Portland State University

PDXScholar

Ernie Bonner Collection

Oregon Sustainable Community Digital Library

1-1-1973

Alignment for I-505

Lloyd Anderson

Follow this and additional works at: https://pdxscholar.library.pdx.edu/oscdl_bonner

Part of the Urban Studies Commons, and the Urban Studies and Planning Commons

Let us know how access to this document benefits you.

Recommended Citation

Anderson, Lloyd, "Alignment for I-505" (1973). *Ernie Bonner Collection*. 81. https://pdxscholar.library.pdx.edu/oscdl_bonner/81

This Memo is brought to you for free and open access. It has been accepted for inclusion in Ernie Bonner Collection by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.

7

M E M O R A N D U M

January 28, 1974

T0:

Mayor Goldschmidt Commissioner Ivancie Commissioner McCready Commissioner Schwab

FROM:

Lloyd Anderson

RE:

Recommended alignment for Interstate(505)

At the Council hearing on I-505 in December, I stated that I believed a covered freeway in the Upshur corridor would be preferable because of the opportunities it would present for residential redevelopment in the northwest neighborhood. After reviewing all of the information available to us, I am still of that opinion. As a result, I have recommended that the Council adopt the covered Upshur alternative in a resolution submitted to you last Friday.

In making that recommendation, I want to say openly that my opinion is not secured by a body of data and information that makes selection of the Upshur corridor automatic. The choice before the Council is not simply black and white. In fact, I think it is a choice in which reasonable people can disagree no matter how much information is presented.

Basically, my recommendation is the result of an effort to estimate the long range effects of the two freeway alignments under consideration. In the long run, I believe a covered freeway in the Upshur corridor will better serve the city as a transportation facility. More importantly, that

facility presents us with an unusual opportunity for urban residential redevelopment including open space that will be more attractive for both living and working than would be the case with the Short Yeon route.

By using funds the City would spend on road construction under the Short Yeon alternative coupled with a "last resort" housing program, I think the area from the south side of Thurman to Upshur and from 24th to 28th can be sensitively reestablished as a residential area. Furthermore, I think that opportunity presents the City and the neighborborhood with a challenge of considerable interest.

Obviously, my estimate of the long range effects of the Upshur route depends on two things: 1) that the Federal Highway Administration agree to the cost of the freeway cover and 2) that the Council agree to stand ready to allocate an estimated \$600,000 to aid in residential redevelopment. If either of those things do not happen, I will withdraw my support from the Upshur route and support Short Yeon.

By comparison, however, I am less satisfied with Short
Yeon as a choice. I cannot believe that a freeway that empties
into a street such as Yeon that has twelve railroad grade crossings is desirable, and the conflicts with rail traffic on Nicolai
are no better. Nor do I see a resolution of either problem in

the next twenty years. Further, I don't believe the City and the private development market alone can create a residential environment through the choice of short Yeon that is comparable to that made possible with the covered Upshur route and supplemental City funds.

The reasons for my belief that a choice of Short Yeon will create a less desirable residential environment are as follows. East of 28th, the existing housing between Vaughan and the south side of Thurman and the pocket of housing north of Vaughn is on land zoned C-2, M-3, and M-2. The land is valued presently at three dollars per square foot or more, and much of the housing on it is not in good shape. I think we have to assume that much of that land is being held for purposes of speculation, and in the normal course of events, we could expect most if not all of it to convert to non-housing land uses through the initiative of the property owners. With the choice of either freeway alternative, the housing north of Vaughn will still convert to non-housing uses.

If Short Yeon is selected, we can expect that between twenty and fifty households will be relocated from north of Vaughn into the area between 28th and 26th making that area predominantly residential. The remaining land to the east, however, will be subject to the normal pressures of the land market for non-housing development. To bring about residential

redevelopment in that area, land values would have to be reduced through City purchase of land followed by sale at a lower price or through down zoning. In either case, or a combination of the two, we have no estimate of the costs that would be born by the City and/or the property owners.

If a covered facility in the Upshur corridor is selected and the Council commits funds it would spend anyway under the Short Yeon alternative, I think, as I have stated, that the whole area between 28th and 24th can be redeveloped sensitively, a much more stable and attractive environment can be created, and the City and the neighborhood can acquire twenty or more acres of fully useable open space some of which could be carefully developed at a later date. The major cost would be a greater loss of housing units than would occur with the Short Yeon option (212 vs. 117 according to Bureau of Planning estimates). In my view, however, additional housing units will be lost in time under the Short Yeon option as a result of private land market action for the reasons I have outlined above, and later use of some of the freeway cover might further reduce the difference.

As I stated at the beginning of this memo, I don't think the above information presents an open and shut case for the Upshur corridor. It does lead me to the conclusion that Upshur is the better choice in the long run. And because of what I see as the long range differences between the two choices,

I find it harder to justify the cost of Short Yeon--whether elevated or depressed--than the cost of Upshur.

In the short run, building a freeway in the Upshur corridor will bring more problems than the Short Yeon route. The neighborhood around the corridor will have to live with housing and freeway construction for five or six years. It is estimated that one more business will be dislocated than would be the case under Short Yeon (58 vs. 57) although Upshur would displace fewer jobs (903 vs. 1,011) and eliminate fewer jobs (24 vs. 116). Quite clearly, the Upshur route would eliminate more existing housing units (347 vs. 65)* with the result that more people and more families will pay a price by being dislocated.

A particular problem we have to face with the choice of the Upshur route is that, of those homes torn down, the most difficult to replace will be the ones which house people with low and moderate incomes. Federal and State housing programs offer assistance in building replacement housing, and as indicated, I recommend that the City be prepared to allocate funds which could be used for that purpose as well. But in the final analysis, these efforts will not, in total, replace all of the

^{*} The estimate of 347 housing units to be eliminated by the Upshur route may be slightly high. 303 units will be eliminated by the freeway itself. Of the remaining 110 units in the redevelopment area, staff at the Bureau of Planning estimate 40 percent, or 44 units, are in fair or bad condition and might conceivably be eliminated in a redevelopment project.

low rental and low cost housing that will be removed. The meaning of this is that the Council will need to deal with problems of low rental and low cost housing supply more quickly than would otherwise be the case.

It should also be said, however, that the problem of low rental and low cost housing supply and the problems of people and families dislocated from such housing are going to be with us no matter what we do. If one of the freeways doesn't eliminate such housing, the private land market will for the reasons outlined above. As much as some people find it hard to accept, I think the use of an Upshur freeway as a redevelopment tool is the most creative way we have of dealing with these problems in the foreseeable future. In the short run, the scale and intensity of the problems will be greater, but I think the benefits to families and individuals—if relocation is handled sensitively—will be greater as well.

As you can see, I have emphasized housing, residential redevelopment,

and the conflict between motor vehicles and railroads in reaching my decision as well as making an attempt to estimate long range effects of the two choices before us. I know that others faced with the same decision would not necessarily emphasize either those particular things or the long range view. For purposes of debate, it may be useful to indicate briefly my analysis of the other aspects of the decision.

- 1. Noise pollution: Given the placement of a burm on the freeway cover under the Upshur alternative, I see no significant difference between the two routes.
- 2. Air pollution: Both alternatives will keep air pollution levels well below Department of Environmental Quality standards. From the viewpoint of Willamette Heights residents, Short Yeon would be preferable. From the viewpoint of people who work in the Guilds Lake area, Upshur would be preferable.
- 3. Traffic service: For traffic routed to Guilds Lake, I cannot see a significant difference between the alternatives. For traffic routed to the harbor area, the Short Yeon route should be preferable. For through traffic, Upshur would be preferable, and for the northwest residential area, I can see no significant difference.
- 4. Cost: The following table indicates the estimated cost of both alternatives. It assumes that, for non-interstate highway projects required under both alternatives, the federal

4 - 1 - 1 - S

government will pay seventy-eight percent of the cost, the State eleven percent, and the City eleven percent. It is possible, however, that the City's share will increase to as much as twenty-two percent by the time the projects are actually completed.

	Estimated Costs of Freeway Alternatives (In Millions Of Dollars)				
	Alternate l Upshur (covered)	Alternate 4 Short Yeon (elevated)	Alternate 4 Short Yeon (depressed)		
Federal					
Interstate Non-interstate	\$46.2 1.5	\$35.9 5.9	\$28.4 5.9		
Total federal	\$47.7	\$41.8	\$34.3		
<u>State</u>					
Interstate Non-interstate	\$ 4.0	\$ 3.1 <u>.8</u>	\$ 2.5		
Total State	\$ 4.2	\$ 3.9	\$ 3.3		
City	\$ 0.2	\$ 0.8	0.8		
<u>Total Project</u>	\$52.1	\$46.5	\$38.4		

As the resolution sent to you Friday indicates, I am recommending that the City commit \$600,000, the difference in cost to the City between the two alternatives, to housing and redevelopment if the Upshur route is selected. That would raise the City's cost on all alternatives to \$0.8 million

As a final note, estimates of the cost of operating and maintaining the two alternatives are not available.

RESOLUTION NO. 31358



WHEREAS, the Oregon State Highway Division has submitted to the Council of the City of Portland, interested citizens, and neighborhood and business groups a report dated January 17, 1974, as requested in Resolution No. 31327 on various special aspects of the Interstate 505 freeway,

WHEREAS, the Highway Division has agreed to pay all local costs of highway projects in conjunction with the freeway which are not eligible for interstate highway funds, and

WHEREAS, it is the responsibility of the Council to select an alignment for that freeway; now, therefore, be it

RESOLVED, the Council selects Alternative Four, "Short Yeon," with the following modifications and stipulations as the preferred alignment:

- 1. The Highway Division should investigate both elevated and depressed versions of this alternative during the design process.
- 2. The City should control the use of land under any elevated structure through an agreement such as that in existence between the City and the Highway Division with respect to land under the Fremont Bridge ramps.
- 3. The final design of the freeway corridor, freeway entrances and exits, and associated traffic routes should minimize the flow of traffic through the northwest neighborhood and should make all reasonable efforts to reduce the 1990 traffic volume projected for N.W. Vaughn Street under Alternative Four in the Interstate 505 Draft Environmental Impact Statement.
- 4. The Highway Division should cooperate with the City, the railroads, and businesses in the Guilds Lake area should develop a plan to minimize conflicts between rail and vehicle traffic on N.W. Yeon and Nicolai Streets.
- 5. The relocation process described by the Highway Division in the aforementioned report for families and individuals displaced by the freeway should be guided by the goals, objectives, and programs for supportive services outlined in the material submitted by Friendly House and included in the same report.

- 6. The relocation process should make use of private social service agencies such as Friendly House, neighborhood groups, and appropriate City agencies wherever possible and appropriate.
- 7. Every possible effort should be made to relocate those persons displaced within the northwest neighborhood; and
- 8. To the extent that such relocation involves the construction of "last resort" housing, the Highway Division should use as a goal for the overall "last resort" housing program a residential density standard of twenty-two units per acre (average), and in any case, the average residential density for such housing should not exceed thirty-four units per acre, be it further

RESOLVED, the Council requests the Administrator of the Office of Planning and Development to prepare a plan for the use of State housing bond funds and/or other funds which may be available to provide housing, in the northwest neighborhood if possible, for individuals and families whose residences will be "isolated" north of N.W. Vaughn Street as a result of construction of the freeway, be it further

RESOLVED, the Council intents to allocate, if necessary, City funds to aid in the rehousing process in an amount not to exceed \$200,000, be it further

RESOLVED, the Council requests the Planning Commission to complete its planning process for the northwest neighborhood and to submit a land use plan for that area to the Council as soon as possible so that relocation and redevelopment associated with the freeway can be carried out in accordance with such a plan, be it further

RESOLVED, the Council requests the Highway Division to dispose of none of the property it presently owns in the northwest neighborhood until such a land use plan is approved by the Council, and be it further

RESOLVED, THE Council requests the Administrator of the Office of Planning and Development to prepare an analysis of residential redevelopment needs and priorities for the City which includes a recommendation on the priority which should be assigned to the Thurman - Vaughn corridor, be it further

RESOLVED, the Citizens Contact Committee created for the preparation of the Interstate 505 Draft Environmental Impact Statement project be continued during the freeway design process.

Adopted by the Council:

Auditor of the City of Portland

I-505 COMPARATIVE ANALYSIS MATRIX

MINIMIZE THE DISLOCATION OF RESIDENTS AND ACTIVITIES AS A
RESULT OF AQUISITION OF LAND AND CONSTRUCTION OF
FREEWAY
NO. of FIRMS DISPLACED
NO. of JOBS DISPLACED
NO. of HOUSHOLDS DISPLACED
NO. of PEOPLE DISPLACED.
NO. of PEOPLE OVER 62 DISPLACED
ASSESSED VALUATION LOST (MILLIONS of \$)
OWNER OCCUPIED HOUSES DISPLACED
UNITS IN GOOD CONDITION DISPLACED
HOUSING UNITS LEFT ISOLATED
ACRES VACANT IN THURMAN-VAUGHN CORRIDOR
MAXIMIZE RESIDENTIAL REHABILITATION AND REDEVELOPMENT
POTENTIAL IN AREA NORTH of CHAPMAN SCHOOL
HOUSEHOLDS DISPLACED DESIRING TO STAY IN N.W. DISTRICT
UNITS FEASIBLE ON VACANT LAND IN THURMAN-VAUGHN CORRIDOR
het change in no. of good housing units
SURFACE OVERALL
NET SURFACE ON: VAUGHN AT 27TH
VAUGHN AT 23 EP
ETTH, Z5TH, Z5TH THURMAN TO VAUGHN
THURMAN AT 26TH
THURMAN AT 24TH
NO. HOUSEHOLDS WITHIN 70 dba AREA
% HOUSEHOLDS DESIRE/NEED TO REMAIN ACCOMMODATED
TRANSPORTATION FACILITY SHOULD EFFICIENTLY AND SAFELY

MOVE PEOPLE AND GOODS INTO AND OUT of N.W. INDUSTRIAL

ALTERNATIVES

ONE	TWO	THREE	FOUR	FIVE	NO BUILD
<u>58</u>	75	45	57	<i>6</i> 8	HOHE
927	1451	1313	1126	0381	NONE
303	334	65	65	66	NONE
629	732	180	180	182	NONE
120	139	34	34	34	NONE
4.9	7.1	9.4	5.9	7.1	NONE
30	43	20	20	19	NONE
173	184	32	32	34	NONE
84	25	7	7	7	NONE
2.63	2.63	4.56	4.56	4.56	4.56
•					
				* *** ** *	
	-				· · · · · · · · · · · · · · · · · · ·
				· · · · · · · · · · · · · · · · · · ·	
218	241	47	47	47	
60	60	105	105	105	105
-112	-123	+73	+73	+ 72	+105
GOOD	GOOD	FAIR	FAIR	GOOD	POOR
13,000	17,000	7,000	10,000	10,000	17,000
17,000	17,000	13,000	15,000	13,000	19,000
26,000	22,000	18,000	19,000	21,000	28,000
8.000	5,000	3,000	3,000	4,000	13,000
4,000	5,000	3,000	6,000	5,000	7,000
240	165	170	165	170	430
31%/51%	25%/42%	1007./100%	100%/100%	1007/100%	1007/1007
		1-0 /4/ 100 /6	1316/13018		
			<u></u>		
	<u> </u>	<u> </u>			
'	l		! 	. <u>.</u>	

LEVEL of FREEWAY SERVICE				
SURFACE STREET IMPACT				
USER EASE				
SEPARATION OF TRAFFIC: THRO	UGH			
TRUCK	(5			
PEDES	TRUN			
GENERAL ACCESSIBILITY TO ST	UDY AREA			
COST of IMPROVEMENTS IN ONE ARE	A SHOULD NOT FORCLOSE			
IMPROVEMENT OPPORTUNITIES IN O	THER AREAS of THE CITY.			
INTERSTATE (INCLUDING RELOCATION	(costs), millions of \$			
NON-INTERSTATE	, millions of \$			
relocation costs	, MILLIONS of ,			
INVESTMENTS IN AUTOMOBILE TRANSPORT	ATION FACILITIES SHOULD NOT BE			
MADE SUCH AS TO FORECLOSE INVESTMENT	IN TRANSIT FACILITIES; OR TO			
INHIBIT MODIFICATION AS FUTURE DEM	ANDS DICTATE.			
STAGE CONSTRUCTION POTENTIA	L			
TRANSIT! ENHANCEMENT				
lang range				
FLEXIBILITY: STUDY AREA GROWTH				
GENERAL REGIONAL LAND USE				
TRIP GROWTH				
HIGHWAY SYSTEM				
PRESERVE AND ENHANCE DESIRABILITY of N.W. DISTRICT AS A VIABLE				
RESIDENTIAL NEIGHBORHOOD				
noise impact on Area				
AIR IMPACT ON AREA.				

С	C	В		В	ε
GOOD	FAIR	FAIR	GOOD	FAIR	POOR
GOOD .	FAIR	FAIR	POOR	FAIR	FAIR
FAIR	600D	G000	POOR	FAIR	VERY POOR
POOR	G00D	GOOD	FAIR	FAIR	VERY POOR
FAIR	GOOD	GOOD	GOOD	@00D	VERY POOR
FAIR	EXCELLENT	EXCELLENT	FAIR	VERY GOOD	VERY POOR
			`		
25.6	46.7	72.4	38.9	61.5	.7 3
4.1	6.4		8.3	5.3	-
1.7	1.9	1.0	1.0	1.1	-
GOOD	FAIR	GOOD	VERY GOOD	FAIR	POOR
POOR	GOOD	GOOD	600D	FAIR	POOR
FAIR	FAIR	FAIR	GOOD	FAIR	G00D
FAIR	EXCELLENT	VERY GOOD	GOOD	GOOD	POOR
FAIR	POOR	POOR	G00D	FAIR	GOOD
GOOD	GOOD	EXCELLENT	VERY GOOD	GOOD	POOR
FAIR	FAIR	POOR	GOOD	FAIR	EXCELLENT.
SECOND LARGEST	SECOND LARGEST	LEAST	SECOND LEAST	MEDIUM	LARGEST
MEDIUM TIED	MEDIUM THE	LEAST	SECOND LEAST	LARGEST TIED	LARGEST TIED



COMPARISON OF ALTERNATIVES ONE & FOUR

INDICATES "MOST FAVORABLE" ALTERNATIVE

LEVEL OF FREEWAY SERVICE	
SURFACE STREET IMPACT	
USER EASE	
SEPARATION OF TRAFFIC: THRO	UGH
TRUCK	(5
PEDES	TRUN
GENERAL ACCESSIBILITY TO ST	UDY AREA
COST of IMPROVEMENTS IN ONE ARE	A SHOULD NOT FORCLOSE
IMPROVEMENT OPPORTUNITIES IN OT	THER AREAS of THE CITY.
INTERSTATE (INCLUDING RELOCATION	(COSTS), MILLIONS of \$
NON-INTERSTATE	, MILLIONS of #
RELOCATION COSTS	, MILLIONS of \$
MVESTMENTS IN AUTOMOBILE TRANSPORT. MADE SUCH AS TO FORECLOSE INVESTMENT MHIBIT MODIFICATION AS FUTURE DEM STAGE CONSTRUCTION POTENTIA	IN TRANSIT FACILITIES; OR TO
TRANSIT! ENHANCEMENT	
LONG RANGE	
FLEXIBILITY: STUDY AREA GRO	OVERH
GENERAL REGIONAL	
TRIP GROWTH	
HIGHWAY SYSTEM	-
PRESERVE AND ENHANCE DESIRABILITY	of N.W. DISTRICT AS A VIABLE
RESIDENTIAL NEIGHBORHOOD	
NOISE IMPACT ON AREA	
AIR IMPACT ON AREA.	

_	۷	В		<u> </u>	[E _
GOOD	FAIR	FAIR	6000	FAIR	POOR
GOOD	FAIR	FAIR	POOR	FAIR	FAIR
FAIR	400D	GOOD	POOR	FAIR	VERY POOR
POOR	GOOD	GOOD	FAIR	FAIR	VERY POOR
FAIR	GOOD	GOOD	GOOD	GOOD	VERY POOR
FAIR	EXCELLENT	EXCELLENT	FAIR	VERY GOOD	VERY POOR
	Adding the second secon				
25.6	46.7	72.4	38.9	61.5	.73
4.1	6.4		8.3	5.3	
1.7	1.9	1.0	1.0	l. l	
GOOD	FAIR	G00D	VERY GOOD	FAIR	POOR
POOR	GOOD	GOOD	6000	FAIR	POOR
FAIR	FAIR	FAIR	GOOD	FAIR	GOOD
FAIR	EXCELLENT	VERY GOOD	GOOD	GOOD	POOR
FAIR	POOR	POOR	GOOD	FAIR	GOOD
GOOD	GOOD	EXCELLENT	VERY GOOD	GOOD	POOR
FAIR	FAIR	POOR	GOOD	FAIR	EXCELLENT,
	*		! <u></u>		
SECOND LARGEST	SECOND LARGEST	LEAST	SECOND LEAST	MEDIUM	LARGEST
MEDIUM TIED	MEDIUM TIER	LEAST	SECOND LEAST	LARGEST TIED	LARGEST TIED
		لـــــــــــــــــــــــــــــــــــــ		L	



COMPARISON OF ALL ALTERNATIVES

Indicates "most favorable" Alternative

I-505 COMPARATIVE ANALYSIS MATRIX

MINIMIZE THE DISLOCATION OF RESIDENTS AND ACTIVITIES AS A
result of Aquisition of LAND and construction of
FREEWAY
NO. of FIRMS DISPLACED
NO. of JOBS DISPLACED
NO. of HOUSHOLDS DISPLACED
NO. of PEOPLE DISPLACED.
NO. of PEOPLE OVER 62 DISPLACED
ASSESSED VALUATION LOST (MILLIONS of \$)
OWNER OCCUPIED HOUSES DISPLACED
UNITS IN GOOD CONDITION DISPLACED
HOUSING UNITS LEFT ISOLATED
ACRES VACANT IN THURMAN-VAUGHN CORRIDOR

MAXIMIZE RESIDENTIAL REHABILITATION AND REDEVELOPMENT
POTENTIAL IN AREA NORTH of CHAPMAN SCHOOL
HOUSEHOLDS DISPLACED DESIRING TO STAY IN N.W. DISTRICT
UNITS FEASIBLE ON VACANT LAND IN THURMAN-VAUGHN CORRIDOR
NET CHANGE IN NO. of GOOD HOUSING UNITS
SURFACE OVERALL
NET SURFACE ON: VAUGHN AT 27TH
VAUGHN AT 23 EP
27TH, 25TH, 25TH HURMAN TO VAUGHN

THURMAN AT 24TH

THURMAN AT 24TH

NO. HOUSEHOLDS WITHIN 70 46 AREA

76 HOUSEHOLDS DESIRE/NEED TO REMAIN ACCOMMODATED

TRANSPORTATION FACILITY SHOULD EFFICIENTLY AND SAFELY MOVE PEOPLE AND GOODS INTO AND OUT of N.W. INDUSTRIAL

ALTERNATIVES

ONE	TWO	THREE	FOUR	FIVE	<u> 40-BUILD</u>
58	75	45	57	68	NONE
927	1451	1313	1126	0.281	NONE
303	334	65	65	66	NONE
629	732	180	180	182	NONE
120	139	34	34	34	NONE
4.9	7.1	9.4	5.9	7.1	NONE
30	43	20	20	19	NONE
173	184	32	32	34	NONE
84	25	7	7	7	NONE
2.63	2.63	4.56	4.56	4.56	4.5%
218	24.1	47	47	47	
	60	105	105	105	105
60				+ 72	
-112	-123	+ 73	+73		+105
GOOD	GOOD	FAIR	FAIR	GOOD	POOR
13,000	17,000	7,000	10,000	10,000	17,000
17,000	17,000	13,000	15,000	13,000	19,000
26,000	22,000	8,000	19,000	21,000	000,85
8,000	5,000	3,000	3,000	4,000	13,000
4,000	5,000	3,000	6,000	5,000	7,000
240	165	170	165	170	430
31%/51%	252/42%	1007/100%	100%/100%	100%/100%	100%/100%
				.,.	
_		المنتوني والمناهدات			

I-505 Alternatives: Pros and Cons

Mary S.

For the sake of argument, assume that the alternatives for the I-505 Industrial Freeway have been reduced to two serious contenders: #1 and #4. Following is an initial attempt to evaluate some of the pros and cons in each of these alternatives, using #4 as the object of scrutiny.

Alternative #4

CON

- 1. Because this solution contains less freeway treatment and more surface street treatment than alternative #1, the proportionate share of state money required will be higher. Freeways are funded at a split of 92%/8%, while surface street is funded at 60%/40%.
- · 2. This alternative will have a greater user cost, \$43,700 vs. \$41,600.
- 3. This alternative has a higher accident total, 370 vs. 345.
- 4. This alternative does a poorer job of separating through traffic. (This may, however, be a hidden advantage, if one were to assume that through trips were not to be encouraged.)
- 5. This alternative presents problems in rail/auto conflicts on Yeon, a problem which does not exist with alternative #1.
 - 6. This alternative will affect 57 businesses and 1126 jobs.

PRO

- 1. This alternative takes the freeway north, so that the burden of paying the cost is born by these who reap the benefit.
- 2. This alternative provides better service to the industries for whom the freeway was originally intended.
- 3. This alternative provides direct access to the Port's industrial holdings for efficient transfer of goods.
- 4. This alternative reduces the amount of travel time to the industrial area.
- 5. This alternative reduces the level of conflicts within the industrial area, once traffic arrives.
- 6. This alternative provides greater growth capacity past 1990.
- 7. This alternative does a better job of separating trucks and autos and vehicles and pedestrians.
- 8. This alternative provides for a smoother transition of traffic from the ramps to the extended solution and greater traffic ease onto the ramps.
- 9. This alternative is a more flexible solution in terms of study area growth, general regional land use, trip growth and the overall highway system. In every category of flexibility, this solution ranks higher than alternative #1.

- 10. This alternative ranks higher than alternative #1 in its enhancement of transit, both as a design solution providing for transit possibilities, and as a solution which permits the delivery of workers to the vicinity of the jobs, because of the proximity of the alternative to the area of employment concentration.
- ll. This alternaitve not only removes less housing (65 units vs. 303 units), displaces fewer individuals (180 vs. 629) and leaves fewer units isolated to the north (7 vs. 84), it also does a better job of discriminating between housing units. Those units taken by this alternative are the ones isolated in the industrially-zoned northern area, for which there is no possible hope of future residential development. By using the freeway as a tool to demolish these units, alternative #4 selectively eliminates untenable housing units, which could be replaced in the freed up a corridor along Thurman-Vaughan-Upshur.
- 12. This alternative takes somewhat more cars off of neighborhood streets: 5,000-6,000 on Thurman vs. 8,000-9,000, 14,000-15,000 on Vaughan vs. 16,000-17,000, 9,000 on Wardway vs. 11,000.
- 13. Alternative #4 could be a politically acceptable compromise between alternatives #1 and 3, acceptable to both the neighborhood and a number of the industrial interests which would have suffered under #3 but will not be hurt by #4.