COUNCIL AGENDA: 9/19/2017
ITEM: 4.1 (17-082)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Toni J. Taber, CMC
City Clerk

SUBJECT: **SEE BELOW**

DATE: September 7, 2017

SUBJECT: RESIDENTIAL HIGH-RISE DEVELOPMENT AUDIT.

RECOMMENDATION: As recommended by the Community and Economic Development Committee on August 28, 2017, accept the Audit of Residential High-Rises: Considerations for a City with a Growing Number of Tall Buildings.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Office of the City Auditor

Report to the City Council
City of San José

AUDIT OF RESIDENTIAL HIGH-RISES: CONSIDERATIONS FOR A CITY WITH A GROWING NUMBER OF TALL BUILDINGS

Report 17-03
August 2017

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Office of the City Auditor
Sharon W. Erickson, City Auditor

August 21, 2017

Honorable Mayor and Members
Of the City Council
200 East Santa Clara Street
San José, CA 95113

Audit of Residential High-Rises: Considerations for A City with A Growing Number of Tall Buildings

In San José, the development of buildings is guided by the City's "development services partners," which include the Department of Planning, Building and Code Enforcement (PBCE), divisions of the Public Works and Fire departments, and others. Though private developers are ultimately responsible for building design and construction, the development services partners help assure that buildings in San José are built to meet safety standards. The objective of this audit was to review the City's efforts to help ensure the structural integrity and health and safety standards of residential high-rises.

Finding 1: Although San José Has Relatively Few Residential High-Rises, More Are Expected in Coming Years. A "high-rise" is a building with floors at least 75 feet above its access level. San José's 16 existing residential high-rises are concentrated downtown. Currently, San José's tallest building of any type is the 22-story residential high-rise located at 88 East San Fernando Street, which measures 286 feet in height. The number and heights of residential and other high-rises in San José are low compared to those of other large cities, but the City actively promotes this type of development, and over a dozen new residential high-rises have been proposed.

Finding 2: Like Other Cities, San José Adopts and Supplements State Building Codes. The State mandates that local governments enforce State health and safety requirements for buildings. These requirements are outlined in the California Building Standards Code, which is updated and published every three years. In addition, cities can adopt stricter provisions—local amendments—to address local conditions. For the 2016 cycle, San José adopted local amendments to building, plumbing, and fire standards, but they were not initially submitted to the State as required. We recommend the City establish procedures for filing future amendments. Furthermore, the City should evaluate the need to require additional protections adopted by other cities, including reviews of sites where groundwater is removed, as well as peer reviews for geotechnical reports and designs of buildings with higher safety risks.

Finding 3: Residential High-Rise Projects Involve Multiple Levels of Review. High-rise projects in San José involve multiple development services partners and stakeholders, and multiple levels of review during the development process. Based on information contained in files and interviews of City staff involved, the development review process for two recent high-rise residential projects—One South Market and Centerra—appeared to be appropriately documented. Experienced, well-qualified staff were involved in these projects, but even so, complications arose, as they are inherent in

building residential high-rises. Some of these are identified and addressed during the inspection phase. While developers are responsible for construction quality, and property owners are responsible for ongoing maintenance, the City monitors health and safety standards and responds to complaints of potential violations of the Municipal Code.

Finding 4: Some Services and Associated Fees Should Be Better Documented and Tracked. To ensure consistency and transparency, the City should outline the many services it offers, and should provide guidelines for assessing, collecting, waiving, deferring, and tracking fees. For example, a preliminary review is a voluntary, fee-based service offered to developers that allows them to meet with City staff to discuss project concepts. Other pre-application meetings are sometimes provided for free. For at least one of the major projects we reviewed, there was no documentation of any pre-application meeting, even though staff reported that such a meeting occurred and is always expected for this type of project. Also, there were no records of any fees assessed, paid, or waived for pre-application meetings for the projects we reviewed. In addition, parkland fees are assessed on residential developments to fund parklands for residents. As part of the City's high-rise development incentives, these fees are reduced for qualifying high-rises, and their payments can be deferred until 80 percent of final inspections have been scheduled. However, there is no consistent way for staff to know when projects meet that threshold, increasing the risk that deferred parkland fees are not assessed and collected timely.

Potential improvements in development fee administration were previously identified, most recently in a November 2016 consultant report. In addition to the recommendations outlined in that report, the development services partners should prepare guidelines for assessing, collecting, waiving, deferring, and tracking fees for preliminary review meetings, other pre-application meetings, and parkland fees. Furthermore, PBCE should keep consistent documentation of development milestones, including any meetings between City staff and developers, and fee assessments, payments, and deferments.

This report includes three recommendations. We will present this report at the August 28, 2017 meeting of the Community and Economic Development Committee. We would like to thank the Department of Planning, Building and Code Enforcement; the Department of Public Works; the Fire Department; the Environmental Services Department; and the City Attorney's Office for their time and insight during the audit process. The Administration has reviewed this report and its response is shown on the yellow pages.

Respectfully submitted,

Sharon W. Erickson
City Auditor

finaltr
SE:lg

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Robert Rodrock

cc: Norberto Dueñas, Barry Ng, Reena Brilliot, Rosalynn Hughey, Rick Doyle, Jon Calegari, Chu Chang, Kim Walesh, Kerrie Romanow, Curtis Jacobson, John Aitken

This report is also available online at www.sanjoseca.gov/audits.

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Introduction

The mission of the City Auditor's Office is to independently assess and report on City operations and services. The audit function is an essential element of San José's public accountability, and our audits provide the City Council, City management, and the general public with independent and objective information regarding the economy, efficiency, and effectiveness of City operations and services.

This audit was added to the City Auditor's Fiscal Year (FY) 2016-17 Work Plan by the Rules and Open Government Committee at the request of a Councilmember. The purpose of this audit was to review the City's efforts to help ensure the structural integrity and health and safety standards of residential high-rise developments.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We limited our work to those areas specified in the "Audit Objective, Scope, and Methodology" section of this report.

The City Auditor's Office thanks the Department of Planning, Building and Code Enforcement; the Department of Public Works; the Fire Department; the Environmental Services Department; and the City Attorney's Office for their time and insight during the audit process.

Background

With a population of one million residents, San José is the tenth largest city in the country, and the third largest city in California. However, it has a lower population density than other cities. San José covers 177 square miles. For comparison, San Francisco covers 47 square miles with a population of 870,000.

Exhibit 1: Population Density of Comparable California Cities

	POPULATION	LAND AREA (in square miles)	DENSITY (pop./sq.mi.)
San Francisco	870,887	46.9	18,581
San Mateo	103,959	12.1	8,570
Los Angeles	3,976,322	468.7	8,484
Oakland	420,005	55.8	7,528
Sunnyvale	152,771	22.0	6,947
Santa Clara	125,948	18.4	6,841
San José	1,025,350	176.5	5,808
Sacramento	495,234	97.9	5,058
San Diego	1,406,630	325.2	4,326
Fremont	233,136	77.5	3,010

Source: Audit team summary of U.S. Census data (2016 estimates)

San José's 2040 General Plan identifies areas for transformation into higher-density districts to accommodate housing growth, among other goals, and identifies residential high-rise buildings as one way to add density to those areas.

The City's role in building development, including residential high-rises, falls largely on the Department of Planning, Building and Code Enforcement (PBCE). Together with the Departments of Public Works and Fire (and other departments to a lesser extent), PBCE and the other "development services partners" help provide assurance that buildings in San José are built to meet safety standards.

Development Services Have Been Extensively Reviewed

San José's Development Services have been the subject of numerous studies. Most recently – in November 2016 – a consultant team published a report entitled *City of San José Development Services Cost Recovery Analysis, Process Improvements, Calculation of Unearned Revenues, and Refund Processing*. The report identified ways to simplify and modernize development services fees, provide faster service with greater predictability and timeliness, and address cost recovery. The report outlined 91 recommendations in several categories.

1. *Entitlement process*. The report identified ways to develop staff, improve service delivery across the development services partners, and shorten turnaround times.
2. *Plan check process*. The report recommended ways to improve plan processing and consistency of reviews.
3. *Inspection process*. The consultant team made recommendations to address inspector vacancies, and recommended equipping inspectors with mobile devices.
4. *Technology use.* Consistency in using the citywide integrated permitting system, online permits, and electronic plan submittal/review were the subject of additional recommendations.

The consultant team also provided the City with an "Implementation Action Plan Tool" to guide the City in implementing the recommendations.

PBCE Is Continuously Engaged in Process Improvements

Consisting of five members of the City Council, the Ad-Hoc Committee for Development Services convenes monthly to weigh in on key process improvements, including updating performance metrics, creating a development services dashboard, and implementing code reform programs.

Audit Objective, Scope, and Methodology

This audit focuses on the development processes affecting San José's residential high-rises. These buildings may pose distinct risks due to their size, complexity, and around-the-clock occupancies. This review is timely given the increase in residential high-rise development.

The objective of this audit was to review the City's efforts to help ensure the structural integrity and health and safety standards of residential high-rise developments. To meet this objective, we:

- Described the scope of residential high-rise development in San José:
  - Collected and reviewed inventories of residential high-rises kept by the Fire Department's Bureau of Fire Prevention.
  - Reviewed the recent inspection history of the residential high-rises.
  - Identified and compiled height limits allowed in San José by the Federal Aviation Administration (FAA), California Building Standards Codes, Santa Clara County, Airport Land Use Commission, and San José Zoning Code.
- Reviewed the City's policies, procedures, and standards for residential high-rise developments:

- Reviewed reports and process maps developed by consultants during previous reviews of PBCE.
- Met with staff from PBCE's Planning and Building divisions, as well as staff from the Public Works, Environmental Services, and Fire Departments, to understand the Entitlement/California Environmental Quality Act, Plan Check, and Inspection phases of development services processes.
- Collected and reviewed maps from the Airport Department.
- Met with staff from PBCE Administration and Information Technology to understand and access information stored within the citywide integrated permit system (AMANDA).
- Reviewed records associated with the development of two residential high-rises, One South Market and Centerra Tower, to check that project milestones ensuring health and safety standards were completed timely and adequately. Both projects were fairly recently completed, and are occupied.
- Reviewed department-provided code enforcement complaints and cases in and around residential high-rises
- Used personnel data to quantify the tenure of key development services staff: Permit Specialists, Plan Checkers, and Inspectors.
- Reviewed San José's Municipal Code sections concerning technical and zoning codes.
- Reviewed documents provided by the California Building Standards Commission.
- Met with representative(s) of a residential high-rise homeowners association, the Downtown Association, and the Downtown High-Density Forum to learn residents' concerns, complaints, and suggestions related to residential high-rises.

- Compared San José's policies, procedures, and standards with those of other cities.
  - Interviewed building staff from other California cities: Los Angeles, San Francisco, Oakland, Fremont, Santa Clara, and Sunnyvale.
  - Reviewed documents from the cities, as well as Sacramento, San Diego, and San Mateo.

Finding I Although San José Has Relatively Few Residential High-Rises, More Are Expected in Coming Years

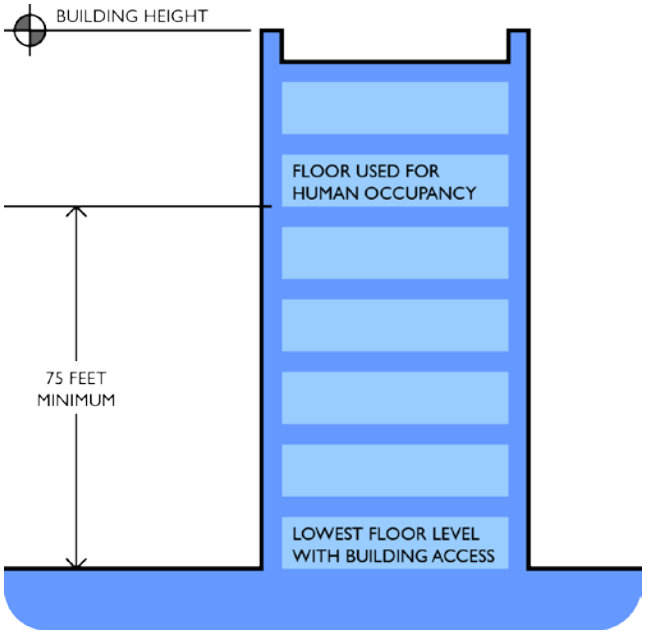
Summary

A "high-rise" is a building with floors at least 75 feet above its access level. San José's 16 existing residential high-rises are concentrated downtown. Currently, San José's tallest building of any type is the 22-story residential high-rise located at 88 East San Fernando Street, which measures 286 feet in height. The number and heights of residential and other high-rises in San José are low compared to those of other large cities, but the City actively promotes this type of development, and over a dozen new residential high-rises have been proposed.

The Definition of a Residential High-Rise

The State of California provides an authoritative definition of a high-rise – a building with occupied floors at least 75 feet above the lowest floor level with fire vehicle access. "Residential high-rises" are such buildings that contain residential units.

Exhibit 2: High-Rises Have an Occupied Floor at Least 75 Feet Above the Lowest Floor with Building Access



Source: Audit team summary of California Health and Safety Code Section 13210(b)

San José Has Relatively Few High-Rises

San José has 16 residential high-rise buildings. As shown in Exhibit 3 below, most are located downtown.

Exhibit 3: A Map of San José's 16 Existing Residential High-Rises

Source: Audit team summary based on information from Fire Department and Planning Division.

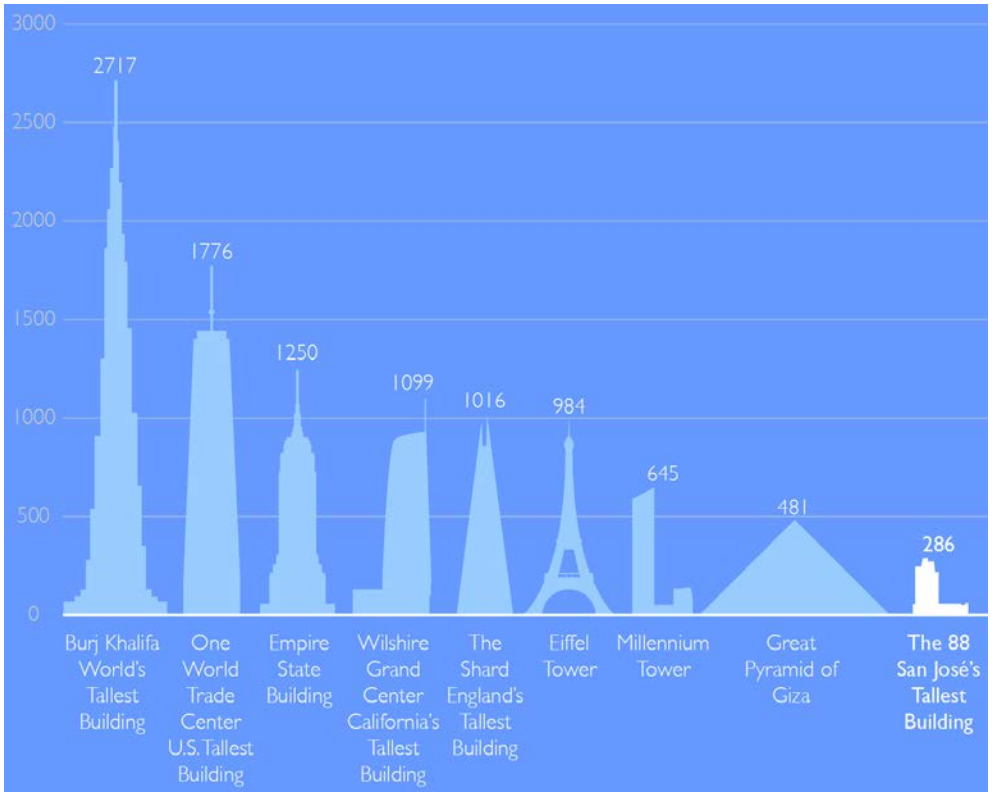
San Jose's Tallest Building Measures a Relatively Short 286 Feet

San José's tallest building is a 22-story residential high-rise which is 286 feet high. Such a building would be unremarkable in cities like Los Angeles, San Diego, San Francisco, Sacramento, and Oakland, which have buildings that far exceed 286 feet in height. Los Angeles and San Francisco each have dozens of buildings that far exceed that height.[1]

[1] Sacramento has 10 buildings taller than 286 feet, the tallest being 429 feet in height. Oakland has 13 buildings taller than 286 feet. Its tallest building is 404 feet tall. San Diego, Los Angeles, and San Francisco each have dozens of buildings taller than 286 feet, with their tallest buildings at least 500 feet in height.

Exhibit 4 compares San José's tallest building to notable tall buildings around the world.[2]

Exhibit 4: San José's Tallest Building Vs. Notable Tall Buildings Around the World



Source: Audit team summary based on building data from Emporis. Note: Heights are in feet.

Note: Burj Khalifa is in the Dubai, United Arab Emirates; One World Trade Center and the Empire State Building are in New York City, New York; the Wilshire Grand Center is in Los Angeles, California; The Shard is in London, England; the Eiffel Tower is in Paris, France; Millennium Tower is in San Francisco, California; and the Great Pyramid of Giza is in El Giza, Egypt.

Private Developers and Government Regulations Determine the Prevalence and Heights of Residential High-Rises

Residential high-rises are built by private developers. To succeed, developers must secure enough capital to purchase property, design and build projects, and market them. Developers must be optimistic about the future of the housing market and their ability to contain costs. This is not easy for complex projects like residential high-rises, which take a long time to finish and are vulnerable to delays. Developers must also be optimistic about the future economic outlook, which would affect future values of properties being developed.

[2] The Council on Tall Buildings and Urban Habitat, an international nonprofit organization that is an authority on tall buildings, defines two categories of high-rises: "Supertall" buildings exceed 984 feet (300 meters), and "mega tall" buildings exceed 1,968 feet (600 meters). Such buildings present unique design and construction challenges.

The California Building Code Regulates Building Heights Based on Health and Life Safety Factors

The California Building Code establishes height limits for residential buildings based on use, construction type, whether building components are fire protected, and whether fire sprinklers are installed. Maximum heights range from two stories above ground to an unlimited number of stories.

San José's General Plan and Zoning Code Allow High-Rises in Several Areas

PBCE's Planning Division leads long-range planning to match the City's planning goals. These goals are defined in the Envision San José 2040 General Plan, which "sets forth a vision and a comprehensive road map to guide the City's continued growth through the year 2040."

The Zoning Code (SJMC Chapter 20) outlines the specific means to carry out the General Plan. It outlines three zoning districts that allow heights over 75 feet:

- One Transit Employment District (TEC);
- Downtown Primary Commercial District (DC); and
- Downtown Commercial Neighborhood Transition 1 District (DC-NT1).

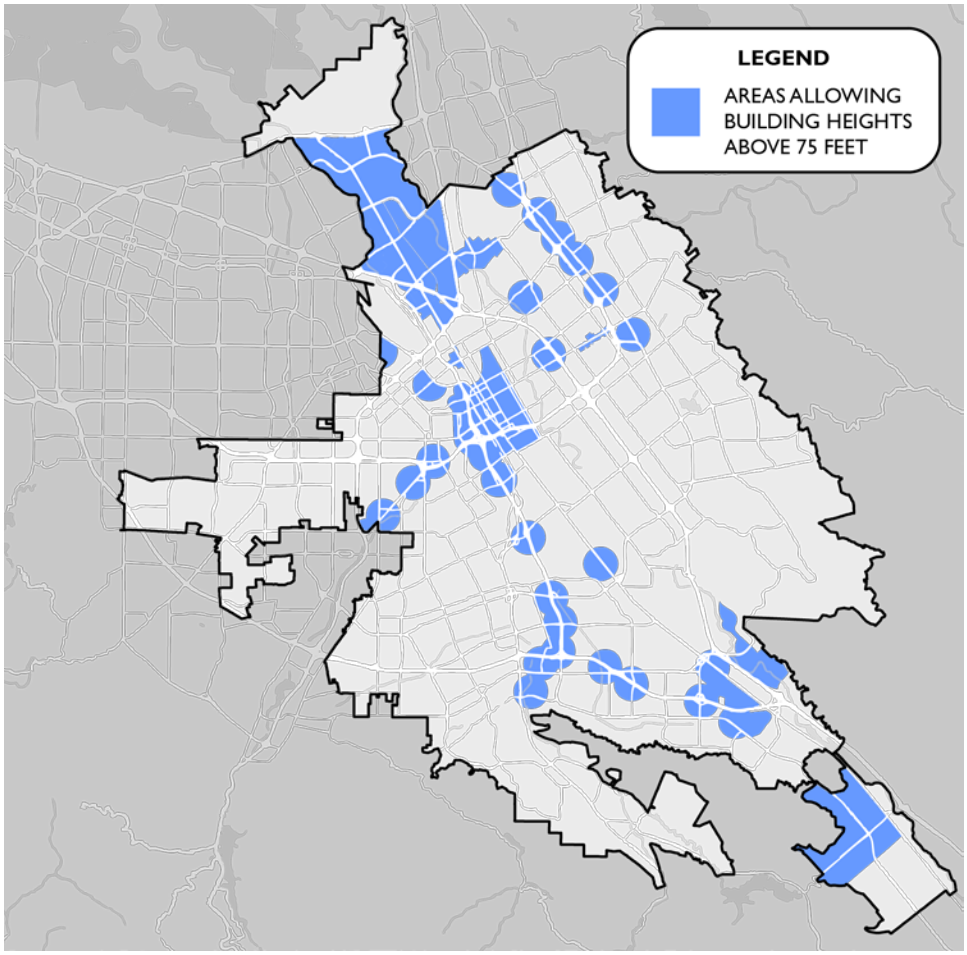
In addition, there are two zoning districts that allow such heights if certain conditions are met:

- Main Street Ground-Floor Commercial District (MS-G); and
- Main Street Commercial District (MS-C).

The Zoning Code also establishes allowable heights for specific geographic areas. The highest of those specified heights is 310 feet, which is found in the North San José Employment Center. Mapped in Exhibit 5 below, those geographic areas include:

- Downtown;
- Downtown frame;
- Employment centers;
- Transit areas; and
- Urban village areas.

Exhibit 5: Geographic Areas Allowing Building Heights Above 75 Feet



Source: Audit team summary of map provided by City of San José Planning Division and San José Municipal Code, Chapter 20.85, Part 2.

Note: The black outline denotes the City's Urban Growth Boundary, which limits potential expansion and urbanization in San José to areas already developed and/or planned for urban development.

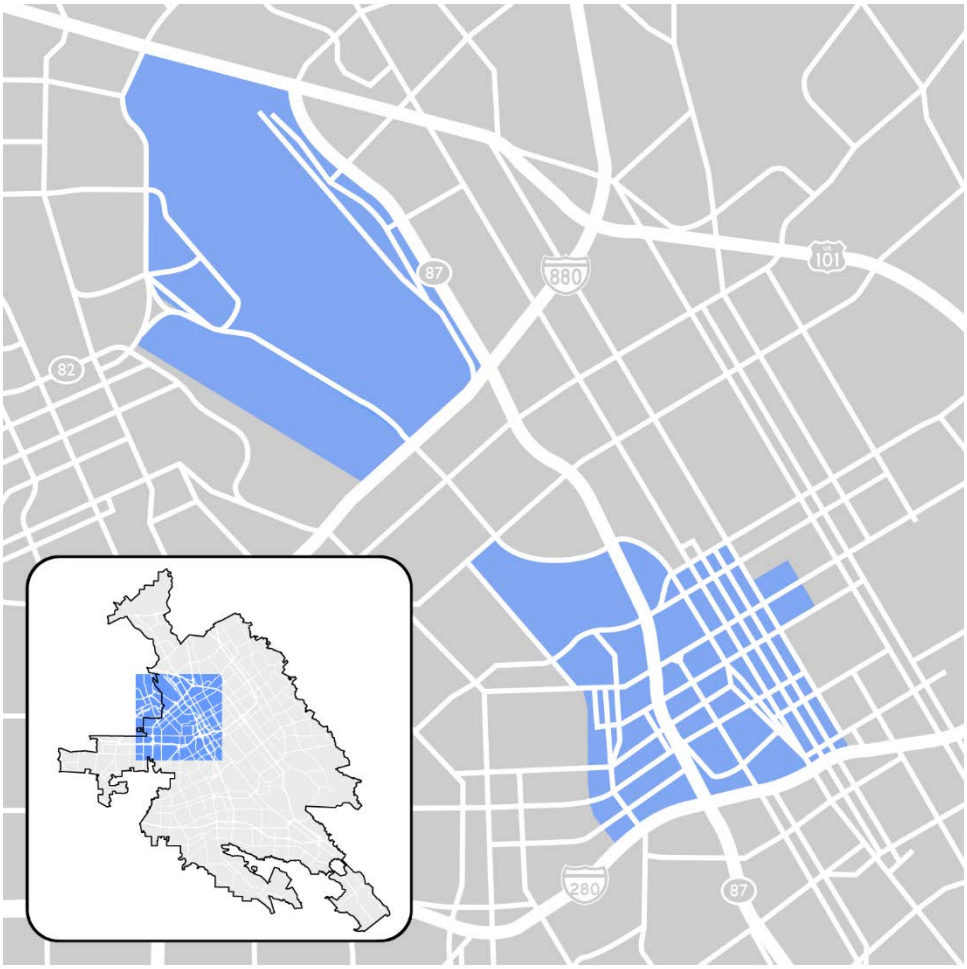
The Airport Limits Some Building Heights

Aside from the Zoning Code, Planning Division staff consults the Airport about height restrictions from the Federal Aviation Administration (FAA) and local practices initiated by airlines for "One-Engine-Inoperative" (OEI) scenarios when considering a development proposal.[3]

[3] The Airport keeps maps of FAA regulations to act as guidelines for development around the Airport. Additionally, the Airport and the Airport Land Use Commission have maps of the "One-Engine-Inoperative" (OEI) height restrictions. These OEI height restrictions are based on studies of engine failure during take-off, which might cause the aircraft to climb at a slower than normal rate. In such scenarios, structures near an airport become potential safety risks. OEI scenarios can vary depending on what types of aircraft are used. Appendix A provides examples of some of these maps from the Airport. Furthermore, a supplemental budget message recommending funds to commission a re-evaluation of these height constraints around the Airport, was presented to the City Council in June 2017.

For certain areas, including part of Downtown, the Zoning Code has deferred to height limits specified by the Airport. Exhibit 6 shows these areas.

Exhibit 6: For Some Areas the Zoning Code Defers to the Airport on Height Limits



Source: Audit team summary of San José Municipal Code, Chapter 20.

San José Provides Incentives for Downtown Residential High-Rises

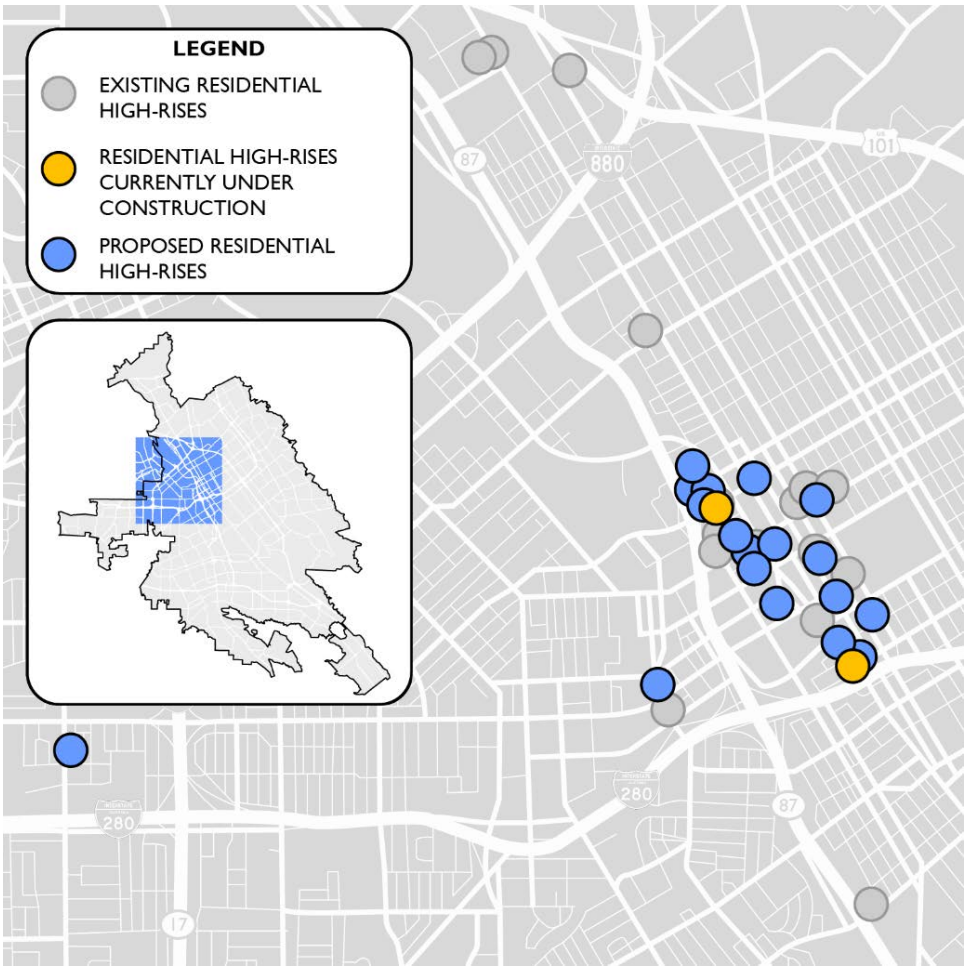
The City has provided incentives for developers to construct new residential high-rises downtown:

- Expedited permits and streamlined planning;
- 50 percent reduction of Building and Structure Construction Tax;
- 50 percent reduction of Commercial-Residential-Mobilehome Park Building Tax;
- Waived minimum parking requirements; and
- 50 percent reductions in parkland fees for qualifying high-rise projects.

Several Residential High-Rises Are Under Construction or Proposed

As shown in Exhibit 7, an additional 20 residential high-rises are currently under construction or proposed.

Exhibit 7: A Map of San José's Proposed Residential High-Rises



Source: Audit team summary based on information from Fire Department and Planning Division.

Improved Staffing Is Needed to Facilitate the Development of Future Residential High-Rises and Other Projects

Development applications, permits, plan checks, and inspections for residential high-rises and other development types have rebounded and surpassed levels seen before the recession of 2008-2011.[4] While the City's development services partners have more authorized positions now than they had during the recession, staffing levels have not kept up with increased workload. Furthermore, at the time of our review, 14

[4] Like the rest of the region, San José suffered from an economic recession during which development significantly slowed. During this time, the City's development services partners saw little demand for service; combined with low fee revenue to fund them, City development services saw deep staff reductions, including layoffs.

percent of PBCE's budgeted Permit Specialists, Plan Checkers, and Inspectors were vacant. A quarter had tenures shorter than two years.

Staffing problems have resulted in lagging timelines for key services like application processing, plan checks, and inspections. This has made it more challenging for the City to provide quality and timely customer service.

The development services partners' staffing problem has been extensively analyzed and discussed. In a 2014 audit, *Development Services: Improving the Experience for Homeowners*, we recommended that PBCE implement a staffing strategy with updated job specifications to facilitate hiring at the entry level, expand the use of temporary peak staffing, and consider allowing applicants to work with outside Plan Checkers. PBCE has partly implemented this recommendation. For example, it simplified the written test for the Permit Specialist position, and entered into contracts for temporary staffing. In our opinion, continued attention to the staffing problem will be important in facilitating the development of buildings, including residential high-rises.

More recently, in the November 2016 consultant study, *City of San José Development Services Cost Recovery Analysis, Process Improvements, Calculation of Unearned Revenues, and Refund Processing*, staffing problems were identified once again. The ensuing "Implementation Action Plan" identifies the following as high priorities: keeping inspector vacancies open until filled, temporarily bringing on retiree rehires, establishing staffing level standards, and taking aggressive steps to hire and retain staff.

Finding 2 Like Other Cities, San José Adopts and Supplements State Building Codes

Summary

The State mandates that local governments enforce State health and safety requirements for buildings. These requirements are outlined in the California Building Standards Code, which is updated and published every three years. In addition, cities can adopt stricter provisions—local amendments—to address local conditions. For the 2016 cycle, San José adopted local amendments to building, plumbing, and fire standards, but they were not initially submitted to the State as required. We recommend the City establish procedures for filing future amendments. Furthermore, the City should evaluate the need to require additional protections adopted by other cities, including reviews of sites where groundwater is removed, as well as peer reviews for geotechnical reports and designs of buildings with higher safety risks.

The State Mandates Health and Safety Requirements for Buildings

Building codes provide the public with safeguards against potential hazards and quality of life issues associated with buildings, including disaster due to fires, natural events, and structural deficiencies. It may be impossible to eliminate all risks, but codes help to reduce risk. These codes outline the government's official minimum safety standards for buildings.

The California Building Standards Code Is Published Every Three Years

Under the California Building Standards Law, the California Building Standards Commission (CBSC) administers the development, adoption, approval, publication, and implementation of California's building codes.[5] The California Building Standards Code—Title 24 of the California Code of Regulations—establishes building standards governing the design and construction of buildings of various building types, uses, features, and equipment. Those regulations contain requirements for structural, mechanical, electrical, and plumbing systems

[5] The California Building Standards Law refers to California Health and Safety Code, Division 13 Part 2.5, commencing with Section 18901.

and require measures for energy conservation, green design, construction and maintenance, fire and life safety, and accessibility.[6]

The codes are published every three years, with supplemental pages published half-way into each triennial period during the intervening code adoption cycle. Making changes to the California Building Standards Code involves industry and public participation. This process is used to help ensure improved safety, sustainability, consistency, new technology and construction methods, and reliability.

Building Codes Evolve in Response to Actual Events that Provide Lessons to Building Professionals

Building codes emerge from collaboration between various organizations to ensure buildings are designed and constructed to meet the latest standards and technologies. These different code development processes use lessons learned from past events and technical advancements to reduce life and safety risks in building design and construction. These efforts to continuously update building codes have been credited for decreased loss of life and property in major disasters like earthquakes.

For example, the National Earthquake Hazards Reduction Program[7] supports various building code and standards organizations, such as the International Code Council (ICC),[8] to promote disaster-resilient communities through code updates that reflect the most advanced building science construction methods and practices.

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[6] "Title 24" is also often used to refer to the Title 24 energy requirements, or only to accessibility regulations. However, Title 24 is the State's building standards code which applies to all buildings, features, and equipment throughout the state. Other California regulations with subjects related to buildings include:

- Title 8, Division 1, Chapter 4, Subchapter 6 for elevator construction requirements;
- Title 19 with adoptions by the Office of the State Fire Marshal;
- Title 21 with adoptions by the Division of the State Architect; and
- Title 25 with adoptions by the Department of Housing and Community Development for dwellings, and permanent buildings in mobile home and special occupancy parks.

[7] Congress established the National Earthquake Hazards Reduction Program (NEHRP) to address risks to life and property associated with earthquakes. The four federal agencies that make up NEHRP are led by the National Institute of Standards and Technology, and include the Federal Emergency Management Agency, the National Science Foundation, and the United States Geological Survey.

[8] The ICC is a non-profit organization dedicated to developing a single set of comprehensive and coordinated national model construction codes. The founders of the ICC are Building Officials and Code Administrators International, Inc. (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International, Inc. (SBCCI). Since the early part of the last century, these non-profit organizations had previously developed three separate sets of model codes used throughout the United States, which were considered effective and responsive to the country's needs. In the 1990s, it was decided that the country would benefit further with a single set of model building codes. The nation's three model code groups responded by creating the ICC and developing codes without regional limitations (the International Codes).

Further, the Federal Emergency Management Agency (FEMA) reviews proposed changes to the International Building Codes that impact disaster resistance. In FY 2014, FEMA successfully advocated for code changes to U.S. model building codes to promote disaster resistance.

San José Has a Process for Developing and Adopting Local Amendments to State Codes

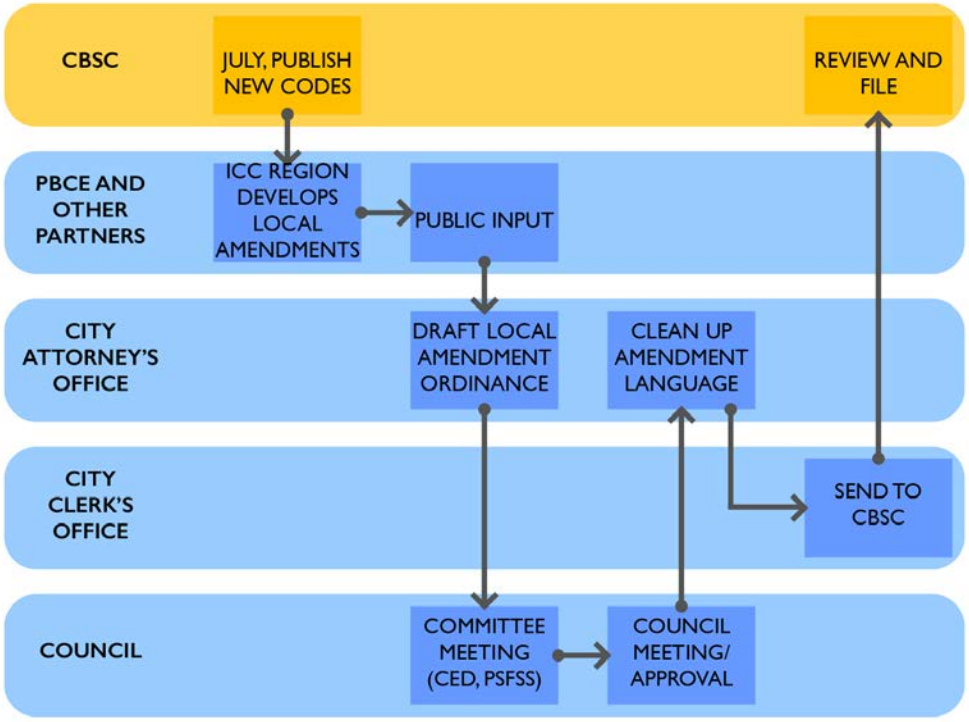
Municipalities and fire protection districts can adopt amendments to the State building standards to meet local conditions. San José's local building standards amendments are developed for each edition of the California Building Standards Code.

The process for adopting local building amendments involves other cities and multiple City departments:

- The International Code Council (ICC) publishes the International Codes roughly a year before the State publishes its building standards. These codes act as the model for other building codes, including the California Building Standards Codes.
- The California Building Standards Commission (CBSC) publishes the new State codes in July.
- San José's code officials coordinate with other nearby municipalities through the ICC Tri-Chapter—consisting of the East Bay, Monterey, and Peninsula Chapters—to ensure some consistency among projects throughout the region. The ICC Tri-Chapter reviews the new State codes and works to develop local amendments. This process includes soliciting public comment.
- Code officials from San José then bring the recommended code amendments back to the City, and the City Attorney's Office prepares a draft local amendment ordinance.
- The Building Division then presents the draft to the appropriate City Council Committee (Community and Economic Development), and forwards it to the City Council for discussion and approval.
- Once approved, the City Attorney's Office cleans up the language of the local amendments, before forwarding those to the City Clerk's Office to send to the California Building Standards Commission.
- The California Building Standards Commission then reviews the submission and files it, making the local amendments effective and enforceable.

This process is summarized in Exhibit 8 below.

Exhibit 8: San José's Local Building Standards Amendment Adoption Process



Source: Audit team summary based on review of California Building Standards Commission processes and accounts of City staff.

San José Adopted Local Amendments to the 2016 State Code

It was through this process that San José adopted the 2016 California Building Standards Code into Chapter 24 of the Municipal Code, effective January 1, 2017.

When adopting the 2016 California Building Standards Code, San José included several local amendments. The following are some building and fire code amendments relevant to residential high-rise projects:

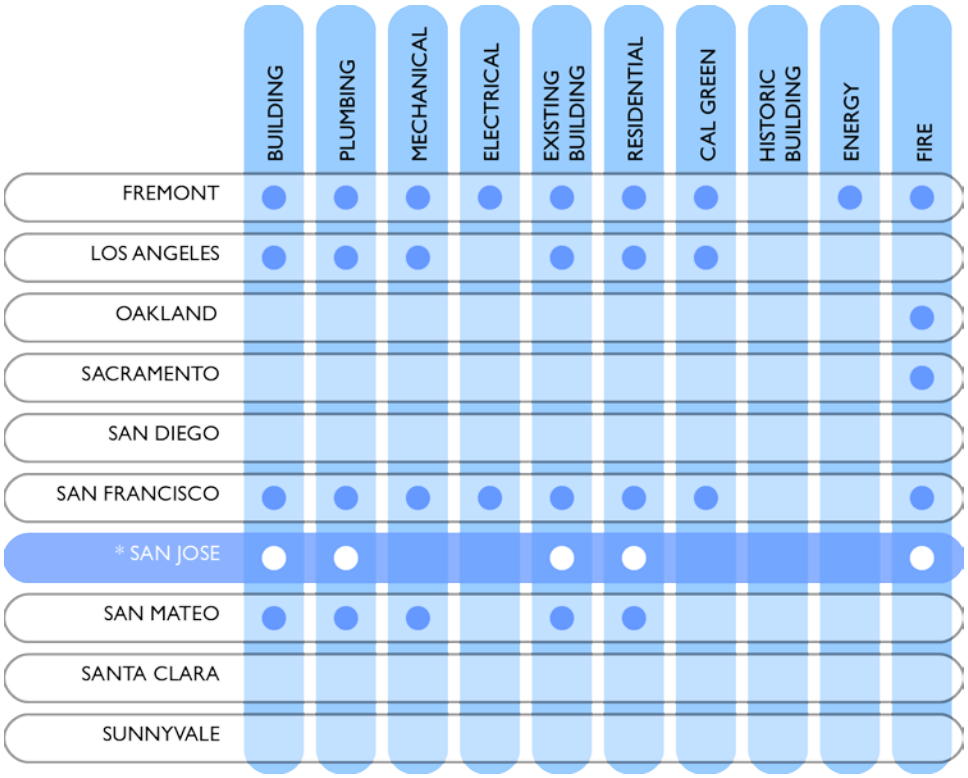
- Automatic fire sprinklers are required for high-rises, and their balconies and decks;
- A more restrictive calculation for deflection amplification and maximum displacement;
- Emergency and hazardous materials management plans are to be locked in approved cabinets in approved locations; and
- Firefighter breathing air replenishment systems (with access station locations) are required for high-rises.

Other Cities Also Adopt Local Amendments

To understand how San José's local building code amendments compare to those of other California municipalities, we compared San José's local amendments with those of nine other cities: Fremont, Los Angeles, Oakland, Sacramento, San Diego, San Francisco, San Mateo, Santa Clara, and Sunnyvale.[9] Of those nine cities, six have local amendments filed with the California Building Standards Commission.

Those cities vary in how they adopt and amend the building code to meet local conditions. As shown in Exhibit 9 below, San José's amendments are generally comparable to those of other California cities with residential high-rises.

Exhibit 9: Local Amendments Filed With the State by San José and Nine Other California Cities



Source: Audit team summary of local amendments filed with the California Building Standards Commission and review of Chapter 24 of the San José Municipal Code

* San José's local building code amendments were filed with the Commission over the course of this report.

Note: In our review of nine comparable cities, at least one of those cities has local amendments indicated in its Municipal Code, but did not have those amendments on file with the Commission as of May 2017.

[9] We chose these California cities due to their proximity to San José and/or their supply of residential high-rises.

San José Is Required to Notify the State About Local Amendments

To be enforceable, local amendments must be filed with the California Building Standards Commission,[10] including:

- The Title 24 section being amended;
- Amendments with more restrictive standards than those provided for in Title 24; and
- An express finding by the local governing body that the amendments are reasonably necessary because of local climatic, geological, and/or topographical conditions.

The City Should Ensure Local Building Code Amendments Are Filed with the State

At the time of our review, the 2016 amendments were not on file with the California Building Standards Commission as required. After we brought it to their attention in mid-May, staff at the City Attorney's Office and the City Clerk's Office reported they sent the 2016 amendments to the California Building Standards Commission for review and filing.

Recommendation #1: The City Manager's Office—in coordination with the Department of Planning, Building and Code Enforcement, the City Clerk's Office, and the City Attorney's Office—should establish procedures to ensure the timely filing of future amendments.

The City Should Consider Additional Protections to Safeguard Against Geotechnical Risk as Taller Buildings Are Developed

The San José Municipal Code seeks to ensure "an appropriate level of review to projects which are located in geologically sensitive areas in order to identify any geologic hazard and impose necessary mitigations before development may be permitted."

As such, a project developer must hire a geotechnical consultant to study the building site. The resulting geotechnical report (or "soils report") includes findings on a variety of geologic factors related to development, such as seismic risks, soil conditions, recommended foundation design, site water table, etc. The Building Division reviews the geotechnical reports commissioned by developers and considers the recommended foundation designs in reviewing project plans.

[10] Local ordinances that only adopt Title 24 by reference do not need to be filed with the CBSC.

However, typically the Building Division does not critically review the validity of the report itself.

The City has a Geologist who works out of the Public Works Department and reviews project applications, but this person reviews only those projects that are within identified geo-hazard zones.

Other Jurisdictions Require More Review for Permanent Dewatering

"Dewatering" entails removing groundwater or surface water from a construction site. If it is necessary to remove excess water from the site, the developer must consult with the Environmental Services Department (ESD) to discharge water into the sanitary or storm sewers.

However, dewatering can affect the conditions of the soil from which it is being removed. Improper dewatering of building sites—for example, if too much water is removed—could cause the uneven settlement of buildings,[11] or damage to public streets, infrastructure, or adjacent sites.[12] ESD does not typically consult with the Building Division or Public Works Department on how dewatering may affect soil conditions or building settlement. The Building Division and Public Works can guard against problems from dewatering.

Other jurisdictions require review by building staff prior to the issuance of dewatering permits. For example, a City of Los Angeles Department of Building and Safety bulletin states the following:

> *Where the historic high water table is above the bottom of the retaining/basement wall footing, a geology and/or soil report addressing the dewatering of the site shall be approved by the [Los Angeles Department of Building and Safety] Grading Division. Sites that require permanent dewatering and are located in the San Fernando Valley will require approval from the Upper Los Angeles River Area Watermaster.*

Similarly, it may be beneficial for the City of San José to require greater coordination of dewatering between ESD and the Building Division and/or Public Works.

Some Cities Require Peer Reviews

Geotechnical reports recommend building foundation designs that meet required settlement and performance criteria. However, according to the

[11] Buildings may settle into the soil over time, which could cause one side to settle into a lower position than another side.

[12] For example, sewer or stormwater systems often rely on gravity pipe systems underground. When the ground supporting those laterals settles differently than anticipated, the system itself can be less effective in removing liquids.

American Society of Civil Engineers (ASCE),[13] foundation design can be referred to as "a mix of art and science." As such, reasonable differences of opinion among geotechnical engineers can be expected. Those differences can result in different foundation costs and performance.

A peer review is the process of subjecting a professional's work to the scrutiny of other experts. Peer reviewing a geotechnical report involves critical review by another geotechnical engineering consultant. The peer reviewer would review the recommendations for foundation design, as well as the soil conditions; if deemed necessary, the peer reviewer could also reexamine the soil sample data. This additional review can help ensure that there are no major engineering mistakes and that the appropriate effort has been made to develop a safe and cost effective foundation design.

Whether the City were to internally peer review geotechnical reports, or require that residential high-rise developers hire peer reviewers on their own (with parameters from the City), a second opinion on soil conditions and foundation designs could help catch errors that could result in structural issues with buildings. However, this additional layer of review would add to project costs.

Some Cities Have Adopted Additional Reviews for Buildings Over 240 Feet Tall

California cities use peer reviews to address broader building design issues facing high-rises. For example, for tall buildings of 240 feet or taller,[14] the City of San Francisco requires a structural design peer review. Specifically:

> *An independent, third-party peer review, also called a structural design review, must provide an evaluation of all performance-based designs to determine if the proposed building's structural system meets the minimum code safety standards and requirements outlined by the San Francisco Building Code.*

Similarly, the City of Los Angeles outlines requirements for additional review of seismic design of tall buildings. In Los Angeles, plans for "tall buildings" are subject to a Seismic Peer Review Panel approved by the Department of Building and Safety.

Both San Francisco and Los Angeles outline specific professional credentials and backgrounds required of the people serving on their peer review panels. On the other hand, San José does not require peer review panels.

[13] ASCE is an international professional organization of civil engineers.

[14] As of June 2017, there are at least 10 existing high-rises in San José that exceed 240 feet in height.

Evaluating Review Procedures May Be Timely as San José Prepares for Taller Buildings

Los Angeles and San Francisco have more and higher buildings, and have each adopted additional review procedures for greater assurance that their buildings are safe. As San José sees increases in the number and height of high-rises, similar reviews could provide greater assurance that San José's high-rises are safe.

As seen with these additional review procedures, other cities have stricter and more prescriptive processes than San José. However, additional procedures may not necessarily lead to improved safety or structural integrity.

Recommendation #2: To provide consistent assurance of health and safety, the City's development services partners should define the circumstances under which:

a) Site dewatering would trigger mandatory review by the Building Division and/or Public Works;

b) The Building Division would require peer review of geotechnical report findings on foundation design and soil conditions; or

c) Structural and/or seismic peer review would be required for higher risk buildings.

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Finding 3 Residential High-Rise Projects Involve Multiple Levels of Review

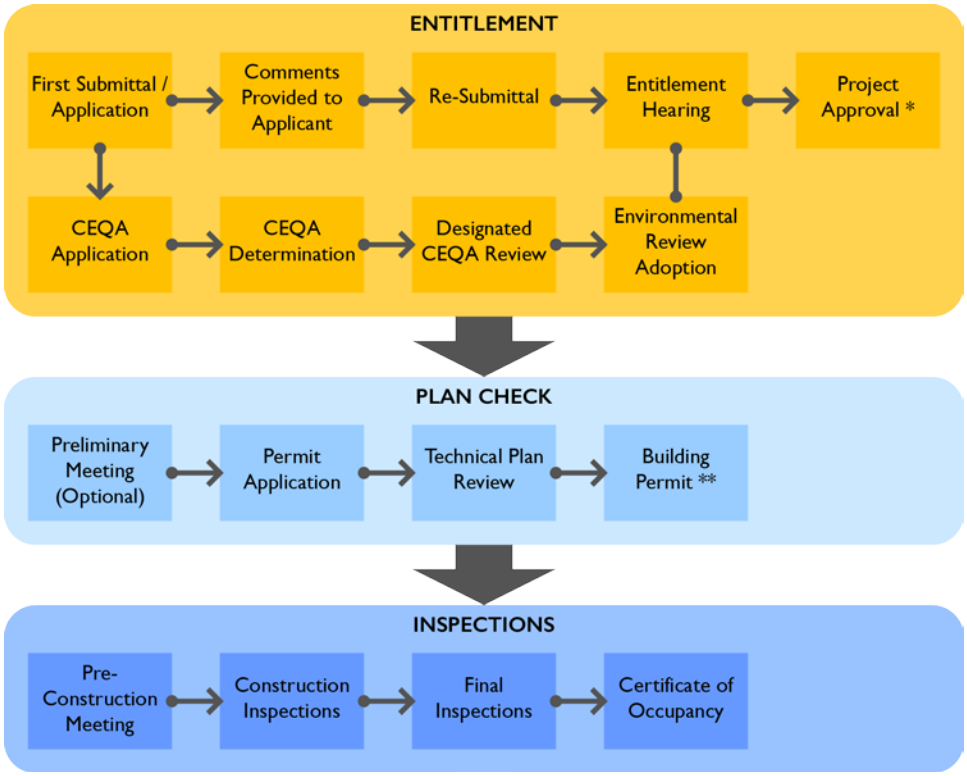
Summary

High-rise projects in San José involve multiple development services partners and stakeholders, and multiple levels of review during the development process. Based on information contained in files and interviews of City staff involved, the development review process for two recent high-rise residential projects—One South Market and Centerra—appeared to be appropriately documented. Experienced, well-qualified staff were involved in these projects, but even so, complications arose, as they are inherent in building residential high-rises. Some of these are identified and addressed during the inspection phase. While developers are responsible for construction quality, and property owners are responsible for ongoing maintenance, the City monitors health and safety standards and responds to complaints of potential violations of the Municipal Code.

Multiple Development Services Partners and Stakeholders Are Involved in Residential High-Rise Projects

Residential high-rise projects are among the more complex of the City's development types. Due to their size and complexity, residential high-rise projects are subject to multiple levels of review. As seen in Exhibit 10, development projects begin in the Entitlement/California Environmental Quality Act (CEQA) stage, when projects are considered for approval. Approved projects proceed to Plan Check, where plans are reviewed against City and State requirements. When applicants pass Plan Check, they are issued building permits, which signal that construction can begin. Then, rounds of inspections ensure that approved plans were followed during construction. After inspections are passed, certificates of occupancy are issued, enabling buildings to be occupied. Exhibit 10 shows the residential high-rise development process.

Exhibit 10: Residential High-Rise Development Process



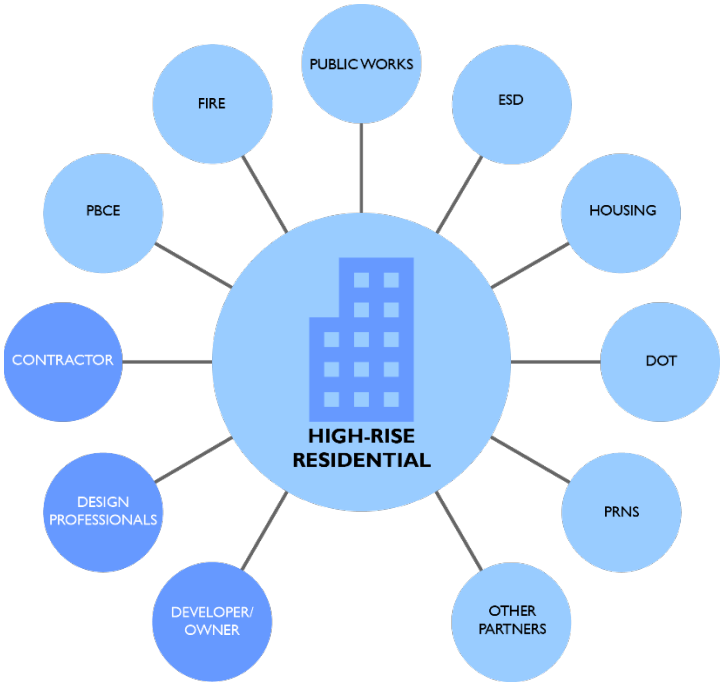
Source: Audit team analysis based on interview with City staff.

* When a project gets approval in the entitlement phase, the project can then proceed to the plan check phase.

** When a project is issued a building permit, the project can begin construction.

San José's development services partners—including PBCE's Planning and Building divisions, Public Works, and Fire, as well as other departments to a more limited extent—are involved in reviewing plans, granting permits, and conducting inspections in collaboration with owners/developers and their design teams. In addition, external agencies—such as the Downtown Association, Santa Clara Valley Transportation Authority (VTA), and CalTrain—may provide feedback to developers and/or the City about projects. Exhibit 11 lists potential stakeholders in the development of residential high-rises.

Exhibit 11: Residential High-Rise Development Services Partners



Source: Audit team summary based on interviews with City staff.

San José Has Established Its Own Internal Development Review Processes

The development process involves many steps that are critical to ensuring that the City adequately reviews developments for health and safety standards.

Reviewing the Development Process for Two San José Residential High-Rise Projects

To test those processes, we reviewed the City's records for two high-rise projects: One South Market and Centerra.

Exhibit 12: Facts on One South Market and Centerra

	ONE SOUTH MARKET 1 S Market St	CENTERRA 77 N Almaden Ave
Occupancy Use	Mixed-use, with residential units	Mixed-use, with residential units
# of Units	312	347
# of Stories	23	21
Building Height (in feet)	238	217
Original Application Date	February 1, 2013	March 20, 2013
Certificate of Occupancy	Final	Temporary *

Source: Audit team summary based on records contained in AMANDA.

* A Temporary Certificate of Occupancy is issued when City officials deem the building, or a portion of it, to be safe to occupy, but when there might be other unfulfilled requirements unrelated to building safety (e.g. paying fees) that prevent the issuance of a final Certificate of Occupancy.

From our review of internal policies, procedures, and existing development services process maps, we inventoried and compiled key steps of the development process – shown in Exhibits 13, 14, and 15. Referencing these checklists, we examined the integrated permitting system (AMANDA) and conducted staff interviews to determine whether the two residential high-rises followed internal policies and procedures.

Exhibit 13: Audit Checklist for Project Entitlement and CEQA Review

ENTITLEMENT / CEQA
Did the Planning Technician ensure that the application was sent to all applicable departmetns for approval/review?
Did an Urban Design Review take place?
Was the project approved by all applicable departments?
Did Planning coordinate with Airport to receive approval for the building height (if subject to any height restrictions) via a "No Hazard" letter?
Was the project approved at the appropriate hearing level (Director's Hearing, Planning Commission, City Council)?
Was the appropriate level of environmental review determined? (Negative Declaration / Mitigated Negative Declaration, Envronmental Impact Report (EIR), Addendum to existing EIR)
Was the appropriate level of environmental review completed?

Source: Prepared by audit team based on review of development process.

Exhibit 14: Audit Checklist for Project Plan Check Review

PLAN CHECK
Was the preliminary review meeting held with Building Plan Check staff? Were other departments included? If so, which ones?
Was the application entered into AMANDA?
Did the Principal Permit Specialist perform a quality control check?
Were any necessary revisions made to the plans?
Did Building conduct a building review?
Did Building conduct a mechanical review?
Did Building conduct a electical review?
Did Building conduct a plumbing review?
Did Fire conduct a review for code compliance?
Did Planning conduct a conformance review?
Did Public Works (PW) conduct a plan check?
Did PW engineering technician review the scope of work and determine what clearances are required?
Have all required clearances (development clearance, floor clearance, geological hazard clearance, parkland clearance) been issued?
Have all Pubic Works bills and fees been paid?
Were all reviews marked 'complete' in AMANDA?
Has the Building Supervisor reviewed and approved project records in AMANDA?
Has the Building Supervisor delivered approved plans and supplemental materials to the Permit Center?
Has the Principal Permit Technician verified that all plans have been signed off?
Have all required outside clearances been approved?
Has the final building permit fee been paid (including additional plan check fees, base fee for inspections, additional processing fees, and applicable taxes)?
Has the permit card (building permit) been issued?

Source: Prepared by audit team based on review of development process.

Exhibit 15: Audit Checklist for Project Inspections Review

INSPECTIONS
Did a (Building) pre-construction meeting take place? If so, what other departments were included?
Did a Public Works pre-construction meeting take place?
Did Building conduct underground inspections: sanitary sewers, roof drains, underground electrical, underground mechanical, etc.?
Did Building conduct foundation inspections: soil and compaction, steel, formwork, depth of footings, rebar, etc.?
Did Building conduct framing and rough-ins inspections: electrical, mechanical, building, plumbing, etc.?
Did Building conduct insulation and interior finish inspections?
Did Fire conduct underground fire inspections?
Did Fire inspectors conduct initial fire safety inspections and review fire plan?
Did Fire inspectors conduct rough-in inspections?
Did Public Works inspectors perform onsite and offsite inspections? Onsite includes: site drainage, grading (rough and precise), compaction, retaining walls, driveways, etc. Offsite includes: grading (rough and finish), storm drainage, monument sign off on release, utilities, streets and sidewalks, streetlights, street trees/landscaping, etc.
Did Building final inspections take place?
Did Fire final inspections take place?
Did Public Works final inspections take place?
Did the project pass the inspections?
Have the completed inspections been logged in AMANDA?
Was the developer issued a certificate of occupancy?

Source: Prepared by audit team based on review of development process.

The Development Processes for These Two Residential High-Rise Projects Generally Appeared to Be Documented

Most of the prescribed development processes were documented in AMANDA. However, records for a few items—including the initial meeting between the developers of One South Market and City development staff, as well as total fee assessments and payments across departments—were not documented or were difficult to locate within the database (discussed further in Finding 4).

The Development Processes for These Two Residential High-Rise Projects Appeared to Be Appropriately Staffed

Residential high-rise projects require significant staff hours at each stage of the development process.

Our review of the One South Market and Centerra projects showed that the Building Division's Plan Check and Inspection staff involved with these projects had extensive experience with a variety of development projects. They appeared to be familiar with the development processes and building components of these two projects in particular. Further, senior staff, including the Division Managers for Plan Check and Inspections, supervised the projects.

Complications Are Inherent in Developing Residential High-Rises

Complications in the development process are sometimes unavoidable. During the Plan Check stage, staff approve or request revisions for plans based on designs and projections for various building components.

But there is no guarantee that building components will meet projected targets when they are constructed and/or installed. For example, when first installed, stairwells or exterior window walls may fall short of expectations. In such cases, developers must work with assigned inspectors and Plan Check staff to make appropriate changes.

In this scenario, City staff report that they may reasonably compromise on *some* building components; however, they work to ensure *life safety components* are uncompromised.

Staff Reported Complications During the Inspection of One South Market

For example, staff reported that during inspection of One South Market's external window wall system, they discovered it did not reflect the higher energy rating that was specified in the original plans approved by Plan Check staff. However, according to inspection staff, since the window walls had already been purchased and installed, they determined it would be unreasonable to require they be replaced for the sake of minor energy savings. Per the California Building Standards Code, the developer offset the lower energy rating of the windows by bolstering other building systems to save energy, and thus achieving the required building efficiency.

On the other hand, PBCE and Fire Department staff reported that the smoke control system for One South Market needed substantial changes to meet life safety requirements. Building inspection staff had to work with the developer's team to ensure that the system was adequate. According to staff, the developer had to pay for last-minute additions to the system that had already been put in place. This may have been due in part to initial plans lacking full details of the system, relegating the discovery of potential issues to the inspection phase. But development services staff explained that it is typical not to require disclosure of the details of some building elements within larger systems. This may be especially true for elements of smoke control systems, which are typically

complex and require the involvement of both the Fire Department and Building Division.

The development services partners could revise procedures and processes to require more detailed plans from the outset, and/or have more prescriptive requirements for systems to be installed. But such requirements would have to be balanced against the need to accommodate developers, who cannot always identify project details in the early development phases.

Some Building Components Cannot Be Tested Until Late in the Construction Process

Complications may also arise from building components that can only be tested when the building is mostly or fully constructed.

For instance, the California Fire Code requires Emergency Responder Radio Coverage:

> *All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building.*[15]

Inspecting compliance with this requirement must take place after the building is near completion, since building materials (e.g. concrete) can affect radio coverage. Troubleshooting solutions when coverage is insufficient may be cost- and time-intensive.

Problems May Arise After Residential High-Rises Are Occupied

In any building, some quality of life issues may arise that are outside of the City's purview. For example, some high-rises may face issues like non-functioning elevators, interruptions in power and water, pest infestations, heating and cooling shortages, or failing building appliances. These problems are the responsibility of building management.

Furthermore, high-rises may affect surrounding areas. Challenges related to noise, traffic congestion, and walkability are common in dense living environments like San José's downtown, where most of the City's residential high-rises are located. Neighborhood associations and community groups may be important in confronting these challenges. An example is the Downtown Residents Association, whose mission is:

[15]California Fire Code, Part 9: Chapter 5, Section 510

> *…to provide a voice for a diverse socio-economic group of residents of the downtown San Jose core, promote a partnership with the city government and neighborhood businesses by participating in policy and planning processes, educate residents about neighborhood issues, and maintain and promote the downtown core as a livable, family-oriented community with a high quality of life.*

San José Monitors Ongoing Health and Safety Issues

PBCE's Code Enforcement Division[16] investigates various complaints from the public, such as substandard housing and unsafe building conditions. Our review of code enforcement records revealed no violations related to the structural integrity or health and safety standards in and around residential high-rises.

Per the San José Municipal Code, the Code Enforcement Division provides health and safety code compliance inspections on rental multiple housing properties, hotels and motels, guest houses, residential care facilities, residential service facilities, emergency residential shelters, and fraternities and sororities in San José.[17] Some of these are residential high-rises. City inspection programs are intended to ensure that buildings are maintained in safe, decent, and sanitary conditions.

Furthermore, the California Health and Safety Code and State Fire Marshal mandate high-rises be inspected annually. San José Fire Department's Bureau of Fire Prevention is responsible for these required inspections. The Fire Department's inspection records showed that all 16 residential high-rises had been inspected at least as recently as Summer 2016.

[16] The Code Enforcement Division seeks "*to work in partnership with the people of San José to promote and maintain a safe and desirable living and working environment.*" To fulfill this goal, the Division runs a complaint-based program through which the public can report potential violations of the Municipal Code. It also completes ongoing building inspections.

[17] PBCE uses a risk-based tiered inspection program whereby inspections are targeted to properties at higher risk of violations.

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Finding 4 Some Services and Associated Fees Should Be Better Documented and Tracked

Summary

To ensure consistency and transparency, the City should outline the many services it offers, and should provide guidelines for assessing, collecting, waiving, deferring, and tracking fees. For example, a preliminary review is a voluntary, fee-based service offered to developers that allows them to meet with City staff to discuss project concepts. Other pre-application meetings are sometimes provided for free. For at least one of the major projects we reviewed, there was no documentation of any pre-application meeting, even though staff reported that such a meeting occurred and is always expected for this type of project. Also, there were no records of any fees assessed, paid, or waived for pre-application meetings for the projects we reviewed. In addition, parkland fees are assessed on residential developments to fund parklands for residents. As part of the City's high-rise development incentives, these fees are reduced for qualifying high-rises, and their payments can be deferred until 80 percent of final inspections have been scheduled. However, there is no consistent way for staff to know when projects meet that threshold, increasing the risk that deferred parkland fees are not assessed and collected timely.

Potential improvements in development fee administration were previously identified, most recently in a November 2016 consultant report. In addition to the recommendations outlined in that report, the development services partners should prepare guidelines for assessing, collecting, waiving, deferring, and tracking fees for preliminary review meetings, other pre-application meetings, and parkland fees. Furthermore, PBCE should keep consistent documentation of development milestones, including any meetings between City staff and developers, and fee assessments, payments, and deferments.

Better Tracking and Documentation of Services and Fees Can Help Ensure Consistency and Transparency for Development Services

Timely and effective customer service is a goal for PBCE. Clear and consistently defined services, as well as guidelines on applicable fees for various types of development projects, help ensure customers are treated fairly.

Further, the 2016-17 Adopted Operating Budget notes that departmental fees should maintain cost recovery for development services. To facilitate the assessment and collection of development fees to ensure cost recovery, the City should track and document the fees. Should fee waivers or deferrals be granted to developers, the City should document when and why they were granted.

Some Development Fee Actions Are Not Tracked in the City's Integrated Permit System

The City's integrated permitting system (AMANDA) is used to store documentation and track fees related to development projects. However, based on a review of AMANDA records and staff interviews, it is exceedingly difficult to quantify total fee payments and identify the status of fees across departments for development projects via AMANDA.

In part, this is due to the lack of standardized procedures for tracking fees across departments. PBCE, Public Works, Fire, and ESD each collect development fees,[18] and separately track these fees using different methods. This makes it difficult for development staff to identify fees collected by other departments. Additionally, while PBCE, Public Works, and Fire primarily use AMANDA to document development fees, some fees are also tracked in ESD's department-specific database.[19]

Identifying and quantifying all the fees associated with a particular project is difficult. For example, fees associated with One South Market or Centerra were not contained within a central project folder. Thus, fees assessed and paid for processes related to retail spaces, garages, accessibility upgrades, and remodels can be stored in different folders.

Fees for Pre-Application Meetings Between Developers and Development Staff Should Be Clarified

"Preliminary review" is a voluntary, fee-based service offered to developers that allows them to meet with City staff to discuss project concepts; it is intended to save the developer time by clarifying early on what information would be needed. The City typically charges fees for preliminary reviews, which may involve high-level managers for large-scale, high-profile projects. Residential high-rises would be subject to a base fee of $1,460, with additional fees for optional departmental reviews.

Aside from the preliminary review, other pre-application meetings for which no fees are assessed may also occur.[20] Such meetings are sometimes offered to large developers (including residential high-rise developers) who directly approach City Council Offices, the City Manager's Office, and/or top officials in PBCE. These meetings are less formal than preliminary reviews, but have some of the same objectives; they allow developers to discuss project proposals and get a broad sense of next steps. These meetings are typically limited to staff who are management-level and above. According to staff, some developers choose to schedule

[18] These include, but are not limited to, Plan Check and permit fees collected by PBCE, parkland fees collected by Public Works, and fees for wastewater discharge permits collected by ESD.

[19] ESD uses the Environmental Enforcement Data Management System (EEDMS).

[20] Some staff refer to these as "free-lims."

subsequent preliminary reviews, while others (e.g. those on tight project timelines) submit applications without preliminary reviews.

According to Planning Division staff, these pre-application meetings outside of the preliminary review structure can ultimately save staff time by helping ensure developers submit more polished plans. However, there are no clear guidelines on eligibility requirements for these meetings, which staff can organize them, which staff should be present, and when they can be scheduled. Clear policies and procedures—including rationale for this free service including high-level staff—would promote transparency, public accountability, and a greater sense of fairness among development project applicants.

Meetings are the forum for agreement on terms that represent the interests of the City of San José and its residents. Thus, meetings between City staff and developers, especially about projects as significant as residential high-rises, should be documented. For One South Market, staff reported that there was at least one pre-application meeting that occurred. This meeting appeared to serve the objectives of a preliminary review. However, we were unable to verify whether that meeting was a preliminary review—for which the developer would pay a fee—or another pre-application meeting that was not charged. If that meeting was a preliminary review, the meeting and applicable fees should have been documented. Otherwise, if it was a meeting separately organized by a Council Office, the City Manager's Office, and/or the PBCE Director, it should still have been recorded for the sake of transparency.

The Building Division Lacks Clear Procedures on Tracking and Ensuring the Collection of Deferred Parkland Fees

Under the *Parkland Dedication Ordinance* and the *Park Impact Ordinance*, a residential project's parkland obligation is equivalent in value or property to providing three acres of parkland for every 1,000 new residents. Residential projects can comply with this obligation by dedicating land for public parks, paying an in-lieu fee, constructing new park facilities, providing improvements to existing recreational facilities, or providing a negotiated agreement for a combination of these options. Most residential high-rise developers pay an in-lieu fee (referred to below as "parkland fees").

The City Council has established incentives to spur the development of residential high-rises in Downtown San José. One of those grants a 50 percent discount on applicable parkland fees for residential high-rise projects of 12 stories or more, in conjunction with another resolution that reduces taxes for the same projects.

In addition, for residential high-rise (and other) projects in Downtown San José, the Municipal Code allows parkland fees to be deferred until 80 percent of final inspections have been scheduled. Typically, a developer must pay (or agree to pay) parkland fees to receive a building permit.

Parkland fees were paid in full for the two projects we reviewed—about $2.4 million for One South Market, and about $2.7 million for Centerra. But clear procedures are needed to ensure deferred parkland fees continue to be collected timely.

According to PBCE staff, inspectors are unable to ascertain from AMANDA whether parkland fees have been paid prior to performing final inspections. They must either confer with Public Works (which administers the collection of parkland fees), often under time pressure, or override controls in AMANDA to log inspection records.

Furthermore, the Building Division has no clear procedures or staff assigned to determine when 80 percent of residential units have received final inspections—at which point the developer must pay the parkland fees. Instead, PRNS has informally assigned its own staff to monitor when high-rise developments are nearing completion and contact Building in case any parkland fees have not yet been collected.

Parkland fees are significant in both value and purpose. They can be worth millions of dollars, and they provide funding for public recreation and open spaces to benefit City residents. Although PRNS ultimately receives the fees, Building is still primarily responsible for determining when a project has reached the 80 percent threshold that would trigger the deferred payment requirement.

Clear procedures, including the assignment of Building staff to this role, would help ensure the timely collection of deferred parkland fees in the future. Otherwise, shifts in staffing or tasking—for instance, if PRNS staffing transitions were to cause the currently assigned staff to stop monitoring the progress of residential high-rise projects—can result in the late collection (or non-collection) of the fees.

Difficulties with Development Fees Were Previously Identified

A November 2016 consultant report[21] outlined several recommendations aimed at improving several aspects of development fees. The report described difficulty in calculating, applying, and tracking development fees. It called for updated fee calculations, more consistent recording of work performed and milestones completed, and better information about fee descriptions and amounts for customers. The consultant team suggested these issues be addressed with the upgrade of AMANDA, which is in progress. PBCE is currently engaged with the consultant to implement the 91 recommendations outlined in the report.

[21] *City of San José: Development Services Cost Recovery Analysis, Process Improvements, Calculation of Unearned Revenues, and Refund Processing.*

Recommendation #3: To ensure consistency and transparency, the development services partners should:

a) **Provide clear, written guidelines for assessing, collecting, waiving, deferring, and tracking fees for preliminary review and other pre-application meetings, as well as deferred parkland fees;**

b) **Establish procedures to ensure the guidelines are followed; and**

c) **Ensure the consistent documentation of meetings, fee assessments, and payments.**

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Conclusion

For a large city, San José has relatively few high-rises. The high-rises it does have are concentrated downtown and are relatively low compared to high-rises in other large cities. Even though buildings developed in the city so far present relatively fewer development challenges than other cities with taller and more complex buildings, San José is likely to see more and taller high-rises. With the spread of taller buildings developed throughout the city, San José will need to continue to enforce ever-evolving building standards for residential high-rises, as well as consider the need for its own standards to address local climatic, geological, and topographical conditions. Internal procedures will be key for the City's development services partners to implement State and local standards, and to provide the best possible customer service.

RECOMMENDATIONS

Recommendation #1: The City Manager's Office—in coordination with the Department of Planning, Building and Code Enforcement, the City Clerk's Office, and the City Attorney's Office—should establish procedures to ensure the timely filing of future amendments.

Recommendation #2: To provide consistent assurance of health and safety, the City's development services partners should define the circumstances under which:

a) Site dewatering would trigger mandatory review by the Building Division and/or Public Works;

b) The Building Division would require peer review of geotechnical report findings on foundation design and soil conditions; or

c) Structural and/or seismic peer review would be required for higher risk buildings.

Recommendation #3: To ensure consistency and transparency, the development services partners should:

a) Provide clear, written guidelines for assessing, collecting, waiving, deferring, and tracking fees for preliminary review and other pre-application meetings, as well as deferred parkland fees;

b) Establish procedures to ensure the guidelines are followed; and

c) Ensure the consistent documentation of meetings, fee assessments, and payments.

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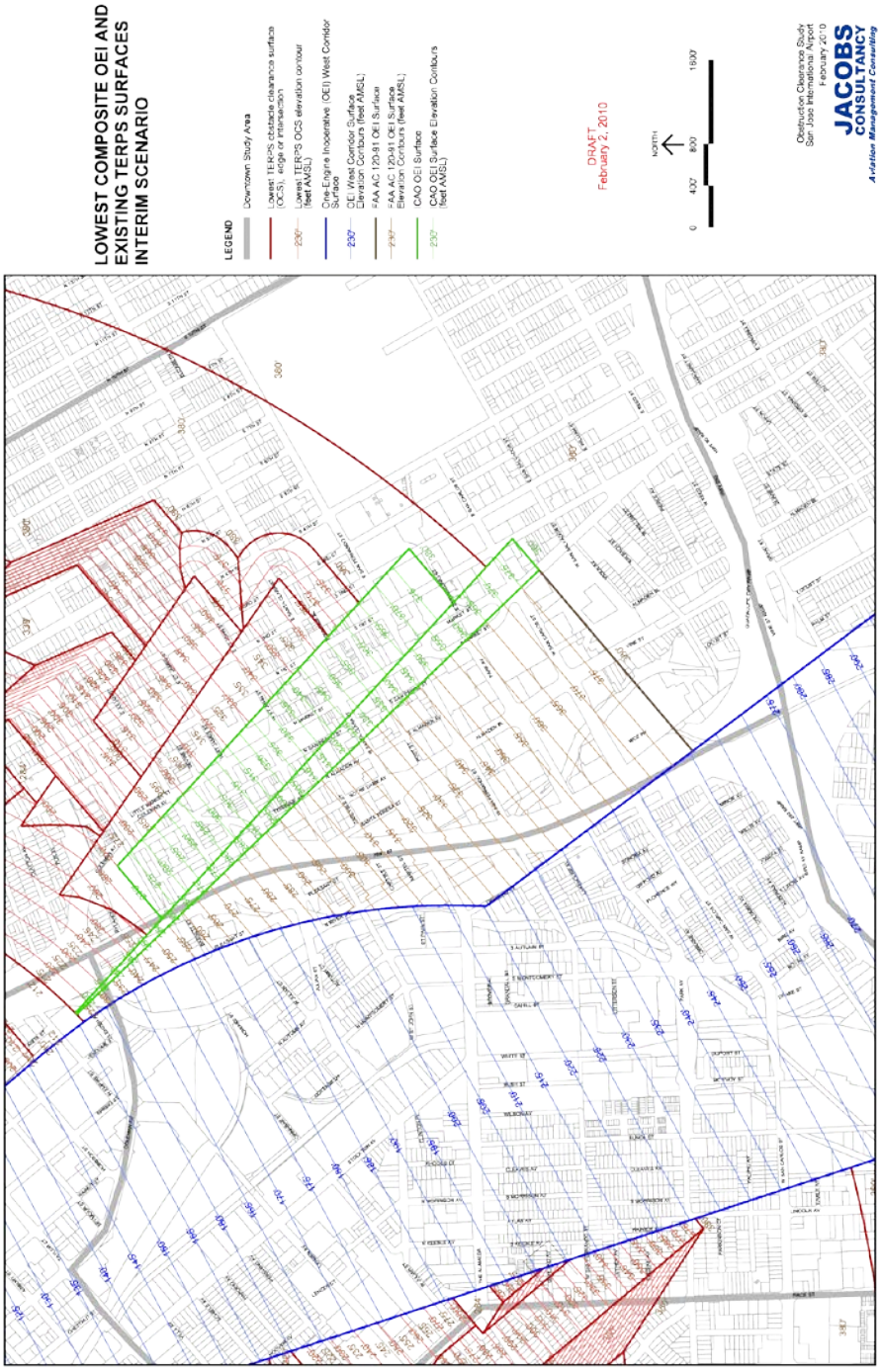
APPENDIX A
Three Maps Provided by the Airport

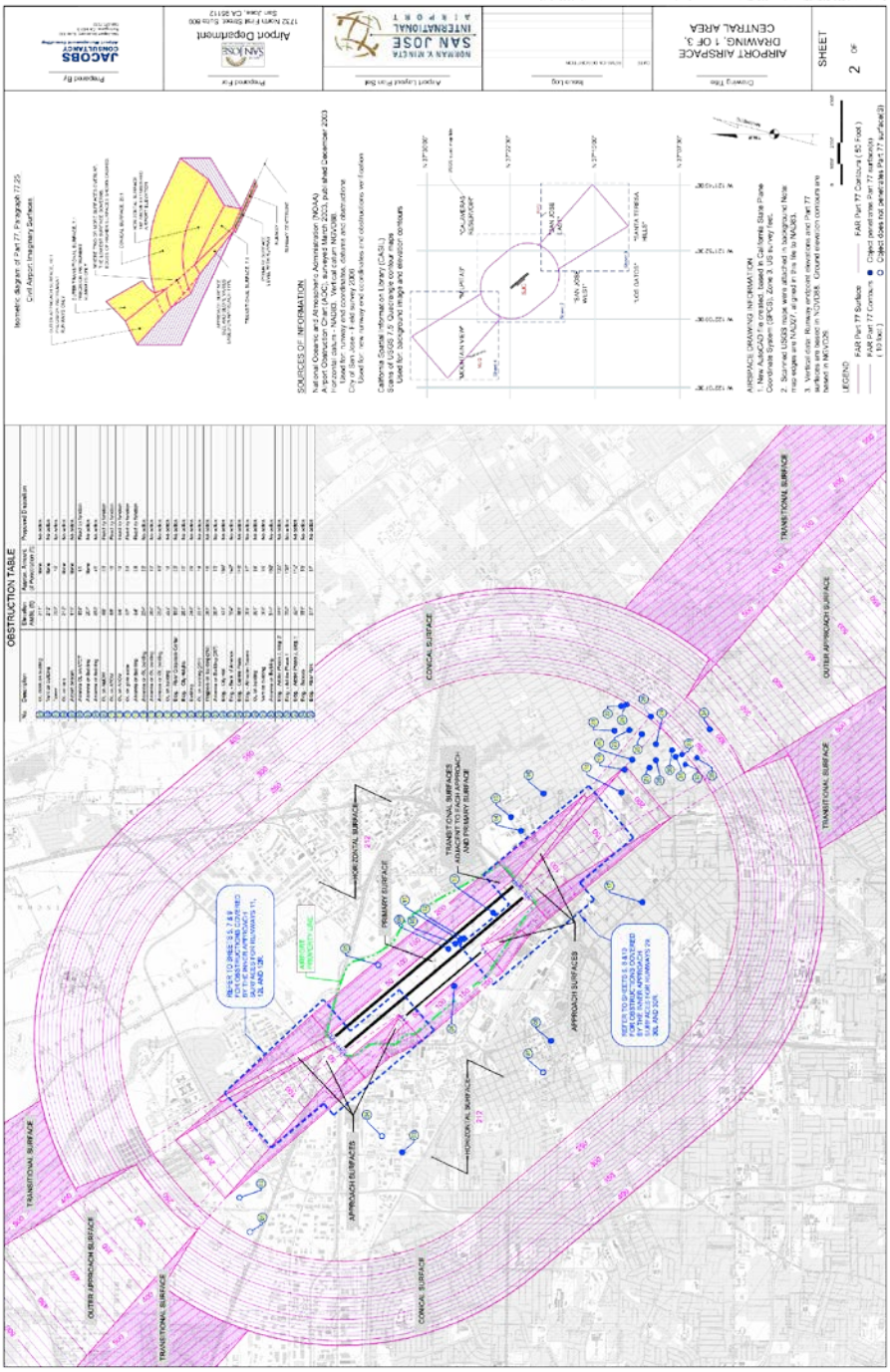
Exhibit A.1: Lowest Composite OEI and Existing TERPS Surfaces Interim Scenario



Source: Airport.

Note: All heights noted are Above Mean Sea Level. OEI refers to "One-Engine-Inoperative." TERPS refers to "Terminal Instrument Procedures," which are Federal Aviation Administration-prescribed standardized methods for use in designing instrument flight procedures.

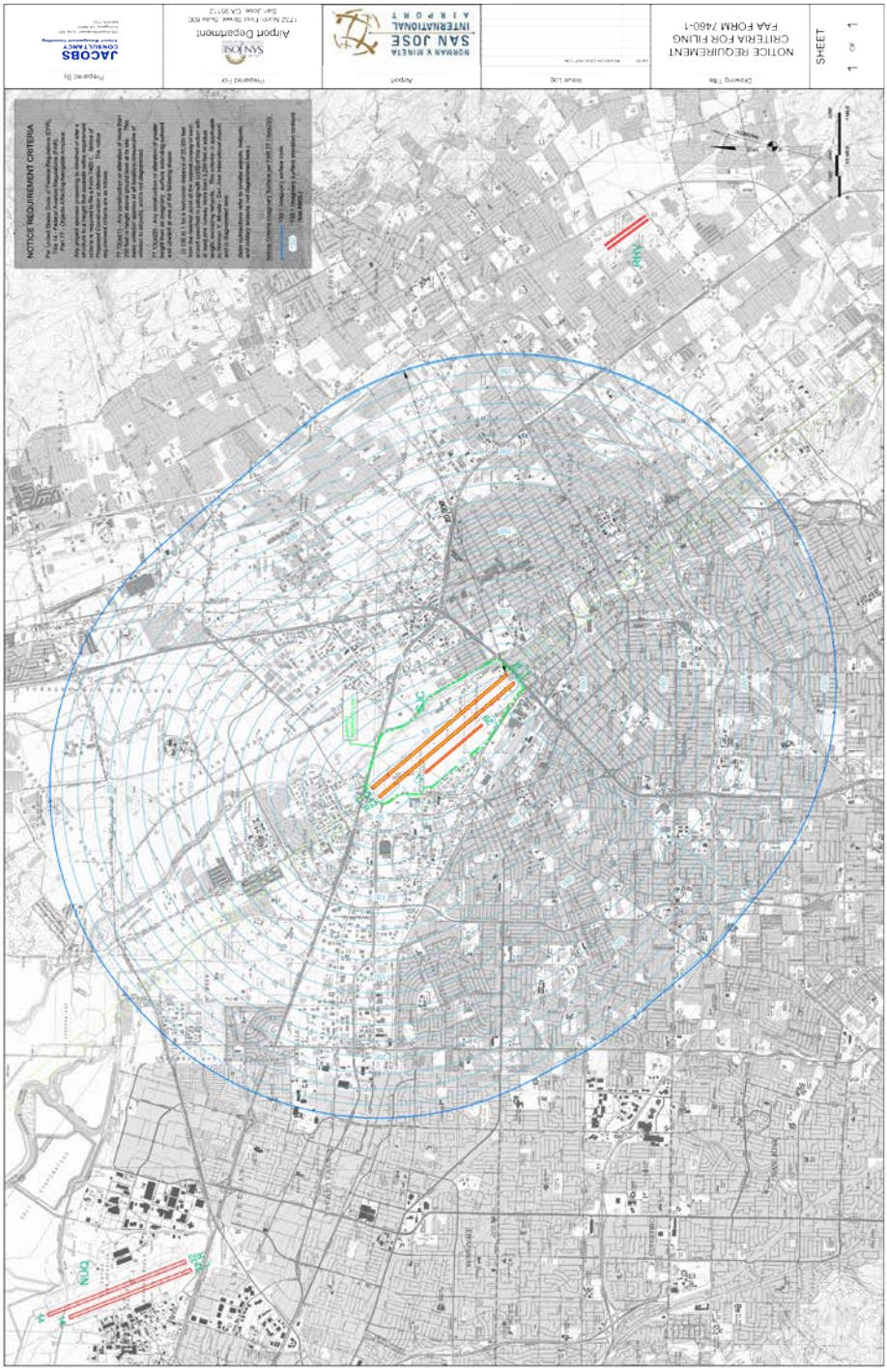
Exhibit A.2: Airport Airspace Drawing of Central Area



Source: Airport.

Note: All heights noted are Above Mean Sea Level.

Exhibit A.3: Notice Requirement Criteria for Filing FAA Form 7460-1



Source: Airport.

Note: All heights noted are Above Mean Sea Level.

CED **COMMITEE AGENDA:** 8/28/17
ITEM: D (2)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: SHARON ERICKSON
CITY AUDITOR

FROM: Kim Walesh
Deputy City Manager

SUBJECT: SEE BELOW

DATE: August 21, 2017

Approved D. D Sykes Date 8/21/17

SUBJECT: **RESPONSE TO THE AUDIT OF RESIDENTIAL HIGH-RISES: CONSIDERATIONS FOR A CITY WITH A GROWING NUMBER OF TALL BUILDINGS**

Development in the City of San José is guided by the City's "Development Services Partners," (Planning Division, Building Division, Bureau of Fire Prevention, and the Development Services Division of the Department of Public Works). Private developers are responsible for building designs and construction, while the City of San José ensures compliance with building safety standards. The Development Services Partners greatly appreciate the important work of the City Auditor and her staff for this evaluation and look forward to improving both the current performance and future programs. The following is the Administration's response to the three recommendations identified in the audit.

BACKGROUND

This audit was added to the City Auditor's Fiscal Year (FY) 2016-17 Work Plan by the Rules and Open Government Committee at the request of Councilmember Raul Peralez. The purpose of this audit is to review the efforts made by the city to ensure health and safety standards, as well as structural integrity of residential high-rises.

RECOMMENDATIONS AND ADMINISTRATION'S RESPONSE

Recommendation #1: The City Manager's Office—in coordination with the Department of Planning, Building and Code Enforcement, the City Clerk's Office, and the City Attorney's Office—should establish procedures to ensure the timely filing of future amendments.

Administration's Response to Recommendation #1:

The Administration agrees with this recommendation.

The California Building Code adoption process occurs every three years. PBCE has followed up with the City Clerk's Office and the City Attorney's Office to ensure the timely filing of future codes and local amendments once the City Council approves the amended Ordinance. No further action required.

Target Date for Completion: Complete

☒ Green Light ☐ Yellow Light ☐ Red Light
☐ Refer to budget process
☐ Refer to Council Priority Setting

Recommendation #2: To provide consistent assurance of health and safety, the City's development services partners should define the circumstances under which:
a) Site dewatering would trigger mandatory review by the Building Division and/or Public Works;
b) The Building Division would require peer review of geotechnical report findings on foundation design and soil conditions; or
c) Structural and/or seismic peer review would be required for higher risk buildings.

Administration's Response to Recommendation #2:

The Administration agrees with this recommendation.

Site dewatering has been reviewed and coordinated within PW and ESD, as appropriate. PBCE will support PW and ESD as necessary.

It is the current practice of the Building Division to request outside peer review of geotechnical findings, related foundation design criteria, and seismic design evaluation for buildings that deviate from the prescriptive methodology described in the building code or utilize performance approach, as required in the code.

Target Date for Completion: Complete / On-going

☒ Green Light ☐ Yellow Light ☐ Red Light
☐ Refer to budget process
☐ Refer to Council Priority Setting

Recommendation #3: To ensure consistency and transparency, the development services partners should:
a) Provide clear, written guidelines for assessing, collecting, waiving, deferring, and tracking fees for preliminary review and other pre-application meetings, as well as deferred parkland fees;
b) Establish procedures to ensure the guidelines are followed; and

SHARON ERICKSON, CITY AUDITOR
August 21, 2017
Subject: Response to Audit of Residential High Rises

Ensure the consistent documentation of meetings, fee assessments, and payments

Administration's Response to Recommendation #3:

The Administration agrees with this recommendation.

PBCE will coordinate with the Development Services Partners to provide a clear written guideline/procedure for this recommendation. The procedure and process will need to tie in with the implementation of both the Integrated Permitting System (IPS) and the New Fee Structure.

Target Date for Completion: June 30, 2018

☒ Green Light ☐ Yellow Light ☐ Red Light
☐ Refer to budget process
☐ Refer to Council Priority Setting

COORDINATION

This memo was coordinated with the Department of Planning, Building, and Code Enforcement; the Department of Public Works; the Fire Department; the Environmental Services Department; and the City Attorney's Office.

/s/
KIM WALESH
Deputy City Manager
Director of Economic Development

For questions, please contact Chu Chang, Building Official at (408) 535-7791.

COUNCIL AGENDA: 9/19/17
ITEM: 4.1

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: SHARON ERICKSON
CITY AUDITOR

FROM: Kim Walesh

SUBJECT: **SEE BELOW**

DATE: September 6, 2017

Approved D·DSL Date 9/12/17

SUBJECT: UPDATED RESPONSE TO RESIDENTIAL HIGH-RISE DEVELOPMENT AUDIT RECOMMENDATION #2, ITEMS B AND C

In response to an inquiry at the Community and Economic Development Committee on Monday, August 28, 2017, this memo clarifies that the Building Division Guidelines describing when Structural Peer Review is required have been revised to include "Structures exceeding the maximum allowable height, or more than 240 feet in height, per the code."

Structural Peer Review is a technical review of a project by peers qualified by their experience with complex structural engineering designs and analyses. The purpose of the review is to enhance the quality and structural safety of a complicated structural design system.

The original Structural Peer Review Guidelines released in January 2015 focused on "high-risk" buildings and included five criteria that would trigger a required Structural Peer Review. As a result of the Audit, on September 1 the Building Division added item number 1) below to the criteria for projects subject the requirement of a Structural Peer Review.

1) Structures exceeding the maximum allowable height, or more than 240 feet in height, per the code.
2) When dynamic lateral-force procedure is required for structures per the code.
3) Structures designed with a seismic isolation system.
4) Alternate designs not specifically prescribed in the code.
5) Performance design which is outside those prescribed in the code.
6) Any other complicated structure or components not defined above but identified by the Building Official to require structural peer review.

The complete Structural Peer Review Guidelines are attached to this Memo and can be accessed at http://www.sanjoseca.gov/DocumentCenter/View/71405.

ADMINISTRATION'S REVISED RESPONSE TO RECOMMENDATION #2

Recommendation #2: To provide consistent assurance of health and safety, the City's development services partners should define the circumstances under which:

b) The Building Division would require peer review of geotechnical report findings on foundation design and soil conditions; or
c) Structural and/or seismic peer review would be required for higher risk buildings.

Response Narrative: The Administration agrees with this recommendation.

b & c) It is the current practice of the Building Division to request outside peer review for projects that deviate from or are beyond of the parameters described in the code. The Building Division recently updated the Structural Peer Review Guidelines to include high-rise structures.

/s/
KIM WALESH
Deputy City Manager
Director of Economic Development

For additional information, please contact Chu Chang, Acting Assistant Director/Chief Building Official, at (408) 535-7791.

Attachment: Building Division Structural Peer Review Guidelines

Building Division Guideline

Structural Peer Review Guidelines

Policy No: BDP-S001
Effective Date: January 1, 2015
Revised: September 1, 2017

Purpose

Structural peer review is a technical review of a project by peers qualified by their experience and application of complex structural engineering designs and analyses. This review is to enhance the quality and structural safety of a complicated structural design system.

Projects subject to the requirement of Structural Peer Review

1) Structures exceeding the maximum allowable height per ASCE 7-10 or more than 240 feet in height.
2) When dynamic lateral-force procedure is required for structures per ASCE 7-10.
3) Structures designed with a seismic isolation system.
4) Alternate designs not specifically prescribed in ASCE 7-10.
5) Performance design which is outside those prescribed in ASCE 7-10.
6) Any other complicated structure or components not defined above but identified by the Building Official to require structural peer review.

Qualifications to perform Structural Peer Review

1) The Peer Review Team (PRT) shall be independent of the design team and have no conflict of interest in review of the project.
2) The PRT shall have, or exceed, a level of technical experience comparable to that of the design engineer for the project.
3) The PRT shall be a registered Structural Engineer in the California.
4) The PRT shall be familiar with regional design and construction practices.

Scope of Peer Review

1) Loading & Configuration
   a) Architectural/ functional constraints
   b) Site topography, soils, and adjacent property constraints.
   c) Environmental effects: wind, earthquake, and surface/ground water
2) Performance evaluation
   a) Structural serviceability; deflection, lateral drift, and other deformations.
   b) Vibration
   c) Crack control
   d) Foundation movement
   e) Effects of deflection, lateral drift, and other deformations on non-structural elements.
   f) Wind and seismic
3) Structural System
   a) Structural materials and framing systems
   b) Redundancy, ductility, and compatibility in relation to lateral forces
   c) Member sizes and locations

   d) Foundation system and design
   e) Non-structural elements compatible with structural system
   f) Detailing of the structural system
   g) Constructability of structural elements and connections
4) Detailed Design
   a) Methodology of structural calculations
   b) Compute and mathematical modeling
   c) Structural drawings and specifications, and testing and inspection requirements
   d) Diaphragms, collectors, anchorage and ties

Procedures

1) When required, the owner/applicant shall provide the names and qualifications of at least three (3) qualified PRTs, the scope of work included in the review, and the proposed timeline schedule for the project, to the Building Official.
2) The Building Official will select one of the owner's/ applicant's proposed PRTs, and notify the owner/applicant who has been selected.
3) The owner/applicant is responsible for bearing the cost of the peer review. This payment is in addition to the plan check fees paid to the Building Division and payment arrangements are negotiated between the peer reviewer and the owner/applicant.
4) The PRT may proceed with the review at the schematic design phase.
5) As a minimum, written reports shall be shared with the Building Division plan check project manager at the following stages: Initial, In-Progress, and Final. The written reports shall cover all aspect of the scope of work as defined above.
6) The Building Division may call for meetings with the Engineer of Record, sub-consulting project engineers, the PRT and other technical experts, as required, to assist in resolving difficult code issues.