



WEST DAVIS
CORRIDOR

Final EIS Addendum to Technical Memorandum 15: Alternatives Screening Report

in support of the
Environmental Impact Statement

West Davis Corridor Project

Federal Highway Administration
Utah Department of Transportation



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Introduction

This addendum to *Technical Memorandum 15: Alternatives Screening Report* provides an overview of the May 2016 re-evaluation of the West Davis Corridor (WDC) alternatives-development and screening process. This re-evaluation was conducted between the release of the project's Draft Environmental Impact Statement (EIS) in 2013 and the release of the Final EIS.

The WDC team re-evaluated the process as part of a revised screening process that took into account a new Regional Transportation Plan (RTP) and travel demand model that were released by the Wasatch Front Regional Council (WFRC) between the releases of the Draft and Final EISs. WFRC is the metropolitan planning organization for the WDC Project area.

Why did the WDC team re-evaluate the alternatives-screening process after the Draft EIS was released in 2013?

For the 2013 Draft EIS analysis, the WDC team used WFRC's 2011–2040 RTP and version 7 of WFRC's travel demand model to screen the WDC alternatives and evaluate their overall transportation performance. In May 2015, WFRC released its 2015–2040 RTP and a new version of the travel demand model (version 8.1). The main changes to WFRC's 2015–2040 RTP and travel demand model were:

1. **Reduced Interstate 15 (I-15) lane capacities.** The modeling assumptions in version 8.1 of the travel demand model include reduced vehicle capacities on I-15. This change was made based on traffic data from the Utah Department of Transportation (UDOT) showing that actual peak-hour traffic volumes were not as high as the modeling assumptions in version 7 of the model.
2. **New projects in the WDC study area.** The 2015–2040 RTP included new projects in the WDC study area. During both the 2013 and 2016 screening processes, all projects in the WDC study area (except the WDC) proposed in the current RTP were included as part of the WDC No-Action Alternative.

One notable change in the planned projects in the 2015–2040 RTP is the inclusion of the I-15 Managed Motorways project. This project proposes to prevent congestion on I-15 by continuously monitoring traffic flow and controlling access to the freeway using state-of-the-art ramp metering. The I-15 Managed Motorways project is now included in the WDC No-Action Alternative.

What is the WDC team?

The *WDC team* consists of the lead agencies for the WDC Project (Federal Highway Administration and Utah Department of Transportation).

What is a travel demand model?

Travel demand refers to the forecasted amount of travel on existing and future roads. A *travel demand model* predicts future travel demand based on projections of land use, socioeconomic patterns, and transportation system characteristics.

Where is the WDC study area?

The *WDC study area* is bounded on the north by 3000 South in Hooper and West Haven, on the south by about Parrish Lane in Centerville, on the west just east of the Great Salt Lake, and on the east by I-15.

3. **Updated socioeconomic data.** WFRC updates the socioeconomic data in each version of the travel demand model. These data include household and employment projections for each traffic analysis zone in the model. The socioeconomic data projections are based on information from the Utah Governor’s Office of Management and Budget and input from Cities and Counties regarding existing and planned household and employment growth. The updated travel demand model (version 8.1) has larger populations near I-15 in western Davis and Weber Counties compared to the 2011–2040 RTP.
4. **Data from a new household survey.** Version 8.1 of the travel demand model was recalibrated to account for the results of the 2012 Utah Household Travel Survey. This recalibration included updating the trips per household, the trip distance by trip type, and mode choice preferences.

After reviewing the changes listed above, the WDC team conducted a sensitivity analysis to determine whether the travel demand conditions for the No-Action Alternative had changed enough between versions 7 and 8.1 of the travel demand model that the screening analysis conducted for the Draft EIS would have produced different results if version 8.1 had been used instead of version 7.

Table 1 shows the outcome of the sensitivity analysis for each of the five measures of effectiveness (MOEs) that were used to screen the WDC alternatives for the Draft EIS. In the table, *V/C* stands for *volume to capacity*, which is a measure of the actual traffic volume on a road compared to the traffic capacity for which the road was designed. A *V/C* ratio of 0.9 or greater indicates heavy congestion.

Table 1. 2040 No-Action Comparison of Measures of Effectiveness Using Versions 7 and 8.1 of the WFRC Travel Demand Model (Sensitivity Analysis)

Model Version	Measure of Effectiveness (MOE)				
	Daily Total Delay (hours)	North-South Lane-Miles with PM Peak Period V/C ≥ 0.9	East-West Lane-Miles with PM Peak Period V/C ≥ 0.9	Vehicle-Miles Traveled with PM Peak Period V/C ≥ 0.9	Vehicle-Hours Traveled with PM Peak Period V/C ≥ 0.9
Version 7	10,770	44	25	243,100	9,490
Version 8.1 ^a	18,040	117	30	642,100	20,330
Percent change	+68%	+166%	+20%	+164%	+114%

^a Version 8.1 of the travel demand model that includes the I-15 Managed Motorways project.

As shown in Table 1 above, there was a substantial change between versions 7 and 8.1 of the travel demand model in terms of the MOEs that were used to screen the WDC alternatives. The main reasons for these changes were revised socioeconomic data from WFRC that included more development near I-15 in western Davis and Weber Counties, reduced vehicle capacity of lanes on I-15 to better reflect actual traffic counts, and the addition of the I-15 Managed Motorways project, which allowed I-15 to handle more traffic during the peak periods.

The changes to north-south I-15 in the model had the greatest effect, as shown by the substantial increase (+166%) in north-south lane-miles with a V/C of at least 0.9. Because I-15 carries the largest amount of traffic in the WDC study area, the increased congestion on I-15 also substantially increased total daily delay, vehicle-miles traveled in congestion, and vehicle-hours traveled in congestion.

Based on the substantial changes shown by the sensitivity analysis, the WDC team decided to screen the same alternatives that were evaluated in the Draft EIS using version 8.1 of the travel demand model to determine whether the screening results from the Draft EIS would be different. In this memorandum, this re-evaluation is called the *2016 screening process*.

What is the 2016 screening process?

The *2016 screening process* involved screening the same alternatives that were evaluated in the Draft EIS using version 8.1 of WFRM's travel demand model to determine whether the screening results from the Draft EIS would be different.

Did the 2016 screening process evaluate any new or different alternatives?

Yes. The WDC team included the Shared Solution Alternative in the 2016 screening process. The Shared Solution Alternative was developed over many months based on input from the Shared Solution Coalition, city and county officials, UDOT, the Utah Transit Authority (UTA), and other stakeholders. For more information about the Shared Solution Alternative, refer to the technical memorandum *Development and Evaluation of the Shared Solution Alternative*.

Besides the Shared Solution Alternative, the 2016 screening process evaluated all of the other alternatives that were previously considered in the previous Level 1 screening process conducted for the Draft EIS.

How did the 2016 Level 1 screening process evaluate the southern options (Shepard Lane, D&RGW, and Glovers Lane Options) for the new roadway alternatives?

The 2016 Level 1 screening process evaluated each new roadway alternative (Alternatives 09A–C, 10A–C, 11A–C, 12A–C, and 13A–C) with each of the three southern options (Shepard Lane Option, D&RGW Option, and Glovers Lane Option) to determine whether each combined alternative and southern option passed Level 1 screening. The Draft EIS screening process evaluated only one southern option for each of the new roadway alternatives (that is, the alternatives that involve constructing a new road rather than widening existing roads).

The WDC team looked at each of the three southern options to evaluate how much of a difference using the Shepard Lane Option, D&RGW Option, or Glovers Lane Option would have on reducing regional delay and congestion for each of the new roadway alternatives.

The WDC team also performed sensitivity testing on three scenarios: the first using only the Glovers Lane Option for the new roadway alternatives, the second using only the D&RGW Option for the new roadway alternatives, and the third using only the Shepard Lane Option for the new roadway alternatives. This sensitivity testing determined that the choice of southern option (Shepard Lane Option, D&RGW Option, or Glovers Lane Option) did not affect whether an alternative passed Level 1 screening, although it did show a difference in transportation performance.

As shown in Table 2 below, the Glovers Lane Option would perform better (would reduce more regional delay and congestion) than the Shepard Lane and D&RGW Options when combined with the same new roadway alternative. The MOEs showed that the combinations that used the Shepard Lane Option did not reduce as much delay and congestion in the study area as did the combinations with the same new roadway alternative and either the Glovers Lane or D&RGW Option.

What are the southern options?

The *southern options* are three options for the southern terminus of the WDC. These options are:

- **Shepard Lane Option**, which would connect the WDC to I-15 south of Shepard Lane in Farmington
- **Glovers Lane Option**, which would connect the WDC to I-15 and Legacy Parkway south of Glovers Lane in Farmington
- **D&RGW Option**, which would follow the Denver & Rio Grande Western Railroad corridor and would connect the WDC to I-15 using the Glovers Lane interchange in Farmington

Table 2. Level 1 Screening Results from the 2016 Screening Process

Alternative	Measure of Effectiveness (MOE)				
	Daily Total Delay (hr)	North-South Road Lane-Miles with V/C ≥ 0.9	East-West Road Lane-Miles with V/C ≥ 0.9	Vehicle-Miles Traveled (VMT) with V/C ≥ 0.9	Vehicle-Hours Traveled (VHT) with V/C ≥ 0.9
No-Action	18,310	116.2	30.5	642,000	20,770
TSM/TDM	17,290	110.0	22.8	614,700	19,180
01 (old 1b)	17,880	116.2	30.0	639,300	20,510
02 (old 1c)	17,320	112.6	30.5	628,300	19,860
03 Shared Solution	16,590	111.0	20.7	597,100	17,610
04	16,290	116.8	16.5	609,400	18,520
05	13,320	93.4	16.0	494,000	14,470
06	17,000	103.5	27.7	601,800	18,700
07	14,230	77.6	29.0	458,900	14,910
08	12,390	77.3	15.4	429,400	12,660
09A-S	13,280	86.0	21.2	492,700	14,580
09A-G	12,860	75.4	19.8	430,500	13,200
09B-S	17,070	122.2	26.9	643,500	19,720
09B-G	16,850	127.8	26.1	661,900	19,970
09C-S	15,740	106.5	23.3	588,900	17,420
09C-G	15,040	105.5	22.9	580,000	16,890
10A-S	12,480	79.8	17.9	447,700	13,300
10A-G	12,030	73.6	18.4	417,500	12,580
10A-D	12,180	74.1	18.6	423,400	12,750
10B-S	16,460	126.0	23.1	655,600	19,880
10B-G	15,990	123.6	22.1	637,200	19,230
10B-D	16,100	124.9	23.2	642,000	19,350
10C-S	15,290	108.0	19.5	582,700	17,200
10C-G	14,820	106.1	19.3	567,700	16,620
10C-D	14,800	105.9	19.5	568,300	16,610
11A-S – WDC Draft EIS Alternative B	13,400	89.7	15.0	473,000	13,980
11A-G – WDC Draft EIS Alternative B	13,050	79.4	14.8	415,000	12,690
11A-D	13,010	79.4	14.8	415,100	12,730
11B-S	16,280	112.9	29.9	632,400	19,380
11B-G	15,810	114.3	28.8	631,600	19,060
11B-D	16,170	115.0	29.9	636,600	19,340
11C-S	15,960	112.0	23.3	608,200	18,220
11C-G	15,410	108.2	22.8	582,900	17,330
11C-D	15,360	108.7	22.9	589,100	17,330
12A-S	14,150	98.8	18.1	515,700	15,330
12A-G	13,860	90.0	17.4	464,200	14,120
12A-D	13,740	92.4	17.6	480,600	14,560
12B-S	16,720	116.5	29.4	639,900	19,790
12B-G	16,260	115.9	28.5	630,800	19,340
12B-D	16,370	118.9	29.6	645,600	19,660
12C-S	16,570	115.1	25.6	619,200	18,950

Table 2. Level 1 Screening Results from the 2016 Screening Process

Alternative	Measure of Effectiveness (MOE)				
	Daily Total Delay (hr)	North-South Road Lane-Miles with V/C ≥ 0.9	East-West Road Lane-Miles with V/C ≥ 0.9	Vehicle-Miles Traveled (VMT) with V/C ≥ 0.9	Vehicle-Hours Traveled (VHT) with V/C ≥ 0.9
No-Action	18,310	116.2	30.5	642,000	20,770
12C-G	16,050	113.5	25.7	606,100	18,300
12C-D	16,010	115.5	26.1	617,100	18,510
13A-S – WDC Draft EIS Alternative A	13,510	92.3	16.8	485,700	14,320
13A-G – WDC Draft EIS Alternative A	13,340	80.4	17.2	423,800	13,050
13A-D	13,230	82.3	17.2	434,500	13,430
13B-S	16,440	114.5	28.6	635,400	19,460
13B-G	15,950	113.7	27.6	625,500	18,940
13B-D	16,310	117.0	28.9	641,800	19,460
13C-S	16,280	113.2	25.0	615,600	18,660
13C-G	15,790	111.5	24.8	601,700	17,990
13C-D	15,650	109.3	25.1	593,100	17,730
Average	15,240	104.0	22.9	563,700	17,080
% Reduction from No-Action	16.8%	10.5%	24.9%	12.2%	17.8%
1st Quartile	13,680	91.7	18.3	484,400	14,540
% Reduction from No-Action	25.3%	21.1%	40.0%	24.5%	30.0%
Legend					
xx,xxx	MOE value is higher than No-Action MOE value.				
xx,xxx	MOE value is higher than average of all alternatives.				
xx.x	MOE value is lower than average of all alternatives but not in 1st quartile.				
xx.x	MOE value is in 1st quartile of all alternatives.				
Alt. xxx	Alternative eliminated because at least one MOE value is higher than No-Action.				
Alt. xxx	Alternative eliminated because at least one MOE value is higher than average of all alternatives.				
Alt. xxx	Alternative eliminated because less than three of five MOE values are in the 1st quartile of all alternatives.				
Alt. xxx	Alternative advanced because the above rejection criteria were not met.				
V/C refers to volume to capacity, which is a measure of the actual traffic volume on a road compared to the traffic capacity for which the road was designed. A V/C ratio equal to or greater than 0.9 indicates heavy congestion.					
TSM/TDM refers to Transportation System Management/Transportation Demand Management.					
The designations S, G, and D refer to the southern connection that was modeled with the alternative: the Shepard Lane Option, Glovers Lane Option, or D&RGW Option, respectively.					

Did the 2016 screening process change which alternatives passed Level 1 screening?

Yes. One new alternative and one modified alternative that did not pass Level 1 screening for the Draft EIS passed Level 1 screening during the 2016 screening process.

All of the alternatives that had advanced to Level 2 screening in the Draft EIS advanced to Level 2 screening as part of the 2016 screening process.

In the Draft EIS alternatives screening process, the alternatives advanced to Level 2 screening were Alternatives 05, 08, 09A+04, 10A, 11A, and 13A.

The 2016 screening process resulted in the following alternatives advancing to Level 2 screening: Alternatives 05, 08, 09A (with the Shepard Lane and Glovers Lane Options), 10A (with the Shepard Lane, D&RGW, and Glovers Lane Options), 11A (with the Shepard Lane, D&RGW, and Glovers Lane Options), 12A (with the Shepard Lane, D&RGW, and Glovers Lane Options), and 13A (with the Shepard Lane, D&RGW, and Glovers Lane Options).

Because the 2016 screening process included the evaluation of the different southern options for the new roadway alternatives, the new roadway alternatives that passed Level 1 screening (09A, 10A, 11A, 12A, and 13A) also included the southern options that are noted in parentheses in the previous paragraph.

During the 2016 screening process, the WDC team determined that one modified alternative and one new alternative passed Level 1 screening: the D&RGW four-lane divided-highway alternative (Alternative 09A with the Shepard Lane and Glovers Lane Options) and the Far West four-lane divided-highway alternative (Alternative 12A with the Shepard Lane, D&RGW, and Glovers Lane Options).

The Level 1 screening process for the Draft EIS had advanced Alternative 09A in combination with widening projects on the east-west arterials, and this alternative was described in *Technical Memorandum 15: Alternatives Screening Report* and in the Draft EIS as Alternative 09A+04. The 2016 screening process found that Alternative 09A passed Level 1 screening without the east-west widening projects, so it was advanced to Level 2 screening as Alternative 09A in the 2016 screening process.

During the 2016 screening process, the WDC team found that Alternative 12A, the Far West four-lane divided-highway alternative, met the purpose of and need for the project when combined with the Glovers Lane Option, and was close to meeting the purpose of and need for the project when combined with the Shepard Lane and D&RGW Options because it was in the top quartile for one (Shepard Lane Option) or two (D&RGW Option) out of the five MOEs and was above average for all five MOEs. The WDC team advanced Alternative 12A with all three southern options to Level 2 screening in the 2016 screening process to be consistent with the screening process for the Draft EIS.

What is Level 1 screening?

Level 1 screening identifies alternatives that meet the purpose of and need for the project. Alternatives that were determined to not meet the purpose of and need for the project were not carried forward for further analysis in Level 2 screening.

In summary, the 2016 screening process resulted in the following alternatives advancing to Level 2 screening: Alternatives 05, 08, 09A (with the Shepard Lane and Glovers Lane Options), 10A (with the Shepard Lane, D&RGW, and Glovers Lane Options), 11A (with the Shepard Lane, D&RGW, and Glovers Lane Options), 12A (with the Shepard Lane, D&RGW, and Glovers Lane Options), and 13A (with the Shepard Lane, D&RGW, and Glovers Lane Options).

Did the northern or western termini for the alternatives that passed Level 1 screening change based on using version 8.1 of the travel demand model?

Yes. The WDC team used the travel demand model data and sensitivity analysis to determine (1) where the northern terminus for each of the new roadway alternatives would be and (2) where the western terminus would be for the alternatives that would widen existing east-west arterial roads.

The northern termini for the new roadway alternatives (Alternatives 09A, 10A, 11A, 12A, and 13A) were determined by performing a sensitivity analysis with version 8.1 of the travel demand model to determine the locations where the alternative met the Level 1 screening criteria by maintaining at least three out of five MOEs in the first quartile and all of the proposed improvements for each alternative function at level of service (LOS) D or better in the 2040 design year. Table 3 below summarizes the sensitivity analysis for determining the northern termini.

As stated in *Technical Memorandum 15: Alternatives Screening Report*, any WDC alternative would need to operate at LOS D or better. For the 2016 screening process, the WDC team reviewed the 1-hour and 3-hour peak PM periods maps of the No-Action Alternative in 2040 to determine which segments of Alternatives 05 and 08 (the alternatives that proposed widening existing roads) would not meet the LOS D or better criterion. These segments of the existing roads would operate at an unacceptable level of service of E or F with the 2040 No-Action conditions and thus would require widening. This analysis identified the western termini for the east-west roads and the northern and southern termini for the north-south roads that would need to be widened as part of Alternative 05 or 08. This analysis is included in Appendix A, Widening Limits Analysis.

What is level of service (LOS)?

Level of service is a measure of the operating conditions on a road. Level of service is expressed as a letter “grade” from A (free-flowing traffic and little delay) to F (extremely congested traffic and excessive delay).

Table 3. 2016 Sensitivity Analysis for Determining Northern Termini

Description			Daily Total Delay (Hr)	North-South Road Lane-Miles with PM Period in Congestion	East-West Road Lane-Miles with PM Period in Congestion	Vehicle Miles Traveled (VMT) with PM Period in Congestion	Vehicle Hours Traveled (VHT) with PM Period in Congestion	
NO ACTION			18,310	116.2	30.5	642,000	20,770	
MEAN			15,340	102.9	23.0	559,600	17,050	
1st QUARTILE			13,860	90.0	18.4	464,200	14,470	
Alternative	Facility Type	Description						Notes
09A	New four-lane divided highway	Draft EIS Alternative 9A – Begin at Farmington, merge to D&RGW corridor, and stay on D&RGW corridor to 4000 South. Interchanges at 5600 South, 1800 North, State Route (SR) 193, Antelope Drive, Hill Field Road, Layton Parkway, 200 North, and Shepard Lane.	12,860	75.4	19.8	430,500	13,200	Alternative 9A from Draft EIS.
09A	New four-lane divided highway	Alternative 9A ending at 5500 South.	13,460	78.7	20.3	440,220	13,930	Passed Level 1 screening.
09A	New four-lane divided highway	Alternative 9A ending at 1800 North.	14,040	89.9	20.4	481,400	15,160	Did not pass Level 1 screening.
10A	New four-lane divided highway	Draft EIS Alternative 10A – Begin at Farmington, follow 2001 alignment ^a to 2000 West in Layton, merge to power corridor, ^b and stay on power corridor to 4000 South. Interchanges at 5600 South, 1800 North, SR 193, Antelope Drive, Hill Field Road, Layton Parkway, 200 North, and Shepard Lane.	12,030	73.6	18.4	417,500	12,580	Passed Level 1 screening.
10A	New four-lane divided highway	Alternative 10A ending at 1800 North.	13,190	85.6	17.7	454,300	13,900	Alternative 10A from Draft EIS.
10A	New four-lane divided highway	Alternative 10A ending at SR 193.	13,870	92.0	17.1	468,300	14,620	Did not pass Level 1 screening.
11A	New four-lane divided highway	Draft EIS Alternative 11A – Begin at Glovers Lane in Farmington, follow 2001 alignment to 4000 South. Interchanges at 5500 South, 1800 North, SR 193, Antelope Drive, 2000 West, 2700 West (Layton), 200 North, and Glovers Lane.	12,850	79.0	14.8	413,000	12,560	Alternative B from the Draft EIS.
11A	New four-lane divided highway	Alternative 11A four-lane highway ending at Antelope Drive.	14,100	94.9	14.9	486,100	14,660	Did not pass Level 1 screening.
11A	Mixed	Alternative 11A four-lane highway ending at 2000 West, then two-lane grade-separated highway to 1800 North.	13,590	87.8	14.9	447,100	13,640	Did not pass – Meets Level 1 screening criteria. However, as shown in Figure 1, the two-lane segment between 2000 West and Antelope Drive would operate at LOS F, which demonstrates a need for a four-lane highway to Antelope Drive.
11A	Mixed	Alternative 11A four-lane highway ending at Antelope Drive, then two-lane grade-separated highway to 1800 North (4100 West Option).	13,460	86.0	14.9	439,500	13,420	Passed Level 1 screening.
11A	Mixed	Alternative 11A four-lane highway ending at Antelope Drive then 2-Lane Grade Separated Hwy to 1800 North (4800 West Option).	13,580	85.7	15.4	437,400	13,480	Passed Level 1 screening.
12A	New four-lane divided highway	Draft EIS Alternative 12A – Begin at Farmington, follow 2001 alignment to Gentile Street, swing far west crossing Antelope Drive west of 4500 West, stay west of existing development in West Point crossing the Davis County–Weber County border near 6500 West (Weber County), follow 6500 West in Hooper to 4600 South, then cut northeast to 4000 South at 5900 West. Interchanges at 5500 South, 1800 North, SR 193, Antelope Drive, 2000 West, 2700 West (Layton), 200 North, and Shepard Lane.	13,860	90.0	17.4	464,200	14,120	Passed Level 1 screening.

Table 3. 2016 Sensitivity Analysis for Determining Northern Termini

Description			Daily Total Delay (Hr)	North-South Road Lane-Miles with PM Period in Congestion	East-West Road Lane-Miles with PM Period in Congestion	Vehicle Miles Traveled (VMT) with PM Period in Congestion	Vehicle Hours Traveled (VHT) with PM Period in Congestion	
NO ACTION			18,310	116.2	30.5	642,000	20,770	
MEAN			15,340	102.9	23.0	559,600	17,050	
1st QUARTILE			13,860	90.0	18.4	464,200	14,470	
Alternative	Facility Type	Description						Notes
12A	New four-lane divided highway	Alternative 12A four-lane freeway ending at 5500 South.	14,060	94.7	17.3	491,400	14,760	Did not pass Level 1 screening.
12A	New four-lane divided highway	Alternative 12A four-lane freeway ending at 1800 North.	14,100	93.6	17.3	486,200	14,680	Did not pass Level 1 screening.
12A	Mixed	Alternative 12A four-lane highway ending at 1800 North, then two-lane grade-separated highway to 4000 South.	13,880	90.0	17.1	463,700	14,150	Passed Level 1 screening.
13A	Mixed	Draft EIS Alternative 13A – Begin at Glovers Lane in Farmington, follow 2001 alignment to Gentile Street, swing west crossing Antelope Drive west of 4000 West, stay west of 4000 West in West Point crossing 4500 West near 800 North and the Davis County–Weber County border near 5700 West (Weber County), then cut northeast to 4000 South. Interchanges at 5500 South, 1800 North, SR 193, Antelope Drive, 2000 West, 2700 West (Layton), 200 North, and Shepard Lane.	13,070	79.2	14.9	413,600	12,690	Alternative A from the Draft EIS.
13A	New four-lane divided highway	Alternative 13A four-lane freeway ending at Antelope Drive.	14,080	93.8	16.2	484,200	14,630	Did not pass Level 1 screening.
13A	Mixed	Alternative 13A four-lane highway ending at 2000 West, then two-lane grade-separated highway to 1800 North (4800 West Option).	13,940	90.8	17.6	468,900	14,290	Did not pass Level 1 screening.
13A	Mixed	Alternative 13A four-lane highway ending at 2000 West, then two-lane grade-separated highway to 5500 South (4800 West Option).	13,680	87.3	17.6	457,100	13,870	Passed Level 1 screening.
13A	Mixed	Alternative 13A ending at 2000 West, then two-lane grade-separated highway to 1800 North; follows Alternative 11A alignment north of 300 North (4100 West Option).	13,850	89.6	16.5	460,900	14,050	Passed Level 1 screening.
Legend								
xx,xxx	MOE value is lower than average of all alternatives but not in the 1st quartile.							
xx,xxx	MOE value is in the 1st quartile of all alternatives.							
Alt. xxx	Alternative eliminated because less than three of five MOE values are in the 1st quartile of all alternatives.							
Alt. xxx	Alternative advanced because the above rejection criteria were not met.							
Notes								
^a The 2001 alignment is the recommended alignment from the 2001 <i>North Legacy Transportation Corridor Study</i> .								
^b The power corridor is an alignment that parallels the Rocky Mountain Power transmission lines in Davis and Weber Counties.								

Alternative 05

For the 2016 screening process, the WDC team reviewed maps of the No-Action Alternative in 2040 to determine the segments of east-west and north-south roads that would require widening in order for Alternative 05 to meet the project's purpose and need (see Appendix A, Widening Limits Analysis). The widening limits for Alternative 05 were determined to be:

- **I-15:** Park Lane/State Route (SR) 225 (milepost [MP] 324) to Hinckley Drive/SR 79 (MP 341)
- **Hinckley Drive:** I-15 to 1900 West (Weber County)
- **5500/5600 South:** I-15 to 3500 West (Weber County)
- **1800 North:** I-15 to 3000 West (Davis County)
- **SR 193:** I-15 to 2000 West (Davis County)
- **Antelope Drive:** I-15 to 2000 West (Davis County)

Even with these limits, the travel demand model showed that parts of three arterials proposed as part of Alternative 05 would still function at LOS E or LOS F in 2040.

- **5600 South:** Would function at LOS E between SR 126 and 2700 West
- **SR 193:** Would function at LOS E from SR 126 to 1000 West
- **Antelope Drive:** Would function at LOS E and F between I-15 and Main Street in Clearfield

Figure 2 on page 20 shows the proposed improvements for Alternative 05.

Alternative 08

Alternative 08 includes all of the east-west widening projects listed for Alternative 05 and also includes north-south widening on SR 126 and SR 108. For the 2016 screening process, the same I-15 and east-west widening limits for Alternative 05 were used for Alternative 08. The north-south widening limits for Alternative 08 were determined to be (see Appendix A, Widening Limits Analysis):

- **SR 108:** SR 193 (200 South in Davis County) to SR 126 (Weber County)
- **SR 126:** Gentile Street (Davis County) to Hinckley Drive (Weber County)

Even with these limits, the travel demand model showed that parts of three arterials proposed as part of Alternative 08 would still function at LOS E or F in 2040.

- **5600 South:** Would function at LOS E between SR 126 and 2700 West
- **SR 193:** Would function at LOS E from SR 126 to 1000 West
- **Antelope Drive:** Would function at LOS E and F between I-15 and Main Street in Clearfield

Figure 3 on page 23 shows the proposed improvements for Alternative 08.

Alternative 09A

For the Draft EIS, the northern terminus for Alternative 09A was 4000 South (Weber County), based on version 7 of the travel demand model.

For the 2016 screening process, the WDC team used version 8.1 of the travel demand model and determined that Alternative 09A would meet the Level 1 screening criteria if the alternative ended at 5500 South (Weber County; see Figure 4 on page 27). A terminus at 1800 North in Davis County would not meet the Level 1 screening criteria.

Even with these limits, the travel demand model showed that segments of Alternative 9A would function at LOS E or F in 2040. These segments would require six lanes in order to operate at LOS D or better.

Alternative 10A

For the Draft EIS, the northern terminus of Alternative 10A was 2550 South (Weber County) based on version 7 of the travel demand model.

For the 2016 screening process, the WDC team used version 8.1 of the travel demand model and determined that Alternative 10A would meet the Level 1 screening criteria if the alternative ended at 1800 North in Davis County (see Figure 5 on page 31). A terminus at SR 193 in Davis County would not meet the Level 1 screening criteria.

Even with these limits, the travel demand model showed that segments of Alternative 10A would function at LOS E or F in 2040. These segments would require six lanes in order to operate at LOS D or better.

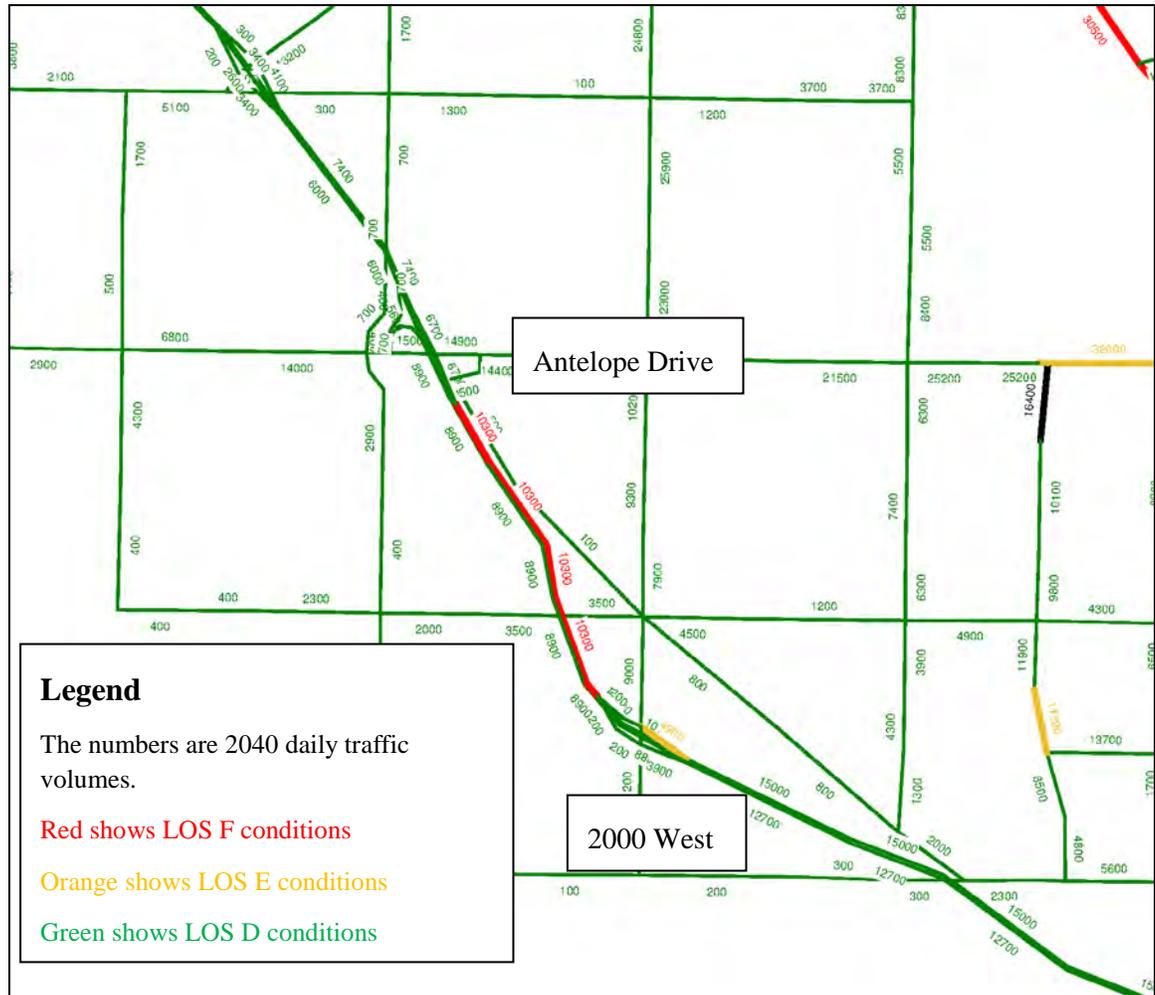
Alternative 11A

For the Draft EIS, the northern terminus for Alternative 11A (4800 West and 4100 West Options) was 5500 South (Weber County) based on version 7 of the travel demand model. This alternative included the last (northernmost) interchange at 1800 North (Davis County), a transition from a four-lane divided highway to a five-lane arterial north of 1800 North (Davis County), and an at-grade intersection at 5500 South 5100 West (Weber County).

For the 2016 screening process, the WDC team used version 8.1 of the travel demand model and determined that Alternative 11A (4800 West and 4100 West Options) would meet the Level 1 screening criteria if the last interchange were at Antelope Drive and then the WDC transitioned to a two-lane, grade-separated highway and terminated at an at-grade intersection at 1800 North (Davis County; see Figure 6 on page 37).

The WDC team performed additional sensitivity analysis using the travel demand model and found that Alternative 11A would not meet the Level 1 screening criteria if the four-lane divided highway terminated at Antelope Drive. The WDC team conducted another analysis with the last interchange at 2000 West and a transition to a two-lane, grade-separated highway at 1800 North. Although this alternative would meet the Level 1 screening criteria, the segment of this alternative between 2000 West and Antelope Drive would operate at LOS F, which does not meet UDOT's goal of LOS D for the WDC (see Figure 1 below).

Figure 1. Alternative 11A – Two-Lane Segment of the WDC at LOS F between 2000 West Interchange and Antelope Drive



The WDC team conducted a final sensitivity analysis with the last WDC interchange at Antelope Drive and the WDC transitioning to a two-lane, grade-separated highway that terminated at 1800 North. This alternative met the Level 1 screening criteria, and all segments of the alternative would operate at LOS D or better. Although 300 North is the next continuous east-west road north of Antelope Drive (and south of 1800 North), this road is a minor two-lane arterial, and there are no plans to widen it. Additionally, the road does not have an interchange with I-15 and is not planned to be a state road by the end of WFRC’s 2040 planning period. Since the RTP includes plans to widen 1800 North to four lanes at the connection with the WDC and since 1800 North will have direct access to I-15, the WDC team determined that 1800 North could better handle regional travel demand from the WDC and thus should be the northern terminus for Alternative 11A.

Therefore, the northern terminus of Alternative 11A (for both the 4800 West and 4100 West Options) was determined to be 1800 North in Davis County (see Figure 6 on page 37).

Alternative 12A

For the Draft EIS, the northern terminus for Alternative 12A was 4000 South (Weber County) based on version 7 of the travel demand model.

For the 2016 screening process, the WDC team used version 8.1 of the travel demand model and found that Alternative 12A would meet the Level 1 screening criteria if the last (northernmost) four-lane highway interchange were at 1800 North (Davis County) and then the WDC transitioned to a two-lane, grade-separated highway and terminated with an at-grade intersection at 4000 South in Weber County (see Figure 7 on page 40).

The WDC team performed additional sensitivity analysis using the travel demand model and found that Alternative 12A would not meet the Level 1 screening criteria if the four-lane divided highway terminated at 5500 South (Weber County) or 1800 North (Davis County).

Therefore, the northern terminus of Alternative 12A was determined to be 4000 South in Weber County with the last four-lane highway interchange at 1800 North in Davis County.

Alternative 13A

For the Draft EIS, the northern terminus for Alternative 13A (5100 West and 4700 West Weber County options) was 4000 South (Weber County) with the last (northernmost) grade-separated interchange at 5500 South (Weber County) and a five-lane arterial between 5500 South (Weber County) and 4000 South (Weber County).

For the 2016 screening process, the WDC team used version 8.1 of the travel demand model and found that Alternative 13A would meet the Level 1 screening criteria if the last four-lane highway interchange were at 2000 West (Davis County) and then the WDC transitioned to a two-lane, grade-separated highway on 4800 West and terminated at 5500 South (Weber County). The sensitivity analysis also showed that, with a northern alignment on 4100 West, Alternative 13A would meet the Level 1 screening criteria if the last four-lane highway interchange were at 2000 West (Davis County) and then the WDC transitioned to a two-lane, grade-separated highway on 4100 West and terminated at 1800 North (Davis County; see Figure 8 on page 43).

Additional sensitivity analysis performed with version 8.1 of the travel demand model showed that Alternative 13A would not meet the Level 1 screening criteria if the four-lane divided highway terminated at Antelope Drive. Another analysis was conducted for the 4800 West Option with the last four-lane highway interchange at 2000 West and a two-lane, grade-separated highway to 1800 North. This alternative did not meet the Level 1 screening criteria, so the two-lane, grade-separated highway was extended to 5500 South (Weber County). This configuration did meet the Level 1 screening criteria. The 4100 West Option of Alternative 13A met the Level 1 screening criteria with the last four-lane highway interchange at 2000 West and a two-lane, grade-separated highway to 1800 North.

Therefore, the northern terminus of Alternative 13A was determined to be at 1800 North in Davis County for the 4100 West Option and 5500 South in Weber County for the 4800 West Option.

What were the results of the 2016 Level 2 screening process? Were there any changes to the alternatives carried forward for detailed evaluation in the EIS?

The 2016 Level 2 screening process resulted in the same two alternatives—Alternative 11A (Alternative B in the Draft EIS) and Alternative 13A (Alternative A in the Draft EIS)—passing Level 2 screening. Alternatives 05, 08, 9A, 10A, and 12A were not advanced past Level 2 screening during the 2016 screening process.

Were there any changes to the alternatives carried forward for detailed evaluation in the EIS?

Yes. Compared to the Draft EIS Alternatives 11A (Alternative B in the Draft EIS) and 13A (Alternative A in the Draft EIS), the changes to the 2016 Alternatives 11A and 13A are:

1. The northern options for both of these alternatives were updated to account for the decrease in traffic demand in the northern part of the WDC study area, and
2. The Shepard Lane southern option was not advanced to the Final EIS for these alternatives.

The evaluation of the southern options is discussed beginning on page 45.

What were the overall results of the 2016 Level 2 screening process?

Table 4 below lists the impacts of the alternatives evaluated during the 2016 Level 2 screening process.

Alternatives 11A and 13A with the Glovers Lane southern option were advanced past Level 2 screening to be evaluated in detail in the Final EIS. These alternatives passed Level 2 screening because they best meet the purpose of and need for the project while having the lowest overall levels of impacts to both the human environment and natural resources and having reasonable costs. The WDC team determined that the alternatives that were advanced to the Final EIS were the best-performing, least-impactful reasonable versions of each alternative.

The remainder of this section summarizes the reasons why Alternatives 11A and 13A were advanced to the Final EIS and why Alternatives 05, 08, 09A, 10A, and 12A were eliminated during the 2016 Level 2 screening process.

What is Level 2 screening?

Level 2 screening determines which of the alternatives advanced from Level 1 screening are reasonable and will be evaluated in detail in the EIS.



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Table 4. Screening Data from the 2016 Level 2 Screening Process

Level 2 Screening Measures*	Alternative 05	Alternative 08	Alt. 09A - D&RG Four-Lane Divided Highway	Alt. 10A - Power Corridor Four-Lane Divided Highway	Alternative 11A - 2001 Corridor Four-Lane Divided	Alt. 12A - Far-West Four-Lane Divided Highway	Alternative 13A - Western Corridor Four-Lane Divided
*Measures are preliminary. The impacts and costs of alternatives advanced to the Final EIS will change based on additional engineering design.	I-15 and East-West Arterial Widening	I-15, East-West and North-South Arterial Widening	Range for All Options	Range for All Options	Range for All Options	Range for All Options	Range for All Options
Impacts to the Built Environment							
Total Number of Res. Or Bus. Relocations	244	544	799 to 928	275 to 603	32 to 189	38 to 192	33 to 188
Number of residential relocations	187	393	728 to 860	246 to 582	20 to 180	27 to 184	24 to 182
Number of business relocations	57	151	68 to 71	21 to 29	9 to 12	8 to 11	6 to 9
Number of utility relocations	14	15	0	64 to 75	3 to 4	3 to 4	3 to 4
Number of parks	6	10	8	2 to 5	4 to 6	3 to 5	2 to 4
Number of community facilities	4	11	2	0 to 1	0 to 1	0 to 1	0 to 2
Number of Section 4f (public parks or wildlife refuges)	4	8	7 to 8	2 to 4	4 to 6	5 to 7	3 to 5
Number of 6f	0	0	0	0	0	1	0
Potential for Impacts to Low-Income or Minority Populations (Env. Justice)	High	High	High	High	Low	Low	Low
Number of areas with high density of historic properties	16	31	6	4	0	0	0
Number of archaeological sites	25	30	12 to 17	9 to 13	7 to 13	5 to 11	8 to 14
Impacts to Farmlands							
Acres of Farmland (irrigated prime or unique farmland)	0	0.12	3 to 6	74 to 81	100 to 107	169 to 176	128 to 139
Number of APAs	0	5	0	2 to 5	0	12	7 to 12
Acres of APAs	0.0	0.7	0.0	15 to 17	0.0	14.0	20 to 33
Impacts to Natural Resources							
Total Acres of Wetlands	2.7	2.9	14 to 15	13 to 18	35 to 42	56 to 58	23 to 30
Acres of wildlife habitat by quality							
Acres of High Quality Wildlife Habitat	0.0	0.0	0 to 16	1 to 16	37 to 59	96 to 111	38 to 59
Acres of Medium Quality Habitat	0.9	0.9	17 to 40	30 to 152	171 to 236	169 to 223	125 to 189
Acres of Low Quality Habitat	9.1	14.7	167 to 205	212 to 443	263 to 333	409 to 460	310 to 426
Acres of 100-year floodplain	4.54	4.59	20 to 53	54 to 175	54 to 175	85 to 206	54 to 175
Number of water crossings	9	14	12 to 15	15 to 23	31 to 38	50 to 54	38 to 44
Costs							
Total Cost Estimate (to nearest \$1 M)	\$795 Million	\$1.21 Billion	\$774-\$779 Million	\$546-\$621 Million	\$387 to \$420 Million	\$476 to \$508 Million	\$382 to \$449 Million
Consistency with Local and Regional Plans							
Is Alternative consistent with local and regional transportation plans?	Consistent with 0 of 11 local land-use and transportation plans.	Consistent with 0 of 11 local land-use and transportation plans.	Consistent with 0 of 11 local land-use and transportation plans.	Consistent with 2 of 8 local land-use and transportation plans.	Consistent with 5 of 7 local land-use and transportation plans.	Consistent with 3 of 7 local land-use and transportation plans.	Consistent with 3 of 7 local land-use and transportation plans.
VMT Data							
Daily VMT in WDC Study Area	6,235,300	6,249,300	6,379,600	6,366,000	6,282,000	6,236,000	6,260,800
Rate of VMT Growth 2015 to 2040	49%	50%	53%	53%	51%	50%	50%
Rate of VMT Growth Compared to 2040 No-Action	2%	3%	5%	5%	3%	2%	3%
Daily VMT per Capita	24.4	24.4	24.9	24.9	24.5	24.4	24.5

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Alternative 05

Description and Options Considered

Alternative 05 proposed widening I-15 and existing east-west arterial roads. During the development of Alternative 05 (during the preparation of the Draft EIS), the WDC team compared both sides of the existing roads to determine whether widening to one side would have fewer impacts. If such an option existed, the WDC team assumed that the alternative would widen the road on the side that would have fewer impacts. Because this analysis took place during the development of Alternative 05, further refinement would not have led to a version of the alternative with fewer impacts. Only one version of Alternative 05 was considered for Level 2 screening during the preparation of the Draft EIS.

Figure 2 below shows the existing roads that would be widened as part of Alternative 05 and includes an impact table showing the Level 2 screening impacts for Alternative 05 from the 2016 screening process.

Determination

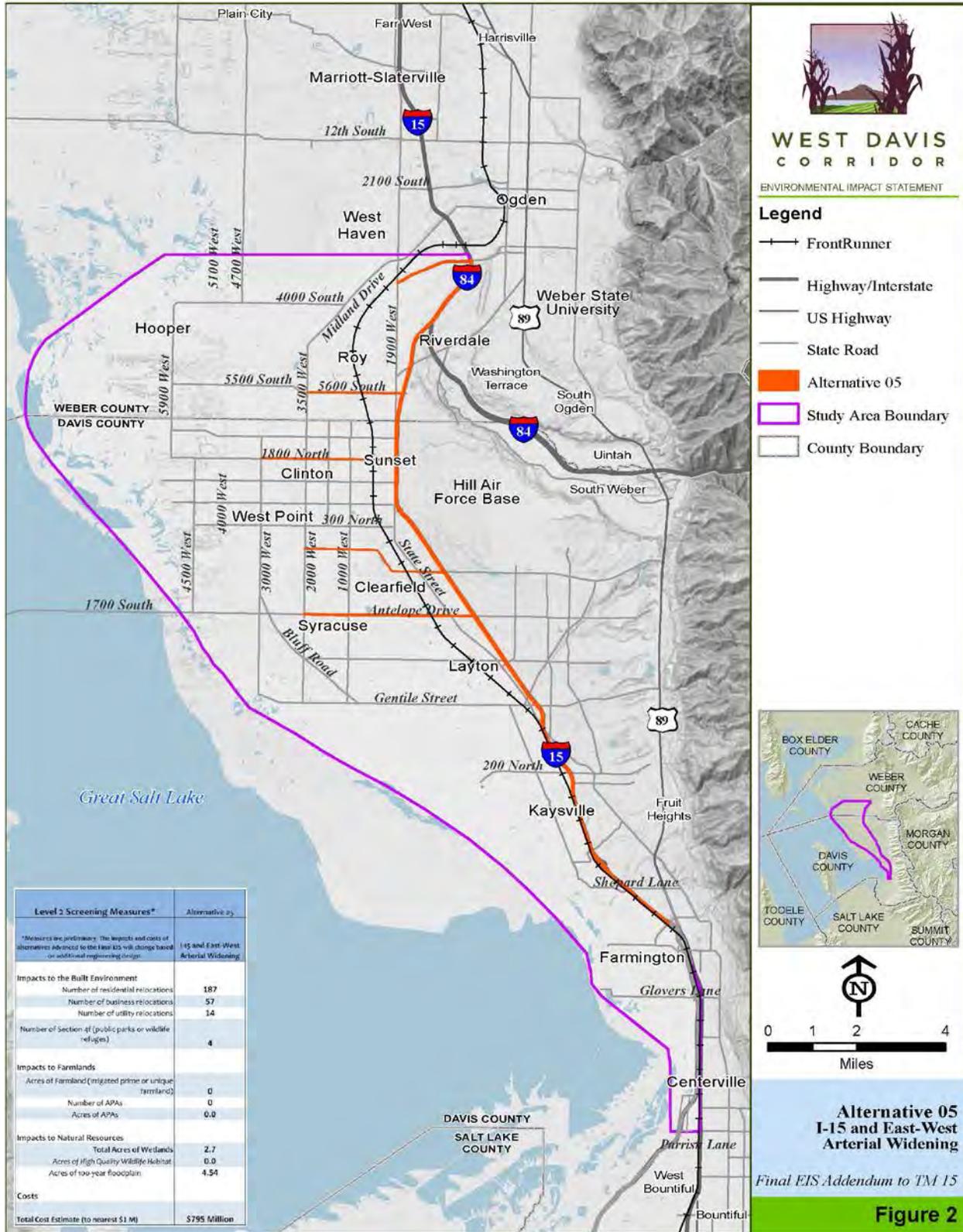
Alternative 05 was eliminated during the 2016 screening process for having significantly higher impacts to the built environment and a significantly higher cost than the alternatives advanced to the Final EIS.

- **Residential and Business Relocations.** Alternative 05 would require 187 potential residential relocations. The alternatives advanced to the Final EIS would require 20 to 25 potential residential relocations. Alternative 05 would require 57 potential business relocations. The alternatives advanced to the Final EIS would require 9 to 12 potential business relocations. Alternative 05 would affect about 7 to 9 times more residences and about 5 to 6 times more businesses than the alternatives advanced to the Final EIS.

The WDC team prepared a supplemental memo, *Section 404(b)(1) Practicability Analysis - 2016 Addendum*, which lists the business impacts of Alternative 05. *Section 404(b)(1) Practicability Analysis - 2016 Addendum* shows that the 57 businesses that would potentially be relocated by Alternative 05 employ an estimated 449 to 558 people and have estimated annual revenues of \$72 million. The WDC *Section 404(b)(1) Practicability Analysis* also describes the lack of suitable replacement properties for the affected businesses in the cities where they are currently located.

In addition to these direct impacts, Alternative 05 would also have significant indirect impacts to existing development, since widening the existing arterial roads would change the access to adjacent properties. Since most of these arterial roads are located in commercial districts, the impacts to local government planning and tax revenues would also likely be significant. The impacts to the local utility networks, which are generally located within, under, or adjacent to these arterial roads, would also be significant.

Figure 2. Alternative 05 – I-15 and East-West Arterial Widening



- **Historic Properties and Archaeological Resources.** Alternative 05 would affect 16 neighborhoods with historic properties and 25 archaeological resources. The alternatives advanced to the Final EIS would affect no neighborhoods with historic properties and 13 or fewer archaeological resources. Alternative 05 would affect 16 neighborhoods with historic properties that would not be affected by the alternatives advanced to the Final EIS.

Alternative 05 would affect about 2 times more archaeological resources than the alternatives advanced to the Final EIS.

Because impacts to neighborhoods with historic properties and archaeological resources are considered Section 4(f) impacts, Alternative 05 would affect significantly more Section 4(f) protected historic properties and archaeological resources than the alternatives advanced to the Final EIS. Additionally, because Alternative 05 would have significantly more impacts to residences in older neighborhoods, it would have a greater potential to affect additional historic properties that would qualify as Section 4(f) resources compared to the alternatives advanced to the Final EIS.

- **Low-Income or Minority Populations.** Alternative 05 would have a higher likelihood of affecting low-income or minority populations, since it proposes widening existing roads that would require residential relocations in neighborhoods where census data indicate that low-income or minority populations reside. None of the alternatives advanced to the Final EIS are likely to affect low-income or minority populations.
- **Cost.** Alternative 05 would have a substantially higher cost. Alternative 05 is estimated to cost \$795 million. All of the alternatives advanced to the Final EIS are estimated to cost \$382 million to \$417 million. The cost of Alternative 05 would be 91% to 108% more than the costs of the alternatives advanced to the Final EIS.
- **Consistency with Local and Regional Plans.** Alternative 05 is inconsistent with all of the state, regional, city, and county transportation plans. Alternative 05 would widen I-15 and existing arterial roads beyond what is already planned. The facility types and general locations of the alternatives advanced to the Final EIS are consistent with the WFRC's 2015–2040 RTP.
- **Transportation Performance.** Additionally, the travel demand model showed that segments of three arterials proposed as part of Alternative 05 would still function at LOS E or F in 2040.
 - **5600 South:** Would function at LOS E between SR 126 and 2700 West
 - **SR 193:** Would function at LOS E from SR 126 to 1000 West
 - **Antelope Drive:** Would function at LOS E and F between I-15 and Main Street in Clearfield

What is Section 4(f)?

Section 4(f) of the Department of Transportation Act of 1966 requires an FHWA project to avoid the use of eligible or potentially eligible historic properties and recreation and wildlife areas unless there is no feasible and prudent alternative to such use.

Summary. The WDC team determined that Alternative 05 was not a reasonable alternative because of its significantly higher impacts to existing residences, businesses, historic properties, archaeological resources, and low-income and minority populations; its lack of consistency with all city, county, and regional transportation and land-use plans and existing development; and its significantly higher cost. For these reasons, Alternative 05 was eliminated during the 2016 Level 2 screening process.

In the Draft EIS, the Federal Highway Administration (FHWA) determined that Alternative 05 was not reasonable, and the U.S. Army Corps of Engineers determined that it was not practicable, because of the high number of business relocations (64).

Alternative 08

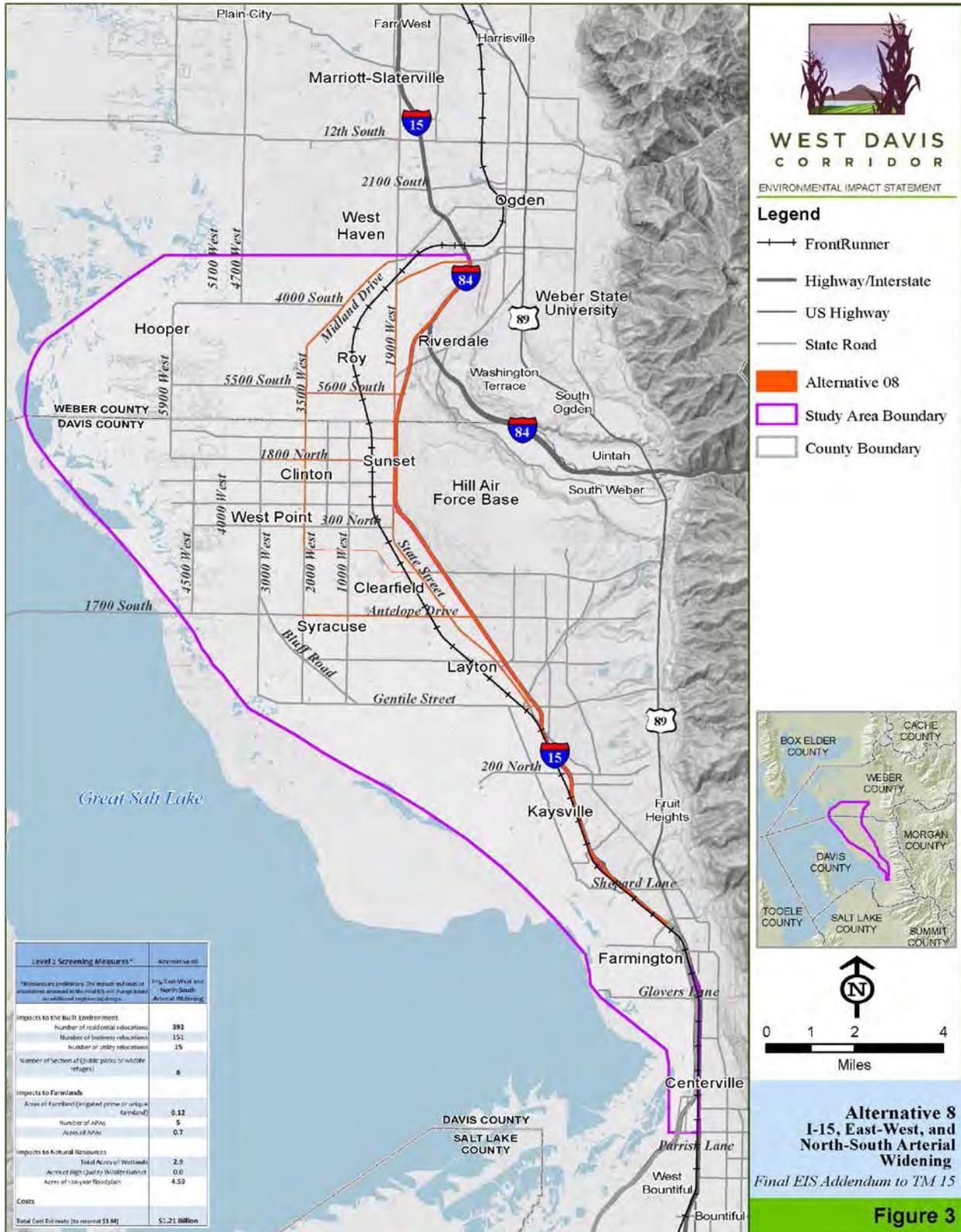
Description and Options Considered

Alternative 08 proposed widening I-15 and existing east-west and north-south arterial roads. Alternative 08 includes all projects proposed as part of Alternative 05 and also includes widening SR 126 and SR 108. As a result, Alternative 08 was essentially a better-performing but more expensive version of Alternative 05 with higher impacts.

During the development of Alternative 08 (during the preparation of the Draft EIS), the WDC team compared both sides of the existing roads to determine whether widening to one side would have fewer impacts. If such an option existed, the WDC team assumed that the alternative would widen the road on the side that would have fewer impacts. Because this analysis took place during the development of Alternative 08, further refinement would not have led to a version of the alternative with fewer impacts. Only one version of Alternative 08 was considered for Level 2 screening during the preparation of the Draft EIS.

Figure 3 below shows the existing roads that would be widened as part of Alternative 08 and includes an impact table showing the Level 2 screening impacts for Alternative 08 from the 2016 screening process.

Figure 3. Alternative 08 – I-15, East-West, and North-South Arterial Widening



Determination

Alternative 08 was eliminated during the 2016 screening process for having significantly higher impacts to the built environment and a significantly higher cost than the alternatives advanced to the Final EIS.

- **Residential and Business Relocations.** Alternative 08 would require 393 potential residential relocations. The alternatives advanced to the Final EIS would require 20 to 25 potential residential relocations. Alternative 08 would require 151 potential business relocations. The alternatives advanced to the Final EIS would require 9 to 12 potential business relocations. Alternative 08 would affect about 16 to 19 times more residences and 13 to 17 times more businesses than the alternatives advanced to the Final EIS.

The WDC team prepared a supplemental memo, *Section 404(b)(1) Practicability Analysis - 2016 Addendum*, which lists the business impacts of Alternative 05. Alternative 08 would affect 151 businesses, including all 57 of the businesses that Alternative 05 would affect. *Section 404(b)(1) Practicability Analysis - 2016 Addendum* shows that the 57 businesses that would potentially be relocated by Alternative 05 employ an estimated 449 to 558 people and have estimated annual revenues of \$72 million. The WDC *Section 404(b)(1) Practicability Analysis* also describes the lack of suitable replacement properties for the affected businesses in the cities where they are currently located.

These business impacts would be even greater for Alternative 08 since it would affect 94 more businesses than Alternative 05. In addition to these direct impacts, Alternative 08 would also have significant indirect impacts to existing development, since widening the existing arterial roads would change the access to adjacent properties. Since most of these arterial roads are located in commercial districts, the impacts to local government planning and tax revenues would also likely be significant. The impacts to the local utility networks, which are generally located within, under, or adjacent to these arterial roads, would also be significant.

- **Historic Properties and Archaeological Resources.** Alternative 08 would affect 31 neighborhoods with historic properties and 30 archaeological resources. The alternatives advanced to the Final EIS would affect no neighborhoods with historic properties and 13 or fewer archaeological resources. Alternative 08 would affect 31 neighborhoods with historic properties that would not be affected by the alternatives advanced to the Final EIS. Alternative 08 would affect about 2 times more archaeological resources than the alternatives advanced to the Final EIS.

Because impacts to neighborhoods with historic properties and archaeological resources are considered Section 4(f) impacts, Alternative 08 would affect significantly more Section 4(f) protected historic properties and archaeological resources than the alternatives advanced to the Final EIS. Additionally, because Alternative 08 would have significantly more impacts to residences in older neighborhoods, it would have a greater potential to affect additional historic

properties that would qualify as Section 4(f) resources compared to the alternatives advanced to the Final EIS.

- **Community Facilities.** Alternative 08 would affect 11 community facilities. The alternatives advanced to the Final EIS would affect either 1 community facility or none. Alternative 08 would affect about 11 times more community facilities than the alternatives advanced to the Final EIS.
- **Low-Income or Minority Populations.** Alternative 08 would have a higher likelihood of affecting low-income or minority populations, since it proposes widening existing roads that would require residential relocations in neighborhoods where census data indicate that low-income or minority populations reside. None of the alternatives advanced to the Final EIS are likely to affect low-income or minority populations.
- **Cost.** Alternative 08 would have a substantially higher cost. Alternative 08 is estimated to cost \$1.21 billion. All of the alternatives advanced to the Final EIS are estimated to cost \$382 million to \$417 million. The cost of Alternative 08 would be 190% to 217% more than the costs of the alternatives advanced to the Final EIS.
- **Consistency with Local and Regional Plans.** Alternative 08 is inconsistent with all of the state, regional, city, and county transportation plans. Alternative 08 would widen I-15 and existing arterial roads beyond what is already planned. The facility types and general locations of the alternatives advanced to the Final EIS are consistent with WFRC's 2015–2040 RTP.
- **Transportation Performance.** Additionally, the travel demand model showed that segments of three arterials proposed as part of Alternative 08 would still function at LOS E or F in 2040.
 - **5600 South:** Would function at LOS E between SR 126 and 2700 West
 - **SR 193:** Would function at LOS E from SR 126 to 1000 West
 - **Antelope Drive:** Would function at LOS E and F between I-15 and Main Street in Clearfield

Summary. The WDC team determined that Alternative 08 was not a reasonable alternative because of its significantly higher impacts to existing residences, businesses, historic properties, archaeological resources, community facilities, and low-income and minority populations; its lack of consistency with all city, county, and regional transportation and land-use plans and existing development; and its significantly higher cost. For these reasons, Alternative 08 was eliminated during the 2016 Level 2 screening process.

Note that Alternative 08 would have greater residential and business impacts than would Alternative 05. In the Draft EIS, the Federal Highway Administration (FHWA) determined that Alternative 05 was not reasonable, and the U.S. Army Corps of Engineers determined that it was not practicable, because of the high number of business relocations (64).

Alternative 09A

Description and Options Considered

Alternative 09A proposed a new four-lane divided highway on the D&RGW alignment.

The Level 2 screening impacts of Alternative 09A during the 2016 screening process are similar to the Level 2 screening impacts for Alternative 09A+04 that was evaluated in the Draft EIS screening process. The only differences are that the impacts and costs of widening existing roads as part of Alternative 04 have been removed.

Figure 4 below shows the new four-lane divided-highway alignments and options for Alternative 09A and includes an impact table showing the Level 2 screening impacts for the four different option combinations for Alternative 09A from the 2016 screening process.

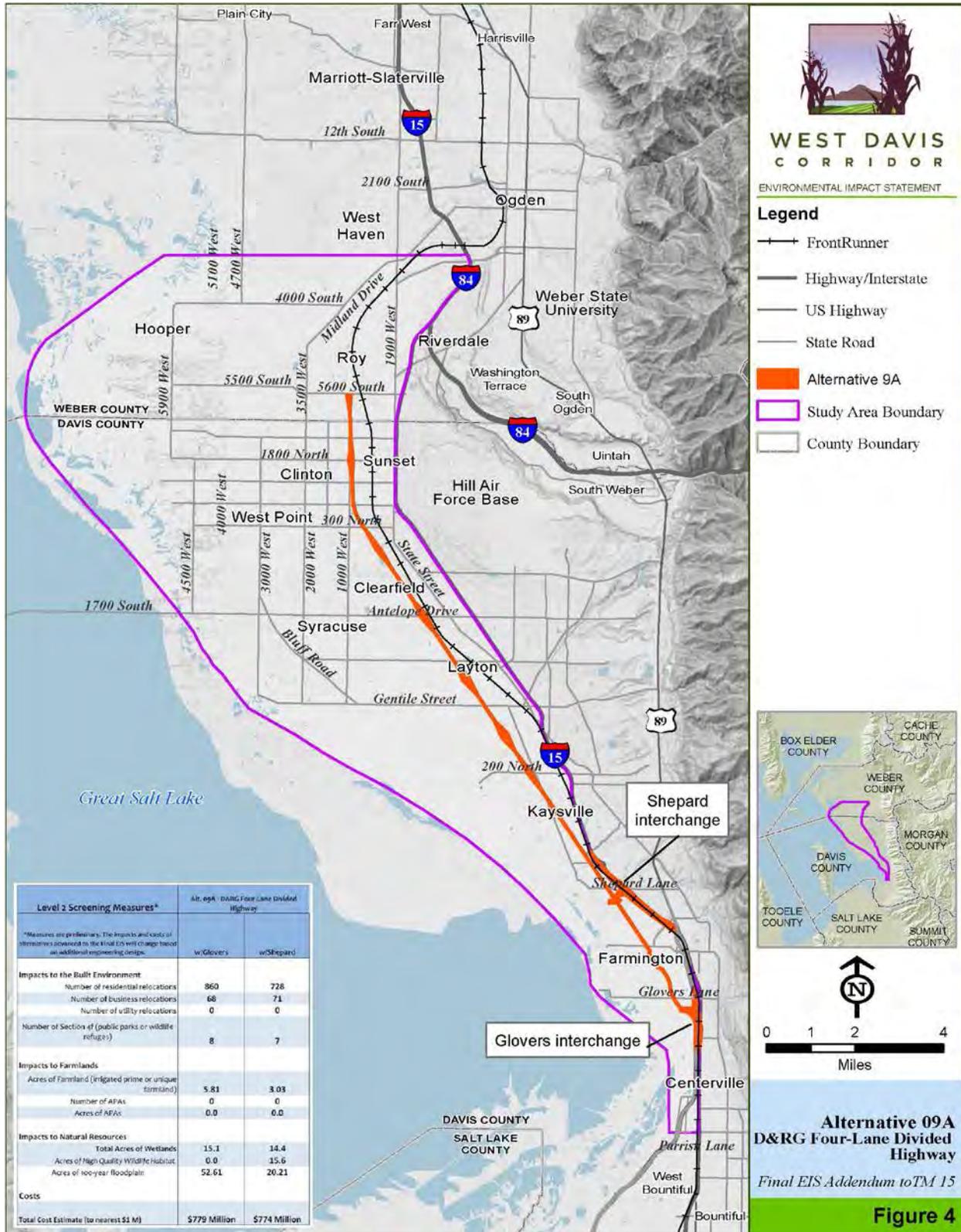
Determination

Alternative 09A was eliminated in Level 2 screening during the 2016 screening process for having significantly higher impacts to the built environment and a significantly higher cost than the alternatives advanced to the Final EIS.

- **Residential and Business Relocations.** Alternative 09A would require 728 to 860 potential residential relocations. The alternatives advanced to the Final EIS would require 20 to 25 potential residential relocations. Alternative 09A would require 68 to 71 potential business relocations. The alternatives advanced to the Final EIS would require 9 to 12 potential business relocations. Alternative 09A would affect about 29 to 43 times more residences and 6 to 8 times more businesses than the alternatives advanced to the Final EIS. It would not be possible to relocate this many businesses into suitable replacement properties in the study area.

In addition to these direct impacts, Alternative 09A would also have substantial indirect impacts to existing development, since locating a new four-lane divided highway on the D&RGW corridor would not be consistent with the existing transportation and utility networks in the study area. Since much of the D&RGW corridor is located in commercial districts, impacts to numerous businesses would substantially reduce sales tax and property tax revenues for the local governments in the study area.

Figure 4. Alternative 09A – D&RGW Four-Lane Divided Highway



- **Historic Properties and Archaeological Resources.** Alternative 09A would affect 6 neighborhoods with historic properties. The alternatives advanced to the Final EIS would affect no neighborhoods with historic properties. Alternative 09A would affect 6 neighborhoods with historic properties that would not be affected by the alternatives advanced to the Final EIS.

Because impacts to neighborhoods with historic properties are considered Section 4(f) impacts, Alternative 09A would affect substantially more Section 4(f)–protected historic properties and archaeological resources than would the alternatives advanced to the Final EIS. Additionally, because Alternative 09A would have substantially more impacts to residences in older neighborhoods, it would have a greater potential to affect additional historic properties that would qualify as Section 4(f) resources compared to the alternatives advanced to the Final EIS.

- **Low-Income or Minority Populations.** Alternative 09A would have a higher likelihood of affecting low-income or minority populations, since it proposes a new four-lane divided highway that would require residential relocations in neighborhoods where census data indicate that low-income or minority populations reside. None of the alternatives advanced to the Final EIS are likely to affect low-income or minority populations.
- **Cost.** Alternative 09A would have a substantially higher cost. Alternative 09A is estimated to cost \$774 million to \$779 million. The alternatives advanced to the Final EIS are estimated to cost \$382 million to \$417 million. The cost of Alternative 09A would be 86% to 110% more than the costs of the alternatives advanced to the Final EIS.
- **Consistency with Local and Regional Plans.** Alternative 09A is inconsistent with all of the state, regional, city, and county transportation plans. Alternative 09A would place a new four-lane divided highway in planned, existing residential and commercial development and would widen existing arterial roads beyond what is already planned. The facility types and general locations of the alternatives advanced to the Final EIS are consistent with WFRC’s 2015–2040 RTP.
- **Restriction on Use of the D&RGW Rail Corridor.** Alternative 09A would affect the D&RGW rail alignment, which has been converted to a regional trail. UTA has an agreement with Union Pacific Railroad to use the alignment as a potential future transit corridor. Currently, the D&RGW alignment is under a Notice of Interim Trail Use and is subject to reactivation for freight use. The alignment is also subject to the Prospective Purchaser Agreement with the Utah Department of Environmental Quality and the U.S. Environmental Protection Agency that allows the alignment to be used for rail or trail use only. UTA intends to use the D&RGW alignment as a future transit corridor, and therefore this alignment is not available for UDOT to use for the WDC as part of Alternative 09A.



Summary. The WDC team determined that Alternative 09A was not a reasonable or practicable alternative because of its substantially higher impacts to existing residences, businesses, historic properties, and low-income and minority populations; its lack of consistency with all city, county, and regional transportation and land-use plans and existing development; and its significantly higher cost. In addition, Alternative 09A would use the D&RGW rail corridor, which is not available for use for the WDC and thus is not logistically practicable. For these reasons, Alternative 09A was eliminated during the 2016 Level 2 screening process.

Note that Alternative 09A would have greater residential and business impacts than would Alternative 05. In the Draft EIS, the Federal Highway Administration (FHWA) determined that Alternative 05 was not reasonable, and the U.S. Army Corps of Engineers determined that it was not practicable, because of the high number of business relocations (64).

Alternative 10A

Description and Options Considered

Alternative 10A proposed a new four-lane divided highway following the Rocky Mountain Power corridor alignment. Three southern options and two northern options were considered for Alternative 10A.

The three southern options, the Shepard Lane Option, the D&RGW Option, and the Glovers Lane Option, are the same three southern options considered for Alternatives 11A and 13A. The alignment of Alternative 10A followed the same alignment as Alternatives 11A and 13A from Farmington to about 2000 West in Layton.

The first northern option is the original option that followed the Rocky Mountain Power corridor north to 1800 North in Davis County. The second northern option is a modified option that goes west from the first option around 700 South in Clearfield, stays west to about 3800 West in West Point, turns north at 3800 West, and ends at 1800 North in Davis County. The modified option of Alternative 10A is an alignment recommended for analysis by the resource agencies (U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency).

When considering the alignment for Alternative 10A north of 1000 South in Layton, the WDC team evaluated whether an alignment along the east side or the west side of the power corridor would have more impacts.

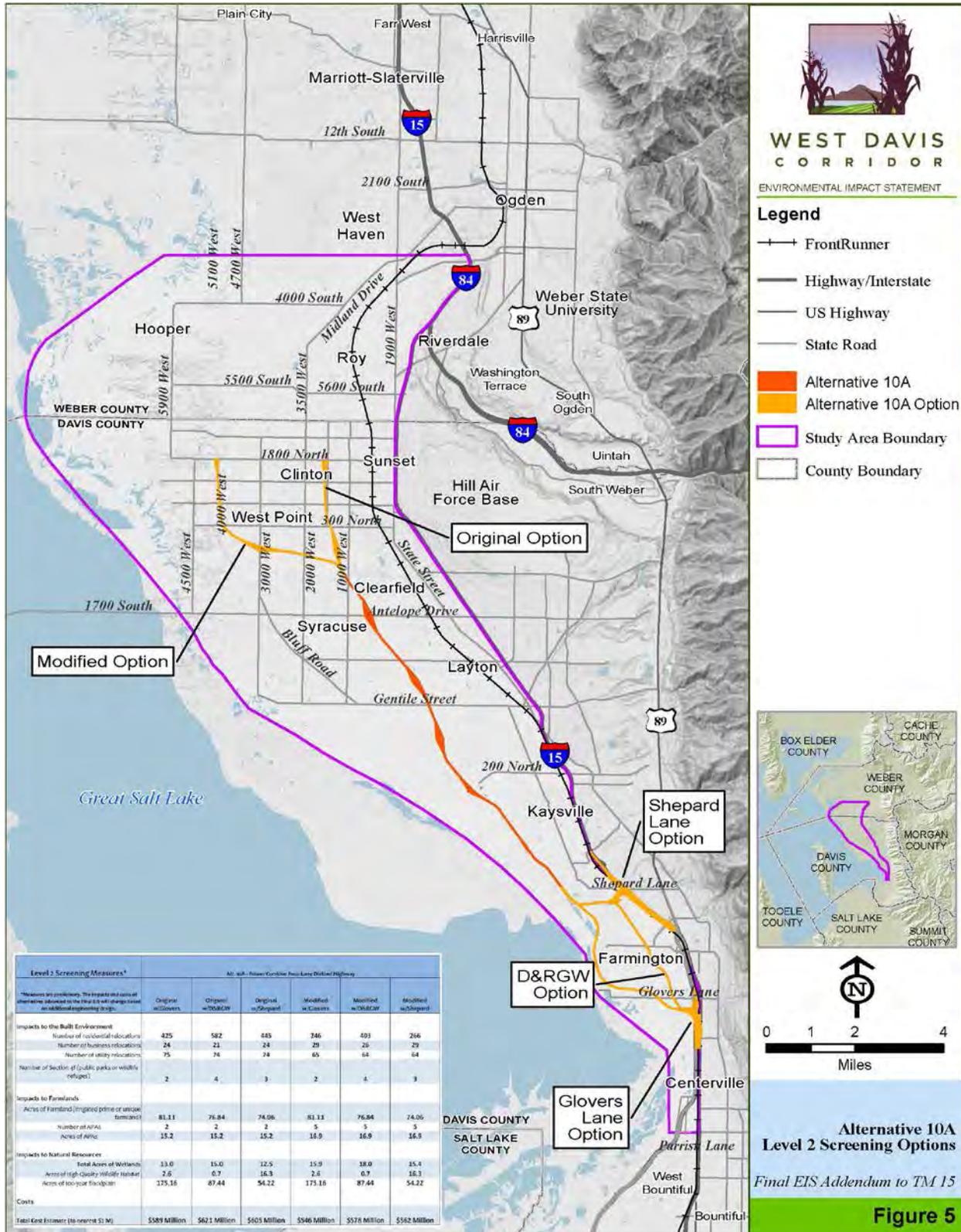
The WDC team found that both sides would have a large amount of impacts but chose the east side to use for analysis, since the alignment on the east side of the power corridor would have 29 fewer direct residential impacts, fewer indirect residential impacts, 11 fewer business impacts, 2 fewer Section 4(f) impacts, no Section 6(f) impacts [the west-side alignment would affect a Section 6(f) park], fewer impacts to irrigated prime or unique farmland, and no impacts to the Syracuse City Cemetery compared to the alignment on the west side of the power corridor. The alignment on the west side of the power corridor would affect 0.1 acre of wetlands; the alignment on the east side of the power corridor would affect 2.2 acres of wetlands.

Figure 5 below shows the new four-lane divided highway alignments and options for Alternative 10A and includes an impact table showing the Level 2 screening impacts for the four different option combinations for Alternative 10A from the 2016 screening process.

What is Section 6(f)?

Section 6(f) of the Land and Water Conservation Act requires that the conversion of lands or facilities acquired with Land and Water Conservation Act funds be coordinated with the U.S. Department of the Interior.

Figure 5. Alternative 10A – Level 2 Screening Options



Determination

Both the original and modified options of Alternative 10A were eliminated during the 2016 Level 2 screening process for having significantly higher impacts to the built environment and significantly higher costs than the alternatives advanced to the Final EIS.

Alternative 10A Original Option

- **Residential and Business Relocations.** Alternative 10A Original Option would require 425 to 582 potential residential relocations. The alternatives advanced to the Final EIS would require 20 to 25 potential residential relocations. Alternative 10A Original Option would require 21 to 24 potential business relocations, including Utility Trailer. Utility Trailer is one of the seven largest employers in Davis County and employs 700 to 1,000 people (Davis County Office of the Assessor 2011).

The WDC team prepared *Technical Memorandum 15A: Alternative 10A Modified – Bridge over Utility Trailer*, which describes why it is not possible to construct a bridge over Utility Trailer to avoid affecting it, and *Technical Memorandum 15B: Alternative 10A Modified – Economic Impacts of Utility Trailer Closure*, which estimates that the economic impacts of closing Utility Trailer would likely be a loss of 1,255 jobs, a loss of \$15 million in tax revenues, and a total economic output loss of \$238.5 million. Although these technical memoranda refer to Alternative 10A Modified, the impacts to Utility Trailer would be the same for Alternatives 10A and 10A Modified Option, so the technical memoranda are applicable to both alternatives. *Technical Memorandum 15A* and *Technical Memorandum 15B* are included as part of the WDC technical memorandum *Section 404(b)(1) Practicability Analysis*.

The alternatives advanced to the Final EIS would require 9 to 12 potential business relocations. Alternative 10A Original Option would require 74 to 75 utility relocations. The alternatives advanced to the Final EIS would require 3 to 4 utility relocations. Alternative 10A Original Option would require 400 to 562 more residential relocations, 9 to 15 more business relocations (including Utility Trailer), and 70 to 72 more utility relocations than the alternatives advanced to the Final EIS.

In addition to these direct impacts, Alternative 10A Original Option would also have significant indirect impacts to existing development, since locating a new four-lane divided highway on the power corridor would not be consistent with the existing transportation and utility networks in the study area. Alternative 10A Original Option would remove at least 18 streets and terminate 21 streets from the local transportation network in Clearfield. Since the majority of the power corridor is surrounded by residential development and commercial districts, the impacts to local government planning and tax revenues would also likely be significant. The impacts to the local utility networks would also be significant because of the density and levels of impacts to existing development.

- **Historic Properties.** Alternative 10A Original Option would affect 4 neighborhoods with historic properties. The alternatives advanced to the Final EIS would affect no neighborhoods with historic properties. Alternative 10A Original Option would affect 4 neighborhoods with historic properties that would not be affected by the alternatives advanced to the Final EIS. Because impacts to neighborhoods with historic properties are considered Section 4(f) impacts, Alternative 10A Original Option would affect significantly more Section 4(f) protected historic properties than the alternatives advanced to the Final EIS. Additionally, because Alternative 10A Original Option would have significantly more impacts to residences in older neighborhoods, it would have a greater potential to affect additional historic properties that would qualify as Section 4(f) resources compared to the alternatives advanced to the Final EIS.
- **Low-Income or Minority Populations.** Alternative 10A Original Option would have a higher likelihood of affecting low-income or minority populations, since it proposes a new four-lane divided highway that would require significant numbers of residential relocations in neighborhoods where census data indicate that low-income or minority populations reside. None of the alternatives advanced to the Final EIS are likely to affect low-income or minority populations.
- **Cost.** Alternative 10A Original Option would have a substantially higher cost. Alternative 10A Original Option is estimated to cost \$589 million to \$621 million. All of the alternatives advanced to the Final EIS are estimated to cost \$382 million to \$417 million. The cost of Alternative 10A Original Option would be 41% to 63% more than the costs of the alternatives advanced to the Final EIS.
- **Consistency with Local and Regional Plans.** Alternative 10A Original Option is inconsistent with all of the state, regional, city, and county transportation plans. Alternative 10A Original Option would locate a new four-lane divided highway in developed areas with dense existing residential, commercial, and industrial development. The new four-lane divided highway proposed with Alternative 10A Original Option would be incompatible with the existing regional and local street networks in Layton, Syracuse, Clearfield, and Clinton. The facility types and general locations of the alternatives advanced to the Final EIS are consistent with WFRC's 2015–2040 RTP.

Summary. The WDC team determined that Alternative 10A Original Option was not a reasonable alternative because of its significantly higher impacts to existing residences, businesses, historic properties, and low-income and minority populations; its lack of consistency with all city, county, and regional transportation and land-use plans and existing development; and its significantly higher costs. For these reasons, Alternative 10A Original Option was eliminated during the 2016 Level 2 screening process.

Alternative 10A Modified Option

- **Residential and Business Relocations.** Alternative 10A Modified Option would require 246 to 403 potential residential relocations. The alternatives advanced to the Final EIS would require 20 to 25 potential residential relocations. Alternative 10A Modified Option would require 26 to 29 potential business relocations, including Utility Trailer. Utility Trailer is one of the seven largest employers in Davis County and employs 700 to 1,000 people (Davis County Office of the Assessor 2011).

The WDC team prepared *Technical Memorandum 15A: Alternative 10A Modified – Bridge over Utility Trailer*, which describes why it is not possible to construct a bridge over Utility Trailer to avoid affecting it, and *Technical Memorandum 15B: Alternative 10A Modified – Economic Impacts of Utility Trailer Closure*, which estimates that the economic impacts of closing Utility Trailer would likely be a loss of 1,255 jobs, a loss of \$15 million in tax revenues, and a total economic output loss of \$238.5 million. *Technical Memorandum 15A* and *Technical Memorandum 15B* are included as part of the WDC technical memorandum *Section 404(b)(1) Practicability Analysis*.

Alternative 10A Modified Option would also require the relocation of Schneider's Bluff Golf Course in West Point, since it would relocate 6 holes of an 18-hole golf course and would separate the remaining 12 holes from the clubhouse, putting green, and driving range. It would cost at least \$5 million to construct a new golf course, assuming that a suitable location is available. Golf courses require about 150 acres of contiguous property. Given the developed nature of West Point, it would not be possible to find available, contiguous land suitable for relocating the golf course in West Point.

The alternatives advanced to the Final EIS would require 9 to 12 potential business relocations. Alternative 10A Modified Option would require 64 to 65 utility relocations, would relocate about 1 mile of two power distribution lines, and would acquire property that is part of the Rocky Mountain Power Syracuse Substation. The alternatives advanced to the Final EIS would require 3 to 4 utility relocations. Alternative 10A Modified Option would require 221 to 383 more residential relocations, 14 to 20 more business relocations (including Utility Trailer and Schneider's Bluff Golf Course), and 60 to 62 more utility relocations than the alternatives advanced to the Final EIS.

In addition to these direct impacts, Alternative 10A Modified Option would also have significant indirect impacts to existing development, since locating a new four-lane divided highway on the power corridor would not be consistent with the existing transportation and utility networks in the study area. Alternative 10A Modified Option would remove 10 streets and terminate 15 streets from the local transportation network in Clearfield. Since the majority of the power corridor is surrounded by residential development and commercial districts, the impacts to local government planning and tax revenues would also likely be significant. The impacts to the local

utility networks would also be significant because of the density and levels of impacts to existing development.

- **Historic Properties.** Alternative 10A Modified Option would affect 4 neighborhoods with historic properties. The alternatives advanced to the Final EIS would affect no neighborhoods with historic properties. Alternative 10A Modified Option would affect 4 neighborhoods with historic properties that would not be affected by the alternatives advanced to the Final EIS. Because impacts to neighborhoods with historic properties are considered Section 4(f) impacts, Alternative 10A Modified Option would affect significantly more Section 4(f) protected historic properties than the alternatives advanced to the Final EIS. Additionally, because Alternative 10A Modified Option would have significantly more impacts to residences in older neighborhoods, it would have a greater potential to affect additional historic properties that would qualify as Section 4(f) resources compared to the alternatives advanced to the Final EIS.
- **Low-Income or Minority Populations.** Alternative 10A Modified Option would have a higher likelihood of affecting low-income or minority populations, since it proposes a new four-lane divided highway that would require significant numbers of residential relocations in neighborhoods where census data indicate low-income or minority populations reside. About 6.5 miles of the 17-to-20-mile Alternative 10A Modified Option—from Gentile Street in Layton to 300 North in West Point—are in an area where most of the census tracts have percentages of low-income and minority populations that are higher than the averages for the surrounding county. This 6.5-mile segment is 36% to 44% of the alternative. None of the alternatives advanced to the Final EIS are likely to affect low-income or minority populations.
- **Cost.** Alternative 10A Modified Option would have a substantially higher cost. Alternative 10A Modified Option is estimated to cost \$546 million to \$578 million using the Level 2 screening cost estimates from the 2016 screening process. However, adding the costs of relocating Utility Trailer and Schneider’s Bluff Golf Course and the 64 to 65 utility line impacts would increase the cost of this alternative by at least \$70 million, bringing the cost of Alternative 10 Modified Option to \$616 million to \$648 million. (These costs were not accurately reflected in the \$1.535 million cost per business relocation used as part of the Level 2 screening cost estimate during the 2016 screening process.) All of the alternatives advanced to the Final EIS are estimated to cost \$382 million to \$417 million. The cost of Alternative 10A Modified Option would be \$199 million to \$266 million, or 48% to 70% more than the costs of the alternatives advanced to the Final EIS, counting the additional cost of at least \$70 million that would be needed to relocate Utility Trailer, Schneider’s Bluff Golf Course, and the utility infrastructure.

- **Consistency with Local and Regional Plans.** Alternative 10A Modified Option is inconsistent with all of the state, regional, city, and county transportation plans. Alternative 10A Modified Option would locate a new four-lane divided highway in developed areas with dense existing residential, commercial, and industrial development. The new four-lane divided highway proposed in Alternative 10A Modified Option would be incompatible with the existing regional and local street networks in Layton, Syracuse, Clearfield, and West Point. The facility types and general locations of the alternatives advanced to the Final EIS are consistent with WFRC’s 2015–2040 RTP.
- **Transportation System Impacts.** Alternative 10A Modified Option would remove 10 roads from the local network, terminate 15 local roads, and construct 20 crossings of existing roads between 1800 North in West Point and Kaysville. Additionally, providing a connection to SR 193, a major east-west arterial in Clearfield, might not be possible with this design. Changes to the currently planned transportation network could cause additional relocations, out-of-direction travel, and increased travel time.

Summary. The WDC team determined that Alternative 10A Modified Option was not a reasonable alternative because of its significantly higher impacts to existing residences, businesses, utilities, historic properties, low-income and minority populations, and irrigated prime or unique farmland; its lack of consistency with all city, county, and regional transportation and land-use plans and existing development; and its significantly higher cost. For these reasons, Alternative 10A Modified Option was eliminated during the 2016 Level 2 screening process.

Alternative 11A

Description and Options Considered

Alternative 11A proposed a new four-lane divided highway following the 2001 alignment. Three southern options (Glovers Lane, D&RGW, and Shepard Lane Options) and two northern options (4100 West and 4800 West Options) were considered for Alternative 11A during the 2016 Level 2 screening process.

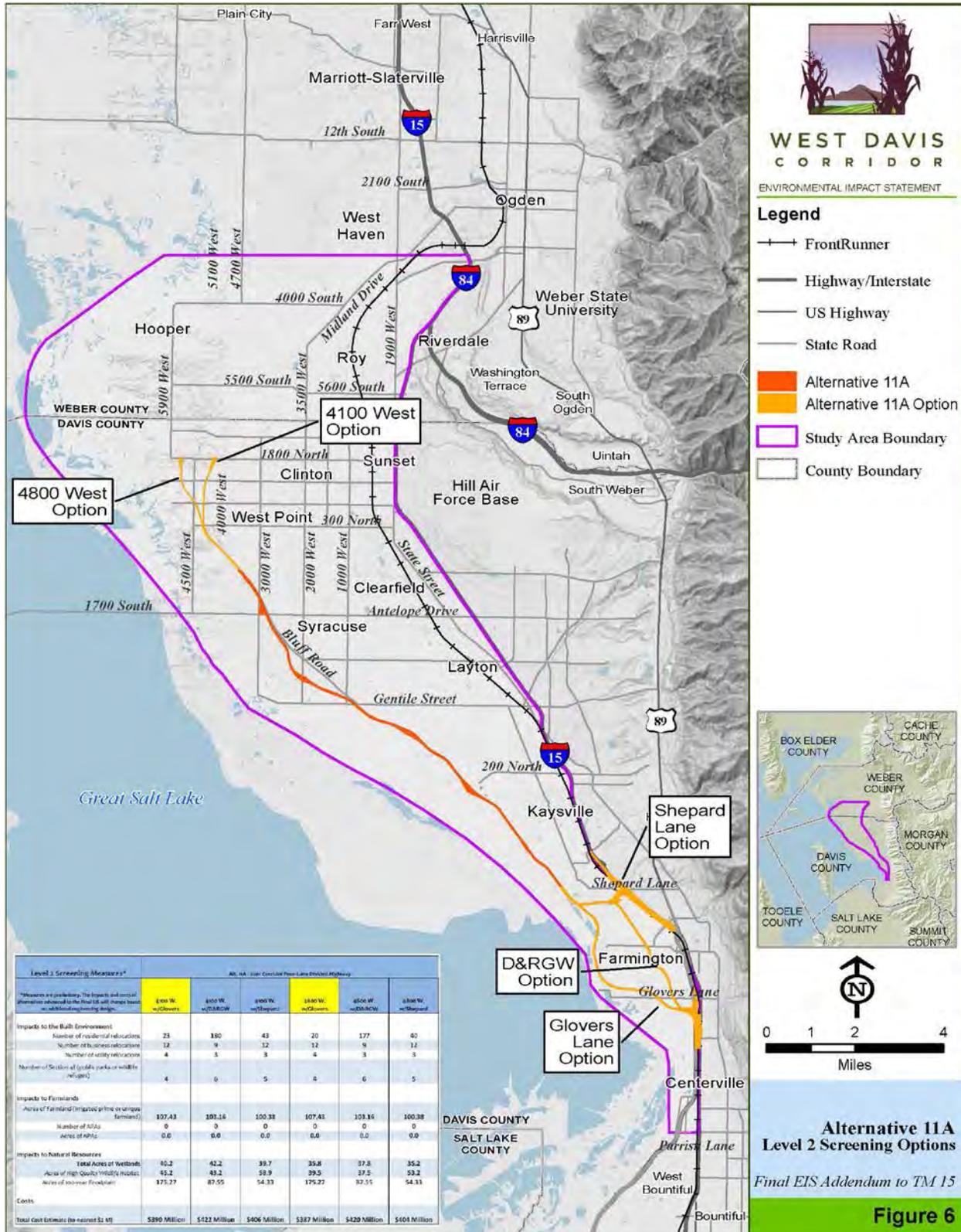
What is the 2001 alignment?

The *2001 alignment* is the recommended alignment from the *2001 North Legacy Transportation Corridor Study*.

Figure 6 below shows all of the new four-lane divided highway options that were considered for Alternative 11A as part of the 2016 Level 2 screening process and includes an impact table showing the range of Level 2 screening impacts for the six different options for Alternative 11A.

The northern terminus of Alternative 11A (for both the 4800 West and 4100 West Options) was determined to be at 1800 North in Davis County.

Figure 6. Alternative 11A – Level 2 Screening Options



Determination

Since Alternative 11A had three southern options and two northern options, six different combinations for Alternative 11A were evaluated in the 2016 Level 2 screening process.

The WDC team determined that any of the six combinations of Alternative 11A would be better options than Alternatives 05, 08, 09A, or 10A since Alternative 11A would have the lowest levels of impacts to the built environment, no impacts to areas with high densities of historic properties, no impacts to low-income or minority populations, low levels of impacts to farmland, and the lowest cost of any of the alternatives evaluated in the 2016 Level 2 screening process.

The WDC team relied on the previous screening process to evaluate only the best-performing, least-impacting reasonable southern and northern options of Alternative 11A during the 2016 Level 2 screening process. During this process, the WDC team did not re-evaluate the other Syracuse and West Point options that had been evaluated in Level 2 screening conducted for the Draft EIS and that were eliminated because of higher impacts and costs.

Southern Options. As discussed in the southern options section beginning on page 45, the WDC team determined that the Glovers Lane Option was the only reasonable and feasible southern option, and it was the only southern option advanced to the Final EIS as part of Alternative 11A.

Northern Options. Both northern options (4800 West and 4100 West Options) were determined to be reasonable and feasible and were advanced to the Final EIS as part of Alternative 11A.

Alternative 11A Options Advanced to the Final EIS

The Glovers Lane southern option and two northern options (4800 West and 4100 West Options) were advanced to the Final EIS as part of Alternative 11A.

These options of Alternative 11A were advanced to the Final EIS because they met the purpose of and need for the project while having the lowest overall levels of impacts to the human and natural environment. These options of Alternative 11A are also constructable, are logistically feasible, and have reasonable costs.

Therefore, the WDC team concluded that these options of Alternative 11A, which best meet the purpose of and need for the project while having the lowest overall levels of impacts to both the human environment and natural resources and having reasonable costs, represent reasonable alternatives for the WDC Project and concluded that they should be advanced to the Final EIS for detailed study and evaluation. The options of Alternative 11A advanced to the Final EIS are shown in Figure 9 on page 49.

Alternative 12A

Description and Options Considered

Alternative 12A proposed a new four-lane divided highway following the 2001 alignment to Syracuse, and then a western alignment in Syracuse. Alternative 12A proposed an alignment even farther west than Alternative 13A that crossed Antelope Drive near 4500 West in Davis County and stayed west of existing development in Syracuse and West Point up to the Davis County–Weber County border before turning northeast near 4600 South in Weber County and tying into 4000 South near 5900 West in Hooper. Alternative 12A is similar to Alternative 13A south of about 2700 South in Syracuse. Between 2700 South in Syracuse and 4000 South in Weber County, the alignment of Alternative 12A is farther west of the alignment of Alternative 13A.

As a result, Alternative 12A is essentially a version of Alternative 13A that would have worse transportation performance and greater impacts to wetlands, wildlife habitat, and farmland.

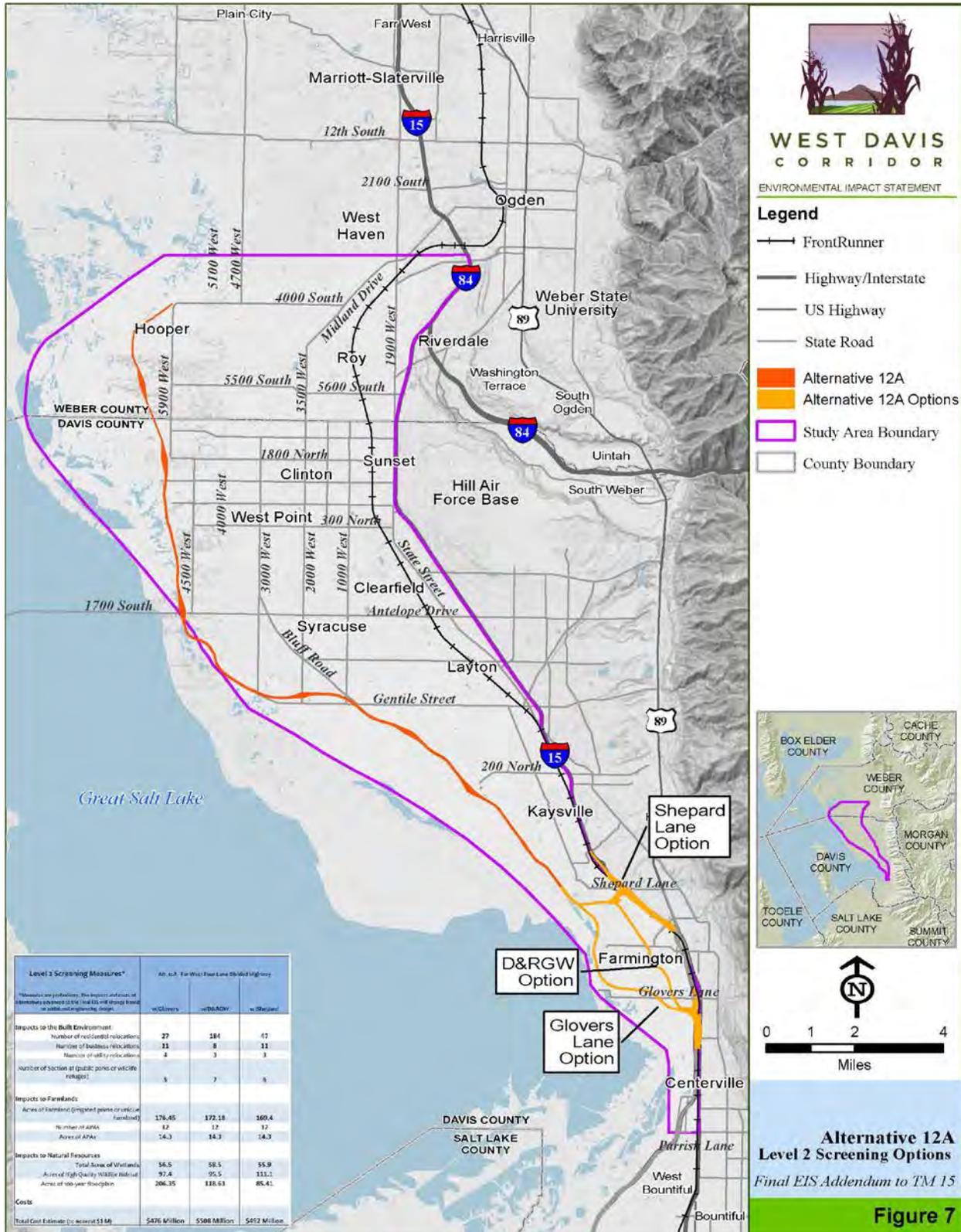
Figure 7 below shows the new four-lane divided-highway alignments and options for Alternative 12A and includes an impact table showing the Level 2 screening impacts for Alternative 12A from the 2016 screening process.

Determination

Alternative 12A was eliminated during the 2016 Level 2 screening process for having substantially greater impacts to wetlands, wildlife habitat, and farmland than the alternatives advanced to the Final EIS.

- **Impacts to Wetlands, Wildlife Habitat, and the Great Salt Lake Shorelands Preserve.** Alternative 12A is a western alignment between about 2700 South in Syracuse and 1800 North in West Point that would be located in the wetland and high-quality wildlife habitat areas on the eastern shore of the Great Salt Lake. Alternative 12A would have the most impacts to the Great Salt Lake Shorelands Preserve, wetlands, high-quality wildlife habitat, and floodplains of any of the alternatives evaluated during the 2016 Level 2 screening process. Between 2700 South and Antelope Drive in Syracuse, Alternative 12A would impact the Great Salt Lake Shorelands Preserve and Central Davis Sewer District properties. North of Antelope Drive, Alternative 12A would impact high-quality wetland and wildlife habitat areas, including areas owned by hunting clubs, and would be adjacent to the Howard Slough Waterfowl Management Area that is owned and operated by the Utah Division of Wildlife Resources. The impacts to wetlands, wildlife habitat, and the preserve would be much greater than the impacts from either Alternative 11A or Alternative 13A, both of which were advanced to the Final EIS. Both Alternatives 11A and 13A would avoid affecting any of these high-quality wetland and wildlife habitat areas between 2700 South and 1800 North in West Point. The wetland and wildlife habitat impacts of Alternative 12A would be substantial and would likely not be permitted under the Clean Water Act.

Figure 7. Alternative 12A – Level 2 Screening Options



- **Wetland Impacts.** Alternative 12A would impact between 56 and 58 acres of wetlands, the most of any of the WDC alternatives evaluated during the 2016 Level 2 screening process.
- **High-Quality Wildlife Habitat.** Alternative 12A would impact between 95 and 111 acres of high-quality wildlife habitat, the most of any of the WDC alternatives evaluated during the 2016 Level 2 screening process.
- **Floodplain Impacts.** Alternative 12A would impact between 85 and 206 acres of floodplains, the most of any of the WDC alternatives evaluated during the 2016 Level 2 screening process.
- **Farmland Impacts.** Alternative 12A would impact between 169 and 176 acres of irrigated prime or unique farmland, the most of any of the WDC alternatives evaluated during the 2016 Level 2 screening process. Alternative 12A would also impact 12 Agriculture Protection Areas in western Davis and southwestern Weber Counties, the most of any of the WDC alternatives evaluated during the 2016 Level 2 screening process.
- **Community Facilities.** Alternative 12A would affect the North Davis Sewer District property by Antelope Drive. Alternatives 11A and 13A would not affect this property.
- **Cost.** Alternative 12A would have a higher cost (\$476 million to \$508 million) than Alternative 13A (\$382 million to \$449 million) because Alternative 12A would have more roadway length, residential relocations, impacts to wetlands, and impacts to the Central Davis Sewer District property.
- **Consistency with Local and Regional Plans.** Alternative 12A is inconsistent with all of the state, regional, city, and county transportation plans north of Gentile Street. Alternative 12A would construct a new four-lane divided highway on the western edge of northern Davis County in an area that is not currently planned in WFRC's 2015–2040 RTP for a road.
- **Transportation Performance.** Analysis using version 8.1 of the travel demand model showed that Alternative 12A would not perform as well regionally as Alternatives 11A or 13A. When using the same southern option, Alternative 13A performed 1.2% to 12.3% better (on average, about 7% better) on each MOE compared to Alternative 12A. When using the same southern option, Alternative 13A performed 5.6% to 20.7% better (on average, about 12% better) on each MOE compared to Alternative 12A.

Summary. As described in *Technical Memorandum 15: Alternatives Screening Report*, one reason an alternative can be eliminated is if it substantially duplicates another alternative; that is, it is otherwise reasonable but offers little or no advantage for satisfying the project's purpose, and it has impacts and/or costs that are similar to or greater than those of other, similar alternatives.

The WDC team eliminated Alternative 12A during the 2016 Level 2 screening process because it substantially duplicates Alternative 13A and, compared to Alternative 13A, offers no advantage to meeting the purpose of and need for the project; would have substantially greater impacts to high-quality wetlands, high-quality wildlife habitat, the Great Salt Lake Shorelands Preserve, high-quality farmlands, and the North Davis Sewer District property; is inconsistent with all city, county, and regional transportation and land-use plans and existing development; and would have a higher cost.

Alternative 13A

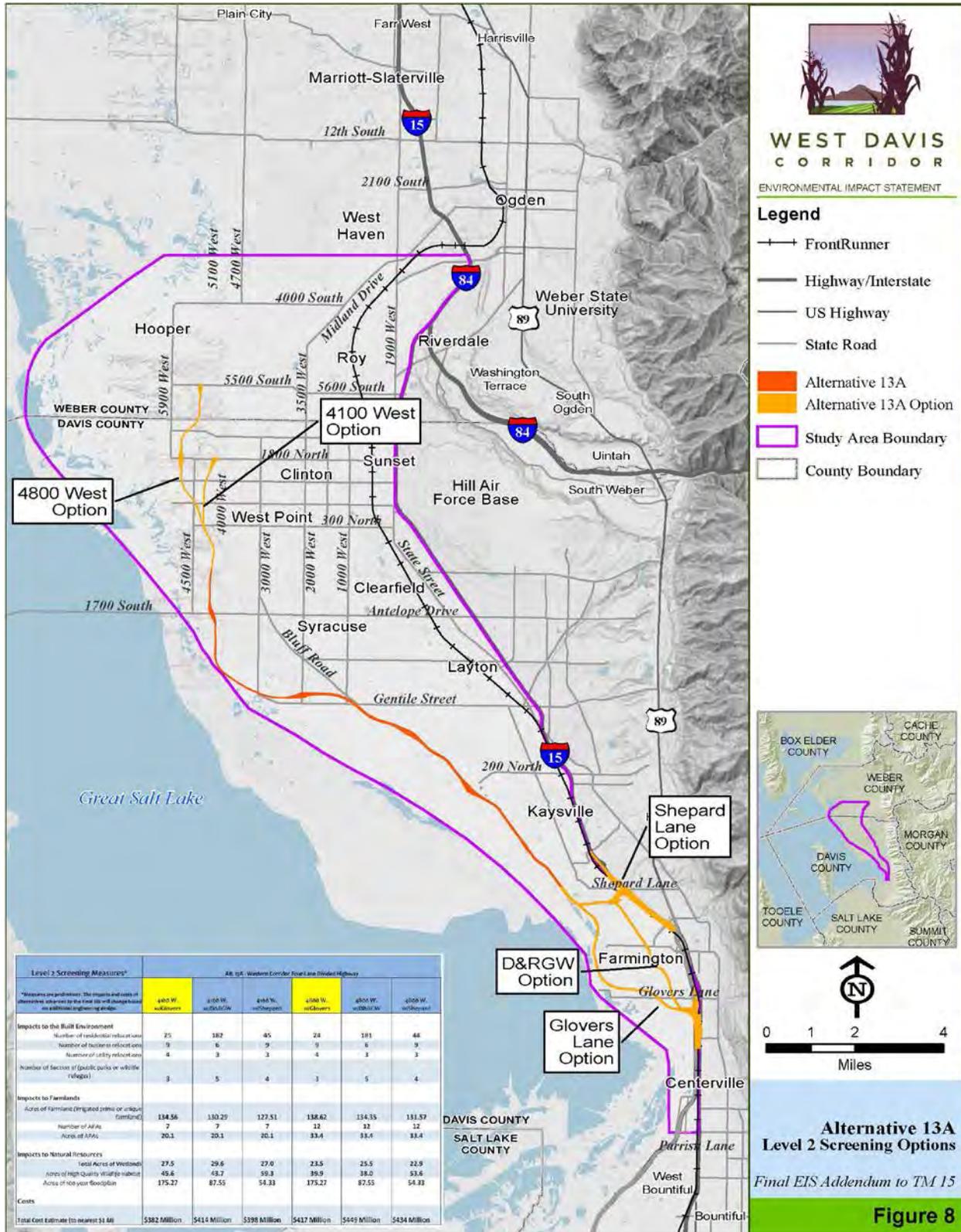
Description and Options Considered

Alternative 13A proposed a new four-lane divided highway following the 2001 alignment to Syracuse, and then a western alignment in Syracuse and West Point. Three southern options and two northern options were considered for Alternative 13A in the 2016 Level 2 screening process.

Figure 8 below shows all of the new four-lane divided highway options that were considered for Alternative 13A as part of the 2016 Level 2 screening process and includes an impact table showing the range of Level 2 screening impacts for the six different options for Alternative 13A from the 2016 screening process.

The northern terminus of Alternative 13A for the 4800 West Option was determined to be at 5400 West 5500 South in Weber County, and the northern terminus for the 4100 West Option was determined to be at 4100 West 1800 North in Davis County.

Figure 8. Alternative 13A – Level 2 Screening Options



Determination

Since Alternative 13A had three southern options and two northern options, six different combinations for Alternative 13A were evaluated in the 2016 Level 2 screening process.

The WDC team determined that any of the six combinations of Alternative 13A would be better options than Alternatives 05, 08, 09A, or 10A since Alternative 13A would have the lowest levels of impacts to the built environment, no impacts to areas with high densities of historic properties, no impacts to low-income or minority populations, low levels of impacts to farmland, and the lowest cost of any of the alternatives evaluated in the 2016 Level 2 screening process.

The WDC team relied on the previous screening process (conducted for the Draft EIS) to evaluate only the best-performing, least-impacting reasonable northern options of Alternative 13A during the 2016 Level 2 screening process. During this process, the WDC team did not re-evaluate the other Syracuse and Weber County options that had been evaluated in Level 2 screening conducted for the Draft EIS and that were eliminated because of higher impacts and costs.

Southern Options. As discussed in the southern options section on page 45, the WDC team determined that the Glovers Lane Option was the only reasonable and feasible southern option, and it was the only southern option advanced to the Final EIS as part of Alternative 13A.

Northern Options. Both northern options (4800 West and 4100 West Options) were determined to be reasonable and feasible and were advanced to the Final EIS as part of Alternative 13A.

Alternative 13A Options Advanced to the Final EIS

The Glovers Lane southern option and two northern options (4800 West and 4100 West Options) were advanced to the Final EIS as part of Alternative 13A.

These options of Alternative 13A were advanced to the Final EIS because they met the purpose of and need for the project while having the lowest overall levels of impacts to the human and natural environment. These options of Alternative 13A are also constructable, are logistically feasible, and have reasonable costs.

Therefore, the WDC team concluded that these options of Alternative 13A, which best meet the purpose of and need for the project while having the lowest overall levels of impacts to both the human environment and natural resources and having reasonable costs, represent reasonable alternatives for the WDC Project and concluded that they should be advanced to the Final EIS for detailed study and evaluation. The options of Alternative 13A advanced to the Final EIS are shown in Figure 10 on page 50.

Which southern options were evaluated during the 2016 screening process? Which were advanced to the Final EIS?

Several of the new roadway alternatives (Alternatives 09A, 10A, 11A, 12A, and 13A) passed Level 1 screening. All of these alternatives used two or more of the following three southern options: Glovers Lane Option, Shepard Lane Option, and D&RGW Option. As discussed in the previous section, Alternatives 09A, 10A, and 12A were eliminated during the 2016 Level 2 screening process, regardless of which southern option was used.

For Alternatives 11A and 13A, only the Glovers Lane Option was advanced to the Final EIS. The Shepard Lane and D&RGW Options were both eliminated in either the 2016 Level 2 screening or the 2016 practicability evaluation. The results of the practicability evaluation for these southern options are described in the technical memorandum *Southern Connection to I-15 and Legacy Parkway Section 404(b)(1) Practicability and NEPA Reasonable Alternative Analysis*.

In total, for Alternatives 11A and 13A, the WDC team evaluated the following 12 southern options:

- Layton Parkway with and without I-15 Widening
- Kaysville 200 North with and without I-15 Widening
- Kaysville Rest Area with and without I-15 Widening
- Shepard Lane North Option
- Shepard Lane Alternative Option
- Shepard Lane Tunnel Option
- Public Comment 876, Matt & Nikki Gore, Modified Shepard Lane Option
- Burke Lane Option
- Denver & Rio Grande Western (D&RGW) Option with Connection at 200 West and Glovers Lane
- Denver & Rio Grande Western (D&RGW) Option with Connection at Glovers Lane (East and West Options)
- Glovers Lane Option
- Glovers Lane Farther South and West Option

The results of the evaluation for these options are described in the technical memorandum *Southern Connection to I-15 and Legacy Parkway Section 404(b)(1) Practicability and NEPA Reasonable Alternative Analysis*. As summarized in this memorandum, the Glovers Lane

What is a practicability evaluation?

A *practicability evaluation* is done to provide information to the U.S. Army Corps of Engineers (USACE) to assist them with a permit decision under Section 404 of the Clean Water Act.

The *practicability evaluation* determines whether an alternative is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.”

Option was the only southern option that was determined to be a practicable and reasonable alternative. The other 11 options were all eliminated during the 2016 Level 2 screening process or the 2016 practicability evaluation.

Table 5 below summarizes the results of the evaluation of the southern options.

Table 5. Summary of Results of the Reconsideration of Southern Options during the 2016 Screening Process

Option	Evaluation Result
	Section 404(b)(1) ^a and NEPA ^b
Layton Parkway with and without I-15 Widening	Eliminated – Does not meet the overall project purpose and need.
Kaysville 200 North with and without I-15 Widening	Eliminated – Does not meet the overall project purpose and need.
Kaysville Rest Area with and without I-15 Widening	Eliminated – Does not meet FHWA and UDOT design standards.
Shepard Lane North Option	Eliminated – Does not meet FHWA and UDOT design standards.
Shepard Lane Alternative Option	Eliminated – Does not meet FHWA and UDOT design standards.
Shepard Lane Tunnel Option	Eliminated – Does not meet FHWA and UDOT design standards.
Public Comment 876, Matt & Nikki Gore, Modified Shepard Lane Option	Eliminated – Does not meet FHWA and UDOT design standards.
Burke Lane Option	Eliminated – Does not meet FHWA and UDOT design standards.
D&RGW Option with Connection at 200 West	Eliminated – Does not meet FHWA and UDOT design standards.
D&RGW Option with Connection at Glovers Lane	Eliminated – Could not be implemented by UDOT and FHWA given applicable legal and practical constraints, safety considerations and costs
Glovers Lane Option	Advanced to Final EIS.
Glovers Lane Farther South and West Option	Eliminated – High wetland and wildlife impacts. Impacts to Farmington Bay Waterfowl Management Area (FBWMA).

^a The Section 404(b)(1) practicability evaluation determines whether an alternative is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.”

^b The National Environmental Policy Act (NEPA) evaluation determines whether alternatives meet the purpose of and need for the project while having the lowest overall levels of impacts to both the human environment and natural resources and having reasonable costs.

^c

As a result of this evaluation, the WDC team determined that Alternative 11A with the Glovers Lane southern option and Alternative 13A with the Glovers Lane southern option would be advanced for detailed study in the Final EIS.

Were any of the Level 2 screening criteria changed during the 2016 screening process?

No. For the Level 2 screening during the 2016 screening process, the WDC team used the same Level 2 screening criteria and followed the same Level 2 screening process that was used for the Draft EIS.

The WDC team updated the cost for each of the alternatives that was evaluated in 2016 Level 2 screening using current (2016) estimates for construction costs, right-of-way costs, and relocation costs (Table 6).

Table 6. Estimated Costs for Alternatives That Were Evaluated in Level 2 Screening during the 2016 Screening Process

in millions

Alternative	2016 Estimated Cost ^a
05	\$795
08	\$1,209
09A	\$774 – 779
10A	\$546 – \$621
11A	\$387 – \$422
12A	\$476 – \$508
13A	\$382 – \$449

^a The costs for the alternatives that were evaluated in Level 2 screening during the 2016 screening process are preliminary and are used for comparison purposes between the Level 2 alternatives. These cost estimates include broad estimates for right-of-way, property acquisitions, and roadway construction items. The costs of alternatives advanced to the Final EIS will change based on additional engineering design and more-detailed cost estimates and will be included in the Final EIS.

Based on the 2016 Level 2 screening, the WDC team determined that Alternative 11A with the Glovers Lane southern option and Alternative 13A with the Glovers Lane southern option were the only reasonable alternatives that would be advanced for study in the Final EIS.

Which alternatives passed Level 2 screening during the 2016 screening process?

Table 7 summarizes the results of the Level 2 screening performed during the 2016 screening process and compares them with the Level 2 screening results from the Draft EIS.

Table 7. Level 2 Screening Results from the 2016 Screening Process

Alternative	Result of Level 2 Screening for the Draft EIS	Result of 2016 Level 2 Screening for the Final EIS
05	Eliminated	Eliminated
08	Eliminated	Eliminated
09A	Eliminated when combined with Alternative 04 as Alternative 09A+04	Eliminated
10A	Eliminated	Eliminated
11A	Advanced to Draft EIS	Advanced to Final EIS
12A	Eliminated in Level 1 screening. Not evaluated in Level 2 screening	Eliminated
13A	Advanced to Draft EIS	Advanced to Final EIS

As shown in Table 7 above, Alternatives 11A and 13A were the two alternatives that passed Level 2 screening for both the Draft EIS and the Final EIS.

Alternative 11A with the Glovers Lane southern option and two northern options (4800 West and 4100 West Options) and Alternative 13A with the Glovers Lane southern option and two northern options (4800 West and 4100 West Options) were the alternatives that were advanced for detailed study in the Final EIS. These alternatives are shown in Figure 9 and Figure 10 below.

Figure 9. Alternative 11A – Options Advanced to the Final EIS

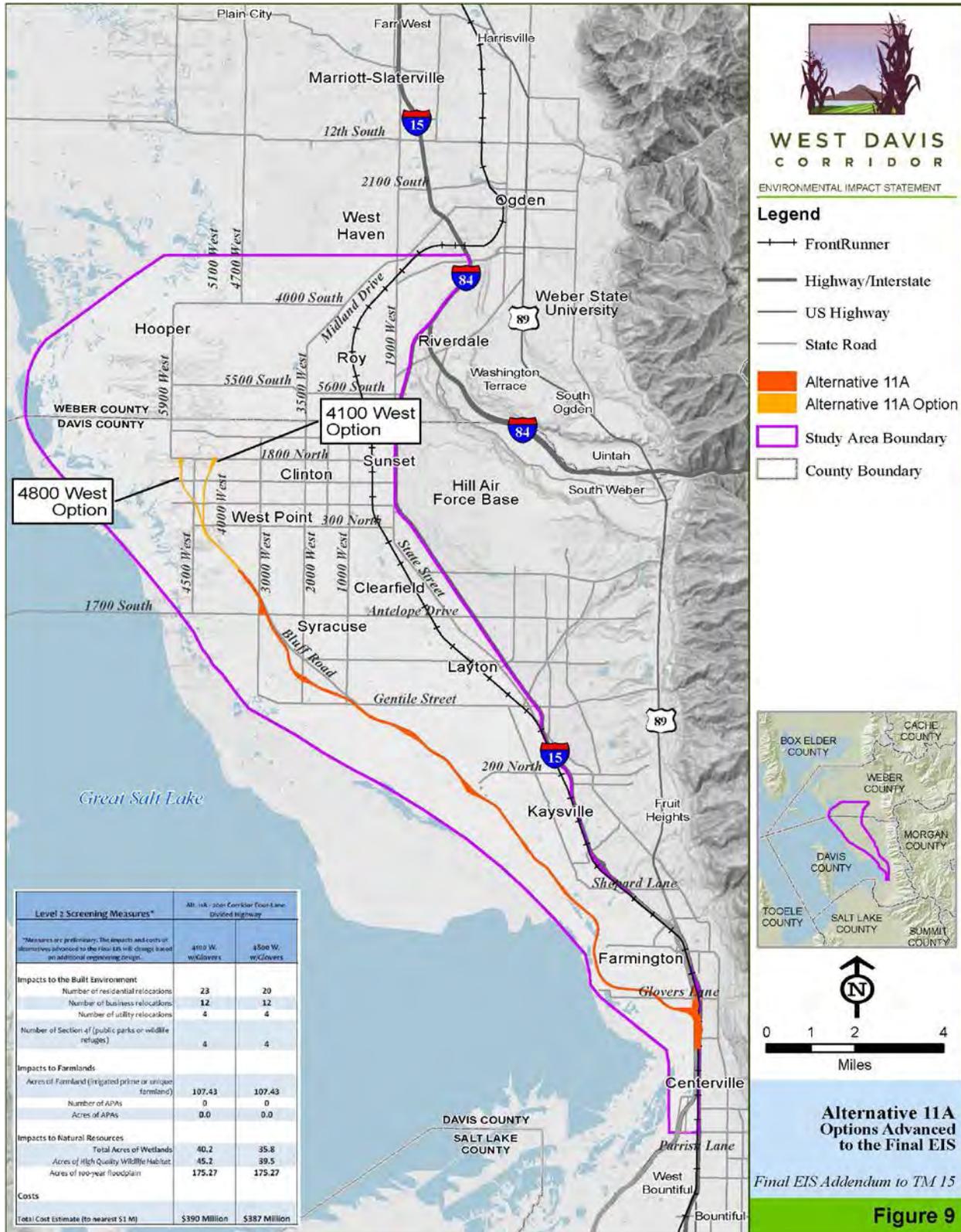
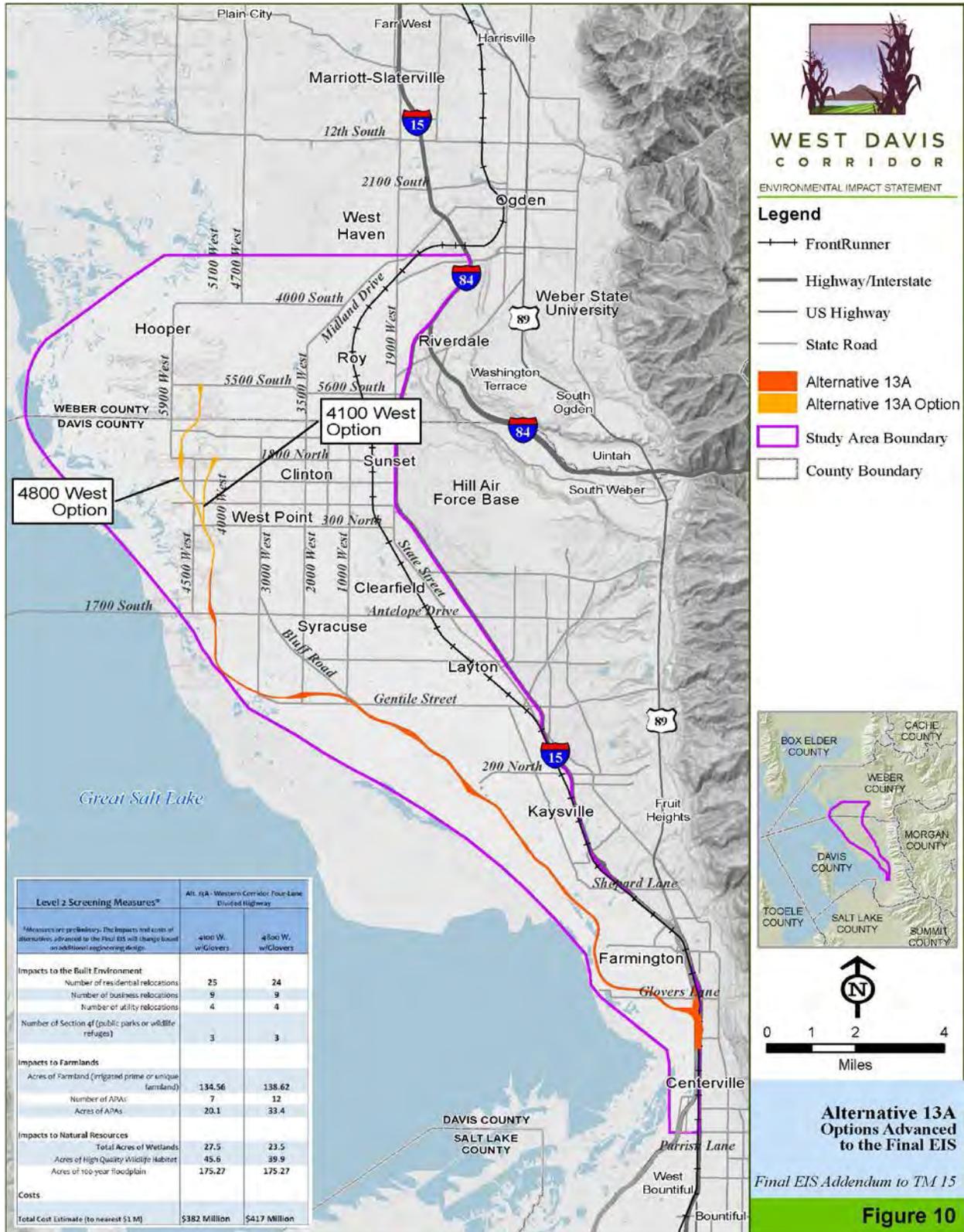


Figure 10. Alternative 13A – Options Advanced to the Final EIS





Because the WDC team re-evaluated the screening process in 2016, will a Supplemental EIS be prepared?

A Supplemental EIS will not be prepared. The 2016 screening process found that the same alternatives that were evaluated in detail in the Draft EIS will be evaluated in detail in the Final EIS.

What was the overall timeline for the 2016 screening process?

- **Spring 2013** – Release of the Draft EIS
- **Summer 2013** – Comment period for the Draft EIS
- **2014–2015** – Development of the Shared Solution Alternative
- **Spring/summer 2015** – Release of WFRC’s 2015–2040 RTP and version 8 of the travel demand model
- **Winter 2015/2016** – Release of Amendment 1 to WFRC’s 2015–2040 RTP that included the I-15 Managed Motorways project and version 8.1 of the travel demand model
- **Spring/summer 2016** – Updated screening of the WDC alternatives and the Shared Solution Alternative



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Appendix A. Widening Limits Analysis



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Table 8. Decision Process for Determining Which Segments of the Widen Existing Roads Alternatives Would Be Widened

Road	WFRC 2015–2040 RTP No-Action Conditions				WDC Screening Process and Decisions			
	Number of Lanes and Limits	1-Hour PM Peak	3-Hour PM Peak	Adjacent Roads	Number of Lanes and Widening Limits			Rationale for 2016 Screening Widening Limits
					2010 Screening	2011 Screening	2016 Screening	
East-West Existing Roads								
Hinckley Drive	<ul style="list-style-type: none"> 5 lanes from I-15 to SR 108 	<ul style="list-style-type: none"> LOS E or F on segments from Pennsylvania Avenue (just west of I-15) to 1900 West 	<ul style="list-style-type: none"> LOS E from Pennsylvania Avenue to 1900 West 	<ul style="list-style-type: none"> 3500 West north of Hinckley Drive connection operates at LOS F. 4000 South operates at LOS F from west of 1900 West to 3500 West. 	Add one lane in each direction in addition to the widening planned in WFRC's 2015–2040 RTP from I-15 to Midland Drive (SR 108).	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to Midland Drive (SR 108).	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 1900 West.	<p>2040 No-Action traffic modeling shows congestion on Hinckley Drive between I-15 and 1900 West.</p> <p>Adding one lane in each direction on Hinckley Drive in addition to the widening planned in the RTP between I-15 to 1900 West (SR 126) would result in reduced congestion on Hinckley Drive. No additional widening was needed west of 1900 West (SR 126) on Hinckley Drive. Overall, the widening would reduce congestion on Hinckley Drive and in the area of the widening.</p>
4000 South	<ul style="list-style-type: none"> 5 lanes from SR 108 to 5100 West 	<ul style="list-style-type: none"> LOS A from Midland Drive (SR 108) to 3500 West LOS E and F from 1900 West (SR 126) to Midland Drive (SR 108) 	<ul style="list-style-type: none"> LOS A from Midland Drive (SR 108) to 3500 West LOS E and F from 1900 West (SR 126) to Midland Drive (SR 108) 	<ul style="list-style-type: none"> Midland Drive (SR 108) operates at LOS E in the 3-hour PM peak period and LOS E or F in the 1-hour PM peak period. 	Add one lane in each direction in addition to the widening planned in the RTP from Midland Drive to 5600 West.	Add one lane in each direction in addition to the widening planned in the RTP from Midland Drive to 3500 West.	No lane widening recommended in addition to the widening planned in the RTP.	<p>No lane widening is included on 4000 South in Alternative 05 from the 2016 screening process. The segments of 4000 South that have LOS E or F are between 1900 West (SR 126) and Midland Drive (SR 108). These segments are not currently state roads.</p>
5500/5600 South	<ul style="list-style-type: none"> 7 lanes from I-15 to SR 126 5 lanes from SR 126 to 5100 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 3300 West LOS D from 3300 West to 4000 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 3300 West LOS D from 3300 West to 4000 West 	<ul style="list-style-type: none"> 6000 South from SR 126 to 2400 West operates at LOS E and F in the 1-hour PM peak period and LOS E and D in the 3-hour PM peak period. 1900 West (SR 126) from Riverdale Road to 5600 South operates at LOS F in the 1-hour PM peak period and LOS E in the 3-hour PM peak period. 	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 7100 West.	Add one lane in each direction in addition to the widening planned in the RTP from 15 to 4300 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 3500 West.	<p>2040 No-Action traffic modeling shows congestion on 5500/5600 South from I-15 to 3300 West.</p> <p>Adding one lane in each direction on 5500/5600 West in addition to the widening planned in the RTP between I-15 to 3500 West would result in reduced congestion on 5500/5600 South and 6000 South. Although 3500 West (SR 108) is farther west of 3300 West, it was identified as the logical western terminus for widening because 3500 West (SR 108) is the major north-south arterial maintained by the State in this western part of the study area. No additional widening was needed west of 3500 West to reduce congestion.</p>
1800 North	<ul style="list-style-type: none"> 5 lanes from I-15 to 4000 West 2 lanes from 4000 West to 5000 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 2225 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 1000 West LOS D from 1000 West to 2225 West 	<ul style="list-style-type: none"> 2300 North from Main Street to 1500 West operates at LOS E in the 1-hour PM peak period and LOS D in the 3-hour PM peak period. 1300 North from Main Street to 1500 West operates at LOS E and F in the 1-hour PM peak period and LOS E in the 3-hour PM peak period. 1900 West (SR 126) and SR 108 operate at LOS E or F between 2300 North and 1300 North in the 1-hour PM peak period. 	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 5000 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 3000 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 3000 West.	<p>2040 No-Action traffic modeling shows congestion on 1800 North from I-15 to 2225 West. Widening is proposed to 3000 West since this is the next-closest north-south arterial in the area.</p> <p>Adding one lane in each direction on 1800 North in addition to the widening planned in the RTP between Main Street to 3000 West would result in reduced congestion on 1800 North, 2300 North, 1300 North, and SR 126. No additional widening was needed west of 3000 West to reduce congestion.</p>

Table 8. Decision Process for Determining Which Segments of the Widen Existing Roads Alternatives Would Be Widened

Road	WFRC 2015–2040 RTP No-Action Conditions				WDC Screening Process and Decisions			
	Number of Lanes and Limits	1-Hour PM Peak	3-Hour PM Peak	Adjacent Roads	Number of Lanes and Widening Limits			Rationale for 2016 Screening Widening Limits
					2010 Screening	2011 Screening	2016 Screening	
SR 193	<ul style="list-style-type: none"> 5 lanes from I-15 to 3000 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 2500 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 2000 West (SR 108) 	<ul style="list-style-type: none"> 300 North from Main Street (SR 126) to 1000 West operates at LOS E and F in the 1-hour and 3-hour PM peak periods. Main Street (SR 126) between SR 193 and 1000 East operates at LOS F in the 1-hour and 3-hour PM peak periods. 2000 West (SR 108) between SR 193 and 300 North operates at LOS E in the 1-hour PM peak period. 	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 2000 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 2000 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 2000 West.	<p>2040 No-Action traffic modeling shows congestion on SR 193 from I-15 to 2000 West.</p> <p>Adding one lane in each direction on SR 193 in addition to the widening planned in the RTP between I-15 and 2000 West (SR 108) would result in reduced congestion on SR 193, 300 North, and local roads around this proposed widening.</p>
Antelope Drive	<ul style="list-style-type: none"> 5 lanes from I-15 to 4500 West 	<ul style="list-style-type: none"> LOS E and F from I-15 to 1500 West LOS D from 1500 West to 2000 West (SR 108) 	<ul style="list-style-type: none"> LOS E and F from I-15 to 1000 West LOS D from 1000 West to 2000 West (SR 108) 	<ul style="list-style-type: none"> 1000 East between Main Street (SR 126) and 1000 North operates at LOS E or F in the 1-hour and 3-hour PM peak periods. 1000 North from 2700 West (Layton) to 1500 West (Layton) operates at LOS E and F in the 1-hour PM peak period. 	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 4500 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 2000 West.	Add one lane in each direction in addition to the widening planned in the RTP from I-15 to 2000 West.	<p>2040 No-Action traffic modeling shows congestion on Antelope Drive from I-15 to 2000 West.</p> <p>Adding one lane in each direction on Antelope Drive in addition to the widening planned in the RTP between I-15 and 2000 West would result in reduced congestion on Antelope Drive, 1000 North, and the local roads around Antelope Drive. Although 2000 West is farther west of 1500 West, it was identified as the logical western terminus for the Antelope Drive widening because 2000 West (SR 108) is the major north-south arterial maintained by the State in this western part of the study area. Finally, traffic volumes between 1000 West and 2000 West would be from 20,000 to 31,000 vehicles per day. Traffic on Antelope Drive would be reduced substantially west of 2000 West (15,000 vehicles per day).</p> <p>Note that, even with the proposed additional widening on Antelope Drive, Alternative 05 would still have LOS E or F conditions on Antelope Drive between I-15 and 400 East (Clearfield).</p>
North-South Existing Roads								
I-15	<ul style="list-style-type: none"> 6 general-purpose lanes and 2 high-occupancy vehicle (HOV) lanes (8 total) from Interstate Highway 84 (I-84) to U.S. Highway 89 (US 89) 	<ul style="list-style-type: none"> LOS E and F from Hinckley Drive to Park Lane 	<ul style="list-style-type: none"> LOS E from Hinckley Drive to 4400 South LOS D from 4400 South to 650 North LOS E from 650 North to Antelope Drive LOS D from Antelope Drive to Layton Parkway LOS F from Layton Parkway to Park Lane 	<ul style="list-style-type: none"> SR 126 (see analysis below). 	10 total lanes (8 general-purpose and 2 HOV lanes) from Park Lane to I-84.	10 total lanes (8 general-purpose and 2 HOV lanes) from Park Lane to Hinckley Drive.	10 total lanes (8 general-purpose and 2 HOV lanes) from Park Lane to Hinckley Drive.	<p>2040 No-Action traffic modeling shows congestion on I-15 from Park Lane to Hinckley Drive.</p> <p>Widening I-15 to add one more general-purpose lane in each direction (total of 8 general-purpose lanes and 2 HOV lanes) would result in reduced congestion and LOS C or better on I-15 between Hinckley Drive and Park Lane.</p> <p>Note that, even with the proposed additional widening on I-15, Alternative 05 would still have LOS E or F conditions on I-15 between 200 North (Kaysville) and Shepard Lane.</p>

Table 8. Decision Process for Determining Which Segments of the Widen Existing Roads Alternatives Would Be Widened

Road	WFRC 2015–2040 RTP No-Action Conditions				WDC Screening Process and Decisions			
	Number of Lanes and Limits	1-Hour PM Peak	3-Hour PM Peak	Adjacent Roads	Number of Lanes and Widening Limits			Rationale for 2016 Screening Widening Limits
					2010 Screening	2011 Screening	2016 Screening	
SR 126	<ul style="list-style-type: none"> 5 lanes from 1200 South to Riverdale Road 7 lanes from Riverdale Road to 5600 South 5 lanes from 5600 South to Layton Parkway 	<ul style="list-style-type: none"> LOS E and F from Hinckley Drive to 4400 South LOS D from 4400 South to 5200 South LOS E and F from 5200 South to 5600 South LOS D from 5600 South to 6000 South LOS E and F from 6000 South to Center Street LOS E and F from SR 193 to Antelope Drive LOS E and F from 1200 West (Layton) to Gentile Street 	<ul style="list-style-type: none"> LOS E and F from 4000 South to 4400 South LOS E from 5200 South to 5600 South LOS E from 6000 South to Davis County–Weber County border LOS E and F from 800 North to Center Street LOS E and F from SR 193 to 1000 East LOS E from 1000 North (Layton) to Hill Field Road 	<ul style="list-style-type: none"> I-15 (see analysis above). 	Add one lane in each direction in addition to the widening planned in the RTP from Hinckley Drive to Layton Parkway.	Add one lane in each direction in addition to the widening planned in the RTP from Hinckley Drive to Antelope Drive.	Add one lane in each direction in addition to the widening planned in the RTP from Hinckley Drive to Gentile Street.	<p>2040 No-Action traffic modeling shows congestion on SR 126 from Hinckley Drive to Gentile Street.</p> <p>Widening SR 126 by one lane in each direction in addition to the widening planned in the RTP from Hinckley Drive to Gentile Street would result in reduced congestion on SR 126.</p>
SR 108	<ul style="list-style-type: none"> 5 lanes from SR 126 to Antelope Drive 	<ul style="list-style-type: none"> LOS E and F from SR 126 to 3100 West LOS E and F from 5600 South to SR 193 	<ul style="list-style-type: none"> LOS E from SR 126 to 4000 South LOS E and F from 5600 South to about SR 193 	<ul style="list-style-type: none"> SR 126 (see analysis above). 	Add one lane in each direction in addition to the widening planned in the RTP from SR 126 to 2700 South.	Add one lane in each direction in addition to the widening planned in the RTP from Hinckley Drive to SR 193.	Add one lane in each direction in addition to the widening planned in the RTP from SR 126 to SR 193.	<p>2040 No-Action traffic modeling shows congestion on SR 108 from SR 126 to SR 193.</p> <p>Adding one lane in each direction on SR 108 in addition to the widening planned in the RTP between SR 126 and SR 193 would result in reduced congestion on SR 108 and other east-west arterials in the area.</p>

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