

# Attachment 3

## Des Moines Downtown View Analysis

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### **Overview**

As a Washington community with unique topography and strategic location, Des Moines Downtown has two very special characteristics: the Marina and views. Many people in the community benefit from picturesque vistas of Puget Sound and the Olympic Mountain Range.

Cities with a characteristic natural setting that is valued and threatened must try to balance private and public interest in managing the visual environment. The private real estate industry may wish to capture views of the amenity from their buildings and thus increase the real estate value for the eventual occupants. Such buildings may block traditional public views or reduce them in size or shape. They may introduce new elements into the view that arguably improve or diminish the quality of earlier view.

Most cities promote development and increase the buildings heights while trying to maintain valued public views. Defining the amount of view corridor for public purposes and the remaining portion of view to be occupied by buildings constitutes the first step. It then remains to determine whether it is preferable to maintain a small number of large views of the amenity or a large number of small views. Also, more of the amenity might be maintained if fewer but taller buildings were to be allowed.

### **View Protection References in the Comprehensive Plan**

Des Moines' Comprehensive Plan establishes several goals and policies aimed at promoting new development/redevelopment in the Downtown while enhancing the aesthetic character of the neighborhood along with the desire to preserve views:

#### Land Use Element

##### *Goal:*

2-01-01 Preserve and enhance the diverse residential neighborhoods, of the community and serve them with vibrant business districts, open space, recreational facilities, affordable housing, and other supportive land uses; protect environmentally sensitive areas, and promote economic development.

##### *Policies:*

- 2-03-08 Enhance and improve the economic health of existing business districts and recognize each district's special attributes.
- (1) Promote new development and redevelopment within the Downtown Business District to reflect and enhance its ties to the waterfront, pedestrian orientation, and role in serving local shopping and service requirements.
  - (2) Create Design Guidelines for the City that will establish types of construction and uses that will enhance the waterfront and the larger community.

*Strategies:*

- 2-04-15 Seek to minimize negative impacts of new development on neighborhoods by providing uniform standards at the interface of incompatible land uses which address, but are not limited to, the following: site access and circulation; structure height, bulk, and scale; preservation of views; separation of buildings; landscaping; density; and noise buffering.

Downtown Element

*Goals:*

- 10-01-01 To ensure that Downtown Des Moines will be:  
(9) An area with views of Puget Sound and the Olympic Mountains

*Policies:*

- 10-03-02 Encourage the development of gateway features and focal points that contribute to the identity of the Downtown Neighborhood of Des Moines.  
10-03-02 Building height should not adversely impact the adjacent street environment or nearby land uses.  
10-03-10 Encourage new construction to incorporate design elements that provide view corridors, visual interest, and pedestrian scale. Require the terracing of upper floors of buildings.

**Definitions/Terms for View Protection Discussion**

To avoid confusion in discussion of view protection, the following terms are defined:

View shed: A panoramic view of an entire subject, such as mountain range. In Des Moines it has yet to be defined, but it could include the Puget Sound with the Olympic Mountain Range.

View Corridor: A view of all or a portion of a view shed, which is defined as to side edges, view point and view angle. The View Corridor may be along a street that captures all or a portion of a view shed, or it may be as defined between structures allowing a limited view of a portion of View Shed.

View Plane: A specific view corridor that establishes a height based on a reference point elevation and the lowest point of the desired view corridor. Essentially a line connecting the elevation of the view point and the lowest elevation of the view shed.

Reference Point: A point at which an elevation is established through a survey or topographic map, and a marker is set to define the exact point and its elevation, and which offers a panoramic view.

View Point: A single point or series of points (for example, along a roadway) where the observer is located, that offers a scenic or panoramic view.

## How Views are Protected

There are many varied view protection techniques depending upon their primary objective. In addition to view sheds and view corridors discussed above, the following techniques are available:

- **Regulating Development.** Building placement, height and vegetation preservation plus ridgeline protection may also be part of downtown regulation.
- **Solar Access.** Ordinances preventing shadows on selected public spaces at specific time of day or months of the year.
- **Gateways.** City entryway clean-up and beautification.

View preservation ordinances have been adopted nationally as well as within Washington jurisdictions. Austin, Texas has a view protection ordinance for the state capital building. San Diego, California establishes view corridors along major streets to protect vistas of the San Diego Bay. San Francisco, California utilizes view protection along selected streets and also applies solar access protection to public spaces, such as parks and civic plazas. Salt Lake City, Utah has adopted a Foothills and Overlay Zoning District. Houston, Texas and New Orleans, Louisiana have codes that help to improve the entryways into these cities.

## Examples within Washington State

### *Seattle View Protection Policies (2001)*

The City of Seattle decided to undertake a view protection plan for significant features within the city. As the Space Needle is considered to be one of the most prominent landmarks, the study examined views of this feature first. Therefore, a list of public spaces that offer views of the Space Needle in addition to spaces that offer some form of viewing amenities (e.g. park benches) was developed (Krochalis, Cline & Schell, 2001). A point system was used to rate the quality of the view and viewing experience. This system analyzed several variables and a value was given to each viewing area. Maps and digital diagrams were used to relay the results which will then be used to guide future development efforts by the City of Seattle.

### *City of Kenmore View Protection (Ord. No. 08-0291, 12/18/08)*

The City of Kenmore recently revised their Community Business (CB) zone to limit the height of new development to the maximum base height of 35 feet. Revisions include exceptions to height allowed specifically in the CB zone with standards on the height and width of any exceptions to the base height, and a requirement that a view corridor be provided between 61st Avenue NE and 65th Avenue NE.

## Components of View Protection Requirements

Identifying the appropriate techniques for the view preservation varies widely between communities. These are usually mapping efforts that produce a range of view options, which are tested through mapping exercises and in the field. Often a visual preference

process is followed with community members to get better handle on view priorities and extend of desired protection. There is the need to objectify the process so that views may be prioritized and impacts to development minimized. There is usually some form of photographic survey that helps describe priority views. Most of the view preservation regulations are overlay zone districts that establish additional criteria beyond the underlying zone. However, there are variations such as Denver that use individual ordinances that are placed in the Building Code and administrated through the Building Department.

There are a number of techniques for protecting scenic views:

1. Height restriction
2. Site design
3. Use restrictions
4. Sign and telecommunication equipment regulation
5. Backdrop or hillside requirements
6. Architectural requirements
7. Solar access restrictions

The components of the regulatory tools that assure view protection are generally described below.

Height restrictions. Building height restrictions are intended to protect a view to a panoramic vista or to a certain point or feature within the city. In most cases, the specifics of the view plane and corridor must first be established. This includes point of reference or starting point, the elevation or area of view to be included, and the land coverage for the view corridor restriction. A land survey typically identifies the boundaries of the view plane and restricted area. A view plane or sight line elevation is established between the reference point and distant view elevation or point, establishing maximum height levels. From there, a technique for height restriction can be developed. The techniques for height restriction are as follow:

- a. A simple maximum height limit for any structure within certain distance from the edge of a view area. An example is a Boston ordinance stating that within 100 feet of any park or parkway, building height is limited to 70 feet. This also protects solar access.
- b. A formula to restrict buildings heights to elevations below an established view plane. Once the reference point, view shed and view elevation are established, the formula is developed and is usually based on the distance from the reference point. A formula used in Denver is to limit construction in the designated view plane area to no more than the height of the reference point plus one foot for each 100 feet that the proposed structure is horizontally distant from the reference point. Denver's ordinance also included easily referenced on-the-ground points, such as street intersections, to define the outside limits of the corridor.

- c. Building “step-backs” are used to establish lower level buildings in certain areas where view corridors are desirable. For example, within a certain distance from property line, no height may exceed a certain level, until a specified horizontal distance from the property line is obtained. The rest of the site is subject to the height limit defined by the base zoning. For example, in the first 15 feet of the property, along a street frontage, heights are restricted to a maximum of 30 feet (San Diego).

Site design. Building siting requirements are commonly used in zoning. They may however be taken to a new level in preserving view corridors as follows.

- a. Building setbacks may be established for certain view corridor areas. This is typically a simple setback to create more visual openness along a right-of-way or scenic route. Often this is a front building setback of a certain distance beyond that required in the base zone. This is similar to widened street right-of-way. (City of San Dimas, California)
- b. Site setbacks may also be established to allow “seeing through” or between a series of buildings so that a solid wall is not established. A design approach to accomplish this could be to design a common plaza between the two buildings, capturing the view between the buildings through the plaza. This is particularly effective for framing public spaces such as major urban landmarks.
- c. Building orientation to allow view corridors may also be achieved through lot line coverage limits, maximum north-south or east-west plan dimensions, or requirement for a certain amount of unobstructed street frontage. For example, an ordinance may require that the 20% of the street frontage of a subdivision or lot is let open from front to back. (San Diego; Tucson)
- d. A building envelope may be established to create a building orientation on a certain axis, so that a building is oriented to allow views through the site (Vermont).

### ***Methodology for Des Moines View Analysis – View corridors***

The Marina District sits in a topographic bowl and many properties within and near the Downtown have views of Puget Sound and the Olympic Mountains. Views from the east are most prominent given the topography of the area generally slopes down from east to west. For the most part, areas to the north and south offer territorial views over the Downtown, Puget Sound and the mountains.

Based on the Comprehensive Plans Goals for the Downtown Des Moines, in this first stage of preliminary study, only the views of Puget Sound and Olympic Mountains were taken into the consideration for the study of the development impact on view corridors.

1. The map of Des Moines Downtown and abutting parcels located on the hillsides was created using the GIS program “ArcMap.” The topographic, right of way and building data from the GIS database was imported to the Sketch Up modeling software. This program was used to create a three dimensional model of the terrain with the buildings for selected areas.

2. A photographic survey of possible view corridors was performed. The pictures were taken from the street right of way looking toward Downtown. The eastern part of study area had the greatest opportunity for protection of the Puget Sound and Olympic Mountain views. The northern slope of the study area is characterized by the unobstructed territorial views of Mount Rainier, Downtown, Marina and Saltwater State Park. Similarly, the views from the southern slopes of study area overlook Puget Sound, the Olympic Mountains, Downtown and the ridge beyond.

View locations were chosen to reflect the point at which the topography captured the greatest view (i.e., point along a corridor at which you could see the greatest expanse of water and/or mountains). Photos were taken near each view point to document the current view frame. In some cases, views are partially obscured by foliage and tree growth. The criteria for the corridors involved a weighing of three factors:

**View Type:** Is the view pedestrian or vehicular? Is it sustained or a glimpse?

**View Frame:** What is actually in the view?

**Viewpoint:** What is the viewpoint and does it have particular significance by itself?

3. Using the Sketch Up modeling ability, different height scenarios of Downtown were developed (Attachment A). The first scenario illustrates the maximum allowed buildup of 35 feet. This massing exercise identified opportunities for increasing building heights along 7<sup>th</sup> Avenue S. Additional scenarios looked at the hypothetical building massing of 45 and 65 feet and heights impact on the view corridors.
4. The cross sections through the model were created. They illustrate topographic changes in heights along all of the major east-west streets leading to and through Downtown. This allowed a better understanding of opportunities for increasing building heights in some areas while minimizing view impacts.
5. Selected photographs were used to establish series of view points through the Sketch Up model and create similar illustration with hypothetical massing.
6. The model illustration and photos were layered using Photo Shop software to achieve computer simulated images. During this process the hypothetical view corridors and view sheds were created to be used in evaluating possible massing scenarios for Downtown development.

The images provided as Attachment A, illustrate views toward Downtown from the S 222<sup>nd</sup> Street, S 223<sup>rd</sup> Street and S 226<sup>th</sup> Place view corridors with build-up scenarios under existing zoning and hypothetical scenarios illustrating build up at 45 feet along the east and west sides of 7<sup>th</sup> Avenue S. A SketchUp model illustrates build up at the QFC site at 45, 55 and 65 feet. East-west topographic profiles were also developed to show the changes in topography along view corridors.

For each of the images, the red color denotes properties zoned D-C Downtown Commercial while the dark yellow denotes the RM 900 and 900A-Residential Multifamily zoning. The buildings on the topographic profiles illustrate build-up under existing zoning.

## ***What needs to be done?***

Once it is decided that some type of view protection is appropriate for the Des Moines Downtown, the next step is to determine what deserves protection or preservation. Listed below are five possible categories:

- Sight lines to the Puget Sound and Olympic Mountains backdrop from selected public viewing places.
- Sight lines to man-made features within the city from selected public viewing places.
- Sight lines to significant natural features within the city from selected public viewing places.
- Sight lines to the Puget Sound and Olympic Mountains backdrop from street corridors.
- Solar access protection for designated public places.

The first three are generally accomplished by establishing view corridors that limit the height of buildings by establishing a view plane from specifically defined location on the ground. The points of view are from selected public places such as parks, public buildings or bridges. View corridors to the Puget Sound and Olympic Mountain Range backdrop along major roads generally regulate the building setback so that it will preserve the selected view. Solar access is generally preserved by regulating the height and bulk of structures that would cast shadows upon public spaces at specific time of the year or the day.

Next steps to complete this work include:

1. Public outreach to define public views for protection
2. Develop survey to understand what people value about views
3. Establish view preservation corridors and solar access
4. Develop a comprehensive view preservation program that is expressed and implemented through the following mechanisms:
  - a. Updating goals, policies and strategies for the Downtown Element
  - b. Design guidelines
  - c. Zoning changes to address possible height changes

**References:**

Bucher, Lise (2005). *Urban Character and Viewscape Assessment*, ISoCaRP Congress

Downtown Development and Capitol View Corridors Report (2007) Austin, Texas

Healy, William (2003). *Process for Developing View Protection Ordinance*. City of Colorado Springs.

Kenmore, City of (2008). Community Business Zone – Ordinance 08-0291, effective 12/18/2008.

Wall, Irene (2001). Protecting views makes sense from every angle. Urban Development. <http://www.djc.com/special/development2001/>