

Appendix A

Stakeholder Interview Responses

Stakeholder Notification Letter

Stakeholder List

Stakeholder Interview Questions

Stakeholder Identification and Interviews

Stakeholder interviews were conducted to learn about current conditions in the Interchange 123 IAMP study area. These were conducted simultaneously with interviews regarding Interchanges 119 and 120. These interviews provided background for two distinct ODOT planning projects – a Transportation Conditions Report for Interchanges 119 and 120 and the other an Interchange Area Management Plan for Interchange 123. The projects are being produced concurrently and share the same technical advisory committee and project team to maximize efficiency.

The Process

With the help of the two projects' Technical Advisory Committee, the consulting team identified individuals that potentially had valuable information and insight into transportation and land use planning-related issues at the interchanges. This initial list ultimately was narrowed down to a representative list of 13 individuals. On June 17, 2004, Michael Baker, Project Manager ODOT Region 3 Planning, sent a letter to this list that introduced the projects and invited the chosen interviewees to participate in the process. A series of telephone interviews were then conducted with these individuals to identify issues associated with the 119/120 Interchange area and Interchange 123 during the last two weeks of June. Each person interviewed was contacted by phone. The interview typically lasted from 20-30 minutes.

The Participants

The participants were chosen because they, as individuals or as representatives of a group, had an interest in the operation of one, or all of the subject interchanges. Those interviewed included business property owners, homeowners, distribution and manufacturing interests, visitor or traveler service providers, and economic development representatives. Of the 12 people contacted, four were primarily interested in just Interchange 123. Appendix A contains the list of the stakeholders interviewed.¹

The Questions

A complete list of the interview questions is included in Appendix A. The interview questions can be categorized in the following general topic areas:

- The effect current traffic conditions at the interchange(s) have on business/property owners/interest groups.
- Major transportation deficiencies at the interchange(s).
- Future growth in areas around the interchange(s).

¹ Thirteen individuals were contacted to participate in the stakeholder interviews; twelve interviews ultimately were conducted and summarized as part of this report.

I-5 Interchange 123 (Fairgrounds)

- Ideas for improvements at the interchange(s).

The same set of questions were used for all of the interviewees, with some alternate questions used in the case of interviews that were only concerned with Interchange 123.

Interview Summary

There were some topics or themes that were common to most of the responses to the interview questions. Most respondents were generally pleased with present operations the interchange and did not have concerns regarding its ability to handle current levels of traffic efficiently and safely. However, those interviewed did make a point of mentioning that the design of the interchange was potentially dangerous. The majority of comments confirmed that current traffic conditions at the interchange was not seen as having negative impacts to businesses or properties in the area, with the notable exception of major event days at the Douglas County Fairground. Words such as “workable,” “acceptable,” and “serves needs well” were used to describe current traffic conditions at the intersections.

Several of those interviewed emphasized the growth in Roseburg and noted that this growth will likely have negative impacts on the interchange in the future. Most interviewees anticipated increased growth in the immediate vicinity of the interchange as well, noting the amount and location of vacant and redevelopable land. Some residential and commercial opportunities west of the interchange were mentioned, with development and redevelopment in the vicinity expected to increase if a new bridge was constructed at Portland Avenue.

There were few comments directed specifically at access issues, beyond concerns that current access be retained, both during and after any future construction at the interchanges.

Stakeholder Interviews

The following is a list of paraphrased comments that were shared during the telephone interviews regarding the Interchange 123 study area. The comments are organized under three general topic areas: Specific Concerns Regarding Interchange 123; Growth in the Region Affecting Interchange 123; and Past Improvements/Suggestions for the Future. When there was more than one related comment this fact is noted in parentheses.

Specific Concerns Regarding Interchange 123

- A new bridge at Portland Avenue is necessary to alleviate the “bottleneck” that occurs occasionally at 123; another exit would improve traffic congestion from south Roseburg.
- There are geometric and sight distance problems with the interchange (all four interviewees with an interest in this interchange mentioned that traffic movement under the overpass was challenging and dangerous, citing lack of traffic controls at the off ramp and having to turn against traffic when accessing Portland Avenue).
- There seems to be a lot of accidents (off southbound exit).
- Any improvements will need to be well coordinated with operations of Old Highway 99 east of the river.

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- The time of construction for future improvements is a concern (Douglas County Fair week is the first or second week of August; 80,000 visitors over 5 days cause back-ups on I-5).
- Residents should be able to access their homes during construction of any future improvements; the sooner improvements happen, the better.
- Even though event parking on Kendall is prohibited, people still park in front of residences and this area is not patrolled for violators in the “no parking” areas.
- The design of a future Portland Avenue bridge will be particularly important, as it will become an arterial roadway.
- The mill between Portland Avenue and Interchange 123 creates significant traffic on Old Highway 99 in this area; if the bridge is built, all this traffic will use that facility; if Interchange 120 is constructed as a four-way intersection, then the traffic in and out of the mill will use this intersection.
- Backups on I-5 southbound and the barrier that trains cause at the Highway 99 Harvard Exit are a detriment in emergency situations, particularly when trying to reach Mercy Hospital.

Growth in the Region Affecting Interchange 123

- Improvements to Interchange 123 will affect the quality of development in its vicinity. A decent quality interchange and a new bridge will cause rural/heavy industrial uses to evolve into high density, quality commercial uses.
- If the interchange is upgraded, there will likely be a rapid shift from residential to commercial uses in the immediate vicinity.
- The Douglas County Fair has a “buy order” for houses along Portland Avenue and has a “first right of refusal” for the Driver Property near the water shed.
- The Douglas County Fair is currently in the process of replacing a 12,000 square foot conference center with a 25,000 square foot facility, scheduled for completion in Spring 2005.
- There isn’t a lot of room for more residential growth along Kendall Street; there aren’t plans for the couple of vacant lots to be developed or sold.
- Improvements could facilitate commercial (motel/restaurant) and residential growth west of the interchange.
- Roseburg is growing; there is definitely a need for a bridge at Portland Avenue.

Past Improvements/Suggestions for the Future

- Working closely with ODOT, many of the Fairground traffic issues were eliminated last year; re-striping at the interchange has improved its functionality.

I-5 Interchange 123 (Fairgrounds)

- While visibility has improved under the 123 bridge, it is still an uncontrolled intersection with nothing to slow down traffic; more needs to be done to address this issue with regards to the traffic volumes coming from the north to access the fairgrounds.
- Interchange 123 needs to be made fully functional with sufficient area underneath for improvements (a four-way intersection).
- The traffic impacts on Interchange 123 would be significantly lessened if 120 was to become a four way interchange (instead of southbound on and off only).
- The fairgrounds need more parking area and more control over parking in prohibited areas would be helpful.
- Really need a new interchange at 123; a redesign should straighten out the alignment and widen the overpass to make that intersection more safe. (Three comments concerned the curve at this intersection, as it related to safety issues.)
- A new Portland Avenue bridge would be the biggest improvement to improve traffic flow south of Roseburg. (All interviewees with an interest in the Interchange 123 area shared a similar opinion.)
- Another exit (new bridge crossing) in the area would disperse traffic, get congestion out of downtown Roseburg and alleviate log and semi-truck traffic on Old Highway 99 (Sunstuds Lumber Mill and Umpqua Dairy traffic mentioned).
- Adding another lane from Harvard into the Fairgrounds would help with traffic/access.

I-5 Interchange 123 (Fairgrounds)

[name]

[company]

[address]

Roseburg, OR 97470

Dear [name]:

The Oregon Department of Transportation (ODOT) is currently conducting planning studies for I-5 Interchanges 119 and 120 and Interchange 123. ODOT has contracted with the engineering firm David Evans and Associates (DEA) for consulting work on these three interchanges; the planning firm Angelo Eaton & Associates is a subconsultant for land use issues. Two projects, one resulting in a Transportation Conditions Report for Interchanges 119 and 120 and the other an Interchange Area Management Plan for Interchange 123, are happening concurrently. I am contacting you because you have been identified as a person, or as a representative of a group, who has an interest in the operation of one, or all of these interchanges. We would like to schedule 10-20 minutes of your time to discuss the information or concerns you have about the interchange(s).

Staff from Angelo Eaton & Associates will be conducting stakeholder interviews during the week of June 21-25. They will be contacting you via telephone during this week to either conduct a short interview, or schedule another time that is more convenient for you.

Some of the question topic areas will include:

The affect current traffic conditions at the interchange(s) have on business/property owners/interest groups.

Major transportation deficiencies at the interchange(s).

Future growth in areas around the interchange(s).

Ideas you may have for improvements at the interchange(s).

We hope that you, or an associate with similar knowledge, will be willing to spend some time contributing to the interchange planning projects by participating in a stakeholder interview. While this call will be relatively short and informal, your input is important to successfully identifying future solutions for these interchanges. If you have questions about the Interchanges 119 and 120 Conditions Report or the Interchange 123 Interchange Area Management Plan, please call me at 541-957-3658.

Sincerely,

Michael Baker

Project Manager

ODOT Region 3 - Planning

Interchanges 123

Stakeholder List

Name	Organization	Address
Interchanges		
119/120		
Tonya Theiss*	Cow Creek Band of Umpqua Tribe of Indians	2371 NE Stephens, Ste 100 Roseburg, OR 97470
Tony Wright	UPS	4429 Old Highway 99 S., Roseburg, OR 97470
Helga Conrad	Umpqua Economic Development Partnership	744 SE Rose St., Roseburg, OR 97470
Allyn Ford	Roseburg Forest Products	P.O. Box 1088, Roseburg, OR 97470
Dave Gilbert	Lindyland (Lindy's Center?)	P.O. Box 909, Roseburg, OR 97470
Patty Carte	Love's Truck Stop	280 Grant Smith Rd., Roseburg, OR 97470
Mike Crennen	Roseburg Paving, a Division of LTM Inc.	P.O. Box 1427, Roseburg, OR 97470
Wes Melo	Ingram Books	201 Ingram Drive, Roseburg, OR 97470
Rod Johnson	Littlebrook Estate	200 Littlebrook Lane, Roseburg, OR 97470
Interchange 123		
Harold Philips	Douglas County - Fair Director	2110 SW Frear, Roseburg, OR 97470
Stephen James	Stephen James Construction	161 Heritage Way, Roseburg, OR 97470
Dave Leonard	Pinnacle Engineering	3329 NE Stephens, Roseburg, OR 97470
William Baker	Property Owner	1713 SW Kendall, Roseburg, OR 97470

* This stakeholder was contacted but did not have time to discuss the interchange planning projects within the timeframe for completion of this report. Tonya Theiss represents the interests of the Cow Creek Band of Umpqua Tribe of Indians as a member of the I-5 Interchanges 119/120 Technical Advisory Committee.

**Stakeholder Interviews for:
Interchanges 119 and 120 Transportation Conditions Report
Interchange 123 Interchange Area Management Plan**

A reminder that the purpose of the interviews is to:

- Uncover underlying issues in the community;
- Establish a sense of confidence in the consultant team;
- Gather information and opinions that might not otherwise be available;
- Observe patterns of opinion from a range of diverse community leadership;
- Determine overall willingness to participate in the project.

The purpose of this process is to gain a better understanding of both the current and future deficiencies in how the 119 and 120 interchanges function. With the help of an advisory committee, the consultant team will identify and document conditions, limitations, and opportunities and needs, all of which will be captured in a Conditions Report.

The purpose of the Interchange 123 planning effort is to evaluate the operation of, assess the limitations and issues of concern, and identify possible future long-range needs attributable to planned development in the area. The project is to prepare an interchange area management plan, as required by State law, for the I-5 overcrossing bridge replacement and the potential new Portland Avenue bridge over the South Umpqua River.

To what extent are you familiar with the planning project(s)? *(Interviewer will distinguish these from the construction projects underway; questions will be referred to Chris Hunter, ODOT CPM, 541-957-3689)*

(1.) What concerns, if any, do you have about the purpose and process? What are your expectations?

(2.) What interchange is of particular interest to you? Why?

For property owners/tenant stakeholders:

What are the existing uses on the property?

Are the existing uses considered temporary, short-term, or long-term?

Do you have any short-term, medium-term, or long-term plans to change use, or develop on the property? If yes, would the change(s) involve a need to change access to the property?

(3.) How is your property/business/ constituency/members affected by current traffic conditions at the interchange(s)?

I-5 Interchange 123 (Fairgrounds)

- (4.) What do you see as the primary function of the interchange(s)? How do you think the interchange(s) and I-5 can balance serving local/regional access needs with interstate use (mobility) and function?
- (5.) What do you believe are the major deficiencies at the (these) interchange(s) – e.g. congestion, access to properties, safety, design, etc.?
- (6.) What are your ideas for improvements to the interchange(s)?
- (7.) What do you envision for future growth in the region? Do you think the area needs – or is likely to see - more industrial growth, more commercial growth or more residential growth? What locations might this occur in the future?
- (8.) Have past ODOT or County improvements or particular development projects helped or hindered traffic congestion and access issues in the vicinity of the interchange?
- (9.) How would the construction of a new bridge across the South Umpqua River affect traffic movement or land uses in the area?
- (10.) An access management plan will be a part of the interchange area management plan for Interchange 123. Do you have concerns specific to access management, such as related safety considerations or the location of future access points?
- (11.) This process will continue through Fall of 2004, with several public input and information opportunities. What suggestions do you have for us about how we involve the public in this process? How would you like to stay involved? Are there other specific individuals and groups that we need to contact?

Appendix B
Interchange 123
Technical Advisory Committee Members

ODOT

Mike Baker	Project Manager, Region 3 Planning
Lisa Cortes	Region 3 Planning
Doug Norval	Transportation Planning Analysis Unit
Dave Warrick	Preliminary Design
Ron Hughes	Region 3 Traffic/RAME
Steve Madison	Region 3 Right-of-Way
Darrin Neavoll	ODOT

Consultant Team

John Stutesman	DEA
John Replinger	DEA
Rick Kuehn	CH2MHill
Darci Rudzinski	Angelo Eaton & Associates

TAC

Kelly Niemeyer	Douglas County - Planning
Mike Luttrell	Douglas County - Public Works
Jim McClellan	SWACT (Southwest Area Commission on Transportation)
John Boyd	Douglas County – Planning
Clay Baumgartner	City of Roseburg – Public Works Director
Sarah Mizejewski	City of Roseburg – Planning
Rex Stevens	City of Winston – Mayor
David VanDemark	City of Winston – City Administrator

I-5 Interchange 123 (Fairgrounds)

Harold Philips	Douglas County Fair
Tonya Theiss	Cow Creek Band of Umpqua Tribe of Indians
John Renz	The Department of Land Conservation and Development
Fred Patron	Federal Highway Administration

Appendix C

Traffic Operations Analysis Methodologies

Traffic Counts

The Oregon Department of Transportation (ODOT) conducted two 14-hour manual classification counts. One count was conducted at the northbound I-5 ramp terminals at Portland Avenue on Wednesday, 11/19/2003, and the other was conducted at the southbound I-5 ramp terminals at Portland Avenue on Tuesday, 11/13/2003.

The 14-hour manual classification counts were examined to determine the Peak Hour Volume, Peak Hour Factor, and Percent of Heavy Vehicles at each intersection. The common peak hour for the intersections was found to occur between 4:00 and 5:00 PM. Existing traffic volumes can be found in **Figure 5**. Because the traffic volume data for the Fairgrounds interchange area were tabulated for one-hour increments rather than 15-minute increments, count data from the area surrounding interchanges 119 and 120 was used to develop the peak hour factor. Based on this data, a peak hour factor of 0.95 was used.

Heavy vehicle percentages were determined for each intersection from the counts provided. Heavy vehicles were considered to be any vehicle with three or more axles excluding buses. Based on the provided counts, heavy vehicles were found to comprise one percent of the overall traffic volume.

Developing 30th Highest Hour Volumes

ODOT's Transportation Planning Analysis Unit (TPAU) has developed a procedure for calculating current year 30th highest hour traffic volumes. This procedure was applied to the area surrounding Interchange 123.

The 30th highest hour traffic volumes are calculated by applying a seasonal factor to the peak hour volumes. The 30th Hour Volume usually occurs during the peak month of the year. The peak hour volume is multiplied by the seasonal factor to obtain the 30th Hour Volume.

The seasonal factor is found by using the ODOT Automatic Traffic Recorder (ATR) closest to the location of interest with similar traffic flows, area type, and lane configuration. For locations on the freeway ramps, ATR 10-005, located 3.40 miles north of Roseburg on I-5, was used to determine an appropriate seasonal factor of 1.19. For the traffic volumes on Portland Avenue, an average seasonal factor of 1.14 was calculated using ATRs 10-006, 15-017, 15-014, and 18-018.

Traffic volumes were then multiplied by their appropriate seasonal factor to determine the 30th Hour Volumes. The traffic volumes were rounded to the nearest five vehicles and balanced using the larger volume. Balanced 30th Hour Volumes can be found in **Figure 6**.

Traffic Operations Analysis

Synchro and SimTraffic were selected for performing the traffic operational analysis. The two intersections in the study area are stop-controlled intersections. The Level-of-Service report from Synchro on unsignalized intersections is based on Chapter 17 of the 2000 Highway Capacity Manual (HCM)². The Synchro report summarizes the calculated Level-of-Service, Volume-to-Capacity ratios, and the 95th Percentile Queue Length by lane and minor street approach for two-way stop-controlled intersections.

Crash Analysis

The following describes the methodologies and results from the Interchange 123 crash analysis.

PRC Reports

PRC reports are generated by ODOT personnel in the Crash Analysis and Reporting Unit from state-wide crash databases. The PRC crash listings were obtained from ODOT for the most recent three complete years of reported crashes. It should be noted that the crashes listed are only the crashes reported.

Crash Rates

The crash rates were calculated from the PRC crash reports. Crash information collected represents crashes that occurred within 265 feet of the intersection (or more if it is determined the crashes are within the influence area of the intersection) and only those crashes that were reported. In Oregon, legally reportable crashes are those involving death, bodily injury or damage to any one person's property in excess of \$1,000.

Both intersection crash rates and segment crash rates were calculated using the following equations.

$$rate_{int} = \frac{(Crashes \cdot 1,000,000)}{(365 \cdot Years \cdot ADT)} \quad \text{and} \quad rate_{segment} = \frac{(Crashes \cdot 1,000,000)}{(365 \cdot Years \cdot Length \cdot ADT)},$$

where

Rate_{int} = Crash rate per Million Entering Vehicles (MEV)

Rate_{segment} = Crash rate per Million Vehicle Miles Traveled (MVMT)

Crashes = Number of crashes during the time segment

Years = Number of years being studied

ADT = Average Daily Traffic volumes

² Highway Capacity Manual, Transportation Research Board, Washington DC, 2000.

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Length = Length of roadway segment being studied (for segment rates).

The number of crashes was determined from the PRC reports. The ADT for corridor crash rates was obtained using the ODOT Transportation Volume Tables. The ADT for intersection crash rates was determined by taking 10 times the total entering volume for the peak hour of traffic. Crash rates were calculated for the entire three-years of available crash data.

SPIS Data

SPIS is a method developed by ODOT for prioritizing locations where funding for safety improvements can be spent most efficiently and effectively. Based on crash data, the SPIS score is influenced by three components: crash frequency, crash rate, and crash severity. Three years of crash data are analyzed for the SPIS score. SPIS locations meet one of two criteria during the previous three years: three or more crashes at the same location, or one or more fatal crashes at the same location. A list of the sites with the top 10% SPIS scores is produced each year. For the year 2003, which includes crash data for 2000, 2001, and 2002, the SPIS scores at or above 45.07 are in the top 10%. There are no segments surrounding Interchange 123 that are in the Top 10% of SPIS scores.

Study Area Findings

Crashes were summarized by location for each of the ramp terminals and the freeway segments between the on and off-ramps. The southbound off-ramp at Portland Avenue had one crash between 2000 and 2002. The estimated ADT was 880 vehicles per day, which returned a crash rate of 1.04. There were two crashes that occurred near the merge area of I-5 southbound and the on ramp at interchange 123. There were five crashes on the mainline between the southbound off- and on-ramps.

The northbound direction had one crash on the northbound off-ramp between the freeway and Portland Avenue. There were no crashes at the intersection of Portland Avenue and the northbound on-/off-ramps. There were three crashes on the northbound mainline between the northbound off- and on-ramps of interchange 123.

A crash rate for both the northbound and southbound directions of I-5 was calculated using a three-year average ADT of 42,500 vehicles per day. A three-year crash rate 0.21 was found for I-5 from milepost 122.50 to 122.80. This is just over 0.25 miles south of the northbound off-ramp and southbound on-ramp. The area between the on- and off-ramps of I-5 at exit 123 has a crash rate of 0.34 and the area to north on I-5 from milepost 123.23 to 123.50 has a crash rate of 0.16. The statewide comparable crash rate for freeways in rural areas is 0.26, 0.24, and 0.22 for 2000, 2001, and 2002 respectively. The crash rates for I-5 near exit 123 are below the statewide average north and south of the interchange, but just above the average for the area between the on- and off- ramps.

Appendix D

Constructability Issues

At the December 2004 TAC Meeting, the team was asked to consider the interrelationship of the design and siting of the interchange with the construction and phasing of the project. Engineers from David Evans and Associates, Inc., CH2MHill, Inc., and ODOT discussed the issues and the discussions are summarized below.

Assumptions

With a daily traffic volume of approximately 44,000, it was determined that two travel lanes must be kept open on I-5 in each direction for the duration of the bridge reconstruction. Due to the lack of alternative access for local residents and the Douglas County Fairgrounds, it was also assumed that access would be maintained to the local street on both the east and west sides of the interchange.

It was assumed that the I-5 mainline bridge would be constructed to accommodate three lanes in each direction in the future. This assumption, which may not be critical to the design or siting of the interchange and bridge, is discussed in more detail below.

Finally, it was assumed that the I-5 traffic could be restricted to a narrower portion of the existing bridge, allowing two-direction travel to be maintained, but still allowing a portion of the existing bridge to be removed. This partial removal, which is thought to minimize the lateral offset of the new bridge, is also discussed in more detail below.

Possible Construction Phasing Sequence

The need to maintain two travel lanes in each direction is a key factor with this project. **Figure D1** depicts a schematic of the possible construction phasing. Note that this schematic depicts three construction phases and maintains two travel lanes in each direction during each phase. The new structure is estimated to be approximately 34 to 40 feet wider than the existing bridge. The construction sequence depicted would result in the new bridge being offset to either the east or west. The new, wider structure would result in an adjustment of about 40 feet to one side of the other and a shift of the I-5 centerline of approximately 20 feet.

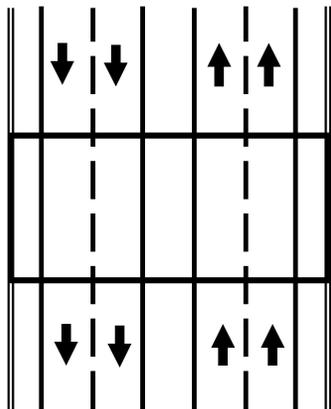
A construction phasing sequence that attempted to limit the construction to two phases or an inability to remove part of the existing structure would likely cause a greater shift in the centerline and a greater offset from the existing edge of structure.

Symmetrical widening of I-5 was also considered. This would maintain the centerline of I-5 in its current location. Though there may be a way to widen symmetrically to each side, a phasing sequence could not be developed for this possibility that did not involve temporary facilities that would be constructed and later removed.

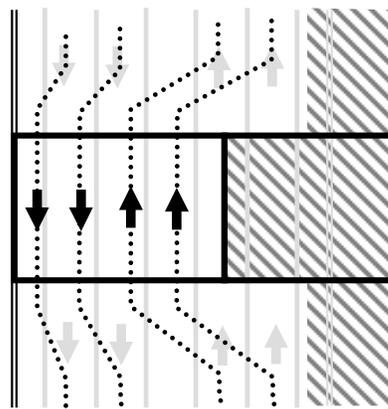
Siting of the New Bridge and Realignment of I-5

From a construction phasing standpoint, there would be no difference between widening to the east (toward the Fairgrounds and river) or to the west (toward Heritage Way and the hillside). The widening of the bridge and shifting I-5 in either direction is likely to require some right-of-way acquisition and, potentially, some relocation of residents. Shifting toward the east would likely involve retaining walls and substantial earthwork to relocate road connections and ramp changes. Shifting to the west would likely involve ramp changes and retaining walls.

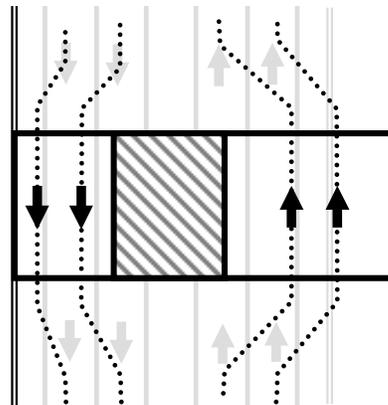
A substantial length of I-5 would have to be reconstructed to accommodate a change in centerline alignment. In addition, due to the increase in bridge length (needed to accommodate more lanes on Portland Avenue), the bridge structure would be deeper, adding to the need to reconstruct a portion of I-5.



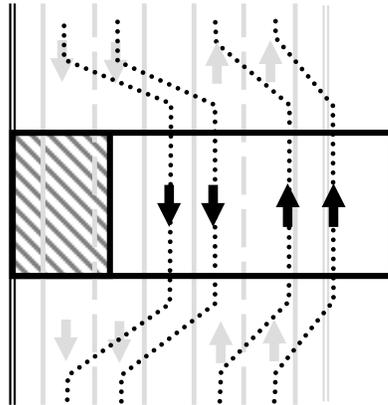
Existing Conditions



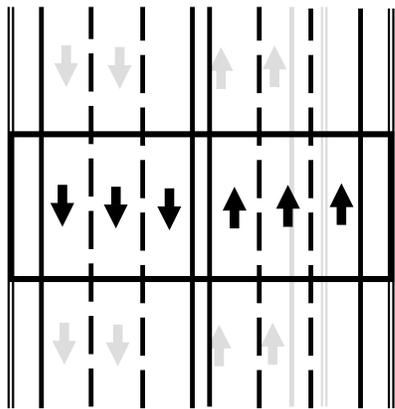
Phase 1 Construction



Phase 2 Construction



Phase 3 Construction



Ultimate Configuration



Not to Scale

Notes:

- Phase 1 - Shift traffic to west, using shoulder for through travel.
- Widen on east side, widen and replace easternmost bridge section.
- Phase 2 - Shift traffic to outer lanes, reconstruct center bridge section.
- Phase 3 - Shift traffic to east, reconstruct westernmost bridge section
- Ultimate configuration represents shift of centerline to the east towards Fairgrounds

LEGEND

-  Work zone
-  Bridge
-  Direction of travel
-  Detour Route

**Figure D1
Construction Phasing**

Interchange 123

