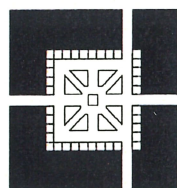


SCAPPOOSE QUICK RESPONSE



*An ODOT / DLCD Quick Response Project
for the City of Scappoose*

September 1998



LENNERTZ COYLE & ASSOCIATES
Architects & Town Planners

KIMLEY HORN & ASSOCIATES
Traffic Engineering

LELAND CONSULTING GROUP
Economics and Marketing

URBSWORKS INC.
Urban Design

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Prepared by Lennertz Coyle & Associates

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Prepared by Urbsworks, Inc.

- Plans, Diagrams, Renderings

Prepared by Lennertz Coyle & Associates

*Quick Response Project
Project Summary*

CITY OF SCAPPOOSE, OR

October 1998

Prepared for:

City of Scappoose, Oregon
Oregon Department of Transportation
Department of Land Conservation and Development Commission

In Cooperation with Leland Consulting Group, Kimley-Horn and
Associates, Inc. and Urbsworks

Prepared by:

Lennertz Coyle & Associates

Scappoose Quick Response Project Summary

Background

Lisa Smith, planner for the City of Scappoose, requested that the Department of Land Conservation and Development provide a consultant team to help the city determine how the City could appropriately design and integrate a park and town center into their community in a manner that would directly influence its future growth.

The Quick Response Program

The Transportation and Growth Management (TGM) Program, a joint effort of the Oregon Department of Transportation (DLCD) and the Oregon Department of Land Conservation and Development (DLCD), has a mission to strengthen the capability of local governments to comply with the Transportation Planning Rule, integrate transportation and land use planning and encourage transportation-efficient land uses which support modal choice and the efficient performance of transportation facilities and services. The Quick Response Program enables municipal agencies such as Scappoose, to use professional consultants to work towards achieving these objectives in their particular cities.

The TGM Division of the DLCD, through its Quick Response Program, selected Lennertz Coyle & Associates and its sub-consultants Leland Consulting Group (real estate marketing and economics), Kimley-Horn & Associates (transportation/traffic), and Urbsworks (urban design), to work with the City of Scappoose to develop a concept and design for a town center and a park. Specifically, the consultant would:

1. Hold an evening public presentation to introduce the project, basic design principles and gauge the community's support for the project.
2. Provide the community with a physical plan, showing proposed public improvements, land uses, design guidelines and other plan components
3. Prepare a circulation concept for the plan
4. Provide a framework and time line for implementation of the plan's components

Work Tasks

Preliminary Research

The Consulting Team toured the City study area and met with City staff on May 8, 1998, consisting of Lisa and the City Manager. With staff assistance, the Team then identified primary and secondary Project goals, objectives and implementation strategies and tasks. The Consultants then determined the base data available and what further research was needed, and the technical, economic, environmental and regulatory concerns and issues confronting the Project.

Finally, the Consultants identified the major travel corridors between major activity centers in the City for cars, bikes and pedestrians, became familiar with site attributes,

City's vision, values, needs and desires, and determined a preliminary schedule of work and events. The Team then gathered base data from the City including tax and zoning codes and maps, an aerial photo, the latest Transportation Systems Plan, utility maps, and wetland/flood plain and other environmental maps.

The Team prepared a regional context map at 400 scale, a site and area analysis at 100 scale including access and existing uses, core areas maps consisting of blow ups of specific areas at 40 scale, and a "neighborhood diagram" of the study area.

On June 22, 1998, the Team provided an evening public presentation of the objectives and process of the Project, and described the basic principles of smart, compact, pedestrian-friendly development.

The Concept Plan Development

The Team reviewed the research and base data, created a SWOT (strengths, weaknesses, opportunities and constraints) graphic site analysis, and designed two concept plans that addressed the land use, transportation, economic and environmental issues. The plans identified proposed transportation improvements such as street and signal improvements that would enhance the development concepts, and evaluated the access impacts for compatibility with ODOT's design and operational standards.

The Team analyzed the two concepts for technical, financial, market and regulatory feasibility, and developed three plan options and phasing for each concept.

The Team presented the two Concept Designs to DLCD and City Staff, including plan options and supporting analysis, and evaluated the plans with them. The review consisted of reviewing the plans' technical, financial and market feasibility, the transportation, traffic and infrastructure feasibility, and the regulatory obstacles.

The Team, City Staff (represented by Lisa Smith) and DLCD (represented by Larry Ksionzyk) selected a preferred concept plan and together determined the additional research and design changes required to create the plan for the next public presentation.

The Team refined the preferred Concept Design, refined the plans, created renderings of street views and other descriptive illustrations, and began to draft design and code guidelines.

Presentation of the Preferred Concept Plan

City staff scheduled a Consultant public presentation on August 5, 1998, that included a presentation of smart growth principles and their application in Scappoose, a presentation of the Concept Plan and plan options that mainly consisted of Highway 30 treatment alternatives. The Consultants reviewed the Project transportation, land uses, design and economics with the public, and summarized the feedback from the

presentation in a follow-up memo.

Preparation of the Draft Schematic Plan

The Consultants prepared a draft Schematic Plan that included a Phase I and Phase II land use and street plans, a circulation diagrams, illustrations, and preliminary design and code guidelines. The draft products consisted of a 100 foot scale illustrative plan, a circulation and parking plan for vehicles, bikes and pedestrians, a schematic regulatory plan based on the City Zoning Map, and color sketches of proposed streetscapes.

Presentation of the Two Schematic Plans

The City arranged a third public event on September 9, 1998, and the Team presented and evaluated the two Schematic Plans. The Consultants reviewed the objectives and issues (transportation, traffic, land uses, design guidelines, economics, potential funding sources, phasing, and recorded and summarized the feedback from the presentation.

Preparation of Final Schematic Plan

The Consultants completed the final Schematic Documents with final revisions and edits by the City and DLCD. The deliverable products consisted of:

1. This Narrative Summary
2. Two colored illustrative plans of demonstration area showing streets, buildings, parking concepts, parks and other public areas, consisting of
 - Phase I Plan, transportation, infrastructure and building improvements that could be funded, at least in part, by available funding sources,
 - Phase II Plan, a redevelopment “ vision that includes land use and market opportunities.
3. Two Phase Plans showing separate vehicle, parking, bike and pedestrian circulation
4. A proposed lot and use (regulatory) plan on the City’s zoning map.
5. 2 color perspectives of street views
6. Recommended building types
7. Design guidelines and general code modification recommendations
8. Development recommendations, rough budgets and potential funding sources (included in the Summary of Economic and Market Issues)
9. Traffic Report (added to Scope)

*Quick Response Project
Summary of Economic and Market Issues*

CITY OF SCAPPOOSE, OR

October 1998

Prepared for:

City of Scappoose, Oregon
Oregon Department of Transportation
Department of Land Conservation and Development Commission

In Cooperation with Lennertz Coyle and Associates

Prepared by:

Leland Consulting Group

Summary of Economic and Market Issues

As part of the project team retained to study downtown Scappoose, Leland Consulting Group examined the economic aspects of planning proposals. To determine the potential for increased business activity in downtown we examined the effects of location, access, traffic speed, current population and projected household growth, projected growth in household income, and current and projected consumer spending,

Demographic Trends

The 1998 estimated population of Scappoose is 4,514 or 1,654 households. The projected population for the year 2003 is 4,982, or 1,838 households. Growth in the five-year period is 468 persons or 184 households. Of all households, around 75 percent are family households both now and in the future projection. Household size remains high at 2.69 persons per household. It is clear that Scappoose is a family-oriented city that is experiencing moderate growth. .

Income and Consumer Spending

Current median household income in Scappoose is approximately \$32,000 per household and median family household income is approximately \$38,000 per household. Five-year projected median household income is approximately \$35,000 per household and median family household income is approximately \$43,000 per household. Aggregate income is expected to grow by \$23 million to \$91 million for the whole city, an increase of almost 34 percent. Taking only the growth in income, approximately 45 percent or \$10.3 million is likely to be spent on consumer goods. This level of spending will support around 51,000 square feet of new space at annual sales of \$200 per square foot.

Past spending patterns show that a large proportion of spending by residents took place outside of Scappoose. The addition of Fred Meyer to the local economy captures a large amount of local spending that used to go elsewhere. A single Fred Meyer can achieve \$35 million in sales by itself and, as a competitive operation, makes it difficult to propose similar uses within the same market.

The desire to create a vital, main-street style of development will rely on small independent businesses that do not compete directly with Fred Meyer and can appeal to local needs and the needs of drive-by traffic on US 30. A major difficulty currently is not a lack of disposable income, but the way that retail works on US 30 and the current configuration, visibility and access to business on US 30. These issues are discussed in the two following sections.

Retail Streets and Traffic

Retail sales depend upon surrounding market and drive-by traffic *that can see the business*. When traffic moves at high speed, as on the freeway, signs need to be large enough to be seen at a distance. A car at 60 miles per hour travels 88 feet in one second. A storefront 30 feet wide seen at sixty miles per hour will be seen for less than half of a second, leaving little time for a

customer to see it, read signage and decide to slow down and park. A storefront seen at 30 miles per hour is seen only for a second. For this reason, traffic controls that would encourage traffic to slow down through the center of Scappoose was seen as critical to the mission of encouraging business. At the same time, it is important that drivers are able to see where to turn or stop for access to businesses. This is the reason that intersections in the plan are being re-defined and emphasized.

Location and Access

Main streets that are successful have several attributes. First, as discussed above, traffic moves at a rate of speed allowing individual storefronts good visibility to drivers. Second, almost all examples of thriving retail streets have two sides - retail on both sides of the street. Because of the highway, this is not possible currently in Scappoose. It was recommended that the plan find a way to create a second retail frontage visible from the highway and supported by improved pedestrian and automobile access across the highway. Further, it was recommended that this second frontage include elements and access visible from a distance to encourage drivers to slow, turn and visit the businesses. The plan incorporates these recommendations by creating a new street adjoining to the east of the railway right-of-way.

The Plan

The plan created by Lennertz Coyle and Associates addresses the issues above. Street improvements on US 30 strengthen connections across US 30. A second retail street is shown which will have visibility and access from the highway. Street improvements and landscaping have been added to strengthen pedestrian access. Finally, the improvements are designed to slow traffic without actually removing capacity.

Leland Consulting Group
 Portland, Oregon
 1998 Consumer Spending Patterns (Page 1 of 3)
 Claritas Inc.
 Sales (888)231-4237
 Study area name: Scappoose

10-JUL-98
 Support (800)780-4237

	Annual Average Household	---- Weekly Expenditures ---- Aggregate	Per Capita	Average Household	Market Index
	-----	-----	-----	-----	-----
Grocery & Other Misc. Exp.:					

Total Food Exp.	7071.70	224935	50.24	135.99	1.05
Food At Home	4469.94	142178	31.76	85.96	1.10

Cereal Products	185.17	5890	1.32	3.56	1.10
Bakery Products	386.05	12279	2.74	7.42	1.07
Beef	417.74	13287	2.97	8.03	1.06
Pork	176.91	5627	1.26	3.40	0.92
Other Meats	138.65	4410	0.99	2.67	1.04
Poultry	207.21	6591	1.47	3.98	0.97
Fish and Seafood	85.11	2707	0.60	1.64	1.01
Eggs (Incl. Substitutes)	55.40	1762	0.39	1.07	1.16
Dairy Products	481.12	15303	3.42	9.25	1.17
Fresh Fruits	201.71	6416	1.43	3.88	1.15
Processed Fruits	120.93	3846	0.86	2.33	1.08
Fresh Vegetables	497.89	15837	3.54	9.57	1.16
Processed Vegetables	80.18	2550	0.57	1.54	1.01
Sugar & Other Sweets	212.95	6774	1.51	4.10	1.18
Fats & Oils	109.14	3471	0.78	2.10	1.13
Nonalcoholic Beverages	462.52	14712	3.29	8.89	1.11
Prepared Foods	582.03	18513	4.14	11.19	1.19
Food Purchased/Prepared on Trips	69.24	2202	0.49	1.33	1.14
Food Away from Home:	2601.77	82756	18.48	50.03	0.98

Other Misc. Expenses:					

Alcoholic Beverages	430.00	13677	3.06	8.27	1.01
Smoking Products & Supp.	339.59	10802	2.41	6.53	0.92
Personal Care Prod/Svcs	706.79	22481	5.02	13.59	1.02
Nonprescription Drugs	165.96	5279	1.18	3.19	1.12
Housekeep/Garden Supply	618.03	19658	4.39	11.89	1.04

The data contained on this page of Consumer Spending (CSP) are derived using information from the "Diary Portion" of the Consumer Expenditure Survey (CES), which is conducted by the Bureau of Labor statistics with the assistance of the Bureau of the Census.

The "Per Capita" data presented on this page is the weekly "Aggregate" divided by the total household population for the area. The "Average Household" is the weekly aggregate divided by the total number of households. The "Annual Average Household Expenditure" is the weekly aggregate multiplied by 52 (weeks in a year) and divided by the number of households.

The "Market Index" (on this page) is the ratio of the weekly average households expenditures (WAHE) for the geography for which the report is being produced, compared to the "WAHE" for U.S. Total.

1998 estimates produced by Claritas Inc.

Leland Consulting Group
 Portland, Oregon
 Study area name: Scappoose

1998 Consumer Spending Patterns (Page 2 of 3)
 Claritas Inc.
 Sales (888)231-4237

10-JUL-98
 Support (800)780-4237

	---- Annual Expenditures ---			Weekly	Market
	Aggregate	Per	Average	Average	Index
	(\$000s)	Capita	Household	Household	
	-----	-----	-----	-----	-----
Food and Drink:					

Food at Home	7393	1651	4470	85.96	1.10
Food Away from Home	4303	961	2602	50.03	0.98
Alcoholic Beverages	711	159	430	8.27	1.01
Misc Personal Items:					

Smoking Prods/Supplies	562	125	340	6.53	0.92
Personal Care Services	483	108	292	5.61	0.95
Household Equip and Services:					

Household Textiles	253	57	153	2.94	1.01
Furniture	834	186	504	9.70	0.93
Floor Coverings	242	54	146	2.81	0.98
Major Appliances	372	83	225	4.32	1.02
Small Appliance/Housewr	244	55	148	2.84	1.07
Misc Household Equipment	1007	225	609	11.71	1.01
Domestic Services	906	202	548	10.54	1.05
Other Household Expenses	201	45	121	2.33	1.03
Apparel:					

Women's Apparel	1289	288	779	14.99	0.93
Men's Apparel	701	157	424	8.15	0.89
Girls' Apparel	146	33	88	1.69	0.99
Boys' Apparel	183	41	111	2.13	0.98
Infants' Apparel	151	34	91	1.76	1.02
Footwear	587	131	355	6.83	0.98
Other Apparel Prods/Svc	508	114	307	5.91	0.90
Entertainment:					

Fees & Admissions	1066	238	645	12.40	1.03
TV, Radio & Sound Equip	1298	290	785	15.09	1.07
Other Entertain. Equip.	1611	360	974	18.73	1.21
Reading Materials	543	121	328	6.31	0.95
Shelter And Related Expenses:					

Home/Relat Insur. (Owner)	398	89	241	4.63	1.03
Maintn/Repr Srvs (Owner)	1643	367	993	19.10	1.04
Maintn/Repr Supp (Owner)	561	125	339	6.52	1.15
Other Owned Dwell Exps.	170	38	103	1.98	1.83
Rented Dwelling Expenses	3510	784	2122	40.81	1.11
Other Lodging Expenses	1431	320	865	16.64	0.89
Fuels/Utilities/Pub Srvc	3570	797	2159	41.51	0.89

1998 estimates produced by Claritas Inc.

Leland Consulting Group
 Portland, Oregon
 Study area name: Scappoose

1998 Consumer Spending Patterns (Page 3 of 3)
 Claritas Inc.
 Sales (888)231-4237

10-JUL-98
 Support (800)780-4237

	---- Annual Expenditures ---			Weekly	Market
	Aggregate	Per	Average	Average	Index
	(\$000s)	Capita	Household	Household	
	-----	-----	-----	-----	-----
Transportation Expenses:					

New Autos/Trucks/Vans	1881	420	1137	21.87	0.81
Used Autos(Incl Tradein)	975	218	590	11.34	1.04
Other Vehicles	742	166	449	8.63	1.46
Vehicle Finance Charges	508	114	307	5.91	0.89
Gasoline & Motor Oil	2609	583	1577	30.34	1.05
Automotive Maintain/Repr	2995	669	1811	34.82	1.14
Vehicle Insurance	1234	276	746	14.35	1.11
Public Transportation	856	191	517	9.95	0.95
Rented Vehicles	234	52	141	2.72	0.85
Health Care:					

Health Insurance	1278	285	773	14.86	0.98
Medical Services	1804	403	1091	20.98	0.93
Prescription Drugs/Meds	365	82	221	4.25	0.62
Miscellaneous Items:					

Life/Personal Insurance	982	219	594	11.42	0.78
Education	947	212	573	11.01	0.92

The data contained on pages 2 and 3 of Consumer Spending patterns are derived using information from the "interview" portion of the consumer expenditure survey (CES). Due to differences in the diary and interview surveys of the CES, expenditure categories such as "Food at Home", appearing on page 1, may contain data different from the same category on page 2 or 3.

For pages 2 and 3, the "Weekly Average Household Expenditure" is obtained by dividing the "Annual Average Household Expenditure" by 52. The "Annual Aggregate" is used to obtain the "Per Capita" and the "Average Household" data by dividing the aggregate by the corresponding total household population and total households, respectively. Each market index value shown on pages 2 and 3 is the ratio of the Annual Average Household Expenditures (AAHE) for the geography for which this report is being produced, compared to the "AAHE" for the U.S.

1998 estimates produced by Claritas Inc.

Study area name: Scappoose

Household Trend Report

	1980 Census	1990 Census	% Chg 80-90	1998 (Est.)	% Chg 90-98	2003 (Proj.)	% Chg 98-03
Universe							
Population....	3128	3529	12.8	4514	27.9	4982	10.4
Households....	1121	1281	14.3	1654	29.1	1838	11.1
Families.....	885	978	10.5	1243	27.1	1368	10.1
Housing Units.	1177	1317	11.9	1697	28.9	1885	11.1
Grp Qrt. Pop..	31	37	19.4	37	0.0	37	0.0
Household Size	2.76	2.73	-1.3	2.71	-0.7	2.69	-0.6
	1979 (Census)	1989 (Census)	% Chg 79-89	1998 (Est.)	% Chg 89-98	2003 (Proj.)	% Chg 98-03
Income							
Aggregate (\$MM)	23	41	77.2	68	65.8	91	33.9
Per Capita....	7437	11680	57.1	15142	29.6	18376	21.4
Avg. Household	20039	32009	59.7	40906	27.8	49213	20.3
Median Hhold..	18750	27188	45.0	31920	17.4	34808	9.0
Avg. Family HH	22760	35883	57.7	45691	27.3	54477	19.2
Med. Family HH	21447	32438	51.2	38438	18.5	42872	11.5
Avg. HH Wealth				118156		134239	13.6
Med. HH Wealth				59157		66433	12.3

Household Income	Households	
	1990 Census	1998 Estimate
Total.....	1281	1654
Less than \$5,000.....	63	62
\$5,000 to \$9,999.....	122	124
\$10,000 to \$14,999.....	142	168
\$15,000 to \$19,999.....	160	133
\$20,000 to \$24,999.....	94	173
\$25,000 to \$29,999.....	119	124
\$30,000 to \$34,999.....	108	89
\$35,000 to \$39,999.....	73	117
\$40,000 to \$44,999.....	57	107
\$45,000 to \$49,999.....	98	66
\$50,000 to \$59,999.....	112	157
\$60,000 to \$74,999.....	74	143
\$75,000 to \$99,999.....	38	123
\$100,000 to \$124,999.....	14	34
\$125,000 to \$149,999.....	0	19
\$150,000 to \$249,999.....	7	8
\$250,000 to \$499,999.....	0	7
\$500,000 or More.....	0	0

NOTE: When the median household wealth for an area is less than \$25,000 it will be listed on this report as \$24,999.

Data on income are expressed in "current" dollars for each year.
 Decennial Census data reflects prior year income.
 1998 estimates and 2003 projections produced by Claritas Inc.
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*Quick Response Project
Traffic Report*

CITY OF SCAPPOOSE, OR

October 1998

Prepared for:

City of Scappoose, Oregon
Oregon Department of Transportation
Department of Land Conservation and Development Commission

In Cooperation with Lennertz Coyle and Associates

Prepared by:

Kimley-Horn and Associates, Inc.



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INTRODUCTION

Kimley-Horn and Associates, Inc. provided traffic and transportation expertise in connection with the Scappoose Quick Response Project. The project focused on the land use and transportation improvements in the area along West 1st Street, and parts of Highway 30 and Columbia Avenue in the City of Scappoose. This report summarizes the results of the traffic evaluations and recommendations made by Kimley-Horn.

TRANSPORTATION SYSTEM PLAN REVIEW

A review of the December, 1997, Scappoose Transportation System Plan was conducted. Issues such as existing and future traffic conditions, planned projects, and project timing were reviewed. Below is a brief summary of transportation projects and implementation timing that affect the Quick Response study area.

Planned Projects

The TSP contains 65 projects for the Scappoose area. Fourteen of the projects have a direct impact on the Quick Response study area. They are listed below:

1. Traffic signal modifications along Highway 30.
2. Traffic signal coordination along Highway 30.
3. Install bike lanes on Maple Street.
4. Provide curb, gutter, and sidewalks along both sides of Maple Street.
5. Provide a pedestrian refuge island on Highway 30 at the intersection of Williams Street.
6. Widen and realign J.P. West Road between Highway 30 and West First Street.
7. Upgrade West First Street from Maple to J.P. West.
8. Upgrade West First Street from J.P. West to Columbia.
9. Upgrade West First Street from Columbia to Williams.
10. Upgrade West First Street from Williams to E.J. Smith.
11. Widen Columbia Avenue between Highway 30 and West Lane Road
12. Construct Williams Street between Highway 30 and West First Street.
13. Install and new traffic signal at Highway 30 and Williams Street.
14. Construct Wheeler Street between Scappoose-Vernonia Highway and Fifth Street.

Project Timing

Projects #1 through #6 are considered short-term projects to be completed by the end of the year 2002. Projects #7 through #13 are intermediate-range projects to be completed by the end of the year 2007. Project #14 is a long-range project to be completed sometime before the year 2017.

DESIGN ISSUES

Several transportation design issues were identified during site visits or during public meetings, they include highway access, business accessibility, speeding, high traffic volumes, safety, and pedestrian/bicycle mobility. The following summarizes these issues.



Highway Access

The Oregon Department of Transportation has jurisdiction over Highway 30. As such, they are concerned over the appropriate level of direct access to the highway. Highway 30 is considered a Primary Highway by ODOT, due to its connections between the Portland metro area and Astoria. Highway 30 represents a large financial investment by ODOT, and like with other state highways, ODOT has goals and objectives to preserve the operation and safety of the roadway.

The TSP identified several access management strategies for Highway 30 that support ODOT goals. These strategies are intended to enhance mobility and increase safety by limiting the number of traffic conflicts on the highway. The strategies include a recommended 150 foot spacing between right-in-/right-out business. Full access to businesses and multi-unit residential units should be 300 feet.

Although this is desirable, it may not be achievable. Block lengths along Highway 30 are only 200 feet. Thus, it is difficult to meet the recommendation and still have any access to the highway (except for existing side streets). It may be more realistic to try to consolidate driveways or encourage access from the side streets off of Highway 30.

Currently, only the intersections of Highway 30/Maple and Highway 30/Columbia in the study area have traffic signals. Much of the city traffic using the highway passes through these intersections. Other side streets connect to the highway, but during peak periods it is difficult to turn left onto the highway. Columbia Street is only one-way westbound between Highway 30 and West 1st.

The TSP includes a project to connect Williams Street between Highway 30 and West 1st Street and to install a traffic signal at the Highway 30/Williams intersection.

Business Accessibility

Nearly all of the land uses along Highway 30 are businesses that rely on the highway to provide access. As part of this project, each business (including residential) driveway was identified on an aerial photograph to determine specific access needs and on-site traffic circulation. It was noted that most of the businesses such as the Post Office, insurance agency, and credit union are destination related. People travel to these locations for a specific type of business. As a result, minor inconveniences regarding access to the site do not affect a person's choice of whether to go there or not. On the other hand, a few of the businesses are more impulse related such as the gas station, car wash, and drive through espresso stand. These businesses rely heavily on convenient access or people will drive past to another similar business.

West 1st has a mix of businesses and residential uses; however, all the businesses were destination related and would not be expected to be affected by minor inconveniences regarding access.



It was recognized that any changes to access in the study are would need to be tailored to the specific needs of the businesses to ensure that they would not be economically harmed.

Speeding

Speeding was a prime concern by residents on Highway 30 and on West 1st Street. The speed limit on Highway 30 through the study area is 35 mph; however, many vehicles were observed to travel at speeds closer to 45 mph. West 1st Street is a minor collector street with a speed of 25 mph. Like on the highway, drivers frequently disregard the speed limit and drive over the posted speed.

It was noted that one of the reasons that drivers fail to slow down on Highway 30 is that there are few visual indications to inform the driver that they are in the center of town and should slow down. The highway is straight, wide, looks like other parts of the highway where the posted speed limit is 45 mph or higher. West 1st Street also lacks features that encourage drivers to obey the speed limits.

Increased enforcement was contemplated but was not considered to be a long-term solution to the speeding problems on Highway 30 and West 1st Street. To be effective, the roadways need to be geometrically modified to cause drivers to choose to drive more slowly, without the need for costly police enforcement.

Traffic Volumes

Highway 30 is the most busily traveled roadway in the city with about 2,000 passing through the study area during the PM peak hour. Over time these volumes will continue to increase as the city and surrounding areas increase in population and employment.

Other streets including West 1st and Columbia may also experience increased traffic according to projections contained in the TSP. Traffic levels of West 1st will also be affected when the Williams Street connection is completed. This will allow some city traffic a more direct access to the highway.

General traffic projections from the TSP were analyzed to determine approximate levels of operation for the signalized intersections in the study area. Volume to capacity ratios and vehicle queuing were noted and later used when preparing recommendations.

Safety

Accident data along Highway 30 was reviewed. According to the 1997 State Highway Accident Rate Tables prepared by ODOT, the accident rates along Highway 30 in Scappoose are below the statewide average for similar highways. Although the highway does not have a high accident rate, city residents commented on frequent near-miss accidents.



Pedestrian safety was an issue raised during public meetings, particularly in crossing Highway 30 and walking along West 1st Street.

Pedestrian and Bicycle Mobility

Most of the study area has sidewalks adjacent to the streets, thus providing generally good levels of pedestrian mobility. However, the west side of West 1st Street does not have sidewalk that meets typical urban standards. Highway 30 poses the greatest barrier to pedestrian mobility because of the speeds, width, and lack of frequent traffic signals on the highway.

Highway 30 is the only roadway in the study area that has exclusive bike lanes. The remainder of the streets operate as shared facilities, where bikes share the same travel lanes as the auto traffic. Speeds and traffic volumes are low on these streets which generally allows for safe movement of bikes.

PHASE 1 PLAN

Based upon an evaluation of the street system and public comments, street improvement strategies were developed. These strategies were discussed at public meetings and were refined into implementation recommendations. The recommendations corresponded to the Phase 1 and the Phase 2 land use recommendations. The land use recommendations are discussed in a separate report.

Most of the improvement recommendations are part of Phase 1. They include the following and are listed in the order of recommended implementation:

- Williams Street connection and traffic signal
- Columbia Avenue conversion to two-way operation
- Intermittent landscaped medians on Highway 30
- Street trees
- Enhanced pedestrian crossings across the highway
- West 1st Street and Columbia Avenue upgrade
- Traffic calming features on West 1st

Williams Street Connection and Traffic Signal

One of the most important projects to be completed is the Williams Street connection and traffic signal. This project addresses many of the identified needs, including increased access to Highway 30 and nearby businesses, improved pedestrian and bicycle crossing of Highway 30. This project is already in the TSP

Columbia Avenue Conversion to Two-Way Operation

Parking should be removed from Columbia Avenue (between West 1st and Highway 30) to allow the street to carry eastbound traffic. The traffic signal will also need to be modified to match the new street change. This project is also in the current TSP and will provide further enhancement



to crossing and access to the highway. It is not recommended that the west leg of the intersection be realigned because of the right-of-way impact to the existing businesses.

Intermittent Landscaped Medians on Highway 30

Once the Williams connection and the Columbia improvements described above are completed, medians should be installed on Highway 30. These medians vary in length depending on the specific access needs of adjacent properties. In general, the medians are short near the center of the study area and increase in length near the edges of the study area.

The medians should be irrigated and landscaped with street trees. Trees in the median should be columnar in shape to prevent them from being damaged by large trucks on the highway. Pavers or low maintenance ground cover should also be considered to reduce long-term maintenance costs.

Because of the short block lengths and the need to meet ODOT design standards for left turn lanes, some of the medians will block unsignalized side streets along Highway 30. At these locations, vehicles will be permitted to turn right in and right out of the side street. Under this design, every block along Highway 30 will still have direct access to the highway. At the approval of staff from ODOT's preliminary Design Unit, left turn taper ratios were assumed to be 8:1. Left turn pocket lengths were based on the queuing analysis performed discussed earlier.

The medians will serve two basic functions: they will create an identifiable center of town and they will create a narrower look for the highway. Both will help encourage motorists to slow down as they pass through town.

Enhanced Pedestrian Crossings Across the Highway

Pavers or textured pavement should be installed at intersections along Highway 30 in the study area. The pavers help identify pedestrian crossing locations and would be expected to increase the safety of persons crossing the highway.

Street Trees

Additional street trees should be planted along the west side of Highway 30 as well as on most of the other streets in the study area. Diagrams of the tree planting locations are included in the land use plans. Many of the trees will need to be located in tree wells depending on the specific location.

Some of the street tree improvements cannot be completed until the upgrade of West 1st and Columbia is completed.

West 1st Street and Columbia Avenue Upgrade

Improvements to West 1st and Columbia are included in the current TSP. They should be modified to include the street tree planting discussed previously. The upgrades, coupled with the street tree projects will significantly enhance the pedestrian system and encourage walking in the study area.



Traffic Calming Features on West 1st

During the urban upgrade of West 1st, traffic calming improvement should be added to the project. This would include curb extensions at the intersections to reduce pedestrian crossing distances and slow traffic. Other mid-block curb extensions should be considered and could serve as a location to plant street trees. On-street parking can be maintained.

Small traffic circles are recommended at the intersections of West 1st/Maple, West 1st/Columbia, and West 1st/Williams.

PHASE 2 PLAN

The Phase 2 plan adds more infill development in the study area. In response, more street tree and roadway improvements are needed along Front Street.

FUNDING

Funding for the project may come from several locations, including federal, state, and local sources. Given the current limited resources of the city and ODOT, it is recommended that the city look for federal funding for much of the project. The most logical source may be Federal Enhancement Funds. These funds require a local match in but can be used to benefit pedestrians and cyclists. Much of the project could likely qualify if it is adequately planned when the funds become available.

Following this study, the city should develop preliminary engineering for implementing the project and identify local matching funds (roughly 20%). The city should contact ODOT to determine when application for the funds can be made.



APPENDIX

INTERSECTION = 3 SCENARIO = 1

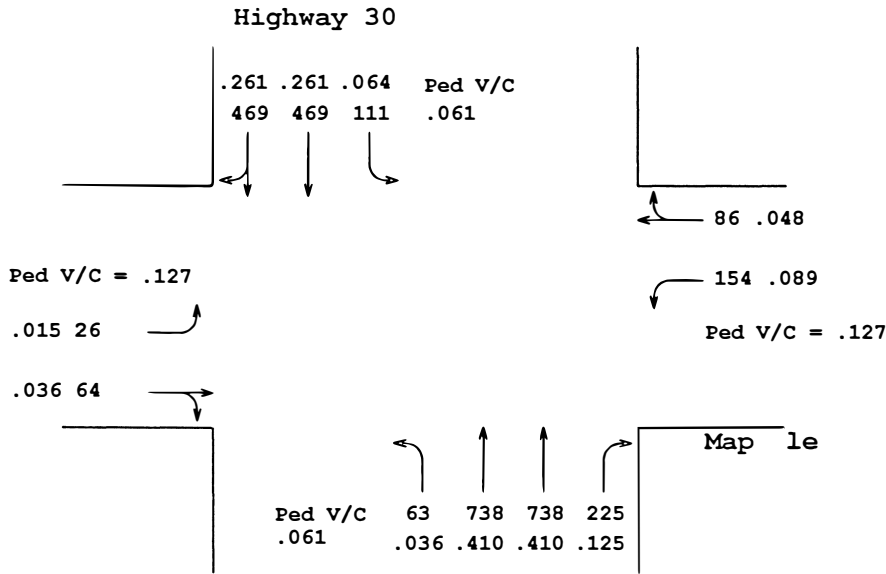
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PROJECT: Scappoose
 File: c:\tempfile
 CITY: Scappoose
 DESCRIPTION: 20 Year Volumes

ANALYST: J. West
 PEAK HOUR: PM
 POPULATION: Fewer Than 20,000

INTERSECTION LOS = C-D
 SATURATION = 70%

C= 120 G=108 Y= 12



N-S V/C = .474
 E-W V/C = .127
 TOTAL AMBER = .100
 MINIMUM V/C = .050

XXX = Adjusted Volumes .XXX = V/C

APPR	MOVMENT VOLUMES				MOVE SATURATION			MOVEMENT LOS		
	L	T	R	TOT	L	T	R	L	T	R
SOUTH	60	1406	214	1680	54%	70%	28%	B	C-D	A
NORTH	106	864	30	1000	70%	47%	47%	C-D	A	A
WEST	26	10	54	90	70%	27%	27%	C-D	A	A
EAST	154	10	76	240	70%	33%	33%	C-D	A	A

APPR	TRUCKS %	PED DIST	LANE WIDTH	PHASING	
SOUTH	10.0%	84ft	12.ft	N-S -LEFT TURNS PROTECTED WITH OVERLAP	
NORTH	10.0%	72ft	12.ft		
WEST	2.0%	36ft	12.ft	E-W -LEFT TURNS NOT PROTECTED	
EAST	2.0%	36ft	12.ft		

LEG	LEG VOL AT LOS C	APPR	TIME AVAIL (sec)			RED TIME (sec)			MOVE STORAGE (ft)		
			L	T	R	L	T	R	L	T	R
SOUTH	2837	SOUTH	9.0	73.6	73.6	107.0	42.4	42.4	97	475	145
NORTH	2585	NORTH	11.5	76.1	76.1	104.5	39.9	39.9	168	286	286
WEST	196	WEST	22.9	22.9	22.9	93.1	93.1	93.1	35	86	86
EAST	588	EAST	22.9	22.9	22.9	93.1	93.1	93.1	208	116	116

INTERSECTION = 2 SCENARIO = 1

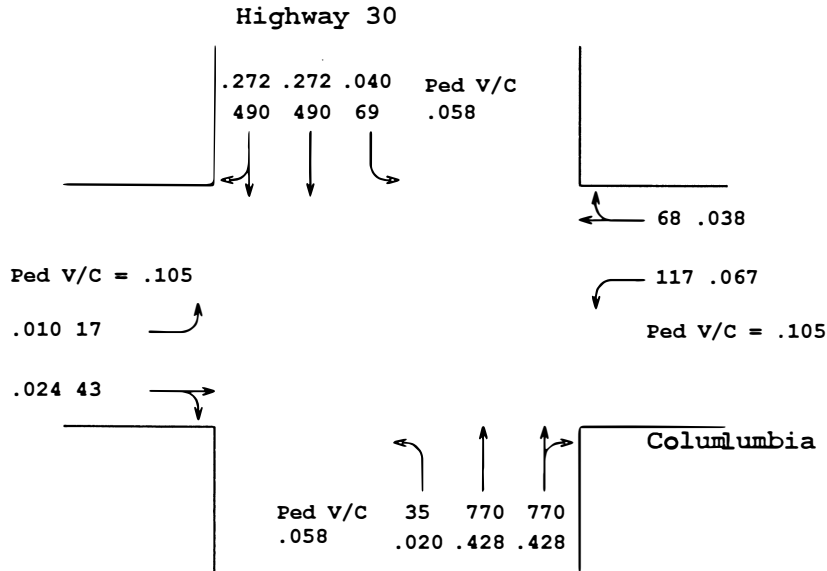
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PROJECT: Scappoose
 File: c:\tempfile
 CITY: Scappoose
 DESCRIPTION: 20 Year Volumes

ANALYST: J. West
 PEAK HOUR: PM
 POPULATION: Fewer Than 20,000

INTERSECTION LOS = C
 SATURATION = 68%

C= 120 G=108 Y= 12



N-S V/C = .478
 E-W V/C = .105
 TOTAL AMBER = .100
 MINIMUM V/C = .050

XXX = Adjusted Volumes .XXX = V/C

APPR	MOVMENT VOLUMES				MOVE SATURATION			MOVEMENT LOS		
	L	T	R	TOT	L	T	R	L	T	R
SOUTH	33	1333	134	1500	33%	68%	68%	A	C	C
NORTH	66	917	17	1000	56%	47%	47%	B	A	A
WEST	17	10	33	60	68%	23%	23%	C	A	A
EAST	117	10	58	185	68%	31%	31%	C	A	A

APPR	TRUCKS %	PED DIST	LANE WIDTH	PHASING
SOUTH	10.0%	72ft	12.ft	N-S -LEFT TURNS PROTECTED WITH OVERLAP
NORTH	10.0%	72ft	12.ft	
WEST	2.0%	36ft	12.ft	E-W -LEFT TURNS NOT PROTECTED
EAST	2.0%	36ft	12.ft	

LEG	LEG VOL AT LOS C	APPR	TIME AVAIL(sec)			RED TIME(sec)			MOVE STORAGE(ft)		
			L	T	R	L	T	R	L	T	R
SOUTH	2729	SOUTH	9.3	79.2	79.2	106.7	36.8	36.8	53	436	436
NORTH	2560	NORTH	9.3	79.2	79.2	106.7	36.8	36.8	107	278	278
WEST	128	WEST	19.5	19.5	19.5	96.5	96.5	96.5	24	60	60
EAST	420	EAST	19.5	19.5	19.5	96.5	96.5	96.5	163	95	95

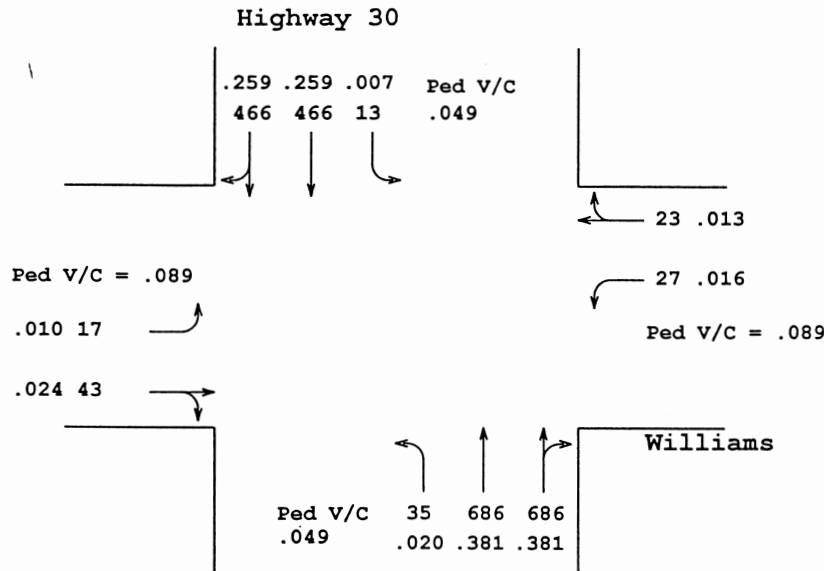
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 File: c:\tempfile
 CITY: Scappoose
 DESCRIPTION: 20 year volumes

ANALYST: J. West
 PEAK HOUR: PM
 POPULATION: Fewer Than 20,000

INTERSECTION LOS = C
 SATURATION = 62%

C= 120 G=108 Y= 12



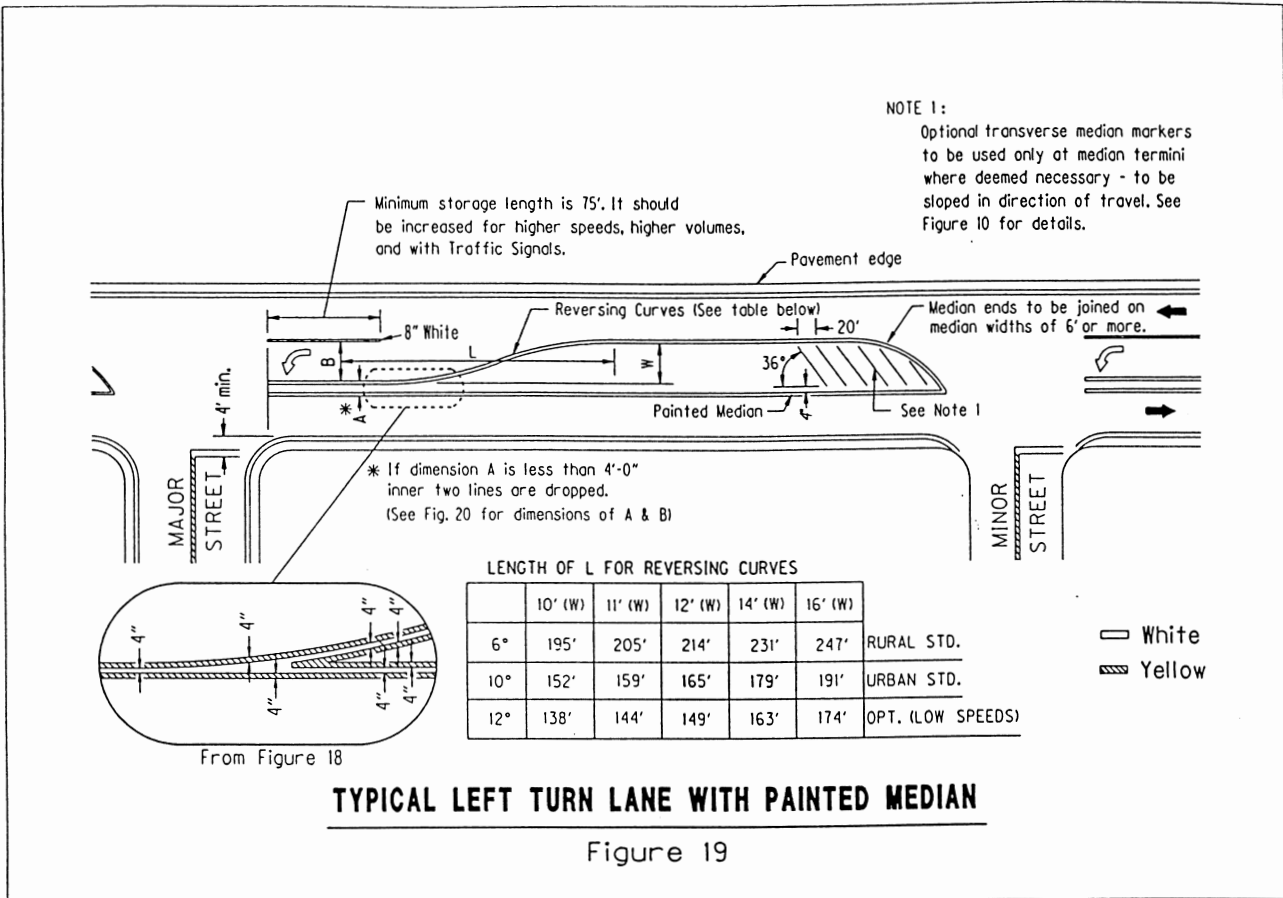
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 E-W V/C = .089
 TOTAL AMBER = .100
 MINIMUM V/C = .050

XXX = Adjusted Volumes .XXX = V/C

APPR	MOVMENT VOLUMES				MOVE SATURATION			MOVEMENT LOS		
	L	T	R	TOT	L	T	R	L	T	R
SOUTH	33	1280	27	1340	31%	62%	62%	A	C	C
NORTH	12	871	17	900	18%	45%	45%	A	A	A
WEST	17	10	33	60	62%	24%	24%	C	A	A
EAST	27	10	13	50	62%	17%	17%	C	A	A

APPR	TRUCKS %	PED DIST	LANE WIDTH	PHASING
SOUTH	10.0%	72ft	12.ft	N-S -LEFT TURNS PROTECTED WITH OVERLAP
NORTH	10.0%	72ft	12.ft	
WEST	2.0%	36ft	12.ft	E-W -LEFT TURNS NOT PROTECTED
EAST	2.0%	36ft	12.ft	

LEG	LEG VOL AT LOS C	TIME AVAIL(sec)			RED TIME(sec)			MOVE STORAGE(ft)			
		APPR	L	T	R	L	T	R	L	T	R
SOUTH	2706	SOUTH	10.4	79.1	79.1	105.6	36.9	36.9	53	390	390
NORTH	2633	NORTH	10.4	79.1	79.1	105.6	36.9	36.9	19	265	265
WEST	143	WEST	18.5	18.5	18.5	97.5	97.5	97.5	24	61	61
EAST	118	EAST	18.5	18.5	18.5	97.5	97.5	97.5	38	32	32



TLMANUAL.DGN 9-13-96 VER#FIG9

MIN TAPER (AS PER DAVE WHEARCH)
 B=1
 α 96-112' PER
 12-14' MEDIANS

COMPARATIVE ACCIDENT RATES BY JURISDICTION

1997

The importance of rate comparisons in relation to components of the State Highway System is shown by the rates in Table IV. Accident rates tend to increase with population density, as shown below.

TABLE IV
RATE COMPARISON BY JURISDICTION

Description	Miles*	Vehicle-Miles*	Acc.*	FATALS*	Rate**	
					Acc.	Fatal
STATE HWY SYSTEM	7,493.00	19,376,530,561	21,443	304	1.11	1.57
Urban	709.67	6,481,606,572	13,518	63	2.09	0.97
Freeways	127.05	3,295,737,768	2,307	10	0.70	0.30
Non-Freeways	582.62	3,185,868,804	11,211	53	3.52	1.66
Suburban	171.63	2,199,997,452	1,868	22	0.85	1.00
Freeways	59.26	1,430,631,780	389	4	0.27	0.28
Non-Freeways	112.37	769,365,672	1,479	18	1.92	2.34
Rural	6,611.70	10,694,926,537	6,057	219	0.57	2.05
Freeways	572.84	4,105,183,734	860	32	0.21	0.78
Non-Freeways	6,038.86	6,589,742,803	5,197	187	0.79	2.84
PRIMARY HIGHWAYS	4,959.93	16,549,838,350	17,274	237	1.04	1.43
Urban	517.53	5,486,176,781	11,383	52	2.07	0.95
Freeways	112.78	2,935,570,710	2,032	10	0.69	0.34
Non-Freeways	404.75	2,550,606,071	9,351	42	3.67	1.65
Suburban	129.38	1,915,587,270	1,419	17	0.74	0.89
Freeways	57.47	1,367,385,516	379	4	0.28	0.29
Non-Freeways	71.91	548,201,754	1,040	13	1.90	2.37
Rural	4,313.02	9,148,074,299	4,472	168	0.49	1.84
Freeways	572.84	4,105,183,734	860	32	0.21	0.78
Non-Freeways	3,740.18	5,042,890,565	3,612	136	0.72	2.70
SECONDARY HIGHWAY	2,533.07	2,826,692,211	4,169	67	1.47	2.37
Urban	192.14	995,429,791	2,135	11	2.14	1.11
Freeways	14.27	360,167,058	275	0	0.76	0.00
Non-Freeways	177.87	635,262,733	1,860	11	2.93	1.73
Suburban	42.25	284,410,182	449	5	1.58	1.76
Freeways	1.79	63,246,264	10	0	0.16	0.00
Non-Freeways	40.46	221,163,918	439	5	1.98	2.26
Rural	2,298.68	1,546,852,238	1,585	51	1.02	3.30
Freeways						
Non-Freeways	2,298.68	1,546,852,238	1,585	51	1.02	3.30

* Data is not included for frontage roads, ramps and connections

** Accident rates per one million vehicle-miles.

Fatal rates per 100 million vehicle-miles.

START M.P.	SECTION DESCRIPTION	1997		ACCIDENTS PER MILLION VEHICLE MILES				
		MILES	ACC ADT	1997	1996	1995	1994	1993
PORTLAND								
0.95	JCT STADIUM FWY HWY 61 TO END STRUCTURE	.52	2 68,200	.15			.31	.25
1.47	END STRUCTURE TO NW SUFFOLK ST	.58	16 44,746	1.68	2.13	1.80	1.82	1.67
2.05	NW SUFFOLK ST TO NW 29TH AVE	.63	22 40,750	2.34	1.18	1.53	.96	1.93
2.68	NW 29TH AVE TO PORTLAND TERMINAL RR X-ING	.66	7 31,666	.91	.92	.74	.40	1.45
3.34	PORTLAND TERMINAL RR X-ING TO NW KITTRIDGE AVE	.58	9 28,800	1.47	2.48	1.97	1.15	2.46
3.92	NW KITTRIDGE AVE TO NW 64TH AVE	1.19	8 31,929	.57	.73	.66	.53	.95
5.50	NW 64TH AVE TO ST JOHN BR /US30 BY-PASS	.91	5 27,600	.54	.88	.67	.95	.64
6.41	ST JOHNS BR /US30 BY-PASS TO WCL	3.25	17 23,534	.60	.80	.59	.55	.63
	TOTAL - PORTLAND	8.32	86 31,765	.89	.97	.80	.72	1.00
PORTLAND TO SCAPPOOSE								
9.66	PORTLAND TO SAUVIES ISLAND ROAD	1.17	2 21,109	.22	.45	.35	.35	.85
10.83	SAUVIES ISLAND ROAD TO CORNELIUS PASS ROAD	2.39	8 17,927	.51	1.16	.39	.39	.94
13.22	CORNELIUS PASS ROAD TO COLUMBIA COUNTY	5.15	8 20,174	.21	.29	.21	.16	.13
18.37	COLUMBIA COUNTY TO SCAPPOOSE	.96	4 21,931	.52	.39	.94	.81	.53
	TOTAL - PORTLAND TO SCAPPOOSE	9.67	22 19,906	.31	.52	.35	.31	.47
SCAPPOOSE								
19.35	SCL TO COLUMBIA AVE	1.56	23 22,879	1.76	1.24	1.27	1.75	1.58
20.91	COLUMBIA AVE TO NCL	.39	5 23,407	1.50	.91	2.81	1.92	.67
	TOTAL - SCAPPOOSE	1.95	28 22,984	1.71	1.18	1.58	1.78	1.37
SCAPPOOSE TO ST HELENS								
21.30	SCAPPOOSE TO OLD PORTLAND ROAD	3.70	9 20,814	.32	.25	.51	.22	.28
25.00	OLD PORTLAND ROAD TO CHURCH ROAD	.48	2 19,700	.57	2.06	.60	.92	.31
25.48	CHURCH ROAD TO ST HELENS	2.11	15 17,457	1.11	1.96	.92	1.00	.55
	TOTAL - SCAPPOOSE TO ST HELENS	6.29	26 19,602	.57	.90	.64	.50	.37
ST HELENS								
27.59	SCL TO COLUMBIA BLVD	.97	15 18,520	2.28	5.90	4.61	3.53	3.75
28.56	COLUMBIA BLVD TO N VERNONIA ROAD	.54	12 16,900	3.60	3.65	1.86	2.17	1.69
	TOTAL - ST HELENS	1.51	27 17,940	2.73	5.14	3.68	3.07	3.01
ST HELENS TO COLUMBIA CITY								
29.10	VERNONIA ROAD TO COLUMBIA CITY	1.36	8 13,308	1.21	.61	.31	.47	.54
	TOTAL - ST HELENS TO COLUMBIA CITY	1.36	8 13,308	1.21	.61	.31	.47	.54
COLUMBIA CITY								
30.44	COLUMBIA CITY	1.54	5 11,144	.79	.48	.30	.45	.50
	TOTAL - COLUMBIA CITY	1.54	5 11,144	.79	.48	.30	.45	.50
COLUMBIA CITY TO RAINIER								
32.00	COLUMBIA CITY TO JAQUISH ROAD	7.91	8 7,870	.35	.44	.40	.17	.39
39.91	JAQUISH ROAD TO NICOLAI ROAD	.56	6 7,100	4.13		2.79	.69	.80

Design Standards

City of Scappoose

Design Standards

Lennertz Coyle & Associates
Urbsworks, Inc.
Leland Consulting Group
Kimley Horn & Associates

This chapter prepared by:

Urbsworks, Inc.
4 November 1998

urbsworks

I. DESIGN STANDARDS FOR ALL DISTRICTS: COLUMBIA AVENUE, HIGHWAY 30 AND WEST FIRST STREET

A. Nonconforming Buildings and Site Design

1. Expansion or Redevelopment. For developed properties which do not meet the requirements of these design standards, any building or site alterations on the property must be brought into compliance based on the following:



Scappoose sign on Highway 30

2. Applicability. The provisions of this section shall apply to building or site alterations which exceed the thresholds as described below:

a) The proposed improvements exceed 30% of the assessed value of all improvement on the property, including sites with multiple tenants; or



Highway 30

b) The proposed alterations exceed \$10,000.

3. Limit of Required Improvements. The design standards on the following pages must be met for the entire property. However, required improvements costing over 10% of the value of the proposed alterations do not have to be made. It is the responsibility of the applicant to document that the value of the required improvements exceed 10% of the value of the building and/or site alterations.



West First Street

4. Required Standards. Alterations to developed properties shall be brought into compliance with these design standards. When all required improvements are not being made, they shall be provided in the following order of priority:

a) Surface parking perimeter parking and screening

b) Design of parking

c) Storefront design



Scappoose historic building

B. Parking

1. Location of Parking

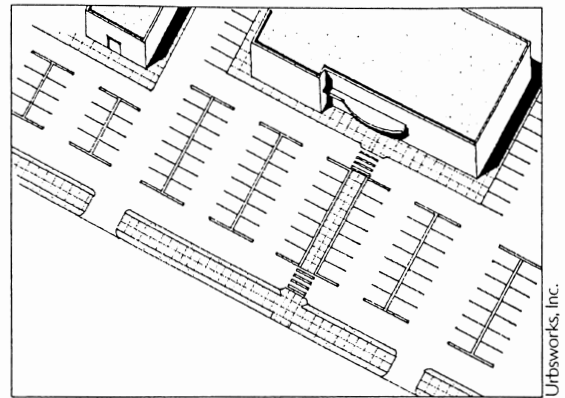
- a) Off-street surface parking lots shall be located to the side or rear of buildings. Parking at mid-block or behind buildings is preferred. When this is not possible, carefully designed perimeter screening and planting shall be required, complying with design standards for Surface Parking Perimeter Screening and Planting.
- b) Off street surface parking lots shall not be located between a front facade of a building adjacent to a public street, and the public street.

Guideline (not a required standard)

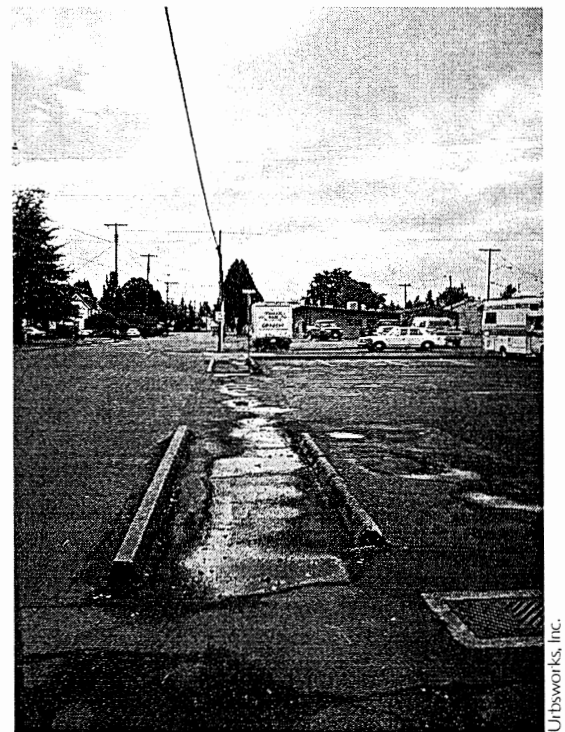
Parking lots and garages should not be located within 20 feet of a street corner.

2. Design of Parking

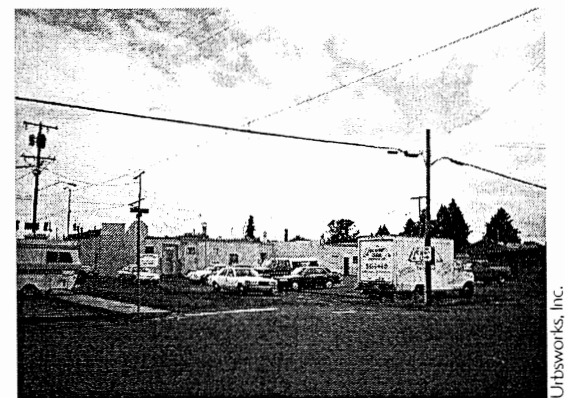
- a) Off-street surface parking areas shall be designed to be as unobtrusive, and as attractive in appearance, as possible.
- b) Angled or perpendicular parking spaces shall provide, where needed, extruded curbs (tire stops) or widened curbs to prevent bumper overhang into landscape areas or walkways.
- c) Landscaping shall be installed within planting bays, and in any other area where parking stalls, circulation aisles, driveways, or pedestrian movements would not be precluded by the landscaping. Landscaping around and within surface parking areas shall equal 10% of the total area of the parking area.
- d) Trees shall be used extensively at the perimeter and in the interior of surface parking lots to break up large parking areas and provide shade.
- e) Accessways through surface parking lots shall be clearly identifiable through use of different paving materials, pavement markings, grade separation, or landscaping, well lighted, and as short as practicable.
- f) Surface parking lot vehicular accessways shall not 20 feet in width, and, where possible, shall not be within 15 feet of a corner.



Undesirable parking design

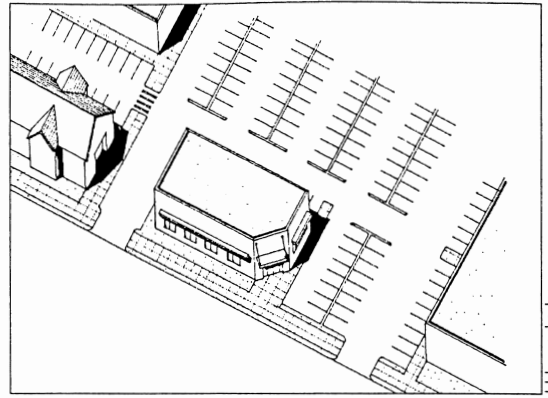


Pedestrian-unfriendly parking lot on West First Street



Lack of separation between parking lot and sidewalk, West First Street

- g) Landscaping shall be installed within planting bays, and in any other area where parking stalls, circulation aisles, driveways, or
- h) Pedestrian movements shall not be precluded by the landscaping. Landscaping around and within surface parking areas shall equal 10% of the total area of the parking area.
- i) Parking associated with new development shall be designed to the extent practicable to connect with auto parking areas on adjacent sites to eliminate the necessity of utilizing the pedestrian street for parallel movements.

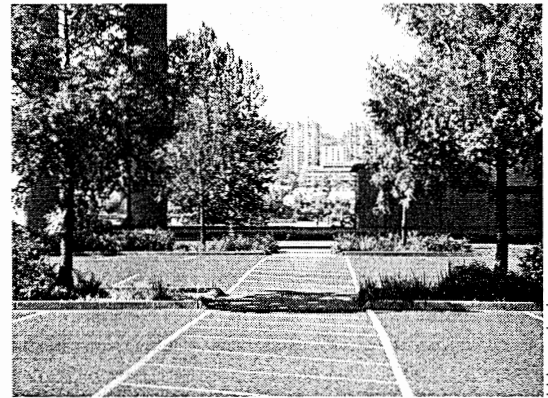


Urbsworks, Inc.

Desirable parking design

E. Surface Parking Perimeter Screening and Planting

- 1 Surface parking areas shall provide perimeter parking lot landscaping adjacent to a pedestrian street which meets one of the following standards:
 - a) A 5 foot wide planting strip between the right-of-way and the parking area. The planting strip may be pierced by pedestrian-accessible and vehicular accessways. Planting strips shall be planted with an evergreen hedge. Hedges shall be no less than 36 inches or more than 42 inches in height at maturity. Hedges and other landscaping shall be planted and maintained to afford adequate sight distance for vehicles exiting the parking lot.



Urbsworks, Inc.

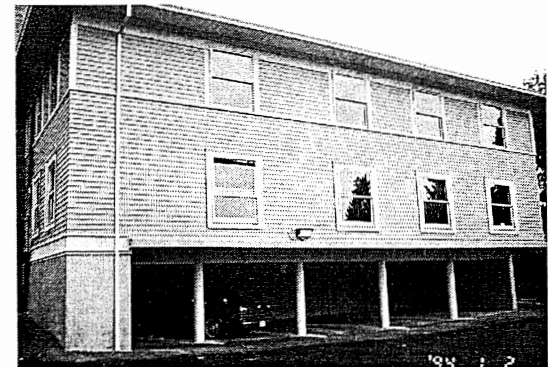
Desirable parking design

- b) A solid decorative wall or fence 36 inches to 42 inches in height parallel to and not nearer than 2 feet from the right-of-way line. The area between the wall or fence and the pedestrian street line shall be landscaped. The required wall or screening shall be designed to allow for access to the site and sidewalk by pedestrians and shall be constructed and maintained to afford adequate sight distance as described above for vehicles exiting the parking lot.



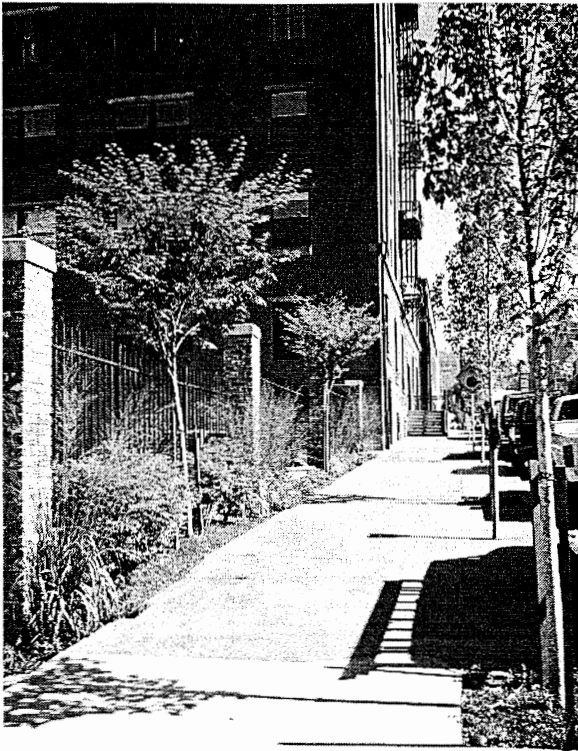
Urbsworks, Inc.

- c) A transparent screen or grille 48 inches to 72 inches in height parallel to the right-of-way line. A 2 foot minimum planting strip shall be located either inside the screen, or between the screen and the right-of-way. The plant strip shall be planted with a hedge or other landscaping. Hedges shall be no less than 36 inches or more that 42 inches in height at maturity. Other landscaping shall be no less that 36 inches and shall not be so high that it becomes a safety or security problem.



Urbsworks, Inc.

Locate parking to the side and rear of buildings



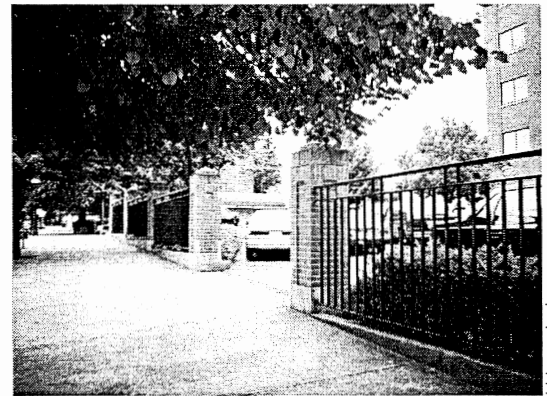
Urbsworks, Inc.

Desirable parking design



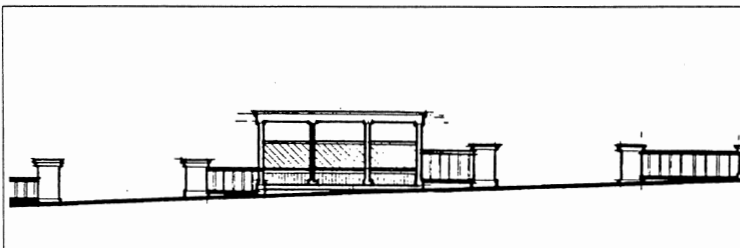
Urbsworks, Inc.

Desirable parking design



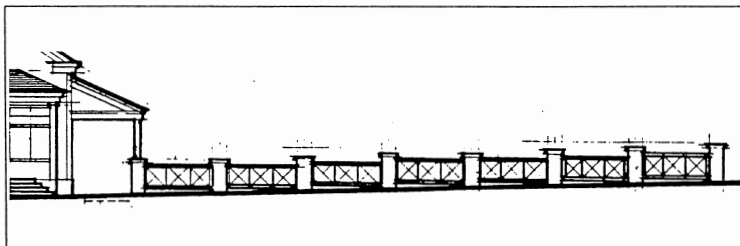
Urbsworks, Inc.

Desirable parking design



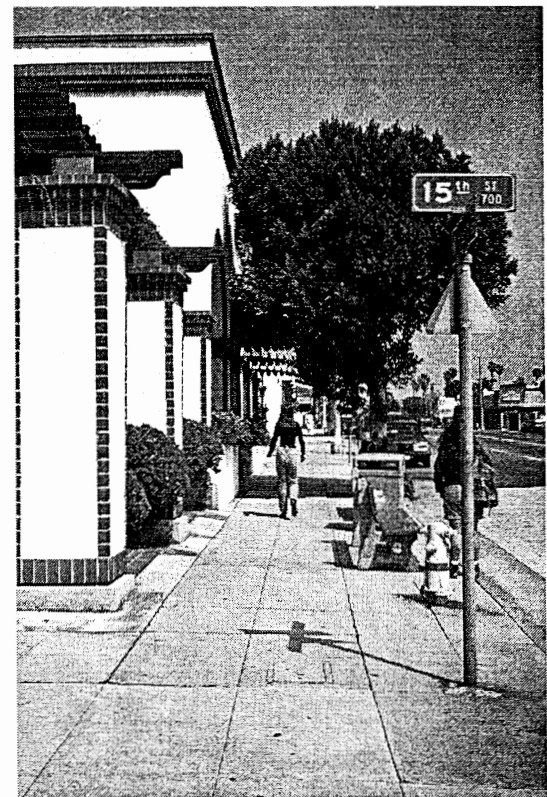
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A perimeter parking enclosure which incorporates architectural elements and screening, in addition to hedge planting



Urbsworks, Inc.

A perimeter parking enclosure which incorporates architectural elements to mark entrances and provides built-in benches and seating areas

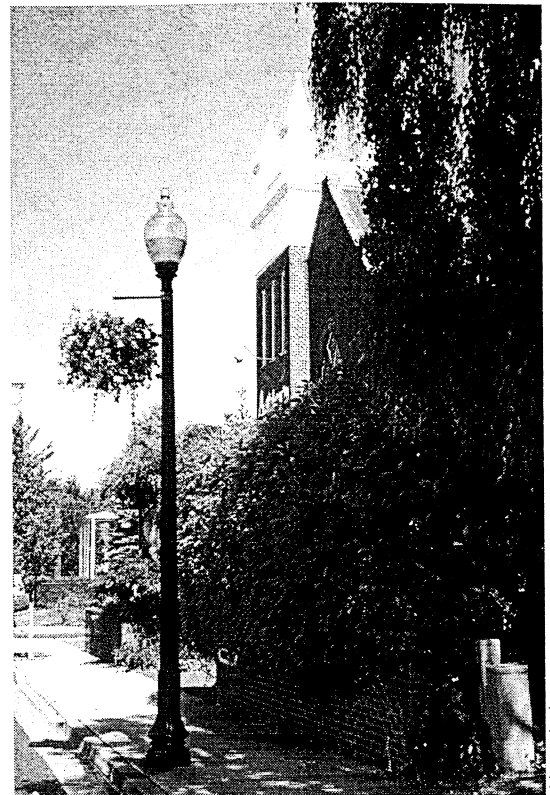


Urbsworks, Inc.

Desirable parking design

F. Lighting

1. Pedestrian scale street lighting shall be provided along all pedestrian streets along arterials, major collectors, minor collectors and local streets..
2. Pedestrian street lights shall be no taller than 20 feet along arterials, major collectors, minor collectors and local streets.
3. Additional pedestrian-oriented site lighting (i.e., path lighting including step lights, well lights and bollards) is encouraged.
4. Fixture height and lighting levels shall be commensurate with their intended use and function and shall assure compatibility with neighboring land uses. Baffles shall be incorporated to minimize glare and to focus lighting to its intended area.
5. Minimum lighting levels shall be provided for public safety in all urban spaces open to public circulation.
6. Lighting standards shall not exceed 25 feet in height.
7. A minimum average light level of 1.2 foot candles is required for urban spaces and sidewalks.
8. Maximum lighting levels should not exceed 6 footcandles at intersections or 1.5 footcandles in parking areas.
9. Metal-halide or lamps with similar color temperature and efficiency ratings shall be used for general lighting at building exteriors, parking areas, and urban spaces. Sodium based lamp elements are not allowed.
10. Accent lighting on architectural focal points and landscape features is encouraged.
11. Seasonal lighting is encouraged on trees.

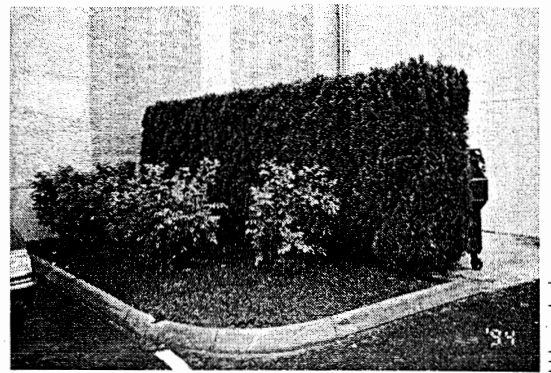


Desirable lighting

Urbsworks, Inc



Waste storage screening



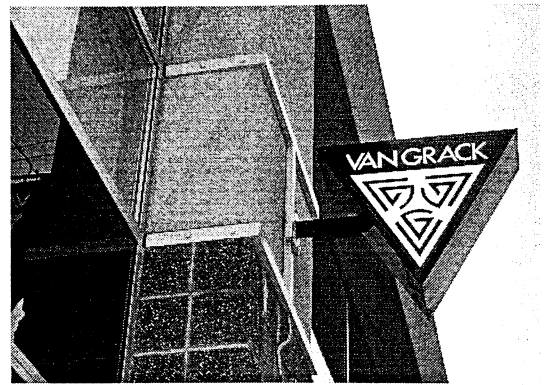
Solid hedge screening

G. Service Areas

1. All on-site service areas, loading zones and outdoor storage areas, waste storage, disposal facilities, transformer and utility vaults and similar activities shall be located in an area not visible from a pedestrian street or urban space. If this is not possible, then the service area, loading zone, or storage area must be fully screened from public view. Prohibited screening includes chain-link fencing with or without slats. Acceptable screening includes:
 - a) A masonry or wood enclosure incorporated into a building wall.; and
 - b) A solid hedge or other screening as approved.

H. Signage

1. Signs shall be located and scaled to the function of the street on which they front.
2. All signage shall be consistent with the visual quality and aesthetics of the surrounding neighborhood.
3. Signage must be of high quality in design and materials.
4. Signage shall be of consistent design throughout a development.
5. Signage attached to a building shall complement the building's character (e.g., wall signs shall avoid covering building columns).
7. Façade-mounted, non-residential signs (including logos) shall not exceed 5% of the area of the façade upon which it is mounted, up to a maximum of 200 square feet per façade or 400 square feet per building.
8. Tenant identification signs for non-principle building facades (facing walkways and parking areas), shall be limited to a maximum of 24 square feet per tenant and shall be focused to the pedestrians and motorists within the walkways and parking areas.
9. Ground-mounted monuments or site entry markers up to fifteen (15) feet in height may be approved subject to the following:
 - a) Total area and volume of the portion of the monument or marker incorporating sign letters shall not exceed 45 square feet or 90 cubic feet; and
 - b) Position of the monument or marker shall not obscure roadway visibility or result in potential traffic hazard(s) as may be determined by the Planning Director.



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Blade signage

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Pedestrian scale signage appropriate for West First Street businesses



Urbsworks, Inc.

Signage attached to a building which complements the building's character

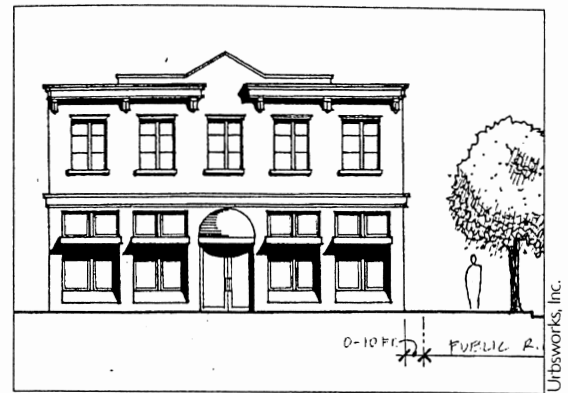
II. STANDARDS FOR COLUMBIA AVENUE AND HIGHWAY 30 ONLY

A. Building Height, Massing and Setback

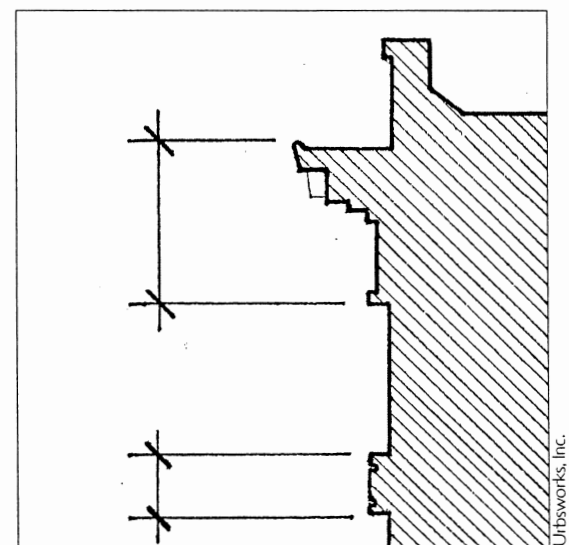
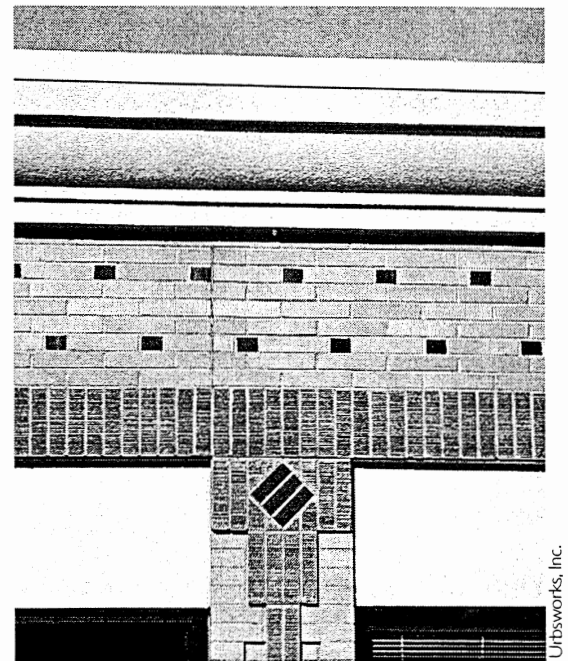
1. Height
 - a) The façade height of corner buildings shall be one to three stories and not more than 40 feet high.
 - b) It is recommended that corner buildings shall be the tallest structures in each block.
 - c) The façade height of buildings in the middle of the block shall be one to two stories and no more than 27 feet high.
 - d) The minimum height for single-story buildings shall be twenty-two (22) feet. This height shall be measured from the highest grade point of the building frontage from ground to top of cornice or midpoint of roof slope.
 - e) There shall be no setback between buildings and the right-of-way.

B. Architectural Character

1. Awnings
 - a) Awnings at the ground level of buildings are encouraged.
 - b) Awnings should fit within the window bays (either above the main glass or the transom light) so as not to obscure or distract from significant architectural features.
 - c) The color of the awning shall be compatible with its attached building.
2. Building Design
 - a) The exterior walls of building facades along Columbia Avenue or Highway 30 shall be of suitable durable building materials including the following: stucco, stone, terra-cotta, tile, cedar shakes and shingles, beveled or ship-lap or other narrow-course horizontal boards or siding, vertical board & batten siding, articulated architectural concrete masonry units (CMU), or similar materials which are low maintenance, weather resistant, abrasion



Desirable Storefront Design



Pediments and Cornices

resistant and easy to clean. Prohibited building materials include the following: Plain concrete, plain concrete block, corrugated metal, unarticulated board siding (e.g., T1-11 siding, plain plywood, sheet pressboard), and similar quality, non-durable materials.

3 Storefronts

- a) Ground floor windows shall be provided on building facades facing Columbia Avenue and Highway 30.
- b) Darkly tinted windows and mirrored windows that block two-way visibility are prohibited as ground floor windows.
- c) Ground floor building facades along a Columbia Avenue or Highway 30 must contain unobscured windows for at least 50 percent of the wall area and 75 percent of the wall length within the first ten 12 feet of wall height. Lower window sills shall not be more than 3 feet above grade except where interior floor levels prohibit such placement, in which case the lower window sill shall not be more than a maximum of 4 feet above the finished exterior grade.
- e) Building frontages greater than two hundred 40 feet in length along Columbia Avenue or Highway 30 shall break any flat, monolithic facade by including architectural elements such as bay windows, recessed entrances, changes in materials, or other articulation so as to provide pedestrian scale to the ground floor. Other articulation shall include: columns, pilasters or vertical architectural elements which serve to modulate the building façade;
- i) On the ground floor buildings shall incorporate large display windows with transom lights above.

4. Width

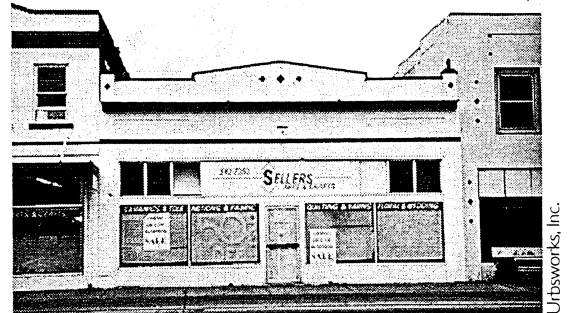
- a) New buildings whose street frontage is more than 45 feet wide shall be designed so they convey a sense of division through the use of either pilasters, window and door openings, recessed entries, off-sets or other architectural details.

5. Setback

- a) There shall be no setback between the building and the right of way.



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Storefronts along Highway 30



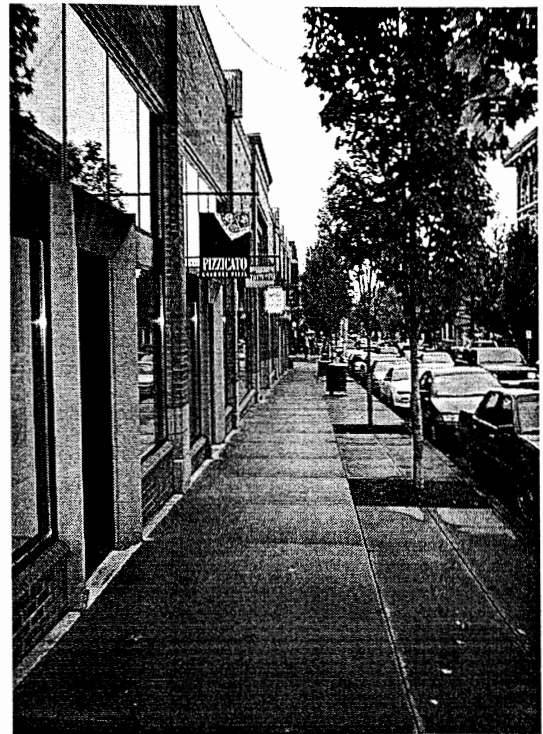
Urbsworks, Inc.

Storefronts along Columbia Avenue



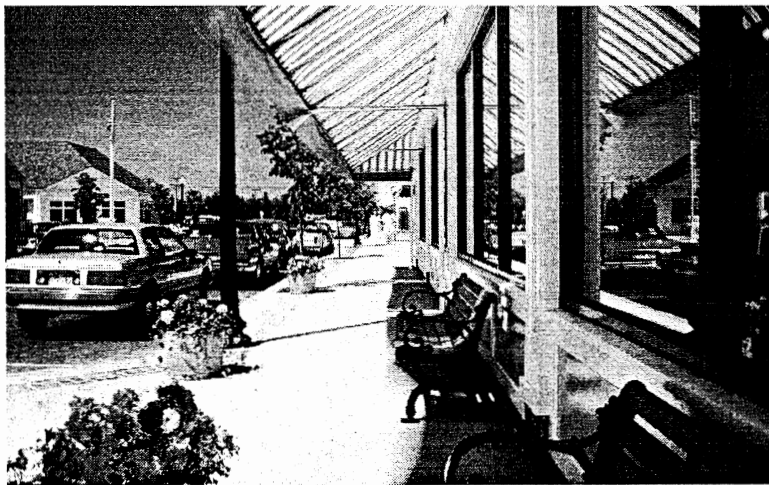
Storefronts with transom windows and pedestrian scaled signage

Urbsworks, Inc.



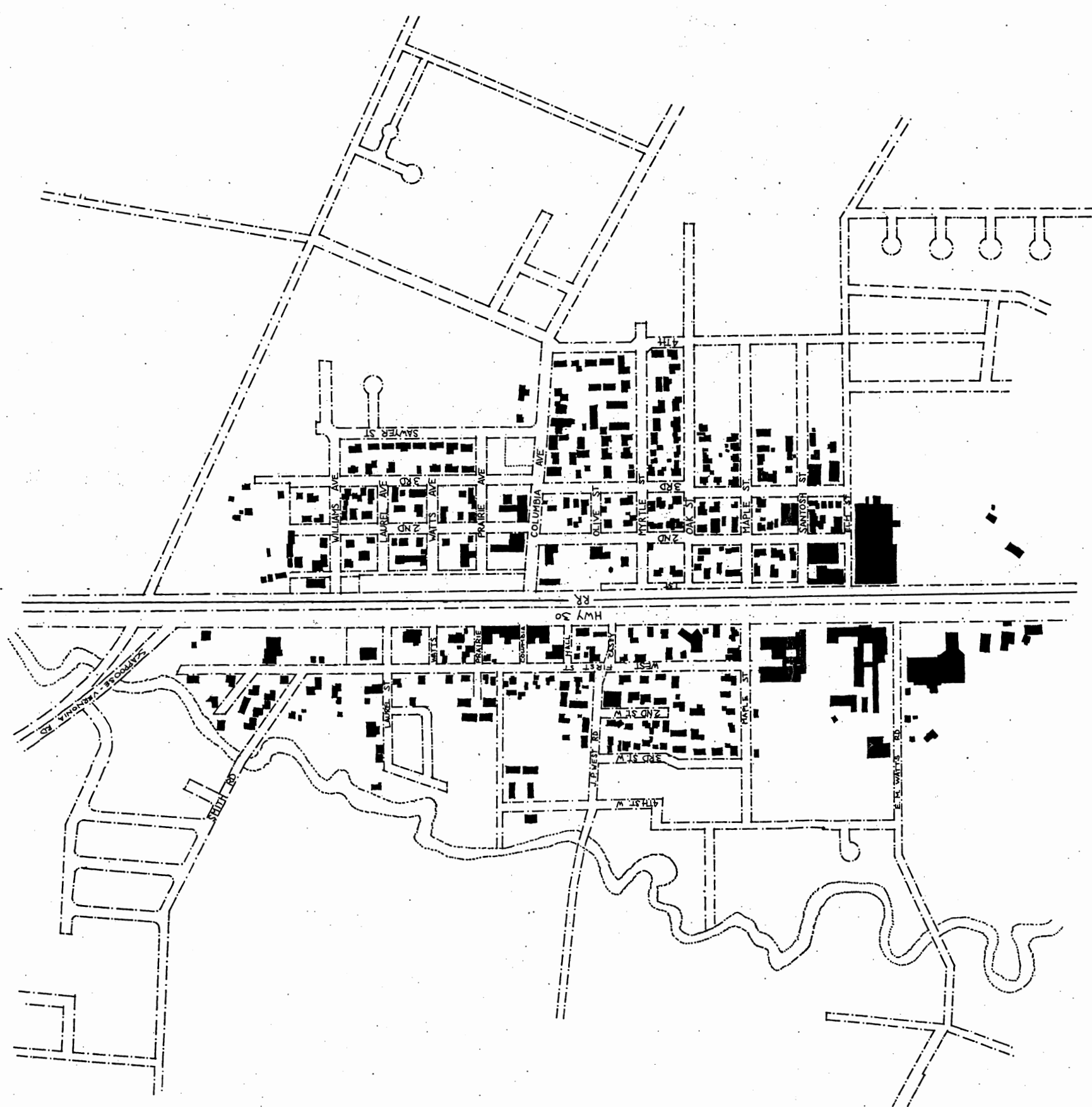
Storefront windows and awnings

Urbsworks, Inc.



Storefront with transom windows and awnings

Lennertz Coyle Associates



Quick Response Project for the City of Scappoose
 An ODOT / DLCD Project

Existing Conditions
 September 9, 1998

LENNERTZ COYLE & ASSOCIATES
Architects & Town Planners

Kimley Horn & Associates <i>Traffic Engineering</i>	Leland Consulting Group <i>Economics and Marketing</i>	Urbsworks Inc. <i>Urban Design</i>
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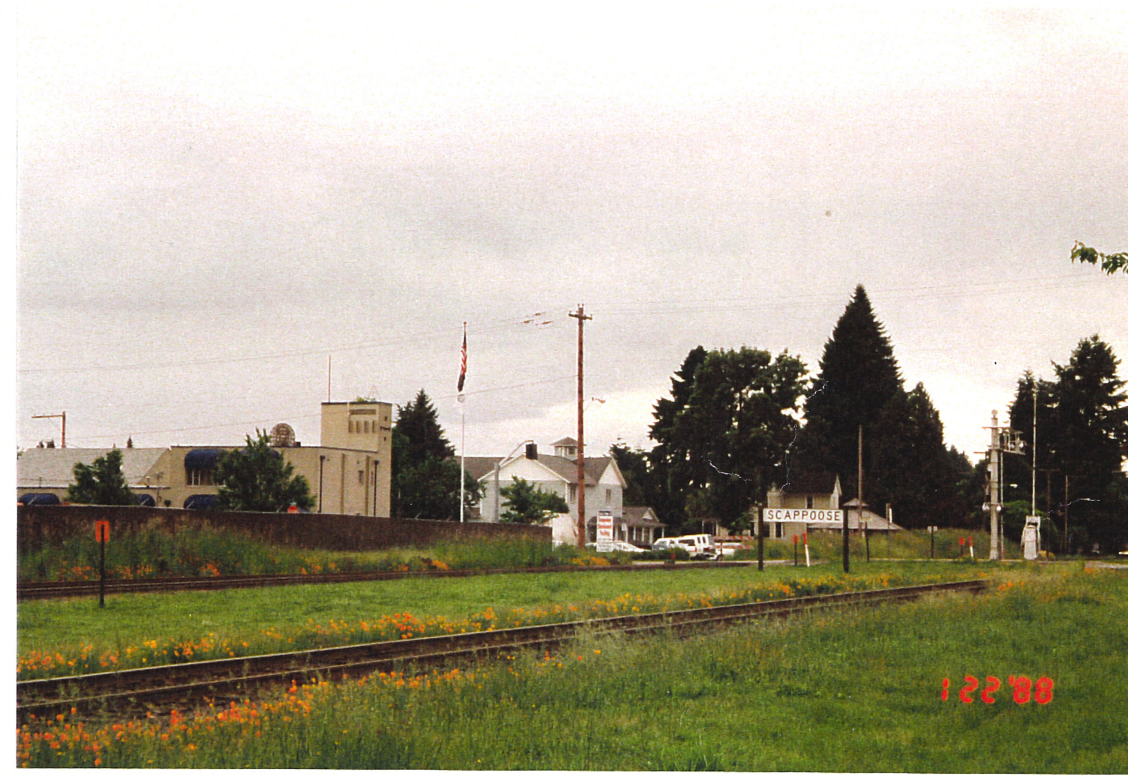
View of Highway 30 @ Columbia Avenue looking south - Existing Conditions



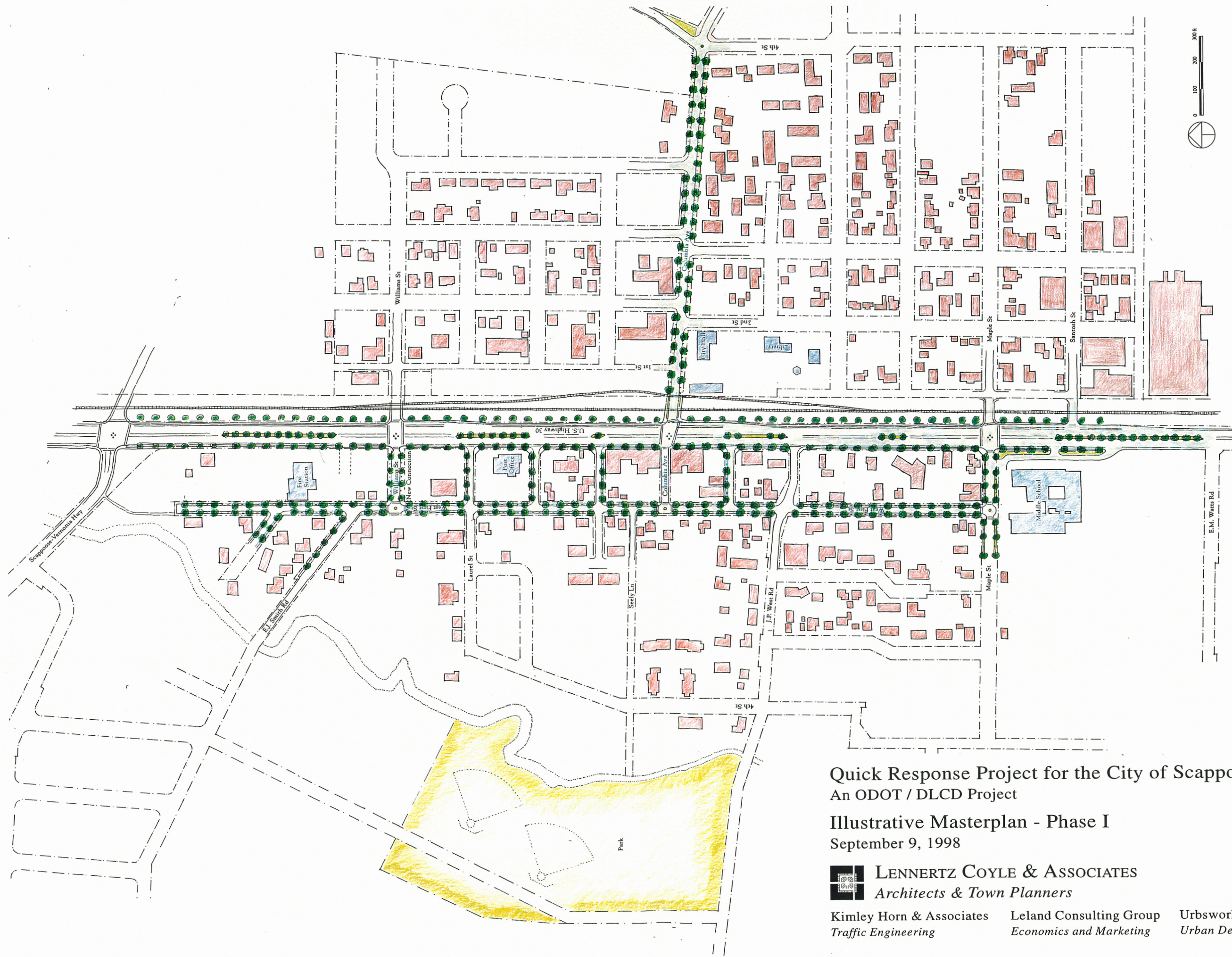
View of West First Street @ Hall Street looking north - Existing Conditions



View of Highway 30 @ Watts Street looking south - Existing Conditions



View of Railroad @ Columbia Avenue looking south - Existing Conditions

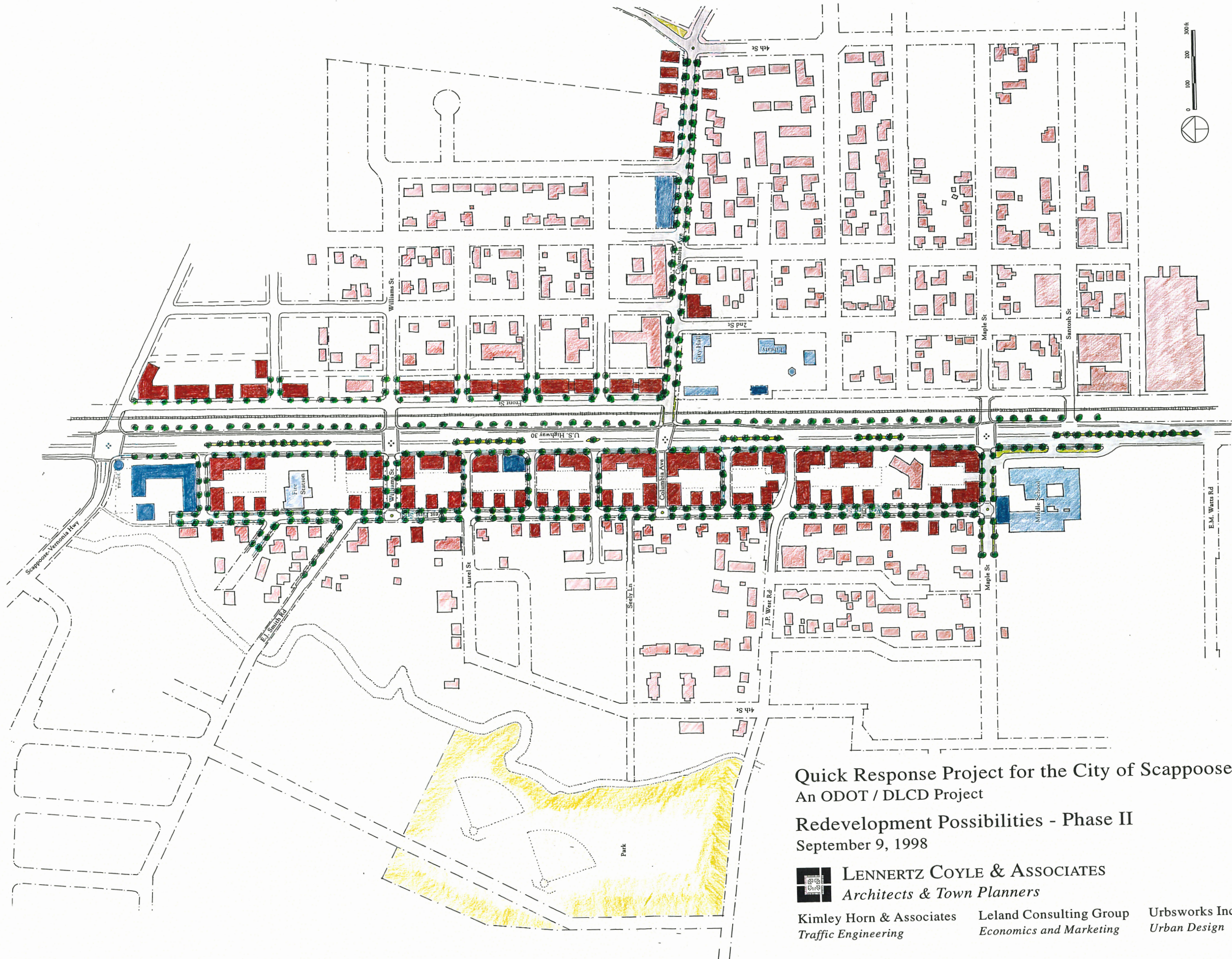


Quick Response Project for the City of Scappoose
 An ODOT / DLCD Project

Illustrative Masterplan - Phase I
 September 9, 1998

LENNERTZ COYLE & ASSOCIATES
Architects & Town Planners

Kimley Horn & Associates Leland Consulting Group Urbsworks Inc.
Traffic Engineering *Economics and Marketing* *Urban Design*



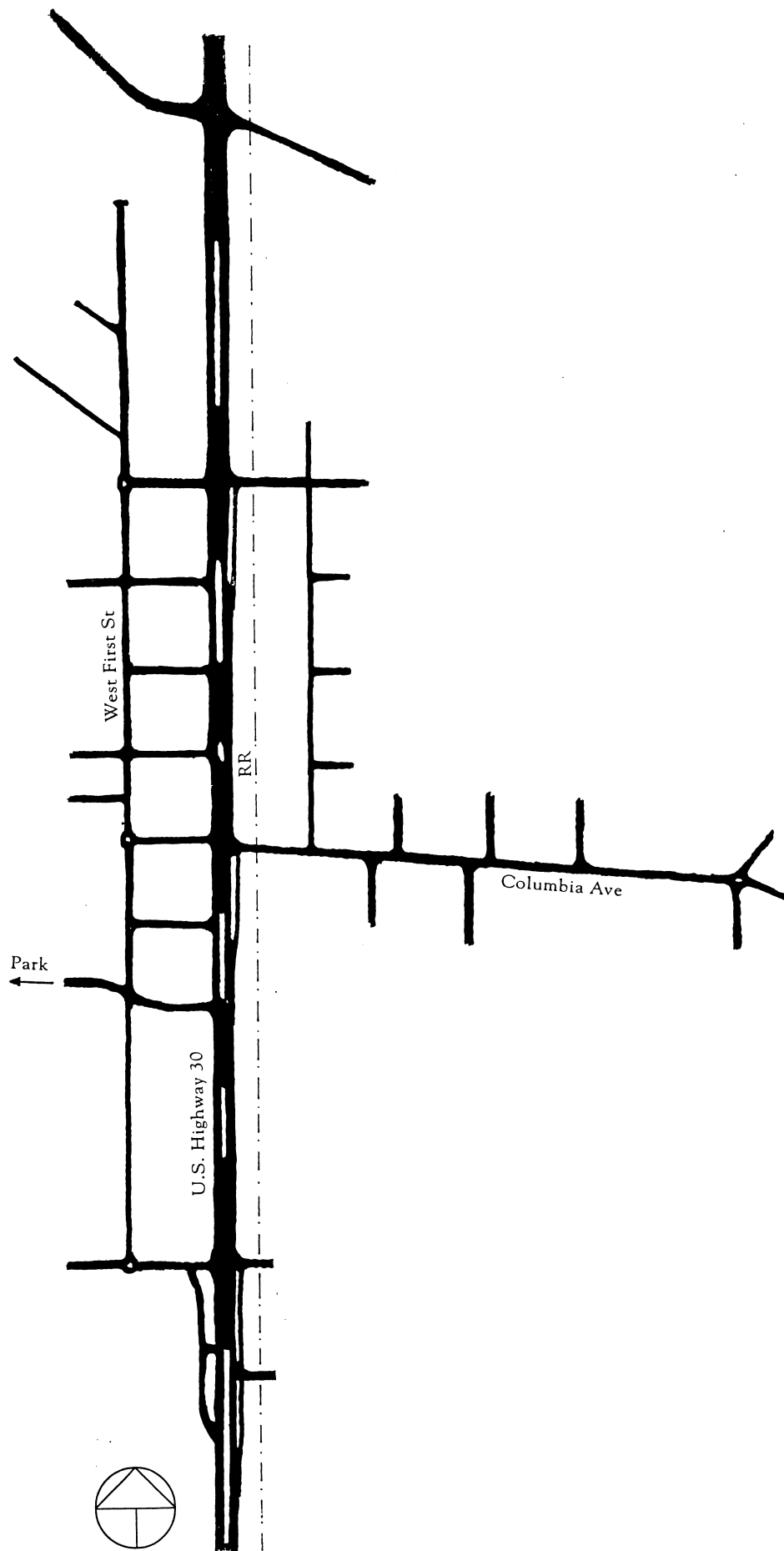
Quick Response Project for the City of Scappoose
 An ODOT / DLCD Project
 Redevelopment Possibilities - Phase II
 September 9, 1998

LENNERTZ COYLE & ASSOCIATES
Architects & Town Planners

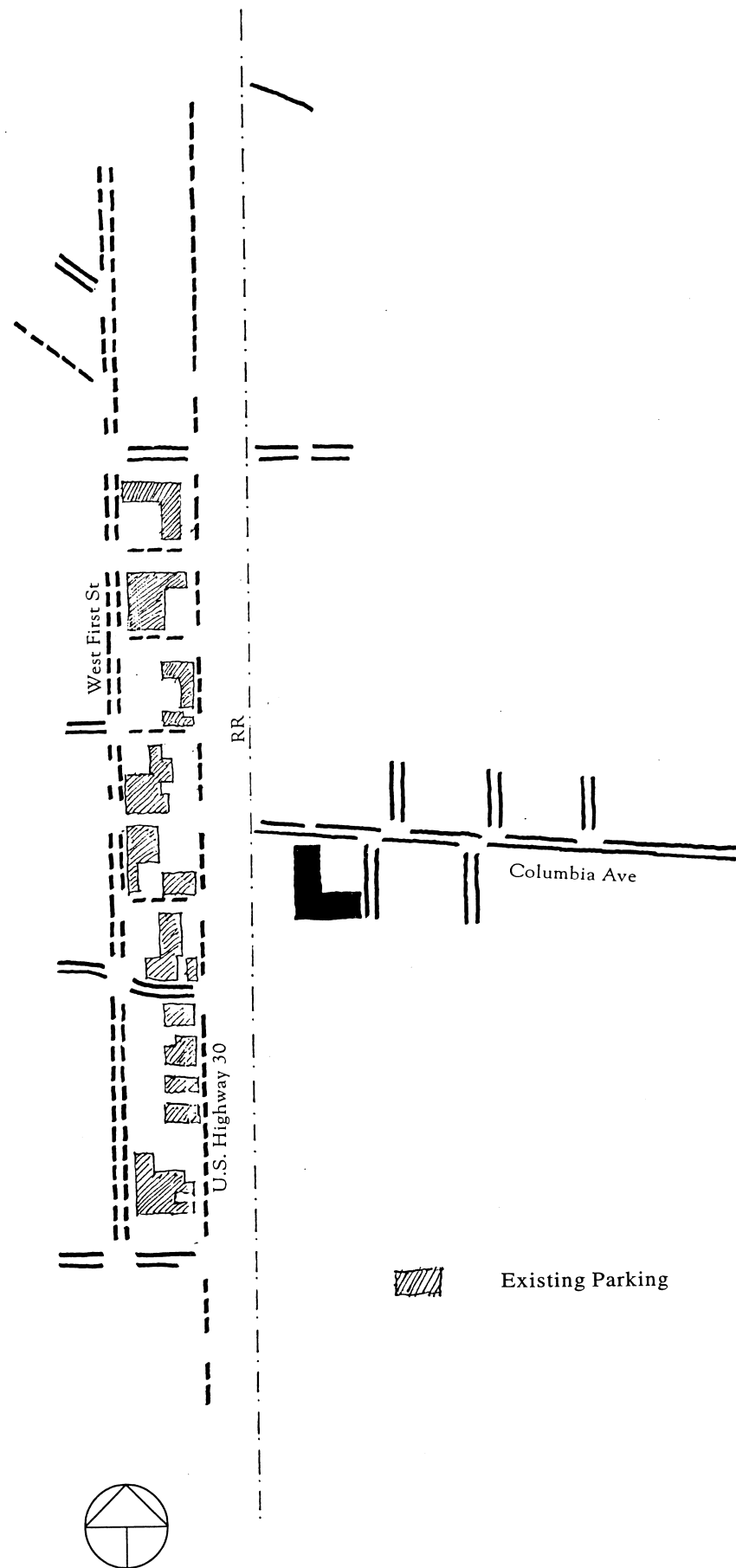
Kimley Horn & Associates
Traffic Engineering

Leland Consulting Group
Economics and Marketing

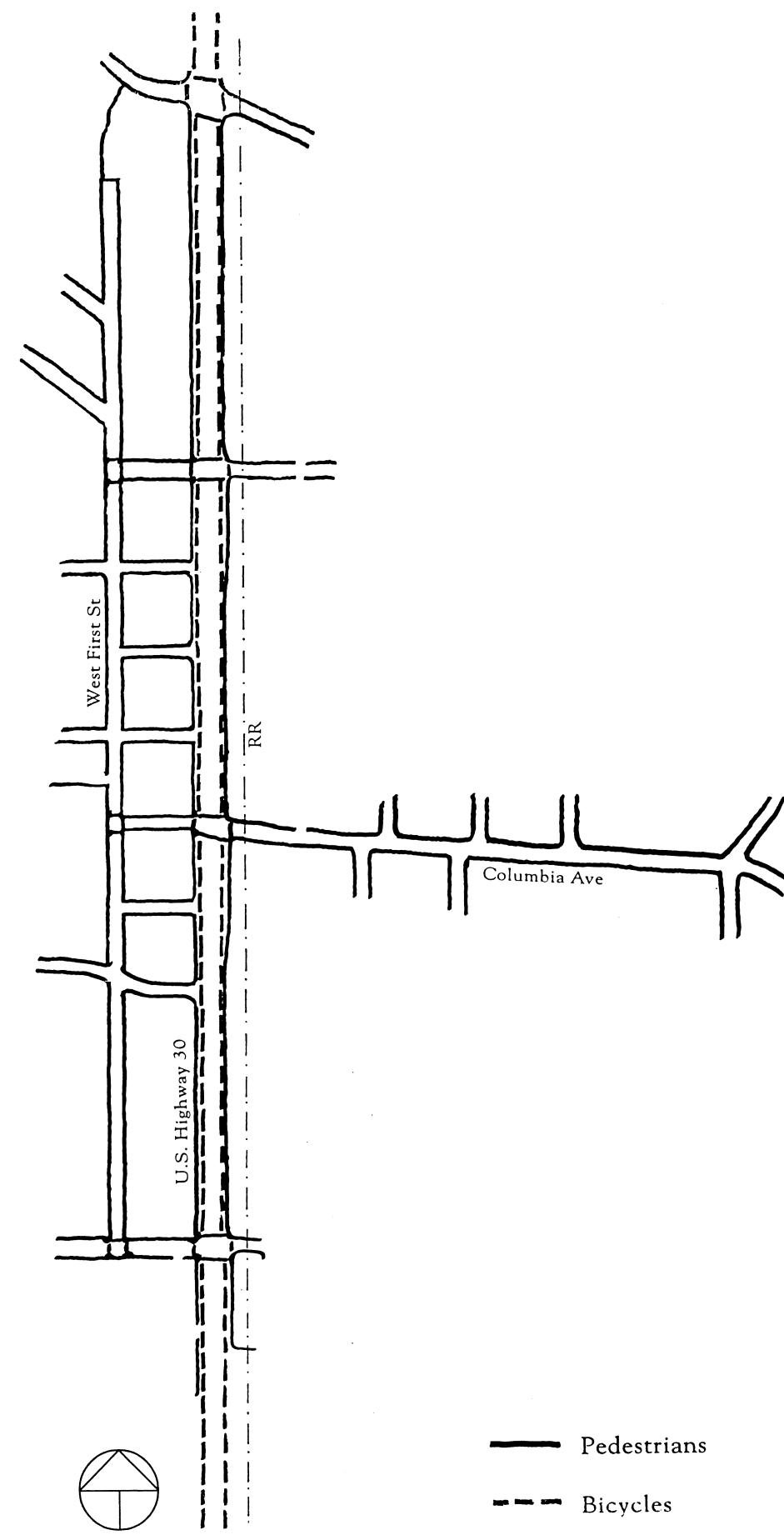
Urbsworks Inc.
Urban Design



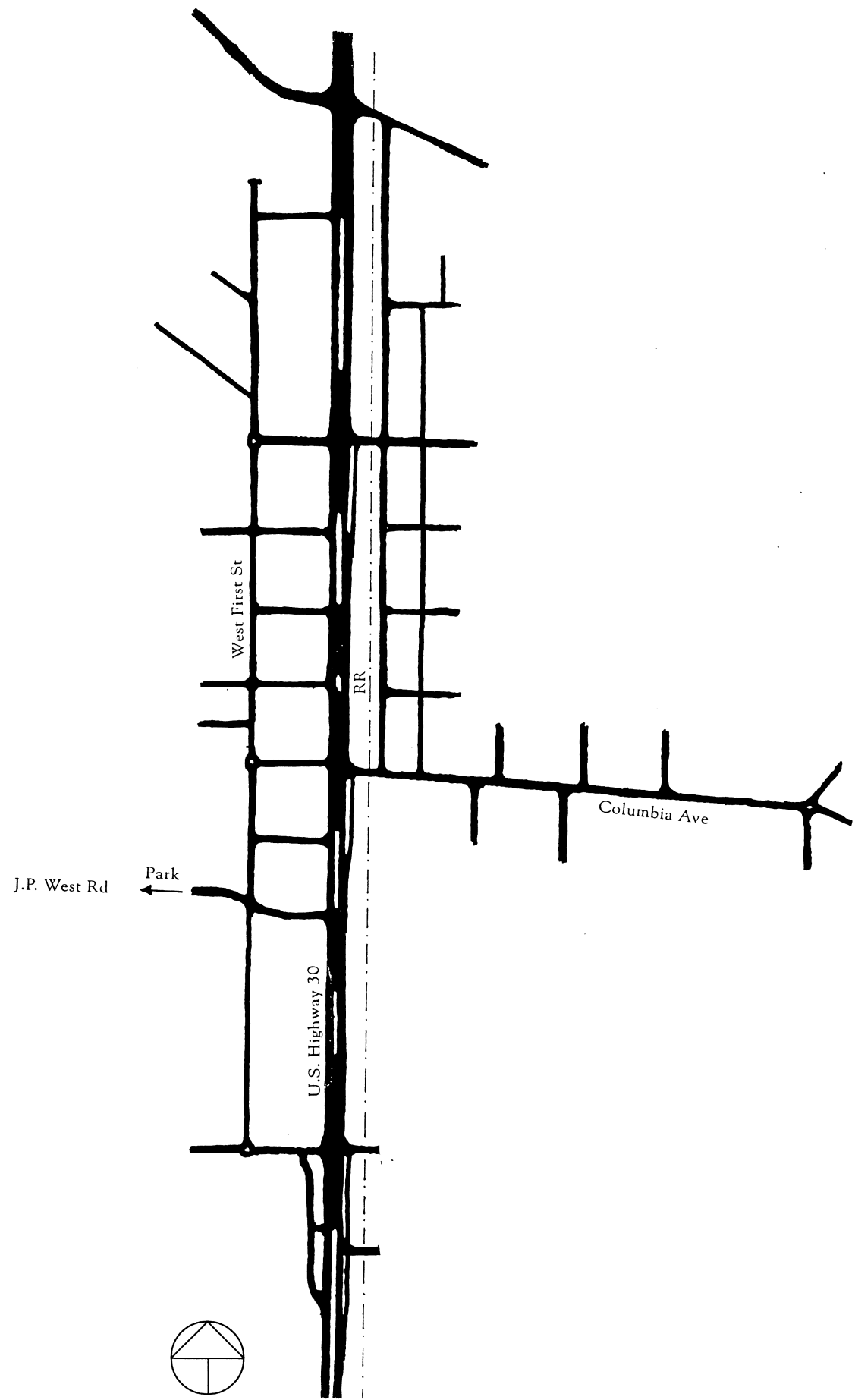
Phase I - Vehicular Circulation



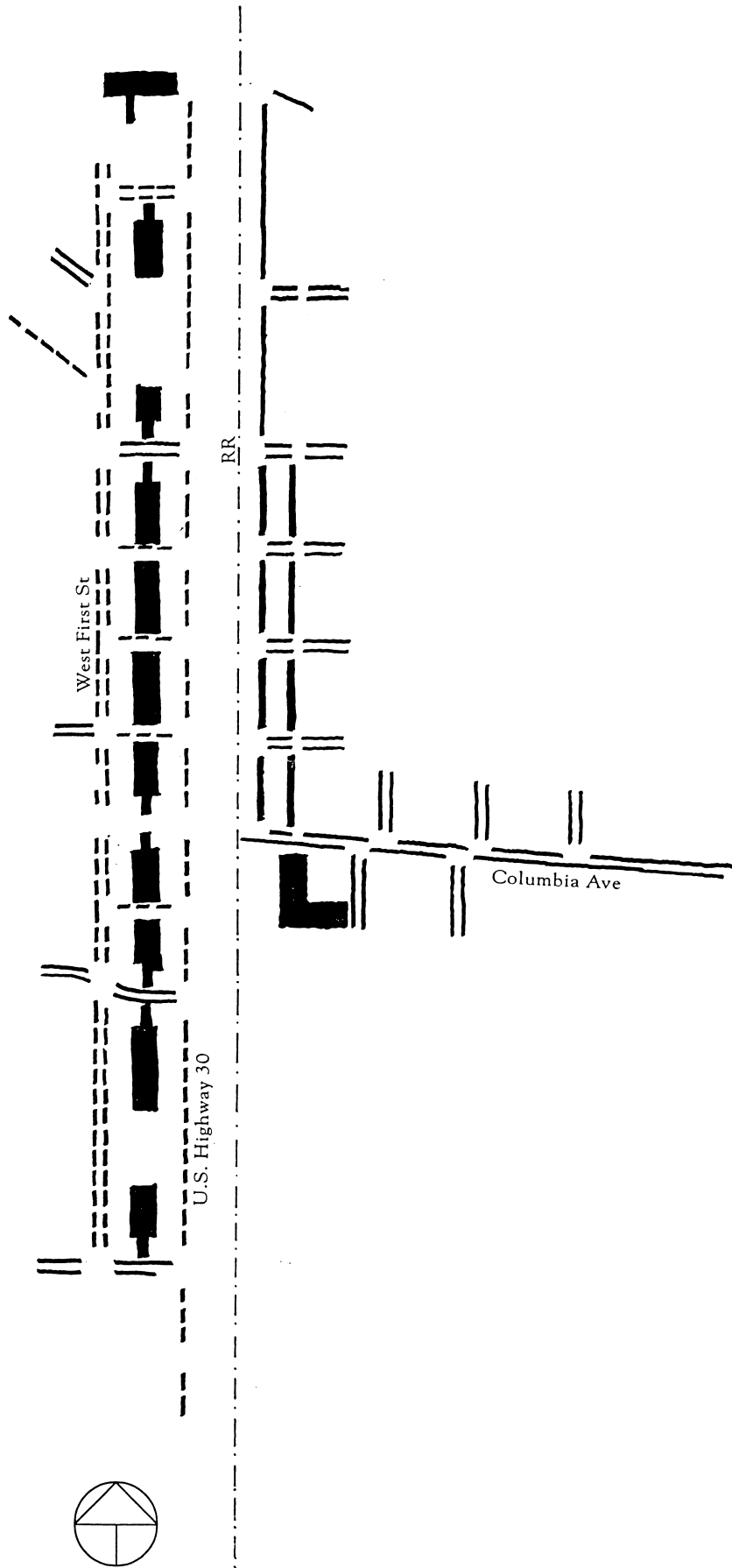
Phase I - Parking



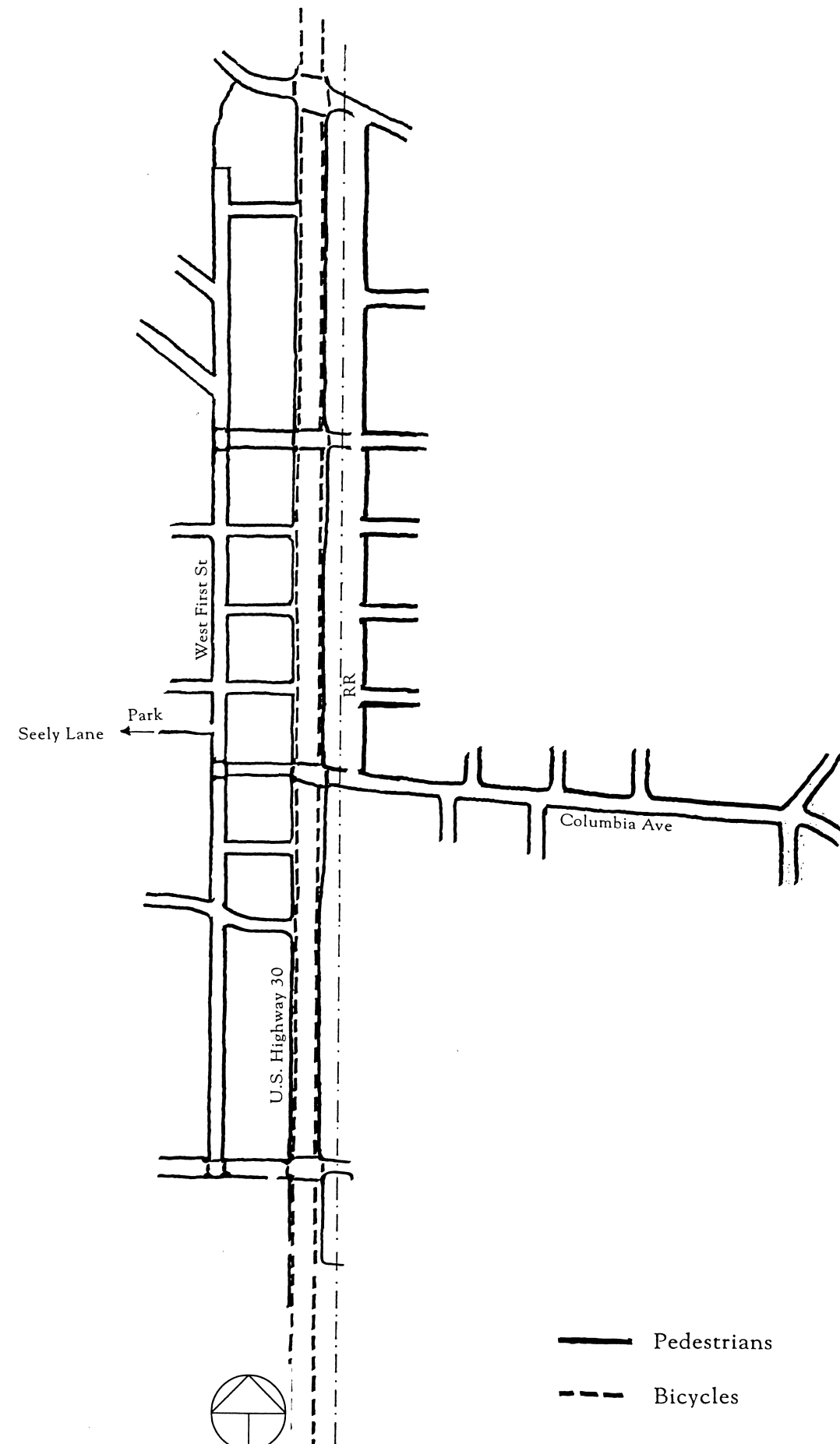
Phase I - Pedestrian & Bicycle Circulation



Phase II - Vehicular Circulation

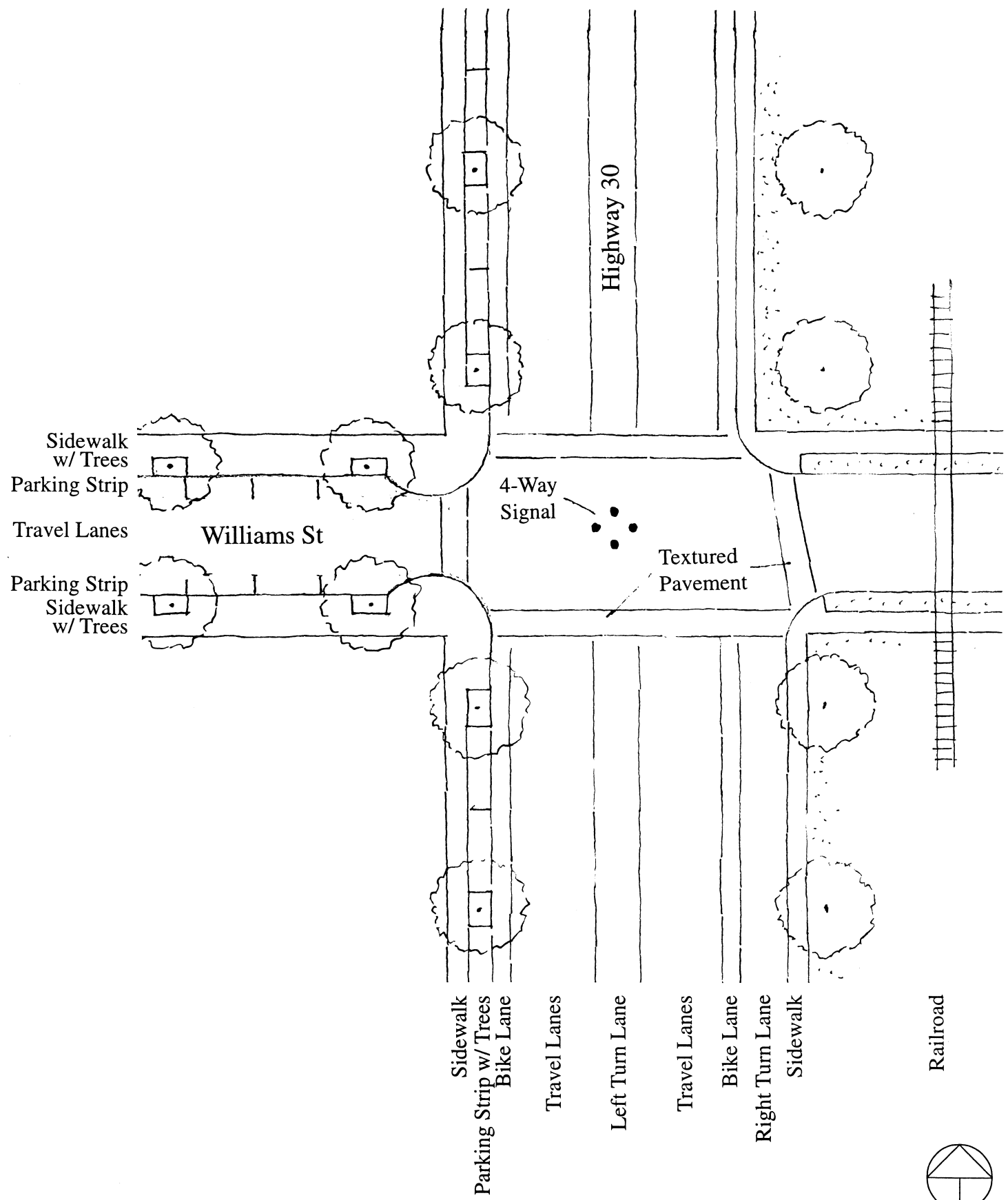


Phase II - Parking



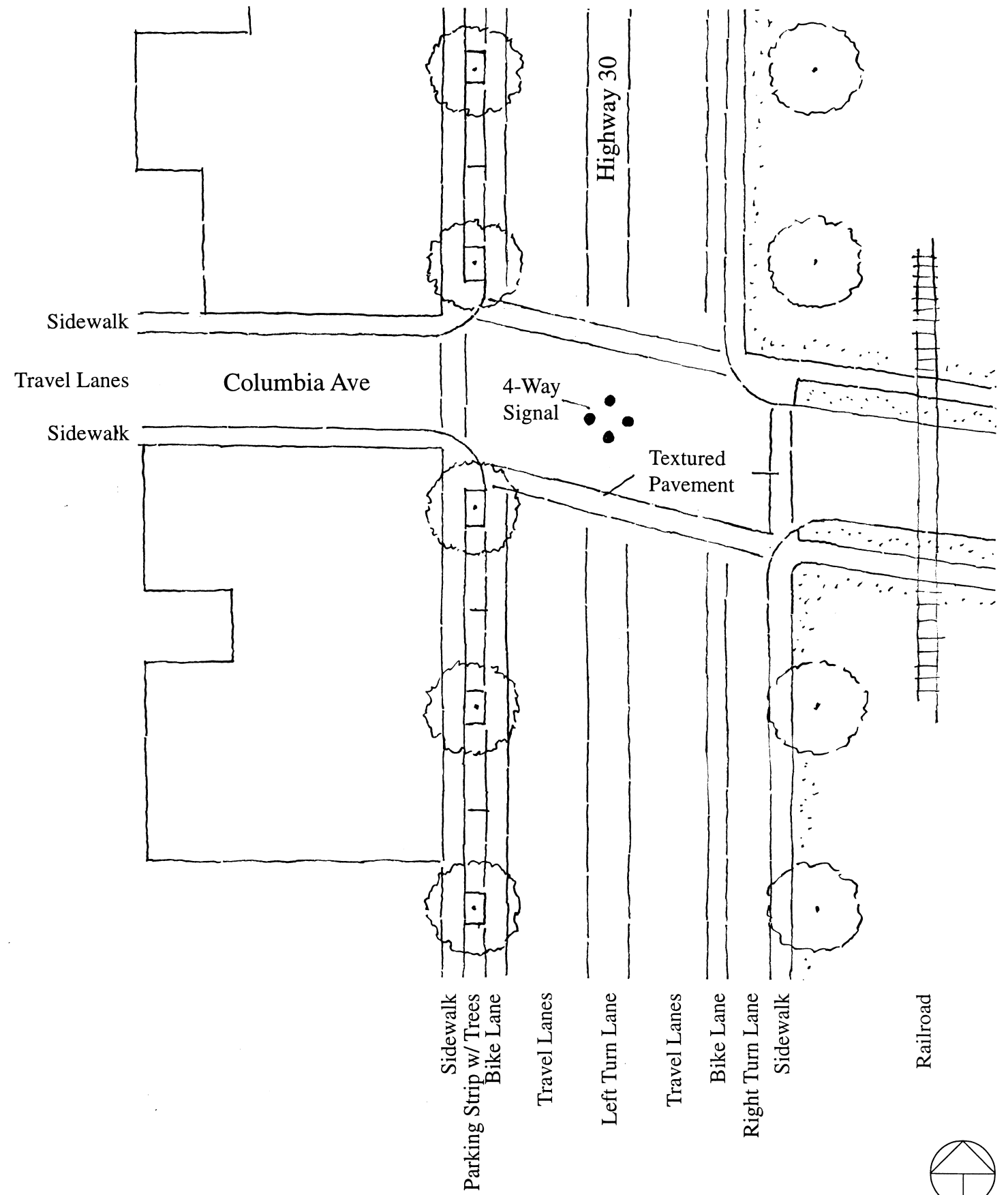
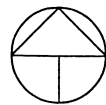
Phase II - Pedestrian & Bicycle Circulation

- Pedestrians
- - - Bicycles



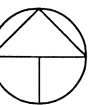
Detail - Intersection of Highway 30 & Williams Street

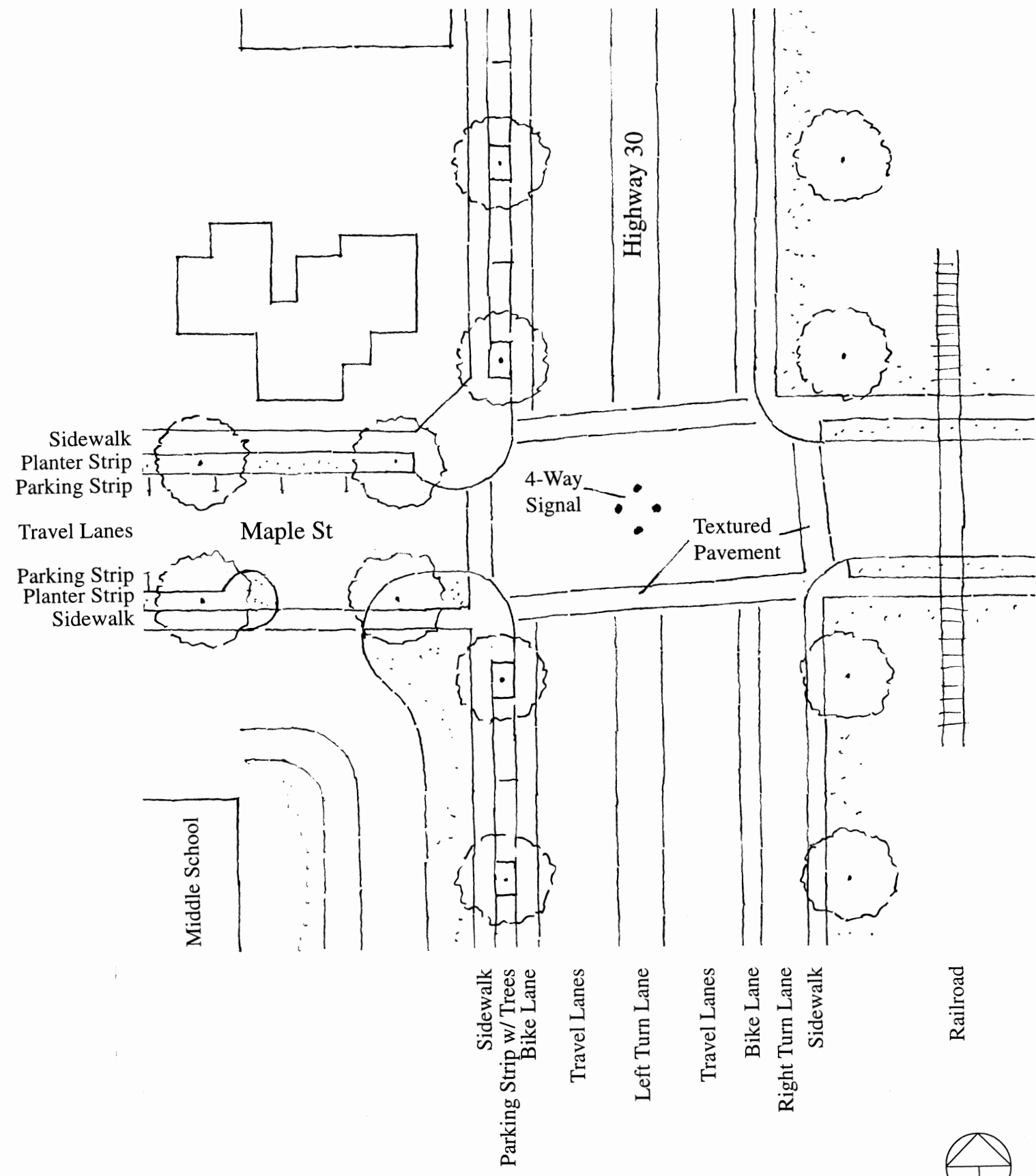
Scale 1" = 40'



Detail - Intersection of Highway 30 & Columbia Avenue

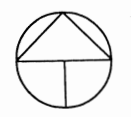
Scale 1" = 40'





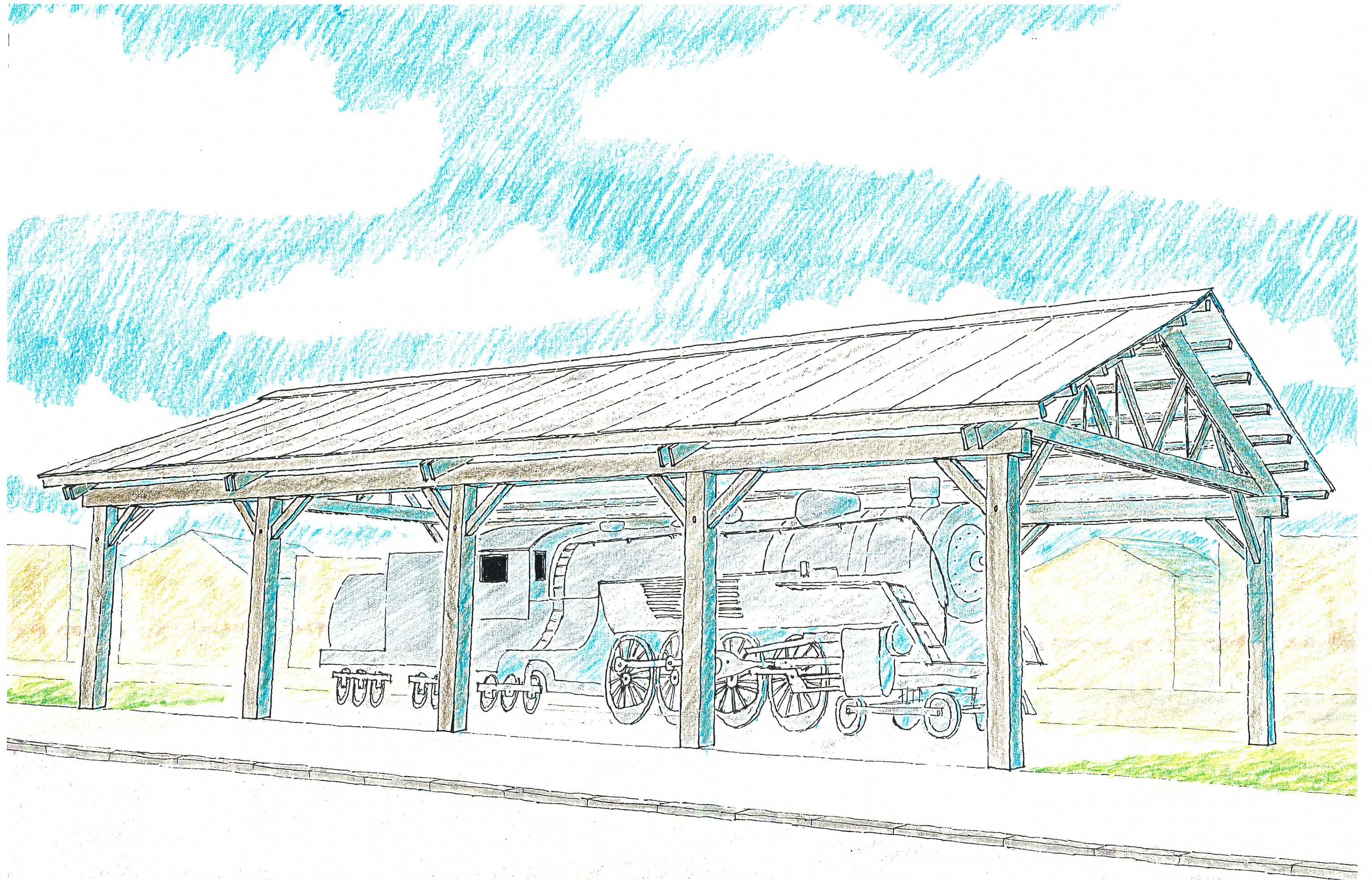
Detail - Intersection of Highway 30 & Maple Street

Scale 1" = 40'





View of Highway 30 @ Columbia Avenue looking south



View of proposed Pole Barn with historic Locomotive



View of West First Street @ Hall Street looking north