



September 12, 2020

City of Cannon Beach  
Attention: Karen LaBonte, Public Works Director  
163 E Gower Street  
Cannon Beach, Oregon 97110

**Re: Roberts Property – Nenana Avenue Sight Distance Analysis – Cannon Beach, Oregon**  
*Sight Distance Analysis*

C&A Project Number 20200803.00

Dear Ms. LaBonte,

This transportation analysis includes a sight distance and safety analysis of the proposed Nenana Avenue (Nenana) access to S Hemlock Street (Hemlock). The access is being designed to Cannon Beach Municipal Code standards and is initially intended to serve tax lot 600 on Clatsop County Assessor's Map 5-10-31-AA, which is also described as Tolovana Park Subdivision Block 1, Lot 13. The proposed Nenana access is located on the west side of Hemlock.

This analysis specifically addresses the following:

1. Access and Roadway Description
2. Speed Analysis
3. Sight Distance Analysis
4. Additional Considerations
5. Safety Analysis
6. Summary

## **1. ACCESS AND ROADWAY DESCRIPTION**

The proposed Nenana access is located on the west side of Hemlock on the outside of a large radius (approximate 725-foot) horizontal curve that is immediately north of a 70-foot radius horizontal curve with 120 degrees of curvature. At this location, Hemlock has minimal vertical curvature and a slight downgrade from north to south. The proposed Nenana access has a 4.8% up-grade to Hemlock. The proposed access location is depicted in the attached plan and profile views labeled Sheets C1 and C8. The access is initially only intended to serve tax lot 600 but, in the future, it may also provide residential access to tax lots 500 and 1300. The roadway will not provide public beach access.

To the north on Hemlock, there is no significant horizontal or vertical curvature within 400 feet of the proposed Nenana access limiting sight distance. To the south on Hemlock, there is a horizontal curve with a cut slope (bank) on the inside of the curve limiting sight distance.

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## 2. SPEED ANALYSIS

The posted speed on Hemlock in the project vicinity is 30 MPH. In the northbound direction (on Hemlock), between W Tanana Avenue and Amber Lane, there is a winding road warning sign (Manual on Uniform Traffic Control Devices (MUTCD) W1-5L) and supplemental 20 MPH advisory speed sign (MUTCD W13-1).

Because the horizontal curves on Hemlock reduce speeds and restrict sight distance, a speed study was performed to determine the 85<sup>th</sup> percentile roadway speeds – the speeds at which 85 percent of free-flowing traffic is traveling at or below that reflects the collective judgment of the vast majority of drivers as to a reasonable speed for given traffic and roadway conditions. This threshold is also based on safety wherein research has shown that traveling at or around one standard deviation above the mean operating speed (which is approximately the 85<sup>th</sup> percentile speed) yields the lowest crash risk for drivers. Furthermore, crash risk increases rapidly for drivers traveling two standard deviations (or more) above or below the mean operating speed.

Speed data was collected for 48 consecutive hours on two mid-week days in September 2020 and is attached for reference. It is further noted the data collection time-of-year is appropriate because it captures a mix of local and tourist traffic. Based on this data, Hemlock speeds are as follows:

TABLE 1 – MEASURED ROADWAY SPEEDS – S HEMLOCK STREET	
Direction and Location	85 <sup>th</sup> Percentile Speed
Northbound ( <i>South of Nenana</i> )	19 MPH
Southbound ( <i>North of Nenana</i> )	28 MPH

As identified in the previous table, the 85<sup>th</sup> percentile speeds are 19 MPH northbound and 28 MPH southbound.

## 3. SIGHT DISTANCE ANALYSIS

### *Description*

Intersection sight distance is evaluated based on the current American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*.

**Intersection sight distance (ISD)** is the distance a motorist on the minor road (or site access) can see approaching vehicles on the major road before their line of sight is blocked by an obstruction near the intersection. The driver of a vehicle approaching or departing from a stopped position at an intersection should have an unobstructed view of the intersection, including any traffic control devices, and sufficient lengths along the intersecting roadway to permit the driver to anticipate and avoid collisions. Examples of obstructions include crops, hedges, trees, parked vehicles, utility poles, or buildings. Additionally, the horizontal and vertical alignment of the roadway approaching the intersection can reduce the sight triangle of vehicles navigating the intersection.

It is important for approaching motorists on the major road to see side street vehicles, and for minor road motorists to see approaching major road vehicles before entering the intersection.

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**Stopping sight distance (SSD)** is the necessary distance for drivers on the major road traveling at or near a particular speed to stop before reaching a stationary object in their path to avoid a collision. This may require a major road vehicle to stop or slow to accommodate the maneuver by a minor road vehicle. Although sight distances exceeding the SSD are desirable, in all cases for safe operations, if the ISD cannot be provided for the minor roadway/access, SSD should be provided for the major roadway.

### Analysis

For this analysis, the 85<sup>th</sup> percentile speeds on Hemlock are used which are 19 MPH northbound and 28 MPH southbound. Per AASHTO guidelines, ISD was measured from a driver's eye height of 3.5 feet and 14.5 feet from the edge of the nearest travel lane to an object height of 3.5 feet above the roadway surface. SSD was measured from a driver's eye height of 3.5 feet to an object height of 2.0 feet above the roadway surface.

In the project vicinity, sight distance is only limited by horizontal roadway curvature south of the proposed access. All sight distance field measurements are shown in attached Figures 1 – 4 and are summarized in the following table.

TABLE 2 – SIGHT DISTANCE – NENANA AVENUE AT S HEMLOCK STREET					
Movement Direction	Sight Direction	85 <sup>th</sup> Percentile Roadway Speed (MPH)	Sight Distance		
			Recommended (ft)	Available (ft)	Recommended Met?
<b>Stopping Sight Distance (SSD)</b>					
Northbound Hemlock	To the North	19	105	113	Y
Southbound Hemlock	To the South	28	180	330	Y
<b>Intersection Sight Distance (ISD)</b>					
Left-Turn from Stop	To the North	28	270	310	Y
(EB Nenana to NB Hemlock)	To the South	19	210	130	N <sup>1</sup>
Right-Turn from Stop	To the North	28	270	320	Y <sup>2</sup>
(EB Nenana to SB Hemlock)	To the North	28	230	375	Y/N <sup>3</sup>
Left-Turn from Major Road	To the North	28	230	375	Y/N <sup>3</sup>
(NB Hemlock to WB Nenana)	To the North	28	230	375	Y/N <sup>3</sup>

<sup>1</sup> ISD is not met for an eastbound left-turning vehicle looking to the south as illustrated in Figure 2; however, SSD is met for a northbound vehicle on Hemlock as illustrated in Figure 1 and it is anticipated the turning movement will operate safely.

<sup>2</sup> ISD is met for an eastbound right-turning vehicle looking to the north as illustrated in Figure 3. Depending on alignment and turning radius, the vehicle's swept path may encroach into the northbound travel lane; however, if this occurs, SSD is met for a northbound vehicle on Hemlock and it is anticipated the turning movement will operate safely.

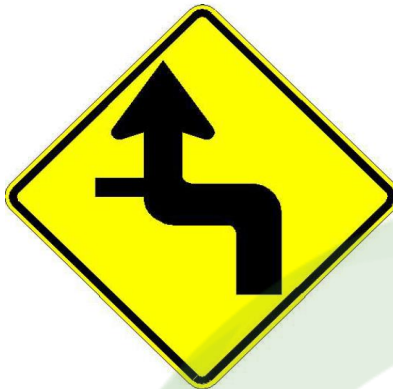
<sup>3</sup> ISD is met for a northbound left-turning vehicle; however, SSD is not met for a second northbound vehicle on Hemlock approaching from behind as illustrated in Figure 4. As such, it is recommended this movement be restricted, or if this is not practical, it is recommended the City consider the installation of a warning sign in the northbound direction on Hemlock indicating "HIDDEN DRIVEWAY".

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#### 4. ADDITIONAL CONSIDERATIONS

As identified in the AASHTO guidelines, ISD is less important than SSD. If ISD cannot be provided for the minor roadway/access movements, SSD needs to be provided for the major roadway. Considering the analysis and findings provided in the sight distance table above, all turning movements are anticipated to operate safely except the northbound left-turn movement from Hemlock to Nenana. This is further illustrated in Figure 4. As such, it is recommended this movement be restricted, or if this is not practical, it is recommended the City consider the installation of a warning sign in the northbound direction on Hemlock indicating “HIDDEN DRIVEWAY” and installation of supplemental flashing amber lights outlining the sign.

Additionally, the proposed Nenana access to Hemlock is located sufficiently close to a horizontal curve such that ISD is not met for eastbound left-turning vehicles, resulting in northbound motorists on Hemlock potentially having to slow to avoid a collision. As such, it is also recommended the City consider the installation of a warning sign in the northbound direction on Hemlock, between Vista Del Mar Drive and Nazina Avenue indicating a reverse turn (MUTCD W1-3L) with an additional “tick mark” indicating the Nenana access. An example of the sign is as follows:



MUTCD W1-3L with “tick” mark

#### 5. SAFETY ANALYSIS

Hemlock crash data was obtained for 5 years from the Oregon Department of Transportation (ODOT) from January 2015 through June 2019. In the study area, there were no recorded crashes.

Based on crash data, there are no existing safety deficiencies along this section of Hemlock. It is further noted there a number of existing accesses to Hemlock with insufficient ISD or SSD that appear to operate without a documented safety deficiency. As such, with the detailed design elements being contemplated as part of this project, it is anticipated the proposed Nenana access will operate safely and efficiently.

## 6. SUMMARY

The following conclusions are made based on the material contained in this analysis.

1. This transportation analysis includes a sight distance and safety analysis of the proposed Nenana Avenue access to S Hemlock Street. The access is being designed to Cannon Beach Municipal Code standards and is initially intended to serve tax lot 600 on Clatsop County Assessor's Map 5-10-31-AA which is also described as Tolovana Park Subdivision Block 1, Lot 13. The access is initially only intended to serve tax lot 600 but, in the future, it may also provide residential access to tax lots 500 and 1300. The roadway will not provide public beach access.
2. The proposed Nenana access is located on the west side of Hemlock on the outside of a large radius (approximate 725-foot) horizontal curve that is immediately north of a 70-foot radius horizontal curve with 120 degrees of curvature. At this location, Hemlock has minimal vertical curvature and a slight downgrade from north to south. The Nenana access has a 4.8% up-grade to Hemlock.
3. To the north, there is no significant horizontal or vertical curvature within 400 feet of the proposed access limiting sight distance. To the south, there is a horizontal curve with a cut slope (bank) on the inside of the curve limiting sight distance.
4. A speed analysis finds the 85<sup>th</sup> percentile speeds on Hemlock in the project area are 19 MPH northbound and 28 MPH southbound.
5. As identified in the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* guidelines, if the ISD cannot be provided for the minor roadway/access, SSD needs to be provided for the major roadway.
6. Intersection Sight Distance (ISD) is not met for an eastbound left-turning vehicle looking to the south; however, Stopping Sight Distance (SSD) is met for a northbound vehicle on Hemlock and it is anticipated the turning movement will operate safely.
7. ISD is met for an eastbound right-turning vehicle looking to the north. Depending on alignment and turning radius, the vehicle's swept path may encroach into the northbound travel lane; however, if this occurs, the SSD is met for a northbound vehicle on Hemlock and it is anticipated the turning movement will operate safely.
8. ISD is met for a northbound left-turning vehicle; however, SSD is not met for a second northbound vehicle on Hemlock approaching from behind. As such, it is recommended this movement be restricted, or if this is not practical, it is recommended the City consider the installation of a warning sign in the northbound direction on Hemlock indicating "HIDDEN DRIVEWAY" and installation of supplemental flashing amber lights outlining the sign.

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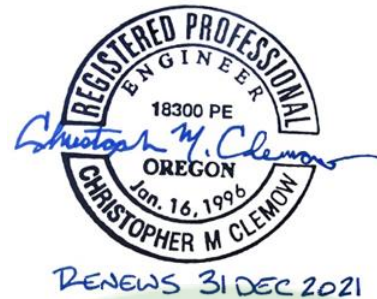
9. The proposed Nenana access to Hemlock is located sufficiently close to a horizontal curve such that ISD is not met for eastbound left-turning vehicles, resulting in northbound motorists on Hemlock potentially having to slow to avoid a collision. As such, it is also recommended the City consider the installation of a warning sign in the northbound direction on Hemlock, between Vista Del Mar Drive and Nazina Avenue indicating a reverse turn (MUTCD W1-3L) with an additional “tick mark” indicating the Nenana access.
10. Based on crash data, there are no existing safety deficiencies along this section of Hemlock. It is further noted there a number of existing accesses to Hemlock with insufficient ISD or SSD that appear to operate without a documented safety deficiency. As such, with the detailed design elements being contemplated as part of this project, it is anticipated the proposed Nenana access will operate safely and efficiently.

Sincerely,



Christopher M. Clemow, PE, PTOE  
Transportation Engineer

Attachments: Sheet C1 – Nenana Avenue Plan View  
Sheet C3 – Nenana Avenue Profile View  
Figures 1 – 4 – Sight Distance Figures  
Hemlock Speed Data





STANLEY ROBERTS  
TAX LOT 600, NENANA AVE, CANNON BEACH  
SITE PLAN

PART OF A SET OF DEVELOPMENT PLANS THAT INCLUDES ARCHITECTURAL  
PLANS BY JAY RASKIN, AIA, AND STRUCTURAL ENGINEERING PLANS BY MILLER  
CONSULTING ENGINEERING, INC.

UTILITY LOCATE ONE CALL  
(1-800-332-2344) or (8-1-1)

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY  
THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH  
IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN  
COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE  
NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)  
232-1987).

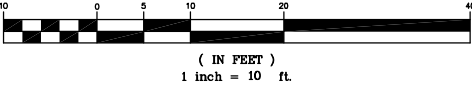
SHEET INDEX

1. ROAD LAYOUT
2. CURRENT DRAINAGE LAYOUT
3. PROPOSED VEGETATION REMOVAL
4. EXCAVATION PLAN/GRADING PLAN
5. UTILITY LAYOUT
6. STORM DRAIN SYSTEMS
7. SEWER PROFILE AND DETAILS
8. ROADWAY PROFILE
9. DRIVEWAY PROFILES
10. APPROXIMATE FINAL GRADE HEIGHTS
11. DETAILS

LEGEND

- |  |                               |
|--|-------------------------------|
|  | PROPERTY LINE                 |
|  | EXISTING ROADWAY              |
|  | EXISTING PATH                 |
|  | PROPOSED ROADWAY              |
|  | CLEARING AREA                 |
|  | CONSTRUCTION FENCING          |
|  | SILT FENCING                  |
|  | STRAW WATTLE                  |
|  | EXISTING CONTOUR              |
|  | FINAL/GRADING CONTOUR         |
|  | WATER LINE                    |
|  | SEWER LINE                    |
|  | GAS LINE                      |
|  | CATV/PHONE/POWER LINE         |
|  | STORM DRAIN LINE              |
|  | EXISTING SUBSURFACE DRAINLINE |
|  | HOUSE                         |
|  | ROAD SIGNS                    |
|  | FOLLOW MUTCD REQUIREMENTS     |

GRAPHIC SCALE



NOTES

TOPOGRAPHIC INFORMATION  
FROM S&F LAND SERVICES,  
DATED JAN. 22, 2020.



**SITE LAYOUT**  
SCALE: 1"=10'



**MORGAN CIVIL  
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RENEWAL DATE: DECEMBER 31, 2020

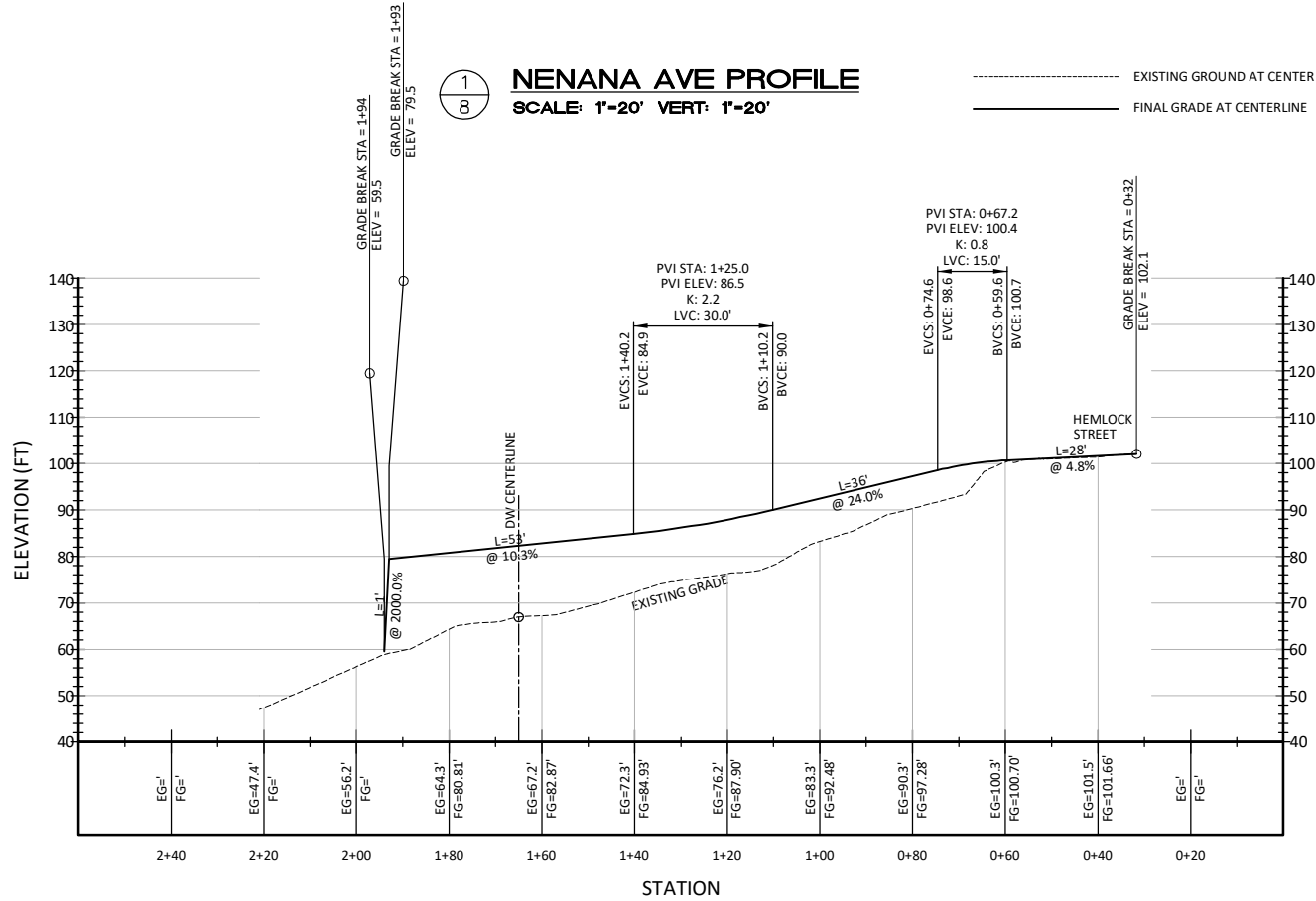
STANLEY ROBERTS  
TAX LOT 600 - NENANA AVENUE  
SITE LAYOUT

CANNON BEACH/MAP 5N 10W 31

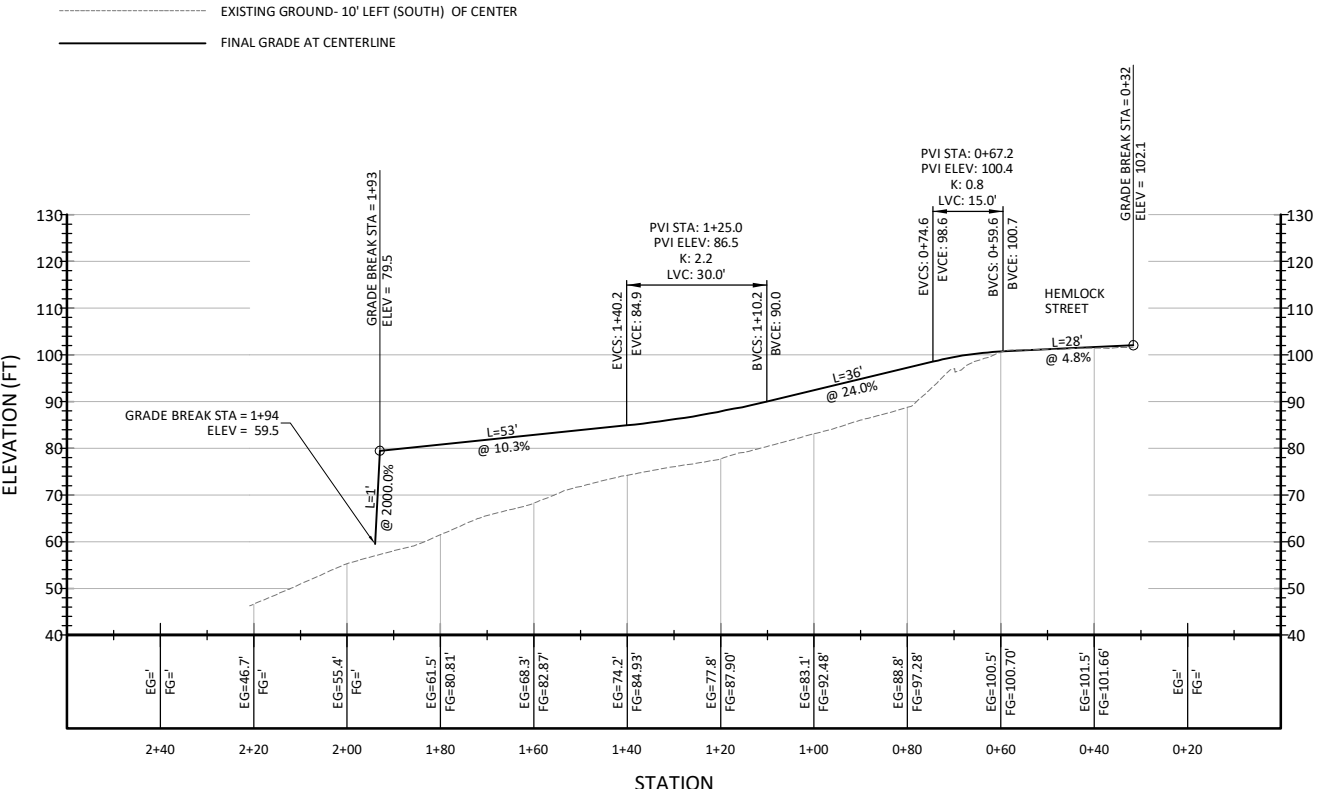
SHEET

**C1**

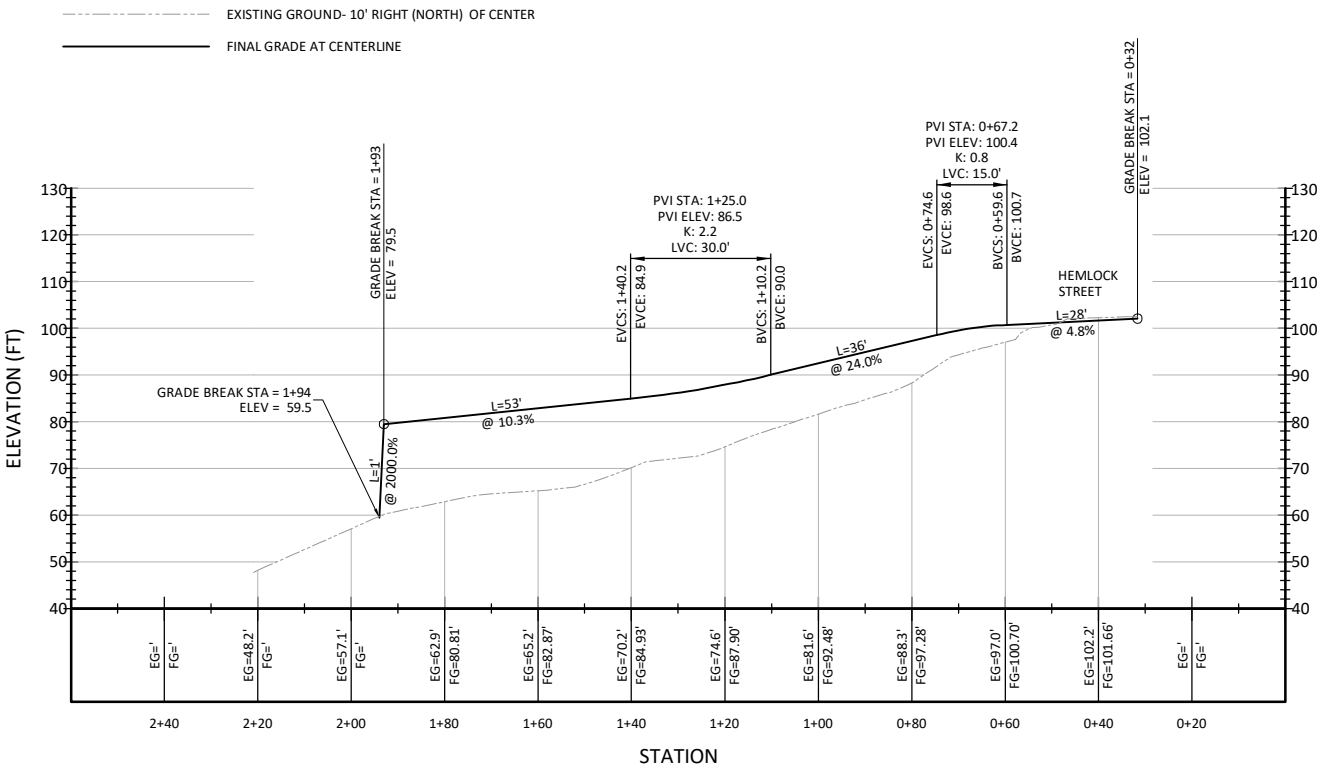
OF 11



**NENANA AVE PROFILE (10' LEFT OF CENTER)**  
SCALE: 1"=20' VERT: 1"=20'



**NENANA AVE PROFILE (10' RIGHT OF CENTER)**  
SCALE: 1"=20' VERT: 1"=20'



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- INSPECTION
- PLANNING

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MANZANITA, OR 97130  
(503) 801-6016  
www.morgancivil.com

JOB NO.  
18-002-PAT  
DATE  
AUGUST 18, 2020



RENEWAL DATE: DECEMBER 31, 2020

**STANLEY ROBERTS**  
TAX LOT 600 - NENANA AVENUE  
NENANA AVE PROFILES

CANNON BEACH/MAP 5N 10W 31

SHEET

**C8**

OF 11





TABLE 2 – SIGHT DISTANCE – NENANA AVENUE AT S HEMLOCK STREET					
Movement Direction	Sight Direction	85 <sup>th</sup> Percentile Roadway Speed (MPH)	Sight Distance		
			Recommended (ft)	Available (ft)	Recommended Met?
<b>Stopping Sight Distance (SSD)</b>					
Northbound Hemlock	To the North	19	105	113	Y
Southbound Hemlock	To the South	20	100	330	Y
<b>Intersection Sight Distance (ISD)</b>					
Left-Turn from Stop	To the North	28	270	310	Y
(EB Nenana to NB Hemlock)	To the South	19	210	130	N <sup>1</sup>
Right-Turn from Stop	To the North	28	270	320	Y <sup>2</sup>
(EB Nenana to SB Hemlock)	To the North	28	270	375	Y/N <sup>3</sup>
Left-Turn from Major Road	To the North	28	230	375	Y/N <sup>3</sup>
(NB Hemlock to WB Nenana)	To the North	28	230	375	Y/N <sup>3</sup>





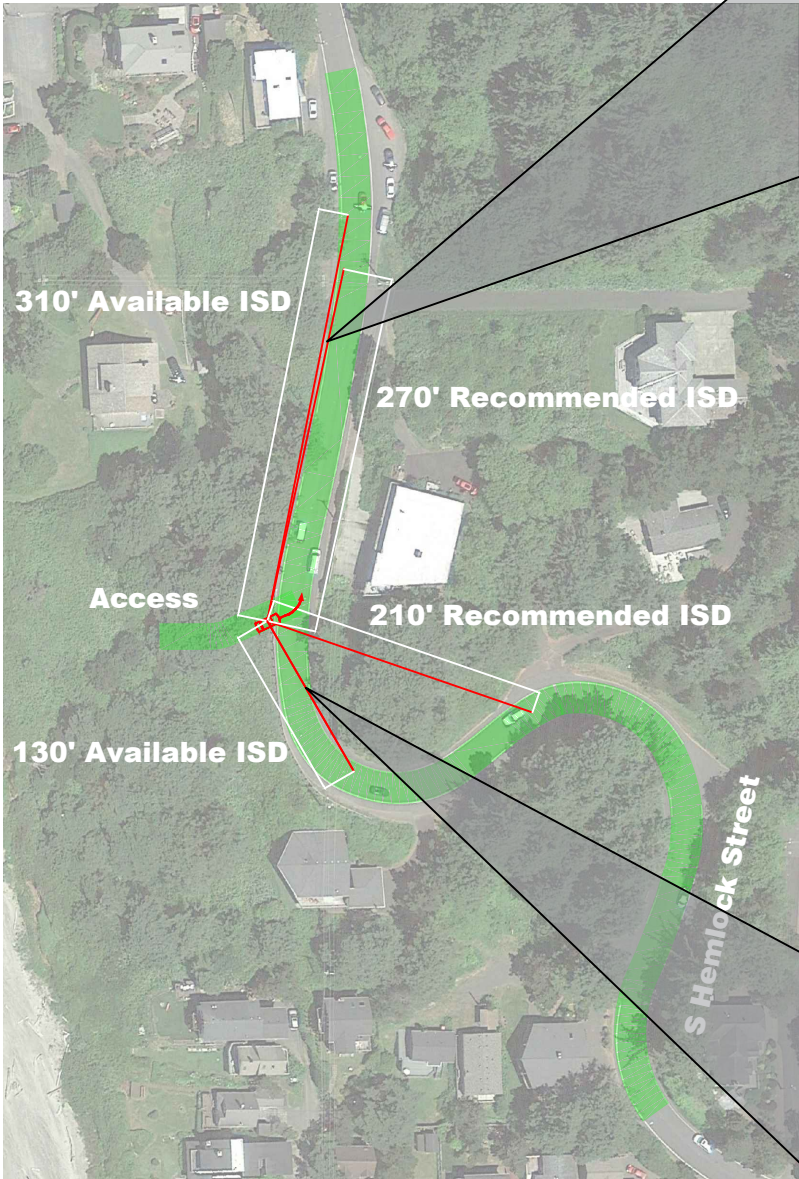


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Northbound Hemlock	To the North	19	105	113	Y
Southbound Hemlock	To the South	26	160	330	Y
<b>Intersection Sight Distance (ISD)</b>					
Left-Turn from Stop (EB Nenana to NB Hemlock)	To the North	28	270	310	Y
Right-Turn from Stop (EB Nenana to SB Hemlock)	To the South	19	210	130	N <sup>1</sup>
Left-Turn from Major Road (NB Hemlock to WB Nenana)	To the North	28	270	320	Y <sup>2</sup>
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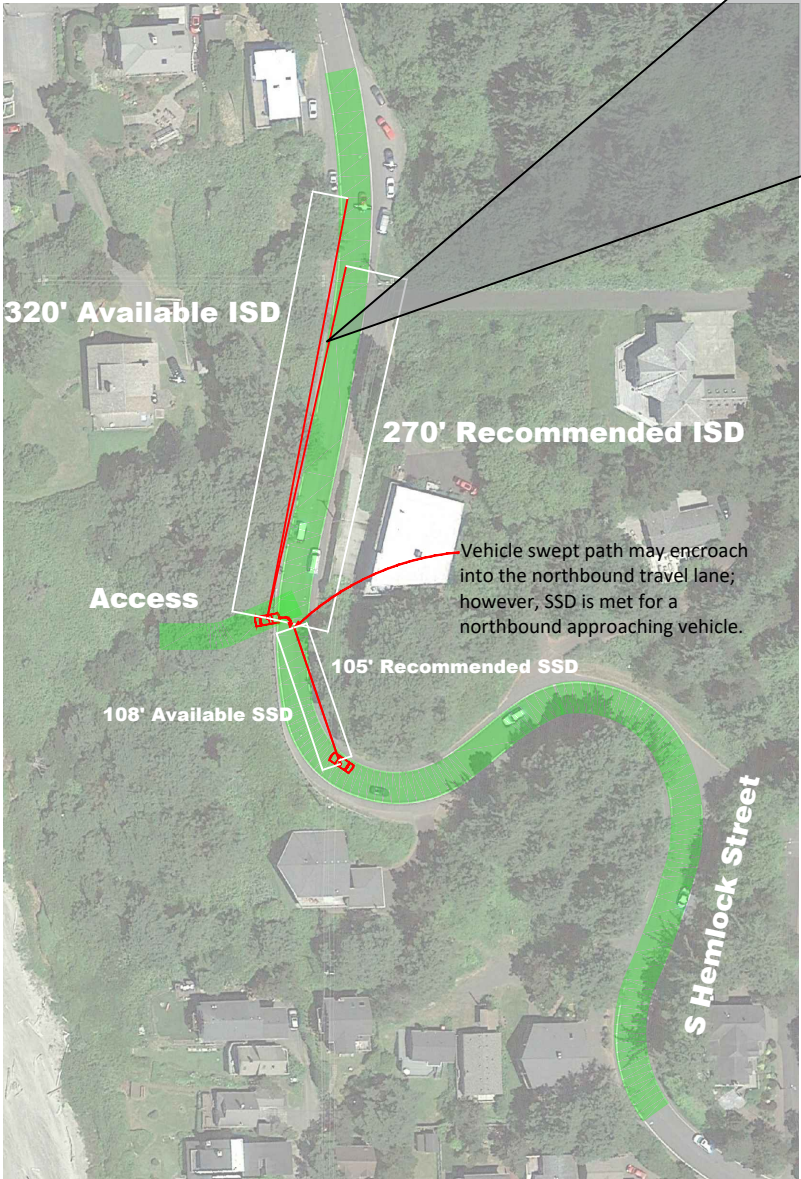


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Southbound Hemlock	To the South	26	160	330	Y
<b>Intersection Sight Distance (ISD)</b>					
Left-Turn from Stop	To the North	28	270	310	Y
(EB Nenana to NB Hemlock)	To the South	16	240	130	N <sup>1</sup>
Right-Turn from Stop	To the North	28	270	320	Y <sup>2</sup>
(EB Nenana to SB Hemlock)	To the North	28	270	320	Y <sup>2</sup>
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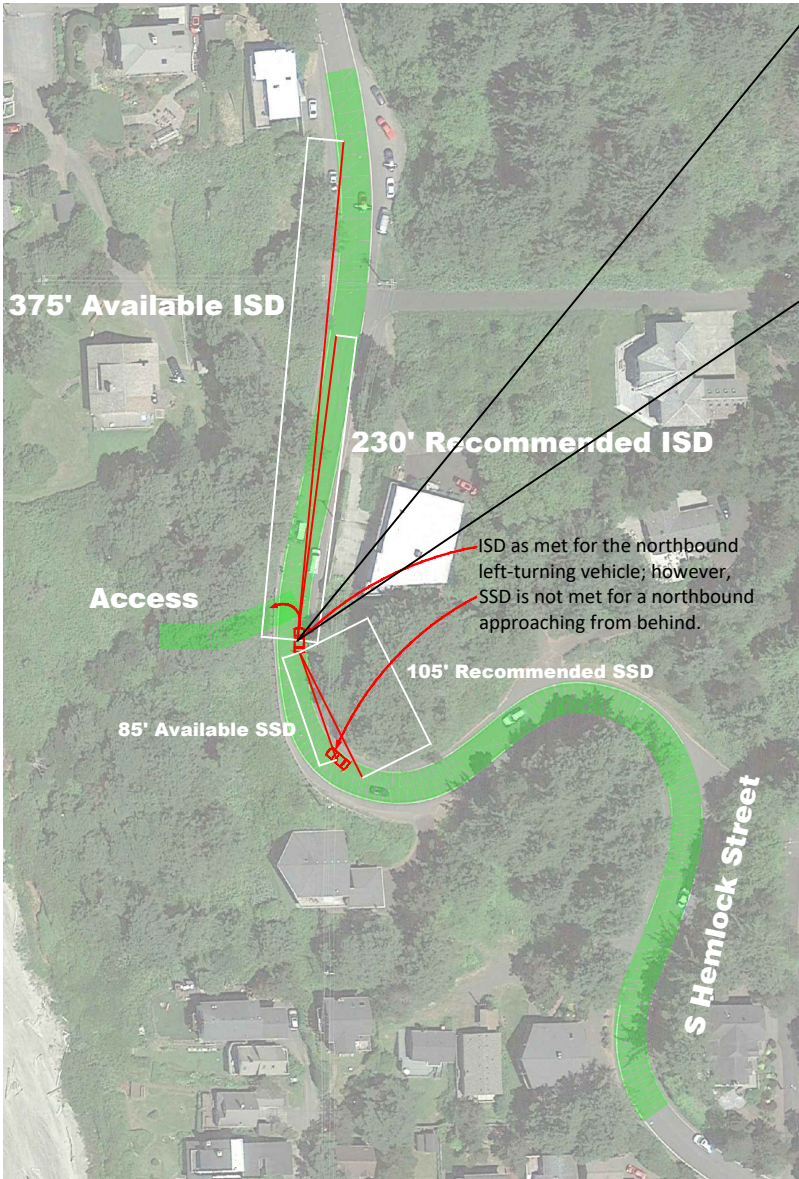


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Right-Turn from Major Road (SB Hemlock to EB Nenana)	To the South	26	230	375	Y/N <sup>3</sup>



1582 Feters Loop  
Eugene, Oregon 97402  
541-579-8315  
cclemow@clemow-associates.com

INTERSECTION SIGHT DISTANCE - Left-Turn from Major Road  
Nehana Avenue at S Hemlock Street - Cannon Beach, Oregon  
Project No. 20200803.00

FIGURE  
4

**All Traffic Data Services**  
Wheat Ridge, CO 80033

2005 S Hemlock St  
Date Start: 01-Sep-20  
Latitude: 30' 35.2390 North  
Longitude: 82' 38.4947 West  
Station ID:

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent	
09/01/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
12 PM	5	0	0	0	1	6	31	55	63	33	5	1	0	0	200	27	29	
13:00	3	0	0	0	1	6	17	55	53	19	7	0	1	0	162	27	29	
14:00	5	0	0	0	1	2	18	55	58	27	4	1	0	0	171	27	29	
15:00	6	0	0	0	0	3	28	63	52	20	3	0	0	0	175	26	29	
16:00	2	0	0	0	0	4	24	29	48	25	7	0	1	0	140	28	30	
17:00	2	0	0	0	0	5	18	47	51	28	5	0	0	0	156	28	29	
18:00	5	0	0	0	0	5	6	38	54	26	4	0	0	0	138	28	29	
19:00	2	0	0	0	1	3	14	19	26	10	1	1	0	0	77	27	29	
20:00	1	0	0	0	0	1	9	21	19	12	1	0	0	0	64	27	29	
21:00	1	0	0	0	0	1	0	9	9	1	0	0	0	0	21	26	26	
22:00	0	0	0	0	1	2	1	2	6	6	0	0	0	0	18	28	29	
23:00	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3	29	29	
Total	32	0	0	0	5	38	166	394	439	209	37	3	2	0	1325			
Percent	2.4%	0.0%	0.0%	0.0%	0.4%	2.9%	12.5%	29.7%	33.1%	15.8%	2.8%	0.2%	0.2%	0.0%				
AM Peak Vol.																		
PM Peak Vol.	15:00 6				12:00 1	12:00 6	12:00 31	15:00 63	12:00 63	12:00 33	13:00 7	12:00 1	13:00 1					12:00 200



**All Traffic Data Services**

Wheat Ridge, CO 80033

2005 S Hemlock St

Date Start: 01-Sep-20

Latitude: 30' 35.2390 North

Longitude: 82' 38.4947 West

Station ID:

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/02/20	0	0	0	1	0	0	0	3	0	0	1	0	0	0	5	30	32
01:00	0	0	0	0	0	1	0	0	1	0	1	0	0	0	3	31	32
02:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	26	26
03:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	20	20
04:00	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2	29	29
05:00	0	0	0	0	1	0	0	1	2	1	0	0	0	0	5	27	29
06:00	0	0	0	0	0	1	1	4	7	0	1	0	0	0	14	26	30
07:00	0	0	0	0	0	0	6	12	16	6	1	0	0	0	41	27	29
08:00	1	0	0	0	0	1	6	23	30	16	3	0	0	0	80	28	29
09:00	5	0	0	0	0	2	9	23	38	20	4	0	0	0	101	28	29
10:00	2	0	0	0	0	0	14	43	59	31	8	1	0	0	158	28	30
11:00	2	0	0	0	0	4	9	38	59	39	7	0	0	0	158	28	29
12 PM	2	0	0	0	5	8	25	53	46	21	5	0	0	0	165	27	29
13:00	5	0	0	0	3	13	29	57	53	10	2	1	0	0	173	26	28
14:00	6	0	0	0	0	2	30	51	50	21	1	1	0	0	162	26	29
15:00	3	0	0	0	0	3	13	61	51	22	5	0	0	0	158	27	29
16:00	2	0	0	0	0	1	24	47	59	26	4	0	0	0	163	27	29
17:00	0	0	0	0	1	0	14	52	53	7	2	0	0	0	129	26	28
18:00	0	0	0	0	0	2	15	43	32	15	1	0	0	0	108	26	29
19:00	6	0	0	0	0	0	9	29	22	10	2	1	0	0	79	27	29
20:00	2	0	0	0	1	1	12	18	24	2	4	2	0	0	66	26	32
21:00	0	0	0	0	0	0	1	4	17	5	4	0	0	0	31	29	31
22:00	0	0	0	0	0	1	3	3	3	3	0	0	0	1	14	28	29
23:00	0	0	0	0	0	0	1	2	0	0	0	1	0	0	4	34	35
Total	36	0	1	1	11	40	223	568	623	256	56	7	0	1	1823		
Percent	2.0%	0.0%	0.1%	0.1%	0.6%	2.2%	12.2%	31.2%	34.2%	14.0%	3.1%	0.4%	0.0%	0.1%			
AM Peak	09:00		04:00	00:00	05:00	11:00	10:00	10:00	10:00	11:00	10:00	10:00			10:00		
Vol.	5		1	1	1	4	14	43	59	39	8	1			158		
PM Peak	14:00				12:00	13:00	14:00	15:00	16:00	16:00	12:00	20:00		22:00	13:00		
Vol.	6				5	13	30	61	59	26	5	2		1	173		

**All Traffic Data Services**

Wheat Ridge, CO 80033

2005 S Hemlock St  
 Date Start: 01-Sep-20  
 Latitude: 30' 35.2390 North  
 Longitude: 82' 38.4947 West  
 Station ID:

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/03/20	0	0	0	0	0	0	1	0	2	0	1	0	0	0	4	31	32
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	23	23
05:00	0	0	0	0	0	0	0	5	0	0	0	1	0	0	6	33	35
06:00	0	0	0	0	0	1	3	4	1	5	0	0	0	0	14	28	29
07:00	0	0	0	0	0	2	0	7	14	13	3	0	0	0	39	29	31
08:00	0	0	0	0	0	1	8	17	33	21	2	1	0	0	83	28	29
09:00	2	0	0	0	1	0	10	26	33	22	8	0	0	0	102	29	31
10:00	1	0	0	1	0	2	9	47	54	34	6	0	0	0	154	28	29
11:00	5	0	0	0	0	6	29	59	79	27	3	1	0	0	209	26	29
12 PM	2	0	0	0	0	4	29	55	70	27	7	0	0	0	194	27	29
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	10	0	0	1	1	16	89	221	286	149	30	3	0	0	806		
Percent	1.2%	0.0%	0.0%	0.1%	0.1%	2.0%	11.0%	27.4%	35.5%	18.5%	3.7%	0.4%	0.0%	0.0%			
AM Peak	11:00			10:00	09:00	11:00	11:00	11:00	11:00	10:00	09:00	05:00			11:00		
Vol.	5			1	1	6	29	59	79	34	8	1			209		
PM Peak	12:00					12:00	12:00	12:00	12:00	12:00	12:00				12:00		
Vol.	2					4	29	55	70	27	7				194		
Grand Total	78	0	1	2	17	94	478	1183	1348	614	123	13	2	1	3954		
Percent	2.0%	0.0%	0.0%	0.1%	0.4%	2.4%	12.1%	29.9%	34.1%	15.5%	3.1%	0.3%	0.1%	0.0%			

15th Percentile : 20 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 27 MPH  
 95th Percentile : 29 MPH

Statistics

10 MPH Pace Speed : 21-30 MPH  
 Number in Pace : 3304  
 Percent in Pace : 83.6%  
 Number of Vehicles > 25 MPH : 1652  
 Percent of Vehicles > 25 MPH : 41.8%  
 Mean Speed(Average) : 24 MPH

**All Traffic Data Services**  
Wheat Ridge, CO 80033

2005 S Hemlock St  
Date Start: 01-Sep-20  
Latitude: 30' 35.2390 North  
Longitude: 82' 38.4947 West  
Station ID:

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/01/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	4	0	0	0	1	4	14	48	45	30	1	0	0	0	147	27	29
13:00	1	0	0	1	1	3	27	48	64	32	4	0	0	0	181	27	29
14:00	7	0	0	1	0	2	34	69	60	18	2	0	0	0	193	26	28
15:00	6	0	0	0	0	4	23	59	55	22	6	0	0	0	175	27	29
16:00	5	1	0	2	1	1	15	60	58	18	4	0	0	0	165	26	29
17:00	6	0	0	0	1	3	13	43	53	15	3	0	0	0	137	26	29
18:00	4	0	0	0	1	4	18	38	42	15	2	1	0	0	125	26	29
19:00	2	0	0	0	0	1	14	44	35	5	2	0	0	0	103	26	28
20:00	1	0	0	0	0	4	6	19	21	13	3	1	0	0	68	28	30
21:00	0	0	0	0	0	0	0	8	10	6	0	0	0	0	24	28	29
22:00	0	0	0	0	0	0	1	2	2	0	1	0	0	0	6	30	32
23:00	0	0	0	0	0	0	0	0	2	2	2	0	0	0	6	31	32
Total	36	1	0	4	5	26	165	438	447	176	30	2	0	0	1330		
Percent	2.7%	0.1%	0.0%	0.3%	0.4%	2.0%	12.4%	32.9%	33.6%	13.2%	2.3%	0.2%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	14:00 7	16:00 1		16:00 2	12:00 1	12:00 4	14:00 34	14:00 69	13:00 64	13:00 32	15:00 6	18:00 1			14:00 193		

**All Traffic Data Services**  
Wheat Ridge, CO 80033

2005 S Hemlock St  
Date Start: 01-Sep-20  
Latitude: 30' 35.2390 North  
Longitude: 82' 38.4947 West  
Station ID:

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/02/20	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	32	32
01:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	32	32
02:00	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3	26	26
03:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	23	23
04:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	23	23
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	1	3	3	5	0	0	0	0	12	28	29
07:00	1	0	0	0	0	0	3	9	14	11	3	0	0	0	41	29	30
08:00	3	0	0	0	0	1	<b>5</b>	<b>25</b>	28	11	2	1	0	0	76	27	29
09:00	2	0	0	0	0	0	3	16	42	21	8	0	0	0	92	29	31
10:00	2	0	0	0	0	<b>2</b>	3	14	<b>40</b>	<b>44</b>	<b>16</b>	<b>5</b>	1	0	127	30	32
11:00	<b>5</b>	0	0	0	0	0	1	16	<b>60</b>	<b>41</b>	<b>21</b>	4	<b>2</b>	0	<b>150</b>	30	32
12 PM	4	0	0	0	0	2	13	48	65	<b>40</b>	<b>8</b>	0	0	0	180	28	29
13:00	6	0	0	0	<b>3</b>	<b>5</b>	22	56	58	18	3	2	0	0	173	26	29
14:00	3	0	0	0	1	5	16	53	55	24	4	0	0	0	161	27	29
15:00	<b>8</b>	0	0	0	0	3	18	<b>68</b>	<b>71</b>	27	3	1	0	0	<b>199</b>	27	29
16:00	4	0	0	0	0	3	18	50	63	30	2	0	0	0	170	27	29
17:00	3	0	<b>1</b>	0	0	1	<b>23</b>	42	48	17	3	1	0	0	139	27	29
18:00	1	0	0	0	1	2	12	50	38	15	2	0	0	0	121	26	29
19:00	3	0	0	<b>2</b>	2	4	16	35	31	19	2	0	0	0	114	27	29
20:00	2	0	0	0	0	0	1	16	26	16	6	<b>5</b>	<b>1</b>	0	73	30	34
21:00	0	0	0	0	0	0	0	8	14	10	4	1	0	0	37	29	32
22:00	0	0	0	0	0	1	0	1	4	3	1	0	0	0	10	29	31
23:00	0	0	0	0	0	0	0	1	3	1	1	0	0	0	6	30	32
Total	47	0	1	2	7	30	155	516	665	353	91	20	4	0	1891		
Percent	2.5%	0.0%	0.1%	0.1%	0.4%	1.6%	8.2%	27.3%	35.2%	18.7%	4.8%	1.1%	0.2%	0.0%			
AM Peak	11:00					10:00	08:00	08:00	11:00	10:00	11:00	10:00	11:00		11:00		
Vol.	5					2	5	25	60	44	21	5	2		150		
PM Peak	15:00		17:00	19:00	13:00	13:00	17:00	15:00	15:00	12:00	12:00	20:00	20:00		15:00		
Vol.	8		1	2	3	5	23	68	71	40	8	5	1		199		

**All Traffic Data Services**

Wheat Ridge, CO 80033

2005 S Hemlock St  
 Date Start: 01-Sep-20  
 Latitude: 30' 35.2390 North  
 Longitude: 82' 38.4947 West  
 Station ID:

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/03/20	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	26	26
01:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	32	32
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	23	23
04:00	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	34	35
05:00	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3	28	29
06:00	0	0	0	0	0	0	1	0	7	4	2	1	0	0	15	31	33
07:00	0	0	0	0	0	0	3	10	6	6	6	0	0	0	31	30	32
08:00	0	0	0	0	0	0	8	20	30	14	5	0	0	0	77	28	30
09:00	3	0	0	2	0	4	4	18	36	20	8	0	0	0	95	29	31
10:00	4	0	0	0	0	1	6	32	58	27	13	3	0	0	144	29	32
11:00	6	0	0	0	1	3	7	52	61	35	6	0	0	1	172	28	29
12 PM	7	0	0	0	0	4	15	45	71	28	5	2	0	0	177	27	29
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	20	0	0	2	1	13	45	179	271	135	47	7	0	1	721		
Percent	2.8%	0.0%	0.0%	0.3%	0.1%	1.8%	6.2%	24.8%	37.6%	18.7%	6.5%	1.0%	0.0%	0.1%			
AM Peak	11:00			09:00	11:00	09:00	08:00	11:00	11:00	11:00	10:00	10:00		11:00	11:00		
Vol.	6			2	1	4	8	52	61	35	13	3		1	172		
PM Peak	12:00					12:00	12:00	12:00	12:00	12:00	12:00	12:00			12:00		
Vol.	7					4	15	45	71	28	5	2			177		
Grand Total	103	1	1	8	13	69	365	1133	1383	664	168	29	4	1	3942		
Percent	2.6%	0.0%	0.0%	0.2%	0.3%	1.8%	9.3%	28.7%	35.1%	16.8%	4.3%	0.7%	0.1%	0.0%			

15th Percentile : 21 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 28 MPH  
 95th Percentile : 30 MPH

Statistics

10 MPH Pace Speed : 21-30 MPH  
 Number in Pace : 3302  
 Percent in Pace : 83.8%  
 Number of Vehicles > 25 MPH : 1788  
 Percent of Vehicles > 25 MPH : 45.4%  
 Mean Speed(Average) : 25 MPH







**All Traffic Data Services**

Wheat Ridge, CO 80033

S Hemlock St south curve

Date Start: 01-Sep-20

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

Station ID:

NB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/03/20	0	0	0	0	2	1	0	1	0	0	0	0	0	0	4	22	23
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	17	17
05:00	0	0	0	1	1	2	1	1	0	0	0	0	0	0	6	21	23
06:00	0	0	0	0	3	7	1	1	0	0	0	0	0	0	12	18	22
07:00	0	0	0	1	8	22	4	2	0	0	0	0	0	0	37	18	21
08:00	0	0	0	0	13	60	9	1	0	0	0	0	0	0	83	17	19
09:00	0	0	0	1	17	60	15	4	1	0	0	0	0	0	98	19	21
10:00	0	0	0	0	19	89	32	7	2	0	0	0	0	0	149	19	21
11:00	0	0	0	0	35	112	47	12	1	0	0	0	0	0	207	19	21
12 PM	1	0	1	5	18	108	44	4	2	0	0	0	0	0	183	19	20
13:00	0	0	1	0	9	38	20	2	1	0	0	0	0	0	71	19	20
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	0	2	8	125	500	173	35	7	0	0	0	0	0	851		
Percent	0.1%	0.0%	0.2%	0.9%	14.7%	58.8%	20.3%	4.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak				05:00	11:00	11:00	11:00	11:00	10:00						11:00		
Vol.				1	35	112	47	12	2						207		
PM Peak	12:00		12:00	12:00	12:00	12:00	12:00	12:00	12:00						12:00		
Vol.	1		1	5	18	108	44	4	2						183		
Grand Total	16	9	4	77	722	2086	655	143	35	0	0	0	0	0	3747		
Percent	0.4%	0.2%	0.1%	2.1%	19.3%	55.7%	17.5%	3.8%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 13 MPH

50th Percentile : 16 MPH

85th Percentile : 19 MPH

95th Percentile : 20 MPH

Statistics

10 MPH Pace Speed : 13-22 MPH

Number in Pace : 3511

Percent in Pace : 93.7%

Number of Vehicles &gt; 25 MPH : 23

Percent of Vehicles &gt; 25 MPH : 0.6%

Mean Speed(Average) : 17 MPH

**All Traffic Data Services**  
Wheat Ridge, CO 80033

S Hemlock St south curve  
Date Start: 01-Sep-20  
Latitude: 0' 0.0000 Undefined  
Longitude: 0' 0.0000 Undefined  
Station ID:

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/01/20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	1	1	0	6	41	89	34	3	0	0	0	0	0	0	175	18	20
14:00	2	0	0	4	52	103	24	2	0	0	0	0	0	0	187	17	20
15:00	2	0	1	2	25	99	38	5	0	0	0	0	0	0	172	19	20
16:00	3	0	0	2	31	99	22	2	1	0	0	0	0	0	160	18	20
17:00	0	0	1	6	17	75	29	3	0	0	0	0	0	0	131	19	20
18:00	0	0	0	0	33	65	23	2	0	0	0	0	0	0	123	18	20
19:00	2	0	0	1	15	59	22	1	1	0	0	0	0	0	101	19	20
20:00	0	0	0	4	15	37	14	1	0	0	0	0	0	0	71	18	20
21:00	0	0	0	0	4	15	6	0	0	0	0	0	0	0	25	19	20
22:00	0	0	0	0	0	2	4	0	0	0	0	0	0	0	6	20	20
23:00	0	0	0	0	0	4	1	1	0	0	0	0	0	0	6	21	23
Total	10	1	2	25	233	647	217	20	2	0	0	0	0	0	1157		
Percent	0.9%	0.1%	0.2%	2.2%	20.1%	55.9%	18.8%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00 3	13:00 1	15:00 1	13:00 6	14:00 52	14:00 103	15:00 38	15:00 5	16:00 1						14:00 187		

**All Traffic Data Services**  
Wheat Ridge, CO 80033

S Hemlock St south curve  
Date Start: 01-Sep-20  
Latitude: 0' 0.0000 Undefined  
Longitude: 0' 0.0000 Undefined  
Station ID:

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/02/20	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	20	20
01:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	20	20
02:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	17	17
03:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	17	17
04:00	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	20	20
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	3	8	1	0	0	0	0	0	0	0	12	17	19
07:00	0	0	0	1	4	28	5	3	0	0	0	0	0	0	41	19	21
08:00	0	0	2	4	12	44	14	0	0	0	0	0	0	0	76	18	20
09:00	0	0	0	2	11	52	25	3	0	0	0	0	0	0	93	19	20
10:00	2	1	0	1	14	57	40	5	2	0	0	0	0	0	122	20	21
11:00	0	0	0	2	17	83	38	5	1	0	0	0	0	0	146	19	20
12 PM	1	0	1	1	29	101	39	4	0	0	0	0	0	0	176	19	20
13:00	2	0	0	0	43	95	25	1	0	0	0	0	0	0	166	18	20
14:00	1	0	0	2	39	91	20	2	0	0	0	0	0	0	155	17	20
15:00	4	0	1	0	34	114	37	4	1	0	0	0	0	0	195	19	20
16:00	0	1	0	9	46	89	24	2	0	0	0	0	0	0	171	18	20
17:00	0	0	0	2	28	77	22	1	1	0	0	0	0	0	131	18	20
18:00	0	0	0	1	20	69	24	4	0	1	0	0	0	0	119	19	20
19:00	0	0	2	4	24	72	13	3	0	0	0	0	0	0	118	17	20
20:00	0	1	0	0	11	42	14	1	0	0	0	0	0	0	69	18	20
21:00	0	0	0	1	7	24	8	0	0	0	0	0	0	0	40	18	20
22:00	0	0	0	0	3	4	3	0	0	0	0	0	0	0	10	19	20
23:00	0	0	0	0	1	3	2	0	0	0	0	0	0	0	6	19	20
Total	10	3	6	31	349	1056	357	38	5	1	0	0	0	0	1856		
Percent	0.5%	0.2%	0.3%	1.7%	18.8%	56.9%	19.2%	2.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	08:00	08:00	11:00	11:00	10:00	10:00	10:00						11:00		
Vol.	2	1	2	4	17	83	40	5	2						146		
PM Peak	15:00	16:00	19:00	16:00	16:00	15:00	12:00	12:00	15:00	18:00					15:00		
Vol.	4	1	2	9	46	114	39	4	1	1					195		



**All Traffic Data Services**  
Wheat Ridge, CO 80033

S Hemlock St south curve  
Date Start: 01-Sep-20  
Latitude: 0' 0.0000 Undefined  
Longitude: 0' 0.0000 Undefined  
Station ID:

SB

Start Time	1 3	4 6	7 9	10 12	13 15	16 18	19 21	22 24	25 27	28 30	31 33	34 36	37 39	40 999	Total	85th Percent	95th Percent
09/03/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	20	20
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	20	20
04:00	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3	23	23
05:00	0	0	0	0	1	1	1	0	1	0	0	0	0	0	4	25	26
06:00	0	0	0	2	3	8	3	0	0	0	0	0	0	0	16	18	20
07:00	0	0	0	0	5	19	3	1	0	0	0	0	0	0	28	17	20
08:00	2	0	0	2	22	36	13	1	0	0	0	0	0	0	76	18	20
09:00	2	0	0	2	17	50	24	2	0	0	0	0	0	0	97	19	20
10:00	1	1	1	1	19	79	32	4	1	0	0	0	0	0	139	19	20
11:00	1	0	1	2	26	102	32	5	1	0	0	0	0	0	170	19	20
12 PM	1	0	0	2	19	113	34	2	0	0	0	0	0	0	171	18	20
13:00	0	0	0	0	11	30	12	0	0	0	0	0	0	0	53	19	20
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	7	1	2	12	123	439	157	17	3	0	0	0	0	0	761		
Percent	0.9%	0.1%	0.3%	1.6%	16.2%	57.7%	20.6%	2.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	10:00	06:00	11:00	11:00	10:00	11:00	05:00						11:00		
Vol.	2	1	1	2	26	102	32	5	1						170		
PM Peak	12:00			12:00	12:00	12:00	12:00	12:00							12:00		
Vol.	1			2	19	113	34	2							171		
Grand Total	27	5	10	68	705	2142	731	75	10	1	0	0	0	0	3774		
Percent	0.7%	0.1%	0.3%	1.8%	18.7%	56.8%	19.4%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 13 MPH  
50th Percentile : 16 MPH  
85th Percentile : 19 MPH  
95th Percentile : 20 MPH

Statistics  
10 MPH Pace Speed : 13-22 MPH  
Number in Pace : 3603  
Percent in Pace : 95.5%  
Number of Vehicles > 25 MPH : 8  
Percent of Vehicles > 25 MPH : 0.2%  
Mean Speed(Average) : 17 MPH