

Combinations of alternatives

~~OS1 Ramp Terminal Queuing~~ – see OS5 and OS7

OS2 Depot Street and OR 99

OS3 Depot Street and Main Street

OS4 Depot & Pine Streets/Classick Drive Intersection – combined with OS6

OS5 Depot Street and SB I-5

~~OS6 Depot Street and Pine Street~~

OS7 Depot Street and NB I-5

OS8 Main Street and Pine Street

~~OS9 Depot/Pine/Oak Alignment~~

-see OS3 for Oak alignment section

-see OS4 for Pine alignment section

~~OS10 W Main/E Main Alignment~~ combined with OS8

~~OS11 I-5 Emergency Turn Around~~ – to refinement plan/IAMP

~~OS12 Southbound Off Ramp onto Depot Street~~ – to refinement plan/IAMP

~~C1 Connectivity over Rogue River~~ – to refinement plan/IAMP

~~C3 3rd Street Extension to West~~ – to C2 Connectivity Over Evans Creek

~~C9 Powerline Bridge~~ to C2 Connectivity Over Evans Creek

C8 Utility impacts increased cost of safety measure

BR2C Widening not available

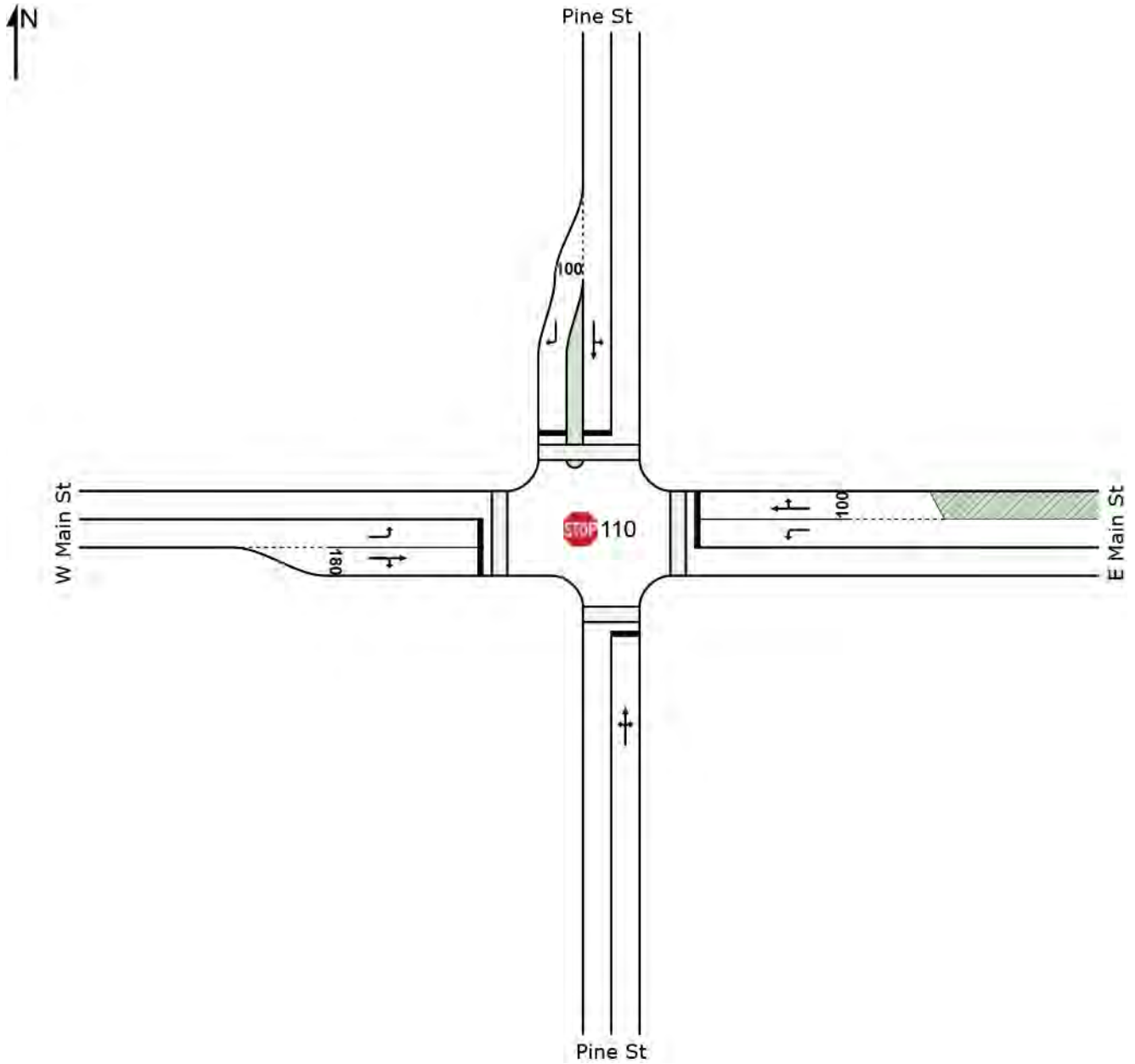
OS5C To be looked at with IAMP or refinement plan

SITE LAYOUT

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)



INPUT VOLUMES

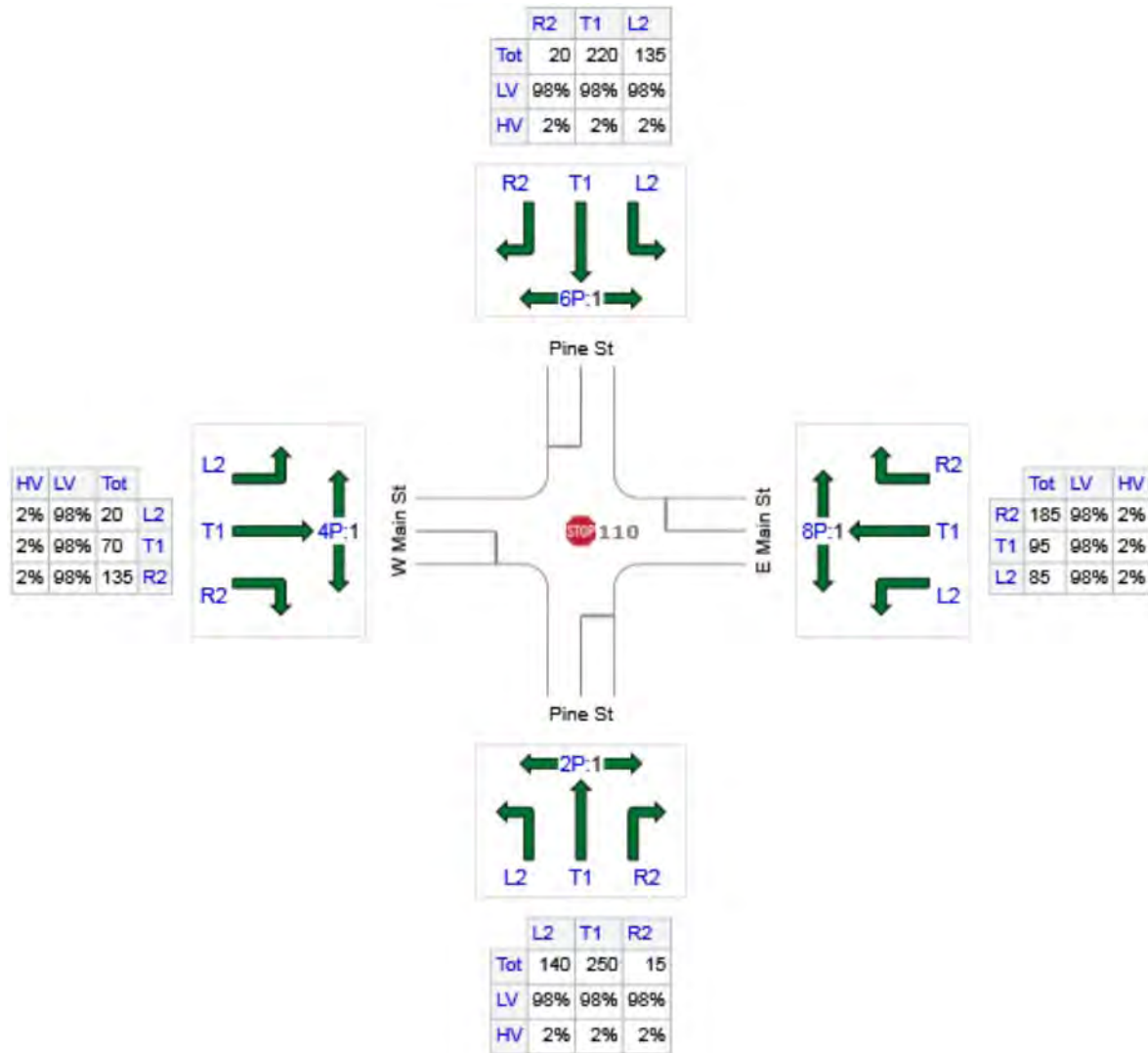
Vehicles and pedestrians per 60 minutes

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Pine St	405	397	8
E: E Main St	365	358	7
N: Pine St	375	368	8
W: W Main St	225	221	5
Total	1370	1343	27

MOVEMENT SUMMARY

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	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
Approach		405	2.0	0.819	35.5	LOS E	7.2	182.9	1.00	1.95	17.5
East: 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
Approach		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
Approach		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
Approach		225	2.0	0.285	7.7	LOS A	1.0	25.8	0.75	1.05	27.6
All Vehicles		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.

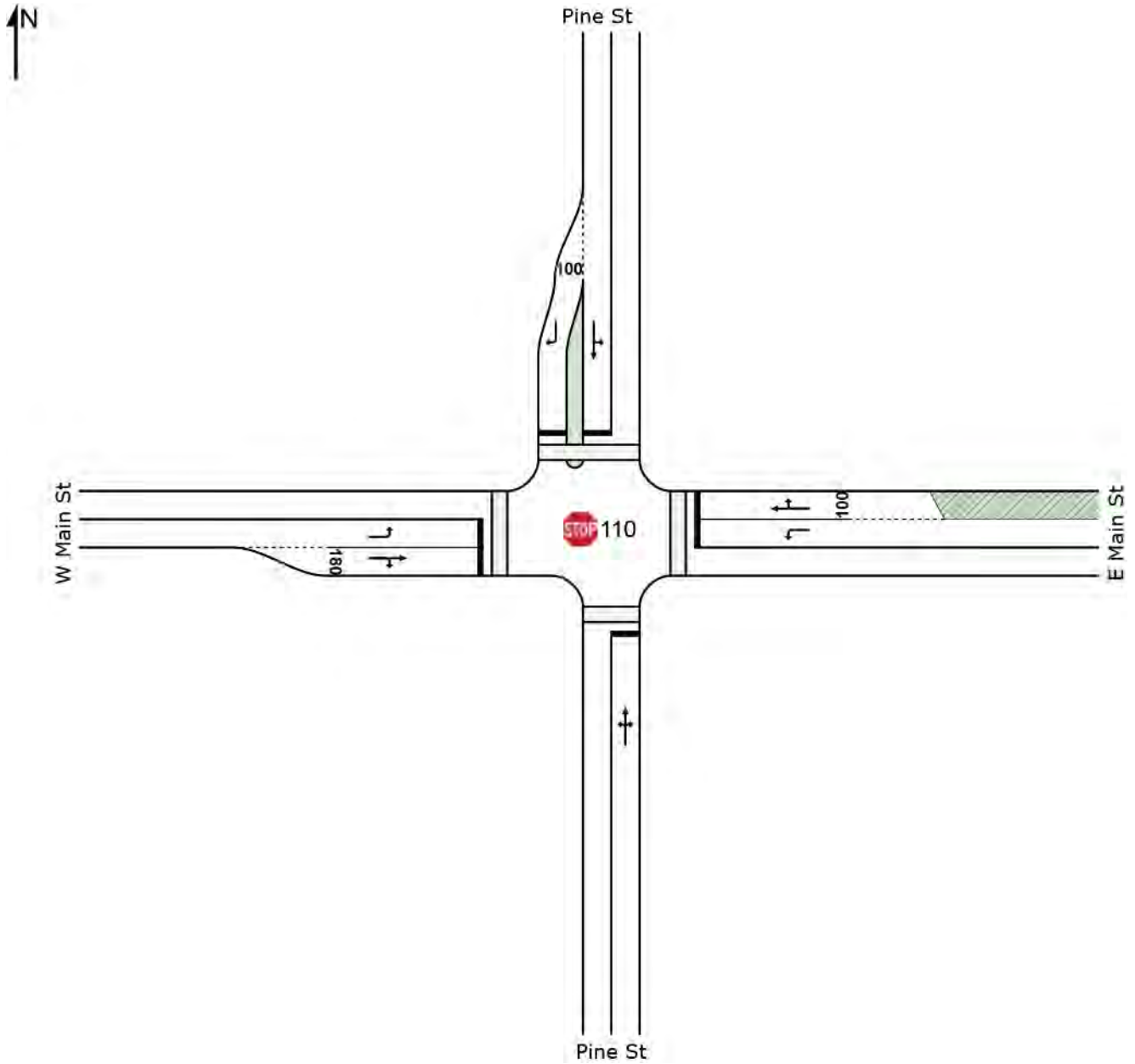
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)



INPUT VOLUMES

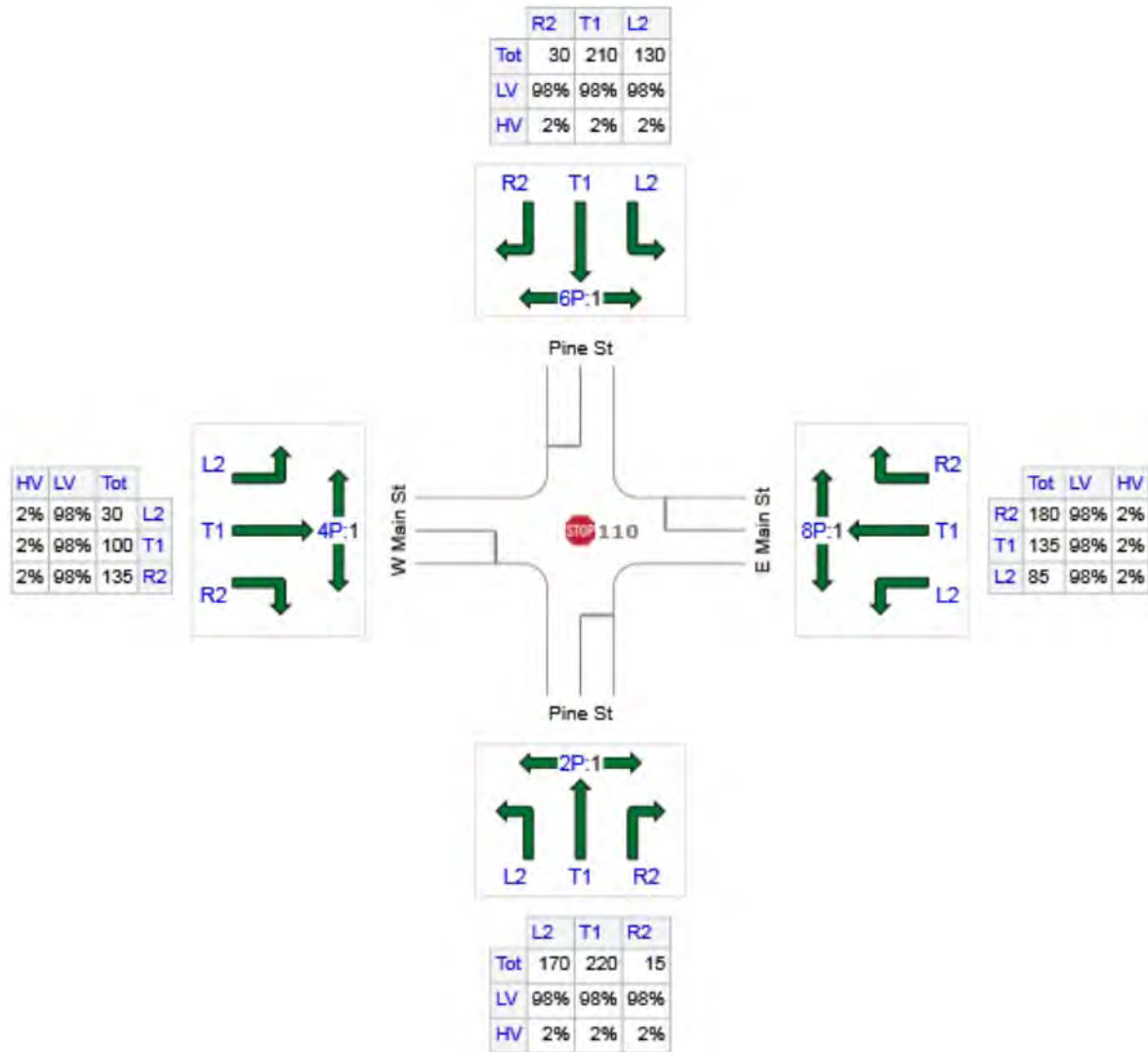
Vehicles and pedestrians per 60 minutes

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Pine St	405	397	8
E: E Main St	400	392	8
N: Pine St	370	363	7
W: W Main St	265	260	5
Total	1440	1411	29

MOVEMENT SUMMARY

 **Site: 110 [E Main St Pine St]**

E Main St at Pine St (All-Way 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 of Queue Vehicles veh	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
Approach		405	2.0	0.885	46.7	LOS E	9.2	233.1	1.00	2.15	15.3
East: 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
Approach		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
Approach		370	2.0	0.894	46.9	LOS E	9.1	230.3	0.99	2.04	15.9
West: W Main St											
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
Approach		265	2.0	0.326	8.1	LOS A	1.2	30.9	0.76	1.08	27.5
All Vehicles		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.

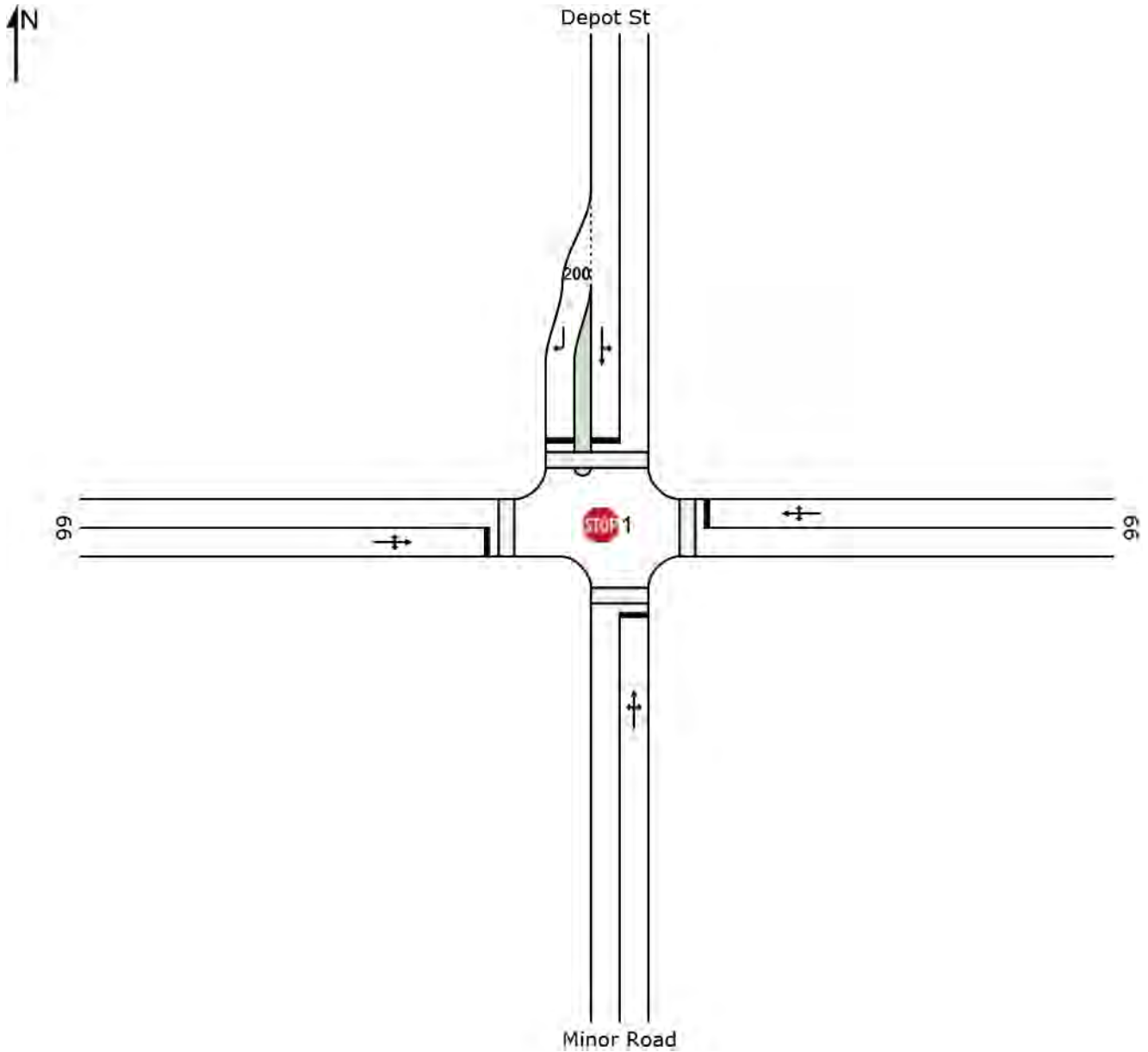
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 1 [DepotSt99]

Depot St at 99 (Stop control)

Stop (Two-Way)



INPUT VOLUMES

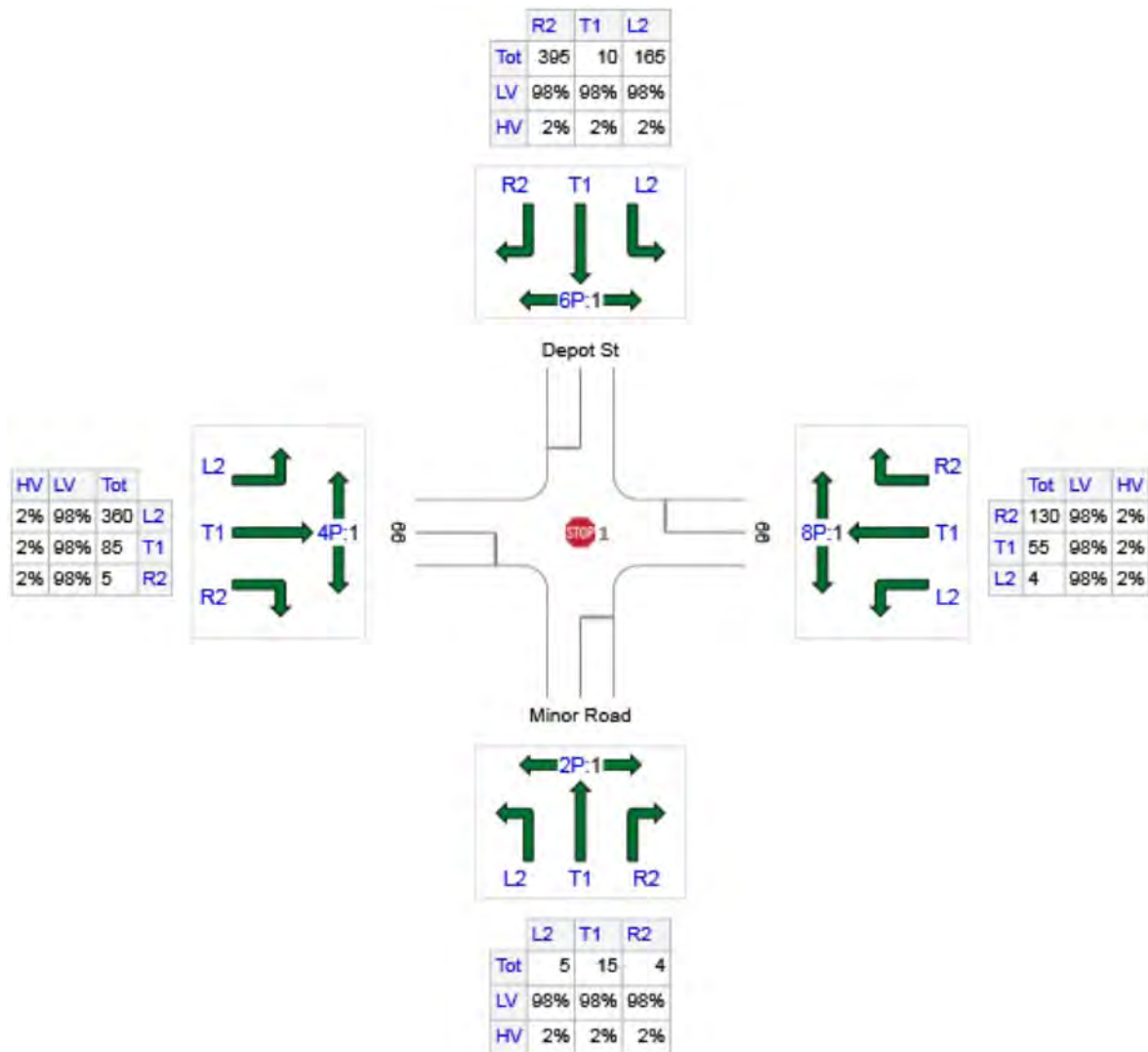
Vehicles and pedestrians per 60 minutes

 Site: 1 [DepotSt99]

Depot St at 99 (Stop control)

Stop (Two-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Minor Road	24	24	0
E: 99	189	185	4
N: Depot St	570	559	11
W: 99	450	441	9
Total	1233	1208	25

MOVEMENT SUMMARY

 Site: 104 [DepotSt99 - Conversion]

Depot St at 99 (Stop control)

Stop (All-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	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
Approach		24	2.0	0.089	17.7	LOS C	0.3	7.7	0.95	1.19	24.7
East: 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
Approach		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
Approach		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
Approach		415	2.0	0.658	17.1	LOS C	4.0	102.8	0.95	1.49	22.2
All Vehicles		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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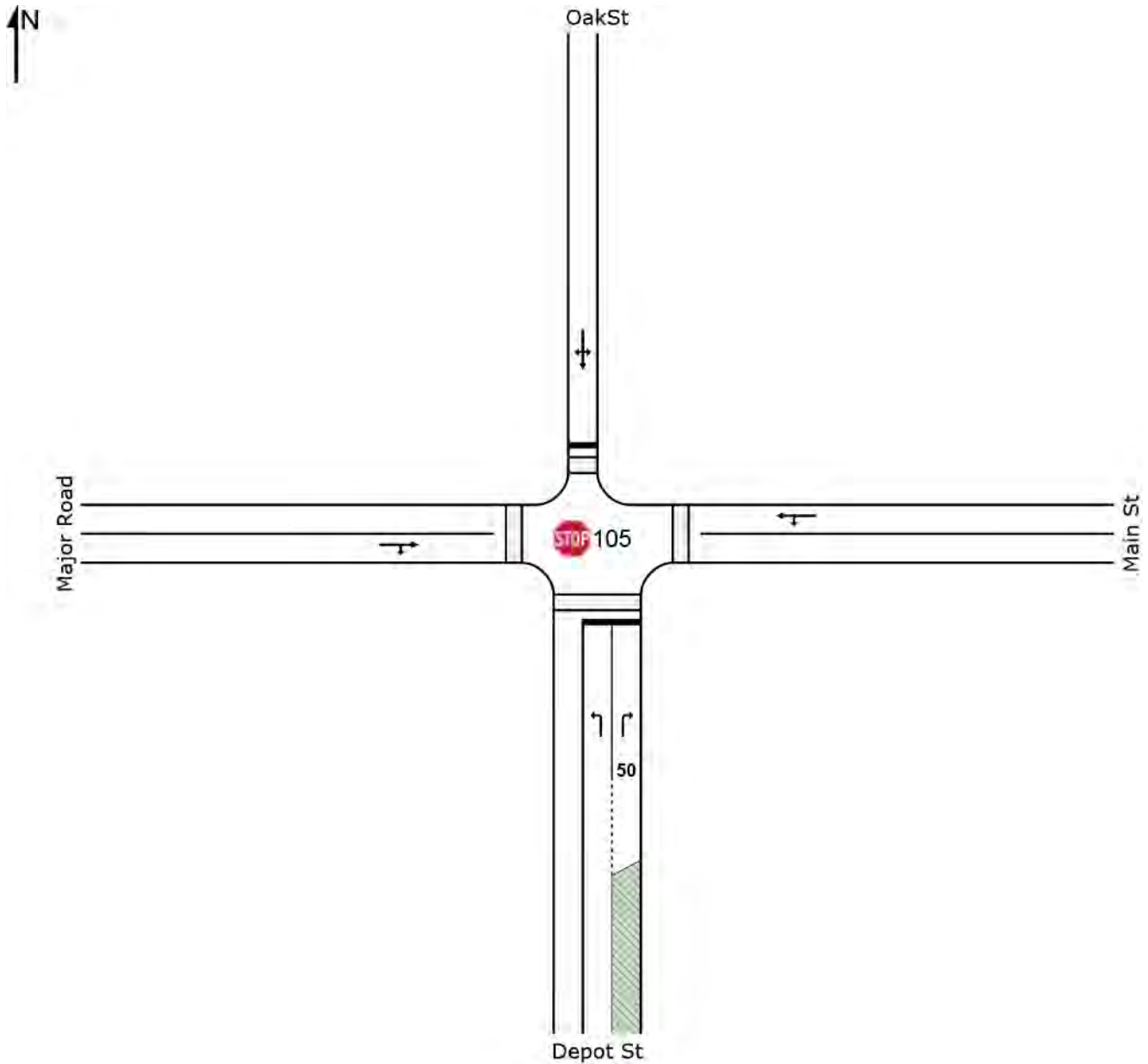
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SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



INPUT VOLUMES

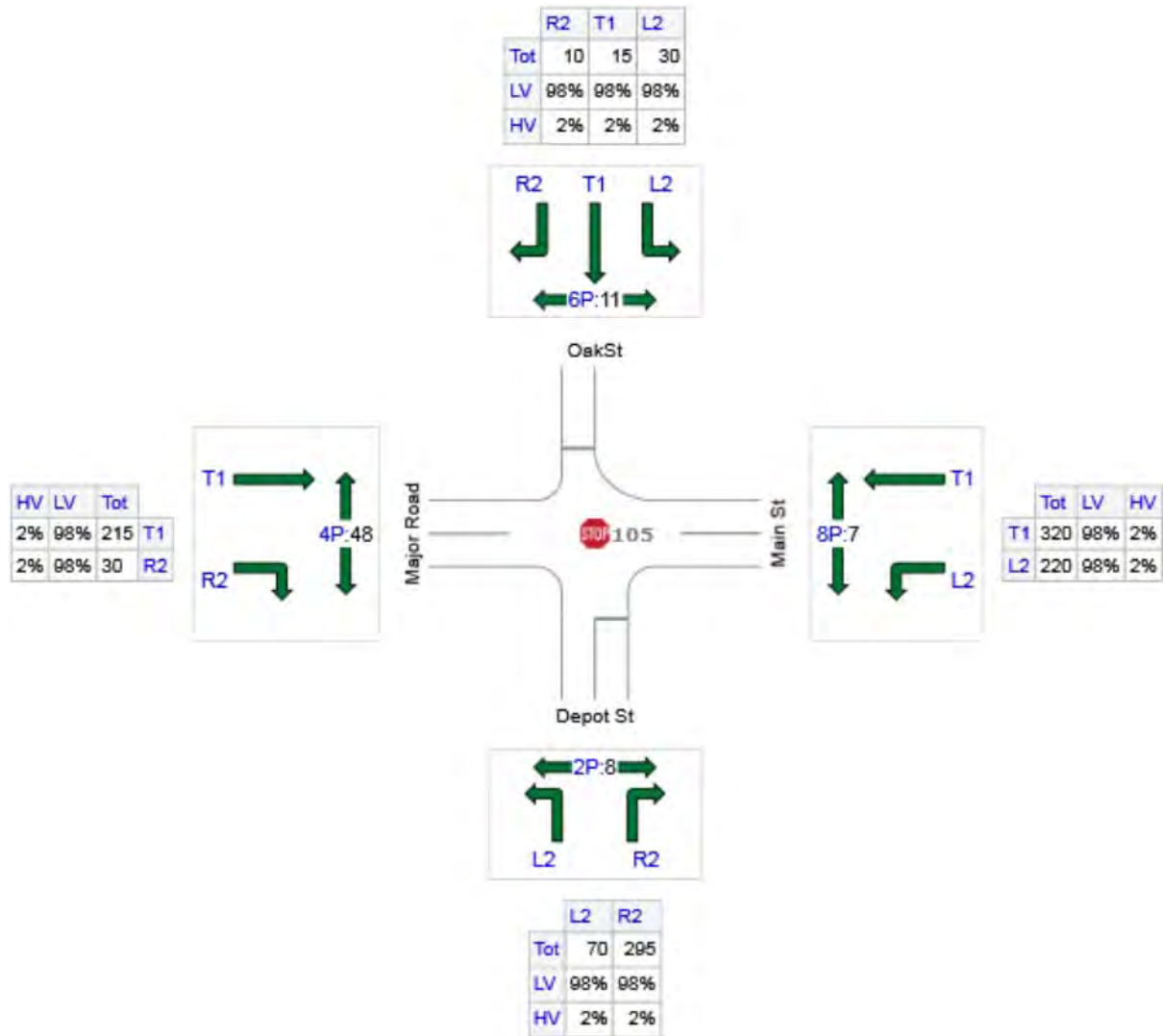
Vehicles and pedestrians per 60 minutes

 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)
S: Depot St	365	358	7
E: Main St	540	529	11
N: OakSt	55	54	1
W: Major Road	245	240	5
Total	1205	1181	24

MOVEMENT SUMMARY

 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 of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed 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
Approach		365	2.0	0.374	14.1	LOS B	2.4	60.9	0.55	0.48	13.5
East: Main 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
Approach		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
Approach		55	2.0	0.226	24.0	LOS C	0.8	21.5	0.75	0.75	20.0
West: 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
Approach		245	2.0	0.134	0.0	NA	0.0	0.0	0.00	0.00	36.8
All Vehicles		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.

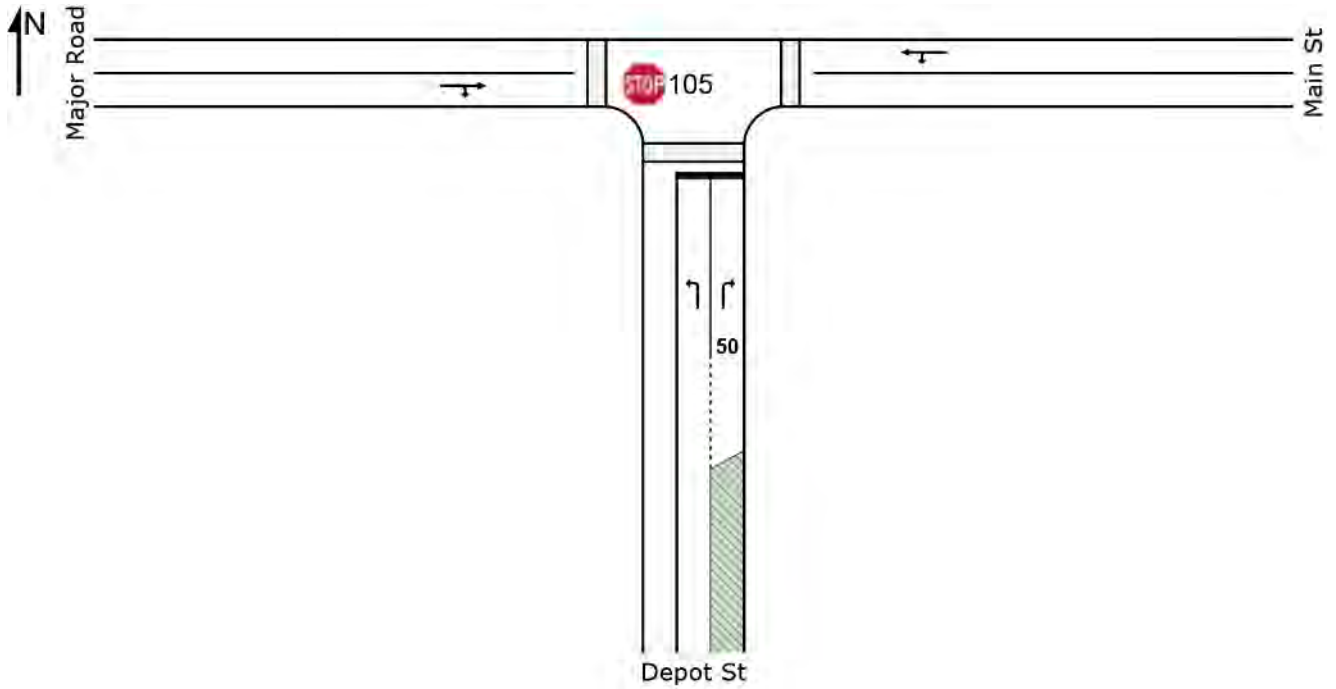
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



INPUT VOLUMES

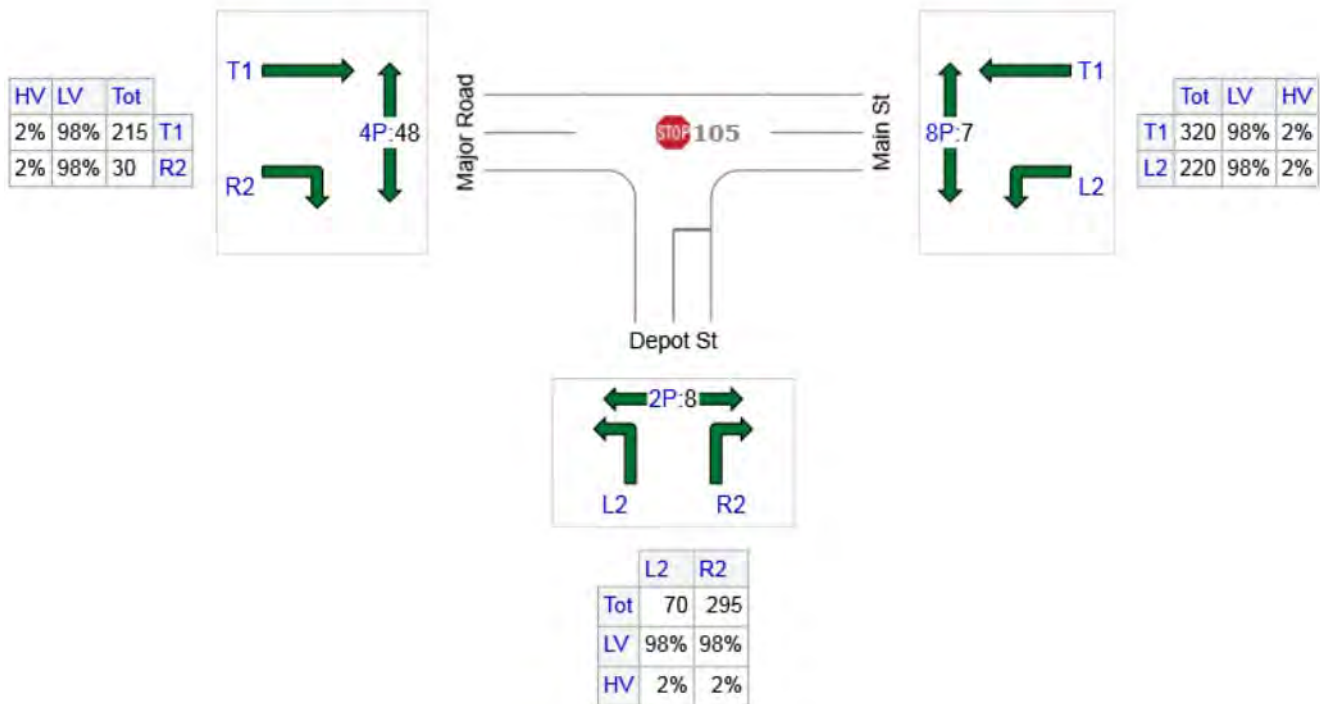
Vehicles and pedestrians per 60 minutes

 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)
S: Depot St	365	358	7
E: Main St	540	529	11
W: Major Road	245	240	5
Total	1150	1127	23

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MOVEMENT SUMMARY

 **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 of Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 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
Approach		365	2.0	0.374	13.4	LOS B	2.4	60.9	0.54	0.47	13.7
East: Main 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
Approach		540	2.0	0.348	5.2	NA	1.9	47.8	0.36	0.10	23.5
West: 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
Approach		245	2.0	0.134	0.0	NA	0.0	0.0	0.00	0.00	36.8
All Vehicles		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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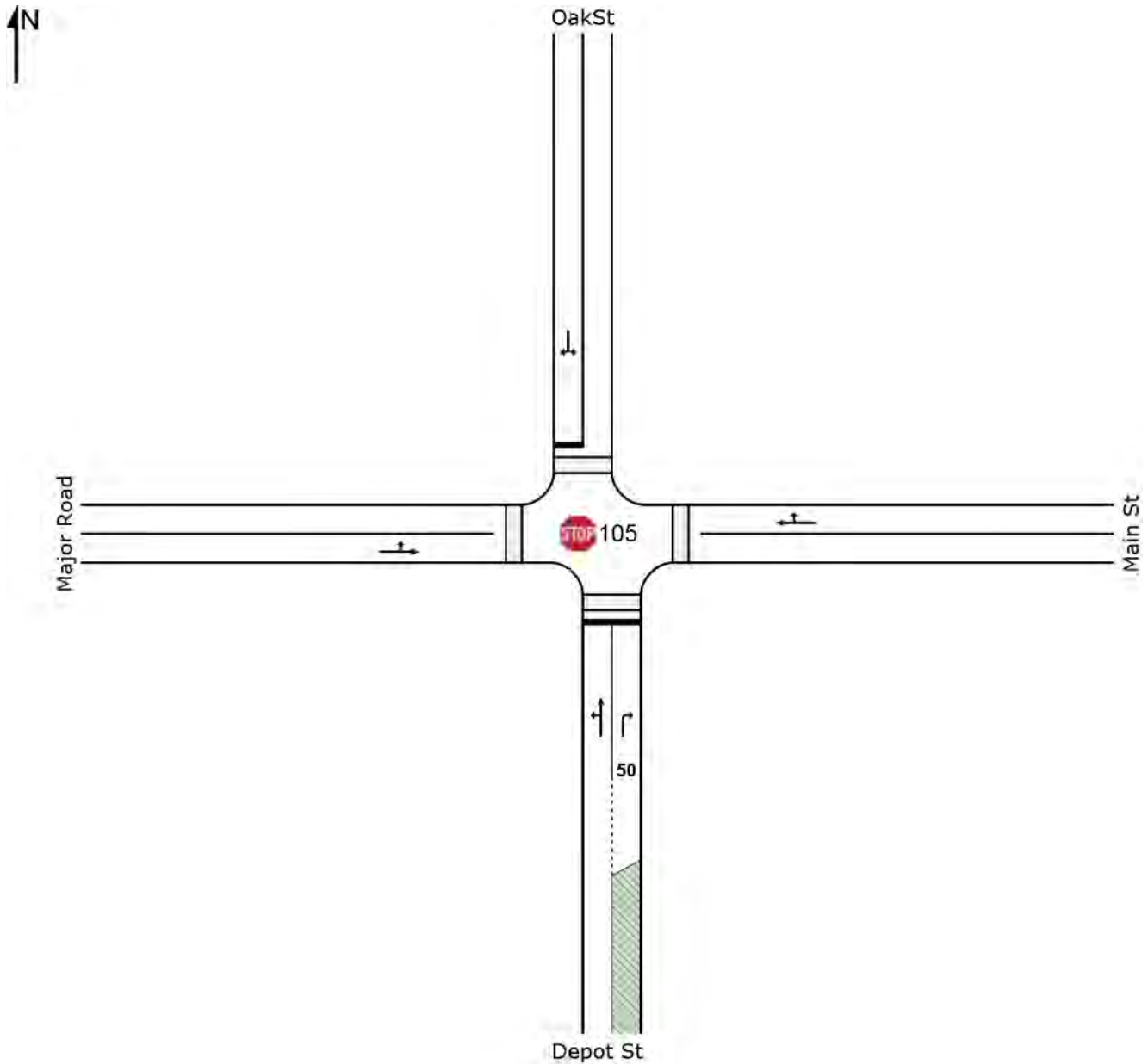
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SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



INPUT VOLUMES

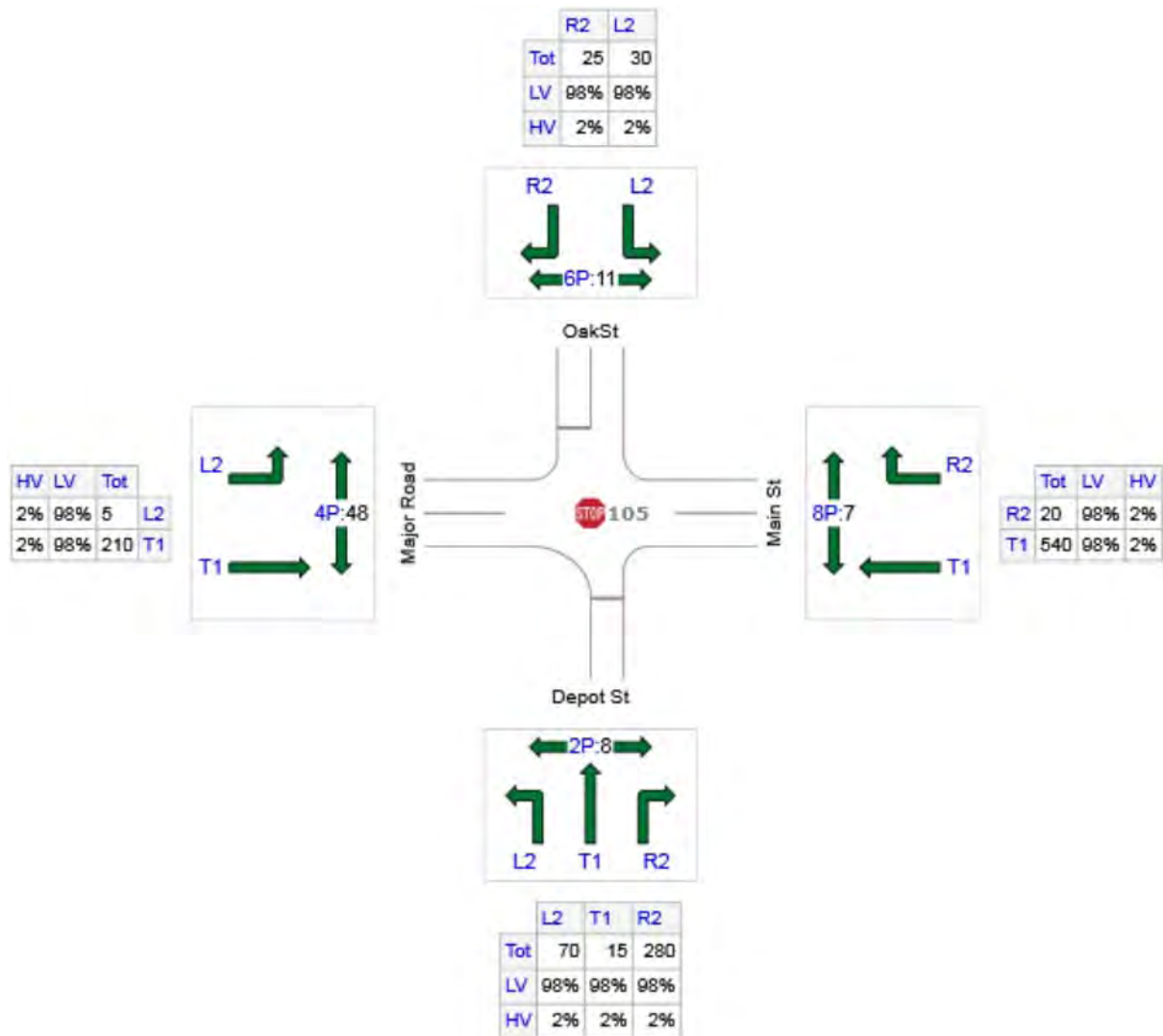
Vehicles and pedestrians per 60 minutes

 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)
S: Depot St	365	358	7
E: Main St	560	549	11
N: OakSt	55	54	1
W: Major Road	215	211	4
Total	1195	1171	24

MOVEMENT SUMMARY

 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 of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed 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
Approach		365	2.0	0.353	14.4	LOS B	1.9	47.3	0.55	0.47	14.0
East: Main 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
Approach		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
Approach		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
Approach		215	2.0	0.118	1.1	NA	0.1	1.5	0.03	0.00	36.4
All Vehicles		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.

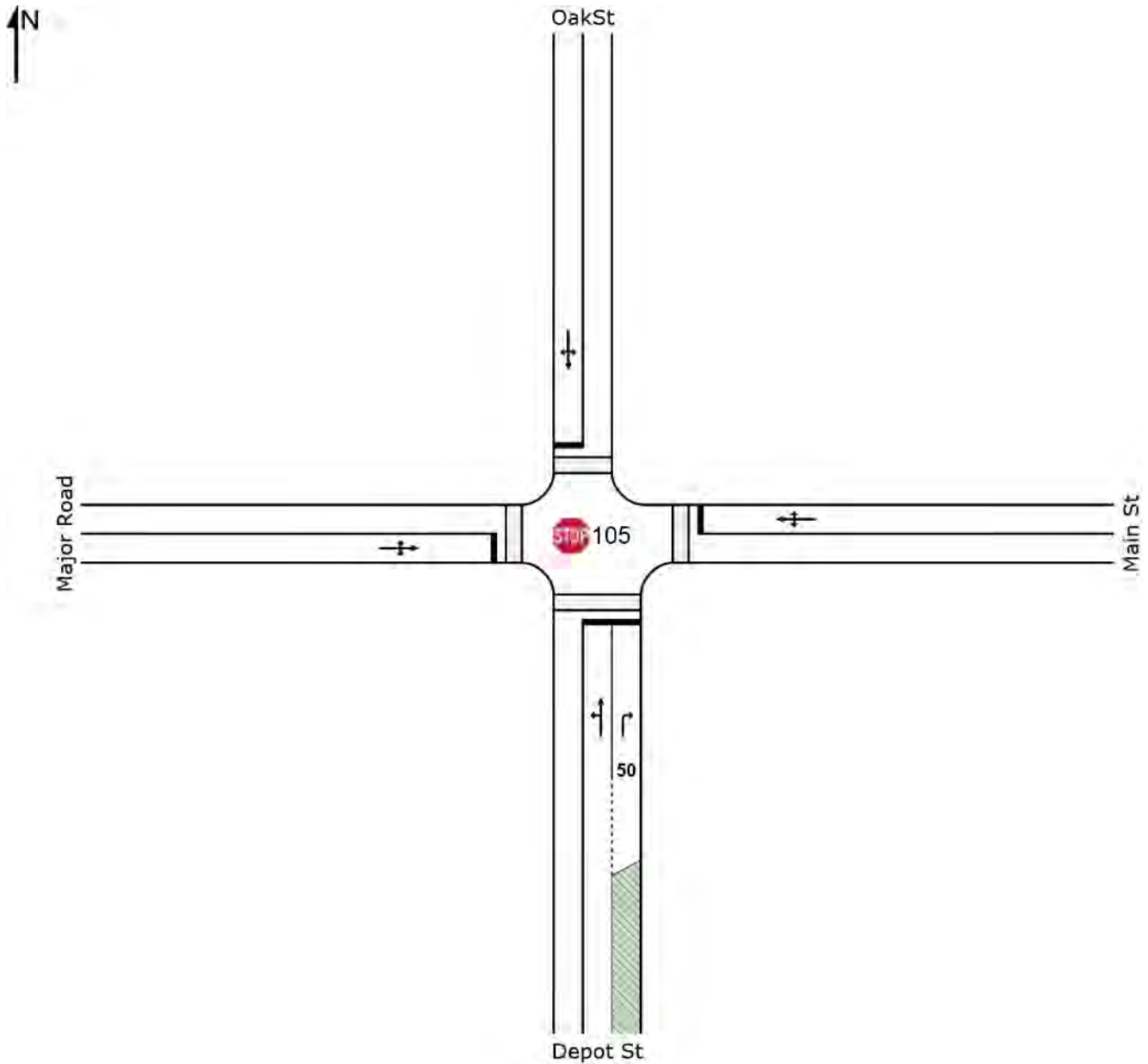
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



INPUT VOLUMES

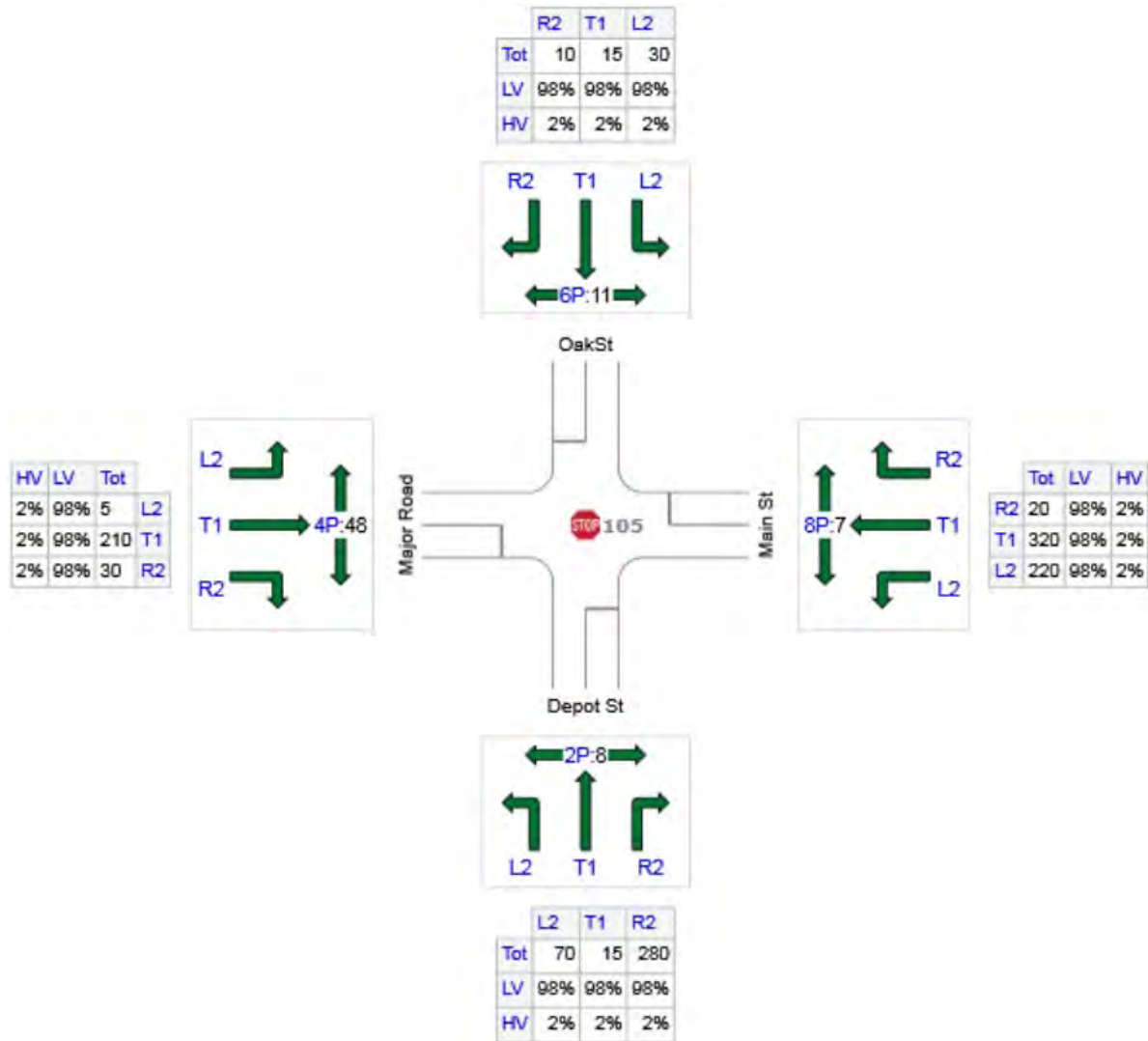
Vehicles and pedestrians per 60 minutes

 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)
S: Depot St	365	358	7
E: Main St	560	549	11
N: OakSt	55	54	1
W: Major Road	245	240	5
Total	1225	1201	25

MOVEMENT SUMMARY

 Site: 105v [DepotStMainSt - Conversion]

Depot St at Main St (Stop control)

Stop (All-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue 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
Approach		365	2.0	1.239	138.6	LOS F	19.3	490.2	1.00	2.50	3.3
East: 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
Approach		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
Approach		55	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.8
West: Major Road											
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
Approach		245	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	15.2
All Vehicles		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.

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):	925
--------------------------------	-----

Minor

Approach Volume (vph):	330
Right Turn Volume (vph):	0
Capacity of Shared/Exclusive Right Turn Lane¹:	120
Right Turn Discount:	102
Right Turn Volume included in Warrant:	0
Minor Approach Volume in Warrant:	330

Major Approach K factor:	10
---------------------------------	----

Minor Approach K factor:	10
---------------------------------	----

¹ 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

Preliminary Traffic Signal Warrant Analysis¹

Major Street: Main	Minor Street: Pine St
Project: Rogue River TSP	City/County: Jackson
Year: 2040	Alternative: existing

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	Percent of standard warrants 70	Percent of standard warrants 100	Percent of standard warrants 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: Interruption of Continuous 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 warrants
	70 percent of standard warrants ²

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	9250	Y
	Minor	1	2650	3300	
Case B	Major	1	13300	9250	N
	Minor	1	1350	3300	

Analyst and Date:	Reviewer and Date:
--------------------------	---------------------------

¹ 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.

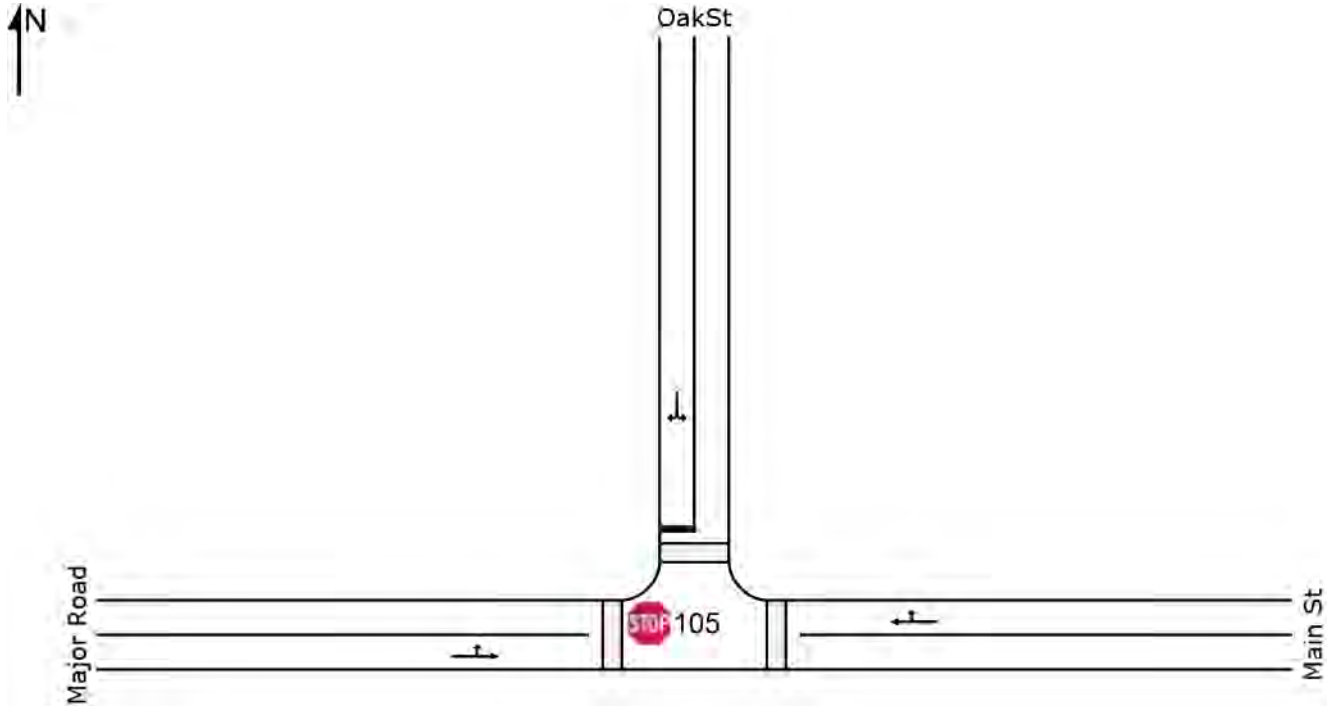
² Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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INPUT VOLUMES

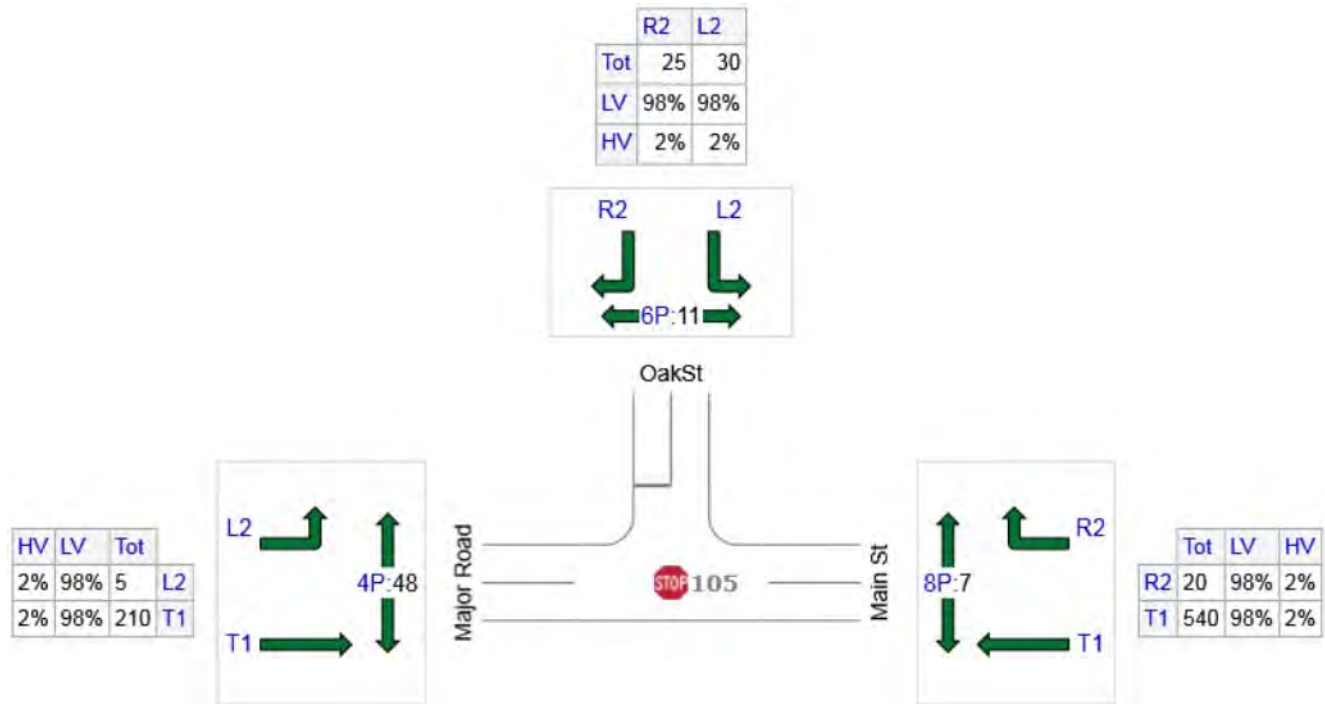
Vehicles and pedestrians per 60 minutes

 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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MOVEMENT SUMMARY

 Site: 105v [DepotStMainSt - Conversion]

Depot St at Main St (Stop control)

Stop (All-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue 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
Approach		365	2.0	1.239	138.6	LOS F	19.3	490.2	1.00	2.50	3.3
East: 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
Approach		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
Approach		55	2.0	0.197	19.1	LOS C	0.7	18.4	0.96	1.24	21.8
West: Major Road											
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
Approach		245	2.0	0.387	12.2	LOS B	1.6	40.1	0.83	1.19	15.2
All Vehicles		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.

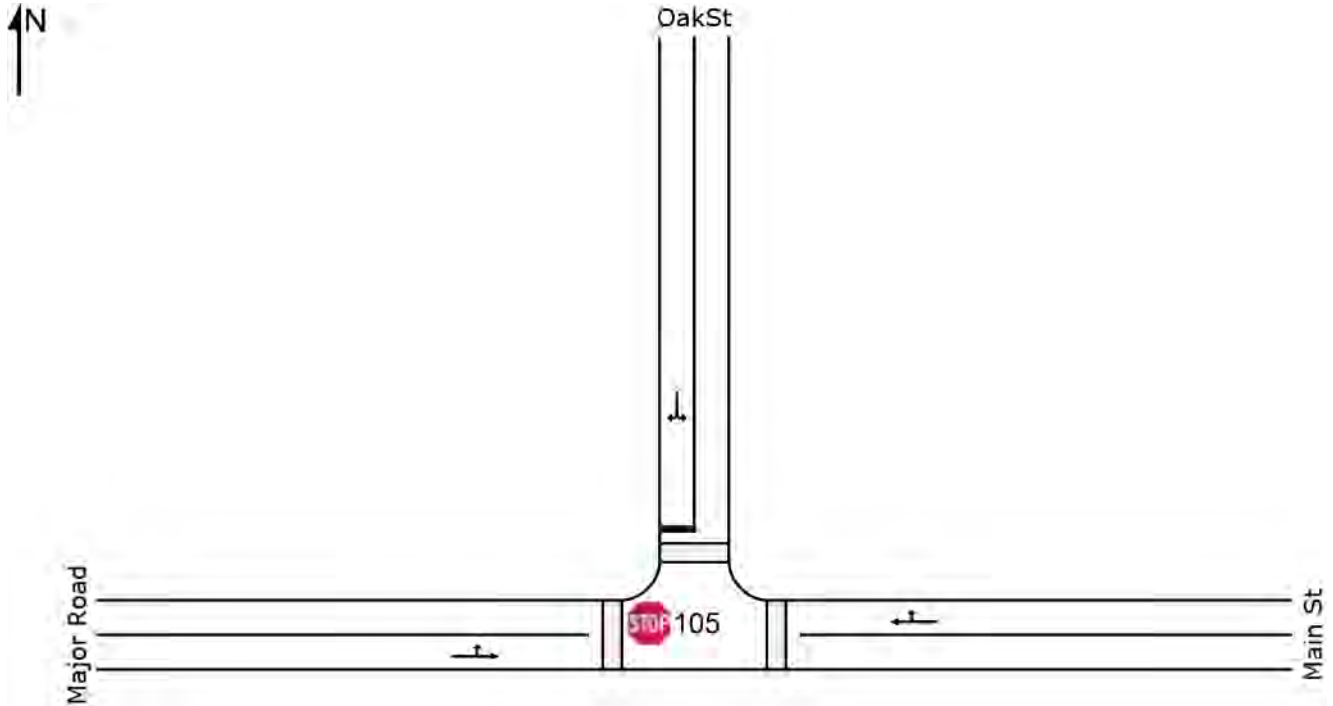
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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INPUT VOLUMES

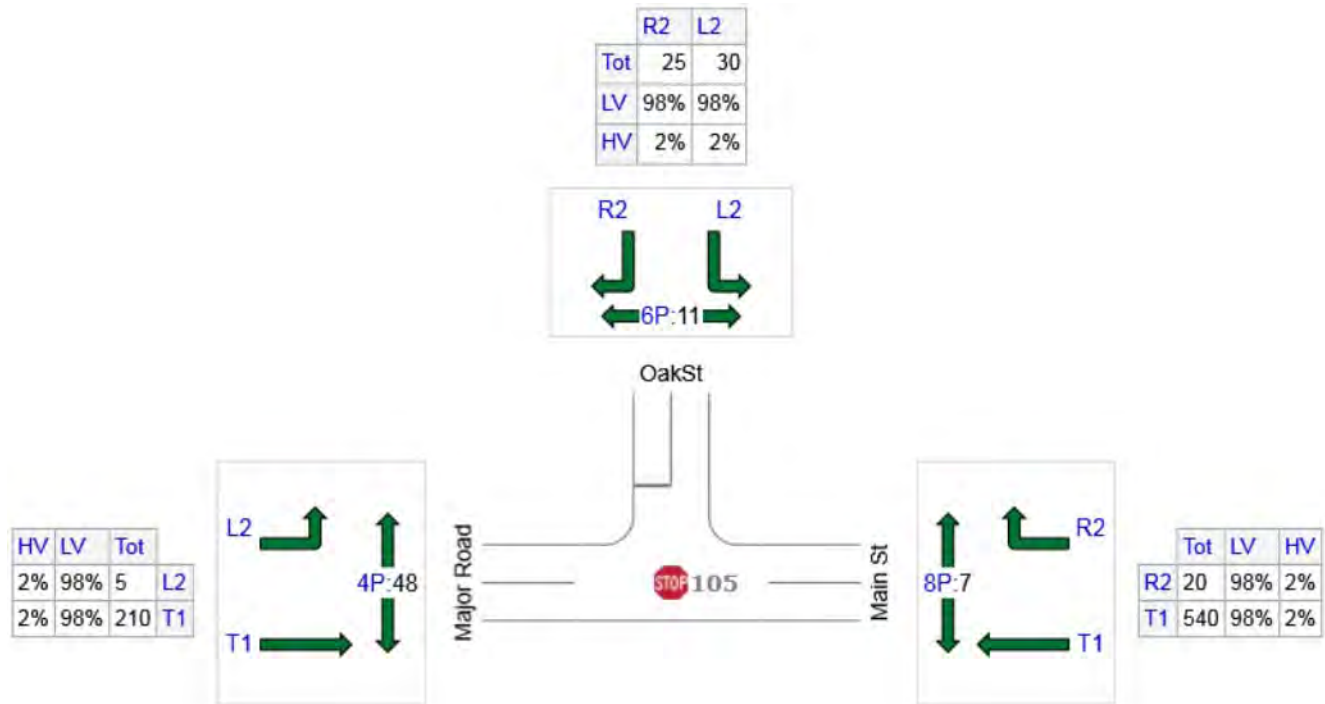
Vehicles and pedestrians per 60 minutes

 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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MOVEMENT SUMMARY

 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 of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Main 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
Approach		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
Approach		55	2.0	0.136	15.3	LOS C	0.5	12.8	0.62	0.61	23.1
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
Approach		215	2.0	0.118	1.1	NA	0.1	1.5	0.03	0.00	36.4
All Vehicles		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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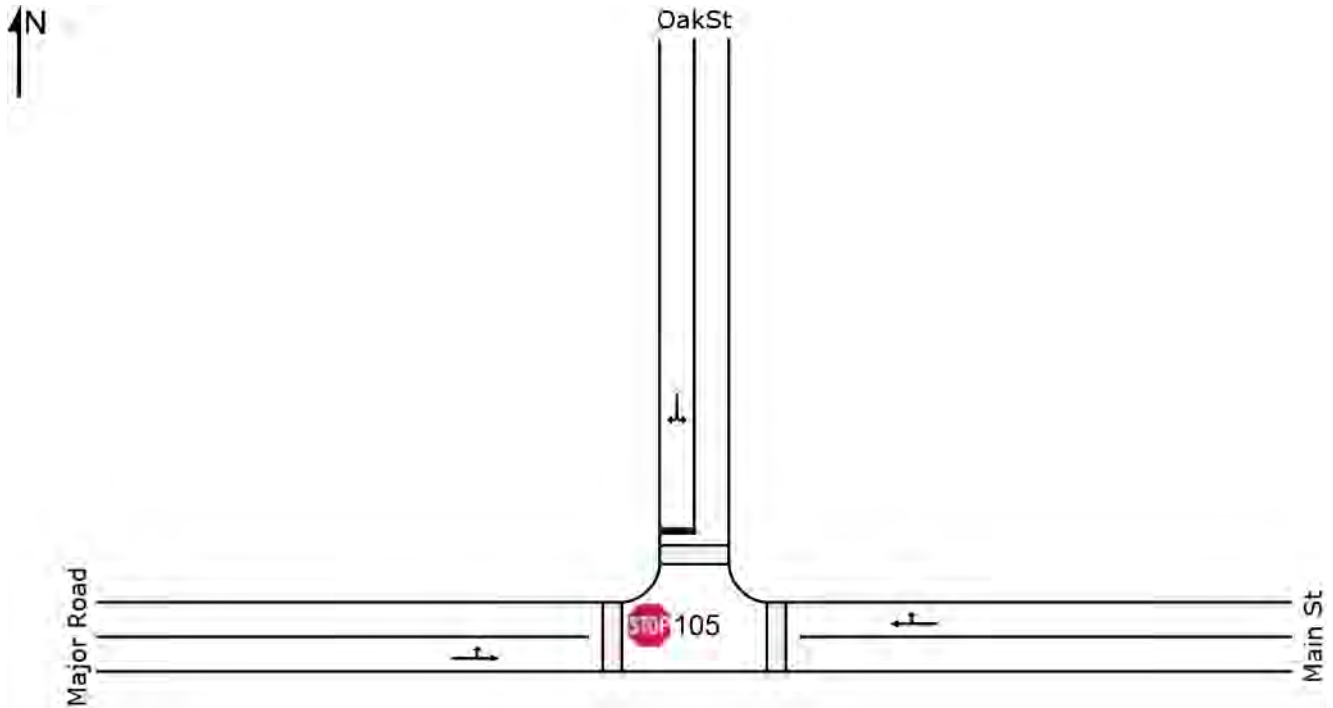
Project: Z:\County\Jackson\RogueRiver\TSP_Update_Analysis\17_Narrative_Technical_Memo\TM7\TM7appendix\20180330_OS3_F_2040.sip7

SITE LAYOUT

 Site: 105 [DepotStMainSt]

Depot St at Main St (Stop control)

Stop (Two-Way)



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INPUT VOLUMES

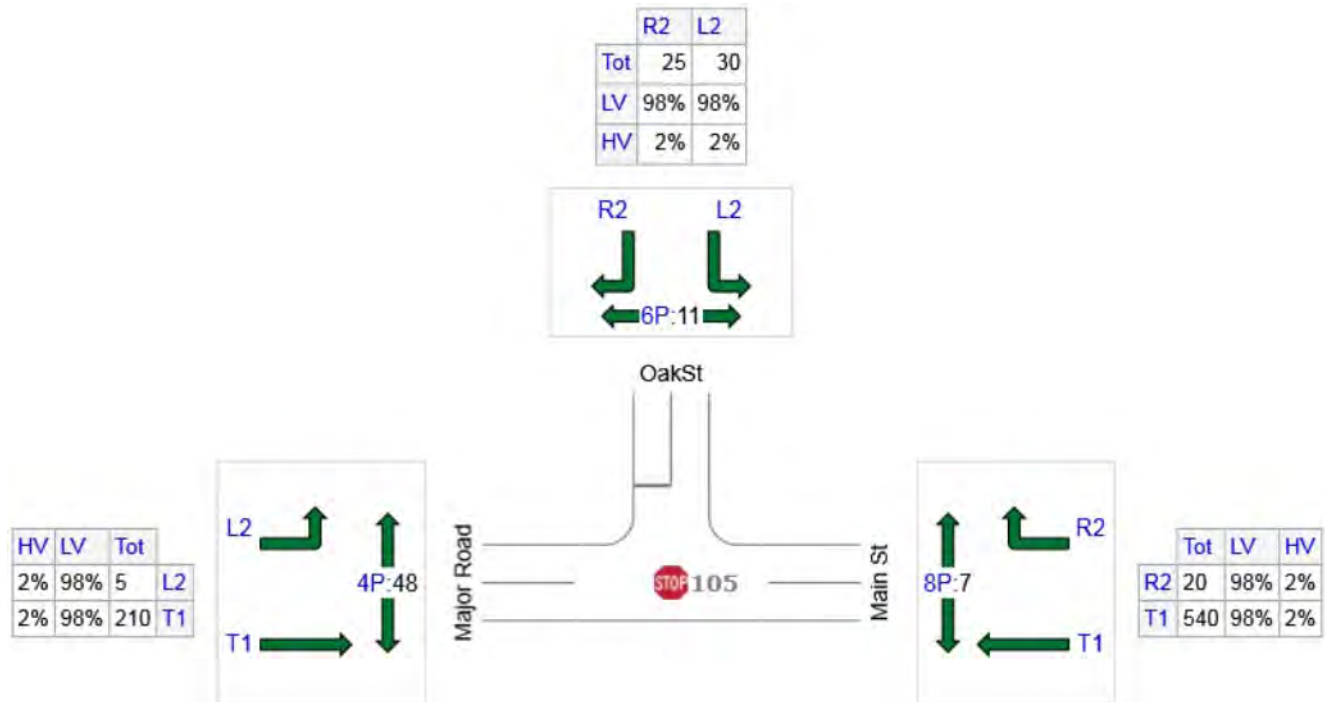
Vehicles and pedestrians per 60 minutes

 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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 \20180330_OS3_F_2040_sigPineExpand.sip7

MOVEMENT SUMMARY

 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 of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Main 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
Approach		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
Approach		55	2.0	0.136	15.3	LOS C	0.5	12.8	0.62	0.61	23.1
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
Approach		215	2.0	0.118	1.1	NA	0.1	1.5	0.03	0.00	36.4
All Vehicles		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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\20180330_OS3_F_2040_sigPineExpand.sip7

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 Lane¹:	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
---------------------------------	----

¹ 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

Preliminary Traffic Signal Warrant Analysis¹

Major Street: Main	Minor Street: Pine St
Project: Rogue River TSP	City/County: Jackson
Year: 2040	Alternative: existing

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants		Percent of standard warrants	
		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: Interruption of Continuous 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 warrants
	70 percent of standard warrants ²

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	9550	Y
	Minor	1	2650	3580	
Case B	Major	1	13300	9550	N
	Minor	1	1350	3580	

Analyst and Date:	Reviewer and Date:
--------------------------	---------------------------

¹ 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.

V/C OS3

EBL + WBTR 40 + 175 +

WBL + EBTR 320 + 110 +

SBL + NBTR 40 + 270 +

NBL + SBTR 190 + 125 +

0.372 + 0.173 = 0.545

0.197 + 0.81 = 1.007

V/C = $\frac{150}{150-8}$ [1.007 + 0.545]

$$145 = 360$$

$$165 = 595$$

$$300 = 610$$

$$205 = 520$$

$$= 1.64$$

V/C OS3

$$0.066 + 0.335 = 0.401$$

$$0.236 + 0.164 = 0.4$$

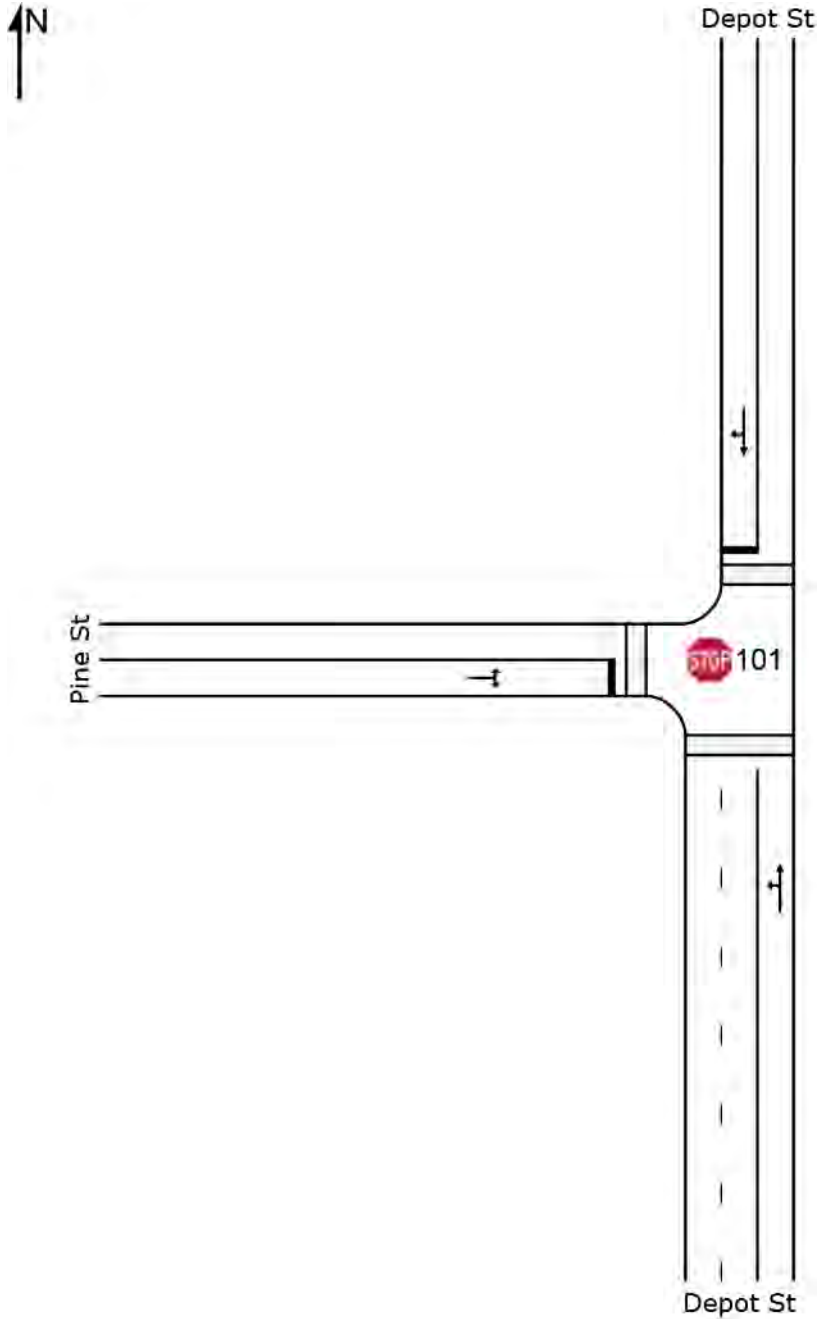
$$V/C = \frac{150}{150-8} [0.4 + 0.401]$$

$$= 0.85$$

SITE LAYOUT

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)



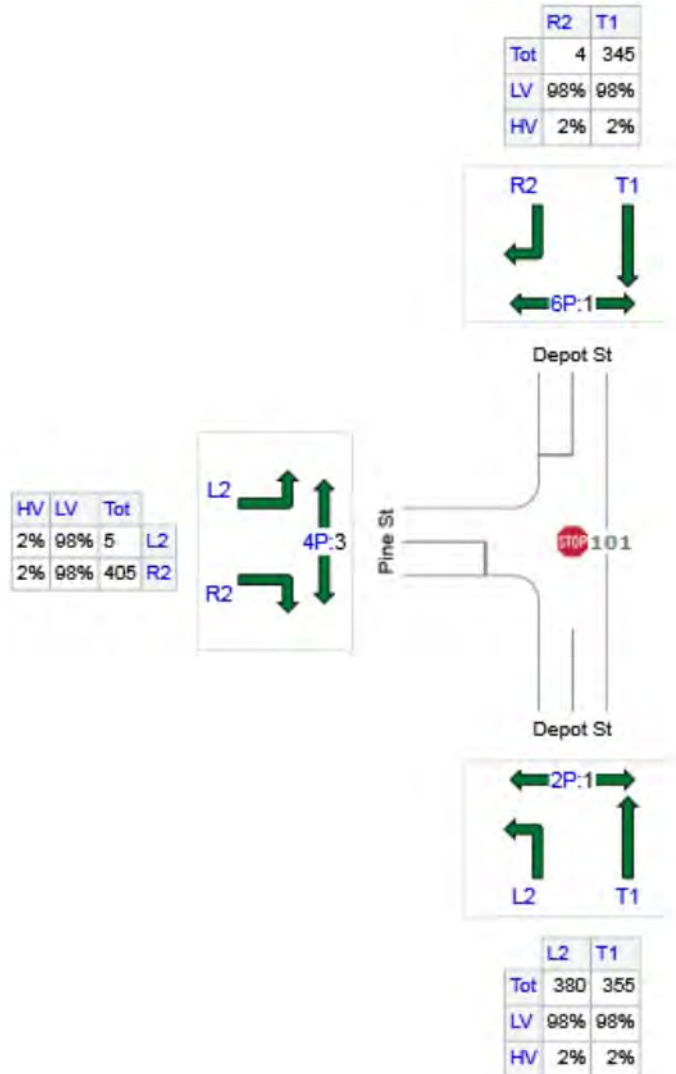
INPUT VOLUMES

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

MOVEMENT SUMMARY

 Site: 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 of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
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
Approach		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
Approach		349	2.0	0.703	27.7	LOS D	7.9	200.2	0.78	1.26	7.7
West: 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
Approach		410	2.0	0.608	18.3	LOS C	8.9	226.5	0.73	1.07	9.9
All Vehicles		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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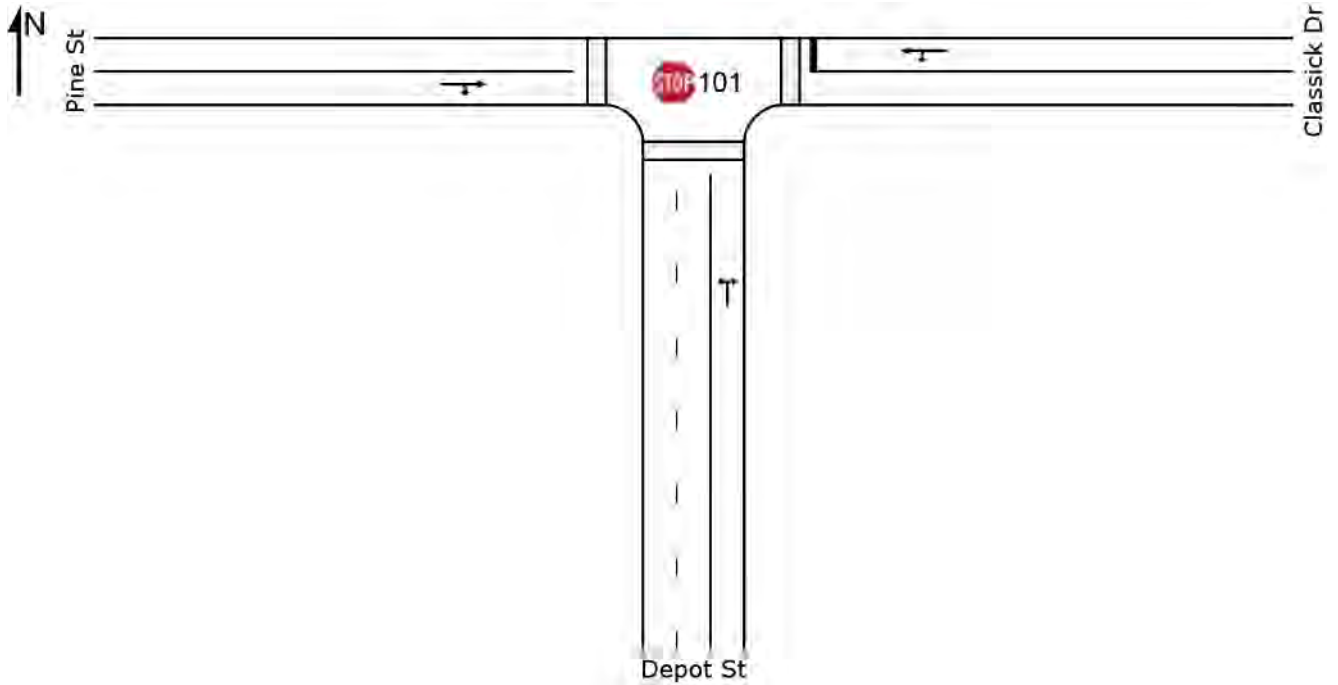
Project: Z:\County\Jackson\RogueRiver\TSP_Update_Analysis\17_Narrative_Technical_Memo\TM7\TM7appendix

\20180402_OS4_A_2040classick.sip7

SITE LAYOUT

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)



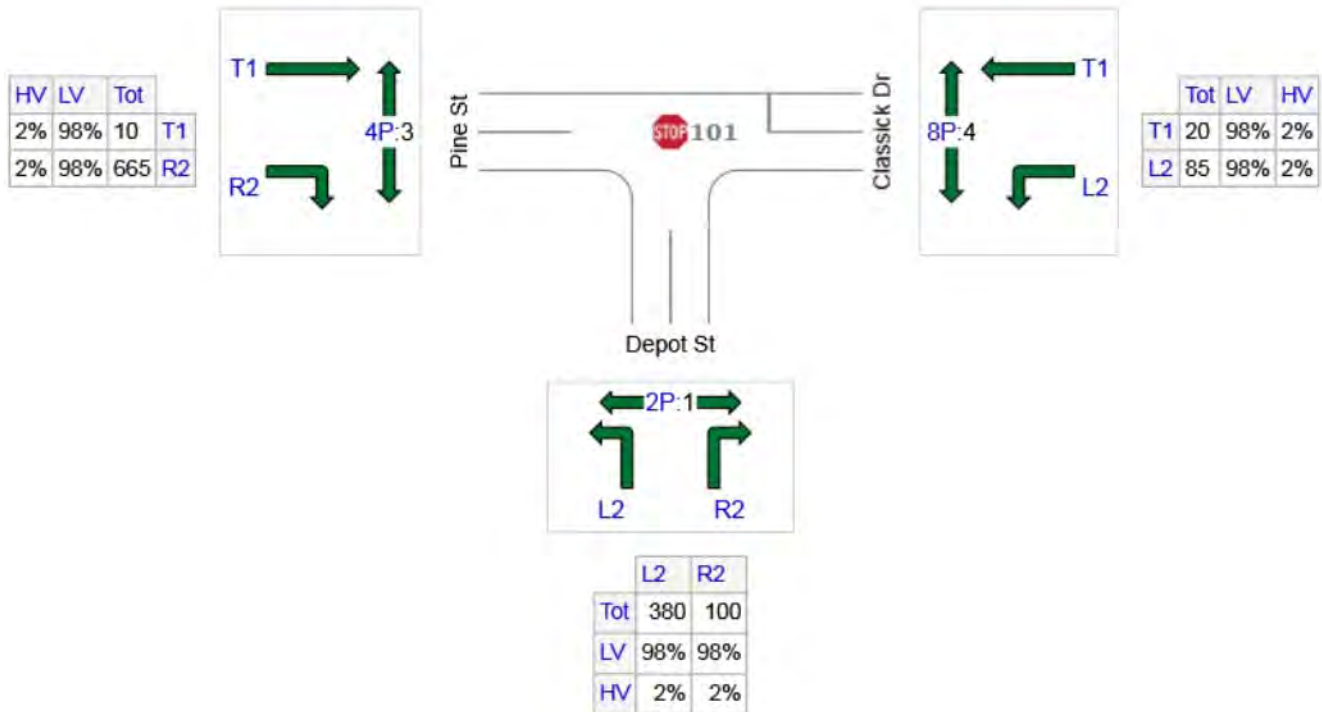
INPUT VOLUMES

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
E: Classick Dr	105	103	2
W: Pine St	675	662	14
Total	1260	1235	25

MOVEMENT SUMMARY

 **Site: 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 of Queue Vehicles veh	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
Approach		480	2.0	0.331	5.4	NA	2.1	52.7	0.08	0.02	22.2
East: Classick 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
Approach		105	2.0	0.411	28.6	LOS D	1.9	47.7	0.80	0.90	18.0
West: 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
Approach		675	2.0	0.463	0.0	NA	0.0	0.0	0.00	0.00	22.3
All Vehicles		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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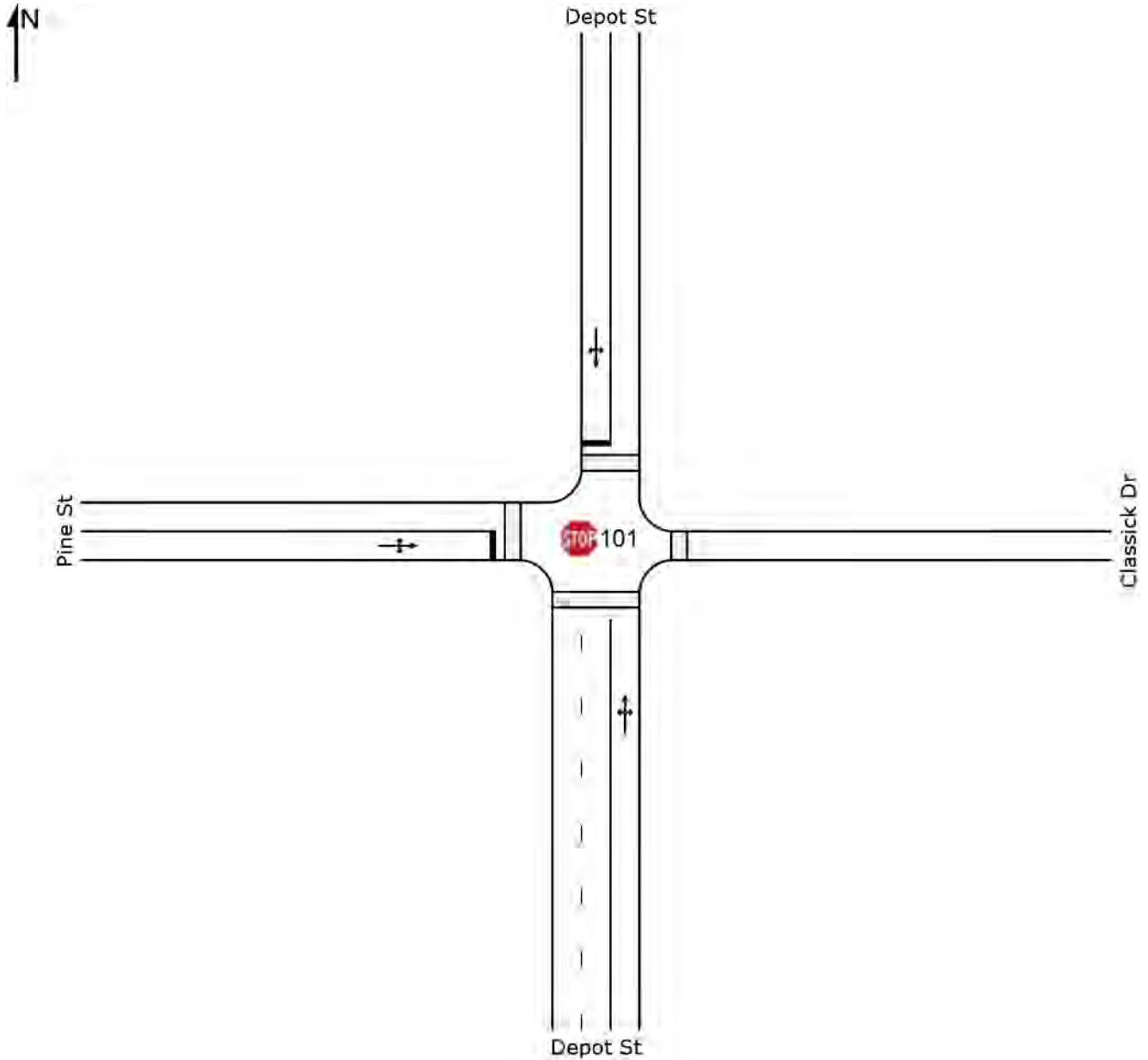
Project: Z:\County\Jackson\RogueRiver\TSP_Update_Analysis\17_Narrative_Technical_Memo\TM7\TM7appendix

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SITE LAYOUT

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)



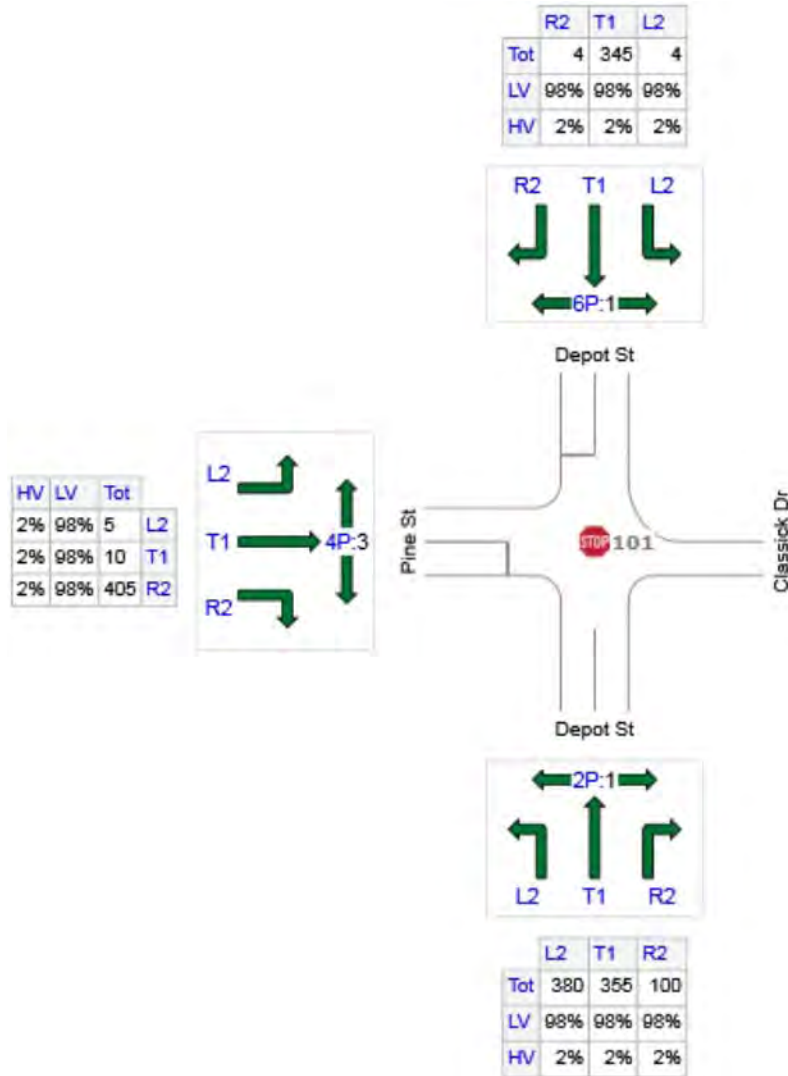
INPUT VOLUMES

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
N: Depot St	353	346	7
W: Pine St	420	412	8
Total	1608	1576	32

MOVEMENT SUMMARY

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)

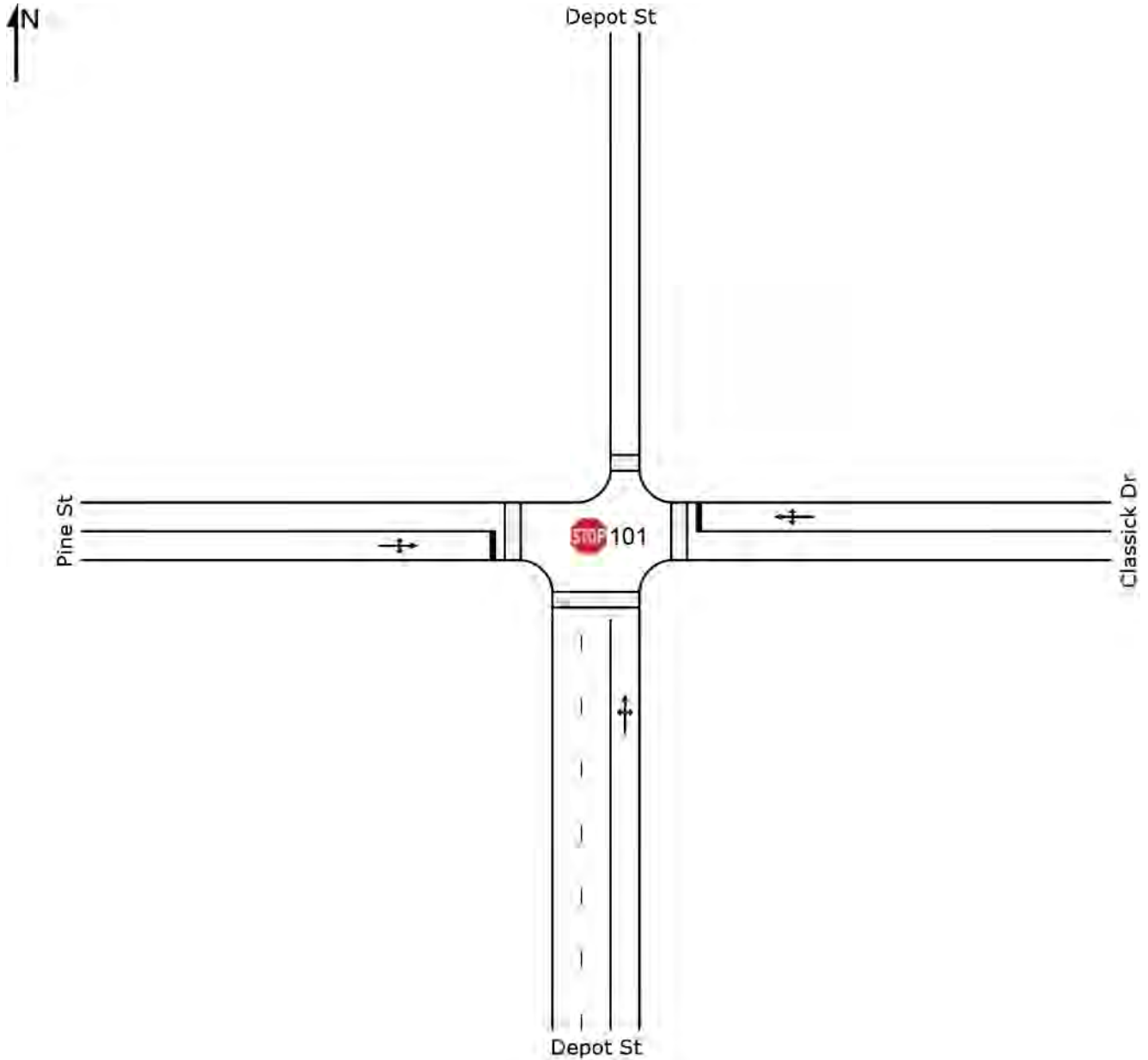
Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Depot St												
3	L2	380	2.0	0.508	0.0	LOS 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	
Approach		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	
Approach		353	2.0	0.583	18.9	LOS C	6.6	166.6	0.68	1.02	9.8	
West: 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	
Approach		420	2.0	0.637	19.5	LOS C	9.8	248.7	0.75	1.14	10.1	
All Vehicles		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.

SITE LAYOUT

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)



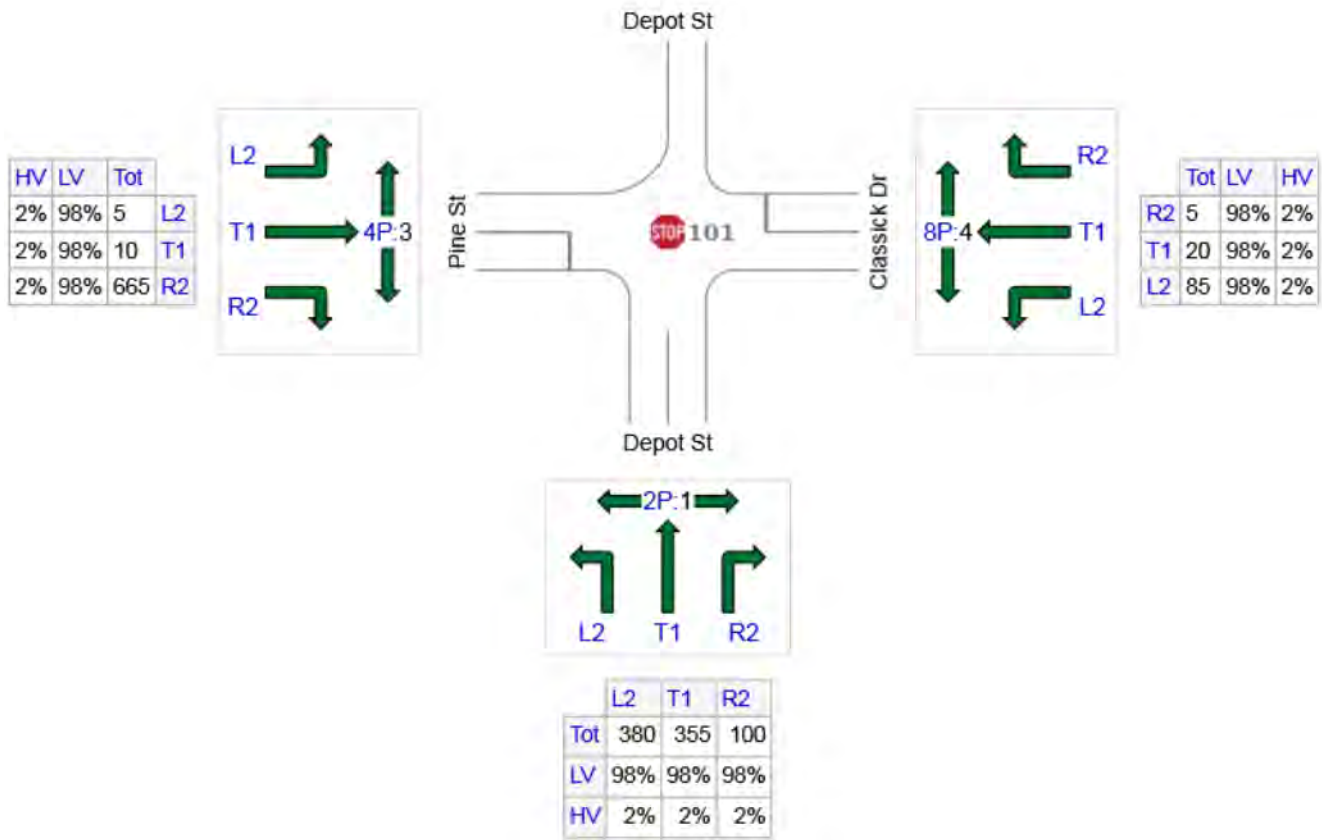
INPUT VOLUMES

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
E: Classick Dr	110	108	2
W: Pine St	680	666	14
Total	1625	1593	33

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MOVEMENT SUMMARY

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)

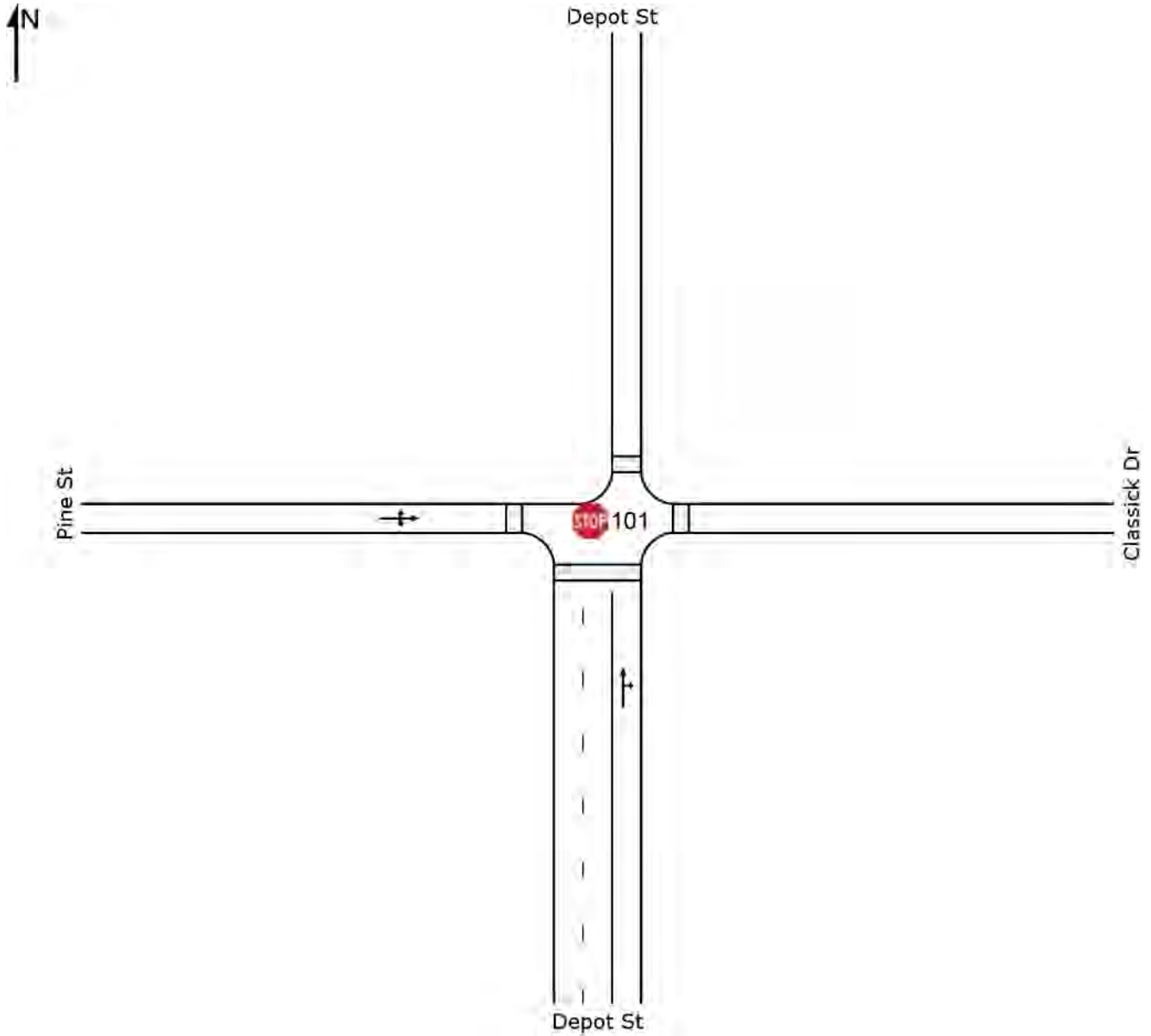
Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Depot St											
3	L2	380	2.0	0.508	0.0	LOS 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
Approach		835	2.0	0.508	0.0	NA	0.0	0.0	0.00	0.00	31.8
East: Classick 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
Approach		110	2.0	0.700	68.9	LOS F	3.8	96.7	0.93	1.15	11.3
West: Pine St											
5	L2	5	2.0	0.498	17.2	LOS C	14.7	372.9	1.00	0.03	18.5
2	T1	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
Approach		680	2.0	0.498	7.8	LOS A	14.7	372.9	1.00	0.03	14.8
All Vehicles		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.

SITE LAYOUT

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)



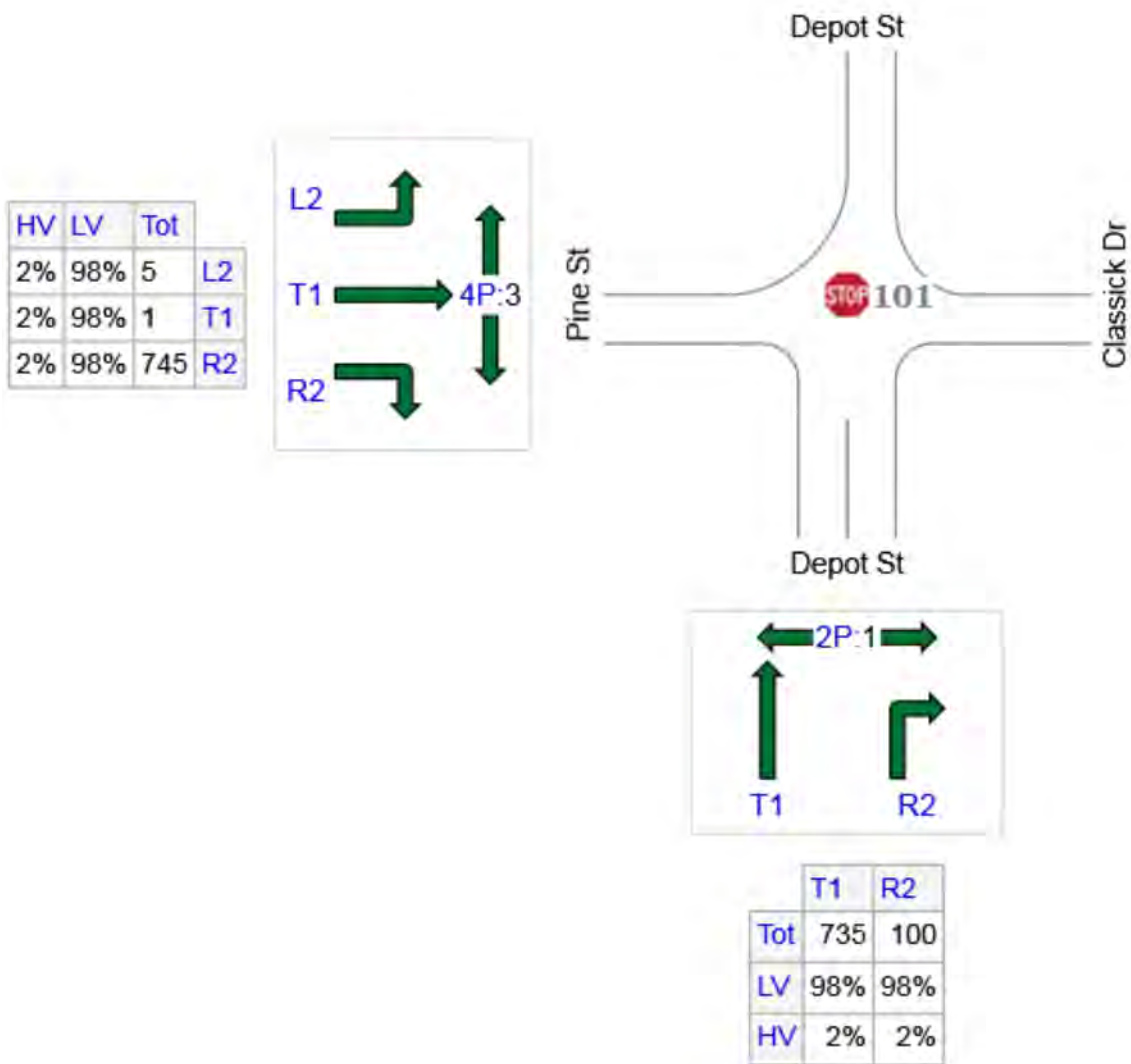
INPUT VOLUMES

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

MOVEMENT SUMMARY

 Site: 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 of Queue Vehicles veh	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
Approach		835	2.0	0.531	6.2	NA	2.4	61.0	0.01	0.00	24.5
West: 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
Approach		751	2.0	0.521	5.4	NA	0.3	7.2	0.02	0.00	16.2
All Vehicles		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.

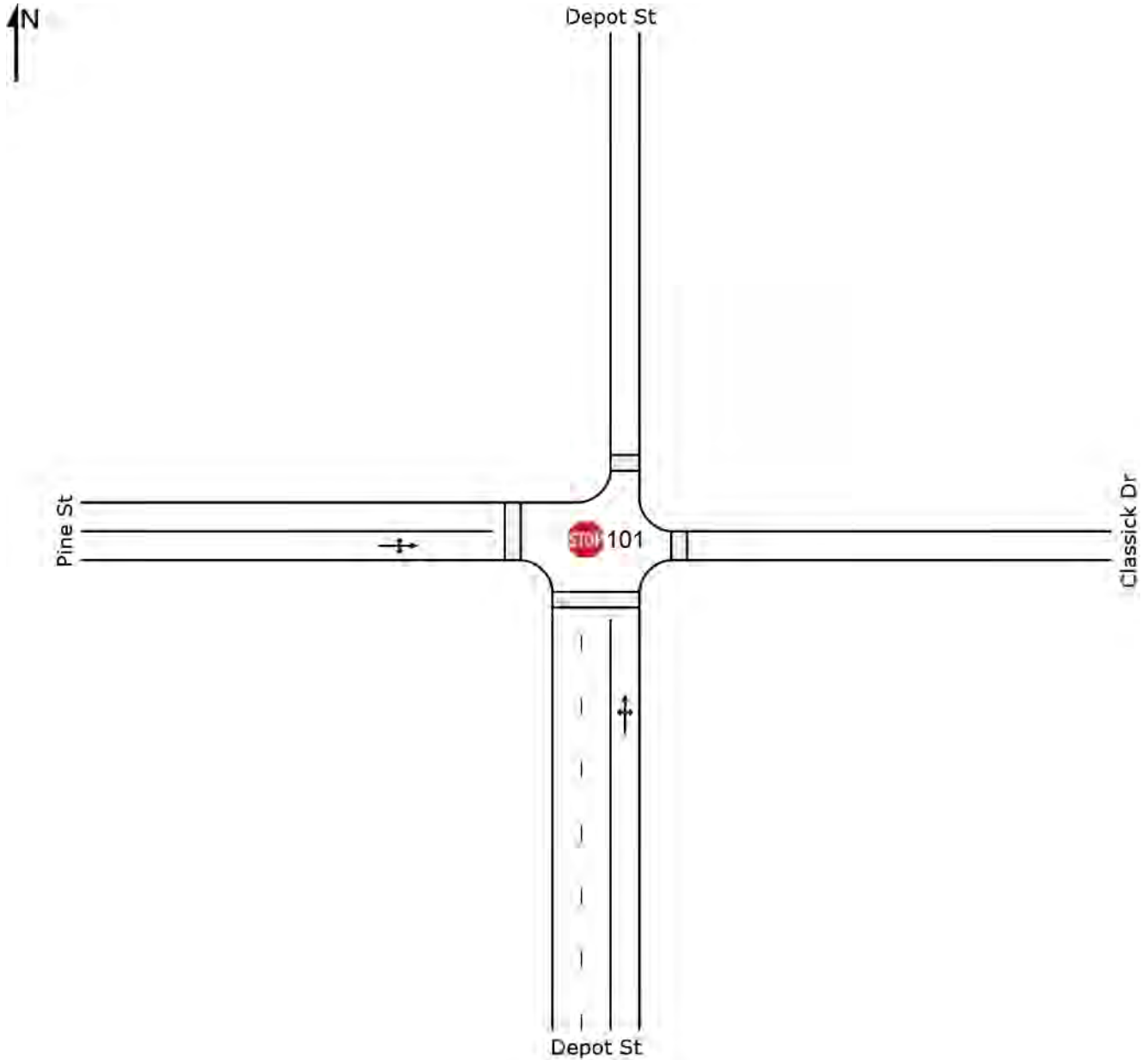
Gap-Acceptance Capacity: Traditional M1.

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

SITE LAYOUT

 Site: 101 [DepotStPineSt]

Depot at Pine St
Stop (Two-Way)



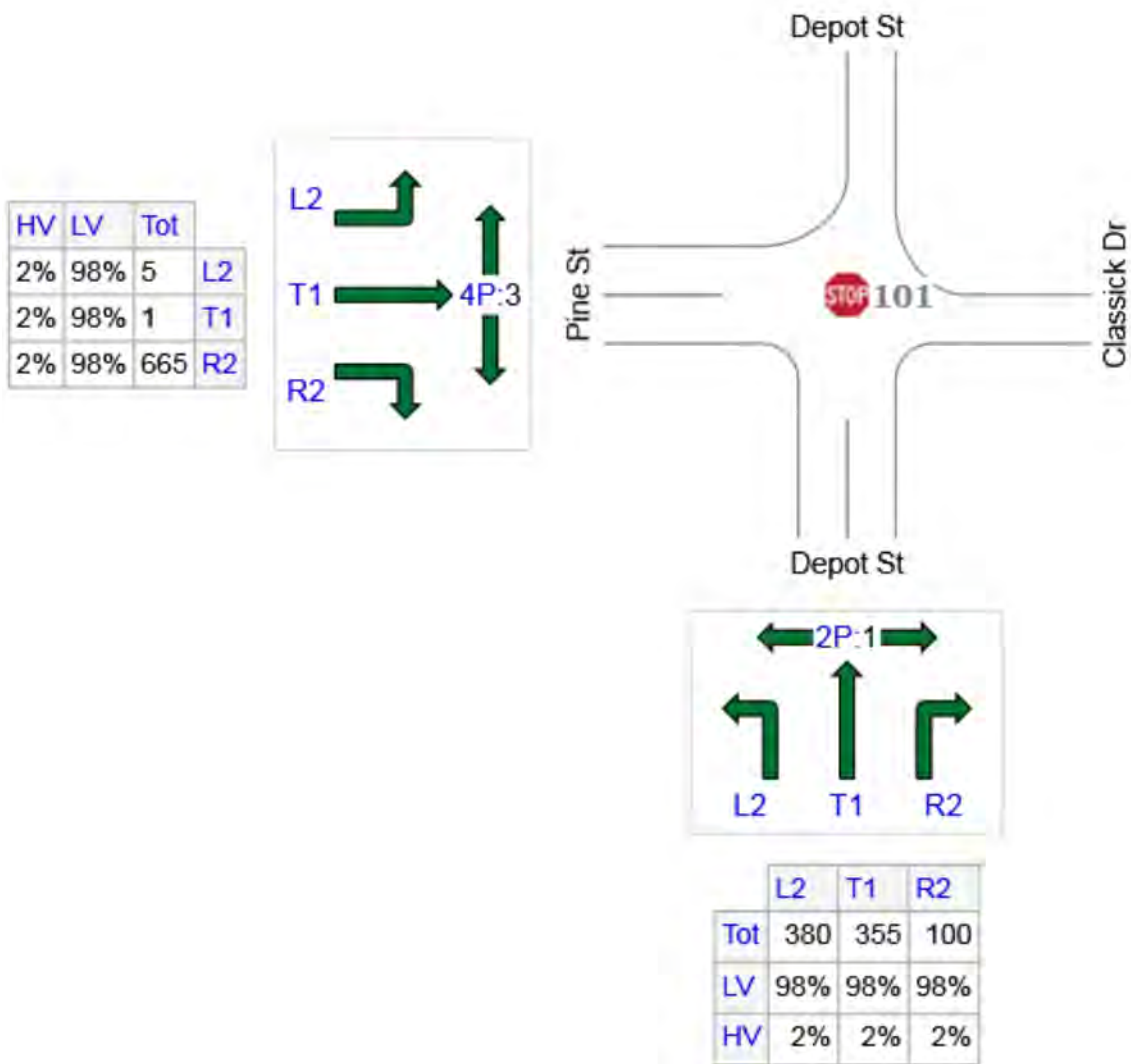
INPUT VOLUMES

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

MOVEMENT SUMMARY

 Site: 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 of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed 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
Approach		835	2.0	0.544	7.8	NA	4.9	124.2	0.03	0.00	20.3
West: 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
Approach		671	2.0	0.464	4.6	NA	0.2	5.4	0.02	0.00	16.9
All Vehicles		1506	2.0	0.544	6.3	NA	4.9	124.2	0.02	0.00	18.8

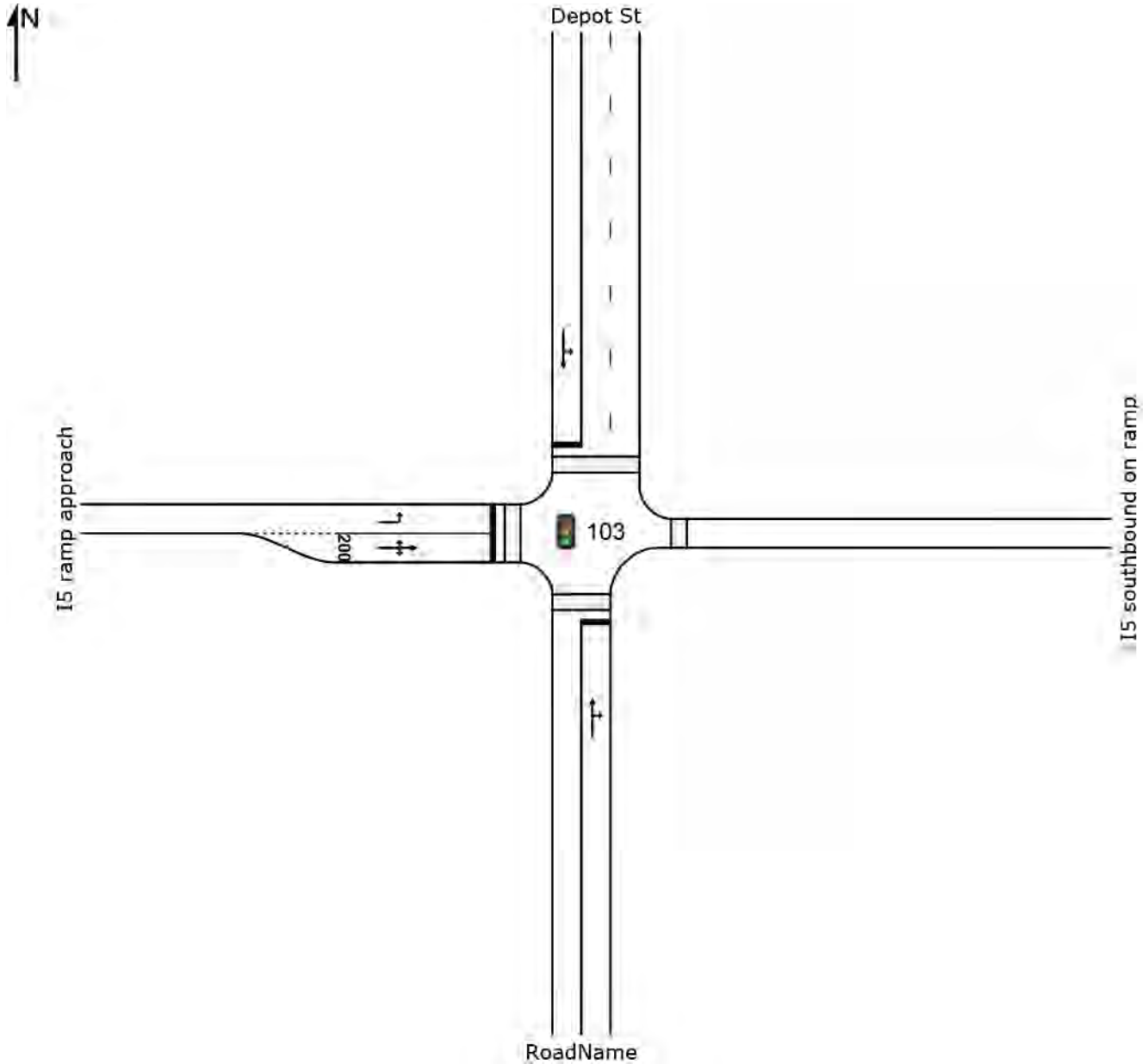
Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
 LOS F will result if v/c > 1 irrespective of movement delay 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.

SITE LAYOUT

 Site: 103 [DepotStSBi5]

Depot St at I5 SB exit

Signals - Actuated Isolated



INPUT VOLUMES

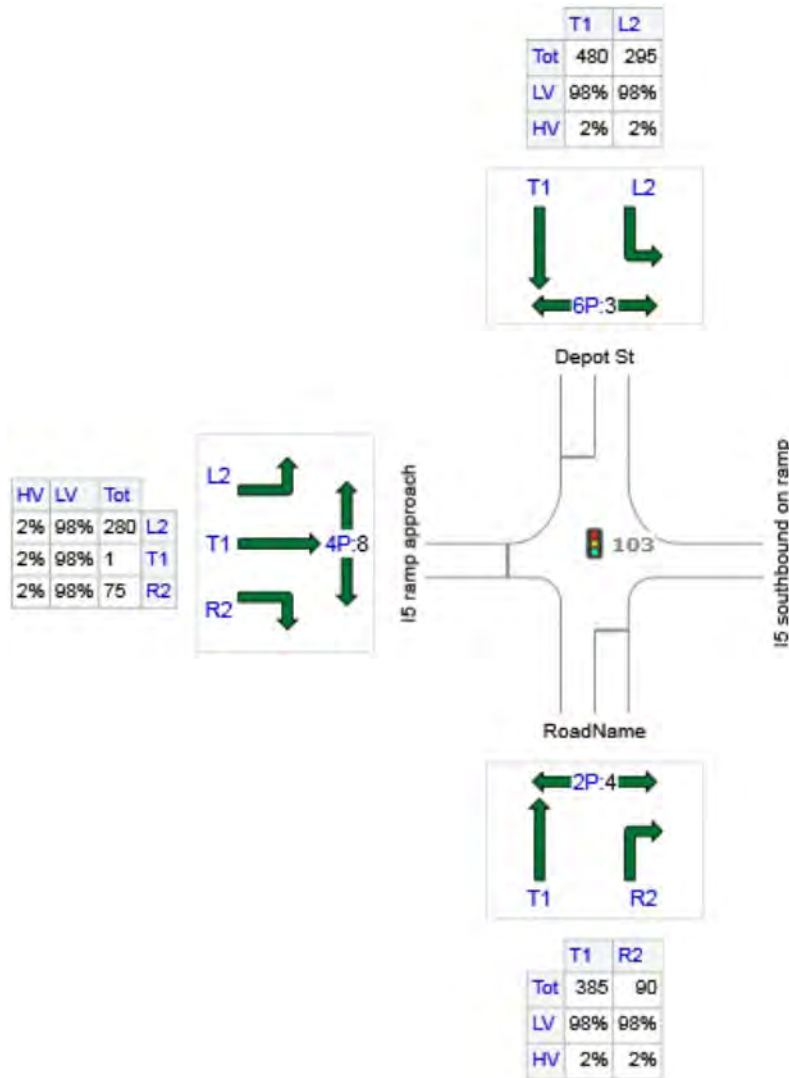
Vehicles and pedestrians per 60 minutes

 Site: 103 [DepotStSBi5]

Depot St at I5 SB exit

Signals - Actuated Isolated

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: RoadName	475	466	10
N: Depot St	775	760	16
W: I5 ramp approach	356	349	7
Total	1606	1574	32

MOVEMENT SUMMARY

 **Site: 103 [DepotStSBi5]**

Depot St at I5 SB exit

Signals - Actuated Isolated Cycle Time = 93 seconds (Practical Cycle Time)

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 of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: RoadName											
8	T1	385	2.0	0.873	49.9	LOS D	24.4	620.7	0.99	0.94	8.5
18	R2	90	2.0	0.873	49.9	LOS D	24.4	620.7	0.99	0.94	12.6
Approach		475	2.0	0.873	49.9	LOS D	24.4	620.7	0.99	0.94	9.6
North: Depot St											
7	L2	295	2.0	8.937	3597.4	LOS F	167.7	4259.3	1.00	1.99	0.4
4	T1	480	2.0	8.937	3597.4	LOS F	167.7	4259.3	1.00	1.99	0.2
Approach		775	2.0	8.937	3597.4	LOS F	167.7	4259.3	1.00	1.99	0.2
West: I5 ramp approach											
5	L2	280	2.0	0.476	36.7	LOS D	7.7	194.5	0.89	0.73	12.6
2	T1	1	2.0	0.476	30.9	LOS C	6.8	173.2	0.88	0.72	17.6
12	R2	75	2.0	0.476	30.9	LOS C	6.8	173.2	0.88	0.72	14.0
Approach		356	2.0	0.476	35.4	LOS D	7.7	194.5	0.88	0.73	12.9
All Vehicles		1606	2.0	8.937	1758.6	LOS F	167.7	4259.3	0.97	1.40	0.5

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.

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance ft	Prop. Queued	Effective Stop Rate per ped	
2P	South Full Crossing	4	23.4	LOS C	0.0	0.0	0.71	0.71	
8P	East Full Crossing	7	21.3	LOS C	0.0	0.0	0.68	0.68	
6P	North Full Crossing	3	32.7	LOS D	0.0	0.0	0.84	0.84	
4P	West Full Crossing	9	23.4	LOS C	0.0	0.1	0.71	0.71	
All Pedestrians		23	24.2	LOS C			0.72	0.72	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

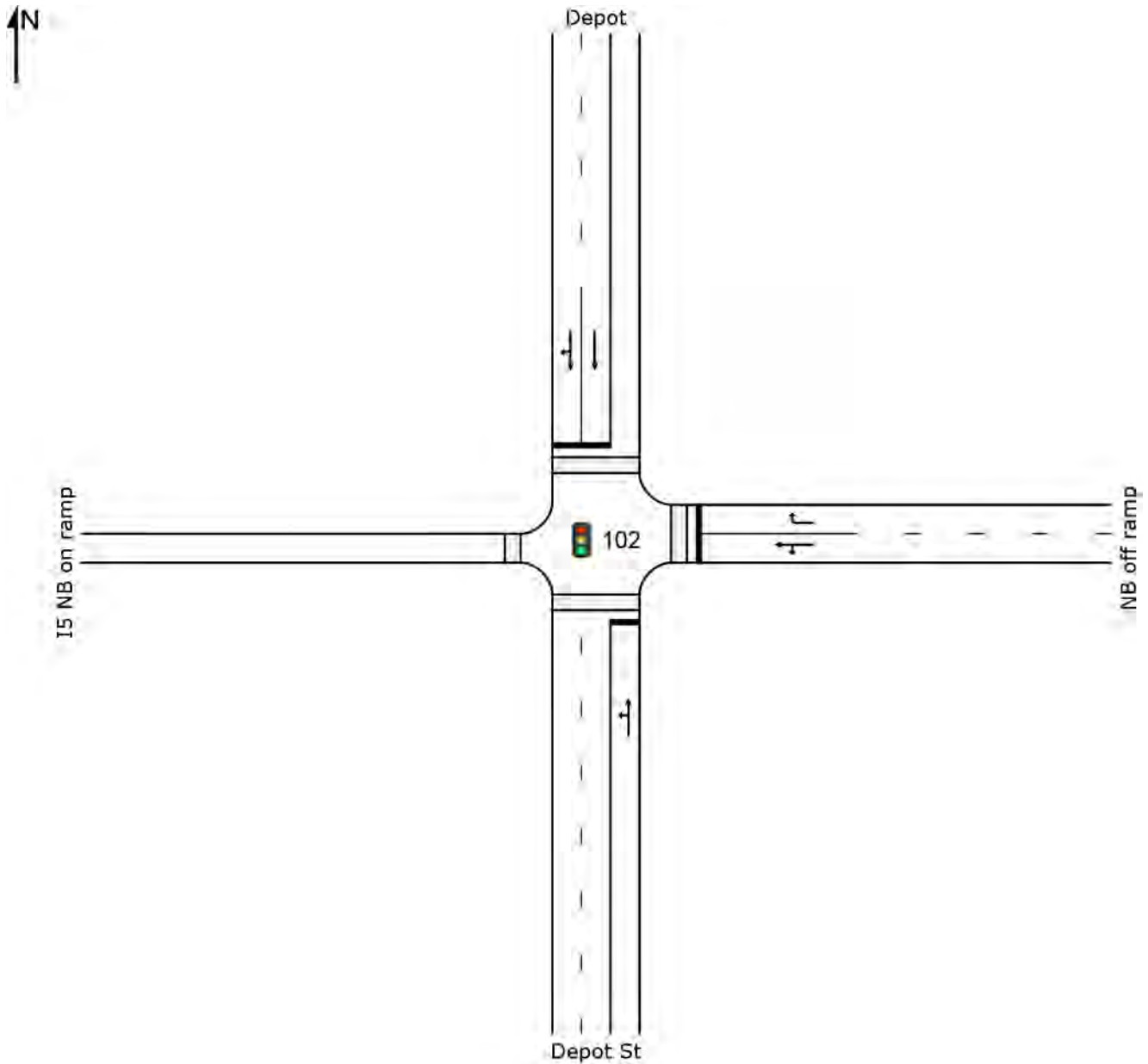
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SITE LAYOUT

 Site: 102 [DepotStNB15]

Depot St at I5 NB entrance

Signals - Actuated Isolated



INPUT VOLUMES

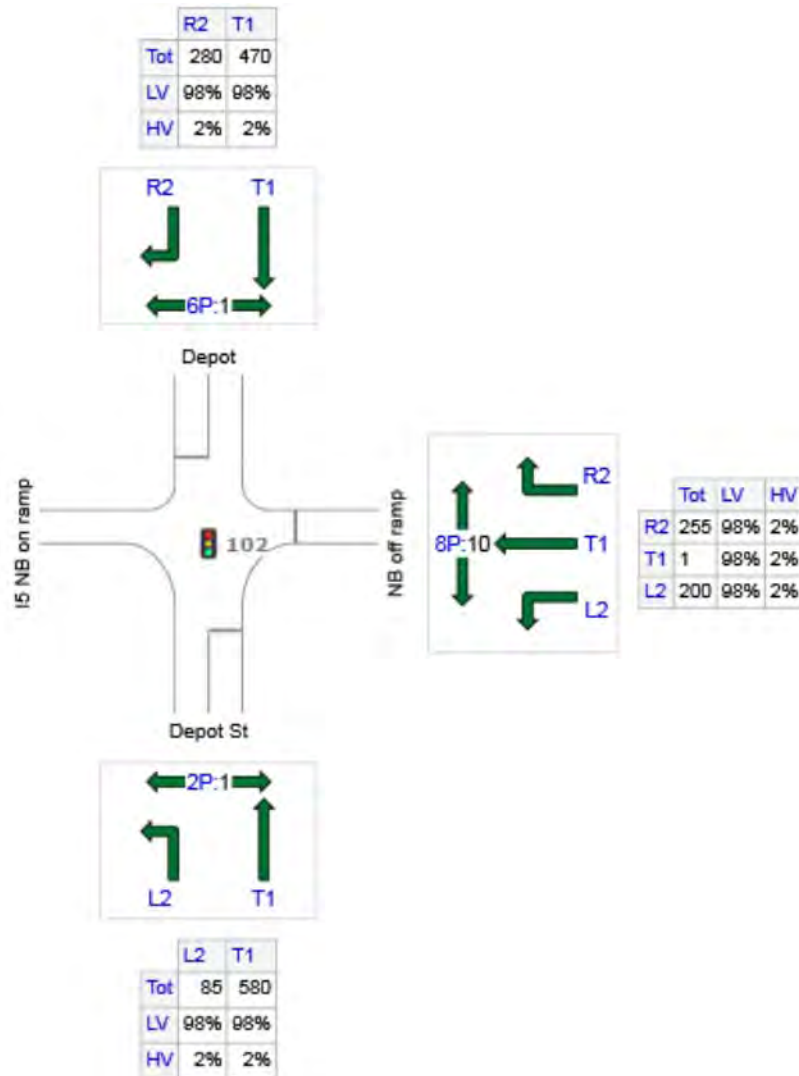
Vehicles and pedestrians per 60 minutes

 Site: 102 [DepotStNB15]

Depot St at I5 NB entrance

Signals - Actuated Isolated

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Depot St	665	652	13
E: NB off ramp	456	447	9
N: Depot	750	735	15
Total	1871	1834	37

MOVEMENT SUMMARY

 Site: 102 [DepotStNB15]

Depot St at I5 NB entrance

Signals - Actuated Isolated Cycle Time = 56 seconds (Practical Cycle Time)

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 of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Depot St											
3	L2	85	2.0	0.859	25.5	LOS C	20.0	508.4	0.92	0.92	18.5
8	T1	580	2.0	0.859	25.5	LOS C	20.0	508.4	0.92	0.92	7.5
Approach		665	2.0	0.859	25.5	LOS C	20.0	508.4	0.92	0.92	10.0
East: NB off ramp											
1	L2	200	2.0	0.383	19.1	LOS B	4.8	120.7	0.80	0.66	15.4
6	T1	1	2.0	0.383	19.1	LOS B	4.8	120.7	0.80	0.66	19.4
16	R2	255	2.0	0.380	8.3	LOS A	4.4	112.8	0.63	0.54	13.4
Approach		456	2.0	0.383	13.0	LOS B	4.8	120.7	0.70	0.59	14.3
North: Depot											
4	T1	470	2.0	0.398	8.8	LOS A	6.5	165.5	0.59	0.51	14.6
14	R2	280	2.0	0.398	4.6	LOS A	4.4	111.3	0.48	0.42	18.5
Approach		750	2.0	0.398	7.2	LOS A	6.5	165.5	0.55	0.47	17.2
All Vehicles		1871	2.0	0.859	15.1	LOS B	20.0	508.4	0.72	0.66	13.9

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.

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance ft	Prop. Queued	Effective Stop Rate per ped	
2P	South Full Crossing	1	17.3	LOS B	0.0	0.0	0.79	0.79	
8P	East Full Crossing	11	7.5	LOS A	0.0	0.0	0.52	0.52	
6P	North Full Crossing	1	17.3	LOS B	0.0	0.0	0.79	0.79	
4P	West Full Crossing	11	6.0	LOS A	0.0	0.0	0.46	0.46	
All Pedestrians		24	7.7	LOS A			0.52	0.52	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

 Site: 102 [DepotStNB15]

Depot St at I5 NB entrance

Signals - Actuated Isolated Cycle Time = 56 seconds (Practical Cycle Time)

Phase Times determined by the program

Phase Sequence: Two-Phase

Reference Phase: Phase A

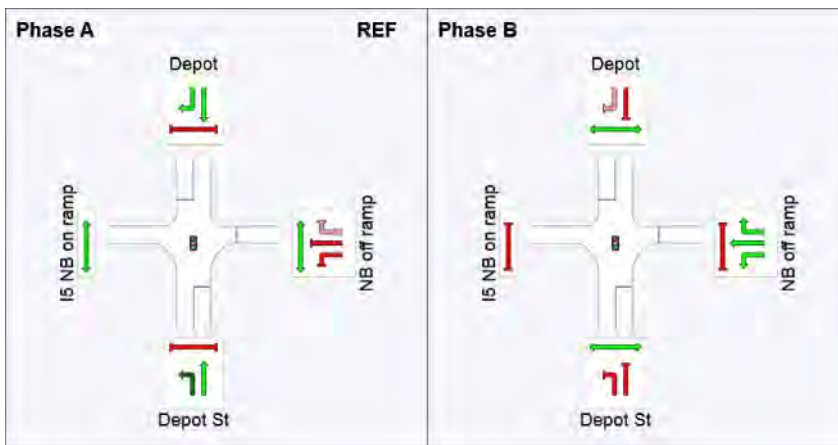
Input Phase Sequence: A, B

Output Phase Sequence: A, B

Phase Timing Results

Phase	A	B
Phase Change Time (sec)	0	34
Green Time (sec)	30	18
Phase Time (sec)	34	22
Phase Split	61 %	39 %

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase

VAR: Variable Phase



MOVEMENT TIMING

 Site: 102 [DepotStNB15]

Depot St at I5 NB entrance

Signals - Actuated Isolated Cycle Time = 56 seconds (Practical Cycle Time)

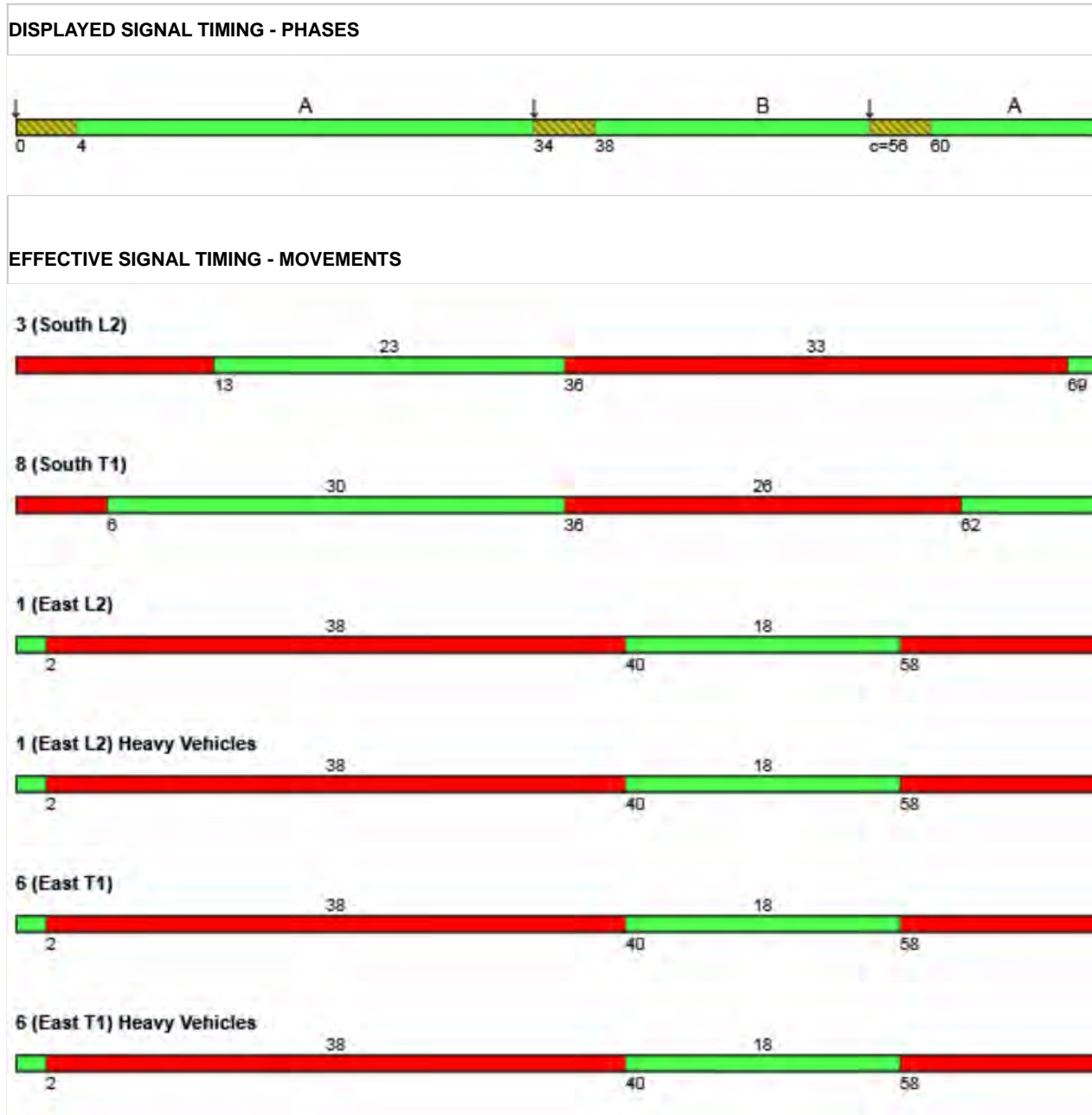
Phase Times determined by the program

Phase Sequence: Two-Phase

Reference Phase: Phase A

Input Phase Sequence: A, B

Output Phase Sequence: A, B



16 (East R2)



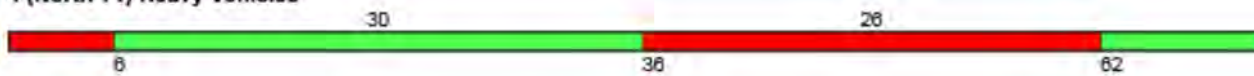
16 (East R2) Heavy Vehicles



4 (North T1)



4 (North T1) Heavy Vehicles



14 (North R2)



14 (North R2) Heavy Vehicles

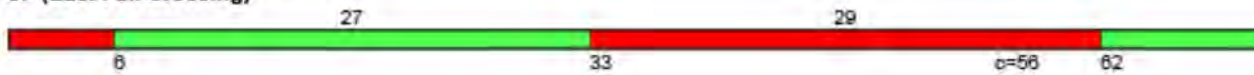


PEDESTRIAN SIGNAL TIMING

2P (South Full Crossing)



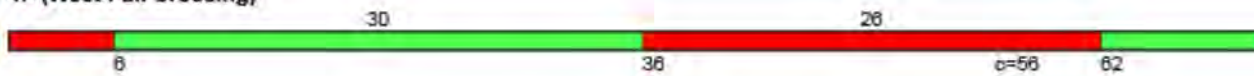
8P (East Full Crossing)



6P (North Full Crossing)



4P (West Full Crossing)

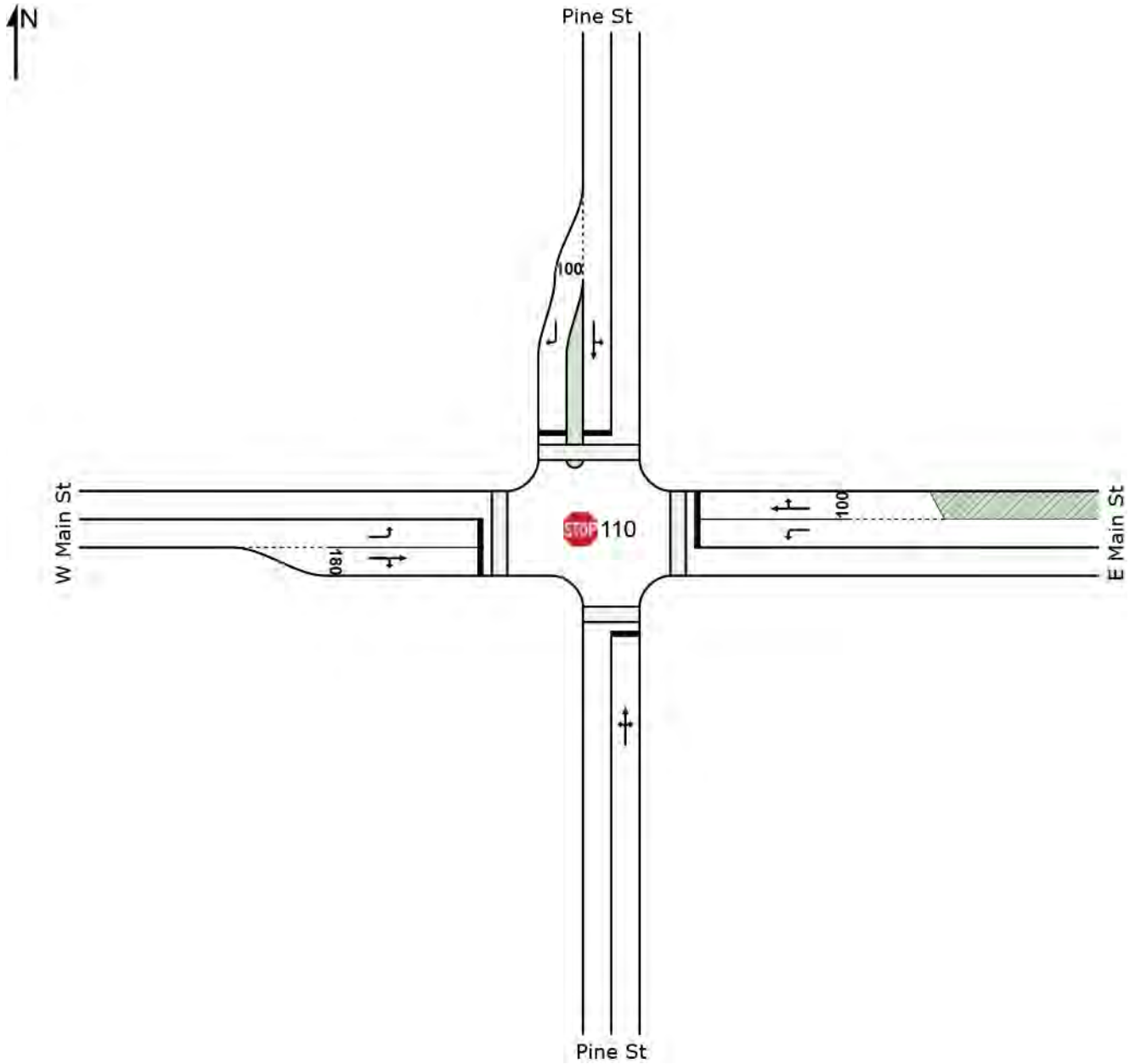


SITE LAYOUT

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)



INPUT VOLUMES

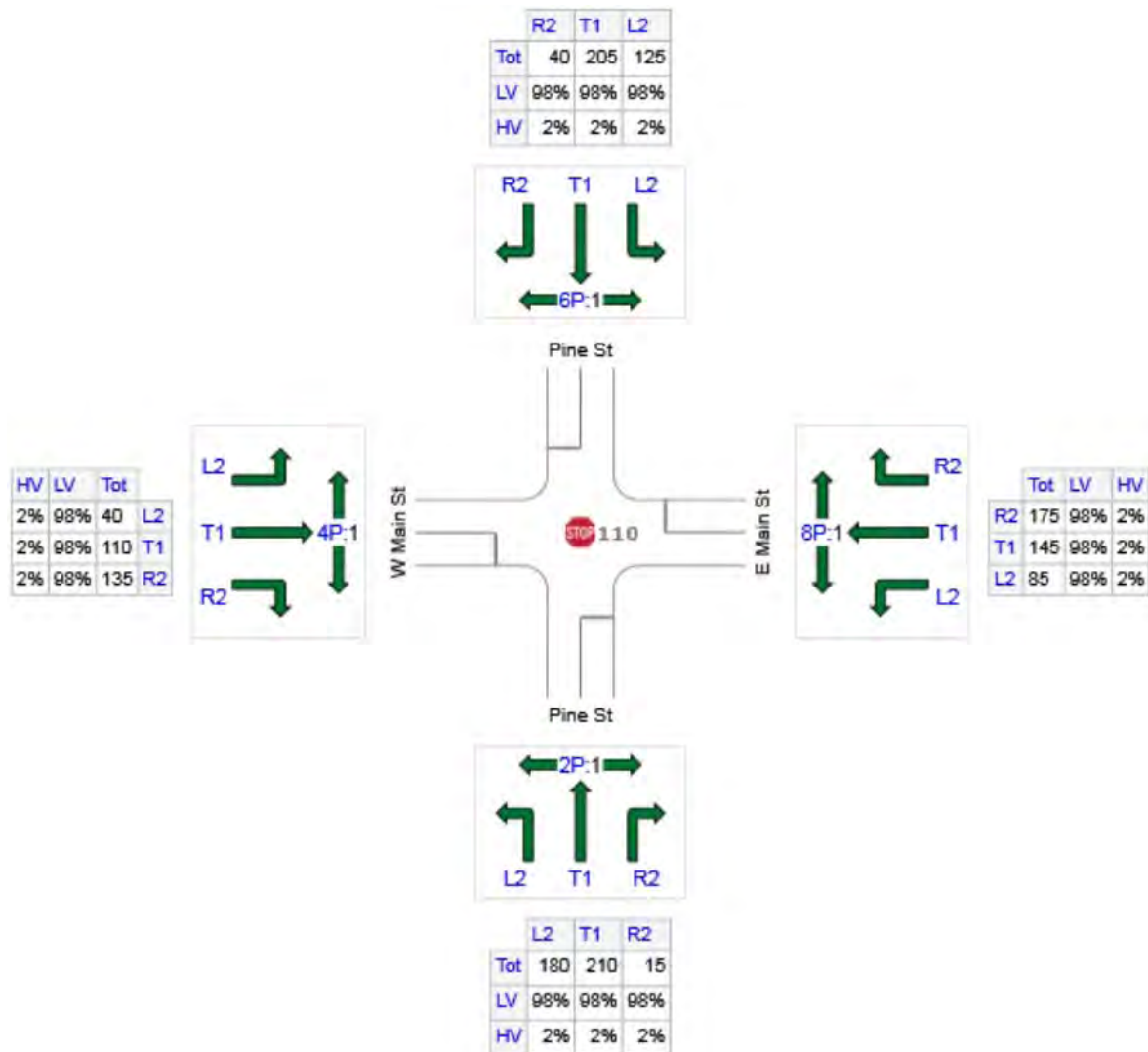
Vehicles and pedestrians per 60 minutes

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Pine St	405	397	8
E: E Main St	405	397	8
N: Pine St	370	363	7
W: W Main St	285	279	6
Total	1465	1436	29

MOVEMENT SUMMARY

 **Site: 110 [E Main St Pine St]**

E Main St at Pine St (All-Way 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 of Queue Vehicles veh	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
Approach		405	2.0	0.901	49.9	LOS E	9.7	247.2	1.00	2.21	14.8
East: 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
Approach		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
Approach		370	2.0	0.898	47.6	LOS E	9.1	231.8	0.99	2.02	15.9
West: W Main 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
Approach		285	2.0	0.340	8.2	LOS A	1.3	32.8	0.77	1.09	27.6
All Vehicles		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.

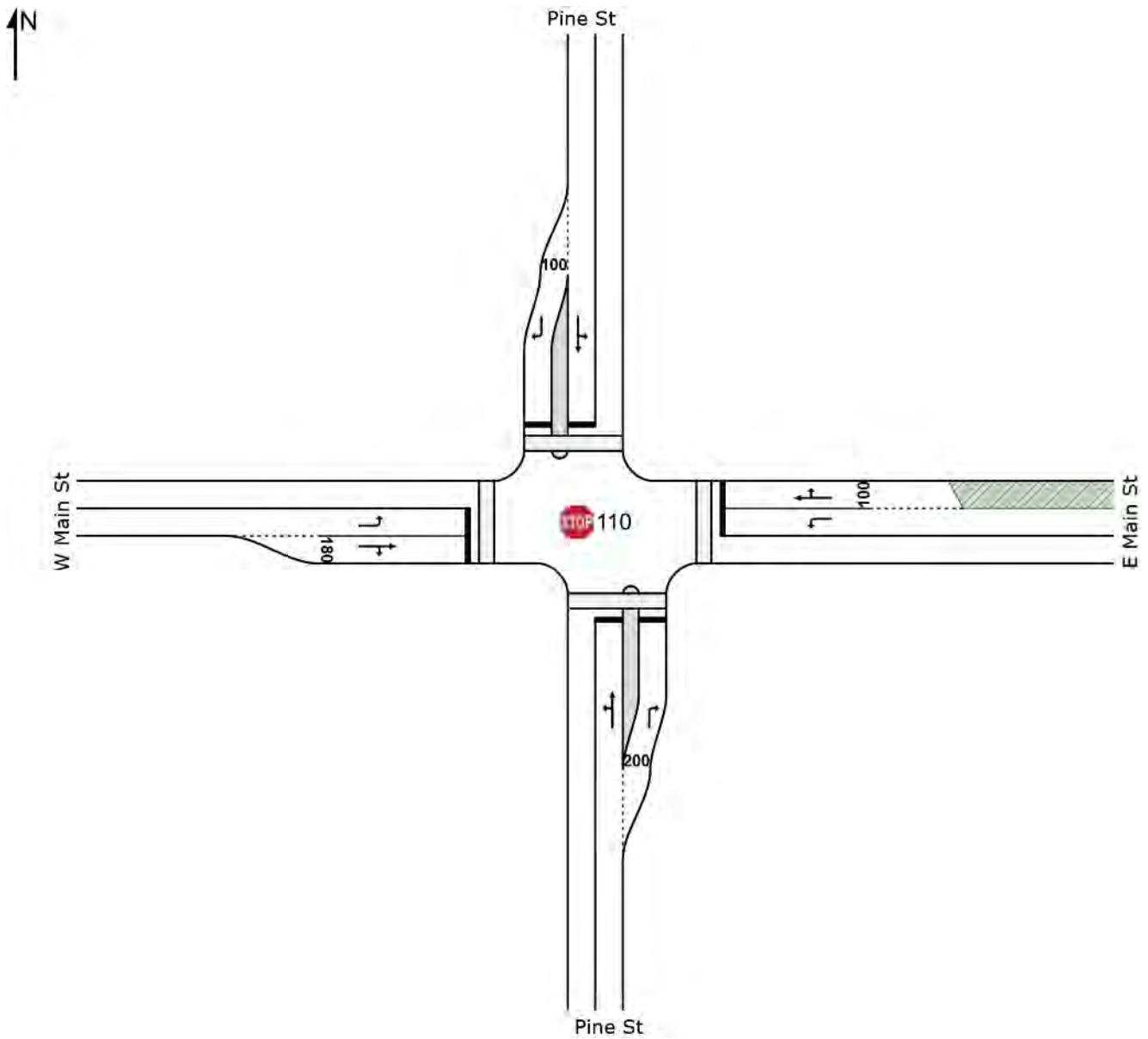
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)



INPUT VOLUMES

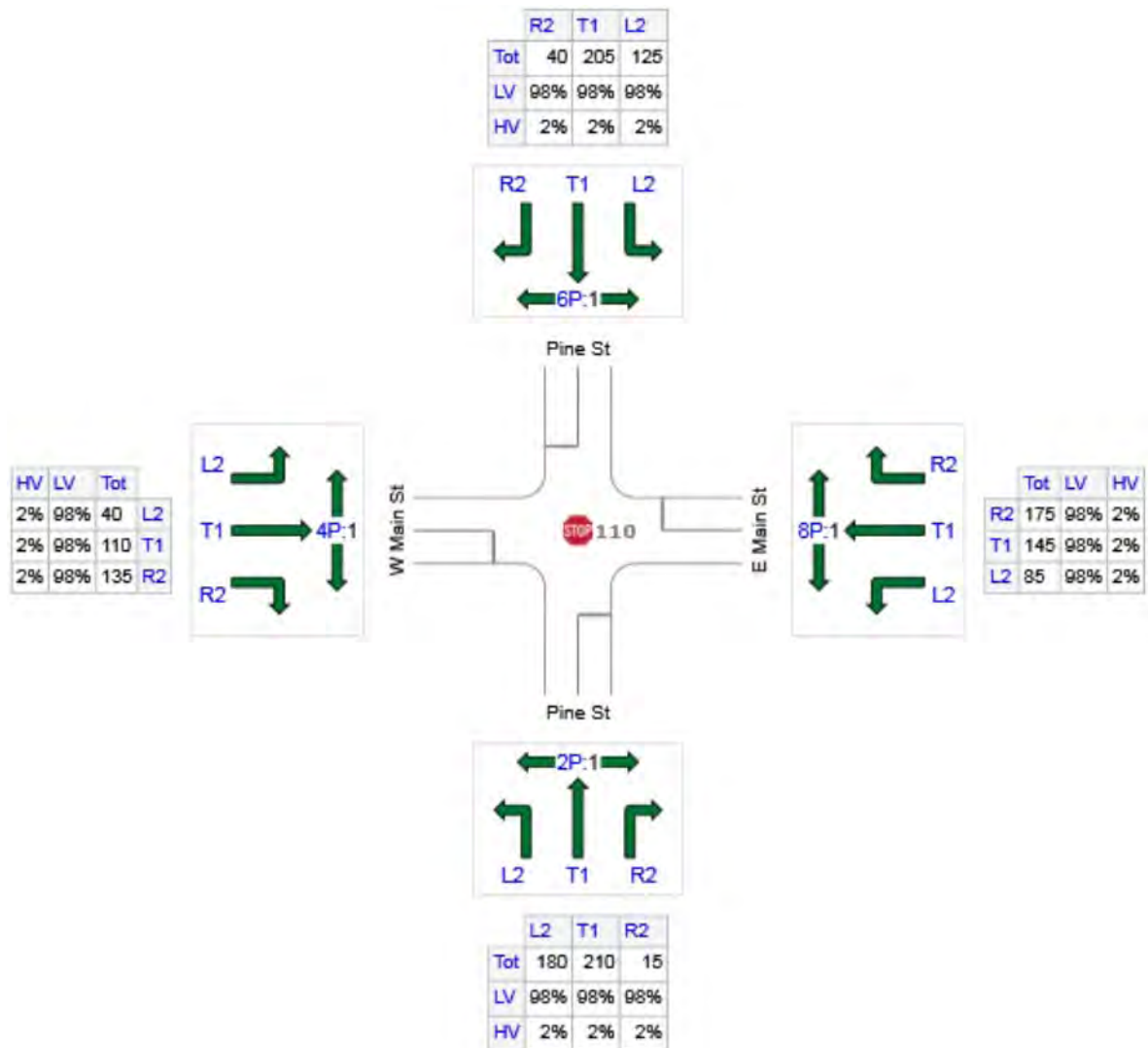
Vehicles and pedestrians per 60 minutes

 Site: 110 [E Main St Pine St]

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

Stop (All-Way)

Volume Display Method: Total and %



	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: Pine St	405	397	8
E: E Main St	405	397	8
N: Pine St	370	363	7
W: W Main St	285	279	6
Total	1465	1436	29

MOVEMENT SUMMARY

 Site: 110 [E Main St Pine St]

E Main St at Pine St (All-Way 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 of Queue Vehicles veh	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
Approach		405	2.0	1.139	115.6	LOS F	19.8	502.2	1.00	3.01	8.6
East: 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
Approach		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
Approach		370	2.0	1.048	85.0	LOS F	14.3	364.5	0.99	2.44	11.4
West: W Main 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
Approach		285	2.0	0.340	8.2	LOS A	1.3	32.8	0.77	1.09	27.6
All Vehicles		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.

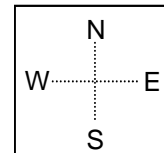
Gap-Acceptance Capacity: Traditional M1.

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

General Information	
Analyst:	Joe Meek PE
Agency:	ODOT
Date:	3/29/2018
East leg:	0
Project:	RRTSP

Passenger Car Equivalents				Rec
bicycle	E_b	1	1	
medium	E_m	1.5	1.5	
heavy	E_h	2	2	
Year:	20yrs > build			

Roundabout Input			
3 or 4 legs	4		
Portion of an hour:	0.25		
Peak hr	3	30	PM



Hour Volumes		Approaches			
vph		N	E	S	W
Exits	N	0	171	206	39
	E	123	0	15	108
	S	201	83	0	133
	W	39	142	176	0

Changes here do not go to Input tab.

Peak Hour Factor		Approaches			
PHF		N	E	S	W
Exits	N	0.00	0.95	0.95	0.95
	E	0.95	0.00	0.95	0.95
	S	0.95	0.95	0.00	0.95
	W	0.95	0.95	0.95	0.00

# of Bicycles		Approaches			
vph		N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Medium Trucks		Approaches			
vph		N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Heavy Trucks		Approaches			
vph		N	E	S	W
Exits	N	0	4	4	1
	E	2	0	0	2
	S	4	2	0	2
	W	1	3	4	0

Adjusted Flow Rate		Approaches			
v_i		N	E	S	W
Exits	N	0	184	221	42
	E	131	0	16	116
	S	216	89	0	142
	W	42	152	189	0

Entry Flow Rate (pc/h)		389	425	426	300
Conflict Flow (pc/h)		430	452	289	436
Exits w/o right vol pct Weighted Entry Vehicle Factors					
N	263	0.981	0.978	0.980	0.982
E	247				
S	305	Weighted Conflict Vehicle Factors			
W	341	0.978	0.979	0.982	0.981

Pedestrian crossings per leg		N	E	S	W
#		0	0	0	0

Flow Rate		Approaches			
v_i		N	E	S	W
Exits	N	0	180	217	41
	E	129	0	16	114
	S	212	87	0	140
	W	41	149	185	0

Vehicle Factor		Approaches			
f_{hv}		N	E	S	W
Exits	N	1.000	0.978	0.981	0.975
	E	0.984	1.000	1.000	0.981
	S	0.980	0.977	1.000	0.985
	W	0.975	0.979	0.978	1.000

Proportion of Bicycle		Approaches			
P_b		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Medium		Approaches			
P_m		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Heavy		Approaches			
P_h		N	E	S	W
Exits	N	0.000	0.023	0.019	0.026
	E	0.016	0.000	0.000	0.019
	S	0.020	0.024	0.000	0.015
	W	0.026	0.021	0.023	0.000

Output		Approaches			
		N	E	S	W
Conflict flow (veh/h)	v_c	421	443	284	428
Entry flow (veh/h)	v_i	382	416	417	295
Entry capacity (veh/h)	c_i	721	703	829	718
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	0.53	0.59	0.50	0.41
Control delay (sec/veh)	d_i	13.1	15.2	11.1	10.5
LOS	n/a	B	C	B	B
HCM 95 th % Queue (veh)	Q_m	3	4	3	2

Int cntrl delay (sec/veh)	d_{int}	12.62
Intersection LOS	n/a	B

V/C OS8 D

EBL + WBTR 40 + 175 +

WBL + EBTR 320 + 110 +

$$0.249 + 0.164 = 0.413$$

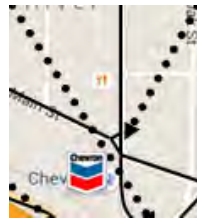
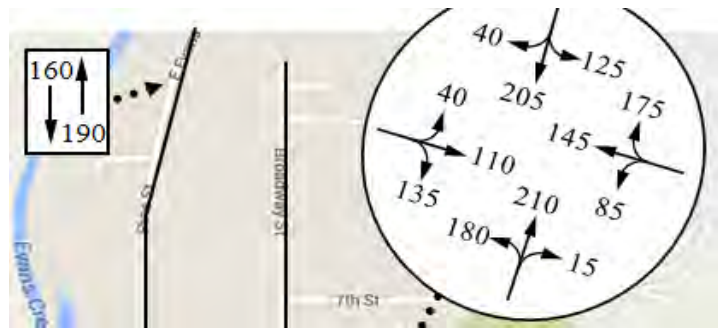
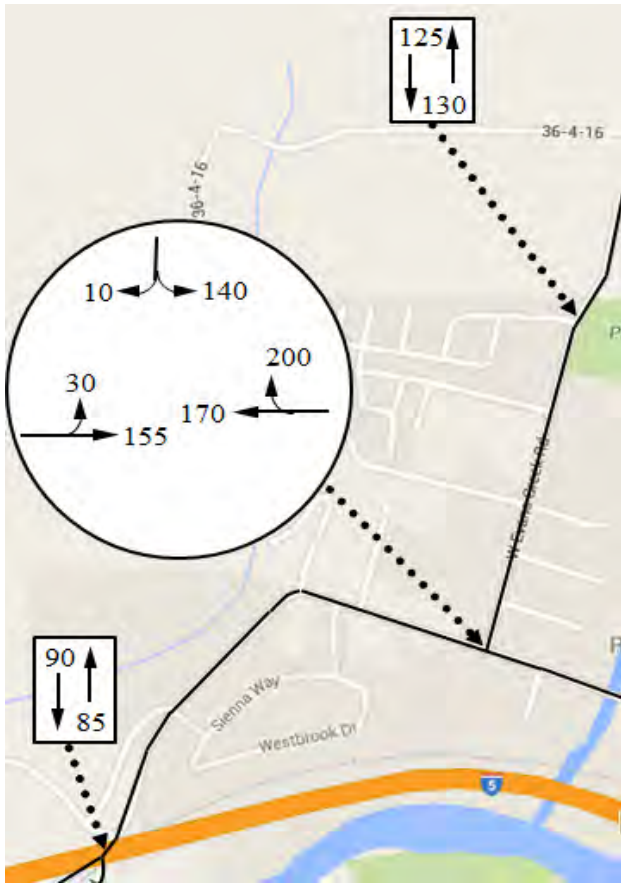
$$V/C = \frac{150}{150-8} [0 + 0.413]$$

$$145 = 360$$

$$165 = 595$$

$$= 0.44$$

2040 Bridge movements



about 40 homes below where bridge would be

120 lefts onto Broadway

3rd Street bridge

movements	2040 no build	approximately % uses 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 increases to		185 185 remain
SB left	125 increases to		135 135
SB thru	205 increases 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	% uses 3rd	#cars	
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 increases	to	180	180 remain
SB left	125 increases	to	130	130 remain
SB thru	205 increases	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

0.666

14 turn south

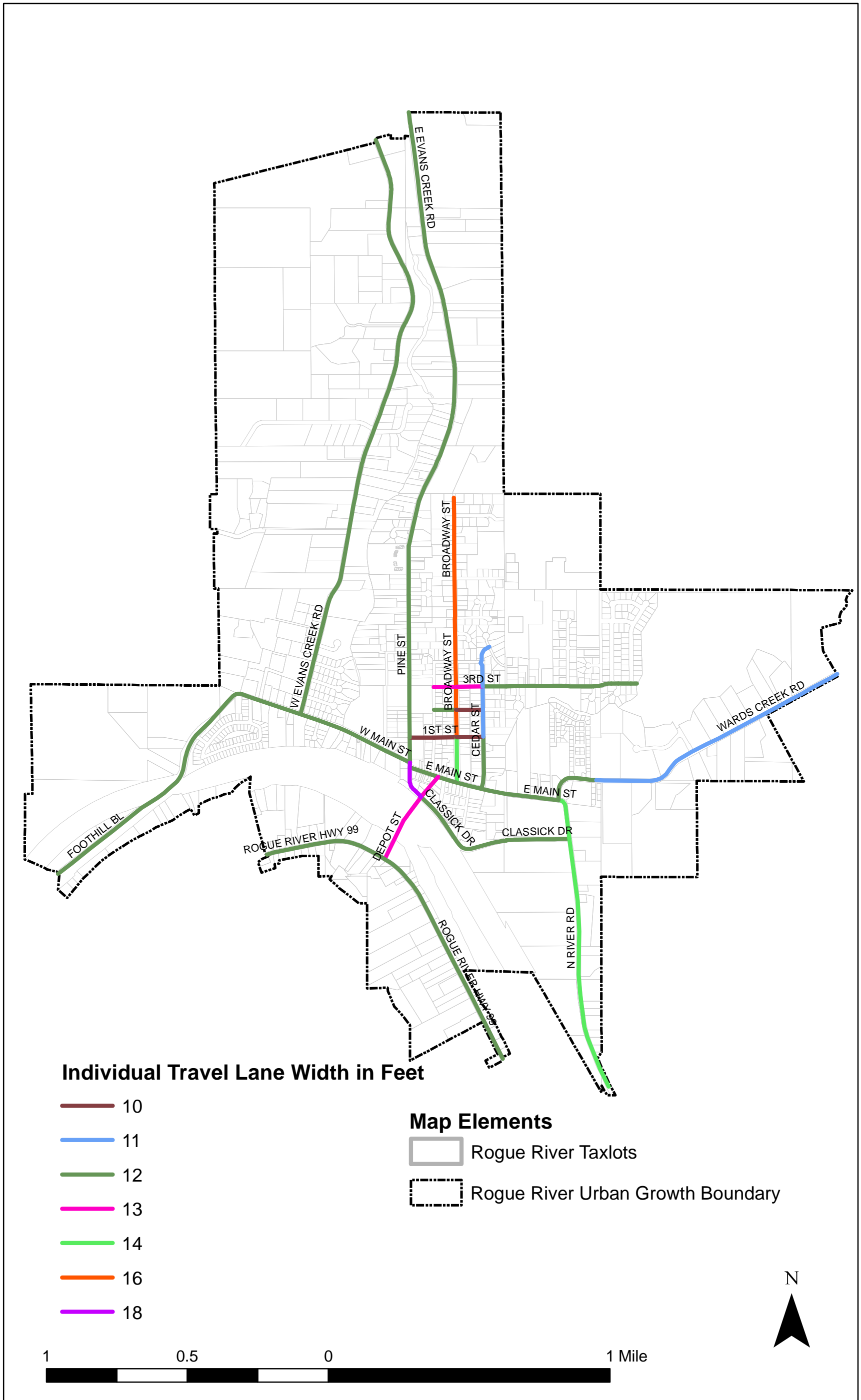
6 turn north

0.666

7 turn south

3 turn north

Rogue River TPAU Travel Lane (Pavement) Width



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

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

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

Multiuse path	\$16	sq ft	
Curb extension	\$27,000	ea	
Shared Lane/Bicycle marking	\$225	ea	Assume 250' spacing
Demand-responsive or fixed route transit	\$60	service hour per route	
Paratransit service (req. for fixed route)	\$80	service hour	Must use same service hours/days as fixed route

SEISMIC

Site specific - below are Rogue River structures:

Hwy 1/ Depot	\$4,900,000	ea
Hwy 1/Evans Creek	\$14,200,000	ea
Hwy 1 /Foothills/CORP	\$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.

PROJECT DATA	Project Name		Highway Number	
	Highway Name		Posted Number	
	County/City		Maint. District	2A
	Type of Project	Urban Non Freeway	Key No	
	Cost Complexity	High	Estimated By	

		Unit	Quantity	Unit Cost	Cost
SQUARE FOOT COSTS FROM STUDY PROJECTS (Costs Inflated to January 2007 Dollars)	Pavement				
	New Work	sf		\$ 39.00	\$ -
	2" Overlay (With Mod)	sf		\$ 3.00	\$ -
	2" Overlay (Pres Only)	sf		\$ 4.00	\$ -
	Structures				
	New Bridges Post Tensioned	sf		\$ 180.00	\$ -
	New Bridges Prestressed	sf		\$ 125.00	\$ -
	New Rigid Frame Structures	sf		\$ 300.00	\$ -
	Bridge Widening	sf		\$ 250.00	\$ -
	Retaining Walls - CIP	sf		\$ 125.00	\$ -
	Retaining Walls - MSE	sf		\$ 85.00	\$ -
	Retaining Walls - Seg.	sf		\$ 35.00	\$ -
	Sound Walls - Precast	sf		\$ 35.00	\$ -
	Miscellaneous				
	Traffic Signals	Intersection		\$ 330,000.00	\$ -
Streetscape Peripherals	If of roadway		Low - \$400/lf	\$ -	

		Unit	Quantity	Unit Cost	Cost
COSTS FROM PUBLISHED BID ITEM AVERAGES (Region 1 Weighted Averages - 2006)	Barriers and Guardrail				
	Type 2A Guardrail	ft		\$ 15.85	\$ -
	Type 3 Guardrail	ft		\$ 49.67	\$ -
	Type 4 Guardrail	ft		\$ 41.94	\$ -
	Guardrail Transition	ea		\$ 2,310.82	\$ -
	Guardrail Terminals	ea		\$ 2,453.93	\$ -
	Cable Guardrail	ft		\$ 15.00	\$ -
	Impact Attenuator	ea		\$ 15,500.00	\$ -
	Concrete Median Barrier	ft		\$ 39.01	\$ -
	Tall Conc. Median Barr.	ft		\$ 68.58	\$ -
	Miscellaneous				
	Concrete SWs, DWs, & Islands	sf		\$ 4.80	\$ -
	Concrete DWs, ReinforceD	sf		\$ 6.66	\$ -
	Durable Striping	lf		\$ 2.06	\$ -
	Mobilization	%	1	10%	\$ -
Temporary Traffic Control	%	1	8%	\$ -	

Miscellaneous Items - At the Estimator's Discretion				
				\$ -
				\$ -
				\$ -

<i>Project Subtotal</i>				
				\$ -
<i>Project Scope Contingencies</i>	%	1	50%	\$ -

CONSTRUCTION ESTIMATE TOTAL				
				\$ -

Other Costs	Preliminary Engineering	%	1	20%	\$ -
	Construction Engineering	%	1	15%	\$ -
	Environmental Studies	LS	All	EA Typical	\$ -
	Right of Way	LS	All		\$ -

TOTAL PROJECT ESTIMATE				\$ -
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National Highway Construction Cost Index (NHCCI) 2.0

January 9, 2018

YEAR	QUARTER	NHCCI
2003	March	1.0000
	June	1.0096
	September	1.0240
	December	1.0216
2004	March	1.0459
	June	1.1009
	September	1.1431
	December	1.1492
2005	March	1.2409
	June	1.2814
	September	1.3718
	December	1.4125
2006	March	1.4486
	June	1.5213
	September	1.6184
	December	1.5527
2007	March	1.5636
	June	1.5612
	September	1.5375
	December	1.5143
2008	March	1.5686
	June	1.6441
	September	1.7848
	December	1.6267
2009	March	1.5000
	June	1.4398
	September	1.4292
	December	1.4026
2010	March	1.4419
	June	1.4384
	September	1.4465
	December	1.4300
2011	March	1.4568
	June	1.5006
	September	1.5412
	December	1.5411
2012	March	1.5769
	June	1.6270
	September	1.5955
	December	1.6071
2013	March	1.5908
	June	1.6235
	September	1.6448
	December	1.5931
2014	March	1.6278
	June	1.6699
	September	1.7351
	December	1.6938
2015	March	1.7198
	June	1.7048
	September	1.7063
	December	1.6627
2016	March	1.6311
	June	1.6779
	September	1.6798
	December	1.6534
2017	March ¹	1.6172
	June ²	1.6854
	September ²	1.7430

Long term inflation rate (as per Jack Svadlenak) = 3.10 % per year
 Consistent with OTP forecasts

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

Notes: 1/

Revised.

2/

Preliminary

y.

Source: Federal Highway

	December	1.6627
2016	March	1.6311
	June	1.6779
	September	1.6798
	December	1.6534
2017	March ¹	1.6172
	June ²	1.6854
	September ²	1.7430

Notes: 1/

Revised.

2/

Preliminar

y.

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

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Buffered Paved Shoulder	pavement	2360	9	2	\$85	sq ft	\$3,610,800	
	stripe	2360		6	\$5	per ft	\$70,800	
							\$3,681,600	Total
							\$3,682,000	Total

P2 East 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	ADA ramp sidewalk	4800	6	8	\$15,000	per	\$120,000	
				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	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Install continental crosswalk and signing	crosswalk			1	\$5,000	per	\$5,000	
	ADAramp			2	\$15,000	per	\$30,000	
	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 and crosswalk	beacon			1	\$40,000	for 2	\$40,000	
	ADAramp			2	\$15,000	per	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	
							\$75,000	Total
							\$75,000	Total

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Install pedestrian refuge island with beacon and crosswalk	island			1	\$25,000	per	\$25,000	with beacon
	beacon pair			1	\$40,000	for 2	\$40,000	
	ADAramp			2	\$15,000	per	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	wider than 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 & ADA ramps	sidewalk	4000	6	2	\$11	sq ft	\$528,000	
	ADA ramp			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

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Improve pedestrian crossings	refuge			3	\$25,000	per	\$75,000	need to widen for island space
	beacon			3	\$40,000	per 2	\$120,000	
	ADA ramp			6	\$15,000	per	\$90,000	
	sign			12	\$350	per	\$4,200	
							\$289,200	Total
							\$289,000	Total

Option D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Create sidewalk and sidepath	sidewalk	500	6	1	\$11	sq ft	\$33,000	
	ADA ramp			6	\$15,000	per	\$90,000	
	path	3400	10	1	\$16	per	\$544,000	
							\$667,000	Total
							\$667,000	Total

Option E	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Buffered Paved Shoulder	pavement	4000	9	2	\$85	sq ft	\$6,120,000	
	stripe	4000		6	\$5	per ft	\$120,000	
							\$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
							\$740,000	Total

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

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	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Build six foot sidewalk	sidewalk ADA ramp	2400	6	2	\$11	sq ft	\$316,800	
				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

Option C	Item	Length	Width	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 Pine/Depot Street	crosswalk			3	\$5,000	per	\$15,000	
	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 sidewalk	ADA ramp	600	6	24	\$15,000	per	\$360,000	
	sidewalk			2	\$11	sq ft	\$79,200	
							\$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	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Buffered Paved Shoulder	pavement stripe	600	9	2	\$85	sq ft	\$918,000	
				6	\$5	per ft	\$18,000	
							\$936,000	
							\$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 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	Quantity	Unit Cost	Units			Subtotal
d: Berglund St	overlay	700	12	1	\$9	sq ft		\$75,600
	stripe	700		0.67	\$5	ft		\$2,345
	sign	700		20	\$350	per		\$7,000
								\$85,000
e: Oak St	overlay	1000	12	1	\$9	sq ft		\$108,000
	stripe	1000		0.67	\$5	ft		\$3,350
	sign			20	\$350	per		\$7,000
								\$118,000
f: Cedar St	overlay	1800	12	1	\$9	sq ft		\$194,400
	stripe	1800		0.67	\$5	ft		\$6,030
	sign			20	\$350	per		\$7,000
								\$207,000
								\$410,000

Sidepath Option	Length	Width	Quantity	Unit Cost	Units			Subtotal
m: West Evans Crk Rd north of Palmerton	1500	10	1	\$16	sq ft			\$240,000
								\$240,000

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

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

Notes

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

Total

Notes

Advisory Shoulder Option	Estimate
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 of Palmerton	\$240,000

Total

Buffered Paved Shoulder Option	Estimate
m: West Evans Crk Rd Creek Rd north of Palmerton	\$2,340,000

Total

Bicycle lane	Estimate
p: Pine St: Depot - E Main St Buffered	\$417,000

Total

Notes

Total

Notes

Total

Notes

Total

B1 Pine Street

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

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create full six foot bicycle lanes	striping	3000		2	\$5	ft	\$30,000	move stripe a foot
	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	Total
							\$48,000	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 lanes	pavement	4800	7		\$85	sq ft	\$2,856,000	widen shoulder
	striping	4800		2	\$5	ft	\$48,000	
	stencil	4800		38	\$225	per	\$8,550	
							\$2,912,550	Total
							\$2,913,000	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	Units	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 bicycle lanes	pavement	1625	11	1	85	sq ft	1519375	Pine to West Evans
	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	2000		2	\$5	ft	\$20,000	
	sign			2	\$350	per	\$700	
6' Bicycle Lane	Marking	2000		16	\$225	per	\$3,600	
							\$24,300	Total
							\$24,000	Total

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Shared Lane Markings	Marking	2000		16	\$225	ft	\$3,600	
Sharrows	sign			5	\$350	per	\$1,750	
							\$5,350	Total
							\$5,000	Total

B5 Broadway Street North

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create six foot bicycle lanes	striping	3000		2	\$5	ft	\$30,000	
	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 lanes	striping	3000		6	\$5	ft	\$90,000	
	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 lanes	striping	575		2	\$5	ft	\$5,750	
	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 lanes	striping	575		6	\$5	ft	\$17,250	
	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 shoulders to bicycle lanes	pavement	4000	10	1	\$85	sq ft	\$3,400,000	
	striping	4500		2	\$5	ft	\$45,000	
	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 lanes	pavement	4000	14	1	\$85	sq ft	4760000	
	striping	4500		6	\$5	ft	\$135,000	
	stencil	4500		36	\$225	per	\$8,100	
							\$4,903,100	Total
							\$4,903,000	Total

B8 3rd 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

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Add buffered bicycle lane	pavement	3300	9	1	\$85	sq ft	\$2,524,500	
	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

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

B9 OR99

Option A	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create a sidepath	pavement	4500	10	1	\$16	sq ft	\$720,000	
							\$720,000	Total
							\$720,000	Total

Option B	Item	Length	Width	Quantity	Unit Cos	Units	Subtotal	Notes
Create buffered bicycle lane	pavement	4500	16	1	\$85	sq ft	\$6,120,000	
	striping	4500		6	\$5	ft	\$135,000	
Bicycle Lane Stencil	stencil	4500		36	\$225	ft	\$8,100	
							\$6,263,100	Total
							\$6,263,000	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
Circulating 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 Ray's Food Place	shelter			1	\$23,000	per	\$23,000	
	sign						\$23,000	Total
	pole						\$23,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Change location to Umpqua Bank	shelter			1	\$23,000	per	\$23,000	
	sign						\$23,000	Total
	pole						\$23,000	Total

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Stay with Rogue River Community Center	existing			0	\$23,000	per	\$0	
							\$0	Total
							\$0	Total

OS2 Depot Street and OR99

Option	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Add left turn lane	turn lane			1	\$300,000	per	\$300,000	
							\$300,000	Total
							\$300,000	Total

OS3 Depot Street and Main Street

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Move Depot Street northbound left lane left of tree	sidewalk	75	6	1	\$11	sq ft	\$4,950	
	sign			2	\$350	per	\$700	
	crosswalk			2	\$5,000	per	\$10,000	
	ADA			4	\$1,600	per	\$6,400	
	stripe	100		1	\$5	ft	\$500	
								\$22,550
							\$23,000	Total
Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Close northbound Oak Street access	sidewalk	15	6	1	\$11	sq ft	\$990	
	sign			1	\$350	per	\$350	
	crosswalk			1	\$5,000	per	\$5,000	
	bulbout			1	\$27,000	per	\$27,000	
	ADA			1	\$1,600	per	\$1,600	
	stripe	15		1	\$5	ft	\$75	
							\$35,015	Total
							\$35,000	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	\$350	per	\$350	
	crosswalk			2	\$5,000	per	\$10,000	
	ADA			2	\$1,600	per	\$3,200	
	stripe	36		1	\$5	ft	\$180	
							\$18,590	Total
							\$19,000	Total
Option D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Convert Depot Street to northbound one-way	sign			2	\$350	per	\$700	
	bulbout			1	\$27,000	per	\$27,000	
	stripe	400		1	\$5	ft	\$2,000	
							\$29,700	Total
							\$30,000	Total
Option E	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Change operation to all way stop	sign			2	\$350	per	\$700	
	crosswalk			1	\$5,000	per	\$5,000	
	bulbout			1	\$27,000	per	\$27,000	
	ADA			2	\$1,600	per	\$3,200	
	stripe	400		1	\$5	ft	\$500	
							\$36,400	Total
							\$36,000	Total
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	

signal			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 Cos	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	\$1,600	per	\$1,600	
	stripe	50		1	\$5	ft	\$250	
							\$8,600	Total
							\$9,000	Total
Option B	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
Close Depot Street	bench			1	\$900	per	\$900	
	sidewalk	12	10	1	\$11	sq ft	\$1,320	
	sign			2	\$350	per	\$700	
	ADA			2	\$1,600	per	\$3,200	
	stripe	12		1	\$5	ft	\$60	
							\$6,180	Total
							\$6,000	Total
Option C	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
Classick Drive right in only	pave	0	36	0	\$85	sq ft	\$0	
	sidewalk	12	10	1	\$11	sq ft	\$1,320	
	sign			2	\$350	per	\$700	
	ADA			2	\$1,600	per	\$3,200	
	stripe	12		1	\$5	ft	\$60	
							\$5,280	Total
							\$5,000	Total
Option D	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
Depot and Oak Street northbound one-way	sign			5	\$350	per	\$1,750	
	stripe	1700		1	\$5	ft	\$8,500	
							\$10,250	Total
							\$10,000	Total
Option E	Item	Length	Width	Quantity	Unit Cos	Unit	Subtotal	Notes
Pine, Depot, and Classick Drive one-way	sidewalk	90	6	1	\$11	sq ft	\$5,940	
	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 Cos	Unit	Subtotal	Notes
Pine Street through movement	sidewalk	50	6	1	\$11	sq ft	\$3,300	
	sign			4	\$350	per	\$1,400	
	ADA			5	\$1,600	per	\$8,000	
	stripe	200		1	\$5	ft	\$1,000	

							\$13,700	Total
							\$14,000	Total

OS5 Depot Street and SB I-5

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend I-5 southbound off-ramp	pave	100	12	1	\$85	sq ft	\$102,000	
	sign			2	\$350	per	\$700	
	stripe	100		1	\$5	ft	\$500	
							\$103,200	Total
							\$103,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend I-5 southbound off-ramp and widen Evans Creek bridge	pave	1000	12	1	\$85	sq ft	\$1,020,000	
	sign			2	\$350	per	\$700	
	Widen	800	12	1	\$350	per	\$3,360,000	
	stripe	1000		1	\$5	ft	\$5,000	
							\$4,385,700	Total
							\$4,386,000	Total

Option C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Increase southbound queue storage	pave	300	12	1	\$85	sq ft	\$306,000	
	sign			1	\$350	per	\$350	
	stripe	300		2	\$5	ft	\$3,000	
							\$309,350	Total
							\$309,000	Total

Option D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Re-designate Depot Street turn lanes-	sign			2	\$350	per	\$700	
	stripe	1100		1	\$5	ft	\$5,500	
							\$6,200	Total
							\$6,000	Total

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

OS7 Depot Street and NB I-5

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend I-5 northbound off-ramp	pave	1000	12	1	\$85	sq ft	\$1,020,000	
	sign			2	\$350	per	\$700	
	stripe	1000		1	\$5	ft	\$5,000	
							\$1,025,700	Total
							\$1,026,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Widen 1-5 northbound off-ramp	pave	600	12	1	\$85	sq ft	\$612,000	
	sign			2	\$350	per	\$700	
	stripe	600		2	\$5	ft	\$6,000	
							\$618,700	Total
							\$619,000	Total

OS8 Main Street and Pine Street

Option A	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Align West Main Street and East Main Street	pave	250	50	1	\$85	sq ft	\$1,062,500	
	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 stripe			8	\$1,600	per	\$12,800	
	stripe	300		1	\$5	ft	\$1,500	
							\$1,343,700	Total
							\$1,344,000	Total

Option B	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Add SE corner channelization island	pave	60	15	1	\$85	sq ft	\$76,500	
	concrete	60	6	3	\$11	sq ft	\$11,880	
	sign			1	\$350	per	\$350	
	crosswalk			1	\$5,000	per	\$5,000	
	ADA stripe			3	\$1,600	per	\$4,800	
	stripe	200		1	\$5	ft	\$1,000	
								\$99,530
							\$100,000	Total

Option C	Item	Length	Width	Quantity	Unit Cost	Unit	Subtotal	Notes
Convert to a Compact Roundabout	Round			1	\$250,000	sq ft	\$250,000	
							\$250,000	Total
							\$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	one multi-span structure
	bridge	145	52	1	\$250	sq ft	\$1,885,000	
	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
	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 C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
North	bridge	310	52	2	\$250	sq ft	\$8,060,000	one multi-span structure
	sign			3	\$350	per	\$1,050	
	pavement	210	40	1	\$85	sq ft	\$714,000	
	sidewalk	210	6	2	\$11	sq ft	\$27,720	
	crosswalk			6	\$5,000	per	\$30,000	
	light	210		2	\$6,100	per	\$12,200	
	stencil	210		0	\$225	ft	\$0	
	stripe	210		6	\$5	ft	\$6,300	
							\$8,851,270	Total
							\$8,851,000	Total

C4 3rd Street Extension to East

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 Blue Ridge Drive	bridge	80	52	1	\$175	sq ft	\$728,000	
	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 to Classick	pavement	300	40	1	\$85	sq ft	\$1,020,000	
	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

Option B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes	
Broadway Extension to Depot park Classick	pavement	300	40	1	\$85	sq ft	\$1,020,000		
	sidewalk	300	6	2	\$11	sq ft	\$39,600		
	sidewalk	200	6	2	\$11	sq ft	\$26,400		
	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		
								\$1,648,850	Total
								\$1,649,000	Total

C7 7th Street Extensions

Option A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend 7th St W Evans to C	pavement	1500	36	1	\$85	sq ft	\$4,590,000	
	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 Broadway to Pine	pavement	650	36	1	\$85	sq ft	\$1,989,000	
	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
Extend 7th St Broadway to Scenic D	pavement	3000	36	1	\$85	sq ft	\$9,180,000	
	sidewalk	3000	6	2	\$11	sq ft	\$396,000	
	sign			2	\$350	per	\$700	
	crosswalk			2	\$5,000	per	\$10,000	
	light	3000		15	\$6,100	per	\$91,500	
	ADA			4	\$1,600	per	\$6,400	
	stencil	3000		24	\$225	ft	\$5,400	
	stripe	3000		3	\$5	ft	\$45,000	
								\$9,735,000 Total
							\$9,735,000 Total	

Option D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Extend 7th St Scenic to Tenney/ Burbridge	pavement	2500	36	1	\$85	sq ft	\$7,650,000	
	sidewalk	2500	6	2	\$11	sq ft	\$330,000	
	sign			2	\$350	per	\$700	
	crosswalk			2	\$5,000	per	\$10,000	
	light	2500		13	\$6,100	per	\$79,300	
	ADA			4	\$1,600	per	\$6,400	
	stencil	2500		20	\$225	ft	\$4,500	
	stripe	2500		3	\$5	ft	\$37,500	
								\$8,118,400 Total
							\$8,118,000 Total	

BR Bridge Deficiencies

BR1A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Main St/Wards Creek Bridge	Marking sign	100		2	\$225	per	\$450	Too narrow to separate bicycles & cars
				2	\$350	per	\$700	
							\$1,150	Total
							\$1,000	Total

BR1B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Main St/Wards Creek Bridge	bridge sign path	100	8	1	\$250	sq ft	\$200,000	Too narrow to separate bicycles & cars path:sidewalk to bridge
				2	\$350	per	\$700	
		2	\$16	sq ft	\$2,560			
							\$203,260	Total
							\$203,000	Total

BR2A	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards Creek Bridge	Marking sign	50		2	\$225	per	\$450	Too narrow to separate bicycles & cars
				2	\$350	per	\$700	
							\$1,150	Total
							\$1,000	Total

BR2B	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards Creek Bridge	bridge sign path	50	10	1	\$175	sq ft	\$87,500	Too narrow to separate bicycles & cars path:sidewalk to bridge
				2	\$350	per	\$700	
		2	\$16	sq ft	\$3,200			
							\$91,400	Total
							\$91,000	Total

BR2C	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards Creek Bridge	bridge	50	24	1	\$350	sq ft	\$420,000	Too narrow to separate bicycles & cars
							\$420,000	Total
							\$420,000	Total

BR2D	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Classick Dr/Wards Creek Bridge	bridge	50	50	1	\$175	sq ft	\$437,500	Too narrow to accommodate all modes
							\$437,500	Total
							\$438,000	Total

BR3	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
I-5 Depot St							\$4,900,000	Seismically vulnerable
							\$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
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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 Resurfacing	crack seal	3700	60	0.5	\$0.07	sq ft	\$7,770	
	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 Resurfacing	Chip seal	350	40	1	\$0.61	sq ft	\$8,540	
	stripe	350		2	\$5	ft	\$3,500	
	crosswalk			3	\$5,000	per	\$15,000	
							\$27,040	Total
							\$27,000	Total

Project PV3	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Wards Creek Road Resurfacing	Chip seal	3000	30	1	\$0.61	sq ft	\$54,900	
	stripe	3000		2	\$5	ft	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	
							\$89,900	Total
							\$90,000	Total

Project PV4	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
Foothill Boulevard Resurfacing	crack seal	500	40	1	\$0.07	sq ft	\$1,400	
	stripe	3000		2	\$5	ft	\$30,000	
	crosswalk			1	\$5,000	per	\$5,000	
							\$36,400	Total
							\$36,000	Total

Project PV5	Item	Length	Width	Quantity	Unit Cost	Units	Subtotal	Notes
OR99 Resurfacing	overlay	5500	25	1	\$9	sq ft	\$1,237,500	
	stripe	5500		3	\$5	ft	\$82,500	
	crosswalk			2	\$5,000	per	\$10,000	
							\$1,330,000	Total
							\$1,330,000	Total