

Form-Based Code Circuit Training!

PAW Boot Camp

Mercer Island, November 15, 2019

Bob Bengford AICP
Scott Bonjukian AICP
Ian Crozier AICP



Training Exercises

1. **Form-based codes calisthenics**
2. Code initiation sprints
3. Land use reverse lunges
4. Housing diversity aerobics (including a VPS drill)
5. Community design jumping jacks
6. Block frontage bench dips
7. Site design sit-ups
8. Building design stair climb
9. Parking push-ups
10. **Lessons learned stretches**



Everett Core Residential Design Standards and Guidelines
Adopted May, 2008



City of Normandy Park DESIGN GUIDELINES
First Draft April 17, 2002



FALL CITY DESIGN GUIDELINES



North Bend Historic District Sign Guidelines



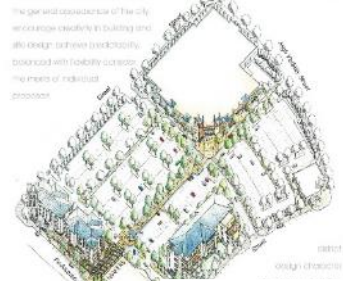
Rural Town Centers and Corridors Project



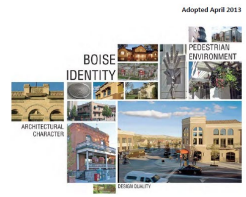
Old Burien Design Standards



Urban Center Design Overlay Regulations
City of Renton



Boise Citywide Design Standards and Guidelines
Adopted April 2013



Technical Study of Bellingham's Residential Development Code and Design Guidelines: Summary of Recommendations
December 15, 2014



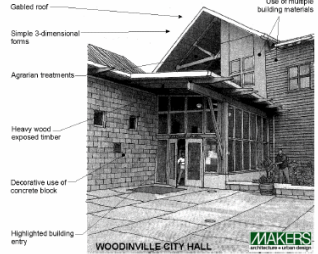
GREENWOOD/PHINNEY MAIN STREET DESIGN REPORT



PREPARED FOR:
GREENWOOD/PHINNEY STREET STEERING COMMITTEE AND THE CITY OF SEATTLE

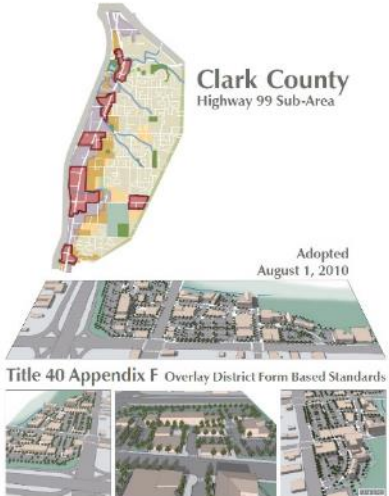
PREPARED BY: **MAKERS architecture**
MARCH, 2001

CITY OF WOODVILLE COMMERCIAL DESIGN STANDARDS
Adopted December 2005



Adopted December, 2005

Clark County Highway 99 Sub-Area



Adopted August 1, 2010

Title 40 Appendix F Overlay District Form Based Standards



Redmond Design Standards Evaluation Comparative Cities Research
March 20, 2015
MAKERS

Chelan Downtown Land Use & Development Code



Discusses:
Chapter 17.14 Downtown Land Use & Development Code (new)
Chapter 17.16 District Classifications (revisions)
Chapter 17.18 Conditional Use (revisions)
Chapter 17.18 Signage (revisions)
Chapter 17.19 Landscaping (new)
Sections 17.19 Street Standards (revisions)

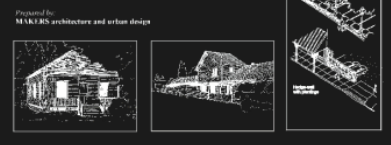
Options and Innovations Toolkit: Context Sensitive Solutions for Rural Town Centers and Corridors



January 2004
Puget Sound Regional Council
PSRC
Makers Architecture & Urban Design
The Transpo Group

Black Diamond Design Standards and Guidelines

November, 2000



CITY OF WOODVILLE



Downtown Vision and Illustrative Guide
June 2018

Case Studies

- Anacortes: 2016 – 2019
- Mountlake Terrace: 2018- 2019
- South Tukwila: 2019 – Current
- Issaquah: 2019 – Current
- Carnation: 2017-2018
- Bozeman, MT: 2015-2018
- Waxhaw, NC: 2015-2018
- Ellensburg: 2010-2012
- Clark County HWY 99: 2008-2009

A Hybrid Approach to Form-Based Codes in the Northwest

March 1, 2012 by Bob Bengford
Category: Planning Advisor

This Advisor column was originally published in January 2010

Can form-based codes be applied to Nor course.

Are they appropriate for your community

Below are some things to think about if y updating your land use/design codes usin

About Form Based Codes

Established first in Florida in 1982 as an al codes (FBC's) regulate development to ac include prescriptive requirements on the frontages and on the design of streets an existent. The Form-Based Code Institute's information on the topic.

Most form-based codes have been applie with well established character and/or a v consolidated ownership. By their nature t

Visualizing Compatible Density

April 10, 2017 by Bob Bengford
Category: Planning Advisor, Design



Density is a controversial subject in virtually all American and communities are seeking more density to promote e out. [Back to top](#) e goals, density is more often a thing to b

Google Earth - A City Planner's Best Friend

March 1, 2014 by Bob Bengford
Category: Tools for Planners, Planning Advisor

By Bob Bengford AICP, MAKERS

Rarely a day goes by at the office now where I don't use Google Earth. As a planning and urban design consultant working for several communities throughout the Pacific Northwest at any given time, it's an incredible tool to have at your finger tips. When curiosity beckons or specific research information is needed, you only need a few clicks on the mouse and keyboard and voila, you are flying overhead. (Bing Maps are pretty use aerial perspective views, which aren't offered on Google Earth.)

Providing for Usable Open Space for Multifamily Developments

March 1, 2012 by Bob Bengford
Category: Planning Advisor

This Advisor column was originally published in January 2012.

This is the second of two articles discussing regulatory strategies to address two challenges to creating compatible and livable infill development. The first article, published in February 2011, discussed strategies for protecting existing neighborhoods from the impacts of new development. This article describes concepts for providing usable open space in new multifamily residences.

Introduction

Smart growth principles call for the development of more intense mixed-use centers at transportation hubs or other strategic locations plus multifamily infill in neighborhood centers. Demographic changes in concert with fuel costs are increasing the demand for compact multifamily housing in Western Washington and throughout the country. With rising land costs, cities are finding it increasingly difficult to create new parkland to serve this increased density. Thus, it's becoming increasingly important for cities to update regulations to provide for usable on-site open space associated with multifamily development.

Sign Code Update: Finding the Sweet Spot between Flexibility & Clutter Management

May 26, 2015 by Bob Bengford
Category: Planning Advisor, Sign Control



Image courtesy of Melissa.

MRSC Advisor Joe Tovar, FAICP, Tovar Planning, contributed to this post.

Planned Unit Developments - Real World Experiences

November 1, 2012 by Bob Bengford
Category: Subdivisions and Planned Developments, Planning Advisor

By Bob Bengford, AICP, MAKERS

Introduction

The concept of planned unit developments has been around now for quite some time. Most cities and counties in Washington have adopted planned unit development ordinances. Much has been written over the years about the technical and legal nature of PUDs. This article, however, takes a look at how some of these ordinances are working in the real world. What are the major issues and challenges? Are PUD ordinances even necessary?

What is a Planned Unit Development (PUD)?

A PUD is both a type of development and a regulatory process. Individual definitions can vary greatly depending on the community or jurisdiction and its goals. The purpose of a PUD is generally to allow greater flexibility in the configuration of buildings and/or uses on a site than is allowed in standard zoning ordinances. A major goal of PUDs is often to encourage unified plans that provide a more complete and integrated package (hopefully including special amenities) over piecemeal development. A typical PUD would include a cluster of small lots in conjunction with a common usable open space with some recreational

i Lacey reached out for help in 1997 to transition Lacey's new vision. While the strict were perceived as restrictive

Who's Here?

- County planners?
- City planners?
- Consultants
- Public officials?
- Other?

Who's Here?

- Current or long range planning?

Who's Here?

- Current or long range planning?
- Have you been to any of the Form-Based Code Institute Training classes?
- Have you been involved in a code and/or design standards project?

Introductions.....

- Name
- Who you work for
- What elements of FBC/Hybrid FBC you are most interested in





Form-Based Code Calisthenics

Form-Based Codes?

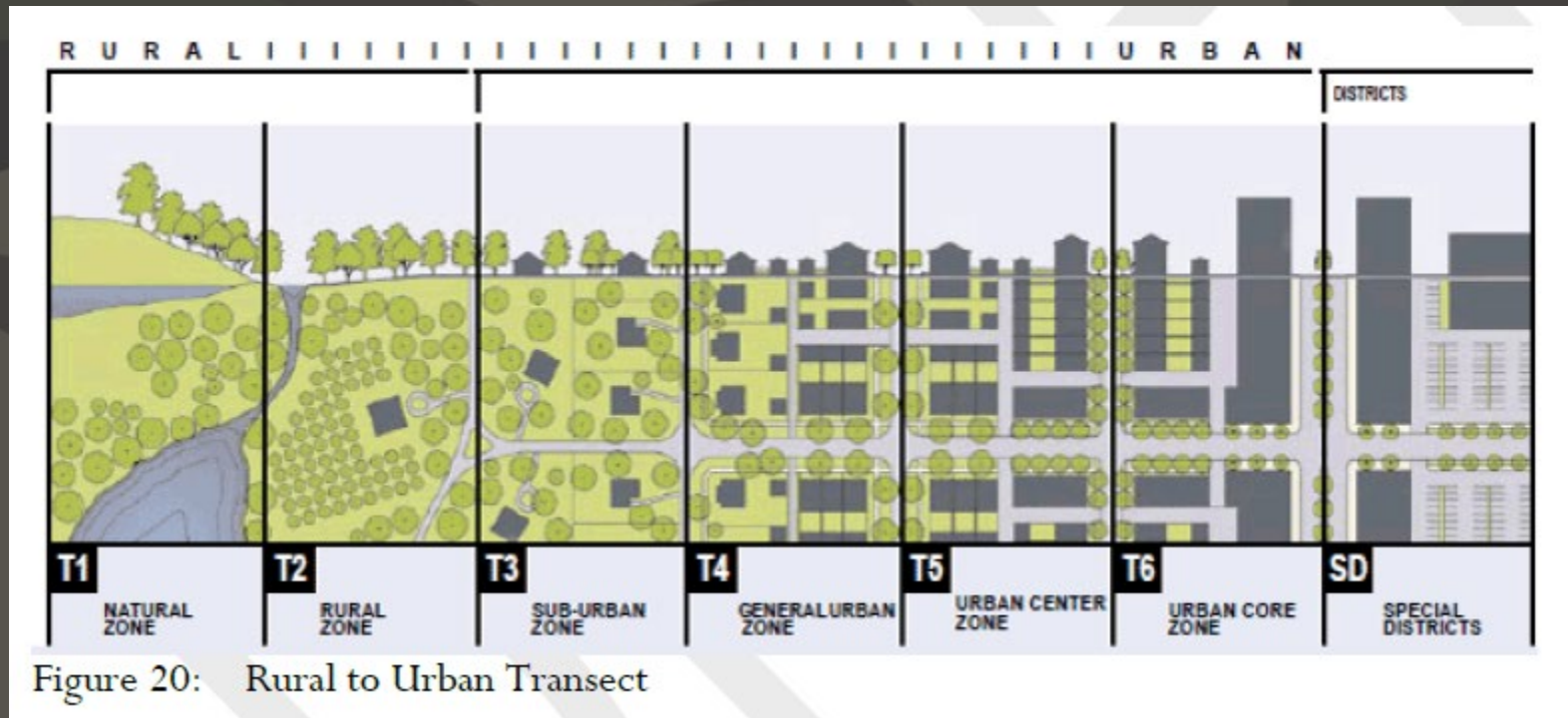
Greater emphasis over physical form of development over specific land uses

- What the street looks like
- What private development looks like from the street

An alternative to.....



What is a Form-Based Code?



- FBC organized around development intensity and form (over uses)

What is a Form-Based Code?

- What it looks like from the street

Weather protection on north & east side of streets (summer shade)

Building entry faces street

Sidewalk

8'

30"

6' min.

Storefront Street Standards

- Building located adjacent to sidewalk with direct entry onto sidewalk
- Parking to the rear of buildings encouraged; no more than 60' of street frontage may be occupied by parking
- Retail/Commercial use required on ground floor to min. 30' depth
- Weather protection over all entries (at least 3' deep) and at least 6' deep along at least 70% of facades on north and east sides of streets
- Transparent window area along at least 70% of ground floor facade between 30" and 8' above grade

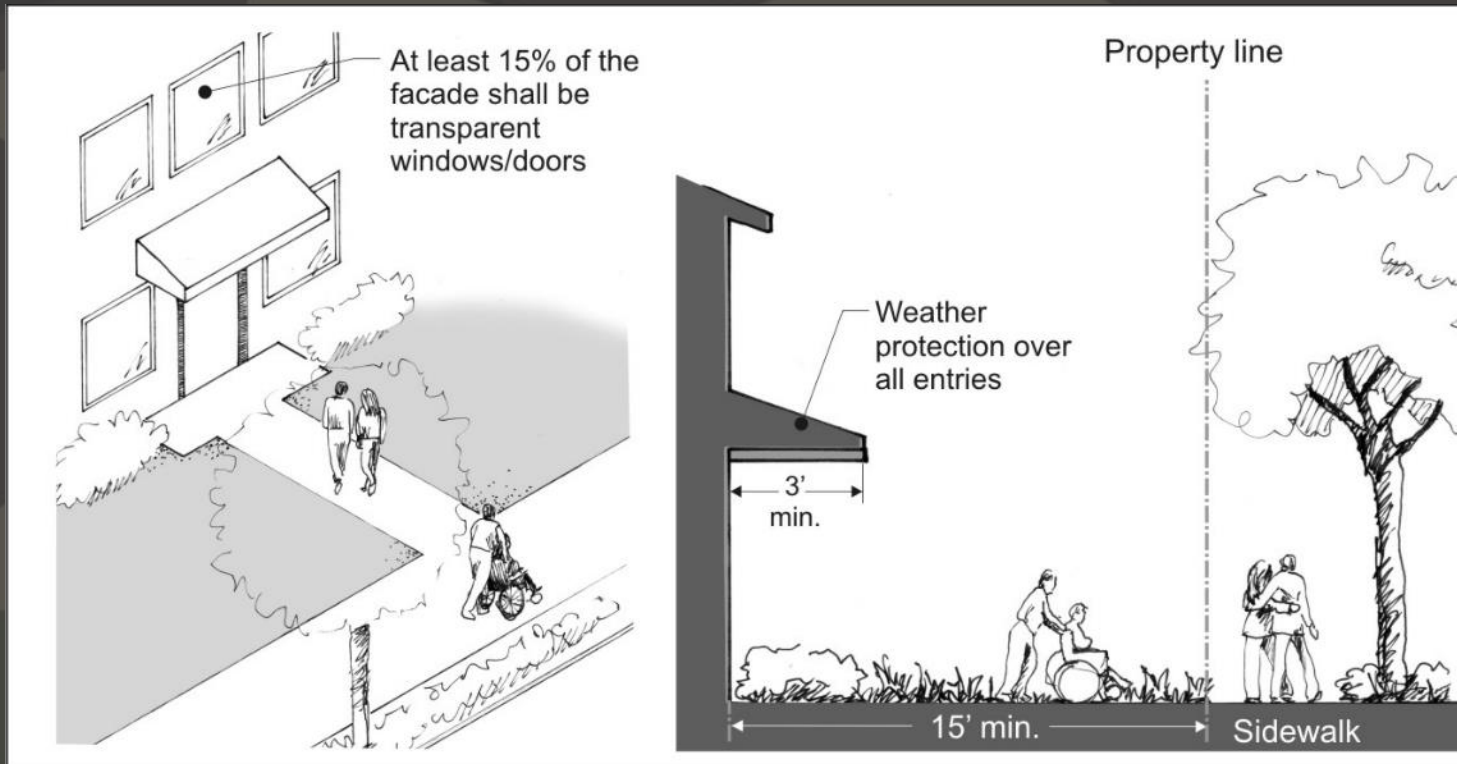
What is a Form-Based Code?

- What it looks like from the street



What is a Form-Based Code?

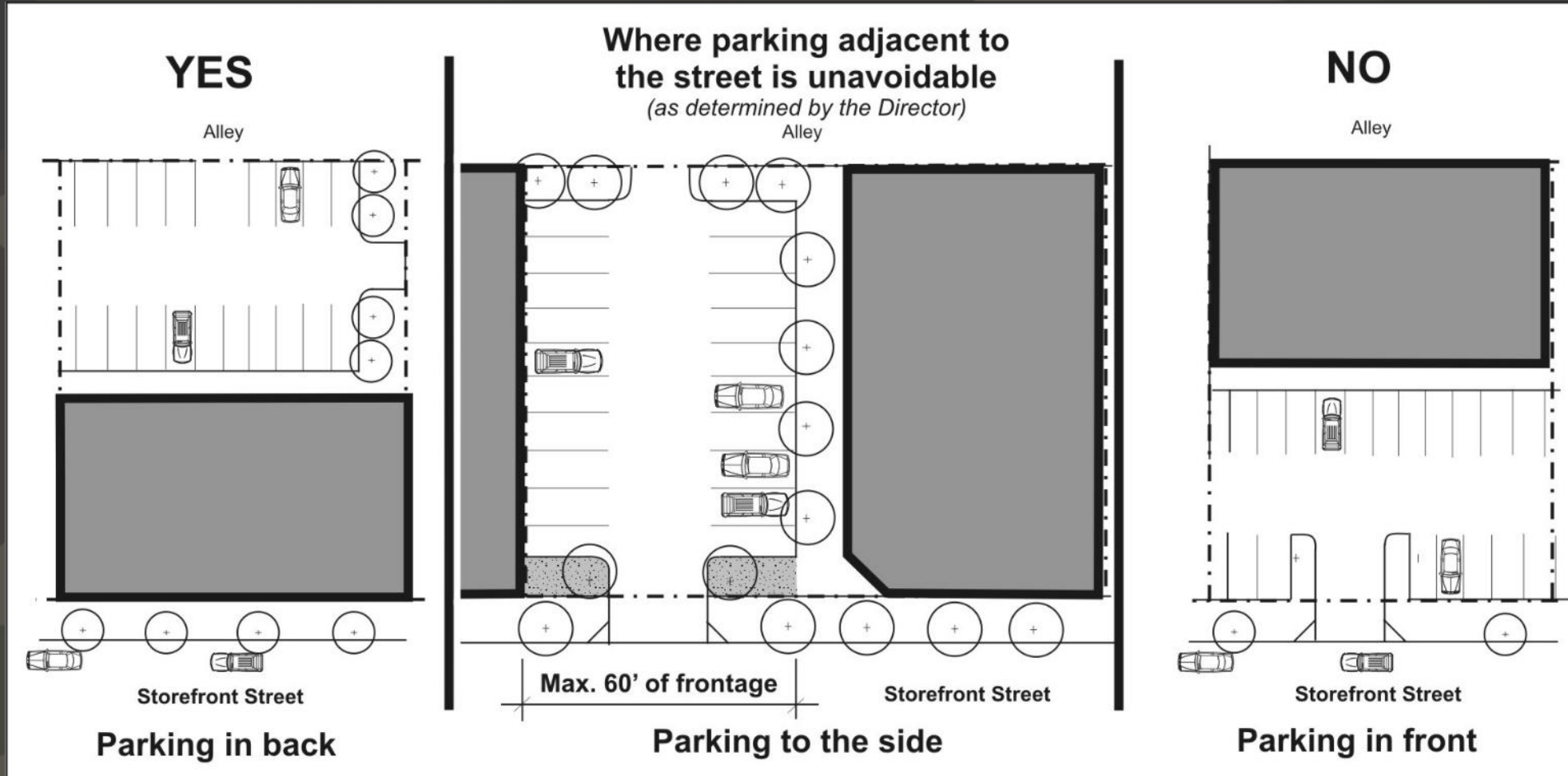
- What it looks like from the street



Landscaped Street Standards

- 15' minimum building setbacks
- No more than 50% of street frontage may be occupied by parking or vehicular access
- At least one building entry is visible from the sidewalk
- Weather protection at least 3' deep over all entries
- Transparent windows/doors shall occupy at least 15% of facade

What is a Form-Based Code?



FBC's Slow to Come to NW

- Origination far from NW
- Physical and political challenges
- NW' strong history with design guidelines

Some Challenges to FBC's



- Adapting to varied and unique local context (physical and political)
- Massive logistics of changing existing code
 - One district or whole city?
 - Entire code or just parts
 - Educating participants about the change
 - Awareness of the details, implications
 - Overcoming fears of change
 - \$\$\$\$\$\$\$


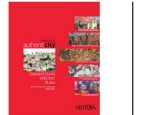







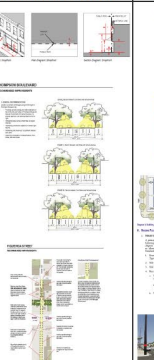


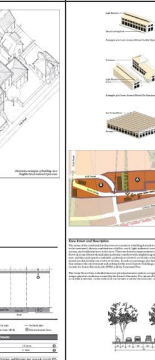
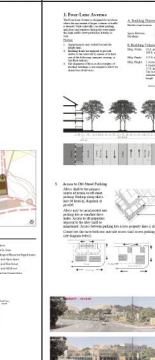
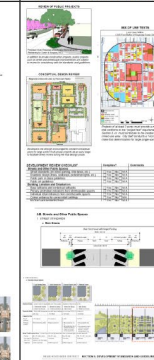

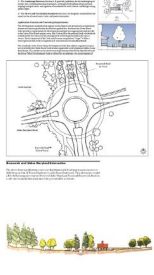



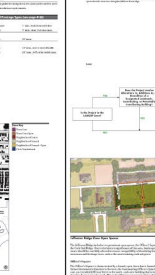



Our Experience with FBC's

Hwy 99 AND POINTS EAST
Planning a new direction

Highway 99 Sub-Area Plan

Clark County, Washington
December 16, 2008



| GRASS VALLEY Loma Rica | VENTURA Downtown | VENTURA Midtown | ST. LUCIE TVC | BENICIA Downtown | VENTURA Lower Arsenal | HERCULES Plan | FORT WORTH S-side |
|--|--|--|--|--|--|--|--|
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Hwy 99 AND POINTS EAST
Planning a new direction

NE 78th St



NE Hwy 99

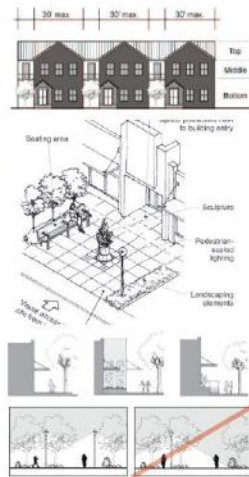
NE 13th Ave

Clark County Hwy 99 FBC

Clark County Highway 99 Sub-Area



Title 40 Appendix F Highway 99 Overlay District Form Based Standards



Draft
June 29, 2009

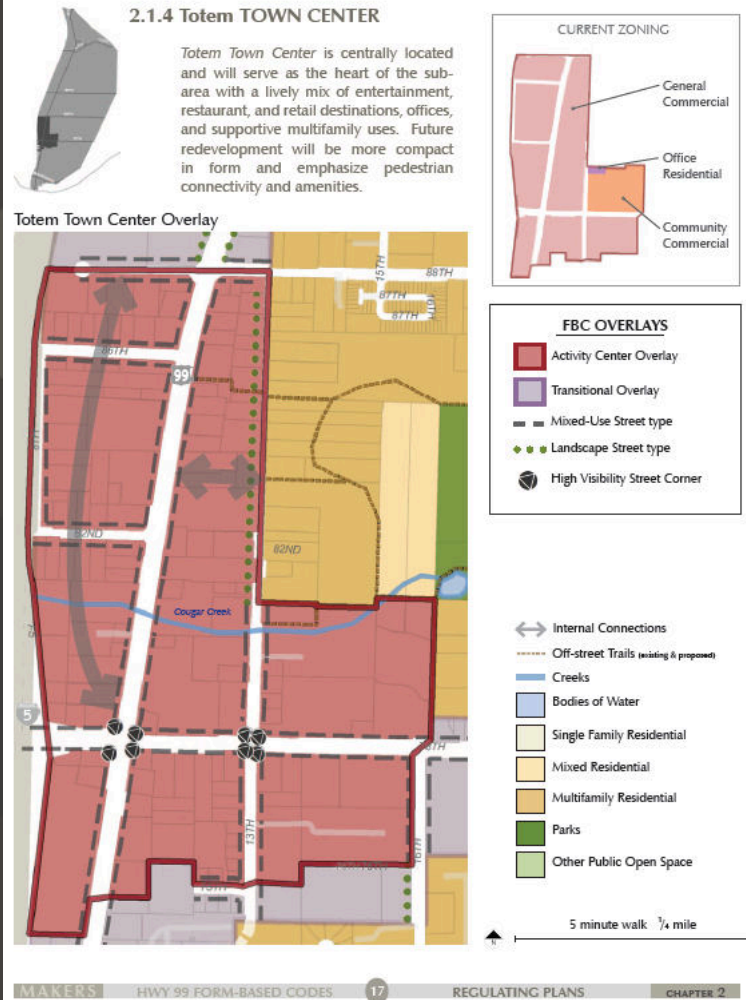
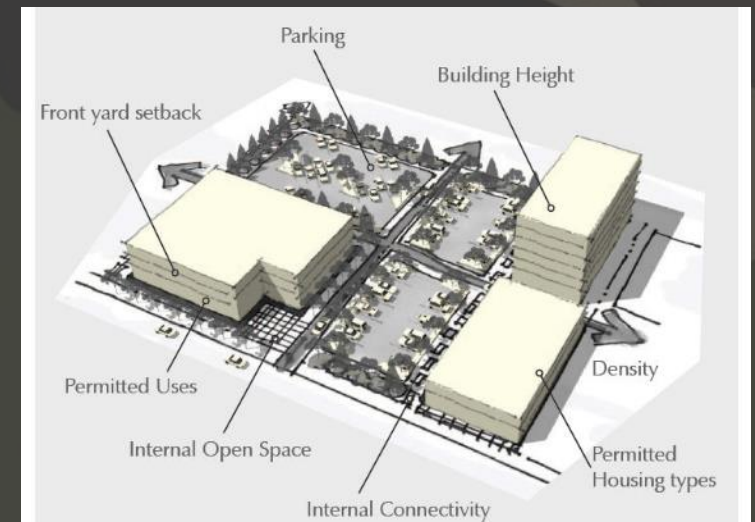


Table 2-4. Permitted frontages and how they relate to Street Types.

| Street Type | Permitted Frontages per Street Type, for more details see Chapter 3 Frontage Type Standards |
|--|---|
| Storefront Street Permitted Frontages | |
| | |
| Mixed-Use Street Permitted Frontages in Activity Centers and Transitional Areas | |
| | |
| Landscape Street Permitted Frontages in Activity Centers and Transitional Areas | |
| | |



Clark County Hwy 99 FBC

4.2 Activity Center Overlay

Emphasizes uses and design that attract pedestrian activity.

Building Placement

A Front Setback Requirements:

- Distance = 0'- 20' setback
- See Chapter 3 for setback requirements related to applicable frontage types.

B Side and Rear Setback Requirements:

- Firewall option (no windows) = 0' setback; above 25' tall = 10' additional setback for non-storefront buildings
- General (side/rear) setback = 10' min.
- Setback between structures = 10' min.
- Rear adjacent to SF zone = 25' min.
- See Section 5.1 for further side/rear yard details

D Internal Connectivity

- Create internal vehicular and pedestrian access where indicated on regulatory maps.
- See Section 5.3 - 5.4 for further details

E Internal Open Space

See section 5.2 for design standards for the required open space

Commercial uses:

- 2 sq ft of pedestrian-oriented space per 1 lineal foot along frontages

Residential uses:

- 10 % of livable floor area

F Parking

Location and maximum frontage:

- Storefront Streets = 33% and side/rear
- All other streets = 50 % and side/rear

Amount and Design:

- See Section 5.5 for parking standards
- See Section 8.4 for parking lot landscaping requirements

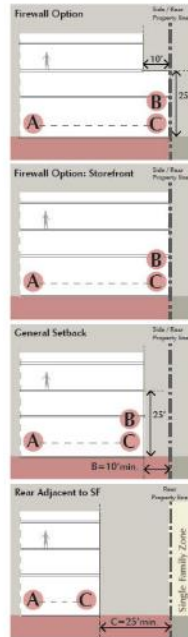


Figure 4-4. Activity Center Overlay building placement standards.

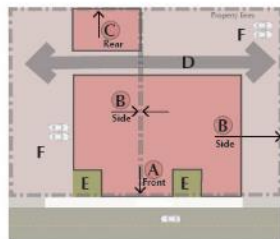


Figure 4-5. Site design elements for the Activity Center Overlay.

3.2 Permitted Frontage Types

The chart below illustrates a range of development frontages and the particular street types and overlays where they are permitted (shaded boxes). Combinations, or hybrids of multiple frontage types are permitted.

Table 3-2. Frontage Type Standards cross referenced with street types.

| Frontage Types | Overlays and Street Types | | | | | | | |
|--|---------------------------|--------------------|-------------------|------------------|------------------|--------------|-------|---------------|
| | Activity Centers | Transitional Areas | Residential Areas | | | | | |
| | Storefront Street | Mixed Use Street | Landscape Street | Mixed Use Street | Landscape Street | Multi-family | Mixed | Single-Family |
| 3.3 Storefront Façades located adjacent to the sidewalk. | ✓ | ✓ | | ✓ | | | | |
| 3.4 Forecourt Uncovered courtyards within a storefront setting. | ✓ | ✓ | | ✓ | | | | |
| 3.5 Stoop Elevated platform entry ways. | | | ✓ | ✓ | | | ✓ | |
| 3.6 Light court Sunken courtyards in tandem with raised platforms. | | ✓ | | ✓ | | | ✓ | |
| 3.7 Terrace yard Raised lawns or gardens separated from the frontage line by a retaining wall. | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3.8 Fenced yard Distinct separation between the public and private realms. | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3.9 Common yard Visually continuous landscaped space along adjacent yards. | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

6.3 Building Materials

INTENT

- To encourage high-quality building materials that enhance the character of the area.
- To discourage poor materials with high life-cycle costs.
- To encourage the use of materials that reduce the visual bulk of large buildings.

6.3.1 Metal Siding Standards¹

Masonry, concrete, or other durable material must be incorporated between metal siding and the ground plane (at least 2 feet above grade).

6.3.2 Concrete Block Standards¹

When used for the primary façade (containing the primary pedestrian entrance), buildings are encouraged to incorporate a combination of textures and/or colors to add visual interest. For example, combining split or rock-façade units with smooth blocks can create distinctive patterns.

Specifically, a singular style and texture of concrete block may comprise no more than 50 percent of a façade facing a street or open space.

6.3.3 Stucco Standards¹

(1) **Proper trimming.** Stucco and similar troweled finishes (including Exterior Insulation and Finish system or "EIFS") must be trimmed in wood, masonry, or other material and must be sheltered from extreme weather by roof overhangs or other methods and are limited to no more than 50 percent of façades containing a customer or resident entry.

(2) **Weather exposure.** Horizontal surfaces exposed to the weather must be avoided.

(3) **Treatment near ground level.** Stucco, EIFS, and similar surfaces should not extend below 2 feet above the ground plane. Concrete, masonry, or other durable material must be used below the 2-foot-above-grade line to provide a durable surface where damage is most likely.

¹ Departures will be considered to the above Building Materials standards provided the use of materials and the façade design meets the intent of the standards. Applicants must demonstrate that the materials are durable, particularly where used near the ground level.



Figure 6-41. This building uses an acceptable combination of metal siding, concrete block and wood shingles (Duvall, WA).



Figure 6-42. An example of an acceptable mix of smooth and split-faced concrete blocks (Bellevue, WA).



Figure 6-43. This building employs a single type of concrete block, but it comprises less than 50% of the façade (Snoqualmie, WA).



Figure 6-44. This building combines stucco and concrete block.



Development Example: TOTEM TOWN CENTER



DEVELOPMENT EXAMPLE 3-D VIEW



EXISTING CONDITIONS AND WETLAND/BUFFER BOUNDARY

This is just an EXAMPLE and intended to illustrate what the area might look like in 20 years if developed consistent with the proposed development standards (with a few departures).
It is assumed in this example scenario that the area would be redeveloped in phases, with multi-story mixed-use buildings constructed in later phases.

Wide, tree-lined sidewalks, with storefront retail



Creation of a new and lively Storefront Street makes up for the large parking area along NE 78th Street



Mixed-use development with retail on ground floor and residential or office above



Development configured to use wetland as an amenity; locate trail along edge



Townhouses fronting on internal street



Private internal access road designed to look like a public street



Pedestrian-oriented space integrated with development



Distinctive building corners



Attractive pathways and landscaping in large parking lots



Detail of development example between Hwy 99 and I-5, looking west



Entire development example, looking west



Entire development example, looking east from I-5



Clark County Hwy 99 FBC

Outcomes in district slower than anticipated, but this grocery store went in quickly after the code, and the design is much better because of the code than otherwise



A Northwest Interpretation:

A Hybrid Approach to Form-Based Codes in the Northwest

March 1, 2012 by Bob Bengford
Category: Planning Advisor

This Advisor column was originally published in January 2010.

Can form-based codes be applied to Northwest communities? Of course.

Are they appropriate for your community? It depends.

Below are some things to think about if you are considering updating your land use/design codes using a form-based approach.

About Form Based Codes

Established first in Florida in 1982 as an alternative to conventional codes (FBCs) regulate development to achieve a specific physical form. They include prescriptive requirements on the location and form of building frontages and on the design of streets and sidewalks. Permitted uses are often limited to those that are consistent with the form-based code. The Form-Based Code Institute's website (formbasedcode.com) provides information on the topic.

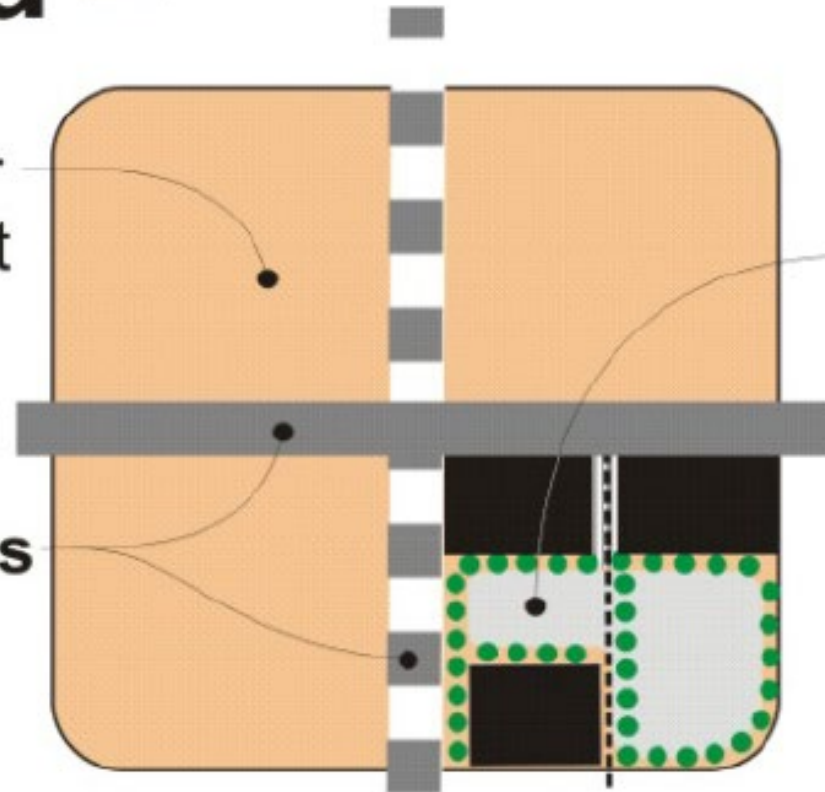
Most form-based codes have been applied to historic downtowns with well established character and/or a well-defined vision, or to areas with consolidated ownership. By their nature, they are often very detailed.

Hybrid =

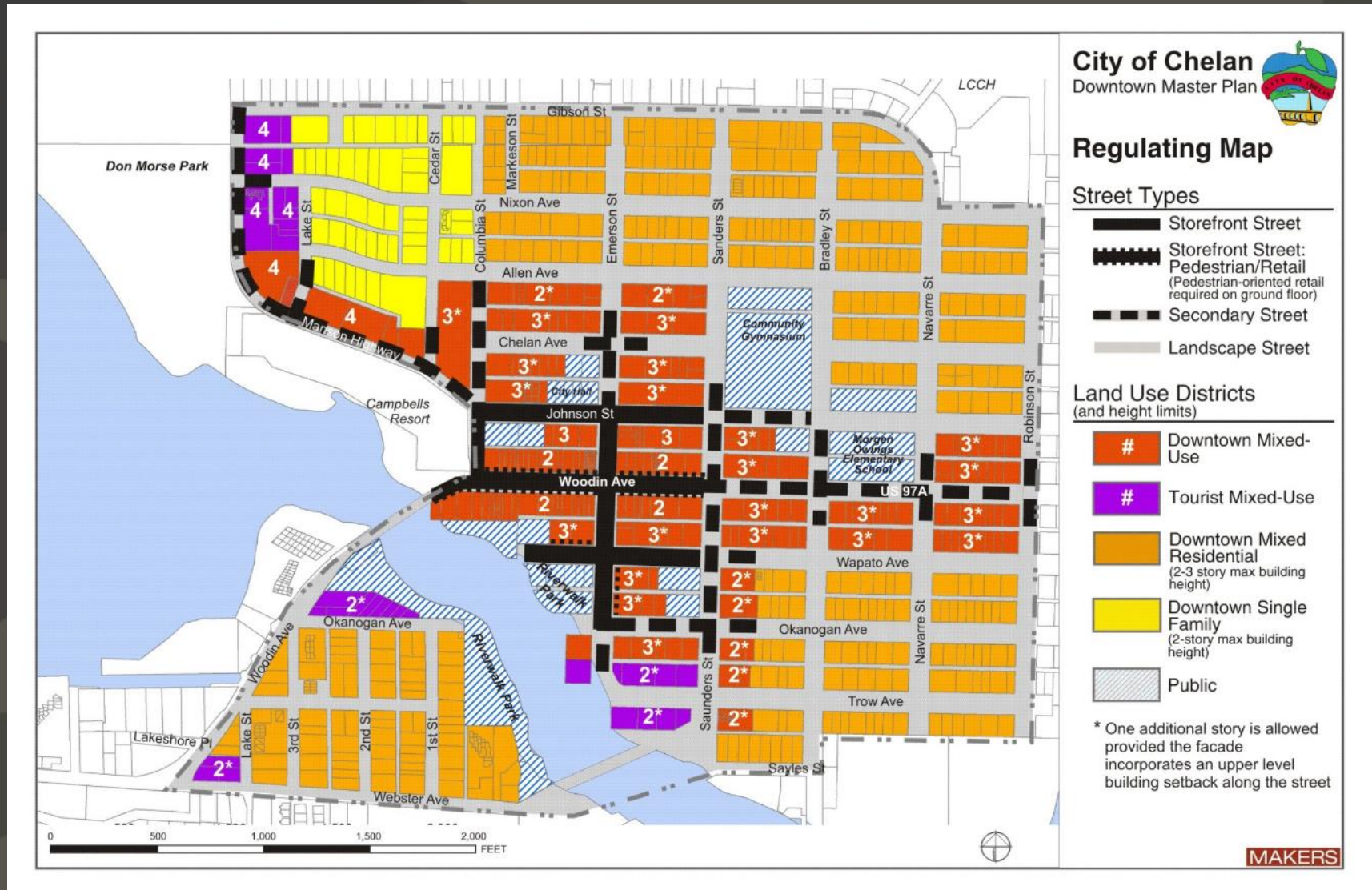
Districts for use & height provisions

Street Types for frontage standards

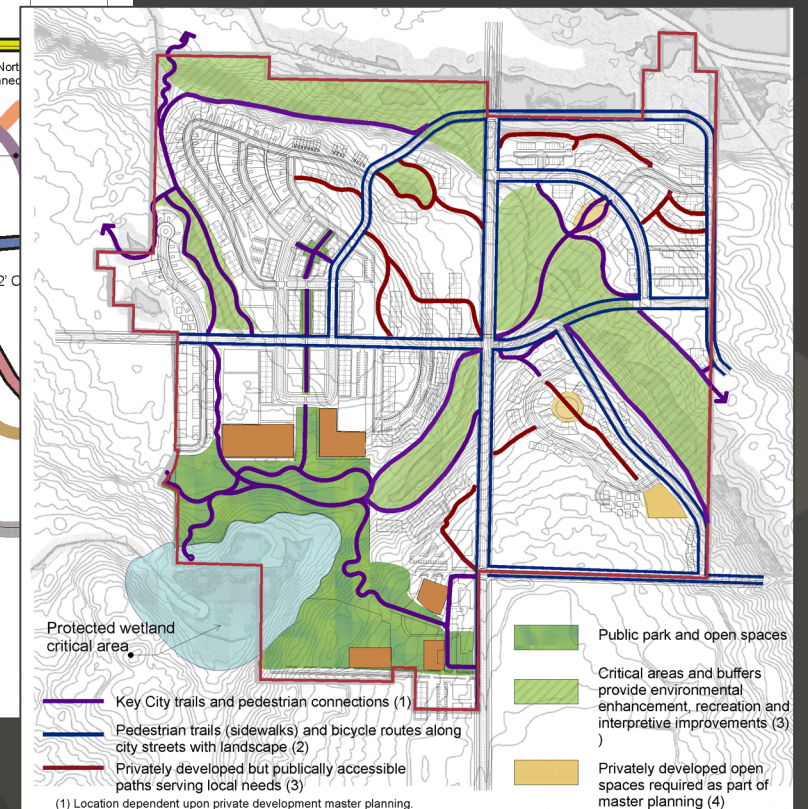
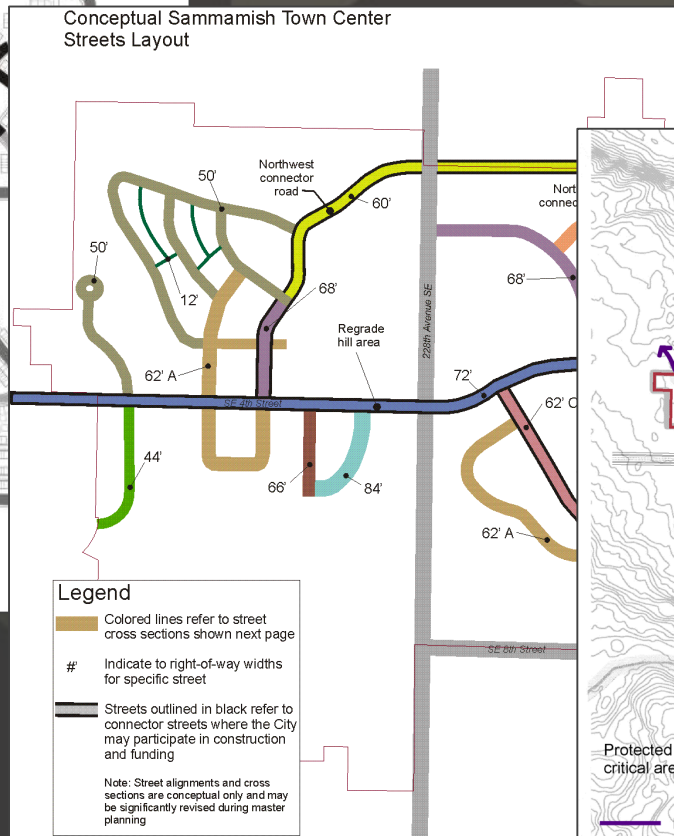
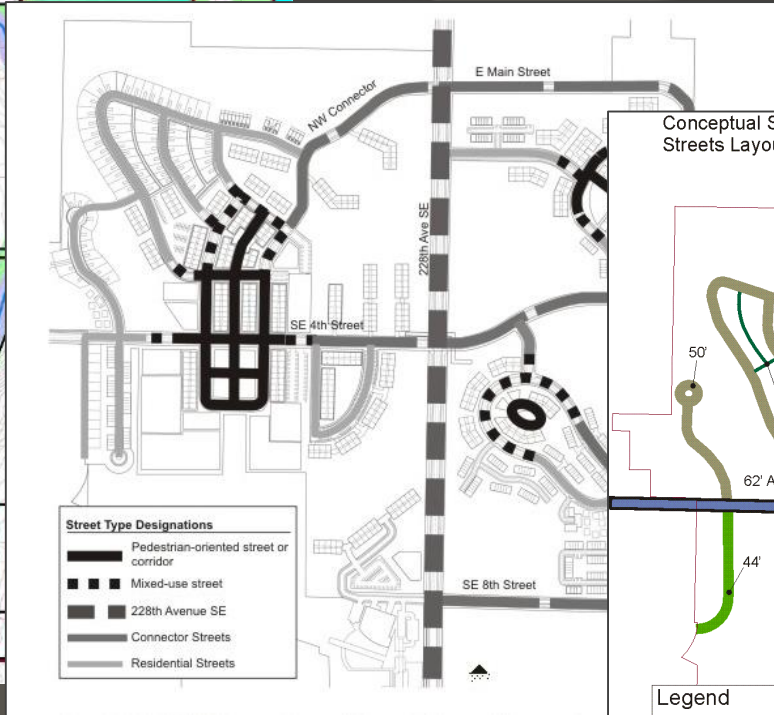
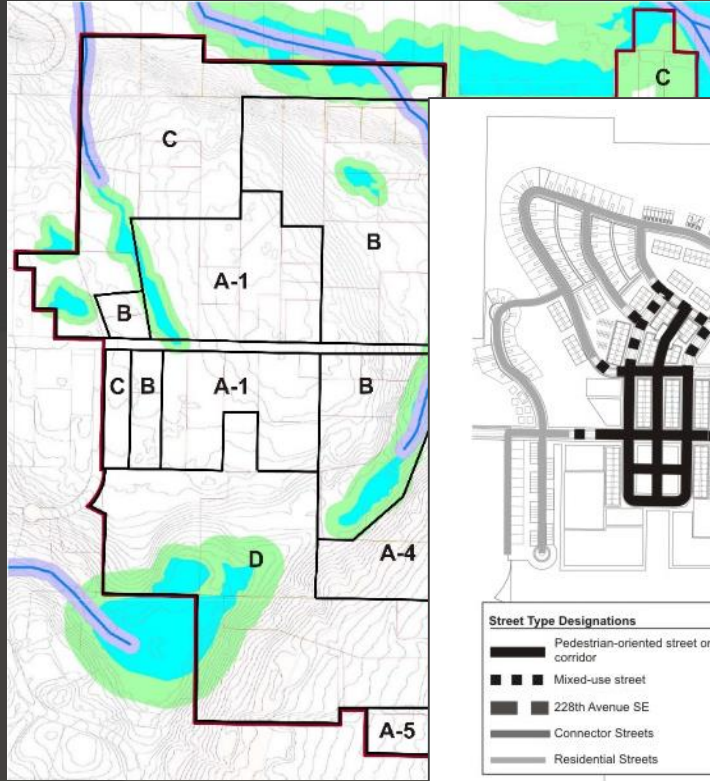
Design Guidelines for site & building design goals



Chelan Downtown Code



Sammamish Town Center







Lessons Learned Stretches

Lessons Learned

1. Determine what's most important - in terms of land uses, community design, and economic development objectives
2. Choose a “workable” regulatory approach – with special attention to the review process and available staffing/expertise
3. Look at a lot of case studies – both in terms of codes and actual communities
4. Involve the full range of stakeholders – help them foster a sense of ownership in the codes
5. Help participants understand the implications of various options
6. Pick your battles – it's OK to “parking lot” some items