Over the course of the creation of the Rogue River Transportation System Plan, some alternatives or options were combined or dismissed:

Alternative/ Option	Reason	Action
OS1	For clarity and better investigation	Split into OS5 and OS7
OS2	No measured deficiencies to recognize need	Dismissed
OS6	Combined, as same intersection	Combined and exists as OS4
OS9	Combined with appropriate location	Combined with OS3 and OS4
OS10	Combined, as same intersection	Combined and exists as OS8
OS11	Emergency turn around better fit/not in city	Deferred to future Refinement Plan
OS12	Too complicated and large for TSP	Deferred to future Refinement Plan
C1	Additional crossings of the Rogue River shouldn't be in TSP	Deferred to future Refinement Plan
C3	Combined as Evans Creek crossing in C2	Combined into C2
C8	Frontage/backage roadway would be in flood plain	Dismissed
С9	Powerline crossing combined into C2	Combined into C2
OS7	Combined into single interchange project; issues too great for TSP analysis to handle	Combined into OS5
OS5A-D	Interchange issues too great for TSP analysis to handle	Deferred to future Refinement Plan
C2C	Low priority project; unlikely to be ever considered/built by Jackson County.	Dismissed

## **Dismissed Alternatives/Options:**

### Changes to Alternatives/Options:

Alternative/		
Option	Reason	Other Action
	Split into two segments as roadside character changes	Created B4W and
B4	at creek crossing	B4E
	Requested to add new through street options in TM7	
OS4	comments	Created OS4G & H
	Requested in TM7 comments to add OR99 pedestrian	
P13	deficiency and related project	P13 created
	Requested in TM7 comments to add mixed	
B8	bike/shared lane concept for uphill sections	B8E created
	Requested in TM7 comments to add additional OR99	
B9	bicycle project consistent with HDM standards	B9C created

# Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Volume Display Method: Total and %



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### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Move	ment Per	formance -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	Pine St										
3	L2	140	2.0	0.819	35.5	LOS E	7.2	182.9	1.00	1.95	17.7
8	T1	250	2.0	0.819	35.5	LOS E	7.2	182.9	1.00	1.95	17.7
18	R2	15	2.0	0.819	35.5	LOS E	7.2	182.9	1.00	1.95	9.9
Approa	ach	405	2.0	0.819	35.5	LOS E	7.2	182.9	1.00	1.95	17.5
East: E	E Main St										
1	L2	85	2.0	0.313	15.2	LOS C	1.3	32.0	0.98	1.30	15.0
6	T1	95	2.0	0.918	62.9	LOS F	9.3	235.5	1.00	2.11	13.1
16	R2	185	2.0	0.918	62.9	LOS F	9.3	235.5	1.00	2.11	13.2
Approa	ach	365	2.0	0.918	51.8	LOS F	9.3	235.5	1.00	1.92	13.3
North:	Pine St										
7	L2	135	2.0	0.854	41.2	LOS E	8.0	202.9	1.00	2.02	16.5
4	T1	220	2.0	0.854	41.2	LOS E	8.0	202.9	1.00	2.02	16.5
14	R2	20	2.0	0.054	8.1	LOS A	0.2	4.4	0.88	1.12	30.7
Approa	ach	375	2.0	0.854	39.4	LOS E	8.0	202.9	0.99	1.97	17.2
West:	W Main St										
5	L2	20	2.0	0.038	6.2	LOS A	0.1	3.0	0.79	1.02	31.4
2	T1	70	2.0	0.285	7.9	LOS A	1.0	25.8	0.74	1.06	27.0
12	R2	135	2.0	0.285	7.9	LOS A	1.0	25.8	0.74	1.06	27.0
Approa	ach	225	2.0	0.285	7.7	LOS A	1.0	25.8	0.75	1.05	27.6
All Veh	nicles	1370	2.0	0.918	36.4	LOS E	9.3	235.5	0.96	1.80	17.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Volume Display Method: Total and %



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### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Move	ment Pe	rformance -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	Pine St										
3	L2	170	2.0	0.885	46.7	LOS E	9.2	233.1	1.00	2.15	15.5
8	T1	220	2.0	0.885	46.7	LOS E	9.2	233.1	1.00	2.15	15.5
18	R2	15	2.0	0.885	46.7	LOS E	9.2	233.1	1.00	2.15	8.3
Approa	ach	405	2.0	0.885	46.7	LOS E	9.2	233.1	1.00	2.15	15.3
East: E	E Main St										
1	L2	85	2.0	0.316	15.4	LOS C	1.3	32.5	0.98	1.30	14.9
6	T1	135	2.0	1.045	95.1	LOS F	13.9	353.9	1.00	2.54	10.1
16	R2	180	2.0	1.045	95.1	LOS F	13.9	353.9	1.00	2.54	10.1
Approa	ach	400	2.0	1.045	78.2	LOS F	13.9	353.9	1.00	2.28	10.4
North:	Pine St										
7	L2	130	2.0	0.894	50.3	LOS F	9.1	230.3	1.00	2.12	14.9
4	T1	210	2.0	0.894	50.3	LOS F	9.1	230.3	1.00	2.12	14.9
14	R2	30	2.0	0.089	9.0	LOS A	0.3	7.6	0.91	1.15	30.3
Approa	ach	370	2.0	0.894	46.9	LOS E	9.1	230.3	0.99	2.04	15.9
West:	W Main S	t									
5	L2	30	2.0	0.057	6.3	LOS A	0.2	4.5	0.79	1.03	31.4
2	T1	100	2.0	0.326	8.3	LOS A	1.2	30.9	0.76	1.09	26.8
12	R2	135	2.0	0.326	8.3	LOS A	1.2	30.9	0.76	1.09	26.8
Approa	ach	265	2.0	0.326	8.1	LOS A	1.2	30.9	0.76	1.08	27.5
All Veh	nicles	1440	2.0	1.045	48.4	LOS E	13.9	353.9	0.95	1.96	15.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 1 [DepotSt99]

Depot St at 99 (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 1 [DepotSt99]

Depot St at 99 (Stop control)

Stop (Two-Way)

Volume Display Method: Total and %



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### Wite: 104 [DepotSt99 - Conversion]

Depot St at 99 (Stop control)

Stop (All-Way)

Move	ment Pe	erformance -	Vehic	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	minor										
1	L2	5	2.0	0.089	17.7	LOS C	0.3	7.7	0.95	1.19	25.6
6	T1	15	2.0	0.089	17.7	LOS C	0.3	7.7	0.95	1.19	23.5
16	R2	4	2.0	0.089	17.7	LOS C	0.3	7.7	0.95	1.19	27.3
Approa	ach	24	2.0	0.089	17.7	LOS C	0.3	7.7	0.95	1.19	24.7
East: 9	99										
7	L2	4	2.0	0.669	40.9	LOS E	4.1	103.4	1.00	1.58	21.1
4	T1	50	2.0	0.669	40.9	LOS E	4.1	103.4	1.00	1.58	19.4
14	R2	120	2.0	0.669	40.9	LOS E	4.1	103.4	1.00	1.58	17.3
Approa	ach	174	2.0	0.669	40.9	LOS E	4.1	103.4	1.00	1.58	18.0
North:	Depot										
5	L2	165	2.0	0.243	7.4	LOS A	0.8	21.1	0.73	1.03	27.7
2	T1	10	2.0	0.243	7.4	LOS A	0.8	21.1	0.73	1.03	27.8
12	R2	355	2.0	0.631	16.1	LOS C	3.7	93.7	0.94	1.51	21.5
Approa	ach	530	2.0	0.631	13.2	LOS B	3.7	93.7	0.87	1.35	23.6
West:	99										
3	L2	340	2.0	0.658	19.1	LOS C	4.0	102.8	0.97	1.58	20.4
8	T1	70	2.0	0.161	8.1	LOS A	0.5	13.9	0.85	1.12	29.5
18	R2	5	2.0	0.161	8.1	LOS A	0.5	13.9	0.85	1.12	29.6
Approa	ach	415	2.0	0.658	17.1	LOS C	4.0	102.8	0.95	1.49	22.2
All Veh	nicles	1143	2.0	0.669	19.0	LOS C	4.1	103.4	0.92	1.44	21.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

#### Volume Display Method: Total and %



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### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Mover	nent Perfo	ormance -	Vehicle	es							
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
Couth	Denet St	veh/h	%	V/C	Sec		veh	ft		per veh	mph
South.	Depot St										
3	L2	70	2.0	0.249	22.0	LOS C	1.1	26.7	0.77	0.80	12.1
18	R2	295	2.0	0.374	12.3	LOS B	2.4	60.9	0.50	0.41	13.9
Approa	ich	365	2.0	0.374	14.1	LOS B	2.4	60.9	0.55	0.48	13.5
East: N	lain St										
1	L2	220	2.0	0.348	5.8	LOS A	1.9	47.8	0.36	0.10	21.2
6	T1	320	2.0	0.348	4.8	LOS A	1.9	47.8	0.36	0.10	25.2
Approa	ich	540	2.0	0.348	5.2	NA	1.9	47.8	0.36	0.10	23.5
North:	OakSt										
7	L2	30	2.0	0.226	28.6	LOS D	0.8	21.5	0.75	0.75	19.7
4	T1	15	2.0	0.226	21.2	LOS C	0.8	21.5	0.75	0.75	20.1
14	R2	10	2.0	0.226	14.5	LOS B	0.8	21.5	0.75	0.75	20.6
Approa	ich	55	2.0	0.226	24.0	LOS C	0.8	21.5	0.75	0.75	20.0
West: N	Major Road										
2	T1	215	2.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	37.8
12	R2	30	2.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	31.3
Approa	ich	245	2.0	0.134	0.0	NA	0.0	0.0	0.00	0.00	36.8
All Veh	icles	1205	2.0	0.374	7.7	NA	2.4	60.9	0.36	0.22	20.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Volume Display Method: Total and %



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### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Moven	nent Perfo	rmance -	Vehicle	s							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back ( Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: I	Depot St										
3	L2	70	2.0	0.204	18.2	LOS C	0.8	19.4	0.70	0.71	13.2
18	R2	295	2.0	0.374	12.3	LOS B	2.4	60.9	0.50	0.41	13.9
Approa	ch	365	2.0	0.374	13.4	LOS B	2.4	60.9	0.54	0.47	13.7
East: M	ain St										
1	L2	220	2.0	0.348	5.8	LOS A	1.9	47.8	0.36	0.10	21.2
6	T1	320	2.0	0.348	4.8	LOS A	1.9	47.8	0.36	0.10	25.2
Approa	ch	540	2.0	0.348	5.2	NA	1.9	47.8	0.36	0.10	23.5
West: N	lajor Road										
2	T1	215	2.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	37.8
12	R2	30	2.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	31.3
Approa	ch	245	2.0	0.134	0.0	NA	0.0	0.0	0.00	0.00	36.8
All Vehi	cles	1150	2.0	0.374	6.7	NA	2.4	60.9	0.34	0.19	20.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

#### Volume Display Method: Total and %



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### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Move	ment Perfe	ormance -	Vehicle	es							
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed
South	Donot St	veh/h	%	V/C	Sec		veh	ft		per veh	mph
South.	Depot St										
3	L2	70	2.0	0.292	22.5	LOS C	1.3	32.8	0.76	0.81	11.9
8	T1	15	2.0	0.292	21.8	LOS C	1.3	32.8	0.76	0.81	20.8
18	R2	280	2.0	0.353	12.0	LOS B	1.9	47.3	0.49	0.37	14.0
Approa	ach	365	2.0	0.353	14.4	LOS B	1.9	47.3	0.55	0.47	14.0
East: N	∕lain St										
6	T1	540	2.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.00	39.3
16	R2	20	2.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.00	37.2
Approa	ach	560	2.0	0.303	0.0	NA	0.0	0.0	0.00	0.00	39.1
North:	OakSt										
7	L2	30	2.0	0.213	28.4	LOS D	0.8	20.5	0.75	0.76	20.2
14	R2	25	2.0	0.213	15.8	LOS C	0.8	20.5	0.75	0.76	21.0
Approa	ach	55	2.0	0.213	22.7	LOS C	0.8	20.5	0.75	0.76	20.6
West:	Major Road										
5	, L2	5	2.0	0.118	4.6	LOS A	0.1	1.5	0.03	0.00	35.9
2	T1	210	2.0	0.118	1.0	LOS A	0.1	1.5	0.03	0.00	36.4
Approa	ach	215	2.0	0.118	1.1	NA	0.1	1.5	0.03	0.00	36.4
All Veh	nicles	1195	2.0	0.353	5.6	NA	1.9	47.3	0.21	0.18	24.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

#### Volume Display Method: Total and %



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### Site: 105v [DepotStMainSt - Conversion]

Depot St at Main St (Stop control)

Stop (All-Way)

Move	ment Per	formance -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	Depot St										
3	L2	70	2.0	0.420	23.7	LOS C	1.9	47.7	1.00	1.37	11.7
8	T1	15	2.0	0.420	23.7	LOS C	1.9	47.7	1.00	1.37	20.5
18	R2	280	2.0	1.239	173.5	LOS F	19.3	490.2	1.00	2.84	2.5
Approa	ach	365	2.0	1.239	138.6	LOS F	19.3	490.2	1.00	2.50	3.3
East: N	Main St										
1	L2	220	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	13.0
6	T1	320	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	13.9
16	R2	20	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	23.3
Approa	ach	560	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	14.0
North:	OakSt										
7	L2	30	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.5
4	T1	15	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.9
14	R2	10	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	22.4
Approa	ach	55	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.8
West:	Major Road	b									
5	L2	5	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	24.9
2	T1	210	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	14.8
12	R2	30	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	15.4
Approa	ach	245	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	15.2
All Veh	nicles	1225	2.0	1.239	51.8	LOS F	19.3	490.2	0.90	1.73	7.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Major Street:	Main
Minor Street:	Pine St
Project Name:	Rogue River TSP
City/County:	Jackson
Analysis Year:	2040
Alternative:	existing
Meet 70% Warrants?:	No
	100%
Major	
Approach Lanes:	1
Minor	
Approach Lanes:	1
Major	
Approach Volumes (vnh):	925
Minor	
Approach Volume (vph):	330
Right Turn Volume (vph):	0
Canacity of Shared/Evolucive Dight Turn Lang <sup>1</sup>	120
Capacity of Shareu/Exclusive Right Turn Lane :	102
Right Turn Discount:	102
Kight Turn volume included in warrant:	0
Minor Approach Volume in Warrant:	330
	10
Major Approach K factor:	10
Minor Approach K factor:	10

<sup>1</sup> Capacity obtained from unsignalized intersection analysis For guidance on preliminary signal warrant analysis, refer to the Analysis Procedures Manual.

Last Updated: February 2009

	Oregon Department of Transportation								
	Transportation Development Branch Transportation Planning Analysis Unit								
	ggg								
	Prelimina	ry Traffic Sig	<mark>gnal Warran</mark>	t Analysis <sup>1</sup>					
<b>Major Street:</b>	Main		Minor Street:	Pine St					
Project:	Rogue River T	SP	<b>City/County:</b>	Jackson					
Year:	2040		Alternative:	existing					
	Prelin	ninary Signal	<mark>Warrant Vo</mark>	olumes					
Num	ber of	ADT on n	najor street	ADT on minor	street, highest				
Approa	ach lanes	approach	ning from	appro	aching				
		both di	rections	vol	ume				
Major	Minor	Percent of stand	dard warrants	Percent of stand	dard warrants				
Street	Street	100	70	100	70				
	Case	A: Minimum	<mark>l Vehicular T</mark>	<b>'raffic</b>					
1	1	8850	6200	2650	1850				
2 or more	1	10600	7400	2650	1850				
2 or more	2 or more	10600	7400	3550	2500				
1	2 or more	8850	6200	3550	2500				
	Case B:	<b>Interruption</b>	<mark>of Continuo</mark> t	ıs Traffic					
1	1	13300	9300	1350	950				
2 or more	1	15900	11100	1350	950				
2 or more	2 or more	15900	11100	1750	1250				
1	2 or more	13300	9300	1750	1250				
X	100 percent of	standard warran	ts						
	70 percent of	standard warran	ts <sup>2</sup>						
	Prelimi	inary Signal V	Warrant Cal	culation					
	Street	Number of	Warrant	Approach	Warrant Met				
		Lanes	Volumes	Volumes					
Case	Major	1	8850	9250	V				
А	Minor	1	2650	3300	1				
Case	Major	1	13300	9250	N				
В	Minor	1	1350	3300	⊥ N				
Analyst and Da	ate:		Reviewer and I	Date:					

0.00

<sup>1</sup> Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

 $^2$  Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual February 2009

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## Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
E: Main St	560	549	11
N: OakSt	55	54	1
W: Major Road	215	211	4
Total	830	813	17

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### Site: 105v [DepotStMainSt - Conversion]

Depot St at Main St (Stop control)

Stop (All-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	Depot St										
3	L2	70	2.0	0.420	23.7	LOS C	1.9	47.7	1.00	1.37	11.7
8	T1	15	2.0	0.420	23.7	LOS C	1.9	47.7	1.00	1.37	20.5
18	R2	280	2.0	1.239	173.5	LOS F	19.3	490.2	1.00	2.84	2.5
Approa	ach	365	2.0	1.239	138.6	LOS F	19.3	490.2	1.00	2.50	3.3
East: N	Main St										
1	L2	220	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	13.0
6	T1	320	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	13.9
16	R2	20	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	23.3
Approa	ach	560	2.0	0.671	15.6	LOS C	4.2	106.4	0.86	1.50	14.0
North:	OakSt										
7	L2	30	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.5
4	T1	15	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.9
14	R2	10	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	22.4
Approa	ach	55	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.8
West:	Major Road	b									
5	L2	5	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	24.9
2	T1	210	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	14.8
12	R2	30	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	15.4
Approa	ach	245	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	15.2
All Veh	nicles	1225	2.0	1.239	51.8	LOS F	19.3	490.2	0.90	1.73	7.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
E: Main St	560	549	11
N: OakSt	55	54	1
W: Major Road	215	211	4
Total	830	813	17

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### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: M	ain St										
6	T1	540	2.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.00	39.3
16	R2	20	2.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.00	37.2
Approa	ch	560	2.0	0.303	0.0	NA	0.0	0.0	0.00	0.00	39.1
North: OakSt											
7	L2	30	2.0	0.136	16.8	LOS C	0.5	12.8	0.62	0.61	22.7
14	R2	25	2.0	0.136	13.5	LOS B	0.5	12.8	0.62	0.61	23.6
Approa	ch	55	2.0	0.136	15.3	LOS C	0.5	12.8	0.62	0.61	23.1
West: N	lajor Road										
5	L2	5	2.0	0.118	4.6	LOS A	0.1	1.5	0.03	0.00	35.9
2	T1	210	2.0	0.118	1.0	LOS A	0.1	1.5	0.03	0.00	36.4
Approa	ch	215	2.0	0.118	1.1	NA	0.1	1.5	0.03	0.00	36.4
All Vehi	cles	830	2.0	0.303	1.3	NA	0.5	12.8	0.05	0.04	34.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
E: Main St	560	549	11
N: OakSt	55	54	1
W: Major Road	215	211	4
Total	830	813	17

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### Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: M	ain St										
6	T1	540	2.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.00	39.3
16	R2	20	2.0	0.303	0.0	LOS A	0.0	0.0	0.00	0.00	37.2
Approa	ch	560	2.0	0.303	0.0	NA	0.0	0.0	0.00	0.00	39.1
North: OakSt											
7	L2	30	2.0	0.136	16.8	LOS C	0.5	12.8	0.62	0.61	22.7
14	R2	25	2.0	0.136	13.5	LOS B	0.5	12.8	0.62	0.61	23.6
Approa	ch	55	2.0	0.136	15.3	LOS C	0.5	12.8	0.62	0.61	23.1
West: N	lajor Road										
5	L2	5	2.0	0.118	4.6	LOS A	0.1	1.5	0.03	0.00	35.9
2	T1	210	2.0	0.118	1.0	LOS A	0.1	1.5	0.03	0.00	36.4
Approa	ch	215	2.0	0.118	1.1	NA	0.1	1.5	0.03	0.00	36.4
All Vehi	cles	830	2.0	0.303	1.3	NA	0.5	12.8	0.05	0.04	34.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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an a				
Major Street:	Main			
Minor Street:	Pine St			
Project Name:	Rogue River TSP			
City/County:	Jackson			
Analysis Year:	2040			
Alternative:	existing			
Meet 70% Warrants?:	No			
	100%			
Major				
Approach Lanes:	1			
Minor				
Approach Lanes:	1			
Major				
Approach Volumes (vph):	955			
Minor				
Approach Volume (vph):	460			
Right Turn Volume (vph):	300			
Capacity of Shared/Exclusive Right Turn Lane <sup>1</sup> :	120			
Right Turn Discount:	102			
Right Turn Volume included in Warrant:	198			
Minor Approach Volume in Warrant:	358			
Major Approach K factor:	10			
Minor Approach K factor:	10			

<sup>1</sup> Capacity obtained from unsignalized intersection analysis For guidance on preliminary signal warrant analysis, refer to the Analysis Procedures Manual.

Last Updated: February 2009

<b>Oregon Department of Transportation</b> <b>Transportation Development Branch</b> Transportation Planning Analysis Unit											
Preliminary Traffic Signal Warrant Analysis <sup>1</sup>											
Major Street: MainMinor Street: Pine St											
Project:	Rogue River T	SP	<b>City/County:</b>	Jackson							
Year:	2040		Alternative:	existing							
	Prelin	ninary Signal	Warrant Vo	olumes							
Num	ber of	ADT on n	najor street	ADT on minor	r street, highest						
Approa	ich lanes	approach	ning from	approa	aching						
		both di	rections	vol	ume						
Major	Minor	Percent of stand	dard warrants	Percent of standard warrants							
Street Street		100	70	100	70						
	Case A: Minimum Vehicular Traffic										
1	1	8850	6200	2650	1850						
2 or more	1	10600	7400	2650	1850						
2 or more	2 or more	10600	7400	3550	2500						
1	2 or more	8850	6200	3550	2500						
	Case B: I	<b>Interruption</b>	<mark>of Continuo</mark> u	ıs Traffic							
1	1	13300	9300	1350	950						
2 or more	1	15900	11100	1350	950						
2 or more	2 or more	15900	11100	1750	1250						
1	2 or more	13300	9300	1750	1250						
X	100 percent of	standard warran	ts								
	70 percent of	standard warran	ts <sup>2</sup>								
	Prelimi	inary Signal V	Warrant Cal	culation							
	Street	Number of	Warrant	Approach	Warrant Met						
		Lanes	Volumes	Volumes							
Case	Major	1	8850	9550	V						
A	Minor	1	2650	3580	1						
Case	Major	1	13300	9550	NT						
В	Minor	1	1350	3580	1 N						
Analyst and Date: Reviewer and Date:											

<sup>1</sup> Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

<sup>2</sup> Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual February 2009

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V/C OS3

EBL +		WBTR	WBTR			+	175	+	
WE	3L	+	EBTR			320	+	110	+
SBI	L	+	NBTR			40	+	270	+
NBL +		+	SBTR			190	+	125	+
	0.372	+	0.173	=		0.545			
	0.197	+	0.81	=		1.007			
V/(	C	=	<u> </u>		[	1.007	+	0.545 ]	
145	=	360							
-----	---	-----							
165	=	595							
300	=	610							
205	=	520							

= 1.64

V/C OS3

0.066	+	0.335	=	0.401		
0.236	+	0.164	=	0.4		
V/C	=	<u> </u>	[	0.4	+	0.401 ]

= 0.85

## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

#### Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy vehicles (HV)
S: Depot St	735	720	15
N: Depot St	349	342	7
W: Pine St	410	402	8
Total	1494	1464	30

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#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Moven	Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay se <u>c</u>	Level of Service	95% Back ( Vehicles ve <u>h</u>	of Queue Distance <u>ft</u>	Prop. Queued	Effective Stop Rate per v <u>eh</u>	Average Speed mp <u>h</u>		
South:	Depot St												
3	L2	380	2.0	0.439	0.0	LOS A	0.0	0.0	0.00	0.00	27.9		
8	T1	355	2.0	0.439	0.0	LOS A	0.0	0.0	0.00	0.00	34.6		
Approa	ch	735	2.0	0.439	0.0	NA	0.0	0.0	0.00	0.00	30.8		
North:	Depot St												
4	T1	345	2.0	0.703	27.7	LOS D	7.9	200.2	0.78	1.26	7.6		
14	R2	4	2.0	0.703	25.9	LOS D	7.9	200.2	0.78	1.26	11.4		
Approa	ch	349	2.0	0.703	27.7	LOS D	7.9	200.2	0.78	1.26	7.7		
West: F	Pine St												
5	L2	5	2.0	0.608	28.3	LOS D	8.9	226.5	0.73	1.07	13.7		
12	R2	405	2.0	0.608	18.1	LOS C	8.9	226.5	0.73	1.07	9.8		
Approa	ch	410	2.0	0.608	18.3	LOS C	8.9	226.5	0.73	1.07	9.9		
All Vehi	cles	1494	2.0	0.703	11.5	NA	8.9	226.5	0.38	0.59	13.5		

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Volume Display Method: Total and %



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#### Wite: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Moven	Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South:	Depot St											
3	L2	380	2.0	0.331	5.1	LOS A	2.1	52.7	0.08	0.02	18.2	
18	R2	100	2.0	0.331	6.3	LOS A	2.1	52.7	0.08	0.02	29.6	
Approa	ch	480	2.0	0.331	5.4	NA	2.1	52.7	0.08	0.02	22.2	
East: C	lassick Dr											
1	L2	85	2.0	0.411	30.3	LOS D	1.9	47.7	0.80	0.90	17.7	
6	T1	20	2.0	0.411	21.6	LOS C	1.9	47.7	0.80	0.90	19.3	
Approa	ch	105	2.0	0.411	28.6	LOS D	1.9	47.7	0.80	0.90	18.0	
West: F	Pine St											
2	T1	10	2.0	0.463	0.0	LOS A	0.0	0.0	0.00	0.00	34.2	
12	R2	665	2.0	0.463	0.0	LOS A	0.0	0.0	0.00	0.00	21.8	
Approa	ch	675	2.0	0.463	0.0	NA	0.0	0.0	0.00	0.00	22.3	
All Vehi	cles	1260	2.0	0.463	4.4	NA	2.1	52.7	0.10	0.08	21.2	

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

#### Volume Display Method: Total and %



All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
835	818	17
353	346	7
420	412	8
1608	1576	32
	All MCs 835 353 420 1608	All MCs         Light Vehicles (LV)           835         818           353         346           420         412           1608         1576

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#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Movement Performance - Vehicles												
Mov	OD Mov	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average	
טו	IVIOV	veh/h	HV %	Sath v/c	sec	Service	venicies veh	Distance	Queuea	ber veh	Speea mph	
South:	Depot St											
3	L2	380	2.0	0.508	0.0	LOS A	0.0	0.0	0.00	0.00	27.6	
8	T1	355	2.0	0.508	0.0	LOS A	0.0	0.0	0.00	0.00	34.1	
18	R2	100	2.0	0.508	0.0	LOS A	0.0	0.0	0.00	0.00	35.4	
Approa	ich	835	2.0	0.508	0.0	NA	0.0	0.0	0.00	0.00	31.8	
North:	Depot St											
7	L2	4	2.0	0.583	19.3	LOS C	6.6	166.6	0.68	1.02	22.1	
4	T1	345	2.0	0.583	18.9	LOS C	6.6	166.6	0.68	1.02	9.5	
14	R2	4	2.0	0.583	18.4	LOS C	6.6	166.6	0.68	1.02	13.7	
Approa	ich	353	2.0	0.583	18.9	LOS C	6.6	166.6	0.68	1.02	9.8	
West: F	Pine St											
5	L2	5	2.0	0.637	29.5	LOS D	9.8	248.7	0.75	1.14	13.4	
2	T1	10	2.0	0.637	24.3	LOS C	9.8	248.7	0.75	1.14	22.0	
12	R2	405	2.0	0.637	19.3	LOS C	9.8	248.7	0.75	1.14	9.5	
Approa	ich	420	2.0	0.637	19.5	LOS C	9.8	248.7	0.75	1.14	10.1	
All Veh	icles	1608	2.0	0.637	9.2	NA	9.8	248.7	0.34	0.52	16.3	

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

#### Volume Display Method: Total and %



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#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Mover	Movement Performance - Vehicles												
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average		
ID	Mov	Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed		
South:	Depot St	ven/n	70	V/C	Sec	_	ven	11	_	per veri	mpn		
3	12	380	2.0	0.508	0.0	LOSA	0.0	0.0	0.00	0.00	27.6		
8	T1	355	2.0	0.508	0.0	LOSA	0.0	0.0	0.00	0.00	34.1		
18	P2	100	2.0	0.500	0.0		0.0	0.0	0.00	0.00	35.4		
Approc	nz	025	2.0	0.500	0.0		0.0	0.0	0.00	0.00	21.0		
Appioa	ICTI	030	2.0	0.506	0.0	INA	0.0	0.0	0.00	0.00	51.0		
East: C	lassick Dr												
1	L2	85	2.0	0.700	73.0	LOS F	3.8	96.7	0.93	1.15	11.0		
6	T1	20	2.0	0.700	55.6	LOS F	3.8	96.7	0.93	1.15	12.4		
16	R2	5	2.0	0.700	51.2	LOS F	3.8	96.7	0.93	1.15	12.4		
Approa	ich	110	2.0	0.700	68.9	LOS F	3.8	96.7	0.93	1.15	11.3		
West:	Dina St												
F		E	2.0	0.409	17.0	108.0	147	272.0	1.00	0.02	10 E		
5		5	2.0	0.490	17.2		14.7	372.9	1.00	0.03	10.5		
2	11	10	2.0	0.498	17.8	LOS C	14.7	372.9	1.00	0.03	27.3		
12	R2	665	2.0	0.498	7.6	LOS A	14.7	372.9	1.00	0.03	14.4		
Approa	ich	680	2.0	0.498	7.8	LOS A	14.7	372.9	1.00	0.03	14.8		
All Veh	icles	1625	2.0	0.700	7.9	NA	14.7	372.9	0.48	0.09	18.7		

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Depot St	835	818	17
W: Pine St	751	736	15
Total	1586	1554	32

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#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Moven	Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph		
South:	Depot St												
8	T1	735	2.0	0.531	5.9	LOS A	2.4	61.0	0.01	0.00	22.3		
18	R2	100	2.0	0.531	8.6	LOS A	2.4	61.0	0.01	0.00	30.6		
Approa	ch	835	2.0	0.531	6.2	NA	2.4	61.0	0.01	0.00	24.5		
West: F	Pine St												
5	L2	5	2.0	0.521	9.5	LOS A	0.3	7.2	0.02	0.00	20.1		
2	T1	1	2.0	0.521	15.8	LOS C	0.3	7.2	0.02	0.00	30.2		
12	R2	745	2.0	0.521	5.4	LOS A	0.3	7.2	0.02	0.00	16.2		
Approa	ch	751	2.0	0.521	5.4	NA	0.3	7.2	0.02	0.00	16.2		
All Vehi	cles	1586	2.0	0.531	5.8	NA	2.4	61.0	0.02	0.00	20.2		

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Depot St	835	818	17
W: Pine St	671	658	13
Total	1506	1476	30

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#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Moven	Movement Performance - Vehicles												
Mov	OD	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Average		
ID	Mov	Total	ΗV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Speed		
		veh/h	%	v/c	sec		veh	ft		per veh	mph		
South:	Depot St												
3	L2	380	2.0	0.544	7.7	LOS A	4.9	124.2	0.03	0.00	16.9		
8	T1	355	2.0	0.544	7.5	LOS A	4.9	124.2	0.03	0.00	19.1		
18	R2	100	2.0	0.544	8.8	LOS A	4.9	124.2	0.03	0.00	28.6		
Approa	ch	835	2.0	0.544	7.8	NA	4.9	124.2	0.03	0.00	20.3		
West: F	Pine St												
5	L2	5	2.0	0.464	8.6	LOS A	0.2	5.4	0.02	0.00	20.7		
2	T1	1	2.0	0.464	10.8	LOS B	0.2	5.4	0.02	0.00	30.8		
12	R2	665	2.0	0.464	4.5	LOS A	0.2	5.4	0.02	0.00	16.8		
Approa	ch	671	2.0	0.464	4.6	NA	0.2	5.4	0.02	0.00	16.9		
All Vehi	cles	1506	2.0	0.544	6.3	NA	4.9	124.2	0.02	0.00	18.8		

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Depot St	480	470	10
W: Pine St	666	653	13
Total	1146	1123	23

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#### Wite: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Mover	Movement Performance - Vehicles														
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph				
South:	Depot St														
3	L2	380	2.0	0.328	5.1	LOS A	2.1	52.6	0.02	0.00	18.2				
18	R2	100	2.0	0.328	6.2	LOS A	2.1	52.6	0.02	0.00	29.7				
Approa	ich	480	2.0	0.328	5.3	NA	2.1	52.6	0.02	0.00	22.3				
West: F	Pine St														
2	T1	1	2.0	0.458	0.0	LOS A	0.0	0.0	0.00	0.00	34.1				
12	R2	665	2.0	0.458	0.0	LOS A	0.0	0.0	0.00	0.00	21.7				
Approa	ich	666	2.0	0.458	0.0	NA	0.0	0.0	0.00	0.00	21.7				
All Veh	icles	1146	2.0	0.458	2.2	NA	2.1	52.6	0.01	0.00	22.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Volume Display Method: Total and %



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#### Wite: 101 [DepotStPineSt]

Depot at Pine St Stop (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back o Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph		
South:	Depot St												
3	L2	835	2.0	0.522	7.3	LOS A	4.3	110.2	0.10	0.02	16.5		
18	R2	1	2.0	0.522	8.4	LOS A	4.3	110.2	0.10	0.02	28.3		
Approa	ch	836	2.0	0.522	7.3	NA	4.3	110.2	0.10	0.02	16.5		
East: C	lassick Dr												
1	L2	1	2.0	0.075	34.0	LOS D	0.2	6.0	0.70	0.70	20.7		
6	T1	20	2.0	0.075	18.1	LOS C	0.2	6.0	0.70	0.70	22.3		
Approa	ch	21	2.0	0.075	18.9	LOS C	0.2	6.0	0.70	0.70	22.2		
West: F	Pine St												
2	T1	10	2.0	0.463	0.0	LOS A	0.0	0.0	0.00	0.00	34.2		
12	R2	665	2.0	0.463	0.0	LOS A	0.0	0.0	0.00	0.00	21.8		
Approa	ch	675	2.0	0.463	0.0	NA	0.0	0.0	0.00	0.00	22.3		
All Veh	cles	1532	2.0	0.522	4.2	NA	4.3	110.2	0.06	0.02	18.9		

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Minor Road Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)



#### Vehicles and pedestrians per 60 minutes

#### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Volume Display Method: Total and %



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#### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Move	ment Pe	rformance -	Vehicl	les							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	Pine St										
3	L2	180	2.0	0.901	49.9	LOS E	9.7	247.2	1.00	2.21	15.0
8	T1	210	2.0	0.901	49.9	LOS E	9.7	247.2	1.00	2.21	15.0
18	R2	15	2.0	0.901	49.9	LOS E	9.7	247.2	1.00	2.21	8.0
Approa	ach	405	2.0	0.901	49.9	LOS E	9.7	247.2	1.00	2.21	14.8
East: E	E Main St										
1	L2	85	2.0	0.320	15.7	LOS C	1.3	33.0	0.98	1.31	14.8
6	T1	145	2.0	1.075	104.7	LOS F	15.2	384.9	1.00	2.64	9.4
16	R2	175	2.0	1.075	104.7	LOS F	15.2	384.9	1.00	2.64	9.4
Approa	ach	405	2.0	1.075	86.0	LOS F	15.2	384.9	1.00	2.36	9.8
North:	Pine St										
7	L2	125	2.0	0.898	52.2	LOS F	9.1	231.8	1.00	2.12	14.6
4	T1	205	2.0	0.898	52.2	LOS F	9.1	231.8	1.00	2.12	14.6
14	R2	40	2.0	0.123	9.7	LOS A	0.4	10.7	0.92	1.18	30.1
Approa	ach	370	2.0	0.898	47.6	LOS E	9.1	231.8	0.99	2.02	15.9
West:	W Main S	St									
5	L2	40	2.0	0.076	6.5	LOS A	0.2	6.1	0.80	1.04	31.3
2	T1	110	2.0	0.340	8.5	LOS A	1.3	32.8	0.76	1.10	26.7
12	R2	135	2.0	0.340	8.5	LOS A	1.3	32.8	0.76	1.10	26.8
Approa	ach	285	2.0	0.340	8.2	LOS A	1.3	32.8	0.77	1.09	27.6
All Ver	nicles	1465	2.0	1.075	51.2	LOS F	15.2	384.9	0.95	1.99	14.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)



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#### Vehicles and pedestrians per 60 minutes

#### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Volume Display Method: Total and %



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#### Site: 110 [EMainStPineSt]

E Main St at Pine St (All-Way Stop Control)

Stop (All-Way)

Move	ment Per	rformance -	Vehicl	es							
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South:	Pine St										
3	L2	180	2.0	1.139	119.7	LOS F	19.8	502.2	1.00	3.08	8.6
8	T1	210	2.0	1.139	119.7	LOS F	19.8	502.2	1.00	3.08	8.6
18	R2	15	2.0	0.049	9.2	LOS A	0.2	4.1	0.92	1.16	18.0
Approa	ach	405	2.0	1.139	115.6	LOS F	19.8	502.2	1.00	3.01	8.6
East: E	E Main St										
1	L2	85	2.0	0.320	15.7	LOS C	1.3	33.0	0.98	1.31	15.0
6	T1	145	2.0	1.075	104.7	LOS F	15.2	384.9	1.00	2.64	9.4
16	R2	175	2.0	1.075	104.7	LOS F	15.2	384.9	1.00	2.64	9.4
Approa	ach	405	2.0	1.075	86.0	LOS F	15.2	384.9	1.00	2.36	9.8
North:	Pine St										
7	L2	125	2.0	1.048	94.0	LOS F	14.3	364.5	1.00	2.59	10.2
4	T1	205	2.0	1.048	94.0	LOS F	14.3	364.5	1.00	2.59	10.2
14	R2	40	2.0	0.143	11.2	LOS B	0.5	12.8	0.95	1.21	29.5
Approa	ach	370	2.0	1.048	85.0	LOS F	14.3	364.5	0.99	2.44	11.4
West:	W Main St	t									
5	L2	40	2.0	0.076	6.5	LOS A	0.2	6.1	0.80	1.04	31.3
2	T1	110	2.0	0.340	8.5	LOS A	1.3	32.8	0.76	1.10	26.7
12	R2	135	2.0	0.340	8.5	LOS A	1.3	32.8	0.76	1.10	26.8
Approa	ach	285	2.0	0.340	8.2	LOS A	1.3	32.8	0.77	1.09	27.6
All Veh	nicles	1465	2.0	1.139	78.8	LOS F	19.8	502.2	0.95	2.32	11.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010). HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Single Lane Roundabout Calculator

10/1	4/15
------	------

General Inf	General Information			Passenger Car Equivalents Rec					Roundabout Input					
Analyst: Jo	e Meek PE			bicycle	Eb	1	1	3 or 4 legs	S		4			
Agency	DOT			medium	Em	1.5	1.5	Portion of	an ho	ur:	0.25	W	E	
Date: 3/	20/2018			heavy	E.	2	2	Peak hr	3	30	DM		e	
	23/2010		Couthlas	neavy	_n	2	2	Pedectric	5	50	Approa	ahaa	3	
East leg:			South leg	Voar <sup>.</sup>	0 20vrs 5	build		crossings	nor lo	N	Approa	ches S	W	
i iojeci. Iti				Teal.	20y13 / 1	Juliu		6103311193 #	perie	0		<u> </u>		
Hour Volu	imes		Approa	ches				<sup>#</sup> Flow Rate	9	U	Approa	ches	Ŭ	
vph		Ν	E	S	w			Vi		Ν	E	S	w	
-	N	0	171	206	39	Changes	s here		N	0	180	217	41	
ts	Е	123	0	15	108	do not	go to	ts	Е	129	0	16	114	
ШXI	S	201	83	0	133	Input ta	ab.	ШХI	S	212	87	0	140	
	W	39	142	176	0				W	41	149	185	0	
Peak Hou	r Factor		Approa	ches				Vehicle F	actor		Approa	ches		
PHF		Ν	E	S	W			f <sub>hv</sub>		Ν	E	S	W	
	Ν	0.00	0.95	0.95	0.95				Ν	1.000	0.978	0.981	0.975	
its	Е	0.95	0.00	0.95	0.95			its	Е	0.984	1.000	1.000	0.981	
Ш×	S	0.95	0.95	0.00	0.95			Ě	S	0.980	0.977	1.000	0.985	
	W	0.95	0.95	0.95	0.00				W	0.975	0.979	0.978	1.000	
# of Bicyc	les		Approa	ches				Proportic	on of E	Bicycle	Approa	ches		
vph		Ν	E	S	W			Pb		N	E	S	W	
	Ν	0	0	0	0				Ν	0.000	0.000	0.000	0.000	
cits	Е	0	0	0	0			kits	Е	0.000	0.000	0.000	0.000	
ŵ	S	0	0	0	0			ŵ	S	0.000	0.000	0.000	0.000	
	W	0	0	0	0				W	0.000	0.000	0.000	0.000	
					-									
# of Mediu	um Trucks		Approa	ches				Proportio	on of N	ledium	Approa	ches		
# of Mediu vph	um Trucks	N	Approa E	ches S	W			Proportic P <sub>m</sub>	on of M	/ledium N	Approa E	ches S	w	
# of Mediu vph	um Trucks	<b>N</b>	Approa E	ches S	<b>W</b>			Proportio P <sub>m</sub>	n of M	Nedium N 0.000	Approa E 0.000	ches S 0.000	<b>W</b>	
# of Mediu vph . <u>s:</u> .x	um Trucks N E	<b>N</b> 0 0	Approa E 0 0	ches S 0 0	<b>W</b> 0 0			Proportic P <sub>m</sub>	n of N N E	<b>Nedium</b> N 0.000 0.000	Approa E 0.000 0.000	ches S 0.000 0.000	W 0.000 0.000	
Hof Mediu Neh Stits	Im Trucks N E S	<b>N</b> 0 0	Approa E 0 0 0	<b>ches</b> <b>S</b> 0 0 0	<b>W</b> 0 0 0 0			Proportic P <sub>m</sub> stix	n of N E S	Aedium N 0.000 0.000 0.000	Approac E 0.000 0.000 0.000	ches         S           0.000         0.000           0.000         0.000	W 0.000 0.000 0.000	
# of Mediu vph six H	um Trucks N E S W	N 0 0 0 0	Approa E 0 0 0 0	<b>ches</b> <b>S</b> 0 0 0 0 0	<b>W</b> 0 0 0 0 0 0 0			Proportic P <sub>m</sub> stx U	n of N E S W	Aedium N 0.000 0.000 0.000 0.000	Approac E 0.000 0.000 0.000 0.000	ches         S           0.000         0.000           0.000         0.000           0.000         0.000	W 0.000 0.000 0.000 0.000	
# of Mediu vph 	Im Trucks N E S W y Trucks	N 0 0 0 0	Approa E 0 0 0 Approa	ches S 0 0 0 ches S	W 0 0 0			Proportic Pm stix Proportic	n of N E S W	Aedium N 0.000 0.000 0.000 0.000 Heavy	Approa E 0.000 0.000 0.000 0.000 Approa	S           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000	W 0.000 0.000 0.000 0.000	
# of Mediu vph stix H wof Heavy vph	Im Trucks N E S W y Trucks	N 0 0 0 0 0 0	Approa E 0 0 0 0 Approa E	ches S 0 0 0 0 ches S 4	W 0 0 0 0 0 0 0 0			Proportic Pm Si X Proportic Ph	n of M E S W n of H	Aedium N 0.000 0.000 0.000 0.000 Heavy N	Approa E 0.000 0.000 0.000 0.000 Approa E	ches         S           0.000         0.000           0.000         0.000           0.000         ches           S         0.040	W 0.000 0.000 0.000 0.000 W	
# of Mediu vph s:: X X # of Heavy vph	Im Trucks N E S W y Trucks N E	N 0 0 0 0 0 0 0 0 2	Approa E 0 0 0 0 Approa E 4	ches         S           0         0           0         0           0         0           ches         S           4         0	W 0 0 0 0 0 0 0 0 0 0 0			Proportic Pm <u>st</u> X Proportic Ph	N E S W Drn of F	Aedium N 0.000 0.000 0.000 0.000 Heavy N 0.000	Approa E 0.000 0.000 0.000 Approa E 0.023	S           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000	W 0.000 0.000 0.000 0.000 W 0.026	
# of Mediu vph sixu # of Heavy vph	um Trucks N E S W y Trucks N E S	N 0 0 0 0 0 0 0 2 4	Approa E 0 0 0 0 Approa E 4 0 2	ches         S           0         0           0         0           0         0           0         0           0         0           ches         S           4         0           0         0	W 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			Proportic Pm stix Proportic Ph	N E S W n of H E S	Aedium N 0.000 0.000 0.000 0.000 Heavy N 0.000 0.016	Approa E 0.000 0.000 0.000 0.000 Approa E 0.023 0.000	S           0.000           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000	W 0.000 0.000 0.000 0.000 W 0.026 0.019	
# of Mediu vph stix # of Heavy vph	Im Trucks N E S W y Trucks N E S W W	N 0 0 0 0 0 0 0 2 4 1	Approa E 0 0 0 Approa E 4 0 2 2 3	ches         S           0         0           0         0           0         0           ches         S           4         0           0         0           4         0           0         4	W 0 0 0 0 0 0 0 0 0 0 0 2 2 0			Proportic Pm sıx Proportic Ph sıx	N E S W n of F N E S W	Aedium N 0.000 0.000 0.000 0.000 Ieavy N 0.000 0.016 0.020 0.026	Approa E 0.000 0.000 0.000 0.000 Approa E 0.023 0.000 0.024	S           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000	W 0.000 0.000 0.000 0.000 0.000 W 0.026 0.019 0.015 0.000	
# of Mediu vph six # of Heavy vph Adjusted E	Im Trucks N E S W y Trucks N E S W How Rate	N 0 0 0 0 0 0 0 2 4 1	Approa E 0 0 0 Approa E 4 0 2 3 3 Approa	ches         S           0         0           0         0           0         0           ches         S           4         0           0         4           0         4           0         4           0         4	W 0 0 0 0 0 0 0 0 0 2 0			Proportic Pm stix Proportic Ph	n of N E S W n of F N E S W	Aedium N 0.000 0.000 0.000 0.000 Heavy N 0.000 0.016 0.020 0.026	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000	W           0.000           0.000           0.000           0.000           0.000           W           0.026           0.019           0.015           0.000	
# of Mediu vph # of Heavy vph Adjusted F	Im Trucks N E S W y Trucks N E S W Tow Rate	N 0 0 0 0 0 0 2 4 1 1	Approa E 0 0 0 Approa E 4 0 2 3 Approa E	ches         0         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         4         0         4         5         S	W 0 0 0 0 0 0 0 0 1 2 2 0 0	Output		Proportic Pm six Proportic Ph	n of N E S W n of H E S W	Aedium N 0.000 0.000 0.000 0.000 Heavy N 0.000 0.016 0.020 0.026	Approa E 0.000 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021	S           0.000           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000           0.023	W 0.000 0.000 0.000 0.000 W 0.026 0.019 0.015 0.000	
# of Mediu vph # of Heavy vph Adjusted F	Im Trucks N E S W y Trucks N E S W Flow Rate N	N 0 0 0 0 0 0 2 4 1 1 N 0 0	Approa E 0 0 0 Approa E 3 Approa E 184	ches         0         0         0         0         0         ches         4         0         4         0         ches         S         221	W           0           W           42	Output	1	Proportic Pm sıxu Proportic Ph sıxu	N E S W On of F N E S W	Aedium N 0.000 0.000 0.000 1eavy N 0.000 0.016 0.020 0.026	Approac E 0.000 0.000 0.000 Approac E 0.023 0.000 0.024 0.021 Approac E	S           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000           0.000           0.023           ches           S	W 0.000 0.000 0.000 0.000 W 0.026 0.015 0.000 W	
# of Mediu vph six # of Heavy vph Adjusted F	Im Trucks N E S W y Trucks N E S W Flow Rate N E	N           0           0           0           0           0           0           0           0           2           4           1           N           0           131	Approa E 0 0 0 Approa E 3 Approa E 184 0	ches         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         4         0         4         0         4         10         221         16	W           0           0           0           0           0           0           0           0           0           0           0           0           0           W           42           116	Output Conflic	t t flow (y	Proportic Pm st X Proportic Ph St X X	N E S W Dn of F N E S W	Aedium N 0.000 0.000 0.000 0.000 Ieavy N 0.000 0.016 0.020 0.026 N 421	Approac E 0.000 0.000 0.000 Approac E 0.023 0.000 0.024 0.021 Approac E 443	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.000           0.000           ches           S           0.000           0.000           ches           S           284	W 0.000 0.000 0.000 0.000 W 0.026 0.019 0.015 0.000 W 428	
# of Mediu vph # of Heavy vph Adjusted F Vi	Im Trucks N E S W Trucks N E S W Tow Rate N E S S S	N           0           0           0           0           0           0           2           4           1           N           0           131           216	Approa E 0 0 0 Approa E 4 0 2 3 Approa E 184 0 89	ches         S           0         0           0         0           0         0           ches         S           4         0           0         4           ches         S           221         16           0         0	W           0           42           116           142	Output Conflict Entry fl	t flow (vel	Proportic Pm stixu Proportic Ph stixu u	N E S W on of H E S W	Aedium N 0.000 0.000 0.000 deavy N 0.000 0.016 0.020 0.026 N 421 382	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E 443 416	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           ches           S           ches           S           284           417	W           0.000           0.000           0.000           0.000           0.000           W           0.026           0.019           0.015           0.000           W           428           295	
# of Mediu vph # of Heavy vph Adjusted F v <sub>i</sub>	Im Trucks N E S W Trucks N E S W Tow Rate N E S W	N           0           0           0           0           0           2           4           1           N           0           131           216           42	Approa E 0 0 0 Approa E 3 Approa E 184 0 89 152	ches         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         221         16         0         189	W           0           0           0           0           0           0           0           0           0           0           0           0           0           0           W           42           116           142           0	Output Conflict Entry fl Entry c	t t flow (v ow (vel apacity	Proportic Pm six Proportic Ph Six H veh/h) s/h) (veh/h)	N E S W n of F N E S W V c	Aedium N 0.000 0.000 0.000 0.000 Heavy N 0.000 0.016 0.020 0.026 N 421 382 721	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E E 443 416 703	S           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.023           ches           S           284           417           829	W           0.000           0.000           0.000           0.000           0.000           W           0.026           0.015           0.000           W           428           295           718	
# of Mediu vph # of Heavy vph Adjusted F vi Adjusted F	Im Trucks N E S W Trucks N E S W Tow Rate N E S W Rate (pc/h)	N           0           0           0           0           0           0           2           4           1           N           0           131           216           42           389	Approa E 0 0 0 Approa E 4 0 2 3 Approa E 184 0 89 152 425	ches       S         0       0         0       0         0       0         ches       S         4       0         0       4         0       4         ches       S         221       16         189       426	W           0           0           0           0           0           0           0           0           0           0           0           0           0           42           116           142           0           300	Output Conflict Entry fl Entry c Pedest	t flow (vel apacity rian imp	Proportic Pm six Proportic Ph Proportic Ph six U	N E S W D n of F N E S W V i C <sub>i</sub>	Aedium N 0.000 0.000 0.000 0.000 Ieavy N 0.000 0.016 0.020 0.026 0.026 N 421 382 721 1	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E 443 416 703 1	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.000           0.000           0.000           ches           S           284           417           829           1	W         0.000         0.000         0.000         0.000         W         0.026         0.019         0.015         0.000         W         428         295         718         1	
# of Mediu vph # of Heavy vph Adjusted F Vi Entry Flow Conflict Flow	Im Trucks N E S W Trucks N E S W Tow Rate N E S W Rate (pc/h) w (pc/h)	N           0           0           0           0           0           0           2           4           1           N           0           131           216           42           389           430	Approa E 0 0 0 Approa E 4 0 2 3 Approa E 184 0 89 152 425 452	s         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         16         0         189         426         289	W           0           0           0           0           0           0           0           0           0           0           0           42           116           142           0           300           436	Output Conflict Entry fl Entry c Pedest Leg v/c	t flow (v ow (vel apacity rian im ; ratio	Proportic Pm SIX Proportic Ph Proportic Ph SIX SIX Proportic Ph SIX SIX SIX SIX SIX SIX SIX SIX SIX SIX	N E S W n of F N E S W V v c V <sub>i</sub> C <sub>i</sub>	Aedium N 0.000 0.000 0.000 0.000 Ieavy N 0.000 0.016 0.020 0.026 N 421 382 721 1 0.53	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E 443 416 703 1 0.59	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.000           0.000           0.000           ches           S           284           417           829           1           0.50	W           0.000           0.000           0.000           0.000           W           0.026           0.019           0.015           0.000           W           428           295           718           1           0.41	
# of Mediu vph # of Heavy vph Adjusted F vi Adjusted F vi Entry Flow Conflict Flov Exits w/o r	Im Trucks N E S W Trucks N E S W Tow Rate N E S W Rate (pc/h) ight vol pcf	N           0           0           0           0           0           2           4           1           0           131           216           42           389           430           Weighted	Approa E 0 0 0 0 Approa E 4 0 2 3 Approa E 184 0 89 152 425 425 452	ches         S           0         0           0         0           0         0           ches         S           4         0           0         4           ches         S           221         16           16         0           189         426           289         ehicle Face	W           0           0           0           0           0           0           0           0           0           0           0           0           0           0           42           116           142           0           300           436           ctors	Output Conflict Entry fl Entry c Pedest Leg v/c Control	t flow (\ ow (vel apacity rian im  e ratio I delay	Proportic Pm Six Proportic Ph Six H Six H Veh/h) (veh/h) (veh/h) vedance (sec/veh)	N         E           S         W           On of H         S           W         N           E         S           W         Vc           Vi         Ci           fped         Xi           di         Ci	Aedium N 0.000 0.000 0.000 deavy N 0.000 0.016 0.020 0.026 N 421 382 721 1 0.53 13.1	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 0.021 443 416 703 1 0.59 15.2	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.023           ches           S           284           417           829           1           0.50           11.1	W         0.000         0.000         0.000         0.000         W         0.026         0.019         0.015         0.000         W         428         295         718         1         0.41         10.5	
# of Mediu vph # of Heavy vph Adjusted F Vi Entry Flow Conflict Flov Exits w/o r N	Im Trucks N E S W Trucks N E S W Tow Rate N E S W Rate (pc/h) w (pc/h) ight vol pcf 263	N           0           0           0           0           0           2           4           1           N           0           131           216           42           389           430           Weighted           0.981	Approa E 0 0 0 0 Approa E 4 0 2 3 Approa E 184 0 89 152 425 452 452 5 Entry V 0.978	ches         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         4         0         4         0         16         0         189         426         289         ehicle Fac         0.980	W           0           0           0           0           0           0           0           0           0           0           0           0           0           42           116           142           0           300           436           ctors           0.982	Output Conflict Entry fl Entry c Pedest Leg v/c Control LOS	t flow (\ ow (vel apacity rian im ratio I delay	Proportic Pm Si Proportic Ph Proportic Ph Si Si Si Veh/h) (veh/h) (veh/h) (veh/h) (veh/h) (veh/h) (veh/h) (veh/h)	N E S W n of F N E S W V i C <sub>i</sub> C <sub>i</sub> f <sub>ped</sub> X <sub>i</sub> d <sub>i</sub> n/a	N           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.016           0.020           0.026           N           421           382           721           1           0.53           13.1           B	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E 443 416 703 1 0.59 15.2 C	S           0.000           0.000           0.000           0.000           0.000           0.000           ches           S           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.50           11.1           B	W         0.000         0.000         0.000         0.000         W         0.026         0.019         0.015         0.000         W         428         295         718         1         0.41         10.5         B	
# of Mediu vph # of Heavy vph Adjusted F Vi Entry Flow Conflict Flov Exits w/o r N E	Im Trucks N E S W Trucks N E S W Flow Rate N E S W Rate (pc/h) w (pc/h) right vol pcf 263 247	N           0           0           0           0           0           0           2           4           1           N           0           131           216           42           389           430           Weighted           0.981	Approa E 0 0 0 Approa E 4 0 2 3 Approa E 184 0 2 3 4 2 3 4 2 5 4 52 4 52 4 52 5 4 52 5 5 5 7 8 9 152 4 52 5 5 5 7 8 9 152 5 7 8 9 152 152 152 152 152 152 152 152 152 152	ches         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         4         0         4         0         16         0         189         426         289         ehicle Fac         0.980	W           0           0           0           0           0           0           0           0           0           0           0           0           0           42           116           142           0           300           436           ctors           0.982	Output Conflic Entry fl Entry c Pedest Leg v/c Control LOS HCM 9	t flow (vel apacity rian im c ratio l delay	Proportic Pm SIX Proportic Ph Proportic Ph SIX Proportic Ph SIX SIX SIX SIX SIX SIX SIX SIX SIX SIX	N         E           S         W           On of H         S           W         N           E         S           W         N           E         S           W         Vc           Vi         Ci           fped         Xi           Qm         Qm	N           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.016           0.020           0.026           N           421           382           721           1           0.53           13.1           B           3	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E 443 416 703 1 0.59 15.2 C 4	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.000           0.50           11.1           B           3	W         0.000         0.000         0.000         0.000         W         0.026         0.019         0.015         0.000         W         428         295         718         1         0.41         10.5         B         2	
# of Mediu vph  # of Heavy vph  # of Heavy vph # of Heavy vph # of Heavy vph # of Heavy # of Heav	Im Trucks N E S W Trucks N E S W Tow Rate N E S W Tow Rate N E S W Rate (pc/h) ight vol pcf 263 247 305	N           0           0           0           0           0           2           4           1           N           0           131           216           42           389           430           Weighted           0.981	Approa E 0 0 0 Approa E 4 0 2 3 Approa E 184 0 2 3 Approa E 184 0 89 152 425 452 452 5 2 Entry V 0.978	ches         0         0         0         0         0         0         ches         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         4         0         426         289         ehicle Fac         0.980         CVehicle Fac	W           0           0           0           0           0           0           0           0           0           0           1           2           0           42           116           142           0           300           436           ctors           0.982           =	Output Conflict Entry fl Entry c Pedest Leg v/c Control LOS HCM 9	t t flow (v ow (vel apacity rian im ratio I delay 5 <sup>th</sup> % Q	Proportic Pm <u>St</u> Proportic Ph Proportic Ph St St St St St St St St St St St St St	N         E           S         W           On of H         S           N         E           S         W           N         E           Vanof H         S           V         Vanof H           Vanof H         S           Vanof H         S     <	N           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.016           0.020           0.026           N           421           382           721           1           0.53           13.1           B           3	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 0.021 443 416 703 1 443 416 703 1 0.59 15.2 C 4	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.023           ches           S           284           417           829           1           0.50           11.1           B           3	W         0.000         0.000         0.000         0.000         W         0.026         0.019         0.015         0.000         W         428         295         718         1         0.41         10.5         B         2	
# of Mediu vph  # of Heavy vph  # of Heavy vph # of Heavy vph # of Heavy vph # of Heavy vph # of Heavy # of Heav	Im Trucks N E S W y Trucks N E S W Flow Rate N E S W Flow Rate N E S W Rate (pc/h) w (pc/h) right vol pcf 263 247 305 341	N           0           0           0           0           0           2           4           1           N           0           131           216           42           389           430           Weighted           0.981	Approa E 0 0 0 0 Approa E 4 0 2 3 Approa E 184 0 89 152 425 452 425 452 5 Entry V 0.978	ches         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         16         0         189         426         289         ehicle Fac         0.980         Vehicle F         0.982	W           0           0           0           0           0           0           0           0           0           0           0           0           0           0           42           116           142           0           300           436           ctors           0.982	Output Conflict Entry fl Entry c Pedest Leg v/c Control LOS HCM 9	t t flow (v ow (vel apacity rian im c ratio l delay 5 <sup>th</sup> % Q	Proportic Pm Six Proportic Ph Six H Proportic Ph Six H Si Six H Six H Si H Si	N E S W n of H N E S W V i C <sub>i</sub> f <sub>ped</sub> X <sub>i</sub> d <sub>i</sub> n/a Q <sub>m</sub>	N           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.016           0.020           0.026           N           421           382           721           1           0.53           13.1           B           3	Approa E 0.000 0.000 0.000 Approa E 0.023 0.000 0.024 0.021 Approa E 443 416 703 1 0.59 15.2 C 4 4	S           0.000           0.000           0.000           0.000           0.000           ches           S           0.019           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.000           0.023           ches           S           284           417           829           1           0.50           11.1           B           3           2.62	W         0.000         0.000         0.000         0.000         W         0.026         0.019         0.015         0.000         W         428         295         718         1         0.41         10.5         B         2	

V/C OS8 D

EBL	+	WBTR	40	+	175	+
WBL	+	EBTR	320	+	110	+

0.249 + 0.164 = 0.413

V/C = 150 [ 0 + 0.413 ] 150-8 145 = 360

165 = 595

= 0.44
#### 2040 Bridge movements



about 40 homes below where bridge would be

3rd Street bridge		approx	ximate	ly	
movements	2040 no build	% uses	s 3rd #	cars	
W Evans Creek and W Main					
SB left	140		0.4	60 turned onto bridge	80 remain
EB thru	155		0.2	30 turn into lefts	125 remain
WB right	200		0.2	40 now use Pine	160 remain
SB right	10 increases	to		20	
Pine and W Main					
EB left	40		0.5	20 now turn on W Evans	east side of bridge
EB thru	110		0.35	40 now use bridge	70 remain
WB thru	145		0.35	50 now use bridge	95
				10 right turns	85 remain
WB right	175 increses	to		185	185 remain
SB left	125 increses	to		135	135
SB thru	205 increses	to		220	220
SB right	40		0.5	20 now use bridge	20 remain
NB left	180 reduces		0.2	40 turned onto bridge	140 remain
NB thru	210 increases			40 were lefts now thru	250 remain

7th Street bridge					
movements	2040 no build	% us	es 3rd #	tcars	
W Evans Creek and W Main					
SB left	140		0.15	20 turned onto bridge	120 remain
EB thru	155		0.05	10 turn into lefts	145 remain
WB right	200		0.05	10 now use Pine	190 remain
SB right	10 increases	to		15	
Pine and W Main					
EB left	40		0.25	10 now turn on W Evans	east side of bridge
EB thru	110		0.1	10 now use bridge	100 remain
WB thru	145		0.1	10 now use bridge	135
				5 right turns	130 remain
WB right	175 increses	to		180	180 remain
SB left	125 increses	to		130	130 remain
SB thru	205 increses	to		210	210 remain
SB right	40		0.25	10 now use bridge	30 remain
NB left	180 reduces		0.03	10 turned onto bridge	170 remain
NB thru	210 increases			10 were lefts now thru	220 remain

No effects for a bridge further north



Solution Element	Current/Approx 2017 costs	Units	Notes
ROADWAY			
New Pavement Streetscape Peripherials 2" Overlay (with Modernization) 2" Overlay - Preservation Only Chip Seal Slurry Seal Coat Crack Seal Guardrail Guardrail terminals Durable Striping	\$85 \$800 \$7 \$9 \$0.61 \$0.26 \$0.07 \$35 \$5,400 \$5	sq ft ft sq ft sq ft sq ft sq ft sq ft ft ea ft	Assume for both sides In conjuction with other Maintenance only When slope is > 1:3 (~ Assume 2 for each isol Lane lines, crosswalk s
Streetlights	\$6,100	ea	assume 200 spacing
STRUCTURES Bridge widening - single span Bridge widening - multi-span New bridge - up to 80 ft span New bridge - from 80 to 175 ft sp Retaining wall	\$350 \$450 \$175 an \$250 \$180	sq ft sq ft sq ft sq ft sq ft	
INTERSECTION			
Urban traffic signal Rural traffic signal Single-lane roundabout Multi-lane roundabout Mini-roundabout Turn lane Stop/Yield sign	\$1,000,000 \$1,500,000 \$2,000,000 \$3,000,000 \$240,000 \$300,000 \$350	ea ea ea ea ea ea	Assumes no ROW nee
MULTIMODAL			
New crosswalk Ped- activated beacon (pair) Pedestrian refuge with beacon Enhanced crossing (complete) Transit stop (sign+pole) installed Transit shelter, installed stop (sig Sidewalk, Islands, etc ADA ramp Multiuse path	\$5,000 \$40,000 \$25,000 \$100,000 \$2,300 n+pole) \$23,000 \$11 \$15,000 \$16	ea pair ea ea ea sq ft ea sq ft	Includes signs, stop ba For crossings wider tha Signing, marking, illum Per single ramp; inters
Curb extension Shared Lane/Bicycle marking Demand-responsive or fixed route Paratransit service (req. for fixed	\$27,000 \$225 e transit \$60 route) \$80	ea ea service hour per route service hour	Assume 250' spacing Must use same service
SEISMIC			
Site specific - below are Rogue R Hwy 1/ Depot Hwy 1/Evans Creek Hwy 1 /Foothills/CORP	iver structures: \$4,900,000 \$14,200,000 \$26,000,000	ea ea ea	

Need to show "math" for each solution documentation (subtotals and grand total) that

Solution Element C	urrent/Approx 2017 costs	Units	Notes
ROADWAY			
New Pavement Streetscape Peripherials 2" Overlay (with Modernization) 2" Overlay - Preservation Only Chip Seal Slurry Seal Coat Crack Seal	\$85 \$800 \$7 \$9 \$0.61 \$0.26 \$0.07	sq ft ft sq ft sq ft sq ft sq ft sq ft	Assume for both sides In conjuction with other work Maintenance only
Guardrail Guardrail terminals Durable Striping Streetlights	\$35 \$5,400 \$5 \$6,100	ft ea ft ea	When slope is > 1:3 (~ 20 degrees) Assume 2 for each isolated guardrail section Lane lines, striping, etc. (use for bike lanes if no pvt width needed)) assume 200' spacing
<b>STRUCTURES</b> Bridge widening - single span Bridge widening - multi-span New bridge - up to 80 ft span New bridge - from 80 to 175 ft span Retaining wall	\$350 \$450 \$175 \$250 \$180	sq ft sq ft sq ft sq ft sq ft	
INTERSECTION			
Urban traffic signal Rural traffic signal Single-lane roundabout Multi-lane roundabout Mini-roundabout Turn lane Stop/Yield sign	\$1,000,000 \$1,500,000 \$2,000,000 \$3,000,000 \$240,000 \$300,000 \$350	ea ea ea ea ea ea	Assumes no ROW needed, all work within confines of intersection
MULTIMODAL			
New crosswalk Ped- activated beacon (pair)	\$5,000 \$40,000	ea pair	Includes signs, stop bars, markings
Pedestrian refuge with beacon Enhanced crossing (complete) Transit stop (sign+pole) installed Transit shelter, installed stop (sign+ Sidewalk, Jelands, etc.	\$25,000 \$100,000 \$2,300 pole) \$23,000 \$11	ea ea ea ea	For crossings wider than two thru lanes Signing, marking, illumination, beacons etc.
ADA ramp	\$15,000	ea	Per single ramp; intersection corner is \$30,000

\$16	sq ft	
\$27,000	ea	
\$225	ea	Assume 250' spacing
\$60	service hour per route	
\$80	service hour	Must use same service hours/days as fixed route
res:		
\$4,900,000	ea	
\$14,200,000	ea	
\$26,000,000	ea	
	\$16 \$27,000 \$225 \$60 \$80 *es: \$4,900,000 \$14,200,000 \$26,000,000	\$16       sq ft         \$27,000       ea         \$225       ea         \$60       service hour per route         \$80       service hour         *es:       \$4,900,000         \$14,200,000       ea         \$26,000,000       ea

Need to show "math" for each solution documentation (subtotals and grand total) that contains more than one of the above elements or uses a sq ft calculation.

ТА	Project Name		Highway Number	
DA	Highway Name		Posted Number	
CT.	County/City		Maint. District	2A
5	Type of Project	Urban Non Freeway	Key No	
R	Cost Complexity	High	Esimated By	

		Unit	Quantity	Unit Cost	Cost
	Pavement				
. ~	New Work	sf		\$ 39.00	\$-
ars DY	2" Overlay (With Mod)	sf		\$ 3.00	\$-
₽ ë	2" Overlay (Pres Only)	sf		\$ 4.00	\$-
S O					
0 8	Structures				
Ë Š	New Bridges Post Tensioned	sf		\$ 180.00	\$-
TS TS	New Bridges Prestressed	sf		\$ 125.00	\$-
LS Clar	New Rigid Frame Structures	sf		\$ 300.00	\$-
222	Bridge Widening	sf		\$ 250.00	\$-
F K S	Retaining Walls - CIP	sf		\$ 125.00	\$-
te O	Retaining Walls - MSE	sf		\$ 85.00	\$-
fi E	Retaining Walls - Seg.	sf		\$ 35.00	\$-
R L	Sound Walls - Precast	sf		\$ 35.00	\$-
UA					
g S	Miscellaneous				
	Traffic Signals	Intersection		\$ 330,000.00	\$-
	Streetscape Peripherals	If of roadway		Low - \$400/lf	\$ -
	· · · · · · · · · · · · · · · · · · ·				•
		Unit	Quantity	Unit Cost	Cost
	Barriers and Guardrail		-	-	-
	Type 2A Guardrail	ft		\$ 15.85	\$-
N (9)	Type 3 Guardrail	ft		\$ 49.67	\$-
20 H	Type 4 Guardrail	ft		\$ 41.94	\$-
⊆ ;,	Guardrail Transition	ea		\$ 2,310.82	\$-
ge: B	Guardrail Terminals	ea		\$ 2,453.93	\$-
ia n	Cable Guardrail	ft		\$ 15.00	\$-
TS SH ≥	Impact Attenuator	ea		\$ 15,500.00	\$-
d A C	Concrete Median Barrier	ft		\$ 39.01	
EL C	Tall Conc. Median Barr.	ft		\$ 68.58	\$-
M F AV eig	Min II				
S ≥	Miscellaneous	af		L¢ 4.00	¢
ц с	Concrete SWs, DWs, & Islands	St		\$ 4.80	\$ -
gi XI	Concrete DWs, ReinforceD	St		\$ 0.00	\$ -
ő å	Durable Striping	lf		\$ 2.06	\$-
0 2	Mahilization	0/	1	4.00/	¢
	Mobilization	%	1	10%	э - ¢
	Temporary Traffic Control	%	1	8%	Ъ -
L	Miscellaneous Items - At the E	stimator's Discretio	on		<b>^</b>
					ъ -
					\$-
					\$-
					•
	Project Subtotal		1		\$ -
	Project Scope Contingencies	%	1	50%	\$-
001/0					¢
CONS	STRUCTION ESTIMATE TOTAL				φ -
	Preliminary Engineering	%	1	20%	\$ -
ts er		%	1	15%	\$ -
ŝ.	Environmental Studies	1.5	ΑII	FA Typical	\$ -
00	Right of Way	15	All	Entrypical	\$ -
	i igii oi truy		7.01		Ψ -
TO					¢
101	AL PROJECT ESTIMATE				φ -

## National Highway Construction Cost Index (NHCCI) 2.0

Sundary 5,	2010	
YEAR	QUARTER	NHCCI
2003	March	1.0000
	June	1.0096
	September	1.0240
0001	December	1.0216
2004	March	1.0459
	June	1.1009
	September	1.1431
	December	1.1492
2005	March	1.2409
	June	1.2814
	September	1.3/18
	December	1.4125
2006	March	1.4486
	June	1.5213
	September	1.6184
0007	December	1.5527
2007	March	1.5636
	June	1.5612
	September	1.53/5
2000	December	1.5143
2008	iviarch	1.5686
	June	1.0441
	September	1.7848
0000	December	1.6267
2009	warch	1.5000
	June	1.4398
	September	1.4292
0040	December	1.4026
2010	Iviarch	1.4419
	June	1.4384
	September	1.4465
0011	December	1.4300
2011	Iviarch	1.4568
	June	1.5006
	September	1.5412
2042	December	1.5411
2012	warch	1.5769
	June	1.0270
	September	1.5955
2012	December	1.6071
2013	warch	1.5908
	Sontomber	1.0235
	September	1.0448
2014	December	1.5931
2014	IVIAICI	1.0278
	Sontomber	1.0099
	September	1./301
2045	December	1.0938
2015	IVIAICO	1.7198
	Sontomber	1.7048
	September	1.7003
2040	December	1.002/
2010	IVIAICI	1.0311
	Sontomber	1.0//9
	Septemper	1.6798
0017	December	1.0534
2017	March	1.6172
	June	1.6854
	September <sup>2</sup>	1.7430
Notes: 1/		
Revised.		
2/		
Preliminar		
ι.		
Source: F	ederal Highwa	v

Long term inflation rate (as per Jack Svadlenak) = Consistent with OTP forecasts 3.10 % per year Mid 2007 to Mid 2017 cost factor = 1.08 Mid 2003 to Mid 2017 cost factor = 1.04 Mid 2012 to Mid 2017 cost factor = 1.70 Short term (5 yr) cost factor= 1.16 Medium term (10 yr) cost factor = 1.31 Long term (20 yr) cost factor = 1.62

	December	1.6627
2016	March	1.6311
	June	1.6779
	September	1.6798
	December	1.6534
2017	March <sup>1</sup>	1.6172
	June <sup>2</sup>	<mark>1.6854</mark>
	September <sup>2</sup>	1.7430

Notes: 1/

Revised. 2/

Preliminar

у.

Source: Federal Highway

% per year

#### P1 West Main Street/Foothills Boulevard Sidewalk

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalks	sidewalk	1625	6	2	\$11	sq ft	\$214,500	Pine to W Evans
	ADAramp			58	\$15,000	per	\$870,000	
	sidewalk	735	6	2	\$11	sq ft	\$97,020	W Evans to Westbrook
							\$1,181,520	Total
							\$1,182,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create sidepath	path	1625	10	1	\$16	sq ft	\$260,000	Pine to W Evans
	path	735	10	1	\$16	sq ft	\$117,600	W Evans to Westbrook
							\$377,600	Total
							\$378,000	Total
						1		
Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Buffered Paved	pavement	2360	9	2	\$85	sq ft	\$3,610,800	
Shoulder	stripe	2360		6	\$5	per ft	\$70,800	
							\$3,681,600	Total
							\$3,682,000	Total

### P2 E ast Main Street

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalks	sidewalk	170	6	1	\$11	sq ft	\$11,220	
	ADAramp			72	\$15,000	per	\$1,080,000	
							\$1,091,220	Total
							\$1,091,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create Sidepath	path	170	10	1	\$16	sq ft	\$27,200	
							\$27,200	Total
							\$27,000	Total

#### P3 Pine Street/E Evans

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalk	ADAramp			8	\$15,000	per	\$120,000	
	sidewalk	4800	6	2	\$11	sq ft	\$633,600	
							\$753,600	Total
							\$754,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create Sidepath	path	4800	10	1	\$16	sq ft	\$768,000	
							\$768,000	Total
							\$768,000	Total

#### P4-6 Marked Crosswalks

Option A	ltem	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Install continental	crosswalk			1	\$5,000	per	\$5,000	
crosswalk and	ADAramp			2	\$15,000	per	\$30,000	
signing	sign			4	\$350	per	\$1,400	
							\$36,400	Total
							\$36,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Install pedestrian activated	beacon			1	\$40,000	for 2	\$40,000	
beacon and crosswalk	ADAramp			2	\$15,000	per	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	
							\$75,000	Total
							\$75,000	Total
	L.			0				
Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Install pedestrian refuge	island			1	\$25,000	per	\$25,000	with beacon
island with beacon and	beacon pair			1	\$40,000	for 2	\$40,000	
crosswalk	ADAramp			2	\$15,000	per	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	wider that 2 lanes
							\$100,000	Total
							\$100,000	Total

#### P7 North River Road Curb

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build sidewalks &	sidewalk	4000	6	2	\$11	sq ft	\$528,000	
ADA ramps	ADA ram	p		6	\$15,000	per	\$90,000	
							\$618,000	Total
							\$618,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Add street lighting	light	4000		20	\$6,100	per	\$122,000	
							\$122,000	Total
							\$122,000	Total
							1	1
Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Improve pedestrian	refuge			3	\$25,000	per	\$75,000	need to widen for
crossings	beacon			3	\$40,000	per 2	\$120,000	island space
	ADA ram	р		6	\$15,000	per	\$90,000	
	sign			12	\$350	per	\$4,200	
							\$289,200	Total
							\$289,000	Total
	I					I		
Option D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create sidewalk and	sidewalk	500	6	1	\$11	sq ft	\$33,000	
sidepath	ADA ram	р		6	\$15,000	per	\$90,000	
	path	3400	10	1	\$16	per	\$544,000	
							\$667,000	Total
	l						\$667,000	Total
Option E	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Buffered Paved	pavement	4000	9	2	\$85	sq ft	\$6,120,000	
Shoulder	stripe	4000		6	\$5	per ft	\$120,000	
		_				1	. ,	
							\$6,240,000	Total
							\$6,240,000	Total

#### **P8** Classick Drive

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build sidewalks	sidewalk	2200	6	2	\$11	sq ft	\$290,400	
	ADAramp			30	\$15,000	per	\$450,000	
							\$740,400	Total
							\$740,000	Total

Create sidepath         path         2200         10         1         \$16         per         \$352,000         Total	Notes	Subtotal	Units	Unit Cost	Quantity	W1dth	Length	Item	Option B
\$352,000 Total		\$352,000	per	\$16	1	10	2200	path	Create sidepath
	Total	\$352,000							
\$352,000 Total	Total	\$352,000							

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Add street lighting	light	2200		11	\$6,100	per	\$67,100	
							\$67,100	Total
							\$67,000	Total

#### P9 3rd Street

Option A	ltem	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalk	sidewalk	2400	6	2	\$11	sq ft	\$316,800	
	ADAramp			82	\$15,000	per	\$1,230,000	
							\$1,546,800	Total
							\$1,547,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create sidepath	path	2400	10	1	\$16	per	\$384,000	
							\$384,000	Total
							\$384,000	Total
	L	1 1	\A/: 1/1			1.1.26.4		
Option C	Item	Length	vvidth	Quantity	Unit Cost	Units	Subtotal	Notes
Add street lighting	light	700		4	\$6,100	per	\$24,400	
							\$24,400	Total
							\$24,000	Total

#### P10 Pine Street Downtown

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalk	sidewalk	300	6	2	\$11	sq ft	\$39,600	
	ADAramp			6	\$15,000	per	\$90,000	
							\$129,600	Total
							\$130,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Install crosswalks at	crosswalk			3	\$5,000	per	\$15,000	
Pine/Depot Street	ADAramp			6	\$15,000	per	\$90,000	
							\$105,000	Total
							\$105,000	Total

#### P11 Wards Creek Road

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewal	ADAram	р		24	\$15,000	per	\$360,000	
	sidewalk	600	6	2	\$11	sq ft	\$79,200	
							\$439,200	Total
							\$439,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create a sidepath	path	600	10	1	\$16	sq ft	\$96,000	
							\$96,000	Total
							\$96,000	Total
	-	-	-	-		-	-	
Option C	Item	I onoth	Width	Quantity	Unit Cost	Unite	Subtotal	Notes

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Buffered Paved	pavement	600	9	2	\$85	sq ft	\$918,000	
Shoulder	stripe	600		6	\$5	per ft	\$18,000	
							\$936,000	Total
							\$936,000	Total

#### P12 Safe Routes to School

Sidewalk Option		Length	Width	Quantity	Unit Cost	Units	Ramps	Unit Cost	Subtotal
a: West Evans Creek Rd south	of								
Palmerton		2000	6	2	\$11	sq ft	24	\$15,000	\$624,000
b: 1st St: Broadway to Cedar S	St	350	6	2	\$11	sq ft	8	\$15,000	\$166,000
c: 2nd St Cedar to Ward Creek		300	6	1	\$11	sq ft	4	\$15,000	\$80,000
d: Berglund St		700	6	2	\$11	sq ft	16	\$15,000	\$332,000
e: Oak St		1000	6	1	\$11	sq ft	26	\$15,000	\$456,000
f: Cedar St		1800	6	1	\$11	sq ft	34	\$15,000	\$629,000
g: Robbins Ave		500	6	1	\$11	sq ft	8	\$15,000	\$153,000
h: Park St		600	6	1	\$11	sq ft	22	\$15,000	\$370,000
i: Gardiner St		500	6	1	\$11	sq ft	14	\$15,000	\$243,000
j: 4th St off of Berglund St		350	6	1	\$11	sq ft	10	\$15,000	\$173,000
									\$3,226,000
Advisory Shoulder Option		Length	Width	Ouantity	Unit Cost	Units			Subtotal
d: Berglund St	overlav	700	12	1	\$9	sa ft			\$75.600
6	stripe	700		0.67	\$5	ft			\$2,345
	sign	700		20	\$350	per			\$7,000
	U					I			\$85,000
a. Oak St	ovorlav	1000	10	1	02	sa ft			\$108.000
e. Oak St	overlay	1000	12	1	ዓን \$5	sq n			\$108,000
	surpe	1000		0.07	ቅጋ \$250	Il nor			\$3,330 \$7,000
	sign			20	\$220	per			\$7,000
									\$118,000
f: Cedar St	overlav	1800	12	1	\$9	sa ft			\$194,400
	strine	1800	12	0.67	\$5	ft			\$6,030
	sign	1000		20	φ <i>5</i> \$350	ner			\$0,000 \$7,000
	51511			20	ψ550	per			\$207,000
									φ207,000
									\$410,000
			****			<b>TT</b> •	· · · ·		
Sidepath Option		Length	Width	Quantity	Unit Cost	Units			Subtotal
m: West Evans Crk Rd north		1500	10	1	\$16	sq ft			\$240,000

m: West Evans Crk Rd north	1500	10	1	\$16	sq ft		\$240,000
of Palmerton							
							\$240,000
	1			1	1		ļ.

Buffered Paved Shoulder Option	Length	Width	Quantity	Unit Cost	Units	Subtotal	
m: West Evans overla	y 1500	9	2	\$85	sq ft	\$2,295,000	
Creek Rd strip	e 1500		6	\$5	ft	\$45,000	
north of Palmerton							
						\$2,340,000	

Bicycle lane		Length	Width	Quantity	Unit Cost	Units		Subtotal
p: Pine St: Depot - E Main St		300	8	2	\$85	sq ft		\$408,000
Buffered	stripe	300		6	\$5	ft		\$9,000
								\$417,000

	Sidewalk Option	Estimate
	a: West Evans Creek Rd south of Palmerton	\$624,000
	b: 1st St: Broadway to Cedar St	\$166,000
	c: 2nd St Cedar to Ward Creek	\$80,000
	d: Berglund St	\$332,000
	e: Oak St	\$456,000
	f: Cedar St	\$629,000
	g: Robbins Ave	\$153,000
	h: Park St	\$370,000
	i: Gardiner St	\$243,000
Total	j: 4th St off of Berglund St	\$173,000
	Advisory Shoulder Option	Estimate
Notes	d: Berglund St	\$85,000
	e: Oak St	\$118,000
	f: Cedar St	\$207,000
		•
Total	Sidepath Option	Estimate
•	m: West Evans Crk Rd north	\$240,000
	of Palmerton	
	Buffered Paved Shoulder Option	Estimate
Total	m: West Evans Crk Rd	\$2,340,000
	Creek Rd	
	north of Palmerton	
	Bicycle lane	Estimate
Total	p: Pine St: Depot - E Main St	\$417,000
	Buffered	
Total	<u> </u>	-

Notes

Notes

Total

#### P13 OR99

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalk	ADAram	р		18	\$15,000	per	\$270,000	
	sidewalk	3065	6	2	\$11	sq ft	\$404,580	
							\$674,580	Total
							\$675,000	Total

## **B1** Pine Street

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Convert paved shoulders	stencil	3000		24	\$225	per	\$5,400	
to bicycle lanes								
							\$5,400	Total
							\$5,000	Total

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create full six foot	striping	3000		2	\$5	ft	\$30,000	move stripe a foot
bicycle lanes	stencil	3000		24	\$225	per	\$5,400	
							\$35,400	Total
							\$35,000	Total

Option C	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add a sidepath	pavement	3000	10		\$16	sq ft	\$48,000	new path
							\$48,000 \$48,000	Total Total

#### **B2 East Evans Creek Road**

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add bicycle lanes	pavement	4800	1		\$85	sq ft	\$408,000	travel lanes now 11
	striping	4800		2	\$5	ft	\$48,000	
	stencil	4800		38	\$225	per	\$8,550	
							\$464,550	Total
							\$465,000	Total
	-	-						-
Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add buffered bicycle	pavement	4800	7		\$85	sq ft	\$2,856,000	widen shoulder
lanes	striping	4800		2	\$5	ft	\$48,000	
iunes	1 0							
Turies	stencil	4800		38	\$225	per	\$8,550	
	stencil	4800		38	\$225	per	\$8,550 <b>\$2,912,550</b>	Total

Option C	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add a sidepath	pavement	4800	8		\$16	sq ft	\$614,400	new path
	guard rail	4800		1	\$35	ft	\$168,000	
							\$782,400	Total
							\$782,000	Total

#### **B3** West Main Street/Foothills Boulevard

Option A	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
Add bicycle lanes	pavement	1625	9	1	\$85	sq ft	\$1,243,125	Pine to West Evans
	pavement	735	6	1	\$85	sq ft	\$374,850	West Evans to Westbrook
	striping	2360		2	\$5	ft	\$23,600	
Bicycle Lane Stencil	Marking	2360		18	\$225	per	\$4,050	
							\$1,645,625	Total
							\$1,646,000	Total
			-	-	-			
Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add buffered	pavement	1625	11	1	85	sq ft	1519375	Pine to West Evans
bicycle lanes	pavement	735	8	1	85	sq ft	499800	West Evans to Westbrook
	striping	2360		6	\$5	ft	\$70,800	
Bicycle Lane Stencil	Marking	2360		18	\$225	per	\$4,050	
							\$2,094,025	Total
							\$2,094,000	Total
Option C	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add a sidepath	pavement	1625	8	1	\$16	sq ft	\$208,000	new path
	pavement	735	8	1	\$16	sq ft	\$94,080	
	guard rail	2360		1	\$35	ft	\$82,600	
							\$384,680	Total
							\$385,000	Total

#### **B4 East Main Street**

Option A	Item	Length	Width	Quantity	Unit	Cos	Units	Subtotal	Notes
Create bicycle lanes	striping	1000		2		\$5	ft	\$10,000	
	sign			1	\$3	50	per	\$350	
6' Bicycle Lane	Marking	1100		8	\$2	25	per	\$1,800	
								\$12,150	Total
								\$12,000	Total
	•								

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Shared Lane Markings	Marking	1100		8	\$225	ft	\$1,800	
Sharrows	sign			5	\$350	per	\$1,750	
							\$3,550	Total
							\$4,000	Total

#### **B4 East Main Street**

Option A	Item	Length	Width	Quantity	Unit	Cos	Units	Subtotal	Notes
Create bicycle lanes	striping	1000		2		\$5	ft	\$10,000	
	sign			1	\$3	50	per	\$350	
6' Bicycle Lane	Marking	1100		8	\$2	25	per	\$1,800	
								\$12,150	Total
								\$12,000	Total
	•								

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Shared Lane Markings	Marking	1100		8	\$225	ft	\$1,800	
Sharrows	sign			5	\$350	per	\$1,750	
							\$3,550	Total
							\$4,000	Total

# **B5** Broadway Street North

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create six foot bicycle	striping	3000		2	\$5	ft	\$30,000	
lanes	Stencil	3000		24	\$225	per	\$5,400	
							\$35,400	Total
							\$35,000	Total

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create buffered bicycle	striping	3000		6	\$5	ft	\$90,000	
lanes	Stencil	3000		24	\$225	per	\$5,400	
							\$95,400	Total
							\$95,000	Total

# **B6** Broadway Street South

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create six foot bicycle	striping	575		2	\$5	ft	\$5,750	
lanes	stencil	575		4	\$225	per	\$900	
							\$6,650	Total
							\$7,000	Total

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create buffered bicycle	striping	575		6	\$5	ft	\$17,250	
lanes	stencil	575		4	\$225	per	\$900	
							\$18,150	Total
							\$18,000	Total

#### **B7** N River Rd

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Convert or create paved	pavement	4000	10	1	\$85	sq ft	\$3,400,000	
shoulders to bicycle	striping	4500		2	\$5	ft	\$45,000	
lanes	stencil	4500		36	\$225	per	\$8,100	
							\$3,453,100	Total
							\$3,453,000	Total
	•					-		

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create buffered bicycle	pavement	4000	14	1	\$85	sq ft	4760000	
lanes	striping	4500		6	\$5	ft	\$135,000	
	stencil	4500		36	\$225	per	\$8,100	
							\$4,903,100	Total
							\$4,903,000	Total

# B8 3<sup>rd</sup> Street

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add bicycle lanes	pavement	3300	5	1	\$85	sq ft	\$1,402,500	
	striping	3300		2	\$5	ft	\$33,000	
Bicycle Lane Stencil	stencil	3300		26	\$225	per	\$5,850	
							\$1,441,350	Total
							\$1,441,000	Total
	1					1		
Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add buffered bicycle	pavement	3300	9	1	\$85	sq ft	\$2,524,500	
lane	striping	3300		6	\$5	ft	\$99,000	
Bicycle Lane Stencil	stencil	3300		26	\$225	per	\$5,850	
							\$2,629,350	Total
							\$2,629,000	Total
						1		
Option C	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create a sidepath	pavement	3300	10	1	\$16	sq ft	\$528,000	
							\$528,000	Total
							\$528,000	Total
Option D	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Shared Lanes Markings	Marking	3300		26	\$225	ft	\$5,850	
Sharrows	lighting	3300		17	\$6,100	per	\$103,700	
	sign			32	\$350	per	\$11,200	
							\$120,750	Total
							\$121,000	Total
	<b>T</b> .	<b>.</b> .	**** * *			<b>.</b>	<b>G 1 1 1</b>	
Option E	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Shared Lanes Markings	Marking	1800		14	\$225	ft	\$3,150	
Sharrows	lighting	3300		17	\$6,100	per	\$103,700	
	sign			16	\$350	per	\$5,600	
Add bicycle lanes	pavement	1800	5	1	\$85	sq ft	\$765,000	
	striping	1800		1	\$5	ft	\$9,000	
							\$886,450	Total
	-					-		
							\$886,000	Total

#### **B9 OR99**

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create a sidepath	pavement	3065	10	1	\$16	sq ft	\$490,400 <b>\$490,400</b> <b>\$490,000</b>	Total Total
Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes

Option D	num	Lengui	w luti	Quantity	Unit COS	Onta	Subiolai	NOICS
Create buffered bicycle	pavement	3065	16	1	\$85	sq ft	\$4,168,400	
lane	striping	3065		6	\$5	ft	\$91,950	
Bicycle Lane Stencil	stencil	3065		24	\$225	ft	\$5,400	
							\$4,265,750	Total
							\$4,266,000	Total
	•					•		
Option C	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Bicycle Lane	pavement	3065	12	1	85	sq ft	\$3,126,300	
lane	striping	3065		6	5	ft	\$91,950	

 Bicycle Lane
 pavement
 5065
 12
 1
 85 sq ft
 \$5,126,500

 Iane
 striping
 3065
 6
 5 ft
 \$91,950

 Bicycle Lane Stencil
 stencil
 3065
 24
 225 ft
 \$5,400

 \$3,223,650
 Total
 \$3,224,000
 Total

## **T1 Infrequent Transit**

Option A	Item	Days	Hours	Hourly Cost	Units	Subtotal	Notes
On-demand service	dial-a-ride	249	12	\$60	per	\$179,280	
						\$179,280	Total
						\$179,000	Total

Option B	Item	Days	Hours	Hourly Cost	Units	Subtotal	Notes
Cirulating route	fixed	249	12	\$80	per	\$239,040	
	paratransit	249	12	\$60	per	\$179,280	
						\$418,320	Total
						\$418,000	Total

Estimates based on weekday service with 12 hours a day.

## T2 Stop placement

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Change location to	shelter			1	\$23,000	per	\$23,000	
Ray's Food Place	sign						\$23,000	Total
	pole						\$23,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Change location to	shelter			1	\$23,000	per	\$23,000	
Umpqua Bank	sign						\$23,000	Total
	pole				_		\$23,000	Total
						-		
Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Stay with Rogue River	existing			0	\$23,000	per	\$0	
Community Center							\$0	Total
							\$0	Total

Move Depot Streetsidewalk7561 $\$11$ $\$q$ ft $\$4,950$ northbound left lanesign2 $\$350$ per $\$700$ left of treecrosswalk2 $\$5,000$ per $\$10,000$ ADA4 $\$15,000$ per $\$60,000$ stripe1001 $\$5$ ft $\$500$
northbound left lane       sign       2       \$350       per       \$700         left of tree       crosswalk       2       \$5,000       per       \$10,000         ADA       4       \$15,000       per       \$60,000         stripe       100       1       \$5       ft       \$500
left of tree         crosswalk         2         \$5,000         per         \$10,000           ADA         4         \$15,000         per         \$60,000           stripe         100         1         \$5         ft         \$500
ADA 4 \$15,000 per \$60,000 stripe 100 1 \$5 ft \$500
stripe 100 1 \$5 ft \$500
\$76,150 Total
\$76,000 Total
Option B         Item         Length         Width         Quantity         Unit Cost         Units         Subtotal         Notes
Close northboundsidewalk1561\$11sq ft\$990
Oak Street accesssign1\$350per\$350
crosswalk 1 \$5,000 per \$5,000
bulbout 1 \$27,000 per \$27,000
ADA 1 \$15,000 per \$15,000
stripe 15 1 \$5 ft \$75
\$46,415 10tal \$48,000 Total
Option C Item Length Width Quantity Unit Cost Units Subtotal Notes
Close Oak Street bench 1 \$900 per \$900
sidewalk 36 10 1 \$11 sq ft \$3,960
sign $1$ $3350$ per $3350$
crosswalk 2 \$5,000 per \$10,000
ADA 2 \$15,000 per \$30,000
stripe 36 1 \$5 ft \$180
\$45,390 Total
Option D         Item         Length         Width         Quantity         Unit Cost         Units         Subtotal         Notes
Convert Depot Street sign2\$350 per\$700
to northbound bulbout 1 \$27,000 per \$27,000
one-way stripe 400 1 \$5 ft \$2,000
\$29,700 Total
\$30,000  plus roundabout 240000
Option F Item Length Width Quantity Unit Cost Units Subtotal Notes
Close Depot Streetbench2\$900per\$1,800

# OS3 Depot Street and Main Street

Option F	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Close Depot Street	bench			2	\$900	per	\$1,800	
	sidewalk	140	10	1	\$11	sq ft	\$15,400	
	sign			2	\$350	per	\$700	
	stripe	300		1	\$5	ft	\$1,500	
	turn lane	300	12	2	\$300,000	per	\$600,000	
	siganl			1	\$1,000,000	per	\$1,000,000	
							\$1,619,400	Total
							\$1,619,000	Total
# OS4 Depot & Pine Streets/Classick Drive Intersection

Option A	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Close Classick Drive	bench			1	\$900	per	\$900	
	sidewalk	50	10	1	\$11	sq ft	\$5,500	
	sign			1	\$350	per	\$350	
	ADA			1	\$15,000	per	\$15,000	
	stripe	50		1	\$5	ft	\$250	
							\$22,000	Total
							\$22,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Close Depot Street	bench			1	\$900	per	\$900	
1	sidewalk	12	10	1	\$11	sq ft	\$1,320	
	sign			2	\$350	per	\$700	
	ADA			2	\$15,000	per	\$30,000	
	stripe	12		1	\$5	ft	\$60	
	-						\$32,980	Total
							\$33,000	plus 240000 roundabout
		•				•	•	1-
Option C	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Classick Drive	pave	0	36	0	\$85	sq ft	\$0	
right in only	sidewalk	12	10	1	\$11	sq ft	\$1,320	
	sign			2	\$350	per	\$700	
	ADA			2	\$15,000	per	\$30,000	
	stripe	12		1	\$5	ft	\$60	
							\$32,080	Total
							\$32,000	Total
Option D	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Depot and Oak Street	sign			5	\$350	per	\$1,750	
northbound one-way	stripe	1700		1	\$5	ft	\$8,500	
							\$10,250	Total
							\$10,000	Total
Option E	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Pine, Depot, and Classick	sidewalk	90	6	1	\$11	sq ft	\$5,940	
Drive one-way	sign			6	\$350	per	\$2,100	
	stripe	900		1	\$5	ft	\$4,500	
							\$12,540	Total
							\$13,000	Total

Option F	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Pine Street	sidewalk	50	6	1	\$11	sq ft	\$3,300	
through movement	sign			4	\$350	per	\$1,400	
	ADA			5	\$15,000	per	\$75,000	
	stripe	200		1	\$5	ft	\$1,000	
							\$80,700	Total
							\$81,000	Total
Option G	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Pine Street	sidewalk	90	6	1	\$11	sq ft	\$5,940	
through movement	sign			4	\$350	per	\$1,400	
Classick right	ADA			5	\$15,000	per	\$75,000	
	stripe	300		1	\$5	ft	\$1,500	
							\$83,840	Total
							\$84,000	Total
Option H	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Pine Street	sidewalk	130	6	1	\$11	sq ft	\$8,580	
through movement	sign			8	\$350	per	\$2,800	
no turn offs	ADA			5	\$15,000	per	\$75,000	
	stripe	1000		1	\$5	ft	\$5,000	
	pavement	280	12	6	\$85	sq ft	#######	
	pave	275	50	1	\$85	sq ft	#######	
	crosswalk			4	\$5,000	per	\$20,000	
	bulbout			5	\$27,000	per	#######	
							#######	Total
		1		1			1	1

## OS5 Depot Street Interchange

Option E	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Investigate interchange	plan			1	\$750,000	per	\$750,000	
alternatives							\$750,000	Total
separate refinement plan							\$750,000	Total

## OS8 Main Street and Pine Street

Option A	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Align West Main Street	pave	250	50	1	\$85	sq ft	\$1,062,500	
and East Main Street	sidewalk	250	50	1	\$11	sq ft	\$137,500	
	sign			4	\$350	per	\$1,400	
	crosswalk			4	\$5,000	per	\$20,000	
	bulbout			4	\$27,000	per	\$108,000	
	ADA			8	\$15,000	per	\$120,000	
	stripe	300		1	\$5	ft	\$1,500	
							\$1,450,900	Total
							\$1,451,000	Total
	τ.	T (1	XX 7° 1.1			TT •/	0 1 4 4 1	NT /
Option B	Item	Length	Width	Quantity	Unit Cost	Unit		Notes
Add SE corner	pave	60	15	1	\$85	sq ft	\$76,500	
channelization island	concrete	60	6	3	\$11	sq ft	\$11,880	
	sign			1	\$350	per	\$350	
	crosswalk			1	\$5,000	per	\$5,000	
	ADA	200		3	\$15,000	per	\$45,000	
	stripe	200		1	\$5	ft	\$1,000	
							\$139,730	Total
	I						\$140,000	1 otal
Option C	Item	Length	Width	Ouantity	Unit Cost	Unit	Subtotal	Notes
Convert to a	Round	6		1	\$250,000	sq ft	\$250,000	
Compact Roundabout					. ,	1	\$250,000	Total
1							\$250,000	Total
	•	•				•		•
Option D	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Pine/Depot one way	sidewalk	70	6	1	\$11	sq ft	\$4,620	
	sign			4	\$350	per	\$1,400	
	stripe	700		1	\$5	ft	\$3,500	
	signal			1	\$1,000,000	per	\$1,000,000	
							\$1,009,520	Total
							\$1,010,000	Total

# C2 Connectivity Over Evans Creek

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
3rd Street bridge	bridge	80	52	1	\$175	sq ft	\$728,000	
	bridge	145	52	1	\$250	sq ft	\$1,885,000	one multi-span structure
	sign			3	\$350	per	\$1,050	
	pavement	1300	40	1	\$85	sq ft	\$4,420,000	
	sidewalk	1300	6	2	\$11	sq ft	\$171,600	
	crosswalk			7	\$5,000	per	\$35,000	
	light	1300		7	\$6,100	per	\$42,700	
	stencil	1300		10	\$225	ft	\$2,250	
	stripe	1300		6	\$5	ft	\$39,000	
							\$7,324,600	Total
							\$7,325,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
7th Street bridge	bridge	275	52	2	\$250	sq ft	\$7,150,000	one multi-span structure
U	sign			3	\$350	per	\$1,050	-
	pavement	2200	40	1	\$85	sq ft	\$7,480,000	
	sidewalk	2200	6	2	\$11	sq ft	\$290,400	
	crosswalk			6	\$5,000	per	\$30,000	
	light	2200		11	\$6,100	per	\$67,100	
	stencil	2200		16	\$225	ft	\$3,600	
	stripe	2200		6	\$5	ft	\$66,000	
							\$15,088,150	Total
							\$15,088,000	Total

Option A	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
Blue Ridge Drive	bridge	80	52	1	\$175	sq ft	\$728,000	
	sign			2	\$350	per	\$700	
	pavement	1000	40	1	\$85	sq ft	\$3,400,000	
	sidewalk	1000	6	2	\$11	sq ft	\$132,000	
	crosswalk	1000		6	\$5,000	per	\$30,000	
	light	1000		5	\$6,100	per	\$30,500	
	stencil	1000		8	\$225	ft	\$1,800	
	stripe	1000		6	\$5	ft	\$30,000	
							\$4,353,000	Total
							\$4,353,000	Total

Option B	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
East of	bridge	80	52	1	\$175	sq ft	\$728,000	
Blue Ridge Drive	sign			2	\$350	per	\$700	
	pavement	2500	40	1	\$85	sq ft	\$8,500,000	
	sidewalk	2500	6	2	\$11	sq ft	\$330,000	
	crosswalk	2500		6	\$5,000	per	\$30,000	
	light	2500		13	\$6,100	per	\$79,300	
	stencil	2500		20	\$225	ft	\$4,500	
	stripe	2500		6	\$5	ft	\$75,000	
							\$9,747,500	Total
							\$9,748,000	Total

#### C5 Grow with a Grid

Option	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Road for expanding	pavement	2400	40	1	\$85	sq ft	\$8,160,000	
	sign			4	\$350	per	\$1,400	
	walkwalk	2400	6	2	\$11	sq ft	\$316,800	
	crosswalk	2400		5	\$5,000	per	\$25,000	
	light	2400		12	\$6,100	per	\$73,200	
	stencil	2400		18	\$225	ft	\$4,050	
	stripe	2400		6	\$5	ft	\$72,000	
							\$8,652,450	Total
							\$8,652,000	Total

## C6 Broadway Extension

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Broadway Extension	pavement	300	40	1	\$85	sq ft	\$1,020,000	
to Classick	sidewalk	300	6	2	\$11	sq ft	\$39,600	
	sign			4	\$350	per	\$1,400	
	crosswalk			4	\$5,000	per	\$20,000	
	bulbout			3	\$27,000	per	\$81,000	
	light	300		2	\$6,100	per	\$12,200	
	ADA			6	\$15,000	per	\$90,000	
	stencil	300		2	\$225	ft	\$450	
	stripe	300		6	\$5	ft	\$9,000	
							\$1,273,650	Total
							\$1,274,000	Total
	I							
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Broadway Extension	pavement	300	40	1	\$85	sq ft	\$1,020,000	
to Depot	sidewalk	300	6	2	\$11	sq ft	\$39,600	
park	sidewalk	200	6	2	\$11	sq ft	\$26,400	
Classick	sidewalk	250	6	2	\$11	sq ft	\$33,000	
	sign			10	\$350	per	\$3,500	
	crosswalk			4	\$5,000	per	\$20,000	
	bulbout			7	\$27,000	per	\$189,000	
	light	750		4	\$6,100	per	\$24,400	
	ADA			18	\$15,000	per	\$270,000	
	stencil	300		2	\$225	ft	\$450	
	stripe	750		6	\$5	ft	\$22,500	L
							\$1,648,850	Total
							\$1,649,000	Total

# C7 7<sup>th</sup> Street Extensions

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend 7th St	pavement	1500	36	1	\$85	sq ft	\$4,590,000	
W Evans to C	sidewalk	1500	6	2	\$11	sq ft	\$198,000	
	sign			2	\$350	per	\$700	
	crosswalk			2	\$5,000	per	\$10,000	
	light	1500		8	\$6,100	per	\$48,800	
	ADA			4	\$1,600	per	\$6,400	
	stencil	1500		12	\$225	ft	\$2,700	
	stripe	1500		3	\$5	ft	\$22,500	
							\$4,879,100	Total
							\$4,879,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend 7th St	pavement	650	36	1	\$85	sq ft	\$1,989,000	
Broadway to Pine	sidewalk	650	6	2	\$11	sq ft	\$85,800	
·	sign			2	\$350	per	\$700	
	crosswalk			6	\$5,000	per	\$30,000	
	light	650		4	\$6,100	per	\$24,400	
	ADA			11	\$1,600	per	\$17,600	
	stencil	650		4	\$225	ft	\$900	
	stripe	650		3	\$5	ft	\$9,750	
							\$2,158,150	Total
							\$2,158,000	Total
Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Option C Extend 7th St	ltem pavement	Length 3000	Width 36	Quantity 1	Unit Cost \$85	Units sq ft	Subtotal \$9,180,000	Notes
Option C Extend 7th St Broadway to Scenic D	ltem pavement sidewalk	Length 3000 3000	Width 36 6	Quantity 1 2	Unit Cost \$85 \$11	Units sq ft sa ft	Subtotal \$9,180,000 \$396.000	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign	Length 3000 3000	Width 36 6	Quantity 1 2 2	Unit Cost \$85 \$11 \$350	Units sq ft sq ft per	Subtotal \$9,180,000 \$396,000 \$700	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk	Length 3000 3000	Width 36 6	Quantity 1 2 2 2	Unit Cost \$85 \$11 \$350 \$5.000	Units sq ft sq ft per per	Subtotal \$9,180,000 \$396,000 \$700 \$10,000	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light	Length 3000 3000 3000	Width 36 6	Quantity 1 2 2 2 15	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100	Units sq ft sq ft per per per	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light ADA	Length 3000 3000 3000	Width 36 6	Quantity 1 2 2 15 4	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600	Units sq ft sq ft per per per per	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light ADA stencil	Length 3000 3000 3000 3000	Width 36 6	Quantity 1 2 2 2 15 4 24	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225	Units sq ft sq ft per per per ft	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400 \$5,400	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000	Width 36 6	Quantity 1 2 2 15 4 24 3	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5	Units sq ft per per per ft ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000	Width 36 6	Quantity 1 2 2 15 4 24 3	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5	Units sq ft per per per ft ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b>	Notes
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000	Width 36 6	Quantity 1 2 2 15 4 24 3	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5	Units sq ft per per per ft ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b>	Notes Total Total
Option C Extend 7th St Broadway to Scenic D	Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000	Width 36 6 Width	Quantity 1 2 2 15 4 24 3 Quantity	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost	Units sq ft per per per ft ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b>	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St	Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000 Length 2500	Width 36 6 Width 36	Quantity 1 2 2 15 4 24 3 0 Quantity	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85	Units sq ft per per per ft ft Units sq ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> Subtotal \$7,650,000	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk	Length 3000 3000 3000 3000 3000 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 15 4 24 3 Quantity 1 2	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85 \$11	Units sq ft per per per ft ft Units sq ft sq ft	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$2000</b> \$7,650,000 \$330,000	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign	Length 3000 3000 3000 3000 3000 Length 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 15 4 24 3 Quantity 1 2 2 2	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85 \$11 \$350	Units sq ft per per per ft ft Units sq ft sq ft per	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$330,000</b> \$7,650,000	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign crosswalk	Length 3000 3000 3000 3000 3000 Length 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 15 4 24 3 Quantity 1 2 2 2 2	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85 \$11 \$350 \$5,000	Units sq ft per per per ft ft Units sq ft per per	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$330,000</b> \$700 \$10,000	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign crosswalk light	Length 3000 3000 3000 3000 3000 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 2 15 4 24 3 3 Quantity 1 2 2 2 13	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 \$5 Unit Cost \$85 \$11 \$350 \$5,000 \$6,100	Units sq ft per per per ft ft Units sq ft sq ft per per per	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$330,000</b> \$700 \$10,000 \$79,300	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign crosswalk light ADA	Length 3000 3000 3000 3000 3000 2500 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 2 15 4 24 3 Quantity 1 2 2 1 3 2 1 3 4 2 4 2 1 3 4 2 4 2 1 3 4 1 1 2 2 1 3 4 1 1 2 2 1 3 4 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 \$5 \$5 \$5 \$11 \$350 \$5,000 \$6,100 \$1,600	Units sq ft per per per ft ft Units sq ft sq ft per per per per	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400 \$5,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$0,735,000</b> \$10,000 \$79,300 \$6,400	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign crosswalk light ADA stencil	Length 3000 3000 3000 3000 3000 2500 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 2 15 4 24 3 Quantity 1 2 2 1 3 4 2 1 3 4 20	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225	Units sq ft per per per ft ft Units sq ft per per per ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$5,400 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$330,000</b> \$330,000 \$700 \$10,000 \$79,300 \$6,400 \$4,500	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000 2500 2500 2500 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 15 4 24 3 Quantity 1 2 2 1 3 4 20 3	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5	Units sq ft per per per ft ft Units sq ft per per per ft ft	Subtotal \$9,180,000 \$396,000 \$10,000 \$91,500 \$6,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$330,000</b> \$7,650,000 \$330,000 \$7,000 \$10,000 \$79,300 \$6,400 \$4,500 \$37,500	Notes Total Total Notes
Option C Extend 7th St Broadway to Scenic D Option D Extend 7th St Scenic to Tenney/ Burbridge	Item pavement sidewalk sign crosswalk light ADA stencil stripe Item pavement sidewalk sign crosswalk light ADA stencil stripe	Length 3000 3000 3000 3000 3000 2500 2500 2500 2500 2500	Width 36 6 Width 36 6	Quantity 1 2 2 15 4 24 3 (Quantity) 1 2 2 13 4 20 3 (Quantity) 1 2 2 13 4 20 3 2 15 15 15 15 15 15 15 15 15 15	Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5 Unit Cost \$85 \$11 \$350 \$5,000 \$6,100 \$1,600 \$225 \$5	Units sq ft per per per ft ft Sq ft sq ft sq ft per per per ft ft	Subtotal \$9,180,000 \$396,000 \$700 \$10,000 \$91,500 \$6,400 \$45,000 <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$9,735,000</b> <b>\$10,000</b> \$700 \$10,000 \$79,300 \$6,400 \$4,500 <b>\$37,500</b> <b>\$8,118,400</b>	Notes Total Total Notes

BR1A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Main St/Wards	Marking	100		2	\$225	per	\$450	Too narrow to
Creek Bridge	sign			2	\$350	per	\$700	separate bicycles & cars
U	°,						\$1,150	Total
							\$1,000	Total
	I.•.			<b>•</b>				
BR1B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Main St/Wards	bridge	100	8	1	\$250	sq ft	\$200,000	I oo narrow to
Стеек Бладе	sign	10	8	2	ააეე მეგ	per sa ft	\$700 \$2560	separate bicycles & cars
	paur	10	0	2	φισ	34 11	\$203.260	Total
							\$203,000	Total
	•	•						•
BR2A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards	Marking	50		2	\$225	per	\$450	Too narrow to
Creek Bridge	sign			2	\$350	per	\$700	separate bicycles & cars
U	0						\$1,150	Total
							\$1,000	Total
	•	•						•
BR2B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards	bridge	50	10	1	\$175	sq ft	\$87,500	Too narrow to
Creek Bridge	sign			2	\$350	per	\$700	separate bicycles & cars
-	path	10	10	2	\$16	sq ft	\$3,200	path:sidewalk to bridge
	•						\$91,400	Total
							\$91,000	Total
	1	1		I				1
BR2C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards	bridge	50	24	1	\$350	sq ft	\$420,000	Too narrow to
Creek Bridge	Ŭ					•	. ,	separate bicycles & cars
0.000 ±							\$420,000	Total
							\$420,000	Total
		1						
BR2D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards C	bridge	50	50	1	\$175	sq ft	\$437,500	Too narrow to
Creek Bridge							\$437,500	accommodate all modes
							\$438,000	Total
DD2	ltom	Longth	\\/idth	Quantity	Linit Coot	Linito	Subtatal	Notoo
L 5 Danat St	nem	Lengin	vvidtri	Quantity	Unit Cost	Units		Notes
1-5 Depot St							\$4,900,000	Seisinicany vuinerable
	l	I					\$4,900,000	Total
BR4	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
I-5 Evans Creek		-					\$14,200,000	Seismically vulnerable
							\$14,200,000	Total
BR5	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes

I-5 Foothills Blvd

\$26,000,000 Seismically vulnerable \$26,000,000 Total

#### **PV** Pavement Conditions

Project PV1	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Broadway Street	crack seal	3700	60	0.5	\$0.07	sq ft	\$7,770	
Resurfacing	stripe	3700		1	\$5	ft	\$18,500	
	crosswalk			8	\$5,000	per	\$40,000	
							\$66,270	Total
							\$66,000	Total
Project PV2	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Depot Street	Chip seal	350	40	1	\$0.61	sq ft	\$8,540	
Resurfacing	stripe	350		2	\$5	ft	\$3,500	
	crosswalk			3	\$5,000	per	\$15,000	
							\$27,040	Total
						I	\$27,000	lotal
Project PV3	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Wards Creek Road	Chip seal	3000	30	1	\$0.61	sq ft	\$54,900	
Resurfacing	stripe	3000		2	\$5	ft	\$30,000	
C	crosswalk			1	\$5,000	per	\$5,000	
						ľ	\$89,900	Total
							\$90,000	Total
Project PV4	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Foothill Boulevard	crack seal	500	40	1	\$0.07	sq ft	\$1,400	
Resurfacing	stripe	3000		2	\$5	ft	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	
							\$36,400	Total
	l						\$36,000	Total
Project PV5	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
OR99	overlay	5500	25	1	\$9	sq ft	\$1,237,500	
Resurfacing	stripe	5500		3	\$5	ft	\$82,500	
C	crosswalk			2	\$5,000	per	\$10,000	
							\$1,330,000	Total
							\$1,330,000	Total