

**Milpitas Objective Design
Standards: Technical Memo
Existing Standards &
Best Practices**

April 16, 2021

Technical Memo – Existing Standards & Best Practices

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I. Introduction + Purpose

Development of residential multi-family projects and mixed-use projects in the City of Milpitas is currently regulated by a number of documents and policies. These regulatory documents include the City's General Plan (ongoing update in draft form), Zoning Ordinance, two specific plans, and other key ordinances and documents.

As an introductory exercise for the Objective Design Standards (ODS) effort, this memo is divided into two parts. First is a high-level summary of the city's current regulatory language as it applies to design regulations for multi-family and mixed-use projects, and feedback from practitioners and city staff utilizing these documents. Second is a compilation of precedents and best practices of objective design standards, organized under several key topics that may later serve as a basis for the framework plan or specific objective standards.

Key Takeaways

- **Existing Regulatory Documents:** The City of Milpitas does not contain consistent objective design standards across its various regulatory documents. Design standards and guidelines appear in the zoning code, two specific plans, the recent draft general plan, and additional documents such as the *Streetscape Master Plan*. The content, structure, and level of clarity vary significantly, presenting both reviewers and applicants with a challenging range of design considerations that will need to be addressed.
- **Staff and Community Feedback:** Conversations with city staff and local developers and designers have revealed several weaknesses in the existing regulations as they apply to the design of individual projects, and their subsequent review. Topics such as vehicular circulation, waste removal, utilities, and building massing emerged as areas where the regulations are in need of improvement. The preparation of objective design standards was universally supported.
- **Best Practices Research:** Objective design standards appear in a broad range of documents and contexts. Dozens of examples were reviewed and analyzed to identify successful precedents for organization, content, diagrams, and structure. These best practices will inform the direction of the subsequent Framework Plan.
- **Next Steps:** Several ongoing efforts including the general plan update, and updates to both specific plans represent immediate opportunities to introduce objective design standards to crucial regulatory documents. The ODS team will engage directly with these other projects in the coming months.

II. Documents Overview + Applicability

Objective design standards will be applied throughout the City of Milpitas' regulatory documents wherever matters of building form and site design are concerned for multifamily and mixed-use residential projects. Objective design standards are mandated by state laws (California State Senate Bills 35 and 330 in particular), which require individual jurisdictions to revise any instances of subjective language in favor of objective language that:

"[Involves] no personal or subjective judgement by a public official and is uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official before submittal of an application." California State Senate Bill 330 (Section 66300.7)

At present, development standards and design guidance appear in the zoning ordinance, specific plans, and other guiding documents like the General Plan, Streetscape Master Plan, Housing Element, and Climate Action Plan. Although the degree of detail, specificity, and subjectivity varies considerably across these policies, the City is responsible for developing a new and consistent set of objective standards that are uniformly understood and accessible to both project applicants and internal reviewers. These policies include the following:

A. General Plan 2040 (August 2020 Draft)

The City is currently undergoing an update to the General Plan. The Draft General Plan will be used to guide the development of the objective design standards. The General Plan includes the following sections that provide design guidance for development of multifamily and mixed-use residential projects:

- **LU-2:** Promote land use objectives and development patterns in special planning areas consistent with adopted specific plans, overlay districts, and density bonus provisions.
- **LU-5:** Ensure that new development is compatible with existing development in order to maintain a high quality of life for residents, while supporting successful business operations.
- **LU-6:** Support commercial centers that serve residential neighborhoods and provide for a variety of convenient, successful and attractive commercial uses throughout the city.

- **CIR-1:** Provide a transportation system that efficiently, Equitably and effectively supports the City's land use vision, minimizes vehicle miles traveled (VMT), enhances connectivity of the existing network, and supports the use of all modes of transportation
- **CIR-2:** Provide safe, healthy, comfortable, equitable and efficient transportation choices for all modes of transportation that enable people of all races, cultures, ethnicities, religions, sexual orientation, genders, income levels, ages and abilities, especially people of color and those disproportionately affected by access to a personal vehicle, systemic transportation inequities, racism, oppression, and poverty to increase safe physical activity, reduce usage of personal vehicles, access goods and services, employment opportunities, and for personal travel; to provide for efficient goods movement.
- **CIR-4:** Promote, provide, and maintain an expanded, safe, convenient and comprehensive network of facilities for pedestrians and bicyclists of all ages and abilities to support walking and bicycling as viable modes of transportation, for recreational use, and to promote public health

- **CD-1:** Strengthen Milpitas' identity and sense of place by reinforcing the community's distinctive, high-quality community form, natural landscape, and character
- **CD-2:** Ensure project designs reinforce a sense of place, display design excellence, and are cohesive and sensitive to the surrounding build environment and natural landscape
- **CD-3:** Maintain and enhance the character and distinct identities of Milpitas' residential neighborhoods and commercial, mixed-use, and employment districts.
- **CD-4:** Enhance the existing character and strengthen the identity and unique qualities of Milpitas' districts.
- **CD-5:** Provide appropriate transitions between land uses to avoid conflicts and perpetuate the community's harmonious character
- **CD-6:** Enhance the corridors, pathways, and edges that form physical boundaries and provide transitions and connections throughout the community.
- **CD-9:** Enhance the quality and character of Milpitas' Public Spaces to provide safe, comfortable, and enjoyable passive and active recreation opportunities for all users.
- **CD-10:** Design buildings, sites, and streets to enhance pedestrian and bicycle mobility.
- **CD-11:** Enhance Milpitas' commitment to sustainable design by minimizing negative environmental impacts and utilizing resources efficiently.

The draft General Plan includes dozens of additional policies relating to building design. The goals and policies essentially function as a complete set of design guidelines for future development. The policies cover a range of topics from streetscape character, site design, circulation, building form, transitions, pedestrian entries, open space and other architectural details. The policies are a mix of general and very specific design guidance.

A complete list of applicable policies can be found in **VII. Appendix**.

B. Zoning Ordinance

The current zoning ordinance does not include a dedicated chapter to design standards. Rather, design standards appear in several different sections, each with varying levels of specificity and subjectivity. These sections include:

- Section 4. Residential Zones and Standards
- Section 6. Mixed Use Zones and Standards
- Section 8. Planned Development Zones and Standards
- Section 11. Specific Plan Areas
- Section 12. Overlay Districts and Standards
- Section 13. Special Use

Please note that single-family residential projects will *not* be addressed under the scope of this objective design standards project. Consequently, Single Family Residential (R1) Zone regulations will not be addressed. In addition, this memo does *not* address with the following topics:

- Accessory uses, buildings, and structures (XI-10-13.05)
- Manufactured Homes (XI-10-13.07)
- Temporary Uses and Structures (XI-10-13.11)
- Single Room Occupancy Residences (XI-10-13.13)

C. Specific Plans

There are two specific plans that uniquely regulate portions of the city:

- Midtown Specific Plan (2010) (*update pending*)
**Also referred to in other maps and documents as the Gateway-Main Street Specific Plan*
- Milpitas Metro Specific Plan (2011) (*update pending*)
**Also referred to in other maps and documents as the Transit Area Specific Plan and Milpitas Commercial Specific Plan*

Additional regulations including base zones associated with these specific plans also appear in the zoning ordinance:

- Section 11. Specific Plan Areas

These specific plans represent unique areas of influence within the City of Milpitas and feature unique and individual sets of development requirements and criteria. As the Metro Specific Plan is currently undergoing an update and the Midtown Specific Plan expected to begin its own update in the coming months, the work of this objective design standards project will be complimentary yet independent. The expectation is that each specific plan update will be individually responsible for updating its design guidelines and regulations to feature clear and objective design standards. The special design standards may be additive to Objective Design Standards as needed or may be stand-alone in each document. Opportunities for integration will be part of the ODS Framework Plan.

With whole-scale changes expected in each plan update, this memo does *not* analyze the two existing documents in detail.

D. Other Documents

While state law is explicit in its direction that objective design standards must be integrated wherever multi-family development is regulated, there are several ancillary documents that should also be considered:

- Streetscape Master Plan (2000)
- Climate Action Plan (2013)
- Housing Element (2015)

These documents do not engage directly with the form, orientation, or placement of individual buildings and are therefore less immediately applicable to an objective design standards effort. However, they do contain relevant language particularly as it relates to site design and context. It is essential that all objective design standards align with the stated goals of overarching regulatory documents, in particular the city's general plan.

In addition to these documents there are other departmental reviews that should be coordinated with the future Objective Design Standards. Public Works, Building, and Fire each review project application based on design standards and guidelines specific to their topic of review, some that involve a great deal of subjectivity and interpretation of code elements.

III. Existing Regulations: Strengths & Weaknesses

Design guidelines, in some form, are currently scattered throughout the many regulatory documents. For the purposes of this memo, the guidelines have been condensed into broader topics and key categories that are shared across both multi-family and commercial/mixed-use development. These topics are further categorized into areas of strength that would require more minimal improvements to obtain objectivity, and areas of weaknesses which lack objective language and would require significant alterations and revisions.

A. Zoning Ordinance

Strengths

- **Fences and Walls:** Currently regulated in under the zoning ordinance's General Provisions, the language currently features a number of specific, objective standards related to material, height, and placement. It is helpful that these regulations also distinguish residential versus non-residential contexts and applications.
 - Example Language: XI-10-54.10.C.1 *Height Limitations. Fences and walls shall not exceed six (6) feet in height at the rear and side yards, and forty-two (42) inches in height at the front yard.*
- **Ground Floor Commercial Design:** Design standards specific to ground floor spaces appear only once, under the Transit Oriented Development Overlay District section (XI-10-12.06.E.6.c). Much of the existing content represents a good starting point, as it already features some clear and objective language. These standards should be expanded upon, as they are currently limited strictly to parcels zoned R-5, within the TOD Overlay area.

- Example Language: XI-10-12.06.E.6.c *Windows. At least sixty (60) percent of the ground floor wall area between three (3) and eight (8) feet above the sidewalk shall be glass or other transparent material*
- **Planned Development:** As the code features quite stringent definitions for developments that are eligible for Planned Development designation, it is unlikely that the language requires significant revisions to be made objective. However, as the development standards default to the requirements of the zone that is “*most similar in nature*,” this section will naturally benefit from revisions to the Mixed-Use regulations. As individual applicants voluntarily submit proposals under Planned Development designation, this section will need to provide objective findings of consistency for evaluation of projects. In addition, the applicable standards and relevant criteria that exist in other sections of the code will need to be made objective.
- **Usable Open Space:** Usable open space requirements are regulated uniquely for each residential zone, with the language typically including both landscape/planted areas as well as built spaces such as patios. Some excerpts already provide minimum objective dimensions, although these most often simply specify minimum areas rather than appropriate linear dimensions that would ensure usable configurations.
 - Example Language: XI-10.4.05.C.1.b (R3 Zones) *An average of two hundred square feet of usable open space shall be provided for each dwelling unit. "Usable open space" shall mean any open space, the smallest dimension of which is at least 4 ½ feet and which is not used as storage or for movement of motor vehicles*

Weaknesses

- **Landscaping:** Language regulating usable open space is much closer to objectivity, while instances regarding landscaping are often almost entirely subjective. In some instances, language regulating the design of landscape is more of an aspirational goal or guideline rather than objective statement that applicants and designers can apply practically.
 - Example Language: XI-10-11.07.2.d *Landscaping is to be designated to highlight positive visual features, to screen negative ones, and to provide a cool, pleasant outdoor environment.*
- **Utilities:** Design guidelines regarding utilities are not extensive, but currently contain a variety of subjective and ambiguous directions that refer generically to “*well landscaped*” areas, and screening requirements that lack dimensions.
 - Example Language: XI-10-6.06.A *Rooftop mechanical equipment shall be concealed from street level views through roof designs that area architecturally integrated with the building, such as equipment wells and parapets*
- **Waste Disposal:** Areas for depositing and collecting waste are currently regulated in two sections of the code’s general provisions (XI-10-54.12 *Areas for Collecting and Loading Recyclable Materials* + XI-10-54.16 *Trash Enclosures, Equipment, and their screening*). Language regarding recyclable materials lack any objectivity or quantifiable requirements, beyond the basic requirement that all projects with 5 or more living units must provide a collecting and loading area. Trash enclosures also lack specific requirements for screening, and feature vague setback requirements and dimensions.
 - Example Language: XI-10-54.12.D. *Design Guidelines. The design and construction of recycling areas shall be reviewed in accordance with the guidelines adopted by Council Resolution for recycling areas.*
 - Example Language: XI-10-54.16.B.1 *When located on the street side of corner lots, the enclosure must be set back at least as far as the main building*

B. Transit Area Specific Plan (2011)

(Update pending as *Milpitas Metro Specific Plan*)

Development standards and design guidelines are featured in two sections of the 2011 report: Chapter 5, and Appendix. Any revisions to these standards since the 2011 adoption have been adopted in the Zoning Ordinance.

Strengths

- **Building Design:** Building massing, articulation, and features including windows, materials, and colors are regulated in the Appendix. Similar to the existing language regulating site planning, the content is adequate in its range of topics but consistently relies on subjective and ambiguous requirements ("*special architectural treatment*," "*buildings should be well articulated*," "*multi-paned windows are strongly encouraged*"). This subjective language needs to be eliminated, and more quantitative and explicit direction provided through revisions that include dimensions and clearer diagrams.
- **Ground Floor Design:** The standards regulating ground floor design are similar to those found in the zoning ordinance, but include a few additional requirements that need reinforcement, such as greater clarity regarding treatment of blank facades; entryways; recesses and projections. Other topics need improvement, such as materials (still described as "*best*" and "*quality*").
- **Mixed Use Design:** The sections in the Appendix regulating mixed-use buildings design are much more robust than the zoning ordinance, and could serve as a reference point for areas of improvement. It features the same shortcomings found throughout the specific plan, where greater specificity, dimensions, and clearer diagrams are needed.
- **Site Planning:** Standards regulating sites, block patterns, and building placement are regulated in the Appendix. A commendable range of topics are already featured, including block size, building and façade orientation, screening residential from industrial uses, mitigating surface parking, and vehicular circulation/access. Work is needed to eliminate subjective language, and provide more quantitative and explicit direction through revisions including dimensions and clearer diagrams.
- **ROW/Streetscape Design:** The current specific plan features a clear organization of street typologies with accompanying visuals that illustrate the exact dimensional requirements for the ROWs, including streets, planted or landscaped medians, planting strips, and sidewalks. These include planted areas within front setback areas.

Weaknesses

- **Organization of Policies and Standards:** The chapter concludes with a set of additional construction standards pertaining to specific topics, such as green building standards (including solar), noise considerations, railroad corridors, and hazardous materials. Some of these are more appropriately addressed as a component of the *Metro Specific Plan* update process, but others such as the regulation of parcels adjacent to railroads should more appropriate be nested in the overall zoning code. The topic of solar installation also warrants its own section in the zoning code, especially in response to recent legislation including AB 178 which requires all single-family residences and multi-family residences up to three stories across the entire state to satisfy minimum solar panel requirements.
- **Fence, Walls, and Vegetation Buffers for noise and vibrations:** Only applicable to parcels in close proximity to BART, UPRR train tracks, Great Mall Parkway, and industrial uses residential applicants are required to construct masonry walls and sound walls to address issues of noise and vibration. No objective standards are currently provided.

- **Landscaping:** This specific plan is an improvement upon the regulation and definition of landscaping compared to the zoning ordinance, but still remains highly subjective. Although objective/quantitative requirements are scattered throughout, generic mandates such as “*The develops of multifamily and mixed-use building should provide full landscaping*” is meaningless when approaching a given project from a design or approval perspective.
- **Multifamily Residential:** These standards are too brief, and new objective standards should be developed in tandem with zoning ordinance revisions.
- **Services:** Standards regarding utilities, service and loading areas, waste removal, and public safety issues are general and vague. The current plan references the Midtown Specific Plan, but both plans require significant revisions.
- **Vehicular Access:** Garage entrances, curb cuts, and wrapped parking are all featured, with scarce details regarding acceptable dimensions or design. Precedent images offer some needed context and reference, but the language needs additional objective directions and specificity.

C. Midtown Specific Plan (2010)

Development standards and guidelines are featured in Chapter 8 of the 2010 report. It prefaces the standards with this excerpt, which will need to be revised but also represents the typical approach to regulating design guidelines prior to the adoptions of SB 35 and 330 and serves as a useful precedent:

“The words “shall” and “will” indicate a mandatory requirement. The word “should” means that an action is required unless a determination is made that the intent of the guideline is satisfied by other means. Words such as “encouraged” or “may” are advisory and are provided as guidelines for development. In general, the word “shall” is used in the Development Standards. The Design Guidelines include the word “should” indicating a mandatory guideline.”

Strengths

- **Building Design:** Much of this language correlates with the Metro Specific Plan. Revisions to make standards objective are likely to be universally adapted in both plans.
- **Mixed-Use and Multifamily Design:** Much of this language correlates with the Metro Specific Plan. Revisions to make standards objective are likely to be universally adapted in both plans.
- **Parking Areas:** The plan separates off-street parking standards for residential and mixed-use projects, each featuring its own set of ratios based on unit type and building use. Although the existing language is brief, it offers a degree of specificity and objective dimensions with regards to the design of carports. Other areas will require revisions, such as driveway design and placement (site access), associating landscaping, and clearer standards regarding nearby existing on-street parking.

Weaknesses

- **Building Heights:** Instances of subjective design considerations such as “*special architectural elements such as towers and spires [or] corner elements*” will need to be removed, or fleshed out individually and made objective. This is especially important as it relates to maximum allowed building height.
- **Interaction with the Zoning Ordinance:** The Specific Plan area features nearly a dozen different zoning designations, including multifamily (R4, R4-TOD) and mixed-use (MXD, MXD-TOD). However, there are design guidelines featured in the specific plan that are not reflected in the zoning code, and regulations in the zoning code that are not explicitly contained within the specific plan document. Applicants and reviewers are thus required to consult two separate regulatory documents and resolve any discrepancies between the relevant and applicable standards, resulting in a confusing and complicated approval process.

- Example: XI-10.6.04.G *Park and Open Space Requirements for Residential Use*. This section contains additional design guidelines with regards to open space calculations and design of usable open space such as balconies and patios.
- **Interaction with Metro Specific Plan:** According to the zoning ordinance (XI-10-11.06.A.1), “*exterior building or site improvements*” must meet the design guidelines and standards of the Transit Area Specific Plan (aka Metro Specific Plan). This arrangement is confusing for both applicants and project reviewers, as it is not best practice for one specific plan be called on to regulate another.
- **Landscaping:** The shortcomings of this language are similar to those of the Metro Specific Plan, although this plan offers even fewer standards.
- **Parks and Open Space:** Three types of open space are required within the plan area, yet none are distinguishable from one another from a design perspective based on the highly vague and subjective language, and offer no clear direction with regards to design, location, or accessibility.
 - “*Private park space should be configured to be usable for recreational purposes by residents of the housing development.*”
- **Service Areas:** The plan features three brief, subjective guidelines regulating service areas in non-residential projects, but offers no direction on mixed-use featuring residential, or multi-family projects.
- **Street Trees:** Street trees located on sidewalks are a requirement, but the current language offers no direction on how they must interact with either existing or “assumed” 10-foot sidewalks.
- **Utilities + Waste Removal:** Weaknesses are nearly identical to those found in the zoning ordinance.

D. Streetscape Master Plan (2000)

This master plan functions as an all-purpose document that governs the regulation and design of the ROW, including sidewalks, landscaping, street trees, utilities, and vehicular circulation. As a master plan, it outlines a comprehensive set of goals and standards for streetscape design and maintenance, in addition to relevant city-wide policies and funding sources for implementation.

Although matters of streetscape, landscaping, ROW design, and utilities can be included within the scope of objective design standards, the City will need to make a determination regarding this master plan document and its relationship to any new design standards. Especially as the document is more than twenty years old, it is likely that an independent update of the plan may also be needed to be aligned with more urban development forms and meet the City’s goals for pedestrian safety, walkability, and active modes of transportation.

E. Fire Code Interpretation

Each city's interpretation of the California Fire Code can have a great impact on site and building design. Many city codes have been written to complement small scale suburban development, as more urban, high density building forms enter a community, these codes are often in conflict with contemporary building methods. The stakeholders R+A spoke with to gather feedback on development in Milpitas outlined number of subjective interpretations of the fire code that have hindered meeting the design goals and policies of the City. Some instances required redesign, resulted in a loss of units, and were considered to be requests that went beyond requirements of the California Fire Code. These instances included requiring the following:

- A Fire Command Center for buildings where the highest occupiable floor is below 75 feet in height
- More than one stairwell to provide roof access
- Additional fire apparatus access than the California Fire Code for sprinklered buildings
- Second fire apparatus access to be full length of second frontage

IV. Staff & Community Feedback

A. Staff Feedback

The project team has thus far completed two meetings with city staff to gather feedback and insight regarding project review, engagement with objective design standards, and best practices.

March 1, 2021. Planning Staff

Midtown Specific Plan: Development review process

- Current specific plan features a number of design guidelines that are scattered throughout the document. Staff must also reference excerpts within the zoning code, resulting in a complicated review process.
- Existing guidelines are largely outdated and feature design practices that are no longer relevant or appropriate to contemporary Milpitas: building articulation, detailing, and massing are particularly problematic as developers/applicants have exhibited difficulties submitting 'appropriate' designs based on the existing language.
- Prescribed land uses constitute a hurdle for applicants who are required to provide elements such as ground-floor retail (even where it may not be financially feasible): staff suggestion that prioritizing language that emphasizes building *form* over building *use* may be a more successful application of design standards.

Zoning Code: Existing design-related standards

- Existing regulations are largely subjective, resulting in confusion on the part of both designers/developers and planning staff: this typically manifests in a bespoke and iterative review process that may be incongruous to another staff member's interpretation.
- Modular buildings and construction practices are a developing concern, especially as they pertain to satisfying building code, and best practices related to building articulation, massing, and step backs.
- Conflicts arise regarding inter- and intra-departmental review: planning staff, building, public works and other external parties such as PG&E can disagree on building and site configuration (streetscape is especially difficult to regulate consistently and efficiently).

- Topics of conflict: private open space (including balconies); entryways (including patios); HVAC and utilities; mail and package delivery.

Best Practices & Suggestions

- Recognizing the need to develop design standards that can withstand aesthetic/design cycles, perhaps a degree of discretionary review can still be baked into the language (Ex. Developers satisfy all objective standards within certain topics, but some portion/percentage of the process involves negotiation and collaboration with staff).
- Flexibility regarding ground-floor uses: not limiting applicants to strictly ground-floor retail, but offering other options (ex. public-facing open space, street-facing community spaces for building tenants, public art).
- Flexibility regarding façade treatment and finishes: building facades facing major roads/arterials might be subjected to a different set of criteria than facades facing local streets.
- Introduction of standard typologies that allow consistent but context-specific regulations: streetscapes/ROW design, planting/landscape.

March 4, 2021. Development Review Committee

General Feedback

- Mailbox and delivery access is especially important: especially in multi-family developments (such as townhouse developments), mailboxes are often clustered in a single area that is difficult to access. Standards need to foster a safe environment for pedestrians and people in vehicles alike.
- Solid waste removal: standardization of waste removal facilities could be regulated based on building type (ex. townhouse, condo, apartment, mixed-use commercial)
- Vehicular circulation: designated space for alternative mobility options (rideshare, scooters) is needed, including associating standards related to signage, site access, and parking (temporary). Transit areas should also be considered and designed in a way that prevents local congestion.
- Parking + Loading/Unloading:
 - Residential: residential tenants lack adequate spaces for loading/unloading (ex. moving vans), particularly at the front of buildings (issues of double-parking)
 - Mixed-Use/Commercial: parking ratio for retail parking conflict with residential ratios; emergency vehicle access is especially confusing.

B. Community Feedback

Recognizing that design standards will impact the work of both city staff as well as individual applicants, four one-on-one meetings have been facilitated where developers and designers have been invited to share insights, with particular emphasis on past or ongoing projects located in Milpitas. Contact information was facilitated directly by City Staff, and meetings were conducted on a voluntary basis. Altogether, four meetings were conducted.

Experience in Milpitas

- Parcel sizes make non-structured parking difficult, especially when attempting to meet necessary density requirements. The issue is exacerbated by the costs and building-height limitations attributed to structured parking.
- Building heights and required density is sometimes inconsistent: building height maximums are often too low, especially regarding highest habitable floor.

- Satisfying fire/public safety standards has been cumbersome, especially when attempting to design stairwells, setbacks, utilities, egress requirements.
 - In some cases, public safety standards utilize a much larger building typology (hi-rise) to establish standards, which are not appropriate for lower-density buildings (3-5 stories).

General Feedback

- Significant opposition regarding a prescriptive approach to regulating building materials, especially as they pertain to façade treatments
- Finished-floor heights are problematic with regards to construction practices, privacy, marketability, and security. Regulations could necessitate multiple unit entrances, inconsistent finish heights along a single building façade, need for additional screening/planting criteria.
 - City of San Francisco's approach: for each additional foot above grade, applicants are allowed one additional foot of total building height, up to a specific maximum.
- Suggestion to regulate residential density based on unit count rather than FAR.
- Land prices demand good professionals in the Bay Area, too many design standards make development harder.
- Most common practice for developers is to use different architects for any given project. Consequently, any design standards ought to be less prescriptive and more flexible.
- Small block walkability standards should be specific.
- Strongest appeal of objective design standards is the expedited review process, and eliminating the potential for case-by-case deviations/exactions
- Utilize standard unit sizes/dimensions when development building standards, especially as they relate to desired façade breaks/articulation
- Look at the building code, build design standards back from that.
- Recommend regulating buildings based on typologies that can be reasonably expected to appear in Milpitas, ex. townhomes, condos, row-houses (thereby eliminating building typologies that would *not* be approved)
- Task Fee + Affordable Housing Fee + Building Fees = 45-50K per unit, eliminates certain densities
- Challenges were not around design guidelines, Fire Department in Milpitas were too onerous, same with Public Works. Projects require up to 5 rounds of comments, comments go beyond code and are sometimes in conflict with Building Department.
 - building must be within 20' of back of walk, but the mandatory fire lane requirements are inconsistent with them
 - stairwells must include fire service rooms(?) and must connect to the roof
 - Issues of hi-rise development standards being applied in-situ to smaller buildings, without considerations of practicality or applicability

Modular Construction

- Additional building height is needed as a practical result of modular construction: stacking individual modules/units can typically require an *additional* 8 to 12 inches of vertical clearance per floor, which may exceed local building height maximums.
- Upper-floor step backs are problematic and highly discouraged: although feasible from a construction perspective, they constitute significant hurdles both financially and practically. Allowing for ways to reduce floor area on upper floors without specific façade step backs are more feasible.

- Issues of variance approvals has deterred some developers from investing more heavily into modular design: although they might manage to satisfy zoning requirements, local building code regulations may not agree.
- Construction techniques discourages deviations in floor height: taller ground-floors for example are more difficult to negotiate, as the standard modular unit is 11' floor-to-floor
 - Stacked parking is typically incongruous with modular construction, unless modular units are placed atop a separately-constructed podium featuring taller floor-to-floor heights.
- Significant breaks/façade breaks are difficult to negotiate: a more feasible strategy would be to provide other design standards that can break up a façade without require a large break (ex. extruded or intruded balconies or windows) + prescribing a specific *number* of required breaks rather than a specific *building/facade length*.

V. Best Practices

Objective design standards have been implemented in a variety of ways, as each city takes an approach that works for their timeline and specific context. These standards commonly appear in specific and area plans, where sites are typically smaller in scale, and design considerations can be specifically tailored to the unique urban context and anticipated development. Additionally, objective design standards have been introduced into zoning codes where they can be regulated more holistically across an entire district or use type.

In order to analyze best practices when developing objective design standards, we reviewed a variety of example codes, area plans, and development standards to identify successful approaches to organization, structure, flexibility in design, and language. The analysis also helped establish precedents for specific topics and unique approaches to quantifying design criteria. This section includes a discussion of overall organization and structure (A), strategies for balancing flexible design with objective language and regulations (B), and a case study (C).

A complete list of the documents reviewed in our research can be found in **VII. Appendix.**

A. Organization & Structure

Given that objective design standards appear in a variety of contexts, their organization and structure are typically consistent with the document in which they are featured. As the state has not issued a universal format for regulating objective standards, standards can be organized in several approaches, including:

- **Topics:** where standards are organized into distinct and typically independent subjects and topics that may include building design, frontages and facades, landscaped areas, circulation, access, and streetscape.
- **Land Uses + Building Typologies:** where standards align with land uses such as housing, mixed-use, industrial, office, and open space. An alternative technique utilizes building typologies associated with common uses, such as residential (townhouses, mid-rise, mixed-use, high-rise) or parking (surface parking; sub-grade; podium).
- **Design Principles:** where standards adhere to several key, usually qualitative, principles or goals.

- **Areas:** where sites are portioned off into smaller units of planning, each containing a unique set of development and design standards that are context appropriate. This approach is synonymous with specific and master plans, planned development areas, and development agreements where the geographic area is scaled down, and contained within a specific geographic area or subset of parcels.
- **Form-based Codes:** where standards use individual building design and form as the primary means of regulating design, irrespective of land use or geographic area.

It is common for these approaches to be combined and re-organized, as each is not necessarily mutually exclusive. A **Mixed Approach** represents an alternative that combines components of several organizational approaches, and is oftentimes the most common approach to objective design standards. Topics are very often nested and duplicated under multiple land use categories, and design principles can be attached to any given topic and written as an associating design guideline to accompany an objective standard. Form-based codes are typically the exception, as their organization and underlying strategy for regulating design standards at the building level requires a comprehensive design for the area it is regulating.

Each approach has its merits, some of which are described in further detail here.

Topical Approach

Advantages

- Provides project applicants and reviewers a consistent structure, where all standards related to a single topic can be found in one section.
- Shares similar organization structure with zoning language, and can be integrated or appended without requiring significant changes to the code as a whole.
- Scales successfully with a geographic-based approach, should the code require a unique set of standards for a specific neighborhood, overlay zone, or PD area.

Disadvantages

- Standards that fall under multiple categories can be difficult to place, or result in redundancies. For example, landscaping can appropriately categorized under open space, ROW/streetscape design, setback design, transitions between buildings and land uses, and surface parking.
- Individual standards can be difficult to craft to ensure their flexibility and adaptability to unique circumstances. Consequently, this approach typically requires additional language that accommodates variance requests or exemptions.

Example: Peery Park Specific Plan

Peery Park Specific Plan features two chapters related to objective design standards: the Development Code which uniformly regulates building height, setbacks, and parking; and Design Guidelines which provide more specific details and standards in a similar organizational structure. The two sections work in tandem to provide applicants an organized and comprehensive inventory of requirements that they must satisfy.

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Land Use + Building Typologies Approach

Advantages

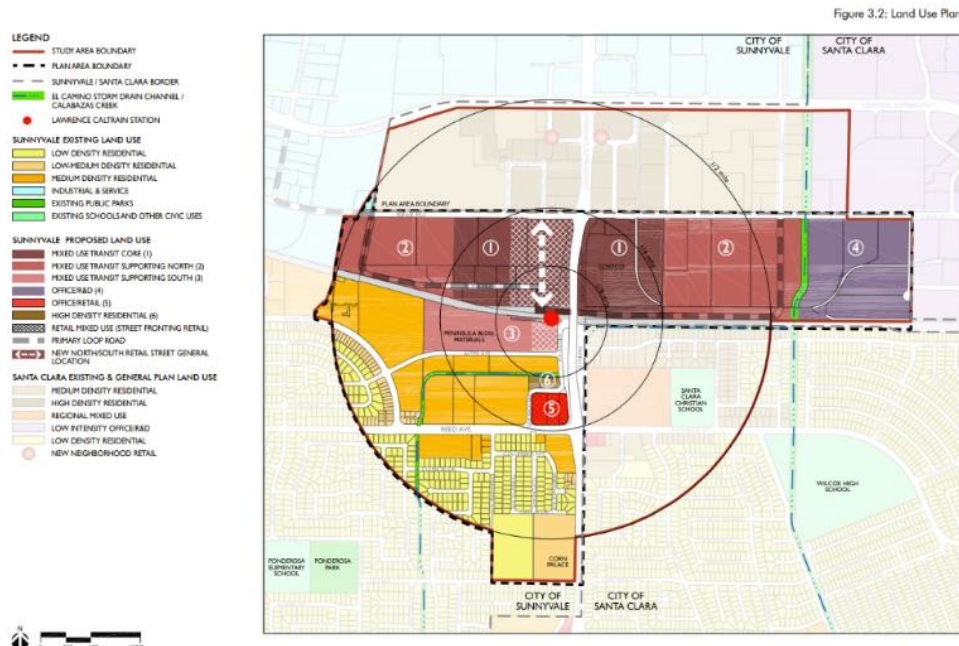
- Accommodates a piece-meal approach to making existing subjective language objective, as authors can afford to focus exclusively on a select number of land use types while leaving others unchanged. For example, objective standards can be limited exclusively to regulating multi-family and mixed-use developments, while other uses such as industrial or single-family residential need not be engaged.
- Shares similar organization structure with zoning language, and can be integrated or appended without requiring significant changes to the code as a whole.
- Gives project applicants and developers a clearly defined set of self-contained design standards that are based primarily on their location and underlying land use, eliminating the need to cross-examine other documents or standards.

Disadvantages

- Lacks opportunity to accommodate objective design criteria for unique conditions or circumstances, such as parcels abutting natural areas or a railroad corridor. Standards are forced to be written as universal requirements that must cover *all* building types within the land use designation.
- Can result in repetitive and redundant language, where design standards are repeated across several similar but distinct variations of the same land use or building type. Multi-family residential for example may have three classifications/designations based on density or location, and each may require a near-identical set of regulatory standards that might differ in subtle ways.

Example: Lawrence Station Area Plan, Sunnyvale

Oriented around a major transit hub, the *Lawrence Station Area Plan* for Sunnyvale features a number of land uses that the plan uses to organize its associating guidelines and standards. These land uses differ from the current underlying zoning, as the specific plan allows the city to regulate these parcels at a finer grain of detail. Three distinct mixed-used designations, two commercial, an overlay zone, and one residential use each feature an individual set of objective standards.



Design Principles Approach

Advantages

- Allows for a cohesive and goal-driven organizational structure, where individual standards are universally oriented around a consistent set of principles.
- Principles provide insight to applicants regarding the underlying purpose and intention of a given standard, while the associating objective standards give clear direction to guide design.
- Accommodates a semi-qualitative approach to design regulation that may be more accessible to a general audience who often have difficulty understanding the merits of individual, quantitative objective standards.

Disadvantages

- Requires that individual standards fit into higher-level categories or classifications that do not always scale or line up successfully.
- Requires significant thought and time to craft underlying design principles that fully encapsulate the broad range of topics that design standards entail.
- Diverges significantly from the tone of most existing zoning language, making new objective standards revisions difficult to integrate.

Example: Lawrence Station Area Plan, Santa Clara

Santa Clara's *Lawrence Station Area Plan* features many design principles oriented around key themes, such as architecture, streetscape, and public art. Each principle features a broad thesis that establishes a set of goals, and individual policies and design standards result from these goals.

5.2 ARCHITECTURAL DESIGN PRINCIPLES



Neighborhood Identity:
The LSAP should promote a strong neighborhood identity and establish the overall community image. The Plan should support mixed-use development that features ground floor commercial and upper floor residential uses.



Building Street Relationship:
Sidewalks should promote vitality and engage pedestrian interest. Orient development to spatially define and focus activity on the street. Establish a visual link with the streets.



Three Dimensional Quality:
Facades should enhance their visual surroundings. Articulate facades so as to introduce shadow lines and provide visual relief. Utilize a pleasing set of proportions and a clear pattern of building openings, and well-composed cornice lines.



Human Scale:
Buildings should contribute to a pleasing living environment. Encourage elements that offer a human dimension, such as frequent shop entrances, window displays, awnings, overhangs, and exterior light fixtures. Incorporate rich detail and high-quality materials, especially at eye-level.



Permanence:
Developments should make a long-term contribution to the community. Use details, materials, and colors in tune with the local environment and building traditions. Raise the level of design with materials that exhibit permanence and quality.



Outdoor Rooms:
Use building massing and architecture to facilitate social interaction and passive recreation through "outdoor rooms." Plazas and courtyards are integral to a vibrant life at Lawrence Station. Use buildings to help "contain" spaces that establish a comfortable transition between interior and exterior.



Accessibility:
Buildings should be oriented and designed to make entrances obvious and easily accessible to pedestrians and cyclists. Modulations in the building facade or other unique architectural characteristics help to create a legible and functional public realm.

Example: David Baker Architects' 9 Ways

Initially developed as an internal set of guiding principles, David Baker Architects have since repositioned their 9 Ways approach as a universal methodology for encouraging people-centric design. Coming from an architectural foundation, these principles are more specific to building and site design rather than area-wide goals and are intended to be applied comprehensively. Individual buildings should aspire to satisfy *all* 9 principles.

1. *Reweave the Urban Fabric*: Create, repair, and enhance connections within existing neighborhoods.
2. *Make Big Moves*: Design a bold and interesting building form.
3. *A Little Goes a Long Way*: Concentrate premium materials at points of shared enjoyment. Keep it simple everywhere else.
4. *Activate the Edges*: Energize the streetscape with a generous, mixed-use ground floor.
5. *Be Welcoming*: Set a positive Tone with a bright and engaging entryway.
6. *Cultivate Connection*: Place compatible uses together to add convenience and support social encounters.
7. *Enlighten Circulation*: Bring light and fresh air into hallways and stairs to connect with nature and encourage walking.
8. *Get Personal*: Reflect the character of the community and offer opportunities for expression.
9. *Art for All*: Use artwork to invigorate common spaces, help with wayfinding, and create a strong visual identity.

Area-based Approach

Advantages

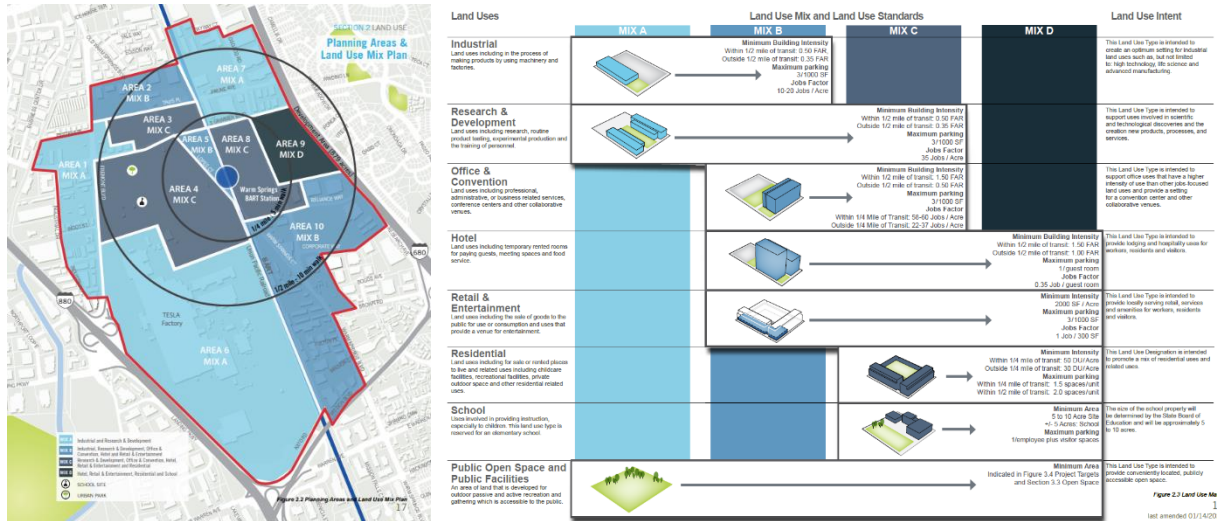
- Allows for context-based design standards applied at a smaller scale, as individual areas can be regulated independently rather than relying on uniform and universal design standards across a larger geographic area.
- Accommodates unique circumstances such as creeks, railways, abutting open spaces, or adjacent industrial use by approaching these conditions as individual areas.
- Accommodates a phased approach for development, particularly in a specific plan or master plan area.
- Compliments other organizational structures without significant revisions, where a topic- or land use-based structure can be developed for each individual area.

Disadvantages

- Potentially requires an entirely separate layer of land use organization and regulations, distinct from underlying zoning designations.
- Requires additional consideration and expertise to accommodate unique contextual circumstances regarding how areas align with one another and their abutting areas. For example, regulations and standards regarding setbacks and transitions between land uses for example require greater attention and effort given the complexity of relationships.
- Results in a non-uniform review of individual projects that may share similar underlying uses, but are regulated differently based on their assigned area.

Example: Warm Springs Community Plan

Oriented around the Warm Springs BART Station, the *Warm Springs Community Plan* divides the plan area into 10 different components. Each area features a different set of development standards that regulates building intensity, allowable uses, and bulk requirements. Although some design standards are applied uniformly, they are inherently regulated by the limits defined for each area: high-rise buildings for example are not acceptable in the areas abutting low-density housing, limiting any proposed buildings to a reduced number of objective standards.



Form-based Codes

Advantages

- Allows jurisdictions a high degree of control when designing the initial set of building standards, as the nature of form-based codes necessitates a substantial level architectural details and design considerations.
- Results in a built landscape that is mostly harmonious and consistent in scale, façade treatment, architectural style, and character.
- Results in a very succinct review process, where reviewers and applicants alike have every building detail prescribed, and design review can utilize a simple checklist.

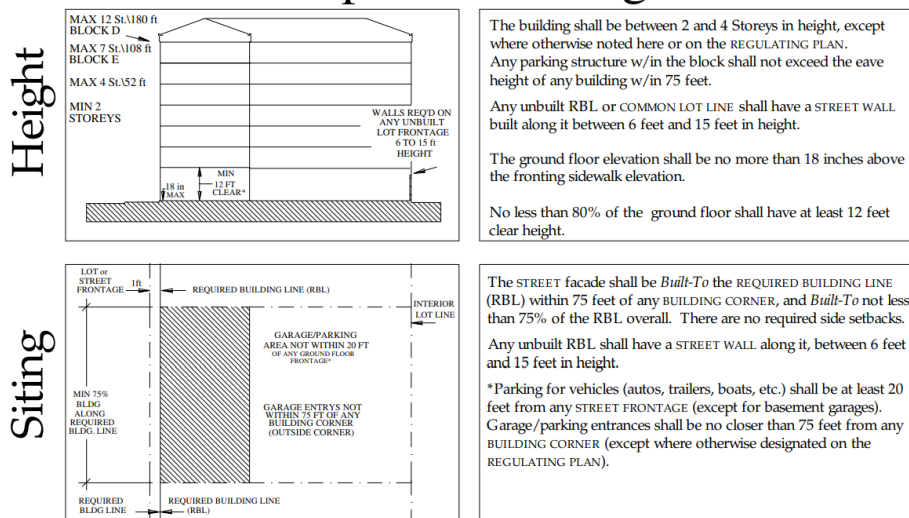
Disadvantages

- Lacks the features of conventional zoning practices such as district-wide setbacks, parking ratios, or FAR, typically resulting in complex standards.
- Requires more specialized knowledge of design and architectural practices for applicants to successfully navigate the standards.
- Requires intensive details that may not scale successfully to city-wide contexts that feature numerous land uses, building types, and geographic conditions.

Example: Pleasant Hill BART Station Property Code

The Pleasant Hill BART Station Property Code is designed to complement a corresponding master plan, and limits its content to strictly architectural standards and building envelope standards. The code identifies four building types, each based on a single land use (ex. commercial office, retail, townhouses). The code then prescribes exact height, bulk, and density standards, and prohibits any deviation from the prescribed requirements.

Workplace Building Sites



Mixed Approach

This method of organization aligns several previous strategies within a single document. It is most commonly applied to specific or master plans, but can certainly be incorporated into more traditional zoning formats. The advantages and disadvantages of a synthesized organizational structure are similar to those previously discussed, with the added flexibility that individual aspects can be adapted in a condensed or reduced format. For example, design principles can be introduced at the start of the document, but integrated into a topical approach where principles are referenced in individual categories of standards.

B. Flexibility in Design

A good set of objective design standards should strive to achieve a balance between flexibility and prescriptiveness. Knowing that applicants are likely to submit a broad range of proposals for both multi-family and mixed-use developments, standards must be written broadly enough to ensure a consistent review process, while also leaving room for individual aesthetic and architectural designs.

As with their overarching structure, objective standards can be organized using several broader strategies:

- **Uniform:** where a standard must be applied universally across the entire sphere of influence without deviation.
- **Menu of Options:** where the code features a selection of elements and standards that individual applicants must then select from.
- **Point-based:** where projects are required to attain a minimum score, based on an objective set of criteria that assign points to specific interventions and design strategies.

- **Typologies:** where topics are categorized into a set number of classifications such as building type or streetscape, and applicants have the agency to determine which classifications are most appropriate for their projects.
- **Location-specific:** where standards are attributed to specific geographic areas, and confined in their range of applicability.

As with organization and structure, most of these strategies are not mutually exclusive, and most are inherently intertwined. It is common for objective design standards to utilize a combination of strategies to facilitate flexibility, as some techniques are more suited to regulating specific topics.

Uniform Approach

Advantages

- Offers a clear and consistent review process for both applicants and reviewers, as standards do not feature variations or deviations for the original language.
- Lends itself to a table-based approach to objective standards that is clear and accessible to readers.

Disadvantages

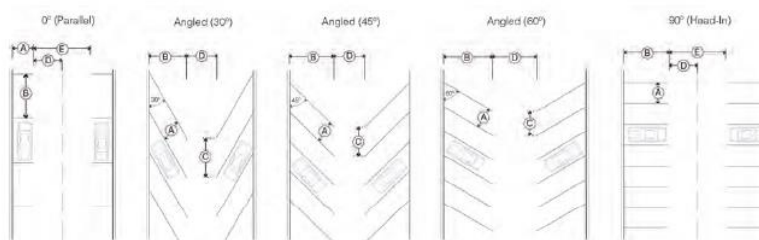
- Lacks flexibility in its prescriptiveness, which may result in reduced individual creativity or architectural expression.
- Requires a one-size fits all standard that applies successfully in every scenario, despite unique cases such as irregularly shaped parcels or public easements.
- Necessitates variance or exemption requests to accommodate unique circumstances, inviting the risk of a subjective review process.

Example: City of Buffalo

While there are a number of context-specific standards that allow greater flexibility, certain topics within the City of Buffalo's *Green Code Unified Development Ordinance* features a single, uniform standard for topics such as aisle widths. Dependent on the angle of individual parking spaces, the aisle width is required to satisfy a minimum width that does not deviate regardless of the associating building use: aisle widths in surface lots for multi-family develops share the exact same standards as a commercial building, an institutional building, or a mixed-use building.

TABLE 8B: PARKING STALL AND DRIVE AISLE DIMENSIONS

STALL ANGLE	STALL WIDTH (MIN) (A)	STALL DEPTH (MIN) (B)	SKEW WIDTH (MIN) (C)	DRIVE AISLE WIDTH, 1-WAY (MIN) (D)	DRIVE AISLE WIDTH, 2 WAY (MIN) (E)	VERTICAL CLEARANCE (MIN)
0 degrees (parallel)	8'	18'	8'	11'	22'	7' 6"
30 degrees	8' 6"	15'	16' 6"	11'	—	7' 6"
45 degrees	8' 6"	17' 9"	11' 8"	11' 10"	—	7' 6"
60 degrees	8' 6"	19'	9' 6"	13' 6"	—	7' 6"
90 degrees (head-in)	8' 6"	18'	8' 6"	—	23'	7' 6"



Menu of Options

Advantages

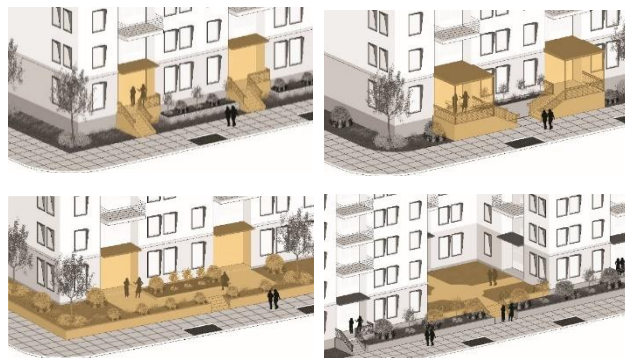
- Offers a degree of flexibility in design and application, as individual projects can apply unique combinations of the available options to their designs.
- Accommodates a broader range of choices and design considerations within the 'menu.'
- Scales successfully across different topics, as 'menus' can be developed for many standards including landscaping, façade design, and entryways.

Disadvantages

- Requires compatibility across *all* available options and potential combinations, as applicants will select the combination that best fits their project.
- Invites potentially contentious and subjective review when determining an 'appropriate' number of minimum options that applicants must satisfy.
- Potentially results in combinations that are incompatible in execution or aesthetics, resulting in inconsistent building design and project approvals.

Example: Beaverton Downtown Design Guidelines

Active ground-floors can be achieved through a variety of entry types. The City of Beaverton identifies five different residential entry types: patios, stoops, terraces, frontage courts, and at-grade entries. Each features distinct design criteria and requirements, but all serve to create a degree of separation and privacy between the doorways and the sidewalk. Project applicants are given the flexibility to choose which configurations work best for their respective development.



Point-based System

Advantages

- Features an objective and entirely non-subjective methodology for applicants and reviewers alike: if the minimum score is attained, the project can and must be approved.
- Offers a degree of flexibility in design and application, as individual projects can apply unique combinations of the available options to their designs in order to satisfy the minimum score.
- Helps to quantify and make objective topics that are difficult to characterize, such as street connectivity and site access.
- Scales effectively across diverse locations or underlying land uses, as minimum scores and methods for calculation can vary

Disadvantages

- Requires a complex process to develop formulas and methods that result in an objective and consistent score.
- Potentially results in confusing standards that are difficult for applicants to understand, or reviewers to interpret.
- Potentially results in incompatible design that nonetheless satisfies the minimum score.

Example: City of Henderson

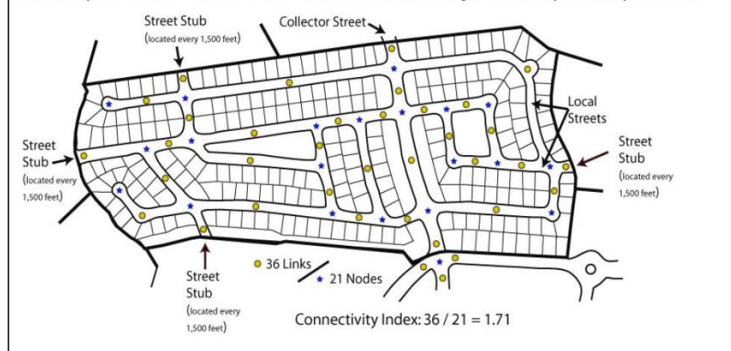
In an effort to facilitate more prolific street connections on new developments, the City of Henderson uses a “connectivity index” that requires multiple connection points between the project and the city’s existing street grid. Individual projects are tasked with submitting a circulation plan that satisfies a minimum score, based either on zoning district or building type (ex. multifamily residential, mixed-use commercial)

TABLE 19.7.3-1: MINIMUM CONNECTIVITY INDEX SCORE

BASE ZONING DISTRICT	MINIMUM INDEX SCORE
RS-1, RS-2, DH, RMH, PS	1.4
RS-4, RS-6, RS-8, RM-10, RM-16 (single-family attached only)	1.4
MC, MR, MN, PC	1.65

Figure 19.7.3-A: Connectivity Index

This figure provides an example of how to calculate the connectivity index. In the diagram, there are 36 links (circles) and 21 nodes (stars); therefore, the connectivity index is 1.71 ($36/21 = 1.71$). In addition, each side of the development includes at least one street stub or connection to the greater street system every 1,500 feet.



Example: Pier 70 SUD Design For Development

The *Pier 70 SUD Design for Development* utilizes a credit system to regulate building design. A few different categories are identified, including façade and roof modulation, and overall building massing (setbacks, building breaks, courtyards). Applicants are free to design buildings using the established parameters, and must earn a minimum number of credits associated with each standard in order to attain approval.

TABLE B.5.2: 2175 Market Street – Qualifying Modulation Strategies

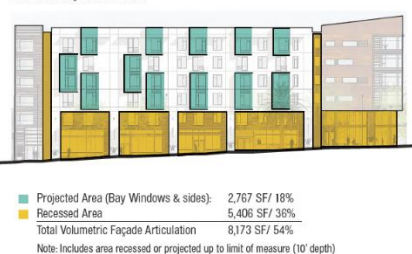
QUALIFYING STRATEGY: MODULATION	% MIN. AREA	MAX. CREDITS	% ACHIEVED	CREDITS ACHIEVED	NOTES
Multiple Façade Systems	20% / 20%	2	29% / 59%	1	Façade system 1 – Bays/Glazing Façade system 2 – Wood/Glazing
Volumetric Façade Articulation	33%	Unlimited	54%	1	Recessed and Projected Area over 9" (including Bay windows)
Roofline Modulation	20% (LF): 3' H.	1	21% (LF): 5'6" H.	1 (2)	Angled roof at the corner (44'-8"L. by 5'-6" H.)
TOTAL MODULATION STRATEGIES				3 (4)	

Note: Numbers in parentheses indicate total number of credits achieved after double counting modulation strategies beyond the prerequisite amounts.

Multiple Façade Systems



Volumetric Façade Articulation



Typologies

Advantages

- Allows individual applications flexibility to select the appropriate typology relative to their intent and design parameters.
- Allows zoning designations to have unique standards aligned with specific building, street, or open space typologies.
- Lends itself to a table-based approach to objective standards that is clear and accessible to both readers and reviewers.

Disadvantages

- Requires that typologies be intentionally written in general or generic terms to allow scaling across diverse contexts, resulting in less comprehensive standards.





Example: Vallco Specific Plan

The specific plan identifies several open space typologies as an alternative to the generic 'landscaping' or 'planting' that is typically found in the existing code. These open space types vary in size, dimensions, and required amenities (ex. benches, play structures). Applicants have the opportunity to select the appropriate typology as it relates to their particular project, and must satisfy that specific set of requirements.

Table 6.2.202.B: Open Space Requirements (Continued)			
Open Space Type	Min. Width (feet)	Min. Size	Other Requirements
Open Space Types to count towards Parkland Requirement (whether publicly or privately accessible)			
Greenway	55 feet	1.0 acre	See 6.2.202.A.1
Neighborhood Park	90 feet	0.25 acre	See 6.2.202.A.2
Plaza/Square: Town Square (Retail and Entertainment/Mixed Use District)	200 feet	1.75 acres	See 6.2.202.A.3
Plaza/Square: East Plaza (Office/Mixed Use District)	125 feet	0.75	See 6.2.202.A.3
Pedestrian Bridge	If landscaped open space is provided on the bridge, shall be consistent with open space types listed above		See 6.2.202.A.4
Pocket Plaza/Park	50 feet	2,500 sq. ft.	See 6.2.202.A.5
Private Open Space			
Common Open Space for Residential Units	60 feet	60 sq. ft.	Privately accessible. May be provided in the form of podium central courtyards, pool areas, decks, etc.

Example: Marin County Objective Design and Development Standards Toolkit

The county of Marin uses a typological approach to several of their design standards, including materials, window design, and building types. The code begins with two building types: house-scale, and block-scale. From there, eight residential typologies are featured under the house-scale, and four residential/mixed-use typologies under the block-scale. Each typology is intended for a different level of density and features its own set of design standards. These building types are further delineated into specific zoning districts where they may be applied.

Building Types: Block-Scale		Zones	
	Multiplex x.06.120. A medium-to-large-sized, detached, House-Scale Building that consists of 6 to 18 side-by-side and/or stacked units, typically with one shared entry. The type is scaled to fit within moderate-intensity neighborhoods. Synonym: Mansion Apartment	T3EN	T3SN
		T4SN.S	T4CN.M
	Core Townhouse x.06.130. A large-sized, typically attached, Block-Scale Building (5-8 units) with a rear setback. Each Core Townhouse consists of 1 unit. As allowed by the zone, the type may also be detached with minimal separations between buildings. The type is typically located within high-intensity neighborhoods or on, or near, a neighborhood main street. Synonym: Rowhouse	T4SN.S	T4CN.M
		T4SN.S	T4CN.M
	Core Courtyard x.06.140. A detached or attached, Block-Scale Building that consists of up to 50 attached and/or stacked units, accessed from one or more shared courtyards. The shared court is common open space. The type is typically integrated into moderate-to-high-intensity neighborhoods and on main streets with a non-residential ground floor along the adjacent street. Synonym: Courtyard Apartment	T4SN.S	T4CN.M
		T4SN.S	T4CN.M
	Main Street Building x.06.150. A small-to-large-sized, Block-Scale Building, typically attached, but may be detached. The type is intended to provide a vertical mix of uses with ground-floor retail, office, or service uses and upper-floor service or residential uses. The type makes up the primary component of neighborhood and downtown main streets, therefore being a key component to providing walkability.	T3EN	T3SN
		T4SN.S	T4CN.M

Location-Based

Advantages

- Accommodates existing designations including zoning, area plans, or other formal spheres of influence as a unique 'location.'
- Lends itself to a table-based approach to objective standards that is clear and accessible to both readers and reviewers.
- Scales well to standards related to streetscape and landscaping, as elements like street lighting, fire hydrants, and street trees may not always scale uniformly across an entire city.

Disadvantages

- Limits project applicants to a pre-determined set of standards that may lack flexibility, and may cause conflict in instances where exceptions are desired (ex. street trees are desired by the city to improve the public realm along a street lacking vegetation, but applicants are not required to provide street trees according to the standards).
- Requires an organizational structure oriented around zones, typologies, streets, or other locations types, which may be complicated to develop.

Example: City of Beaufort

Recognizing that multi-family and mixed-used developments require different demands from an infrastructure and streetscape perspective than compared to lower-density development, one potential option to implement objective design standards is to introduce a grid of mandatory streetscape elements that are attributed to specific zoning districts. These elements may include utility infrastructure, street lighting, fire hydrants, and telecom infrastructure. Individual elements can be further detailed in a separate set of standards.

7.1.3 TABLE OF REQUIRED IMPROVEMENTS

		ZONING DISTRICT										
REQUIRED IMPROVEMENTS ¹	SECTION REFERENCE	T1	T3-S	T3-N	T4-HN	T4-N	T5-DC	T5-UC	RMX	IC	LI	MHP
Public Water and Hydrants	7.1.3.B		■	■	■	■	■	■	■	■	■	■
Public Sewer	7.1.3.B		■	■	■	■	■	■	■	■	■	■
Paved Streets ¹	7.2.4		■	■	■	■	■	■	■	■		
Streetscape ²	Appendix C		■	■	□	■	■	■	■	■	■	■
Underground Drainage	7.1.3.A		■	■	■	■	■	■	■	■	■	
Curb and Gutter	Appendix C		□	□	□	■	■	■	■	■	■	
Sidewalks	7.2.4.C		□	□	□	■	■	■	■	■	■	
Street Trees	7.2.5			■	■	■	■	■	■	■		
Street Lights	n/a		□	□	□	■	■	■	■	■	■	■
Street Signs (private streets)	n/a	■	■	■	■	■	■	■	■	■	■	■
Underground Wiring On-Site	7.1.3.C	■	■	■	■	■	■	■	■	■	■	■
Community Green Space and Open Space Space	7.4	□	■	■	□	□				■		□
■ required improvements by district		□ may be required at the discretion of the administrator based on existing conditions, surrounding context, and street section (Appendix C)										
¹ Rear lanes/alleys may be permitted to be paved with pervious material, such as gravel, depending on the location.												
² Complete street requirements shall be coordinated with the specific street section found in the regulating plan in Appendix C.												
³ For Infill and Redevelopment, as defined in Section 8.3.2, these items [referring to the table of required provisions] are required to the extent feasible based on existing conditions including roads, utilities and adjacent buildings.												

Example: San Pablo Avenue Specific Plan

The *San Pablo Avenue Specific Plan* is a form-based code that regulates design along a primary vehicular corridor. The Plan identifies several street types located perpendicular or in near proximity to the central corridor, and uses these types as the foundation of their development standards. Building massing, setbacks, sidewalk requirements, and frontages are all contingent upon what street type a parcel abuts.

Frontage Type	Street Type						MBC	PPC
	SPC	SPM	MC	GWY	NS	OG		
Shop Front	•	•	•	•	•***	•	•	•
Flexible	•	•	•	•	•***	•	•	•
Arcade/Gallery*	•	•						
Forecourt**	•	•	•	•	•	•		•
Front Yard				•	•	•	•	•

STREET TYPE GLOSSARY:

SPC: San Pablo Avenue Commercial
 SPM: San Pablo Avenue Community
 MC: Major Commercial
 GWY: Gateway
 NS: Neighborhood
 OG: Ohlone Greenway
 MBC: Midblock Connection
 PPC: Potential Plaza Connection

* Note: Arcades are allowed only on the south and west facades of buildings to minimize sun glare.

** Note: Forecourts should be situated to maximize solar access.

***Note: Shop Fronts and Flex spaces are only allowed on Neighborhood Streets with planned commercial uses.

VI. Appendix

A. General Plan 2040: Goals & Policies

LU-2: Promote land use objectives and development patterns in **special planning areas** consistent with adopted specific plans, overlay districts, and density bonus provisions.

LU-5: Ensure that new development is compatible with existing development in order to maintain a high quality of life for residents, while supporting successful business operations.

- **LU 5-1** Require new development and redevelopment to be **compatible, complementary** and, where appropriate, **well integrated with existing residential areas**. Integrate new largescale development projects into the fabric of the existing community rather than allowing projects to be insular and self contained, walled off, or physically divided from surrounding uses. **Improve connectivity** between neighborhoods and services with new development. Tie circulation systems and open spaces into existing streets and open spaces. Reduce unnecessary barriers and improve connections between neighborhoods and services by retrofitting existing development over time as area improvements or redevelopment occurs.
- **LU 5-2 Prohibit incompatible uses and inappropriate development** in and near residential neighborhoods. As feasible, promote **gradual transitions** from high density development to surrounding low density neighborhoods in both building forms and land use.
- **LU 5-3** Ensure new development is consistent with **specific height limits** established within the City's Zoning Ordinance as applied through the zoning district for all properties within the City.
- **LU 5-5** Require that new residential development be designed to **protect residents from potential conflicts with adjacent land uses**, and other features including **rail corridors, high-voltage power lines and high-volume roadways**.

LU-6: Support commercial centers that serve residential neighborhoods and provide for a variety of convenient, successful and attractive commercial uses throughout the city.

- **LU 6-2** As commercial centers are proposed for redevelopment, create a **vibrant public realm** through **placemaking techniques** like public gathering places, features and focal elements including outdoor cafes and other outdoor uses and amenities.
- **LU 6-3** Minimize the visual impact of **large parking lots** by locating them away from public streets, and reclaim unneeded and underutilized paved areas that could be converted to neighborhood-enhancing features such as, gathering areas, pocket parks, or other community focused amenities.
- **LU 6-6** Encourage redevelopment and intensification of mixed-use areas by allowing **stand-alone vertical mixed-use**, or **integrated horizontal mixed-use projects** in mixed use areas, consistent with the Land Use Map and policies and actions included in this element.

CIR-1: Provide a transportation system that efficiently, Equitably and effectively supports the City's land use vision, minimizes vehicle miles traveled (VMT), enhances connectivity of the existing network, and supports the use of all modes of transportation

- **Cir 1-3:** Promote **interconnectivity of the transportation network** in existing and new developments and actively measure the quality of conditions in neighborhoods to better understand what barriers exist in order to support use of and access to the network.
- **CIR 1-5:** Encourage **reduced block size** in new developments to develop a grid or modified grid network to enhance walkability.
- **CIR 1-8:** Prioritize **multi-modal infrastructure** improvements that improve pedestrian, bicyclist and transit user safety and equity for inclusion in the CIP.

CIR-2: Provide safe, healthy, comfortable, equitable and efficient transportation choices for all modes of transportation that enable people of all races, cultures, ethnicities, religions, sexual orientation, genders, income levels, ages and abilities, especially people of color and those disproportionately affected by access to a personal vehicle, systemic transportation inequities, racism, oppression, and poverty to increase safe physical activity, reduce usage of personal vehicles, access goods and services, employment opportunities, and for personal travel; to provide for efficient goods movement.

CIR-4: Promote, provide, and maintain an expanded, safe, convenient and comprehensive network of facilities for pedestrians and bicyclists of all ages and abilities to support walking and bicycling as viable modes of transportation, for recreational use, and to promote public health

CIR-6: Support and expand the City's efforts to promote economic, environmental and social sustainability through initiatives to reduce greenhouse gas emissions and other air pollutants, reduce runoff, promote public health, equity and engage the community in an inclusive planning process.

CD-1: Strengthen Milpitas' identity and sense of place by reinforcing the community's distinctive, high-quality community form, natural landscape, and character

- **CD 1-1:** Require development projects to: A. Preserve positive characteristics and unique features of the site; and B. Incorporate a **context-sensitive design approach** that considers the scale and existing and desired character of adjacent uses and the surrounding neighborhood or district.
- **CD 1-2:** Encourage **infill development** projects to accommodate contemporary uses and design and planning approaches and requirements in manner that minimizes conflicts with the surrounding existing development.
- **CD 1-3:** Emphasize, enhance, and expand the compact, cohesive, and **walkable** portions of the city.
- **CD 1-4:** Recognize, enhance, celebrate and preserve, where possible, **natural features** and **ecosystems**, and protect **cultural and historic resources**.
- **CD 1-5:** Maintain and enhance pedestrian and bicycle **access** and **views** to and from all local creek corridors
- **CD 1-6:** Emphasize **landscaping** as a fundamental design component, retaining mature landscaping when appropriate, to reinforce a sense of the natural environment and to maintain an established appearance.
- **CD 1-8:** Support **art installations** in public and private development projects that support and enhance Milpitas' image.
- **CD 1-10:** Minimize the **visual impacts of public and private communication, service, and utility facilities** by requiring the provider to incorporate sensitive site design techniques, including, but not limited to the placement of facilities in less conspicuous locations, the **undergrounding** of facilities wherever possible, and the **screening** of facilities.

CD-2: Ensure project designs reinforce a sense of place, display design excellence, and are cohesive and sensitive to the surrounding build environment and natural landscape

- **CD 2-1:** Use the **project review process** to encourage creative, high quality, innovative, and distinctive architectural and site designs that help create unique, vibrant places.
- **CD 2-2** Continue to develop and implement **design standards and guidelines** for residential, non-residential, and infrastructure development, both in the private and public realms, consistent with state law, to provide design and site planning approaches, landscaping, site grading and similar architectural and site planning criteria that will add design excellence, visual quality and interest to the community.

- **CD 2-3** Recognize that finite land area exists for development and that density supports retail vitality and transit ridership. Use land use regulations to require **compact, low-impact development** that efficiently uses land planned for growth, especially for residential development which tends to have a long life-span.
- **CD 2-4** Locate **site entries, parking areas, storage bays, and service areas** of buildings to **minimize conflicts** with adjacent properties, especially residential neighborhoods. Also, parking, storage, and service areas should be sited to **minimize their appearance** from public right-of-ways.
- **CD 2-5** Minimize the footprint of **parking areas**, encourage shared and alternative parking arrangements, and allow **parking reductions** when warranted by parking demand and/or updated parking data that demonstrate less required parking.
- **CD 2-6** Promote crime prevention through **site and building designs that facilitate surveillance of communities** by putting “eyes on the street.” And take care to avoid poor design that emphasizes security over essential design features. Design sites and buildings to promote **visual and physical access to parks and open space areas**. Support safe, accessible, and well-used public open spaces by **orienting active use areas and building facades towards them**.
- **CD 2-7** Include design elements during the development review process that address **security, aesthetics and safety**. Safety issues include, but are not limited to, minimum clearances around buildings, fire protection measures such as peak load water requirements, construction techniques, and minimum standards for vehicular, bicycle, and pedestrian facilities and other standards set forth in local, state, and federal regulations.
- **CD 2-8** Minimize the visual impact of **wireless telecommunication facilities** by designing them as an integral architectural feature to a site or structure.

CD-3: Maintain and enhance the character and distinct identities of Milpitas’ residential neighborhoods and commercial, mixed-use, and employment districts.

- **CD 3-1** Strengthen the positive qualities of the City’s neighborhoods, districts, and centers.
- **CD 3-2** Support the development and preservation of unique neighborhoods, districts, and centers that exhibit a special sense of place and quality of design.
- **CD 3-3** Ensure that new development and redevelopment reinforces desirable elements of its neighborhood, district, or center, including **architectural style, scale, and setback patterns**.
- **CD 3-4** Strengthen the identity of individual neighborhoods, districts, and centers through the use of entry **monuments, flags, street signs, themed streets, natural features, landscaping, and lighting**.
- **CD 3-5** Ensure that new residential development and substantial additions are designed to maintain and support the existing character and development pattern of the surrounding neighborhood, especially in **historic neighborhoods** and neighborhoods with consistent design characteristics.
- **CD 3-6** Encourage the rehabilitation of older residential neighborhoods, districts, and centers to prevent blight and maintain the city’s character.
- **CD 3-7** Create, regulate, and enforce **attractive front yards** in residential neighborhoods that are open to the street.
- **CD 3-8** Ensure that new residential developments in and adjacent to the city’s districts are designed to **blend with existing building forms**. Considerations for residential developments should include the following:
 - A. Ensure that development projects with more than 2 units consist of detached units with one and two-story building elements, when located in a predominantly single-family residential neighborhood.
 - B. Ensure residential unit entries face the public street.

- C. Ensure that new development is designed to blend in with the existing building patterns of the neighborhood. For example, if the majority of the garages on the street are at the rear of the site, the new building should be designed to accommodate a rear garage.
 - D. Ensure that properties designated for non-residential uses within residential areas retain the residential character and scale of development characteristic of the surrounding residential neighborhood. The development is to provide sufficient, safe pedestrian and bicycle access into and throughout the site, on-site parking, human-scaled lighting and landscape screening to minimize the commercial appearance of the use.
- **CD 3-9** For commercial, multi-family, mixed-use, and employment generating projects, encourage site designs and development patterns **that connect adjoining sites and function as a single center.**
- **CD 3-10** Design multi-family residential, mixed use, commercial, and employment-generating development in neighborhoods, districts, and centers to:
 - A. Include open space and/or recreational amenities to provide visual relief from development, form pedestrian and bicyclist linkages to adjacent uses and other portions of the neighborhood, district, or center, and serve as buffers between uses, where necessary;
 - B. Locate building access points along sidewalks, pedestrian areas, and bicycle routes, and include amenities that **encourage pedestrian activity**;
 - C. Create a human-scale ground-floor environment that includes public open areas that separate pedestrian space from auto traffic, or where these intersect, give special regard to pedestrian safety; and
 - D. Provide comfortable pedestrian amenities, such as quality seating areas, lighting, and wide, shaded paths, along with specialized and engaging design features, such as interesting fountains or public art to draw and maintain people's attention.
- **CD 3-11** Size and configure mixed-use development to accommodate viable commercial spaces with appropriate **floor-to-floor heights, tenant space configurations, window glazing**, and other infrastructure for restaurants and retail uses to ensure appropriate flexibility for accommodating a variety of commercial tenants over time. Retail commercial buildings should have **primary entrances at the street at sidewalk grade**, particularly in pedestrian-oriented areas.
- **CD 3-12** Where a vertical mix of uses occurs, retail, restaurants, and other active uses should be located on the ground floor, with residential and/or office uses above. Also, encourage **complementary architectural detailing** that differentiates each use.
- **CD 3-13** Encourage the transition of outdated, auto-oriented suburban commercial centers into vibrant, pedestrian-oriented, commercial and mixed-use neighborhood centers

CD-4: Enhance the existing character and strengthen the identity and unique qualities of Milpitas' districts.

- **CD 4-1** Provide special attention to development within or adjacent to Specific Plan areas or special districts.
- **CD 4-2** Incorporate identifiable and consistent design themes through **architecture, landscaping, public realm improvements, historic references** and **signage** within special districts.
- **CD 4-3** Support and seek surrounding land uses and development that correspond to or enrich special districts and Specific Plan areas.
- **CD 4-4** Strengthen the **aesthetic, environmental and functional links** between the city's Specific Plan areas and other surrounding neighborhoods and districts

CD-5: Provide appropriate transitions between land uses to avoid conflicts and perpetuate the community's harmonious character

- **CD 5-1** Design new development to reflect the character of the predominant existing development of the same type in the surrounding area through the **regulation of lot size, street frontage, height, building scale, siting/setbacks, and building orientation.**
- **CD 5-2** Encourage new development to connect with the surrounding community and, where possible, **extend the existing street grid** to integrate with adjacent neighborhoods.
- **CD 5-3** For new development in transition areas, use a combination of **building setbacks, building step-backs, daylight planes, materials, glazing, building orientation, landscaping,** and other design techniques to provide a **consistent streetscape** that buffers lower-intensity areas from higher intensity areas and reduces potential **shade, shadow, massing, viewshed, safety** or other land use compatibility concerns.
- **CD 5-4** Encourage **context-sensitive transitions** in architectural scale and character between new and existing residential development.
- **CD 5-5** For infill development, incorporate **context sensitive design** elements that maintain compatibility and raise the quality of the area's architectural character.
- **CD 5-6** Encourage the mixing of land uses, where appropriate, but provide **physical separation, adequate pedestrian and bicycle infrastructure** and/or **buffers** between incompatible land uses.
- **CD 5-7** Encourage the use of **creative landscape design** to create visual interest and reduce conflicts between different land uses.
- **CD 5-8** Require setbacks and other design elements to **buffer residential units** to the extent possible from the impacts of abutting roadway, commercial, and industrial uses.
- **CD 5-9** Avoid the blocking of public views and access by **solid walls.** Where solid walls are necessary, require that they be articulated through the use of color, material, and/or surface depth changes and/or screened by landscaping to avoid appearing blank.
- **CD 5-10** Use **natural features** as buffers between incompatible land uses.

CD-6: Enhance the corridors, pathways, and edges that form physical boundaries and provide transitions and connections throughout the community.

- **CD 6-1** Support a **complete streets** approach to designing new streets and **retrofitting existing streets** by encouraging streets to provide stimulating settings; improve safe walkability, bicycling, and transit integration; strengthen connectivity; and enhance community identity through improvements to the public right-of-way such as sidewalks, street trees, parkways, curbs, human-scaled street lighting, and street furniture.
- **CD 6-2** Design private streets to appear and function like public streets. Include **street trees** and **sidewalks** and **connect sidewalks** to those located within the adjacent public rights-of-way.
- **CD 6-3** Consider the **street type** of all adjacent streets in the development review process to ensure that the design of the site, buildings, and public way respond to the multi-modal priorities for the area.
- **CD 6-4** Consider the relationship between **street design,** use of the public right-of-way, and the form and uses of adjoining development.
- **CD 6-5** Promote **consistent development patterns along streets,** particularly by how buildings relate to the street, to promote a sense of visual order, and provide attractive streetscapes.
- **CD 6-6** Require major arterial streets to feature a **consistent landscape theme** that includes primary street trees, groundcover, sidewalks, bike lanes, bus shelters where required, and lighting.
- **CD 6-7** Require the planting of **street trees** throughout the city to define and enhance walkability and the character of the street and adjacent development.

- **CD 6-8** Apply **special paving** at major intersections and crosswalks along enhanced corridors to create a visual focal point, improve the pedestrian setting, and slow traffic speeds.
- **CD 6-9** Allow **recreation uses** adjacent to the highways, where practical, that are attractive, provide a high level of day and evening activity, and are well connected to the community.
- **CD 6-11** Require the **pedestrian and bicycle system** within a neighborhood, district, center, or project to provide efficient access to neighborhood and/or district centers and other key locations, and to connect with other pedestrian and bikeways in adjacent neighborhoods, and ultimately, to the Citywide pedestrian and bikeway trail system.
- **CD 6-13** Increase **neighborhood connectivity** in new development by requiring access for pedestrians, bicyclists, and vehicles across natural barriers (e.g., creeks) and man-made barriers (e.g., cul-de-sacs, freeways, and railroad tracks).
- **CD 6-14 Discourage gated subdivisions** because they isolate parts of the community from others, create an unfriendly appearance, and do not support social equity or connectivity.
- **CD 6-15** Accomplish **sound attenuation** for development along City streets through the use of building placement and design rather than sound attenuation walls. When sound attenuation walls are located adjacent to expressways or freeways, or railroad lines, landscaping, public art, and/or an aesthetically pleasing and visually interesting design should be used to minimize visual impacts.
- **CD 6-16 Discourage the uses of gates and fences** at the frontage of commercial properties, unless required for legitimate safety or security reasons.

CD-9: Enhance the quality and character of Milpitas' Public Spaces to provide safe, comfortable, and enjoyable passive and active recreation opportunities for all users.

- **CD 9-1** Promote vibrant, **publicly accessible spaces** that encourage gathering and other active uses. Provide **adequate shading** through shade structures or trees and incorporate formal and informal seating to encourage both short-term and long-term use of public spaces. Place a **variety of uses** adjacent to public spaces at sufficient concentrations to encourage the use of the spaces throughout the day and night.
- **CD 9-3** Encourage the incorporation of **publicly accessible spaces**, such as plazas and pocket parks, into new and existing commercial, multi-family, and mixed-use developments to encourage social interaction. The spaces should be appropriately scaled and programmed and compliment the characteristics of the district and/or neighborhood and the surrounding development.
- **CD 9-4** Incorporate **outdoor plazas or other common areas** that provide space for special landscaping, public art, food service, outdoor retail sales, or seating areas for patrons in retail settings appropriate to such pedestrian activity. The plaza or other common area should be appropriately scaled to the retail use and shall be directly connected to the primary walkway.
- **CD 9-5** Configure buildings to provide "outdoor rooms," including, but not limited to **courtyards, paseos, and promenades**.
- **CD 9-6** When development is proposed **adjacent to existing or planned parks or along park chains**, include frontage roads along the public park in that development in order to maximize access to park lands, to provide separation between urban land uses and park lands without the use of "back-up" design, and to maximize public exposure and view of park lands for scenic and security purposes. Also, encourage development to provide common open space contiguous to such areas.
- **CD 9-7** Where practical, and in compliance with **ADA standards**, separate common areas that provide seating from the primary walkways by informal barriers, such as planters, bollards, fountains, low fences, and/or changes in elevation.
- **CD 9-8** Ensure that projects **adjacent to local creeks** participate in developing those portions of the creek that are not designated for conservation as a landscaped parkway and extend the landscape theme into creekside developments to enhance exposure to the creeks, provide passive recreation (seating areas) and integrate the creeks with new development.

- **CD 9-9** Create a high-quality, safe pedestrian experience in commercial and mixed use areas through the use of **street trees, public art, street furniture, and public gathering spaces**. Using **signage, art, and unique uses**, entice and encourage people to walk and explore the commercial cores of Milpitas.
- **CD 9-10** Support the **conversion of on street parking spaces**, located within and adjacent to commercial and mixed-use districts and activity centers, into parklets for outdoor and café seating, bicycle parking, and transit and rideshare stops.
- **CD 9-11** Reinforce the distinctive public spaces with **design elements** reflected in the streetscape, landmarks, public art, and natural amenities.
- **CD 9-12** Continue to require the **inclusion of art** in public projects and encourage its placement in private development projects to improve the quality of life in the city. Emphasize art that draws upon the local history and is placed at locations accessible to the public.

CD-10: Design buildings, sites, and streets to enhance pedestrian and bicycle mobility.

- **CD 10-1** Prioritize **pedestrian and bicycle connections** to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.
- **CD 10-2** Integrate comfortable and convenient **pedestrian elements** into building design, including, but not limited to walkways, plazas, and terraces and protect pedestrians from extreme climatic conditions.
- **CD 10-3** Encourage a **street grid** with lengths of 600 feet or less to facilitate walking and biking. Use design techniques such as multiple building entrances and pedestrian paseos to improve safe, clearly designated pedestrian and bicycle connections within blocks and projects.
- **CD 10-4** Design **sidewalks** to create a safe, comfortable pedestrian experience by making sidewalks sufficiently wide to support circulation and outdoor activities related to adjacent land uses, planting a continuous trees canopy, and placing sidewalk furniture on regular, frequent intervals that do not impede travel or accessibility.
- **CD 10-5** Install **pedestrian and bicycle path connections** between residential neighborhoods, commercial centers, schools, parks and other key community activity nodes, where feasible. Require these improvements to be made as part of new development projects.
- **CD 10-6** Require developers to provide **pedestrian amenities**, such as trees, lighting, sidewalk furniture, awnings, and art in pedestrian areas along project frontages.
- **CD 10-7** Require **pedestrian-scale improvements** for new residential developments and large additions, such as front porches and placement or orientation of the garage away from the street, or recessed from the frontage of the homes' living space.
- **CD 10-8** Encourage mobility in urban, pedestrian-oriented districts and centers by placing **building frontages** at or near street facing property lines, orienting entrances onto the adjoining sidewalks, providing landscaping and high-quality pedestrian and bicycle facilities, and discouraging parking areas located between the front of buildings and the street.
- **CD 10-9** Within new development, create and maintain a **pedestrian and bicyclist-friendly environment** by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian and bicycle facilities and require pedestrian and bicycle connections between building entrances, other site features, and adjacent public streets.
- **CD 10-10** Within private developments that include multiple streets, encourage the construction of **multi-use paths** to provide direct pedestrian and bicycle linkages between streets and beyond the project.

- **CD 10-11** Encourage **pedestrian cross-access connections** between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide **pedestrian and vehicular connections** with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.
- **CD 10-12** Ensure that new development provides visual and pedestrian and bicycle linkages with **local creeks**.

CD-11: Enhance Milpitas' commitment to sustainable design by minimizing negative environmental impacts and utilizing resources efficiently.

- **CD 11-1** Design buildings to allow the **sun** to reach adjoining and nearby sidewalks and plazas in the winter and protect pedestrians from the sun and rain.
- **CD 11-2** Encourage **passive solar design and energy-efficient concepts**, including, but not limited to natural heating and/or cooling, sun and wind exposure and orientation, and other solar energy opportunities.
- **CD 11-3** Encourage the orientation of **solar collectors** away from public view and/or the design the features as an integral element of the roof structure.
- **CD 11-4** Encourage **architectural elements** that contribute to a building's character, aid in climate control, and enhance pedestrian scale. The elements include, but are not limited to canopies, roof overhangs, projections or recessions of stories, balconies, reveals, and awnings.
- **CD 11-5** Encourage the use of **building materials** that conserve energy and material resources.
- **CD 11-6** Encourage the expansion of the city's **urban forest canopy**, comprised of street trees and trees located on private property and in open spaces. Emphasize the importance of placing trees in locations with significant hardscaping, such as parking areas.
- **CD 11-7** Reduce the use of highly-reflective and/or transparent building materials in order to reduce the potential for **bird strikes** and other harm to **wildlife**.
- **CD 11-8** Encourage **low-impact development**, including but not limited to, bioretention cells/rain gardens, cisterns and rain barrels, green roofs, pervious concrete/porous pavement, bioswales, and media filters.
- **CD 11-9** Encourage the use of **green roofs**, which help reduce the heat island effect.
- **CD 11-10** Consider expanding the City's **Green Building Program** to include additional incentives, above and beyond expedited building permit processing, for projects that incorporate sustainable design approaches and/or elements that exceed local, regional, and state requirements.
- **CD 11-11** Continue to apply and expand the **Climate Action Plan** to increase the energy efficiency of development.

B. Best Practices Research

The following documents were reviewed and considered.

- **Tasman East Specific Plan** (Santa Clara)(2020)
- **Patrick Henry Specific Plan** (Santa Clara)(2021)
- **Pier 70 Design for Development** (San Francisco, CA)(2018)
- **El Camino Specific Plan** (Redwood City, CA)(2017)
- **Peery Park Specific Plan** (Sunnyvale, CA)(2016)
- **Lawrence Station Area Plan** (Sunnyvale, CA)(2015)
- **Lawrence Station Area Plan** (Santa Clara)(2016)
- **Vallco Specific Plan** (Cupertino, CA)(2018)
- **Warms Springs Community Plan**(Fremont, CA)(2020)
- **Redwood City Downtown Precise Plan** (Redwood City, CA)(2018)
- **City of Burlingame Downtown Specific Plan** (Burlingame, CA)(2018)
- **Pleasant Hill BART Station Property Code** (Walnut Creek, CA)(2002)
- **Beaverton Downtown Design District Development Code** (Beaverton, OR)(2020)
- **Balboa Reservoir Design Standards and Guidelines** (San Francisco, CA)
- **Morgan Hill Objective Design Standards** (Morgan Hill, CA)
- **City of Henderson Development Design Standards** (Henderson, NV)
- **City of Beaufort Building Design & Infill Standards** (Beaufort, SC)
- **Buffalo Green Unified Development Ordinance** (Buffalo, NY)
- **City of Portland Multi-Dwelling Zoning Zones** (Portland, OR)
- **San Pablo Avenue Specific Plan** (El Cerrito, CA)(2014)
- **Tigard Downtown Plan District** (Tigard, OR)
- **LEED Neighborhood Development** (2018)
- **SmartCode Version 9.2** (2009)
- **Marin County Objective Design and Development Standards** (2020)
- **City of San Jose Downtown Development Guidelines** (San Jose, CA)(2019)

C. Staff Feedback: Notes

Planning Staff Check-in. March 1, 2021

Participants: Jessica Garner, Jay Lee, Krishna Kumar, Lillian VanHua, Adrienne Smith, Rosalynne Thompson, Michael Fossati, Avery Stark

1) Development Review

Specific Plans: experiences with enforcement + regulation + update process

- Midtown: it *does* include design guidelines but it needs to be resolved with the limited design guidelines that exist in code + the design guidelines are scattered throughout the document
 - Developers have difficulty providing **building articulation** and **detailing** based on the current guidelines: they are submitting basic **massing** forms that lack definition
 - Midtown SP's current design guidelines are considered *outdated* and no longer relevant/appropriate
- Midtown: the plan has built-in land uses which serve as constraints (ex. mandatory ground-floor retail: difficult attracting developers who are willing to develop mixed-use *and* have it pencil out)
 - Is it possible to encourage greater emphasis of **building form** rather than specific and prescriptive **building use** in order to provide greater flexibility: ex. the goal should be to prioritize and encourage an attractive ground-floor environment for pedestrians: this *does not* need to be accomplished exclusively through mandating ground-floor retail establishments

Staff Changes

- Issues of subjectivity in the existing code: leads to confusion on the part of designers and developers, leading planning staff to identify and share precedent images as good examples (not sustainable)
 - Developers are typically flexible, but this bespoke/subjective process *has* resulted past conflicts: the iterative re-submittal process hasn't always netted constructive results from a building form perspective
 - This lack of response to staff suggestions is more so a developer-driven incentive, not architect/designer (not that the architects aren't susceptible to combative review processes)
 - Concerns regarding **building heights**: developers wish to encourage greater density, but the code lacks language that helps *break down* building form to a pedestrian-friendly scale
 - **Modular buildings** is a developing concern, especially on larger sites where developers are keen on the convenience and efficiency of modular design
 - A designated set of regulations that suite a modular project would be helpful: especially some mechanism for attaining building modulation and articulation (when you know the individual inputs are standardized)
 - *Who are the modular developers and designers active in the Bay Area:* Factory OS, Architects Orange (**City** will try to pass on a list of developers that the City has engaged with)(R+A will engage directly with them)
 - Trees and landscaped medians + colors: development review is **conflicting with inter- and intra-departmental review** (ex. building/public works + PG&E will disagree with tree placement)
-

- Current streetscape regulation is also outdated, but an update process would require an engagement with other city departments (particularly public works)
- Possible to identify different street typologies (ex. major thoroughfares and arterials vs. local streets)(Montague Ave) with regards to how they interact with building form, ROW design, landscaping, etc: implementing a consistent but **context-specific scale**
 - Uncertain how R+A might address this: our project is a city-wide effort that may not manage to address specific locations
- **Balcony space**, especially with regards to use and application: is it possible to build-in better/more successful screening (because in practice, individuals are using their balcony space as storage which is highly unattractive)
- **Patios** w/scuppers (?): current application has been shoddy, can we require higher-quality materials/standards
- **HVAC** (esp. AC units in townhome contexts): need for better concealment and placement within the development; keeping these units away from private open spaces
- **Mailbox** placement: **Postmaster** desires (key stakeholder), Building, Planning, individual service providers (FedEx, Amazon, grocery delivery, etc.) - especially difficult in approaching town house developments

2) Objective Standards

Best Practices

- The wrapped/hidden garages has been successful from the perspective of staff (1380 Main...?)
- Standards that don't become immediately outdated within the next design aesthetic cycle is difficult: the response by some cities has been to be incredibly prescriptive/strict vs. incredibly flexible (borderline-subjective)
 - R+A has proposed in previous projects a *menu of options* to provide some built-in flexibility, but perhaps the most significant alterations can be done to *massing* and *articulation*
- Could we bake-in a *degree* of discretionary review? (developer satisfies nearly all of the standards, but needs to collaborate and negotiate with staff to conclude the final _%)

Examples

- Main Street Milpitas: city managed to negotiate a street-facing plaza/OS that doesn't rely on ground-floor retail (rather, community space on the ground-floor: hides garage, makes the area more lively; ride-share pick-up/drop-off point; transit stop) + public art contribution built into the structure (decorative building elements) as well as site-level (**water feature** located within public ROW (easement): controversial for public works, but attractive to planning - *reiterating the need for standards that are agreeable between planning and other city departments*)
 - Ground-floor has a higher floor-to-ceiling height (irrespective of the use)
 - **underground utilities** must be harmonious with street trees (planter boxes perhaps)
- Sunnyvale development (along Mathilda): successful transition between townhouse design/facade on the local street-facing edge of the development + a different finish along the major arterial
 - townhouse patios/balconies however are problematic
- Montague Site (bad): **color palette** leaves a bit to be desired (too dark and saturated: higher maintenance and upkeep costs, even though the public is typically attracted to these types of colors)

Development Review Committee. March 4, 2021

Participants: Jessica Garner, Jay Lee, Rosalynne Thompson, Albert Azamora, A. Prince, Roberto Alonzo, Avery Stark, Jaime Garcia, Jeremy Wu, Krishna Kumar, Tegan McLane, Betty Chan, Steve Chan, Alex Andrade

1) General design guidance: what needs to be addressed in policy

- Easily accessible **mail boxes**: we end up with a cluster of mailboxes typically located on a public street where residents are effectively having to double-park in order to access their mail
- **Solid waste** handling: standardization detailing what all residential (especially condo + apartments) are required to meet; especially space for loading and offloading (might be separate from solid waste?)
- Accommodating **new methods of transportation** (especially rideshare + delivery): these vehicles lack designated parking areas; lack of signage; lack of loading areas or what areas exists are too small for standard delivery vehicles
 - related: **parking or designated transit areas/stops** that prevent traffic congestion further down the street
- From a public safety perspective: **adequate move-in and move-out** areas for residents
 - **EVA access** especially in mixed-use contexts: negotiating commercial parking + residential parking with emergency access (it's not often clear where EVA access is located)
 - Location and placement of **public parking**
- Standards for **retail parking** that differs from residential parking: there needs to be more generous allocation for vehicular access

2) Secondary requests that may *not* be within our scope of work

- Greater objectivity regarding **public art** (what constitutes or satisfies public art) - *Tegan McLane says that the Public Art Ordinance is clear, but perhaps the commission could do a better job of enforcement and communication/outreach of expectations*
- Design of **second story additions**: ADUs that are two-stories or located on a second story (*more so a single-family issue which is not included in the current scope of work*)
- other related issues: **line of sight; privacy; massing**