

Chase Gardens

Nodal Development Plan



Final Draft Report
June 29, 2001

A Transportation and Growth Management Program Project
City of Eugene

Acknowledgements

The Chase Gardens Nodal Development Plan was prepared with the assistance of a multi-jurisdictional technical advisory committee led by City of Eugene staff, in conjunction with a consultant project team. Project participants included the following individuals:

Technical Advisory Committee

City of Eugene Planning and Development

Jan Childs, AICP
Kurt Yeiter (Project Manager)
Jim Croteau
Ken Guzowski
Nan Laurence
Mike Sullivan
Mike McKerrow
Jean Hahn

City of Eugene Public Works - Transportation

Diane Bishop
Chris Henry, P.E.
Dave Reinhard, P.E.
Tom Larsen, P.E.
Gary McNeel

City of Eugene Fire/EMS

Greg Musil

City of Eugene Public Works - Maintenance

Johnny Medlin
Mark Snyder - Urban Forestry
John Weber - Parks Planning

Lane County Land Management

Celia Barry

Lane Transit District

Andy Vobora

City of Eugene Public Works - Engineering

Brian Genovese, P.E.
Joe Ferguson, P.L.S.

Eugene Water and Electric Board

Mark Oberle

City of Eugene Police Department

Tod Schneider

State of Oregon - TGM Program

Elizabeth Ledet, AICP
Tom Boyatt, AICP

Consultant Team



Satre Associates, P.C.
Rick Satre, ASLA (Project Manager)
Philip Farrington, AICP
Terri Harding, AICP
Vincent Martorello, AICP
Sara Geddes, ASLA
Colin McArthur

Crandall Arambula
George Crandall, FAIA

Kittelson & Associates, Inc.
Dan Seeman, AICP

Hobson Ferrarini Associates
Steve Ferrarini

Many thanks to the residents within and around the Chase Gardens area, who gave input into the plan and attended meetings and open houses over the course of the project.

This project is funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development.

The TGM program relies on funding from the federal Intermodal Surface Transportation Efficiency Act (ISTEA) and the Oregon Lottery. This report does not necessarily reflect the views or policies of the State of Oregon.

Table of Contents

PLAN SUMMARY	5
CHAPTER 1: INTRODUCTION & BACKGROUND	6
Background	
Planning Process	
Project Goals	
Nodal Development Principles	
Existing Conditions	
Transportation System	
Key Development Issues	
Initial Alternatives	
Preferred Alternative	
CHAPTER 2: LAND USE	18
Overview	
Land Use Designations	
Commercial	
High Density Residential – Mixed Use	
High Density Residential	
Parks and Open Space	
Government	
Land Use Plan Diagram	
Recommended Policies	
CHAPTER 3: TRANSPORTATION	23
Overview	
Recommended Policies	
Streets	
Bicycle Facilities	
Pedestrian Facilities	
Transit	
CHAPTER 4: NEIGHBORHOOD DESIGN	26
Overview	
Illustrative Plan Diagram	
Perspective Drawings	
Site Development Standards	
Commercial Design Guidelines	
Residential Design Guidelines	
Natural Resource Guidelines	
Land Use Matrix	

CHAPTER 5: INFRASTRUCTURE AND IMPLEMENTATION

38

Purpose of Report
What is a Node?
Summary of the Preferred Alternative
Infrastructure Needs and Impacts of Nodal Development
How the Draft Plan Creates “Nodal Development”
Prioritization and Funding Strategies
Regulatory Framework

APPENDIX

Appendix A - Existing Conditions Maps	A-1
A.1 Metro Plan Designations	
A.2 Refinement Plan Designations	
A.3 Zoning	
A.4 Aerial Photograph	
A.5 Land Use	
A.6 Property Ownership	
A.7 Infrastructure	
A.8 Natural Resources	
Appendix B – Property Owner Interviews	B-1
Appendix C - Market and Financing Issues	C-1
Appendix D – Preliminary Traffic Analysis	D-1

PLAN SUMMARY

The Chase Gardens Nodal Development Plan sets a new direction for future development in the Chase Gardens area. It promotes the principles of Nodal Development as envisioned in the Eugene-Springfield Metropolitan Area Transportation Plan (TransPlan) update: compact urban development patterns, availability of transportation alternatives, and enhanced livability and economic vitality.

In accordance with these principles, the Plan consists of three main elements: a land use diagram featuring high-density compact development; a multi-modal transportation network, including the re-design of Garden Way; and neighborhood design guidelines to enhance the livability of future development. Market analysis has been incorporated into the planning process to assure a plan that will enable economic vitality and a vibrant, pedestrian oriented environment.

The key features of the plan include:

- A commercial center catering to existing and future high density residential areas, located along Centennial Boulevard and Garden Way;
- Preservation of the Historic Ensemble;
- Retention of City Park land and protected riparian area along the Q Street Channel;
- High density residential development north of the commercial center and east of Garden Way;
- A redesign of Garden Way north of Centennial Boulevard, emphasizing pedestrian, bicycle, and traffic safety and mobility;
- Improvements to Garden Way, including a landscaped median, traffic calming devices, sidewalks, and prominent bicycle and pedestrian crossings;
- An integrated network of local streets, pedestrian paths, and bicycle ways; and
- Neighborhood design guidelines emphasizing pedestrian-scaled development and amenities and de-emphasizing auto orientation.

CHAPTER 1

INTRODUCTION & BACKGROUND

Background

The Chase Gardens Nodal Development project is located on the site of the old Chase Gardens nursery operation at Garden Way and Centennial Boulevard in the Willakenzie neighborhood. When the local Chase family began production of roses on the property in 1885, the site was surrounded by farmland and separated from the city of Eugene by the Willamette River. The city gradually expanded northward, surrounding Chase Gardens, but the nursery operations continued until 1992.

Between 1992 and 1995, the commercial structures on the property, including the greenhouses and a 120-foot tall smokestack, were demolished. The western-most parts of the property were sold to developers and apartments were constructed, primarily serving the growing University of Oregon student population.

The northern-most land in the study area was used as a Christmas tree farm until sold to developers in 1995. Along the west side of Garden Way, a cluster of five historic homes including the primary Chase residence were preserved, and are listed on the National Register of Historic Places as a “Historic Ensemble.” East of Garden Way are residences and remnants of a filbert orchard.

During the time that the Chase family business was coming to an end, the City was involved in drafting the Willakenzie Area Plan (WAP), a neighborhood refinement plan of the Eugene-Springfield Metropolitan Area General Plan (Metro Plan). The WAP identified the Chase Gardens property as an “opportunity area” due the large amount of vacant land located in close proximity to University of Oregon facilities and major transportation corridors. About 10 acres east of Garden Way was designated for commercial use, while the majority of the property was slated for high density residential/mixed use development.



Garden Way Path

With the construction of Chase Village and other apartments in the area, residents along Garden Way began to see significant increases in traffic on their formerly rural residential road. Garden Way is classified as a Major Collector by the City, and is the only north-south collector between Coburg Road to the west and Pioneer Parkway to the east. The single-family residential areas north and south of the study must also use this route, adding to the growing traffic burden. City plans for improving and widening the roadway, coupled with an earlier proposed method of calculating property

owner assessments, have drawn strong criticism from the residents along Garden Way over the past several years.

The design of future improvements to Garden Way is influenced by the form and character of development on the remaining vacant property. In turn, both the street design and the character of future development will have impacts on existing and future residents, as well as on the traveling public. The intent of this plan is to integrate land use and transportation planning to provide human-scaled development, support alternative modes of transportation, and reduce reliance on the automobile.

Planning Process

This plan constitutes a refinement of the Willakenzie Area Plan, and upon adoption, requires compliance with the land use diagram, policies, development standards, and design guidelines contained herein.

The project was funded by a grant from the Transportation and Growth Management (TGM) Program, a joint effort between the Oregon Department of Transportation and the Department of Land Conservation and Development. The TGM Program strives to support projects that combine transportation and land use strategies to solve localized problems and improve the quality of Oregon neighborhoods.

Project Goals

The Chase Gardens Nodal Development Plan is intended to fulfill a number of goals specific to the site and process. As outlined in the City's application for grant funding, they are:

- Implement TransPlan's land use strategy by creating nodal development patterns in designated areas.
- Establish a commercial core with a compatible mix of retail, office, employment, civic uses.
- Achieve a mixed-use development pattern that will complement and enhance existing development. Includes defining the scale and location of neighborhood commercial facilities appropriate to the neighborhood's size and circumstance.
- Provide pedestrian-friendly and environmentally sensitive transportation linkages throughout the Chase Gardens Nodal Development area and surrounding neighborhoods that strengthen local and regional connections.
- Plan for the needs of infrastructure and a multi-modal transportation system within the framework of nodal development.
- Promote public participation in developing design concepts, strategies, public facility needs, and ordinances.
- Gain public support for the Chase Gardens Nodal Development Plan and its adoption.
- Present the Chase Gardens Nodal Development Plan for adoption as a refinement of the Willakenzie Area Plan.

A Technical Advisory Committee was formed to advise the consultants throughout the process. Members included staff from City Public Works (Transportation, Engineering, Parks, and Urban Forestry), Planning and Development, Police and Fire, Eugene Water and Electric Board (EWEB), Lane County, Lane Transit District, and the TGM Program. The Committee members are listed on the Acknowledgments page.

The public involvement aspect of the project included four open houses held near the study area between November 2000 and June 2001. Participants were asked for opinions on potential land uses, transportation improvements, and design, and were led through exercises to identify likes and dislikes and development issues. Input from owners of vacant property, residents of existing apartments, residents along Garden Way, residents of neighborhoods south and north of the study area, and the Harlow Neighbors was collected. Detailed interviews were conducted with land owners. Three alternative combinations of land use designations and transportation networks were developed and presented to the neighbors and Technical Advisory Committee. Feedback from these sessions was folded into the preferred alternative described in this plan.



November 2000 Open House

Nodal Development Principles

The principles of nodal development, as defined by the Cities of Eugene and Springfield, are contained in TransPlan. In areas identified as nodes, development is intended to have certain attributes. Similar types of development are referred to in other communities as the New Urbanism, Neo-Traditional Development, or Smart Growth.

- Compact urban development patterns, featuring higher average residential densities, mixed-use commercial services and transit-oriented development in designated areas;
- Availability of transportation alternatives, including increased use of transit, other alternatives to single-occupant vehicles, and increased opportunities for people to live near jobs and services, making shorter trips for a variety of purposes; and
- Enhanced livability and economic vitality, found in pedestrian-friendly environments with a mix of land uses, including public open spaces accessible to pedestrians, bicyclists, and transit users.

Existing Conditions

Location

The Chase Gardens project area is centrally located in the Centennial Boulevard area of northeast Eugene. The area is bounded by I-105 on the north, Centennial Boulevard on the south, I-5 on the east and the John Serbu Juvenile Justice Center on the west (See Map A4). It is approximately 170 acres in size, excluding rights-of-way for the interstate highways, Centennial Boulevard, and other public roads.

Physical/Environmental Description

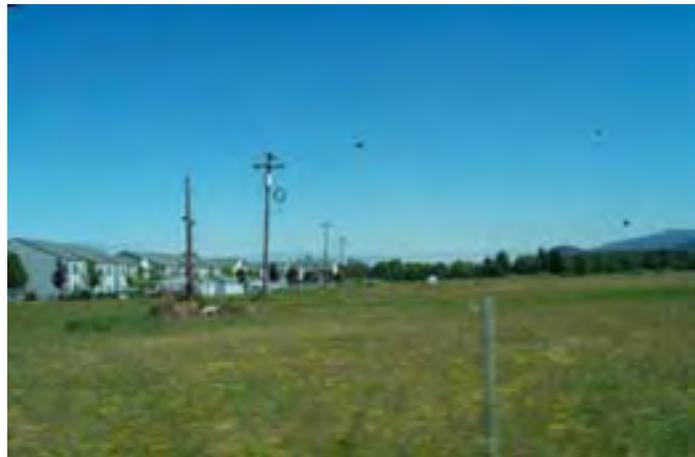
The land within the study area slopes gently to the northwest, varying little in topography with the exception of the Q Street Channel and a few tributary drainageways (See Map A8). The Q Street Channel is an artificially constructed trapezoidal channel about 10 feet deep that traverses the study area from the central eastern border to the north-western corner. The channel is owned and maintained by the City of Eugene as a flood control and stormwater conveyance facility. Although most of the native riparian habitat has been removed, some remains, notably adjacent to the McKenna Estates and University Commons apartments. A main tributary, which feeds into the channel at the northwest corner of the study area, is heavily treed.



Q Street Channel

The National Wetlands Inventory identifies the Q Street Channel and the tributary slough as jurisdictional wetlands. Because they drain into the Willamette River, the Q Street Channel and slough could be considered tributaries for enforcement of the Endangered Species Act, which would require development to comply with local measures implementing the "4d" rule, which regulates impacts on protected Spring Chinook salmon and their habitat.

Most of the undeveloped land in the study area is characterized by wild grasses and a few copses of trees. Many of the trees along Garden Way and within the Historic Ensemble are over 50 years old and are very large. The site's fertile soil, a function of its proximity to the Willamette River, was utilized for agricultural production until 1992. The Chase Gardens greenhouse operation propagated roses, while the land north of the Q Street channel was used as a Christmas tree farm.



Vacant Land on Centennial Boulevard

The property east of Garden Way is characterized by remnant filbert rows, mature landscaping along I-5, significant rhododendrons, and single family homes on large lots.

The Oregon Department of Environmental Quality ECSI database notes soil contamination with pesticide and oil at 292 South Garden Way (vacant), probably due to leaking containers.

Metro Plan and Willakenzie Area Plan

The area currently has four Metro Plan land use designations: High Density Residential (HDR), Commercial (C), Parks and Open Space (POS), and Government (G)(see Map A1). Of these designations, the majority of the area is slated for high density residential development. The Q Street channel is designated POS; the land east of Garden Way and around the intersection of Garden and Centennial Boulevard is designated Commercial. The Government designation covers the John Serbu Juvenile Justice Center.

Metro Plan Designation	Number of Acres	Percentage of Study Area
Commercial	14.16	8.3%
High Density Residential	132.65	77.7%
Parks and Open Space	19.02	11.1%
Government	4.94	2.9%
Total	170.77	100%

The *Willakenzie Area Refinement Plan* contains similar land use designations to the Metro Plan and designates the Chase Gardens area as an “Opportunity Area” for future higher-density mixed-use development (see Map A2).

Zoning

Current City of Eugene zoning within the study area corresponds to the existing Metro Plan designations in some locations and not in others (see Map A3). Where discrepancies appear the land is generally located outside of the City limits (primarily east of Garden Way). The majority of the study area is zoned for high density residential development. Existing zoning is shown in the following chart.

Zoning Classification (Base Zone Only)	Number of Acres	Percentage of Study Area
Agriculture (AG)	19.04	11.2%
Suburban Residential (RA)	4.01	2.3%
Multi-Family Residential (R-3)	23.16	13.6%
High-Rise Multi-Family Residential (R-4)	93.62	54.8%
General Office (GO)	0.42	0.2%
Public Land (PL)	30.52	17.9%
Total	170.77	100%

Existing Land Uses

Almost half of the study area is developed with two and three story apartment complexes, renting primarily to students who are attracted by the amenities and an easy commute by bicycle or bus to the University of Oregon. The characteristics of each complex are summarized in the following table. Existing land uses are shown on Map A5.

Existing Apartments	Number of Units	Approximate Density (Gross du/acre)
University Commons	252	15.3
McKenna Estates	144	29.0
Duck's Village	230	19.2
Park Grove Apartments	280	23.4
Chase Gardens	200	15.7
Chase Village	336	18.6
Total Existing Apartments	1442	18.93

Apartment complexes in the study area tend to be garden apartments. Buildings have multiple building orientations; front entrances to apartment units tend to face landscaped center courts within the complexes, or toward parking aisles. Consequently, few apartment buildings face public streets. In addition, most of the parking courts are dead end driveways, limiting the efficiency of both pedestrian and vehicle travel and requiring all through movements of cars to use Kinsrow and Commons Drive.



Duck's Village

The study area also contains the five-home Chase Gardens Residential Ensemble - listed on the National Registry of Historic Places. The homes are located on the west side of Garden Way.



Historic Home and Gardens

An electric substation and outdoor training facility owned by the EWEB abuts the I-105 right-of-way; a 60 foot-wide EWEB utility corridor containing a 45-inch water pipe runs in a southwesterly direction through this study area, and 115-kiloVolt electrical lines which traverse the northeastern portion of the land. A chiropractor's office is located at the southern end of Garden Way, and a Masonic Lodge is located in the northwest corner of the study area. Vacant land amounts to a quarter of the land within the study area (25.7% or 43.83 acres). Most of the vacant land lies north of Centennial Boulevard, east of the existing apartments, south of Commons Drive, and west of the historic ensemble. The remainder is located between Garden Way and I-5.

Existing Land Use	Number of Acres	Percentage of Study Area
Multi-Family Residential	73.16	42.8%
Vacant	43.83	25.7%
Public Lands	16.29	9.5%
Utilities	12.66	7.4%
Single-Family Residential/Duplex	12.45	7.3%
Government	6.66	3.9%
Religious/Charitable	4.42	2.6%
Agriculture	1.3	.8%
Total	170.77	100%

Development in Process

A 91-bed residential care facility for elderly patients has been approved, but not yet constructed, north of Commons Drive and east of University Commons.



A four acre park is planned south of Commons Drive, along the north side of the Q Street channel, on land owned by the City of Eugene.



A 6,300 square foot commercial building is nearing completion at the southeast corner of Kinsrow and Commons Drive. Anticipated services include a coffee shop, deli, convenience store, video store, or similar small-scale neighborhood commercial services.



Ownership

The largest aggregation of multiple properties under single ownership is land owned by Simpson Housing Ltd., which owns and manages Chase Gardens, Chase Village, and the vacant "Chase III" property. Gordon and Linda Wylie own four of the commercial-designated tax lots east of the existing Garden Way alignment. Other vacant and underdeveloped properties are individually owned by various land owners, including the City of Eugene. Ownership patterns are depicted on Map A6.

Relationship to Surrounding Area

The largest attractions in the area are University of Oregon intercollegiate athletic facilities located west of the study area, on the south side of Centennial Boulevard, including Autzen Stadium, Moshofsky Center, Casanova Center, and two soccer fields. Also in this location are WISTEC (Willamette Institute of Science and Technology Education Center), and the Lane Education Service District Planetarium. On the north side of Centennial Boulevard to the west are the John Serbu Juvenile Justice Center and Lane County Mental Health facility, the Boy Scouts of America office. The Harlow Neighbors, a City-sanctioned Neighborhood organization, serves the study area.



Autzen Stadium

South of the study area is the single-family residential Chevy Chase neighborhood, which has vehicular access only from Centennial Boulevard (at Chevy Chase Street and Lindley Lane), due to the physical boundary of Alton Baker Park and the Willamette River to the south. North of the study area is a residential neighborhood dating to the 1950s which includes a privately owned day care center, Unity School, and Garden Way Church.

The closest convenience shopping areas are Centennial Center, a neighborhood commercial development located one mile to the east along Centennial Boulevard in Springfield (which lacks a grocery store), and the commercial services in and around Oakway Center, including an Albertson's supermarket, located 1.5 miles northwest on Coburg Road. Gateway Mall, a regional shopping center and movie complex, is 1.5 miles to the northeast off Harlow Road.

Infrastructure and Public Utilities

Stormwater is accommodated by the Q Street Channel and a series of city storm sewer systems running along the public rights of way for Commons Drive, Kinsrow Avenue, and Centennial Boulevard.

The study area contains a complete sanitary sewer system as well as water and power provided by EWEB. Natural gas connections are currently available in some parts of the study area through Northwest Natural, and can be made available to all units if requested. Sanitary sewer lines will be extended along Garden Way with the planned street improvements. Existing utilities are shown on Map A7. A more detailed analysis of infrastructure phasing, funding, and plan implementation is contained in Appendix E.

Public Facilities and Services

City police and fire/EMS emergency services are provided within the developed portions of the study area (areas within City limits).

The project area is within walking and biking distance to Alton Baker Park, a 437-acre metropolitan park located less than half a mile south of the study area along the banks of the Willamette River. The Garden Way bicycle path provides convenient and direct access to the park. The closest

neighborhood park is Marche Chase Park, located in the Chevy Chase neighborhood directly south of the project area. However, the Chase Gardens node will soon have its own public park. The City of Eugene is planning to develop a four acre neighborhood park north of the Q Street Channel, south and east of Commons Drive in an effort to improve the livability of the Chase Gardens area.

The nearest public school is the Eugene 4J District's Washington Elementary School, located at the northwest corner of Harlow Road and Monroe Street, about three-quarters of a mile north of the study area. The area is also served by Monroe Middle School and Sheldon High School, which are 2.4 and 2.9 miles north respectively.

Transportation System

Primary access to the study area is provided by Centennial Boulevard, a Minor Arterial, and Garden Way, a Major Collector. There is no access to I-5 or I-105 from the study area. The internal public road network is limited to Kinsrow and Commons Drive, both Neighborhood Collectors, and Marche Chase, a Local Street providing access to the Chase Village apartments. From these streets, access to each apartment complex is provided by private driveways and parking courts.

Garden Way has been the subject of study for several years due to the marked increase in traffic along this formerly rural road. This plan includes a road design that will improve safety for automobile traffic and pedestrians, and provide better options for transit.



Garden Way

Centennial Boulevard carried an average of 11,700 cars per day on 1998. Figures for Garden Way north of Commons Drive were gathered in February 2000 and amount to 6,200 cars per day. South of Commons Drive averages 4,800 cars per day (1998 data). The daily traffic count on Commons Drive west of Garden Way was 1,600 in February 2000. The City expects the average weekday traffic volume on Garden Way and Centennial Boulevard to increase more than 50% by the year 2015. As new street connections are made through the study area, some of the pressure on existing streets will be relieved. The temporary signal at Centennial Boulevard and Garden Way was installed due to increasing accidents along Centennial; the plan calls for keeping the signal and improving the intersection.

There is adequate public transportation service currently in place within the study area. Lane Transit District runs bus #79 once per hour to the downtown Eugene Station. The #79x runs four times per hour to the University of Oregon. Route #13 provides transit service along Centennial Boulevard. In addition, the current draft of the TransPlan update foresees a Bus Rapid Transit line running along Centennial Boulevard. Possible station locations include Garden Way and Autzen Stadium.

Pedestrian and bicycle access within the study area is not comprehensive. However, routes are available to the trail system within Alton Baker Park via the Garden Way path, and the University via Leo Harris Parkway and Autzen footbridge. Bikes share a wide sidewalk with pedestrians along Centennial Boulevard, and a bike path is currently planned along the Q Street Channel. Sidewalk construction has been required concurrent with development in the area and will be tied together by the improvements proposed in this plan.

Key Development Issues

The key development issues that factored into the creation of the plan are summarized on a series of maps and memorandums attached to this report in the Appendix. The maps depict analysis of existing conditions, while the memos cover property owner interviews and analysis of typical market conditions in nodal development areas. The Technical Advisory Committee gave careful consideration to these issues in the formulation of the nodal development plan.



Kinsrow Street

The maps included are as follows: Metro Plan designations (A1), refinement plan designations (A2), zoning classifications (A3), aerial photograph (A4), land uses (A5), property ownership (A6), infrastructure (A7), and natural resources (A8). From these maps, several issues arise. They include a lack of connectivity through the site, inappropriate siting of commercially designated land, lack of neighborhood services, inadequate transportation improvements along Garden Way, and inconsistent building design and orientation. Issues that arose from neighborhood input revolved largely around the need for an improved transportation system and the provision of

neighborhood commercial services. Neighbors expressed a desire to create a truly pedestrian oriented node where they could get their daily shopping needs met close to home and where they would want to spend their time and money. Suggested land uses included a grocery store, coffee shop, pizza parlor, deli, video store, and specialty retail shops. There was opposition to commercial services that would draw significantly from outside the area, as this would contribute to traffic and parking problems both within the node and in adjacent residential neighborhoods. Parking and traffic problems are especially troublesome on U of O football game days.

Property owner interviews stressed the need to create a plan that would result in marketable development. Each owner seeks assured access and visibility from a major road, while the owners of the historic homes on the west side of Garden Way want to minimize impacts to their property both in terms of changes to Garden Way and in terms of effective buffers between existing and new development. Some owners voiced the opinion that restrictive design standards may cause building to be too expensive. Particular concern was raised over parking limitations and high floor-area ratio standards commonly found in urban neighborhoods.

The market research memo points out common problems that communities find when creating nodal development plans. These include planning for a type of development that requires very high density that the node may not have to support commercial services, and requiring design extras that increase the cost of development and give other properties outside the node a competitive edge. There is a balance that needs to be achieved between creating a pedestrian-friendly retail street and the market reality of providing visibility and parking to make the development fit in with expected travel and consumer behavior.

Initial Alternatives

From the analysis described above, the consultant team generated three plan alternatives for feedback from the TAC, and the public.

Alternative 1

Alternative 1, the Base Case scenario, preserves the configuration of existing land use designations and current proposals for improvements to Garden Way. The type of development that could be built under existing land use regulations was graphically depicted on a map overlaid on an aerial photo of the study area. East of Garden Way, where the land is designated Commercial, are office buildings with parking areas located behind the buildings adjacent to I-5.

At the south end of Garden Way, the intersection with Centennial Boulevard is improved by spacing out the two 90-degree curves. Additional commercial space is located east of Garden Way at Centennial Boulevard, most likely a mix of retail and office space. The main portion of Garden Way is improved with bike lanes, sidewalks, a planted median, and a roundabout at the intersection with Commons Drive.

Marche Chase is continued through to Kinsrow Avenue as local street. The large, vacant area east of Chase Village apartments is built with high density housing similar in scale and design to the existing apartment complexes. North of the Q Street Channel are the 6,300 square foot commercial building and the four-acre City park. North of Commons Drive is the assisted living facility (approved but not yet under construction).

Alternative 2

The second alternative preserves the transportation design described in Alternative 1 but shifts the commercial land use designation away from I-5 and toward Centennial Boulevard. Under this plan, the land east of Garden Way is developed with medium-high density courtyard residential units similar to Quail Run, a recent development adjacent to the freeway in the nearby Chevy Chase neighborhood.

The commercial uses are concentrated around the Centennial Boulevard/Garden Way intersection. The commercial node would likely include a grocery store as the main anchor, with smaller commercial buildings housing space for neighborhood retail and office uses. The amount of commercially designated land would increase slightly under this scenario and feature high visibility from Centennial Boulevard and better access from the existing apartments.

Land uses north of the commercial node remain the same as Alternative 1: high density housing east of the Kinsrow/Commons intersection, and the city park and commercial building north of the Q Street Channel. The new housing would feature buildings oriented to the street and common open space areas. Parking would be tucked behind the buildings and pedestrian paths would provide strong connections to nearby land uses.

Alternative 3

The third alternative changes both the configuration of land uses and the alignment of Garden Way. The land use designations are similar to that of Alternative 2, but the alignment of Garden Way is shifted to the west side of the existing historic homes. The current Garden Way would become a local street.

This change has a large impact on the configuration of development within the node. The street network becomes more regular, with smaller blocks for both commercial and residential

development. A new bridge is required over the Q Street Channel, and the City park land is divided by the new street. A mixed-use block is proposed between the commercial and residential land uses; the buildings are located close to the streets, with central common open spaces and ground floor retail, similar to Broadway Place in downtown Eugene.

Within the commercial node, buildings are oriented to the streets, and parking lots are located in the middle of blocks. Good visibility from Centennial Boulevard and direct access from the existing and future high density housing developments are accommodated by this alternative.

Preferred Alternative

Feedback from the Technical Advisory Committee, participating citizens, and the Eugene Planning Commission led to the crafting of the preferred alternative, which blends elements of Alternatives 2 and 3. The alignment of Garden Way is kept east of the historic homes and the sharp turns near the intersection with Centennial Boulevard are realigned into a gradual curve. Traffic calming elements and pedestrian facilities are planned as part of the improvements. In addition, the street and land use patterns west of Garden Way reflect the principles of nodal development to the greatest extent possible. The City park land is preserved, no new bridge over the Q Street Channel is required, and the location of the commercial center assures ample visibility. The preferred alternative went through eight iterations between March and June, 2001, as the plan was refined through ongoing feedback from the various stakeholder groups. The final draft plan attempts to capture the best and most critical elements of each plan iteration.

Neighborhood design guidelines establish baseline requirements to create vibrant streetscapes within the node. The design guidelines include:

- Mandatory 2-story building height fronting on the commercial segment of Garden Way and the proposed new street extending northwest from Garden Way
- 0-foot setbacks along the commercial segment of Garden Way
- Minimum residential density of 30 units per acre in High Density Residential
- Minimum residential density of 25 units per acre in the band of High Density Residential/Mixed Use adjacent to the neighborhood center
- Integrated local street system and enhanced pedestrian and bicycle connectivity
- No vehicle parking between buildings and public streets
- Required architectural design features
- Encouraged use of commercial greenhouse/historic agricultural design features reminiscent of original Chase Gardens greenhouse and rose-growing operation.

More specific descriptions of allowed uses and development standards in the Chase Gardens Node are contained in the following sections of the plan.

CHAPTER 2

LAND USE

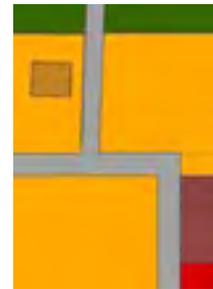
Overview

The Land Use chapter of the Chase Gardens Nodal Development Plan sets the parameters within which development may occur within the node. Land Use designations are defined and described, including examples of allowable uses. The plan diagram graphically depicts the recommended arrangement of those land use designations, and policies are recommended to guide the form and content of development. Complementing the land use chapter is the neighborhood design chapter, which describes specific development standards with which proposed projects must comply. This chapter includes:

- Land Use Designations
- Plan Diagram
- Recommended Policies

Land Use Designations

The recommended land use designations have been refined from those contained in the Metro Plan to better suit the objectives of the Chase Gardens node and are described as follows.



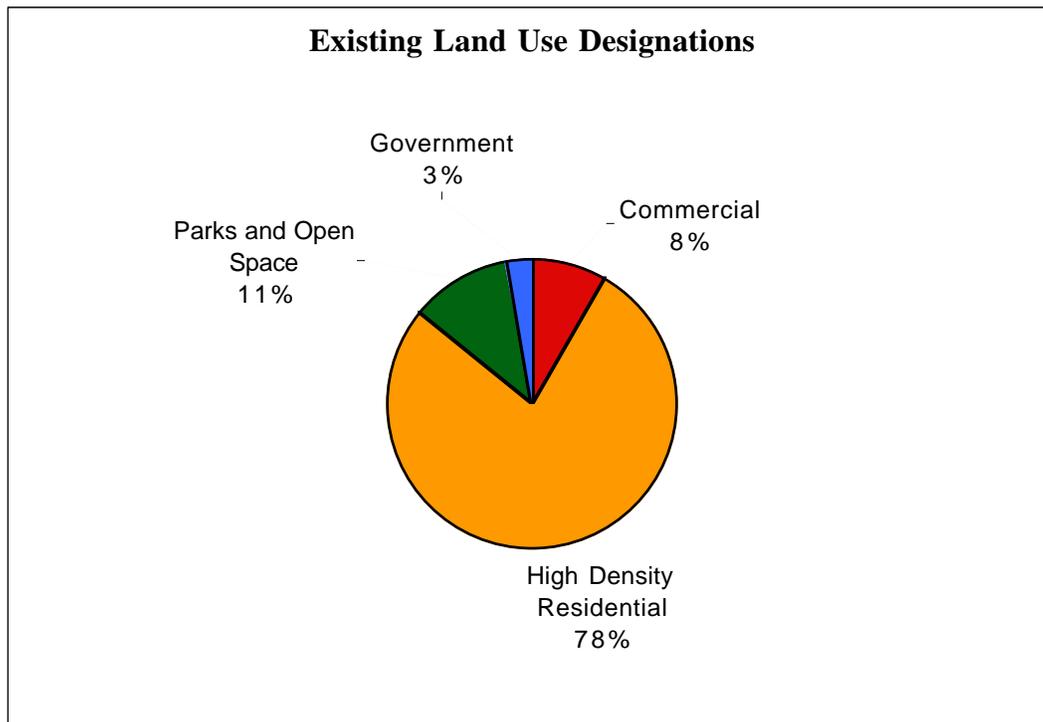
- **Commercial:** The Commercial designation is intended to provide land for goods and service needs of the residents of the Chase Gardens node. The center of the commercially designated area will serve as the neighborhood pedestrian core, occupying both sides of Garden Way just north of Centennial Boulevard. In this area, buildings will hug the street and a public plaza will serve as neighborhood gathering places. Radiating outward from the center will be commercial retail and office uses, such as a grocery store, restaurants, coffee shops, a video store, dry cleaners, beauty salon, etc. Allowable commercial office uses include dental/medical, law offices, title companies, insurance and travel agencies, and the like.
- **High Density Residential/Mixed Use:** The purpose of the high density residential mixed-use designation is to simultaneously promote compact housing and the flexibility to provide a limited amount of commercial services within residential buildings. Examples of building types include live/work units, ground floor retail with residential flats above, horizontal mixed use, and wholly residential buildings. Minimum density is recommended to be 25 units per acre.
- **High Density Residential:** This designation is intended to provide dense residential use as envisioned in the Metro Plan and in the nodal development areas identified in TransPlan. A minimum of 30 units per acre is recommended to ensure land is used efficiently. Buildings will likely need to be three- and four-story apartments to meet the density threshold. Limited neighborhood commercial use is allowed in accordance with code standards. This designation includes the Historic Ensemble and the Masonic lodge, properties which, over time, could accommodate infill housing at the property owners' discretion.
- **Parks and Open Space:** Land along the Q Street channel and land owned by the City Parks Department is designated for use as Parks and Open Space. The Q Street Channel will continue to serve multiple natural resource functions and a planned pathway will add recreational use. The park property is planned to provide both active and passive recreational opportunities for the residents of the Chase Gardens node.

- **Government:** The Government designation is intended to apply to existing utility uses, which include the EWEB waterline corridor, the EWEB power substation and adjacent land abutting the freeway, and the land occupied by the John Serbu Juvenile Justice Center on Centennial Boulevard. Public, semi-public, and utility related activities are the planned uses of these properties.

Plan Diagram

The Chase Gardens plan diagram is intended to reflect the nodal development concept contained in TransPlan to the greatest degree possible given the particular constraints of the site: a neighborhood characterized by high density residential use with access to pedestrian-oriented commercial services, open space, and transit.

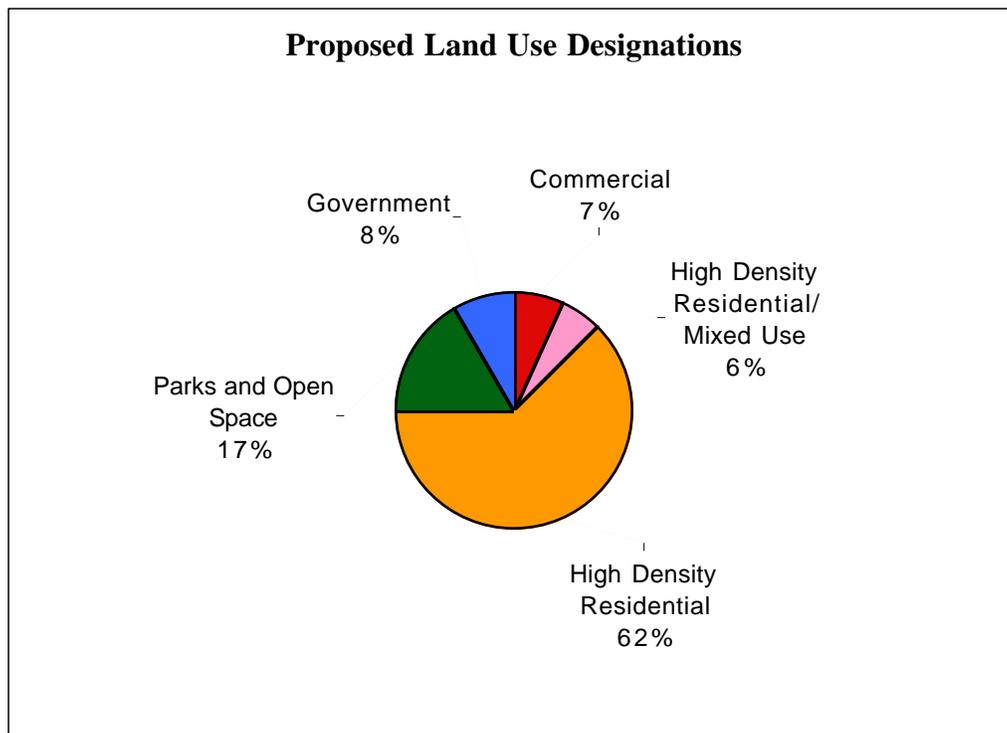
Currently, the Metro Plan and Willakenzie Area Plan designate the majority of the study area for high density residential development (see Appendix A.1 and A.2). The area east of Garden Way is planned for commercial use; the Q Street Channel is designated Parks and Open Space; and the Juvenile Justice Center is designated Government.



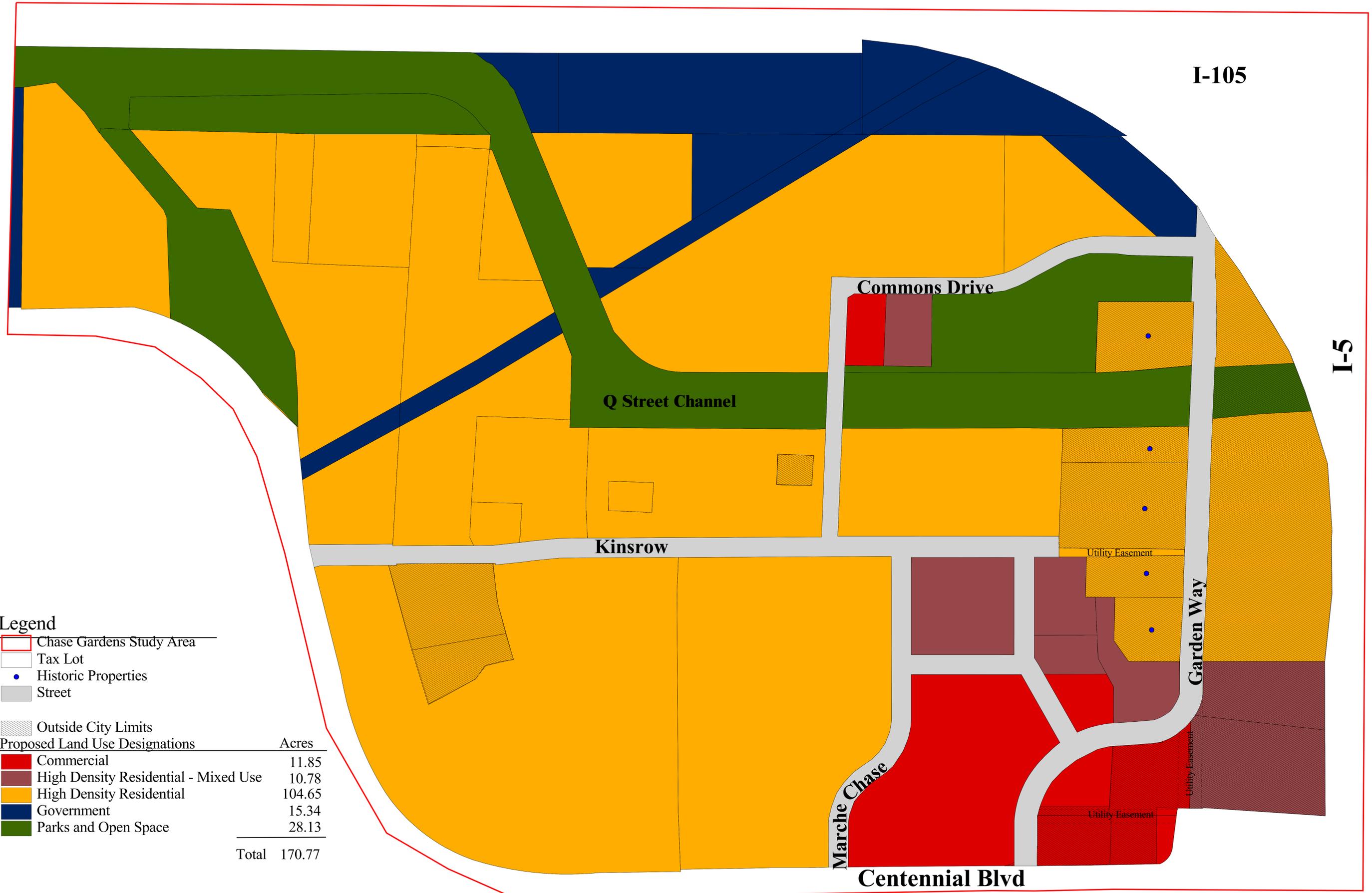
In refining the plan diagram, the location and amount of commercial land was of primary concern. The major change to the existing plan diagram is a shift in the location of the commercial center south and west to the intersection of Centennial Boulevard and Garden Way. It remains roughly the same size, but will be more proximate to residents of the existing apartments and gain visibility from Centennial Boulevard, a key component to the project's commercial success, according to the results of the market analysis. The area east of Garden Way is re-designated high density residential.

The Nodal Development plan diagram attempts to create a more balanced, efficient development pattern by relocating the commercial land to a central site more easily accessible to the residents of the node. The plan diagram also recognizes existing public utility land uses by expanding the government designation, and increases the amount of land planned for park and open space use by including the new City Park site. A high density residential/mixed use designation has been recommended to promote flexibility in building design and use near the neighborhood center.

The relative amount of each recommended land use designation is shown in the pie chart below. Compared to the existing distribution of plan designations, the proposed distribution increases parks and open space, increases government land use (no developable land is slated for government use; re-designating existing utility facilities accounts for the increase), and re-assigns some of the high density residential to the mixed-use category. The recommended distribution will allow the commercial services and public facilities required to create a balanced neighborhood in the Chase Gardens area.



CHASE GARDENS NODAL DEVELOPMENT PLAN



Legend

- Chase Gardens Study Area
- Tax Lot
- Historic Properties
- Street

Outside City Limits

Proposed Land Use Designations	Acres
 Commercial	11.85
 High Density Residential - Mixed Use	10.78
 High Density Residential	104.65
 Government	15.34
 Parks and Open Space	28.13

Total 170.77

PROPOSED LAND USE DESIGNATIONS



Recommended Policies

Land use policies are used to establish a set of rules applicable to a particular neighborhood. The Chase Gardens area has special attributes worthy of policy protection. At the same time, policies establish the ground rules for new development. The following land use policies are recommended to promote nodal development appropriate within the context of Chase Gardens.

1. Commercial land uses shall be located near the center of the Chase Gardens node, abutting the north side of Centennial Boulevard, as depicted on the land use diagram.
2. The commercial area shall primarily serve residents of the Chase Gardens area. Regional retail cannot be supported on the site and is not compatible with nodal development principles. Neighborhood-scale commercial uses, as described in this plan's Commercial designation, are encouraged.
3. Motor vehicle related uses and wholesale trade of equipment, machinery, boats, RV's, and manufactured homes (as defined in the Eugene Code) are prohibited in the Chase Gardens node.
4. Ground floor retail shall be required within the buildings abutting Garden Way, Marche Chase, and all new streets within the commercially designated area. Multi-family residential use shall be allowed and encouraged within the commercially designated area.
5. Mixed residential and commercial use shall be allowed in the High Density Residential/Mixed Use area north of the commercial area, as depicted on the land use diagram.
6. Existing governmental and utility uses in the Chase Gardens node shall be recognized and designated for government use.
7. The undeveloped City Park on the south side of Commons Drive, shall be designated Parks and Open Space and developed with active and passive recreational facilities.
8. The Q Street Channel shall accommodate a public multi-use pathway connected to the regional bikeway system on the east side of Garden Way, as shown on the Illustrative Plan.
9. The natural resource values of the Q Street Channel, such as riparian vegetation, significant trees, and jurisdictional wetlands shall be respected and enhanced by proposed development.
10. Development adjacent to or facing the historic ensemble shall promote compatibility with the existing rural residential character of the area by replicating historic architectural features, materials, roof pitch, and colors of the ensemble.
11. Development adjacent to I-5 or I-105 shall be designed to minimize the noise and visual impacts of automobiles through sound buffering walls, building design, earth form, vegetation, and/or setbacks.
12. Development within the node shall be subject to development standards and design guidelines contained within this plan, to be administered through the City's Site Review process.

CHAPTER 3

TRANSPORTATION

Overview

The transportation-related objectives of the Chase Gardens Nodal Development Plan are:

- Provide transportation alternatives to single-occupant vehicles, including transit
- Increase opportunities for people to live near jobs, making shorter trips for a variety of purposes
- Implement TransPlan's land use strategy by creating nodal development patterns in the Chase Gardens area.

Major transportation facilities serving the Chase Gardens area are Centennial Boulevard, a fully improved Minor Arterial which borders the study area to the south, and Garden Way, a partially improved Major Collector which travels north from Centennial, past the historic ensemble and through the study area. A major component of the project was to identify the best alignment and design attributes of Garden Way.

Traffic counts on Garden Way are expected to double south of Commons Drive and triple north of Commons Drive over the next 20 years (through build-out of the plan). Garden Way is the only road that crosses I-105 between Coburg Road and Pioneer Parkway. Because of this critical role in the regional road network, and because it travels through a historic rural residential area, the design of Garden Way must balance through movement of vehicles with traffic calming measures and pedestrian safety.

An entirely new alignment of Garden Way through the study area was analyzed by the Technical Advisory Committee and consultant team. This alternative collector would be located west of the historic homes, directly north of the existing intersection with Centennial Boulevard. This alternative satisfied the transportation objectives of preserving through movement and calming traffic through the neighborhood. However, it was not selected on the recommendation of the Planning Commission due to impact to park land, cost of right-of-way acquisition, and regulatory and cost issues associated with a new bridge over the Q Street Channel.



Centennial Boulevard

Aside from the improvements to Garden Way, the Chase Gardens plan diagram and illustrative plan depict an emphasis on connectivity and alternative transportation modes. Transit service is emphasized through the location of transit stations throughout the node. Integrated local streets, bikeways and pathways provide direct access to all destinations within the node. In addition, connections to adjacent neighborhoods are emphasized through improved crossings at Centennial Boulevard. Finally, a multi-use pathway is planned to parallel the Q Street Channel, adding transportation and recreation to the existing natural resource and storm water management functions of the corridor.

Recommended Policies

Streets

1. The southern portion of Garden Way shall be re-aligned to soften the curves as shown on the land use diagram. This section of Garden Way shall have a "Main Street" commercial character as depicted on the attached street section, with discreet turn lanes, street trees and sidewalk planters, 0-foot building setbacks, 8-15 foot wide sidewalks, bike lanes, a landscaped median, curb extensions and parking bays, bus pull-outs, and raised pedestrian crossings with special paving, for a desired speed of 20-25 miles per hour.
2. The design of Garden Way at the entry to the commercial area shall accommodate the possibility of a future traffic signal in this location.
3. The portion of Garden Way north of the "S" curve and south of Harlow Road shall be improved with pedestrian and bicycle facilities, traffic calming measures, and landscaping improvements. As shown on the attached section drawing, these shall include landscaped medians, street trees, and pedestrian crossings, for a desired speed of 20-25 miles per hour.
4. A roundabout or signal shall be installed at the intersection of Garden Way and Commons Drive. The intersection shall be designed to emphasize safe pedestrian access to the future City Park on the south side of Commons Drive.
5. There may be a need to extend Kinsrow Street east to Garden Way at such time the historic properties are redeveloped with higher density housing. Kinsrow shall be extended as a public street up to the west boundary of the Historic Ensemble and a public access easement will be provided through to Garden Way as shown on the plan diagram.
6. A new local street shall be provided connecting Garden Way to the extension of Kinsrow. The section of this new street through the commercial land use designation will have the same "Main Street" policies as above.
7. Streets and accessways of any one development or site shall interconnect with those of adjacent developments or sites. Internal street or circulation patterns that isolate a development from all adjacent developments, and only allow access to fronting arterial or collector streets, shall be prohibited.
8. New, interconnected local streets shall serve the area as depicted on the plan diagram. Streets and access drives shall align and connect to each other to create a direct and convenient pattern of circulation that is consistent with a gridded street pattern.
9. Internal driveways shall be designed as pedestrian ways with accommodations made for automobiles.

Bicycle Facilities

1. A multi-use pathway is recommended paralleling the Q Street Channel from Garden Way to the western edge of the node, with connections to the regional bikeway system as shown on the Illustrative Plan.



Commons Drive

2. Garden Way shall be equipped with bicycle lanes. Local streets and internal access drives shall be designed for shared use between bicycles, pedestrians, and automobiles.
3. Bicycle circulation within and between the existing residential developments shall be enhanced through additional connections and directional signs, where possible.
4. The sidewalk on the east side of Garden Way shall be wide enough to accommodate bicycles in addition to pedestrians, as shown on the Garden Way profile sketch.

Pedestrian Facilities

1. All streets, parking areas, and commercial and residential buildings shall be equipped with safe and convenient pedestrian facilities, using features such as raised sidewalks, promenades, walkways, or pathways to provide continuous pedestrian access throughout the node.
2. Off-street pedestrian walkways shall be a minimum of 12 feet in width.
3. Pedestrian improvements shall be constructed at the intersection of Centennial Boulevard and Garden Way. Improvements may include new crosswalks, curb extensions, and street trees.
4. A pedestrian bridge across the Q Street Channel, as depicted on the Illustrative Plan, shall be considered.
5. Pedestrian circulation within and between the existing residential developments shall be enhanced through additional connections and directional signs, where possible.

Transit Facilities

1. Transit stops serving the Chase Gardens node shall be constructed in cooperation with Lane Transit District. The transit stops shall be designed to feature safe and convenient pedestrian and bicycle connections to surrounding residential and commercial uses. Bicycle parking shall be provided at the transit stops.
2. Centennial Boulevard may be served by Bus Rapid Transit in the future. Accommodation shall be made for future transit stops near the intersection with Garden Way as shown on the Illustrative Plan.
3. Bus service shall be provided from stops at approximate 2-block intervals along Garden Way, Commons Drive, Kinsrow, Marche Chase and/or the new local street in coordination with Lane Transit District.

CHAPTER 4

NEIGHBORHOOD DESIGN

Overview

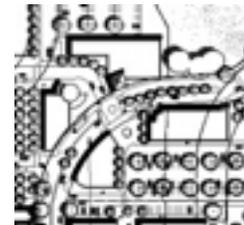
The neighborhood design element contains an illustrative plan diagram demonstrating the type of development that could be built to satisfy the requirements of the plan. Perspective drawings depict the character of street sections, buildings, and pedestrian spaces in the heart of the neighborhood. Development standards regulate how sites are laid out, and design guidelines describe how buildings should look. The Chase Gardens area has a long history as the premiere producer of world-class roses for the greater Pacific northwest, and buildings or amenities that reflect this agricultural history are encouraged.

“Development should have an identity.” –
comment from Open House #1

The standards and guidelines in this plan are intended to create a human-scale, interesting, attractive environment in which to live, work, shop, and recreate. Standards emphasize bicycle and pedestrian access and de-emphasize auto orientation. The goal of this chapter is to lead to the development of a vibrant mixed-use neighborhood where people like to spend time in the public and semi-public spaces, on the streets, and in public and private open spaces in addition to private dwellings. These standards are in addition to applicable standards contained in the Eugene Land Use Code and the Metro Plan. A matrix comparing current and proposed standards is included on pages 36-37.

Illustrative Plan

The Chase Gardens Illustrative Plan shows a development concept that could be built within the parameters of the recommended land use designations, permitted uses, development standards, and design guidelines. It depicts the kind of development that would succeed through the development review process once the Nodal Development Plan is adopted.

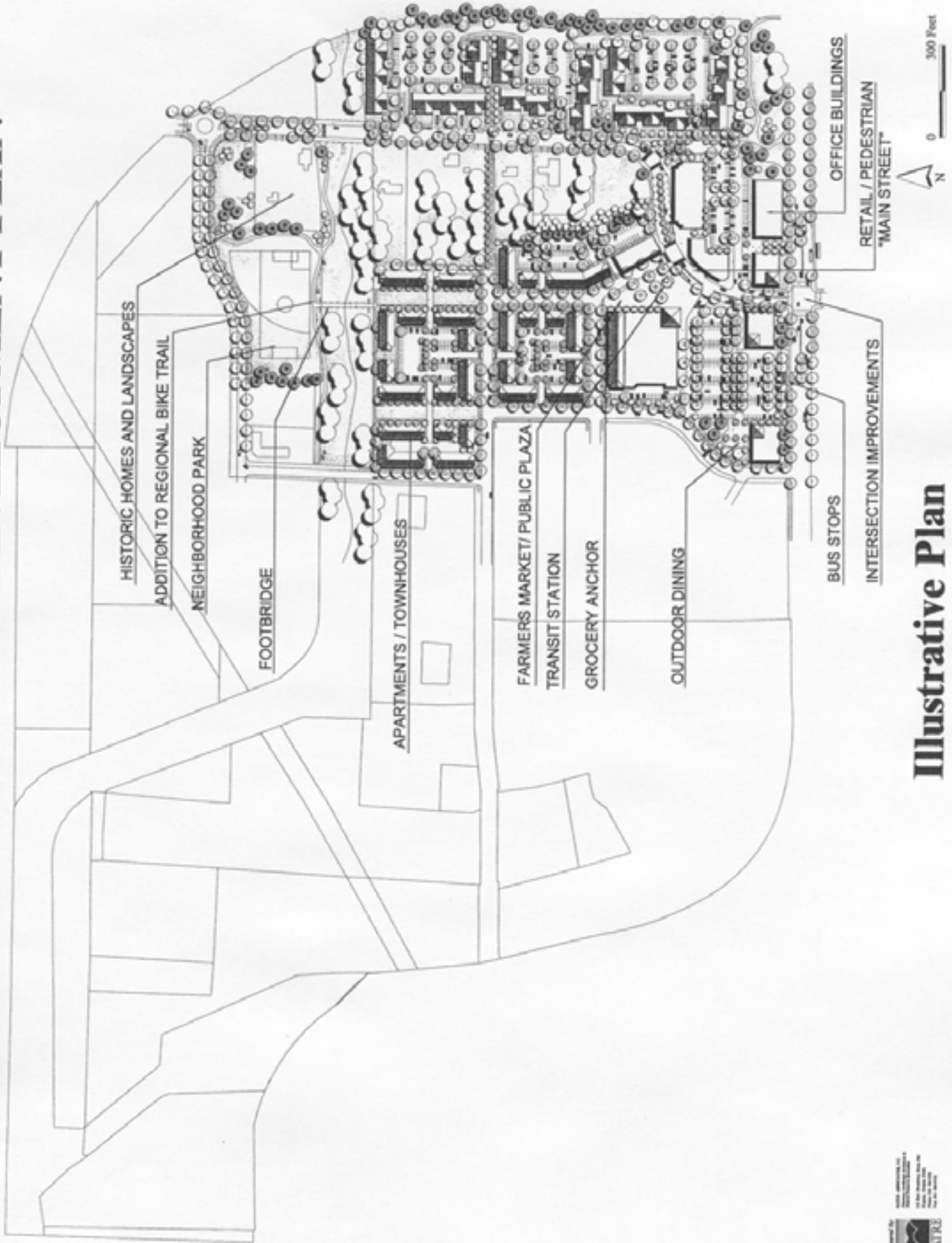


The Illustrative Plan is NOT an adopted development plan. It does not require site features - buildings, parking, pedestrian ways, landscaping, plazas - to be the same size or shape or be placed in the exact locations as depicted on the plan. It merely demonstrates how the requirements of the plan could be accomplished on the ground.

The elements of the Illustrative Plan that reflect recommended plan requirements include:

- Placement, scale, and orientation of commercial and residential buildings
- Location of parking behind or beside buildings
- Building articulation, roof pitch, and buffering from I-5
- 0 foot setbacks along Garden Way, 15 foot maximum setbacks elsewhere
- Pedestrian amenities including plazas and interconnected pathways
- Park featuring active and passive recreational facilities, path along the Q Street Channel
- Traffic calming on Garden Way
- Transit stops throughout the node

CHASE GARDENS NODAL DEVELOPMENT PLAN



Illustrative Plan



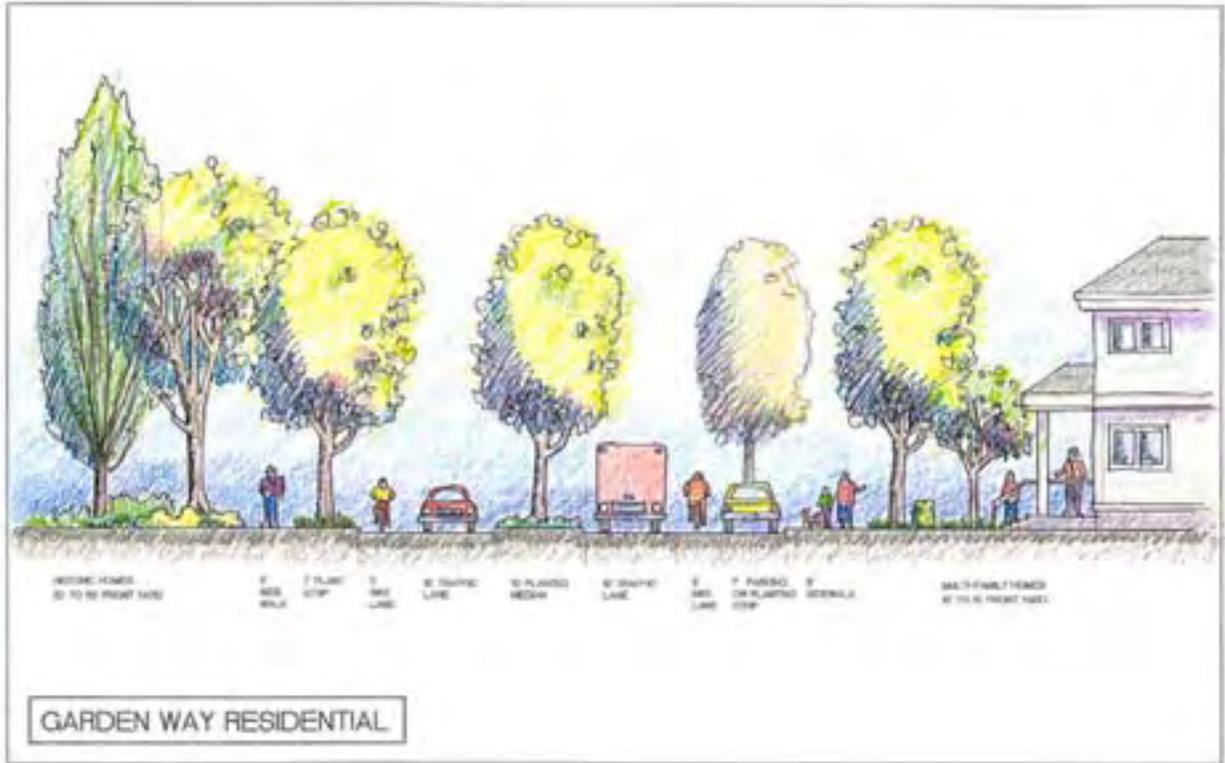
Perspective Drawings

The intended character of development within the node is reflected in the following drawings, which include street sections for both the residential and commercial sections of Garden Way, a plan view of the proposed neighborhood center, an elevation of the central transit station, and an elevation of the proposed neighborhood center. The sketches depict development within the Chase node that meets both existing City standards and those proposed in this plan.

The Garden Way sketches show the intended differences in street character between the residential area and the commercial area. In the commercial area, minimum 25-foot buildings front right on the property line and extra-wide sidewalks provide space for tables and chairs and other pedestrian amenities, creating a concentration of activity to serve as the neighborhood center.



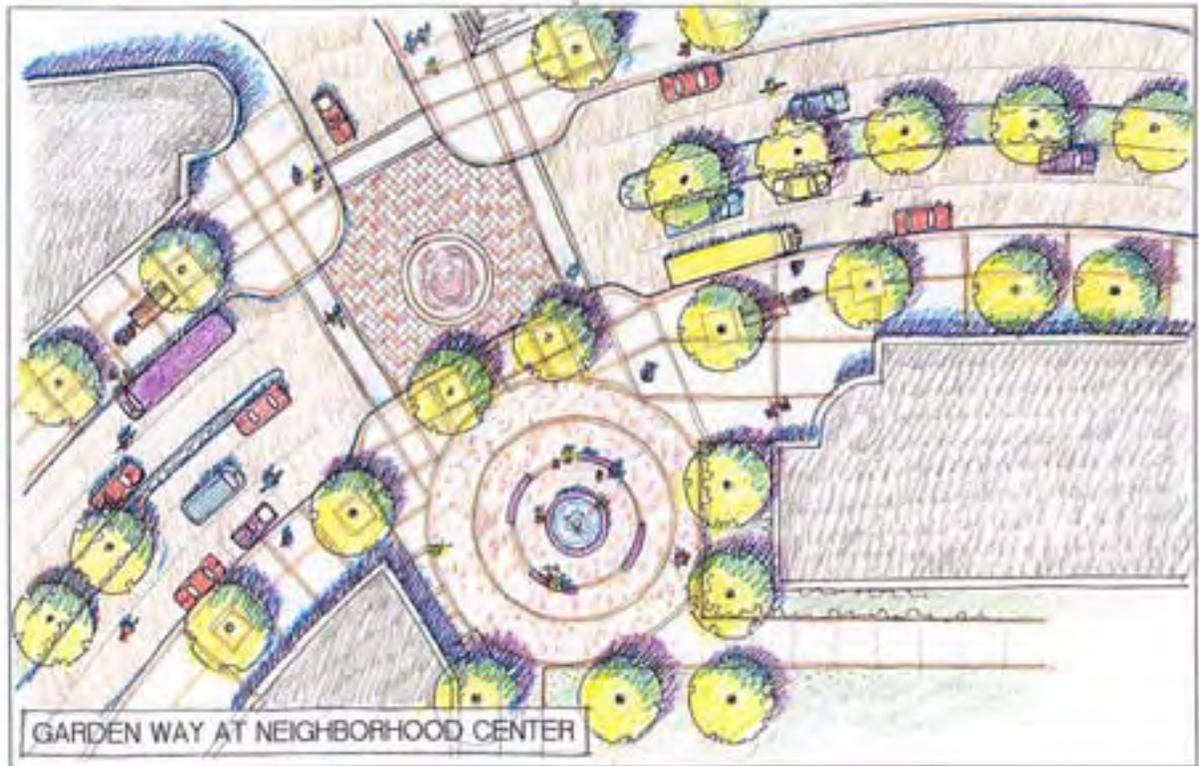
In the residential area, front yard setbacks vary from 30 to 50 feet in the historic ensemble to 15 feet on the east side of the street. New buildings feature covered front porches, minimum 7/12 roof pitch, and multiple stories, with building articulation breaking up long walls. The street features a planted median, bike lanes, on-street parking on the east side, a setback sidewalk on the west side, an extra-wide sidewalk on the east side, and curb extensions to facilitate safe pedestrian crossings.



Transit service within the node is intended to be prominent and convenient for riders going both to and from the neighborhood center. In addition, stops are planned at 2-block intervals along Garden Way, Commons Drive, and Kinsrow to assure the availability of transit service within short walking distance of anywhere in the node.



The plan view of the neighborhood center shows the street amenities and public spaces at the heart of the Chase Gardens community. Ground floor retail on all four corners is mandated to activate the streetscape.



The building elevation sketch below shows the type of architectural features required by the recommended design guidelines: large ground floor windows, minimum 25-foot high facades, entry porticos, pedestrian scale lighting, articulation, benches, and special features such as towers. Outdoor seating areas provide opportunities for people-watching.



Development Standards

1. Residential development shall achieve a net density of 25 units per net acre in the High Density Residential/Mixed Use area, and 30 units per acre in the High Density Residential area.
2. In the High Density Residential/Mixed Use area, neighborhood commercial (C-1) uses may occupy up to 50% of the ground floor of buildings.
3. Existing tree wind rows east of the Garden Way right-of-way and outside public utility easements shall be preserved to the maximum extent possible. At a minimum, 50% of the trees must be preserved with less than 50% of the critical root zone impacted.
4. Sound attenuation shall be required for proposed uses adjacent to I-5 or I-105.
5. Along the commercially designated portion of Garden Way and the new local street:
 - a. Buildings shall be a minimum of two stories or 25 feet in height.
 - b. Buildings shall abut the property line.
 - c. At least 75% of facades (except articulation), shall meet the 0 setback requirement.
 - d. Multiple pedestrian amenities shall be used to create a pedestrian environment along Garden Way at the neighborhood center. These may include towers, plazas, fountains, and decorative paving, as depicted on the illustrative plan and in the sketches.
6. Single-story development in excess of 25,000 square feet in the commercially designated area shall have a minimum facade height of 25 feet.
7. Development in the Commercial area shall achieve a floor area ratio (FAR) of .40 across a single development site west of Garden Way and .50 across a single development site east of Garden Way.
8. Multiple through-lot pedestrian ways with special paving, site amenities, and a minimum width of 12 feet, shall be provided, as depicted on the Illustrative Plan.
9. Interior access drives shall be designed as pedestrian ways with accommodations for automobiles. No parking areas shall be located between buildings and public streets.
10. No commercial building shall have a footprint larger than 50,000 square feet.

Commercial Design Guidelines

1. Building entries must face streets or corners.
2. Maximum building length shall be 300 feet.
3. Windows shall cover at least 25% of street-side facades.
4. All exterior HVAC equipment shall be roof-mounted and screened from street-level view.
5. Building exteriors shall consist of brick, stone, masonry, or stucco on all sides.



Local example of vertical mixed-use

6. New construction is encouraged to reflect commercial greenhouse and similar historic agricultural features (glass atriums, etc.).
7. An overall signage and graphics program shall be provided for commercial land under contiguous ownership as part of the development application package, to assure that stand-alone signs are consolidated and that signs complement the character of the neighborhood.

8. Neighborhood Compatibility.

Minimum standards adjacent to the Garden Way historic ensemble:

- a) Architectural compatibility between new development and adjacent residences (e.g. similar roof forms, windows, trim, materials, and colors) shall be required.
- b) Lighting shall be arranged and constructed not to produce direct glare on adjacent residential properties.



Two-story commercial in downtown Eugene

- c) Site obscuring landscaping may be required on the west side of the historic properties. The City may require retention of existing vegetation; installation of a 6-foot minimum height, site-obscuring fence with shade trees planted a maximum of 30 feet on center (2-inch caliper at planting); and/or other landscaping to provide visual buffering.
- d) Mechanical equipment shall be screened from view (i.e., as viewed from adjacent properties and street), and shall be buffered to reduce noise. Noise levels should not typically exceed 65 decibels (normal conversation is +/- 65 decibels) as measured at the historic property line. The City may require a noise study certified by a licensed acoustical engineer.

Residential Design Guidelines

1. Residential buildings shall comply with the following standards in addition to the multi-family design standards contained in LUCU section 9.5500. Where conflicts exist, the standards within this document shall control.
2. Wholly residential buildings must include at least two stories of residential use. Row houses, courtyard apartments, condominiums, and low-rise apartment buildings are examples of allowable housing types in the high density residential area. Residential flats or lofts above ground floor retail are encouraged in the commercial and high density residential/mixed use areas.
3. All exterior HVAC equipment shall be screened from street-level view.
4. All roofs shall slope with a minimum 7/12 pitch.
5. Neighborhood Compatibility.

Minimum standards adjacent to and facing the Garden Way historic ensemble:

- a) Architectural compatibility between new development and adjacent residences (e.g. similar roof forms, windows, trim, materials, and colors) shall be required.
- b) Lighting shall be arranged and constructed not to produce direct glare on adjacent residential properties.
- c) Additional landscaping shall be required in the front yards on the east side of Garden Way. The City may require retention of existing vegetation, shade trees planted a maximum of 30 feet on center (2-inch caliper at planting), and/or additional foundation plantings.
- d) Mechanical equipment shall be screened from view (i.e., as viewed from adjacent properties and street), and shall be buffered to reduce noise. Noise levels from mechanical equipment should not typically exceed 65 decibels as measured at the historic property line.



Broadway Place, downtown Eugene

6. Building exteriors shall be surfaced with brick, stucco, stone, masonry, or lap siding on all sides.
7. Every dwelling unit shall have at least one patio or balcony a minimum of 100 square feet in size.
8. Covered bike parking shall be provided for each dwelling unit, in group shelters, individual storage units, or within the apartments. At least 50% of car parking must be covered (no metal carports).

Natural Resource Protection Guidelines

The Chase Gardens area contains a jurisdictional waterway, the Q Street drainage, associated tributaries, riparian vegetation, and significant trees as shown on the attached natural resources map. The following design guidelines shall apply to development abutting these resources.

1. Wetland areas, riparian areas, waterways, and significant trees (at least 50% of trees 8" dbh and larger) shall be protected from encroachment and degradation in order to retain their important functions related to fish and wildlife habitat, flood control, erosion control, water quality, and groundwater pollution control.
2. Development in the Chase Gardens node shall be designed to enhance views and access to the Q Street channel, existing trees, and riparian vegetation.

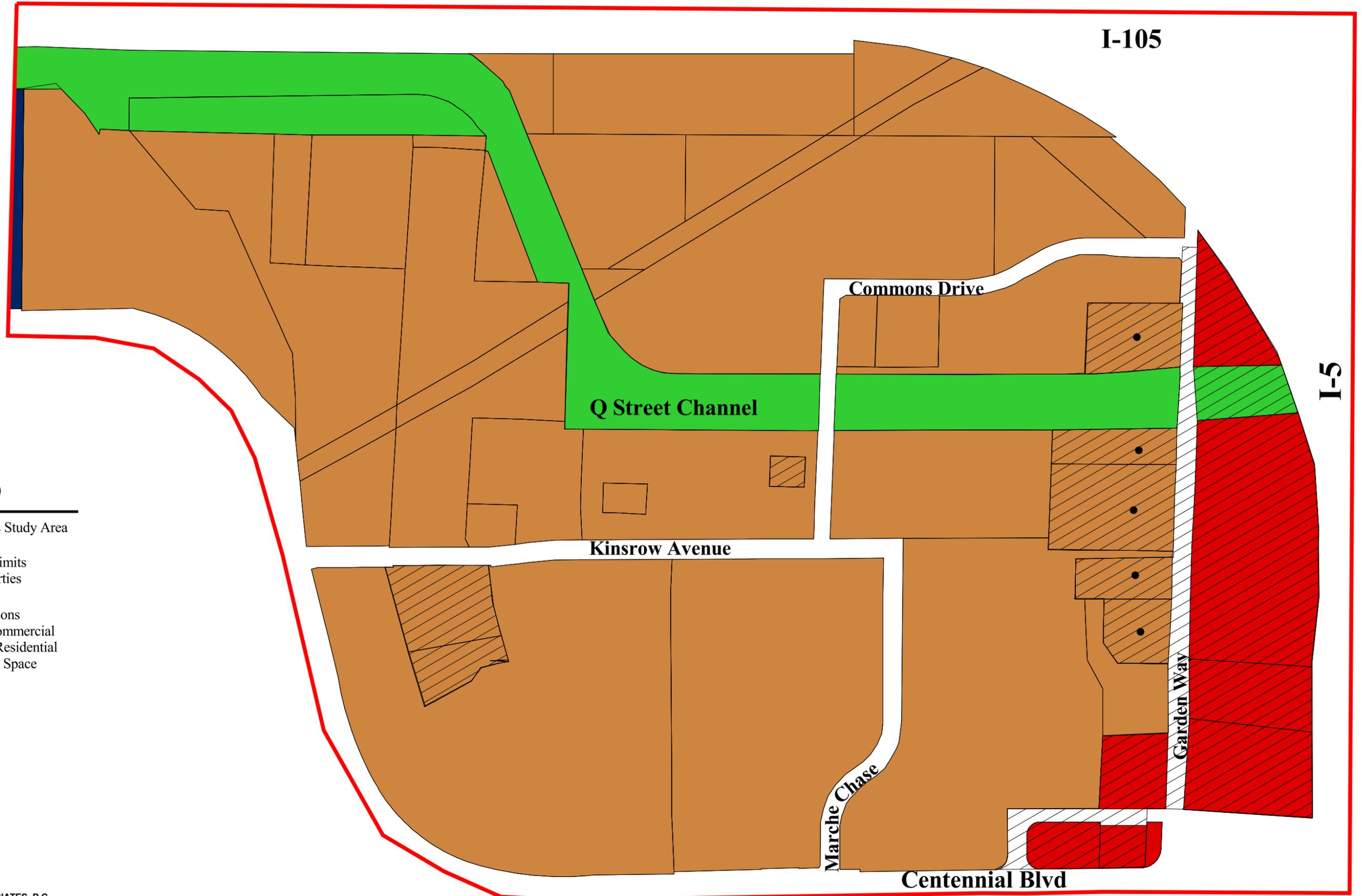
**CHASE GARDENS NODAL DEVELOPMENT PLAN
COMPARISON OF EXISTING AND PROPOSED CODE REQUIREMENTS**

Zoning District	Existing Land Use Code			Adopted Land Use Code Update (LUCU)			Proposed Chase Gardens Nodal Development Plan		
	Permitted Uses ¹	Site Development Standards	Building Design Guidelines	Permitted Uses	Site Development Standards	Building Design Guidelines	Permitted Uses	Site Development Standards	Building Design Guidelines
Community Commercial (C-2)	EC 9.439: Accessory, Eating and Drinking, Educational/Cultural, Entertainment, Financial, Government, Lodging, some Manufacturing, Medical, Motor Vehicle Related Services, Offices, Personal Services, Multi Family Residential, Retail and Wholesale Trade, Utilities	EC 9.532-9.567: <u>Front yard setback:</u> No Minimum <u>Height limitations:</u> None <u>Lot Coverage:</u> No maximum <u>General site development standards:</u> apply.	None	EC 9.2160: <u>Added:</u> IT Services	EC 9.2170: <u>Front yard setback:</u> Minimum 0 feet Maximum 15 feet <u>Height limitations:</u> Maximum 120 feet <u>Minimum landscape area:</u> 10% <u>Specific screening, building orientation, loading area, fence, and drive-through standards:</u> apply. <u>General site development standards:</u> apply.	EC 9.2173: <u>Large developments:</u> (>25,000 s.f. floor area) Building entrance facing street, limitation of parking lots to 55,000 s.f., (not between street and bldg), vehicle connections between sites, ped circulation, wall articulation, ground floor windows, EC 9.2175: <u>Large multi-tenant:</u> (50,000 s.f. in 3+ buildings) above standards plus shopping street site layout and pedestrian amenities.	Same as LUCU except: <u>Deleted:</u> Motor vehicle related services. <u>Emphasize neighborhood services:</u> such as cafes, coffee shops, restaurants, brew-pubs, video stores, markets, beauty salons, ice cream shops, cleaners etc. <u>Require:</u> 100% retail on 1 st floor facing Garden Way and new local street <u>Site Review:</u> Required for all development.	<u>Front Setbacks:</u> 0 ft. on Garden Way and new street in commercial area <u>Building Orientation:</u> 100% of building facades on Garden Way (except articulation) must meet 0 feet front setback. <u>Building Height:</u> Minimum 2 story, or 25', on Garden Way and new local street <u>FAR:</u> .50 east of G.W. .4 west of G.W. <u>Pedestrian Ways:</u> Multiple through-lot ped. ways, 12' min when off-street, special paving, site amenities.	Same as LUCU, plus: Entries facing street or corners; Max building length 300 feet; windows cover at least 25% of street side facade; single-story buildings over 25,000 s.f. to have minimum 2-story or 25-ft. facade; all exterior HVAC equipment shall be roof-mounted and screened from view; exteriors to be brick, stone, masonry, or stucco (all sides); commercial greenhouse/other historic ag. features encouraged <u>Signage:</u> Overall signage, graphics program required.
General Office (GO)	EC 9.439: Accessory, Small-scale Eating and Drinking, some Educational/ Cultural, Financial, Government, Medical, some Motor Vehicle Related Services, Offices, Personal Services, Single and Multi family residential, Utilities	EC 9.532-9.567: <u>Front yard setback:</u> Minimum 10 feet <u>Height limitations:</u> 45 feet; 25 feet w/in 50 ft of R-A, R-1, and R-2 <u>Lot Coverage:</u> Maximum 50% <u>Solar Setback Standards:</u> Formula <u>General site development standards:</u> apply.	None	EC 9.2160: <u>Added:</u> IT Services, Small Scale Retail <u>Deleted:</u> Single-Family Residential	EC 9.2170: <u>Front yard setback:</u> Minimum 10 feet Maximum 15 feet <u>Height limitations:</u> 50 feet maximum <u>Minimum landscape area:</u> 10% <u>Specific and general standards as detailed above:</u> apply.	Same as above.	Same as LUCU except: <u>Deleted:</u> Motor vehicle related services <u>Emphasize small to medium offices:</u> such as professional services, lawyers, accountants, title companies, medical services, etc.	<u>Interior drives:</u> To be ped. ways, but also allow vehicles. <u>Garden Way Street Stds:</u> Towers, plazas, paving, amenities, ped. environment as depicted on sketches and illustrative plan. <u>Existing tree windrows:</u> Preserve 50% min. <u>All other general and specific development standards same as LUCU</u>	

¹ Permitted uses include uses permitted conditionally or subject to special standards.

Zoning District	Existing Land Use Code			Adopted Land Use Code Update (LUCU)			Proposed Chase Gardens Nodal Development Plan		
	Permitted Uses	Site Development Standards	Building Design Guidelines	Permitted Uses	Site Development Standards	Building Design Guidelines	Permitted Uses	Site Development Standards	Building Design Guidelines
High-Rise Multi-Family Residential (R-4)	EC 9.384: All single and multi-family dwelling types, Limited scale commercial uses, Government and Institutional uses, Stand-alone parking areas	EC 9.532-9.567: <u>Front yard setback:</u> Minimum 10 feet. <u>Height limitations:</u> No limitation; 25 feet next to AG, RA, or R-1. <u>Lot Coverage:</u> 60% max. <u>Solar Setback Standards:</u> Formula Density: 20-110 units/acre <u>General site development standards:</u> apply	None	EC 9.274: <u>Added:</u> additional du types (row-houses etc.), neighborhood commercial, medical, some entertainment. <u>Deleted:</u> Stand-alone parking areas.	EC 9.275: <u>Front yard setback:</u> Minimum 10 feet. 18 feet for parking. <u>Height limitations:</u> 120 feet; 30 feet next to R-1. <u>Lot Coverage:</u> 100%; row house lots: 75% <u>Density:</u> 20-112 du/acre <u>Open Space:</u> 20% of site <u>General site development standards:</u> apply	EC 9.550: Multi-family standards: Bldgs. oriented to street; max. bldg. length 150 feet; windows cover 15% of façade; bldg articulation w/ at least 2 features (offsets, bays, projections, balconies, windows, porches, etc.); block, street and access requirements; min. 20% open space; max. 9,000 s.f. parking courts; no parking between bldg. and street.	Same as LUCU	Same as LUCU except: <u>Mixed Use:</u> Neighborhood commercial (C-1) uses may occupy up to 50% of the ground floor in buildings in MU zone, notwithstanding LUCU restrictions. <u>Density:</u> Minimum 25 du/acre in MU zone, 30 du/acre elsewhere. <u>Existing tree windrows:</u> Preserve 50% min. <u>Sound attenuation along Interstate:</u> Required per WAP	Same as LUCU, plus: min. 2-story bldgs; all exterior HVAC equip. screened from view; all roofs slope w/ min. 7/12 pitch; brick, stone, stucco, masonry, or lap siding all sides; entry covered; min. 1 balcony or patio per du; covered bike parking, 50% covered car parking, no metal carports; housing facing Historic Ensemble must replicate architectural features, style, colors.
Nodal Development (/ND) Overlay	N/A	N/A	N/A	EC 9.425: <u>Uses prohibited:</u> Motor vehicle related uses, equipment/machinery sales/service/rental	EC 9.429: <u>FAR for C-2:</u> 1.0 <u>Min. density for R-3:</u> 25 du/acre <u>Min. density for R-4:</u> 30 du/acre EC 9.453: <u>Front yard setback:</u> Max. 15 ft. <u>Building Orientation:</u> Facing street <u>Parking:</u> Not allowed between building and street. <u>Improvements between building and street:</u> Designed for pedestrians	As required by base zone.	Nodal Development requirements implemented through permitted uses, site development standards, and building design standards for each zone as outlined above. The standards herein are specific to the Chase Gardens nodal area.		

CHASE GARDENS NODAL DEVELOPMENT PLAN



LEGEND

- Chase Gardens Study Area
- Tax Lots
- Outside City Limits
- Historic Properties

Metro Plan Designations

- Community Commercial
- High Density Residential
- Park and Open Space
- Government

Metro Plan Designation Map



PREPARED BY:
SATRE ASSOCIATES, P.C.
 Planners, Landscape Architects &
 Natural Resource Specialists
 132 East Broadway, Suite 536
 Eugene, Oregon 97401
 Phone: 541-465-4721
 Fax: 541-465-4722
 June 2001

CHAPTER 5

INFRASTRUCTURE AND IMPLEMENTATION

Overview

Chapter 5 consists of the infrastructure and implementation analyses conducted by City of Eugene staff. The following report addresses public infrastructure needs, priorities, phasing, and funding strategies. It also discusses regulatory implementation procedures necessary to apply the plan.

Purpose of Report

This report combines the infrastructure and implementation reports required by the TGM Grant contract #2AA-99. The purpose of the report is to examine the infrastructure and service needs of the preferred plan, and methods of implementing the plan after adoption. The Infrastructure and Implementation Report will help ensure that the plan is realistic, that necessary services are adequately funded, and that all participants understand the implications of plan adoption.

Since adopted plans for the area of primary study already designate lands for higher intensity development, and mechanisms are already in place for installation and cost distribution of infrastructure to support most of the projected growth, this report will not attempt to estimate all costs associated with all development. Rather, this report will quantify only those increased costs caused by the Nodal Development Plan, identify the parties responsible for infrastructure costs, and, where no source is known for increased costs, the most likely methods of funding plan implementation.

What is a Node?

The draft Transportation Element of the Eugene-Springfield Metropolitan Area General Plan (TransPlan) contains the following definition:

Nodal Development (Node): Nodal development is a mixed-use pedestrian-friendly land use pattern that seeks to increase concentrations of population and employment in well-defined areas with good transit service, a mix of diverse and compatible land uses, and public and private improvements designed to be pedestrian and transit oriented.

Fundamental characteristics of Nodal Development require:

- *Design elements that support pedestrian environments and encourage transit use, walking and bicycling;*
- *A transit stop which is within walking distance (generally 1/4 mile) of anywhere in the node;*
- *Mixed uses so that services are available within walking distance;*
- *Public spaces, such as parks, public and private open space, and public facilities, that can be reached without driving; and*
- *A mix of housing types and residential densities that achieve an overall net density of at least 12 units per net acre.*

Nodal developments will vary in the amount, type, and orientation of commercial, civic and employment uses; target commercial floor area ratios; size of buildings; and the amount and types of residential uses.

This definition represents the minimum standards that should be achieved in the Chase Gardens area. The Willakenzie Area Plan already designates land within the study area for a mix of uses

that achieve a minimum average residential density of over 12 units per acre. Recent City acquisition of 4 acres for a public park also helps the study area achieve the definition of nodal development. The key to achieving a true node in this study area is having a coordinated design theme and the creation of an access network that transforms this high density area into a pedestrian and transit oriented neighborhood. Critical components are the location of retail, store orientation, street design, interconnectedness of properties, accommodations for transit and bicycles, and, ultimately, pedestrian comfort.

Summary of the Preferred Alternative

At the time this report is written, the Preferred Alternative is still a work-in-progress. While the general concepts are known, the plan still lacks much of the detail necessary for a detailed cost analysis of infrastructure needs on private property. For much of the project area, infrastructure installation is and will continue to be the responsibility of future developers. The nodal development plan will not significantly change this responsibility; hence detailed analysis of these costs need not be apportioned in this report.

The Chase Gardens Nodal Development Area already has a comprehensive land use plan contained in the Willakenzie Area Plan, a refinement to the Eugene-Springfield Metropolitan Area General Plan. The Preferred Nodal Development Plan would make these key changes:

1. Confirm Garden Way as the primary collector street for the area. Garden Way will have these characteristics:
 - Traffic calming north of I-105,
 - Curves to align street with existing signal on Centennial Blvd.,
 - Design speed of 20 miles per hour in the core retail area,
 - Limited driveway access,
 - Landscaped median,
 - On-street parking, and
 - Bike lanes.
2. Shift the Commercial land use designation to the southwest to gain greater exposure from Centennial Boulevard and permit retail on both sides of Garden Way in the core retail area (south of the historic ensemble). Designate lands previously designated for Commercial uses for high density residential use.
3. Permit a broad range of retail services within the Commercial area so that full services are available to area residents.
4. Limit the size and regulate the aesthetic of large retail establishments so that the commercial area remains compatible with the residential neighborhood. The primary grocery building should be between 25,000 and 50,000 square feet in floor area.
5. Require connections between multi-family residential and commercial properties to improve access.
6. Provide design standards and access controls so that development proximate to the historic properties on Garden Way remain compatible with the area's character, create an identifiable pedestrian-friendly core retail area south of the historic properties, and to encourage pedestrian and bicycle movement throughout the node.
7. Promote transit use.

8. Preserve the historic ensemble of five properties, but set parameters for future development in case owners choose to develop all or portions of the properties in the future.
9. Designate more land for parks and open space to reflect recent acquisitions by the City of Eugene for this purpose.

The Preferred Nodal Development Plan will rearrange land use designations, but the expected development yield will remain substantially the same as currently permitted by the Willakenzie Area Plan.

Infrastructure Needs and Impacts of Nodal Development

The vacant and underdeveloped land within the area of primary study is a vestige of much larger agricultural land that has been developed to urban densities. Utilities -- electricity, water, sanitary sewer, storm drains, and streets — serve all the surrounding development that is in the City and only need be extended to the newly developing areas by the developers. Maps depicting the existing utility systems are attached. There have been no changes to these systems since the Existing Conditions Report was prepared.

The single greatest infrastructure improvement funded by the public will be the improvement of Garden Way with the concurrent installation of water main, sanitary sewer line, and storm drain facilities to serve the area that is not yet annexed. This improvement is already planned and budgeted. The other significant public expense is improvement of a four acre neighborhood park. These and other service improvements are discussed individually below.

Streets. Local streets are typically installed by developers at time of development. The study area is already served by local streets Commons Drive and Marche Chase, and Kinsrow, a Neighborhood Collector street, as well as a network of private parking drives that serve individual properties. Street connections, with typical maximum block lengths of 600 feet, are required by the City's street connectivity standards. The purpose of additional local streets would be to provide access to interior portions of vacant lots, provide connections between lots, and to disperse traffic. Additional local streets would be the responsibility of the developer.

The study area is served by Garden Way, a Major Collector not improved to collector standards, and Centennial Boulevard, a Minor Arterial roadway. The City has already approved in its 1998-2003 Capital Improvement Plan improvement of Garden Way between Sisters View and Centennial Boulevard at an estimated cost of \$1,530,000. This amount was continued in the 2002-2007 Capital improvement Plan as a funded but unconstructed project. The City will apply assessments to adjoining properties to recap a portion of the costs. The owners of properties abutting Garden Way will pay for only the equivalent of local street improvements along their property frontage at time of development of the property. The amount of the assessment varies with the length of street frontage. This assessment would be applied pursuant to a recently adopted City policy, and is not a result, nor need it be amended because of, the nodal development plan.

The budget for Garden Way improvements is intended to cover widened and improved road surface, sidewalks, landscaping (including a landscaped median), and lighting. Design speed in the core retail curves would be 20 miles per hour. Traffic calming devices will be explored for sections of North Garden Way as well.

No new access to I-105 or I-5 is planned in the study area.

Traffic impacts analysis indicates that the maximum build-out of the of the proposed land uses in the node will cause a significant amount of congestion. Centennial Boulevard and Garden Way are experiencing increasing numbers of vehicles. Current traffic projections indicate that the number of

vehicles on the two roads will almost double by the year 2020. This will cause significant congestion in a number of intersections on Garden Way. The City of Eugene is already considering improvements to Garden Way, so the nodal plan focuses on traffic calming measures which will enhance appeal of the road to pedestrians while ensuring safe passage for vehicles and maintaining adequate road capacity.

At the intersection of north Garden Way and Harlow Road, an additional through-lane on Harlow has been proposed, as well as a third northbound approach lane on Garden Way. These improvements will likely not be needed until the latter half of the planning horizon and are not proposed as part of this nodal development plan.

Traffic improvements will be necessary at the intersection of Commons Drive and Garden Way. The intersection is currently controlled by a stop sign, and it has been proposed that the intersection should be controlled in the future by a stoplight or a one-lane roundabout. Given the use of Garden Way as a transit corridor for commuters, the roundabout is preferred to keep traffic moving through the area.

The most problematic section of Garden Way will be the southern end, where the road makes two right-angle turns and intersects with Centennial Boulevard. The South end of Garden Way bisects the proposed commercial and office development, and will experience a significant increase in traffic at full build-out. The proposed nodal plan resolves the traffic issues here in the following way: the curb radius in the two intersections will be expanded to 150 and 300 feet for the two turns and through traffic will not be required to stop. The expanded curb width will allow through traffic to continue around the corners at a 18-20 mile per hour speed, which is a comfortable speed for pedestrians. Westbound traffic should siphon off to Marche Chase road, relieving some of the traffic pressure on Garden Way.

The Garden way/Grocery drive intersection at the heart of the pedestrian-active retail area will be constructed to accommodate a traffic signal if one is needed to facilitate pedestrian crossings after all.

Sanitary Sewer. The area of primary study is already served by a 10-inch sanitary sewer line in Commons Drive and a 15-inch line in Kinsrow. The vacant Chase Gardens Phase 3 property may be served by an extension of these lines by the developer when needed.

There is no sanitary service available to the properties along Garden Way, including the area proposed to be the core retail area. Lack of sanitary sewer is a significant impediment for development of this area. Sanitary sewer may be extended to this area concurrent with improvements to Garden Way.

In the Preliminary Study, the following sanitary sewer estimates were used as part of the Garden Way Project:

910 LF 15" Sanitary Pipe @ \$50/LF = \$45,500
810 LF 12" @ \$45/LF = \$36,450
480 LF 10" @\$40/LF = \$19,200
750 LF 8" @ \$35/LF = \$26,250
10 Manholes @ \$3000 EA = \$30,000

TOTAL \$157,400

The benefiting properties will be assessed an equivalent for an 8-inch sanitary line plus their service connection(s). The benefiting properties pay for all of an equivalent 8-inch sized system and the City pays for anything over an equivalent cost of an 8-inch pipe.

Additional costs associated with sanitary sewer line extension include mobilization, clearing and grubbing, temporary protection/direction, erosion control, flagging, engineering costs (approx. 23%), administrative fees, etc. These additional items would push the total cost to \$200-250,000. If these items were constructed separately, then all of the costs for the above additional items would be included as separate contract costs. If they are constructed with the road improvements, as proposed, then only a portion of those items (based on a percentage of total costs) gets charged to the sanitary costs.

Stormwater Systems. The study area is served by the Q Street Channel, a large waterway owned and maintained by the City of Eugene. Existing properties drain to roadside conveyance systems that transport the water to the Q Street Channel. This waterway has been channelized to a size that can easily accommodate all runoff from the study area after development.

Stormwater systems will be included in the design of the improved South Garden Way; hence all underdeveloped properties in the study area will be served. At time of development, the owners will reimburse the city for installation of the stormwater system through System Development Charges and connection fees. The fees are set by administrative order. This is the funding system that is applied to all developing areas in the city and is not a result of the nodal development plan.

The Q Street Channel is a tributary to the Willamette River, where the spring Chinook salmon have been listed as a threatened species. The implications for stormwater runoff into these waterways has yet to be determined. It may be that federal regulations may require pretreatment or retention of stormwater, or both, before discharge. This regulatory process is not a result of the nodal development plan, nor is it addressed by this plan. Conformance to these regulations will be the developers' responsibility. Conformance requirements are not expected to be so severe that coordinating action by the City for multiple properties would be required.

Water. Water is supplied by the Eugene Water and Electric Board (EWEB) to all sites already annexed to the City. Water line extensions to serve remaining land in the study area will be done by EWEB as development occurs. Water line extensions are paid by the developer.

EWEB may not extend water service outside the City limits except under very limited or temporary circumstances. EWEB recommends that Garden Way be annexed to the City, or other permits obtained, that would allow installation of infrastructure under the new street (such as conduits) to allow future extension of water service to the east side of the street without damaging the street surface.

Electricity. The area is already served by EWEB power. Electrical lines will be extended to new structures at the developers' cost.

Public Safety. With growth comes increased demand on City services, including police, fire, and emergency medical activities. These costs are partially offset by property taxes and, in some cases, fees are levied on a per-call basis. Police, fire, and emergency medical services (EMS) are already provided to neighboring incorporated properties and will be provided to other properties after annexation. The increase in services is a result of planned growth, and will not increase more than current expectations as a result of the nodal development plan.

Policies of the Eugene-Springfield Metropolitan Area General Plan require annexation of property to the City prior to development. Properties would therefore be part of the City before service demand increased.

Other Municipal Services. City planning, recreation, library and other governmental services are already provided to the general area. Increases in services are already planned for the area as growth occurs. Costs will be borne by property taxes and user fees.

Parks. The 1989 Eugene Parks and Recreation Plan identified the need to acquire a neighborhood park between Coburg Road and the I-5 corridor. In 2000, Eugene acquired a 4.2 acre park site on the west side of Garden Way and south of the 1-105 right of way to fulfill this need. Typically, neighborhood parks are located to serve residents within a $\frac{1}{2}$ mile safe walking distance. Due to the rapidly developing high density residential neighborhood in the Chase Garden Nodal Area, placement of the park site within $\frac{1}{2}$ mile ideally serves this large population base. Also, due to its proximity to Garden Way, this park site can also serve a significant portion of the residential neighborhood between I-105 and Harlow Road, which is presently unserved.

Neighborhood parks are intended to provide significant open space and identity for specific neighborhoods. They provide a location for neighborhood social, recreational and fitness activities. While the site is presently undeveloped, the future design and development will be done to accomplish these objectives. Funding has not yet been allocated, nor a time line established for the development of this park site.

Additionally, the Chase Gardens Nodal Area is served on a broader scale by the presence of community park services at Sheldon Community Center, and the variety of recreational experiences and values found at the nearby Alton Baker Metropolitan Park.

Green Infrastructure: There is a substantial network of natural resources in the primary study area that contributes to the study area's unique ambiance, recreational resources, and stormwater conveyance system. Primary components of this "Green Infrastructure" are the Q Street Channel and its tributaries, the yards and mature trees in the historic ensemble; and the row of trees along the I-5 freeway.

Q Street Channel. Most land abutting the Q Street Channel and its tributaries has already developed to its fullest potential. Exceptions include the vacant "Chase Gardens Phase 3" property, the future park site on the north side of the channel, and the Masonic Lodge located at the western extent of the study area. In the other areas, where development has already occurred, setbacks have been established, riparian areas have been protected, and new landscaping added.

New development along the Q Street Channel should respect this resource by increasing habitat and attributes that contribute to water purification and pleasing aesthetics along the channel.

Trees/Historic Ensemble. The mature trees within the Chase Gardens area provide the area with its unique character and visible ties to the area's rural past. The trees located in the historic ensemble, along the west side of South Garden Way, may be preserved if the road improvements occur to the east, as planned. The draft nodal development plan also allows preservation of the entirety of the historic properties, at the owners discretion.

If the historic ensemble were to annex, it would be eligible for special development treatment and review through the City's Historic Zone district.

The windrow along I-5 provides a visual and sound buffer between the freeway and the residential properties to the west. This row of trees can be preserved through careful design of development on the property. The Willakenzie Area Plan contains a policy promoting sound attenuation along the freeways. The windrow helps satisfy this requirement.

Schools .The Eugene 4J School District has completed a five-year enrollment projection beginning in 2000-2001 and ending in 2005-2006. During the next five years, enrollment in School District 4J will decline by approximately 630 students (over 300 students at the elementary level, over 200 at the middle level, and about 70 at the high school level). These projections take into consideration current trends in demographics, the economy, and construction of single- and multi-family dwellings. Enrollment projections are updated annually (i.e. the end of September each year) to track these trends and to maintain accuracy.

Washington Elementary School, the closest school to the Chase Gardens Node, was built in 1950 and had its last addition in 1964. It is located on 8.64 acres and its total square footage is 45,461. Washington has the capacity to add 21 students. Washington appears on the 4J Facilities list of buildings most in need of replacement.

How the Draft Plan Creates “Nodal Development”

The Willakenzie Area Plan (WAP) contains policies and a land use diagram that attempt to create a pedestrian friendly, transit supporting neighborhood center — what is now called a “node.” The WAP does this by encouraging a higher density residential/mixed use area and by providing limited commercial opportunities of a scale appropriate to the neighborhood. The WAP Land Use Diagram indicates general locations for low- and medium-density residential development, neighborhood commercial, and parks/open spaces, but allows for rearrangement of all land uses within the “Opportunity Areas.”

The WAP is now outdated. The agricultural businesses that were to remain viable are no longer in operation. Several “potential” historic properties are now officially recognized by the National Registry of Historic Places. Much of the WAP Opportunity Area has developed without benefit of a master plan, which limits opportunities for creating a truly integrated access network and locations for the various uses, especially the core retail area.

The proposed nodal development plan both updates the WAP and helps implement the original intent of the plan by providing the realistic and detailed design components necessary for a functional neighborhood center. In this light, the most critical components of the nodal development plan are:

- Designing of Garden Way to limit traffic speed and provide on-street parking in critical areas;
- Repositioning the commercial center southwesterly to increase its visibility from two major roadways and to allow for retail activity on both sides of the street;
- Creating four-point retail activity at an intersection to provide logical patterns of pedestrian travel;
- Preserving the pedestrian nature of the core retail area by keeping off-street parking behind retail stores;
- Permitting a larger grocery store so that area residents can get a greater range of services;
- Requiring taller buildings in the core retail area and efficient use of land;
- Preserving the five property historic ensemble while keeping options for future development that will integrate into the plan; and
- Retaining a well landscaped and residential feel to Garden Way outside the retail core.

Prioritization and funding strategies necessary to implement the Preferred Design Alternative.

Public and Private Responsibilities. The necessary infrastructure supporting growth in Chase Gardens will be installed through a combination of public and privately funded means.

The City will pay for initial construction of Garden Way. Traffic calming measures installed in North Garden Way will be funded entirely by the City. The more extensive road improvements along South Garden Way will be initially funded by the City. Abutting properties will help repay costs equivalent to local street standards at the time those properties develop. It is probable that some properties from which right-of-way is acquired may qualify for reduced system development charges or a trade of land area, thereby reducing the amount of money owed at time of development. These calculations will be made after Garden Way is designed and the properties appraised, so that and the costs will be more accurately known.

It is a goal of the Chase Gardens nodal development planning process to retain the Opportunity area's ability to accommodate growth and to maintain reasonable development potential — and property value — on all properties. If the proposed development plan renders a private property undevelopable, there are three courses of action that could be pursued:

1. The plan could be changed so that the property retains reasonable development potential;
2. Allow longer time for development. The City has an interest in having basic services provided to the Chase Gardens area residents in the near term, but the creation of a complete neighborhood center could occur over many years. The plan is structured to allow phased build-out over a longer time period if market conditions are not yet ready for the intensity of the proposed development; or
3. Compensate the property owners to mitigate the loss of all development potential.

Public Investment Needed to Leverage Private Investment. The preliminary Nodal Development Plan suggests that public financing is needed for two significant improvements: installation of Garden Way, including traffic calming on North Garden Way and full street improvements on South Garden Way and the underlying utilities necessary to serve adjacent properties, and improvement to the four acre neighborhood park. With this basic public infrastructure in place, the market will support private development of all other improvements.

The Garden Way improvements should be completed before any significant new development, such as an apartment complex or grocery store that will contribute significant traffic to that collector street, is ready for occupancy. Concurrent construction is feasible. City funding for Garden Way is available, so the likelihood is good that the most critical street improvements will occur at the earliest phase, prior to other development.

Discussions with potential developers indicate that of the private improvements, the grocery store between Garden Way and Marche Chase is likely to be the first phase of the new commercial development. It is their expectation that the presence of the grocery will help attract additional tenant for spaces nearer the residences and main retail street. The cost of new transit improvements and common architectural and landscaping design elements should be borne by new commercial development. A mechanism should be devised so that the initial commercial development either bears the total cost or distributes the costs equitably among smaller developments if phased over a longer period of time.

Regulatory Framework.

The basic regulatory framework exists to implement nodal development in the Chase Gardens area. The Eugene-Springfield Metropolitan Area General Plan (Metro Plan) designates the bulk of the primary study area as appropriate for high density residential and commercial development and the Q Street Channel for Parks and Open Space use. The draft Metro Plan transportation element (TransPlan), which will soon be adopted, designates the study area as a nodal development area on a future Bus Rapid Transit route and designates Garden Way as a Programmed Project to be brought to Urban Standards.

The Willakenzie Area Plan (1992), a refinement of the Metro Plan, designates the study area as an Opportunity Area appropriate for higher density and mixed use development. Design guidelines are provided for future commercial development.

The Eugene Land Use Code, which governs development standards and project review procedures, has undergone significant revisions during the last several years. A major thrust of the new regulations is providing increased opportunities for infill development and maintaining neighborhood character and quality design. The new code was structured to allow insertion of area-specific overlay zone districts in anticipation of nodal overlay project such as this. The new code is expected to become effective August 1, 2001.

Regulatory Deficiencies and Solutions. Although a broad regulatory framework is in place, the existing regulations do not require, and therefore may not result in, the requisite design attributes necessary for a pedestrian center. In some cases, policies no longer reflect current conditions and need to be updated. The following changes should be considered:

Metro Plan. The Metro Plan Land Use diagram should be amended to reflect the new land use diagram in the Willakenzie Area Plan.

Willakenzie Area Plan (WAP). The three page section regarding the Chase Gardens Opportunity Area should be replaced to reflect current conditions, provide new objectives that are consistent with nodal development principles, and state policies that will dictate crucial design components necessary for successful nodal activities. Uses that are strictly automobile serving should be prohibited from nodal areas.

The Chase Gardens Land Use Diagram must be replaced to reflect the new proposed land use patterns (e.g., relocated commercial and high density residential areas, proposed street alignments and desired connections made by new streets, location and orientation of key buildings and parking areas). The area recently purchased for a public park should be designated as Parks and Open Space. Areas with high natural resource value may be shown as appropriate for Open Space purposes.

The WAP Design Guidelines may be amended to provide specific standards for nodal areas. These standards would require, for instance, certain building orientation and design features at street level, restricted parking locations and driveway locations, and pedestrian amenities. Restrictions on signs should be considered to better ensure aesthetic compatibility between the core commercial area and the surrounding residents. The WAP should provide the policy basis for all proposed Land Use Code amendments.

Street Plans. Eugene's *Local Street Plan* and the *Arterial Collector Street Plan* set design standards for all streets under local control. The standards are base on street classification. Both sets of standards have been updated recently to respond to local concern about compatibility of streets with adjacent neighborhoods, the effects of street design on neighborhood function, and a desire to calm traffic through street design. The plans also allow some flexibility within the standards to allow adjustment for unique localized conditions. Therefore, that current street standards are generally adequate for purposes of the nodal development plan.

Zoning. Property zones should be changed to reflect the new land use designations of the Willakenzie Area plan. For those properties not yet annexed to the City of Eugene, most of which are now zoned as Agricultural, a zone change is not necessary until development is contemplated. These properties must annex and rezone before any urban development may be approved on that site. Annexation is also necessary before a property may receive City services, such as water, sanitary sewer or protection through the city historic review program. To receive the most

protection, the historic ensemble should consider changing its zone designation to H, Historic, after annexation.

The WAP requires site review for all new development through a /SR, Site Review, overlay zone for all properties in the Chase Opportunity Area. This requirement should be retained.

The current WAP policies suggest that the designated commercial area should be rezoned to C-1 Neighborhood Commercial. The draft land use code puts new size restrictions on development on C-1 zoned property that would not allow the full range of retail services desired by this neighborhood. It is recommended that a broader range of commercial services be allowed through a Community Commercial or Mixed Use Commercial land use designation.

Analysis of the Eugene Land Use Code. For purposes of this analysis, only the adopted Land Use Code Update (LUCU), expected to become effective on August 1, 2001, is examined. It was structured to include many of the design requirements, densities, and flexibility for land use and project review desired in nodal development areas. The draft code is structured to allow easy text insertion of new overlay and special area zones to accommodate the special needs of each nodal development area.

The new WAP policies for the Chase Area Opportunity Area should be included in the draft code so that they may be considered as criteria for all zone changes, site review, and other development and land use applications.

Design Standards should be included in the Chase Node overlay zone that reflect WAP design guidelines or WAP policies. Mandatory standards, not advisory or aspirational guidelines, are necessary to ensure that development will provide the necessary critical design components. These standards are expected to include building height along core retail areas, building orientation near streets, parking behind buildings, residential "front porch" appearance of residences facing the historic ensemble, artwork or community identifiers, the protective nature of pedestrian connections across parking lots, and restrictions on driveway placement and against drive-thru lanes.

Probable Code Changes and Nodal Supplements. The draft land use code incorporates many of the desired design requirements for this or any nodal development area, including design standards for multi-family residential areas. Additional standards may be necessary to create the specialized pedestrian/bicycle-friendly environment that is necessary for the node to function optimally. This is a list of probable changes:

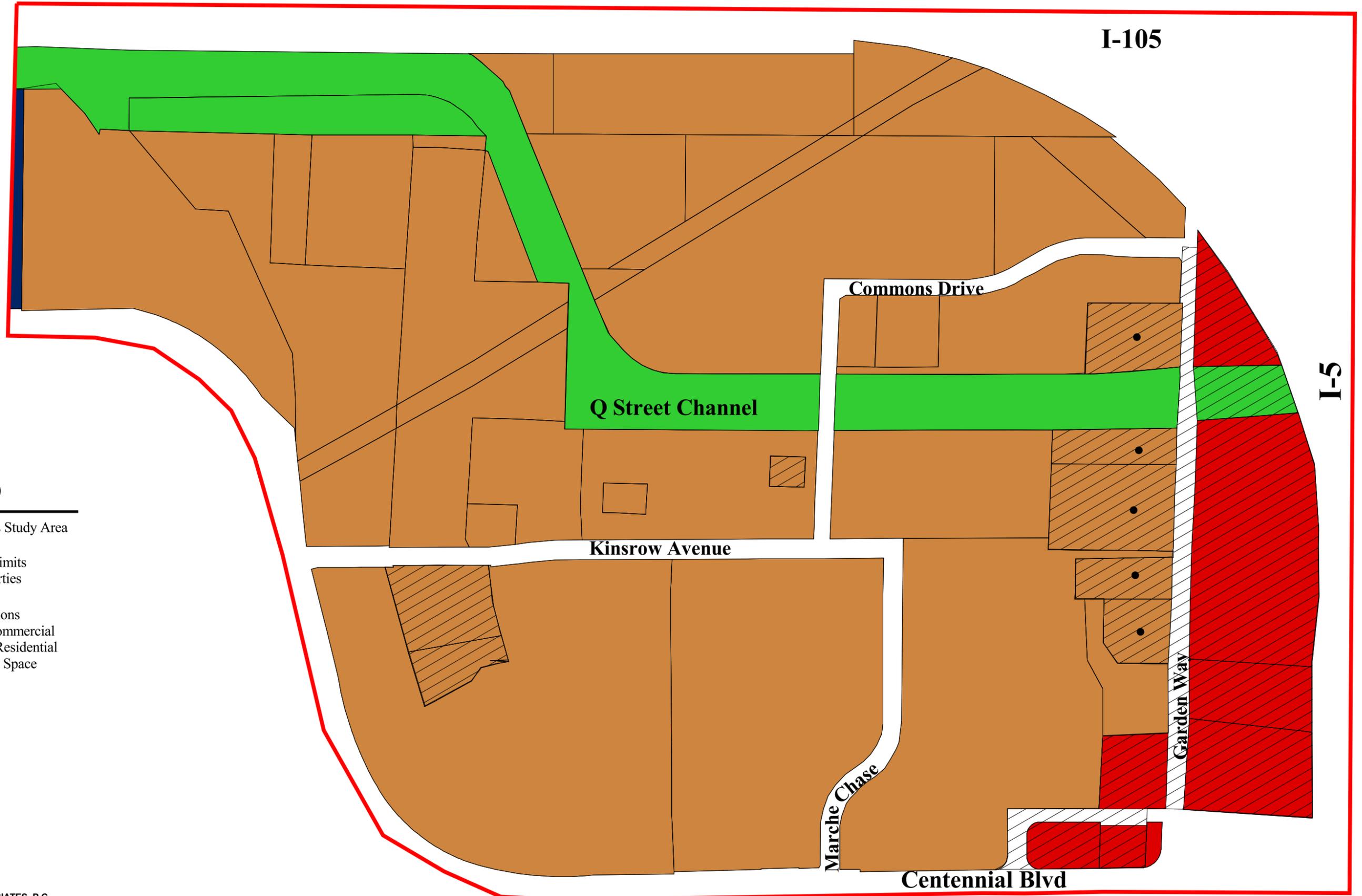
1. *Refinement plan policies* should be included in the land use code so that they may be used as land use criteria.
2. *Restrictions on commercial and office area uses* are desired to ensure compatibility with the residential nature of the node and to discourage regional traffic changes. Examples include:
 - Size limitation of 50,000 square feet of floor area for the major grocery space;
 - Restrict automobile serving uses;
 - Restrict drive-thru lanes;
 - Require minimal setbacks on identified pedestrian avenues;
 - Minimum building height or FAR on identified pedestrian avenues;
 - Require placemaking amenities, such as towers or fountains at key locations;
 - Require retail on first floor in core retail areas and identified pedestrian avenues;

- Require Site Review;
 - Pedestrian connections, and design standards for those connections, in identified locations;
 - Preservation of key natural features, such as windrows;
 - Standards for building lengths, facade articulation, and orientation towards key pedestrian and residential areas;
 - HVAC screening;
 - Require sign program to consolidate monument signs, restrict number of signs and glare at night, encourage creation of sense of place through coordinated design elements;
 - Restrict lighting and glare into residential areas, preserve night sky;
 - Restrict front yard parking and size of parking areas between buildings;
 - Require, if allowed by law, enhanced requirement for street connectivity to provide full access connections between the commercial areas and the residences in the node.
3. *Residential zones* should retain at least the 20 dwelling unit per acre minimum density requirements of the R-4 High-Rise Multi-Family zone district that applies within the study area now. The minimum design standards contained in the new land use code should remain, plus the following additional standards should be added:
- Preserve natural features, including drainage channels and windrows;
 - Provide sound attenuation along I-5;
 - Buildings on Garden Way facing the historic ensemble should contain the architectural features to ensure compatibility, such as peaked roofs with pitch of at least 6-in-12, shingle appearance on roof, front doors and large window facing the street, primary entrances at or near street level, building articulation and appearance of individual units, especially townhouse or single family units.
 - Trees in front yard;
 - Covered bike parking;
 - Access connections to other areas within the node;
4. Mixed Use options should be provided to allow a gradual transition between the core retail area and the high density residential area, especially if they would allow live-work units. A special Mixed Use zone district could be created within the Chase Gardens Nodal Overlay Zone. Design standards within the Mixed Use zone would be similar to those adopted for the High Density Residential Areas.
5. Stormwater runoff standards would be the same as for other areas within the City. Federal rules pertaining to the Q Street Channel's role with the Endangered Species Act are not well enough defined to include within the node's zoning standards. Conformance to the federal rules is ultimately the developers' responsibility. At such time as the local government's responsibilities to the federal Act are clear, the Chase Gardens nodal overlay zone can be amended to reflect those responsibilities.

Adoption of the regulatory framework necessary to implement the draft nodal development plan will be the responsibility of the City of Eugene. After review of the plan concepts by the City Planning Commission, expected in June 2001, legislation will be drafted for public review. Public hearings will likely commence in the Winter 2001.

Plan Appendix

CHASE GARDENS NODAL DEVELOPMENT PLAN



LEGEND

- Chase Gardens Study Area
- Tax Lots
- Outside City Limits
- Historic Properties

Metro Plan Designations

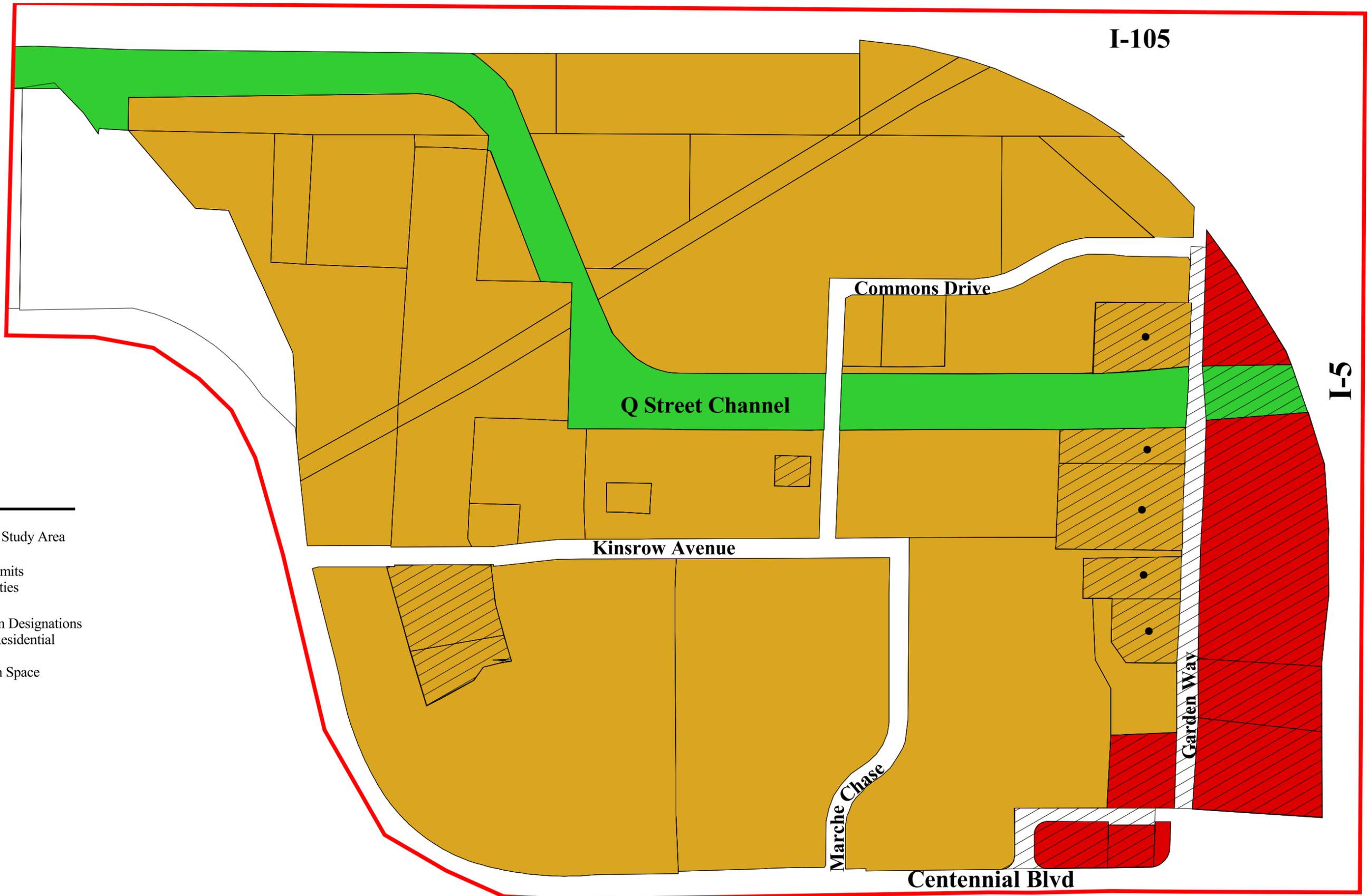
- Community Commercial
- High Density Residential
- Park and Open Space
- Government

Metro Plan Designation Map



PREPARED BY:
SATRE ASSOCIATES, P.C.
 Planners, Landscape Architects &
 Natural Resource Specialists
 132 East Broadway, Suite 536
 Eugene, Oregon 97401
 Phone: 541-465-4721
 Fax: 541-465-4722
 June 2001

CHASE GARDENS NODAL DEVELOPMENT PLAN



Legend

- Chase Gardens Study Area
- Tax Lots
- Outside City Limits
- Historic Properties

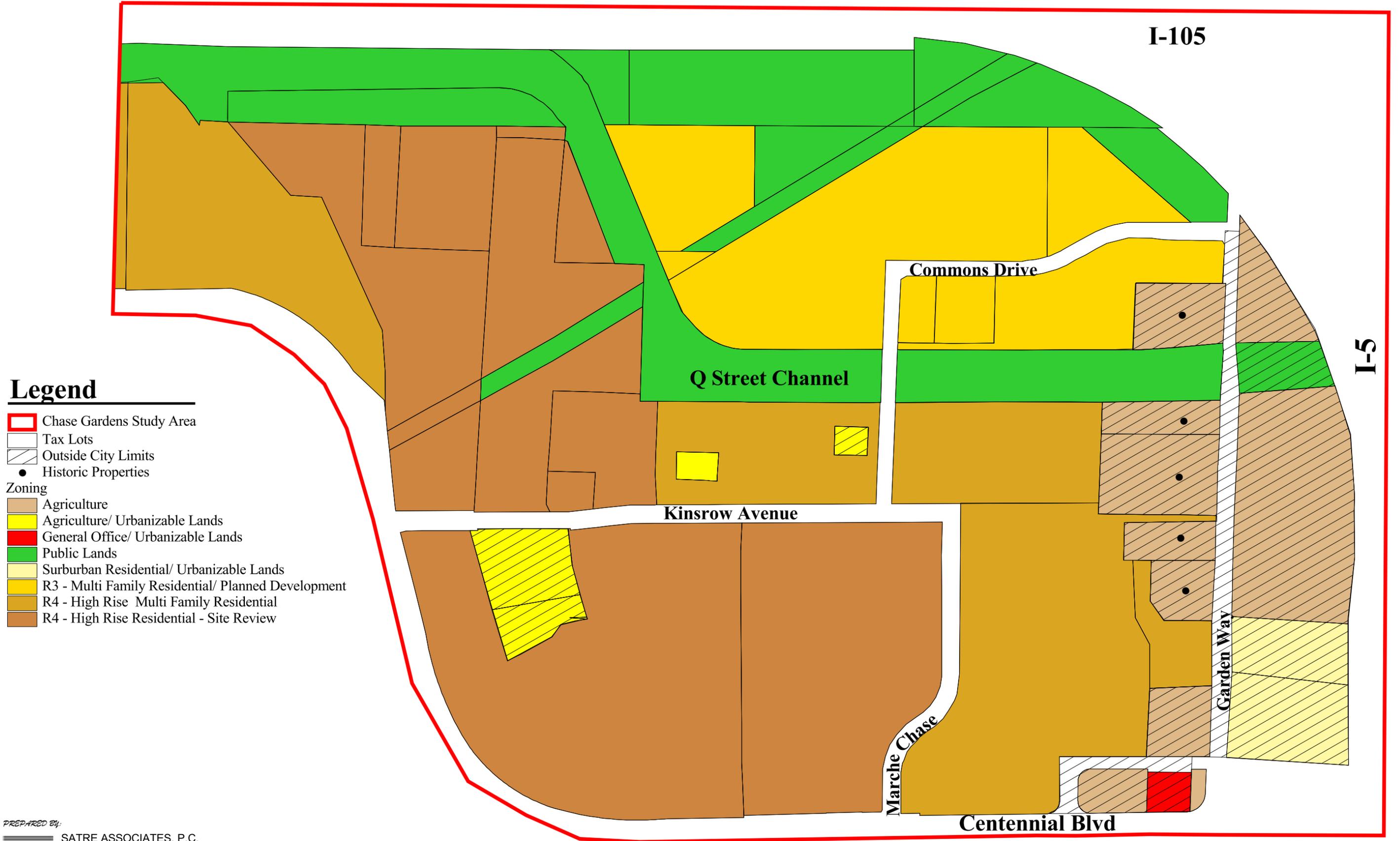
Willakenzie Area Plan Designations

- High Density Residential
- Commercial
- Parks and Open Space

Willakenzie Area Plan Designation Map



CHASE GARDENS NODAL DEVELOPMENT PLAN



Zoning Map



PREPARED BY:
SATRE ASSOCIATES, P.C.
 Planners, Landscape Architects &
 Natural Resource Specialists
 132 East Broadway, Suite 536
 Eugene, Oregon 97401
 Phone: 541-465-4721
 Fax: 541-465-4722
 June 2001

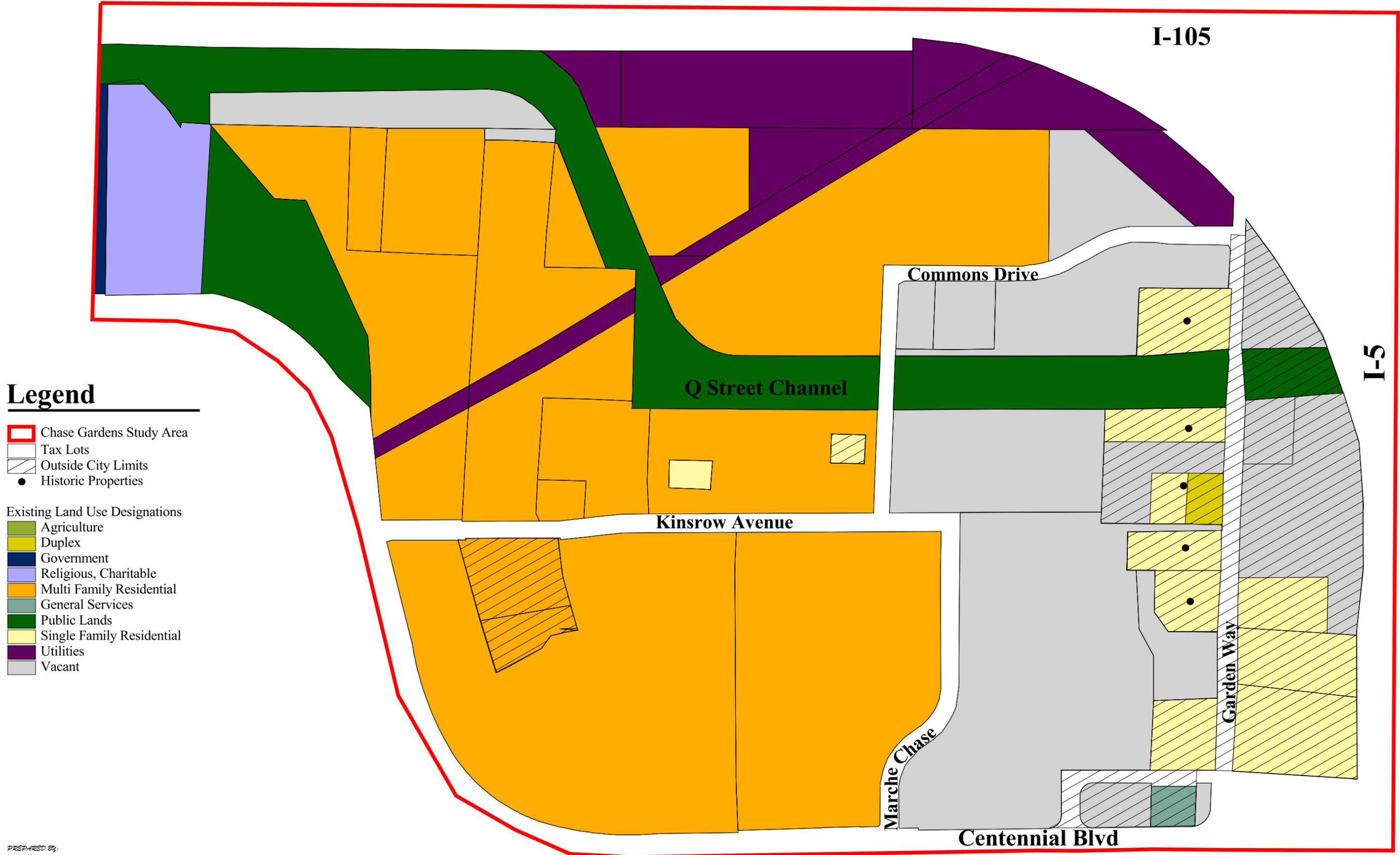
CHASE GARDENS NODAL DEVELOPMENT PLAN



Aerial Photo - Existing Conditions



CHASE GARDENS NODAL DEVELOPMENT PLAN



- Legend**
- Chase Gardens Study Area
 - Tax Lots
 - Outside City Limits
 - Historic Properties
- Existing Land Use Designations
- Agriculture
 - Duplex
 - Government
 - Religious, Charitable
 - Multi Family Residential
 - General Services
 - Public Lands
 - Single Family Residential
 - Utilities
 - Vacant

Current Land Use Map



COPYRIGHT 2001, SATRE ASSOCIATES, P.C.

PREPARED BY:
SATRE ASSOCIATES, P.C.
 Planners, Landscape Architects &
 Natural Resource Specialists
 132 East Broadway, Suite 536
 Eugene, Oregon 97401
 Phone: 541-465-4721
 Fax: 541-465-4722
 June 2001

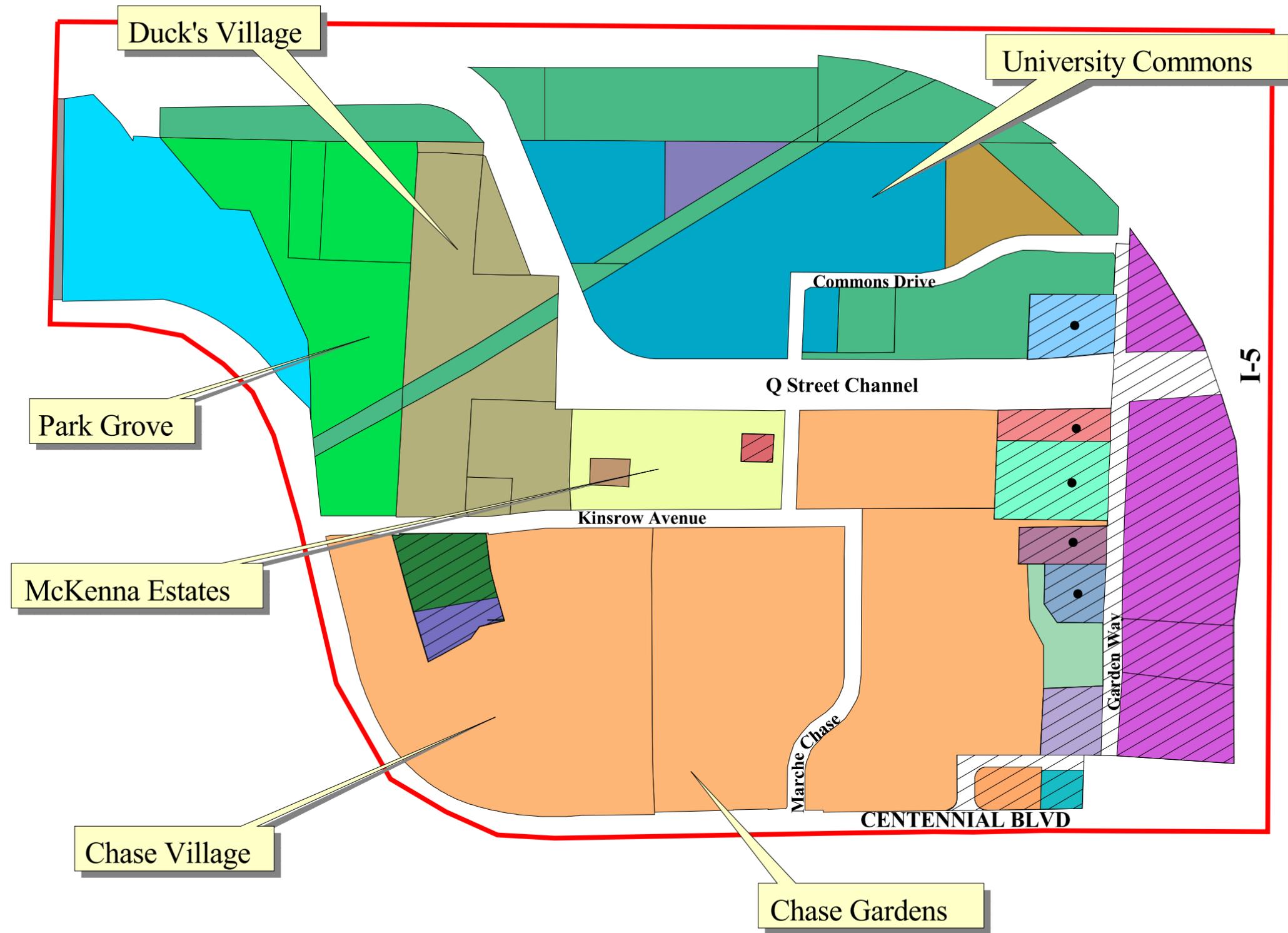
CHASE GARDENS NODAL DEVELOPMENT PLAN

Legend

- Chase Gardens Study Area
- Outside City Limits
- Historic Properties

Tax Lots/ Properties

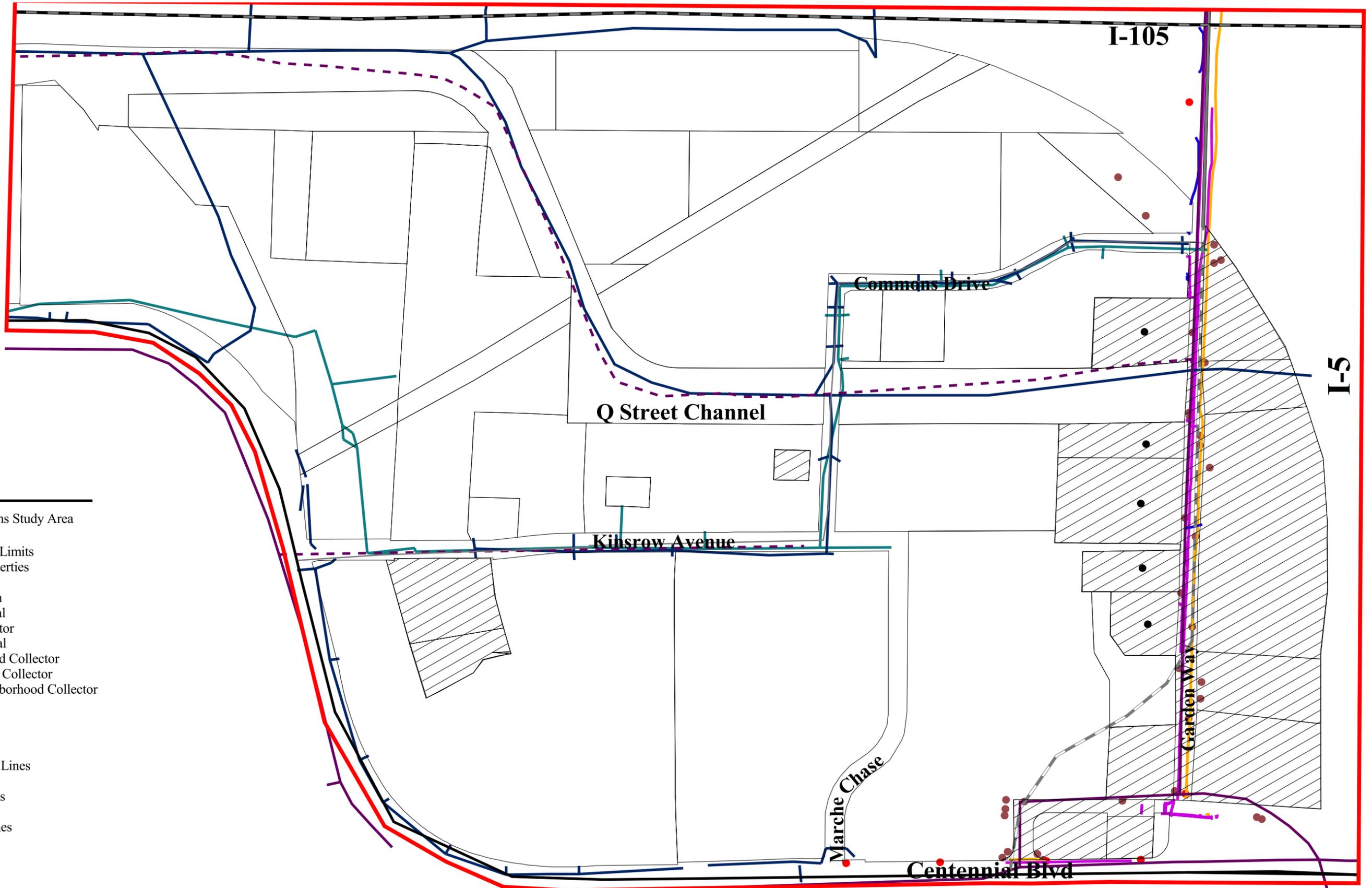
- BRENAMAN J RALPH TE
- CHASE DAVID L & LYNN F
- CHERRY CREEK VILLAGE LLC
- CITY OF EUGENE
- EUGENE LODGE #11 ANCIENT
- EWEB
- GORMAN RICHARD E D C
- GORMAN RICHARD E DC -2
- GRAY ROY C JR
- HOLLOMAN NANCY
- HUDMAN LAND LLC
- HUFFORD DAVID W
- LANE COUNTY
- MCKENNA ESTATES LLC
- PARKGROVE APARTMENTS LLC
- ROBINSON JEAN
- ROBINSON GIVEN
- ROBINSON GIVEN, LARRY
- SIMPSON HOUSING LTD PTRSHP
- THOMPSON LARRY E
- THOMPSON VANESSA M & JERRY E
- UNIVERSITY COMMONS
- WHITE THOMPSON E
- WYLIE GORDON K & LINDA



Owner Information Map



CHASE GARDENS NODAL DEVELOPMENT PLAN



Legend

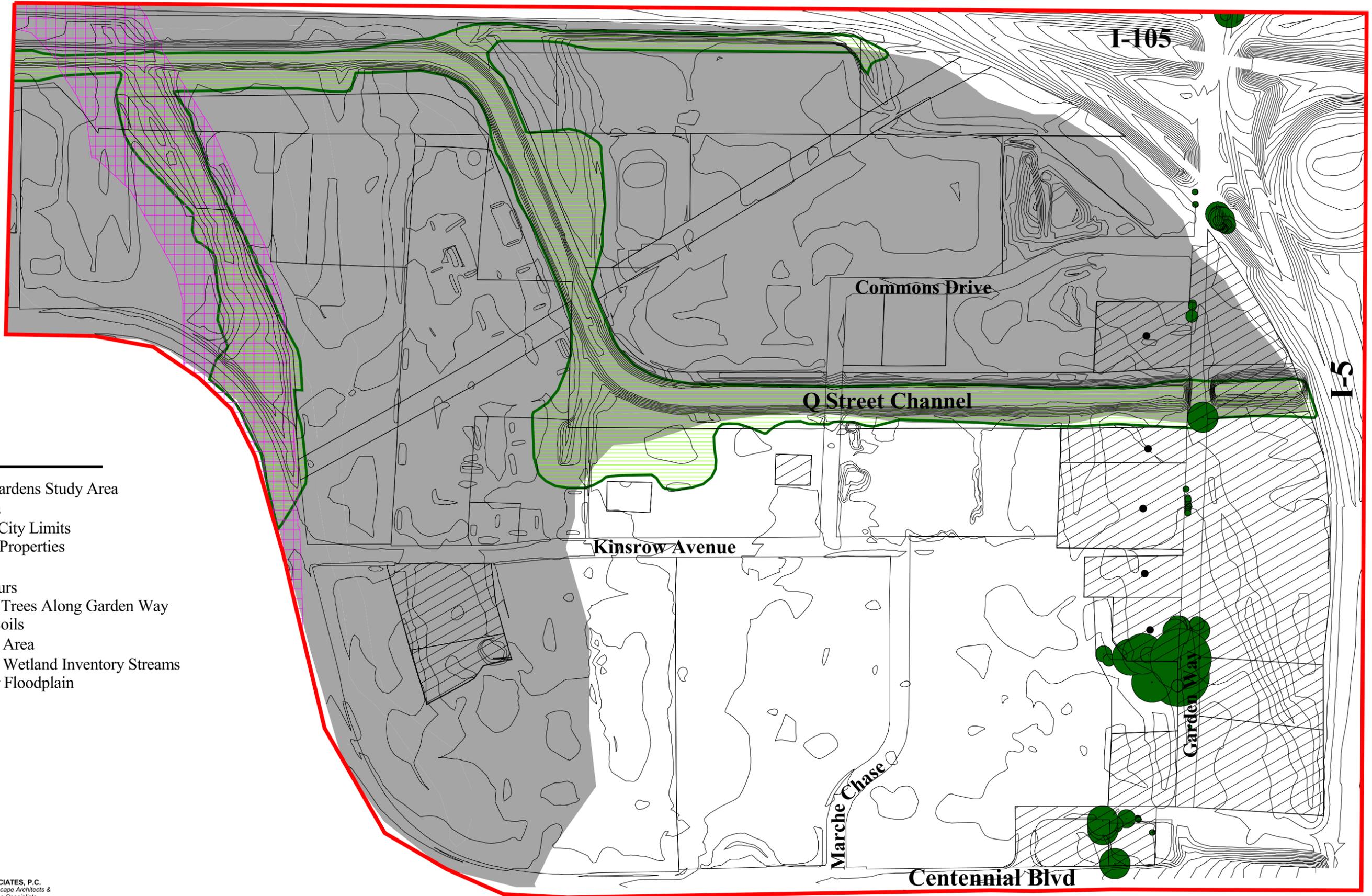
- Chase Gardens Study Area
 - Tax Lots
 - Outside City Limits
 - Historic Properties
- Street Classification
- Major Arterial
 - Major Collector
 - Minor Arterial
 - Neighborhood Collector
 - Future Major Collector
 - Future Neighborhood Collector
- Bicycle Paths
- Existing
 - Planned
- Storm Sewer Lines
 - Water Lines
 - Sanitary Lines
 - Gas Lines
 - Electrical Lines
 - Lights
 - Utility Poles

Infrastructure Map



300 0 300 600 Feet

CHASE GARDENS NODAL DEVELOPMENT PLAN



Legend

- Chase Gardens Study Area
- Tax Lots
- Outside City Limits
- Historic Properties
- 2' Contours
- Existing Trees Along Garden Way
- Hydric Soils
- Riparian Area
- National Wetland Inventory Streams
- 100-year Floodplain

Natural Resources Map



300 0 300 600 Feet

Date: November 11, 2000

To: Satre Associates, P.C.
132 East Broadway, Suite 536
Eugene OR 97401

From: Hobson Ferrarini Associates

Subject: Property Owner Interviews

Hobson Ferrarini Associates (HFA) was retained by Satre Associates and the City of Eugene to conduct a questionnaire with individuals that own commercially designated property within the Chase Gardens Nodal Development Plan study area.

The purpose of the questionnaire was to solicit concerns, comments and recommendations regarding potential transportation and land use changes in the Chase Gardens area. These changes are expected to come from the Chase Gardens Nodal Development Plan that is currently being prepared. The goal of the plan is to determine how to transform Chase Gardens into a Neighborhood Center. As defined by TransPlan, a Neighborhood Center is a residential area with a mix of commercial uses that serve the day-to-day needs of neighborhood residents, an area with a mix of housing types (duplexes, townhouses, apartments, and detached single family residences) and densities, and an area that is bicycle, pedestrian and transit friendly.

Property owners were mailed a questionnaire and given the opportunity to provide answers in writing or over the phone. All property owners participated, including the following:

- Gordon and Linda Wylie
- Richard Gorman
- Thompson (Terry) White
- Joan Given for Jean Robinson and the Robinson Family
- Jeff Elder
- Chris Vaughan of Simpson Housing

1. Are the objectives of the plan worth pursuing?

All of the respondents believed the objectives of the plan are worth pursuing. Two respondents qualified their endorsement in the following manner:

- The objectives of the plan are worth pursuing if they result in practical solutions and the best utilization of properties.
- The objectives of the plan are worth pursuing if the solution is one that the City and neighborhood are happy with.

2. How would you like to see the area developed in the future?

While none of the respondents explicitly stated the area should develop in a manner entirely consistent with the definition of a Neighborhood Center, 75 percent used elements of a Neighborhood Center to describe how they would like to see the area develop

- Commercial properties should be developed in the area to serve neighborhood needs, including a grocery store.
- More multi-family development should occur in the area.
- The area should become more pedestrian and bicycle friendly.

Another respondent also liked some elements of a Neighborhood Center, but felt those elements should not occur in the southern portion of Garden Way. This area should maintain its current character with large lot, historic single-family homes.

3. Are there any elements of the plan that concern you?

Transportation Issues

- The transportation alignment should be done in a way that will not negatively impact the development potential of property in the area. The alignment needs to provide good access to all properties.
- The selected alignment should be done in a manner that provides enough land for a neighborhood oriented retail center (8-10 acres). If realignment is done incorrectly, it could prevent neighborhood commercial development from occurring.
- The realignment needs to increase the capacity of Garden Way to get people and traffic through the area.
- The realignment is critical to public safety. The 90-degree corner needs to be fixed because it has been the site of many auto accidents.
- Do not widen Garden Way, particularly if historic trees have to be removed or if they would be in danger from construction. Keep the current character of the road.

Land Use Changes

- The fact that most land would be high density residential or commercial is good; however, there is not enough commercial land for a neighborhood center. Approximately 8 to 10 acres are needed.
- I am strongly against commercial development in the study area.
- Re-assess the parking per square foot requirements for commercial development. This could ease neighborhood congestion and improve livability by promoting more pedestrian and bicycle traffic. It will also result in additional commercial space.

- Re-designate property from agricultural to residential.
- Changes that are acceptable include allowing the Wylie's property to develop commercially and allowing a small amount of retail to the west of the historic homes, if the development is buffered by a wall and landscaping. Changes that are not acceptable include applying high-density residential zoning on historic homes and any other change that would alter the historic character of the street.

Infrastructure Costs and Frontage Issue

- While reactions varied from no opinion to a strong desire to reduce costs, most people did not react strongly to this issue.
- No issue, cost should be shared.
- Costs will be less of an issue if allowed uses are attracted to the area and developers can build financially viable projects.
- Not concerned with costs. Alternative ways to fund the proposed changes are possible.
- The traffic burden comes from apartment complexes. If city wants to improve the street they should fund it themselves or in cooperation with apartment communities. In addition, local landowners want to find ways to cut the costs associated with road infrastructure. For example, residents should be allowed to plant their own trees and forgo the \$300 per tree cost assessed by the City.

Additional Comments

- Expedite the process; it is too slow. Development could occur by mid-2001 if study is completed quickly.

4. Do you have any development plans for your property, either conceptual or fairly well thought out?

Four of the six respondents expressed interest in a "neighborhood commercial" development; one property owner wants to maintain the current character of their property – a large-lot, historic single family home; while another property owner wants to maintain the commercial business that already exists on his property.

A summary of responses to this question follow:

- Neighborhood commercial is a viable option, based on the narrow north/south configuration of the property and its adjacency to I-5 with attendant noise.
- More neighborhood oriented commercial development is desired and more multi-family residential development is expected.
- Are already building a small amount of commercial to serve area apartment dwellers.
- Plan to preserve the existing historic house.
- Plans to preserve the viability of his existing business.

5. **If you have development plans, please explain what you intend to build on your property. Be as specific as possible and include the approximate number of units, type of development (retail, condos, townhomes, apartments, mixed-use), square footages, and any other details you are willing to share. This information will be kept confidential if requested.**

Only one respondent had a definite development plan. It is a 6,300 square feet of commercial space being built south of Commons Drive and adjacent to the University Commons Apartments. This space could accommodate up to six tenants depending on size of the tenants. The development will include approximately 25 auto parking spaces and additional bicycle parking.

6. **When roughly do you expect to pursue the development?**

The commercial development summarized above should be built in approximately six months (mid-2001). The only other respondent to answer the question stated that they expected to pursue a neighborhood commercial development on their property in the 2002-2005 time frame.

7. **Are there any obstacles that are preventing you from developing your property currently? If so, what are they?**

Only two people responded to this question. The obstacles that they mentioned follow:

- The lack of commercial zoning on the property;
- The realignment of Garden Way; and
- Commercial parking ratios in the area. Although this respondent did not specify what was wrong with the commercial parking ratio, based on a previous answer it appears he would like to see less auto parking.

The remainder of the respondents either did not answer the question or stated that there were no obstacles.

Are there any recommendations you would like to make to the consulting team regarding land use regulations, design standards, or the alignment of Garden Way in the Chase Gardens area?

Garden Way Alignment

With respect to the physical location of Garden Way, two respondents preferred the proposed alignment that splits Garden Way to the south around the White's property; one respondent prefers the current alignment; while another respondent prefers an alignment that

does not place Garden Way through their property. This property owner developed and submitted an alignment alternative to the City of Eugene.

A summary of comments follows.

- Make sure Garden Way provides good access to all properties in the area.
- Transportation is very important. It will impact the value of property and the types of uses that can locate on it. Garden Way needs to be widened to accommodate more through traffic and it needs to be located in a way that can support a neighborhood oriented retail center, which would allow people to walk rather than drive.
- Do not change the appearance and size of Garden Way. Do not add bike paths or other elements that would make the street look like any other urban street in Eugene. The current rural/country appearance of the road is preferred.
- Do not add the medians, dividers, loops that are part of current proposals for Garden Way. These features will not get people to stop using their cars. They will make driving more annoying and possibly will create more conflicts between autos, bikes, and pedestrians.
- Minimize the use of medians on Garden Way to maximize the best use of the land in the area.

Land Use Designations

Recommendations for land use designations varied from general comments about flexibility to specific comments about where certain types of land uses should locate. From the lack of negative comments, most landowners seem to accept that higher density residential development is going to occur in the area. Only one landowner stated they did not like the high-density residential designation on their property, or the presumption that historic homes will one day be razed to accommodate more apartments.

Most property owners also seem accepting of commercial development. Only one respondent stated that no additional commercial development should be allowed in the area, as their commercial property under development would be sufficient for local residents.

A summary of specific comments follows:

- The City needs to ensure there is flexibility in the plan. If the City is interested in seeing development within the urban growth boundary, land use designations should allow development that is attractive to investors.
- High-density residential in the area is good, although there is not enough commercially designated land to support a neighborhood-oriented center. Approximately 8 to 10 acres of land with visibility from Centennial Boulevard are needed for neighborhood-oriented retail development.
- Everything east of the realignment of Garden Way should be designated as Neighborhood Commercial and some commercial should be allowed on Centennial between March Chase

and Garden Way in phase 3 of Chase Village (these comments were not made by the owner of Chase Village).

- A small amount of commercial development to the west of the historic homes is okay if there is an adequate buffer (wall and landscaping) between these uses. Do not place high-density residential on historic properties. Preserve the historic character of the area.
- Do not allow more commercial development in the area. After any realignment of Garden Way, all property west of Garden Way should continue to be residential as it is now.

Design Standards

There were only a handful of comments regarding design standards. Several comments regarding the design of Garden Way are reported above. Other comments included the following:

- Have design standards that make the area pedestrian friendly and that link commercial development with nearby residential development.
- Create design standards that encourage commercial development to look residential. Apparently several new developments in downtown Eugene have been developed in this manner.

DATE: December 3, 2000

TO: SATRE ASSOCIATES, P.C.

FROM: HOBSON FERRARINI ASSOCIATES

SUBJECT: Market and Financing Issues For the Chase Gardens Nodal Development Plan

MEMORANDUM

Hobson Ferrarini Associates has been retained by Satre Associates, P.C. and the City of Eugene to write a brief memorandum regarding financing and market issues for the Chase Gardens Nodal Development Plan.

The goal of the plan is to determine how to transform Chase Gardens into a Neighborhood Center. A Neighborhood Center is a residential area with a mix of commercial uses that serve the day-to-day needs of neighborhood residents, an area with a mix of housing types and densities (duplexes, townhouses, apartments, and detached single family residences), and an area that is bicycle, pedestrian and transit friendly.

The issues raised in this memorandum are based on previous analyses of pedestrian and transit oriented design (TOD) standards being implemented in other jurisdictions. The purpose is to raise these issues early in the process before regulations are enacted that may harm the market and financial viability of desired development.

1. Studies show that people are willing to walk up to mile to shop for certain goods and to reach public transportation. Thus, development of a Neighborhood Center in the Chase Gardens area can contribute to the use of alternative modes of transportation and reduced vehicle miles traveled.
2. The biggest threats to implementing TOD are requirements that make development unfeasible from a market or economic perspective. Common problems include:
 - a. Limiting the number of parking spaces below the level needed to support development. Development with insufficient parking are inconvenient, have less market appeal, command lower rental rates, are more likely to have high vacancy rates, and are more likely to become neglected overtime.
 - b. The following parking ratios are base-line numbers necessary to support development in suburban areas like Chase Gardens currently:
 - Neighborhood Retail Center: 5 spaces per 1,000 s.f. of gross leasable area

- Market Rate Rental Housing: One space per bedroom, or 1.5 to 2.0 spaces per unit depending on the type of units developed (housing targeted to people that own fewer cars - seniors, students, low-income households – can have lower parking ratios)
 - Suburban Office: 4 spaces per 1,000 s.f. of gross leasable area
- c. Any significant variation from these norms should only be considered based on reasonable assumptions regarding travel behavior and density in Chase Gardens now and in the future. Keep in mind that even minor changes to the number of parking spaces implies a relatively large change in travel behavior. For example, dropping the parking ratio from 5 to 4 spaces per 1,000 square feet would decrease the number of parking spaces by 20%. Presumably, the decrease would be offset by a commensurate increase in customers who will walk or choose some other form of transportation to arrive at the shopping center. As a practical matter, high levels of pedestrian and transit usage are only found in very dense areas like downtown Portland and San Francisco.

Table 1
Traffic Patterns and Population Density in Selected Locations

Location	Traffic 1/		Population Density (1/4 Mile)	
	Cars	Pedestrians	Day	Night
Market & 5th at Powell (Downtown San Francisco)	40,000	12,000	10,880	6,995
Washington at 6th (Downtown Portland)	20,000	6,300	13,277	1,097
NW 23rd at Burnside St. (Portland)	40,000	1,350	3,437	1,793
Hall Blvd. And Center Street (Downtown Beaverton)	20,000	227	1,217	711
Murray Blvd. and Scholls Ferry (Beaverton)	30,000	87	125	534

1/ Average daily traffic counts

- d. Other problems associated with TOD are development standards that increase the costs of construction, increase the cost of operating a business, or that limit a businesses' marketability. While small impacts can be acceptable, large ones will probably cause businesses to locate outside the planning area where they can serve the same population and operate more profitably. Examples of problems include the following:
- Higher Construction Costs: Additional landscaping, wider sidewalks, more windows, articulated building elevations, etc. are requirements often associated with TOD that can increase construction costs. While these requirements can make the project more appealing and may allow a developer to charge slightly higher rental rates, the ability to increase rents is limited by competition and prevailing rental rates in the vicinity.

- Operational Issues: TOD standards may require businesses to have two entrances: one off the street and another one at the rear of the building adjacent to the parking lot. To limit theft, retail businesses locating in these buildings would need staff at both entrances, which could increase operating costs significantly, particularly for small businesses that would otherwise require only one staff person to manage the shop.
- Market Issues: TOD standards can require all off-street parking to be located behind buildings where it is not visible. This can result in some customers shopping at competitive businesses where parking is visible and perceived to be more convenient.

Conclusions

1. This report discusses how some land use regulations and design standards, if applied inappropriately, can become an impediment to development and realizing public objectives. Unfortunately, the scope-of-work in the present contract does not allow additional study needed to determine what standards should be applied in the Chase Gardens area to balance the desire for more compact, pedestrian-friendly development and the needs of developers and business owners to be successful.
2. Mixing land uses to allow residents satisfy at least a portion of the shopping needs near home has many benefits including, lowering VMT's and associated pollution, reducing stress on infrastructure, and increasing convenience to consumers.
3. Changes to standard suburban development form can be realized in the Chase Gardens area. Regulations created to implement the change should consider the issues discussed in this report and reflect realistic assumptions about the Chase Gardens area. Overreaching standards that may be appropriate in much more dense areas will not work and may prevent the benefits from mixed-use development from occurring.


KITTELSON & ASSOCIATES, INC.

TRANSPORTATION PLANNING/TRAFFIC ENGINEERING

610 SW ALDER, SUITE 700 • PORTLAND, OR 97205 • (503) 228-5230 • FAX (503) 273-8169

MEMORANDUM

Date: March 7, 2001 **Project #:** 4296.00
To: Rick Satre
 Satre Associates
 132 E. Broadway, Suite 536
 Eugene, OR 97401
From: Dan Seeman, Amos Fernandez
Project: Chase Gardens Nodal Development Master Plan
Subject: Preliminary Traffic Analysis

The purpose of this memorandum is to present the results of a preliminary traffic analysis associated with development of the Chase Gardens subarea in Eugene, Oregon. A consultant team headed by Satre Associates has developed a land use plan which embodies the key features of a nodal development, as is desired for this area by the City of Eugene. The team, in coordination with the City, has developed four alternative transportation networks that could potentially serve the desired land uses. This memorandum presents a preliminary analysis of each of these transportation networks and its ability to accommodate the projected trip generation of the nodal plan. Analysis results presented in this memorandum indicate expected system operation at key intersections, types of intersection controls that would be required, and required cross-sections of the arterial streets in the nodal plan.

This analysis presents the following steps in the transportation analysis:

- Analysis Methodology
- Base Transportation Network
- Description of Land Use Plan and Transportation Alternatives
- Traffic Forecasts
- Level of Service Analysis
- Mitigation Analysis
- Recommendations

Analysis Methodology

The transportation analysis considers the long-range transportation needs associated with development of the Chase Gardens Nodal development plan. Accordingly, the horizon year used for the analysis is year 2020. The plan has a mix of land uses including commercial retail and office, multi-family housing, and single-family historic housing. Given the mix of uses,

combined with traffic operations on the adjacent collector and arterial system, it was decided that the peak traffic volumes on the system occur during a typical weekday p.m. peak hour. Thus, this analysis considers the 2020 weekday p.m. peak hour operations of the Chase Gardens transportation system.

The Lane Council of Governments maintains an emme/2 computer travel forecasting model for the greater City of Eugene. The LCOG model forecasts 2020 weekday p.m. peak hour traffic, assuming a twenty-year build-out level of the Eugene comprehensive plan. Model forecasts were obtained from LCOG for the street system serving the Chase Gardens subarea. Model estimates were tempered for key intersections, based on observed peak hour traffic volumes, using a methodology described in Special Report 255 prepared by the National Cooperative Highway Research Program. The net result of this step was the development of 2020 p.m. peak hour *base case* intersection turning movement volumes at key intersections assuming development of the area in accordance with the current City of Eugene comprehensive plan.

Preliminary analysis of the LCOG forecasts revealed that 2020 model estimates on Garden Way were lower than expected (the section of Garden Way south of I-105 is projected in the model to carry 4,800 vehicles per day in 2020, while we know that this section carries about 5,000 vpd in 2000). Accordingly, it was decided that traffic generated by the nodal development plan would be added to *base case* volumes to estimate future volumes with development of the nodal plan. It was decided that this approach would result in a conservatively high estimate of 2020 traffic volumes. For planning purposes, this approach will provide reasonable 2020 traffic projections upon which general traffic system needs can be predicated.

All operational analyses described in this report were performed in accordance with the procedures stated in the *1997 Highway Capacity Manual* (published by the Institute of Transportation Engineers, 1997). This procedure uses traffic volumes, intersection geometrics, and traffic control characteristics to estimate volume/capacity ratio, average intersection delay, and level of service. These performance measures indicate the expected quality of intersection operations, and were used as a basis for identifying intersection deficiencies and recommendations. For intersections in which a roundabout was considered as a potential traffic control device, the analysis SIDRA was used for operational analysis purposes.

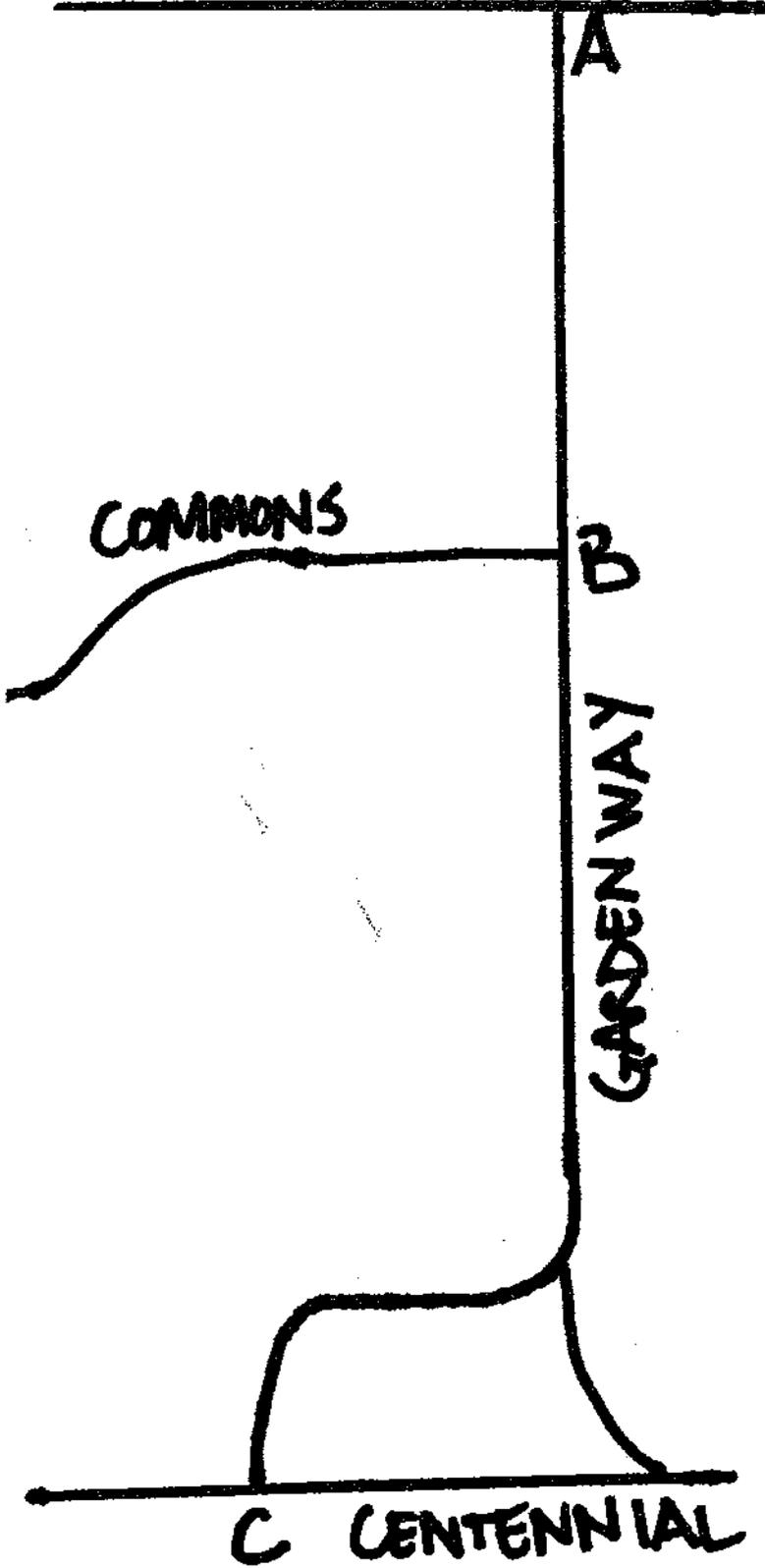
Base Transportation Network

The existing transportation network is shown in Figure 1. The key facilities serving the Chase Gardens subarea are shown in this figure. Characteristics of these key facilities are shown in Table I following.

The key intersections that were analyzed as part of this analysis include:

- Garden Way/Centennial
- Garden Way/Commons Drive
- Garden Way/Harlow

HARLOW



EXISTING SITE

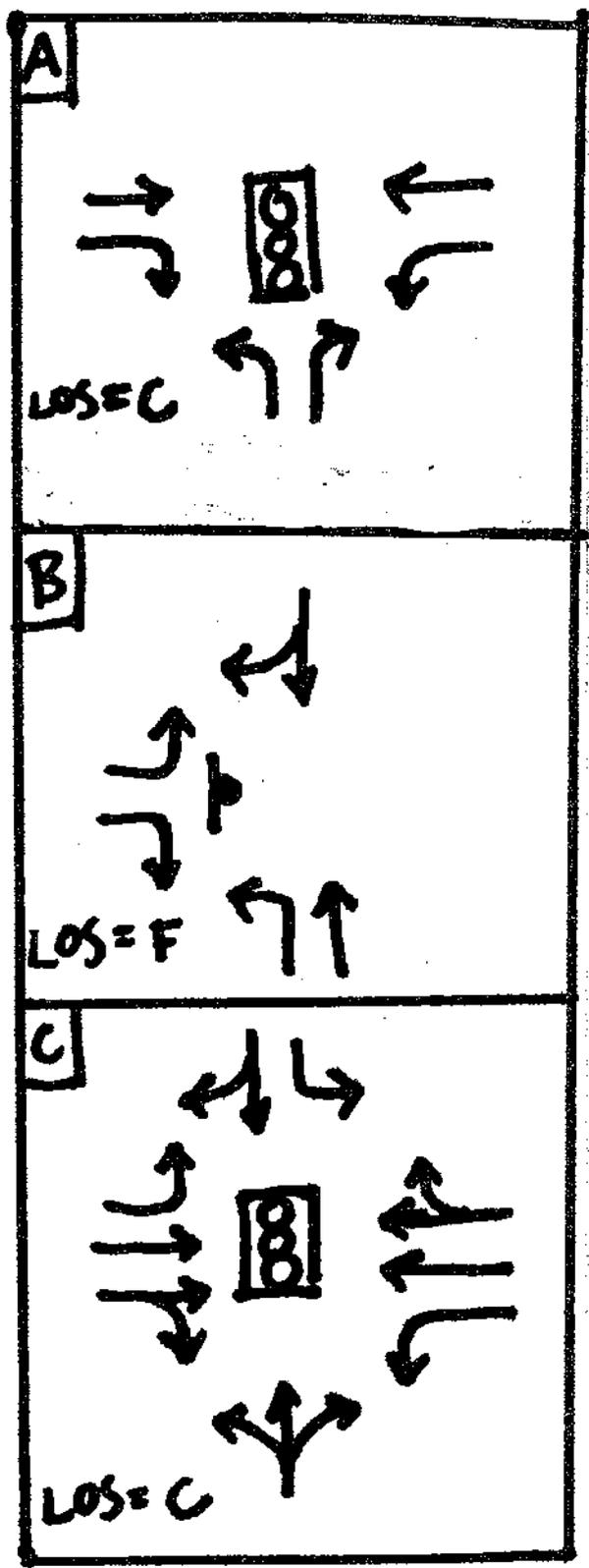


FIGURE 1

In addition to these intersections, key access points into commercial activities from Garden Way for each of the alternative street plans were analyzed.

Table 1: Existing Transportation Facilities

Roadway	Classification	No. of Lanes	Sidewalks?	Bicycle Lanes?	On-Street Parking?
Garden Way	Major Collector	2	No	No	North of I-105
Centennial	Minor Arterial	4/5	Partial	Yes	No
Commons Drive	Neighborhood Collector	2	Yes	Yes	No
Kinsrow	Neighborhood Collector	2	Yes	Yes	Yes
Marche Chase	Collector	2	Partial	No	Yes
Harlow	Minor Arterial	2/3	Yes	No	Yes

Description of Land Use Plan and Transportation Alternatives

Satre Associates developed the preferred land use plan for the Chase Gardens Area, including mixed use residential, retail, and offices. Table 2 shows the projected acres of each land use, and the associated trip generation.

Table 2: Estimated Chase Gardens Trip Generation

LANDUSE	# of UNITS/SIZE	P.M. Peak Hour Trips		
		IN	OUT	TOTAL
Retirement Community	71 Units	11	8	19
High Density Residential Apartments	391 Units	160	80	240
Shopping Center	149,171sf	390	422	812
Specialty Retail	6,300sf	7	9	16
Office	90,953sf	23	112	135
TOTAL		591	631	1222

Table 3 shows the estimated directional distribution of trips generated by the site. Trips generated from within the subarea were broken into six geographic zones and distributed to the surrounding street system based on these proportions.

Table 3: Estimated Chase Gardens Trip Distribution

External Point	Trip Percentage
Centennial west	15%
Centennial east	30%
Centennial south	5%
Kinsrow	15%
Harlow west	15%
Harlow east	20%

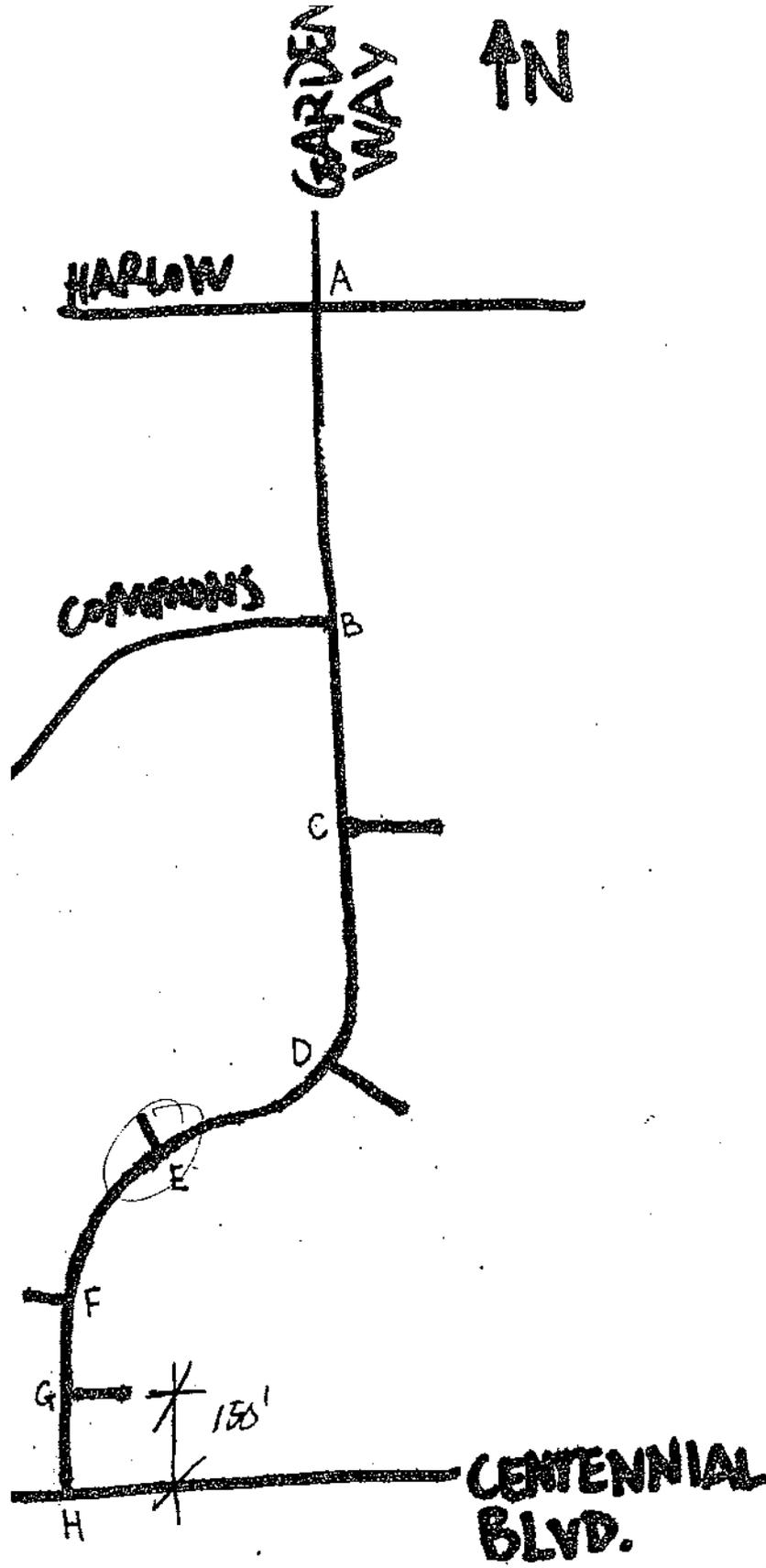
There are four possible transportation alternatives that were evaluated to serve the preferred land use plan. These transportation alternatives have many commonalities. These common characteristics include the following:

- Garden Way serves a continuous function two-lane function to connect Centennial to Harlow.
- Garden Way connects to Centennial at the same signalized intersection as it does currently.
- There are two connections across the Q Street Channel, one at Garden Way and one at Commons Drive.

The transportation network alternatives that were evaluated in this analysis are defined as:

Swoop-swoop: Under this alternative, Garden Way traverses the southernmost portion of the Chase Gardens subarea (between the proposed retail commercial uses and office uses) as a continuous non-stopped roadway, utilizing sweeping 20-25 mph curves (150-160 foot inside radius) to turn from north-south to east-west orientation and then back to north-south. Figure 2 shows a schematic plan of this alternative, along with projected 2020 p.m. peak hour traffic volumes and levels of service.

Stop-Stop: Under this alternative, Garden Way changes directions from its north-south orientation at Centennial to an east-west orientation at a 90-degree stop-controlled intersection, and then returns to a north-south orientation at a second 90-degree stop-controlled intersection. These right-angle stop-controlled intersections serve to slow down traffic within the commercial area of the development. Figure 3 shows a schematic plan of this alternative, along with projected 2020 p.m. peak hour traffic volumes and levels of service.

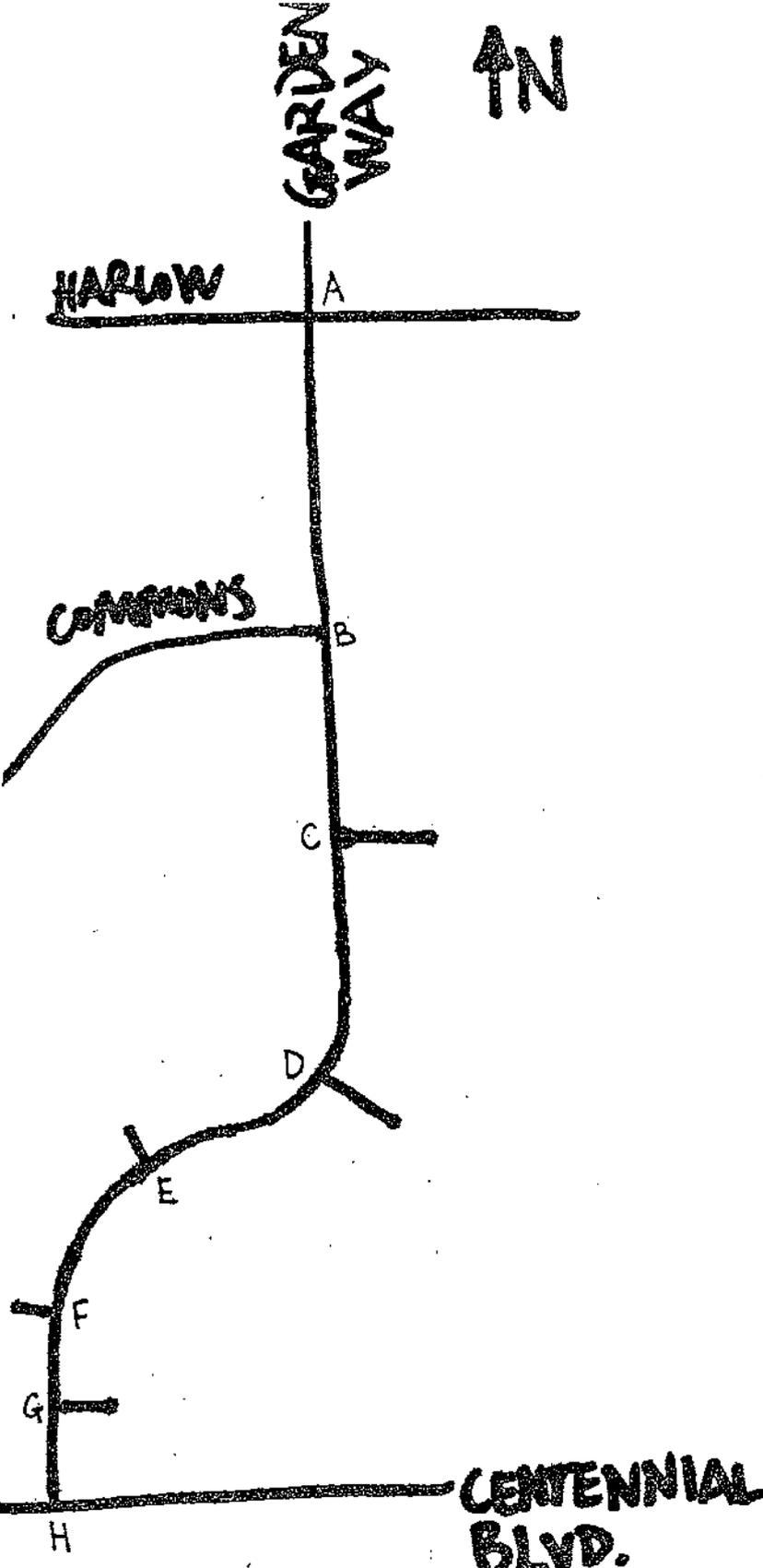


<p>A #1</p> <p>805 580</p> <p>710 515</p> <p>535 620</p> <p>(F)</p> <p>AVE DELAY = 106.9 CRITICAL V/C = 1.243</p>	<p>E #5</p> <p>150 600</p> <p>160 100</p> <p>190 310</p> <p>(F)</p> <p>AVE DELAY = 93.4 CRITICAL V/C = 1.05</p>
<p>B #2</p> <p>350 590</p> <p>415 75</p> <p>70 625</p> <p>(F)</p> <p>AVE DELAY = 984.3 CRITICAL V/C = 3.41</p>	<p>F</p> <p>700</p> <p>100</p> <p>500</p> <p>(C)</p> <p>AVE DELAY = 15.5 CRITICAL V/C = 0.23</p>
<p>C #3</p> <p>660 10</p> <p>40</p> <p>490</p> <p>(C)</p> <p>AVE DELAY = 11.6 CRITICAL V/C = 0.2667</p>	<p>G</p> <p>800</p> <p>500</p> <p>(A)</p> <p>AVE DELAY = 0 CRITICAL V/C = 0</p>
<p>D #4</p> <p>650 10</p> <p>40 95</p> <p>450 20</p> <p>(D)</p> <p>AVE DELAY = 25.5 CRITICAL V/C = 0.416</p>	<p>H #8</p> <p>95 75 495</p> <p>80 1075 25</p> <p>300 670 20</p> <p>25 40 10</p> <p>(C)</p> <p>AVE DELAY = 30.8 CRITICAL V/C = 0.844</p>

2020 FUTURE OBSERVED

ALTERNATIVE = SWOOP - SWOOP

FIGURE 2



<p>A #1</p> <p>905 → 580 →</p> <p>← 700 ← 515</p> <p>525 620</p> <p>(F)</p> <p>AVG DELAY = 106.9 CRITICAL V/C = 1.243</p>	<p>E #14</p> <p>100 ↓ 90 ↓</p> <p>← 85 ← 600</p> <p>↑ 170 ↑ 310</p> <p>(F)</p> <p>AVG DELAY = 53.2 CRITICAL V/C = 1.128</p>
<p>B #2</p> <p>410 530</p> <p>480 ↑ 75 ↓</p> <p>← 70 ↑ 560</p> <p>(F)</p> <p>AVG DELAY = 1012.3 CRITICAL V/C = 3.45</p>	<p>F #6</p> <p>700 ↓</p> <p>100 ↓ b ↓</p> <p>↑ 480</p> <p>(C)</p> <p>AVG DELAY = 15.5 CRITICAL V/C = 0.226</p>
<p>C #3</p> <p>545 ↓ 10 ↓</p> <p>← 40</p> <p>↑ 420</p> <p>(B)</p> <p>AVG DELAY = 11.0 CRITICAL V/C = 0.0626</p>	<p>G #7</p> <p>805 ↓</p> <p>↑ 480</p> <p>(A)</p> <p>AVG DELAY = 0 CRITICAL V/C = 0</p>
<p>D #15</p> <p>585 10</p> <p>380 ↑ 20 ↓</p> <p>← 45 ↑ 40</p> <p>(D)</p> <p>AVG DELAY = 28.1 CRITICAL V/C = 0.885</p>	<p>H #9</p> <p>95 75 495</p> <p>60 ↑ 1075 → 25 ↓</p> <p>← 380 ← 670 ← 20</p> <p>25 40 10</p> <p>(C)</p> <p>AVG DELAY = 30.3 CRITICAL V/C = 0.802</p>

2020 FUTURE OPERATED

ALTERNATIVE = STOP - STOP

FIGURE 3

Swoop-Stop: This alternative is a combination of the two previously described alternatives, with a sweeping curve closest to Centennial followed by a 90-degree stop-controlled intersection to facilitate turning northward. Figure 4 shows a schematic plan of this alternative, along with projected 2020 p.m. peak hour traffic volumes and levels of service.

Stop-Swoop: This alternative is a combination of the first two alternatives, with a 90-degree stop-controlled intersection facilitating Garden Way's turn to the right (heading away from Centennial) and a sweeping curve facilitating its subsequent turn northward. Figure 5 shows a schematic plan of this alternative, along with projected 2020 p.m. peak hour traffic volumes and levels of service.

Traffic Forecasts

As shown in the Figures 2 through 5, traffic volumes are generally fairly similar at most intersections with minor variations. For example, the traffic levels on Garden Way are about 23,000 vpd immediately south of Harlow, and about 11,000 vpd at Centennial (assuming daily traffic volumes are about ten times that of p.m. peak hour volumes). This amounts to an estimated 300 percent increase at Harlow, and slightly more than doubling at Centennial. Traffic on Centennial at Garden Way will be about 19,500 vpd, about 9,500 on Commons Drive, and about 25,000 vpd on Harlow.

The system depends heavily on Garden Way, due to the absence of good north-south arterial/collector spacing: 1 ½ miles each direction.

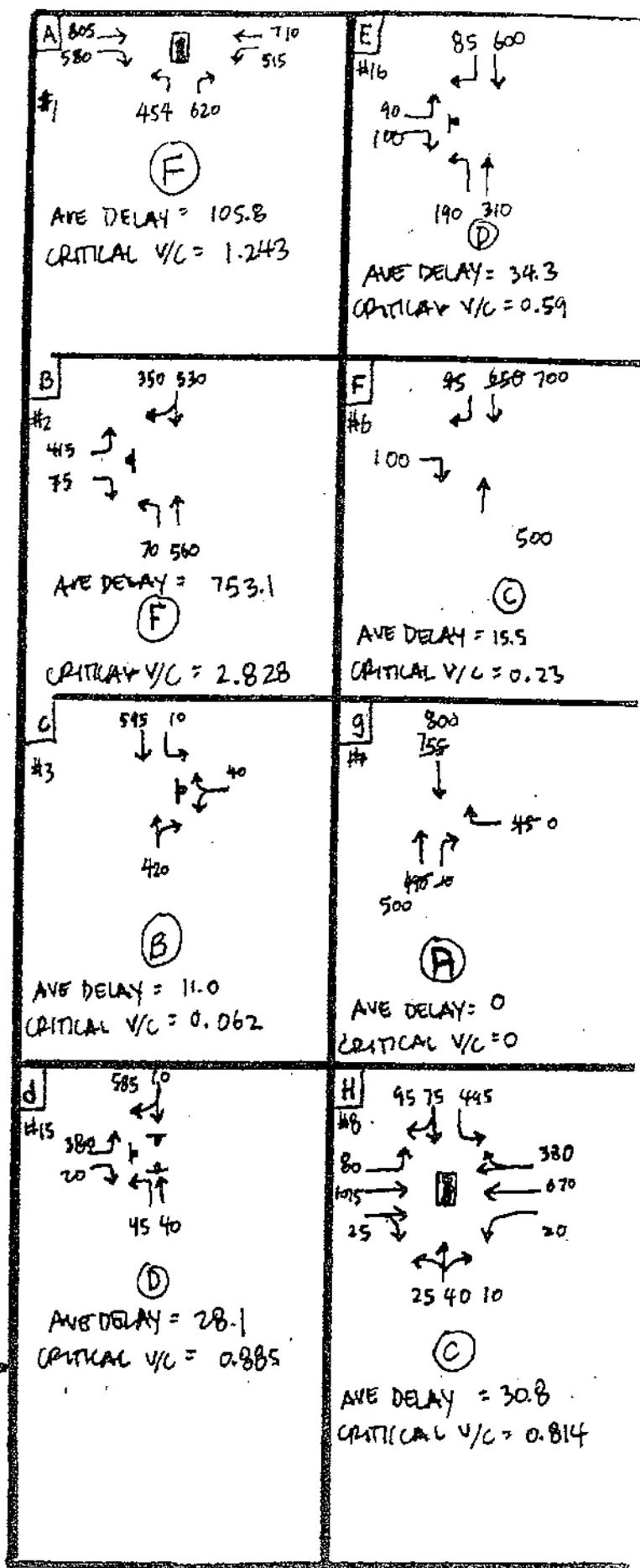
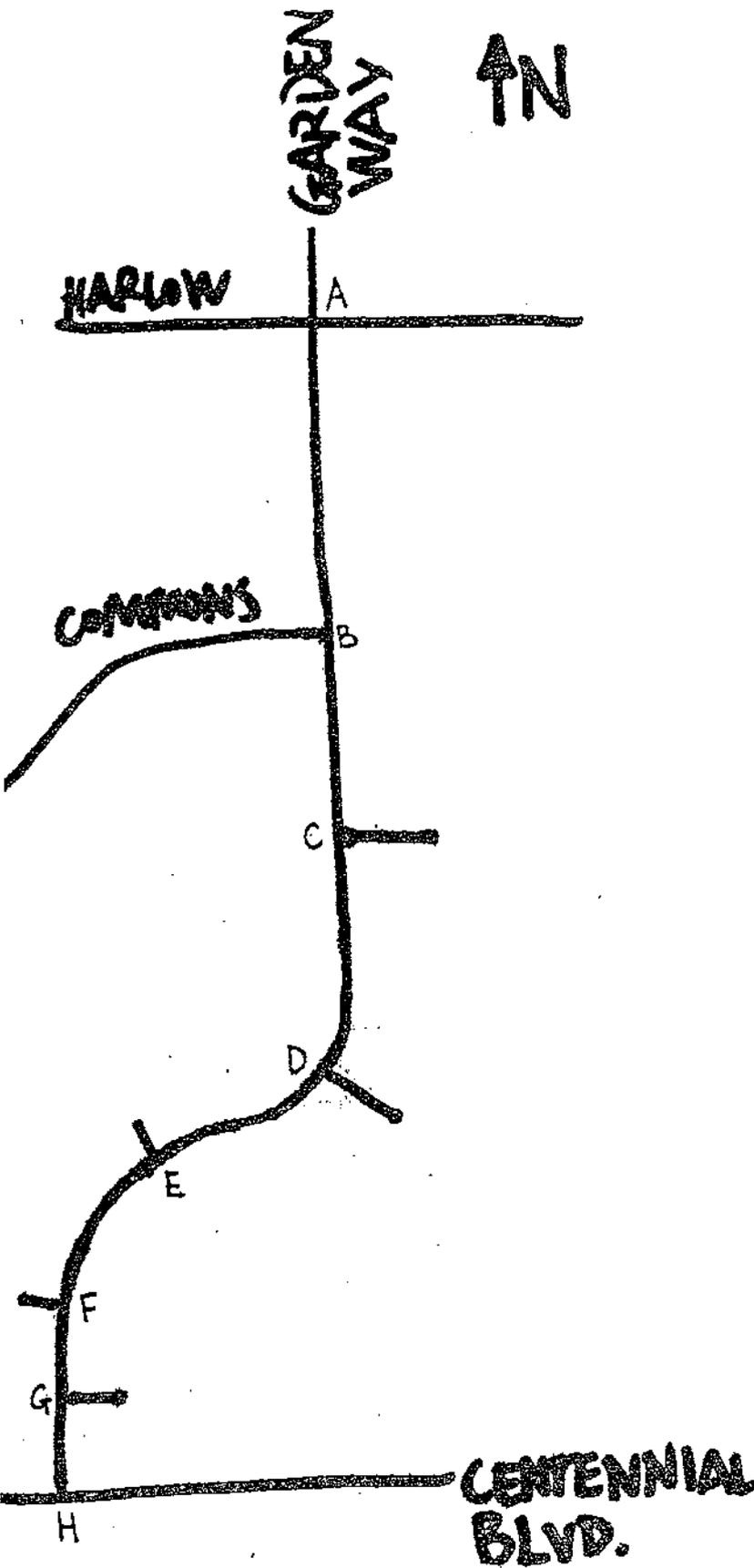
Level of Service Analysis

Level of service analysis was conducted at the key intersections along Garden Way. Eight intersections were analyzed, as described below:

- Garden Way/Harlow (signalized)
- Garden Way/Commons Drive (unsignalized)
- Garden Way/Multi-family Access East
- Garden Way/Office Access South
- Garden Way/Main Retail Access
- Garden Way/Right-in-right-out only Retail Access
- Garden Way/Right-in-right-out only Office Access
- Garden Way/Centennial (signalized)

Only three of the intersections currently exist: at Harlow, Commons Drive and Centennial.

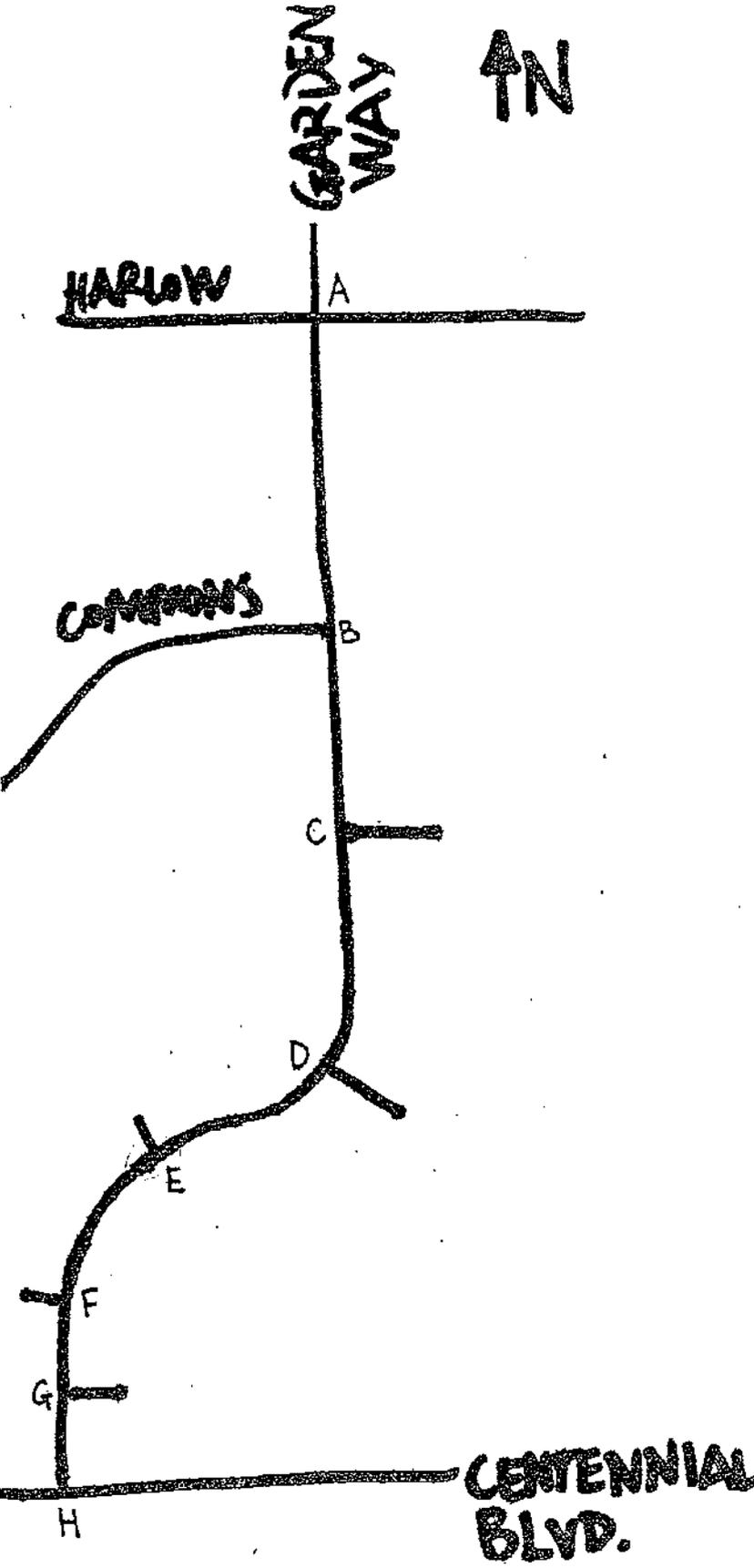
As shown in Figures 2 through 5, there are two intersections in the study area that across all transportation network alternatives will not operate at acceptable levels without mitigation. Under all scenarios, the intersection of Garden Way/Harlow will operate at level of service (LOS) "F" as it is currently configured. The two-lane cross-section on Harlow, combined with a two-lane northbound approach is insufficient to accommodate projected demand at this signalized intersection. To put this into perspective, the Garden Way/Harlow intersection currently serves about 1,900 total entering p.m. peak hour vehicles; this volume is projected to double to 3,800 in the 2020 future. Thus, while an improvement to this intersection is likely to



2020 FUTURE OBSERVED

ALTERNATIVE = SWOOP-STOP

FIGURE 4



<p>A #1</p> <p>805 → 580 →</p> <p>← 710 ← 515</p> <p>← 490 → 620</p> <p>(F)</p> <p>Average Delay = 106.1 Critical V/C = 1.243</p>	<p>E #14</p> <p>↓ 125 ↓ 115 ↑ 600</p> <p>← 190 → 310</p> <p>(F)</p> <p>Ave Delay = 51 CRITICAL V/C = 1.11</p>
<p>B #2</p> <p>350 560 ← ↓</p> <p>415 ↗ 75 ↘</p> <p>← 70 → 595</p> <p>(F)</p> <p>AVERAGE DELAY = 863.4 Critical V/C = 3.11</p>	<p>F #6</p> <p>600 ↓ ↓</p> <p>205 ↘</p> <p>↑ 500</p> <p>(C)</p> <p>Ave Delay = 16.8 CRITICAL V/C = 0.4</p>
<p>C #3</p> <p>625 10 ↓ ↓</p> <p>← 40</p> <p>↑ 455</p> <p>(B)</p> <p>AVERAGE DELAY = 11.3 Critical V/C = 0.06</p>	<p>G #7</p> <p>801 ↓</p> <p>↑ 500</p> <p>(A)</p> <p>Ave Delay = 0 CRITICAL V/C = 0</p>
<p>D #4</p> <p>620 10 ↓ ↓</p> <p>← 40</p> <p>← 95</p> <p>↑ 415 → 50</p> <p>(C)</p> <p>AVERAGE DELAY = 22.9 Critical V/C = 0.379</p>	<p>H #8</p> <p>95 75 495 ← ↓ ↓</p> <p>80 ↗ 1075 ↓ 25 ↓</p> <p>← 380 → ← 670 → ← 20 →</p> <p>↕ 35 40 10</p> <p>(C)</p> <p>Ave Delay = 30.8 CRITICAL V/C = 0.814</p>

2020 FUTURE CORRIDOR

ALTERNATIVE = STOP-SWEEP

FIGURE 5

be needed in the long-range future, it is also likely that this need will not occur for until well into the next decade.

The unsignalized intersection of Garden Way/Commons Drive will also fail (LOS "F") under each of the four scenarios. Again, with traffic volumes at this intersection growing to a level nearly three-times their current levels, traffic entering onto Garden Way from Commons Drive will have an insufficient number of acceptable length gaps in the traffic stream to facilitate projected demand. The following section will present alternative methods of mitigation.

The Garden Way/Main Retail Access intersection is projected to operate at LOS "D" or "F" under any of the scenarios evaluated. The actual level of service is dependent upon the volume of traffic exiting to the left out of the retail center. Based on the volume of through traffic on Garden Way, the p.m. peak hour capacity of this exiting left turn movement is about 150 vehicles per hour. Accordingly, given the highly speculative nature of the development plan, it is difficult to assess whether mitigation (i.e. traffic signal or possibly roundabout) will be needed at this intersection. The City of Eugene should carefully monitor development plans to assess whether a signal may be required. In the event that a traffic signal is installed at this intersection, it should be interconnected with the signal at Centennial. In addition, the signal would facilitate pedestrian movements between the retail and office uses in the Chase Gardens Nodal development area.

The signalized Garden Way/Centennial intersection has sufficient capacity as configured today to accommodate projected 2020 traffic volumes. This intersection will operate at LOS "C" with full development of the Chase Gardens Nodal development plan.

The intersections along Garden Way through its commercial section will generally operate at acceptable levels (LOS "D"). While the swooping intersections will result in less delay and overall a more unimpeded movement for through travelers, the right-angle intersections will slow traffic through this section without unacceptable delays or operations. This assumes that the stop-controlled intersections in this section of Garden Way would be all-way stop controlled. It is important to note that Garden Way is the only north-south street in the Eugene collector-arterial system for approximately 1½ miles in either direction. Therefore, Garden Way is a key component of the Eugene north-south collector-arterial system. Hence, careful consideration should be given by the City of Eugene prior to entertaining the idea of introducing any kind of impedances in the through carrying capacity of this link (i.e. stop controls). On the other hand, from an urban design perspective it may be desirable toward the objective of creating a nodal development with a "main street" to have Garden Way slow down through the commercial area.

Mitigation Analysis

As discussed in the section above, the intersections that will experience capacity deficiencies in the 2020 future with development of the Chase Gardens Nodal development plan include:

- Garden Way/Harlow
- Garden Way/Commons Drive
- Potentially at either of the stop-controlled intersections within the commercial area

Potential mitigations will be discussed for each of these locations in this section.

Garden Way/Harlow: This intersection will operate at LOS "F", with a volume-to-capacity ratio of 1.24. In order to mitigate this deficiency, an additional through lane on Harlow will be needed and a third approach northbound approach lane on Garden Way will also be needed. Given the level of growth projected over the twenty year future at this intersection, these improvements will likely not be needed until the latter half of the planning horizon.

Garden Way/Commons Drive: The inability for eastbound motorists on Commons Drive to turn left onto Garden Way is the key problem at this intersection. Based on the results of the mitigation analysis, there are two potential solutions at this intersection: either installation of a traffic signal or a one-lane roundabout. Each of these potential solutions would operate in the LOS "B" to "C" range. In the case of a roundabout at this location, the 2020 volume-to-capacity ratio would be about 0.90, indicating the need at that point to consider widening the intersection to two lanes within the roundabout. Nevertheless, a single lane roundabout at this location would operate well within acceptable standards for the planning horizon.

Garden Way/Main Retail Access intersection: Given the highly speculative nature of the development plan, it is difficult to assess whether mitigation (i.e. traffic signal or possibly roundabout) will be needed at this intersection. The City of Eugene should carefully monitor development plans to assess whether a signal (or possibly roundabout if space allows) may be required. In the event that a traffic signal is installed at this intersection, it should be interconnected with the signal at Centennial. In addition, the signal would facilitate pedestrian movements between the retail and office uses in the Chase Gardens Nodal development area.

Stop-controlled intersections within the commercial area: Special consideration was given to the operation of intersections that would require the major through movements to stop within the commercial area (intersections D and E), as is called for in either of the "stop" alternatives. The key concern is that, by requiring the through movements to stop, traffic queues and delays may be experienced beyond acceptable tolerance levels. Thus, despite the fact that the level of service analysis indicates an acceptable operation, these intersections should be designed as follows:

- *Through movements should not be stop-controlled.* Given that peak period through movements are in the 600-700 vehicle per hour range, Garden Way movements should be allowed to travel from Centennial to Commons without stopping.
- *Turn radii for through movements should facilitate 25 mph design speeds.* This will reduce delays and assist in smooth-flowing through movements on Garden Way, while maintaining speeds at "main street" levels.

Recommendations

The transportation analysis results in the following recommendations:

- The Garden Way/Harlow signalized intersection will need additional lanes to accommodate 2020 demand. These improvements will likely not be needed until about 2010.
- The Garden Way/Commons Drive unsignalized intersection will need either a traffic signal or roundabout. This need will likely occur within the next five years, depending on

the magnitude and rate of growth in Chase Gardens. This intersection should be monitored to ensure acceptable operations over the near-term future.

- The Garden Way/Main Retail Access intersection may need to be signalized, depending on the magnitude and type of development in the retail center. Given the highly speculative nature of the development plan, it is difficult to assess whether mitigation (i.e. traffic signal or possibly roundabout) will be needed at this intersection. The City of Eugene should carefully monitor development plans to assess whether a signal (or possibly roundabout if space allows) may be required. In the event that a traffic signal is installed at this intersection, it should be interconnected with the signal at Centennial. In addition, the signal would facilitate pedestrian movements between the retail and office uses in the Chase Gardens Nodal development area.
- Under the "stop" alternatives, through movements on Garden Way should not be required to stop. In addition, curb extensions should not be placed on street corners that would impede through movements.
- The Garden Way/Right-in-right-out only Office Access (intersection G) should be located a minimum of 150 feet north of Centennial (inside curb to inside curb) and should be designed with a northbound right-turn deceleration lane. This will help to minimize conflicts with northbound traffic exiting the closely spaced Centennial intersection.
- A crosswalk should be located at the Garden Way/Right-in-right-out only Retail Access (intersection F) to facilitate pedestrian movements across Garden Way from the office to retail uses. In the long-term future, the City may consider providing a pedestrian signal at this location as traffic volumes on Garden Way grow. In the event that a signal is considered at this location, it may also serve vehicular movements in and out of the main shopping center. Any type of signal installed at this location will need to be interconnected with the Garden Way/Centennial traffic signal.

I trust that this analysis will provide assistance to the City of Eugene in determining the appropriate transportation network for the Chase Gardens Nodal development plan. If you have any questions or clarifications regarding this traffic analysis, please don't hesitate to call me at 503-228-5230.