
5.2

Transportation (WAC 463-42-372)

WAC 463-42-372 BUILT ENVIRONMENT — TRANSPORTATION.

(1) *Transportation systems* - The applicant shall identify all permanent transportation facilities impacted by the construction and operation of the energy facilities, the nature of the impacts and the methods to mitigate impacts. Such impact identification, description, and mitigation shall, at least, take into account:

- (a) Expected traffic volumes during construction, based on where the work force is expected to reside;
- (b) Access routes for moving heavy loads, construction materials, or equipment;

(c) Expected traffic volumes during normal operation of the facility;

(d) For transmission facilities, anticipated maintenance access; and

(e) Consistency with local comprehensive transportation plans.

(2) *Vehicular traffic* - The applicant shall describe existing roads, estimate volume, types, and routes of vehicular traffic which will rise from construction and operation of the facility. The applicant shall indicate the applicable standards to be utilized in improving existing roads and in constructing new permanent or temporary roads or access, and shall indicate the final disposition of new roads or access and identify who will maintain them.

(3) *Waterborne, rail, and air traffic* - The applicant shall describe existing railroads and other transportation facilities and indicate what additional access, if any, will be needed during planned construction and operation. The applicant shall indicate the applicable standards to be utilized in improving existing transportation facilities and in constructing new permanent or temporary access facilities, and shall indicate the final disposition of new access facilities and identify who will maintain them.

(4) *Parking* - The applicant shall identify existing and any additional parking areas or facilities which will be needed during construction and operation of the energy facility, and plans for maintenance and runoff control from the parking areas or facilities.

(5) *Movement/circulation of people or goods* - The applicant shall describe any change to the current movement or circulation of people or goods caused by construction or operation of the facility. The applicant shall indicate consideration of multipurpose utilization of rights of way and describe the measures to be employed to utilize, restore, or rehabilitate disturbed areas. The applicant shall describe the means proposed to ensure safe utilization of those areas under applicant's control on or in which public access will be granted during project construction, operation, abandonment, termination, or when operations cease.

(6) *Traffic hazards* - The applicant shall identify all hazards to traffic caused by construction or operation of the facility. Except where security restrictions are imposed by the federal government the applicant shall indicate the manner in which fuels and waste products are to be transported to and from the facility, including a designation of the specific routes to be utilized.

5.2 TRANSPORTATION (WAC 463-42-372)

This section presents information on existing traffic conditions and impacts related to transportation, including the following sections:

- Transportation Systems and Vehicular Traffic (Section 5.2.1)
- Waterborne, Rail, and Air Traffic (Section 5.2.2)
- Parking (Section 5.2.3)
- Movement/Circulation of People or Goods (Section 5.2.4)
- Traffic Hazards (Section 5.2.5)
- Conclusions and Recommendations (Section 5.2.6)

5.2.1 TRANSPORTATION SYSTEMS AND VEHICULAR TRAFFIC

This section identifies existing transportation facilities and traffic volumes in the vicinity of the proposed project and describes the potential traffic impacts due to construction and operation of the Phase II project.

5.2.1.1 Existing Conditions

Street Highway System

Figure 5.2-1 shows the major roadways in the area. State Route (SR) 12 is the predominant highway serving the plant site. SR 12 is a four-lane divided highway providing east-west access that extends from Aberdeen on the west to its intersection with SR 8 near Elma, then southeasterly to connect with Interstate 5 (I-5) north of Centralia. SR 8 continues east from Elma until it becomes US Highway 101 and connects to I-5. South of SR 8, SR 12 continues as a two-lane highway with varying width shoulders. The posted speed limit on SR 12 is 60 mph in the Elma to Montesano area.

Keys Road is a two-lane minor collector county arterial providing direct connection to the plant site and proposed project site. Keys Road is 24 feet in width with varying width shoulders (paved or gravel) and is stop sign controlled (one way on Keys Road) at its intersection with SR 12.

Access to the site is provided directly from Keys Road by a new access driveway to be constructed within the site boundaries. The asphalt surface of Keys Road is in good condition, and the posted speed limit is 35 to 40mph. The proposed plant site is located approximately 2.5 miles south of SR 12 along Keys Road.

The Wakefield Road corridor provides access from the east to the project site. Wakefield Road connects SR 12 to Keys Road via Lambert Road and is rated for heavy vehicle (truck) use. Wakefield/Lambert Road is two lanes and the speed limit is 45 mph.

Existing Traffic Volumes

Traffic volumes for 1999 were obtained from the Washington State Department of Transportation (WSDOT) 1999 Annual Traffic Report and are presented on Figure 5.2-2. In addition, traffic counts were taken (in 1993) at the intersection of SR 12 and Keys Road (see Figure 5.2-3). For all traffic volumes, a growth rate of 3 percent per year was used to bring projected traffic volumes to a year 2001 analysis base.

Existing Levels of Service

The worst levels of congestion and delay to motorists generally occur during the PM peak period. A measure of the relative congestion levels can be obtained by calculating the Level of Service (LOS) at intersections. Traffic operations at SR 12 and Keys Road were analyzed using the Transportation Research Board *Highway Capacity Manual* (the HCM) (TRB 2000) and 2000 *Highway Capacity Software* (HCS). This program uses the techniques presented in the 2000 HCM and produces a LOS rating based upon a scale ranging from LOS "A" (little or no delay) to LOS "F" (extreme delays), with LOS "E" being capacity conditions. LOS "C" generally is considered adequate for rural intersections. These classifications account for such factors as truck volumes, roadway geometrics, turning movements, and other traffic-inhibiting factors. The results of these analyses for intersections without traffic signals generally overestimate actual conditions.

The LOS for unsignalized intersections is based on delay of each vehicle. Table 5.2-1 presents the delay used and definitions for levels of service at these types of intersections. Previously reserve capacity was calculated. The HCM has since set the standard for LOS calculations at delay per vehicle (measured in seconds).

**TABLE 5.2-1
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS**

Level of Service	Delay per Vehicle (seconds)	Expected Delay to Minor Street Traffic
A	< 10	Little or no delay
B	>10 and < 15	Short traffic delay
C	>15 and < 25	Average traffic delay
D	>25 and ≤ 35	Long traffic delay
E	>35 and ≤ 50	Very long traffic delay
F	>50	Even longer traffic delays

Source: TRB 2000 (HCM)

Using the criteria in Table 5.2-1, a LOS analysis for PM peak-hour traffic (analysis year of 2001, no build) at the intersection of SR 12 and Keys Road was conducted. The eastbound left-turn lane at the intersection of SR 12 and Keys Road currently operates at LOS "B," at a delay of approximately 10 seconds. The northbound and southbound left turns operate at LOS "D" and "E" respectively, with delays of 34 and 39 seconds, respectively. All other movements operate at LOS "C" or better.

The construction estimates of travel for the completion of the Phase I and Phase II projects, consecutively, is anticipated to increase the number of vehicles in the area during the PM peak hour by 325 vehicles all using the northbound approach to the intersection of Keys Road and SR 12. This increase in traffic during the PM peak hour would affect this intersection in the northbound and southbound directions (both controlled by stop signs). During construction the left-turn LOS for northbound and southbound traffic degrades to LOS "F" with more than 600 seconds (10 minutes on average per vehicle) of delay in the northbound direction and 65 seconds delay in the southbound direction. After the construction phase is completed, the overall traffic increase due to the operation of the two plants is minimal and does not affect the individual LOS movements adversely.

Pedestrian Bicycle Facilities and Transit

The streets and highways serving the plant site have neither pedestrian nor bicycle facilities. Grays Harbor Transit Bus route 40 currently operates along SR 12 providing service between Olympia and Aberdeen. This route operates six times a day on weekdays and three times a day on weekends.

Accident Experience

Accident reports for the intersection of SR 12 and Keys Road were obtained from WSDOT. From January 1, 1998 to December 31, 2000, 13 accidents were reported, resulting in 14 injuries and no fatalities. These accidents were spread out with 4 of the total 13 happening in the morning hours (midnight to noon) and the remaining 9 occurring in the afternoon/evening hours from 1 PM to midnight. Only the hour of 4 to 5 PM recorded more than one accident during its 60 minutes; two accidents within the 3-year period were recorded in the PM peak hour period. Four accidents were reported in 1998, five in 1999, and four in 2000. Two total accidents were alcohol-related (one in 1999 and one in 2000). Table 5.2-2 lists the accident characteristics during the past 3 years for the intersection of SR 12 and Keys Road.

Future Plans and Projects

Discussions with the WSDOT office in Aberdeen have indicated that plans for an additional interchange on SR 8 in the vicinity of McCleary is nearing completion, and construction is expected to begin in 1 to 2 years (Hart 2001). In addition, the Satsop River Bridge retrofitting is expected to occur in the next few years.

**TABLE 5.2-2
ACCIDENT ANALYSIS FOR SR 12/KEYS ROAD INTERSECTION**

Year	Number of Total Accidents	Type of Accidents	Number of injuries	Collision Type
1998	4	Failure to yield (2) Inattention (1) Unknown (1)	1 0 0	1 rear-end/1 unknown unknown unknown
1999	5	Failure to yield (2) Asleep (1) DWI/failure to yield (1) Other (1)	9 (6 & 3 respectively) 1 1 0	2 enter at angle rear-end enter at angle hit fixed object
2000	4	Failure to yield (1) DWI (1) Unknown (2)	2 1 0	Enter at angle Hit fixed object 1 fixed object/1 unknown

Source: McBee 2001

5.2.1.2 Impacts

Construction

Traffic impact analyses were based on overlapping construction of Phase I and Phase II. The worst-case peak construction workforce was assumed to be 505 for the two plants. This assumes that the construction startup of Plant II would begin approximately 7 months prior to the completion of Plant I. This will allow maximum use of the first plant's construction workforce. Under those circumstances, the peak construction workforce would decrease. Therefore, the traffic estimates and associated impact evaluations presented below are very conservative. Future trip requirements were distributed to the existing roadway system based on existing travel patterns. A review of existing traffic volumes at the SR 12/Keys Road intersection indicates that approximately 94 percent of the total entering traffic on SR 12 at this intersection remains on SR 12 (as through traffic), four percent exits to northbound Keys Road, and 2 percent exits to the south on Keys Road. The existing minor road traffic entering onto SR 12 distributes evenly to the west and east from either the north or south approach. Using historic traffic counts in the WSDOT *Annual Traffic Report* (WSDOT 1999), a 3 percent annual growth factor was assumed to predict future traffic volumes. Neither construction nor operation will require new roads or improvements to existing roadways.

Figure 5.2-4 presents the estimated traffic increases during project construction. These estimates were calculated based on the following assumptions:

- The construction workforce peak will occur in 2003.
- The auto occupancy rate will be 1.1 individuals per car.

Use of these assumptions resulted in a conservative worst-case analysis of traffic increases. The peak of the workforce at the plant site is expected to occur for approximately 4 months in late

2003 to early 2004, from about Month 13 through Month 16 of construction. However, as shown on Figure 2.12-2, the workforce will range from approximately 500 to 540 during approximately 4 months of construction. As discussed above, these workers will be utilized for work on Phase II as they become available at the completion of work on Phase I of construction (see Table 5.2-3).

**TABLE 5.2-3
TRAFFIC PROJECTIONS AND LOS ANALYSIS**

	Increase in PM Peak Hour Trips	LOS Northbound at Keys Road
2001 (Phase I only)	326	F
2003 (Phase I and Phase II)	383	F

Source: TRB 2000

Using these worst-case traffic estimates, an LOS analysis for the intersection of SR 12 and Keys Road was performed for the PM peak assuming overlapping construction of the two plants. As described in Section 5.2.1.1, the eastbound left turn of the intersection is currently (based on 2001 estimates) operating at LOS “B,” with an average delay of 10 seconds per vehicle, the northbound and southbound left turns operate at LOS “D” and “E,” respectively.

During the peak workforce period of construction, the eastbound left turn at the intersection will remain at LOS “B” at the PM peak, with a delay of just over 10 seconds per vehicle. Table 5.2-4 lists the existing and anticipated delays per vehicle of the eastbound, westbound, northbound, and southbound left-turn lanes for this intersection. Calculations based on projections of 1993 traffic counts to 2001 (at a rate of 3 percent per year) were used as the baseline. Since the construction workers for Phase I will be shifted to work on Phase II as they become available, there is only a slight change in LOS based on whether or not Phase II is constructed. This difference is due to the specialization of some sorts of work and their availability in the overall construction process.

Both with and without the construction of Phase II, during the peak hour, the eastbound and westbound movements continue to operate at LOS “B” and “A,” respectively. The left turn movements in the northbound and southbound directions deteriorate from LOS “D” and “E” respectively to LOS “E” and “F” with the construction of either one or both of the Phases. These degradations of LOS would be limited to the construction phase of the project. It is anticipated that with the operation of Phase I or Phase I and II, the LOS at this intersection will not be affected significantly.

Short-term transportation impacts from construction of the proposed project will result from the construction work in street rights-of-way and construction vehicle traffic. It is anticipated that 326 additional PM peak hour trips will be attributable to the construction of Phase I and II. Since traffic impacts related to the construction of Phase I have already been accepted, only trips associated with Phase II will be mitigated for.

**TABLE 5.2-4
ANTICIPATED LEVELS OF SERVICE AT KEYS ROAD AND SR 12**

Condition	Eastbound		Westbound		Northbound				Southbound			
	Left turn		Left turn		Left-turn		Right-turn		Left-turn		Right-turn	
	LOS ^(a)	Delay ^(b)	LOS	Delay ^(b)	LOS	Delay ^(b)	LOS	Delay ^(b)	LOS	Delay ^(b)	LOS	Delay ^(b)
Existing (2001 projections without construction)	B	10.2	A	9.8	D	33.6	B	11.7	E	38.6	B	12.2
2001 with construction of Phase I only	B	10.3	A	9.8	F	618.0	C	15.0	F	60.5	B	12.2
2003 with concurrent construction of Phases I and II	B	10.3	A	9.8	F	638	C	15.0	F	65.5	B	12.2
2003 with operation of Phase I only	B	10.3	A	9.8	D	35.6	B	12.5	E	39.4	B	12.4
2004 with operation of Phases I and II	B	10.4	A	9.8	D	36.4	B	13.1	E	39.5	B	12.4

(a) See Table 5.2-1 for LOS criteria.

(b) Delay is measured in seconds.

The construction workforce for the plants will result in the addition of approximately 326 PM peak hour vehicular trips per day, attributable to the construction of Phase I and Phase II impacting the roads serving the plant site. However, this situation should last no more than approximately 2 weeks. Because Phase II will utilize workers as they become available from work being completed by Phase I, minimal overall increases in workers will be seen. The length of time that construction workers will be in the area will increase over Phase I but the overall number of workers will remain constant. Therefore, the impacts already shown for Phase I Report will remain and likely impact the area for a longer period of time, but minimal to no additional impacts will be seen.

Construction traffic to and from the plant site for Phase I and II will represent about 17 percent of the total peak-hour traffic on the roads in the area. The LOS on the roadways will decrease due to construction of the project, but these decreases will be temporary.

Operation

The analysis conducted for the operation of Phase II of the proposed project assumed that operation of the proposed plant would generate traffic by employees and other services associated with the plant only.

During the operation of the two phases, a total of 42 people will be employed, with a maximum of 27 employees on site at the same time. Operation will involve either two 12-hour shifts or three 8-hour shifts.

A LOS analysis for the intersection of SR 12 and Keys Road was conducted using the two-shift operating schedule as a worst-case scenario. Assuming full operation of Phase II in mid-2004, the LOS for both the eastbound and westbound left turns will remain at LOS "B," with delays of 10.3 seconds and 9.8 seconds for the eastbound and westbound lanes, respectively.

Table 5.2-4 lists the existing and anticipated delays of the northbound and southbound left-turn lanes for this intersection, both with and without construction in 2001. With the minimal increase in traffic associated with the operation of the two phases, significant changes to LOS at the SR 12/Keys Road intersection will not change. In contrast, during the construction phase of Phase II, traffic to/from the proposed site will increase, affecting LOS. The northbound left-turn lane will deteriorate from LOS "D" to LOS "F" with the construction of Phase I. Therefore, the impacts of Phase II will not increase the severity of deterioration over Phase I but will increase the length of time the additional traffic (associated with construction) will be present at this intersection. The resulting LOS "F" condition with the construction would result in a net increase in delay of 638 seconds per vehicle during the construction phase. The southbound lane is also expected to deteriorate from LOS "E" to LOS "F" both with and without the project in operation; however, the maximum net increase in delay is 27 seconds per vehicle. All other movements at the intersection will continue to operate within desired limits.

In contrast, once the construction is completed for both phases, the overall LOS at this intersection will not substantially change with operation of the project and will remain at LOS "D." Thus, operation of the proposed project will not result in a significant adverse impact on traffic.

During major maintenance of the plant (assuming similar construction and maintenance timelines as outlined in Phase I), an additional 50 people will be on site for approximately 28 days during the day shift. The maintenance-related traffic will not result in a reduction of the LOS on the roads serving the site. Adequate parking will be provided for both the operations and major maintenance staff.

Mitigation

Plant construction could degrade the LOS at the intersection of SR 12 and Keys Road. Prior to construction of Phase I, a traffic management plan was submitted to EFSEC for review and has been approved. The main component of the traffic management plan includes the recommendation to encourage the use of the Wakefield/Lambert corridor for access/egress the site.

The traffic management plan approved for Phase I is also applicable to Phase II construction. If needed, this plan will be amended to address any specific elements required for Phase II.

The Commuter Trip Reduction Act is implemented in the eight largest counties in Washington State. Grays Harbor County is exempt.

5.2.2 WATERBORNE, RAIL, AND AIR

5.2.2.1 Transport by Rail

A combination of rail and truck transport will be used to ship some of the project-related equipment and materials from the manufacturers to the site area. The equipment shipped by rail will include the combustion turbine and the combustion turbine generator, the steam turbine and the steam turbine generator, transformers, and the heat recovery steam generator (HRSG). The heaviest single load will be the HRSG modules, which will weigh approximately 221 tons each. The following description of planned rail and truck transport is based on preliminary evaluations of rail and roadway facilities and on estimates of the volume and number of shipments. The Certificate Holder will provide EFSEC with appropriate additional information as final transportation plans are developed.

Items shipped by rail will be delivered to the existing Elma rail siding located approximately 3 miles northeast of the site. The existing facilities are adequate for project-related needs, and there is no need to develop additional rail access or rail facilities for the project. Shipment by rail will require approximately 25 to 30 railcars over a 3- to 6-month period (for materials to construct both phases of the project). From the rail siding at Elma, heavy haulers will be contracted to deliver the items to the laydown area at the plant site using a route that follows SR 12 from Elma to Keys Road to the plant site, or using the Wakefield/Lambert corridor. These roads have the capacity to handle the size and weight of the trucked equipment and materials.

Trucks used for this transport will have the required number of axles to ensure compliance with highway and bridge design loading. The contracted hauling firms will be licensed to operate in the state and will be responsible for obtaining all applicable permits and licenses.

5.2.2.2 Waterborne and Air Transport

Neither phase of the project will use waterborne or air transport during construction or operation, with the possible exception personnel transport on commercial flights and the use of commercial couriers that would use existing private or commercial flights for occasional small deliveries.

5.2.3 PARKING

5.2.3.1 Power Plant Construction

No parking will be permitted on the streets and roads serving the plant site. During construction (of both phases), parking will be available on the existing construction laydown located west of Keys Road. This large area has been graveled and graded for use as a construction laydown area for nuclear projects WNP-3 and WNP-5. Approximately half of the area currently contains asphalt overlays. The laydown area has graveled internal roadways and access to and from Keys Road. As described in Section 5.2.2.1, the worst-case construction workforce peak would be 505 workers, although the actual number expected with overlapping of the construction periods for the two plants is slightly less than that. Assuming an occupancy rate of 1.1 workers per car, the expected peak workforce would require approximately 460 parking spaces. Assuming an

average of 400 square feet per parking space, including access area, the total size of the parking area would be approximately 184,000 square feet. The planned parking area has sufficient space for use as a laydown area and for accommodating this number of vehicles.

Runoff from the existing construction laydown area is controlled by the Certificate Holder in accordance with the requirements of its existing Environmental Protection Control Plan (see Section 2.10 - Surface Water Runoff, WAC 463-42-215).

5.2.3.2 Operation

Parking will be provided at the plant site and additional parking will be provided at the construction laydown area located on the west side of Keys Road. This amount of parking will be sufficient for the maximum of 26 employees who will be on the site during full operation of both plants (see Table 8.1-11). Runoff from these parking areas will be controlled in accordance with the requirements of the existing Environmental Protection Control Plan (see Section 2.10 - Surface Water Runoff, WAC 463-42-215).

5.2.4 MOVEMENT/CIRCULATION OF PEOPLE OR GOODS

Construction of the proposed project will result in temporary and minor delays in traffic during delivery of oversized or heavy loads. During operation, the project will not have an impact on the movement or circulation of people or goods.

During construction and operation, the public will not be permitted in the areas associated with the power plants, including the transmission line right-of-way.

5.2.5 TRAFFIC HAZARDS

5.2.5.1 Hazards to Traffic

The contractors will prepare a traffic control and parking plan that will describe procedures to be followed during construction of Phase II and associated facilities. This document will follow standard procedures for safe accomplishment of construction activities such as transporting heavy equipment along roadways, establishing detours, and the use of flaggers. As a result of implementation of the procedures in this plan, construction of Phase II is not expected to cause hazards to the existing traffic. However, the increase in traffic volumes on the adjacent street network would naturally increase the probability of an accident occurring.

As discussed in Subsection 5.2.1.1, 13 accidents, resulting in 14 injuries and no fatalities, occurred at the SR 12/Keys Road intersection during the 3-year analysis period. Typically, an unsignalized intersection with 5 or more accidents per year or a signalized intersection with 10 or more accidents per year is considered a high-accident location (HAL) and warrants analysis for improvements (WSDOT 2001). The intersection of SR 12 and Keys Road was placed on the HAL list in 2000 in response to an average of three accidents per year for a 2-year period along with other criteria (e.g., severity of accidents, etc.). Presence on the list does not mean that improvements are necessary, but is an acknowledgement that conflicts occur. Because of the

drop in the number of total accidents at this location, it is possible that this intersection could be removed from the HAL list for 2001-2002 depending on the number of accidents in those 2 years.

5.2.5.2 Fuel and Waste

Fuel Oil

The project will use natural gas. Small amounts of fuel oil will be used for the backup generators and fire-water pumps.

Waste Products

The Site Certification Agreement for the Satsop CT Project stipulates waste management procedures in accordance with state regulations. A Comprehensive Dangerous Waste Management Program fulfilling all applicable regulatory requirements is in place for the Satsop CT Project site. This includes procedures for waste designation, labeling, storage, handling and disposal procedures; record keeping; inspection; contingency planning; management oversight; and transportation. This program will be applied to Phase II.

Hazardous materials will be transported by a licensed hazardous waste transporter, and when appropriate, hazardous materials will be disposed of at an approved and licensed disposal facility.

5.2.6 CONCLUSIONS AND RECOMMENDATIONS

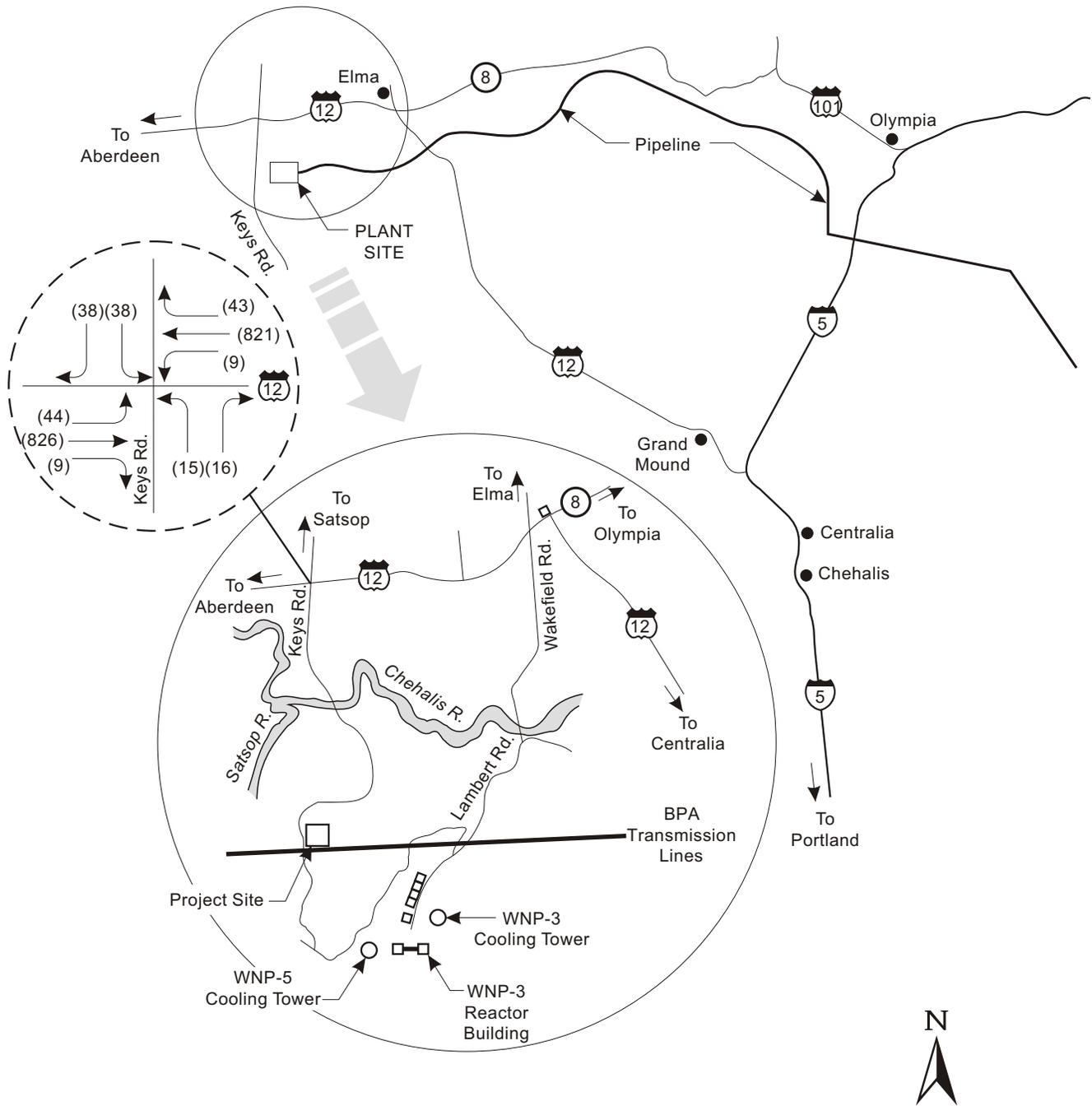
5.2.6.1 Conclusions

With the construction of Phase II occurring in conjunction with the conclusion of Phase I construction, traffic impacts will be minimized but those impacts will occur for a longer period of time. This scheduling of work maximizes the workforce and allows shifting of workers from Phase I to Phase II as the work begins to be completed on Phase I, thereby minimizing the overall traffic impacts. During construction of Phase I, an additional 326 PM peak hour trips were calculated. Considering the worst-case scenario in conjunction with the construction of Phase II, 57 vehicles for 1 month will be added to the existing transportation infrastructure in addition to those calculated for Phase I. These 57 vehicles include the approximately 27 employees needed to operate and maintain Phase I as well as the workforce associated with construction of Phase II.

Calculations of LOS show the intersection of Keys Road and SR 12 to be operating at LOS "D" in 2001 projections (from 1993 traffic counts grown at 3 percent per year). With the construction of Phase I, the LOS at this intersection falls to "F" with a delay of up to 10 minutes for the left-turning northbound vehicles in the PM peak hour. With the additional traffic associated with construction of Phase II, more delays will occur at this intersection. LOS calculations based on operation of one or both of the plants show this intersection to return to a LOS "D."

5.2.6.2 Recommendations

As was recommended for Phase I, both automobiles and heavy trucks traveling to/from the site can utilize the Wakefield/Lambert corridor, avoiding the SR 12/Keys Road intersection.

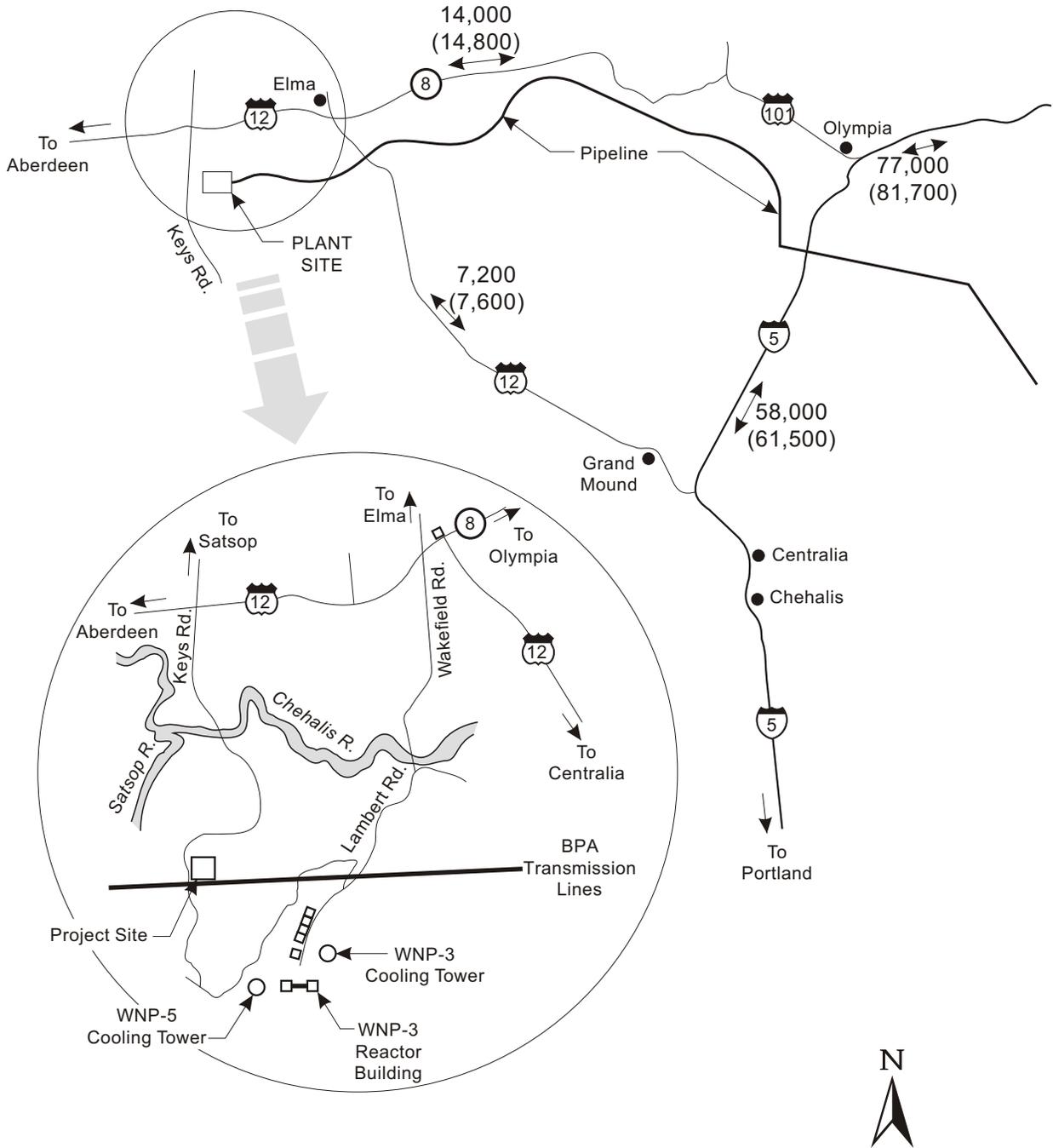


LEGEND:

(XXX) 2001 traffic projections
 →

Note: Projections calculated based on 3% per year growth from December 1993 count.

Figure 5.2-3
**1993 Traffic Counts at
 Intersection of SR 12 and Keys Road**



LEGEND:

XXX → Average daily traffic
(from Washington State Department of Transportation 1999 Annual Traffic Report)

(XXX) → Average daily traffic (grown to 2001 at 3% per year)

Figure 5.2-2
Existing Traffic Volumes

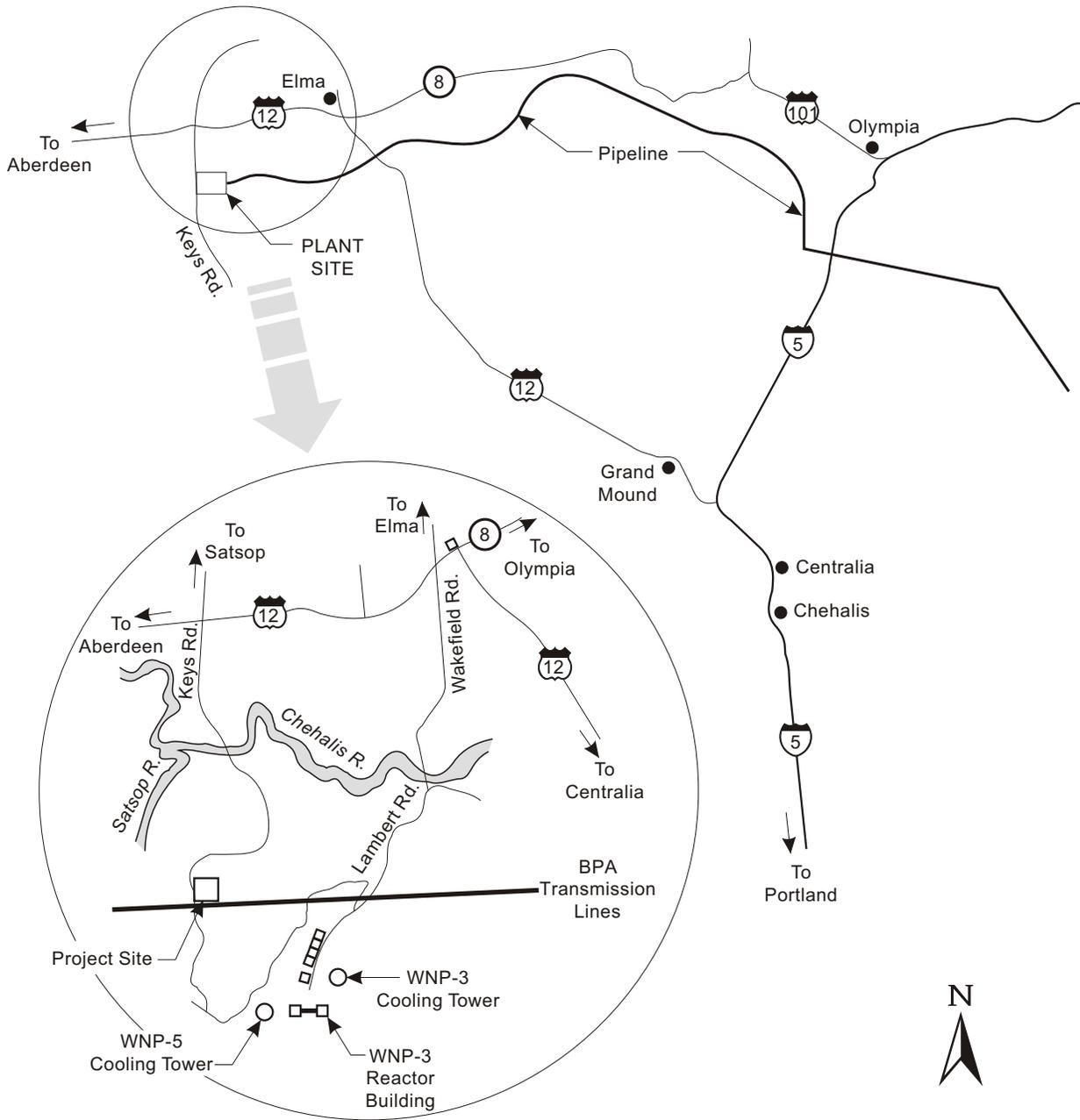
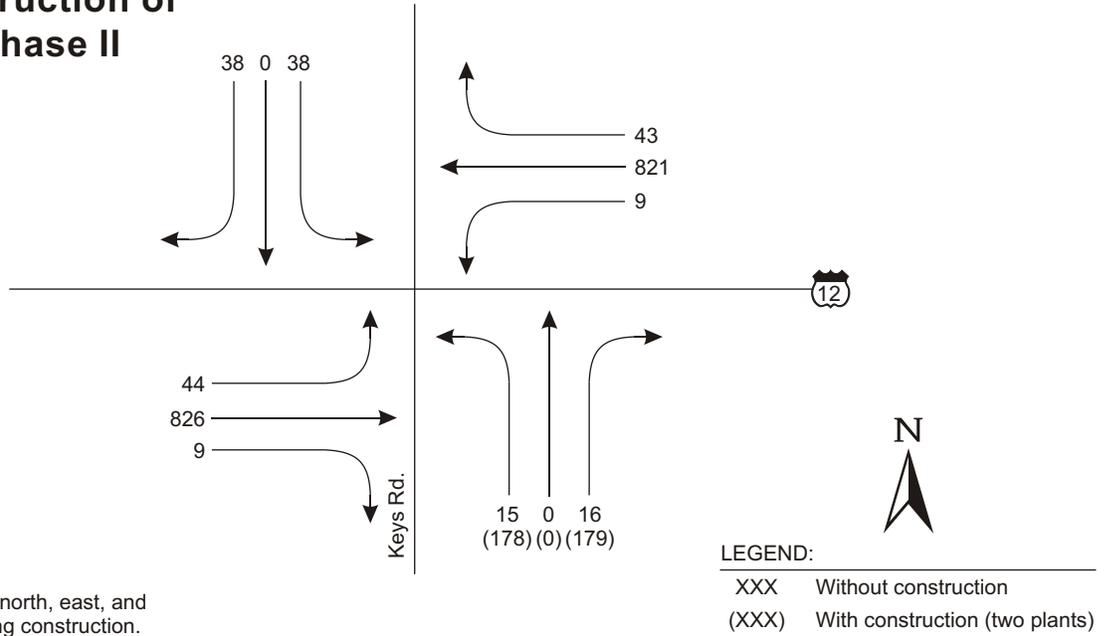


Figure 5.2-1
Primary Roadways in the Project Area

2001-2003 Traffic Estimates During Construction of Phase I and Phase II (Overlapped)



2004 Traffic Estimates During Normal Operation of Phase I and Phase II Plants

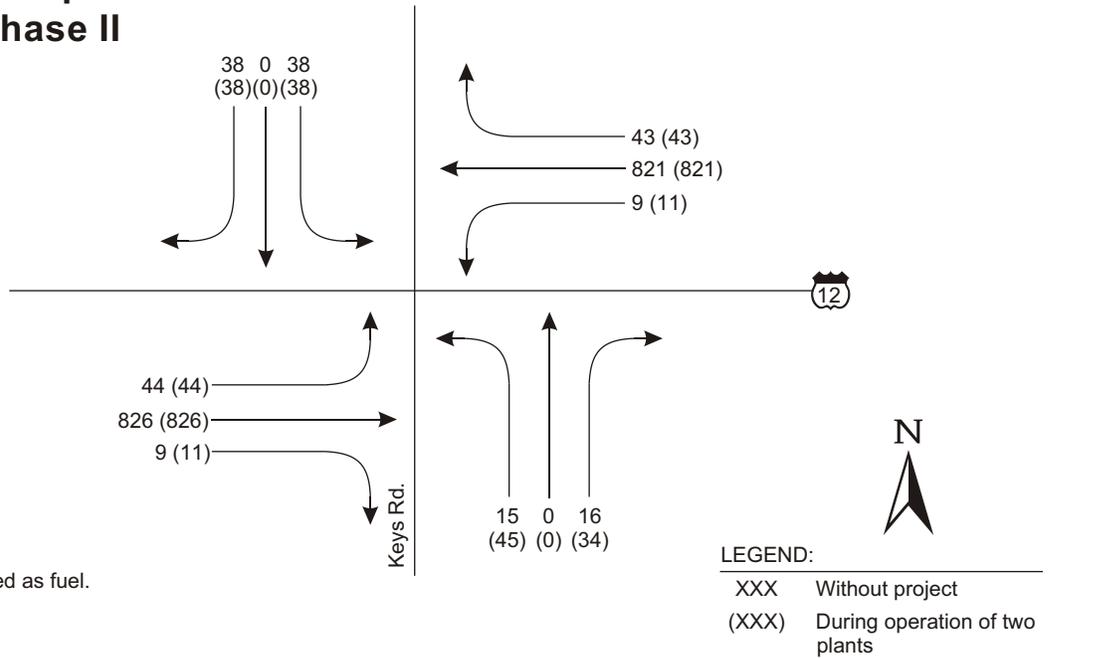


Figure 5.2-4
**Estimated PM Peak Traffic
 Volumes at Intersection of SR 12 and Keys Road**