeast of San Francisco Bay.

3.2.2 Site Geologic Setting

The Santa Clara Valley is underlain by basin deposits and alluvial deposits ranging from Pleistocene to Holocene in age. Sedimentary deposits vary to more than 1,000 feet thick in the Santa Clara Valley. The site is situated on an elongated bedrock high that rises approximately 200 feet above the surrounding areas of the Santa Clara Valley alluvial plain. The bedrock is part of the Franciscan Complex, which includes ultramafic serpentinite and silica-carbonate altered serpentinite.

3.2.3 Wind Direction

As shown in Figures 2 and 3, typical wind direction at the site is from the northwest towards the southeast. This wind direction is based on historical wind direction and speed data recorded at the San Jose Airport meteorological monitoring station (KSJC). An annual wind rose representing the 12 month period prior to preparation of this ADMP (November 2018 through October 2019) is included on Figure 1 and the predominant wind direction is shown on Figure 2. The annual wind rose, and monthly wind roses from this time period, are provided in Attachment A.

3.3 Scope of Work

The ATCM defines construction and grading activities as any surface disturbance conducted with powered equipment or any related activity, including, but not limited to, all surface and subsurface cuts and fills, excavation, trenching, stockpiling, bulldozing, and landfills. Work to be executed for the project includes the following five general activities to be conducted over the duration of the project:

- Grading – Grading includes the placement and removal of soil to achieve a flat working space prior to preparation of foundation areas.
- Excavation – This type of work includes the excavation of foundation features, underground utility trenches, and other below-grade work in support of site construction, as well as the associated stockpiling, loading, and hauling of excavation spoils.
- Building Construction – This type of work includes foundation construction, utility installation, and construction and finishing of the new residential buildings.
- Surface Features – This work includes fine grading and installation of new surface features (roadways, landscaping, walking paths, patio and backyard areas). It is expected that following completion of these surface features, the site will be stabilized with respect to construction and grading activities. BAAQMD will be notified prior to the completion of construction and grading activities with a request to cease monitoring when the activities are complete and the disturbed areas have been stabilized.

For each of these activities, this ADMP defines mitigation measures to be employed, as described in Section 6.

4. LOCATIONS OF SERPENTINE-CONTAINING SOILS

The locations of serpentine-containing soils at the site are described below. Also included in this section are procedures for making observations of soil content to identify any additional areas of potential serpentine-containing soils that may be encountered during development activities.

4.1 Known Locations of Serpentine-Containing Soils

The NOA in the bedrock is chrysotile asbestos that is visible in hand samples and occurs within serpentinized basalt as veins with cross-fibers. Bedrock sampling conducted in 2006 and 2009 has shown NOA concentrations (as chrysotile) that range from 11% to 30% using polarized light microscopy (PLM) methods.¹² Sampling locations are shown on Figure 1. A summary of analytical results is provided in Attachment B.

4.2 Procedures for Soil Inspection and Notifications

During construction and grading activities, areas of soil potentially containing serpentine (or other sources of asbestos) may be identified via observation as follows:

- Presence of serpentine-containing rock in native soil materials or bedrock. If dark gray or greenish serpentine rock (potentially having white fibrous inclusions) is identified, the material may potentially contain NOA.

Any native soil encountered at the site is considered to potentially contain NOA.

A Soil Management Plan (SMP)¹³ prepared for the project provides instructions on the management of potentially contaminated soils, including NOA in native soil or bedrock materials. The SMP is kept in the construction superintendent's office for reference.

¹² Strategic Engineering & Science (SES). 2009. Phase II Environmental Site Assessment Report, Communications Hill, San Jose, CA. May 8.

¹³ McCloskey Consultants, Inc. 2017. Soil Management Plan, Communications Hill 2 Phase II, San Jose. August 29.

5. POTENTIAL SOURCES OF DUST EMISSIONS

Site control methods will be used during construction and grading activities to mitigate dust generation. Section 6 of this ADMP lists methods for control of fugitive dust generated by construction and grading activities, including:

- Construction Traffic – Movement of construction related vehicles, equipment and/or materials around the site on unpaved travel routes. All contractor personal vehicles are only allowed to travel and park on surfaces encapsulated with pavement or imported gravel. Construction traffic is routed along the new Communications Hill Boulevard roadway along the northern boundary of the site, including track-out controls (wet sweeping) along approximately 2,000 linear feet of this paved roadway, before the construction traffic enters the public roadway. Construction traffic no longer uses the Llano De Los Robles Avenue roadway.
- Site Preparation and Foundation Work – Grading, placement of fill soil, construction and paving of streets, excavation of footings and foundations, installation of foundations, and backfilling operations.
- Trenching and Utility Construction Activities – Excavation of trenches for the installation of underground utilities.
- Material Stockpiles – Handling of stockpiles of excavated soil from construction and grading activities and stockpiles of imported fill material, gravel and landscaping material.
- Vertical Construction Activities – Material handling, foot traffic, and vehicle traffic as related to construction and finishing of residential buildings.
- Completion Activities – Landscaping and re-vegetating of disturbed areas, removal of scaffolds and other temporary infrastructure, and demobilization of heavy equipment.
- Any other “Construction,” “Grading,” “Construction or Grading Operation” or “Construction or Grading Activity” as defined by 17 CCR § 93105, subdivision (i)(12).

6. DUST MITIGATION MEASURES

Dust control measures will be implemented by the contractor in accordance with the Asbestos ATCM during all construction and grading work at the site (as defined in the ATCM and Section 2.1 of this ADMP) for the duration of the project.

Dust mitigation measures can be separated into 1) routine procedures and 2) contingency control measures. Routine procedures are described in Sections 6.1 through 6.8, and contingency control measures are described in Section 6.9.

Contingency dust control measures will be implemented in the event that routine dust mitigation measures are not successful in controlling dust emissions from construction and grading activities. Contingency measures will be implemented if asbestos concentrations exceed the perimeter air monitoring action level, and may also be implemented in response to observations of changing site conditions (e.g., higher wind speeds, observations of visible fugitive dust, or complaints of excessive dust generation by off-site parties), which may or may not result in an elevated NOA measurement at a perimeter monitoring station.

6.1 Track-Out Prevention and Control

Track-out is caused by motor vehicles, haul trucks and/or equipment departing the site with residual dirt or dust on the exterior surfaces of the vehicle, including the tires or undercarriage. Residual soil material becomes deposited on paved public road surfaces outside the site and can later be mobilized as airborne dust by subsequent vehicle traffic. Each of the following control measures shall be implemented to control track-out:

- **Removal of any visible track-out** from a paved public road at any location where vehicles exit the work site. This will be accomplished by using wet sweeping or a high-efficiency particulate air (HEPA) filter-equipped vacuum device at the end of the work day or at least one time per day. The use of dry power sweeping is prohibited; and
- **Rumble strips and/or a gravel pad** designed using good engineering practices will be installed at any locations where construction vehicles will drive from unpaved areas onto paved public roadways to clean the tires of all trucks, vehicles and equipment. These areas will be maintained throughout the duration of construction and grading activities at the site and will be repaired, modified or cleaned as necessary to ensure effectiveness; and
- **Use of new Communications Hill Boulevard as a track-out control area**, including wet sweeping over approximately 2,000 linear feet of the roadway before vehicles enter the public roadway at the traffic circle at the southwest side of the site. All construction traffic will be routed along this roadway when entering or leaving the site.

6.2 Active Storage Piles

A storage pile is considered active if material is added to or removed from the storage pile within 7 calendar days. Control for active storage piles shall include one or more of the following:

- **Active storage piles will be kept adequately wetted;** or
- **Active storage piles will be kept covered** with polyethylene plastic sheeting, fabric cover, or tarp when soil is not being added or removed.

6.3 Inactive Surface Areas and Storage Piles

A surface area is considered inactive if no activities are planned within the area for more than 7 calendar days. Storage piles are considered inactive if material is not added to or removed from the storage pile for more than 7 calendar days. Control for disturbed surface areas and storage piles that will remain inactive for more than 7 days shall include one or more of the following:

- **Keep the surface adequately wetted;**
- **Establishment and maintenance of surface crusting** sufficient to satisfy the test in subsection (h)(6) of the ATCM;
- **Applying non-toxic soil stabilizers** (also known as dust palliatives or dust suppressants, including hydro-mulch or hydro-seed material) according to the manufacturer's recommendations;
- **Covering** with polyethylene plastic sheeting, tarps or fabric barriers;
- **Installation of stockpile wind barriers** of 50% porosity around three sides of a storage pile; or
- **Installation of intermediate wind barriers** which will be installed perpendicular to the predominant wind direction every 50 to 100 yards.

6.4 Control for Traffic on Unpaved Roads, Parking Lots, and Staging Areas

Control for on-site unpaved roads, parking lots, and staging areas shall include:

- **Installing and maintaining gravel cover** for all unpaved construction roadways, parking lots, and staging areas. The site will ensure that all construction traffic (worker vehicles, construction heavy equipment, delivery trucks) travels on paved surfaces or on gravel cover that is at least 3 inches thick. The gravel cover shall have a silt content less than 5% and asbestos content less than 0.25%, as determined using an approved asbestos bulk test method; and
- **Limiting the maximum on-site speed** for vehicles to 15 miles per hour (mph) on unpaved site areas. Visible speed limit signs are posted at entrances to the site, along roadways within the site, and along construction traffic routes in off-site areas; and
- **Watering every two hours of active operations**, or more often as needed, to keep the area adequately wetted.

6.5 Control for Earth Moving Activities

Control for earth moving activities shall include:

- **Pre-wetting the ground** to the depth of anticipated cuts; and

- **Suspending excavation, grading, and other construction activities** when wind speeds are high enough to result in dust emissions crossing the property line despite the application of dust mitigation measures; and
- **Application of water** prior to any land clearing.

6.6 Control for Off-Site Transport

No trucks are allowed to transport excavated material off-site unless:

- **Vehicles are maintained** such that no spillage from holes or other openings in cargo compartments is allowed; and
- **Loads are adequately wetted** and either:
 - Covered with tarps; or
 - Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment.

6.7 Post-Construction Stabilization

Upon completion of the project, disturbed surfaces shall be stabilized using one or more of the following methods to prevent wind speeds of 10 miles per hour or greater from causing visible dust emissions:

- **Establishment of a vegetative cover;**
- **Placement of at least three inches** of non-asbestos-containing materials; or
- **Paving or covering with hardscape** (e.g., building foundation, sidewalks, and pavement).

6.8 Contingency Dust Control Measures

In the event that asbestos concentrations exceed the perimeter air monitoring action level, or the above measures are unsuccessful at controlling dust emissions from construction and grading activities, one or more of the following secondary measures will be implemented until the condition stabilizes:

- **Increased Frequency of Roadway Watering:** Increase water application frequency on unpaved roadways and disturbed soil areas to eight (8) times per day or greater (i.e., hourly during work hours).
- **Increased Resources for Task-Specific Watering:** Increase the number of water trailer hose crews, water trucks, that are deployed for task-specific focused watering.
- **Soil Stabilization:** Application of soil stabilizer, hydromulch or hydroseed compound, and/or covering with fabric or plastic, in undisturbed soil areas.
- **Decrease Pace of Earthwork:** Slow the pace of soil movement or handling to the degree feasible while allowing for progress and safe work, and/or limit earthwork to periods of calm winds, including monitoring by the on-site compliance officer.

- **Reduce Drop Heights:** Reduce drop heights to the minimum safe drop height attainable with the excavation and loading equipment being used, including monitoring by the on-site compliance officer.
- **Speed Limit:** Communicate and post a reduced site speed limit (10 mph), including monitoring by the on-site compliance officer.
- **After Hours Watering:** After hours watering, either by additional water truck activity or installation of a sprinkling or misting system, will be implemented.

7. AIR MONITORING

While the asbestos ATCM does not require air monitoring for NOA, the regulation does provide provisions that allow the BAAQMD to require an air monitoring component. BAAQMD requires that air monitoring be performed if public space areas, residential, and/or commercial facilities are located within 0.25 mile of the site. As shown in Figure 1, there are residential areas, commercial businesses, schools, day cares, and parks or other recreational facilities located within 0.25 mile of the site. There are no known hospitals or nursing homes within 0.25 mile of the site.

Air monitoring during the project will consist of airborne asbestos perimeter dust monitoring. Airborne asbestos perimeter monitoring will occur on every day of construction and grading activity or other similar activity likely to disturb soil or bedrock at the site, for the duration of the project.

Also presented in this plan are those specific actions that will be taken by contractors if the level of airborne asbestos is detected at or above project action levels.

No airborne asbestos monitoring will be conducted when there are no construction or grading activities occurring. No changes shall be made to the air monitoring program without notifying and receiving approval from the BAAQMD.

7.1 Airborne Asbestos Monitoring Program

A perimeter airborne asbestos monitoring program using high-volume sampling methods consistent with the United States Environmental Protection Agency (USEPA) Asbestos Hazard Emergency Act (AHERA) asbestos sampling methodology will be conducted to measure and document the concentration of airborne asbestos dust in ambient air. The monitoring program is described below.

7.2 Air Sampling Equipment

Sampling at all airborne asbestos monitoring stations will be conducted using battery operated heavy duty vacuum pumps (e.g., model SKC 1532, BGI 100, or equivalent) at each of the monitoring stations. Selected equipment will be of the type that is used extensively in air sampling for asbestos.

The sampling train will consist of the following: pump, flow regulator/dampener, a lockable air flow adjustment valve, tygon tubing and filter cassette assembly. The cassette will be attached to a tripod, or equivalent, to ensure the filter cassette maintains an elevation of 4 to 5 feet above ground surface and the filter cassette will be situated at a 45-degree angle. The filter cassettes will have a 25-millimeter open face cowl and will consist of a mixed cellulose ester (MCE) filter with a 0.45-micron pore size.

Each of the pumps, battery packs and sampling trains will be inspected and calibrated regularly to ensure proper operation. To prevent tampering or vandalism, sampling equipment will be placed in locked boxes and, if possible, behind locked fences. In the event that a monitor is found to not be operating properly, BAAQMD staff will be notified of the location, monitor name, time discovered, plan of action and estimated time needed to complete repairs as soon as practicable, but no later than 24 hours after the discovery of the inoperable monitor.

7.3 Siting of Airborne Asbestos Sampling Devices

The airborne asbestos monitoring program will be performed to determine the efficacy of dust control measures at the site. Proposed monitoring locations (P1 through P8) are shown on Figures 1 and 2, and include one upwind (P1), four downwind (P2, P3, P4, P7, and P8), and two crosswind (P5 and P6) sampling locations. Note that P1 through P6 are consistent with previous monitoring station locations, and P7 and P8 are new monitoring station locations added during this ADMP submission.

Airborne asbestos monitoring locations have been selected based on locally measured wind speed and direction data as provided by a nearby meteorological station (see Attachment A, wind rose diagrams from KSJC; San Jose Airport). Annual and monthly wind rose diagrams were generated from the National Oceanographic and Atmospheric Association (NOAA) archive of data collected at KSJC, for the period from November 2018 through October 2019. The wind rose diagrams illustrate the general historical wind speed, direction, and frequency of occurrence in the vicinity of the site. Wind roses have been used to establish a prevailing wind direction and to confirm suitability of monitoring station locations. The prevailing wind direction at the site is from the northwest to the southeast, as shown in Figure 1.

Sampling will be conducted at or near work area boundaries. The results of airborne asbestos monitoring from the monitoring network will inform specific dust mitigation measures for the site (e.g., additional street cleaning, application of additional dust control water at the point of excavation, etc.).

The monitoring probe will be located a minimum of 2 meters away from all obstructions. This includes but is not limited to vertical walls, buildings, site equipment, stockpiles, wind screens, vehicles, and vegetation over 12 inches high. When possible, the monitoring equipment will be located at least 10 meters away from the drip line of trees and 10 meters away from buildings. Obstructions that may impact airflow will be evaluated regularly given that local obstructions can change due to human activity and vegetation growth. Sampling equipment will have unrestricted airflow in an arc of at least 180 degrees, which includes the predominant wind direction with the greatest potential for the presence of asbestos in air to occur.

Construction activities may require temporary relocation of airborne asbestos monitors. Should one of the monitors be in direct conflict with construction activities, it may be moved up to 50 feet from its designated location. BAAQMD will be notified whenever monitors are moved. Once the construction activities within the area are complete, the airborne asbestos monitor(s) will be moved back to their designated location(s). No monitor will be moved more than 50 feet from the location described in this plan without notifying and receiving approval from the BAAQMD.

7.4 Modifications to Airborne Asbestos Monitoring Network(s)

As new areas within the site become active and as other areas are completed, it may be appropriate to move or add airborne asbestos monitoring stations and/or reduce the frequency of monitoring. Another instance when a modification may be proposed is after several months of data collection. If the collected data indicate that the application of mitigation measures is successful, amendments to the monitoring program may be proposed for BAAQMD review and approval. No modification to the monitoring network or

sampling schedule will be made without notifying and receiving approval from the BAAQMD for this change.

The notification to BAAQMD must be in writing and include the following minimum information:

- The reason for the modification
- A description of the proposed modification
- A map depicting the current and proposed monitoring locations; and
- A map depicting current and future areas to be disturbed.

Once the modification to the monitoring scheme is approved by the BAAQMD, any necessary field modifications to the monitoring network will be executed, new locations secured, and a new map of monitoring locations will be posted in the construction site office with a copy of the BAAQMD approval letter. All correspondence from the BAAQMD will be stored with the ADMP at an on-site location.

If air monitoring results demonstrate sufficient dust mitigation through low levels of perimeter asbestos concentrations, a request may be made to reduce or suspend perimeter asbestos dust monitoring, pending approval from BAAQMD. The request must include all data collected to that point and must provide the basis for the reduction or suspension of sampling. BAAQMD will make the determination based on the submitted data.

7.4.1 Sampling Duration and Frequency

Airborne asbestos monitoring samples will be collected over a continuous 24-hour period beginning and ending at the same time each day, except Saturdays when samples will be collected over an 8-hour period from approximately 7:30 AM to 3:30 PM. At the time of sample collection and setup for the next monitoring run, a field technician will record in a field notebook the sample ID number, the sample location, the date and time the pump was activated, the date and time the pump was deactivated, the flow rate at the start of sampling and the flow rate at the end of sampling. The calculated average flow rate and the calculated total volume of air pumped during the sampling run will be presented on each chain-of-custody form that will remain with the samples until they are delivered to the analytical laboratory. The chain-of-custody form will be made a part of the analytical laboratory report for each set of samples.

A rotameter will be used to calibrate the flow rate both before and after sample collection. The rotameter will be attached to the end of the sampling train to check the flow rate. The field technician will read the flow rate and record the reading. When the sample cassette is removed, it is labeled and placed in a sealable plastic bag. Once handling of the previous day's sample is complete, a new cassette is fitted onto the end of the tygon tubing, the cover placed over the cowl and the rotameter attached to check the flow rate at the start of sampling. If an adjustment is necessary, the technician will turn the regulator until the desired flow rate is achieved. The desired flow rate is between 2.5 and 3.5 liters per minute for a 24-hour sampling period and between 8.0 and 8.5 liters per minute for an 8-hour sampling period.

At the conclusion of setup and sampling at all monitoring stations, within 12 hours of sample collection the samples will be delivered to a California accredited analytical laboratory for analysis. All samples will be accompanied by the chain-of-custody filled out for that day's sampling. A laboratory turnaround time of 24 hours will be requested for each sample.

7.4.2 Analytical Method and Procedure

Asbestos air samples will be analyzed by transmission electron microscopy (TEM) per the USEPA AHERA criteria pursuant to 17 CCR Section 93105. The following criteria are required by the ATCM and will be included:

- The analytical sensitivity shall be 0.001 structures per cubic centimeter (S/cm^3); and
- All asbestos structures with an aspect ratio greater than 3 to 1 shall be counted, irrespective of length.

For consistency with the site monitoring program and reporting activities to date, the asbestos data will be reported in S/cm^3 .

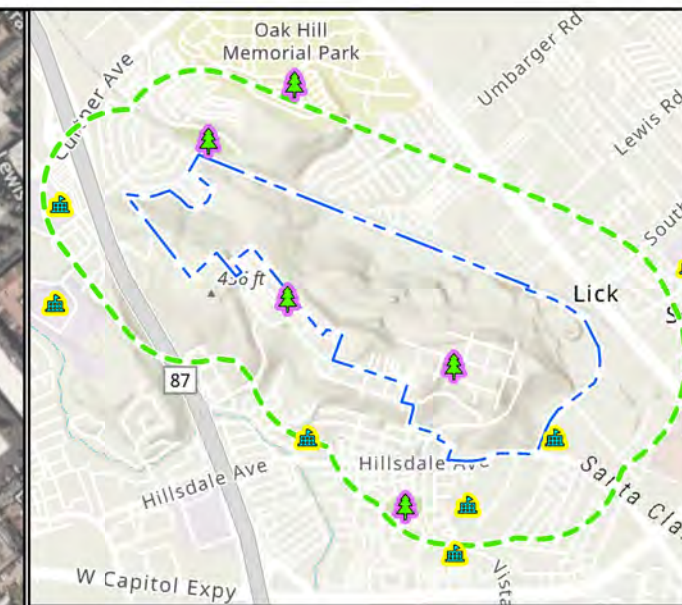
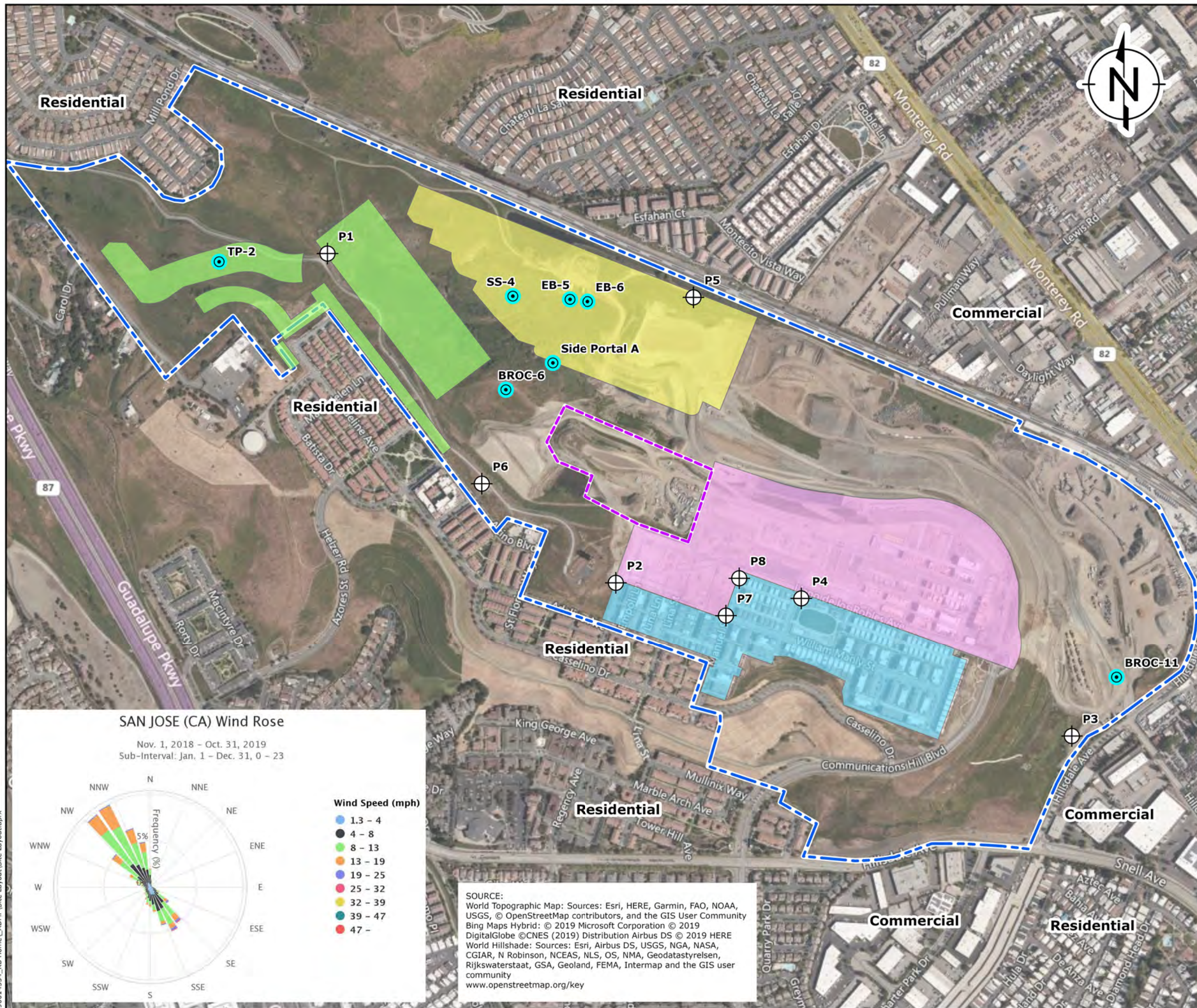
7.5 Reporting and Data Availability

A summary of daily results from airborne asbestos monitoring stations and a cumulative air monitoring data spreadsheet will be distributed to all project stakeholders via email. The email distributions will include BAAQMD staff, Developer staff, and contractors working on behalf of the Developer. Air monitoring results summaries will be sent no later than the close of business on the next business day after the day the lab report was received. All QA/QC procedures, laboratory analytical reports, and related records will be made available upon request.

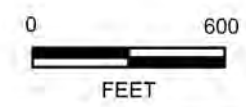
7.6 Air Monitoring Triggered Reporting and Dust Mitigation Measures

In the event that perimeter air monitoring results within the monitoring network indicate asbestos concentrations equal to or greater than $0.016 S/cm^3$ from any airborne asbestos monitor, Developer or its agent shall notify BAAQMD as soon as practical but no later than the close of business on the next business day after the day the lab report was received. The notification shall include the monitoring results indicating sampler ID, location, actual TEM S/cm^3 or S/m^3 , sample date, and analysis date. An evaluation will be made of site operations and employed mitigation measures for the day of elevated reading(s); the evaluation will also include a root cause analysis of probable cause or causes of the elevated reading(s). Additional dust mitigation measures, identified in Section 6.9, shall be implemented to address identified cause(s) in order to reduce airborne asbestos. These measures shall remain in place until all monitors within the monitoring network are less than $0.016 S/cm^3$. The causal analysis and implemented measures to reduce airborne asbestos concentrations will be recorded and submitted electronically to compliance@baaqmd.gov within 2 business days from the time the lab report was received.

FIGURES



- LEGEND**
- APPROXIMATE BOUNDARY
 - APPROXIMATE PERIMETER MONITORING LOCATION
 - MATERIAL STORAGE & STOCKPILE AREA (NOT PART OF PH II DEVELOPMENT AREA BUT SUBJECT TO ADMP REQUIREMENTS)
 - PHASE I
 - PHASE II
 - PHASE III
 - PHASE IV
 - NOA SAMPLE LOCATIONS 2006-2009 (ATTACHMENT B)
 - 1/4 MILE BUFFER
 - SCHOOL/DAYCARE
 - PARK/RECREATION



SITE LOCATION AND SETTING

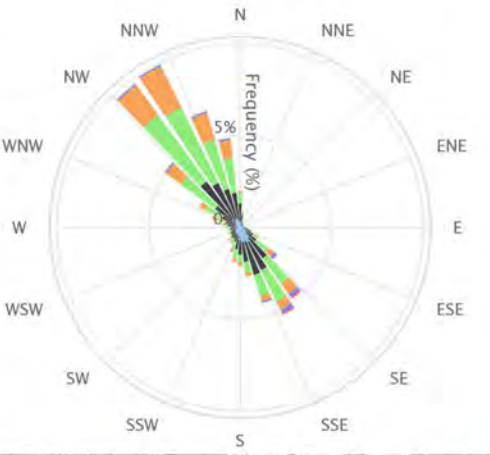
COMMUNICATIONS HILL 2
SAN JOSE, CALIFORNIA



FIGURE
1

SAN JOSE (CA) Wind Rose

Nov. 1, 2018 - Oct. 31, 2019
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23

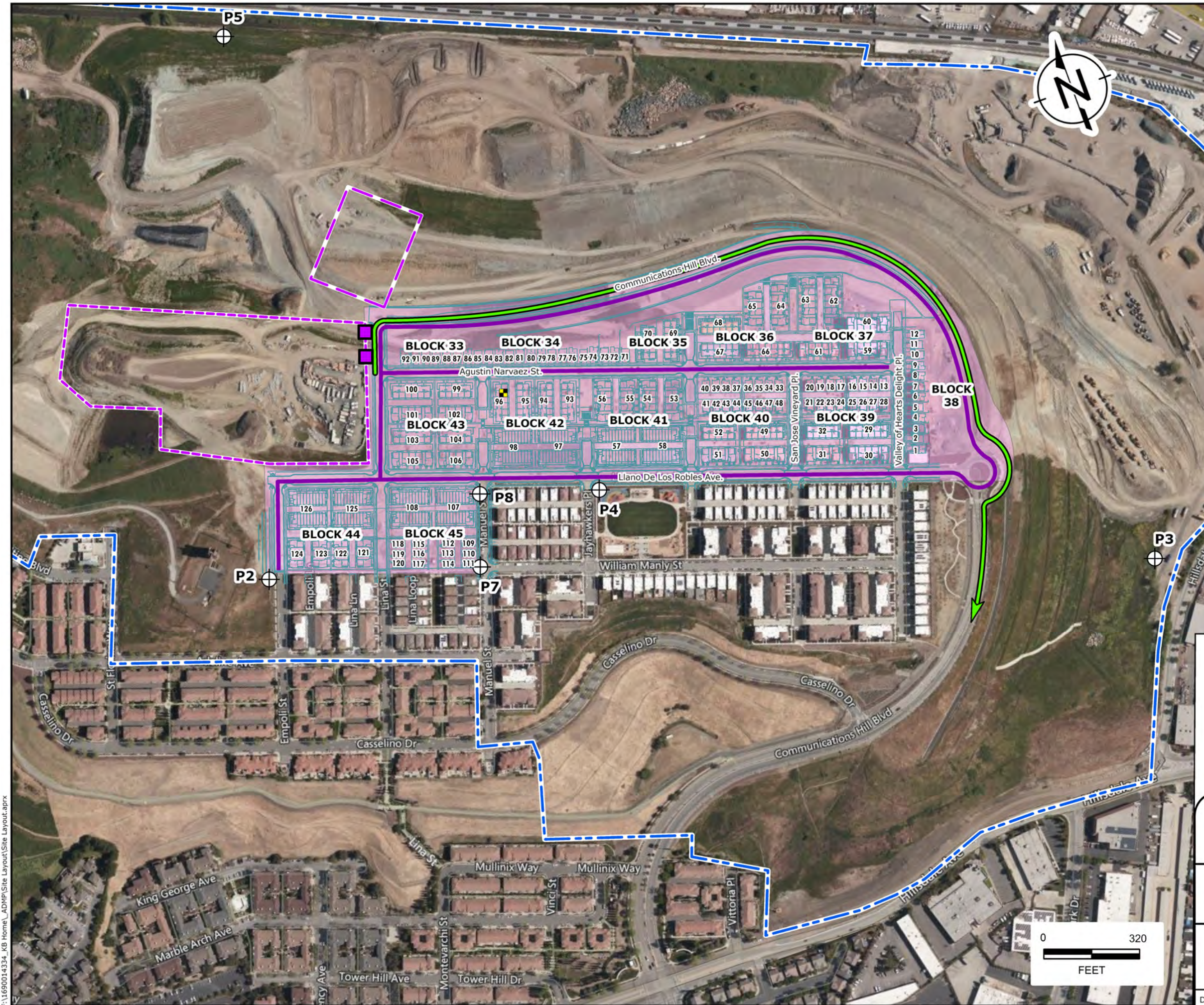


- Wind Speed (mph)**
- 1.3 - 4
 - 4 - 8
 - 8 - 13
 - 13 - 19
 - 19 - 25
 - 25 - 32
 - 32 - 39
 - 39 - 47
 - 47 -

SOURCE:
World Topographic Map: Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Bing Maps Hybrid: © 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS © 2019 HERE
World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
www.openstreetmap.org/key

Reference note: Wind rose generated from San Jose Airport wind data collected Nov. 2018-Oct. 2019.

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- LEGEND**
- APPROXIMATE BOUNDARY
 - MATERIAL STORAGE & STOCKPILE AREA (NOT PART OF PH II DEVELOPMENT AREA BUT SUBJECT TO ADMP REQUIREMENTS)
 - AREA OF LIMITED BACKFILLING AND GRADING FOR BASIN HEADWALL STRUCTURE (SUBJECT TO ADMP REQUIREMENTS)
 - PHASE II
 - + APPROXIMATE PERIMETER MONITORING LOCATION
 - TRACK-OUT CONTROL AREA
 - ONSITE WEATHER STATION
 - ASPHALT ROADWAY AREA INCLUDING TRACK-OUT CONTROL (WET SWEEPING)
 - CONSTRUCTION HAUL ROUTE

NOTE:
Prevailing wind direction is based on San Jose Airport wind data Nov. 2018 - Oct. 2019.

SOURCES:
World Topographic Map: Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Bing Maps Hybrid: © 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS © 2019 HERE
World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
www.openstreetmap.org/key
"Construction Phasing Exhibit - Communications Hill Ph2", HMM.

SITE LAYOUT AND PHASE II DEVELOPMENT PLAN

COMMUNICATIONS HILL 2
SAN JOSE, CALIFORNIA



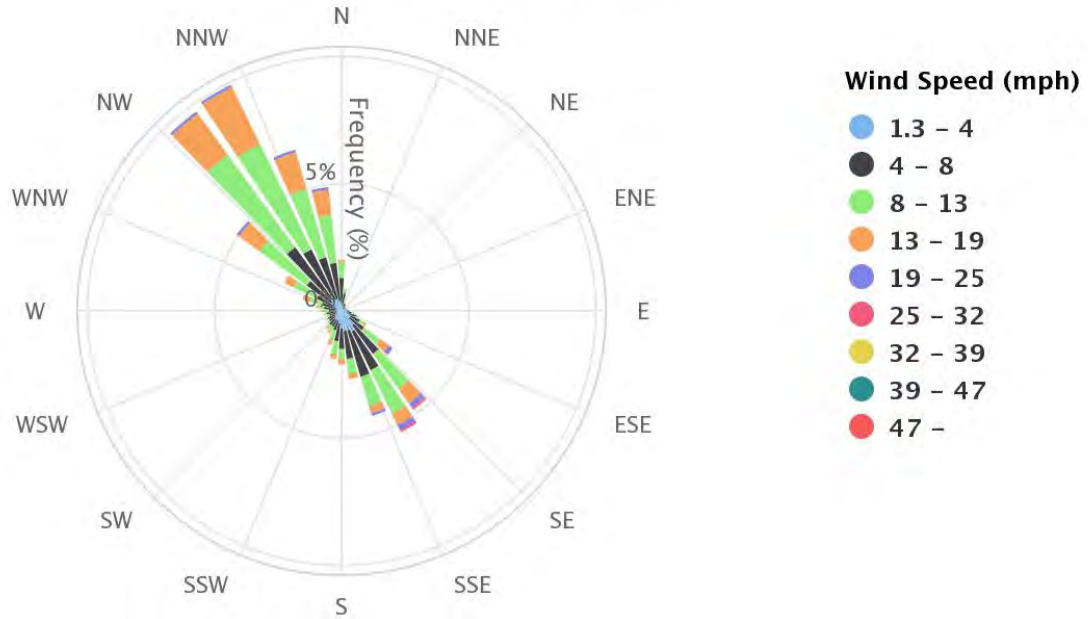
FIGURE
2

F:\1690014334_KB_Home\ADMP\Site Layout\Site Layout.aprx

ATTACHMENT A
WIND ROSES FROM SAN JOSE AIRPORT
(NOVEMBER 2018 THROUGH OCTOBER 2019)

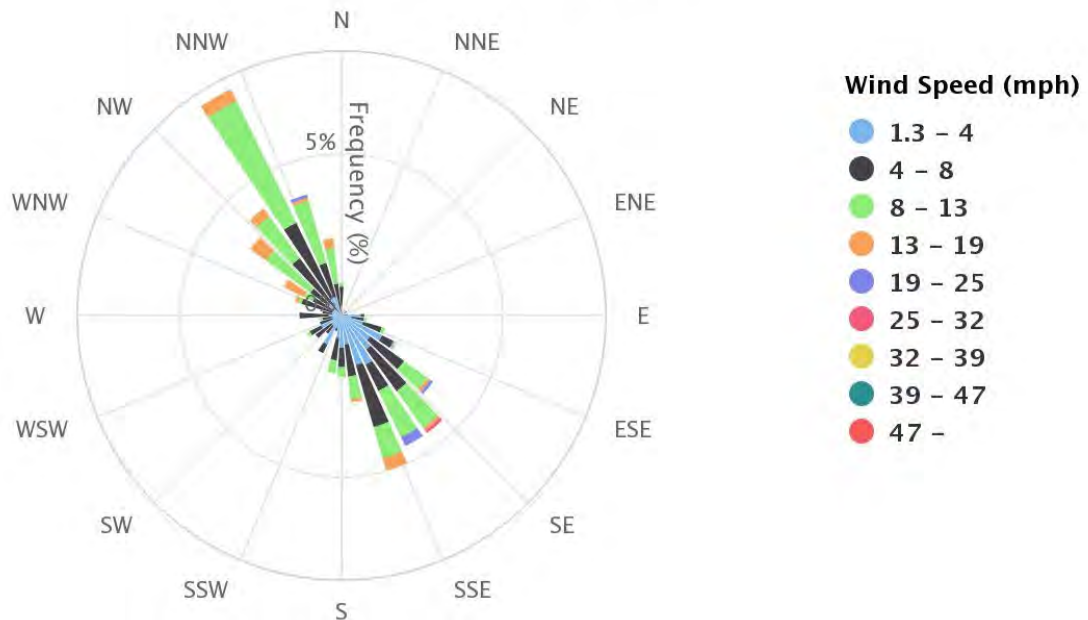
SAN JOSE (CA) Wind Rose

Nov. 1, 2018 - Oct. 31, 2019
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



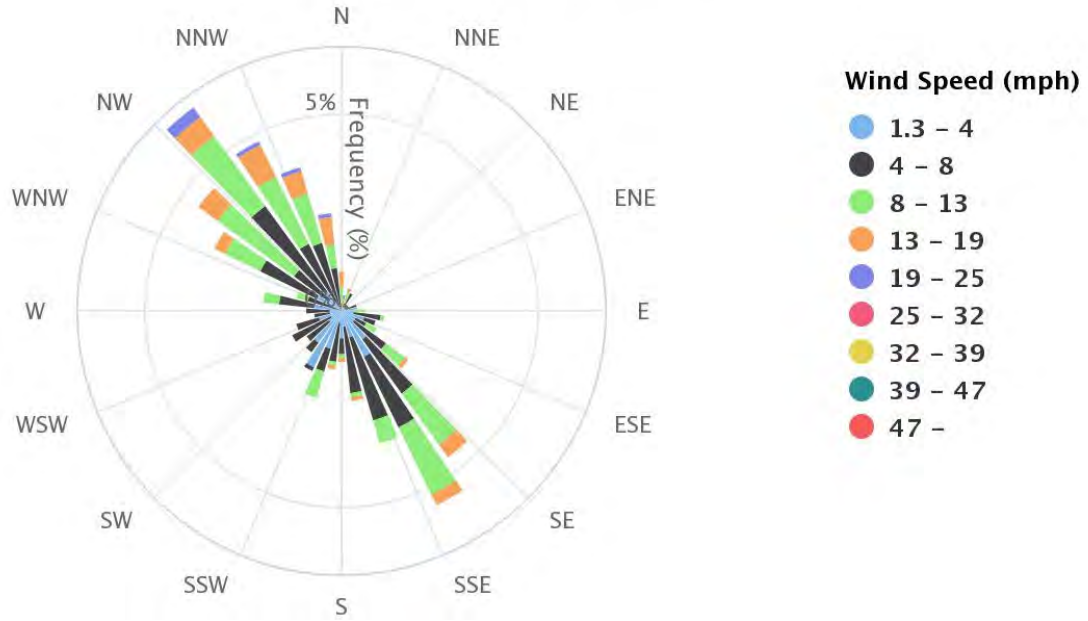
SAN JOSE (CA) Wind Rose

Nov. 1, 2018 - Nov. 30, 2018
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



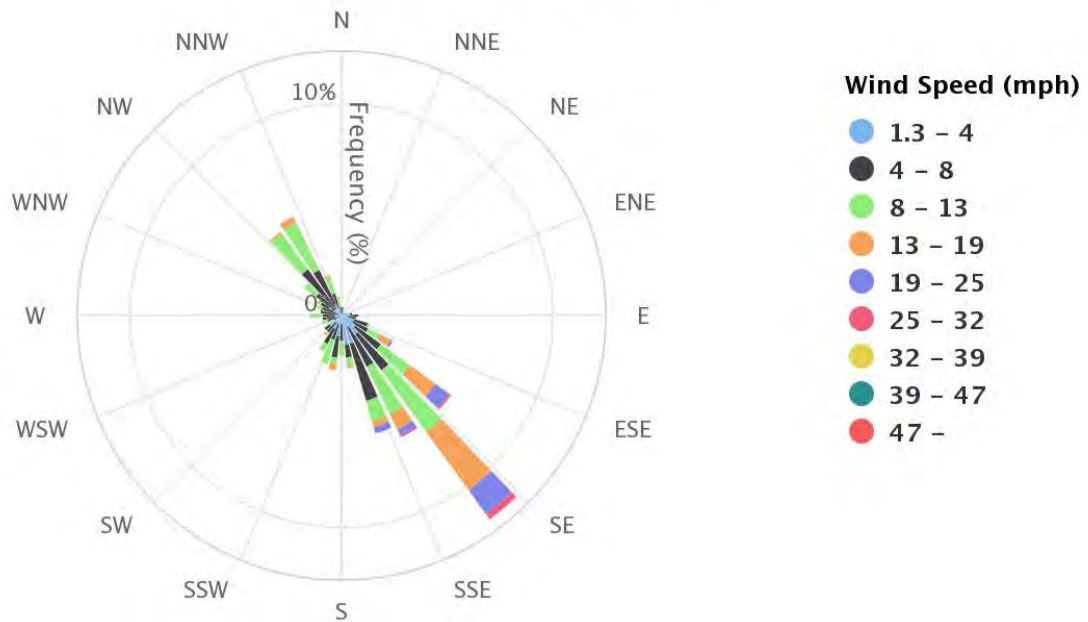
SAN JOSE (CA) Wind Rose

Dec. 1, 2018 – Dec. 31, 2018
 Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



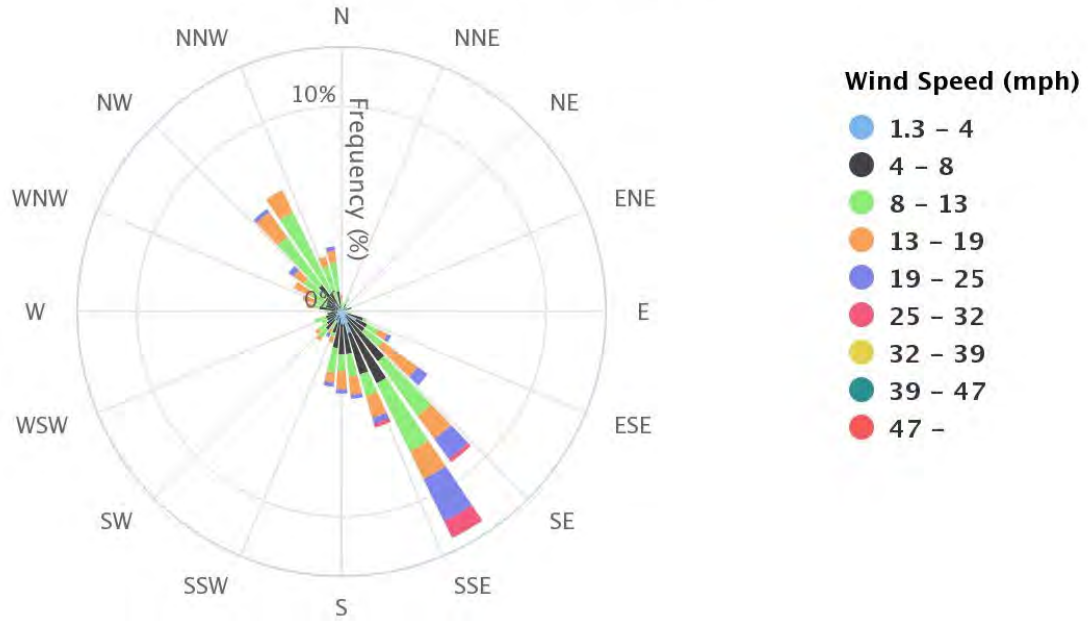
SAN JOSE (CA) Wind Rose

Jan. 1, 2019 – Jan. 31, 2019
 Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



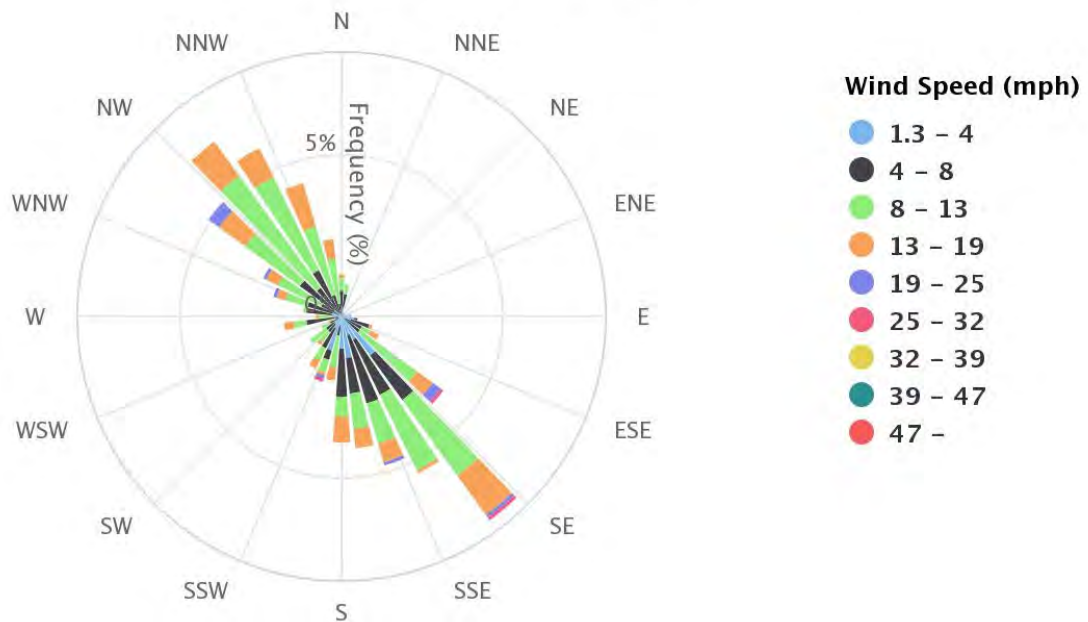
SAN JOSE (CA) Wind Rose

Feb. 1, 2019 – Feb. 28, 2019
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



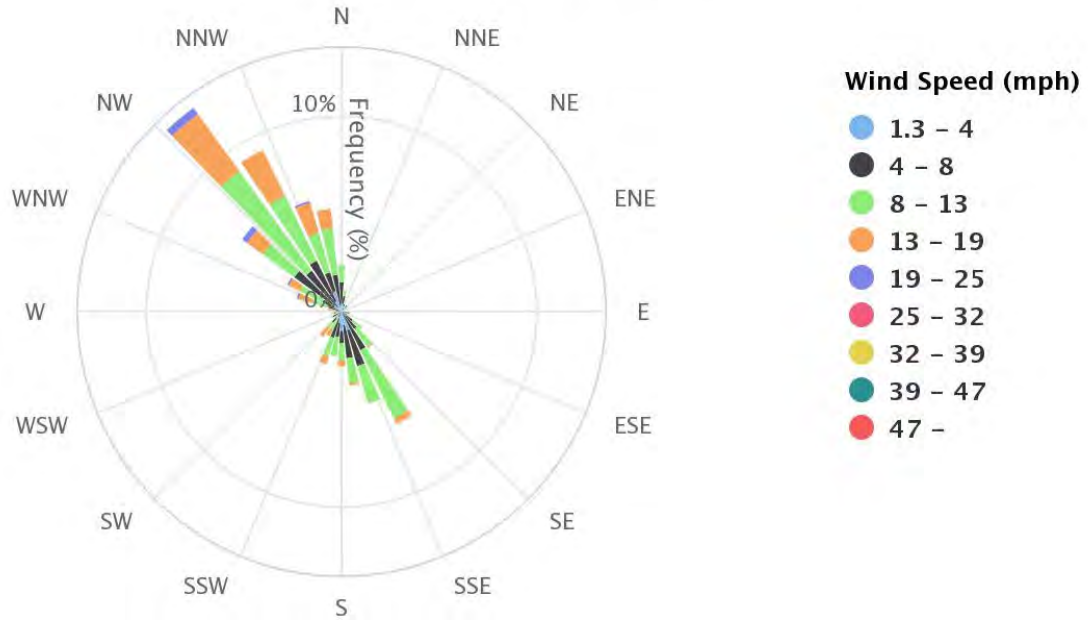
SAN JOSE (CA) Wind Rose

Mar. 1, 2019 – Mar. 31, 2019
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



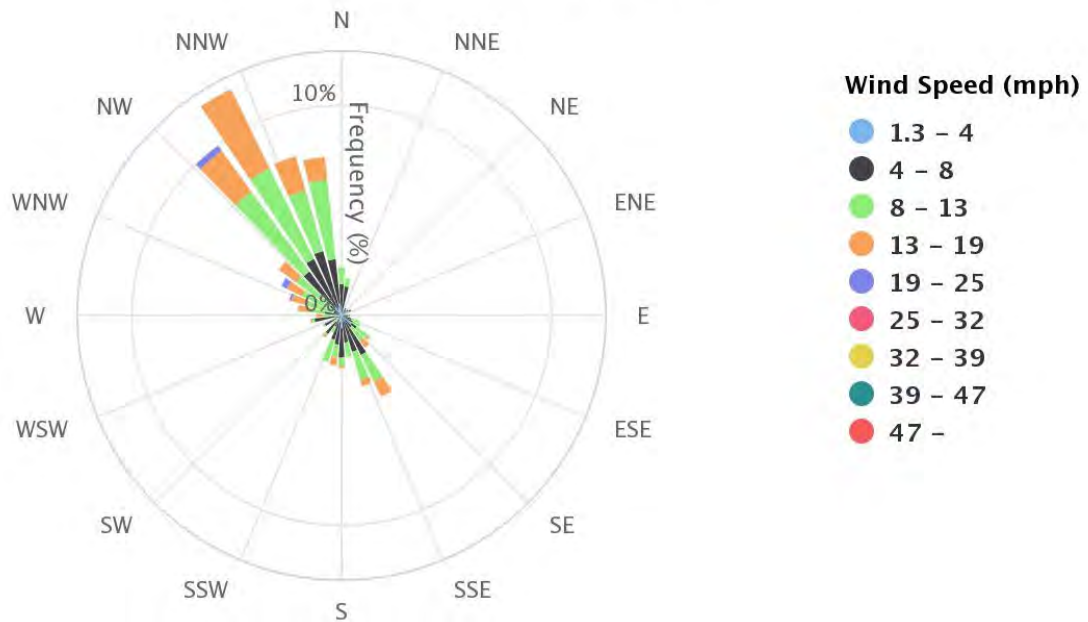
SAN JOSE (CA) Wind Rose

Apr. 1, 2019 – Apr. 30, 2019
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



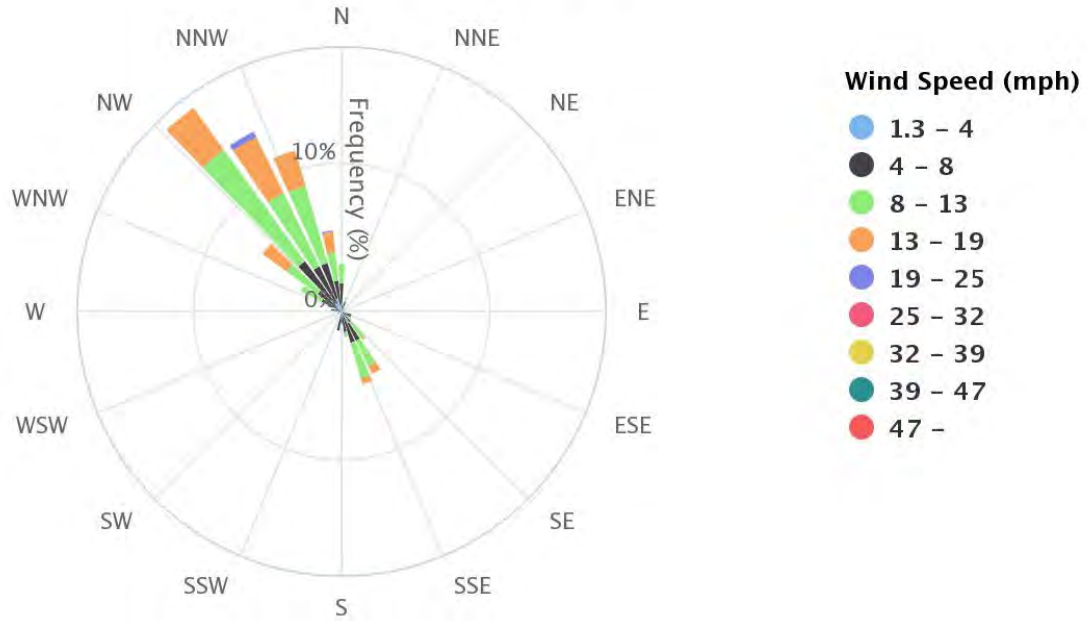
SAN JOSE (CA) Wind Rose

May 1, 2019 – May 31, 2019
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



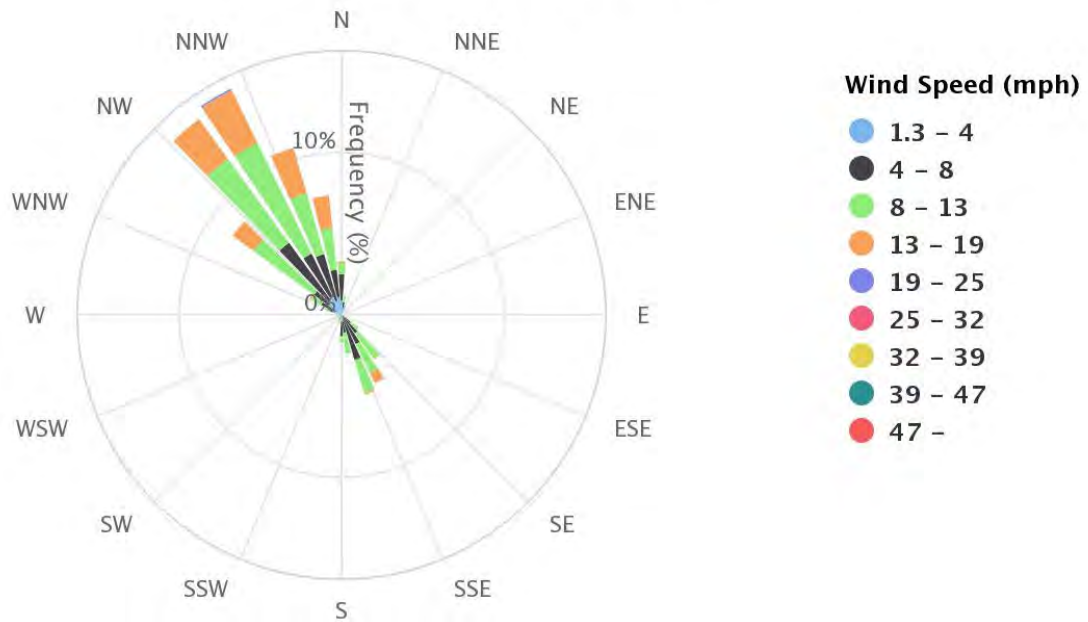
SAN JOSE (CA) Wind Rose

June 1, 2019 - June 30, 2019
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



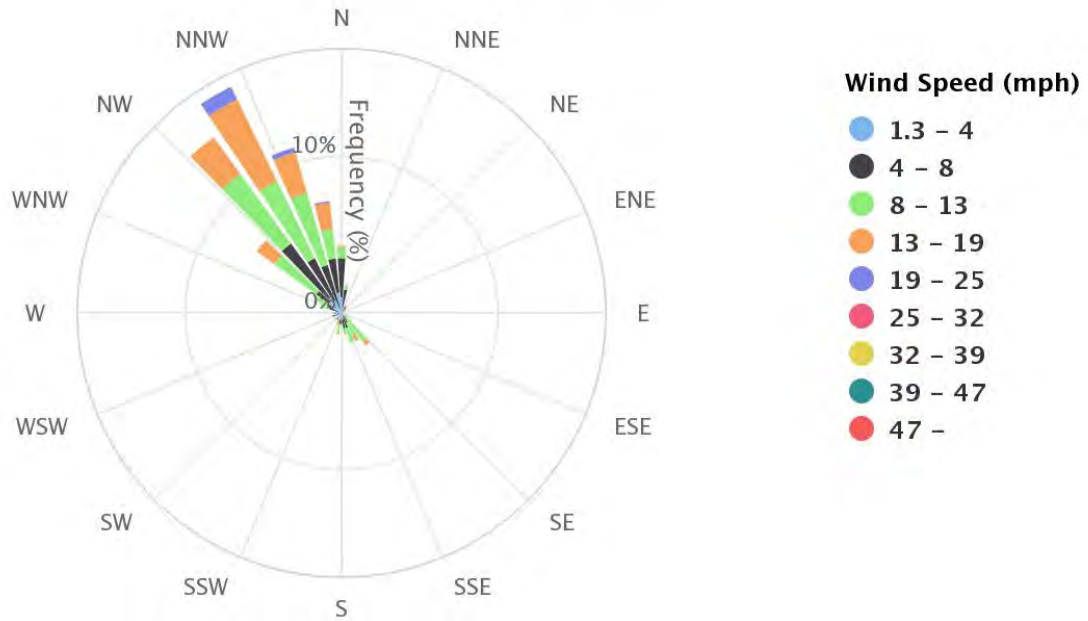
SAN JOSE (CA) Wind Rose

July 1, 2019 - July 31, 2019
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



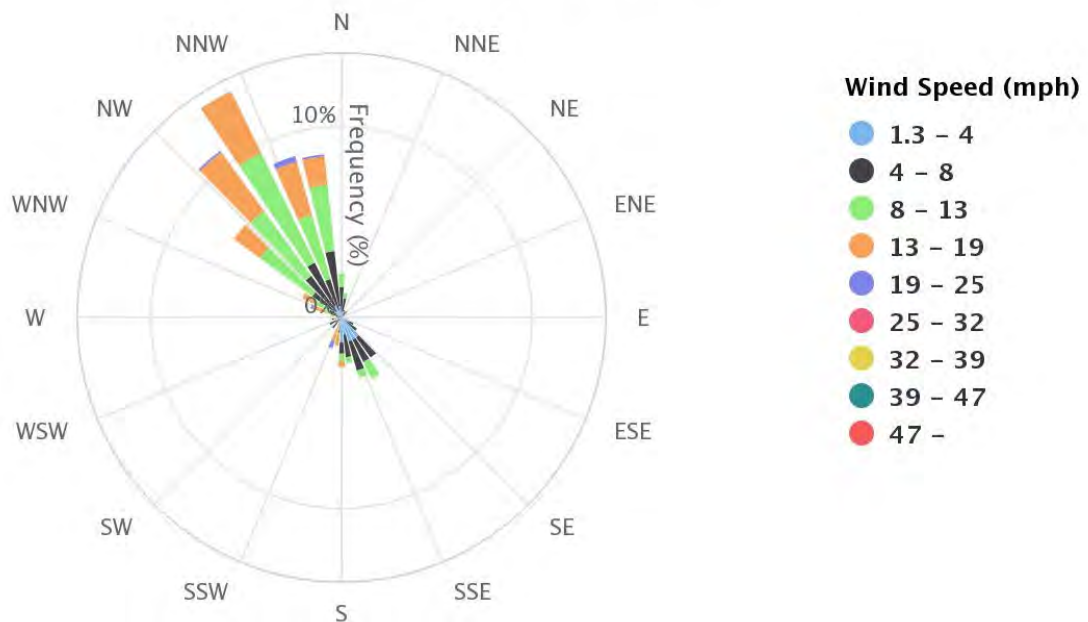
SAN JOSE (CA) Wind Rose

Aug. 1, 2019 – Aug. 31, 2019
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



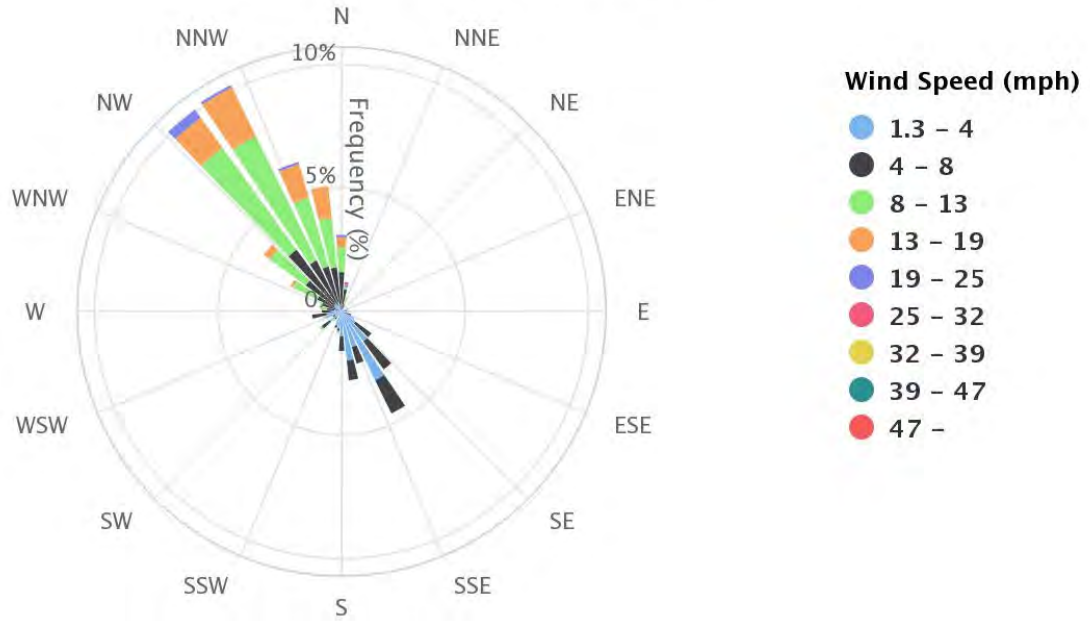
SAN JOSE (CA) Wind Rose

Sep. 1, 2019 – Sep. 30, 2019
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



SAN JOSE (CA) Wind Rose

Oct. 1, 2019 - Oct. 31, 2019
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



ATTACHMENT B
HISTORICAL SAMPLING RESULTS FOR NATURALLY OCCURRING ASBESTOS

Table 6. Analytical Results of Naturally-Occurring Asbestos
(concentrations in percent)

Sample	Polarized Light Microscopy	Transmission Electron Microscopy
SS-4	11.25	--
BROC-6	20-30¹	--
BROC-11	20-30¹	--
Side Portal A	20-30¹	--
TP-2	20-30¹	--
EB-5 Composite (9' and 13.5')	--	0.002
EB-6 @ 14'	--	0.003
BAAQMD	0.25	
DTSC Screening Level	0.25%	≤25% of Samples >0.01%

< Indicates that the compound was not detected at or above stated laboratory detection limits
 BAAQMD Bay Area Air Quality Management District
 DTSC Screening Level DTSC School Division screening concentration
¹ Estimated percentage due to high numbers of fibers
 -- Not analyzed
Bold Indicates exceedance of regulatory threshold

NOTES:

TP-2 was collected in 2006 by TRC Lowney as part of a Geotechnical and Geologic Feasibility Study.
 Other samples collected in 2009 by SES as part of a Phase II Environmental Site Assessment.
 Sample locations analyzed for NOA are included on Figure 1 of the 2019 ADMP.

Table Source:

Strategic Engineering & Science (SES). 2009. Phase II Environmental Site Assessment Report, Communications Hill, San Jose, CA. May 8.