

# Vision Zero Site Visit

**Present:** Alisa Babler (Traffic), Jerome Rouser (NFRMPO), Brandon Pruden (Engineering), Nancy Nichols (FC Moves), Dave Dixon (Bike Fort Collins), Spencer Smith (Engineering), Mike Colwell (Resident), David Kaes (Police), Marc Virata (Engineering), Cortney Geary (FC Moves), Tyler Stamey (Traffic)

**Date:** 2023 07 13

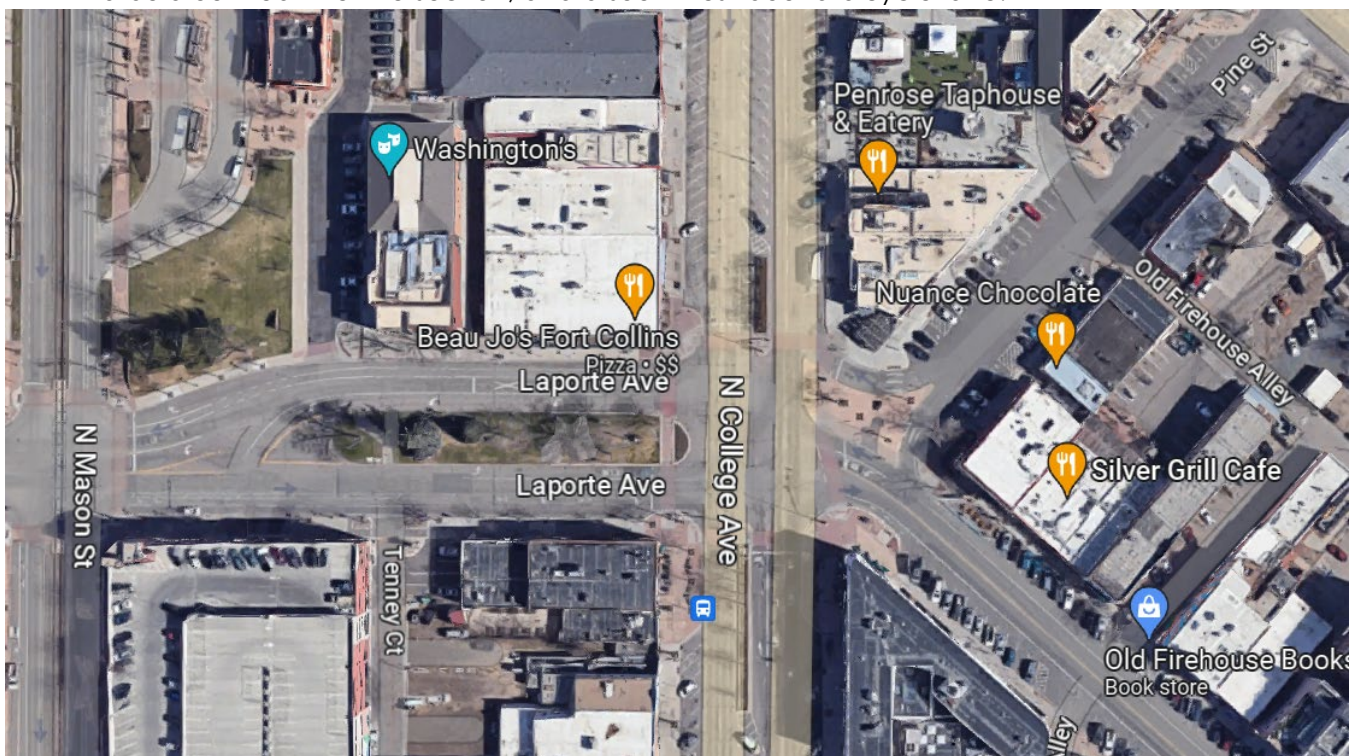
**Location:** College Ave & Laporte Ave

## CONTEXT

Crash history: From 2019 through 2022, there were seven crashes at this intersection that resulted in an injury, and a total of 47 crashes. Two crashes involved a bicycle and one involved a pedestrian. This intersection is located on the High Injury Network.

Intersection: This is a signalized five-leg intersection serving College Ave, Laporte Ave, Walnut St, and Pine St. It is large and complex and has large islands, bulb outs, and landscaped medians. The intersection is unusually long north-south. College Ave is also U.S. 287, making this a CDOT Main Street location.

- College Ave has two lanes in each direction with diagonal parking on both sides and in the middle and turn lanes. Bulb outs and landscaped medians replace the parking in the approaches.
- Laporte Ave has two westbound lanes, one of which is left-turn-only into the parking garage. Eastbound Laporte has one thru lane with left- and right-turn-only-lanes, and parallel parking. Laporte Ave also has bike lanes on both sides; the eastbound bike lane drops out before the intersection with College Ave. The eastbound and westbound sides of Laporte Ave are separated by a large landscaped median.
- From the east, Walnut St and Pine St come in to the intersection diagonally. Vehicles from Pine St have a right-turn-only slip lane; vehicles can access Pine St only from northeast-bound Walnut St with a right-turn-only slip lane that precedes the intersection. Pine St has perpendicular parking on both sides.
- Walnut St has one lane in each direction and a left-turn-only-lane, diagonal parking replaced by a bulb out near the intersection, and a southwest-bound bicycle lane.



Land use: This intersection is in the heart of Downtown and is the northern tip of the triangle formed by College Ave, Walnut St, and Mountain Ave. Nearby include Transfort Downtown Transit Center, government buildings, and downtown businesses.

Traffic volume: The average daily traffic on College Ave is 10,500 (2018 counts) and on Laporte Road 4,500 (2018 counts). During peak hour turn counts on October 14, 2021, 30 bicyclists and 466 pedestrians used this intersection during the three peak hours recorded.

Pedestrian and Bicycle generators: Old Towne Square is a dismount zone for bikes, scooters, and other similar devices. Old Towne Square is a geofenced no-ride zone for Spin bikes and scooters and the geofenced no-park zone extends to this intersection. Downtown businesses, the nearby Transfort Downtown Transit Center, and government services are pedestrian generators. The Northern Hotel is affordable housing for low-income seniors.

Previously recommended improvements: According to a Coloradoan article (July 5, 2022), City leaders and the Downtown Development Authority responded favorably to an architect's unsolicited proposal of simplifying and reducing the size of the intersection by moving east and westbound traffic to the south side of Laporte Ave. and extending the existing landscaped median to the north to create a plaza.

Site visit conditions: Daylight, hot, no precipitation.

## **Observations**

Participants agreed that the size and unusual angles make this a complicated and confusing intersection with sightline and predictability issues. Bulb outs and medians help channel and slow traffic and reduce crossing distances in the large intersection, while some of the angles and radii of the intersection fail to reduce speeds during turning movements.

**Traffic speed:** The posted speed limit is 25 mph, which feels fast to some participants. Officer Kaes noted that traffic speed tends to be 25-30 mph on College Ave, depending on time of day. Some participant noted that the low speeds at this location may be a protective factor for bicyclists and pedestrians.

## **Visibility**

- The large size of the intersection affects sightlines for almost every mode and movement in the intersection.
- The unusually long north-south length of the intersections means that visibility is impeded for left-turning vehicles turning onto or off of Laporte Ave.
- The southeast College-Walnut corner has visibility issues due to planters, poles, and the awkward angle of the corner.
- Parked cars on the west side of College Ave potentially obstruct southbound drivers' view of pedestrians crossing Laporte Ave.
  - Some participants felt parked cars had no adverse effect on bike/ped safety.
- The flowers in the median on Laporte Ave exceed 24" in height; a sight line study could determine if this impedes visibility.
- Though this group visited during daylight, there appeared to be ample lighting at this location.

## **Disability accommodations**

- Truncated domes are missing on some ramps on the northeast corner crossing the Pine St slip lane to the island.
- On the northwest corner, the push button is inconveniently far from the east ramp.

## **Condition**

- There are no drainage issues.
- There are broken pavers on ramps on Pine St and the island.
- There is broken asphalt in the roadway.
- Markings are faded, especially on Laporte Ave.

Bike/Ped accommodations: Participants differed in their assessment of bike/ped accommodations. Some felt the accommodations were ample, while others felt they were deficient.

- Good
  - Pedestrian push buttons are functional and mostly located correctly.
  - All legs have marked crosswalks.
  - Some participants felt that there was no adverse effect of parked cars on bike/ped safety.
- Overly complex
  - There are two crosswalks across the right-turn-only Pine/College slip lane and one crosswalk across the right-turn-only Walnut/Pine slip lane. While there is a marked crosswalk from the Pine/Walnut island across Walnut St, there are also ramps but no marked crosswalk southeast of the intersection to cross Walnut St. Four crosswalks in short succession seemed like a lot to participants, who also noted that pedestrians tend to cross in between as much as in the designated crosswalks and are likely to continue to do so regardless of where the crosswalks are marked.
- Deficient - Pedestrian
  - The walk light countdown to cross College Ave on the north side of Laporte Ave is too fast for all but strong, able-bodied pedestrians.
  - Drivers waiting at the light sometimes pull forward and block crosswalks.
  - Parked cars on Pine St are an obstruction to pedestrians.
  - A tree on the Pine/Walnut island may block the view of the island's pedestrian signal from pedestrians waiting to cross Walnut St
  - There is no crosswalk warning sign in advance of the Pine St slip lane crosswalks.
- Deficient - Bike
  - The eastbound bike lane on Laporte Ave ends before the intersection.
  - The eastbound bike lane on Walnut Ave ends before the intersection. While there is a bike lane symbol at the other end of the block, it is not clear where bicyclists are supposed to ride as they enter the intersection.
  - The door zone of parallel parking on Laporte Ave adjacent to the bike lane is a hazard.

Participant suggestions to reduce crashes at this intersection will be evaluated for feasibility.

- General suggestions
  - Shrink the intersection, such as suggested by architect Randy Shortridge
  - Install a roundabout
  - To improve visibility, move the bike rack more centrally into the Pine/Walnut island.
- Suggestions to improve the experience of the intersection for people with disabilities
  - Refresh or add high visibility crosswalk markings to the stamped concrete crosswalks
  - Ensure all ped buttons are chirping buttons
- Suggestions to improve the experience of the intersection for people walking
  - Operationalize a "scramble" intersection, allowing pedestrians to go any direction during an all-direction protected phase of the signal.
  - Install pedestrian buttons for pedestrians crossing LaPorte on the west side of College.
  - Configure signals so that when pedestrian buttons are pushed, for any direction, those pedestrians would have signal protection from turning motor vehicles.

- No-turn-on-red for right-turning traffic from Laporte Ave to College Ave
- Suggestions to improve the experience of the intersection for people biking or scootering
  - Add bollards to protect the southeast-bound bike lane on Walnut Ave around the curve
  - Add separation or protection to bike lanes
  - Continue the eastbound Laporte Ave bike lane up to the intersection

## APPENDIX A: ACTIVE MODES ADVISORY BOARD NIGHT AUDIT

On October 21, 2024, the Active Modes Advisory Board visited this intersection and provided additional observations.

### Observations

Participants agreed with the daytime audit observations that the size and unusual angles make this a complicated and confusing intersection with sightline and predictability issues. Bulb outs and medians help channel and slow traffic and reduce crossing distances in the large intersection, while some of the angles and radii of the intersection fail to reduce speeds during turning movements.

Traffic notations: Several drivers ran red lights and excessive speed was noticed. It was also noted that even though there were no U-turn signs posted people did them anyway. Cyclists were observed crossing on the north side of the intersection from the west side ramp, not crossing as a vehicle should. Also seen a few times: drivers braking at the last minute while making a left turn onto College from Laporte due to a lack of visibility of pedestrians crossing.

### Visibility

- Bike racks at southeast corner are not well placed and blocked view
- There is low visibility of U-turn signs; the U-turn signs also block pedestrian visibility
- Median light post signs block visibility of those crossing College on the north side of the intersection
- Lighting was okay, but shading at night does interfere with vision
- Very poor left hand turn visibility on College
- The trees on the north side of the median blocking visibility, and trees on the west side of College block visibility
- East side pedestrian crossing is set back from the intersection and needs markings for safety and better lighting for pedestrians
- Lighting is needed in the pedestrian island on the west side of Laporte
- Lighting could be improved
- Lots of unused, inefficiently used space at entire intersection

### Disability accommodations

- Truncated domes are missing on some ramps on the northeast corner crossing the Pine St slip lane to the island
- On the northwest corner, the push button is inconveniently far from the east ramp
- Crossing intervals don't seem long enough for the long crossing distances, and there are no push buttons for crossing in any of the pedestrian islands

### Condition

- There are no drainage issues
- There are broken pavers on ramps on Pine St and the island
- There is broken asphalt in the roadway
- Markings are faded, especially on Laporte Ave
- Overall decent conditions noticed: no dirt, gravel, broken glass, loose rocks, etc.

### Bike/Ped accommodations:

- Good
  - The pedestrian push buttons present were functional.
  - All legs have marked crosswalks.
  - Pedestrian islands make it easier to cross.
- Overly complex



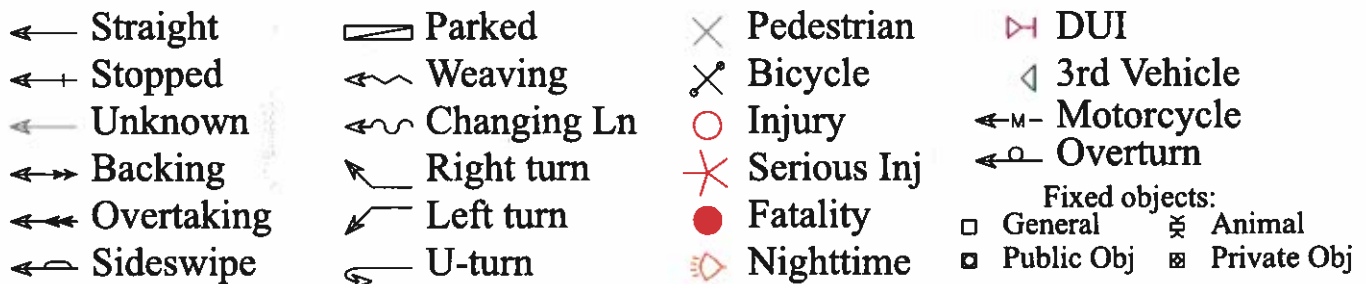
- There are two crosswalks across the right-turn-only Pine/College slip lane and one crosswalk across the right-turn-only Walnut/Pine slip lane. While there is a marked crosswalk from the Pine/Walnut island across Walnut St, there are also ramps but no marked crosswalk southeast of the intersection to cross Walnut St. Four crosswalks in short succession and the intersection design could be confusing to participants.
- Deficient - Pedestrian
  - The walk light countdown to cross College Ave on the north side of Laporte Ave is too fast for all but strong, able-bodied pedestrians.
  - A tree on the Pine/Walnut island may block the view of the island's pedestrian signal from pedestrians waiting to cross Walnut St.
  - Pothole at crosswalks present, as is damage to pedestrian islands and divots where the crosswalk meets the pavement.
  - Holes in the sidewalk at southwest side of College and Laporte, some with inconsistent patching
- Deficient - Bike
  - The eastbound bike lane on Laporte Ave ends before the intersection.
  - The eastbound bike lane on Walnut Ave ends before the intersection.
  - While there is a bike lane symbol at the other end of the block, it is not clear where bicyclists are supposed to ride as they enter the intersection.

Participant suggestions to reduce crashes at this intersection may be evaluated for feasibility.

- General suggestions
  - Curb design that prevents U-turns
  - Road narrowing to fewer lanes on College
  - Reduce speed limits
  - Remove center parking on College
  - Remove the slip lane from Pine to College (make Pine one way)
  - Extend middle island on College east to reduce chances of illegal U-turns
  - For the westbound north side lanes: painted arrows are needed for turning and thru lane as the sign is not visible
  - More speed reduction elements needed, specifically heading north on College
- Suggestions to improve the experience of the intersection for people with disabilities
  - Add push buttons to the pedestrian islands
- Suggestions to improve the experience of the intersection for people walking
  - Hardscape crosswalks
  - Move U-turns signs to be more visible to drivers and not block views of pedestrians.
  - More bulbouts to reduce speed and crossing distance
  - East side pedestrian crossing set back from intersection needs markings for safety and better lighting for peds. Or: eliminate that crossing since one could use the main north/south pedestrian crossing
  - Implement a pedestrian interval
- Suggestions to improve the experience of the intersection for people biking or scootering
  - Dedicated bike lane southwest and northeast.
  - Install bike boxes to prevent right hooks
  - Increase bike signage approaching College on Laporte

## 1/1/2019 - 12/13/2022

Public ROW



## Crash Magic Online



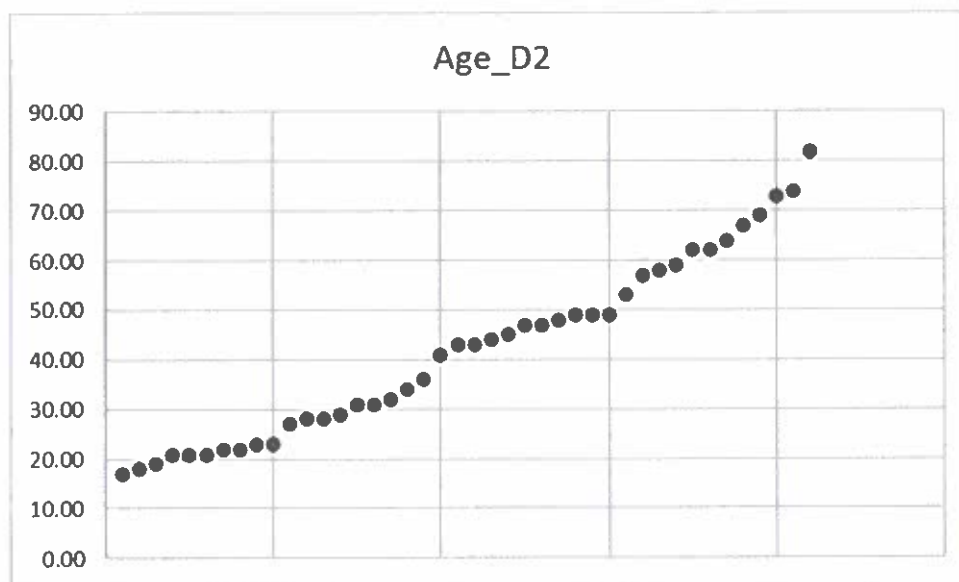
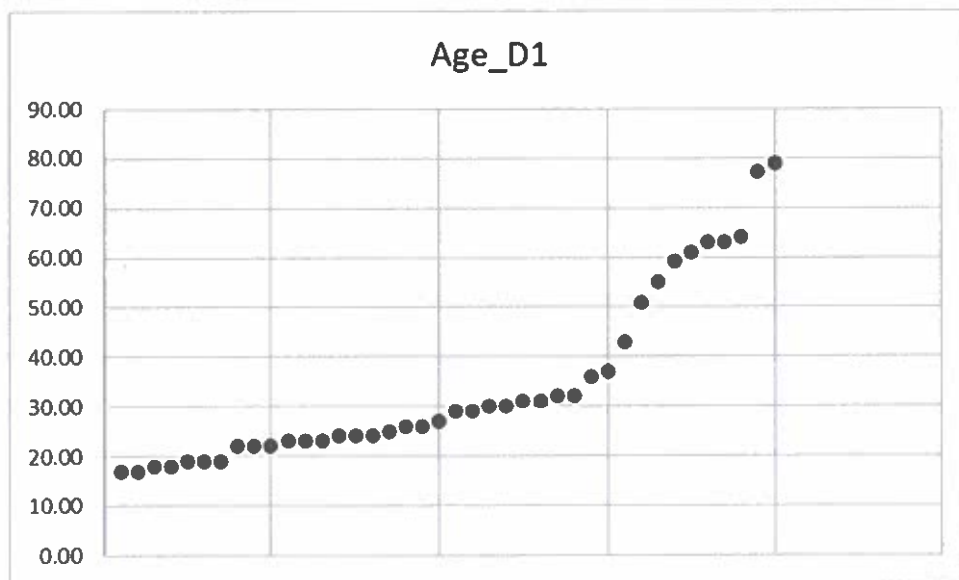


<b>Injury level</b>	<b>Count</b>
No Apparent Injury	40
Possible Injury	6
Suspected Minor Injury	1
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<b>Grand Total</b>	<b>47</b>

<b>Crash type</b>	<b>count</b>
Approach Turn	4
Bicycle	2
Fixed Object	2
Other	1
Overtaking Turn	3
Parking Related	8
Pedestrian	1
Rear End	18
Right Angle	1
Side to Side-Same Direction	7
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<b>Grand Total</b>	<b>47</b>

<b>crash type</b>	<b>number injured</b>
Approach Turn	1
Bicycle	1
Fixed Object	0
Other	0
Overtaking Turn	0
Parking Related	0
Pedestrian	1
Rear End	3
Right Angle	0
Side to Side-Same Direction	0
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<b>Grand Total</b>	<b>6</b>

<b>Hit and Run</b>	<b>Count</b>
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<b>true</b>	9
<b>(blank)</b>	27
<b>Grand Total</b>	<b>47</b>



Row Labels	Count of Casetrackingid
Dark-lighted	14
Daylight (blank)	33
<b>Grand Total</b>	<b>47</b>

Row Labels	Count of Casetrackingid
<b>Clear</b>	<b>41</b>
Dry	38
Snowy	1
Wet	2
<b>Cloudy</b>	<b>2</b>
Dry	1
Slushy	1
<b>Rain</b>	<b>1</b>
Wet	1
<b>Sleet or Hail</b>	<b>3</b>
Slushy	2
Wet	1
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<b>Grand Total</b>	<b>47</b>



# City of Fort Collins Traffic Operations

626 Linden Street, PO Box 580

Fort Collins, CO 80522-0580

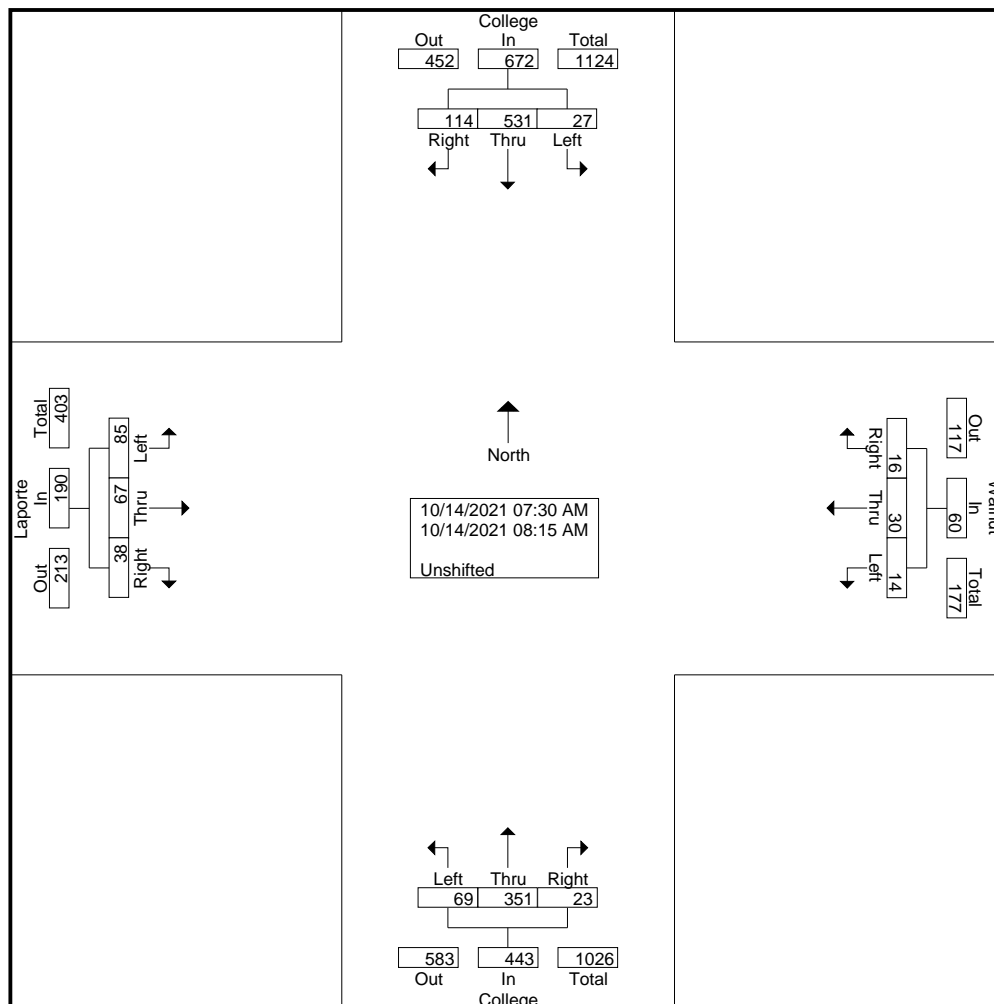
## Peak Hour Turning Movement Count

North/South Street: College  
East/West Street: Laporte/Walnut  
Time: AM  
ICU Number: 19

File Name : College & Laporte\_Walnut 10-14-21  
Site Code : 00000019  
Start Date : 10/14/2021  
Page No : 1

### Groups Printed- Unshifted

	College Southbound				Walnut Westbound				College Northbound				Laporte Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:30 AM	23	147	2	172	7	4	5	16	5	75	16	96	13	15	24	52	336
07:45 AM	39	126	9	174	2	9	2	13	4	95	21	120	8	22	17	47	354
Total	62	273	11	346	9	13	7	29	9	170	37	216	21	37	41	99	690
08:00 AM	30	128	5	163	3	13	2	18	5	91	14	110	6	13	22	41	332
08:15 AM	22	130	11	163	4	4	5	13	9	90	18	117	11	17	22	50	343
Grand Total	114	531	27	672	16	30	14	60	23	351	69	443	38	67	85	190	1365
Apprch %	17	79	4		26.7	50	23.3		5.2	79.2	15.6		20	35.3	44.7		
Total %	8.4	38.9	2	49.2	1.2	2.2	1	4.4	1.7	25.7	5.1	32.5	2.8	4.9	6.2	13.9	



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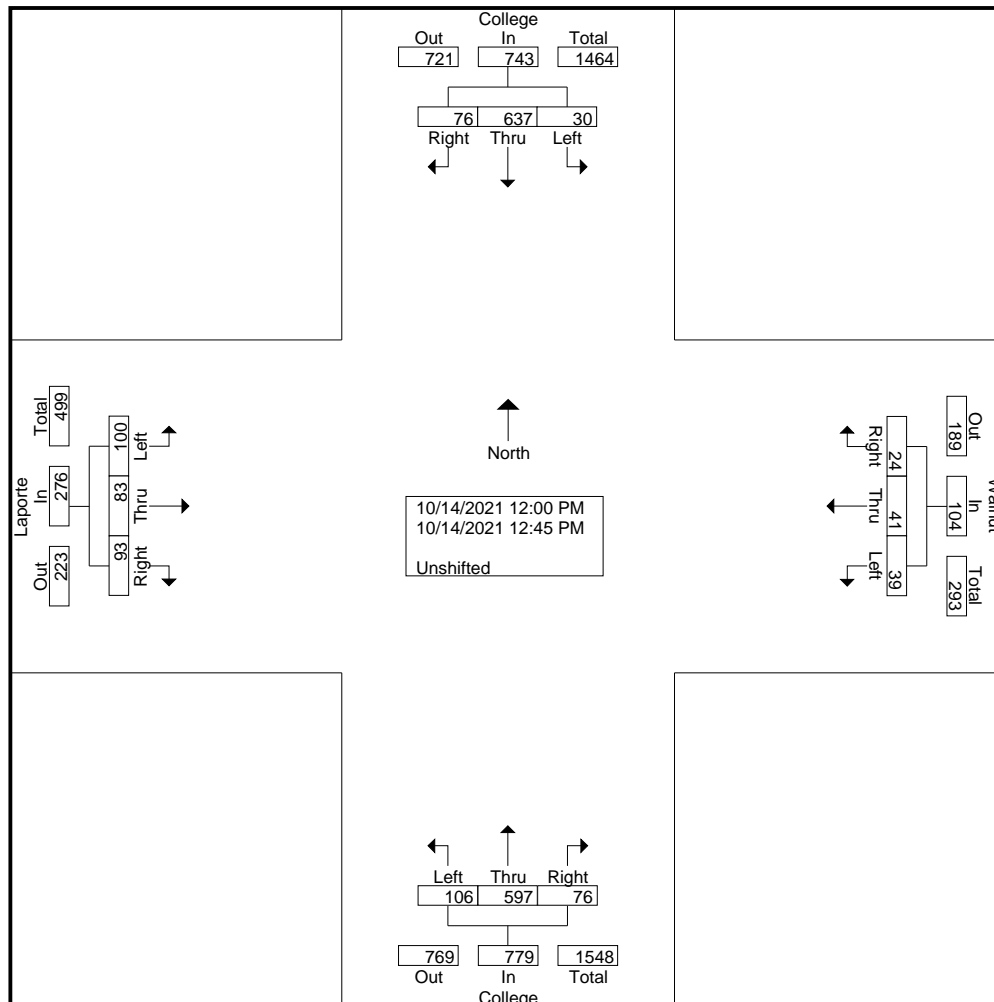
## Peak Hour Turning Movement Count

North/South Street: College  
East/West Street: Laporte/Walnut  
Time: NN  
ICU Number: 19

File Name : College & Laporte\_Walnut 10-14-21  
Site Code : 00000019  
Start Date : 10/14/2021  
Page No : 1

### Groups Printed- Unshifted

	College Southbound				Walnut Westbound				College Northbound				Laporte Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
12:00 PM	18	166	0	184	4	11	9	24	16	125	34	175	25	17	24	66	449
12:15 PM	18	161	19	198	6	12	11	29	18	146	24	188	22	25	30	77	492
12:30 PM	21	162	4	187	7	7	9	23	23	175	23	221	23	13	19	55	486
12:45 PM	19	148	7	174	7	11	10	28	19	151	25	195	23	28	27	78	475
Total	76	637	30	743	24	41	39	104	76	597	106	779	93	83	100	276	1902
Grand Total	76	637	30	743	24	41	39	104	76	597	106	779	93	83	100	276	1902
Apprch %	10.2	85.7	4		23.1	39.4	37.5		9.8	76.6	13.6		33.7	30.1	36.2		
Total %	4	33.5	1.6	39.1	1.3	2.2	2.1	5.5	4	31.4	5.6	41	4.9	4.4	5.3	14.5	





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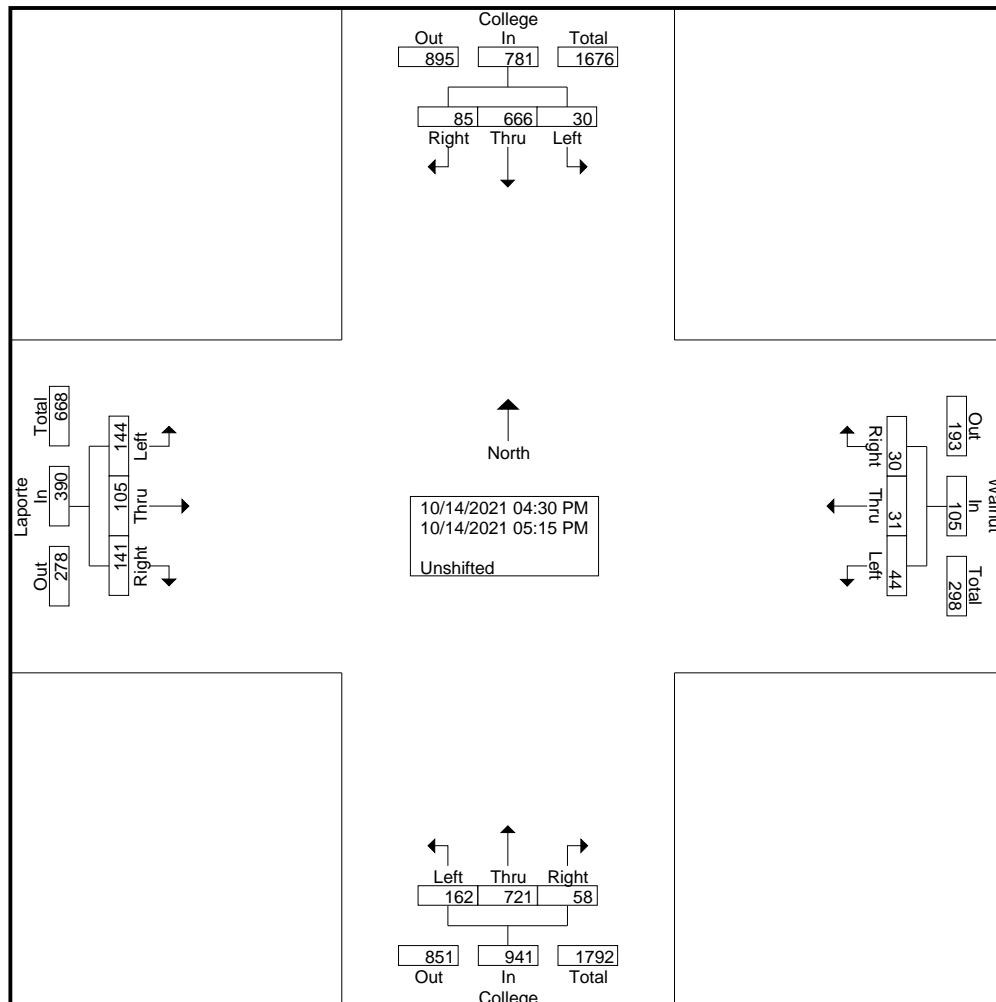
## Peak Hour Turning Movement Count

North/South Street: College  
East/West Street: Laporte/Walnut  
Time: PM  
ICU Number: 19

File Name : College & Laporte\_Walnut 10-14-21  
Site Code : 00000019  
Start Date : 10/14/2021  
Page No : 1

### Groups Printed- Unshifted

	College Southbound				Walnut Westbound				College Northbound				Laporte Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
04:30 PM	18	156	10	184	5	6	13	24	17	187	25	229	37	28	30	95	532
04:45 PM	30	171	8	209	9	9	11	29	14	179	27	220	32	28	30	90	548
Total	48	327	18	393	14	15	24	53	31	366	52	449	69	56	60	185	1080
05:00 PM	17	171	6	194	10	10	13	33	10	184	60	254	36	31	44	111	592
05:15 PM	20	168	6	194	6	6	7	19	17	171	50	238	36	18	40	94	545
Grand Total	85	666	30	781	30	31	44	105	58	721	162	941	141	105	144	390	2217
Apprch %	10.9	85.3	3.8		28.6	29.5	41.9		6.2	76.6	17.2		36.2	26.9	36.9		
Total %	3.8	30	1.4	35.2	1.4	1.4	2	4.7	2.6	32.5	7.3	42.4	6.4	4.7	6.5	17.6	



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








Fort Collins, CO 80522-0580

## Peak Hour Turning Movement Count

North/South Street: College  
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File Name : College & Laporte\_Walnut 10-14-21  
Site Code : 00000019  
Start Date : 10/14/2021  
Page No : 1

	College Southbound				Walnut Westbound				College Northbound				Laporte Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	23	<b>147</b>	2	172	<b>7</b>	4	<b>5</b>	16	5	75	16	96	<b>13</b>	15	<b>24</b>	<b>52</b>	
+15 mins.	<b>39</b>	126	9	<b>174</b>	2	9	2	13	4	<b>95</b>	<b>21</b>	<b>120</b>	8	<b>22</b>	17	47	
+30 mins.	30	128	5	163	3	<b>13</b>	2	<b>18</b>	5	91	14	110	6	13	22	41	
+45 mins.	22	130	<b>11</b>	163	4	4	5	13	<b>9</b>	90	18	117	11	17	22	50	
Total Volume	114	531	27	672	16	30	14	60	23	351	69	443	38	67	85	190	
% App. Total	17	79	4		26.7	50	23.3		5.2	79.2	15.6		20	35.3	44.7		
PHF	.731	.903	.614	.966	.571	.577	.700	.833	.639	.924	.821	.923	.731	.761	.885	.913	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	12:00 PM				12:00 PM				12:00 PM				12:00 PM				
+0 mins.	18	<b>166</b>	0	184	4	11	9	24	16	125	<b>34</b>	175	<b>25</b>	17	24	66	
+15 mins.	18	161	<b>19</b>	<b>198</b>	6	<b>12</b>	<b>11</b>	<b>29</b>	18	146	24	188	22	25	<b>30</b>	77	
+30 mins.	<b>21</b>	162	4	187	<b>7</b>	7	9	23	<b>23</b>	<b>175</b>	23	<b>221</b>	23	13	19	55	
+45 mins.	19	148	7	174	7	11	10	28	19	151	25	195	23	<b>28</b>	27	<b>78</b>	
Total Volume	76	637	30	743	24	41	39	104	76	597	106	779	93	83	100	276	
% App. Total	10.2	85.7	4		23.1	39.4	37.5		9.8	76.6	13.6		33.7	30.1	36.2		
PHF	.905	.959	.395	.938	.857	.854	.886	.897	.826	.853	.779	.881	.930	.741	.833	.885	
Peak Hour Analysis From 02:00 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	18	156	<b>10</b>	184	5	6	<b>13</b>	24	<b>17</b>	<b>187</b>	25	229	<b>37</b>	28	30	95	
+15 mins.	<b>30</b>	<b>171</b>	8	<b>209</b>	9	9	11	29	14	179	27	220	32	28	30	90	
+30 mins.	17	171	6	194	<b>10</b>	<b>10</b>	13	<b>33</b>	10	184	<b>60</b>	<b>254</b>	36	<b>31</b>	<b>44</b>	<b>111</b>	
+45 mins.	20	168	6	194	6	6	7	19	17	171	50	238	36	18	40	94	
Total Volume	85	666	30	781	30	31	44	105	58	721	162	941	141	105	144	390	
% App. Total	10.9	85.3	3.8		28.6	29.5	41.9		6.2	76.6	17.2		36.2	26.9	36.9		
PHF	.708	.974	.750	.934	.750	.775	.846	.795	.853	.964	.675	.926	.953	.847	.818	.878	

Record Numb 980		  			
<h1>AM</h1>		<div>0</div> <div>0</div> <div>0</div>			
		<div>0</div> <div>1</div>		<div>1</div> <div>4</div>	
  		<div>0</div> <div>2</div> <div>1</div>		<div>0</div> <div>0</div> <div>3</div>	
 		<div>0</div> <div>0</div>		<div>9</div> <div>1</div>	
 		<div>0</div> <div>3</div>		<div>0</div> <div>2</div>	
		Date Thursday, October 14, 2021 N-S Street College E-W Street Laporte/Walnut Time AM ICU 19 Name JF		  	
		<div>7</div> <div>0</div>		<div>11</div> <div>0</div>	
		<div>0</div> <div>0</div> <div>0</div>		